

Elosa Lord, 1891

Elosa woralli Lord, 1891

- Palaearctic region: Dübener Heide, N Germany (Wulfert, 1960a); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Romania (Rudescu, 1960); Peat bogs in the "Massif Central", France (Batut, 1965); All over Europe (Bērziņš, 1978); C & S Sweden (Bērziņš & Pejler, 1987); Lake Balaton, Hungary (Zankai, 1968); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez, 1984c; Francez & Dévaux, 1985); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1988); Grote Huisven in Nat. Res. Oisterwijkse vennen, NL (Dresscher, 1976); Fagne de la Mochette, Samrée; Plateau des Tailles, Belgium (De Ridder, 1980); 3 localities in Belgium (De Ridder, 1986); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981); Peat bog Laptici, Bucegi mountains, Rom. (Godeanu, 1970); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Peat bog Cérisaie, near Poigny, Ile-de-France, Fr. (Pourriot, 1965)
- Nearctic region: Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Lake 132, NW Ontario, Canada (Schindler & Novén, 1971)
- Australian region: Mt. Cook, New Zealand (Russell, 1960); Swamp near Dunedin, S Island, New Zealand (Bērziņš, 1982a); NSW Aust. (Shiel & Koste, 1979); In wet *Sphagnum*. Reported from Europe, N America, Australia and New Zealand. Not seen in our collections (Shiel & Koste, 1992)
- Neotropical region: Ecuador: Sierra (Koste & Böttger, 1989)

Elosa woralli Lord, f. *spinifera* Wiszniewski, 1932

- Palaearctic region: C & E Eur. plains, Baltic province, Boreal highlands, N Sweden, NW Russian taiga (Bērziņš, 1978); Lake Võrtsjärv, Estonia (Kutikova & Haberman, 1986); 3 lakes of Sosnowickie, Poland (Radwan, 1968 & 1969); Southwest islands of Japan (Suzuki *et al.*, 1992)
- Nearctic region: N America (Bērziņš, 1978)

Elosa spec.

- Palaearctic region: Lakes around mountain Fuji, Japan (Suzuki, 1971); Mountain Fuji area, Japan (Suzuki, 1978b)
- Oriental region: Thailand (Boonsom, 1984b); ? Singapore (Suzuki, 1989)

Encentroides Sudzuki, 1960

Encentroides nojirensis Sudzuki, 1960

- Palaearctic region: Tableland in C Japan (Suzuki, 1960)

Encentrum Ehrenberg, 1838

Some authors distinguish two subgenera: *Encentrum* s.s. and *Parencentrum*. The latter is indicated in the list by (P) after the genus name *Encentrum*.

Encentrum acrodon Wulfert, 1936

- Palaearctic region: C Eur. mountain a plains (Bērziņš, 1978)

Encentrum algente Harring, 1921

- Palaearctic region: Rockpools, Nordish coast (Eriksen, 1968); C Eur. plains (Bērziņš, 1978)
- Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1978)

Encentrum ambiguum Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979 & 1980)

Encentrum antarcticum Sudzuki, 1964

- Antarctic region: Langhovde, Antarctica (Suzuki, 1984a); Südpolarland, between mosses (Suzuki, 1984b); Antarctica & Subantarctica (José de Paggi & Koste, 1984; Suzuki, 1988b)

Encentrum arenarium Althaus, 1957

- Palaearctic region: Black Sea (Rudescu, 1961); E Balkan & Pontic province (Bērziņš, 1978)

Encentrum arvicola Wulfert, 1936

- Palaearctic region: Romania (Rudescu, 1960); Italy, C Eur. mountains & plains, Carpathes (Bērziņš, 1978)

Encentrum asellicola (Bartos, 1947)

- Palaearctic region: C Eur. mountains (Bērziņš, 1978)

Encentrum axi Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979, 1980 & 1983)

Encentrum belluinum Harring & Myers, 1928

- Palaearctic region: C Eur. mountains & Carpathes (Bērziņš, 1978)
- Nearctic region: N America (Bērziņš, 1978)
- Encentrum bidentatum*** (Lie-Pettersen, 1905)
 - Palaearctic region: Rock pools, coast of Norway (Eriksen, 1968); C Eur. plains & Boreal highlands (Bērziņš, 1978)
- Encentrum boddense*** Schwarz, 1963
 - Palaearctic region: Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963)
- Encentrum boreale*** Harring & Myers, 1928
 - Nearctic region: Cape Herschel, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989)
- Encentrum bryocolum*** Sudzuki, 1964
 - Antarctic region: Langhovde, Antarctica (Sudzuki, 1984a & 1979b); Südpolarland, between mosses (Sudzuki, 1984b); Antarctica & subantarctica (José de Paggi, 1984; Sudzuki, 1988b)
- Encentrum coezi*** (de Beauchamp, 1914)
 - Palaearctic region: W Eur. plains (Bērziņš, 1978)
- Encentrum cruentum*** Harring & Myers, 1928
 - Palaearctic region: Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963); Scandinavian coastal waters (Thane-Fenchel, 1968); C Eur. plains (Bērziņš, 1978)
 - Nearctic region: N America (Bērziņš, 1978)
 - Australian region: ? Tasmania (Koste & Shiel, 1987)
- Encentrum diglandula*** Zawadowski, 1926
 - Palaearctic region: Romania (Rudescu, 1960); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Lake Neusiedlersee, Austria (Donner, 1972d & 1979); Courland Spit, R.F. (Zhadin *et al.*, 1972); C Eur. mountains & plains, Carpathes, E Eur. plains, Baltic province (Bērziņš, 1978)
 - Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1981); Malaysia (Sudzuki, 1989)
 - Australian region: ? Tasmania (Koste & Shiel, 1986b)
- Encentrum elongatum*** Harring & Myers, 1928
 - Palaearctic region: Romania (Godeanu, 1961); Peat bog Laptici, Bucegi mountains, Rom. (Godeanu, 1970); Carpathes, C Eur. plains (Bērziņš, 1978)
 - Nearctic region: N America (Bērziņš, 1978)
- Encentrum enteromorphae*** Otto, 1936
 - Palaearctic region: C Eur. plains (Bērziņš, 1978)
- Encentrum eristes*** Harring & Myers, 1928
 - Palaearctic region: C Eur. plains (Bērziņš, 1978)
 - Nearctic region: N America (Bērziņš, 1978)
- Encentrum eulitorale*** Tzschaschel, 1979
 - Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979 & 1980)
- Encentrum eurycephalum*** Wulfert, 1936
 - Palaearctic region: River Ybbarspän, Sweden (Bērziņš, 1979); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); C & S Sweden (Bērziņš & Pejler, 1989a, 1989b, 1989c & 1989d); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); River Maas, Rijn, Waal & Yssel, NL (Dresscher, 1976); C Eur. plains, E Eur. plains (Bērziņš, 1978)
- Encentrum felis*** (O.F. Müller, 1773)
 - Palaearctic region: Finland (Eriksen, 1969); Romania (Rudescu, 1960); All over Europe. Cosmopolitan (Bērziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Etang de Pommereau (Loir-et-Cher), France (Tassigny *et al.*, 1970)
 - Nearctic region: Canada (Chengalath, 1977); Western Lake Erie & Lake St. Clair, USA (Stemberger, 1979)
 - Australian region: NSW, Aust. (Shiel & Koste, 1979)
 - Neotropical region: Paraguay (Koste & José de Paggi, 1982); Panama (Collado *et al.*, 1984)
- Encentrum flexilis*** Eriksen, 1968
 - Palaearctic region: Rock pools, coast of Norway (Eriksen, 1968); Boreal highlands (Bērziņš, 1978)
- Encentrum fluvatile*** Wulfert, 1939
 - Palaearctic region: River Ybbarspän, Sweden (Bērziņš, 1979); C & S Sweden (Bērziņš & Pejler, 1989a, 1989b & 1989c); C Eur. mountains & plains, E Eur. plains, Baltic province (Bērziņš, 1978)
- Encentrum gibbosum*** Wulfert, 1936
 - Palaearctic region: C Eur. mountains & plains (Bērziņš, 1978)
 - Australian region: Vic. Aust. (Koste & Shiel, 1980c)

Encentrum glaucum Wulfert, 1936

- Palaearctic region: River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); C Eur. mountains & plains, E Eur. plains (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1960); Dübener Heide, N Germany (Wulfert, 1961)

Encentrum graingeri Chengalath, 1985

- Nearctic region: Frobisher Bay, NWT, Canada (Chengalath, 1985)

Encentrum grande (Western, 1891)

- Palaearctic region: Waterworks Jungfernheide, Berlin, Germany (Ritterbusch, 1974); Darnsee near Epe, NW Germany (Koste, 1962); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Alps, W & C Eur. mountains, Carpathes, Pontic prov., W, C & E Eur. plains, Ireland, UK (Bērziņš, 1978); Romania (Rudescu, 1960); River Grabia basin, Poland (Pawlowski, 1960); Lake Balaton, Hungary (Zankai, 1968)

- Nearctic region: Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989)

Encentrum gulo Wulfert, 1936

- Palaearctic region: C Eur. mountains & plains (Bērziņš, 1978)

Encentrum incertum Althaus, 1957

- Palaearctic region: Black Sea (Rudescu, 1961); E Balkan & Pontic province (Bērziņš, 1978)

Encentrum incisum Wulfert, 1936

- Palaearctic region: River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Alps, C Eur. mountains & plains, E Eur. plains (Bērziņš, 1978); In the soil in Engelhartszell, Austria (Donner, 1971); Shores of dammed or flowing stretches in the Danube at the German-Austrian border (Donner, 1972); ? River Salzach and its tributaries, Austria (Donner, 1970); Lake Neusiedlersee, Austria (Donner, 1969)

Encentrum kostei Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979)

Encentrum kozminski Wiszniewski, 1947

- Palaearctic region: E Eur. plains (Bērziņš, 1978); Lake Wallsee & r. Lobau, Austr. Danube basin (Donner, 1978)

Encentrum kulmatycki Wiszniewski, 1953

- Palaearctic region: C Eur. mountains & E Eur. plains (Bērziņš, 1978)

Encentrum limicola Otto, 1936

- Palaearctic region: Scandinavian coastal waters (Thane-Fenchel, 1968); C Eur. plains (Bērziņš, 1978)

Encentrum lineatum Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979)

Encentrum linnhei Scott, 1974

- Palaearctic region: Rock pools on W coast of Scotland (Scott, 1974 & 1987); Dunstaffnage Marine lab., Oban, Scotland (Schmid-Araya, 1991)

Encentrum listense Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979)

Encentrum (P) longidens Donner, 1943

- Palaearctic region: C Eur. mountains, E Eur. plains (Bērziņš, 1978)

Encentrum (P) longipes Wulfert, 1960

- Palaearctic region: Dübener Heide, N Germany (Wulfert, 1960a); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Peat bog Chambedaze, Puy-de-Dôme, Fr. (Francez, 1982); Alps, C Eur. mountains & plains, Baltic prov. (Bērziņš, 1978); ? River Salzach and its tributaries, Austria (Donner, 1970)

- Oriental region: India (Sharma & Michael, 1980); Malaysia (Sudzuki, 1989); Nimeta water works, near Baroda, India (Wulfert, 1966)

Encentrum longirostrum Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979)

Encentrum lupus Wulfert, 1936

- Palaearctic region: Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); C & S Sweden (Bērziņš & Pejler, 1989a, 1989c & 1989d); Alps, C Eur. mountains & plains, Baltic prov. (Bērziņš, 1978); River Vistula in the Warsaw area, Poland (Klimowicz, 1981)

Encentrum (P) lutetiae (Harring & Myers, 1928)

- Palaearctic region: River Loire, France (Lair, 1980); Middle course of river Loire, France (Lair & Sargos, 1981); W & C Eur. mountains, Carpathes, Hungarian plain, Pontic province, W, C & E Eur. plains

(Bērziņš, 1978); Romania (Rudescu, 1960); In reed borders of the Danube delta, Romania (Rudescu, 1968)

- Nearctic region: N America (Bērziņš, 1978)

Encentrum lutra Wulfert, 1936

- Palaearctic region: Alps, C Eur. mountains & plains, Carpathes, E Eur. plains (Bērziņš, 1978); River Salzach and its tributaries, Austria (Donner, 1970)

- Neotropical region: Nat. Park, 20 km S of Rio, Brazil (Donner, 1980)

Encentrum mariae Koniar, 1957

- Palaearctic region: Romania (Rudescu, 1960); C Eur. mountains & Carpathes (Bērziņš, 1978)

Encentrum marinum (Dujardin, 1841)

- Palaearctic region: Scandinavian coastal waters (Thane-Fenchel, 1968); Sea and brackish waters in S Finland (Björklund, 1972a); Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Courland Spit, R.F. (Zhadin *et al.*, 1972); Almost all over Europe (Bērziņš, 1978); Romania (Rudescu, 1960); Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963); Dübenner Heide, N Germany (Wulfert, 1960b); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Roscoff, Atlantic coast of Brittany, France (D'Hondt, 1970); Black Sea (Rudescu, 1961); In reed borders of the Danube delta, Rom. (Rudescu, 1968); Ostend harbour, Belgium (Persoone, 1964)

- Nearctic region: N America (Bērziņš, 1978)

Encentrum martes Wulfert, 1939

- Palaearctic region: Ditch near Blatna, CSR (Fott, 1960); River Ybbarspå, Sweden (Bērziņš, 1979); Romania (Rudescu, 1960); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); C Eur. mountains & plains, Pontic province, E Eur. plains, Baltic province (Bērziņš, 1978)

Encentrum martoides Fott, 1960

- Palaearctic region: Peat bog in the Hohe Tatra mts., CSR (Fott, 1960); Carpathes (Bērziņš, 1978); Peat bog Chambédaize, Puy-de-Dôme, France (Francez, 1982)

Encentrum matthesi Remane, 1949

- Palaearctic region: Scandinavian coastal waters (Thane-Fenchel, 1968); C Eur. plain (Bērziņš, 1978)

Encentrum minax Donner, 1943

- Palaearctic region: C Eur. mountains (Bērziņš, 1978)

Encentrum mnium Bērziņš, 1982

- Australian region: NSW Aust. (Bērziņš, 1982; Shiel & Koste, 1985)

Encentrum moldavicum Sladecek, 1961

- Palaearctic region: Impoundment, 17 km S of Prague, CSR (Sladecek, 1961b & 1962)

Encentrum mucronatum Wulfert, 1936

- Palaearctic region: Croatia, ex-Yugoslavia (Erben, 1987); C Eur. mountains & Carpathes (Bērziņš, 1978); Romania (Rudescu, 1960); Hopen, Svalbard Archipelago (De Smet, 1990); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); River Salzach and its tributaries, Austria (Donner, 1970a); Laurier wood on La Gomera, Canarias (Donner, 1970b); Spain: Canarias: La Gomera (Velasco, 1990)

- Neotropical region: Nat. Park, 20 km S of Rio, Brazil (Donner, 1980)

Encentrum murrayi Bryce, 1922

- Palaearctic region: N Eur. tundra (Bērziņš, 1978)

Encentrum mustela (Milne, 1885)

- Palaearctic region: Temporary waters in the Bucegi mts., Rom. (Godeanu, 1969a); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1984c); River Danube (Enaceanu & Brezeanu, 1970); Lake Stechlinsee, N Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Lake Balaton, Hungary (Zankai & Ponyi, 1971a; Zankai, 1968); In thatched roofs, Co Bersenbrück, NW Germ. (Koste, 1968a); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); All over Europe (Bērziņš, 1978); Romania (Rudescu, 1960); River Grabia basin, Poland (Pawlowski, 1960); N Iceland (De Ridder, 1972); Peat bogs Chambédaize & La Godivelle, Puy-de-Dôme, France (Francez & Dévaux, 1985); River Salzach and its tributaries, Austria (Donner, 1970); Amsterdam; River Maas, Rijn, Waal & Yssel, NL (Dresscher, 1976); Laurier wood on la Gomera, Canarias (Donner, 1970b); Tap water in Gent, Belgium (De Ridder, 1992); Montserrat, Catalonia, Spain (Donner, 1970b); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Spain: Barcelona, Madrid; Canarias: La Gomera (Velasco, 1990); Inundation area of r. Danube near Vienna & Orth, Austria; Ada Kalch Island & Sulina at mouth of Danube,

Romania (Donner, 1971); In periphyton of mosses and *Myriophyllum* in the Danube and in some brooks of the Alps, Austria (Donner, 1964); Lake Wallsee & r. Lobau, Austr. Danube basin (Donner, 1978); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972a); Soils of E Austria (Donner, 1972b); Montserrat, Catalonia, Spain; Arampruya, S of Barcelona; area, S of Madrid (Donner, 1970b); Lake Neusiedlersee, Austria (Donner, 1979); Prov. of Drente, NL (Dresscher, 1976); Tap water in Gent, Belgium (De Ridder, 1992); Peat bogs in the Auvergne, France (Francez, 1981); Watercourses in the Bucegi mts. Romania (Godeanu, 1963b); Marshy zones in the Bucegi mts., Romania (Godeanu, 1969a); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968)

Encentrum (P) myersi Wulfert, 1936

- Palaearctic region: C Eur. plains (Bērziņš, 1978)

Encentrum nesites Harring & Myers, 1928

- Palaearctic region: Lake Neusiedlersee, Austria (Donner, 1979)

- Nearctic region: Cape Herschel, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989)

Encentrum obesum Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979)

Encentrum oculatum Harring & Myers, 1928

- Palaearctic region: Romania (Rudescu, 1960); Pontic province of Europe (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

Encentrum orthodactylum Wulfert, 1936

- Palaearctic region: River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); C Eur. mountains & plains, Carpathes (Bērziņš, 1978); Pools in the Bucegi mountains, Rom. (Godeanu, 1963a); Water-courses in the Bucegi mountains, Rom. (Godeanu, 1963b); Temporary waters, small permanent ponds & marshy zones in the Bucegi mts., Romania (Godeanu, 1969a); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981)

Encentrum otois Harring & Myers, 1928

- Palaearctic region: C Eur. plains (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

Encentrum oxyodon Wulfert, 1936

- Palaearctic region: Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Sinaia, S Carpathes, Rom. (Rodewald-Rudescu & Godeanu, 1961); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Alps, C Eur. mountains & plains, Carpathes, E Eur. plains (Bērziņš, 1978); In the soil in Meek, Austria, and in Kiev, R.F. (Donner, 1971); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); Lake Wallsee & r. Lobau, Austr. Danube basin (Donner, 1978); River Salzach and its tributaries, Austria (Donner, 1970)

Encentrum pachidum (Gosse, 1887)

- Palaearctic region: Found on the coast of Norway by Lie-Pettersen and von Hofsten; also by Bērziņš, 1951. Finland (Eriksen, 1969); C Eur. plains, Boreal Highlands, NW Russian taiga (Bērziņš, 1978); Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963)

Encentrum pachypus Wulfert, 1936

- Palaearctic region: C Eur. mountains (Bērziņš, 1978)

Encentrum parvum Donner, 1951

- Palaearctic region: C Eur. mountains (Bērziņš, 1978); Mt. Fuji lava caves, Japan (Suzuki, 1971a); Lakes around mountain Fuji (Suzuki, 1971b)

Encentrum permutedum Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979)

Encentrum (P) plicatum (Eyferth, 1878)

- Palaearctic region: Finland (Eriksen, 1969); ? Garden ponds in Tokyo, Japan (Suzuki, 1975); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Darnsee near Epe, NW Germany (Koste, 1962); River Hase, NW Germany (Koste, 1976b); W & C Eur. mountains, Carpathes, W, C & E Eur. plains, Hungarian plain, Pontic province, UK, NW Russ. taiga (Bērziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); R. Maas, Rijn, Waal; waterschap "De Alm", NL (Dresscher, 1976); In reed borders of the Danube delta, Rom. (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

- Nearctic region: Lakes at Santee, California, USA (Nogrady, 1982)

Encentrum prosdendrus Bērziņš, 1982

- Australian region: NSW Aust. (Bērziņš, 1982; Shiel & Koste, 1985)

Encentrum psammophilum Althaus, 1957

- Palaearctic region: Black Sea (Rudescu, 1961); E Balkan & Pontic province of Europe (Bērziņš, 1978);

Island Sylt, North Sea (Tzscheschel, 1979 & 1983)

Encentrum putorius Wulfert, 1936

- Palaearctic region: Lake Neusiedlersee, Austria (Donner, 1972d & 1979); Interstitial fauna of the Elbe estuary, Germany (Riemann, 1966); In reed borders of the Danube delta, Rom. (Rudescu, 1968); River Loire, in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); Coast of S Finland (Eriksen, 1969); River Danube (Enaceanu & Brezeanu, 1970); Slovenia, ex-Yugoslavia (Markic, 1983); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Soviet Karelia, R.F. (Filimonova, 1976); Alps, C Eur. mountains & plains, E Eur. plains, Hungarian plain, Pontic prov., NW Russ.taiga (Bērziņš, 1978); Romania (Rudescu, 1960); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach and its tributaries, Austria (Donner, 1970); River Maas, Rijn, Waal & Yssel; prov. Z. Limburg, NL (Dresscher, 1976)

- Nearctic region: Kodiak Island, Alaska, USA (Turner, 1987)

- Australian region: Vic, Aust. (Shiel & Koste, 1979)

- Neotropical region: Tropical forest near the coast, 70 km S of Rio, Brazil (Donner, 1980)

Encentrum putorius Wulfert, f. *armatum* Donner, 1943

- Palaearctic region: With nominate form together in strongly polluted water of the river Hase, NW Germany (Koste, 1970a); River Hase, NW Germany (Koste, 1976b); Alps, C Eur. mountains & plains, Pontic prov. (Bērziņš, 1978); Romania (Rudescu, 1960); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); River Salzach and its tributaries, Austria (Donner, 1970); River Danube (Enaceanu & Brezeanu, 1970)

Encentrum putorius Wulfert, f. *eurycephalum* Wulfert, 1936

- Palaearctic region: C & S Sweden (Bērziņš & Pejler, 1987)

Encentrum rapax Donner, 1943

- Palaearctic region: Alps, C Eur. mountains, NW Russian taiga (Bērziņš, 1978); River Salzach and its tributaries, Austria (Donner, 1970); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960; Dresscher, 1976)

Encentrum remanei Voigt, 1957

- Palaearctic region: C & E Eur. plains (Bērziņš, 1978)

Encentrum rousseleti (Lie-Petersen, 1905)

- Palaearctic region: Roscoff, Atlantic coast of Brittany, France (D'Hondt, 1970); Romania (Rudescu, 1960); Rügener, Hiddenseer & Darsser Boddenwässer, NE Germany (Schwarz, 1963); C Eur. mountains & plains, Pontic province, Ireland, UK, Boreal Highlands (Bērziņš, 1978); Interstitial fauna of the Elbe-estuary, Germany (Riemann, 1966); Black Sea (Rudescu, 1961); Sandy beach in Bay of Tokyo, Japan (Sudzuki, 1977b); Scandinavian coastal waters (Thane-Fenchel, 1968)

Encentrum sacculiforme Tzscheschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzscheschel, 1979, 1980 & 1983)

Encentrum (P) saundersiae (Hudson, 1855)

- Palaearctic region: In reed borders of the Danube delta, Rom. (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Etang de Prairie, Rambouillet, Yvelines, Fr. (Pourriot, 1965); Lowland brook-pond system at Boom, Belgium (Maes, 1985); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Peat bogs in the Auvergne, France (Francez, 1981); Lake Neusiedlersee, Austria (Donner, 1972d); Finland (Eriksen, 1969); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Nat. Res. Jursky Sur, CSR (Hudec, 1978); C Eur. mountains, Carpathes, Hungarian plain, Pontic province, C & E Eur. plains, Ireland, UK, NW Eur. taiga (Bērziņš, 1978); Romania (Rudescu, 1960); Lake Balaton, Hungary (Zankai, 1968); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1984c & 1988); Peat bog Laptici, Bucegi mountains, Romania (Godeanu, 1970); R Maas, Rijn, Waal & Yssel; waterschap "De Alm", NL (Dresscher, 1976)

- Nearctic region: Western Lake Erie & Lake St. Clair, USA (Stemberger, 1979); Bay of Quinte, L. Ontario, Canada (Nogrady, 1988)

- Australian region: Australia (Shiel & Koste, 1979); Waimakiriri river, New Zealand (Russell, 1960)

- Neotropical region: Peru (Koste & José de Paggi, 1982)

Encentrum (P) saundersiae (Hudson), f. *lophosoma* Wulfert, 1936

- Palaearctic region: Peat bog Laptici, Bucegi mountains, Romania (Godeanu, 1970); C Eur. mountains, Carpathes, C & E Eur. plains (Bērziņš, 1978)

Encentrum (P) semiplicatum Wulfert, 1936

- Palaearctic region: River Hase, NW Germany (Koste, 1976b); C Eur. mountains & plains (Bērziņš, 1978)

- Nearctic region: Illinois, USA (Bērziņš, 1984)

Encentrum simillimum Remane, 1929

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979, 1980 & 1983)

Encentrum sorex Wulfert, 1950

- Palaearctic region: Dübener Heide, N Germany (Wulfert, 1960a); Grote Huisven in Nat. Res. Oisterwijkse vennen, NL (Dresscher, 1976); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); C Eur. mountains & plains, Carpathes (Bērziņš, 1978); ? R. Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982)

Encentrum spatiatum Wulfert, 1936

- Palaearctic region: River Grabia basin, Poland (Pawlowski, 1960); C Eur. mountains & plains (Bērziņš, 1978)

Encentrum sphagnicola Rodewald, 1937

- Palaearctic region: Romania (Rudescu, 1960); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Carpathes (Bērziņš, 1978)

Encentrum (P) spinosum Koch-Althaus, 1962

- Palaearctic region: L. Stechlinsee, N Brandenburg, Germany (Koch-Althaus, 1962; Ronneberger & Schönborn, 1985); C Eur. plains (Bērziņš, 1978)

Encentrum (P) stechlinensis Koch-Althaus, 1962

- Palaearctic region: L. Stechlinsee, N Brandenburg, Germany (Koch-Althaus, 1962; Ronneberger & Schönborn, 1985); C Eur. plains (Bērziņš, 1978)

Encentrum striatum Althaus, 1957

- Palaearctic region: Black Sea (Rudescu, 1961); Island Sylt, North Sea (Tzschaschel, 1979); C Eur. mountains & Pontic province (Bērziņš, 1978)

- Nearctic region: In Florida saltwater psammon (Turner, 1990b)

Encentrum sutor Wiszniewski, 1936

- Palaearctic region: Romania (Rudescu, 1960); River Grabia basin, Poland (Pawlowski, 1960); Courland Spit, R.F. (Zhadin *et al.*, 1972); C Eur. mountains & plains, Carpathes, Pontic province, E Eur. plains (Bērziņš, 1978); Peat bogs in the Hohe Tatra mts., CSR (Fott, 1960)

- Nearctic region: ? Cape Herschel, Ellesmere Island, NWT, Can. (Nogrady & Smol, 1989); ? Kingston, Ontario, Canada (Nogrady, 1989)

Encentrum sutoroides Wulfert, 1940

- Palaearctic region: Romania (Rudescu, 1960); Peat bog Poiana Stampei, Bukowina, Romania (Rudescu, 1966); C Eur. mountains & plains, Carpathes (Bērziņš, 1978)

Encentrum tectipes Remane, 1949

- Palaearctic region: C Eur. plains (Bērziņš, 1978)

Encentrum tobyhannaensis Myers, 1940

- Palaearctic region: C Eur. plains (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

Encentrum typhos Wulfert, 1936

- Palaearctic region: River Grabia basin, Poland (Pawlowski, 1960); C Eur. plains (Bērziņš, 1978)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)

Encentrum valkanovi Althaus, 1957

- Palaearctic region: Black Sea (Rudescu, 1961); E Balkan & Pontic province (Bērziņš, 1978)

Encentrum villosum Harring & Myers, 1928

- Palaearctic region: Scandinavian coastal waters (Thane-Fenchel, 1968); Italy & C Eur. plains (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

Encentrum voigti Wulfert, 1936

- Palaearctic region: C Eur. mountains & plains (Bērziņš, 1978)

Encentrum wierzejski Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979 & 1980)

Encentrum wiszniewski Wulfert, 1939

- Palaearctic region: Lake Balaton, Hungary. Found by Wiszniewski near to Warsaw in 1935 and by Wulfert in Dorndorf, Germany, in 1939 (Zankai & Ponyi, 1971a); C Eur. mountains & plains, E Eur. plains, Baltic province, NW Russian taiga (Bērziņš, 1978); Lake Wallsee & r. Lobau, Austr. Danube basin (Donner, 1978); Luga district of the Leningrad area, R.F. (Kutikova, 1962b)

Encentrum spec.

- Palaearctic region: Lowland brook-pond system at Boom, Belgium (Maes, 1985); Side-arm of r. Danube

near Bratislava, CSR (Lichardova, 1964); Lago Scuro Parmense, N Italy (Antonietti, 1988); Middle course of river Po, Italy (Ferrari *et al.*, 1986); River Po, Italy (Ferrari *et al.*, 1989); Lakes in Estonia (Haberman, 1978); River Loire, France (Lair, 1980); Croatia, ex-Yugoslavia (Erben, 1987); Delta of river Danube, Romania (Prunescu-Arion, 1989); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Hopen, Svalbard Archipelago (De Smet, 1990); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Obretin Lake, Danube delta, Rom. (Neagu-Godeanu *et al.*, 1968); In sewage biota in Tokyo and adjacent pref., Jap. (Sudzuki, 1981); Mountain Fuji lava caves, Japan (Sudzuki, 1971a); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Iriomoto Island, Japan (Sudzuki, 1979); Periphytic biota in sewages & park waters, J. (Sudzuki, 1981); Lake Ohrid, Balkan peninsula (Stankovic, 1960); Scandinavian coastal waters (Thane-Fenchel, 1968); River Svatka, CSR (Kubicek, 1968); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); River Salzach and its tributaries, Austria (Donner, 1970); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Watergraafsmeerse Polder, NL (Dresscher, 1976); Soils in E Austria (Donner, 1972b); Torrelodones, Sierra da Guadamar, Spain; La Palma & La Gomera, Canarias (Donner, 1970b); Lake Neusiedlersee, Austria (Donner, 1972d & 1979); River Elbe estuary, Germany (Schulz, 1961); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); R. Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Rés. Biol. de Villars-la-Dombes, France (Rostan, 1976); Middle course of river Loire, France (Lair & Sargas, 1981); Etang de la Tour, Paris suburb, France (Pourriot, 1965); Inland sea round Kasado island, Japan (Sudzuki, 1976a & 1976b); Lake Dievegat, at the Belgian-Neerlandic border (Corijn, 1969)

- Nearctic region: Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975); Narragansett Bay, Rhode Island, USA (Martin, 1965); Nowick Lake, Mt. Rainier Nat. Park, Washington State, USA (Larson, 1973)
- Oriental region: Malaysia (Sudzuki, 1989); Waltair coast, Madras, India (Rao & Ganapati, 1968)
- Australian region: River, Creek & mountain Buffalo, Aust. (Bērziņš, 1982); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)
- Neotropical region: Puerto Ingles, Mas a Tierra, Chile (Donner, 1980)
- Antarctic region: Falkland Islands, Antarctica (Donner, 1980)

Enteroplea Ehrenberg, 1830

Enteroplea lacustris Ehrenberg, 1830

- Palaearctic region: Finland (Eriksen, 1969); Achmer Grasmoor, NW Germany (Koste, 1968b); Up to now known from Palaearctis and Nearctis (Koste, 1986b); Delta of Danube river, Romania (Zinevici & Teodorescu, 1990); Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); All over Europe; Caspian area (Bērziņš, 1978); Romania (Rudescu, 1960); River Grabia basin, Poland (Pawlowski, 1970); Etang de Pommereau (Loir-et-Cher), France (Tassigny *et al.*, 1970); Nat. Res. "Het Hol" near Kortenhoef, NL (Dresscher, 1976); Small water bodies in the Mikolajkie area, Poland (Klimowicz, 1967); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Etang de la Tour, Paris suburb, France (Pourriot, 1965); Lago Trasimeno, Italy (Taticchi, 1968); Waters near Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)
- Nearctic region: Illinois, USA (Bērziņš, 1984); Canada (Chengalath, 1977); Kingston, Ontario, Canada (Nogrady, 1989); Lake Sanchrist, Illinois, USA (Harmsworth, 1975)
- Oriental region: Singapore (Karunakaran & Johnson, 1978); Malaysia (Sudzuki, 1989); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1984 & 1985)
- Australian region: Qld. Aust. (Shiel & Koste, 1979); Ryan's 2 billabong, Wodonga (de Manuel & Shiel, in prep.)
- Neotropical region: Near Concepcion, Paraguay. In Lago Preto, on Isla de Marchantaria, in Amazonia (not published) (Koste, 1986b); Near Panguana, Peru (Koste, 1988b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Eosphora Ehrenberg, 1830

Eosphora anthadis Harring & Myers, 1922

- Palaearctic region: Lake Neusiedlersee, Austria (Donner, 1975 & 1979); C Eur. plain (Bērziņš, 1978); Known from Europe (Neusiedlersee) (Koste, 1988a; Koste, Robertson & Hardy, 1984)
- Nearctic region: N America (Koste, 1988a; Koste, Robertson & Hardy, 1984)
- Oriental region: Andhra Pradesh, S India (Dhanapathi, 1975); Malaysia & India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); India (Sharma & Michael, 1980; Koste, Robertson & Hardy, 1984); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma

(Koste & Tobias, 1990)

- Australian region: New Zealand and Australia (Koste, Robertson & Hardy, 1984); Southwest W Aust. (Shiel & Koste, 1985); New Zealand (Koste, 1988a); ? Tasmania (Koste & Shiel, 1987); SW Aust. (Koste, Shiel & Brock, 1983); Crackers Swamp, off Brandy Huy, W Aust. (Koste & Shiel, 1991); Lake Katrine, New Zealand (Russell, 1960)

- Neotropical region: Lago Camaleão, Amazonia, Brazil. First record for S America (Koste, Robertson & Hardy, 1984); Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Sierra (Koste & Böttger, 1992)

***Eosphora ehrenbergi* Weber, 1918**

- Palaearctic region: Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Lake Paeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Finland (Eriksen, 1969); Asiatic Turkey (Dumont & De Ridder, 1987); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Romania (Rudescu, 1960); Italy, Alps, C Eur. mountains & plains, Pontic province, Ireland, Iceland, Boreal highlands, NW Russian taiga; Asia Minor (Bērziņš, 1978); Balearic Archipelago (de Manuel *et al.*, 1992); Waldviertel area, Lower Austria (Naidenow & Wawrik, 1984); Black Sea (Rudescu, 1961); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Lago Trasimeno, Italy (Taticchi, 1968)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Malaysia & Indonesia (Suzuki, 1989); W & E Malaysia & Singapore (Fernando & Zankai, 1981)

- Australian region: Vic, Aust. (Shiel & Koste, 1979); Awamoa, New Zealand (Russell, 1960)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

***Eosphora gibba* Garner, 1937**

- Palaearctic region: Alps, C Eur. plains, Ireland, UK, Boreal highlands (Bērziņš, 1978)

***Eosphora najas* Ehrenberg, 1830**

- Palaearctic region: Moat of Château & pool in the Paris suburb, Fr. (Pourriot, 1965); Lakes around mountain Fuji, Japan (Suzuki, 1971b); Mt. Fuji area, Japan (Suzuki, 1978a); Mt. Fuji lava caves, Japan (Suzuki, 1971a); Lago Trasimeno, Italy (Taticchi, 1968); "Altes Land" near Hamburg, Germany (Heckman, 1986); Finland (Eriksen, 1969); Slovenia, ex-Yugoslavia (Markic, 1983); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Bjørnøya (Bear Island) Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Minorca, Spain (de Manuel, 1990); River Hase, NW Germany (Koste, 1976b); Romania (Rudescu, 1960); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Volga River, R.F. (V'yushkova & Lakhnova, 1974); All over Europe; Asia Minor (Bērziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); Farm pond at St. Aubain (Seine-et-Oise), Fr. (Pourriot, 1960); Dübener Heide, N Germany (Wulfert, 1960b); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Lake Neusiedlersee, Austria (Donner, 1979); Pool near Chikung-Shan & ditch in Kaifeng, China (Wulfert, 1968); R. Maas, Rijn, Waal & Yssel; waterschap "De Alm", NL (Dresscher, 1976); Canal Leeds-Liverpool, UK (Galliford, 1960b); Near waterworks at Okocim, Poland (Klimowicz, 1975); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); River & valley in the Tatra mountains, Poland (Madalinski, 1961); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Nearctic region: Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Kingston, Ontario, Canada (Nogrady, 1989)

- Oriental region: India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapati, 1975); Indonesia & India (Suzuki, 1989)

- Australian region: Early records from Vic & Qld; in our material: Gwydir r. at Moree, NSW & Ryans property, Wodonga, Vic (Koste & Shiel, 1991)

- Neotropical region: Ecuador: Sierra (Koste & Böttger, 1989); Pool CIRA, Nicaragua (Moreno *et al.*, 1992)

- Antarctic region: Antarctica (Dartnall, 1983; Dartnall & Hollowday, 1985); Antarctica & Subantarctica (José de Paggi & Koste, 1984; Suzuki, 1988b); Moss Lake, Signy Island, Antarctica (Priddle & Dartnall, 1978)

***Eosphora thoa* Harring & Myers, 1924**

- Palaearctic region: Southwest islands of Japan (Suzuki *et al.*, 1992)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)

- Australian region: Southwest W Aust. (Shiel & Koste, 1985); Forestdale Lagoon, W Aust (near Perth) & Ryans 2 lagoon at Wodonga, Vic (Koste & Shiel, 1991)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

***Eosphora thoides* Wulfert, 1935**

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); C Eur. mountains & plains, Pontic province (Bērziņš, 1978); Romania (Rudescu, 1960); In reed borders of the Danube delta, Romania (Rudescu, 1968)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)
- Australian region: ? Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Shiel & Koste, 1985); Billabong of Magela Creek, NT; margin of Mulwala Lake, Vic (Koste & Shiel, 1991); Taieri Ferry, New Zealand (Russell, 1960)
- Eosphora* spec.
- Palaearctic region: Garden ponds in Tokyo, Japan (Sudzuki, 1975)
- Neotropical region: Provinces in NW Argentina (José de Paggi, 1989); Province Catamarca, Argentina (José de Paggi, 1990)

Eothinia Harring & Myers, 1922

Eothinia elongata (Ehrenberg, 1832)

- Palaearctic region: Peat bogs in the Auvergne, France (Francez, 1981); Dübener Heide, N Germany (Wulfert, 1960b); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1984c & 1988); Peat bogs Chambedaze & La Godivelle, Puy-de-Dôme, France (Francez & Dévaux, 1985); River Ybbarspå, Sweden (Bērziņš, 1976); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Finland (Eriksen, 1989); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lake Balaton, Hungary (Zankai, 1968 & 1989); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Romania (Rudescu, 1960); Almost all over Europe (Bērziņš, 1978); ? Lago Trasimeno, Italy (Taticchi, 1968); Small water bodies in the Mikolajkie area, Pol. (Klimowicz, 1967); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)
- Nearctic region: Canada (Chengalath, 1977); Arctic N America (Chengalath & Koste, 1989)
- Oriental region: Malaysia (Sudzuki, 1989); W & E Malaysia & Singapore (Fernando & Zankai, 1981); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1985)
- Australian region: Vic, Aust. (Koste & Shiel, 1980c); S Tasmania; Vic, Aust. (Koste, Shiel & Tan, 1988); Ryan's billabongs at Wodonga, Vic (Koste & Shiel, 1991)

Eothinia elongata (Ehrenberg), f. *macra* Bērziņš, 1949

- Palaearctic region: C Eur. plain (Bērziņš, 1978)

Eothinia lamellata Bērziņš, 1949

- Palaearctic region: Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); C Eur. plain, Hungarian plain (Bērziņš, 1978); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); Lake Wallsee & r. Lobau, Austr. Danube basin (Donner, 1978)

Eothinia lasiobiotica Bērziņš, 1949

- Palaearctic region: River Ybbarspå, Sweden (Bērziņš, 1979); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); C Eur. plain (Bērziņš, 1978); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d)

Eothinia lucens (Glascott, 1893)

- Palaearctic region: C Eur. mountains & Ireland (Bērziņš, 1978)

Eothinia tryphaea Harring & Myers, 1924

- Palaearctic region: C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1898c & 1989d); C Eur. plain & Boreal highland (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

Eothinia spec.

- Nearctic region: Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975)

Epiphanes Ehrenberg, 1832

Epiphanes brachionus (Ehrenberg, 1837)

- Palaearctic region: Finland (Eriksen, 1969); Ponds in Surrey, UK (Pontin, 1989); River Hase, NW Germany (Koste, 1976b); Romania (Rudescu, 1960); Norfolk Broads, UK (Irvine *et al.*, 1990); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Lakes of Sosnowickie, Poland (Radwan, 1969 & 1978); Lake Balaton, Hungary (Zankai, 1968); Japanese inland waters (Yamamoto, 1960a); R. Maas, Rijn, Waal & Yssel, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Small water bodies in the Mikolajkie area, Poland (Klimowicz, 1967); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Pool in Fontainebleau, Paris suburb, France (Pourriot, 1976); Pool in Rambouillet, Yvelines, France (Pourriot, 1965); Middle course of river Loire, France (Lair & Sargas, 1981); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); In reed borders of the Danube delta, Romania (Rudescu, 1968)

- Nearctic region: Canada (Chengalath, 1977); Experimental ponds near Bakersfield, Co Kern, California (Hurlbert *et al.*, 1972)
 - Oriental region: India (Sharma & Michael, 1980); Singapore (Karunakaran & Johnson, 1978); Malaysia & India (Sudzuki, 1989); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1985); Sri Lanka (Mendis & Fernando, 1962)
 - Australian region: Tasmania (Koste & Shiel, 1987); Qld & Vic, Aust. (Shiel & Koste, 1979); Cosmopol. Rare in Aust. (Qld, NSW, Tasm.) (Koste & Shiel, 1987b); River Murray, Aust. (Koste, 1979b); Dunedin, New Zealand (Russell, 1960)
 - Neotropical region: Chilean lakes (Schmid-Araya, 1991); Lake Ranco, Chile (Campos *et al.*, 1992)
- Epiphantes brachionus*** (Ehrenberg), f. *spinosa* (Rousselet, 1901)
- Palaearctic region: Asiatic Turkey (Dumont & De Ridder, 1987); Near Kapusany, SE Slovakia, CSR (Dvorakova, 1960); Po river, Italy (Ferrari *et al.*, 1989); C Eur. mountains & plains, Hungarian plain, Pontic province; Asia Minor (Bērziņš, 1978); Caucasus (Kasimow, 1966); Latorica, E Slovakia lowland, CSR (Terek, 1990a & 1990b); Southwest islands of Japan (Sudzuki *et al.*, 1992); Romania (Godeanu, 1961b); Lakes of the Black Sea shore (Godeanu, 1970b); Anatolia, Turkey (Segers *et al.*, 1992); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Serbian section of river Danube (Zivkovic, 1987)
 - Oriental region: Java (Green & Oey, 1974)
 - Neotropical region: Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil. Species new for the Amazon area. One previous record for S Am.: Murray (1913): in Botanical Garden of Rio de Janeiro (Koste, Robertson & Hardy, 1984); Martinique island, West Indies (Nogrady, 1983)
- Epiphantes clavulata*** (Ehrenberg, 1832)
- Palaearctic region: Serbian section of river Danube (Zivkovic, 1987); Finland (Eriksen, 1969); Near Blatna, CSR (Dvorakova, 1960b); Romania (Rudescu, 1960); Alps, Carpathes, Pontic province, C Eur. plains, UK, NW Russian taiga (Bērziņš, 1978); Soviet section of river Danube (Parchuk, 1985); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); River Danube (Enaceanu & Brezeanu, 1970); Spain: Tarragona (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)
 - Nearctic region: Illinois, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Kingston, Ontario, Canada (Nogrady, 1989); Everglades Nat. Park, USA (Florida) (Nogrady, 1983)
 - Oriental region: India (Sharma & Michael, 1980); Singapore, Indonesia & India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); Andhra Pradesh, India (Dhanapathi, 1974b); W & E Malaysia & Singapore (Fernando & Zankai, 1981)
 - Australian region: ? Tasmania (Koste & Shiel, 1987); Qld, Vic & S Aust. (Shiel & Koste, 1979); NSW, NT, Qld, S Aust., Tasm. & Vic (Shiel & Koste, 1987b); NW Aust.: Magela Creek floodplain (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983; Tait, Shiel & Koste, 1984); Murray river at Mannum, S Aust. (Shiel, 1979)
 - Neotropical region: River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1985); Ecuador: Costa (Koste & Böttger, 1989); Ecuador: Oriente (Koste & Böttger, 1992); Orinoco river basin, Venezuela (Vasquez, 1984a); Provinces in NW Argentina (José de Paggi, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Amazonia, Brazil. Also Germany, CSR, CH, Poland, R.F., Romania, Mexico, China & Africa (Koste, 1972f); Brazil, Argentina, Antilles, Peru, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Prov. Chaco & Santa Fé, Argentina (José de Paggi, 1990); Caribbean Islands & Panama (Collado *et al.*, 1984); Antilles françaises (Pourriot, 1975); Pond in tropical rain forest, Peru (Schlüter, 1984); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b & 1977c)
- Epiphantes macroura*** (Barrois & Daday, 1894)
- Palaearctic region: Afghanistan (Bērziņš, 1961); River Loire, France (Lair, 1980); Asiatic Turkey (Dumont & De Ridder, 1987); Delta of river Danube, Romania (Prunescu-Arion, 1989; Zinevici & Teodorescu, 1990); Romania (Rudescu, 1960); Po river, Italy (Ferrari *et al.*, 1989); Suna river, Soviet Karelia, R.F. (Filimonova, 1976); Treatment ponds in Astrakhan province, R.F. (Chuykov, 1979); Spain, Italy, Balkan, Carpathes, Hungarian plain, Pontic province, C Eur. plain, Iceland; Caspian area, Asia Minor (Bērziņš, 1978); Soviet section of the Danube, R.F. (Parchuk, 1985); Lower delta of river Volga, R.F. (Chuykov, 1981); Camargue, S France (De Ridder, 1960a & 1961); N & W Iceland (De Ridder, 1970 & 1972); Southwest islands of Japan (Sudzuki, 1990; Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Loosdrecht lakes, NL (Dresscher, 1976); Saltmarsh of Puerto de Polensa, Majorca Sp.; Brackish waters & salinas of Alcudia Bay, Sp. (De Ridder, 1967c); Budir & surroundings, W Iceland (De Ridder, 1969b); Lake Konstanz, Germany (Walz *et al.*, 1987); River Danube (Enaceanu & Brezeanu, 1970); Lakes N of Bucharest, Romania (Godeanu, 1969b); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981);

Middle course of river Loire, France (Lair & Sargas, 1981); Serbian section of river Danube (Zivkovic, 1987); Spain: Tarragona (Velasco, 1990)

- Nearctic region: Canada (Chengalath, 1977); San Francisco, USA (Nogrady, 1983)

- Oriental region: Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Oxidation tank near Nagpur, C India (Arora, 1965 & 1966c); Girikbe tank, Sri Lanka (Bērziņš, 1982a); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969 & 1980a); Delhi, India (Sarma, 1988); Singapore (Karunakaran & Johnson, 1978); Taiwan (Sudzuki, 1988); Taiwan, Malaysia, Singapore & Indonesia (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); Taiwan & Singapore. Cosmopolitan (Sudzuki, 1991)

- Australian region: SW Aust. (Koste, Shiel & Brock, 1983); Southern W Australia (Shiel & Koste, 1985); Tasmania (Koste & Shiel, 1986b); Cosmopolitan in fresh and brackish waters. In Aust.: S Aust., Qld, Tas & SW S Aust. (Koste & Shiel, 1987b)

- Neotropical region: River Parana, Argentina (Paggi & José de Paggi, 1974); Eutrophic water Santa Fé, Argentina (José de Paggi, 1976); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil, Argentina, Venezuela, Honduras, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Chilean lakes (Schmid-Araya, 1991); Lake Xolotlan, Nicaragua (Cisneros & Mangas, 1991); Prov. Santa Fé, Argentina (José de Paggi, 1990); Lago de Valencia, Venezuela (De Infante, 1980); Lake Valencia, Venezuela (Saunders & Lewis, 1988); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Lago de Castanho, C Amazonia, Brazil (Schaden, 1977b); Lago Buinçu, Lago Tefé & L. do Castanho, Amazonia, Brazil (Schaden, 1977c); Ecuador: Oriente (Koste & Böttger, 1992)

***Epiphanes pelagica* (Jennings, 1900)**

- Palaearctic region: ? Lake Myvatn, Iceland (Adalsteinsson, 1979); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Peten, 1973); Romania (Rudescu, 1960); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Pontic province, C Eur. plains, Iceland, NW Russian taiga (Bērziņš, 1978); Small lakes SE of Gotheburg, Sweden (W) (Morling & Pejler, 1990); Obretin lake, delta of r. Danube, Romania (Neagu-Godeanu *et al.*, 1968); W Iceland (De Ridder, 1972); Leczna-Włodawa Lake district, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Pelagic zone of the Leczna-Włodawa l. district, Poland (Radwan, 1975); Serbian section of river Danube (Zivkovic, 1987)

- Nearctic region: N America (Bērziņš, 1978)

- Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1981)

***Epiphanes senta* (O.F. Müller, 1773)**

- Palaearctic region: Near Asperg, Württemberg, Germany (Klement, 1960); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Lake Laarder Wasmeer, Gooi, NL (Leentvaar, 1963c); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); United Kingdom (Snell, 1989); River Hase, NW Germany (Koste, 1976b); "Altes Land" near Hamburg, Germany (Heckman, 1986); Boatracing Canal Gent, Belgium (Van Vossel, 1973); Banyoles Lake, NE Spain (Miracle, 1975); Water works Horrem, near Köln, Germany (Bick & Scholtyseck, 1960); Finland (Eriksen, 1969); Slovenia, ex-Yugoslavia (Markic, 1983); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Romania (Rudescu, 1960); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Soviet Karelia, R.F. (Filimonova, 1976); Treatment ponds in Astrakhan province, R.F. (Chuykov, 1979); All over Europe; Asia Minor (Bērziņš, 1978); Baikal biological station, R.F. (Lozhnikova *et al.*, 1981); Reservoir at Kibbutz Na'am, C Israel (Dor *et al.*, 1987); Southwest islands of Japan (Sudzuki *et al.*, 1992); Lake Donk, Overmere, Belgium (Claus & Dall'Asta, 1972); River Lieve, Gent, Belgium (De Smet & Evens, 1970); Meuse Liégeoise, Belgium (Baiverlin, 1984); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960); Near Debrecen, Hungary (Dévai, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); River Salzach and its tributaries, Austria (Donner, 1970); In the lower Elbe, Germany (Grimm, 1968); Lac Léman Fr./CH (Balvay & Laurent, 1991); Lake Tüzer See, Neubrandenburg, Germany (Doll, 1984); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); R. Maas, Rijn, Waal & Yssel; Waterschap "De Alm"; Laarder Wasmeer; Nat. Res. Meyendel; Ditch near Leiden; Ditches in Amsterdam, NL (Dresscher, 1976); 3 localities in Belgium (De Ridder, 1986); River Elbe estuary, Germany (Schulz, 1961); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Small water bodies in the Mikolajkie area, Poland (Klimowicz, 1967); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Lake Montcineyre, Puy-de-Dôme, France (Persoone *et al.*, 1968); Rock pools 40 km S of Paris, France

(Pourriot, 1974); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); R. Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); Hamburg area, Germany (Rühmann, 1961); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Pond, pool & moat of Château in the Paris suburb, France (Pourriot, 1965); Garden ponds in Tokyo, Japan (Suzuki, 1975); Serbian section of river Danube (Zivkovic, 1987); Forest pond in Lembeek, Belgium (Van Elslande, 1975); Spain: Barcelona, Gerona, Madrid, Tarragona & Valencia (Velasco, 1990); Lake Biwa-ko, Japan (Yamamoto, 1960b); Waters near Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: Ullis Pool, USA (Pourriot & Snell, 1983); Colorado, USA (Turner, 1988); Arctic N America (Chengalath & Koste, 1989); Lincoln, Nebraska, USA (Snell, 1989); Canada (Chengalath, 1977); Illinois, USA (Bérziņš, 1984); Northern Michigan inland lakes (Stemberger, 1990)
- Oriental region: Java (Green & Oey, 1974); India (Sharma & Michael, 1980); Singapore & Malaysia (Karunakaran & Johnson, 1978); Malaysia, Singapore & India (Suzuki, 1989)
- Australian region: Lincoln & Campbell Island, New Zealand (Russell, 1960); NSW, Aust. (Shiel & Koste, 1979); Mountain Buffalo, Aust. (Bérziņš, 1982); Cosmopolitan. Rare in Aust.: Vic & NSW (Koste & Shiel, 1987b)
- Neotropical region: Bolivia (Iltis *et al.*, 1984); Peru (Koste & José de Paggi, 1982)
- Antarctic region: Potter peninsula, Antarctica (José de Paggi, 1982; José de Paggi & Koste, 1982a; Paggi, 1986); Signy Island, South Orkney Islands (Dartnall, 1977 & 1992); Small lake from Haswell Island, Queen Mary Land (Donner, 1972); Antarctica (Dartnall, 1983; Dartnall & Hollowday, 1985; Suzuki, 1988); Obruchev & Binger Hills, E coast of Antarctica (Kutikova, 1964b); Mc Murdo Sound area, Antarctica (Armitage & House, 1962)

Epiphantes spec.

- Palaearctic region: Middle course of river Po, Italy (Ferrari *et al.*, 1986); Banyuls Lake, NE Spain (Miracle, 1974); Rivers in W Kazakhstan, R.F. (Petrova, 1976); Sava Lake, ex-Yugoslavia (Kalafatic, 1978); Lough Erie system, NW Ireland (Gibson *et al.*, 1980); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Bulgarian bank of river Danube (Naidenow, 1963); Middle course of river Loire, France (Lair & Sargos, 1981); Fukushima Prefecture, Japan (Suzuki, 1982); Periphytic biota in sewages and park waters, Jap. (Suzuki, 1982)
- Nearctic region: NW Colorado, USA (Cauton & Ward, 1981); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975)
- Oriental region: Thailand (Boonsom, 1984b)

Erignatha Harring & Myers, 1928

Erignatha clastopis (Gosse, 1886)

- Palaearctic region: Achmer Grasmoor, NW Germany (Koste, 1978b); Almost all over Europe (Bérziņš, 1978); Romania (Rudescu, 1960); Lake Balaton, Hungary (Zankai, 1968); N Iceland (De Ridder, 1972); Dübener Heide, N Germany (Wulfert, 1960b & 1961); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); In reed borders of the Danube delta, Rom. (Rudescu, 1968); Lago Trasimeno, Italy (Taticchi, 1968)
- Nearctic region: Canada (Chengalath, 1977); Mirror Lake, New Hampshire, USA (Strayer, 1985)

Erignatha sagittoides Wiszniewski, 1935

- Palaearctic region: Romania (Rudescu, 1960); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Carpathes, C & E Eur. plains (Bérziņš, 1978)

Erignatha tenuidens (de Beauchamp, 1914)

- Palaearctic region: W Eur. plain (Bérziņš, 1978)

Erignatha thienemanni Remane, 1929

- Palaearctic region: C Eur. plain (Bérziņš, 1978); Roscoff, Atlantic coast of Brittany, France (D'Hondt, 1970)

Euchlanis Ehrenberg, 1832

Euchlanis alata Voronkov, 1912

- Palaearctic region: Lake Myvatn, Iceland (Adalsteinsson, 1979); Lake Bodensee, near Konstanz (Koch-Althaus, 1962 & 1963); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); N Swedish Lapland (Pejler, 1962a); Romania (Rudescu, 1960); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); Alps, W & C Eur. mountains, Pontic province, C Eur. plain, Iceland, N Sweden (Bérziņš, 1978); N & W Iceland (De Ridder, 1972); Pelagic zone of the Leczna-Włodawa Lake district, Poland (Radwan, 1975);

River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Lake Stechlinsee, N Brandenburg, Germany (Ronneberger & Schönborn, 1985)

- Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Illinois, USA (Bērziņš, 1984); Adirondack lakes, NY State, USA (Siegfried *et al.*, 1984); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: India (Sharma & Michael, 1980); Malaysia & India (Sudzuki, 1989); W & E Malaysia & Singapore (Fernando & Zankai, 1981)

- Australian region: Westland, New Zealand & Chatham Islands (Russell, 1960)

Euchlanis arenosa Myers, 1936

- Palaearctic region: River Volga, R.F. (Mordukhai-Boltovskoi, 1979)

Euchlanis brahmae Dhanapathi, 1976

- Oriental region: India (Sharma & Michael, 1980; Sudzuki, 1989)

Euchlanis callysta Myers, 1930

- Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1981); Malaysia (Sudzuki, 1989)

Euchlanis calpidia Myers, 1930

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); C Eur. mountains & plains, E Eur. plain; Asia Minor (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1970 & 1973); Lakes of Sosnowickie, Poland (Radwan, 1968); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Dübener Heide, N Germany (Wulfert, 1961); Lake Neusiedlersee, Austria (Donner, 1979); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Boom, Belgium (De Ridder, 1986); Peat bogs in the Auvergne, France (Francez, 1981); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1984c); 3 lakes of Sosnowickie, Poland (Radwan, 1969); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Serbian section of river Danube (Zivkovic, 1987)

- Nearctic region: Canada (Chengalath, 1977); Jasper National Park (Thomasson, 1962); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Kingston, Ontario, Canada (Nogrady, 1989); Northern Michigan inland lakes (Stemberger, 1990); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Laurentian Great Lakes (Stemberger, 1979); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Near Monroe, Louisiana, USA (Gallagher, 1966)

- Oriental region: Singapore (Sudzuki, 1989); ? Rice fields in NE Thailand (Heckman, 1979)

- Australian region: Australia (Koste & Shiel, 1989a); Christchurch, New Zealand (Russell, 1960)

Euchlanis contorta Wulfert, 1939

- Palaearctic region: C Eur. plain (Bērziņš, 1978); ? Karagöl, near Izmir, Turkey (Ustaoglu, 1986); River Volga, R.F. (Mordukhai-Boltovskoi, 1979)

- Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1981); Malaysia (Sudzuki, 1989)

Euchlanis dapidula Parise, 1963

- Palaearctic region: Italy (Bērziņš, 1978); Marsh of Fucecchio, C Italy (Parise, 1966); Lower delta of river Volga, R.F. (Chuykov, 1981)

Euchlanis deflexa (Gosse, 1851)

- Palaearctic region: C & S Sweden (Bērziņš & Pejler, 1987, 1979a, 1989b, 1989c & 1989d); District Ostrava, CSR (Dvorakova, 1960b); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Impoundment Kninicki, CSR (Kubicek, 1964); Delta of river Danube, Rom. (Prunescu-Arion, 1989); ? N Swedish Lapland (Pejler, 1962a); Romania (Rudescu, 1960); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); River Klyas'ma, R.F. (Bogoslowski, 1961); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Peten, 1973); River Ybbarspå, Sweden (Bērziņš, 1979); Afghanistan (Bērziņš, 1961); Coast of S Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Slovenia, ex-Yugoslavia (Markic, 1983); River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Volga River, R.F. (V'yushkova & Lakhnova, 1974); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Medium-size rivers, tributary to Kiev Res., R.F. (Polishchuk, 1987); Lower Volga, R.F. (Chuykov & Merkulov, 1986); Soviet section of the Danube, R.F. (Parchuk, 1985); River Grabia basin, Poland (Pawlowski 1968, 1970 & 1973); Lake Balaton, Hungary (Zankai, 1968); Canals in Hran area, CSR (Terek, 1990c); Dübener Heide, N Germany (Wulfert, 1961); Backwater Labicko, Middle-Elbe, CSR (Straskraba, 1965); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Etang de Pommereau (Loir-et-Cher), France (Tassigny *et al.*, 1970); River Danube (Enaceanu & Brezeanu, 1970); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach and its tributaries, Austria (Donner, 1970); Predeltaic area of the Danube in the Black Sea (Popescu-Marinescu, 1974); Waldviertel area, lower Austria

(Naidenow & Wawrik, 1984); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Abcoudermeer and surroundings, NL (Dresscher, 1976); Brackish waters in the Lorraine orientale, Fr. (De Ridder, 1969a); Lake Neusiedlersee, Austria (Donner, 1979); Ellesmere District, UK (Galliford, 1960a); Canal Leeds-Liverpool, UK (Galliford, 1960b); Knowsly Park, Liverpool, UK (Galliford, 1964); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Small water bodies in the Mikolajkie area, Poland (Klimowicz, 1967); Karelian inland waters, R.F. (Kutikova, 1965); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Ponds of Oltina, SE Dobrogea, Rom. (Popescu-Gorj & Costea, 1961); Duszatynskie Lakes, Poland (Kowalczyk & Radwan, 1962); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Ponds in the Paris suburb, France (Pourriot, 1965); Kakhova reservoir, near Lysaya Gora, R.F. (Pashkova, 1992); Serbian section of river Danube (Zivkovic, 1987); Ponds in Kaifeng & Chüfu; Tai-Shan mts., China (Wulfert, 1968); Spain: Alicante & Madrid (Velasco, 1990); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Canada (Chengalath, 1977); Kentucky, USA (Bérziņš, 1984); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Laurentian Great Lakes (Stemberger, 1979); Everglades Nat. Park, Florida, USA (Nogrady, 1963)

- Oriental region: India (Sharma & Michael, 1980); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Malaysia, Singapore & India (Sudzuki, 1989)

- Australian region: Australia (Koste & Shiel, 1989a); Vic, W Aust. (Shiel & Koste, 1979); River and Creek in Aust. (Bérziņš, 1982); SW Aust. (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); Canterbury & Christchurch, New Zealand (Russell, 1960)

- Neotropical region: Argentina & Paraguay (Koste & José de Paggi, 1982); Prov. Santa Cruz, Chubut, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuscynsky, 1987b); Prov. Buenos Aires, Santa Cruz & Tierra del Fuego, Argentina; Paraguay (Olivier, 1965)

Euchlanis deflexa (Gosse), f. *larga* Kutikova, 1959

- Australian region: Tasmania (Koste & Shiel, 1987)

Euchlanis dilatata Ehrenberg, 1832

- Palaearctic region: Nat. Res. Jusky Sur, CSR (Hudec, 1978); Near Asperg, Württemberg, Germany (Klement, 1960); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); L. Mikolajskie & L. Taltowisko, Maz. lakel., Poland (Klimowicz, 1972); Alkal. Péteri-See, Hungary (Kertesz, 1960); Impoundment Kninicki & river Svratka, CSR (Kubicek, 1964); L. Mikolajskie & L. Sniardwy, Maz. lakeland, Poland (Kosicki, 1960); Delta of river Danube, Romania (Prunescu-Arion, 1989); Nat. Res. Neeruti Lakes, NE Estonia (Määmets A. & A., s.d.); Pyrenean lakes & Alpine lakes in the Alps (Miracle, 1978); Svalbard (Amren, 1964b); Barther Bodden, S Baltic Sea, Germany (Arndt, Heerkloss & Schnese, 1984a); Canal de Séclin, Nord, France (Angeli, 1972); Lake Myvatn, Iceland (Adalsteinsson, 1974 & 1979); Lago Giulianello, Italy (Ferrara & Margaritora, 1977; Bazzanti & Stella, 1977); ? La Mancha, Castil., Spain (Armengol *et al.*, 1975); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); Lake Stechlinsee, N Brandenburg, Germ. (Althaus, 1963; Ronneberger & Schönborn, 1985); Lakes S Sweden (Arnemo *et al.*, 1968); Lake Groszer Müggelsee, Berlin, Germany (Barthelmes, 1960); River Klyas'ma, R.F. (Bogoslowski, 1961); Heiluntsian River, China (Bogoslowski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Péten, 1973); Lake Bielersee, CH (Berner-Fankhauser, 1986); High mountain lakes in Sierra Nevada, Spain (Morales-Baquero, 1988); Lake Derwart, near Doornik, Belgium (Bogaert, 1988; Bogaert & Dumont, 1989); River Ybbarspå, Sweden (Bérziņš, 1979); Lake Bansee, near Seeon, Bavaria (Preiszler, 1977a & 1977b); Grasmere Lake, Lake District, UK (Elliott, 1977); 2 lakes in N Sweden (Axelson, 1961); Afghanistan (Bérziņš, 1961); Tingwall Loch, Mainland, Shetland (Bérziņš, 1982a); Skopun (Nordara Halsavatn), Faröer (De Smet *et al.*, 1988); Lake Paeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Jotunheimen, high mountains in Norway (Blakar & Jacobsen, 1979); Sea & brackish water pools in S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); River Loire, France (Lair *et al.*, 1978; Lair, 1980); High mountain lakes, Spain (Miracle, 1982); Lake Numasawa, Japan (Sudzuki *et al.*, 1983); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Slovenia, ex-Yugoslavia (Markic, 1983); Lake Glubokoje, near Moscow, R.F. (Matveeva, 1983, 1986 & 1991); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain, Alps & Pyrenees (Morales-Baquero, 1987); Croatia, ex-Yugoslavia (Erben, 1987); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); District Ostrava, CSR (Dvorakova, 1960b); Central Finland (Eloranta, 1982b); Hortobagy Nat. Park, Hungary (Forró & Ronkay, 1983); 12 mountain lakes, high in the Himalaya (Vass *et al.*, 1989); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); N Swedish Lapland (Pejler, 1962a); Lake Suwa, Japan (Hanazoto *et al.*, 1989); Romania (Rudescu, 1960); Bjørnøya (Bear Island),

Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Lake Lunzer Obersee, Austria (Mikschi, 1989); Alpine lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Lake Biwa, Japan (Yamamoto, 1967 & 1968); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Lake Orog-Nur, Gobi Desert, Mongolia (Koste & Wulfert, 1964); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Pool, S of Trondheim, Norway (Thomasson, 1979); Rybník dam reservoir, Poland (Krzanowski, 1979); Lake of Hokuriki district, Japan (Kanetsuna, 1973); Impoundment Twistetalsperre, Nordhessen, G. (Meinel *et al.*, 1983); High mt.lakes & ponds of Sierra Nevada, Spain (Morales-Baquero *et al.*, 1988); Japanese inland waters (Yamamoto, 1960a); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960); River Lausitzer Neisse & Oder, Germany (Walter & Scharf, 1961); Umba river system (White sea basin), R.F. (Kruglova, 1991); Littoral zone of Lake Nobel, Ukraina (Polishchuk, 1991); Balearic Archipelago (de Manuel *et al.*, 1992); Loosdrecht lakes, NL (Van Tongeren *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); All over the Netherlands (Dresscher, 1976); El Ghab area, Syria (De Ridder, 1965); SW Iceland (De Ridder, 1966a); Thingvellir area, Iceland; Lake Myvatn (De Ridder, 1967a); Brackish waters in the Lorraine orientale, Fr. (De Ridder, 1969a); Budir & surroundings, Iceland (De Ridder, 1969b); Lake Neusiedlersee, Austria (Donner, 1979); All over Belgium (De Ridder, 1986); Vierre impoundment in Suix, Belgium (De Maeseneer, 1979); Interstitial fauna of the Elbe estuary, Germ. (Riemann, 1966); Lake Konstanz, Germany (Walz *et al.*, 1987); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Bolshoe Lake, White Sea (Ghilarov, 1965); Peat bogs in the Auvergne, France (Francez, 1981); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs Chambedaze & La Godivelle, Puy-de-Dôme, France (Francez, 1984c); Lake Iacub, river Danube delta, Romania (Godeanu, 1976); Lakes of the Black Sea shore, Rom. (Godeanu, 1970b); Ellesmere District, UK (Galliford, 1960a); Canal Leeds-Liverpool,UK (Galliford, 1960b); Knowsley Park, Liverpool, UK (Galliford, 1964); Distr. Hoge Venen, Ardennen & B. Lotharingen, Belgium (Gijsels *et al.*, 1976); Lakes N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Oisterwijkse vennen, NL (De Graaf, 1960); Lake Biwa-ko, Japan (Yamamoto, 1960b); Lake Gjersjoen, SE Norway (Hessen & Nilssen, 1985); Lake Donk, Overmere, Belgium (Dumont *et al.*, 1975); River Vistula, in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Near waterworks in Okocim, Poland (Klimowicz, 1975); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Anatolia, Turkey (Segers *et al.*, 1992); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); Bog pond near Budapest, Hungary (Nogradi, 1962); Lake Erken, Sweden (Nauwerck, 1963); Karelian inland waters, R.F. (Kutikova, 1965); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); L. Pavlin, L. Montcineyre & L. Aydat, Puy-de-Dôme, France (Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Lac d'Annecy, France (Balvay & Druart, 1992); Black Sea (Rudescu, 1961); In reed borders of the Danube delta, Rom. (Rudescu, 1968); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Ponds of Oltina, SE Dobrogea, Rom. (Popescu-Gorj & Costea, 1961); Leczna-Włodawa Lake District, E Poland (Kowalczyk & Radwan, 1982); Duszatynskie lakes, Poland (Kowalczyk & Radwan, 1962); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Hamburg area, Germany (Rühmann, 1961); Hamburg harbour, Germany (Rühmann, 1962); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Middle course of river Loire (Lair & Sargos, 1981); Sambre river in Merbes-le-Château (B.), Boussières-s-Sambre, Pont-s-Sambre, Sassegnies & Hachette (Fr.) (Waeyaert, 1972); Ponds in the Paris suburb, France (Pourriot, 1965); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Kakhova reservoir, near Lysaya Gora, R.F. (Pashkova, 1992); Fens in Genk, Belgium (Schepens, 1960); Ponds in Botanical Garden Gent, Belgium (Segers *et al.*, 1991b); ? Garden ponds in Tokyo, Japan (Suzuki, 1975); Mountain Fuji area, Japan (Suzuki, 1978a); Periphytic biota in sewages and park waters, J. (Suzuki, 1981); Lakes around mountain Fuji, Japan (Suzuki, 1971); Lago Trasimeno, Italy (Taticchi, 1968); Serbian section of river Danube (Zivkovic, 1987); Mountain brook near Tau-shan mountain, China (Wulfert, 1968); All over Spain; Menorca (Velasco, 1990); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in the Hran area, CSR (Terek, 1990b); Surtsey, Iceland (Holmberg & Pejler, 1972); Delta of river Danube, Romania (Zinevici & Teodorescu, 1991); Lake Donk, Overmere, Belgium (Dumont, 1968b; Coussemont & De Henau, 1975; Coussemont, 1976); Obretin lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Boatracing canal, Gent, Belgium (Vanderbeken, 1977; Coussemont, 1982); R. Meuse Liégeoise, Belgium (Baiverlin, 1984); Canal de Séclin, Nord, France (Angeli, 1972); Mountain Fuji, Japan (Suzuki, 1971); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1976); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); Carp nursery ponds in the C Urals (Lyubimova, 1974); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); Lake Ladoga, R.F. (Nikolayev & Petrova, 1978);

Lake Sevan, Armenia, R.F. (Meshkova & Nikogosyan, 1978); Lapland State Preserve, R.F. (Ghilarov, 1972); Rostov Oblast & Krasnodar Kray, Kuban, R.F. (Krylova, 1972); Areal Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); Gulf of Finland (Bērziņš, 1960); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Medium-size rivers, tributary to Kiev res., R.F. (Polishchuk, 1987); Kanev reservoir, Dnieper, R.F. (Mogil'chenko, 1986); Upper Kremenchug reservoir, R.F. (Kundihev & Kryzhova, 1986); Lower Volga (Chuykov & Merkulov, 1986); Volgograd reservoir, R.F. (V'yushkova, 1985); Terek delta, Astrakhan peninsula, R.F. (Chuykov & Deneskin, 1985); Soviet section of the Danube, R.F. (Parchuk, 1985); Small rivers in the Kola peninsula, R.F. (Kruglova, 1983); Baikal biological station, R.F. (Lozhnikova *et al.*, 1981); Saratov reservoir, R.F. (Popchenko *et al.*, 1981); Lake Monterosi, Latium, Italy (Stella & Margaritora, 1966); Cine Stream & Yarish Lake, Turkey (Emir, 1991); Camargue, S France (De Ridder, 1960a & 1961); Lakes in Marismas, Spain (De Ridder, 1962b); N, S & W Iceland (De Ridder, 1970 & 1972); Peat bogs Chambedaze & La Godivelle, Puy-de-Dôme, France (Francez & Dévaux, 1985; Francez, 1988); Southwest islands of Japan (Sudzuki *et al.*, 1992); Impoundment Helme, near Kelbra, Kyffhäuser, Germany (Heyning, 1974); Near Bautzen, Oberlausitz, Germany (Walter, 1961); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Predeltaic area of the Danube in the Black Sea, Romania (Popescu-Marinescu, 1974); Hamburg harbour, Germany (Tent, 1981); Lac Léman, Fr./CH (Balvay, 1989; Balvay & Laurent, 1981, 1989, 1990a & 1990b); Dübener Heide, Germany (Wulfert, 1960b); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Lac Aydat, Massif Central, France (Lair & Ayadi, 1989; Oulad Ali *et al.*, 1990); River Svratka, CSR (Kubicek, 1968); Marsh of Fucecchio, C Italy (Parise, 1966); Small water bodies in the Mikolajkie area, Pol. (Klimowicz, 1967); River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Lake Mälaren, Sweden (Grönberg, 1975); Delta of river Danube, Rom. (Zinevici & Teodorescu, 1990); Fishponds near Warsaw, Poland (Hillbricht-Illkowska, 1964); Loch Rosky, Scotland (Romo, 1990); Impoundment Helme, near Kelbra, Kyffhäuser, Germany (Heyning, 1968); Lower Silesia, Poland (Pawlowski, 1960); River Przyszna, river Grabia basin, Poland (Pawlowski, 1960 & 1968); Lake Volvi, Macedonia, Greece (Sarfdjian *et al.*, 1990); River Grabia basin, Poland (Pawlowski, 1968, 1970 & 1973); Rügener, Hiddensee & Darszer Boddenwässer, NE Germany (Schwarz, 1963); Res. Sedlice, near Zeliv, Bohemia, CSR (Sladeckova, 1960 & 1962); Lake Balaton, Hungary (Zankai, 1968); Impoundments in E Bohemia, CSR (Sladeckova & Sladecek, 1960)

- Nearctic region: Experimental ponds near Bakersfield, Kern Co, California, USA (Hurlbert *et al.*, 1972); Lakes at Santee, California, USA (Nogrady, 1982); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Seattle, Washington, USA (Parise, 1966); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Laurentian Great Lakes (Stemberger, 1979); Pond in Alberton Park, near Urbana, Ill., USA (King, 1970 & 1972); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Lake Bradley, Grand Teton Nat. Park & Waterton Lake, Waterton Nat. Park, W N Am. (Thomasson, 1962); Pond in arboretum of Washington University, USA (King, 1967); Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Highland Lake, Colorado, USA (Pennak, 1966); Milwaukee Harbor, USA (Stemberger 1974); Near Kingston, Ontario, Canada (Bērziņš, 1961; Nogrady, 1989); Ontario, Canada; Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Reservoir near Aiken, S Carolina, USA (Taylor & Mahoney, 1988); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Cape Herschell, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989); Illinois river, USA (Brown *et al.*, 1989); Colorado, USA (Turner, 1988); 3 lakes in Oregon, USA (Walsh, 1989); Arctic N America (Chengalath & Koste, 1989); 18 arctic and subarctic lakes in Canada (Moore, 1978); Northern Michigan inland lakes, USA (Stemberger, 1990); Lake Ontario, Canada (Nauwerck, 1978); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988)

- Oriental region: Punjab State, India (Sharma & Sharma, 1984); Orissa, E India (Sharma, 1978c); Singapore & Malaysia (Karunakaran & Johnson, 1978); India (Sharma & Michael, 1980); River Yamuna, India (Novotna-Dvorakova, 1963; Rai, 1974); Lake Parakrama, Sri Lanka (Fernando, 1984); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969 & 1980a); Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Sri Lanka: very common; in all types of habitat equally frequently (Chengalath, Fernando & Koste, 1973); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal, NE India (Sharma, 1979a); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1984 & 1985); Bangkok, Thailand (De Ridder, 1971); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); Montane lakes of Bali, Indonesia (Green *et al.*, 1978); Suray Kund, India (Sarkar & Rai, 1964); Punjab state, India (Sharma, 1976); Storage reservoirs Ajwa & Prata-pura, near Baroda; Nimeta water works, ibid., India (Wulfert, 1966); Bali (Serruya & Pollingher, 1984)

- Australian region: Murray river (Serruya & Pollingher, 1984); Murray river at Mannum, S Aust. (Shiel,

1979); Lincoln, Canterbury & Christchurch, New Zealand (Russell, 1960); Taylor's Lake, Vic., Aust. (Bērziņš, 1963); In many localities in Australia (Bērziņš, 1982); Billabongs river Murray, S Aust. (Shiel & Koste, 1983); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs in SE Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); L. Euramoo, tropical Queensland crater lake, Aust. L. Purumbete, L. Elingamite & Valley lake, freshwater temperate crater lakes, Aust. (Green, 1981); Australia (Koste & Shiel, 1989a); NSW, Qld, S Aust., Vic (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); NW Australia: Magela Creek area (Koste, 1981b); Tasmania & New Zealand (Sudzuki, 1985); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Billabongs of the Murray-Darling system, Aust. (Shiel, 1986)

- Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b); Caribbean part of the Neotropical region (De Ridder, 1977); Surinam (Leentvaar, 1975); Rapelreservoir, C Chile (Soto *et al.*, 1984); Galapagos Islands (De Smet, 1987 & 1989); River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1978a & 1985); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989 & 1992); Argentina (Modenutti & Claps, 1988); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river and its basin, Venezuela (Vasquez & Rey, 1989); Provinces in NW Argentina (José de Paggi, 1989); Argentina, Brazil, Paraguay, Chile, Venezuela & Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Concepcion, Paraguay (Koste, 1986b); All over Argentina (José de Paggi, 1990); Chilean lakes (Schmid- Araya, 1991); Aruba, Bonaire, Curaçao, Caribbean Islands, Costa Rica, Haiti, Panama & Trinidad (Collado *et al.*, 1984); Lower course of river Uruguay, Argentina (Di Persia & Neiff, 1986); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Prov. Jujuy, Rio Negro, Tierra del Fuego, Arg.; Columbia & Amazonia, Brazil (Olivier, 1965); Amazonia, Brazil (Thomasson, 1971); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Chile (Löffler, 1962); Lago Cigana, Amazonia, Brazil (Schaden, 1977c); L. Asosasca, Pond Pozo Azul & Pond UKA, Nicaragua (Moreno *et al.*, 1992)

***Euchlanis dilatata* Ehrenberg, f. *crassa* Myers, 1938**

- Palaearctic region: Afghanistan (Bērziņš, 1961); Baltic province of Europe (Bērziņš, 1978)

- Australian region: Lake Mc Gregor, New Zealand (Russell, 1960)

***Euchlanis dilatata* Ehrenberg, f. *luckiana* Hauer, 1930**

- Palaearctic region: L. Stechlinsee, N Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Lakes Loosdrechtse plassen, NL (Gulati, Rooth & Ejsmont-Karabin, 1987; Ejsmont-Karabin, Gulati & Rooth, 1989; Gulati, Ejsmont-Karabin & Sievertsen, 1989; Gulati *et al.*, 1992); Afghanistan (Bērziņš, 1961); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Lakes in Estonia (Haberman, 1978); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lapland State Preserve, R.F. (Ghilarov, 1972); All over Europe; Caspian area (Bērziņš, 1978); Romania (Rudescu, 1960); Lake Onega (Nikolaev, 1972); Lakes of Sosnowickie, Poland (Radwan, 1968); Southwest islands of Japan (Sudzuki *et al.*, 1992); Lake Glubokoje, near Moscow, R.F. (Matveeva, 1986 & 1991); Pelagic & littoral zone of L. Nobel, Ukraina (Polishchuk, 1991); Lake Sloterplas, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Karelian inland waters, R.F. (Kutikova, 1965); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Pelagic zone of Leczna-Włodawa lakes, Poland (Radwan, 1975); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Serbian section of river Danube (Zivkovic, 1987); Waters of the Szezecin Lagoon, Poland (Wiktor, 1960)

- Nearctic region: Colorado, USA (Turner, 1988)

- Oriental region: Singapore (Karunakaran & Johnson, 1978); Taiwan (Sudzuki, 1988); Taiwan, Malaysia & Singapore (Sudzuki, 1989); Singapore & Taiwan. Cosmopolitan (Sudzuki, 1991); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990)

- Australian region: Tasmania (Koste & Shiel, 1987); Vic & Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Westland, New Zealand & Chatham Islands (Russell, 1960)

- Neotropical region: Galapagos Islands (De Smet, 1987 & 1989); Venezuela (Koste & José de Paggi, 1982); Lago de Valencia, Venezuela (De Infante, 1980)

***Euchlanis dilatata* Ehrenberg, f. *larga* Kutikova, 1959**

- Palaearctic region: Described from Lake Balkasch, Siberia, by Kutikova, 1959. Found in the Baltic province of Europe (Bērziņš, 1978);

- Australian region: Vic, Aust. (Shiel & Koste, 1979)

- Neotropical region: Galapagos Islands (De Smet, 1987 & 1989)

***Euchlanis dilatata* Ehrenberg, f. *macrura* Ehrenberg, 1832**

- Palaearctic region: Lake Balaton, Hungary (Zankai, 1968); All over Europe; Caucasus (Bērziņš, 1978); Romania (Rudescu, 1960); Black Sea (Rudescu, 1961); Lac d'Annecy, France (Balvay & Druart, 1992); Serbian section of river Danube (Zivkovic, 1987)

- Oriental region: India (Sharma & Michael, 1980; Sudzuki; 1989)

Euchlanis dilatata Ehrenberg, f. *triacantha* Koste, 1988

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a)

Euchlanis dilatata Ehrenberg, f. *uniseta* Leydig, 1854

- Palaearctic region: Lakes in Estonia (Haberman, 1978); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Luga district of the Leningrad area, R.F. (Kutikova, 1962b)

- Australian region: Vic, Aust. (Koste & Shiel, 1980a)

Euchlanis elongata Weber & Montet, 1918

- Palaearctic region: Alps & Carpathes (Bērziņš, 1978)

- Nearctic region: ? Illinois, USA (Bērziņš, 1984)

Euchlanis hyphidactyla Parise, 1963

- Palaearctic region: Italy (Parise, 1963; Bērziņš, 1978); Marsh of Fucecchio, C Italy; small lake near Vicenza, Italy (Parise, 1966)

- Nearctic region: Lake of Washington, Washington, USA (Parise, 1966)

Euchlanis incisa Carlin, 1939

- Palaearctic region: Afghanistan (Bērziņš, 1961); Lakes in Estonia (Haberman, 1978); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube (Godeanu & Zinevici, 1983); Pools of the Elbe river, CSR (Dvorakova, 1961); Romania (Rudescu, 1960); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); C & S Sweden (Bērziņš & Pejler, 1989a, 1989b, 1989c & 1989d); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); All over Europe; Asia Minor (Bērziņš, 1978); Lower Volga, R.F. (Chuykov & Merkulov, 1986); Lower Silesia, Poland (Pawlowski, 1960); River Grabia basin, Poland (Pawlowski, 1968, 1970 & 1973); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Camargue, S France (De Ridder 1960a & 1961); N & W Iceland (De Ridder, 1970 & 1972); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Marsh of Fucecchio, C Italy and in different localities around Padua (Parise, 1966); Predeltaic area of the Danube in the Black Sea, Romania (Popescu-Marinescu, 1974); Lakes in NE Norway (Saeter, 1971); River Maas, NL (Dresscher, 1976); Spaarnwoude area, NL (Oosten, 1972); SW Iceland (De Ridder, 1966a); Budir & surroundings, Iceland (De Ridder, 1969b); Lake Neusiedlersee, Austria (Donner, 1979); Peat bog Chambedaze, Puy-de-Dôme, Fr. (Francez, 1982 & 1984c); Peat bogs in the Auvergne, France (Francez, 1981); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Small water bodies in the Mikolajkie area, Poland (Klimowicz, 1967); Luga district in the Leningrad area, R.F. (Kutikova, 1962b); Pool in Fontainebleau Forest, Paris suburb, Fr. (Pourriot, 1976); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Pool, S of Trondheim, Norway (Thomasson, 1979); Spain: Gerona (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); River Hase, NW Germany (Koste, 1976b); Anatolia, Turkey (Segers *et al.*, 1992); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); Karelian inland waters, R.F. (Kutikova, 1965)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Illinois, USA (Bērziņš, 1984); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Northern Michigan inland lakes (Stemberger, 1990); Lac Echo, Québec, Canada (Nogrady, 1976); Everglades Nat. Park, Florida, USA (Nogrady, 1983)

- Oriental region: Swamp near Menggala, Sumatra (Bērziņš, 1982a); Sri Lanka (Fernando, 1980a); Malaysia & Sri Lanka (Sudzuki, 1989); Delhi, India (Sarma, 1988); Sri Lanka: rare. Found in ponds & lakes (Chengalath, Fernando & Koste, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981)

- Australian region: River and creek in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1979); NW Aust.: Magela Creek area (Koste, 1981b); Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)

- Neotropical region: Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Argentina, Brazil, Chile, Venezuela, Peru, Panama (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Near Panguana, Peru (Koste, 1983b); Near Concepcion, Paraguay (Koste, 1986b); Chilean lakes (Schmid-Araya, 1991); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Prov. Chubut, Rio Negro & Santa Fé, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Amazonia, Brazil (Hauer, 1965b;

Thomasson, 1971); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Pond in tropical rain forest, Peru (Schlüter, 1963b); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992)

***Euchlanis incisa* Carlin, f. *mucronata* Ahlstrom, 1934**

- Neotropical region: Lago Paroni, Brazil (Koste, 1974a); Brazil (Koste & José de Paggi, 1982); Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992); Ecuador: Oriente (Koste & Böttger, 1992)

***Euchlanis lyra* Hudson, 1886**

- Palaearctic region: Mousa, Shetland; Skopun (Nordara Halsavatn), Faröer; Ny-Alesund, Svalbard (De Smet *et al.*, 1988); Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman; 1986); Near Asperg, Württemberg, Germany (Klement, 1960); Lake Kisajno, Mazurian Lakeland, Poland (Klimowicz, 1964); N Swedish Lapland (Pejler, 1962a); Romania (Rudescu, 1960); River Hase, NW Germany (Koste, 1976b); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); Moat of Fort Merksem (Antwerp, Belgium) (De Smet *et al.*, 1987); Kiev reservoir, R.F. (Polishchuk, 1987); C Eur. mts., Pontic province, C Eur. plains, Ireland, UK, Iceland, NW Russian taiga (Bérziņš, 1978); Lakes of Sosnowickie, Poland (Radwan, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lake Balaton, Hungary (Zankai, 1968); Lake Donk, Overmere, Belgium (Dumont, 1968b); Lake Myvatn, Iceland (De Ridder, 1970; Adalsteinsson, 1979); N & W Iceland (De Ridder, 1972); Littoral zone of Lake Nobel, Ukraina (Polishchuk, 1991); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Budir & surroundings, Iceland (De Ridder, 1969b); Small water bodies in the Mikolajkie area, Poland (Klimowicz, 1967); Anatolia, Turkey (Segers *et al.*, 1992); Karelian inland waters, R.F. (Kutikova, 1965); In reed borders of the Danube delta, Romania (Rudescu, 1968); 3 Lakes of Sosnowickie, Poland (Radwan, 1969); Peat bogs in Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Serbian section of river Danube (Zivkovic, 1987); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: Kentucky & Missouri, USA (Bérziņš, 1984); ? 9 mountain lakes in W Canada (Anderson & De Hanau, 1980); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Laurentian Great Lakes (Stemberger, 1979)

- Australian region: Taylors Lake, Vic, Aust. (Bérziņš, 1963); Australia (Koste & Shiel, 1989a); Vic, Aust. (Shiel & Koste, 1989); Geraldine, New Zealand (Russell, 1960)

- Neotropical region: Peru & Antilles (Koste & José de Paggi, 1982); Caribbean part of the Neotropis (De Ridder, 1977); Aruba & Curaçao (Collado *et al.*, 1984); Pond in tropical rain forest, Peru (Schlüter, 1984); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992)

***Euchlanis lyra* Hudsun, f. *myersi* Kutikova, 1959**

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); Baltic province, E Eur. plain, NW Russian taiga (Bérziņš, 1978); Luga district of the Leningrad area, R.F. (Kutikova, 1962b)

- Neotropical region: Near Panguana, Peru (Koste, 1988b)

***Euchlanis meneta* Myers, 1930**

- Palaearctic region: River Volga (Mordukhai-Boltovskoi, 1979); Serbian section of river Danube (Zivkovic, 1987); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Peat bogs in the Massif Central, France (Batut, 1965); W & C Eur. mountains, C Eur. plains, Ireland, UK, Iceland, Fennoscandia (Bérziņš, 1978); Lakes of Sosnowickie, Poland (Radwan, 1968 & 1969); Southwest islands of Japan (Suzuki, 1990; Suzuki *et al.*, 1992); Dübener Heide, N Germany (Wulfert, 1960a & 1961); Lake Grote Huisven, Nat. Res. Oisterwijkse vennen, NL (Dresscher, 1976); Karelian inland waters, R.F. (Kutikova, 1965); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Pelagic zone of the Leczna-Włodawa Lake district, Poland (Radwan, 1975); Lake Stråken, Aneboda, Sweden (Bérziņš, 1972); Moor of Skopun, Faröer (De Smet *et al.*, 1988); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Nat. Res. Neeruti lakes, NE Estonia (Määmets A & A, s.d.); N Swedish Lapland (Pejler, 1962a)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); N America (Bérziņš, 1978); Northern Michigan inland lakes (Stemberger, 1990); Laurentian Great Lakes (Stemberger, 1979); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Lake Tahoe, Western N America (Thomasson, 1962); White lake, N Carolina, USA (Thomasson, 1963a)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Taiwan (Suzuki, 1988);

Taiwan, Thailand, Indonesia, Sri Lanka, India (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Sri Lanka. Paddy-field close to Ratnapura (Chengalath, Fernando & Koste, 1974); Fishponds in Thailand (Boonsom, 1984a)

- Australian region: Taylor's Lake, Vic, Aust. (Bērziņš, 1963); Lake Catani, mountain Buffalo, Aust. (Bērziņš, 1982); Tasmania (Koste & Shiel, 1987); Australia (Koste & Shiel, 1989a); E Australia (Koste & Shiel, 1980b); Vic, Aust. (Shiel & Koste, 1979); Lakes in Tasmania (Shiel, Koste & Tan, 1989); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Billabongs in the Murray r. floodplain, NSW, Aust. (Hillman & Shiel, 1991); Chatham Islands, New Zealand (Chengalath, Fernando & Koste, 1974); Lake Mc Gregor, New Zealand & Chatham Islands (Russell, 1960) (Chengalath, Fernando & Koste, 1974); Lake Mc Gregor, New Zealand & Chatham Islands (Russell, 1960) (Chengalath, Fernando & Koste, 1974); Lake Mc Gregor, New Zealand & Chatham Islands (Russell, 1960)

- Neotropical region: ? Araucarian lakes, E of the Andes, Chile (Thomasson, 1963b) Mato Grosso, Brazil (Turner & Da Silva, 1992); Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river & its delta, Venezuela (Vasquez & Rey, 1989); Amazonia, Brazil (Vasquez, 1984b); Varzea near Santarem, Brazil (Koste, 1974b); Argentina, Chile & Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Chilean lakes (Schmid-Araya, 1991); Prov. Chubut & Rio Negro, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b)

Euchlanis mikropous Koch-Althaus, 1962

- Palaeartic region: Lake Stechlinsee, N Brandenburg, Germany (Koch-Althaus, 1962 & 1963); ? Lake Stechlinsee, N Brandenburg, Germany (Ronneberger & Schönborn, 1985); C Eur. plain (Bērziņš, 1978); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1984c); Peat bogs in the Auvergne, France (Francez, 1981)

Euchlanis oropha Gosse, 1887

- Palaeartic region: Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Lake Ladoga, R.F. (Nikolayev & Petrova, 1978); Medium-size rivers, tributary to Kiev res., R.F. (Polishchuk, 1987); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Romania (Rudescu, 1960); Cine Stream, Turkey (Emir, 1991); River Grabia basin, Poland (Pawlowski, 1970 & 1973); Lakes of the Black Sea shore, Rom. (Godeanu, 1970b); Lake Neusiedlersee, Austria (Donner, 1979); Lake Balaton, Hungary (Zankai, 1968); Camargue, S France (De Ridder, 1960a & 1961); Moors & small pools near L. Myvatn, Iceland (De Ridder, 1970); Budir & surroundings, Iceland (De Ridder, 1969b); N & W Iceland (De Ridder, 1972); Southwest islands of Japan (Sudzuki, 1990; Sudzuki *et al.*, 1992); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach and its tributaries, Austria (Donner, 1970); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of river Danube, at the German-Austrian border (Donner, 1972); River Svratka, CSR (Kubicek, 1968); Lake Grüner See near Tragöss, Steiermark, Austria (Bretschko, 1966); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Dübener Heide, N Germany (Wulfert, 1961); Nat. Res. "Het Hol" near Kortenhoef, NL (Dresscher, 1976); Small river on Rhodos Island, Greece (De Ridder, 1967d); River Danube (Enaceanu & Brezeanu, 1970); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Karelian inland waters, R.F. (Kutikova, 1965); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Duszatynskie Lakes, Poland (Kowalczyk & Radwan, 1962); 3 lakes of Sosnowickie, Poland (Radwan, 1969); River Oltet & its principal tributaries, Rom. (Rogoz, 1972); Hamburg area, Germany (Rühmann, 1961); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Spain: Gerona (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Mt Hoverla, Maramarosch Alps, Hungary (Varga, 1962); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); 2 lakes in Sweden (Axelson, 1961); Afghanistan (Bērziņš, 1961); Tingvall Loch, Mainland, Shetland (Bērziņš, 1982a); Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Asiatic Turkey (Dumont & De Ridder, 1987); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Impoundment Kninicki, CSR (Kubicek, 1964)

- Nearctic region: Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Laurentian Great Lakes (Stemberger, 1979); Greater L., Walker L. & Stoneman Lake, Arizona, USA (Green, 1986); Colorado, USA (Turner, 1988); Arctic N America (Chengalath & Koste, 1989); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Canada (Chengalath, 1977); Ontario, Canada; Wisconsin, Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986)

- Oriental region: Sri Lanka. Rare, found in lakes (Chengalath, Fernando & Koste, 1973); Nimeta water

works, near Baroda, India (Wulfert, 1966); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1985); Nepal. Cosmopolitan (Daems & Dumont, 1974); Andhra Pradesh, S India (Dhanapati, 1974b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); West Bengal, NE India (Sharma, 1979a); Malaysia, Indonesia, Sri Lanka & India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a)

- Australian region: Alligator rivers area, NT, Australia (Tait, Shiel & Koste, 1984); Australia (Koste & Shiel, 1989a); ? Farm dams near Gloucester, NSW (Sudzuki & Timms, 1980); Qld & Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); NW Aust.: Magela Creek area (Koste, 1981b); ? Tasmania (Koste & Shiel, 1986b); In many localities in Australia (Bērziņš, 1982); Canterbury & Wellington, New Zealand (Russell, 1960)

- Neotropical region: Caribbean part of the Neotropis (De Ridder, 1977); Bonaire, Haiti & Panama (Collado *et al.*, 1984); Prov. Tierra del Fuego, Chubut, Neuquen, San Juan & Buenos Aires, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Prov. Buenos Aires & Tierra del Fuego, Argentina; Brazil & Bolivia (Olivier, 1965); Arroyo Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Panama, Peru, Brazil & Argentina (Koste & José de Paggi, 1982); ? Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984)

- Antarctic region: ? Moss Lake, Signy Island, Antarctica (Priddle & Dartnall, 1978); Antarctica & Subantarctica (Koste & José de Paggi, 1982); Antarcxis (Dartnall & Hollowday, 1985)

Note: In this chapter, the records found in the litterature under the heading of *E. parva* Rousselet, 1892, synonym of *E. orophila*, are also included.

Euchlanis parameneta Bērziņš, 1973

- Australian region: Swamp near Dunedin, S Island, New Zealand (Bērziņš, 1982a); New Zealand (Koste & Shiel, 1989a)

Euchlanis perpusilla De Ridder, 1977

- Neotropical region: Caribbean part of the Neotropis (De Ridder, 1977); Aruba & Antilles (Koste & José de Paggi, 1982); Aruba (Collado *et al.*, 1984)

Euchlanis phryne Myers, 1930

- Australian region: Australia (Koste & Shiel, 1989a)

Euchlanis proxima Myers, 1930

- Palaearctic region: Lakes in Estonia (Haberman, 1978); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); C Eur. mountains, UK (Bērziņš, 1978); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: N America (Bērziņš, 1978); Laurentian Great Lakes (Stemberger, 1979); Cape Herschel, Ellesmere Island, NWT, Can. (Nogrady & Smol, 1989)

- Australian region: NSW, Australia (Koste & Shiel, 1980c)

Euchlanis pyriformis Gosse, 1851

- Palaearctic region: Afghanistan (Bērziņš, 1961); Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Impoundment Kninicki, CSR (Kubicek, 1964); Romania (Rudescu, 1960); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1968 & 1970); Lake Donk, Overmere, Belgium (Dumont, 1968b); N & W Iceland (De Ridder, 1970 & 1972); Marsh of Fucecchio, C Italy (Parise, 1966); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Lac Léman, Fr./CH (Balvay & Laurent, 1981); River Danube (Enaceanu & Brezeanu, 1970); 3 lakes in Sosnowickie, Poland (Radwan, 1969); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Sambre River in the border area Belgium/Fr. (Waeyaert, 1972); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Serbian section of river Danube (Zivkovic, 1987)

- Nearctic region: Wisconsin, USA (Bērziņš, 1984); Lac Echo, Québec, Canada (Nogrady, 1976); Laurentian Great Lakes (Stemberger, 1979)

- Australian region: River in Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Australia (Koste & Shiel, 1989a); Christchurch, New Zealand (Russell, 1960)

- Nearctic region: Peru (Koste & José de Paggi, 1982)

Euchlanis triquetra Ehrenberg, 1832

- Palaearctic region: N Swedish Lapland (Pejler, 1962a); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); C & S Sweden (Bērziņš & Pejler, 1989a, 1989b, 1989c & 1989d); Romania (Rudescu, 1960); Darnsee near Epe, NW Germany (Koste, 1962); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Peat bogs in the Massif Central, France (Batut, 1965); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Lake Donk, Overmere, Belgium (Dumont, 1968b; Coussement, 1976); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); All over Europe; Caucasus, Caspian area (Bērziņš, 1978); Small water bodies on Soviet Karelia, R.F. (Filimonova, 1976); River Grabia basin, Poland (Pawlowski, 1968 & 1970); Obretin Lake, Danube delta, Rom. (Neagu-Godeanu *et al.*, 1968); N Iceland

(De Ridder, 1972); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Dübener Heide, N Germany (Wulfert, 1960a & 1961); River Ybbarspå, Sweden (Bērziņš, 1979); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Afghanistan (Bērziņš, 1961); Coast of S Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); District Ostrava, CSR (Dvorakova, 1960b); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Lake Mikolajskie, Mazurian lakeland, Poland (Klimowicz, 1972); Serbian section of river Danube (Zivkovic, 1987); Marsh of Fucecchio, C Italy (Parise, 1966); Japanese inland waters (Yamamoto, 1960a); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1964); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach and its tributaries, Austria (Donner, 1970); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Nat. Res. Oisterwijkse vennen; Ooypolder area; Zwanenwater near Callantsoog; Channel Zuid-Willems-vaart; S Friesland & Prov. Drente, NL (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1979); Overmere, Belgium (De Ridder, 1986); River Elbe estuary, Germany (Schulz, 1961); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981); Peat bogs Chambedaze & La Godivelle, Puy-de-Dôme, France (Francez, 1984c); Knowsley Park, Liverpool, UK (Galliford, 1964); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Small water bodies in the Mikolajkie area, Pol. (Klimowicz, 1967); Lakes Montcineyre, Bourdouze & Chambedaze, Puy-de-Dôme, France (Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Hamburg area, Germany (Rühmann, 1961); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Lago Trasimeno, Italy (Taticchi, 1968)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Near Kingston, Ontario, Canada (Bērziņš, 1961); Ontario, Canada; Wisconsin & Illinois, USA (Bērziņš, 1984); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Kingston, Ontario, Canada (Nogrady, 1989); Northern Michigan inland lakes (Stemberger, 1990); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Laurentian Great Lakes (Stemberger, 1979); Near Monroe, Louisiana, USA (Gallagher, 1966); Walker Lake, Arizona, USA (Green, 1986); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991)

- Oriental region: India (Sharma & Michael, 1980); Thailand & India (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Punjab State, India (Sharma & Sharma, 1984); Lake Manguao, Palawan, the Philippines (Davies & Green, 1990)

- Australian region: Rivers in Australia (Vic) (Bērziņš, 1982); Australia (Koste & Shiel, 1989a); NSW & Qld, Aust. (Shiel & Koste, 1979); NT, Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); S Tasmania & NT, Aust. (Koste, Shiel & Tan, 1988); Christchurch, New Zealand (Russell, 1960)

- Neotropical region: Bolivia, Argentina, Chile & Surinam (Koste & José de Paggi, 1982); Chilean lakes (Schmid-Araya, 1991); Prov. Tierra del Fuego, Argentina (José de Paggi, 1990); Panama (Collado *et al.*, 1984); Brokopondo Lake, Surinam (Leentvaar, 1979); Prov. Tierra del Fuego, Argentina; Bolivia (Olivier, 1965)

Euchlanis triquetra nhamundaiensis Koste, 1982

- Neotropical region: Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Brazil (Koste & José de Paggi, 1982)

Euchlanis triquetra Ehrenberg, f. *hyalina* Leydig, 1855

- Palaearctic region: River Danube (Enaceanu & Brezeanu, 1970)

Euchlanis triquetra Ehrenberg, f. *minima* Donner, 1978

- Palaearctic region: L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978)

Euchlanis triquetra Ehrenberg, f. *mucronata* Ahlstrom, 1934

- Neotropical region: Lake Oswain, Rio Snia Missu, Mato Grosso, C Brazil (Green, 1972)

Euchlanis turfosa (Rodewald, 1940)

- Palaearctic region: Endemic in Romania (Rudescu, 1960); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

Euchlanis spec.

- Palaearctic region: Lake Sempachersee, CH (Zimmermann, 1974); Oasis Echin-Gol, Gobi Desert, Mongolia (Koste & Wulfert, 1964); Norfolk Broads, UK (Irvine *et al.*, 1990); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Fish-fattening ponds in the Ukraina, R.F. (Krazhan *et al.*, 1976); Rivers in W Kazakhstan, R.F. (Petrova, 1976); Canals in Hran area, CSR (Terek, 1990c); Obretin lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); In the lower Elbe, Germany (Grimm, 1968); Fukushima Prefecture, Japan (Sudzuki, 1982); Pond Etang de Virelles, Belgium (Moureau *et al.*, 1988);

Lake Akgöl (Selçuk-Izmir), Turkey (Ustaoglu & Balik, 1987); Lake Marmara, Turkey (Ustaoglu, in press); Lake La Caldera, Granada, Spain (Cruz-Pizarro, 1978); Mouth regions of the Danube branches, Rom. (Popescu-Marinescu, 1974); Rhine waters near Wiesbaden, Germany (Noll, 1972); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Lakes Hilversumse Wasmeer & Leersumse veld, NL (Leentvaar, 1967b); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); In the lower Danube in Romania (Enaceanu, 1964); Lake Nimetön, S Finland (Arvola *et al.*, 1986); Lakes Zuidelijke Vechtplassen, NL (Leentvaar, 1969); All over the Netherlands (Dresscher, 1976); Pond Etang de Moliet, SW France (De Ridder, 1967b); River Elbe estuary, Germany (Schulz, 1961); Lake Uiversnest, near Nijmegen, NL (Geelen, 1969); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Lower course of river Sambre, Belgium (Dumont & Van Vossel, 1973); Bulgarian bank of river Danube (Naidenow, 1963); Pelagic zone of Lecznia-Włodowa Lakes, Poland (Radwan, 1975); Hamburg area, Germany (Rühmann, 1961); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Peats in the Caucasus (Tarnogradsky, 1961); Lago Trasimeno, Italy (Taticchi, 1968); Pool near Ichunun, China (Wulfert, 1968); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Delta of river Danube, Romania (Godeanu & Zinevici, 1983; Prunescu-Arion, 1989); Asiatic Turkey (Dumont & De Ridder, 1987); Impoundment Kninicki & river Svatka, CSR (Kubicek, 1964); Lakes Zwanewater near Callantsoog, Muy on Texel, Oerd on Ameland, Quackjeswater & Breede water on Voorne, and Vogelmeer near Ymuiden, NL (Leentvaar, 1967a & 1963); Broads & peat pits in NW Overijssel, NL (Leentvaar, 1965); Nat. Res. Neeruti lakes, Estonia (Mäemets A. & A., s.d.); Lago Maggiore, Italy (Tonolli, 1962); Po river, Italy (Ferrari *et al.*, 1989); River Bistritza & its tributaries, Romania (Miron, 1960)

- Nearctic region: Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Adirondack lakes, NY State, USA (Siegfried *et al.*, 1984); Green Lake, Beaver Island, Michigan, USA (Foran & King, 1982); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); L. Whitney, Cumberland Island Nat. Seashore, USA (Stoneburger & Schmock, 1980); Severson Lake, Minnesota, USA (Comita, 1972); Experim. ponds near Bakersfield, Kern Co, California (Hurlbert *et al.*, 1972); Hayden's Lake, Colorado, USA (Pennak, 1966); James Bay area, Canada (Pinel-Alloul *et al.*, 1979); Massey Lake, 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978); Experimental ponds, C Florida, USA (Fry & Osborne, 1980)

- Oriental region: Lakes of mountain Everest (Serruya & Pollingher, 1984); Thailand (Boonsom, 1984b); Naini Lake, Indranagar tank, Stocking tank & Nursery tank, Delhi, India (George, 1966); Ricefields in NE Thailand (Heckman, 1976)

- Australian region: Creek in Australia (Bērziņš, 1982)

- Neotropical region: Galapagos Islands (De Smet, 1987 & 1989); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Lake Tiloposo, Salar de Atacama, Chile (Zuñiga *et al.*, 1991); Surinam (Leentvaar, 1975); Orinoco river basin, Venezuela (Vasquez, 1984a); Provinces in NW Argentina (José de Paggi, 1989)

Filinia Bory de St. Vincent, 1824

Filinia aseta Fadeew, 1925

- Palaearctic region: Romania & R.F. (Rudescu, 1960); Ponds of Oltina, SE Dobrogea, Rom. (Popescu-Gorj & Costea, 1961); Pontic province & E Eur. plain (Bērziņš, 1978)

Filinia australiensis Koste, 1980

- Australian region: South Australia (Koste & Shiel, 1980c); Tasmania (Koste & Shiel, 1987); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Australia (Shiel, 1981); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); River Murray in Mannum, S Aust. (Koste, 1980); Barwon r., r. Murray system, S Aust. (Shiel & Walker, s.d.); Rivers of the Marray-Darling system, S Aust. (Shiel, 1986)

Filinia brachiata (Rousselet, 1901)

- Palaearctic region: River Klyas'ma, R.F. (Bogoslawski, 1961); Middle course of river Po, Italy (Ferrari et al., 1986); Water works Horrem, near Köln, Germany (Bick & Scholtysek, 1960); Finland (Eriksen, 1969); Moerdijk-Hollands Diep, NL (Leentvaar, 1980); River Loire, France (Lair, 1980); Asiatic Turkey (Dumont & De Ridder, 1987); Priest Pot, Lake District, UK (Stewart & George, 1987); Man-made lake Zegrzynskie, Poland (Dusoge et al., 1985); Lake Zwanewater in Callantsoog, NL (Leentvaar, 1967); Broads and peat pits, NW Overijssel, NL (Leentvaar, 1965); Romania (Rudescu, 1960); River Hase, NW Germany (Koste, 1976b); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); River ELbe, near Hamburg, Germany (Caspers & Schulz, 1964); Italy, C Eur. mountains & plains, Carpathes, Baltic province, UK, NW Russian taiga (Bērziņš, 1978); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Near Lappeenranta, Finland (Järnefelt, 1961); Korea (Turner, 1986); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960); Lough Erne system, NW Ireland (Gibson et al., 1980); Serbian section of river Danube (Zivkovic, 1968 & 1987); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); All over the Netherlands (Dresscher, 1976); Brackish waters in the Lorraine orientale, Fr. (De Ridder, 1969a); Boom & Eeklo, Belgium (De Ridder, 1986); Eeklo, Belgium (De Maeseneer, 1979); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); ? Lake Meeuwenven near Nijmegen, NL (Geelen, 1969); Lakes, N of Bucarest, Romania (Godeanu, 1969b); Impoundment Weidatalsporre, E Thüringen, G. (Hoffmann, 1966); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Lowland brook-ponds at Boom, Belgium (Maes, 1985); Hamburg area, Germany (Rühmann, 1961); Middle course of river Loire, France (Lair & Sargas, 1981); River Volga, R.F. (Mordukhai-Boltowskoi, 1979); Park canals in Rambouillet, Yvelines, France (Pourriot, 1965); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Spain: Tarragona (Velasco, 1990)

- Nearctic region: Canada (Chengalath, 1977); Milwaukee Harbor, USA (Stemberger, 1974); Laurentian Great Lakes (Stemberger, 1979); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Lakes at Santee, California, USA (Nogrady, 1982)

- Oriental region: Fishponds in Burdwan, W Bengal, India (Mandal, 1978); Thailand (Boonsom, 1984b)

- Australian region: NSW, Aust. (Shiel & Koste, 1979)

Filinia camasecla Myers, 1938

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Sri Lanka (Fernando, 1980a); Singapore, Sri Lanka & Cambodia (Sudzuki, 1989); Sri Lanka. Rare, only recorded from a few large lakes & ponds (Chengalath, Fernando & Koste, 1978); Singapore. Distr.: Panama, Sri Lanka, Sing., Cambodia (Sudzuki, 1991)

- Neotropical region: Panama (Koste & José de Paggi, 1982)

Filinia camasecla cambodgensis Bērziņš, 1973

- Oriental region: Cambodia (Bērziņš, 1973a; Sudzuki, 1989)

Filinia cornuta (Weisze, 1847)

- Palaearctic region: Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Oostduinkerke, Belgium (De Ridder, 1986); Channel Nieuwpoort-Duinkerke, B./Fr. (De Maeseneer, 1979); Canal Liverpool-Leeds, UK (Galliford, 1960b); Karelian inland waters, R.F. (Kutikova, 1965); In reed borders of the Danube delta, Rom. (Rudescu, 1968); Ponds of Oltina, SE Dobrogea, Rom. (Popescu-Gorj & Costea, 1961); R. Loire in St. Laurent-les-Eaux, France (Pourriot et al., 1982); Middle course of river Loire, France (Lair & Sargas, 1981); Spain: Lerida & Tarragona (Velasco, 1990); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); Canal de Séclin, Nord, France (Angeli, 1972); River Klyas'ma, R.F. (Bogoslawski, 1961); Middle course of river Po, Italy (Ferrari et al., 1986); Lakes in the Pyrenees, Spain (Miracle, 1981); River Loire, France (Lair, 1980); Asiatic Turkey (Dumont & De Ridder, 1987); Pools of river Elbe, CSR (Dvorakova, 1961); Po river, Italy (Ferrari et al., 1989); Lake Zwemlust, Prov. Utrecht, NL (Van Donk, Gulati & Grimm,

1990); Volga river, R.F. (V'yushkova & Lakhnova, 1974); C Eur. mountains & plains, W & E Eur. plains, Carpathes, Pontic province, UK, NW Russian taiga, Caucasus, Casp. area (Bērziņš, 1978); Romania (Rudescu, 1960); Japanese inland waters (Yamamoto, 1960a); Lake Sloterplas; Ysselmeer; Channel Noordzeekanaal; Brabantse Biesbosch, NL (Dresscher, 1976)

- Nearctic region: Bayou de Siard, Monroe, Louisiana, USA (Gallagher, 1965); Kingston, Ontario, Canada (Nogrady, 1989); Altoplanicio central, Mexico (Vilaclara & Sladecek, 1989)

- Oriental region: Delhi, India (Sarma, 1988)

- Australian region: Christchurch, New Zealand (Russell, 1960)

Filinia cornuta (Weisze), f. *monoarthra* (Sokolova, 1921)

- Palaearctic region: Romania (Rudescu, 1960); Pontic province, E Eur. plains, Caucasus (Bērziņš, 1978)

Filinia hofmanni Koste, 1980

- Palaearctic region: Lake Pluszsee, Holstein, N Germ. (Koste, 1980; Hofmann, 1982, 1985 & 1987; Hofmann & Krambeck, 1991); Blankvatn, near Oslo, Norway (Koste, 1980); Lake Lunzer Obersee, Austria (Koste, 1980; Mikschi, 1989); Lake Derwart, near Doornik, Belgium (Bogaert, 1988; Bogaert & Dumont, 1989); Lake Aydat, Massif Central, France (Oulad Ali *et al.*, 1990; Lair, 1990 & 1991; Lair & Ayadi, 1989); Banyoles lake, NE Spain; Laguna de la Cruz, near Cuenca, Spain (Miracle & Vicente, 1983); Bavarian & Tyrolian lakes, Austria (Schaber & Schrimpf, 1984); Spain: Cuenca & Gerona (Velasco, 1990)

Filinia longiseta (Ehrenberg, 1834)

- Palaearctic region: Barther Bodden, S Baltic Sea, Germany (Arndt *et al.*, 1981; Arndt, Heerklosz & Schnese, 1984a & 1984b; Vietinghoff *et al.*, 1984); Canal de Séclin, Nord, France (Angeli, 1972 & 1975); Impoundment Saidenbach, Erzgebirge, Germ. (Beuschold, 1961; Rudolf, 1966); Lake Trummen, S Sweden (Andersson *et al.*, 1975); Lakes in S Sweden (Arnemo *et al.*, 1968); Lake Groszer Müggelsee, Berlin, Germany (Barthelmes, 1960); River Klyas'ma, R.F. (Bogoslawski, 1961); Heilunshan Province, China (Bogoslawski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Peten, 1973); Lake Suwa, Japan (Hanazato *et al.*, 1989); Lago Maggiore, Italy (Goldman *et al.*, 1968; Tonolli, 1962); Po river, Italy (Ferrari *et al.*, 1989); Eutrophic waters in E Poland (Radwan & Popolek, 1989); Lake Numasawa, Japan (Sudzuki *et al.*, 1982 & 1989); Lake Zwemlust, Prov. Utrecht, NL (Van Donk, Gulati & Grimm, 1990); Bafra Lake, E Turkey (Emir, 1989); Koyama-Ike, a coastal pond in Japan (Sudzuki & Fukuta, 1989); Romania (Rudescu, 1960); Delta of river Danube, Romania (Prunescu-Arion, 1989; Godeanu & Zinevici, 1983); Jordan reservoir, Bohemia, CSR (Mitiska *et al.*, 1962); Lakes in C Sweden (Pejler, 1965 & 1972); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lake Balaton, Hungary (Sebestyen, 1974; Zankai & Ponyi, 1970 & 1971a; Zankai, 1984); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain (Morales-Baquero, 1987); Loch Leven, Scotland (May, 1986 & 1987); District Ostrava, CSR (Dvorakova, 1960b); C Finland (Eloranta, 1982b); Lake Teganuma, C Japan (Takamera *et al.*, 1989); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Pools of river Elbe, CSR (Dvorakova, 1961); Lake Buchseen, Bodensee (Einsle, 1966); Lake Mindelsee, Bodensee (Einsle, 1967); Bamberg-Höchstadt area, Germany (Halbach, 1973); Lunzer Untersee, Austria (Ruttner-Kolisko, 1977a; Ruttner-Kolisko & Malicky, 1988); Spanish reservoirs (Guiset, 1977); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Lakes in Estonia (Haberman, 1978; Mäemets, 1983); 3 reservoirs on river Guadiana, Spain (Armengol *et al.*, 1988); Water works in Horrem, near Köln, Germ. (Bick & Scholtyseck, 1960); Finland (Eriksen, 1969); Ponds near Darmstadt, Germany (Menzel & Roth, 1972); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Lake Kasunigaura, Japan (Hanazato & Yasumo, 1988); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Banyoles Lake, NE Spain (Miracle & Vicente, 1983); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Holstein lakes (Pluszsee & Kleiner Uklei See) (Hofmann, 1974); Lake Biwa, Japan (Yamamoto, 1967 & 1968; Hillbricht-Ilkowska, 1983a & 1983b); Alkal. Péteri-See, Hungary (Kertesz, 1960); Impoundment Kninicki & river Svatka, CSR (Kubicek, 1964); Lake Zwanewater, near Callantsoog, NL (Leentvaar, 1967); Lake Laarder Wasmeer, Gooi, NL (Leentvaar, 1963a); Lakes Quackjeswater & Breedewater, Voorne; lake Vogelmeer, near Ymuiden, NL (Leentvaar, 1963b); Broads & peat pits in NW Overijssel, NL (Leentvaar, 1965); Small lakes in Estonia (Haberman & Mäemets, 1987); "Altes Land" near Hamburg, Germany (Heckman, 1986); Lake Derwart, near Doornik, Belgium (Bogaert, 1988; Bogaert & Dumont, 1989); Middle coarse of river Po, Italy (Ferrari *et al.*, 1986); Lake Goggausee, Carinthia, Austria (Herzig & Moog, 1976); Lake Glubokoje, near Moscow, R.F. (Ghilarov, 1976); Small lake in SW Sweden (Stenson, 1982); Carp ponds & upland reservoirs in S Poland (Zurek, 1980); Minorca, Spain (de Manuel, 1990); Azibo reservoir, near Porto, Portugal (Vascoucelos, 1990); River Hase, NW Germany (Koste, 1986b); Ponds in Japan (Hanazato & Yasumo, 1990); Fukushima Prefecture, Japan (Sudzuki, 1982); Karelian inland waters, R.F. (Kutikova, 1965); Karagöll, near Izmir, Turkey (Ustaoglu, 1986); Akgöl, Selçuk-Izmir, Turkey (Ustaoglu & Balik, 1987); Lake Kus, Turkey (Ustaoglu & Balik, 1990a); Camargue, S France (De Ridder, 1960a & 1961); Handzame Canal, Diksmuide, Belgium (De Ridder, 1960b); Lake Myvatn, Iceland (De Ridder, 1970); N Iceland (De Ridder, 1972); Lake Pluszsee, Holstein, N Germany (Hofmann, 1972 &

1975); Lake Batlava impoundment, CSR (Jankovic, 1975); Sava Lake, ex-Yugoslavia (Kalafatic, 1978); Experimental ponds at Golysz, Poland (Wrobel, 1972); Pond Vasikkalampi, C Finland (Eloranta, 1981); Lake Mikolajskie & L. Taltowisko, Mazurian lakeland, Poland (Gliwicz *et al.*, 1978); Experimental Fish Culture pond at Golysz, catchment area of the Upper Vistula r., Poland (Lewkowicz, 1984); Sewage purification plant West, Amsterdam, NL (Dresscher, 1960); River Grabia basin, Poland (Pawlowski, 1960, 1968 & 1970); Rügener, Hiddenseer & Darszer Bodden Gewässer, NE Germany (Schwarz, 1963); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Pond and pool in the Paris suburb, France (Pourriot, 1965); Lac de Crêteil, Paris suburb, France (Pourriot & Rougier, 1991); Lake Donk, Overmere, Belgium (Dumont, 1968b; Coussement, 1976; Martens, 1985); Boatracing canal, Gent, Belgium (De Maeseneer, 1972, 1973 & 1976; Vanderbeken, 1977; De Maeseneer *et al.*, 1978; Coussement, 1982); Lakes, N of Bucarest, Romania (Godeanu, 1969b); Obretin lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Southwest islands of Japan (Sudzuki *et al.*, 1992); Lakes Frederiksborg Slotdsø & Mossø, DK (Jørgensen *et al.*, 1983); Lake Nemi, Italy (Parise, 1962); Leczna-Wlodawa Lake District, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Acid ponds in lower Austria (Wawrik, 1972); Japanese inland waters (Yamamoto, 1960a); Quinghai Lake, China-Mongolia (Williams, 1991); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960); River Niederrhein & Havel, Germany (Bringmann & Kühn, 1962); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Lake Har, Mongolia (Dulma, 1979); River Oder, Germany (Walter & Scharf, 1961); Brundall, Norfolk Broads, UK (Leah *et al.*, 1980); Hjarback fjord, N Jutland, DK (Olrik *et al.*, 1984); Zungster Strom, Barther Bodden, Baltic coast (Vietinghoff *et al.*, 1984); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); In the lower Danube in Romania (Enaceanu, 1964); Estuary of the Elbe, Germany (Giere, 1968); Mouth regions of the Danube branches & predeltaic area of the Danube in the Black Sea, Rom. (Popescu-Marinescu, 1974); Bavarian and Tyrolian lakes (Schaber & Schrimpf, 1984); River Danube, from Austria to Romania (Wawrik, 1968); Serbian section of river Danube (Zivkovic, 1968 & 1987); Hudsons Bay & Hoveton Great Broad, East Anglia, UK (Timms & Moss, 1984); Lac Léman, Fr./CH (Martin, 1961; Balvay, 1989; Balvay & Laurent, 1981, 1989, 1990a & 1990b); River Warnow, near Rostock, Germany (Keil *et al.*, 1963); Lac de Joux, CH (Bosset, 1962); Funada-ike pond, Chiba, Japan (Urabe, 1992); River Sambre at the Belgian-French border (Waeyaert, 1972); Aegean lakes, Macedonia, ex-Yugoslavia & Greece (Serafimova & Hadsisce, 1974); Biol. station "Heiliges Meer" near Münster, Germany (Sibbing, 1962); Pool, S of Trondheim, Norway (Thomasson, 1979); Lake Ohrid, Balkan peninsula (Stankovic, 1960); Lake Stechlinsee, N Brandenburg, Germany (Ronneberger & Schönborn, 1985); Forest pond in Lembeek, Brabant, Belgium (Van Elslande, 1975); All over Spain; Portugal: Beja, Evora & Setubal (Velasco, 1990); Lake Mekelermeer, prov. Drente, NL (Schroevers, 1962); Experimental ponds at Golysz, Poland (Lewkowicz, 1971; Zurek, 1974); Gravel pits along river Meuse, NL (Wibaut-Isebree Moens, 1964); Lake Biwa-ko, Japan (Yamamoto, 1960b); Lake Kinneret, Israel (Serruya & Pollingher, 1984); Rybnik dam reservoir, Poland (Krzanowski, 1979); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); Lake in Hokuriki district, Japan (Kanetsuna, 1973); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962); Impoundment Twistetal, Nordhessen, Germany (Meinel *et al.*, 1983); Pools Erpewaaien, near Nijmegen, NL (Leentvaar, 1970); Water works Jungfernheide, Berlin, Germany (Ritterbusch, 1974); Darsz-Zingst estuary, N Germany (Arndt, 1991; Heerkloss *et al.*, 1991); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Impoundment Weidatalsperrre, E Thüringen, G. (Hoffmann, 1966); Lower course of river Sambre, Belgium (Dumont & Van Vossel, 1973); New impoundments in the CSR (Kubicek, 1968); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Near waterworks at Okocim, Poland (Klimowicz, 1975); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Side-arm of r. Danube near Bratislava, CSR (Lichardova, 1964); Anatolia, Turkey (Segers *et al.*, 1992); Lake Baikal, R.F. (Kozhov, 1963); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Lake Victoria, Oltenia area, Rom. (Marx *et al.*, 1967); Bog pond near Budapest, Hungary (Nogradi, 1962); Lake Pavin, L. Chauvet & L. Aydat, Puy-de-Dôme, France (Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lough Neagh, Northern Ireland (Andrew & Fitzsimons, 1992); Lac d'Annecy, France (Balvay & Druart, 1992); Pool in Fontainebleau Forest, Paris suburb, Fr. (Pourriot, 1976); Black Sea (Rudescu, 1961); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Bulgaric bank of river Danube (Naidenow, 1963); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); Lakes Duszatynskie, Poland (Kowalczyk & Radwan, 1962); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Pelagic zone of 3 lakes, Leczna-Wlodawa area, Poland (Radwan & Popiolek, 1976); Lake Chenu, Changjiang basin, China (Weu, 1992); Hamburg area, Germany (Rühmann, 1961); Middle course of river Loire, France (Lair & Sargas, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Dozmary Pool, Bodmin Moor, Cornwall, UK (Galliford, 1967); Knowsley

Park, Liverpool, UK (Galliford, 1964); Canal de Séclin, Nord, France (Angeli, 1975); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Lac de Pavin, Massif Central, France (Omalys, 1968); Lac de Nantua, Ain, France (Balvay, 1985); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Barther Bodden, Baltic Sea (Heerkloss *et al.*, 1984); Lake Tüzer See, Neubrandenburg, Germany (Doll, 1984); Vistula lagoon, Poland (Adamkiewicz-Chojnacka & Rozanska, 1990); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Highly eutrophic lake Czarna Kuta, Poland (Brinska *et al.*, 1976); Lakes Zuidelijke Vechtplassen, NL (Leentvaar, 1969); Loosdrecht Lakes, NL (Gulati *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Prov. of Drente & Ysselmeer, NL. All over the NL (Dresscher, 1976); El Ghab area, Syria (De Ridder, 1965); Lake Neusiedlersee, Austria (Donner, 1979); All over Belgium (De Ridder, 1986); 3 localities in Belgium (De Maeseneer, 1979); Etang des Monts Rosés, Sivry, Belgium (De Ridder, 1980); Brackish waters in the Bruges area, Belgium (De Ridder & Verheyen, 1980); Brabantse Biesbosch, NL (Leentvaar, 1960); Lake Neujahrslsloch, Hessen, Germany (Menzel, 1968); Lake Konstanz, Germany (Walz *et al.*, 1987); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Bolshoe Lake, White Sea, R.F. (Ghilarov, 1965); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Ellesmere District, UK (Galliford, 1960a); Canal Leeds-Liverpool, UK (Galliford, 1960b); Lakes Uiversnest & Meeuwenven, near Nijmegen, NL (Geelen, 1969); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Lake Mälaren, Sweden (Grönberg, 1975); Euphoric lake Mikolajskie & mesotrophic lake Taltowisko, Mazurian lakeland, Poland (Hillbricht-Ilkowska & Weglenska, 1970); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Small rivers, tributary to Kiev reservoir, R.F. (Polishchuk, 1987); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); Lakes & small rivers in Soviet Karelia, R.F. (Filimonova, 1976); Carp nursery ponds in the C Urals, R.F. (Lyubimova, 1974); Lake Duwankul, S Urals, R.F. (Kozlova, 1976); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); Rivers in W Kazakhstan, R.F. (Petrova, 1976); Dniester estuary, R.F. (Polishchuk, 1976); Lake Ladoga, R.F. (Nikolayev & Petrova, 1978); L. Terenkul & L. Kisegach, S Ural, R.F. (Drabkova *et al.*, 1979); Lapland State Preserve, R.F. (Ghilarov, 1972); Kolyrna Indigirka taiga lakes, R.F. (Kirillova & Sokolova, 1972); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Gulf of Bothnia, G. of Finland, G. of Riga, Baltic Sea, Belt Sea, S North Sea, S English Channel (Bērziņš, 1960); Lower Volga (Chuykov & Merkulov, 1986); Terek delta, Astrakhan peninsula, R.F. (Chuykov & Deneskin, 1985); Soviet section of the Danube, R.F. (Parchuk, 1985); Cherepet' power plant, S of Moscow, R.F. (Kuznetsova, 1982); Barabinskay Power Plant, near Novosibirsk, R.F. (Volgin *et al.*, 1982); Rybinsk reservoir, R.F. (Kartasheva & Lebedeva, 1981); Brackish water bay Lill Pernäviken, S Finland (Järnefelt, 1964); In two lakes in Turkey (Emir, 1991); River Meuse Liégeoise, Belgium (Baiverlin, 1984); Caspian Sea (Dussart, 1966)

- Nearctic region: Lake Oglethorpe, NE Georgia, USA (Sanders *et al.*, 1989; Orcutt & Pace, 1984); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Laurentian Great Lakes (Stemberger, 1976); Lakes in Florida (Dawes *et al.*, 1987); Hogans Pond, Newfoundland, Canada (Davis, 1972); Grace Lake & Madeline Lake, N Canada (Moore, 1980); Lake Ontario, Canada (Nauwerck, 1978); Northern Ontario lakes, Canada (Roff & Kwiatkowski, 1977); Near Monroe, Louisiana, USA (Gallagher, 1966); Lake Erie, Canada (Davis, 1969); Walker Lake, Arizona, USA (Green, 1986); Pond near Edmonton, Alberta, Canada (Daborn, 1974); Massey Lake, 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978); Silver Lake, Adirondack mts., NY State, USA (Siegfried *et al.*, 1991); River Ocqueoc, Michigan, USA (Beach, 1960); Acid lakes in Maine, USA (Brett, 1989); Arctic N America (Chengalath & Koste, 1989); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989); Kelso Lake & Stanley Lake, Idaho, USA (Buscemi, 1964); Colorado, USA (Turner, 1988); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Illinois river, USA (Brown *et al.*, 1989); 2 lakes in S Ontario, Canada (Brandl & Fernando, 1984); Parvin Lake, Colorado (Pennak, 1966); Ontario, Canada; Illinois & Kentucky, USA (Bērziņš, 1984); Nat. Parks in B.C. & Alberta, Canada (Anderson, 1977); Huron Lake, USA (Stemberger & Gannon, 1977); Lake Wabamun, Alberta, Canada (Horkan *et al.*, 1977); Reservoir near Aiken, S Carolina, USA (Taylor & Mahonney, 1988); Lake 227, NW Ontario, Canada (Malley *et al.*, 1988); Fayetteville Gren Lake, NY, USA (Culver & Brunskill, 1969); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Fernando, 1973); Lake Michigan & Milwaukee Harbor, USA (Stemberger, 1974); Patricia L. & Celestine L., in Jasper Nat. Park, Alberta, Canada (Anderson, 1970b); Lake 382, experimental lake area, NW Ontario, Canada (Malley & Chang, 1991); Northern Michigan inland lakes (Stemberger, 1990); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); N American Great lakes (Gannon, 1981); South Platte river, C Colorado, USA (Ward, 1975); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); In borrow-pit pounds, N Louisiana, USA (Lipsey & Malcom, 1981); James Bay area, Canada (Pinel-Alloul *et al.*, 1979); Lake 122 & L. 132,

NW Ontario, Canada (Schindler & Novén, 1971)

- Oriental region: ? Ricefields in NE Thailand (Heckman, 1979); 2 Kumaun Himalayan Lakes, UP, India (Sharma & Pant, 1985); Suraj Kund, India (Sarkar & Rai, 1964); Punjab State, NW India (Sharma, 1976); Dar Lake, Kashmir Himalayan L., India (Vass & Zutshi, 1983); Nimeta water works, near Baroda, India (Wulfert, 1966); Nepal valley lakes (Serruya & Pollingher, 1984); 2 Ponds in Pilani, Rajasthan, India (Nayar, 1970); Bangkok, Thailand (De Ridder, 1971); 2 sewage channels of Gwalior, India (Saksena & Kulkarni, 1986); Nagpur, India (Arora, 1962a); 2 tanks near Nagpur, India (Arora, 1966a); Oxidation pond in Nagpur, C India (Arora, 1966c); From fresh to medium polluted waters in Nagpur, India (Arora, 1966d); Rajasthan, India (Nayar, 1968); Pond at Patan, Nepal (Dumont *et al.*, 1975); Parakrama Samudra, Sri Lanka (Duncan, 1983a; Duncan & Gulati, 1983a); River Yamuna, India (Novotna-Dvorakova, 1963; Rai, 1974); Sri Lanka (Fernando, 1980a); Lake Parakrama, Sri Lanka (Fernando, 1984); India (Sharma & Michael, 1980); Singapore & Malaysia (Karunakaran & Johnson, 1978); Java (Green & Oey, 1974); Taiwan, Thailand, Malaysia, Singapore, Indonesia, Sri Lanka & India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); In ricefields of North Kriau, Perak, Malaysia (Ali, 1990); Village pool & rice paddy, Patan, Nepal (Daems & Dumont, 1974); Sri Lanka: only recorded from small & large lakes (Chengalath, Fernando & Koste, 1973); Singapore & Taiwan. Cosmopolitan (Sudzuki, 1991); Reservoir Parakrama Samudra, Sri Lanka (Duncan, 1984); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Thailand (Boonsom, 1984b); Parakrama Samudra, Sri Lanka (Duncan & Gulati, 1981); Rice paddy in Vientiane, Laos (Heckman, 1974); Bhairidivarkop pond, Karnataka State, India (Petil & Gouder, 1985); W Bengal, NE India (Sharma, 1979b); Roshanara tank, Indranagar tank, Stocking tank & Nursery tank, Delhi, India (George, 1966); Two shallow ponds in Delhi, India (George, 1961b); Fishpond at Barrackpore, W Bengal State, India (Michael, 1968); Punjab State, India (Sharma & Sharma, 1984); Kashmir valley & high mountains in Kashmir, Himalaya, India (Zutshi, 1980); Orissa, E India (Sharma, 1978c); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983)

- Australian region: Farm dams near Gloucester, NSW, Aust. (Sudzuki & Timms, 1980); NSW, Qld, S Aust. & Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); E Aust. (Koste & Shiel, 1980b); Lakes in Tasmania (Shiel, Koste & Tan, 1989); Reservoirs in SE Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); Yarra river, Aust. (Bērziņš, 1982); Darling river, SE Aust. (Koste & Shiel, 1980); Reservoirs r. Murray, SE Aust. (Shiel & Koste, 1983); Lake Eacham, tropical Queensland & Lake Perrumbete: freshwater temperature crater lake (Green, 1981); Alligator rivers area, NT Aust. (Tait, Shiel & Koste, 1984); Barwon river, r. Murray system, S Aust. (Shiel & Walker, *s.d.*); NW Aust.: Magela Creek area (Koste, 1981b); S Tasmania (Koste, Shiel & Tan, 1988); Reservoirs of the Murray-Darling system, Aust. (Shiel, 1986); Billabongs in the r. Murray floodplain, NSW, Aust. (Hillman & Shiel, 1991); Murray river (Serruya & Pollingher, 1984); Lake Grasmere, South Island, New Zealand (Stout, 1972 & 1991); Lakes in the mountain area of Canterbury, New Zealand (Stout, 1969); L. Grasmere & L. Pearson, S. Island, New Zeal. (Stout, 1984); Lake Pururumbete, Aust. (Timms, 1981); Nihotupu reservoir, near Auckland, New Zeal. (Green, 1974); Saddle Hill Pond, New Zealand (Bryars, 1960); Auckland, North Otago & Christchurch, New Zealand; Campbell Island (Russell, 1960)

- Neotropical region: Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Prov. Buenos Aires, Santa Cruz, Chubut & Tierra del Fuego, Argentina; Brazil, Bolivia, Paraguay & Chili (Olivier, 1965); Bolivian side of Lake Titicaca (Ueno, 1967; Pinto, 1992); Lake Ranco, Chile (Campos *et al.*, 1992); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Laguna Gomez, NW of Buenos Aires Prov., Argentina (Boltovskoy *et al.*, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b); Embalse Rio Tercero Fish Culture Station, Cordoba Prov., Argentina (Marinone & Zagarese, 1991); Chile (Löffler, 1962); Rio Tocantins, Lago do Passarinho, L. Buiú, L. Moratu, Rio Negro & Lago do Castanho, Amazonia, Brazil (Schaden, 1977c); Lake Xolotlan, Nicaragua (Moreno *et al.*, 1992); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989); Ecuador: Oriente (Koste & Böttger, 1992); Orinoco river basin, Venezuela (Vasquez, 1984a); Lower Orinoco & its delta (Vasquez & Rey, 1989); Arroyo Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1978a & 1985); River Santa Fé, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Argentina (Modenutti & Claps, 1988); Surinam (Leentvaar, 1975); Broa reservoir, Sao Carlos, S.P., Brazil (Matsumara *et al.*, 1989); Laguna del Tesoro, Cuba (Alonso, 1984); Rapelreservoir, C Chile (Soto *et al.*, 1984); Lago Açu, L. Viana, Canal, Maranhão, Brazil (Reid & Turner, 1988); Amazonia, Brazil (Koste, 1972f); Argentina, Brazil, Venezuela, Chile, Panama, Bolivia, Surinam, Honduras (Koste & José de Paggi, 1982); Rio Uatama, Amazonia, Brazil (Koste & Hardy, 1984); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Island of Maraca, Roraima, Brazil (Koste

& Robertson, 1990); Chilean lakes (Schmid-Araya, 1991); L. Rio Claro, a floodplain lake of the lower Orinoco, Venezuela (Vasquez & Medina, 1991); Caribbean part of the Neotropis (De Ridder, 1977); Rivers in the E plain of Venezuela (Sanchez *et al.*, 1985); Caribbean islands, Costa Rica, Cuba, El Salvador, Guatemala (Collado *et al.*, 1984); All over Argentina (José de Paggi, 1990); In a floodplain lake of the lower Orinoco river, Venezuela (Vasquez *et al.*, 1991); Lago de Valencia, Venezuela (De Infante, 1980); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Lago Orsinera, Lago Lagoven & Rio Claro, Orinoco floodplain lakes, Venezuela (Vasquez & Rey, 1992); Laguna la Orsinera, a floodplain lake, Venezuela (Twomby & Lewis Jr., 1987); Brokopondo Lake, Surinam (Leentvaar, 1979); Argentine Patagonia (Kuczynski, 1987b)

Filinia longiseta (Ehrenberg), f. *limnetica* (Zacharias, 1893)

- Palaearctic region: Banyoles Lake, NE Spain (Miracle, 1974 & 1975; Miracle & Vicente, 1983); Southwest islands of Japan (Sudzuki *et al.*, 1992); Spanish reservoirs (Guiset, 1977); Lakes in Estonia (Haberman, 1978; Mäemets, 1983); Finland (Eriksen, 1969); Delta of river Danube, Rom. (Godeanu & Zinevici, 1983; Prunescu-Arion, 1989); Asiatic Turkey (Dumont & De Ridder, 1987); District Ostrava, CSR (Dvorakova, 1960b); Lake Mikolajskie, Mazurian lakeland, Poland (Klimowicz, 1972); Romania (Rudescu, 1960); Azibo reservoir, near Porto, Portugal (Vascoucelos, 1990); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960; Caspers, 1964); Rügener, Hiddenseer & Darszer Boddenwässer, NE Germany (Schwarz, 1963); Obretin lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); W Iceland (De Ridder, 1972); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Lac d'Annecy, France (Balvay & Druart, 1992); Karelian inland waters, R.F. (Kutikova, 1965); Small water bodies in the Mikolajkie area, P. (Klimowicz, 1967); Side-arm of r. Danube near Bratislava, CSR (Lichardova, 1964); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Japanese inland waters (Yamamoto, 1960a); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Lakes of the Black Sea shore (Godeanu, 1970b); Lakes, N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Pool, S of Trondheim, Norway (Thomasson, 1979); Spain: Gerona (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); San Francisco, USA (Nogrady, 1983)

- Oriental region: River Yamuna, India (Novotna-Dvorakova, 1963; Rai, 1974); Singapore (Karunakaran & Johnson, 1978); Perennial pond at Chotanagpur, India (Srivastava, 1991)

- Australian region: S Aust. (Shiel & Koste, 1979); E Aust. (Koste & Shiel, 1980b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); S Tasmania; NSW, Vic & S Aust. (Koste, Shiel & Tan, 1988); Murray river at Mannum, S Aust. (Shiel, 1979)

- Neotropical region: Chile (Löffler, 1962); Ecuador: Oriente (Koste & Böttger, 1992); Mato Grosso, Brazil (Turner & Da Silva, 1992); Prov. Rio Negro & Tierra del Fuego, Argentina (Olivier, 1981); Patagonian table land, S Argentina (Paggi, 1981); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco and its delta, Venezuela (Vasquez & Rey, 1989); Lago do Macaco, Brazil (Koste, 1989a); Argentina, Chile, Brazil & Panama (Koste & José de Paggi, 1982); Rio Uatumá, Amazonia, Brazil (Koste & Hardy, 1984); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Chilean lakes (Schmid-Araya, 1991); Lake Xolotlan, Nicaragua (Cisneros & Mangas, 1991); Prov. Santa Cruz, Chubut, Rio Negro & Mendoza, Argentina (José de Paggi, 1990)

Filinia longiseta (Ehrenberg), f. *passa* (O.F. Müller, 1786)

- Palaearctic region: Asiatic Turkey (Dumont & De Ridder, 1987); River Danube (Enaceanu & Brezeanu, 1970); Pools of the Elbe, CSR (Dvorakova, 1961); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Romania (Rudescu, 1960); Koyama-Ike, a coastal pond in Japan (Sudzuki & Fukuta, 1989); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); River Volga, R.F. (V'yushkova & Lakhnova, 1974); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); C Eur. mts. & plains, Carpathes, Hungarian plain, Pontic prov., W & E Eur. plains, Baltic prov., Ireland, NW Russian taiga; Asia Minor. Cosmopolitan (Běrzinš, 1978); Lake "Groszer Binnensee", Baltic coast, Germ. (Lampert & Rothaupt, 1991); Soviet section of the Danube, R.F. (Parchuk, 1985); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960; Caspers, 1964); Inundation area, Danube delta, Romania (Dorobantu, 1964); Southwest islands of Japan (Sudzuki *et al.*, 1992); River Nieuwe Maas near Rotterdam in 1910; Lakes Kagerplassen & surroundings, NL (Dresscher, 1976); Bulgarian bank of river Danube (Naidenow, 1963); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Shores of dammed or flowing stretches of river Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); In the lower Elbe, Germany (Grimm, 1968); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); River Elbe estuary, Germany (Schulz, 1961); Impoundment Weidatalsperrre, E Thüringen, G.

(Hoffmann, 1966); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Side-arm of r. Danube, near Bratislava, CSR (Lichardova, 1964); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Hamburg area, Germany (Rühmann, 1961); Pools, ponds & moat of Château in the Paris suburb, France (Pourriot, 1965); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Serbian section of river Danube (Zivkovic, 1987); Spain: Sevilla (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: Lac Echo, Québec, Canada (Nogrady, 1976)
- Oriental region: India (Sudzuki, 1989); Singapore. Cosmopolitan (Sudzuki, 1991)
- Australian region: Billabongs river Murray, SE Aust. (Shiel & Koste, 1983); S Aust. & Vic (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Australia (Shiel, 1981); Tasmania & New Zealand (Sudzuki, 1985); E Aust. (Koste & Shiel, 1980b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Billabongs of the Murray-Darling system, Aust. (Shiel, 1986); North Otago, New Zealand (Russell, 1960); Murray river at Mannum, S Aust. (Shiel, 1979)

***Filinia longiseta* (Ehrenberg), f. *saltator* (Gosse, 1886)**

- Palaearctic region: Asiatic Turkey (Dumont & De Ridder, 1987); Spain: Sevilla (Velasco, 1990)
- Neotropical region: Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989); Lago Açu, Maranhao, Brazil (Reid & Turner, 1988); ? Amazonia, Brazil (Koste, 1972f); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979-1980); Antilles françaises (Pourriot, 1975); Mato Grosso, Brazil (Turner & Da Silva, 1992)

***Filinia minuta* (Smirnov, 1928)**

- Palaearctic region: E Eur. plain (Bérziņš, 1978); Southwest islands of Japan (Sudzuki *et al.*, 1992)

***Filinia minuta* (Smirnov), f. *nipponensis* (Sudzuki, 1975)**

- Palaearctic region: Garden ponds in Tokyo, Japan (Sudzuki, 1975)

***Filinia opoliensis* (Zacharias, 1898)**

- Palaearctic region: Middle course of river Po, Italy (Ferrari *et al.*, 1986); Spanish reservoirs (Guillet, 1977); 3 reservoirs on River Guadiana, Spain (Armengol *et al.*, 1988); Romania (Rudescu, 1960); Po river, Italy (Ferrari *et al.*, 1989); Italy, C Eur. mts. & plains, Hungarian plain, Pontic prov., W & E Eur. plain, NW Russian taiga; Caucasus, Caspian area. Tropical & subtropical (Bérziņš, 1978); Caucasus (Kasimow, 1966); Lake Balaton, Hungary (Zankai, 1968); Latorica, E Slovakia Lowland, CSR (Terek, 1960a); Sava Lake, ex-Yugoslavia (Kalafatic, 1978); Japanese inland waters (Yamamoto, 1960a); In the lower Danube in Romania (Enaceanu, 1964); Funada-Ike pond, Chiba, Japan (Urabe, 1992); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); River Danube (Enaceanu & Brezeanu, 1970); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Karelian inland waters, R.F. (Kutikova, 1965); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Pond in the Paris suburb, France (Pourriot, 1965); Serbian section of the river Danube (Zivkovic, 1987); All over Spain; Portugal: Beja & Evora (Velasco, 1990)

- Nearctic region: Canada (Chengalath, 1977); Kentucky, USA (Bérziņš, 1984); Near Monroe, Louisiana, USA (Gallagher, 1966); San Francisco, USA (Nogrady, 1983)

- Oriental region: Nagpur, India (Arora, 1962a); Purely freshwater farms, Nagpur, India (Arora, 1962b); Tank near Nagpur, C India (Arora, 1966c); Lake Rara, W Nepal (Okino & Sato, 1986); India (Sharma & Michael, 1980); Lake Parakrama, Sri Lanka (Fernando, 1984); Lake Lano, Mindanao Island, Philippines (Lewis, 1977); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969 & 1980a); Rajasthan, India (Nayar, 1968); Bung-Borapet, C Thailand (Mizemi & Mori, 1970); Kalimantan (Borneo), Indonesia (Koste, 1988a); Victoria reservoir, Sri Lanka (Piyasiri & Jayakody, 1991); Sri Lanka: common, found in lakes & large ponds (Chengalath, Fernando & Koste, 1973); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Indranagar tank & Stocking tank, Delhi, India (George, 1966); Ajwa reservoir, near Baroda, Gujarat, India (Jayangoudar, 1980); Punjab State, India (Sharma & Sharma, 1984); West Bengal, NE India (Sharma, 1979b); Orissa, E India (Sharma, 1978c); Bangkok, Thailand (De Ridder, 1971); Lake Surinsar, Jammu (J & K), India (Jyoti & Sehgal, 1979); Lake Manguao, Palawan, the Philippines (Davies & Green, 1990); Storage reservoir Ajwa & Nimeta waterworks, near Baroda, India (Wulfert, 1966); Lake Lanao (Serruya & Pollingher, 1984); 2 Ponds at Pilani, Rajasthan, India (Nayar, 1970)

- Australian region: Darling river, SE Australia (Koste & Shiel, 1980); Magela Creek billabongs, NW Aust. (Shiel & Koste, 1983); Tasmania (Koste & Shiel, 1987); Qld & S Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); E Aust. (Koste & Shiel, 1980b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste,

1984); Murray river at Mannum, S Aust. (Shiel, 1979); Rivers of the Murray-Darling system, Aust. (Shiel, 1986)

- Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1985); Orinoco river system, Venezuela (Vasquez, 1984a); Lower Orinoco river & its delta, Venezuela (Vasquez & Rey, 1989); Amazonia, Brazil (Gillard, 1967; Thomasson, 1971; Koste, 1972f); Brazil, Venezuela, Argentina & Panama (Koste & José de Paggi, 1982); Prov. Chaco, Corrientes & Santa Fé, Argentina (José de Paggi, 1990); Costa Rica (Collado *et al.*, 1984); L. Aguilera, a Orinoco floodplain lake, Venezuela (Hamilton *et al.*, 1990); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979-1980); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b); Lago do Passarinho & L. Buiçu, Amaz., Brazil (Schaden, 1977c); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992)

***Filinia opoliensis* (Zacharias), f. *brevispina* Ahlstrom, 1932**

- Palaearctic region: C Eur. mountains & Pontic province. Tropical & subtropical (Bērziņš, 1978)

- Oriental region: Taiwan, Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India, Philippines (Sudzuki, 1989); Singapore. Distribution: warm waters (Sudzuki, 1991)

- Neotropical region: Amazonia, Brazil (Koste, 1972f)

***Filinia pejleri* Hutchinson, 1964**

- Palaearctic region: Spain: Gerona & Sevilla; Portugal: Evora (Velasco, 1990)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Rajasthan, India (Nayar, 1968); Malaysia, Sri Lanka, India (Sudzuki, 1989); Sri Lanka. Very common in small & large lakes (Chengalath, Fernando & Koste, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Punjab State, India (Sharma, 1976; Sharma & Sharma, 1984); West Bengal, NE India (Sharma, 1979b); 2 ponds in Pilani, Rajasthan, India (Nayar, 1970)

- Australian region: Darling river, SE Aust. (Koste & Shiel, 1980a); Tasmania (Koste & Shiel, 1987); E Aust. (Koste & Shiel, 1980b); Billabongs river Murray, SE Aust. (Shiel & Koste, 1983); NSW & W Aust. (Shiel & Koste, 1979); Reservoirs, SE Aust. (Shiel *et al.*, 1987); L. Eacham, tropical Queensland Aust. crater lake (Green, 1981); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Australia (Shiel, 1981); Lakes in Tasmania (Shiel, Koste & Tan, 1989); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); River Murray at Mannum, S Aust. (Koste, 1980); Gwydir river, river Murray system, S Aust. (Shiel & Walker, s.d.); Rivers of the Murray-Darling system, Aust. (Shiel, 1986); Billabongs in the r. Murray floodplain, NSW (Hillman & Shiel, 1991)

- Neotropical region: Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990); Lake Castanho, L. Redondo, L. Jacaretinga, L. Cristalino & L. Taruma-Mirim, Brazil (Serruya & Pollingher, 1984); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river & its delta, Venezuela (Vasquez & Rey, 1989); Provinces in NW Argentina (José de Paggi, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Amazonia, Brazil (Koste, 1972f); Brazil, Venezuela, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lake Xolotlan, Nicaragua (Cisnero & Mangas, 1991); ? Bubali-pond, Aruba, Dutch leeward Islands (Higler & Van Halewijn, 1991); Prov. San Luis, San Juan & La Rioja, Argentina (José de Paggi, 1990); Lake Izabal, Guatemala (Brinson & Nordlie, 1975); Costa Rica, El Salvador & Trinidad (Collado *et al.*, 1984); Lake Tinco, a Orinoco floodplain lake, Venezuela (Hamilton *et al.*, 1990); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979-1980); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b); Lago Tocantins, L. Jacaretingo, L. Jurucui, L. Buiçu, L. Moratu, L. Tefé, L. do Castanho & Rio Negro (Schaden, 1977c); L. Castanho, L. Jacaretinga & L. Cristalino, Amaz. C (Hardy, 1980)

***Filinia pejleri* Hutchinson, f. *grandis* Koste, 1979**

- Australian region: River Murray at Mannum, S Aust. (Koste, 1979; Shiel, 1979); River Murray (Serruya & Pollingher, 1984); Tasmania (Koste & Shiel, 1987); Australia (Pejler, 1981); S Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982)

***Filinia terminalis* (Plate, 1886)**

- Palaearctic region: Lake Myvatn, Iceland (Adalsteinsson, 1974 & 1979); Lago di Giulianello, Latium, Italy (Ferrara & Margoritora, 1977); L. Stechlinsee, N Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundment Saidenbach, Erzgebirge, Germany (Althaus, 1976); Lakes S Sweden (Arnemo *et al.*, 1968); Lake Bielersee, CH (Baugerter *et al.*, 1980; Berner-Fankhauser, 1983 & 1986); Lake Lunzer Obersee, Austria (Ruttner-Kolisko, 1975b & 1977; Pivoda, 1977); Lake Balaton, Hungary (Zankai & Ponyi, 1971a; Sebestyen, 1974); Grasmere Lake, Lake District, UK (Elliott, 1977); Banyoles Lake, NE Spain (Miracle, 1975, 1977a, 1977b & 1981); 2 lakes in N Sweden (Axelson, 1961); Water bodies in Gent,

Belgium (Roche, 1987); C Finland (Eloranta, 1982b); Lake Bolsena & L. Vico, C Italy (Ferrari, 1972); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Common in lakes in Holstein, Germany (Hofmann, 1974); L. Stechlinsee & Nehmitzsee, Brandenburg, G. (Kasprzak & Ronneberger, 1982); Impoundment Kninicki, CSR (Kubicek, 1964); Lake Mälaren, Sweden (Lanner & Pejler, 1973); Lake Blankvatn, near Oslo, Norway (Larsson, 1971); Delta of river Danube, Romania (Godeanu & Zinevici, 1983; Prunescu-Arion, 1989); Nat. Res. Neeruti lakes, Estonia (Mäemats A. & A., s.d.); Karstic lake Percile, Latium, Italy (Margaritora *et al.*, 1981); Bicaz water power reservoir, Romania (Battes *et al.*, 1971); Reservoirs in Spain (Guiset, 1977); Lakes in Estonia (Haberman, 1978); Pluszsee near Plön, Holstein, Germany (Krambeck, 1988; Hofmann, 1972, 1975, 1982, 1983, 1985 & 1987); Coast of S Finland (Eriksen, 1969); 3 small lakes in E Poland (Radwan, 1980); Moerdijk-Hollands Diep, NL (Leentvaar, 1980); River Loire, France (Lair *et al.*, 1978; Lair, 1980); 4 lakes in Windermere, C England (Ruttner-Kolisko, 1980); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Banyoles Lake, NE Spain (Miracle & Vicente, 1983); Lac de Tazenat, Massif Central, France (Lair & Restituto, 1976); Side-arm of r. Danube near Bratislava, CSR (Lichardova, 1964); Small water-bodies in the Mikolajkie area, P. (Klimowicz, 1967); Ponds in Mirwart, Belgium (Marlier & Wattiez, 1977); Lake Zürichsee, CH (Nipkow, 1961); Lac Pavin, Massif Central, France (Restituto & Lair, 1976); Black Sea (Rudescu, 1961); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Lac Léman, Fr./CH (Rougier, 1969); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Lake Jorzec, Mazurian lakeland, Poland (Radwan *et al.*, 1985); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Ponds, pools & moats of Château in the Paris suburb, France (Pourriot, 1965); Lago Trasimeno, Italy (Taticchi, 1968); Serbian section of river Danube (Zivkovic, 1987); Lake Biwa, Japan (Yamamoto, 1967); All over Spain (Velasco, 1990); Darsz-Zingst estuary, N Germany (Arndt, 1991); Lake Erben, Sweden (Nauwerck, 1963); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Lake Donk, Overmere, Belgium (Claus & Dall'Asta, 1972; Roche, 1987); Boatracing canal, Gent, Belgium (De Maeseneer *et al.*, 1978; Coussement, 1982); Canal de Séclin, Nord, France (Angeli, 1972); Lac Pavin & Lac de Tazenat, Massif Central, Fr. (Lair, 1975); Lake Baikal, R.F. (Kutikova, 1978); Lake Giulianello, Latium, Italy (Stella & Margaritora, 1972); Lac Pavin, Massif Central, France (Dévaux, 1980); Inundation area of Danube delta, Romania (Dorobantu, 1964); Canals in Hran area, CSR (Terek, 1990c); River Svatka, CSR (Kubicek, 1968); Lac Aydat, Massif Central, France (Lair, 1978; Oulad Ali *et al.*, 1990); Lake Glubokoje, near Moscow, R.F. (Matveeva, 1983, 1986 & 1991); Lake Nemi & Lake Garda, Italy (Parise, 1962); Leczna-Włodawa lake district, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Etang de Mirwart, Belgium (Wattiez, 1978); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Artificial lakes near Köln, Germany (Trahms, 1972); Bavarian & Tyrolian lakes (Schaber & Schrimpf, 1984); Lac Léman, Fr./CH (Balvay, 1989; Balvay & Laurent, 1981, 1989, 1990a & 1990b); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Lac de Nantua, Ain, France (Balvay, 1985); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); R. Maas, Rijn, Waal & Yssel; Wijlremeer & pond near Nijmegen; Ysselmeer & Loosdrecht lakes, NL (Dresscher, 1976); All over Belgium (De Ridder, 1986); Boatracing canal, Gent, Belgium (De Maeseneer, 1976); 4 localities in Belgium (De Maeseneer, 1979); Lake Konstanz, Germany (Pauli, 1989; Walz *et al.*, 1987); Lac de Pétichet, Isère, France (Gay, 1979); New impoundments in the CSR (Kubicek, 1968); Gemündener Maar, Weinfelder Maar & Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992); Hamburg area, Germany (Rühmann, 1961); Middle course of river Loire, France (Lair & Sargos, 1981); Pond in the Paris suburb, France (Pourriot, 1965); Water works Jungfernheide, Berlin, Germ. (Ritterbusch, 1974); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain (Morales-Baquero, 1987); Lake Königssee, Bavaria (Laxhuber, 1987); Priest Pot, Lake District, UK (Stewart & George, 1987; Hewitt & George, 1987); Bear Island, Arctic Ocean (Pejler, 1974); Blelham Tarn, Cumbria, UK (Ferguson *et al.*, 1982); Bafra Lake, E Turkey (Emir, 1989); Lake Sempachersee, CH (Zimmermann, 1974); Darnsee near Epe, NW Germany (Koste, 1962); Lake Orog-Nur, Gobi desert, Mongolia (Koste & Wulfert, 1964); Azibo reservoir, near Porto, Portugal (Vascoucelos, 1990); River Hase, NW Germany (Koste, 1976b); Romania (Rudescu, 1960); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alensee, NW Germany (Koste & Poltz, 1987); Lake Mälaren, Sweden (Grönberg, 1975); Lake Walchensee, S Germany (Koste, 1980); Norfolk Broads, UK (Irvine *et al.*, 1990); Loch Rusky, Scotland (Romo, 1990); Impoundment Helme, near Kelbra, Kyffhäuser, Germany (Heyning, 1968); Peridunar pond Dulce, Doñana Nat. Park, Spain (Lopez *et al.*, 1991); Lake Baikal, R.F. (Afanas'jeva, 1975); All over Europe; Caucasus (Bērziņš, 1978); L. Prosce & L. Kozjak, Croatia, ex-Yugoslavia (Erben, 1991); Pluszsee, Holstein, N Germany (Hofmann & Krambeck, 1991); Mologa river, R.F. (Riv'ger *et al.*, 1981); Upper part of river Volga delta, R.F. (Chuykov, 1981); Barabinskaja power plant, near Novosibirsk, R.F. (Volgin *et al.*, 1982); In 3 lakes in Turkey (Emir, 1991); 3 lakes of Sosnowickie, Poland (Radwan, 1968); Lake Balaton, Hungary (Zankai, 1968); Lake Ösbysjön, near Stockholm, Sweden (Pejler, 1961)

- Nearctic region: Experimental ponds near Bakersfield, Kern Co, California (Hurlbert *et al.*, 1972); Bayou de Siard, near Monroe, Louisiana, USA (Gallagher, 1965); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Fernando, 1973); Whitacre pond, Northampton Co, Pa, USA (Williamson, 1987); Sunfish Lake, Ontario, Canada (George & Fernando, 1970); Ontario, Canada; Wisconsin, USA (Bérziņš, 1984); Alaska, USA (Turner, 1987); Colorado, USA (Turner, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Northern Michigan inland lakes (Stemberger, 1990); Sunfish & Paradise lakes, E Canada (George & Fernando, 1969); Smith mountain lake, Virginia, USA (Buikema & Loeffelman, 1978); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Lakes at Santee, California, USA (Nogrady, 1982 & 1983); Laurentian Great Lakes (Stemberger, 1979); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Northern Ontario lakes, Canada (Roff & Kwiatkowski, 1977)

- Oriental region: Lake Nilnag (Serruya & Pollingher, 1984); Oxidation ponds at Bezon Bagh, Nagpur, C India (Arora, 1965); 2 tanks near Nagpur, India (Arora, 1966c); Near Bhopal, C India (Arora, 1967); Girikbe-Tank, Sri Lanka (Bérziņš, 1982a); River Yamuna, India (Novatna-Dvorakova, 1963); Sri Lanka (Fernando, 1980a); India (Sharma & Michael, 1980); Malaysia, Singapore, Sri Lanka & India (Sudzuki, 1989); Nepal, high mountain lakes (Daems & Dumont, 1974); Thailand (Boonsom, 1984b); Sri Lanka. Very common in small & large lakes (Chengalath, Fernando & Koste, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Roshanara tank, Nainit t., Indranagar t., Stocking t. & Nursery t., Delhi, India (George, 1966); Dar Lake, Kashmir Himalayan Lake, India (Vass & Zutshi, 1983); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966))

- Australian region: Darling river, SE Australia (Koste & Shiel, 1980); Reservoirs SE Australia (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); Farm dams near Gloucester, NSW, Aust. (Sudzuki & Timms, 1980); S Aust. (Shiel & Koste, 1979); Lower Murray river, S Aust. (Shiel, Walker & Williams, 1982); Australia (Shiel, 1981); Reservoirs in the Murray-Darling system, Aust. (Shiel, 1986); River Murray, S Aust. (Koste, 1980); Sidney reservoirs, NSW, Aust. (Thomasson, 1973); Murray river (Serruya & Pollingher, 1984); Murray river at Mannum, S Aust. (Shiel, 1979); Rotorua & Christchurch, New Zealand (Russell, 1960); ? Lake Okaro, New Zealand (Forsyth & James, 1991); Lake Orbell, L. Monk, L. Mike, L. Te Au & L. Monat, SW New Zealand (Stout, 1975)

- Neotropical region: River Parana, Argentina (José de Paggi, 1978a); Provinces in NW Argentina (José de Paggi, 1989); Brazil, Venezuela, Argentina & Chile (Koste & José de Paggi, 1982); Near Concepcion, Paraguay (Koste, 1986b); Chilean lakes (Schmid-Araya, 1991); Prov. Chubut, Rio Negro, Neuquen, San Juan, Tucuman, Cordoba, Chaco & Santa Fé, Argent. (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Amazonia, Brazil (Gillard, 1967; Thomasson, 1971); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979-1980); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992)

- Antarctic region: Antarctica (Sudzuki, 1988b)

Filinia terminalis (Plate), f. *baikalensis* Eggert, 1973

- Palaearctic region: Lake Baikal, R.F. (Eggert, 1973)

Filinia terminalis (Plate), f. *kergueleniensis* Lair & Koste, 1984

- Antarctic region: Lake Studer, Kerguelen Archipelago (Lair & Koste, 1984); Antarctica & Subantarctica (José de Paggi & Koste, 1984; Sudzuki, 1988b)

Filinia spec.

- Palaearctic region: Near Hamburg, Germany (Berghahn, 1979); Lake Balaton, Hungary (Zankai, 1989); Delta of river Danube, Romania (Prunescu-Arion, 1989); Lake Baikal, R.F. (Kozhov, 1961); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Estuary of river Elbe, Germany (Giere, 1968); Loosdrecht Lakes, NL (Van Tongeren *et al.*, 1992); Fens in NL (Dresscher, 1976); Lac de Crêteil, Paris suburb, France (Lescher-Moutoué *et al.*, 1985); Hamburg area, Germany (Rühmann, 1961 & 1965a); Water sheets in the Hamburg area, Germany (Rühmann, 1964); River Alster in Hamburg, Germany (Rühmann, 1967); Fukushima Prefecture, Japan (Sudzuki, 1982); Etang de St. Rémy, Paris suburb, France (Pourriot & Leborgne, 1970)

- Nearctic region: Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Spirit Lake, Washington, USA (Larson & Glass, 1987); Lake Arlington, Texas, USA (Sterner, 1990); Lake Mendota, Wisconsin, USA (Pedros-Alio & Brock, 1983); Severson Lake, Minnesota, USA (Comita, 1972); The Sacramento-San Joaquin delta Estuary, USA (Siegfried & Kopache, 1980)

- Oriental region: India (Sudzuki, 1989); Fishponds in Kalyani, W Bengal, India (Jana *et al.*, 1980); Near Patiala, Punjab, India (Vasisht & Jindal, 1980); Ponds in Chinglepat, Madras, India (Sreenivassan, 1968); ? Nimeta water works, near Baroda, India (Wulfert, 1966); 3 upland lakes of Madras State, India (Sreenivassan, 1964)

- Australian region: Narrandera, NSW, Aust. (Culver, 1988)
- Neotropical region: S Brazil (Arcifa, 1984); Broa res., Sao Carlos, Sao Paulo, Brazil (Matsumura-Tundisi & Tundisi, 1976); Arroyo Rodriguez, Prov. de Buenos Aires, Arg. (Modenutti, 1987); Floodplain lake of the Lower Orinoco r., Ven. (Vasquez *et al.*, 1991); Apure river, W Venezuela (Saunders & Lewis Jr., 1988); Lower Orinoco river, Venezuela (Saunders & Lewis Jr., 1989); Amazonia, Brazil (Thomasson, 1971); Chile (Löffler, 1962); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992)

Floscularia Cuvier, 1798

Floscularia conifera (Hudson, 1886)

- Palaearctic region: Achmer Grasmoor, NW Germany (Koste, 1968b); Romania (Rudescu, 1960); Italy, C Eur. mountains & plains, Pontic province, Ireland, UK (Bērziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); Frankenland, Germany (Tiefenbacher, 1972); In reed borders of the Danube delta, Romania (Rudescu, 1968); Small pool in the Paris suburb, France (Pourriot, 1965)
- Nearctic region: Canada (Chengalath, 1977); Mud Pond, S Grafton County, New Hampshire, USA (Wallace, 1977a; Wallace & Starkweather, 1983 & 1985); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: India (Sharma & Michael, 1980); Thailand & India (Suzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a)
- Australian region: NSW, Qld, Vic in Australia (Shiel & Koste, 1979); Christchurch, New Zealand (Russell, 1960)
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989 & 1992); Near Santarem, Brazil (Koste, 1972e); Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b)

Floscularia decora Edmondson, 1940

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Thailand (Suzuki, 1989)
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989); Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Floscularia janus (Hudson, 1881)

- Palaearctic region: Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Karelian inland waters, R.F. (Kutikova, 1965); Finland (Eriksen, 1969); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Romania (Rudescu, 1960); Alps, W & C Eur. plains & mountains, Pontic province, E Eur. plains, Baltic province, Ireland, UK & Fennoscandia (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1970); Frankenland, Germany (Tiefenbacher, 1972); Peat bogs Bourdouze, Jassy & Montcineyre, Puy-de-Dôme, France (Francez, 1984a); Japanese inland waters (Yamamoto, 1960a); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + R. Maas, Rijn, Waal & Yssel, NL (Dresscher, 1976); In reed borders of the Danube delta, Rom. (Rudescu, 1968)
- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Wisconsin, USA (Bērziņš, 1984); Laurentian Great Lakes (Stemberger, 1979); Echo Lake, Québec, Canada (Nograday, 1976)

- Australian region: NSW, Australia (Shiel & Koste, 1979); E Aust. (Koste & Shiel, 1980b); Tasmania (Koste & Shiel, 1986b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989 & 1992); Near Santarem, Brazil (Koste, 1972b); Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Near Concepcion, Paraguay (Koste, 1986b)

Floscularia melicerta (Ehrenberg, 1832)

- Palaearctic region: Romania (Rudescu, 1960); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); All over Europe (Bērziņš, 1978); Frankenland, Germany (Tiefenbacher, 1972); Old branch cut off river Waal, NL (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1975 & 1979); In reed borders of the Danube delta, Romania (Rudescu, 1968)
- Nearctic region: Canada (Chengalath, 1977); NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Laurentian Great Lakes (Stemberger, 1979); Mud Pond, S Grafton Co, New

Hampshire, USA (Wallace & Starkweather, 1985)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Thailand (Suzuki, 1989)
- Australian region: Qld & Vic, Aust. (Shiel & Koste, 1979); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT Aust. (Tait, Shiel & Koste, 1984); Australia (Bérziņš, 1978)
- Neotropical region: Near Santarem, Brazil (Koste, 1982a); Amazonia, Brazil (Koste, 1982f); Varzea near Santarem, Brazil (Koste, 1974b); Near Concepcion, Paraguay (Koste, 1986b); Brazil (Koste & José de Paggi, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); ? Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente (Koste & Böttger, 1992)

Floscularia nootii Koste, 1972

- Neotropical region: Near Santarem, Brazil (Koste, 1972e); Varzea near Santarem, Brazil (Koste, 1974b); Brazil & Venezuela (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Ecuador: Oriente (Koste & Böttger, 1989)

Floscularia pedunculata (Joliet, 1883)

- Palaearctic region: W Eur. plain (France) (Bérziņš, 1978); Lake Neusiedlersee, Austria (Donner, 1979); Southwest islands of Japan (Suzuki, 1990; Suzuki *et al.*, 1992)
- Nearctic region: N America (Bérziņš, 1978)

Floscularia ringens (L., 1758)

- Palaearctic region: Lake Neusiedlersee, Austria (Donner, 1975 & 1979); R. Oude Waal near Nijmegen, NL (Delbecque & Suykerbuyk, 1988); Finland (Eriksen, 1969); C & S Sweden (Bérziņš & Pejler, 1987); Romania (Rudescu, 1960); Darnsee near Epe, NW Germany (Koste, 1962); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); All over Europe. Cosmopolitan (Bérziņš, 1978); Reservoir Sedlice, near Zeliv, Bohemia, CSR (Sladeckova, 1960 & 1962; Sladeckova & Sladeczek, 1963); Lake Balaton, Hungary (Zankai, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Upper Sambre river & pond at Landelies (B); Fishpond at Bornem (after Verraes, 1968) (Daems & Dumont, 1973); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Hamburg area, Germany (Rühmann, 1961); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); River Grabia basin, Poland (Pawlowski, 1970); Southwest islands of Japan (Suzuki *et al.*, 1992); Japanese inland waters (Yamamoto, 1960a); Frankenland, Germany (Tiefenbacher, 1972); Dübener Heide, N Germany (Wulfert, 1960b); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Peat bogs Chambedaze & La Godivelle, Puy-de-Dôme, France (Francez, 1984b); R. Maas, Rijn, Waal & Yssel, NL (Dresscher, 1976); 3 localities in Belgium (De Ridder, 1986); Canal Leeds-Liverpool, UK (Galliford, 1960b); Sambre river, Belgium (Dumont *et al.*, 1975); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Karelian inland waters, R.F. (Kutikova, 1965)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America, (Chengalath & Koste, 1989); Wisconsin, USA (Bérziņš, 1984); Echo Lake, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Malaysia, Sri Lanka, India (Suzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Sri Lanka. Rare, found in ponds (Chengalath, Fernando & Koste, 1973); Singapore (Karunakaran & Johnson, 1978); Ricefields in NE Thailand (Heckman, 1979)

- Australian region: Creek in Aust. (Bérziņš, 1982); Bromfield swamp, tropical Queensland Aust. crater lake (Green, 1981); NSW, Qld & Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); E Aust. (Koste & Shiel, 1980b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT Aust. (Tait, Shiel & Koste, 1984); Napier & Christchurch, New Zealand (Russell, 1960)

- Neotropical region: Near Santarem, Brazil (Koste, 1972e); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Amazonia, Brazil (Koste, 1974b); Paraguay, Brazil, Venezuela & Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Panama (Collado *et al.*, 1984); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Mato Grosso, Brazil (Turner & Da Silva, 1992); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992)

Floscularia spec.

- Palaearctic region: R. Maas, Rijn, Waal & Yssel; peat bogs & fens in Drente; brackish waters in prov. N. Holland, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Lake Chambedaze, Puy-de-Dôme, France (Persoone *et al.*, 1968); Bulgarian bank of river Danube (Naidenow, 1963); Lago Maggiore, Italy (Tonolli, 1962; Goldman *et al.*, 1968)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)
- Oriental region: Rice paddy in Vientiane, Laos (Heckman, 1974); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); Malyasia (Sudzuki, 1989)
- Neotropical region: Rio Tocantins, Amazonia, Brazil (Schaden, 1977c); S Brazil (Arcifa, 1984); 4 lakes of Rio Snia Missu, Mato Grosso, C Brazil (Green, 1972)

Gastropus Imhof, 1898

Gastropus hyptopus (Ehrenberg, 1838)

- Palaearctic region: C Sweden (Pejler, 1965 & 1972); Romania (Rudescu, 1960); Pond in Surrey, UK (Pontin, 1989); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Peat bogs in the Massif Central, France (Batut, 1965); Lake Derwart, near Doornik, Belgium (Bogaert, 1988; Bogaert & Dumont, 1989); All over Europe (Bērziņš, 1978); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); River Grabia basin, Poland (Pawlowski, 1970); Mountain Fuji, Japan (Suzuki, 1971); Pond in Rambouillet, Paris suburb, France (Pourriot *et al.*, 1969); Lake Donk, Overmere, Belgium (Dumont, 1968b); Dübener Heide, N Germany (Wulfert, 1960a, 1960b & 1961); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Lakes in NE Norway (Saeter, 1971); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); River Salzach & its tributaries, Austria (Donner, 1970); Boom & Welle, Belgium (De Ridder, 1986); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Bullhousen Pond, Bisley, Surrey, UK (Pontin & Pontin, 1980); Lake Montcineyre, Puy-de-Dôme, France (Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lakes in C Sweden (Pejler, 1964); Lake Stechlinsee, N Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); R. Maas, Rijn, Waal & Yssel; Nat. Res. Oisterwijkse vennen; Plassen NW Overijssel; Lake De Wijde Blik; waterschap "De Alm"; Loosdrecht Lakes, NL (Dresscher, 1976); In reed borders of the Danube Delta, Rom. (Rudescu, 1968); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Pond, pool & peat bog in the Paris suburb, Fr. (Pourriot, 1965); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); Lakes in S Sweden (Arnemo *et al.*, 1968); Finland (Eriksen, 1969); Slovenia, ex-Yugoslavia (Markic, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Lake Bolsena & Lake Vico, C Italy (Ferrari, 1972); L. Stechlinsee & Nehmitzsee, Brandenburg, G. (Kasprzak & Ronneberger, 1982); ? Lake Niemetön, S Finland (Arvola *et al.*, 1986); Nat. Res. Wellemersen, Belgium (Dumont *et al.*, 1975); Small water bodies in the Mikolajkie area, Pol. (Klimowicz, 1967); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Lake Ösbysjön, near Stockholm, Sweden (Pejler, 1961); Mountain Fuji area, Japan (Suzuki, 1987a); Lakes around mountain Fuji, Japan (Suzuki, 1971); Pool S of Trondheim, Norway (Thomasson, 1979)
- Nearctic region: Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Kingston, Ontario, Canada (Nogrady, 1989); L.382, experimental Lake Area, NW Ontario, Canada (Malley & Chang, 1991); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975); Laurentian Great Lakes (Stemberger, 1979); Ocqueoc river, Michigan, USA (Beach, 1960); Illinois, USA (Bērziņš, 1984); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); NW Canada (Chengalath & Koste, 1987); Northern Michigan inland lakes, USA (Stemberger, 1990); ? Lake 132, NW Ontario, Canada (Schindler & Novén, 1971)
- Oriental region: India (Sharma & Michael, 1980); Singapore & India (Suzuki, 1989)
- Australian region: Billabongs river Murray, S Aust. (Shiel & Koste, 1983); L. Mumblin, Valley Lake: freshwater temperate Australian crater lakes (Green, 1981); Farm dams near Gloucester, NSW, Aust. (Suzuki & Timms, 1980); Qld & NSW, Aust. (Shiel & Koste, 1979); Tasmania (Koste & Shiel, 1986b); Pool in Australia (Bērziņš, 1982); Brookside, Canterbury, New Zealand (Russell, 1960)
- Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Gastropus minor (Rousselet, 1892)

- Palaearctic region: Small lakes in Estonia (Haberman & Mäemets, 1987); Karelian inland waters, R.F. (Kutikova, 1965); Finland (Eriksen, 1969); Lakes in Estonia (Mäemets, 1983); C & S Sweden (Bērziņš & Pejler, 1987); N Swedish Lapland (Pejler, 1962a); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, NW Germany (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Peat bogs in the Massif Central, France (Batut, 1965); All over Europe (Bērziņš, 1978); Romania (Rudescu, 1960); River Grabia basin, Poland (Pawlowski, 1960); Canals in the Hran area, CSR (Terek, 1990c); Lake Stensjön, Swedish W coast (Henrikson *et al.*, 1985); Peat bogs Chambédaize & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Dübener Heide, N Germany (Wulfert, 1961); Japanese inland waters (Yamamoto, 1960a); Lakes in NE Norway (Saeter, 1971); Serbian section of river Danube (Zivkovic, 1987); Pool in Fontainebleau forest, Paris suburb, Fr. (Pourriot, 1976); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Peat bog Cérisaie, Paris suburb, France (Pourriot, 1965); New impoundments in the CSR (Kubicek, 1968); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Nat. Res. Het Hol, Kortenhoef; Gerritsfles in Kootwijk; Lake De Wijde Blik, NL (Dresscher, 1976); Peat bog

Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987)

- Nearctic region: Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Bay of Quinte, Ontario, Canada (Nogrady, 1988); Littoral area of Lake Erie, USA (Stemberger, 1979); Mirror Lake, New Hampshire, USA (Strayer, 1985)
- Oriental region: Singapore (Karunakaran & Johnson, 1978; Sudzuki, 1989)
- Australian region: Qld & NSW, Aust. (Shiel & Koste, 1979); Lakes in Tasmania (Shiel, Koste & Tan, 1989); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); S Tasmania & NSW, Aust. (Koste, Shiel & Tan, 1988); Taieri Beach, New Zealand (Russell, 1960)
- Neotropical region: Chile (Koste & José de Paggi, 1982); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Gastropus stylifer Imhof, 1891

- Palaearctic region: Lake Ohrid, Balkan peninsula (Stankovic, 1960); Serbian section of River Danube (Zivkovic, 1987); All over Spain; Portugal: Beja (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); Pools Erpewaaien, near Nijmegen, NL (Leentvaar, 1970); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Romania (Rudescu, 1960); Lago Maggiore, Italy (Tonolli, 1962); Mesotrophic waters in E Poland (Radwan & Popolek, 1989); Lake Sempachersee, CH (Zimmermann, 1974); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Lake Mälaren, Sweden (Grönfeld, 1975); Fish ponds near Warsaw, Poland (Hillbright-Ilkowska, 1964); Lake Goggausee, Carinthia, Austria (Herzig & Moog, 1976); Small lakes in SW Sweden (Stenson, 1982); Grasmere Lake, Lake District, UK (Elliott, 1977); Tingwall Loch, Mainland, Shetland (Bérziņš, 1982a); Lakes in Estonia (Mäemets, 1983; Haberman, 1978); Impoundment Saidenbach, Erzgebirge, Germ. (Beuschold, 1961; Rudolf, 1966); Finland (Eriksen, 1969); Lake Bielersee, CH (Baugerter *et al.*, 1980; Berner-Fankhauser, 1983 & 1986); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Slovenia, ex-Yugoslavia (Markic, 1983); Lake Glubokoje, near Moscow, R.F. (Matveeva, 1983, 1986 & 1991); Lake Königssee, Bavaria (Laxhuber, 1987); C Finland (Eloranta, 1982b); L Stechlinsee & L. Nehmitzsee, N Brandenburg, Germany (Kasprzak & Ronneberger, 1982); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Lake Mikolajskie & L. Taltowisko, Poland (Klimowicz, 1972); Lake Mikolajskie & L. Sniardwy, Poland (Kosicki, 1960); Broads & peat pits, NW Overijssel, NL (Leentvaar, 1965); Nat. Res. Neeruti Lakes, NE Estonia (Mäemets A & A, s.d.); Lakes in C Sweden (Pejler, 1962 & 1965); Lake Stechlinsee, N Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); Lakes in S Sweden (Arnemo *et al.*, 1968); Small lakes in Estonia (Haberman & Mäemets, 1987); Lago Scuro Parmense, N Italy (Antonietti *et al.*, 1988); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Parczew area peat bogs, Poland (Radwan, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Pond in the Paris suburb, France (Pourriot, 1965); Aegean lakes, Macedonia, ex-Yugoslavia, Greece (Serafimova-Hadzisce, 1974); Dystrophic lake Brzeziczno, Poland (Bzrek *et al.*, 1975); Lake Erken, Sweden (Nauwerck, 1963); Lac Léman, Fr./CH (Martin, 1961; Naef & Martin, 1985; Balvay, 1989; Balvay & Laurent, 1981, 1989, 1990a & 1990b); Lake Konstanz (Walz *et al.*, 1987; Kiefer, 1968); Lakes in NE Norway (Saeter, 1991); Lake Lauerzersee, CH (Odermatt, 1970); ? Lake Nimeton, S Finland (Arvola *et al.*, 1986); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); All over the Netherlands (Dresscher, 1976); Lake Neujahrslöch, Hessen, Germany (Menzel, 1968); River Danube (Enaceanu & Brezeanu, 1970); Bolshoe Lake, White Sea, R.F. (Ghilarov, 1965); Knowsley Park, Liverpool, UK (Galliford, 1964); Lac de Pétichet, Isère, France (Gay, 1979); Lake Baikal, R.F. (Kozhov, 1963); Lake Zürichsee, CH (Nipkow, 1961); Karelian inland waters, R.F. (Kutikova, 1965); Lake Ösbysjön, near Stockholm, Sweden (Pejler, 1961); Lakes in C Sweden (Pejler, 1964); Lac d'Annecy, France (Balvay & Druart, 1992); In reed border of the Danube delta, Romania (Rudescu, 1968); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Gemündener Maar, Weinfelder M. & Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992); Middle course of river Loire, France (Lair & Sargos, 1981); R. Moldova, tributary of the Danube, Romania (Prunescu-Arion, 1968); Volga river & Volgograd reservoir, R.F. (V'yshkova & Lakhnova, 1974); Lake Ladoga, R.F. (Nikolayev & Petrova, 1978); Lapland State Reserve, R.F. (Ghilarov, 1972); All over Europe; Caucasus, Caspian area (Bérziņš, 1978); L. Prosce & L. Kozjak, Croatia, ex-Yugoslavia (Erben, 1991); Kiev reservoir, R.F. (Polishchuk, 1987); River Grabia basin, Poland (Pawlowski, 1960); Small lakes SE of Gothenburg, W Sweden (Morling & Pejler, 1990); Lake Donk, Overmere, Belgium (Dumont, 1968b); L. Mikolajskie & L. Taltowisko, Poland (Gliwicz *et al.*, 1978); Dübener Heide, N Germany (Wulfert, 1960b & 1961); River Salzach & its tributaries, Austria (Donner, 1970); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Leczna-Włodawa Lake District, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984)
- Nearctic region: Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991); Northern inland Michigan lakes (Stemberger, 1990); Ontario, Canada (Chengalath *et al.*, 1971); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Paradise Lake, E

Canada (George & Fernando, 1969); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Greens Lake, Beaver Island, Michigan, USA (Foran & King, 1982); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983 & 1989); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1990); Bay of Quinte, Ontario, Canada (Nogrady, 1988); Laurentian Great Lakes (Stemberger, 1979); Clearwater Lake & Swan Lake, near Sudbury, Ontario, Canada (Yan & Geiling, 1985); Grace Lake & Long Lake, N Canada (Moore, 1980); Lake Ontario, Canada (Nauwerck, 1978); Lake 122 & L. 132, NW Ontario, Canada (Schindler & Novén, 1971); Jackson Lake, L. Bradley, Yellowstone L., Two Medecine L., Pyramid L. & L. Jasper, W N America (Thomasson, 1962); Acid lakes in Maine, USA (Brett, 1989); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Ontario, Canada (Chengalath & Fernando, 1973); Lake Michigan & Milwaukee Harbor, USA (Stemberger, 1974); Wisconsin & Illinois, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Hellertown Res., Northampton Co, Pa, USA (Williamson *et al.*, 1989); Illinois river, USA (Brown *et al.*, 1989); Small pond in Vermont, USA (Gilbert, 1985); River Ocqueoc, Michigan, USA (Beach, 1960); Canada (Chengalath, 1977); Lake 382, Experimental Lake Area, NW Ontario, Canada (Malley & Chang, 1991)

- Australian region: Farm dams near Gloucester, NSW, Aust. (Sudzuki & Timms, 1980); Qld, Aust. (Shiel & Koste, 1979); Billabongs river Murray, S Aust. (Shiel & Koste, 1983); Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); L. Barrine, tropical Queensland Aust. crater lake (Green, 1981)

- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Argentina, Brazil & Chile (Koste & José de Paggi, 1982); Chilean lakes (Schmid-Araya, 1991); L. Escondido, Prov. Rio Negro, Argentina (Balseiro & Modenutti, 1990); Prov. Tierra del Fuego, Chubut, Rio Negro, Neuquen & Corrientes, Argentina (José de Paggi, 1990); Prov. Neuquen, Rio Negro & Tierra del Fuego, Argentina (Olivier, 1965); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); L. Taruma Mirim, Amazonia, Brazil (Hardy, 1980); Ecuador: Sierra (Koste & Böttger, 1992)

Gastropus spec.

- Palaearctic region: Fishponds in Lelystad, NL (Dresscher, 1976); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Middle course of river Loire, France (Lair & Sargas, 1981); Lago Trasimeno, Italy (Taticchi, 1968); Norfolk Broads, UK (Irvine *et al.*, 1990); Jordan reservoir, Bohemia, CSR (Mitiska *et al.*, 1962); Lago Maggiore, Italy (Tonolli, 1962); Hudsons Bay & Hoveston Great Broad, East Anglia, UK (Timms & Moss, 1984); Lac Léman Fr./CH (Balvay, 1989); Lac de Nantua, Ain, France (Balvay, 1985)

- Nearctic region: Mirror Lake, New Hampshire, USA (Marsh *et al.*, 1978); Lake Oglethorpe, Georgia, USA (Sanders *et al.*, 1989); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982)

- Oriental region: Parakrama Samudra, Sri Lanka (Duncan, 1983a; Duncan & Gulati, 1981 & 1983); Thailand (Boonsom, 1984b); Reservoir Parakrama Samudra, Sri Lanka (Duncan, 1984)

- Neotropical region: S Brazil (Arcifa, 1984); Argentina (Modenutti & Claps, 1988); Caroni river basin, Venezuela (Vasquez, 1984b)

Harringia de Beauchamp, 1912

Harringia eupoda (Gosse, 1887)

- Palaearctic region: Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Peten, 1973); Finland (Eriksen, 1969); River Hase, NW Germany (Koste, 1976b); Olonka river, Soviet Karelia, R.F. (Filimonova, 1976); W Eur. mountains & plains, C & E Eur. plains, Pontic & Baltic prov., UK, NW Russian taiga (Bērziņš, 1978); Romania (Rudescu, 1960); Lakes of Sosnowickie, Poland (Radwan, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a & , 1990b); Hamburg Harbour, Germany (Tent, 1981); Luga district of Leningrad area, R.F. (Kutikova, 1962b); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Middle course of river Loire, France (Lair & Sargos, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964)
- Nearctic region: Canada (Chengalath, 1977)

Haringia rousseleti de Beauchamp, 1912

- Palaearctic region: W & C Eur. plains (Bērziņš, 1978)
- Nearctic region: N America (Bērziņš, 1978); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988)
- Oriental region: Malaysia (Suzuki, 1989); W & E Malaysia & Singapore (Fernando & Zankai, 1981); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1984 & , 1985)
- Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b); Near Concepcion, Paraguay. New for Neotropis. Up to now known from Europe & N America (Koste, 1986b)

Harringia spec.

- Neotropical region: Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979-, 1980)

Hexarthra Schmarda, 1854

Hexarthra brandorffi Koste, 1977

- Neotropical region: Parque El Arenal, Santa Cruz de la Sierra, at the foot of the Bolivian Andes, Bolivia (Koste, 1977); Bolivia & Panama (Koste & José de Paggi, 1982)

Hexarthra bulgarica (Wiszniewski, 1933)

- Palaearctic region: Lake La Caldera, Sierra Nevada, Granada, Spain (Carrillo *et al.*, 1989 & , 1991); High mountain lakes & ponds of Sierra Nevada, Spain (Morales-Baquero *et al.*, 1988 & , 1989); ? Lake La Caldera, Granada, Spain (Cruz-Pizarro, 1978); Spain: Granada (Velasco, 1990); Carpathes (Bērziņš, 1978)
- Oriental region: ? Mt. Everest region (Khrumbu, Nepal) (Löffler, 1969); India (Sharma & Michael, 1980; Sudzuki, 1989); High mountain lakes in Nepal (Daems & Dumont, 1974)

Hexarthra bulgarica canadensis Dumont *et al.*, 1978

- Palaearctic region: Sierra Nevada, Spain (Cruz-Pizarro & Morales, 1987; Morales-Baquero, 1987); Spain: Granada (Velasco, 1990)
- Nearctic region: Grouse Lake, Alberta, Canada (Dumont *et al.*, 1978); ? Johnson L., Great Basin Nat. Park, Baker, Nevada (Starkweather, 1990)

Hexarthra bulgarica nepalensis Dumont *et al.*, 1978

- Oriental region: Gokyo Tso, east Nepal (Dumont *et al.*, 1978); India (Sharma & Michael, 1980; Sudzuki, 1989)

Hexarthra fennica (Levander, 1892)

- Palaearctic region: Delta of river Danube (Godeanu & Zinevici, 1983; Rudescu, 1960); La Mancha, Cast., Spain (Armengol *et al.*, 1975); Temporary salt lakes in Spain (Comin & Alonso, 1988); Lake Kinneret, N Israel (Berman *et al.*, 1972; Landau *et al.*, 1988); Banyoles Lake, NE Spain (Miracle, 1972, 1974 & , 1977); Steppic waters, Spain (Miracle, 1982); Lake Cullera, near Valencia, Banyoles Lake & Lagunillo near Cuenca, Spain (Miracle & Vicente, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Kratergöl, Asiatic Turkey (Dumont, 1981); Aci Göll, Asiatic Turkey (Dumont *et al.*, 1975); Pallanza, Italy (Edmondson, 1960); Lake Palaeostomi, Georgia, R.F. (Haberman, 1982; Haberman & Laugaste, 1982); Lake Neusiedlersee, Austria (Ruttner-Kolisko, 1975a & , 1978; Herzig & Koste, 1989); Lake Kinneret, Israel (Serruya & Pollingher, 1984; Gophen, Serruya & Spatarn, 1990); Lake Hazar, Turkey (Tokat, 1976); Lago Maggiore, Italy (Tonolli, 1962); Brackish waters in S Finland (Björklund, 1972a); Finland (Eriksen, 1969); Minorca, Spain (de Manuel, 1990); Brackish fishponds in C Japan (de Beauchamp, 1963); All over Europe. Cosmopolitan (Bērziņš, 1978); Eastern Baltic, Gulf of Finland, S North Sea (Bērziņš, 1960); Near city of Astrakhan, r. Volga delta, R.F. (Chuykov, 1981); In several brackish water lakes in Turkey (Emir, 1991); Lake Gebekirse (Izmir), Turkey (Ustaoglu & Balik, 1990b); Camargue, S France (De Ridder, 1960a & , 1961); Los Hinojos, Marismas, S Spain (De Ridder, 1962b); Small brackish pools in E Iran (Ruttner-

Kolisko, 1964); Southwest islands of Japan (Sudzuki *et al.*, 1992); Brackish Japanese inland waters (Yamamoto, 1960a); Qinghai Lake, China-Mongolia (Williams, 1991); Lake Har, Mongolia (Dulma, 1979); Vistula lagoon, Poland (Adamkiewicz-Chojnacka & Rozanska, 1990); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); River Y, Kinseler Lake, Amsterdamse grachten, Ysselmeer & other brackish waters, NL (Dresscher, 1976); Saltmarsh of Puerto de Pollensa, Majorca, Spain (De Ridder, 1967c); Brackish waters in the Lorraine orientale, Fr. (De Ridder, 1969a); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Shores of the White Sea & the Barents Sea, R.F. (Ghilarov, 1967); Lakes, N of Bucharest, Romania (Godeanu, 1969b); Side-arm of r. Danube near Bratislava, CSR (Lichardova, 1964); Black Sea (Rudescu, 1961); Lacken near L. Neusiedl, Austria; L. Neusiedl itself; Lake Niriz, Iran (Ruttner-Kolisko, 1971); Serbian section of river Danube (Zivkovic, 1987); All over Spain; Baleares: Menorca (Velasco, 1990); Lake Niriz, S Iran (Löffler, 1981)

- Nearctic region: Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Waldsee lake, Saskatchewan, Canada (Dumont *et al.*, 1978); Illinois, USA (Bērziņš, 1984); Lakes at Santee, California, USA (Nogrady, 1982); Unskiki, Canada (Ruttner-Kolisko, 1971)
- Oriental region: Tank near Nagpur, C India (Arora, 1966c)
- Australian region: SW Aust. (Koste, Shiel & Brock, 1979); Qld, Aust (Shiel & Koste, 1979); Saltlakes in SE Aust. (Baily & Williams, 1966); Tasmania (Koste & Shiel, 1986b); Lake Purrumbete (fresh), L. Bullenmerri (slightly saline) & L. Gnotuk (saline), Australia (Timms, 1981); Lakes Wanaka, Hawea, Lyndon & Brunner, New Zealand (Russell, 1960); Lake Corangamite, Australia (Ruttner-Kolisko, 1971); L. Corangamite & L. Gnarpit, Vic, Aust. (Sudzuki, 1967); Central S Australia (Serruya & Pollingher, 1984)
- Neotropical region: Chile (Löffler, 1962); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Laguna Masaya & L. Iloya, Nicaragua (De Ridder, 1966b); L. Llanquihue, Chile (Campo *et al.*, 1988); Provinces in NW Argentina (José de Paggi, 1989); Chile, Venezuela, Brazil, Antilles, Argentina, Bolivia (Koste & José de Paggi, 1982); Chilean lakes (Schmid-Araya, 1991); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Curaçao, Caribbean Islands, El Salvador, Nicaragua (Collado *et al.*, 1984); Prov. Chubut, Rio Negro, Neuquen, Mendoza, La Rioja, Catamarca, Cordoba & Buenos Aires, Argentina (José de Paggi, 1990); ? Amazonia, Brazil (Hauer, 1965b); Lake Valencia, Venezuela (Ruttner-Kolisko, 1971; Saunders, 1980); ? Argentina (Olivier, 1965)

Hexarthra intermedia (Wiszniewski, 1929)

- Palaearctic region: Romania (Rudescu, 1960); ? Peridunar pond Dulec, Doñana Nat. Park, Sp. (Lopez *et al.*, 1991); W Balkan, C Eur. mountains, E Eur. plains. Cosmopolitan (Bērziņš, 1978); In two lakes in Turkey (Emir, 1991); Southwest islands of Japan (Sudzuki *et al.*, 1992); Funada-Ike pond, Chiba, Japan (Urabe, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Anatolia, Turkey (Segers *et al.*, 1992); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Impoundments in Spain (Velasco, 1990)
- Nearctic region: Illinois & Kentucky, USA (Bērziņš, 1984); Ocqueoc river, Michigan, USA (Beach, 1960); Smith mountain Lake, Virginia, USA (Buikema & Loeffelman, 1978); Lakes in NE Michigan, USA (Stemberger, 1979); Experimental ponds near Bakersfield, Kern Co, California (Hurlbert *et al.*, 1972)
- Oriental region: Bali & L. Govindgarh; Java (Serruya & Pollingher, 1984); Tank near Nagpur, C India (Arora, 1966c & , 1966d); Near Bhopal, C India (Arora, 1967); Oxidation ponds at Bezon Bagh, Nagpur, C India (Arora, 1965 & , 1966a); Lake Lano, Island Mandanao, Philippines (Lewis, 1977); Girikbe Tank, Sri Lanka (Bērziņš, 1982a); River Yamuna, India (Novotna-Dvorakova, 1963; Rai, 1974); Lake Parakrama, Sri Lanka (Fernando, 1984); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); Singapore & Malaysia (Karunakaran & Johnson, 1978); Malaysia, Singapore, Sri Lanka, India, Philippines, Indonesia (Sudzuki, 1989); ? Kalimantan (Borneo), Indonesia (Koste, 1988a); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Lake Phewa Tal, near Pokhara, Nepal (Daems & Dumont, 1974); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); Sri Lanka. Common: occurs in lakes, ponds & ricefields (Chengalath, Fernando & Koste, 1973); Singapore & Taiwan. Warm water species (Sudzuki, 1991); Fishpond at Barrackpore, W Bengal State, India (Michael, 1968); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Montane lakes of Bali, Indonesia (Green, 1978); Saline crater lake Batur, Bali (Green, 1986); Lake Mangnao, Palawan, The Philippines (Davies & Green, 1990)
- Australian region: Reservoirs in SE Aust. (Shiel *et al.*, 1987); L. Eacham & L. Barrine, trop. Queensland Aust. crater lakes (Green, 1981); NSW, Aust. & Vic (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); River Darling, S Aust (Shiel & Walker, s.d.); Rivers of the Murray-Darling system, Aust. (Shiel, 1986); NW Aust. : Magela Creek area (Koste, 1981b); River Murray at Mannum, S Aust. (Shiel, 1979); Lake Okaro, New Zealand (Forsyth & James, 1991); Mayor Island, New Zealand (Russell, 1960); River Murray (Serruya & Pollingher, 1984)
- Neotropical region: Lake Cocibolca, L. Masaya & L. Asososca, Nicaragua (Moreno *et al.*, 1992); Orinoco river basin, Venezuela (Vasquez, 1984); Lower Orinoco r. and its delta, Venezuela (Vasquez & Rey, 1989);

Martinica, Antilles, Argentina, Surinam, Panama (Koste & José de Paggi, 1982); Provinces in NW Argentina (José de Paggi, 1989); Chilean lakes (Schmid-Araya, 1991); Prov. Tucuman, Santiago del Estero & Corrientes, Argentina (José de Paggi, 1990); Aruba, Bonaire, Caribbean Islands, Costa Rica & Cuba (Collado *et al.*, 1984); Lake Monte Alegre, SE Brazil (Arcifa *et al.*, 1992); Near Rio de Janeiro, Brazil (Turner, 1987c); Brokopondo Lake, Surinam (Leentvaar, 1979); Antilles françaises (Pourriot, 1975); Mato Grosso, Brazil (Turner & Da Silva, 1992)

***Hexarthra intermedia* (Wiszniewski), f. *brasiliensis* Hauer, 1953**

- Palaearctic region: Taiwan (Suzuki, 1988 & , 1989)
- Neotropical region: Lake Valencia, Venezuela (Saunders & Lewis Jr., 1988); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/ , 1980); Mato Grosso, Brazil (Turner & Da Silva, 1992); Amazonia, Brazil (Hauer, 1965b; Gillard, 1967; Thomasson, 1971; Koste, 1972f); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente (Koste & Böttger, 1989); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lago Viano Canal, Maranhão, Brazil (Reid & Turner, 1988); Brazil, Venezuela, Antilles (Koste & José de Paggi, 1982); Rio Uatumâ, Amazonia, Brazil (Koste & Hardy, 1984); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Prov. Tierra del Fuego & Santa Fé, Argentina (José de Paggi, 1990); Caribbean prt of the Neotropical region (De Ridder, 1977); Lago de Valencia, Venezuela (De Infante, 1980); Near Rio de Janeiro, Brazil (Turner, 1987c); Laguna La Orsinera, a floodplain lake, Venezuela (Twombly & Lewis Jr., 1987); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b); Rio Tocantins; Lago Passarinho; L. Biuçu, L. Tefé & L. do Castanho, Amazonia, Brazil (Schaden, 1977c); L. Castanho & L. Redondo, Amazonia, Brazil (Serruya & Pollingher, 1984); Lago Redondo, C Amazonia, Brazil (Hardy, 1980)

***Hexarthra jenkinae* (de Beauchamp, 1932)**

- Palaearctic region: Lake Neusiedlersee, Austria (Koste, 1979a; Herzig & Koste, 1989); East Persian salt desert, Ozbahkuh area, Iran (Ruttner-Kolisko, 1966); Lacken near L. Neusiedl, Austria; several localities in Iran; Lake Van, Anatolia (Ruttner-Kolisko, 1971)
- Nearctic region: Pyramid Lake, Nevada, USA (Galat *et al.*, 1981); Lake Lenore, L. Winnemucca, L. Mono & Soap Lake, N America (Ruttner-Kolisko, 1971)
- Australian region: Vic, Aust. (Shiel & Koste, 1979); Saline crater lakes Purdigulak, Red Rock Tarn & Werowrap, Vic, Aust. (Green, 1981 & , 1986); Lake Werowrap, Aust. (Ruttner-Kolisko, 1971)

***Hexarthra longicornicula* Turner, 1987**

- Neotropical region: Near Rio de Janeiro, Brazil (Turner, 1987c)

***Hexarthra major* Zutshi *et al.*, 1980**

- Oriental region: High mountains of Kashmir Himalaya, India (Zutshi *et al.*, 1980); Lake Nilnag (Serruya & Pollingher, 1984)

***Hexarthra mira* (Hudson, 1871)**

- Palaearctic region: Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989c & , 1989d); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Lake Biwa, Japan (Yamamoto, 1967 & , 1968; Hillbricht-Ilkowska, 1983a); Delta of river Danube, Romania (Godeanu & Zinevici, 1983; Prunescu-Arion, 1989); Romania (Rudescu, 1960); Lake Suwa, Japan (Hanazato *et al.*, 1989); Lake Neusiedlersee, Austria (Herzig & Koste, 1989); Po river, Italy (Ferrari *et al.*, 1989); Koyama-Ike, a coastal pond of Japan (Suzuki & Fukuta, 1989); Minorca, Spain (de Manuel, 1990); Lake Kasumigaura, Japan (Hanazoto, 1990); Ponds in Japan (Hanazoto & Yasuno, 1990); Banyoles Lake, NE Spain (Miracle, 1974, 1975 & , 1977); 3 reservoirs on River Guadiana, Spain (Armengol *et al.*, 1988); Water works Horrem, near Köln, Germany (Bick & Scholtyseck, 1960); Finland (Eriksen, 1969); Banyoles L. & Lagunillo Negro, near Cuenca, Spain (Miracle & Vicente, 1983); Lakes in Estonia (Mäemets, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Priest Pot, Lake District, UK (Hewitt & George, 1987); District Ostrava, CSR (Dvorakova, 1960b); ? Buchseen, Bodensee, CH (Einsle, 1966); Mindelsee, Bodensee, CH (Einsle, 1967); Lake Bolsena, L. Bracchiano & L. Vico, C Italy (Ferrari, 1972); Hortobagy Nat. Park, Hungary (Forró & Ronkay, 1983); Near Trebon, S Bohemia, CSR (Albertova, 1960); Lago di Giulianello, Latium, Italy (Ferrara & Margeritora, 1977); River Klyas'ma, R.F. (Bogoslawski, 1961); Heiluntsian Province, China (Bogolowski, 1962); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Nat. Res. Neeruti lakes, NE Estonia (Mäemets A & A, s.d.); Lac d'Annecy, France (Balvay & Druart, 1992); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); Gemünderer Maar, Weinfelder Maar & Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992); Lake Laacher See, Eifel, Germany (Eckartz- Nolden & Nolden, 1992); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Aegean lakes, Macedonia, ex-Yugoslavia & Greece (Serafimova-Hadzisce, 1974); Serbian section of river Danube (Zivkovic , 1968 & , 1987); All over Spain; Portugal: Beja & Evora (Velasco, 1990); Waters near river Bodrog, NE Hungary

(Dévai *et al.*, 1972-, 1973); Lac Léman, Fr/CH (Balvay *et al.*, 1985; Balvay, 1989; Balvay & Laurent, 1989 & , 1990a); Impoundment Helme, near Kelbra, Kyffhäuser, Germany (Heynig, 1968); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Lake Monterosi, Latium, Italy (Stella & Margaritora, 1966); In three lakes in Turkey (Emir, 1991); Lake Giulianello, Latium, Italy (Stella & Margaritora, 1972); Lake Volvi, Macedonia, Greece (Zarfdjian *et al.*, 1990); River Grabia basin, Poland (Pawlowski, 1970); Lake Balaton, Hungary (Zankai, 1968); Etang de Brochet, Paris suburb, France (Pourriot *et al.*, 1969); Lac de Crêteil, Paris suburb, France (Pourriot & Rougier, 1991; Lescher-Moutoué *et al.*, 1985); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Akgöl, Selçuk-Izmir, Turkey (Ustaoglu & Balik, 1987); Lake Marmara, Turkey (Ustaoglu & Balik, in press); Experimental Fish Culture in Golysz, catchment area of the Upper Vistula, Poland (Lewkowicz, 1984); Southwest islands of Japan (Sudzuki *et al.*, 1992); Dübener Heide, N Germany (Wulfert, 1961); Bullhouse Pond, Bisley, Surrey, UK (Pontin & Pontin, 1980); Japanese inland waters (Yamamoto, 1960a); Artificial ponds near Köln, Germany (Trahms, 1972); Predeltaic area of the Danube in the Black Sea, Romania (Popescu-Marinescu, 1974); Etang de Pommereau, Loir-et-Cher, France (Tassigny, 1970); Lac de Nantua, Ain, France (Balvay, 1985); Highly dystrophic lake Smolak, Poland (Brinska *et al.*, 1976); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Nat. Res. Het Hol, Kortenhoef; Prov. Limburg, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Lake Doftana & river Bilbu, Romania (Fescu, 1969); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Lakes N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Knowsley Park, Liverpool, UK (Galliford, 1964); Small water bodies in the Mikolajkie area, Poland (Klimowicz, 1967); Pond in Gif-s-Yvette, Paris suburb, France (Pourriot, 1972); Ponds in Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Hamburg area, Germany (Rühmann, 1961); Hamburg harbour, Germany (Rühmann, 1962); Ponds & pool in the Paris suburb, France (Pourriot, 1965); Lake Biwa-ko, Japan (Yamamoto, 1960b); Rybnik Dam reservoir, Poland (Krzanowski, 1979)

- Nearctic region: Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); L. Whitney, Cumberland Isl. Nat. Seashore, USA (Stoneberger & Schmock, 1980); Lake St. Clair, USA (Stemberger, 1979); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Stoneman Lake, Arizona, USA (Green, 1986); Jackson Lake, West N America (Thomasson, 1962); Illinois river, USA (Brown *et al.*, 1989); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989); Colorado, USA (Turner, 1988); Illinois & Kentucky, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Waterton Lakes Nat. Park near Camrose, Alberta, Canada (Dumont *et al.*, 1978); River Ocqueoc, Michigan, USA (Beach, 1960); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Fernando, 1973); Lancaster Lake, Michigan, USA (Fairchild *et al.*, 1977); Fentrus Lake, Colorado, USA (Pennak, 1966); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Lake Weir, North C Florida, USA (Beaver & Crisman, 1990); Northern Michigan inland lakes (Stemberger, 1990); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984)

- Oriental region: Rajasthan, India (Nayar, 1968); Taiwan, Malaysia, Singapore, Indonesia, Sri Lanka, India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); India (Sharma & Michael, 1980); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969 & , 1980a); Lake Phewa Tal, near Pokhara, Nepal (Daems & Dumont, 1974); Sri Lanka. Common, occurring in lakes, ponds & rice fields (Chengalath, Fernando & Koste, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Stocking tank & Nursery tank, Delhi, India (George, 1966); Punjab State, NW India (Sharma, 1976; Sharma & Sharma, 1984); West Bengal, NE India (Sharma, 1979b); Lake Toba (Serruya & Pollingher, 1984); 2 ponds at Pilani, Rajasthan, India (Nayar, 1970)

- Australian region: NSW, S Aust., Vic & Qld (Shiel & Koste, 1979); Farm dams near Gloucester, NSW, Aust. (Sudzuki & Timms, 1980); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); E Aust. (Koste & Shiel, 1980b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); River Murray at Mannum, S Aust. (Koste, 1980); Reservoirs of the Murray-Darling system, Aust. (Shiel, 1986); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs SE Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); ? Lake Brunner, ? L. Wanka, L. Alexandrina, L. Grassmere, New Zealand (Russell, 1960)

- Neotropical region: Island Lake, L. Hemmen, Crescent L., Rio Snia Missu, Mato Grosso, C Brazil (Green, 1972); Surinam (Leentvaar, 1975); Provinces in NW Argentina (José de Paggi, 1989); Brazil, Argentina, Surinam & Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Galapagos Islands (De Smet, 1987 & , 1989); Cuba (Collado *et al.*, 1984); Prov. San Juan, La Rioja & Santiago del Estero, Argentina (José de Paggi, 1990); Near Rio de Janeiro, Brazil (Turner, 1987c); ? Argentina (Olivier, 1965); Amazonia, Brazil (Thomasson,

1971); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b); Lago Moratu & L. do Castanho, ibid. (Schaden, 1977c)

***Hexarthra mollis* (Bartos, 1948)**

- Palaearctic region: Pools of river Elbe, CSR (Dvorakova, 1961); C Eur. mountains; Asia Minor (Bērziņš, 1978)

***Hexarthra oxyuris* (Sernov, 1903)**

- Palaearctic region: Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Asiatic Turkey (Dumont & De Ridder, 1987); District Ostrava, CSR (Dvorakova, 1960b); Delta of river Danube, Romania (Prunescu-Arion, 1989); Romania (Rudescu, 1960); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); Gulf of Finland (Bērziņš, 1960); All over Europe. Cosmopolitan (Bērziņš, 1978); Lake Kus, Turkey (Ustaoglu & Balik, 1990a); Lake Gebekirse, Izmir, Turkey (Ustaoglu & Balik, 1990b); Southwest islands of Japan (Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Black Sea (Rudescu, 1961); Spain: Gerona & Valencia (Velasco, 1990)

- Nearctic region: Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Everglades Nat. Park, Florida, USA (Nogrady, 1983)

- Oriental region: Nagpur, India (Arora, 1962a); In potable water reservoirs, Nagpur, C India (Arora, 1966c); India (Sharma & Michael, 1980; Sudzuki, 1989)

- Australian region: Tasmania (Koste & Shiel, 1987); Vic, Southwest W Aust. & Tasmania (Shiel & Koste, 1987); Named *Hexarthra barracootica* in L. Barracoota, Aust. (Bērziņš, 1982)

- Neotropical region: Chile, Brazil, Argentina (Koste & José de Paggi, 1982); Chilean lakes (Schmid-Araya, 1991); Prov. Buenos Aires, Argentina (José de Paggi, 1990)

***Hexarthra polyodonta* (Hauer, 1957)**

- Palaearctic region: Asiatic Turkey (Dumont & De Ridder + App., 1987); Lake Neusiedlersee, Austria (Herzig & Koste, 1989)

- Nearctic region: NW Canada (Chengalath & Koste, 1987); Hoya la Alberca & Rincon de Parangueo, Mexico (Green, 1986)

- Australian region: Vic, Aust. (Koste & Shiel, 1980c)

***Hexarthra polyodonta jasperina* Dumont *et al.*, 1978**

- Nearctic region: Katrine Lake, Jasper Nat. Park, near Camrose, Alberta, Canada (Dumont *et al.*, 1978)

***Hexarthra polydonta soaplakeiensis* Koste, 1977**

- Nearctic region: Soap Lake, Washington, USA (Koste, 1977)

***Hexarthra propinqua* (Bartos, 1948)**

- Palaearctic region: C Eur. mountains; Asia Minor (Bērziņš, 1978); River Volga, R.F. (Mordukhai-Boltovskoi, 1979)

- Australian region: Lake Ngaweha, New Zealand (Russell, 1960)

***Hexarthra reducens* (Bartos, 1948)**

- Palaearctic region: C Eur. mountains (Bērziņš, 1978)

***Hexarthra* spec.**

- Palaearctic region: Lake Goggausee, Carinthia, Austria (Herzig & Moog, 1976); Lagoon of Cullera, 35 km S of Valencia, Spain (Miracle *et al.*, 1988); Reservoir at Kibbutz Na'am, C Israel (Dor *et al.*, 1987); Southwest islands of Japan (Sudzuki *et al.*, 1992); Chainjoin Lake, N Tibet (Williams, 1991); R. Elbe estuary, Germany (Schulz, 1961)

- Nearctic region: Nat. Parks in British Columbia & Alberta, Canada (Anderson, 1977); Lake Brooker, Florida, USA (Scheda & Cowell, 1988); Dedmoose & Waldsea Lake, Saskatchewan, Canada (Hammer *et al.*, 1975); Lake Oglethorpe, Georgia, USA (Orcutt & Pace, 1984; Sanders *et al.*, 1989); Colorado, USA (Turner, 1988); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Lakes in Florida (Dawes *et al.*, 1987)

- Oriental region: Reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966); Java (Green & Oey, 1974); Taiwan, Malaysia, Singapore & India (Sudzuki, 1989); Thailand (Boonsom, 1984b); Ajwa reservoir, near Baroda, Gujarat, W India (Jayangaudar, 1980); Lake Sat Tal, Utar Pradesh, India (Pant *et al.*, 1985); Lake Surinsar, Jammu (J & K), India (Jyoti & Sehgal, 1979); Lakes Mt. Everest (Serruya & Pollingher, 1984); Lakes at Pilani, Rajasthan, India (Nayar, 1970)

- Australian region: Sidney reservoirs, NSW Aust. (Thomasson, 1973); Coliban reservoir, Aust. (Bērziņš, 1982); Lake Monk & L. Mouat, SW New Zealand (Stout, 1975)

- Neotropical region: Amazonia, Brazil (Gillard, 1967; Thomasson, 1971); Argentine Patagonia (Kuczynski, 1987b); Billings reservoir, São Paulo, Brazil (Sendacz, 1984); Prov. Salta, Argentina (José de Paggi, 1990); Laguna del Tesoro, Cuba (Alonso, 1984); S Brazil (Arcifa, 1984); Surinam (Leentvaar, 1975); River Parana,

Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1985); River Santa Fé, Argentina (José de Paggi, 1976b); Broa Reservoir, Sao Carlos, Sao Paulo, State-Brazil (Matsumara-Tundisi & Tundisi, 1976); Lake Xolotlan, Nicaragua (Cisneros & Mangas, 1991); Lake Izabal, Guatemala (Brinson & Nordlie, 1975); Laguna Gomez, in the NW of Buenos Aires prov., Argentina (Boltovskoy *et al.*, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Horaëlla Donner, 1949

Horaëlla brehmi Donner, 1949

- Palaearctic region: River Loire, France (Lair *et al.*, 1978); Portugal: Beja (Velasco, 1990); ? Southwest islands of Japan (Sudzuki *et al.*, 1992)
- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Singapore (Karunakaran & Johnson, 1978); India & Sri Lanka (Koste, 1973b); Singapore, Sri Lanka & India (Sudzuki, 1989); Sri Lanka. Recorded from a pond near Kandy and a few small lakes (Chengalath, Fernando & Koste, 1973); Roshnara tank, Naini tank, Indranagar tank & Stocking tank, Delhi, India (George, 1966); Punjab State, India (Sharma & Sharma, 1984); West Bengal, NE India (Sharma, 1979b); Orissa, E India (Sharma, 1978c); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1985); Lake Nilnag (Serruya & Pollingher, 1984)
- Australian region: S Australia (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Tasmania (Koste & Shiel, 1987)
- Neotropical region: Chilean lakes (Schmid-Araya, 1991)

Horaëlla thomassoni Koste, 1973

- Palaearctic region: ? Southwest islands of Japan (Sudzuki *et al.*, 1992)
- Neotropical region: Amazonia, Brazil; Venezuela & Colombia (Koste, 1973b); In the flood valley of the Parana r., Argentina (Paggi, 1978); Provinces in NW Argentina (José de Paggi, 1989); Brazil, Argentina & Venezuela (Koste & José de Paggi, 1982); Prov. La Rioja, Santa Fé & Buenos-Aires, Arg. (José de Paggi, 1990); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago Buiuçu, Amazonia, Brazil (Schaden, 1977c)

Horaëlla spec.

- Palaearctic region: River Loire, France (Lair, 1980)
- Neotropical region: Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980)

Itura Harring & Myers, 1928

Itura articulata (Rodewald, 1935)

- Palaearctic region: Romania (Rudescu, 1960); Carpathes (Bērziņš, 1978); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

Itura aurita (Ehrenberg, 1830)

- Palaearctic region: Finland (Eriksen, 1969); Slovenia, ex-Yugoslavia (Markic, 1983); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Lake Mikolajskie, Mazurian lakeland, Poland (Klimowicz, 1972); Romania (Rudescu, 1960); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); River Hase, NW Germany (Koste, 1976b); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); All over Europe; Asia Minor. Cosmopolitan (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1960); Lake Balaton, Hungary (Zankai, 1968); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Korea (Turner, 1986); River Salzach & its tributaries, Austria (Donner, 1970); Lake Neusiedlersee, Austria (Donner, 1972d & 1979); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Small water bodies in the Mikolajkie area, P. (Klimowicz, 1967); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Pond in the Paris suburb, France (Pourriot, 1965)

- Nearctic region: Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Kingston, Ontario, Canada (Nogrady, 1989); Colorado, USA (Turner, 1988); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: India (Sharma & Michael, 1980); Singapore (Suzuki, 1989); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Ricefields in NE Thailand (Hechman, 1979)

- Australian region: Qld, Aust. (Shiel & Koste, 1979); Tasmania (Koste & Shiel, 1986b); Early record from Qld. Rare, only Vic (billabongs) & Tas (stock dams) (Koste & Shiel, 1991)

- Neotropical region: Near Panguana, Peru (Koste, 1988b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Itura aurita (Ehrenberg), f. *cayuga* Harring & Myers, 1928

- Palaearctic region: C Eur. mountains, C & E Eur. plains (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

Itura aurita (Ehrenberg), f. *intermedia* Wulfert, 1935

- Palaearctic region: C Eur. mountains, Carpathes, Pontic prov., C & E Eur. plains (Bērziņš, 1978); Romania (Rudescu, 1960); Dübener Heide, N Germany (Wulfert, 1960b & 1961); In periphyton of mosses & *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)

Itura chamadis Harring & Myers, 1928

- Palaearctic region: C Eur. mountains, C & E Eur. plains (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978); Kingston, Ontario, Canada (Nogrady, 1989)

- Neotropical region: Near Concepcion, Paraguay. Discovered in N America, found in Central Europe by Wulfert, 1935 (Koste, 1986b)

Itura claviger Hauer, 1965

- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f)

Itura globata Rudescu, 1960

- Palaearctic region: Carpathes (Bērziņš, 1978); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

Itura myersi Wulfert, 1935

- Palaearctic region: ? Coast of S Finland (Eriksen, 1969); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); W & C Eur. mountains, Carpathes, W, C & E plains, NW Russian taiga (Bērziņš, 1978); Romania (Rudescu, 1960); Lake Neusiedlersee, Austria (Donner, 1979); Pond in the Paris suburb, France (Pourriot, 1965)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)

- Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1981); Malaysia (Suzuki, 1989)

- Australian region: Vic, Aust. (Koste & Shiel, 1980c); Single record from Snowdon's billabong, Wodonga, Vic (Koste & Shiel, 1991)

- Neotropical region: Venezuela (Koste & José de Paggi, 1982); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979-1980)

"*Itura pseudoaurita* Koch-Althaus, 1962"

- Palaearctic region: L. Stechlinsee, N Brandenburg, Germany (Koch-Althaus, 1962 & 1963); ? L. Stechlinsee, N Brandenburg, Germany (Ronneberger & Schönborn, 1985)

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a)

Note: this name is not available, in the sense of the Int. Code of Zoological Nomenclature

Itura viridis (Stenoros, 1898)

- Palaearctic region: Bog pond near Budapest, Hungary (Nogrady, 1962); Finland (Eriksen, 1969); Canal Leeds-Liverpool, UK (Galliford, 1960b); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); W & C Eur. mountains, Hungarian plain, Pontic province, C & E Eur. plains, UK, Boreal highland, NW Russian taiga (Bērziņš, 1978); Romania (Rudescu, 1960); Lake Balaton, Hungary (Zankai, 1968); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970)
- Nearctic region: N America (Bērziņš, 1978); Kentucky, USA (Bērziņš, 1984); Kingston, Ontario, Canada (Nogrady, 1989)
- Oriental region: Indonesia (Suzuki, 1989)
- Australian region: Vic, Aust. (Shiel & Koste, 1985); Trentham, Vic & Rapseys 3 stock dam, Wodonga, Aust. (Koste & Shiel, 1991)
- Neotropical region: Brokopondo Lake, Surinam (Leentvaar, 1979)

Itura spec.

- Palaearctic region: L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Bistritza & its tributaries, Romania (Miron, 1960)
- Nearctic region: Illinois, USA (Bērziņš, 1984); Kalamazoo river, Michigan, USA (Prins & Davis, 1966)
- Oriental region: Malaysia (Suzuki, 1989)
- Neotropical region: Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Kellicottia Ahlstrom, 1938*Kellicottia bostoniensis* (Rousselet, 1908)

- Palaearctic region: Lake Mekelermeer, prov. Drente, NL (Schroevers, 1962); Prov. Friesland, NL (Leentvaar, 1960); Lakes in S Sweden (Arnemo *et al.*, 1968); Lake Mälaren, Sweden (Lanner & Pejler, 1973; Grönberg, 1975); Palaearctic & Nearctic region (Pejler, 1977); C Eur. plains (Bérziņš, 1978); Maria- & Helenapeel, NL (Dresscher, 1976); Hamburg Harbour, Germany (Rühmann, 1962)
- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Andersen, Benfield & Buikema, 1977); Small eutrophic lake in Norwich, Vermont, USA (Bogdan *et al.*, 1980); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Fernando, 1973); Mirror Lake, New Hampshire, USA (Makarewicz & Likens, 1979); Star Lake, Norwich, Vermont, USA (Gilbert, 1989b; Starkweather & Bogdan, 1980); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988; Gonzalez, Frost & Montz, 1990); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Lake 227, NW Ontario, Canada (Malley *et al.*, 1988); Cape Herschel, Ellesmore Island, NWT, Canada (Nogrady & Smol, 1989); Hellerton res., Northampton Co, Pa, USA (Williamson *et al.*, 1989); Illinois, USA (Brown *et al.*, 1984 & 1989); Lakes Adirondack, NY State, USA (Siegfried *et al.*, 1989); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989); Lake Oglethorpe, Georgia, USA (Sanders *et al.*, 1989; Pace & Orcutt, 1981; Orcutt & Pace, 1984); Pools & lakes near Hanover, New Hampshire, USA (Gilbert, 1988); Acid lakes in Maine, USA (Brett, 1989); 18 arctic & subarctic lakes in Canada (Moore, 1978); Lake 382, Experimental Lake area, NW Ontario (Malley & Chang, 1991); Northern Michigan inland lakes (Stemberger, 1990); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Rogers L., Connecticut (S New England), USA (Deevey, 1964); Paradise Lake, E Canada (George & Fernando, 1969); Pandapas pond, SW Virginia, USA (Knauer & Buikema, 1984); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Desaulniers Reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Triangle Lake, Portage Cy, Ohio, USA (Havens, 1989, 1990 & 1991); Laurentian Great Lakes (Stemberger, 1979); Clearwater Lake, near Sudbury, Ontario, Canada (Yan & Geiling, 1985); Mantandan Marsh, Northumberland County, Pennsylvania, USA (Seelbach & Mc Diffett, 1983); Lake Ontario, Canada (Nauwerck, 1978); Northern Ontario Lakes, Canada (Roff & Kwiatkowski, 1977); Bauline Long Pond, Newfoundland (Davis, 1973); Mirror Lake, New Hampshire, USA (Makarewicz & Likens, 1975 & 1979; Likens & Gilbert, 1970); Little Rock Lake, Wisconsin, USA (Gonzalez & Frost, 1992); Lake 122 & L. 132, NW Ontario, Canada (Schindler & Novén, 1971); Massey Lake, 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978)

Kellicottia longispina (Kellicott, 1879)

- Palaearctic region: Romania (Rudescu, 1960); Nat. Res. Neeruti Lakes, NE Estonia (Mäemets A & A, s.d.); Jordan reservoir, Bohemia, CSR (Mitiska *et al.*, 1962); Pyrenean lakes, Spain (Miracle, 1978); Bicaz water power reservoir, Romania (Bassez *et al.*, 1971); Lakes C Sweden (Pejler, 1965 & 1972); Palaearctic, Nearctic, Ethiopian & Neotropical regions (Pejler, 1977); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Blelham Tarn, Cumbria, UK (Ferguson *et al.*, 1982); Lake Heimdalsvatn, Norway (Bottrell *et al.*, 1976); Lake Balaton, Hungary (Zankai & Ponyi, 1970, 1971a & 1973; Sebestyen, 1974; Zankai, 1974 & 1989); Lake Hazar, Turkey (Tokat, 1976); Lago Maggiore, Italy (Tonolli, 1962; Goldman *et al.*, 1968); L. Santo Parmense, N Apennines, Italy (Ferrari *et al.*, 1973); L. Stechlinsee & L. Nehmitzsee, Brandenburg, G. (Kasprzak & Ronneberger, 1982); L. Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); L. Mikolajskie & L. Taltowisko, ibid. (Klimowicz, 1972); L. Mikolajskie (eutrophic) & L. Taltowisko (mesotrophic), Mazurian lakeland, Poland (Hillbricht-Illkowska *et al.*, 1966); Impoundment Kninicki & river Svatka, CSR (Kubicek, 1964); L. Mälaren, Sweden (Lanner & Pejler, 1973; Grönberg, 1975); L. Blankvatn, near Oslo, Norway (Larsson, 1971); L. Mikolajskie & L. Sniardwy, Mazurian lakeland, Poland (Kosicky, 1960); Delta of river Danube (Prunescu-Arion, 1989; Godeanu & Zinevici, 1983); Lakes in the high mountains, Spain (Miracle, 1982); Lake Ormijärvi, S Finland (Cajander, 1983); Lake Bielersee, CH (Baugerter *et al.*, 1980; Berner-Fankhauser, 1983 & 1984); Great lakes in Estonia (Haberman, 1983; Mäemets, 1983); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Banyoles Lake, Spain (Miracle & Vicente, 1983); Slovenia, ex-Yugoslavia (Markic, 1983); Lake Glubokoje, near Moscow, R.F. (Ghilarov, 1976; Matveeva, 1983, 1986 & 1991); Asiatic Turkey (Dumont & De Ridder, 1987); Lakes in the Pyrenees (Morales-Baquero, 1987); Lake Königssee, Bavaria (Laxhuber, 1987); Lake Siggeforansjön, Sweden (Grundström, 1987); Lago de Vareze & L. di Mergozzo, Italy (Edmondson, 1960); Buchseen, Bodensee, CH (Einsle, 1966); Mindelsee, Bodensee, CH (Einsle, 1967); C Finland (Eloranta, 1982b); L. Bolsena, L. Bracciano & L. Vico, C Italy (Ferrari, 1972); Lake Maarsseveen, NL (Van den Bosch & Ringelberg, 1985; Ringelberg & Steenvoorden, 1986); Mesotrophic waters in E Poland (Radwan & Popolek, 1989); Lake Numasawa, Japan (Suzuki *et al.*, 1983 & 1989); Lake Konstanz, Germany (Pauli, 1989); Lake

Sempachersee, CH (Zimmermann, 1974); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Svalbard (Amren, 1964b); Canal de Séclin, Nord, France (Angeli, 1972); Lake Myvatn, Iceland (Adalsteinsson, 1974); Lake Bodensee near Konstanz (Koch-Althaus, 1962; Walz, 1986); Lake Stechlinsee, N Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundments Saidenbach & Neunzhnhain, G. (Althaus, 1976); Impoundment Saidenbach, Erzgebirge, Germany (Beuschold, 1961; Rudolf, 1966); Lakes in S Sweden (Arnemo *et al.*, 1968); Lake Groszer Müggelsee, Berlin, Germany (Barthelmes, 1960); River Klyas'ma, R.F. (Bogoslawski, 1961); Small lakes in Estonia (Haberman & Mäemats, 1987); Lake Lunzer Untersee, Austria (Ruttner-Kolisko, 1977a & 1977d; Ruttner-Kolisko & Malicky, 1988); Lake Stugusjøen, Sweden (Langeland, 1988); Pond in Hoboken (Antwerp, Belgium) (De Smet *et al.*, 1988); Lake Derwart, near Doornik, Belgium (Bogaert, 1988; Bogaert & Dumont, 1989); Near Cambridge, UK (Jenkin, 1982); L. Erken, 50 km E from Uppsala, Sweden (Dottne-Lindgren, 1973); River Ybbarspå, Sweden (Bērziņš, 1979); Small lakes in SW Sweden (Stenson, 1982); Lakes in the Lake District, UK (Smyly, 1968); Middle course of river Loire, France (Lair & Sargos, 1981); All over Europe; Caucasus, Caspian area (Bērziņš, 1978); Gulf of Bothnia, Gulf of Finland (Bērziņš, 1960); Lake Pluszsee, N Germany (Hofmann & Krambeck, 1991); Lac Léman, Fr./CH (Rougier, 1969; Martin, 1961; Naef & Martin, 1985; Balvay & Delvaux, 1981; Balvay & Laurent, 1989, 1990a & 1990b; Balvay, 1989 & 1991); "Grote Vijver" fort 8, Hoboken, Belgium (De Smet *et al.*, 1986); "Kleine vijver" fort 8, Hoboken, Belgium (De Smet *et al.*, 1989); Moat of fort Merksem, Belgium (De Smet *et al.*, 1987); Lake Viksvatn, C Norway (Koksvik & Reinertsen, 1991); Spanish reservoirs (de Manuel, 1991); Neva Bay, Gulf of Finland, R.F. (Telesh, 1986); Vilyny river, R.F. (Sokolova, 1986); Volgograd reservoir, R.F. (V'yushkova, 1985); L. Krasnoye, Karelian Isthmus, R.F. (Aleksandrov & Kutikova, 1985); Soviet section of the Danube, R.F. (Parchuk, 1985); Lakes Kedre & Tarasm, Lake Onega basin, R.F. (Kruglova, 1981); Lake Lukoml', Belorussia, R.F. (Mitrakovich *et al.*, 1983); Small rivers in the Kola peninsula, R.F. (Kruglova, 1983); L. Ozohogina, Indigirka basin, Jakutia, R.F. (Vinglinsky *et al.*, 1985); Mologa river, R.F. (Riv'yer *et al.*, 1981); Lake Randsfjord & surroundings, Norway (Elgmark, 1966); Impoundment Pastviny, E Bohemia, CSR (Sladecek & Fiola, 1961); Lakes in the Northern taiga, Kola peninsula, R.F. (Velikoretskaya & Forst, 1972); Lac Pavin, Massif Central, France (Dévaux, 1980); Lago Santo Parmense, N Apennines, Italy (Ferrari, 1976); Inundation area of Danube delta, Romania (Dorobantu, 1964); Impoundments in E Bohemia, CSR (Sladeckova & Sladecek, 1960); Canals in Hran area, CSR (Terek, 1960c); Mountain Fuji, Japan (Sudzuki, 1971); Pond in the Paris suburb, France (Pourriot *et al.*, 1969); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968; Zankai & Ponyi, 1982); Small lakes SE of Gothenburg, W Sweden (Morling & Pejler, 1990); Lake Gates, Denderleeuw, Belgium (Dumont, 1968a); Lake Donk, Overmere, Belgium (Dumont, 1968b; Martens, 1985; Roche 1989); R. Meuse Liégeoise, Belgium (Baiverlin, 1984); N & W Iceland (De Ridder, 1972); Lake Gersjøen, S Norway (Hessen & Nilssen, 1985; Faafeng & Nilssen, 1981); L. Mikolajskie & L. Taltowisko, Poland (Gliwicz *et al.*, 1978); Lake Pluszsee, N Germany (Hofmann, 1972, 1975 & 1985); Near Lapeenranta, Finland (Järnefelt, 1961); Sava Lake, ex-Yugoslavia (Kalafatic, 1978); Lake Øvre Heimdalsvatn, C Norway (Larsson, 1972); Lac Pavin & Lac Tazenat, Massif Central, Fr. (Lair, 1975); Lake Baikal, R.F. (Kutikova, 1978); Lake Onega, R.F. (Nikolaev, 1972); Lakes in the Kuokkel area, N Swedish Lapland (Persson, 1978); Lakes in E Poland (Radwan, 1978); Lake Piaseczno, E Poland (Radwan *et al.*, 1984); Lake Nimetön, S Finland (Arvola *et al.*, 1986); Umba river system, White Sea basin, R.F. (Kruglova, 1991); River Svratka, CSR (Kubicek, 1968); Lac Aydat, Massif Central, France (Lair & Ayadi, 1989; Lair & Oulad Ali, 1990; Lair, 1978, 1990, 1991 & 1992; Oulad Ali *et al.*, 1990); Leczna-Włodawa Lake District, E Poland (Kolwalczyk & Radwan, 1982; Radwan, 1984); Backwater Lobicko, Middle Elbe, CSR (Straskraba, 1965); W Svalbard (Thomasson, 1961); In acid ponds in Lower Austria (Wawrik, 1972); Japanese inland waters (Yamamoto, 1960a); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Gravel pits along river Meuse, NL (Wibaut-Isebree Moens, 1964); Lake Kinneret, Israel (Serruya & Pollingher, 1984); Windermere N & S basin, Estwaite water & Blelham Tarn, Lake District, UK (Edmondson, 1965); Lake Tyrifjord, Norway (Langeland, 1974); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962); Piaseczno Lake, Poland (Brzek *et al.*, 1975); Pools Erpewaaien, near Nijmegen, NL (Leentvaar, 1970); Water works Jungfernheide, Berlin, Germany (Ritterbusch, 1974); Lake Laacher See, Eifel, Germany (Eckartz-Nolden & Nolden, 1992); Lac de Pétichet, Isère, France (Gay, 1979); Lake Hecklan, C Sweden (Olsson *et al.*, 1992); Impoundment Weidatalsperrre, E Thüringen, Germany (Hoffmann, 1966); New impoundments in the CSR (Kubicek, 1968); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Lac de Tazenat, Massif Central, France (Lair & Restituto, 1976); Lac de la Crégut, Dépt. du Cantal, France (Omaly, 1970); Anatolia, Turkey (Segers *et al.*, 1992); Lake Czarny, Tatra mountains, Poland (Gliwicz, 1967); River & Valley in the Tatra mountains, Poland (Madalinski, 1961); Lake Zürichsee, CH (Nipkow, 1961); Lake Erken, Sweden (Nauwerck, 1963); Karelian inland waters, R.F. (Kutikova, 1965); 7 lakes in the Puy-de-Dôme, France

(Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lough Neagh, N Ireland (Andrew & Fitzsimons, 1992); Swedish Lapland (Pejler, 1962b); Lakes in C Sweden (Pejler, 1964); Lac d'Annecy, France (Balvay, 1972; Balvay & Druart, 1992); Lac Pavin, Massif Central, France (Restituto & Lair, 1976; Omaly, 1968; Lair, 1977); Black Sea (Rudescu, 1961); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Bulgarian bank of river Danube (Naidenow, 1963); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Lake Jorzec, Mazurian lakeland, Poland (Radwan *et al.*, 1985); Pelagic zone of 3 lakes, Leczna-Wlodawa area, Poland (Radwan & Popiolek, 1977); Gemünderer Maar, Weinfelder Maar & Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992); Hamburg area, Germany (Rühmann, 1961); Hamburg Harbour, Germany (Rühmann, 1962); Artificial pond near Köln, Germany (Trahms, 1972); In periphyton of mosses and *Myriophyllum*, in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); River Danube, from Austria to Romania (Wawrik, 1968); Serbian section of river Danube (Zivkovic, 1968 & 1987); River Warnow, near Rostock, Germany (Keil *et al.*, 1963); Lac de Joux, CH (Bosset, 1962); Lac Lauerzersee, CH (Odermatt, 1970); Lakes in NE Norway (Saeter, 1971); Lake Konstanz, Germany (Kiefer, 1968; Walz *et al.*, 1987); L. Aumar & L. Orédon, Pyr. Centrales, France (Rey, 1984 & 1988a); L. Orédon, Pyr. Centrales, France (Rey, 1988b); Lac de Nantua, Ain, France (Balvay, 1985); Lake Tüzer See, Neubrandenburg, Germany (Doll, 1984); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Highly eutrophic lake Czarna Kuta, Poland (Brinska *et al.*, 1976); Lakes Zuidelijke Vechtplassen, NL (Leentvaar, 1969); Loosdrecht Lakes, NL (Van Tongeren *et al.*, 1992); All over the Netherlands (Dresscher, 1976); SW Iceland (De Ridder, 1966a); Etang de la Prade & Etang Blanc, SW France (De Ridder, 1967b); Lake Neujahrslöch, Hessen, Germany (Menzel, 1968); River Elbe estuary, Germany (Schulz, 1961); Bolshoe Lake, White Sea (Ghilarov, 1965); Ellesmere District, UK (Galliford, 1960a); Grasmere Lake, Lake District, UK (Elliott, 1977); 2 lakes in N Sweden (Axelson, 1961); Tingwall Loch, Mainland, Shetland (Bērziņš, 1982a); Lake Biwa, Japan (Narita & Mori, s.d.); Lakes in Estonia (Haberman, 1978); Lago Maggiore, N Italy (de Benardi *et al.*, 1988); Jotunheimen, high mountains in Norway (Blakar & Jacobsen, 1979); Coast of S Finland (Eriksen, 1969); Lakes in the Pyrenees, Spain (Miracle, 1981); Moerdijk-Hollands Diep, NL (Leentvaar, 1980); River Loire, France (Lair, 1980); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); In acid lakes in S Finland (Arvola *et al.*, 1990); Loch Rusky, Scotland (Romo, 1990); Lake Erken & Lake Mälaren, Sweden (Blomquist & Pejler, 1980); C & S Sweden (Pejler & Bērziņš, 1989); Volga r. & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); Lakes in Soviet Karelia, R.F. (Filimonova, 1976); Ozero Ayatskoye reservoir, C Urals, R.F. (Kozlova, 1972); Lake Baikal, R.F. (Afanas'jeva, 1975); Rivers in W Kazakhstan, R.F. (Petrova, 1976); Lake Ladoga, R.F. (Nikolayev & Petrova, 1978); Lake Terenkul', S Urals, R.F. (Drabkova *et al.*, 1979); Lapland State Preserve, R.F. (Ghilarov, 1972); Kolyrna Indigirka tundra & taiga lakes, R.F. (Kirillova & Sokolova, 1972); Oligotrophic neutral to alkaline lakes in the NW R.F. (Salazkin, 1971); Vilnius, Lithuania (Rachyunas, 1971); River Volga, R.F. (Murdoch-Boltovskoi, 1979); Ponds & canals in the Paris suburb, France (Pourriot, 1965); Aegean lakes, Macedonia, ex-Yugoslavia & Greece (Serafimona-Hadzisce, 1974); Mountain Fuji area, Japan (Suzuki, 1978a); Lakes around mountain Fuji, Japan (Suzuki, 1971); Tarn in Värmland, Sweden (Thomasson, 1970); Pool S of Trondheim, Norway (Thomasson, 1979); Lake Ohrid, Balkan peninsula (Stankovic, 1960); Spain: Gerona, Huesca & Lerida; Andorra (Velasco, 1990); Rybník dam reservoir, Poland (Krzanowski, 1979); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: Lakes in the Churchill Falls area, Labrador, C. (Duthie & Ostrovsky, 1974); Mirror Lake, New Hampshire, USA (Makarewicz & Likens, 1975 & 1979; Likens & Gilbert, 1970); Crater Lake, Brainard L., Redrock L. & L. Isabelle, N Colorado, USA (Thomasson, 1964b); Waterton Lake, L. Agnes, Cavell L., Pyramid L., L. Jasper, L. Tahoe, Crater L., Jackson L., L. Jenny, Two Medicine Lake, West N America (Thomasson, 1962); Hutchinson Lake, Ontario, Canada (Vallentyne, 1971); Lake 122 & Lake 132, NW Ontario, Canada (Schindler & Novén, 1971); Mowich Lake, mountain Rainier Nat. Park, Washington State, USA (Larson, 1973); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991); Crecy Lake, New Brunswick, Canada (Smith, 1969); Bare Lake, Alaska, USA (Edmondson, 1960); Three lakes in Idaho, USA (Buscemi, 1964); Colorado, USA (Turner, 1988); Cape Herschel, Ellesmere Island, NWT, Can. (Nogrady & Smol, 1989); Mountain Lake, Virginia, USA (Grover & Coker, 1990); Lakes Adirondack, NY State, USA (Siegfried *et al.*, 1984 & 1989); Spirit Lake, Washington, USA (Larson & Glass, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Lake 227, NW Ontario, Canada (Malley *et al.*, 1988); Lake Tahoe, Sierra Nevada, USA (Vernhagen *et al.*, 1988); Lake Tahoe & adjacent Emerald Bay, California (Threlkeld, 1983); NW Canada (Chengalath & Koste, 1987); Lakes in NE Pennsylvania, USA (Havens & Da Costa, 1988); Lake Washington, USA (Edmondson, 1977; Edmondson

& Litt, 1987); Lake Inikput, L. Ikwik, Paddle L. & Bare L., Alaska; Great Slave Lake, Canada; Hall L., L. Washington & Pend Oreille Lake, USA (Edmondson & Litt, 1989); Acid lakes in Maine, USA (Brett, 1989); Arctic N America (Chengalath & Koste, 1989); 18 arctic & subarctic lakes in Canada (Moore, 1978); Patricia L. & Celestine L., Jasper Nat. Park, Alberta, Canada (Anderson, 1970b); Alberta, Canada (Stewart & Green, 1975 & 1976; Anderson, 1980); Snowflake Lake, Bauff Nat. Park, Alberta, Can. (Anderson, 1972); Waterton Lakes, Alberta, Canada (Anderson & Green, 1975 & 1976); Ocqueoc river, Michigan, USA (Beach, 1960); Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Ontario, Canada (Chengalath & Fernando, 1973); NE Canada (Chengalath & Koste, 1983); Hogans Pond, Newfoundland, Canada (Davis, 1972); 5 small mountain lakes in Alberta, Canada (Anderson, 1968); Rocky Mountains, Alberta, Canada (Anderson, 1970); James Bay area, Canada (Pinel-Alloul *et al.*, 1979); Bauline Long Pond, Newfoundland, Canada (Davis, 1973); Lake St. George, King Township, Ontario, Can. (Malone & Mc Queen, 1983); In several lakes & reservoirs in California (Cooper & Goldman, 1980); Lake Michigan, USA (Stemberger & Evans, 1984); Gwendoline L. near Vancouver, B.C., Canada (Neil, 1984); 6 lakes in "N. Highland Lake District", Wisconsin, USA (Kratz *et al.*, 1987); Lake Michigan & Milwaukee Harbor, USA (Stemberger, 1974); In 3 lakes in Ontario, Canada (Brandl & Fernando, 1979); In 3 lakes in N Carolina, USA (Lemly & Dimmick, 1982); Shadow mountain reservoir & Granby res., Colorado (Pennak, 1966); Wisconsin, USA (Bērziņš, 1984); Lake Huron, USA (Stemberger & Gannon, 1977); Lake Wabamun, Alberta, Canada (Horkan *et al.*, 1977); Alaska (Turner, 1987); Nat. Parks in B.C. & Alberta, Canada (Anderson, 1977); Lake Michigan, USA (Sandgren & Lehman, 1990); L. 382, Experim. Lake Area, NW Ontario, Can. (Malley & Chang, 1991); Northern Michigan inland lakes (Stemberger, 1990); Ontario, Canada (Chengalath *et al.*, 1971); Lakes in Newfoundland (Chengalath, 1983; Changalath *et al.*, 1984); Rogers Lake, Connecticut, USA (Devey, 1964); Lake Tahoe, California-Nevada, USA (Folt, 1985); Paradise Lake, E Canada (George & Fernando, 1969); N America Great Lakes (Gannon, 1981); Great Slave Lake, Canada (Larkin, 1964); Labrador Lakes, Canada (Davis, 1978); King, Yankee Doodle & Klack Lakes, Colorado, USA (Pennak, 1978); Findley Lake, Washington; Mirror Lake, N Hampshire & Lawrence Lake, Michigan, USA (Wissmar & Wetzel, 1978); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Mirror Lake, New Hampshire, USA (Strayer, 1985); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); L. Whitney, Cumberland Isl. Nat. Seashore, USA (Stoneberger & Schmock, 1980); Laurentian Great Lakes (Stemberger, 1979); Clearwater Lake & Swan Lake, near Sudbury, Ontario, Canada (Yan & Geiling, 1985); Etang de Desbiens & Et. St. Gédéon, Québec, C. (Lalanette, 1987); Canadian subarctic (Moore, 1978); Grace Lake, Long L. & Madeline L., N Canada (Moore, 1980); Long Pond, St John's, Newfoundland, Canada (O'Connell & Andrews, 1977); Lake Ontario, Canada (Nauwerck, 1978); The Sacramento-San Joaquin Delta Estuary, USA (Siegfried & Kopache, 1980); Northern Ontario Lakes, Canada (Roff & Kwiatkowski, 1977); R. Opinaca & Small Opinaca, James Bay area, N Québec, Canada (Armengol *et al.*, 1983); Lake Erie, Canada (Davis, 1969)

- Oriental region: Sri Lanka (Fernando, 1980a; Sudzuki, 1989); Sri Lanka. Rare, only recorded from a few lakes (Chengalath, Fernando & Koste, 1973)

- Neotropical region: Prov. Rio Negro, Argentina (José de Paggi, 1990); Panama (Collado *et al.*, 1984); Araucarian lakes, E of the Andes, Chile (Thomasson, 1963b); Lago Cigano, Amazonia, Brazil (Schaden, 1977c); Argentina & Chile (Koste & José de Paggi, 1982); Chilean lakes (Schmid-Araya, 1991)

Kellicottia longispina (Kellicott), f. *baicalensis* Kozhov, 1963

- Palaearctic region: Lake Baikal, R.F. (Kozhov, 1963; Eggert, 1973)

Kellicottia spec.

- Palaearctic region: Lake Krivoe & L. Krugloe, N Karelia, R.F. (Vardapetyan, 1972); Fukushima Prefecture, Japan (Sudzuki, 1982)

- Nearctic region: Tuhtoyaktuk Harbor, NWT, Canada (Sutherland, 1982); Lakes on Avalon Peninsula, Newfoundland, Can. (Campbell & Knoechel, 1988); 12 large lakes in Saskatchewan, Canada (Rawson, 1960)

Keratella Bory de St. Vincent, 1822

Keratella ahlstromi Russell, 1951

- Australian region: Upper Stillwater Swamp, New Zealand (Russell, 1960); Australian region (Pejler, 1977); New Zealand species (Shiel, 1981); New Zealand (Dumont, 1983)

Keratella americana Carlin, 1943

- Palaearctic region: Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Lake Donk, Overmere, Belgium (Dumont, 1968b)

- Nearctic region: Whitacre Pond, Northampton County, Pa, USA (Williamson, 1987); Ross Lake, Florida, USA (Bienert, 1986); N & S America (Dumont, 1983); Illinois river, USA (Brown *et al.*, 1989); Nearctic & Neotropical region (Pejler, 1977); Lac Echo, Québec, Canada (Nogrady, 1976); Lakes in Santee, California, USA (Nogrady, 1982); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Lakes in Florida (Dawes *et al.*, 1987); Near Monroe, La, USA (Gallagher, 1966); Everglades Nat. Park, Florida, USA (Nogrady, 1983); San Francisco, USA (Nogrady, 1983); USA & Mexico (Olivier, 1965); L. Waccama, N Carolina, USA (Thomaason, 1963a); Massey L., 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Neotropical region: L. Rio Claro, a floodplain lake of the lower Orinoco, Venezuela (Vasquez & Medina, 1991); Lake Valencia, Venezuela (Saunders, 1980; De Infante, 1980 & 1982; De Infante & Riehl, 1984); Laguna del Tesoro, Cuba (Alonso, 1984); Island Lake, L. Hemmen & Crescent L., Rio Snia Missu, Mato Grosso, C Brazil (Green, 1972); Surinam (Leentvaar, 1975); River Parana, Argentina (Paggi, 1980; Paggi & José de Paggi, 1974; José de Paggi, 1978a & 1985); Eutrophic water Santa Fé, Argentina (José de Paggi, 1967a); River Santa Fé, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river & its basin, Venezuela (Vasquez, 1984a); Caroni river & its basin, Venezuela (Vasquez, 1984b); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Lago do Macaco, Brazil (Koste, 1989a); Arroyo Rodriguez, prov. de Buenos Aires, Argentina (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Lago Açu & L. Viana Canal, Maranhão, Brazil (Reid & Turner, 1988); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Gillard, 1967; Thomasson, 1971; Hauer, 1965b; Koste, 1972f); Rio Jatapu & R. Uatumâ, Amazonia, Brazil (Koste & Hardy, 1984); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Argentina, Brazil, Venezuela, Chile, Surinam, Panama & Honduras (Koste & José de Paggi, 1982); Chilean lakes (Schmid-Araya, 1991); Lake Xolotlan, Nicaragua (Cisneros & Mangas, 1991); Rivers in the E plains of Venezuela (Sanchez *et al.*, 1985); Costa Rica, Cuba & Nicaragua (Collado *et al.*, 1984); Prov. San Luis, Santiago del Estero, Corriente & Santa Fé, Argentina (José de Paggi, 1990); Lake Monte Alegre, SE Brazil (Arcifa *et al.*, 1992); In a floodplain lake of the Lower Orinoco, Ven. (Vasquez *et al.*, 1991); Apure River, Venezuela (Saunders & Lewis Jr., 1988a); River Parana, Brazil (Bonetto, 1986); L. Playa Blanca, L. Orsinera, L. Jobera, L. Lagoven & L. Rio Claro, Orinoco floodplain lakes, Venezuela (Vasquez & Rey, 1992); Laguna Masoya & Lake Managua, Nicaragua (De Ridder, 1966b); Laguna la Orsinera, floodplain lake, Venezuela (Twombly & Lewis Jr., 1987); Brokopondo Lake, Surinam (Leentvaar, 1979); Lake Tinco & L. Aguilera, Orinoco floodplain lakes, Venezuela (Hamilton *et al.*, 1990); Lake Valencia, Venezuela (Saunders & Lewis Jr., 1988b); Flooded savanna at Mantecal, Venezuela (Michellangelli *et al.*, 1979/1980); Prov. Buenos Aires, Argentina; Panama (Olivier, 1965); Lagao de Cima, L. Cabunas, L. Açu & L. Viana, Brazil (Turner, 1987); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Lago do Castanho, near Manaos, Amazonia, Brazil (Schaden, 1977a & 1977b); Laguna do Magelhaes, Rio Tocantins, Lago Jurucui, Lago Buiuçu, Lago Tefé, Rio Negro & Lago do Castanho, Amazonia, Brazil (Schaden, 1977c); L. Valencia, Venezuela (Serruya & Pollingher, 1984); Lake Cocibolca, L. Xolotlan, R. Massaya, L. Asososca, L. Tiscapa, L. Monte Galan, Pond Poso Azul, Pond UCA & pool CIRA, Nicaragua (Moreno *et al.*, 1992)

- Antarctic region: Antarctica (Sudzuki, 1988); Antarctica & Subantarctica (José de Paggi & Koste, 1984); Potter peninsula, 25 de Mayo Island, S Shetland Island, Antarctica (José de Paggi, 1982; Paggi, 1986)

Keratella americana nhamundaiensis Koste, 1982

- Neotropical region: Rio Nhamunda, Brazil (Brandorff, Koste & Smirnov, 1982); Brazil & Argentina (Koste & José de Paggi, 1982)

Keratella americana Carlin, f. *hispida* Vasquez, Koste & Medina, 1991

- Neotropical region: In a floodplain lake of the lower Orinoco, Venezuela (Vasquez *et al.*, 1991)

Keratella americana Carlin, f. *pustulata* Koste, 1982

- Neotropical region: Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984)

Keratella armadura Stemberger, 1990

- Nearctic region: Mud Lake Bog, Cheboygan Co, Michigan, USA (Stemberger, 1990)

Keratella australis Bērziņš, 1963

- Australian region: Australia (Bērziņš, 1963; Dumont, 1983); Darling river & Murray river, Murray-Darling system, SE Australia (Koste & Shiel, 1980); Billabongs river Murray, S Aust (Shiel & Koste, 1983); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs in SE Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987a); Endemic; pancontinental; common (Koste & Shiel, 1987b); NSW, Qld, S Aust. & Vic (Shiel & Koste, 1979); Australian endemic (Shiel, 1981); Tasmania & New Zealand (Sudzuki, 1985); Murray river, S Aust. (Koste, 1979; Serruya & Pollingher, 1984); Tasmania (Shiel, Koste & Tan, 1989); River

Murray at Mannum, S Aust. (Shiel, 1979; Koste, 1980); Gwydir river, river Darling system, S Aust. (Shiel & Walker, s.d.); Darling river, S Aust. (Shiel, 1985); S Tasmania (Koste, Shiel & Tan, 1988); Rivers & reservoirs of the Murray-Darling system, Aust. (Shiel, 1986); Taylors Lake, Vic, Aust. (Bērziņš, 1963); Freshwater lake Purumbete, Aust. (Timms, 1981)

***Keratella canadensis* Bērziņš, 1954**

- Nearctic region: Canada (Dumont, 1983); Peace-Athabasca delta area, Canada (Gallup *et al.*, 1971); Nearctic region (Pejler, 1977); Sunfish Paradise Lakes, in Waterloo, Ontario, E Canada; S Indian Lake, Manitoba, Canada & Clark Lake, Saskatchewan, Canada (George & Fernando, 1969a)

- Oriental region: 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1985)

***Keratella cochlearis* (Gosse, 1951)**

- Palaearctic region: Lake Bielersee, CH (Baugerter *et al.*, 1980; Berner-Fankhauser, 1982, 1983, 1986 & 1987); Lake Esrom, Zealand, DK (Bosselmann, 1979a & 1979b); Darther Bodden, Baltic Sea, Germany (Arndt *et al.*, 1981, 1984a & 1984b); River Klyas'ma, R.F. (Bogosłowski, 1961); Heiluntsian province, China (Bogosłowski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Enaceanu & Petén, 1973); Extremely common in the Danube, Romania (Bothar, 1982); Lake Greifensee, CH (Bürgi *et al.*, 1979); In a dystrophic lake in S Finland (Arvola *et al.*, 1987); Lake Goggausee, Carinthia, Austria (Herzig & Moog, 1976); River Ybbarspå, Sweden (Bērziņš, 1979); Lake Lunzer Obersee, Austria (Ruttner-Kolisko, 1975b; Pivoda, 1977); Small lake in SW Sweden (Stenson, 1982); Lake Balaton, Hungary (Zankai & Ponyi, 1970, 1971a & 1973; Sebestyen, 1974; Zankai, 1984 & 1989); Lake Mikolajskie, Mazurian lake district, Pol. (Hillbricht-Ilkowska *et al.*, 1975; Karabin, 1978); Grasmere Lake, Lake District, UK (Elliott, 1977); Lake Maarsseveen, NL (Ringelberg & Steenvoorden, 1986; Van den Bosch & Ringelbeg, 1985); Lake Bodensee, near Konstanz (Koch-Althaus, 1962; Walz, 1986); Vechtenmeer, Breukelenmeer & Loosdrechtse plassen, NL (Gulati *et al.*, 1985); Small lakes in Estonia (Haberman & Mäemets, 1987); Lunzer Untersee, Austria (Ruttner-Kolisko, 1977a; Ruttner-Kolisko & Malicky, 1988); Lake Stugrisjøen, Sweden (Langeland, 1988); Lago Scuro Parmense, N Italy (Antonietti *et al.*, 1988); Lake Kinneret, Israel (Serruya & Pollingher, 1984; Berman, 1972); Hoboken (Antwerp, Belgium) (De Smet *et al.*, 1988); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1981; Heckman, 1984 & 1986); Lake Derwart, near Doornik, Belgium (Bogaert, 1988; Bogaert & Dumont, 1989); Hamburg area, Germany (Berghahn, 1979); Pond Etang de Virelles, Belgium (Moureau *et al.*, 1988); Near Cambridge, UK (Jenkin, 1982); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Nat. Res. Neeruti lakes, NE Estonia (Mäemets A. & A., s.d.); Karstic lake Percile, Latium, Italy (Margaritora *et al.*, 1981); Experimental ponds in Golysz, Poland (Lewkowicz, 1971; Zurek, 1974); Gravel pits along river Meuse, NL (Wibaut-Isebree Moens, 1964); Lake Biwa-ko, Japan (Yamamoto, 1960b); Lake Mikolajskie, Poland (Spodniewska *et al.*, 1973); Rybnik dam reservoir, Poland (Krzanowski, 1979); Waters near river Bodrog, Hungary (NE) (Dévai *et al.*, 1972-1973); Windermere N & S basin, Estwaite water & Blelham Tarn, Lake District, UK (Edmondson, 1965); Lake Tyrifjord, Norway (Langeland, 1974); L. Mikolajskie & L. Taltowisko, Poland (Ejsmont-Karabin, 1974); Impoundment Twistatalsperrre, N Hessen, G. (Meinel *et al.*, 1983); 3 lakes of different trophy, Poland (Brzek *et al.*, 1975); Darsz-Zingst estuary, N Germany (Arndt, 1991); Lake Laacher See, Eifel, Germany (Eckartz-Nolden & Nolden, 1992); Jordan reservoir, CSR (Mitiska *et al.*, 1962); Bicaz water power reservoir, Rom. (Battes *et al.*, 1971); Lakes C Sweden (Pejler, 1965 & 1972); All over the world (Pejler, 1977); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lake Suwa, Japan (Hanazato *et al.*, 1989); Blelham Tarn, Cumbria, UK (Ferguson *et al.*, 1982); Svalbard (Amren, 1964b); Near Trebon, Bohemia, CSR (Albertova, 1960); Canal de Séclin, Nord, France (Angeli, 1972 & 1975); Lake Myvatn, Iceland (Adalsteinsson, 1974 & 1979); Lago Giulianello, Latium, Italy (Ferrara & Margaritora, 1977); La Mancha, Cast., Spain (Armengol *et al.*, 1975); Impoundment on Rio Guadiana, Spain (Armengol, 1982); L. Stechlinsee, N Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönberg, 1985); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); Impoundment Saidenbach, Germany (Beuschold, 1961; Rudolf, 1966); Lake Trummen, S Sweden (Andersson *et al.*, 1975); Lakes S Sweden (Arnemo *et al.*, 1968); Groszer Müggelsee, Berlin, Germany (Barthelmes, 1960); 2 lakes in N Sweden (Axelson, 1961); Tingwall Loch, Mainland, Shetland (Bērziņš, 1982a); Seat Ness, Shetland; Mousa, Ibid.; Skopun; Nordara Halsavatn & Heimara Halsavatn, Faröer (De Smet *et al.*, 1988); Reservoirs in Spain (Guillet, 1977); Lakes in Estonia (Haberman, 1978); Lake Kinneret, Israel (Gophen, Serruya & Spatarn, 1990; Landau *et al.*, 1988); 3 reservoirs on Rio Guadiana, C Spain (Armengol *et al.*, 1988); Lago Maggiore, N Italy (de Bernardi *et al.*, 1988); L Pluszsee near Plön, N Germany (Hofmann, 1983 & 1987; Krambeck, 1988); Water works Horrem, near Köln, Germany (Bick & Scholtyseck, 1960); Jotunheimen, high mountains in Norway (Blakar & Jacobsen, 1979); Sea, brackish and freshwater pools in S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); In 3 small lakes of E Poland (Radwan, 1980); Lac Léman, Fr./CH (Rougier, 1969; Balvay & Laurent, 1981, 1989, 1990a & 1990b; Martin, 1961; Balvay, 1989 & 1991; Naef & Martin, 1985;

Gawler *et al.*, 1988); In 11 lakes near Plön, N Germany (Hofmann, 1980); Impoundment Kninicki & river Svatka, CSR (Kubicek, 1964); Lake Mälaren, Sweden (Lanner & Pejler, 1971); Lake Blankvatn, near Oslo, Norway (Larsson, 1971); L. Mikolajskie & L. Sniardwy, Mazurian lakeland, Poland (Kosicki, 1960); Zwanewater in Callantsoog, NH & Muy on Texel, NL (Leentvaar, 1967); Quackjeswater & Breede Water on Voorne & Vogelmeer near Ymuiden, NL (Leentvaar, 1963); Broads & peat pits in NW Overijssel, NL (Leentvaar, 1965; Schroevens, id.); Delta of river Danube, Romania (Godeanu & Zinevici, 1983; Prunescu-Arion, 1989; Zinevici & Teodorescu, 1990); Lake Erken, Sweden (Lindström & Pejler, 1975; Lindström, 1983); Moerdijk-Hollands Diep, NL (Leentvaar, 1980); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Loch Leven, Scotland (May, 1983, 1986 & 1987); Fjord Himmerfjärden, N Baltic Sea, Sweden (Johansson, 1983); Reservoirs in Spain (Miracle, 1982); Lake Biwa, Japan (Yamamoto, 1967 & 1968; Hillbricht-Ilkowska, 1983a & 1983b); Lake Ormajärvi, S Finland (Cajander, 1983); Lake Numasawa, Japan (Suzuki *et al.*, 1983); Great lakes in Estonia (Haberman, 1983); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); L. Cullera & Banyoles L., near Valencia, Spain (Miracle & Vicente, 1983); Slovenia, ex-Yugoslavia (Markic, 1983); Lake Glubokoje, near Moscow, R.F. (Matveeva, 1983); Lakes in Estonia (Määmets, 1983); All continents (Dumont, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain (Morales-Baquero, 1987); C & S Sweden (Pejler & Bérzinš, 1989); Lake Königssee, Bavaria (Laxhuber, 1987); Priest Pot, Lake District, UK (Stewart & George, 1987; Hewitt & George, 1987); Lake Siggeforasjön, Sweden (Grundström, 1987); Lake Donk, Overmere, Belgium (Martens, 1985; Roche, 1987); Engham, Surrey, UK (Saunders & Pontin, 1987); District Ostrava, CSR (Dvorakova, 1960b); Buchseen (Bodensee) (Einsle, 1966); Mindelsee (Bodensee) (Einsle, 1967); C Finland (Eloranta, 1982a & 1982b); Lake Zicksee, Burgenland, Austria (Peschek, 1961); Lake Bolsena, L. Bracciano & L. Vico, C Italy (Ferrari, 1972); L. Santo Parmense, N Apennines, Italy (Ferrari *et al.*, 1973); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Lago Maggiore, Italy (Tonolli, 1962; Goldman *et al.*, 1968); Loosdrechtse Plassen, NL (Gulati, 1984; Gulati *et al.*, 1988 & 1989); Bamberg-Höchstadt area, Germany (Halbach, 1973); Nat. Res. Jursky Sur, CSR (Hudec, 1978); L. Stechlinsee & L. Nehmitzsee, Brandenburg, Germany (Kasprzak & Ronneberger, 1982); Near Asperg, Württemberg, Germany (Klement, 1960); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); L. Mikolajskie & L. Taltowisko, ibid. (Klimowicz, 1972); Alkal. Peteri-See, Hungary (Kertesz, 1960); C Hindu-Kush, Afghanistan; Pamir & Tjan-Shan (Kownacki *et al.*, 1976); Romania (Rudescu, 1960); L. Nemi, C Italy (Stella, Ferrara & Margaritora, 1978); Artificial pond in Rostock, Germany (Arndt & Heerkloss, 1989); Darnsee near Epe, NW Germany (Koste, 1962); Lake Orog-nur, Gobi Desert, Mongolia (Koste & Wulfert, 1964); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Azibo reservoir, near Porto, Portugal (Vascoucelos, 1990); River Hase, NW Germany (Koste, 1976b); Ponds in Japan (Hanazato & Yasumo, 1990); Ponds near Munich, Germany (Buchner & Mulzer, 1961); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Mälaren, Sweden (Grönberg, 1975); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Lake S Volos, Byelorussia & L. Mikolajskie, Poland (Galkovskaja & Mityanina, 1989); Po river, Italy (Ferrari *et al.*, 1989); Lake Lunzer Obersee, Austria (Mikschi, 1989); Lake Numasawa, Japan (Suzuki *et al.*, 1989); Barther Bodden, S Baltic Sea, Germany (Vietinghoff *et al.*, 1984); Bafra Lake, E Turkey (Emir, 1989); Koyama-Ike, a coastal pond in Japan (Suzuki & Fukuta, 1989); Carp ponds & upland reservoir in S Poland (Zurek, 1980); Lake Sempachersee, CH (Zimmermann, 1974); Danube river, Romania (Popescu-Marinescu *et al.*, 1990); Experimental pond in Lelystad, NL (Verreth, 1990); Norfolk Broads, UK (Irvine *et al.*, 1990); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964 & 1965); Taltowisko Lake, mesotrophic, & Mikolajskie L., eutrophic, Mazurian lakeland, Poland (Hillbricht-Ilkowska, 1967); The same lakes (Hillbricht-Ilkowska & Weglenska, 1970; Hillbricht-Ilkowska, Gliwicz & Spodniewska, 1966); Lac d'Annecy, France (Balvay, 1972); Loch Ruskie, Scotland (Romo, 1990); Lac d'Aydat, Massif Central, France (Oulad Ali *et al.*, 1990); Lake Erken & L. Mälaren, Sweden (Blomquist & Pejler, 1980); Impoundment Helme, near Kelbra, Kyffhäuser, Germany (Heynig, 1968); Inundation area of Danube river, Romania (Dorobantu, 1964); River Grabia basin, Poland (Pawlowski, 1960, 1968, 1970 & 1973); Lake Volvi, Macedonia, Greece (Zarfdjian *et al.*, 1990); Rügener, Hiddensee & Darszer Boddengewässer, NE Germany (Schwarz, 1963); Greifswalder Bodden, NE Germany (Spittler, 1969); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968); Szececin Bay, Poland (Wiktor, 1968); Luka nad Olzon, near Ostrava, Silesia, CSR (Sladecek, 1969); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Lake Ros, NE Poland (Davidowicz & Pijanowska, 1991); Lake Pluszsee, near Plön, N Germany (Hofmann, 1972, 1975, 1981 & 1985; Hofmann & Krambeck, 1991); "Grote vijver" fort 8, Hoboken (Antw., B.) (De Smet *et al.*, 1986); "Kleine vijver" fort 8, Hoboken (Antw., B.) (De Smet *et al.*, 1989); Moat of fort Merksem (Antw., B.) (De Smet *et al.*, 1987); Large & small rivers, tributary to Kiev res., R.F. (Polishchuk, 1987); Lake Nimetön, S Finland (Arvola *et al.*, 1987); L. Groszer Binnensee, Baltic coast, Germany (Lampert & Rothaupt, 1991); Lake Viksvatn, C Norway (Koksvik & Reinertsen, 1991); In spanish reservoirs (de Manuel, 1991); Neva Bay,

Gulf of Finland, R.F. (Telesh, 1986); Kanev reservoir, Dnieper, R.F. (Mogil'chenco, 1986); Lower Volga (Chuykov & Merkulov, 1986); Volgograd reservoir, R.F. (V'yushkova, 1965); Lake Krasnoye, Karelian Isthmus, R.F. (Aleksandrov & Kutikova, 1985); Soviet section of the Danube, R.F. (Parchuk, 1985); Small rivers of the Kola peninsula, R.F. (Kruglova, 1983); Cherepet' power plant, S of Moscow, R.F. (Kuznetsova, 1982); Canal Isebek, Hamburg, Germany (Caspers, 1964); Brackish water bay near Porvoo, S Finland (Järnefelt, 1964); Lake Randsford & surroundings, Norway (Elgmark, 1966); Experimental fishponds near Warsaw, Poland (Spodniewska *et al.*, 1966); Two localities in Turkey (Emir, 1991); River Lieve, Gent, Belgium (De Smet & Evens, 1970); River Meuse Liégeoise, Belgium (Baiverlin, 1984); Forest pond at Lembeek (Halle), Belgium (Van Elslande, 1975; Symoens *et al.*, 1983; Deronde *et al.*, 1984); Lake Aral (Dussart, 1966); Karagöl, near Izmir, Turkey (Ustaoglu, 1986); Lake Kus, Turkey (Ustaoglu & Balik, 1990a); Camargue, S France (De Ridder, 1960a & 1961); N, S & W Iceland (De Ridder, 1970 & 1972); Lake La Caldera, Granada, Spain (Cruz-Pizarro, 1978); Rieti Plain, Latium, Italy (Cianficconi *et al.*, 1985); Pond Vasikkalampi, C Finland (Eloranta, 1981); Lake Mälaren, S Sweden (Willén, 1975); Experimental fish ponds at Golysz, Poland (Wrobel, 1972); Lake Giulianello, Latium, Italy (Stella & Margaritora, 1972); Lac Pavin, Massif Central, France (Dévaux, 1980); Sewage purification plant West, A'dam, NL (Dresscher, 1960); Lago Santo Parmense, N Apennines, Italy (Ferrari, 1976); Lac de Crêteil, Paris suburb, France (Garnier & Lescher-Moutoué, 1984; Lescher-Moutoué *et al.*, 1985); Reservoirs contaminated with Cu, N Portugal (Oliveira *et al.*, 1985); 3 lakes in N Germany (Godeanu, 1978); L. Mikolajskie & L. Taltowisko, Poland (Gliwicz *et al.*, 1978); Lake Stensjön, Swedish W coast (Henrikson *et al.*, 1985); Near Lappeenranta, Finland (Järnefelt, 1961); Sava Lake, ex-Yugoslavia (Kalafatic, 1978); Rheinisches Braunkohlengebiet near Zülpich, Germany (Küsters *et al.*, 1975); Lac Pavin & Lac de Tazenat, Massif Central, Fr. (Lair, 1978); Lake Baikal, R.F. (Kozhov, 1963; Kutikova, 1978); Experimental Fish Culture Station Golysz, catchment area of th Upper Vistula river, Poland (Lewkowicz, 1984); Perchpike lakes in N Poland (Mikulski, 1964); Lake Hecklan, C Sweden (Olsson *et al.*, 1992); Lac Luitel, Isère, France (Joly, 1960); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Alderfen Broad, Norfolk, UK (Cryer & Townsend, 1988); Lagoon Sacca del Canarin, Po r. delta, Italy (Ferrari *et al.*, 1985); Impoundment Weidatalsperrre, E Thüringen, G. (Hoffmann, 1966); Lake Gjersjøen, SE Norway (Faafeng & Nilssen, 1981; Hessen & Nilssen, 1985); Lower course of Sambre river, Belgium (Dumont & Van Vossel, 1973); University Pond, Gent, Belgium (Dumont *et al.*, 1975); English Lake District (Edmondson, 1965); New impoundments in the CSR (Kubicek, 1968); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Lac de Tazenat, Massif Central, France (Lair & Restituto, 1976); River Woluwe valley, Brussels, Belgium (Lamaye, 1975); Lac de la Crégut, Lac de Laspialade & Etang de la Crégut, Dépt. du Cantal, France (Omaly, 1970); Small water bodies in the Mikolajskie area, P. (Klimowicz, 1967); Ponds at Mirwart, Belgium (Marlier & Wattiez, 1977); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Lake Czarny & L. Zielony, Tatra mts., Poland (Gliwicz, 1967); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); Lake Erken, Sweden (Nauwerck, 1963); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Karelian inland waters, R.F. (Kutikova, 1965); 7 lakes in the Puy-de-Dôme, France (Persoone *et al.*, 1968); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Lough Neagh, N Ireland (Andrew & Fitzsimons, 1992); Lake Ösbysjön near Stockholm, Sweden (Pejler, 1961); Swedish Lapland (Pejler, 1962b); In 17 lakes of C Sweden (Pejler, 1962c); Lakes of C Sweden (Pejler, 1964); Lac d'Annecy, France (Balvay & Druart, 1992); Highly dystrophic lake Smolak & highly eutrophic lake Czarna Kuta, Poland (Brinska *et al.*, 1976); All over the Netherlands (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1972d & 1979); SW Iceland (De Ridder, 1966a); Thingvellir area & L. Myvatn, Iceland (De Ridder, 1967a); Etang de la Prade, SW France (De Ridder, 1967b); Brackish waters in the Lorraine Orientale, Fr. (De Ridder, 1969a); Budir & surroundings, Iceland (De Ridder, 1969b); All over Belgium (De Ridder, 1986); Boatracing canal, Gent, Belgium (De Maeseneer, 1973, 1976 & 1979); Clay pits in Stuivekenskerke, Belgium (Espeel, 1979); Etang des Monts Rosés, Sivry, Belgium (De Ridder, 1980); Brackish waters near Bruges, Belgium (De Ridder & Verheyen, 1980); Brabantse Biesbosch, NL (Leentvaar, 1960); L. Fasaneriee, a eutrophic gravel pit lake in München, Germany (Walz, 1983); Lake Neujahrslöch, Hessen, Germany (Menzel, 1968); Lake Konstanz (Walz *et al.*, 1987); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Ponds Solln & Deming, S of München, Germany (Fergg, 1964); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Ellesmere district, UK (Galliford, 1960a); Knowsley Park, Liverpool, UK (Galliford, 1964); Dozmary Pool, Bodmin Moor, Cornwall, UK (Galliford, 1967); Lac de Pétichet, Isère, France (Gay, 1979); Districts Hoge Venen & Ardennen, Belgium (Gijsels *et al.*, 1976); Lakes, N of Bukarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Loch Leven, Scotland (May, 1985); Lake Onega, R.F. (Nikolaev, 1972); Lakes in E Poland (Radwan, 1978); Lake Lunzer Obersee, Austria (Ruttner-Kolisko, 1975); Dübener Heide, N Germany (Wulfert, 1961); Lake Nimetön, S Finland (Arvola *et al.*,

1986); Umba river system, White Sea basin, R.F. (Kruglova, 1991); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Brundall, Norfolk Broads, E England (Leah *et al.*, 1980); Bay of Bothnia in Bothnian Sea (Sandström, 1979); Hilversumse Wasmeer & lake in Leersumse veld, NL; Bakkerskooi, Wanneperveen, Overijssel (Leentvaar, 1967b); Artificial lakes near Köln, Germany (Trahms, 1972); River Lausitzer Neisse & Oder, Germany (Walter & Scharf, 1961); Near Bautzen, Oberlausitz, Germany (Walter, 1961); Near Debrecen, Hungary (Dévai, 1972); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); In the lower Danube in Romania (Enaceanu, 1964); Lakes Frederiksborg Slotsø & Mossø, DK (Jørgensen *et al.*, 1983); Lake Glubokoje, near Moscow, R.F. (Matveeva, 1986 & 1991); Lake Nemi, Italy (Parise, 1962); Leczna-Włodawa Lake district, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Pelagic zone of 3 lakes, Leczna-Włodawa area, Poland (Radwan & Popiolek, 1977); Backwater Labicko, Middle Elbe, CSR (Straskraba, 1965); W part of Svalbard (Thomasson, 1961); Lake Keyaart, Oudenburg, Belgium (De Ridder, 1992); In acid lakes of lower Austria (Wawrik, 1972); Etangs de Wirwart, Belgium (Wattiez, 1978); Estuary of river Elbe, Germany (Giere, 1968); In the lower Elbe, Germany (Grimm, 1968); L. Kummerower See, Mecklenburg, Germany (Kalbe *et al.*, 1965); Mouth areas of the Danube branches & predeltaic area of the Danube in the Black Sea (Popescu-Marinescu, 1974); Rhine waters near Wiesbaden, Germany (Noll, 1972); Sulina-arm of Danube delta, Romania (Rudescu & Banu, 1973); River Danube, from Austria to Romania (Wawrik, 1968); Serbian section of the Danube, Romania (Zivkovic, 1968 & 1987); Hudsons Bay & Hoveton Great Broad, East Anglia, UK (Timms & Moss, 1984); Lake Esrom, New Zealand, DK (Bosselmann, 1981); River Warnow, near Rostock, Germany (Keil *et al.*, 1963); Lac de Joux, CH (Bosset, 1962); Lake Lauerzersee, CH (Odermatt, 1970); Funada-Ike pond, Chiba, Japan (Urabe, 1992); Lakes in NE Norway (Seater, 1971); River Danube & its tributaries (Bothar, 1982); Lake Konstanz (Kiefer, 1968); Lac Aydat, Massif Central, France (Lair, 1978, 1990, 1991 & 1992; Lair & Ayadi, 1989; Lair & Oulad Ali, 1990); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Lac Pavin, Massif Central, France (Omaly, 1968); Pond and pools near Besse-en-Chandesse, Fr. (Omaly & Dévaux, 1971); 10 lakes in the Auvergne, France (Green, 1981); Lac de Nantua, Ain, France (Balvay, 1985); Impoundment Helme near Kelbra, Kyffhäuser, Germany (Heyning, 1974 & 1980); Baltic coastal inlet Barther Bodden, Germany (Heerkloss *et al.*, 1983); Lake Tüzer See, Neubrandenburg, Germany (Doll, 1984); Vistula lagoon, Poland (Adamkiewicz-Chojnacka & Rozanska, 1990); Ponds in and near München, Germany (Buchner & Mulzer, 1963); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Lake Jorzeć, Mazurian lakeland, Poland (Radwan *et al.*, 1985); Hamburg area, Germany (Rühmann, 1961 & 1965a); Lake Chenbu, Changjiang basin, China (Weu, 1992); Gemündener Maar, Weinfelder M. & Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992); Water sheets in the Hamburg area, Germany (Rühmann, 1964); River Alster in Hamburg, Germany (Rühmann, 1967); Middle course of river Loire, France (Lair & Sargos, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Ponds in the Paris suburb, France (Pourriot, 1965); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Aegean lakes, Macedonia, ex-Yugosl. & Greece (Serafimova-Hadzisce, 1974); Fens in Genk, Belgium (Schepens, 1960); Biol. Stat. "Heiliges Meer", Westfalen, Germ. (Sibbing, 1962); Ponds in Botanical Garden, Gent, Belgium (Verheyen, 1980; Segers *et al.*, 1991b); Periphytic biota in sewages & park waters, Jap. (Suzuki, 1981); Lakes around mountain Fuji, Japan (Suzuki, 1971); Mountain Fuji area, Japan (Suzuki, 1978a); Tarn in Värmland, Sweden (Thomasson, 1970); Lake Ohrid, Balkan peninsula (Stankovic, 1960); Scandinavian coastal waters (Thane-Fenchel, 1968); Lago Trasimeno, Italy (Taticchi, 1968); All over Spain; several localities in Portugal (Velasco, 1990); Pools Erpewaaijen, near Nijmegen, NL (Leentvaar, 1970); Lac Pavin, Massif Central, France (Restituto & Lair, 1976); Black Sea (Rudescu, 1961); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Loch Leven, Scotland (Mac Isaac & Gilbert, 1990); Bulgarian bank of river Danube (Naidenow, 1963); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); Dusyatynske Lakes, Poland (Kowalczyk & Radwan, 1962); Sambre river at the Belgian-France border (Waeyaert, 1972); Garden ponds in Tokyo, Japan (Suzuki, 1975); Fukushima Prefecture, Japan (Suzuki, 1982); Pool, S of Trondheim, Norway (Thomasson, 1979); Waters of Szczecin lagoon, Poland (Wiktor, 1960); Water works Jungfernheide, Berlin, Germany (Ritterbusch, 1974); Ponds in Rambouillet, Paris suburb, France (Pourriot *et al.*, 1969); Small lakes SE of Gothenburg, W Sweden (Morling & Pejler, 1990); Delta of river Danube, Romania (Zinevici & Teodorescu, 1991); Lac de Créteil, Paris suburb, France (Pourriot & Rougier, 1991); Lake Donk, Overmere, Belgium (Dumont, 1968b; Coussement, 1976; Claus & Dall'Asta, 1972; Roche, 1987 & 1989); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Etang de Virelles, Belgium (Moureau *et al.*, 1988); Boatracing canal, Gent,

Belgium (De Maeseneer, 1972; De Maeseneer *et al.*, 1978; Vanderbeken, 1977; Coussement, 1982); Lake Gates, Denderleeuw, Belgium (Dumont, 1968a); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Volga river & Volgograd reservoir, R. F. (V'yushkova & Lakhnova, 1974); Lakes & small rivers in the Soviet Karelia, R.F. (Filimonova, 1976); Ponds in the Kochubey Fish Farm, Dagestanian A.S.S.R. (Sal'nikov & Badmina, 1979); Ozero Ayatskoye reservoir, C Urals, R.F. (Kozlova, 1972); Carp nursery pond in the S Urals, R.F. (Lyubimova, 1974); Lake Baikal, R.F. (Afanas'jeva, 1975); Near Szarvas, Hungary (Tamas, 1975); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); Rivers in the W Kazakhstan, R.F. (Petrova, 1976); Lake Ladoga, R.F. (Nikolayev & Petrova, 1978); Lake Sevan, Armenia, R.F. (Meshkova & Nikogosyan, 1978); Lapland State Preserve, R.F. (Ghilarov, 1972); Kolyrna Indigirka tundra lakes, R.F. (Kirillova & Sokolova, 1972); Oligotrophic neutral to alkaline lakes in NW R.F. (Salazkin, 1971); Rostov Oblast & Krasnodar Kray, NW R.F. (Krylova, 1971); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Gulf of Bothnia, G. of Finland, G. of Riga, ? Baltic Sea, ? North Sea (Bērziņš, 1960); Lake Konstanz, CH (Stick, 1991); Waldviertel area, Lower Austria (Naidenow & Wawrik, 1984)

- Nearctic region: Lakes & ponds near Hanover, New Hampshire, USA (Kirk & Gilbert, 1990; Gilbert & Durand, 1990; Gilbert, 1988); Ocqueoc river, Michigan, USA (Beach, 1960); Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Small eutrophic lake in Norwich, Vermont, USA (Bogdan *et al.*, 1980); Canada (Chengalath, 1977); Ontario, Canada (Chengalath & Fernando, 1973); NE Canada (Chengalath & Koste, 1983); Lake St. George, King Township, Ontario (Malone & Mc Queen, 1983); Lake Michigan, USA (Stemberger & Evans, 1984; Stemberger, 1985 & 1986); Post Pond, Lyme, New Hampshire, USA (Stemberger & Gilbert, 1984a; Gilbert & Stemberger, 1985a); Whitacre Pond, Northampton County, USA (Williamson, 1987); 6 lakes in the "Northern Highland Lake Distr.", Wisconsin, USA (Kratz *et al.*, 1987); Gwendoline Lake, near Vancouver, B.C., Can. (Neill, 1984); Lake Michigan & Milwaukee Harbor, USA (Stemberger, 1974); Mirror Lake, New Hampshire, USA (Likens & Gilbert, 1970; Makarewicz & Likens, 1975 & 1979); 3 lakes in Ontario, Canada (Brandl & Fernando, 1979); 2 lakes in S Ontario, Canada (Brandl & Fernando, 1984); 3 lakes in N Carolina, USA (Lemly & Dimmick, 1982); Degop Lake, Fentrus L., Highland L., Little Swede n°1 L., Standley L., Hayden's L., Redrock L., Shadow Mountain Res., Granby Res., Trappers' Lake, Colorado, USA (Pennak, 1966); Lake Ainslie, Nova Scotia, Canada (Gregory *et al.*, 1983); Hogans Pond, Newfoundland, Canada (Davis, 1972); 3 lakes in Idaho, USA (Buscemi, 1964); Lake St. George, Ontario, Canada (Stephanson *et al.*, 1984); Colorado, USA (Turner, 1988); Waterton Lakes, Alberta, Canada (Anderson & Green, 1975 & 1976); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Near Kingston, Ontario, Canada (Bērziņš, 1961); Ontario, Can.; Wisconsin, Illinois & Kentucky, USA (Bērziņš, 1984); Nat. Parks in B.C. & Alberta, Canada (Anderson, 1977); Lake Huron, USA (Stemberger & Gannon, 1977); Lake Wabamun, Alberta, Canada (Horkan *et al.*, 1977; Gallup & Hickman, 1975); Star Lake, Norwich, Vermont, USA (Williamson & Gilbert, 1980; Bogdan & Gilbert, 1982; Gilbert, 1989b; Starkweather & Bogdan, 1980; Gilbert & Bogdan, 1981); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988; Gonzalez, Frost & Montz, 1990; Gonzalez & Frost, 1992); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Long Pond, St. John's, Newfoundland, Can. (O'Connell & Andrews, 1977); Mantoudan Marsh, Northumberland Co, Pa (Seelbach & Diffett, 1983); Severson Lake, Minnesota, USA (Comita, 1972); Clear Lake, California, USA (Li & Li, 1979); Northern Ontario lakes, Canada (Roff & Kwiatkowski, 1977); Hastings Lake, C Alberta, Canada (Baker, 1979a & 1979b); R. Opinaca & Small Opinaca, James Bay area, N Québec, Canada (Armengol *et al.*, 1983); L. Beauclair, Corner L. & Bay L., Florida, USA (Elmore *et al.*, 1984); Bare Lake, Alaska (Edmondson, 1960); Bayou de Siard, Monroe, Louisiana, USA (Gallagher, 1965); Triangle Lake, NE Ohio, USA (Havens, 1989 & 1991); Lake Erie, Canada (Davis, 1969); Lakes in the Churchill Falls area, Labrador (Duthie & Ostrovsky, 1974); Post Pond, Lyme, New Hampshire, USA (Gilbert, 1985); Everglades Nat. Park, Florida; Lake Hodges, San Diego County & San Francisco, USA (Nogrady, 1983); Lake Hazen, Ellesmere Island, Canada (Mc Laren, 1964); Char Lake, N Canada (Rigler *et al.*, 1974); Carter L., Brainard L., Long L. & L. Isabelle, N Colorado, USA (Thomasson, 1964b); L. Tahoe, Papoose L., Jackson L., Jenny L., L. Bradley, Waterton L., Grizzly L., Larix L., Rock Isle L. & Lake Jasper, West N America (Thomasson, 1962); Hutchinson Lake, Ontario, Canada (Vallentyne, 1971); Lake 122 & L. 123, NW Ontario, Canada (Schindler & Novén, 1971); Post Pond, Lyme, New Hampshire, USA (Stemberger & Gilbert, 1985a); Mirror L., New Hampshire; Marion L., B.C. & Lawrence Lake, Michigan (Wissman & Wetzel, 1978); South Platte river, C Colorado, USA (Ward, 1975); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Bearverskin Lake, Kejimkujik Nat. Park, Nova Scotia, Canada (Blanin *et al.*, 1984); Smith mountain Lake, Virginia, USA (Buikema & Loeffelman, 1978); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Lake Mendota, Wisconsin, USA (Pedros-Alio & Brock, 1983); Lake Ontario, Canada (Nauwerck, 1978); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Trout Lake, Wisconsin, USA (Schneider, 1990); Whiteacre Pond, Black river, USA (Williamson &

Butler, 1986); Pond Lake, New Hampshire, USA (Gilbert, 1985b); Greens L., Beaver Island, Michigan, USA (Foran & King, 1982); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Small reservoir near Malad, Idaho, USA (Miller & Rabe, 1969); Borrow-pit ponds, N Illinois, USA (Lipsey & Malcom, 1981); Lakes in Santee, California, USA (Nogrady, 1982 & 1983); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Lake Oglethorpe, NE Georgia, USA (Orcutt & Pace, 1984); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); L. Whitney, Cumberland Island Nat. Seashore (Stoneburger & Schmock, 1980); Degrya reservoir, Arkansas & Lake Forest, Knoxville, Tennessee, USA (Vancil, 1983); Clearwater L. & Swan L., near Sudbury, Ontario, Canada (Yan & Geiling, 1985); Lakes in Florida (Dawes *et al.*, 1987); Etang de Desbiens & Etang de St. Gédéon, Québec, Canada (Lalancetto, 1987); Grace Lake, Long L. & Madeline L., N Canada (Moore, 1980); James Bay area, Canada (Pinel-Alloul *et al.*, 1979); Pond near Edmonton, Alberta, Canada (Daborn, 1974); Dynamite Lake & Larimore Pond, Vermilion Co, Illinois, USA (Vanni, 1986); Massey Lake, 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991); Crecy Lake, New Brunswick, Canada (Smith, 1969); Lake 227, NW Ontario, Canada (Malley *et al.*, 1988); NW Canada (Chengalath & Koste, 1987); Lakes in NE Pennsylvania; L. O'Woods, W Virginia (Havens & Da Costa, 1988); Lake Washington, USA (Edmondson, 1977; Edmondson & Litt, 1987); Cape Herschel, Ellesmore Island, NWT, Canada (Nogrady & Smol, 1989); Illinois river, USA (Brown *et al.*, 1989); Little Manitou, Saskatchewan, Canada (Hammer *et al.*, 1975); Lakes Adirondack, NY State, USA (Siegfried *et al.*, 1984 & 1989); Dean's Pond, Athens & Buzzard Roost Lake, near Folkston, Georgia, USA (Schoenberg, 1990); 18 arctic & subarctic lakes in Canada (Moore, 1978); Patricia Lake & Celestine L., in Jasper Nat. Park, Alberta, Canada (Anderson, 1970b); Acid lakes in Maine, USA (Brett, 1989); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Lake Michigan, USA (Sandgren & Lehman, 1990); Lake Weir, North C Florida, USA (Beaver & Crisman, 1990); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989); Ontario, Canada (Chengalath *et al.*, 1971); Lakes in Newfoundland, Canada (Chengalath, 1983); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Old Woman Creek & Estuary, Huron, Ohio, USA (Havens, 1991); Lake O'Woods, W Virginia, USA (Havens & Da Costa, 1987); Lake 382, Experimental Lake Area, NW Ontario (Malley & Chang, 1991); Small pond in S Burlington, Vermont, USA (Keen & Miller, 1977); Northern Michigan inland lakes (Stemberger, 1990); Labrador lakes, Canada (Davis, 1978); Sunfish & Paradise lakes, E Canada (George & Fernando, 1969); N American Great Lakes, USA (Gannon, 1981); Pandapas Pond, SW Virginia, USA (Knauer & Buikema, 1984); Great Slave Lake, Canada (Larkin, 1964); Yankee Doodle Lake, near Boulder, Colorado, USA (Pennak, 1978); Char Lake, Canada (Rigler, 1978); Long Lake, Washington, USA (Soltero *et al.*, 1975)

- Oriental region: Lake Rara, W Nepal (Okino & Satoh, 1986); Kasjmir, Ladak & Bengal, India (Nayar, 1965); Near Nagpur, C India (Arora, 1966a); Tank in Nagpur, C India (Arora, 1966c); India (Sharma & Michael, 1980; Sharma, 1987); Sri Lanka (Fernando, 1980a); Singapore & Malaysia (Karunakaran & Johnson, 1978); Taiwan, Thailand, Malaysia, Singapore, India, Indonesia, Sri Lanka & Philippines (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); In ricefields of N Kriau, Perak, Malaysia (Ali, 1990); Lake Larro, Island Mandanao, Philippines (Lewis, 1977); Philippines (Mamaril & Fernando, 1978); Singapore & Taiwan. Cosmopolitan (Sudzuki, 1991); Sri Lanka. Rare: recorded from a few large lakes (Chengalath, Fernando & Koste, 1973); Thailand (Boonsom, 1984b); Andhra Pradesh, India (Dhanapathi, 1974b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); West Bengal, NE India (Sharma, 1979a); Lower Siwalik Himalaya, Kashmir Valley & Kashmir high mountains, India (Zutshi *et al.*, 1980); Bangkok, Thailand (De Ridder, 1971); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1985); Lake Manguao, Palawan, the Philippines (Davies & Green, 1990); Dal Lake, Kashmir Himalayan lake, India (Vass & Zutshi, 1983); Lake Nilnag & Nepal Valley lakes (Serruya & Pollingher, 1984); Lake Danau, Celebes (Bērziņš, 1982a)

- Australian region: Taylors Lake, Vic, Aust. (Bērziņš, 1963); In different localities in Australia (Bērziņš, 1982); Darling river & Murray river, SE Aust. (Koste & Shiel, 1980); Billabongs river Murray, SE Aust. (Shiel & Koste, 1983); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs in SW Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); Lake Barrine, L. Eacham, L. Eunamoo: tropical Queensland Australian crater lakes (Green, 1981); Vic, NSW, Qld & S Aust. (Shiel & Koste, 1979); Australia (Shiel, 1981); Sheepwash billabong, near Molesworth, Vic (Shiel, 1983); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Barwon river, river Murray system, S Aust. (Shiel & Walker, *s.d.*); Darling river, S Aust. (Shiel, 1985); E Aust. (Koste & Shiel, 1980b); Cosmopolitan, pancontinental in Aust., incl. Tasmania (Koste & Shiel, 1987b); Tasmania (Shiel, Koste & Tan, 1989); S Tasmania (Koste, Shiel & Tan, 1988); Lake Monat & L. Marihaur, SW New Zealand (Stout, 1975); L. Pukaki, L. Tekapo, L. Ohan & L. Benmore, South Island, New Zealand (Stout, 1978); Lake Ohan & L. Benmore, South Island, New Zealand (Stout, 1981); 4 localities in New Zealand & Chatham Islands (Russell, 1960); Lake Judd, Tasmania (Sudzuki,

1967); Sidney reservoirs, NSW, Aust. (Thomasson, 1973); Murray river, Aust. (Serruya & Pollingher, 1984); Murray river at Mannum, S Aust. (Shiel, 1979); Farm dams near Gloucester, NSW, Aust. (Sudzuki & Timms, 1980)

- Neotropical region: Embalse Rio Tercero Fish Culture Station, Province Cordoba, Argentina (Marinone & Zagarese, 1991); Lake Escondido, Prov. Rio Negro, Argentina (Balseiro & Modenutti, 1990); Prov. Tierra del Fuego, Chubut, Rio Negro, Neuquen, San Luis & Salta, Argentina (José de Paggi, 1990); Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990a); Chilean lakes (Schmid-Araya, 1991); Lake Todos los Santos, Chile (Campos *et al.*, 1990); Cuba & El Salvador, Guatemala & Panama (Collado *et al.*, 1984); Lake Izabal, Guatemala (Brinson & Nordlie, 1975); In a floodplain lake of the lower Orinoco, Ven. (Vasquez *et al.*, 1991); Lake Playa Blanca, L. Orsinera, L. Jobera & L. Lagoven, Orinoco floodplain lakes, Venezuela (Vasquez & Rey, 1992); River Parana, Brazil (Bonetto, 1986); Argentine Patagonia (Kuczynski, 1987b); Apure river, W Venezuela (Saunders & Lewis Jr., 1988); Amazonia, Brazil (Gillard, 1967; Thomasson, 1971; Koste, 1972f); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Prov. Buenos Aires, San Luis, Rio Negro, Tierra del Fuego, Argentina; Brazil; Chile (Olivier, 1965); Lagoa Carapebus, L. Cabeunas & Lago Açu, Brazil (Turner, 1987); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago do Castanho, near Manaos, C Amazonia, Brazil (Schaden, 1977a & 1977b); Lago Jurucui, L. Buiuçu, L. do Castanho & Rio Negro, Amazonia, Brazil (Schaden, 1977c); Lago Castanho, L. Redondo, L. Jacaretinga, L. Cristalino & L. Taruma-Mirim, Brazil (Serruya & Pollingher, 1984); Pond in Esteli, Nicaragua (Moreno *et al.*, 1992); Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente & Sierra (Koste & Böttger, 1992); Rapelreservoir, Chile (Soto *et al.*, 1984); River Parana, Argentina (Paggi, 1980; Paggi & José de Paggi, 1974; José de Paggi, 1978a & 1985); River Santa Fé, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Cordoba, Argentina (Boltovskoy & Mazzoni, 1988); Argentina (Modenutti & Claps, 1988); S Brazil (Arcifa, 1984); Broa reservoir, Sao Carlo, Sao Paulo, State-Br. (Matsumara *et al.*, 1989); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Lago do Macaco, Brazil (Koste, 1989a); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Lago Parano, Brazil (Koste, 1974a); Chile, Venezuela, Colombia, Brazil, Argentina, Peru, Bolivia, Panama & Honduras (Koste & José de Paggi, 1982); Rio Jatapu & R. Uatumá, Amazonia, Brazil (Koste & Hardy, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamundha, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Arroyo Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Lower course of river Uruguay, Argentina (Di Persia & Neiff, 1986); Lake Ranco, Chile (Campos *et al.*, 1992); Chile (Löffler, 1962); Lake Redondo, L. Castanho, L. Jacaretinga, L. Cristalino & L. Taruwa-Mirim, Amazonia C (Hardy, 1980)

- Antarctic region: Potter peninsula, 25 km de Mayo Island, S Shetland Islands, Antarctica (José de Paggi, 1982; Paggi, 1986); Antarctica & Subantarctica (José de Paggi & Koste, 1984)

Keratella cochlearis (Gosse), f., *baikalensis* Gaigalas, 1958

- Palaearctic region: Lake Baikal, R.F. (Eggert, 1973)

Keratella cochlearis (Gosse), f. *connectens* (Lauterborn, 1900)

- Palaearctic region: River Danube (Enaceanu & Brezeanu, 1970); Impoundment Kninicki, CSR (Kubicek, 1964); Lakes, N of Bucharest, Romania (Godeanu, 1969b)

- Nearctic region: Colorado, USA (Turner, 1988)

Keratella cochlearis (Gosse), f. *faluta* Ahlstrom, 1943

- Nearctic region: NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Near to Wilmer, B.C., Canada (Bērziņš, 1961); Ontario, Canada (Chengalath *et al.*, 1971); Lake Ontario, Canada (Nauwerck, 1980); Mt. Tremblant Prov. park, Québec, Canada (Nogradi, 1980); Northern Michigan inland lakes (Stemberger, 1990); Laurentian Great Lakes (Stemberger, 1979); Lakes in N Colorado, USA (Thomasson, 1964b)

Keratella cochlearis (Gosse), f. *leptacantha* (Lauterborn, 1900)

- Palaearctic region: Lakes, N of Bucharest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); River Danube (Enaceanu & Brezeanu, 1970); Lower Danube in Romania (Enaceanu, 1964)

Keratella cochlearis (Gosse), f. *macracantha* (Lauterborn, 1900)

- Palaearctic region: Lake Zürichsee, CH (Nipkow, 1961); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai & Ponyi, 1971a; Zankai, 1968); Lakes in Estonia (Haberman, 1978); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967; Godeanu & Zinevici, 1983); Europe (Dumont, 1983); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bērziņš, 1989); Romania (Rudescu, 1960); River Svratka, near Brno, CSR (Kubicek, 1964

& 1968); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Spanish reservoirs (de Manuel, 1991); Mologa river, R.F. (Riv'ger *et al.*, 1981); Lake Volvi, Macedonia, Greece (Zarfdjian *et al.*, 1990); Impoundments in E Bohemia, CSR (Sladeckova & Sladecek, 1960); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Lake Donk, Overmere, Belgium (Roche, 1989); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Japanese inland waters (Yamamoto, 1960a); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries (Donner, 1970); Mouth areas of the Danube branches & predeltaic area of r. Danube in the Black Sea (Popescu-Marinescu, 1974); Dune lakes on Voorne Island, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Canal Leeds-Liverpool, UK (Galliford, 1960b); Lakes N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Side-arm of r. Danube near Bratislava, CSR (Lichardova, 1964); Lac Pavin, L. Montcineyre & L. Bourdouze, Puy-de-Dôme, France (Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); In reed border of the Danube delta, Romania (Rudescu, 1968); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Serbian section of river Danube (Zivkovic, 1987); Lake Biwa, Japan (Yamamoto, 1960b & 1967); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962); Spain: Valencia (Velasco, 1990)

***Keratella cochlearis* (Gosse), f. *micracantha* (Lauterborn, 1900)**

- Palaearctic region: Lake Balaton, Hungary (Zankai & Kertesz, 1967 & 1972; Zankai & Ponyi, 1984); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Romania (Rudescu, 1960); Lake Volvi, Macedonia, Greece (Zarfdjian *et al.*, 1990); Leczna-Włodawa lake district, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Japanese inland waters (Yamamoto, 1960a); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Danube (Enaceanu & Brezeanu, 1970); Lakes, N of Bucarest, Romania (Godeanu, 1969b); New impoundments in the CSR (Kubicek, 1968); Small water bodies in the Mikolajkie area, Mazurian lakeland, Poland (Klimowicz, 1967); Black Sea (Rudescu, 1961); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Serbian section of river Danube (Zivkovic, 1987); Lake Biwa, Japan (Yamamoto, 1960b & 1967); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962)

- Nearctic region: Northern Michigan inland lakes (Stemberger, 1990); Massey L., 16 km N of Beaumont, Texas, USA (Marsh, 1978)

- Oriental region: Impoundment Kinda, C Burma (Koste & Tobias, 1990)

- Australian region: SW & W Australia & Tasmania (Koste & Shiel, 1987b)

- Neotropical region: Lake Monte Alegre, SE Brazil (Arcifa *et al.*, 1992); Mato Grosso, Brazil (Turner & Da Silva, 1992); Chile (Löffler, 1962); Ecuador: Oriente & Sierra (Koste & Böttger, 1992)

***Keratella cochlearis* (Gosse), f. *nordica* Kutikova**

- Palaearctic region: Small lakes in Estonia (Haberman & Mäemets, 1987)

***Keratella cochlearis* (Gosse), f. *pachyacantha* Thomasson, 1980**

- Neotropical region: Brazil (Koste & José de Paggi, 1982)

***Keratella cochlearis* (Gosse), f. *postcurvata* Thomasson, 1957**

- Neotropical region: Prov. Tierra del Fuego, Argentina (Olivier, 1965; José de Paggi, 1990); Argentina (Koste & José de Paggi, 1982)

***Keratella cochlearis* (Gosse), f. *recurvispina* (Jägerskiöld, 1894)**

- Palaearctic region: Finland (Eriksen, 1969); C Sweden: waters, influenced by Baltic Sea (Pejler, 1972); Pontic province, C & E Eur. plains, Baltic prov., N Sweden & NW Russian taiga (Bērziņš, 1978); Gulf of Bothnia, G. of Finland, G. of Riga, Baltic Sea & Belt Sea (Bērziņš, 1960); Romania (Rudescu, 1960); Black Sea (Rudescu, 1961)

- Nearctic region: NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989)

***Keratella cochlearis* (Gosse), f. *robusta* (Lauterborn, 1900)**

- Palaearctic region: Small lakes in Estonia (Haberman & Mäemets, 1987); Europe (Dumont, 1983); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bērziņš, 1989); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Alps, W Balkan, C Eur. mountains, Carpathes, C & E Eur. plains, Baltic province, Boreal highland, N Sweden, NW Russian taiga (Bērziņš, 1978); Romania (Rudescu, 1960); Spanish reservoirs (Velasco, 1990; Guiset, 1977; de Manuel, 1991); Lac de Crétal, Paris suburb, France (Pourriot & Rougier 1991); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Etang de Soustons, SW France (De Ridder, 1967b); River Danube (Enaceanu & Brezeanu, 1970); New impoundments in CSR (Kubicek, 1968); Hamburg area, Germany (Rühmann, 1961)

- Nearctic region: Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Bay of Quinte, Lake

Ontario, Canada (Nogrady, 1988); Lake Ontario, Canada (Nauwerck, 1978); Laurentian Great Lakes (Stemberger, 1979); Canada (Chengalath, 1977); Alaska (Turner, 1987); Northern Michigan inland lakes (Stemberger, 1990); Adirondack lakes, NY State, USA (Siegfried *et al.*, 1984)

- Neotropical region: Laguna del Tesoro, Cuba (Alonso, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Keratella crassa Ahlstrom, 1943

- Nearctic region: In lakes & ponds near Hanover, New Hampshire, USA (Gilbert, 1990; Kirk & Gilbert, 1990); Post Pond, Lyme, New Hampshire, USA (Stemberger & Gilbert, 1985a); Silver Lake, Adirondack mountains, NY State (Siegfried, 1991); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Fernando, 1973); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Cape Herschel, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989); Norwich, Vermont, USA (Bogdan & Gilbert, 1983); Star Lake, Norwich, Vermont, USA (Magnien & Gilbert, 1983; Gilbert, 1989b); Lake Michigan, USA (Stemberger, 1985); Lake Michigan & Milwaukee Harbor, USA (Stemberger, 1974); Northern Michigan inland lakes (Stemberger, 1990b); Laurentian Great Lakes (Stemberger, 1979); Mud Lake Bog, Cheboygan Co, Michigan, USA (Stemberger, 1990c); Mirror Lake, New Hampshire, USA (Likens & Gilbert, 1970; Makarewicz & Likens, 1975 & 1979); Ontario, Canada; Wisconsin, USA (Bērziņš, 1984); Florida, USA (Bienert, 1986); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Australia & N America (Dumont, 1983); Nearctic & Australian region (Pejler, 1977); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Paradise Lake, NY State, USA (George & Fernando, 1969); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Lake Ontario, Canada (Nauwerck, 1978); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Trout Lake, Wisconsin, USA (Schneider, 1990)

- Australian region: Not recorded from Australia (Koste & Shiel, 1987b); ? Lyttelton Harbour, New Zealand (Russell, 1960)

Keratella cruciformis (Thompson, 1892)

- Palaearctic region: W Norway (Eriksen, 1968); Fjord Himmerfjärden, N Baltic Sea, Sweden (Johansson, 1983); N America & Europe (Dumont, 1983); Romania (Rudescu, 1960); Spain, Pontic province, W & C Eur. plains, Baltic Province, UK, Boreal highland, NW Russian taiga (Bērziņš, 1978); Skagerak, N & S North Sea, E & W English Channel, Norwegian Sea & Barents Sea (Bērziņš, 1960); Veerse Meer & other brackish waters in the NL (Dresscher, 1976); Roscoff, Atlantic coast of Brittany, France (D'Hondt, 1970); Black Sea (Rudescu, 1961); Adriatic Sea (Riedl, 1970)

- Nearctic region: Canada (Chengalath, 1977)

- Australian region: Qld, Aust. (Shiel & Koste, 1979); Palaearctic, brackish/marine, cold stenotherm (Koste & Shiel, 1987b); 1 record from Queensland, it needs confirmation

Keratella earlineae Ahlstrom, 1943

- Nearctic region: Ontario, Canada (Chengalath *et al.*, 1971); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Ocqueoc river, Michigan, USA (Beach, 1960); Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Ontario, Canada (Chengalath & Fernando, 1973); Lake Michigan & Milwaukee Harbor, USA (Stemberger, 1984); Northern Michigan inland lakes (Stemberger, 1990); Laurentian Great Lakes (Stemberger, 1979); 3 lakes in N Carolina, USA (Lemly & Dimmick, 1982); Ontario, Canada; Wisconsin, Kentucky & Illinois, USA (Bērziņš, 1984); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975; Horkan *et al.*, 1977); N America (Dumont, 1983); Nearctic region (Pejler, 1977); Colorado, USA. American endemic (Turner, 1988); Kingston, Ontario, Canada (Nogrady, 1989); 18 arctic & subarctic lakes in Canada (Moose, 1978); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Lac Echo, Québec, Canada (Nogrady, 1976); Lake Whitney, Cumberland Island Nat. Seashore, USA (Stoneburger & Schmock, 1980); Grace Lake, Long L. & Madeline L., N Can. (Moore, 1980); Canadian subarctic (Moore, 1978); Lake Ontario, Canada (Nauwerck, 1978); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Hastings Lake, C Alberta, Canada (Baker, 1979a & 1979b); Lakes in the Churchill Falls area, Labrador, Can. (Duthie & Ostrovsky, 1974); Everglades Nat. Park, Florida, USA (Nogrady, 1983); L. Mitchell, Huron, Vermont, USA (Stemberger & Gilbert, 1985a)

- Oriental region: Sri Lanka (Fernando, 1980a; Sudzuki, 1989); Sri Lanka: in lakes & ponds (Chengalath, Fernando & Koste, 1973)

- Neotropical region: Brackish pond on Grand Bahama Island, West Indies (Nogrady, 1983)

Keratella edmondsoni Nayar, 1965

- Oriental region: Rajasthan & Madras, India (Nayar, 1965); Rajasthan, India (Nayar, 1968); Ponds in Pilani, Rajasthan, India (Nayar, 1970); India (Sharma, 1987; Sharma & Michael, 1980; Sudzuki, 1989); Ethiopian, Indian & Australian region (Pejler, 1977); Australia, Asia & Africa (Dumont, 1983)

Keratella eichwaldi (Levander, 1894)

- Palaearctic region: Europe (Dumont, 1983); Black Sea (Rudescu, 1961); In mesohaline section of Veerse

Meer, NL (Bakker & De Pauw, 1975); Sea & brackish pools in S Finland (Björklund, 1972a); Finland (Eriksen, 1969); Brackish waters in C Sweden (Pejler, 1972); Romania (Rudescu, 1960); River Elbe estuary, Germany (Schulz, 1961); Brackish or marine, cold stenotherm. Palaearctic. Not recorded from Australia (Koste & Shiel, 1987b); Warnow river estuary, Rostock, Germany (Arndt & Heerkloss, 1989); Rügener, Hiddensee & Darszer Bodden, NE Germany (Schwarz, 1963); Groszer Jasmunder Bodden, Germany (Spittler, 1969); Brackish fishponds in C Japan (de Beauchamp, 1963); Pontic province, W & C Eur. plains, Baltic province, UK, N Sweden, NW Russian taiga (Bērziņš, 1978); Gulf of Bothnia, G. of Finland, G. of Riga, Baltic Sea, Belt Sea, S North Sea, E English Channel, Norw. Sea (Bērziņš, 1960); Delta of river Danube, Romania (Rudescu & Marinescu-Popescu, 1969); Brackish Japanese inland waters (Yamamoto, 1960a); Channel Noordzeekanaal; r. "Buiten Y" near Amsterdam; Zuiderzee & Ysselmeer; brackish waters in Friesland; L. Veerse Meer; Grote Gat, Zuid-Beveland, NL (Dresscher, 1976); Brackish waters near Bruges & in Woumen, B. (De Ridder, 1986); Brackish waters near Bruges, Belgium (De Ridder & Verheyen, 1980); River Danube (Enaceanu & Brezeanu, 1970); Diksmuide (B.); R. Yzer & Handzame Canal; Oudenburg (B.); lake Keyaart (De Ridder, 1992)

Keratella eichwaldi wirketessi Kutikova, 1970

- Palaearctic region: Laptev Sea, North R.F. (Kutikova, 1970); Around Behring Strait (Dumont, 1983)

Keratella eichwaldi kamtschatica Kutikova, 1970

- Palaearctic region: North R.F. (Kutikova, 1970); In brackish waters in Japan, Korea & B.C. (Can.) (De Ridder, 1981)

Keratella hiemalis Carlin, 1943

- Palaearctic region: Lake Pluszsee, N Germany (Hofmann, 1975, 1985 & 1987; Hofmann & Krambeck, 1991); Lake Siggeforasjön, Sweden (Grundström, 1987); C Finland (Eloranta, 1982b); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bērziņš, 1989); Impoundment Kninicki & river Svatka, CSR (Kubicek, 1964); Lake Mälaren, Sweden (Lanner & Pejler, 1973; Grönberg, 1975); Lake Blankvatn, near Oslo, Norway (Larsson, 1971); Lakes in C Sweden (Pejler, 1965); Bear Island, Arctic Ocean (Pejler, 1974); Palaearctic & Nearctic region (Pejler, 1977); Lunzer Obersee, Austria (Ruttner-Kolisko, 1975b & 1977; Pejler, 1980; Mikschi, 1989); Romania (Rudescu, 1960); Edgeøa, Svalbard (De Smet et al., 1988b); Lake Numasawa, Japan (Suzuki et al., 1983 & 1989); Lake Konstanz, Germany (Walz et al., 1987; Pauli, 1989); Svalbard (Amren, 1964b & 1964c); Lakes in S Sweden (Arnemo et al., 1968); Lake Bielersee, CH (Baugerter et al., 1980; Berner-Fankhauser, 1986); Small lakes in Estonia (Haberman & Mäemets, 1987); Lake Lunzer Untersee, Austria (Ruttner-Kolisko, 1977a; Ruttner-Kolisko & Malicky, 1988); Dystrophic lake in S Finland (Arvola et al., 1987); 2 lakes in N Sweden (Axelson, 1961); Lakes in Estonia (Haberman, 1978; Mäemets, 1983); Jotunheimen, high mountains in Norway (Jacobsen & Blakar, 1979); Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Lake Glubokoje, near Moscow, R.F. (Matveeva, 1963, 1986 & 1991); Europe & N America (Dumont, 1983); Lake Königssee, Bavaria (Laxhuber, 1987); Lake Sempachersee, CH (Zimmermann, 1974); Darnsee near Epe, NW Germany (Koste, 1962); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); River Svatka, CSR (Kubicek, 1968); Leczna-Włodawa Lake District, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); W Svalbard (Thomasson, 1961); Korea (Turner, 1986); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Lake Esrom, New Zealand, DK (Bosselmann, 1981); Lac Orédon, Pyrénées Centrales, France (Rey, 1988a); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); New impoundments in the CSR (Kubicek, 1968); Lake Zürichsee, CH (Nipkow, 1961); Lake Erken, Sweden (Nauwerck, 1963); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lakes in Swedish Lapland (Pejler, 1962d); Lakes in C Sweden (Pejler, 1964); Lac d'Annecy, France (Balvay & Druart, 1992); Lac Léman, Fr./CH (Rougier, 1969); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Pelagic zone of the Leczna-Włodawa lakes, Poland (Radwan, 1975); Lake Jorzec, Mazurian lakeland, Poland (Radwan et al., 1985); Lakes in the Leczna-Włodawa area, Poland (Radwan, 1976); Gemündener Maar, Weinfelder Maar, Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Fukushima Prefecture, Japan (Suzuki, 1982); Soviet Karelia, R.F. (Filimonova, 1976); Pyrenees, Alps, C Eur. mountains, Carpathians, Pontic province, W, C & E Eur. plains, Baltic province, Fennoscandia; Caucasus (Bērziņš, 1978); Lake Nimetön, S Finland (Arvola et al., 1986 & 1987); Mologa river, R.F. (Riv'ger et al., 1981); Lake Ørre Heimdalsvatn, C Norway (Larsson, 1972); River Grabia basin, Poland (Pawlowski, 1960); Lakes Sosnowickie, Poland (Radwan, 1968); Impoundments in E Bohemia, CSR (Sladeckowa & Sladecek, 1960); Pond Vasikkalangi, C Finland (Eloranta, 1981); Lakes in the Kuokkel area, N Swedish Lapland (Persson, 1978); Lake Bialskie & L. Piaseczno, E Poland (Radwan et al., 1984); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Lake Hecklan, C Sweden (Olsson et al., 1992); L. Schwarzsee, Tyrolian alpine lake, Austria (Nauwerck, 1966)

- Nearctic region: 18 arctic & subarctic lakes in Canada (Moore, 1978); Fayetteville Green Lake, NY State,

USA (Culver & Brunskill, 1969); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Fernando, 1973); Lake Michigan, USA (Stemberger, 1974); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975; Horkan *et al.*, 1977); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Lake 227, NW Ontario, Canada (Malley *et al.*, 1988); Lake 382, Exper. Lake Area, NW Ontario, Can. (Malley & Chang, 1991); NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); 2 lakes in Idaho, USA (Buscemi, 1964); Acid lakes in Maine, USA (Brett, 1989); Northern Michigan inland lakes (Stemberger, 1990); Laurentian Great Lakes (Stemberger, 1979); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Northern Ontario lakes, Canada (Roff & Kwiatkowski, 1977); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Clearwater L. & Swan L., near Sudbury, Ontario (Yan & Geiling, 1985); Lake Ontario, Canada (Nauwerck, 1978); Lakes in the Churchill Falls area, Labrador, Can. (Duthie & Ostrovsky, 1974); Lake Hazen, Ellesmere Island, Canada (Mc Laren, 1964); Two Medecine Lake, Waterton L., Grizzly L., Larix L., Rock Isle L., L. Lanise, Cavell L., West N America (Thomasson, 1962); Lake 122 & L. 132, NW Ontario, Canada (Schindler & Novén, 1971); Mowick Lake, mountain Rainier Nat. Park, Washington State, USA (Larson, 1973); Silver Lake, Adirondack mountains, NY State (Siegfried, 1991)

- Oriental region: Dal Lake, Kashmir Himalayan lake, India (Vass & Zutshi, 1983)

Keratella hispida (Lauterborn, 1900)

- Palaearctic region: Lakes in Estonia (Mäemets, 1983); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bērziņš, 1989); Europe (Dumont, 1983); Small lakes in Estonia (Haberman & Mäemets, 1987); River Ybbarspå, Sweden (Bērziņš, 1979); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Romania (Rudescu, 1960); Lake South Volos, Byelorussia (Galkovskaya & Mytianina, 1989); Eutrophic waters in E Poland (Radwan & Popiolek, 1989); Lake Mälaren, Sweden (Grönberg, 1975); Lac Léman, Fr./CH (Martin, 1961; Rougier, 1969; Balvay, 1989; Balvay & Laurent, 1981, 1989, 1990a & 1990b; Naef & Martin, 1985); Alps, C Eur. mountains, Hungarian plain, Pontic province, C & E Eur. plain, Ireland, UK, Fennoscandia; Caucasus, Caspian area (Bērziņš, 1978); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Lakes in E Poland (Radwan, 1978); River Danube (Enaceanu & Brezeanu, 1970); Leczna-Włodawa lake district, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Lac de Nantua, Ain, France (Balvay, 1985); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Japanese inland waters (Yamamoto, 1960a); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Lake Barłosche kolk & Ysselmeer, NL (Dresscher, 1976); Ellesmere District, UK (Galliford, 1960); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Lake Zürichsee, CH (Nipkow, 1961); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lac d'Annecy, France (Balvay & Druart, 1992); Black Sea (Rudescu, 1961); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Pelagic zone of 3 lakes, Leczna-Włodawa area, Poland (Radwan & Popiolek, 1977); Gemündener Maar, Weinfelder M. & Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992)

- Nearctic region: NW Canada (Chengalath & Koste, 1987); Northern Michigan inland lakes (Stemberger, 1990); Laurentian Great Lakes (Stemberger, 1979); Ontario, Canada (Chengalath *et al.*, 1971); Lake Ontario, Canada (Nauwerck, 1978); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Northern Ontario lakes, Canada (Roff & Kwiatkowski, 1977); Massey L., 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Australian region: Qld, Australia (Shiel & Koste, 1979); Australia (Shiel, 1981); Tasmania (Koste & Shiel, 1987a); Cosmopolitan. Rare in Aust.: Qld, Tas. & Vic (Koste & Shiel, 1987b); Ponds in Tasmania (Shiel, Koste & Tan, 1989); Rotorna, New Zealand (Russell, 1960)

- Neotropical region: Rio Reconquista, Prov. Buenos Aires, Argentina (Kuczynski, 1991b)

Keratella irregularis (Lauterborn, 1898)

- Palaearctic region: Lakes in Estonia (Mäemets, 1983); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bērziņš, 1989); River Ybbarspå, Sweden (Bērziņš, 1979); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Europe & N America (Dumont, 1983); Palaearctic & Nearctic region (Pejler, 1977); Romania (Rudescu, 1960); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); All over Europe; Caspian area (Bērziņš, 1978); Medium-size rivers, tributary to Kiev reservoir, R.F. (Polishchuk, 1987); Spanish reservoirs (de Manuel, 1991); Lake Balaton, Hungary (Zankai, 1968); Mountain Fuji, Japan & lakes around mt. Fuji (Suzuki, 1971); Mountain Fuji area, Japan (Suzuki, 1978a); Tableland at Fornihvammur, Iceland (De Ridder, 1970); W & C Iceland (De Ridder, 1972); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Leczna-Włodawa Lake District, Poland (Kowalczyk & Radwan, 1982;

Radwan, 1984); Japanese inland waters (Yamamoto, 1960a); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Brabantse Biesbosch; Gerritsfles near Kootwijk; brackish waters in the Province Friesland, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Bolshoe Lake, White Sea basin, R.F. (Ghilarov, 1965); Lake Zürichsee, CH (Nipkow, 1961); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lac d'Annecy, France (Balvay & Druart, 1992); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Lake Jorzec, Mazurian lakeland, Poland (Radwan *et al.*, 1985); Pool, S of Trondheim, Norway (Thomasson, 1979); Serbian section of river. Danube (Zivkovic, 1987)

- Nearctic region: Cape Herschel, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989); Laurentian Great Lakes (Stemberger, 1979); Lake Ontario, Canada (Nauwerck, 1978); Near Monroe, Louisiana, USA (Gallagher, 1966); ? Lake 122 & L. 132, NW Ontario, Canada (Schindler & Novén, 1971)
- Oriental region: Lake Phewa Tal, near Pokhara, Nepal (Daems & Dumont, 1974)

Keratella irregularis (Lauterborn), f. *angulifera* (Lauterborn, 1900)

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Romania (Rudescu, 1960); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961)

Keratella irregularis (Lauterborn), f. *ecaudis* (Amman, 1921)

- Palaearctic region: River Ybbarspå, Sweden (Bérzinš, 1979)

Keratella irregularis (Lauterborn), f. *wartmanni* (Asper & Heuscher, 1889)

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); C & S Sweden (Bérzinš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bérzinš, 1989); Romania (Rudescu, 1960); Leczna-Włodawa lake district, Poland (Kowalczyk & Radwan, 1982)

Keratella javana Hauer, 1937

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)
- Oriental region: Malaysia, Singapore, Indonesia (Sudzuki, 1989); Singapore. Distribution: acid waters (Sudzuki, 1991); W & E Malaysia & Singapore (Fernando & Zankai, 1981)
- Australian region: Ethiopian, Indian & Australian region (Pejler, 1977); Australia, Asia & Africa (Dumont, 1983); Swamp near Dunedin, South Island, New Zealand (Bérzinš, 1982a); SW Aust. (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); Vic & W Aust. (Shiel & Koste, 1979); Ponds in Tasmania (Shiel, Koste & Tan, 1989); NW Aust.; Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Pantropical & pansubtropical. Pancontinental in Australia, incl. Tasmania. Uncommon (Koste & Shiel, 1987b); Westland, New Zealand & Chatham Islands (Russell, 1960)

Keratella kostei Paggi, 1981

- Neotropical region: Patagonian Tableland, S Argentina (Paggi, 1981); S America (Dumont, 1983); Argentina (Koste & José de Paggi, 1982); Prov. Santa Cruz & Chubut, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Argentina (Turner, 1987)

Keratella lenzi Hauer, 1953

- Nearctic region: Florida, USA (Koste, 1972f; Olivier, 1965)
- Oriental region: India (Sharma & Michael, 1980; Sharma, 1987); Sri Lanka (Fernando, 1980a); All over the world, except Pal. region (Pejler, 1977); Australia, N & S America, Asia & Africa (Dumont, 1983); Thailand, Malaysia, Indonesia, Sri Lanka, India (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Sri Lanka: in large & in small lakes (Chengalath, Fernando & Koste, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Punjab State, NW India (Sharma, 1980); West Bengal, NE India (Sharma, 1979a); Ricefields in NE Thailand (Heckman, 1979); Indonesia & Malaysia (Olivier, 1965); Cambodia & Sri Lanka (Koste, 1972f)
- Australian region: Billabongs Magela Creek, N Aust. (Shiel & Koste, 1983); Qld, Aust. (Shiel & Koste, 1979); NT & Qld. Uncommon in Aust. (Koste & Shiel, 1987b); Australia (Koste, 1972f; Olivier, 1965; Shiel, 1981); E Aust. (Koste & Shiel, 1980b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)
- Neotropical region: Antilles françaises (Pourriot, 1975); Rio Reconquista, prov. Buenos Aires, Argentina (Kuczynski, 1981b); Lago Açu & Lagoa Cabeunas, Brazil (Turner, 1987); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b); Lago Cigana, Rio Tocantins & Rio Negro, Amazonia, Brazil (Schaden, 1977c); Lago Castanho, Amazonia, Brazil (Serruya & Pollingher, 1984); Ecuador: Oriente (Koste & Böttger, 1992); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971 & Koste, 1972f); Brazil, Argentina, Antilles, Venezuela, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1978 & 1985); River Santa Fé, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river basin,

Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river & its delta, Venezuela (Vasquez & Rey, 1989); Lago Paroni, Brazil (Koste, 1974a); Lago do Macaco, Brazil (Koste, 1989a); Arroyo Rodriguez, prov. de Buenos Aires, Arg. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Prov. San Luis, San Juan, Tucundu, Santiago del Estero, Chaco, Corrientes, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990); Caribbean islands (Collado *et al.*, 1984); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Prov. Buenos Aires, Argentina; Brazil (Olivier, 1965)

Keratella lenzi Hauer, f. *ayni* José de Paggi, 1990

- Neotropical region: Prov. Buenos Aires, Argentina (José de Paggi, 1990)

Keratella lenzi Hauer, f. *caudata* Koste, 1972

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Rio Nhamundo, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lago Paroni, Brazil (Koste, 1974a); S America (Dumont, 1983); Lago do Castanho, C Amazonia, Brazil (Schaden, 1977b); Lago Jurucui, Amazonia, Brazil (Schaden, 1977c)

Keratella mixta (Oparina-Charitonova, 1924)

- Palaearctic region: Palaearctis (Pejler, 1977); Europe (Dumont, 1983); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); E Eur. plains, Baltic province, NW Russian taiga (Bērziņš, 1978); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Serbian section of river Danube (Zivkovic, 1978)

- Nearctic region: Nearctic (Pejler, 1977); N America (Dumont, 1983); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977)

Keratella mixta (Oparina-Charitonova), f. *ahlstromiella* Bērziņš, 1961

- Nearctic region: Near Kingston, Ontario, Canada (Bērziņš, 1961); Canada (Dumont, 1983)

Keratella neali Bērziņš, 1962

- Nearctic region: Lilian Lake, near Wilmer, B.C., Canada (Bērziņš, 1961); Canada (Dumont, 1983)

Keratella nhamunda Koste & Robertson, 1983

- Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Lago do Macaco, Brazil (Koste, 1989a); Ecuador: Oriente & Costa (Koste & Böttger, 1992); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lago Jobera, Orinoco floodplain lake, Venezuela (Vasquez & Rey, 1992)

Keratella ona Boltovskoy & Urrejola, 1977

- Neotropical region: Near Ushuaia City, Tierra del Fuego, Argent. (Boltovskoy & Urrejola, 1977); Argentina (Koste & José de Paggi, 1982); Tierra del Fuego (Dumont, 1983); Chilean lakes (Schmid-Araya, 1991); Prov. Tierra del Fuego, Argentina (José de Paggi, 1990)

Keratella paludosa (Lucks, 1912)

- Palaearctic region: Palaearctic, Nearctic, Ethiopian & Neotropical region (Pejler, 1977); Europe, Africa, N & S America (Dumont, 1983); Oligotrophic water in Nunspeet, Brabant, NL (Leentvaar, 1980); C & S Sweden (Pejler & Bērziņš, 1989); Achmer Grasmoor, NW Germany (Koste, 1968b); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); C Eur. mountains, Carpathians, C & E Eur. plains, Baltic province & Fennoscandia (Bērziņš, 1978); Romania (Rudescu, 1960); Peat bogs in the Puy-de-Dôme, France (Francez & Pourriot, 1984); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Pelagic zone of the Leczna-Włodawa lakes, Poland (Radwan, 1975); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983)

Keratella procurva (Thorpe, 1891)

- Palaearctic region: Palaearctic, Ethiopian, Indian & Australian region (Pejler, 1977); Europe, Asia, Africa, Australia (Dumont, 1983); Minorca, Spain (de Manuel, 1990); Southwest islands of Japan (Sudzuki, 1990 & 1991; Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Spain: ? Barcelona (Velasco, 1990)

- Oriental region: Lake Lanao, Island Mindanao, Philippines (Lewis, 1977); India (Sharma & Michael, 1980; Sharma, 1987); Philippines (Mamaril & Fernando, 1978); Rajasthan & Punjab, India (Nayar, 1965); Rajasthan, India (Nayar, 1968); Ponds in Pilani, Rajasthan, India (Nayar, 1970); Malaysia, India, Philippines (Sudzuki, 1989); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); In a fishpond in Barrackpore, W Bengal State, India (Michael, 1968); Panjab State, NW India (Sharma, 1976 & 1980a); West Bengal, NE India (Sharma, 1979a); Orissa, E India (Sharma, 1980b); Kerala, S India (Nayar & Nair, 1969); Lake Lanao (Serruya & Pollingher, 1984)

- Australian region: Taylors Lake, Vic, Aust. (Bērziņš, 1963); In several localities in Australia (Bērziņš, 1982); Darling river & Murray river, SE Aust. (Koste & Shiel, 1980); Billabongs R. Murray, SE Aust. (Shiel & Koste, 1983); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs SE Aust. (Shiel *et al.*, 1987);

Tasmania (Koste & Shiel, 1987); Lake Purrumbete, L. Elingamite, L. Mumblin: freshwater temperate Aust. crater lakes (Green, 1981); Farm dams near Gloucester, NSW, Aust. (Suzuki & Timms, 1980); Vic & W Aust. (Shiel & Koste, 1979); Australia (Shiel, 1981); E Aust. (Koste & Shiel, 1980b); Pancontinental in Australia (Koste & Shiel, 1980c); Tasmania (Shiel, Koste & Tan, 1989); River Murray, Aust. (Koste, 1979b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Barwon river, r. Murray system, S Aust. (Shiel & Walker, s.d.); Strahan, S Tasmania (Koste, Shiel & Tan, 1988); Billabongs & reservoirs of the Murray-Darling system, S Aust. (Shiel, 1986); Pantropical & Pansubtropical. Pancontinental in Australia, incl. Tasmania. Common (Koste & Shiel, 1987b); Billabongs in the Murray river floodplain, NSW, Australia (Hillman & Shiel, 1991); Canterbury, New Zealand; Lake Lyndon, ibid. (Russell, 1960)

- Neotropical region: Orinoco river basin, Venezuela (Vasquez, 1984a); Argentina, Venezuela, Antilles (Koste & José de Paggi, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Provinces in NW Argentina (José de Paggi, 1989); Freshwaters in Argentina (Paggi, 1973); Prov. San Luis, Cordoba, Santiago del Estero & Santa Fé, Argentina (José de Paggi, 1990); Caribbean section of the Neotropis (De Ridder, 1977); Caribbean Islands (Collado *et al.*, 1984); Lake Valencia, Venezuela (De Infante, 1982); Lagoa Comprida, Brazil (Turner, 1987)

Keratella procurva haterumensis Sudzuki, 1992

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

Keratella procurva robusta Koste & Shiel, 1980

- Australian region: Darling catchment, Aust. (Koste & Shiel, 1980c); Australian endemic (Shiel, 1981); Darling river, S Aust. (Shiel, 1985); Castlereagh river, Murray-Darling system, Australia (Shiel, 1986); SW Australia (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987a); Probably endemic, pancontinental in Aust., south of tropic, incl. Tasmania. Uncommon (Koste & Shiel, 1987b)

Keratella quadrata (O.F. Müller, 1786)

- Palaearctic region: Alkal. Péteri-See, Hungary (Kertesz, 1960); Impoundment Kninicki & river Svratka, CSR (Kubicek, 1964); Lake Mälaren, Sweden (Lanner & Pejler, 1973); Lake Zwanewater, Callantsoog, NH; lake Muy on Texel; lake Van Hunenplak on Terschelling, NL (Leentvaar, 1967); Lakes Quackjeswater & Breede water on Voorne; Lake Vogelmeer near Ymuiden, NL (Leentvaar, 1963); Broads & peat pits in NW Overijssel, NL (Leentvaar, 1965); District Ostrava, CSR (Dvorakova, 1960b); Buchseen, Bodensee, CH (Einsle, 1966); Mindelsee, Bodensee, CH (Einsle, 1967); C Finland (Eloranta, 1982b); Lake Zicksee, Burgenland, Austria (Pescheck, 1961); L. Bolsena, L. Bracciano & L. Vico, C Italy (Ferrari, 1972); L. Santo Parmense, N Apennines, Italy (Ferrari *et al.*, 1973); Hortobagy Nat. Park, Hungary (Forro & Ronkai, 1983); 12 mountain lakes, high in the Himalaya (Vass *et al.*, 1989); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Lake Balaton, Hungary (Zankai & Ponyi, 1970, 1971a, 1973; Zankai, 1984 & 1989); Lago Maggiore, Italy (Goldman *et al.*, 1968); Bamberg-Höchstadt area, Germany (Halbach, 1973); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Lake Biwa, Japan (Yamamoto, 1967 & 1968; Hillbricht-Ilkowska, 1983a & 1983b); L. Stechlinsee & L. Nehmitzsee, Brandenburg, Germany (Kasprzak & Ronneberger, 1982); Near Asperg, Württemberg, Germany (Klement, 1960); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); L. Mikolajskie & L. Taltowisko, ibid. (Klimowicz, 1972); Svalbard (Amren, 1964a, 1964b, 1964c, 1964d); Near Trebon, S Bohemia, CSR (Albertova, 1960); Kirrbucht, N of Bartholomä Bodden, Baltic Sea (Arndt *et al.*, 1984a); Canal de Séclin, Nord, France (Angeli, 1972 & 1975); Lake Myvatn, Iceland (Adalsteinsson, 1974 & 1979); Askö, N Baltic Sea, Sweden (Ackefors, 1969); In the lower Elbe, Germany (Grimm, 1968); L. Kummerower See, Mecklenburg, Germany (Kalbe *et al.*, 1965); Mouth areas of the Danube branches & parodeltic area of the Danube in the Black Sea, Romania (Popescu-Marinescu, 1974); Rhine waters near Wiesbaden, Germany (Noll, 1972); Delta of river Danube, Romania (Rudescu & Banu, 1973); River Danube, from Austria to Romania (Wawrik, 1968); In the Serbian area of the Danube (Zivkovic, 1968); Hudsons Bay & Hoveton Great Broads, E Anglia, UK (Timms & Moss, 1984); Lake Esrom, New Zealand, DK (Bosselmann, 1981); Lake Léman, Fr./CH (Martin, 1961; Gawler *et al.*, 1988; Balvay, 1989; Balvay & Laurent, 1981 & 1989; Rougier, 1969); River Warnow, near Rostock, Germany (Keil *et al.*, 1963); Lake Lauerzersee, CH (Odermatt, 1970); Lake Konstanz, Germany (Kiefer, 1968); Dübener Heide, N Germany (Wulfert, 1960b); Lake Aydat, Massif Central, France (Lair, 1978 & 1990; Lair & Ayadi, 1989; Lair & Oulad Ali, 1990); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Lac de Nantua, Ain, France (Balvay, 1985); Impoundment Helme, near Kebra, Kyffhäuser, Germany (Heyning, 1968, 1974 & 1980); Bartholomä Bodden, Baltic coastal inlet (Heerkloss *et al.*, 1984); Tüzer See, Neubrandenburg, Germany (Doll, 1984); Lakes Frederiksborg Slotssø & Mossø, DK (Jørgensen *et al.*, 1983); River Svratka, CSR (Kubicek, 1968); Leczna-Włodawa lake district, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Backwater Labicko, Middle-Elbe, CSR (Straskraba, 1965); Etang de Mirwart, Belgium (Marlier & Wattiez, 1977; Wattiez, 1978); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Lower Suwalik Himalaya,

Kashmir valley & high mountains of Kashmir Himalaya (Zutshi *et al.*, 1980); Near Debrecen, Hungary (Dévai, 1972); Canal Leeds-Liverpool, UK (Galliford, 1960b); Ponds in and near Münich, Germany (Buchner & Mulzer, 1961); All over the Netherlands (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1972d & 1979); Etang de Léon, SW France (De Ridder, 1967b); Brackish waters in the Lorraine orientale, Fr. (De Ridder, 1969a); Budir & surroundings, Iceland (De Ridder, 1969b); All over Belgium (De Ridder, 1986); Boatracing Canal, Gent, Belgium (De Maeseneer, 1973 & 1976); Clay pits, Stuivekenskerke, Belgium (Espeel, 1979); 4 localities in Belgium (De Maeseneer, 1979); Etang des Monts Rosés, Sivry, Belgium (De Ridder, 1980); Brackish waters near Bruges, Belgium (De Ridder & Verheye, 1980); Lake Neujahrsloch, Hessen, Germany (Menzel, 1968); Lake Konstanz, Germany (Walz *et al.*, 1987); River Danube, Romania (Enaceanu & Brezeanu, 1970); Ellesmere District, UK (Galliford, 1960a); Knowsley Park, Liverpool, UK (Galliford, 1964); Lake Meeuwenven, near Nijmegen, NL (Geelen, 1969); Lac de Pétrichet, Isère, France (Gey, 1979); District Hoge Venen, Belgium (Gijsels *et al.*, 1976); Lakes, N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Alderfen Broad, Norfolk, UK (Cryer & Townsend, 1988); Lagoon Sacca del Canarin, Po r. delta, Italy (Ferrari *et al.*, 1985); Lake Gersjoen, SE Norway (Hessen & Nilssen, 1985); Lower course of Sambre river, Belgium (Dumont & Van Vossel, 1973); University pond, Gent, Belgium (Dumont *et al.*, 1975); New impoundment in the CSR (Kubicek, 1968); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Lac Tazenat, Massif Central, France (Lair & Restituto, 1976); River Woluwe valley, Brussels, Belgium (Lamaye, 1975); Lac de la Crégut & L. de Laspialade, Cantal, Fr. (Omaly, 1970); River Loire, France (Lair, 1980; Lair *et al.*, 1978); Side-arm of r. Danube near Bratislava, CSR (Lichardova, 1964); Small water bodies in the Mikolajkie area, P. (Klimowicz, 1967); Anatolia, Turkey (Segers *et al.*, 1992); Lake Baikal, R.F. (Kozhov, 1963); Lac de Crêteil, Paris suburb, France (Garnier & Lescher-Moutoué, 1983; Lescher-Moutoué *et al.*, 1985); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); Lake Zürichsee, CH (Nipkow, 1961); Lake Erken, Sweden (Nauwerck, 1963); Karelian inland waters, R.F. (Kutikova, 1965); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); 6 lakes in the Puy-de-Dôme, France (Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); R. Moldova, tributary of the Danube, Rom. (Prunescu-Arion, 1968); Lough Neagh, N Ireland (Andrew & Fitzsimons, 1992); Lake Ösbysjön, near Stockholm, Sweden (Pejler, 1961); Lakes in C Sweden (Pejler, 1964); Lac d'Annecy, France (Balvay & Druart, 1992); Ponds in Gif-sur-Yvette, France (Pourriot & Leborgne, 1970); 2 ponds in Gif-sur-Yvette, France (Pourriot, 1972); Lac Pavin, Massif Central, France (Restituto & Lair, 1976); Black Sea (Rudescu, 1961); Bulgarian bank of river Danube (Naidenow, 1963); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Lake Jorzec, Mazurian lakeland, Poland (Radwan *et al.*, 1985); Hamburg area, Germany (Rühmann, 1961 & 1965a); Gemünderer Maar, Weinfelder M. & Pulvermaar, Eifel, Germany (Oehms & Seitz, 1992); Water sheets in the Hamburg area, Germany (Rühmann, 1964); River Alster in Hamburg, Germany (Rühmann, 1967); Middle course of river Loire, France (Lair & Sargas, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Ponds in the Paris suburb, France (Pourriot, 1965); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Aegean lakes, Macedonia, ex-Yugosl. & Greece (Serafimova-Hadzisce, 1974); Fens in Genk, Belgium (Schepens, 1960); Ponds in the Botanical Garden, Gent, Belgium (Segers *et al.*, 1991b); Pool, S of Trondheim, Norway (Thomasson, 1979); Lago Trasimeno, Italy (Taticchi, 1968); Serbian section of river Danube (Zivkovic, 1987); Lake Stechlinsee, N Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Waters of the Szezecin lagoon, Poland (Wiktor, 1960 & 1968); Forest Pond, Lembeek, Belgium (Symoens *et al.*, 1983; Deronde *et al.*, 1984; Van Elslande, 1975); All over Spain; Andorra; Portugal: Beja & Portalegic (Velasco, 1990); Experimental ponds at Golysz, Poland (Lewkowicz, 1971; Zurek, 1974); Lake Keyaart, Oudenburg, Belgium (De Ridder, 1992); Gravel pits along river Meuse, NL (Wibaut-Isebree Moens, 1964); Lake Biwako, Japan (Yamamoto, 1960b); Lake Balaton, Hungary (Zankai & Ponyi, 1972); Rybnik dam reservoir, Poland (Krzanowski, 1979); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); Lake Taltowisko, Poland (Ejsmont-Karabin, 1974); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962); Darsz-Zingst estuary, N Germany (Arndt, 1991); Lake Laacher See, Eifel, Germany (Eckartz-Nolden & Nolden, 1992); Basse salée, Camargue, France (Aguesse, 1960); Lago di Giulianello, Latium, Italy (Ferrara & Margaritora, 1977); La Mancha, Cast., Spain (Armengol *et al.*, 1975); Impoundment on Rio Guadiana, Spain (Armenngol, 1982; Armengol *et al.*, 1988); Lake Bodensee, near Konstanz (Koch-Alhaus, 1962); Impoundments Sadenbach & Neunzehnhain, (Althaus, 1976; Beuschold, 1961); Germany (Rudolf, 1966); Lake Trummen, S Sweden (Anderson *et al.*, 1975); Lakes in S Sweden (Arnemo *et al.*, 1968); Groszer

Müggelsee, Berlin, Germany (Barthelmes, 1960); Delta of river Danube, Romania (Godeanu & Zinevici, 1983; Zinevici & Teodorescu, 1990; Prunescu-Arion, 1989); Nat. Res. Neeruti lakes, Estonia (Mäemets A & A, s.d.); Karstic lake Percile, Latium, Italy (Margaritora *et al.*, 1981); Jordan reservoir, Bohemia, CSR (Mitiska *et al.*, 1962); Pyrenean lakes & alpine lakes in the Alps (Miracle, 1978); Bicaz water power reservoir, Romania (Battes *et al.*, 1971); C Sweden (Pejler, 1972); In all zoogeographical regions (Pejler, 1977); Lake Suwa, Japan (Hanazato *et al.*, 1989); Blelham Tarn, Cumbria, UK (Ferguson *et al.*, 1982); Bansee, Seeon, Bavaria, Germany (Preiszler, 1977a & 1980); Lunzer Obersee, Austria (Ruttner-Kolisko, 1975b; Pivoda, 1977); Lake Neusiedlersee, Austria (Herzig, 1983); Loch Leven, Scotland (May, 1983, 1986 & 1987); Fjord Himmerfjorden, N Baltic Sea, Sweden (Johansson, 1983); Lakes in the high mountains, Spain (Miracle, 1982); Mine waters in Poland (Radwan & Paleolog, 1983); Lake Ormijärvi, S Finland (Cajander, 1983); Lake Biel, CH (Baugerter *et al.*, 1980; Berner-Fankhauser, 1983 & 1986); Lake Cullera, near Valencia; Lake Banyoles, NE Spain; Laguna de la Cruz & Lagunello negro near Cuenca, Spain (Miracle & Vicente, 1983); Slovenia, ex-Yugoslavia (Markic, 1983); Lakes in Estonia (Mäemets, 1983); Ponds Sollu & Deming, S of München, Germ. (Fergg, 1964); All continents (Dumont, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Alps & Pyrenees (Morales-Baquero, 1987); Lake Königssee, Bavaria (Laxhuber, 1987); Priest Pot, Lake District, UK (Stewart & George, 1987; Hewitt & George, 1987); River Klyas'ma, R.F. (Bogoslowski, 1961); Heiluntsian Province, China (Bogoslowski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Petén, 1973); Lake Greifensee, CH (Bürgi *et al.*, 1979); Lake Bodensee (Walz, 1986; Pauli, 1989); Small lakes in Estonia (Haberman & Mäemets, 1987); Lake Stugusjøen, Sweden (Langeland, 1988); "Grote vijver" of fort 8, Hoboken, Belgium (De Smet *et al.*, 1988); "Altes Land" near Hamburg, Germany (Heckman, 1986); Lake Derwart near Doornik, Belgium (Bogaert, 1988; Bogaert & Dumont, 1989); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Romania (Rudescu, 1960); Lake Nemi, C Italy (Stella, Ferrero & Margaritora, 1978); Lago Maggiore, Italy (Tonolli, 1962); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); C & S Sweden (Pejler & Bērziņš, 1989); Po river, Italy (Ferrari *et al.*, 1989); Eutrophic waters in E Poland (Radwan & Popiolek, 1989); Barther Bodden, S Baltic Sea, Germany (Vietinghoff *et al.*, 1984); Bafra Lake, E Turkey (Emir, 1989); Lakes in the Tatra, border CSR-Poland (Gliwicz & Rowan, 1984); Lake Goggausee, Karinthia, Austria (Herzig & Moog, 1976); Small lakes in SW Sweden (Stenson, 1982); Lake Mikolajskie, Mazurian lakeland, Poland (Hillbricht-Ilkowska, 1975); Grasmere Lake, Lake District, UK (Elliott, 1977); Banyoles Lake, NE Spain (Miracle, 1974 & 1975); Afghanistan (Bērziņš, 1961); Reservoirs in Spain (Guiset, 1977); River Elbe estuary, Germany (Schulz, 1961); Carp nursery ponds, S Urals, R.F. (Lyubimova, 1974); Lake Duvankul', S Urals, R.F. (Kozlova, 1976); Lake Baikal, R.F. (Afanas'jeva, 1975); Near Szarvas, Hungary (Tamas, 1975); Fish fattening ponds in the Ukraina, R.F. (Krazhan *et al.*, 1976); Rivers in W Kazakhstan, R.F. (Petrova, 1976); Dniester estuary, R.F. (Polishchuk, 1976); Lake Sevan, Armenia, R.F. (Meshkova & Nikogosyan, 1978); Lapland State preserve, R.F. (Ghilarov, 1972); Vilnyus, Lithuania (Rahyunas, 1971); Rostov Oblast & Krasnodar Kray, Kuban (Krylova, 1971); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); All over Europe; Caucasus, Asia Minor (Bērziņš, 1978); Boatracing canal, Gent, Belgium (De Maeseneer, 1972; De Maeseneer *et al.*, 1978; Vanderbeken, 1977; Coussement, 1982); Lake Gates, Denderleeuw, Belgium (Dumont, 1968a); Lake Donk, Overmere, Belgium (Dumont, 1968b; Claus & Dall'Asta, 1972; Coussement, 1976; Martens, 1985; Roche, 1987 & 1989); Pond Botanical Garden, Gent, Belgium (Verheyen, 1980); River Meuse Liégeoise, Belgium (Baiverlin, 1984); River Werra (Germ.) & Lake of Mansfield, UK (Dussart, 1966); Lake Karagöl, near Izmir, Turkey (Ustaoglu, 1986); Lake Akgöl, Selçuk-Izmir, Turkey (Ustaoglu & Balik, 1987); Lake Kus, Turkey (Ustaoglu & Balik, 1990a); Lake Gebekirse, Izmir, Turkey (Ustaoglu & Balik, 1990b); Lake Marmara, Turkey (Ustaoglu, in press); Camargue, S France (De Ridder, 1960a & 1961); River Yzer & Handzame Canal, Diksmuide, B. (De Ridder, 1960b); Lac Léman, Fr./CH (Naef & Martin, 1985); Inundation area of Danube delta, Romania (Dorobantu, 1964); Lower Silesia, Poland (Pawlowski, 1960); River Grabia basin, Poland (Pawlowski, 1960, 1968, 1970 & 1973); Lake Volvi, Macedonia, Greece (Zarfdjian *et al.*, 1990); Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968); Impoundments in E Bohemia, CSR (Sladeckova & Sladecek, 1960); Luka nad Olzon, near Ostrava, Silesia, CSR (Sladecek, 1969); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Ponds in Rambouillet, France (Pourriot *et al.*, 1969); Small lakes SE of Gothenburg, W Sweden (Morling & Pejler, 1990); Delta of river Danube, Romania (Zinevici & Teodorescu, 1991); Lac de Créteil, Paris suburb, France (Pourriot & Garnier, 1991); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Gulf of Bothnia, Gulf of Finland; ? Baltic Sea, ? Belt Sea, ? English Channel, E & W; ? Bristol Channel & Irish Sea (Bērziņš, 1960); Lake Aydat, Massif Central, France (Lair, 1991 & 1992); Lake Pluszsee, Holstein, N Germany (Hofmann & Krambeck, 1991); Lake Prosce & L. Kozjak, Croatia, ex-Yugosl. (Erben, 1991); "Kleine vijver", fort 8, Hoboken, Belgium (De Smet *et al.*, 1989); Moat of fort Merksem, Belgium (De Smet *et al.*, 1987); Large, medium & small rivers, tributary to Kiev reservoir.

Reservoir itself (Polishchuk, 1987); Impoundment Weidatalspalte, E Thüringen, G. (Hoffmann, 1966); Pond Vasikkalampi, C Finland (Eloranta, 1981); Lac de Crêteil, Paris suburb, France (Garnier & Lescher-Moutoué, 1984); Lake Mikolajskie & L. Taltowisko, Poland (Gliwicz et al., 1978); Lake Pluszsee, Holstein, N Germany (Hofmann, 1972, 1975 & 1985); L. Khadina-Nohur & L. Kaulygel, Caucasus, R. F. (Kasymov, 1981); Sea & rock-pools in S Finland (Björklund, 1972a); Dübener Heide, N Germany (Wulfert, 1961); Pelagic zone of Lake Nobel, Ukraina (Polishchuk, 1991); Vistula lagoon, Poland (Adamkiewicz-Chojnacka & Rozanska, 1990); Waldviertel area, lower Austria (Naiderow & Wawrik, 1984); Highly dystrophic lake Smolak, highly eutrophic lake Czarna Kuta, Poland (Brinska et al., 1976); Balearic Archipelago, Spain (de Manuel et al., 1992); Lakes Zuidelijke Vechtplassen, NL (Leentvaar, 1969); Loosdrecht Lakes, NL (Van Tongeren et al., 1992); Channel Isebek, Hamburg, Germany (Caspers & Schulz, 1960); River Niederrhein, Germany (Bringmann & Kühn, 1962); Lough Erne system, NW Ireland (Gibson et al., 1980); Brundall, Norfolk Broads, UK (Leah et al., 1980); Hjarback Fjord, N Jutland, DK (Olrik et al., 1984); Bay of Bothnia, Bothnian Sea (Sandström, 1979); Bakkerskooi, Wanneperveen, Overijssel, NL (Leentvaar, 1967b); River Lausitzer Neisse & Oder, Germany (Walter & Scharf, 1961); Near Bautzen, Oberlausitz, Germany (Walter, 1961); Shores of dammed or flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Lower Danube in Romania (Enaceanu, 1964); Elbe estuary, Germany (Giere, 1968); Brabantse Biesbosch, NL (Leentvaar, 1960); Dniester reservoir, between Orestrovka & Novodnestrovsk, R.F. (Koval'chuk, 1990); Groszer Binnensee, Baltic coast, Germany (Lampert & Rothaupt, 1991); Test field Wielenbach, Bavaria, Germany (Kucleutz, 1991); In Spanish reservoirs (de Manuel, 1991); Kanev reservoir (Dnieper), R.F. (Mogil'chenko, 1986); Upper Kremenchung reservoir, R.F. (Kudigev & Kryzhamovskiy, 1986); Lower Volga (Chuykov & Merkulov, 1986); Volgograd reservoir, R.F. (V'yushkova, 1985); Soviet section of the Danube, R.F. (Parchuk, 1985); Rybinsk reservoir, R.F. (Kartesheva & Lebedeva, 1981); Brackish water bay Lill-Pernåviken, S Finland (Järnefelt, 1964); Small waters on mt. Arlberg, Tirol, Austria (Wawrik, 1966); Lake Monterosi, Latium, Italy (Stella & Margaritora, 1966); In several lakes in Turkey (Emir, 1991); Sava Lake, ex-Yugoslavia (Kalafatic, 1978); Rheinisches Braunkohlengelände, Germany (Küsters et al., 1975); Lake Baikal, R.F. (Kutikova, 1978); Experimental Fish Culture Station in Golysz, catchment area of the Upper Vistula r., Poland (Wrobel, 1972; Lewkowicz, 1984); Perchpike lakes in N Poland (Mikulski, 1964); Loch Leven, Scotland (May, 1985); Lake Lunzer Obersee, Austria (Ruttner-Kolisko, 1975); Lake Giulianello, Latium, Italy (Stella & Margaritora, 1972); Sewage purification plant West, A'dam, NL (Dresscher, 1960); Lago Santo Parmense, N Apennines, Italy (Ferrari, 1976); N Iceland (De Ridder, 1970); N, W & C Iceland (De Ridder, 1972); Impoundment Twistetalspalte, Nordhessen, G. (Meinel et al., 1983); Pools Erpewaaien, near Nijmegen, NL (Leentvaar, 1970); Waterworks Jungfernheide, Berlin, Germany (Ritterbusch, 1974); Lake Brebu, Romania (Fesci, 1969); Lakes in Estonia (Haberman, 1978); Water purification plant near Köln, Germ. (Bick & Scholtysek, 1960); Coast of S Finland (Eriksen, 1969); Lunzer Obersee, Austria & Lake of Zürich, CH (Pejler, 1980); Moerdijk-Hollands Diep, NL (Leentvaar, 1980); Lake Mikolajskie (eutrophic) & L. Taltowisko (mesotrophic), Mazurian lakeland, Poland (Hillbricht-Ilkowska, Gliwicz & Spodniewska, 1966; Hillbricht-Ilkowska & Weglenska, 1970); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964 & 1965); Lac Léman, Fr./CH (Balvay & Laurent, 1990a & 1990b); Loch Rusky, Scotland (Romo, 1990); Lake Aydat, Massif Central, France (Oulad Ali et al., 1990); Lake Erken & L. Mälaren, Sweden (Blomquist & Pejler, 1980); Koyama-Ike, a coastal pond in Japan (Suzuki & Fukuta, 1989); Carp ponds in S Poland & Upland reservoir, ibid. (Zurek, 1980); Lake Sempachersee, CH (Zimmermann, 1974); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1983 & 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Lake Mälaren, Sweden (Grönberg, 1975); Danube river, Romania (Popescu-Marinescu et al., 1990); Experimental pond in Lelystad, NL (Verreth, 1990); Norfolk Broads, UK (Irvine et al., 1990); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); Ponds in the Kochuby fishfarms (Dagestanian A.S.S.R.) (Salnikov & Badmina, 1979); Peridunar ponds, Doñana Nat. Park, Spain (Lopez et al., 1991); Canal Isebek, Hamburg, Germany (Caspers, 1964)

- Nearctic region: Spirit Lake, Washington (Larson & Glass, 1987); Sunfish Lake, Ontario, Canada (George & Fernando, 1970); Little Manitou, Saskatchewan, Canada (Hammer et al., 1975); Alberta, Canada (Stewart & Green, 1976); Colorado, USA (Turner, 1988); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Ocqueoc river, Michigan, USA (Bech, 1960); Canada (Chengalath, 1977); Ontario, Canada (Chengalath et al., 1971; Chengalath & Fernando, 1973); 5 small mountain lakes in Alberta, Canada (Anderson, 1968); Arctic N America (Chengalath & Koste, 1989); Lake St. George, King Township, Ontario, Can. (Malone & Mc Queen, 1983); Lake Michigan & Milwaukee Harbor, USA (Stemberger,

1974); Fentun Lake, Standley L. & Trapper's Lake, Colorado, USA (Pennak, 1966); Nat. Parks in B.C. & Alberta, Canada (Anderson, 1977); Lake Michigan, USA (Sandgren & Lehman, 1990); Patricia L. & Celestine L., in Jasper Nat. Park, Alberta, Canada (Anderson, 1970b); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Northern Michigan Inland lakes (Stemberger, 1990); King Lake, near Boulder, Colorado, USA (Pennak, 1978); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); South Platte river, CO Colorado, USA (Ward, 1975); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Rogers Lake, Connecticut, USA (Deevey, 1964); Labrador Lakes, Canada (Davis, 1978); Sunfish & Paradise lakes, E Canada (George & Fernando, 1969); Clearwater Lake, Ontario, Canada (Yan & Geiling, 1985); Etang de Desbiens & Et. de St. Gédéon, Québec, Canada (Lalancette, 1987); Grace Lake, Long L. & Madeline L., N Canada (Moore, 1980); Severson Lake, Minnesota, USA (Comita, 1972); Lake Ontario, Canada (Nauwerck, 1978); Bay of Quinte, L. Ontario, Canada (Nogrady, 1988); Lake Mendota, Wisconsin, USA (Pedros-Alio & Brock, 1983); Two small reservoirs, Idaho, USA (Miller & Rabe, 1969); In borrow-pit ponds, N Illinois, USA (Lipsey & Malcom, 1981); Lac Echo, Québec, Canada (Nogrady, 1976); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Laurentian Great Lakes (Stemberger, 1979); Northern Ontario Lakes, Canada (Roff & Kwiatkowski, 1977); Hastings Lake, C Alberta, Canada (Baker, 1979a); Lake Erie, Canada (Davis, 1969); Baoline Long Pond, Newfoundland, Canada (Davis, 1973); Lakes in the Churchill Falls area, Labrador, Can. (Duthie & Ostrovsky, 1974); San Francisco, California, USA (Nogrady, 1983); Stoneman Lake, Arizona, USA (Green, 1986); Pond near Edmonton, Alberta, Canada (Daborn, 1974); Silver Lake, Adirondack mountains, NY State (Siegfried, 1991)

- Oriental region: Lake Rara, W Nepal (Okino & Satoh, 1986); India (Sharma & Michael, 1980; Sudzuki, 1989); Perennial pond at Chotanagpur, India (Srivastava, 1981); High altitude Kashmir lakes, India (Zushi *et al.*, 1972); West Bengal, NE India (Sharma, 1979a); Freshwater pond at Bakreswar, W Bengal, India (Jana, 1973)

- Australian region: River in Australia (Bērziņš, 1982); NSW, Qld, Vic, Aust. (Shiel & Koste, 1979); Australia (Shiel, 1981); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Uncommon. Generally in high altitude cooler waters in the E States (NSW, Qld, Tas, Vic). Cosmopolitan in fresh & brackish waters (Koste & Shiel, 1987b); Darling river, SE Aust. (Koste & Shiel, 1980); Tasmania (Koste & Shiel, 1987a); Murray-Darling system (in high-altitude reservoirs and in winter plankton) (Shiel, 1986); Darling river, S Aust. (Shiel, 1985); Lake Grasmere, S Island, New Zealand (Stout, 1972 & 1991); Lakes in the Canterbury mountain region, New Zealand (Stout, 1969); Lake Marchant, SW New Zealand (Stout, 1975); L. Grasmere & L. Pearson, S Island, New Zeal. (Stout, 1984); Saddle Hill pond, New Zealand (Byars, 1960); Damaru & Christchurch, N Zealand; Campbell Island (Russell, 1960)

- Neotropical region: Ecuador: Sierra (Koste & Böttger, 1989); Lake Titicaca (Bolivian side) (Pinto, 1992; Ueno, 1967); Argentina, Paraguay, Brazil, Bolivia, Peru (Koste & José de Paggi, 1982); Prov. Santa Cruz, Chubut, Rio Negro, Salta, Corrientes & Buenos Aires, Argentina (José de Paggi, 1990); Prov. Santa Cruz, Argentina (Olivier, 1965); Araucarian lakes, E of the Andes, Chile (Thomasson, 1963b); Lake Titicaca (Serruya & Pollingher, 1984)

Keratella quadrata platei (Jägerskiold, 1894)

- Palaearctic region: Finland (Eriksen, 1969); Pontic province, C Eur. plain, Baltic province, Boreal highland, N Sweden, NW Russian taiga (Bērziņš, 1978); Gulf of Bothnia, Gulf of Finland, Gulf of Riga, Baltic Sea, Belt Sea (Bērziņš, 1960); Romania (Rudescu, 1960); Black Sea (Rudescu, 1961)

Keratella quadrata (O.F. Müller), f. *arenosa* Ahlstrom, 1943

- Palaearctic region: Alps (Bērziņš, 1978); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981)

Keratella quadrata (O.F. Müller), f. *australis* Bērziņš, 1963

- Australian region: Australia (Taylors Lake, Victoria) (Bērziņš, 1963); Lake Judd, Tasmania (Sudzuki, 1967)

Keratella quadrata (O.F. Müller), f. *baikalensis* Gaigalas, 1958

- Palaearctic region: Lake Baikal, R.F. (Eggers, 1973)

Keratella quadrata (O.F. Müller), f. *brevispina* (Gosse, 1851)

- Palaearctic region: Pools in Z.-Limburg; brackish waters in Prov. Friesland, NL (Dresscher, 1976); Alkal. Péteri-See, Hungary (Kertesz, 1960); Lake Mikolajskie & L. Sniardwy, Poland (Kosicki, 1960); Lake Balaton, Hungary (Zankai, 1968)

Keratella quadrata (O.F. Müller), f. *canadensis* Bērziņš, 1954

- Nearctic region: Lake Ontario, Canada (Nauwerck, 1978)

Keratella quadrata (O.F. Müller), f. *curvicornis* (Ehrenberg, 1834)

- Palaearctic region: Lake Balaton, Hungary (Zankai, 1968)

Keratella quadrata (O.F. Müller), f. *dispersa* Carlin, 1943

- Palaearctic region: Lake Balaton, Hungary (Zankai & Ponyi, 1971a); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Carpathians, C & E Eur. plains, Baltic province (Bērziņš, 1978); Romania (Rudescu, 1960);

In Spanish reservoirs (de Manuel, 1991); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Lower Danube in Romania (Enaceanu, 1964); River Danube (Enaceanu & Brezeanu, 1970); New impoundments in the CSR (Kubicek, 1968); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Serbian section of river Danube (Zivkovic, 1987)

- Nearctic region: Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980)
- Australian region: River Yarra, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1987); Cosmop. pond form. Recorded from Vic by (Koste & Shiel, 1987b; Bērziņš, 1982)

***Keratella quadrata* (O.F. Müller), f. *divergens* Voigt, 1902**

- Palaearctic region: Black Sea (Rudescu, 1961); Bulgarian bank of river Danube (Naidenow, 1963); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961)

***Keratella quadrata* (O.F. Müller), f. *frenzeli* (Eckstein, 1895)**

- Palaearctic region: Serbian section of river Danube (Zivkovic, 1987); Spain: Cadiz & Sevilla (Velasco, 1990); Lakes in Estonia (Haberman, 1978); Lake Võrtsjärv, Estonia (Kutikova & Haberman, 1986); Impoundment Kninicki, CSR (Kubicek, 1964); Lake Dümmer, NW Germany (Koste & Poltz, 1983 & 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Lake Balaton, Hungary (Zankai, 1968); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Romania (Rudescu, 1960); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Leczna-Włodawa Lake District, E Poland (Radwan, 1984); Japanese inland waters (Yamamoto, 1960a); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Artificial lakes near Köln, Germany (Trahms, 1972); River Danube (Austria to Romania) (Wawrik, 1968); Shores of dammed or flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); River Danube (Enaceanu & Brezeanu, 1970); Lakes, N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Impoundments in the r. Bistrilla valley, Rom. (Corneanu, 1972); New impoundments in the CSR (Kubicek, 1968); Lac d'Annecy, France (Balvay & Druart, 1992); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); 3 lakes of Sosnowickie, Poland (Radwan, 1966 & 1969)

- Neotropical region: Bolivia & Peru (Koste & José de Paggi, 1982)

***Keratella quadrata* (O.F. Müller), f. *reticulata* Carlin, 1943**

- Palaearctic region: Seat Ness, Shetlands (De Smet *et al.*, 1988); C. Hindu-Kush, Afghanistan (Kownacki *et al.*, 1976); fide Kownacki; also in Pamir & Tjan-Chan (Kutikova, 1972; Gurvic, 1974); River Svratka, CSR (Kubicek, 1968); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); 3 lakes of Sosnowickie, Poland (Radwan, 1966 & 1969); Spain: ? Oviedo (Velasco, 1990)

- Nearctic region: Colorado, USA (Turner, 1988)

***Keratella quadrata* (O.F. Müller), f. *robusta* Zankai, 1968**

- Palaearctic region: Lake Balaton, Hungary (Zankai, 1968)

***Keratella sancta* Russell, 1944**

- Australian region: New Zealand (Dumont, 1983); Australian region (Pejler, 1977); New Zealand species (Shiel, 1981); Lake Studer, Kerguelen (Lair & Koste, 1984); In brackish waters, N Zealand and Kerguelen Archipelago. Not recorded from Australia, but may occur in Tasmania (Koste & Shiel, 1987b); Canterbury, New Zealand (Russell, 1960)

- Antarctic region: Antarctica (Sudzuki, 1988); Antarctica & Subantarctica (José de Paggi & Koste, 1984)

***Keratella serrulata* (Ehrenberg, 1838)**

- Palaearctic region: Lakes in Sweden (Pejler, 1965); Palaearctic, Nearctic & Australian regions (Pejler, 1977); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bērziņš, 1989); Romania (Rudescu, 1960); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Peat bogs in the Massif Central, France (Batut, 1965); In acid lakes in S Finland (Arvola *et al.*, 1990); Peat bogs in the Sologne, France (de Beauchamp & Pourriot, 1961); Small lakes in Estonia (Haberman & Määemets, 1987); Moors in Skopun, Faröer (De Smet *et al.*, 1988); Peat bogs in Finland (Selin & Koskinen, 1988); Finland (Eriksen, 1969); In acid, oligotrophic waters, NL (Leentvaar, 1980); Slovenia, NW ex-Yugoslavia (Markic, 1983); Lakes in Estonia (Määemets, 1983); Europe, N & S America, Aust. (Dumont, 1983); Lake Oxsjön, SW Sweden (Hendelberg *et al.*, 1979); Lake Van Hunenplak, Terschelling, NL (Leentvaar, 1967); Nat. Res. Neeruti lakes, NE Estonia (Määemets A & A, s.d.); Small water bodies, Soviet Karelia, R.F. (Filimonova, 1976); Oligotrophic mesoacid & polyacid lakes in NW R.F. (Salazkin, 1971); All over Europe (Bērziņš, 1978); In Spanish reservoirs (de Manuel, 1991); Inundation area of Danube delta, Romania (Dorobantu, 1964); River Gracia basin, Poland (Pawlowski, 1960); Small lakes SE of Gothenburg, W Sweden (Morling & Pejler, 1990); N, C & W Iceland (De Ridder, 1972); Pond Stifterteich, near Karlstift, lower Austria (Wawrik, 1969); Peat bogs in the Puy-de-Dôme, France (Francez & Pourriot, 1984); Peat bogs Chambédaize & La Godivelle, ibid. (Francez & Dévaux, 1985; Francez, 1988); Lake Nimetön, S Finland (Arvola *et al.*, 1986); Waldviertel area, lower Austria (Naidenow & Wawrik,

1984); All over the Netherlands (Dresscher, 1976); SW Iceland (De Ridder, 1966a); Lacuisine & Samrée, Belgium (De Ridder, 1986); Lacuisine, Belgium (De Maeseneer, 1979); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Lac de la Crégut, Cantal, France (Omaly, 1970); Karelian inland waters, R.F. (Kutikova, 1965); Hamburg area, Germany (Rühmann, 1961); Pools & peat bogs in the Paris suburb, France (Pourriot, 1965); Spain: Coruna, Léon, Orense, Pontevedra & Zamora (Velasco, 1990); In acid lakes in lower Austria (Wawrik, 1972); Japanese inland waters (Yamamoto, 1960a); Hilversumse Wasmeer & lakes in Leersumse veld, NL (Leentvaar, 1967b); Dübener Heide, N Germany (Wulfert, 1960a); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); River Danube, Romania (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987); Lake Uiversnest near Nijmegen, NL (Geelen, 1969); Luga district of Leningrad area, R.F. (Kutikova, 1962b); Lakes in C Sweden (Pejler, 1964); Leczna-Włodawa Lake District, E Poland (Kowalczyk & Radwan, 1982); Parczew area peat bogs, Poland (Radwan, 1974); Hamburg Harbour, Germany (Rühmann, 1962); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Tarn in Värmland, Sweden (Thomasson, 1970); Pool, S of Trondheim, Norway (Thomasson, 1979)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Ocqueoc river, Michigan, USA (Beach, 1960); Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Kelso Lake, Idaho, USA (Buscemi, 1964); Colorado, USA (Turner, 1988); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Lond Pond, St. John's, Newfoundland, Can. (O'Connell & Andrews, 1977); Baoline Long Pond, Newfoundland, Canada (Davis, 1973); Lakes in the Churchill Falls area, Labrador, Can. (Duthie & Ostrovsky, 1974)

- Oriental region: India (Sharma, 1987); Dal Lake, Kashmir Himalayan lake, India (Vass & Zutshi, 1983)

- Australian region: Qld & S Australia (Shiel & Koste, 1979); Cosmopolitan, mostly in acid waters between *Sphagnum*. A record from Aust. needs confirmation (Russell, 1961; Koste & Shiel, 1987b); Swamp near Dunedin, South Island, New Zealand (Bērziņš, 1982a); Mt. Rolleston, New Zealand (Russell, 1960); Murray river at Mannum, S Aust. (Shiel, 1979); Murray river, Aust. (Serruya & Polingher, 1984)

- Neotropical region: River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1978a); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Argentina (Koste & José de Paggi, 1982); Lago de Valencia, Venezuela (De Infante, 1980); Rio Reconquista, prov. Buenos Aires, Argent. (Kuczynski, 1991b)

Keratella serrulata (Ehrenberg), f. *curvicornis* Rylov, 1926

- Palaearctic region: Romania (Rudescu, 1960); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Peat bogs in the Massif Central, France (Batut, 1965); Peat bogs in the Puy-de-Dôme, France (Francez & Pourriot, 1984); Peat bogs Chambedaze & La Godivelle, ibid. (Francez & Dévaux, 1985); Inundation area of Danube delta, Romania (Dorobantu, 1964); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Lake Chambon, Puy-de-Dôme, France (Persoone *et al.*, 1968); In reed borders of the Danube delta, Rom. (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

- Nearctic region: Lake Jasper, W North America (Thomasson, 1962); Brainard L. & Redrock L., N Colorado, USA (Thomasson, 1964b); Northern Michigan inland lakes (Stemberger, 1990); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Frenando, 1973); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Kingston, Ontario, Canada (Nogrady, 1989); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Laurentian Great Lakes & inland lakes of N Michigan (Stemberger, 1979)

- Australian region: Lakes on mt. Wilhelm, E New Guinea (Thomasson, 1967)

- Neotropical region: Prov. Chaco & Santa Fé, Argentina (José de Paggi, 1990); Ecuador: Sierra (Koste & Böttger, 1992)

Keratella serrulata (Ehrenberg), f. *levanderi* Lie-Petterson, 1909

- Palaearctic region: Boreal highlands (Bērziņš, 1978)

Keratella shielii Koste, 1979

- Australian region: River Murray, S Australia (Koste, 1979); River Murray at Mannum, S Aust. (Shiel, 1979; Koste, 1980); Murray-Darling system, SE Aust. (Koste & Shiel, 1980); S Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Australian endemic (Shiel, 1981); Australia (Dumont, 1983); Endemic: S Aust & Western Vic. Uncommon (Koste & Shiel, 1987b); Darling river, S Aust. (Shiel, 1985); Murray river (Serruya & Pollingher, 1984)

Keratella slackii Bērziņš, 1963

- Australian region: Taylors Lake, Victoria, Aust. (Bērziņš, 1963); Adelaïde, S Aust. (Gilbert & Stemberger, 1984); Darling r., Murray r., Murray-Darling system, SE Australia (Koste & Shiel, 1980); Australia (Dumont, 1983); Billabongs r. Murray, SE Aust. (Shiel & Koste, 1983); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs SE Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); L. Purdigulac: saline crater lake, Victoria; L. Elinganite & L. Mumblin: freshwater temperate L.: Australian crater lakes (Green, 1981); Farm dams near Gloucester, Aust. (Sudzuki & Timms, 1980); Vic & S Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Australian endemic (Shiel, 1981); Tasmania & New Zealand (Sudzuki, 1985); River Murray, S Aust. (Koste, 1979a & 1979b); Tasmania (Koste, Shiel & Tan, 1989); River Murray, Mannum, S Aust. (Shiel, 1979; Koste, 1980); Gwydir river, r. Murray system, S Aust. (Shiel & Walker, *s.d.*); Darling river, S Aust. (Shiel, 1985); S Tasmania (Koste, Shiel & Tan, 1988); Billabongs Murray-Darling system, Aust. (Shiel, 1986); Endemic, pancontinental S of tropic, incl. Tasmania. Habitat preference apparently shallow, vegetated waters, e.g. billabongs (Koste & Shiel, 1987b); Billabongs in the r. Murray floodplain, NSW, Aust. (Hillman & Shiel, 1991); Lake Okaro, New Zealand (Forsythe & James, 1991); Saline craterlake Purdigulac, Aust. (Green, 1986); Murray river (Serruya & Pollingher, 1984)

***Keratella taurcephala* Myers, 1938**

- Nearctic region: Laurentian Great Lakes (Stemberger, 1979); Clearwater L. & Swan L., near Sudbury, Ontario (Yan & Geiling, 1985); Hogans Pond, Newfoundland, Canada (Davis, 1972); Lake Ontario, Canada (Nauwerck, 1978); N Ontario Lakes, Canada (Roff & Kwiatkowski, 1977); James Bay area, Canada (Pinel-Alloul *et al.*, 1979); R. Opacina & Small Opacina, James bay area, N Québec, Canada (Armengol *et al.*, 1983); Bauline Long Pond, Newfoundland, Canada (Davis, 1973); Lakes in the Churchill Falls area, Labrador (Duthie & Ostrovsky, 1974); Mirror Lake, New Hampshire, USA (Makarewich & Likens, 1975 & 1979); Lake 122 & L. 132, NW Ontario, Canada (Schindler & Novén, 1971); Crecy Lake, New Brunswick, Canada (Smith, 1969); Canada (Chengalath, 1977); Ontario, Canada (Chengalath *et al.*, 1971; Chengalath & Fernando, 1973); NE Canada (Chengalath & Koste, 1983); In acid lakes in Canada (Schindler, 1988); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Lake 227, NW Ontario, Canada (Malley *et al.*, 1988); Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Florida, USA (Bienert, 1986); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988; Gonzalez, Frost & Montz, 1990; Gonzalez & Frost, 1992); Nearctic region (Pejler, 1977); N America (Dumont, 1983); Lakes in NE Pennsylvania, USA (Havens & Da Costa, 1988); Lakes Adirondack, NY State, USA (Siegfried *et al.*, 1989); Acid lakes in Maine, USA (Brett, 1989); Lake 382, experimental lake area, NW Ontario (Malley & Chang, 1991); Northern Michigan inland lakes (Stemberger, 1990); Lakes in Newfoundland, Canada (Chengalath, 1983; Chengalath *et al.*, 1984); Adirondack Lakes, NY State, USA (Siegfried & Sutherland, 1983; Siegfried *et al.*, 1984); Mirror Lake, New Hampshire, USA (Wismar & Wetzel, 1978); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Greens Lake, Beaver Island, Michigan (Foran & King, 1982); Mt. Tremblant Prov. park, Québec, Canada (Nogrady, 1980); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Papoose L. & Cavell L., Western N America (Thomasson, 1962); Silver Lake, Adirondack mts., NY State (Siegfried, 1991)

- Oriental region: Sri Lanka (Fernando, 1980a); ? Sri Lanka (Sudzuki, 1989)

- Neotropical region: El Salvador (Collado *et al.*, 1984)

***Keratella tecta* (Gosse, 1851)**

- Palaearctic region: Lakes in S Sweden (Arnemo *et al.*, 1968); Heiluntsian Province, China (Bogoslawski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Petén, 1973); Middle course river Po, Italy (Ferrari *et al.*, 1986); Dystrophic lake in Finland (Arvola *et al.*, 1987); Lake Balaton, Hungary (Zankai & Ponyi, 1970, 1971a & 1973; Zankai, 1984 & 1989); Reservoirs in Spain (Guiset, 1977); In 3 small lakes in E Poland (Radwan, 1980); Moerdijk-Hollands Diep, NL (Leentvaar, 1980); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Lake Ormijärvi, S Finland (Cajander, 1983); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983; Zinevici & Teodorescu, 1990); Europe (Dumont, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lake Biwa, Japan (Hillbricht-Ilkowska, 1983a & 1983b); Lake Nehmitzsee, Brandenburg, Germany (Kasprzak & Ronneberger, 1982); Lake Kisajno, Mazurian Lake District, Poland (Klimowicz, 1964); L. Mikolajskie & L. Taltowisko, Poland (Klimowicz, 1972); Alkal. Peteri-See, Hungary (Kertesz, 1960); R. Svratka, near impoundment Kninicki, near Brünn, CSR (Kubicek, 1964 & 1968); L. Mikolajskie & L. Sniardny, Mazurian Lake District, Poland (Kosicki, 1960); Lake Van Hunenplak, Terschelling, NL (Leentvaar, 1967); Romania (Rudescu, 1960); Lake Mikolajskie, Poland (Galkovskaja & Mityanina, 1989); C & S Sweden (Pejler & Bērziņš, 1989); Po river, Italy (Ferrari *et al.*, 1989); Eutrophic waters in E Poland (Radwan & Popolek, 1989); Carp ponds & upland reservoir, S Poland (Zurek, 1980); Azibo reservoir, near Porto, Portugal (Vascoucelos, 1990); Lake Dümmmer, NW Germany (Koste & Poltz, 1983 & 1984); Lake Malären, Sweden (Grönberg, 1975; Blomquist & Pejler, 1980); Lake

Alfsee, NW Germany (Koste & Poltz, 1987); Lac Léman, Fr./CH (Balvay *et al.*, 1985; Balvay, 1989; Balvay & Laurent, 1989, 1990a & 1990b); Lac Aydat, Massif Central, France (Lair, 1978; Qulad Ali *et al.*, 1990); Lake Ladoga, R.F. (Nikolayev & Petrova, 1978); Lake Nimetön, S Finland (Arvola *et al.*, 1987); In Spanish reservoirs (de Manuel, 1991); Barabinskaya Power Plant, near Novosibirsk, R.F. (Volgin *et al.*, 1982); Brackish water bay Lill-Pernåviken, S Finland (Järnefelt, 1964); In small lakes on mt. Arlberg, Tirol, Austria (Wawrik, 1966); Inundation area of Danube delta, Romania (Dorobantu, 1964); Lake Volvi, Macedonia, Greece (Zarfdjian *et al.*, 1990); River Grabia basin, Poland (Pawlowski, 1970); Rügener, Hiddensee & Darszer Boddenwässer, NE Germany (Schwarz, 1963); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968; Zankai & Ponyi, 1972); Szezecin Bay, Poland (Wiktor, 1960 & 1968); Impoundments in E Bohemia, CSR (Sladeckova & Sladecek, 1960); Bassin de Méry, Oise, France (Pourriot & Rougier, 1991); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Lake Donk, Overmere, Belgium (Roche, 1989); Camargue, S France (De Ridder, 1960a & 1961); River Yzer, Diksmuide, Belgium (De Ridder, 1960b); Sava Lake, ex-Yugoslavia (Kalafatic, 1978); Lake Brialskie, Poland (Radwan *et al.*, 1984); Delta of river Danube, Romania (Rudescu & Marinescu-Popescu, 1969); Southwest islands of Japan (Suzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Leczna-Włodawa Lake District, E Poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Hamburg area, Germany (Rühmann, 1961); Middle course of river Loire, France (Lair & Sargas, 1981); L Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Pool, S of Trondheim, Norway (Thomasson, 1979); Serbian section of river Danube (Zivkovic, 1968 & 1987); Lake Biwa, Japan (Yamamoto, 1960b & 1967); Spain: Granada & Sevilla; several localities in Portugal (Velasco, 1990); Gravel pits along river Meuse, NL (Wibaut-Isebree Moens, 1964); Rybnik dam reservoir, Poland (Krzanowski, 1979); Lake Kita-gata, Hokuriki District, Japan (Kanetsuna, 1973); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962); Darss-Zingst estuary & Vistula lagoon, S Baltic (Heerkloss *et al.*, 1991); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Shores of dammed or flowing stretches of Danube r., at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube (Donner, 1978); All over the Netherlands (Dresscher, 1976); All over Belgium (De Ridder, 1986); Etang des Monts Rosés, Sivry, Belgium (De Ridder, 1980); River Danube (Enaceanu & Brezeanu, 1970); Lakes, N of Bucharest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); New impoundments in the CSR (Kubicek, 1981); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Sidearm of r. Danube near Bratislava, CSR (Lichardova, 1964); Small water bodies in the Mikolajkie area, P. (Klimowicz, 1967); Anatolia, Turkey (Segers *et al.*, 1992); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); Lake Erken, Sweden (Nauwerck, 1963); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Lakes Chambon & Bourdouze, Puy-de-Dôme, France (Persoone *et al.*, 1968); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lac d'Annecy, France (Balvay & Druart, 1992); Black Sea (Rudescu, 1961); In reed borders of the Danube delta, Romania (Rudescu, 1968); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Nat. Res. de Villars-la-Dombes, France (Rostan, 1976); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Lakes in the Leczna-Włodawa area, Poland (Radwan, 1976)

- Nearctic region: Canada (Chengalath, 1977); Norwich, Vermont, USA (Burns & Gilbert, 1986a & 1986b; Bogdan & Gilbert, 1987); Star Lake, Norwich, Vermont, USA (Stemberger & Gilbert, 1984a); Ontario, Canada; Wisconsin, Illinois & Kentucky, USA (Bērziņš, 1984); Lake Huron, USA (Stemberger & Gannon, 1977); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Cape Herschel, Ellesmore Island, NWT, Can. (Nogrady & Smol, 1989); Pools & lakes near Hanover, N Hampshire, USA (Gilbert, 1988 & 1990; Gilbert & Kirk, 1988; Gilbert & Durand, 1990); Acid lakes in Maine, USA (Brett, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Small pools in S Burlington, Vermont, USA (Keen & Miller, 1977); Northern Michigan inland lakes (Stemberger, 1990); N America Great Lakes (Ganner, 1981); Atchafalaya r. basin, Louisiana, USA (Holland *et al.*, 1983); Lakes in Santee, California, USA (Nogrady, 1982 & 1983); Bay of Quinte, L. Ontario, Canada (Nogrady, 1988); Lake Ontario, Canada (Nauwerck, 1978); L. Hodger, San Diego County, California; San Francisco, ibid. (Nogrady, 1984); Lake Tahoe, Western N America (Thomasson, 1962); Lake Waccama, N Carolina, USA (Thomasson, 1963a); Massey Lake, 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1986); Impoundment Kinda, C Burma (Koste & Tobias, 1990); ? Ricefields in NE Thailand (Heckman, 1979)

- Australian region: Eutrophic waters, NSW & Vic. Rare in Aust. (Koste & Shiel, 1987b)

- Neotropical region: Rapel reservoir, C Chile (Soto *et al.*, 1984); River Parana, Argentina (José de Paggi, 1985); Arroyo Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Argentina & Chile (Koste & José de Paggi, 1982); Chilean lakes (Schmid-Araya, 1991);

Prov. Chubut, Rio Negro, Neuquen, San Luis, Salta, Cordoba, Santiago del Estero, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990); Lake Monte Alegre, SE Brazil (Arcifa *et al.*, 1992); Argentine Patagonia (Kuczynski, 1987b); Prov. Buenos Aires & Rio Negro, Argentina (Olivier, 1965); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Embalse Rio Tercero Fish Culture Station, Cordoba prov., Argentina (Marinone & Zagarese, 1991); Chile (Löffler, 1962); Ecuador: Sierra & Oriente (Koste & Böttger, 1992)

***Keratella testudo* (Ehrenberg, 1832)**

- Palaearctic region: Small lakes in Estonia (Haberman & Mäemats, 1987); Lake Bielersee, CH (Berner-Fankhauser, 1986); Peat pits in Finland (Selin & Koskinen, 1988); Lake Vörtsjärvi, Estonia (Kutikova & Haberman, 1986); Slovenia, NW ex-Yugoslavia (Markic, 1983); Europe, Asia, N & S America (Dumont, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); District Ostrava, CSR (Dvorakova, 1960b); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Near Asperg, Württemberg, Germany (Klement, 1960); Palaearctic, Nearctic, India & Neotropical reg. (Pejler, 1977); Lake Lunzer Obersee, Austria (Ruttner-Kolisko, 1975a & 1975b); Romania (Rudescu, 1960); Ponds in Surrey, UK (Pontin, 1989); River Hase, NW Germany (Koste, 1976b); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Lac Léman, Fr./CH (Balvay *et al.*, 1985; Balvay & Laurent, 1989, 1990a & 1990b); Small water bodies, Soviet Karelia, R.F. (Filimonova, 1976); All over Europe (Bérziņš, 1978); Gulf of Finland (Bérziņš, 1960); In Spanish reservoirs (de Manuel, 1991); River Grabia basin, Poland (Pawlowski, 1960, 1968 & 1970); Lake Balaton, Hungary (Zankai, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); River Svatka, CSR (Kubicek, 1968); Japanese inland waters (Yamamoto, 1960a); Shores of dammed or flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube (Donner, 1978); River Elbe estuary, Germany (Schulz, 1961); Pool in Fontainebleau forest, Ile-de-France, Fr. (Pourriot, 1976); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Ponds of Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); Duszatynskie lakes, Poland (Kowalczyk & Radwan, 1962); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); Parczew area peat bogs, Poland (Radwan, 1974); Hamburg area, Germany (Rühmann, 1961); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Middle course of river Loire, France (Lair & Sargas, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Ponds & pools in the Paris suburb, France (Pourriot, 1965); Fens in Genk, Belgium (Schepens, 1960); Pool, S of Trondheim, Norway (Thomasson, 1979); Serbian section of river Danube (Zivkovic, 1987); Spain: Tarragona & Valencia; Portugal: Beja (Velasco, 1990); Lake Keyaart, Oudenburg, Belgium (De Ridder, 1992); Experimental ponds at Golysz, Poland (Zurek, 1974); Pod Padurka Pond, Poland (Lewkowicz, 1972); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Bog pond near Budapest, Hungary (Nogradi, 1962); Watergraafsmeer polder; pools in Zuid-Limburg, NL (Dresscher, 1976); Eeklo & Linthout, Belgium (De Maeseneer, 1979); Brackish waters near Bruges, Belgium (De Ridder & Verheyen, 1980); 4 localities in Belgium (De Ridder, 1986); New impoundments in the CSR (Kubicek, 1968); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Small water bodies in the Mikolajkie area, Pol. (Klimowicz, 1967); Lowland brook-pond system at Boom, Belgium (Maes, 1985); L. Czarny & L. Zielony, Tatra mts., Poland (Gliwicz, 1967); Bullhouse pond, Bisley, Surrey, UK (Pontin & Pontin, 1980)
- Nearctic region: Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Pond in N Thetford, Vermont, USA (Stemberger & Gilbert, 1987; Stemberger, 1988); Alaska, USA (Turner, 1987); NW Canada (Chengalath & Koste, 1987); Lakes Adirondack, NY State, USA (Siegfried *et al.*, 1989); Pools & lakes near Hanover, N Hampshire, USA (Gilbert, 1988 & 1990; Gilbert & Kirk, 1988); Lake 382, experimental Lake Area, NW Ontario (Malley & Chang, 1991); Northern Michigan inland lakes, USA (Stemberger, 1990)

***Keratella testudo* (Ehrenberg), f. *irregularis* Jakubski, 1915**

- Palaearctic region: Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

***Keratella ticiensis* (Callerio, 1920)**

- Palaearctic region: Palaearctic, Nearctic & Ethiopian region (Pejler, 1977); Europe, N America, Africa (Dumont, 1983); Slovenia, ex-Yugoslavia (Markic, 1983); Romania (Rudescu, 1960); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bérziņš, 1989); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Peat bogs in the Massif Central, France (Batut, 1965); All over Europe (Bérziņš, 1978); In Spanish reservoirs (de Manuel, 1991); River Grabia basin, Poland (Pawlowski, 1968 & 1970); Lake Nimetön, S Finland (Arvola *et al.*, 1986); Pools in Z. Limburg; Nat. Res. Oisterwijkse vennen, NL (Dresscher, 1976); Linkhout, Belgium (De Maeseneer, 1979; De Ridder, 1986); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Peat bogs in the Auvergne, France (Francez, 1981); Obretin embanked basin, Danube delta,

Rom. (Godeanu *et al.*, 1973); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Canal of river Odra, Poland (Klimowicz, 1979); Small water bodies in the Mikolajkie area, P. (Klimowicz, 1967); Lake Erken, Sweden (Nauwerck, 1963); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Leczna-Wlodawa Lake District, E Poland (Kowalczyk & Radwan, 1982); Parczew area peat-bogs, E Poland (Radwan, 1974); Hamburg harbour, Germany (Rühmann, 1962); Peat bogs in the Ile-de-France (Pourriot, 1965); Aegean lakes, Macedonia, ex-Yugoslavia & Greece (Serafimova-Hadzisce, 1974); Waterworks Jungfernheide, Berlin, Germany (Ritterbusch, 1974); Lake Keyaart, Oudenburg, Belgium (De Ridder, 1992)

- Nearctic region: Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Kingston, Ontario, Canada (Nogrady, 1989); Northern Michigan inland lakes (Stemberger, 1990)

- Oriental region: Dal Lake, Kashmir, India. New record for Asia (Sharma, 1988)

Keratella thomassoni Hauer, 1958

- Neotropical region: Neotropis (Pejler, 1977); S America (Dumont, 1983); Patagonian tableland, S Argentina (Paggi, 1981); Chilean lakes (Schmid-Araya, 1991); Chile (Löffler, 1962; Koste & José de Paggi, 1982); Prov. Santa Cruz, Argentina (José de Paggi, 1990)

Keratella tropica (Apstein, 1907)

- Palaearctic region: Palaearctic, Nearctic, Ethiopian, Indian, Australian & Neotropical region (Pejler, 1977); All continents (Dumont, 1983); Lagoon Sacca del Canarin, Po r. delta, Italy (Ferrari *et al.*, 1985); Middle course Po river, Italy (Ferrari *et al.*, 1986); Afghanistan (Bérziņš, 1961); Biesbosch & Hollands Diep, NL (Leentvaar, 1980); Lake Numasawa, Japan (Sudzuki *et al.*, 1983); Delta of river Danube, Rom. (Godeanu & Zinevici, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Lake Valencer See, Hungary (Gulyas, 1973); Lake Palaeostomi, Georgia, R.F. (Haberman, 1982); Brabantse Biesbosch, NL (Leentvaar, 1960; Dresscher, 1976); Romania (Rudescu, 1960); Lake Kinneret, Israel (Gophen, Serruya & Spatarn, 1990); Po river, Italy (Ferrari *et al.*, 1989); Lake Bafra, Turkey (Emir, 1989); Koyama Ike, a coastal pond in Japan (Sudzuki & Fukuta, 1989); Lake Donk, Overmere, Belgium (Coussement, 1976); C Eur. mountains, Carpathes, Pontic province, C Eur. plain; Caucasus, Caspian area, Asia Minor (Bérziņš, 1978); In Spanish reservoirs (de Manuel, 1991); Terek Delta, Astrakhan peninsula, R.F. (Chuykov & Deneskin, 1985); Soviet section of the Danube, R.F. (Parchuk, 1985); In several lakes in Turkey (Emir, 1991); Southwest islands of Japan (Sudzuki, 1991; Sudzuki *et al.*, 1992); Japanese inland waters (Yamamoto, 1960a); Lower Suwalik Himalaya & high mts. of Kashmir Himalaya (Zutshi *et al.*, 1980); Mouth areas of the Danube branches & predeltaic area of Danube in the Black Sea (Popescu-Marinescu, 1974); El Ghab area, Syria (De Ridder, 1965); Gent & Overmere, Belgium (De Ridder, 1986); Boatracing canal, Gent, Belgium (De Maeseneer, 1979); River Danube (Enaceanu & Brezeanu, 1970); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Lakes, N of Bucharest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Anatolia, Turkey (Segers *et al.*, 1992); Ponds in Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Fukushima Prefecture, Japan (Sudzuki, 1982); Spain: Cadiz, Cordoba, Jaen, Madrid, Sevilla, Tarragona & Zamora (Velasco, 1990); Lake Kinneret, Israel (Serruya & Pollingher, 1984)

- Nearctic region: Illinois, USA (Bérziņš, 1984); Lakes at Santee, California, USA (Nogrady, 1982); San Francisco, California, USA (Nogrady, 1983)

- Oriental region: 2 sewage channels of Gwalior, India (Saksena & Kulkarni, 1986); Fishpond in Burdwan, W Bengal, India (Mandal, 1976); Oxidation pond in Nagpur, India (Arora, 1966d); In different forms near Nagpur, C India (Arora, 1966a & 1966b); 2 tanks near Nagpur, C India (Arora, 1966c); Danan Teleko, near Palembang, Sumatra; Girikbe-Tank, Sri Lanka (Bérziņš, 1982a); India (Sharma, 1987; Sharma & Michael, 1980); Parakrama Samudra, Sri Lanka (Fernando, 1984; Duncan, 1984; Duncan & Gulati, 1983); River Yamuna, India (Dvorakova, 1963; Ray, 1974); Sri Lanka (Fernando, 1980a); Shallow ponds in Delhi, India (George, 1961); Singapore & Malaysia (Karunakaran & Johnson, 1978); Rajasthan, India (Nayar, 1965 & 1968); Bhimtal Lake, India (Sharma & Pant, 1987); Malaysia (Ueno, 1966); Taiwan, Thailand, Malaysia, Singapore, Indonesia, Sri Lanka & India (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Rann Pakis, R. Lading, R. Bedali; Telaga Pasir, Java (Green, 1980); Kalimantan (Borneo), Indonesia (Koste, 1988a); Victoria reservoir, Sri Lanka (Piyasiri & Yayakody, 1991); L. Phewa Tal, near Pokhara, Nepal (Daems & Dumont, 1974); Sri Lanka: the most common species in lakes. But also occurs in rivers, ponds & rice fields (Chengalath, Fernando & Koste, 1973); Andhra Pradesh, India (Dhanapathi, 1974b); Singapore & Taiwan. Warm waters (Sudzuki, 1991); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Roshanara Tank, Naini Lake, Indranagar tank, Stocking tank & Nursery tank, Delhi, India (George, 1966); Two shallow ponds in Delhi, India (George, 1961b); Ajwa reservoir, near Baroda, Gujarat, India (Jayangaudar, 1980); Fishpond at Barrackpore, W Bengal State, India (Michael, 1968); SE Asia (Fernando, 1980b); Bhairidevarkop pond, Karnataka State, India (Patil & Gouder, 1985); Fishponds in

Kalyani, W Bengal, India (Jana *et al.*, 1980); Punjab State, NW India (Sharma, 1976 & 1980a); West Bengal, NE India (Sharma, 1979a); Orissa, E India (Sharma, 1980b); Bangkok & pool in Xieng Mai, Thailand (De Ridder, 1971); Lake Sat Tal, Utar Pradesh, India (Pant *et al.*, 1985); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); Montane lakes of Bali, Indonesia (Green *et al.*, 1978); 2 Kumaun Himalayan lakes, U.P., India (Sharma & Pant, 1985); Yammu, J. & K., India (Jyoti & Sehgal, 1980); L. Surinsar, Yammu, India (Jyoti & Sehgal, 1979); Sri Lanka (Fernando, 1969); Kerala, S India (Nayar & Nair, 1969); Malacca peninsula (Dunn, 1970); L. Manguao, Palawan, The Philippines (Davies & Green, 1990); Storage reservoir Ajwa, near Baroda; Protapura reservoir & Nimeta water works, ibid., India (Wulfert, 1966); Lake Nilnag & L. Govindgarh (Serruya & Pollingher, 1984); Ponds at Pilani, Rajasthan, India (Nayar, 1970)

- Australian region: River and lake in Australia (Bērziņš, 1982); Lake Danau, Celebes (Bērziņš, 1982a); Darling river, SE Aust. (Koste & Shiel, 1980); Billabongs r. Murray, SE Aust. & billabongs Magela Creek, N Aust. (Shiel & Koste, 1983); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs SE Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); Farm dams near Gloucester, NSW, Aust. (Suzuki & Timms, 1980); Qld, NSW, S Aust. & Vic (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Australia (Shiel, 1981); Sheepwash billabong, near Moleswarth, Vic (Shiel, 1983); Warm stenotherm in tropics & subtropics. Occasionally in Europe & N America. Pancontinental, incl. Tasmania (Koste & Shiel, 1987b); E Aust. (Koste & Shiel, 1980b); Ponds in Tasmania (Shiel, Koste & Tan, 1989); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Barwon river, r. Murray system, S Aust. (Shiel & Walker, s.d.); Darling river, S Aust. (Shiel, 1985); Rivers of the Murray-Darling system, Aust. (Shiel, 1986); Murray river at Mannum, S Aust. (Shiel, 1979); Murray river (Serruya & Pollingher, 1984)

- Neotropical region: S Brazilia (Aecifa, 1984); River Parana, Argentina (Paggi, 1980; Paggi & José de Paggi, 1974; José de Paggi, 1978a & 1985); Eutrophic water Santa Fé, Argentina (José de Paggi, 1976a); Santa Fé river, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Patagonian table land, S Argentina (Paggi, 1981); Argentina (Modenutti & Claps, 1988); River Orinoco basin, Venezuela (Vasquez, 1984a); River Caroni basin, Venezuela (Vasquez, 1984b); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Provinces in NW Argentina (José de Paggi, 1989); Brazil, Argentina, Chile, Peru, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Brazil (Koste, Robertson & Hardy, 1984); Near Panguana, Peru (Koste, 1988b); Chilean lakes (Schmid-Araya, 1991); L. Rio Claro, a floodplain lake of the lower Orinoco, Venezuela (Vasquez & Medina, 1991; Vasquez & Rey, 1992); Nearly all over Argentina (José de Paggi, 1990); In a floodplain lake of the lower Orinoco, Ven. (Vasquez *et al.*, 1991); Apure river, W Venezuela (Saunders & Lewis, 1988); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Lower course of r. Uruguay, Argentina (Di Persia & Neiff, 1986); Prov. Buenos Aires & San Luis, Argentina (Olivier, 1965); Pond in tropical rain forest, Peru (Schlüter, 1984); Rio Reconquista, prov. Buenos Aires, Arg. (Kuczynski, 1991b); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Laguna Gomez, in the NW of the Buenos Aires prov., Argentina (Boltovskoy *et al.*, 1984); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Pond of Planetarium, Buenos Aires city, Arg. (Marinone & Zagarese, 1991); Salto Grande reservoir, Argentina; 110 lakes & reservoirs in Argentina; Planario Pond & Centario pond, Buenos Aires city, Argentina (Zagarese & Marinone, 1992)

***Keratella tropica* (Apstein), f. *aspina* Fadeev, 1927**

- Palaearctic region: Serbian section of river Danube (Zivkovic, 1987)

***Keratella tropica* (Apstein), f. *asymmetrica* (Barrois & Daday, 1894)**

- Palaearctic region: Lake Neusiedlersee, Austria (Donner, 1979); Lake Tatlageac, Romania (Rodewald-Rudescu & Godeanu, 1961); Lakes of the Black Sea shore, Romania (Godeanu, 1970b)

***Keratella tropica* (Apstein), f. *brehmi* (Klausener, 1908)**

- Palaearctic region: River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Asiatic Turkey (Dumont & De Ridder, 1987); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Neotropical region: Brazil & Argentina (Koste & José de Paggi, 1982); Prov. Buenos Aires, Argentina (José de Paggi, 1990)

***Keratella tropica* (Apstein), f. *daitojunensis* Sudzuki, 1992**

- Palaearctic region: Southwest Islands of Japan (Sudzuki, 1992)

***Keratella tropica* (Apstein), f. *heterospina* (Klausener, 1908)**

- Palaearctic region: Black Sea (Rudescu, 1961)

- Oriental region: Perennial pond in Janaktal, Gwalian, India (Saksena & Sharma, 1986)

***Keratella tropica* (Apstein), f. *monospina* Ahlstrom, 1943**

- Palaearctic region: Prov. Heiluntsian, China (Bogoslawski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Petén, 1973); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Black Sea (Rudescu, 1961)

Keratella tropica (Apstein), f. *reducta* Fadeev, 1927

- Palaearctic region: Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Lakes N of Bucarest, Romania (Godeanu, 1969b); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); River Danube (Enaceanu & Brezeanu, 1970); Serbian section of river Danube (Zivkovic, 1987); Asiatic Turkey (Dumont & De Ridder, 1987); Soviet section of the Danube (Parchuk, 1985); Lake Neusiedlersee, Austria (Donner, 1979)
- Nearctic region: L. Hodges, San Diego Cy, California, USA (Nogrady, 1983); Lakes at Santee, California, USA (Nogrady, 1982 & 1983)
- Oriental region: Impoundment Kinda, C Burma (Koste & Tobias, 1990); Perennial pond in Janaktal, Gwalior, India (Saksena & Sharma, 1986); Orissa, E India (Sharma, 1980b)

Keratella valdiviensis Thomasson, 1957

- Neotropical region: Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b)

Keratella valga (Ehrenberg, 1834)

- Palaearctic region: Linkhout, Belgium (De Maeseneer, 1979); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d; Pejler & Bérziņš, 1989); Lake Van Hunenplak, Terschelling, NL (Leentvaar, 1967); Delta of river Danube, Romania (Prunescu-Arion, 1989); Palaearctic & Australian region (Pejler, 1977); N & S America & Australia (Dumont, 1983); Lake Suwa, Japan (Hanazato *et al.*, 1989); Romania (Rudescu, 1960); Ponds in Surrey, UK (Pontin, 1989); Mts. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Prov. Heiluntsian, China (Bogoslawski, 1962); Finland (Eriksen, 1969); In mesotrophic waters, NL (Leentvaar, 1980); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Asiatic Turkey (Dumont & De Ridder, 1987); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); River Hase, NW Germany (Koste, 1976b); Ponds in Japan (Hanazato & Yasumo, 1990); Lake Kasumigaura, Japan (Hanazato, 1990); Lake Donk, Overmere, Belgium (Coussement, 1976); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); Rostov Oblast & Krasnodar Kray, Kuban, R.F. (Krylova, 1971); Krivoy Rog regional power plant, Ukraina (Sergeyeva *et al.*, 1989); All over Europe; Caucasus, Caspian Sea, Asia Minor (Bérziņš, 1978); In Spanish reservoirs (de Manuel, 1991); Soviet section of the Danube, R.F. (Parchuk, 1985); River Grabia basin, Poland (Pawlowski, 1970); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968); Latorica, E Slowakia lowland, CSR (Terek, 1990a); Marismas, S Spain (De Ridder, 1962b); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); In many localities in the Netherlands (Dresscher, 1976); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Small water bodies in the Mikolajkie area, P. (Klimowicz, 1967); Bulgarian bank of river Danube (Naidenow, 1963); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Hamburg area, Germany (Rühmann, 1961); Middle course of river Loire, France (Lair & Sargas, 1981); Lakes of Hokuriki district, Japan (Kanetsuna, 1973); Reservoir Vrané, 17 km of Prague, CSR (Sladecek, 1962); Akgöl, Selçuk-Izmir, Turkey (Ustaoglu & Balik, 1987); Lake Gebekirse, Izmir, Turkey (Ustaoglu & Balik, 1990b); Reservoirs contaminated with copper, N Portugal (Oliveira *et al.*, 1985); Sava Lake, ex-Yugoslavia (Kalifatic, 1978); Southwest islands of Japan (Sudzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); In acid ponds in lower Austria (Wawrik, 1972); Japanese inland waters (Yamamoto, 1960a); In the lower Elbe, Germany (Grimm, 1968); Mouth areas of the Danube branches & predeltaic area of Danube in the Black Sea (Popescu-Marinescu, 1974); River Danube (Austria to Romania) (Wawrik, 1968); Funada-ike pond, Chiba, Japan (Urabe, 1992); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Linkhout & Overmere, Belgium (De Ridder, 1986); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Dozmary Pool, Bodmin Moor, Cornwall, UK (Galliford, 1967); Bullhousen Pond, Sisley, Surrey, UK (Pontin & Pontin, 1980); Black Sea (Rudescu, 1961); Ponds in Oltina, SE Dobrogea, Rom. (Popescu-Gorj & Costea, 1961); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Pond & pools in the Paris suburb, France (Pourriot, 1965); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Serbian section of river Danube (Zivkovic, 1987); Lake Biwa, Japan (Yamamoto, 1967); Spain: Coruna, Huelva, Madrid, Orense, Pontevedra; Portugal: Beja (Velasco, 1990)
- Nearctic region: Colorado, USA (Turner, 1988); Great Dismal swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: Near Nagpur, C India (Arora, 1966a); 2 tanks in Nagpur, C India (Arora, 1966c); India (with doubt for Nagpur, C India) (Sharma, 1987); India (Sharma & Michael, 1980); Malacca, peninsula Malacca, SE Asia (De Maeseneer, 1976); Taiwan & India (Sudzuki, 1988a); Bung-Borapet, C Thailand (Mizuno & Mori, 1978a); Very rare in Taiwan. Not in warm waters (Sudzuki, 1991); High altitude Kashmir lakes (Zutshi *et al.*, 1972); Thailand (Boonsom, 1984b); Impoundment Kinda, C Burma (Koste & Tobias,

1990); Lake Sat Tal, Utar Pradesh, India (Pant *et al.*, 1985)

- Australian region: Qld, NSW & Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Australia (Shiel, 1981); In shallow waters, eurythermic in Europe, N Asia, Asia Minor, E Asia. Uncommon in Aust.: NSW, Qld, Vic & S Aust. (Koste & Shiel, 1987b); E Aust. (Koste & Shiel, 1980b); Ponds in Tasmania (Shiel, Koste & Tan, 1989); Murray-Darling system, Aust. In high altitude reservoirs & river water plankton (Shiel, 1986); Tasmania (Koste & Shiel, 1987); Murray river at Mannum, S Aust. (Shiel, 1979); Mt. Cook, Canterbury, Christchurch & Upper Stillwater Swamp, New Zealand (Russell, 1960)

- Neotropical region: Rapel reservoir, C Chile (Soto *et al.*, 1984); ? Near Concepcion, Paraguay (Koste, 1986b); Prov. San Luis, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990)

- Antarctic region: Potter peninsula, Antarctica (José de Paggi & Koste, 1984); Potter peninsula s.l., 25 de Mayo Island, South Shetland Islands, Antarctica (José de Paggi, 1982; Paggi, 1986)

Keratella valga (Ehrenberg), f. *asymmetrica* (Barrois & Daday, 1894)

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Keratella valga (Ehrenberg), f. *heterospina* (Klausener, 1908)

- Palaearctic region: Obretin Lake, Danube delta, Romania (Neagu-Godeanu, 1968); River Danube (Enaceanu & Brezeanu, 1970); Lakes, N of Bucharest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Peat-bog Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Serbian section of river Danube (Zivkovic, 1987)

Keratella valga (Ehrenberg), f. *macrospina* (Klausener, 1908)

- Palaearctic region: River Danube (Enaceanu & Brezeanu, 1970)

Keratella valga (Ehrenberg), f. *monospina* (Klausener, 1908)

- Palaearctic region: Serbian section of river Danube (Zivkovic, 1968 & 1987); Inundation area of Danube delta, Romania (Dorobantu, 1964); Mouth areas of the Danube branches & predeltaic area of Danube in the Black Sea (Popescu-Marinescu, 1974); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Lakes N of Bucharest, Romania (Godeanu, 1969b); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967)

Keratella valga (Ehrenberg), f. *monstrosa* (Barrois & Daday, 1894)

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a); Lake Biwa-ko, Japan (Yamamoto, 1960b)

Keratella yamana Boltovskoy & Urrejola, 1977

- Neotropical region: Near Ushaia City, Tierra del Fuego, Argentina (Boltovskoy & Urrejola, 1977); Argentina (Koste & José de Paggi, 1982); Tierra del Fuego (Dumont, 1983); Prov. Tierra del Fuego, Argentina (José de Paggi, 1990)

Keratella spec.

- Palaearctic region: Lake Niemetön, S Finland (Arvola *et al.*, 1986); 2 lakes in Karelia; N Karelia, R.F. (Vardapetyan, 1972); Rijnlands boezem, NL (Dresscher, 1976); Lake Biwa, Japan (Narita & Mori *s.d.*); Lake Banyoles, N Spain (Miracle, 1977); Lake Kinneret, Israel (Landau *et al.*, 1988); Peat bogs in Finland (Selin & Koskinen, 1988); Lake in Japan (Hanazato & Yasumo, 1988); Jordan reservoir, Bohemia, CSR (Mitiska *et al.*, 1962); Lake Kasumigaura, Japan (Hanazato, 1990); Lake Lukoml', Belorussia, R.F. (Mitrakhovich, 1983); Saratov reservoir, R.F. (Popchenco *et al.*, 1981); Lake Baikal, R.F. (Koshov, 1961); Lake Poletskoye, 73 km of Moscow, R.F. (Smirnov, 1961); Dalnee Lake, Kamehaska, R.F. (Sorokin & Paveljeva, 1972); River Danube & its tributaries (Bothar, 1982); Ponds Etang de Moliets & Et. de Soustons, S Fr. (De Ridder, 1967b); Pond in the Erlangen-Nürnberg area, Germany (Korn, 1972); River Oltet & its principal tributaries, Rom. (Rogoz, 1972); Gulf of Riga, Baltic Sea (Kostrichkina *et al.*, 1992); Etang de St.-Rémy, Paris suburb, France (Pourriot & Leborgne, 1970)

- Nearctic region: Tuktoyaktuk Harbour, NWT, Canada (Sutherland, 1982); Center Hill reservoir, Tennessee, USA (Hayward & Van den Avyle, 1986); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); R. Opacina & Small Opacina, James bay area, N Québec, Canada (Armengol *et al.*, 1983); Massey L., 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978); Experimental ponds near Bakersfield, Kern County, California (Hurlbert *et al.*, 1972); Lakes on Avalon peninsula, Newfoundland, Canada (Campbell & Knoechel, 1988); Reservoir near Aikan, S Carolina, USA (Taylor & Mahoney, 1985); Lake Brooker, Florida, USA (Scheda & Cowell, 1988); Small ponds in Vermont, USA (Gilbert, 1985); Lake Ogletorpe, Georgia, USA (Sanders *et al.*, 1989); Lake Arlington, Texas, USA (Sterner, 1990); Fayetteville, Onondaga Cy, NY State, USA (Jackson, 1972); Green Bay, L.Michigan, USA (Richman *et al.*, 1984); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Sacramento-San Joaquin delta Estuary, USA (Siegfried & Kopache, 1980); 12 large lakes in Saskatchewan, Canada (Rawson, 1960)

- Oriental region: 3 upland lakes of Madras State, India (Sreenivasan, 1964); Yamwa Ramgad freshwater reservoir, Rajasthan, India (Gopal *et al.*, 1981); Near Patiala, Punjab, India (Vasisht & Jindal, 1980); Ponds in Chinglepat, Madras, India (Sreenivasan, 1968); Sagar Lake, Sagar, India (Saksena & Adoni, 1973)

- Australian region: Thiremere lakes, NSW, Aust. (Horsfall *et al.*, 1988)
- Neotropical region: South Brazil (Arcifa, 1984); Broa reservoir, Sao Carlos, Sao Paulo, State-Brazil (Matsumara-Tundisi & Tundisi, 1976); Billings reservoir, Sao Paulo, Brazil (Sendacz, 1984); Lower Orinoco river, Venezuela (Saunders & Lewis, 1989); Chile (Löffler, 1962); Floodplain of the Rio Solimoes, Brazil (Aranjo-Lima & Hardy, 1987)

Lacinularia Schweigger, 1820*Lacinularia elliptica* Shephard, 1897

- Palaearctic region: Minorca, Spain (de Manuel, 1990); Balearic Archipelago: Minorca (de Manuel *et al.*, 1992)
- Oriental region: Impoundment Kinda, C Burma (Koste & Tobias, 1990); Ricefields in NE Thailand (Heckman, 1979)
- Australian region: SW Aust. (Koste, Shiel & Brock, 1983); Vic, Qld, NSW & Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Murray river at Mannum (Shiel, 1979)
- Neotropical region: Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Near Concepcion, Paraguay. Discovered in Australia; pantropical. Up to now no records from S America. Found also in Panama and C Amazonia (not published) (Koste, 1986b)

Lacinularia elongata Shephard, 1896

- Australian region: Vic, Aust (Shiel & Koste, 1979)

Lacinularia flosculosa (O.F. Müller, 1773)

- Palaearctic region: River Loire between Angers & Orléans, & tributaries (Champ, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Lake Biwa-ko, Japan (Yamamoto, 1960b); River Oude Waal, near Nijmegen, NL (Delbecque & Suykerbuyk, 1988); Finland (Eriksen, 1969); Romania (Rudescu, 1960); All over Europe. Cosmopolitan (Bērziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); River Meuse Liégeoise, Belgium (Baiverlin, 1984); Japanese inland waters (Yamamoto, 1960a); Confluence of river Loire & Vienne, France (Pourriot *et al.*, 1972); In reed borders of the Danube delta, Rom. (Rudescu, 1968)
- Nearctic region: Canada (Chengalath, 1977); Kingston, Ontario, Canada (Nogrady, 1989); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: Near Nagpur, C India (Arora, 1963 & 1966c); India (Sharma & Michael, 1980); Singapore & Malaysia (Karunakaran & Johnson, 1978); Rajasthan, India (Nayar, 1968); Malaysia, Singapore & India (Sudzuki, 1989); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969)
- Australian region: River in Aust. (Bērziņš, 1982); Tasmania (Koste & Shiel, 1987); NSW, Qld & Vic, Aust. (Shiel & Koste, 1979); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983; Tait, Shiel & Koste, 1984)
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989); Laguna near Santarem, Brazil (Koste, 1974b); Brazil, Surinam, Panama (Koste & José de Paggi, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Costa Rica (Collado *et al.*, 1984); ? Amazonia, Brazil (Hauer, 1965b); Brokopondo Lake, Surinam (Leentvaar, 1979)

Lacinularia ismailoviensis (Poggenpol, 1872)

- Nearctic region: Kingston, Ontario, Canada (Nogrady, 1989)
- Australian region: Vic, Aust. (Shiel & Koste, 1979); Reservoirs SE Aust. (Shiel *et al.*, 1987)
- Neotropical region: Uruguay (Koste & José de Paggi, 1982)

Lacinularia pedunculata Hudson, 1889

- Australian region: NSW & Vic, Aust. (Shiel & Koste, 1979)

Lacinularia racemovata Thorpe, 1892

- Australian region: Qld, Aust. (Shiel & Koste, 1979)

Lacinularia reticulata Anderson & Shephard, 1892

- Australian region: Vic, Aust. (Shiel & Koste, 1979)

Lacinularia striolata Shephard, 1899

- Australian region: Vic, Australia (Shiel & Koste, 1979)

Lacinularia spec.

- Palaearctic region: River Ybbarspå, Sweden (Bērziņš, 1979)
- Nearctic region: Kentucky, USA (Bērziņš, 1984)
- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Indonesia (Sudzuki, 1989); Rice paddy in Vientiane, Laos (Heckman, 1974)
- Australian region: Taylors Lake, Vic, Aust. (Bērziņš, 1963); Creek in Aust. (Bērziņš, 1982); Lake Manapouri, South Island, New Zealand (Bērziņš, 1982a); E Aust. (Koste & Shiel, 1980b); Billabongs in the river Murray floodplain, NSW, Aust. (Hillman & Shiel, 1991)
- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Antilles françaises (Pourriot, 1975)

Lecane Nitzsch, 1827*Lecane acanthinula* Hauer, 1938

- Oriental region: Thailand & Indonesia (Suzuki, 1989); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976)
- Neotropical region: Amazonia, Brazil (Koste, 1972f); Rio Tocantins, Amazonia, Brazil (Schaden, 1977c); Argentina & Brazil (Koste & José de Paggi, 1982); Prov. Rio Negro, Argentina (José de Paggi, 1990)

Lecane acronycha Harring & Myers, 1926

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); River Grabia basin, Poland (Pawlowski, 1968 & 1970)
- Nearctic region: N America (Koste & Shiel, 1990a); Missouri, USA (Bérziņš, 1984)
- Oriental region: Asia (Koste & Shiel, 1990a); India (Sharma & Michael, 1980; Suzuki, 1989)
- Australian region: NT, Australia (Koste & Shiel, 1980c); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Acidophil. Two australian records: Jabiluka, NT billabong; river at Kinglake West, Vic (Koste & Shiel, 1990a)
- Neotropical region: River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente (Koste & Böttger, 1992)

Lecane aculeata (Jakubski, 1912)

- Palaearctic region: Caucasus (Tarnogradsky, 1961b); Spain: Valencia (Velasco, 1990); Island Iriomote-Jima, Japan (Suzuki, 1979); Germany, CSR, R.F. (Koste, 1972f); N Germany (Koste, 1983); Iberic peninsula, Hungarian plain (Bérziņš, 1978); Romania (Rudescu, 1960); Lake Balaton, Hungary (Zankai, 1968); Mountain Fuji, Japan (Suzuki, 1971); Japanese inland waters (Yamamoto, 1960a); Nat. Res. "Het Hol", Kortenhoef, NL (Dresscher, 1976); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)
- Nearctic region: Illinois & Kentucky, USA (Bérziņš, 1984); NE Canada (Chengalath & Koste, 1983); USA (Koste, 1972f); Lac Echo, Québec, Canada (Nogradi, 1976)
- Oriental region: Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); India (Sharma & Michael, 1980); Singapore (Karunakaran & Johnson, 1978); NE India (Sharma, 1987); Taiwan, Thailand, Singapore (Suzuki, 1989); Korea, Sumatra, Java (Koste, 1972f); Bung-Borapet, C Thailand (Koste, 1975a); Taiwan (Suzuki, 1988); Kalimantan (Borneo), Indonesia (Koste, 1988a); Taiwan & Singapore. Cosmopolitan (Suzuki, 1991); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Maysia & Singapore (Fernando & Zankai, 1981); West Bengal, NE India (Sharma, 1978a)
- Australian region: Lake Barracoota reservoir, Aust. (Bérziņš, 1982); Bromfield Swamp & L. Euramo, Tropical Queensland, Australian crater lake (Green, 1981); NT, Aust. (Koste & Shiel, 1980c); Australia & New Zealand (Koste, 1972f); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Warm stenotherm in subtropical & tropical vegetated waters, particularly ricefields. Rare in Aust.: Wyangala, NSW, Jabiluka, Qld, Southwest S Aust. & Vic (Koste & Shiel, 1990)
- Neotropical region: Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Prov. in NW Argentina (José de Paggi, 1989); Lago Paroni, Brazil (Koste, 1974a); Panama & S America (Amazonia, Brazil; Chile, Argentina, Venezuela, Columbia) (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil, Chile, Argentina, Bolivia (Koste & José de Paggi, 1982); Prov. San Luis, La Rioja, San Juan, Tucuman & Santiago del Estero, Argentina (José de Paggi, 1990); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Chilean lakes (Schmid-Araya, 1991); Caribbean part of Neotropical region (De Ridder, 1977); Bonaire, Curaçao & Caribbean Islands; Panama (Collado *et al.*, 1984); Antilles françaises (Pourriot, 1975)

Lecane aculeata (Jakubski), f. *curvicervata* Yamamoto, 1960

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lecane acus Harring, 1913

- Palaearctic region: Peat bogs in the Puy-de-Dôme, France (Francez, 1984c); C & S Sweden (Bérziņš & Pejler, 1987); Mountain Hoverla, Maramarosch Alps, Hung. (Varga, 1962); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Palaearctic (Koste & Shiel, 1990); C Eur. mountains & plains, Hungarian lowland, UK, Iceland (Bérziņš, 1978); River Grabia, Poland (Pawlowski, 1960); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); N Iceland (De Ridder, 1970 & 1972); Japanese inland waters (Yamamoto, 1960a); Dübener Heide, N Germany (Wulfert, 1960a); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1988); Peat bogs in the Auvergne, France (Francez, 1981); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Water courses in the Bucegi

mountains, Rom. (Godeanu, 1963b); 3 lakes N of Bukarest, Rom. (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Small permanent pools & marshy zones of the plateau in the Bucegi mountains, Rom. (Godeanu, 1969a); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. & Nat. Res. "Het Hol" near Kortenhoef, NL (Dresscher, 1976); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Peat bog area "Het Hol" in Kortenhoef, NL (Vos-Kelk & Davids, 1977); Nat. Res. "Ronde Put", Postel, Belgium (De Ridder, 1992)

- Nearctic region: Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Nearctis (Koste & Shiel, 1990)

- Oriental region: Thailand, Malaysia, Indonesia (Suzuki, 1989); Indonesia (Koste & Shiel, 1990); Lake Goang, Flores, Indonesia (Green & Krimadibiata, 1988); Thailand (Boonsom, 1984b); Bangkok & pool near r. Kwai in Kanchanaburi, Thailand (De Ridder, 1971)

- Australian region: Tasmania (Koste & Shiel, 1986b); Acidophil; in moor and *Sphagnum* pools. (Koste & Shiel, 1990); Rare. Tasmania (Koste & Shiel, 1990)

- Nearctic region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente & Sierra (Koste & Böttger, 1992)

***Lecane aeganea* Harring, 1914**

- Palaearctic region: Caucasus (Tarnogradsky, 1961b)

- Oriental region: Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b)

- Neotropical region: Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Panama (Koste & José de Paggi, 1982); Ecuador: Oriente & Costa (Koste & Böttger, 1992)

***Lecane affinis* (Levander, 1894)**

- Palaearctic region: Finland (Eriksen, 1969); Italy, C Eur. mountains & plains, Pontic Province, Boreal highland, NW Russian taiga; Caucasus, Caspian area (Bērziņš, 1978); Karelian inland waters (Kutikova, 1965); In reed borders of river Danube, Romania (Rudescu, 1968); Lake Balaton, Hungary (Zankai & Ponyi, 1972)

***Lecane agilis* (Bryce, 1892)**

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, W Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); River Hase. Cosmopolitan (Koste, 1983); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Peat bogs in the Massif Central, France (Batut, 1965); C Eur. mountains & plains, Pontic province, UK, NW Russian taiga (Bērziņš, 1978); Peat bog Laptici, Bucegi mountains, Romania (Godeanu, 1970a); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); In reed borders of river Danube, Romania (Rudescu, 1968); Mountain Fuji area, Japan (Suzuki, 1978a); Grasslands near mountain Fuji, Japan (Suzuki, 1978b); Peat bogs in the Caucasus (Tarnogradsky, 1961a); Mountain Fuji, Japan (Suzuki, 1971); Southwest islands of Japan (Suzuki *et al.*, 1992); Nat. Res. Oisterwijkse vennen, NL (Dresscher, 1976); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1988); Japanese inland waters (Yamamoto, 1960a); Shores of embanked or flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); Dübener Heide, N Germany (Wulfert, 1960a); Garden ponds in Tokyo, Japan (Suzuki, 1975); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Subtropical Island Iriomote-Jima, Japan (Suzuki, 1979); Lakes & lava caves near mountain Fuji, Japan (Suzuki, 1971a & 1971b); Caucasus (Tarnogradsky, 1961b); Nat. Res. "Ronde Put", Postel, Belgium (De Ridder, 1992)

- Nearctic region: Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980)

- Oriental region: Indonesia (Suzuki, 1989); Singapore (Karunakaran & Johnson, 1978)

***Lecane aguessei* De Ridder, 1960**

- Palaearctic region: Basse Salée, Camargue, S France (De Ridder, 1960; Aguesse, 1960); W Eur. plain (Bērziņš, 1978)

***Lecane aliger* Nogrady, 1983**

- Neotropical region: Grand Bahama Island, West Indies (Nogrady, 1983)

***Lecane althausi* Rudescu, 1960**

- Palaearctic region: Shores of the Black Sea in Bulgaria & Rom. (Rudescu, 1960 & 1961); East Balkan & Pontic Province (Bērziņš, 1978); In psammon of the Black Sea (Rodewald-Rudescu & Godeanu, 1961)

- Oriental region: Nat. Zool. Park ponds, Delhi, India (Sarma, 1988)

***Lecane amazoniana* Koste & Robertson, 1983**

- Neotropical region: Lago Camaleão, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Lower Orinoco r. and its delta, Venezuela (Vasquez & Rey, 1989); Near Concepcion, Paraguay (Koste, 1986b); Prov. Santa Fé, Argentina (José de Paggi, 1990); Lago Cigana,

Amazonia, Brazil (Schaden, 1977c)

Note: this species was called *L. rhytida* and *L. spec. 1* by Hauer, 1965; by Koste, 1972 & 1978 it was called *L. stictaea* var. *amazonica*; by Koste & Robertson, 1983: *L. aspasia amazonica*.

Lecane amazonica Koste & Böttger, 1992

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

Lecane apatinensis Zivkovic, 1987

- Palaearctic region: Serbian section of river Danube (Zivkovic, 1987)

Legane appendiculata (Levander, 1894)

- Palaearctic region: Camargue, S France (De Ridder, 1960a & 1961); Lakes of the Black Sea shore, Romania (Godeanu, 1970b)

Lecane aquila Harring & Myers, 1926

- Nearctic region: Canada (Chengalath, 1977)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989 & 1992)

Lecane arcuata (Bryce, 1891)

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Iberic peninsula, Alps, C Eur. mountains & plains, Hungarian lowland, Pontic province, UK, Iceland. Cosmopolitan (Bērziņš, 1978); Spain: Valencia (Velasco, 1990); Lower Silesia, Poland (Pawlowski, 1960); River Klyas'ma, R.F. (Bogoslawski, 1961); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Peten, 1973); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); River Grabia basin, Poland (Pawlowski, 1973); Lake Balaton, Hungary (Zankai, 1968); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Sly ponds area, N of Myvatn, Iceland (De Ridder, 1970); N & W Iceland (De Ridder, 1972); Lower delta of river Volga, R.F. (Chuykov, 1981); Lake Wallsee & r. Lobau, Austrian Danube (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Southwest islands of Japan (Suzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Nat. Res. "Het Hol" near Kortenhoef, NL (Dresscher, 1976); Brook-pond system at Boom, Belgium (Maes, 1985; De Ridder, 1986); River Danube (Enaceanu & Brezeanu, 1970); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bog Laptici, Bucegi mountains, Rom. (Godeanu, 1970a); Water courses in the Bucegi mountains, Rom. (Godeanu, 1963b); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); 3 lakes N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Temporary waters, small permanent pools & marshy zones of the plateau in the Bucegi mountains, Romania (Godeanu, 1969a); River Bistritza & its tributaries, Romania (Miron, 1960); Bog pond near Budapest, Hungary (Nogrady, 1962); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Beach forest soil in Japan (Suzuki, 1977c); Peat bogs in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); China (Wulfert, 1968); Nat. Res. "Leiemeersen", Assebroek, Belgium; Tap water Gent, Belgium (De Ridder, 1992); Lake Biwa-ko, Japan (Yamamoto, 1960b); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)

- Nearctic region: Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Altiplanicio Central, Mexico (Vilaclara & Sladeczek, 1989); ? Saltwater psammon, Florida (Turner, 1990b)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Malaysia, Indonesia, India (Suzuki, 1989); India (Sharma & Michael, 1980); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Thailand (Boonsom, 1984b); Bangkok, Thailand (De Ridder, 1971); Storage reservoir Ajwa, Prata-pura reservoir & installations of the Nimeta waterworks, India (Wulfert, 1966)

- Australian region: Between moss and algae in springs and flowing waters. Rare. NSW, NT, Qld, Vic (Koste & Shiel, 1990); Qld, Aust. (Shiel & Koste, 1979); Canterbury, New Zealand (Russell, 1960)

- Neotropical region: Brazil, Argentina, Antilles (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Galapagos Islands (De Smet, 1987 & 1989); Prov. Santa Fé, Argentina (José de Paggi, 1990); Argentina (Modenutti & Claps, 1988); Caribbean part of the Neotropical region (De Ridder, 1977); Bonaire, Curaçao & the Caribbean Islands (Collado *et al.*, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane arcuata Harring, 1914

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Fens in Genk, Belgium (Schepens, 1960); C Eur. mountains & plains, Pontic province (Bērziņš, 1978); Lapland State Preserve, R.F. (Ghilarov, 1972); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); Japanese inland waters (Yamamoto, 1960a); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); In reed borders of Danube river, Rom. (Rudescu, 1968); Lakes near mountain Fuji, Japan (Suzuki, 1971); Mountain Fuji area, Japan (Suzuki, 1978a); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Spain: Alicante (Velasco, 1990); Ponds at Golysz, Poland (Lewkowicz, 1972); Waters near river

Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Canada (Chengalath, 1977); Illinois & Kentucky, USA (Bérziņš, 1984); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Lac Echo, Québec, Canada (Nogrady, 1976); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: Storage reservoir Ajwa & installation of the Nimeta waterworks, India (Wulfert, 1966); India (Sharma & Michael, 1980); Singapore & Malaysia (Karunakaran & Johnson, 1978); NE India (Sharma, 1987); Thailand, Malaysia, Singapore, Indonesia (Sudzuki, 1989); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); NE India (Sharma, 1987); Impoundment Kinda, C Burma (Koste & Tobias, 1990); W Bengal, NE India (Sharma, 1978a); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976)
- Australian region: Lake Barracoota & reservoir, Aust. (Bérziņš, 1982); Lake Katrine, New Zealand (Russell, 1960); Vic, Aust. (Shiel & Koste, 1985); Magela Creek, NT & Gippsland, Vic (Koste & Shiel, 1990)
- Neotropical region: Brazil, Chile, Argentina, Bolivia, Venezuela, Columbia, Panama & Antilles (Koste & José de Paggi, 1982); Prov. Tierra del Fuego, Salta, Chaco & Corrientes, Argentina (José de Paggi, 1990); Chilean lakes (Schmid-Araya, 1991); Argentina (Modenutti & Claps, 1988); Amazonia, Brazil (Hauer, 1965b; Thomassen, 1971); Tierra del Fuego, Argentina & Brazil (Olivier, 1965); Araucarian lakes, Chile (Thomasson, 1963b); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992)

Lecane armata Thomasson, 1971

- Neotropical region: Lake Jurucui, Amazonia, Brazil (Thomasson, 1971); Varzea (= lagoon) near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Amazonia, Brazil (Koste, 1983)

Lecane aspasia Myers, 1917

- Palaearctic region: C Eur. mountains, Hungarian plain (Bérziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); Astrakan Preserve, lower Volga, R.F. (Chuykov, 1981)
- Nearctic region: N America (Bérziņš, 1978)
- Oriental region: Malaysia & Indonesia (Sudzuki, 1989); W & E Malaysia & Singapore (Fernando & Zankai, 1981)
- Australian region: Lake Catani, Vic, Aust. (Bérziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); California. Single record from Victoria needs confirmation (Koste & Shiel, 1990)

Lecane asthena Harring & Myers, 1926

- Nearctic region: Illinois, USA (Bérziņš, 1984)

Lecane astia Koste & Robertson, 1990

- Neotropical region: Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lecane asymmetrica (Murray, 1913)

- Neotropical region: British Guyanas (Koste & José de Paggi, 1982)

Lecane balatonica Varga, 1944

- Palaearctic region: Romania (Rudescu, 1960); Lake Balaton, Hungary (Zankai, 1968); Inundation area of Danube delta, Romania (Dorobantu, 1964); Carpathes & Hungarian plain (Bérziņš, 1978)

Lecane batillifer (Murray, 1913)

- Australian region: NSW, Australia (Shiel & Koste, 1979); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Endemic. Rare. Described from a pool near Sidney, later also recorded from NT (Koste & Shiel, 1990)

Lecane beningi Tarnogradsky, 1961

- Palaearctic region: Caucasus (Tarnogradsky, 1961b)

Lecane bidentata Dhanapathi, 1976

- Oriental region: Andhra Pradesh, S India (Dhanapathi, 1976); India (Sharma & Michael, 1980; Sudzuki, 1989)

Lecane bifastigata Hauer, 1938

- Palaearctic region: Caucasus (Tarnogradsky, 1961b); Anatolia, Turkey (Segers *et al.*, 1992)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Indonesia, Sri Lanka, India (Sudzuki, 1989); Sri Lanka: paddy field close to Ratapura. Also recorded from Indonesia & from Armenia, Caucasus (Chengalath, Fernando & Koste, 1974); In two Kumaun lakes, India (Sharma & Pant, 1984 & 1985); District Howrah, India (Sharma, 1979)

Lecane bifurca (Bryce, 1892)

- Palaearctic region: Finland (Eriksen, 1969); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Iberic peninsula, Alps, C Eur. mountains & plains, Pontic province, N Sweden, NW Russian taiga; Caucasus (Bérziņš, 1978); Mountain Fuji lava cave, Japan (Sudzuki, 1971a); Southwest islands of Japan (Sudzuki, 1990; Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Nat. Res. Oisterwijkse vennen, NL (De

Graaf, 1960); In reed borders of the river Danube, Romania (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Lakes near mountain Fuji, Japan (Suzuki, 1971b); Mountain Fuji area, Japan (Suzuki, 1978a); Caucasus (Tarnogradsky, 1961b); Lipowy pond at Golysz, Poland (Lewkowicz, 1972)

- Nearctic region: Wisconsin & Illinois, USA (Bērziņš, 1984); Massey Lake, 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: Khatmandu, Nepal (Turner, 1987); Malaysia (Suzuki, 1989); Yamuna river, Delhi, India (Sarma, 1988)

- Neotropical region: Panama (Koste & José de Paggi, 1982); Haiti & Panama (Collado *et al.*, 1984); Santa Cruz, Galapagos Islands (Segers, 1991a)

Lecane bifurca entome Bērziņš, 1982

- Australian region: Creek in Vic, Aust. (Bērziņš, 1982); Vic, Australia (Shiel & Koste, 1985); Endemic. Only record from Creswick Creek, Vic (Koste & Shiel, 1990)

Lecane blachei Bērziņš, 1973

- Oriental region: River Mekong, Cambodia (Bērziņš, 1973a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Indonesia & Cambodia (Suzuki, 1989); Belgharia ponds, Calcutta, India (Sarma, 1988)

Lecane boettgeri Koste, 1986

- Neotropical region: Near Concepcion, Paraguay. Belongs to the "Formenkreis" of *Lecane crepida* (Koste, 1986b)

Lecane bondi Edmondson, 1934

- Neotropical region: Haiti (Collado *et al.*, 1984)

Lecane boorali Koste, Shiel & Brock, 1983

- Australian region: SW Australia (Koste, Shiel & Brock, 1983); W Aust. (Shiel & Koste, 1985); Endemic. Recorded only from a pool near Melkatharra, W Aust. (Koste & Shiel, 1990)

Lecane brachydactyla (Stenoos, 1898)

- Palaearctic region: Finland (Eriksen, 1969); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Nat. Res. Neeruti lakes, NE Estonia (Mäemets A & A, s.d.); Pyrenees, Alps, C Eur. mountains & plains, Hungarian plain, UK, Fennoscandia (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); Karelian inland waters (Kutikova, 1965); Caucasus (Tarnogradsky, 1961b)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Wisconsin, USA (Bērziņš, 1985); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); USA: in soft waters with *Sphagnum* (Koste & Shiel, 1990); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980)

- Australian region: Qld, Aust. (Shiel & Koste, 1979); Single record from Qld (Koste & Shiel, 1990)

Lecane braumi Koste, 1988

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Indonesia (Suzuki, 1989)

Lecane brundini Thomasson, 1955

- Neotropical region: Argentina (Koste & José de Paggi, 1982); Prov. Rio Negro, Argentina (Olivier, 1965; José de Paggi, 1990)

Lecane bryophila Koniar, 1957

- Palaearctic region: C Eur. mountains (Bērziņš, 1978)

Lecane bulla (Gosse, 1886)

- Palaearctic region: C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Common in warm biotopes. Hase, NW Germ. (Koste, 1983); Delta of river Danube (Godeanu & Zinevici, 1983; Zinevici & Teodorescu, 1990); Fishponds near Warsaw, Poland (Hillbricht-Illkowska, 1964); Baisse salée, Camargue, S France (De Ridder, 1960a; Aguesse, 1960); Eutrophic waters S Sweden (Allgen, 1975); Lake Stechlinsee, N Brandenburg, Germany (Althaus, 1963); River Klyas'ma, R.F. (Bogoslowski, 1961); Heiluntsian province, China (Bogoslowski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Peten, 1973); Albufera de Valencia, Spain (Oltra & Miracle, 1984); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1981 & 1982); Middle course of river Po, Italy (Ferrari *et al.*, 1986 & 1989); Asiatic Turkey (Dumont & De Ridder, 1987); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1963); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Alkal. Lake Peteri, Hungary (Kertesz, 1960); Lake Van Hunenplak, Terschelling, NL (Leentvaar, 1967); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); S Coast

of Finland (Eriksen, 1969); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); River Danube (Enaceanu & Brezeanu, 1970); Jacub Lake, Danube delta, Romania (Godeanu, 1976); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); 3 lakes N of Bukarest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Lakes near Mikolajskie, Mazurian lakeland, Poland (Klimowicz, 1967); Vistula river near Warsaw, Poland (Klimowicz, 1981); New impoundments in the CSR (Kubicek, 1968b); Anatolia, Turkey (Segers *et al.*, 1992); River Bistritza & its tributaries, Romania (Miron, 1960); Bog pond near Budapest, Hungary (Nogrady, 1962); Karelian inland waters, R.F. (Kutikova, 1965); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); In reed borders of the Danube, Romania (Rudescu, 1968); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Leczna-Włodawa Lake district, E Poland (Kowalczyk & Radwan, 1982); 3 lakes of Sosnowickie, E Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Middle course of river Loire, France (Lair & Sargas, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Ponds in Botanical Garden, Gent, Belgium (Segers *et al.*, 1991); Fens in Genk, Belgium (Schepens, 1960); Doiran Lake, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Lakes near mountain Fuji, Japan (Suzuki, 1971b); Mountain Fuji area, Japan (Suzuki, 1978a); Periphytic biota in sewages & park waters, Japan (Suzuki, 1981); Lago Trasimeno, Italy (Taticchi, 1968); Pool in C Norway (Thomasson, 1979); Lake Stechlinsee, Brandenburg, Germany (Ronneberger & Schönborn, 1985); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); China (Wulfert, 1968); All over Spain (Velasco, 1990); Coastal Prefectures Totlori & Shimane-Ken, Japan (Suzuki & Fukuta, 1992); Lake Biwa-ko, Japan (Yamamoto, 1960b); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Peat bogs in the Massif Central, France (Batut, 1965); Lake Donk, Overmere, Belgium (Coussement & De Henau, 1975; Coussement, 1976); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1965); Akgöl, Selçuk, Turkey (Ustaoglu & Balik, 1987); Camargue, S France (De Ridder, 1960a & 1961); N & W Iceland (De Ridder, 1972); Lower Volga, R.F. (Chuykov & Merkulov, 1986); Soviet section of the Danube, R.F. (Parchuk, 1985); Japanese inland waters (Yamamoto, 1960a); Leersumse veld, NL (Leentvaar, 1967b); Shores of embanked or flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & R. Lobau, Austrian Danube basin (Donner, 1978); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Southwest islands of Japan (Suzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); All over the Netherlands (Dresscher, 1976); Pond Etang de Moliets, SW France (De Ridder, 1967b); Small river on Rhodos Island, Greece (De Ridder, 1967d); Brackish waters in the Lorraine, France (De Ridder, 1969a); 3 localities in Belgium (De Ridder, 1986); Eeklo, Belgium (De Maeseneer, 1979); Lake Neusiedlersee, Austria (Donner, 1979)

- Nearctic region: Colorado, USA (Turner, 1988); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Great Dismal Swamp, Virginia-N Carolina border, USA (Anderson, Benfield & Buikema, 1977); Canada (Chengalath, 1977); Ontario, Canada (Chengalath & Fernando, 1973); Deggo Lake, Fentrus Lake, Little Swede n° 1 Lake, Hayden's Lake, Colorado (Pennak, 1966); Wisconsin, Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Indiana, USA (Whitman *et al.*, 1988); Ross Lake, Florida, USA (Bienert, 1986); Illinois river, USA (Brown *et al.*, 1989); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Ontario, Canada (Chengalath *et al.*, 1971); Columbia reservoir, Ontario, Canada (Chengalath & Mulamootttil, 1974); Newfoundland Lakes, Canada (Chengalath *et al.*, 1984); Northern Michigan inland lakes (Stemberger, 1990); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Lakes in Santee, California, USA (Nogrady, 1982); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Laurentian Great Lakes (Stemberger, 1989); Near Monroe, Louisiana, USA (Gallagher, 1966); Lakes in the Churchill Falls area of Labrador, Canada (Duthie & Ostrovsky, 1974); Crater Lake, Walker Lake & Stoneman Lake, Arizona, USA (Green, 1986); Massey Lake, 16 km of Beaumont, Texas, USA (Marsh, 1978)

- Oriental region: Rajasthan, India (Nayar, 1968); Madras, India (Pasha, 1961); NE India (Sharma, 1987); Taiwan (Suzuki, 1988); Taiwan, Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Suzuki, 1989); Philippines (Mamaril & Fernando, 1978); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); In rice-fields of N Kria, Perak, Malaysia (Ali, 1990); Sakardhara tank near Nagpur, C India (Arora, 1965 & 1966c); Andhra Pradesh, S India (Dhanapathi, 1976); Lake Parakrama, Sri Lanka (Fernando, 1984); Sri Lanka (Fernando, 1969 & 1980a); Afghanistan (Bērziņš, 1961); L. Manguao, Palawan, the Philippines (Davies & Green, 1990); Dana Teleco, near Palembang & Swamp near Menggala, Sumatra; Girikbe-tank, Sri Lanka (Bērziņš, 1982a); India (Sharma & Michael,

1980); Ajwa reservoir, near Baroda, Gujarat, W India (Jayangoudar, 1980); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); All over Sri Lanka (Chengalath & Fernando, 1973); Taiwan. Cosmopolitan (Sudzuki, 1991); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Delhi, India; Rohanara Tank, Naimi Lake, Indranagar Tank, Stocking Tank & Nursery Tank (George, 1966); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Panjab State, NW India (Sharma & Sharma, 1984); W Bengal, NE India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); In 2 Kumaun Himalaya lakes, India (Sharma & Pant, 1984 & 1985); In 2 sewage channels of Gwalior, India (Saksena & Kulkarni, 1986); Bangkok & rice-field in Lamphoon, Thailand (De Ridder, 1971); Lake Sat Tal, Utar Pradesh, India (Pant *et al.*, 1985); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); Ricefields in NE Thailand (Heckman, 1979); Jammu, India (Surinsar Lake) (Jyoti & Sehgal, 1980); NW India (Sharma, 1976); Dal Lake, a Kashmir Himalayan lake, India (Vass & Zutshi, 1983); Storage reservoir Ajwa, Prata-pura reservoir & installations of the Nimeta waterworks, India (Wulfert, 1966); Many localities in the 24-Parganas & Howrah districts, India (Sharma, 1979)

- Australian region: Farm dams near Gloucester, NSW, Aust. (Sudzuki & Timms, 1980); NSW, Qld, Vic & W Australia (Shiel & Koste, 1979); Lower Murray river, S Aust. (Shiel, Walker & Williams, 1982); Sheepwash billabong, near Molesworth, Vic, Aust. (Shiel, 1983); E Australia (Koste & Shiel, 1980b); Tasmania (Koste & Shiel, 1987; Koste & Tan, 1989); River Murray, Aust. (Koste, 1979b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); River Murray at Mannum, S Aust. (Koste, 1980); Murray-Darling system, Aust. (Shiel, 1986); Cosmopolitan in littoral. Most common lecanid in Australia: eurotropic, pancontinental (Koste & Shiel, 1990); Taylors Lake, Victoria, Aust. (Bērziņš, 1963); SW Australia (Koste, Shiel & Brock, 1983); In five Australian crater lakes (Green, 1981); In many localities in Aust. (Bērziņš, 1982); Darling river, SE Aust. (Koste & Shiel, 1980); Sidney reservoirs, NSW, Aust. (Thomasson, 1973); Several localities in New Zealand & Chatham Islands (Russell, 1960)

- Neotropical region: Argentine Patagonia (Kuczynski, 1987b); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Lake Managua, Nicaragua (De Ridder, 1966b); Brokopondo Lake, Surinam (Leentvaar, 1979); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Grand Bahama Island, W Indies (Nogrady, 1983); Antilles françaises (Pourriot, 1975); Tropical rain forest in Peru (Schlüter, 1984); Araucarian lakes, W of the Andes; ponds & pools in Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Chile (Löffler, 1962); Lago Redondo & L. Jacaretinga, Amaz., Brazil (Hardy, 1980); Floodplain of rio Solimoes, Brazil (Aranjo-Lima & Hardy, 1987); Lakes & pond in Nicaragua (Moreno *et al.*, 1992); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989 & 1992); Several localities in S America (Serruya & Pollingher, 1984); River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1985 & 1978a); River Santa Fé, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Eastern Chaco & Rio de la Plata basin, Argent. (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Arroyo Rodriguez, prov. Buenos Aires, Arg. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Lago Parano, Brazil (Koste, 1974a); Amazonia, Brazil (Koste, 1972f); Varzea (lagoon) near Santarem, Brazil (Koste, 1974b); Brazil, Chile, Argentina, Paraguay, Venezuela, Antilles, Surinam, Peru (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986); Laguna del Tesoro, Cuba (Alonso, 1984); Crescent Lake, L. Owaiu, Fox's Pool, Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); Surinam (Leentvaar, 1975); Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Lake Xolotlan, Nicaragua (Cisneros & Mangas, 1991); Bonaire, Caribbean Islands, Costa Rica, Cuba, Haiti, Jamaica, Nicaragua, Panama, Trinidad (Collado *et al.*, 1984); Nearly all over Argentina (José de Paggi, 1990); Caribbean part of Neotropical region (De Ridder, 1977); Lago de Valencia, Venezuela (De Infante, 1980)

Lecane bulla (Gosse), f. *diabolica* (Hauer, 1936)

- Oriental region: Malaysia & India (Sudzuki, 1989); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Southwest islands of Japan (Sudzuki, 1992)

Lecane bulla (Gosse), f. *gigantea* Koste & Tobias, 1990

- Oriental region: Impoundment Kinda, C Thailand (Koste & Tobias, 1990)

Lecane bulla (Gosse), f. *goniata* (Harring & Myers, 1926)

- Palaearctic region: L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Lake Neusiedlersee, Austria (Donner, 1979)

- Australian region: Creek & river in Australia (Bērziņš, 1982); Vic, Australia (Shiel & Koste, 1985); N

- America, E Europe. Shallow waters. Rare in Aust: unconfirmed record from W Vic (Koste & Shiel, 1990)
- Neotropical region: Brokopondo Lake, Surinam (Leentvaar, 1979); Surinam (Koste & José de Paggi, 1982)
- Lecane bulla* (Gosse), f. *styrax* (Harring & Myers, 1926)
- Palaearctic region: E Eur. plain & Caspian area (Bērziņš, 1978)
 - Nearctic region: N America (Bērziņš, 1978)
 - Oriental region: Danau Teleko, near Palembang, Sumatra (Bērziņš, 1982a); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Singapore & India (Sudzuki, 1989)
 - Australian region: Qld, Australia (Shiel & Koste, 1979); N America & New Zealand. Single record from Australia (Qld) (Koste & Shiel, 1990); Several localities in New Zealand; Chatham Islands (Russell, 1960)
 - Neotropical region: Caribbean part of the Neotropical region (De Ridder, 1977); Aruba (Collado *et al.*, 1984); Brazil & Antilles (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Island of Maraca, Brazil (Koste & Robertson, 1990); Prov. Chubut, Rio Negro & Santa Fé, Argent. (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Lago Cigana, Amazonia, Brazil (Schaden, 1977c); Ecuador: Oriente & Costa (Koste & Böttger, 1992); Mato Grosso, Brazil (Turner & Da Silva, 1992)
- Lecane bulla* (Gosse), f. *constricta* Sudzuki, 1992
- Palaearctic region: SW islands of Japan (Sudzuki, 1992)
- Lecane bulla* (Gosse), f. *dentata* Sudzuki, 1992
- Palaearctic region: Coastal Prefectures Tottori & Shimana Ken, Japan (Sudzuki & Fukuta, 1992)
- Lecane bulla* (Gosse), f. *triangulata* Sudzuki, 1992
- Palaearctic region: SW islands of Japan (Sudzuki, 1992)
- Lecane calcaria* Harring & Myers, 1926
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)
- Lecane candida* Harring & Myers, 1926
- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)
- Lecane carpatica* Rudescu, 1960
- Palaearctic region: Romania (Rudescu, 1960); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)
- Lecane ceylonensis* Chengalath & Fernando, 1973
- Oriental region: Palavi & Chandrika, Sri Lanka (Chengalath & Fernando, 1973); Philippines (Mamaril & Fernando, 1973); Sri Lanka (Fernanado, 1980a); Sri Lanka & Philippines (Sudzuki, 1989)
- Lecane clara* (Bryce, 1892)
- Palaearctic region: Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); River Ybbarspå, Sweden (Bērziņš, 1979); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lake Balaton, Hungary (Zankai, 1968 & 1989); Italy, C Eur. mts. & plains, Hungarian lowland, Pontic province, UK, NW Russian taiga (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1970); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); River Svatka, CSR (Kubicek, 1968); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); In reed borders of river Danube, Romania (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Caucasus (Tarnogradsky, 1961b)
 - Nearctic region: Canada (Chengalath, 1977); Wisconsin, USA (Bērziņš, 1984); Altiplanic Central, Mexico (Vilaclara & Sladecek, 1989); N America, in *Sphagnum* (Koste & Shiel, 1990a); Vinton County, Ohio, USA (Evans, 1984)
 - Oriental region: Indonesia (Sudzuki, 1989)
 - Australian region: River in Vic, Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Single unconfirmed record from Vic (Koste & Shiel, 1990a)
 - Neotropical region: Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)
- Lecane closterocerca* (Schmarda, 1859)
- Palaearctic region: Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Afghanistan (Bērziņš, 1961); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Tingwall Loch, Mainland, Shetlands (Bērziņš, 1982a); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Lakes in Estonia (Haberman, 1978); Sea, freshwater & brackish waters in Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Mine waters in E Poland (Radwan & Paleolog, 1983); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Danube delta, Romania (Godeanu & Zinevici, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain (Morales-Baquero, 1987); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat.Park, Hungary (Forro & Ronkay, 1983); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Lake Nehmitzsee, Brandenburg, Germany

(Kasprzak & Ronneberger, 1982); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Broads & peat pits, NW Overijssel, NL (Schroevens, 1965); N Swedish Lapland (Pejler, 1962a); Basse salée, Camargue, S France (Aguesse, 1960); La Mancha, Castill., Spain (Armengol *et al.*, 1975); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Lakes in S Sweden (Armengol *et al.*, 1968); Heiluntsian province, China (Bogoslowski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Peten, 1973); Albufera de Valencia, Spain (Oltra & Miracle, 1984); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Pool in Rambouillet, Paris suburb, France (Pourriot, 1965); Ponds in Botanical Garden, Gent, Belgium (Segers *et al.*, 1991); Fens in Genk, Belgium (Schepens, 1960); Doiran Lake, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a); Periphytic biota in sewages & park waters, Jap. (Sudzuki, 1991); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); China (Wulfert, 1968); Nat. Res. "Leiemeersen", Assebroek, Belgium; Tap water in Gent, Belgium (De Ridder, 1992); All over Spain (Velasco, 1990); Coastal Prefectures Tottori & Shimana-Ken, Jap. (Sudzuki & Fukuta, 1992); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Sewage purification plant Traiskirchen, S of Vienna, Austria (Weninger, 1971); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Pond "Grote Vijver", fort 8, Hoboken, Belgium (De Smet *et al.*, 1986); Pond "Kleine Vijver", fort 8, Hoboken, Belgium (De Smet *et al.*, 1989); Moat of fort Merksem, Belgium (De Smet *et al.*, 1987); N & W Iceland (De Ridder, 1970 & 1972); In sewage biota in Tokyo & surroundings (Sudzuki, 1981); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Lake Monterosi, Latium, Italy (Stella & Margaritora, 1966); Leczna-Włodawa lake district, E Poland (Radwan, 1984); Japanese inland waters (Yamamoto, 1960a); Rhodos Island, Greece (Donner, 1971); In periphyton of mosses in the Danube near Vienna & Alpine brooks, Austria (Donner, 1964); Shores of embanked or flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & R. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Dübener Heide, N Germany (Wulfert, 1960a & 1960b); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1988); Dragon pond, Gyokusen-dō Cave, Japan (Sudzuki & Hosayama, 1991); Southwest islands of Japan (Sudzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); All over the Netherlands (Dresscher, 1976); SW Iceland (De Ridder, 1966a); Ponds near Budir, W Iceland (De Ridder, 1967a & 1969b); Brackish waters in the Lorraine, E France (De Ridder, 1969a); Lake Neusiedlersee, Austria (Donner, 1979); Overmere, Belgium (De Ridder, 1986); Polder ditch Hondschoote/ Moëres, France (De Maeseneer, 1979); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs in the Auvergne, France (Francez, 1981); Peat bogs Laptici, Bucegi mountains, Rom. (Godeanu, 1970a); Water courses in the Bucegi mountains, Rom. (Godeanu, 1963b); Rock pools of the White Sea coast, R.F. (Ghilarov, 1967); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); 3 lakes N of Bucarest, Romania (Godeanu, 1969b); High mountain lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1988); Peat bogs in the Puy-de-Dôme, France (Francez, 1984c); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Small permanent ponds & marshy zones of the plateau in the Bucegi mountains, Rom. (Godeanu, 1969a); Sewage pond near Czestochowa, Poland (Klimowicz, 1968); Lakes near Mikolajkie, Mazurian lakeland, Pol. (Klimowicz, 1967); Canal of the river Odra, Poland (Klimowicz, 1979); Vistula river in the Warsaw area, Poland (Klimowicz, 1981); Anatolia, Turkey (Segers *et al.*, 1992); Lowland brook-pond system at Boom, Belgium (Maes, 1985); River Bistrizta & its tributaries, Romania (Miron, 1960); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); R. Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Middle course of river Loire, France (Lair & Sargas, 1981); Middle course of river Po, Italy (Ferrari *et al.*, 1986); River Ybbarspå, Sweden (Bērziņš, 1979); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Po river, Italy (Ferrari *et al.*, 1989); Alpine lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Minorca, Spain (de Manuel, 1990); Lake Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany. Cosmopolitan (Koste, 1976b & 1983); Lake Dümmen, NW Germany (Koste & Poltz, 1983 & 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Delta of river Danube (Zinevici & Teodorescu, 1990); Fishponds near Warsaw, Poland (Hillbright-Ilkowska, 1964); Lake Donk, Overmere, Belgium (Dumont, 1968b; Coussement & De Henau, 1975; Coussement, 1976); Curland Spit, R.F. (Zhadin *et al.*, 1972); All over Europe; Caucasus, Caspian area, Asia Minor.

Cosmopolitan (Bērziņš, 1978); Lake Orog-Nur, Gobi desert, Mongolia (Koste & Wulfert, 1964); River Grabia basin, Poland (Pawlowski, 1960, 1968, 1970 & 1973); Lake Balaton, Hungary (Zankai, 1968); Impoundment in E Bohemia, CSR (Sladeckova & Sladecek, 1960); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Mountain Fuji, Japan (Suzuki, 1971); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Camargue, S France (De Ridder, 1960a & 1961)

- Nearctic region: Wisconsin, Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Cape Herschel, Ellesmere Island, NWT, Can. (Nogrady & Smol, 1989); Great Dismal Swamp, Virginia-N Carolina border, USA (Anderson, Benfield & Buikema, 1977); Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Colorado, USA (Turner, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Northern Michigan inland lakes (Stemberger, 1990); Laurentian Great Lakes (Stemberger, 1979); Crater L., Walker L. & Stoneman L., Arizona, USA (Green, 1986); Redrock Lake, N Colorado, USA (Thomasson, 1964); Pond in Jasper Nat. Park, USA (Thomasson, 1962); Massey Lake, 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); NE India (Sharma, 1987); Taiwan (Suzuki, 1988); Taiwan, Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India, Philippines (Suzuki, 1989); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); Singapore (Karunakaran & Johnson, 1978); Rajasthan, India (Nayar, 1968); Danau Teleko, near Palembang, Sumatra (Bērziņš, 1982a); India (Sharma & Michael, 1980); Pond & reservoir in Sri Lanka (Chengalath & Koste, 1973); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Nursery fishtank, Delhi, India (George, 1966); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Fishpond at Barrackpore, W Bengal State, India (Michael, 1968); Panjab State, NW India (Sharma & Sharma, 1984); W Bengal, NE India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); In 2 Kumaun Himalaya lakes, India (Sharma & Pant, 1984 & 1985); Bangkok, Thailand (De Ridder, 1971); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); NW India (Sharma, 1976); Storage reservoir Ajwa, near Baroda, & installations of the Nimeta waterworks, India (Wulfert, 1966); Several localities in the 24-Parganas & Howrah districts, India (Sharma, 1979)

- Australian region: In many localities in Australia (Bērziņš, 1982); SW Aust. (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); Lake Euramoo: tropical Queensland & Valley l.: freshwater temperate (Australian crater lakes) (Green, 1981); W Aust. & Vic (Shiel & Koste, 1979); River Murray, Aust. (Koste, 1979b); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Cosmopolitan in standing & flowing waters, salinity tolerant. Common, pancontinental in Australia (Koste & Shiel, 1990); Christchurch & Campbell Island, New Zealand (Russell, 1960); Swamp near Lake Hayes, South Island, N Zeal. (Bērziņš, 1982a)

- Neotropical region: Ecuador: Oriente & Sierra (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Arroyo Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Ecuador, Argentina, Chile, Venezuela, Columbia, Surinam, Brazil, Panama (Koste & José de Paggi, 1982); Near Panguana, Peru (Koste, 1988b); Galapagos Islands (De Smet, 1987 & 1989); Chilean lakes (Schmid-Araya, 1991); Puerto Ingles, Island Masa Sierra, Chile (Donner, 1980); Nearly all over Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Brokopondo Lake, Surinam (Leentvaar, 1979); Santa Cruz, Galapagos Islands (Segers, 1990); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Chile (Löffler, 1962); Laguna Cocha Cashu, Amazonia, Brazil (Schaden, 1977c)

- Antarctic region: Antarctica (Dartnall, 1983; Dartnall & Hollowday, 1985; Suzuki, 1988)

Legano closterocerca (Schmarda), f. *amazonica* Koste, 1978

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984)

Lecane closterocerca (Schmarda), f. *wulferti* Hauer, 1956

- Palaearctic region: Southwest islands of Japan (Suzuki *et al.*, 1992)

- Nearctic region: Venezuela & Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Amazonia, Brazil & Venezuela (Koste, 1972f); Varzea near Santarem, Amazonia, Brazil (Koste, 1974b);

Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lecane compta Harring, 1914

- Neotropical region: Panama (Koste & José de Paggi, 1982; Collado *et al.*, 1984); Varzea near Santarem, Amazonia, Brazil (Koste, 1974b)

Lecane conspicua (Hauer, 1936)

- Oriental region: India (Suzuki, 1989)

Lecane constricta (Murray, 1913)

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Nature Reserve Neeruti lakes, NE Estonia (Määmets A. & A., s.d.); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960; Dresscher, 1976); Pool in C Norway (Thomasson, 1979); River Ybbarspå, Sweden (Bērziņš, 1979); Pyrenees, Spain, Carpathes, C & E Eur. plains, UK, Boreal Highlands, N Sweden, NW Russian taiga (Bērziņš, 1978); Spain: Madrid & 2 impoundments (Velasco, 1990); Coastal Prefectures Tottori & Shimane-Ken, Jap. (Suzuki & Fukuta, 1992)

- Nearctic region: Illinois, USA (Bērziņš, 1984); NE Canada (Chengalath & Koste, 1983)

- Australian region: River & lake in Australia (Bērziņš, 1982); S Aust. (Shiel & Koste, 1985); River Murray at Blanchetown, S Aust. (Koste & Shiel, 1990)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Argentina & Brazil (Koste & José de Paggi, 1982); Prov. Rio Negro, Argentina (José de Paggi, 1990); Araucarian lakes, E of the Andes, Chile (Thomasson, 1963b); Ecuador: Sierra & Costa (Koste & Böttger, 1992)

Lecane copeis Harring & Myers, 1926

- Palaearctic region: Delta of river Danube. First record for Europe (Rudescu, 1960); Pontic province (Bērziņš, 1978); Courland Spit, R.F. (Zhadin *et al.*, 1972)

- Nearctic region: Europe & N America (Koste & Shiel, 1990); N America (Bērziņš, 1978); Canada (Chengalath, 1977); Laurentian Great Lakes (Stemberger, 1979)

- Australian region: Yarra river, Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Unconfirmed record from Vic, Aust. (Koste & Shiel, 1990)

- Neotropical region: Ecuador: Sierra (Koste & Böttger, 1989); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane cornuta (O.F. Müller, 1786)

- Palaearctic region: Spain: ? Léon, ? Lerida, Tarragona (Velasco, 1990); ? Finland (Eriksen, 1969); C Finland (Eloranta, 1982b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); All over Europe; Caucasus, Caspian area. Cosmopolitan (Bērziņš, 1978); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962b); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Rügener, Hiddensee & Darszer Boddenwässer, NE Germany (Schwarz, 1963); Lake Balaton, Hungary (Zankai, 1968); N & W Iceland (De Ridder, 1969b, 1970 & 1972); Delta of river Danube, Romania (Rudescu & Marinescu-Popescu, 1969); Southwest islands of Japan (Suzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Nat. Res. "Het Hol" near Kortenhoef, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Lakes near Mikolajskie, Mazurian lakel., Poland (Klimowicz, 1967); Black Sea (Rudescu, 1961); Hamburg area, Germany (Rühmann, 1961); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); ? Lago Trasimeno, Italy (Taticchi, 1968); Danish coast (Thane-Fenchel, 1968); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Lake Donk, Overmere, Belgium (Dumont, 1968b)

- Nearctic region: Canada (Chengalath, 1977); Kentucky, USA (Bērziņš, 1984); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Lac Echo, Québec, Canada (Nogrady, 1976); Laurentian Great Lakes (Stemberger, 1979); Near Monroe, Louisiana, USA (Gallagher, 1966); Pond in Iowa city, Iowa, USA (Pray, 1965); Crater Lake, Arizona, USA (Green, 1986)

- Oriental region: Bung-Borapet, C Thailand (Suzuki, 1989); India (Sharma & Michael, 1980); Thailand (Boonsom, 1984b); Bangkok, Thailand (De Ridder, 1971)

- Australian region: NSW & Qld, Aust. (Shiel & Koste, 1979); Cosmopolitan between submerges plants, periphyton. Rare in Aust.: NSW & Qld (Koste & Shiel, 1990); Lincoln & Christchurch, New Zealand (Russell, 1960)

- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Gillard, 1967; Thomasson, 1971); Lake Owain & Fox's Pool, Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); River Parana, Argentina (Paggi & José de Paggi, 1974); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Prov. in NW Argentina (José de Paggi, 1989); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil, Venezuela, Columbia, Argentina (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Cordoba, Chaco & Santa Fé, Argentina (José de Paggi, 1990); Caribbean part of the Neotropical region (De Ridder, 1977); Aruba, Bonaire, Curaçao, Caribbean Islands, Panama (Collado *et al.*, 1984); Laguna Cocha Cashu & Lago do Rei, Amazonia, Brazil (Schaden, 1977c); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Tropical rain forest in Peru (Schlüter, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1978-1980)

Lecane cornuta (O.F. Müller), f. *oidipus* (Hauer, 1956)

- Nearctic region: Illinois, USA (Bérziņš, 1984)

- Neotropical region: River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Prov. Santa Fé, Argentina (José de Paggi, 1990); Lago de Valencia, Venezuela (De Infante, 1980); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane cornuta (O.F. Müller), f. *rotunda* (Fadeev, 1927)

- Neotropical region: Prov. Tierra del Fuego & Buenos Aires, Argent. (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane crenata (Harring, 1913)

- Palaearctic region: ? La Mancha, Cast., Spain (Armengol *et al.*, 1975); Heiluntsian province, China (Bogoslawski, 1962); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989c & 1989d); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); Carpathes, Hungarian lowland, Pontic province, C & E Eur. plains, Fennoscandia & Caspian area (Bérziņš, 1978); River Grabia basin, Poland (Pawlowski, 1968, 1970 & 1973); Lake Balaton, Hungary (Zankai, 1968); Japanese inland waters (Yamamoto, 1960a); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Ketelven near Nijmegen, NL (Dresscher, 1976); River Danube (Enaceanu & Brezeanu, 1970); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); Water courses in the Bucegi mountains, Rom. (Godeanu, 1963b); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Small permanent pools & marshy zones of the plateau in the Bucegi mountains, Romania (Godeanu, 1969a); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Caucasus (Tarnogradsky, 1961b); Ponds at Golysz, Poland (Lewkowicz, 1972); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); Parczew area peat bogs, Poland (Radwan, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Ciudad Real, Spain (Velasco, 1990); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964)

- Nearctic region: Everglades Nat. Park, Florida, USA (Nogrady, 1983); Wisconsin & Illinois, USA (Bérziņš, 1984); Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Fernando, 1974); Northern Michigan inland lakes (Stemberger, 1990); Lac Echo, Québec, Canada (Nogrady, 1976); Pär pond, S Carolina, USA (Oden, 1979); Crater Lake, Arizona, USA (Green, 1986)

- Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1981); Bung-Borapet, C Thailand (Koste, 1975a); Thailand, Indonesia, India (Sudzuki, 1989); India (Sharma & Michael, 1980); Kalimantan (Borneo), Indonesia (Koste, 1982a); NE India (Sharma, 1987); Impoundment Kinda, C Burma (Koste & Tobias, 1990); W Bengal, NE India (Sharma, 1978a); Ricefields in NE Thailand (Heckman, 1979)

- Australian region: Qld & Vic, Aust. (Shiel & Koste, 1979); NW Australia: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Abundant in tropical & subtropicals littorals, thermophile. Rare in Aust.: NT, Qld, Vic (Koste & Shiel, 1990a); Creeks & river in Aust. (Bérziņš, 1982); Vic, Aust. (Koste & Shiel, 1980c); E Aust. (Koste & Shiel, 1980b); 2 localities in New Zealand; Chatham Islands (Russell, 1960)

- Neotropical region: ? Amazonia, Brazil (Gillard, 1967); Lago Cigana, Amazonia, Brazil (Schaden, 1977c); Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1992); Floodplain of Rio Solimoes, Brazil (Aranjo-Lima & Hardy, 1987); Crescent Lake, Rio Snia Missu, Mato Grosso, C Brazil (Green, 1972); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974f); Near Concepcion, Paraguay (Koste,

1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Brazil, Panama & Antilles (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Chilean lakes (Schmid-Araya, 1991); Prov. Corrientes, Argentina (José de Paggi, 1990); Caribbean part of the Neotropical region (De Ridder, 1977); Curaçao & Guatemala (Collado *et al.*, 1984); Araucarian lakes, W of the Andes, Chile; ponds & pools in the Araucarian lakes area (Thomasson, 1963b)

***Lecane crepida* Harring, 1914**

- Palaearctic region: Albufera Lake near Valencia, Spain; China (Koste, 1988a); Spain & C Eur. plain (Bérziņš, 1978); Spain: Gerona & Valencia (Velasco, 1990)
- Nearctic region: Wisconsin, USA (Bérziņš, 1982 & 1984); N America (Bérziņš, 1978); Wisconsin (near Lake Erie) (Koste, 1988a); Canada (Chengalath, 1977); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Northern Michigan inland lakes, USA (Stemberger, 1990); Laurentian Great Lakes (Stemberger, 1979); Massey L., 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978) Note: This record under the name of *L. crepidula*
- Oriental region: Nimeta water works, near Baroda, India (Wulfert, 1975a); Bung-Borapet, C Thailand (Koste, 1975a); India, Sumatra, Java & Bali, Malaysia, Singapore (Koste, 1988a); India (Koste, 1988; Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); Madras, India (Pasha, 1961); NE India (Sharma, 1987); Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Sri Lanka (first record) (Chengalath & Fernando, 1973); Singapore. Warm waters (Sudzuki, 1991); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Panjab State, India (Sharma & Sharma, 1984); West Bengal, NE India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); Several localities in 24-Parganas & Howrah districts, India (Sharma, 1979)
- Australian region: E Australia (Koste & Shiel, 1980b); NT, Aust. (Koste & Shiel, 1980c); NT, Aust.: Magela Creek (Koste, 1981b); Alligator rivers region, NT, Aust. (Tait, Shiel & Koste, 1984); Often numerous in tropical & subtropical shallow waters. Single record for Aust.: Lake Mulwala, Vic (Koste & Shiel, 1990a)
- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Venezuela, Colombia, Brazil, Surinam & Panama (Koste & José de Paggi, 1982); S America (Koste, 1988c); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente & Costa (Koste & Böttger, 1989); Ecuador: Costa (Koste & Böttger, 1992); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Prov. in NW Argentina (José de Paggi, 1989); Prov. Santiago del Estero, Argentina (José de Paggi, 1990); Panama (Collado *et al.*, 1984); Brokopondo Lake, Surinam (Leentvaar, 1979); Grand Bahama Island, W Indies (Nogrady, 1983); Lake Monte Galan, Nicaragua (Moreno, 1992)

***Lecane crepida* Harring, f. *bengalensis* Sharma, 1978**

- Oriental region: Near Calcutta, India (Sharma, 1978b); India (Sharma & Michael, 1980)

***Lecane crepida* Harring, f. *longidactyla* Koste, 1972**

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)

***Lecane crypta* (Hauer, 1938)**

- Oriental region: Singapore (Karunakaran & Johnson, 1978); Singapore & Indonesia (Sudzuki, 1989)
- Neotropical region: Chilean lakes (Schmid-Araya, 1991); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b)

***Lecane curvicornis* (Murray, 1913)**

- Palaearctic region: Azibo reservoir, near Porto, Portugal (Vascoucelos, 1990); Prov. Zuid-Limburg, NL (Dresscher, 1976); Water-courses in the Bucegi mts., Romania (Godeanu, 1963b); Small permanent ponds on the plateau of the Bucegi mountains, Romania (Godeanu, 1969a); Caucasus (Tarnogradsky, 1961b); Impoundment in Spain (Velasco, 1990); Coastal Prefectures Tottori & Shimane-Ken, Japan (Sudzuki & Fukuta, 1992); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)
- Nearctic region: Canada (Chengalath, 1977); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: Nimeta water works, near Baroda, India (Wulfert, 1966); Kalimantan (Borneo), Indonesia (Koste, 1988a); Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Shakarahara Tank near Nagpur, C India (Arora, 1965 & 1966c); Oxidation pond at Nagpur, C India (Arora, 1966d); Danan Teleko, near Palembang & Swamp near Menggala, Sumatra (Bérziņš, 1982a); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Philippines (Mamaril & Fernando, 1978);

Sri Lanka (Fernando, 1986a); Small ponds in Sri Lanka (Chengalath & Fernando, 1973); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); West Bengal, NE India (Sharma, 1978a); 2 sewage channels of Gwalior, India (Saksena & Kulkarni, 1986); Bangkok, Thailand (De Ridder, 1971); Several localities in the 24-Parganas & Howrah districts, India (Sharma, 1979)

- Australian region: SW Australia (Shiel, Koste & Brock, 1983); NT, Aust. (Koste & Shiel, 1980c); NT, Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Often numerous in tropical & subtropical shallow waters. Single record for Aust.: Lake Mulwala, Vic (Koste & Shiel, 1990a)

- Neotropical region: Crescent L. & L. Owain, Rio Sniu Missu, Mato Grosso, Brazil (Green, 1972); River Parana, Argentina (José de Paggi, 1978b & 1985); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river & its delta, Venezuela (Vasquez & Rey, 1989); Lago do Macaco, Brazil (Koste, 1989a); Prov. in NW Argentina (José de Paggi, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil, Colombia, Venezuela, Argentina, Antilles, Panama & Costa Rica (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Santiago del Estero, Chaco & Santa Fé, Argentina (José de Paggi, 1990); Caribbean Islands, Haiti, Honduras, Panama (Collado *et al.*, 1984); L. Cocibolca & Pond UCA, Managua, Nicaragua (Moreno *et al.*, 1992); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Mato Grosso, Brazil (Turner & Da Silva, 1992); Antilles françaises (Pourriot, 1975); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980)

Lecane curvicornis (Murray), f. *lofuana* (Murray, 1913)

- Oriental region: Singapore. Warm waters (Sudzuki, 1991)

- Neotropical region: Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane curvicornis (Murray), f. *miamensis* Myers, 1941

- Oriental region: Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); Sri Lanka, India & Philippines (Sudzuki, 1989); Near Kurunegula, Sri Lanka (Chengalath & Fernando, 1973); West Bengal, NE India (Sharma, 1978a)

- Nearctic region: Ross Lake, Florida, USA (Bienert, 1986)

Lecane curvicornis (Murray), f. *nitida* (Murray, 1913)

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); NE India (Sharma, 1987); Malaysia, Indonesia, India & Philippines (Sudzuki, 1989); India (Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Singapore. Warm waters (Sudzuki, 1991); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Shiel & Koste, 1985); S America. Single record from Magela Creek, NT, Aust. (as *L. nitida*) (Koste & Shiel, 1990a)

- Neotropical region: Lago Paroni, Brazil (Koste, 1974a); Orinoco river basin, Venezuela (Vasquez, 1984a); Amazonia, Brazil (Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil & Panama (Koste & José de Paggi, 1982); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lecane curvicornis (Murray), f. *padespares* Arora, 1965

- Oriental region: India (Arora, 1965; Sudzuki, 1989)

Lecane curvilinearis Arora, 1965

- Oriental region: Sakardhara Tank, near Nagpur, India (Arora, 1965 & 1966c); India (Sharma & Michael, 1980; Sudzuki, 1989)

Lecane decipiens (Murray, 1913)

- Palaearctic region: Hungarian plain. C Eur. lowland. Cosmopolitan (Bērziņš, 1978); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); ? N Swedish Lapland (Pejler, 1962a); Baikal Cellulose Plant, Lake Baikal, R.F. (Pomaskova & Kozhova, 1976); ? Europe (Koste & Shiel, 1990a); Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Bog pond near Budapest, Hungary (Nogradi, 1962); ? Peat bogs Chambedaze, Puy-de-Dôme, France (Francez, 1982); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Doiran Lake, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Subtropical Island Iriomote-Jima, Japan (Sudzuki, 1979); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan

(Sudzuki, 1978a); Spain: Alicante (Velasco, 1990)

- Nearctic region: Canada (Chengalath, 1977); Ross Lake, Florida, USA (Bienert, 1986); Kingston, Ontario, Canada (Nogrady, 1981); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974)
- Oriental region: India (Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a; Koste & Shiel, 1990); NE India (Sharma, 1987); W Bengal, NE India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); Kalimantan (Borneo), Indonesia (Koste, 1988a); Malaysia, Singapore, Sri Lanka, India, Philippines (Sudzuki, 1989); Ponds & tank in Sri Lanka (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Panjab State, India (Sharma & Sharma, 1984); Surinsar Lake, Jammu (J. & K.), India (Jyoti & Sehgal, 1979 & 1980); Several localities in the 24 Parganas & Howrah Districts, India (Sharma, 1979)
- Australian region: Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld, Aust. (Shiel & Koste, 1985); Identified from N Qld; record unverified (Koste & Shiel, 1990a)
- Neotropical region: Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Argentina (Modenutti & Claps, 1988); Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); South & Central America (Koste & Shiel, 1990a); Panama (Collado *et al.*, 1984); In phytotelmata in Jamaica (Koste *et al.*, 1991); Santa Cruz, Galapagos Islands (Segers, 1990)

***Lecane depressa* (Bryce, 1891)**

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

***Lecane deridderae* Koste, 1972**

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)

***Lecane donneri* Chengalath & Mulamoottil, 1974**

- Nearctic region: Pinehurst Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Canada (Chengalath, 1977)

***Lecane donnerianus* Dhanapathi, 1976**

- Oriental region: Andhra Pradesh, S India (Dhanapathi, 1976); India (Sharma & Michael, 1980; Sudzuki, 1989)

***Lecane dorsicalis* Arora, 1965**

- Oriental region: Sakadhara Tank, near Nagpur, C India (Arora, 1965 & 1966c)

***Lecane doryssa* Harring, 1914**

- Palaearctic region: Hungarian plain, C Eur. lowland; Caucasus (Bērziņš, 1978); Switzerland & China (Koste, 1972f & 1988a); C Europe & Asia, in periphyton (Koste & Shiel, 1990a); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960; Dresscher, 1976); Caucasus (Tarnogradsky, 1961b)

- Nearctic region: Missouri, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986)

- Oriental region: NE India (Sharma, 1987); Malaysia & Indonesia (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); Indonesia, in periphyton (Koste & Shiel, 1990a); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Ponds in Belgharia, Calcutta, India (Sarma, 1988)

- Australian region: NT, Aust. (Koste & Shiel, 1980c); NW Aust.: Magela Creek (Koste, 1981b); S Tasmania & NT, Aust. (Koste, Shiel & Tan, 1988); Rare in Australia: Magela Creek, NT, and acid waters of W Tasmania (Koste & Shiel, 1990a); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984)

- Neotropical region: Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Caroni river basin, Venezuela (Vasquez, 1984b); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil; Guatemala, Panama (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974); Brazil, Venezuela & Panama (Koste & José de Paggi, 1982); C America & Amazonia (Koste & Shiel, 1990a); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Panama (Collado *et al.*, 1984); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Mato Grosso, Brazil (Turner & Da Silva, 1992)

***Lecane dysorata* Myers, 1942**

- Palaearctic region: C Eur. plain (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

***Lecane elachis* (Harring & Myers, 1926)**

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a); Anatolia, Turkey (Segers *et al.*, 1992); Caucasus (Tarnogradsky, 1961b); Serbian part of river Danube (Zivkovic, 1987)

- Nearctic region: USA (Koste & Shiel, 1990a)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a; Koste & Shiel, 1990a); Indonesia, Malaysia, Sri Lanka, India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); Pond in Tabbowa, Sri Lanka (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando &

Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: NT, Australia (Shiel & Koste, 1985); S Tasmania & NT, Aust. (Koste, Shiel & Tan, 1988); Rare in Aust.: NT & Tasmania (Koste & Shiel, 1990a)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1992); Lago Camaleão, Amazonia, Brazil (Koste & Robinson, 1983); Argentina (Koste & José de Paggi, 1982); Prov. Santa Fé, Argentina (José de Paggi, 1990); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane elasma Harring & Myers, 1926

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Achmer Grasmoor, NW Germany (Koste, 1968b); Pyrenees, C Eur. mountains & plains, Pontic province (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1960); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960; Dresscher, 1976); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); In reed borders of river Danube, Romania (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

- Nearctic region: Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); Illinois, USA (Bērziņš, 1984); Experimental ponds, C Florida, USA (Fry & Osborne, 1980)

Lecane elegans Harring, 1914

- Palaearctic region: Southwest islands of Japan (Suzuki *et al.*, 1992)

- Oriental region: Philippines (Mamaril & Fernando, 1978); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia. New for SE Asia (Koste, 1988a); Thailand, Indonesia, Philippines (Suzuki, 1989)

- Neotropical region: E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Varzea near Santarem, Brazil (Koste, 1974b); Panama & Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Province Chaco, Argentina (José de Paggi, 1990); Panama (Collado *et al.*, 1984); Ecuador: Costa (Koste & Böttger, 1992)

Lecane elliptoides (Rodewald, 1937)

- Palaearctic region: Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

Lecane elongata Harring & Myers, 1926

- Palaearctic region: Peat bogs in the Massif Central, France (Batut, 1965); C Eur. mountains, E Eur. plains (Bērziņš, 1978); Lava caves of mountain Fuji, Japan (Suzuki, 1971a); Lakes near mountain Fuji, Japan (Suzuki, 1971b); Mountain Fuji area, Japan (Suzuki, 1978a); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

- Nearctic region: N America (Bērziņš, 1978)

- Oriental region: Yamuna river, Delhi, India (Sarma, 1988)

- Neotropical region: Ecuador: Oriente & Costa (Koste & Böttger, 1989); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane elsa Hauer, 1931

- Palaearctic region: Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Germany, Poland & R.F. (Koste, 1972f); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Po river, Italy (Ferrari *et al.*, 1989); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Nat. Res. Jursky Sur, CSR (Hudec, 1978); In floodplain waters & inundation zones of Central Europe (Koste & Shiel, 1990a); C Eur. mountains & plains (Bērziņš, 1978); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Astrakan Preserve, lower Volga, R.F. (Chuykov, 1981); Southwest islands of Japan (Suzuki *et al.*, 1992); Pelagic zone of the Leczna-Włodawa lakes, P. (Radwan, 1975); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973)

- Oriental region: Sri Lanka (Fernando, 1980a); Taiwan (Suzuki, 1988); Taiwan, Malaysia, Sri Lanka (Suzuki, 1989); Sri Lanka. Paddy field, close to Ratnapura (Chengalath, Fernando & Koste, 1974); Lake Manguao, Palawan, The Philippines (Davies & Green, 1990)

- Australian region: Vic, Australia (Koste & Shiel, 1980c); SW Aust. (Koste, Shiel & Brock, 1983); Rare in Aust.: NT, W Aust. & Vic (Koste & Shiel, 1990a)

- Neotropical region: Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Prov. in NW Argentina (José de Paggi, 1989); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil, Argentina & Venezuela (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov.

Santiago del Estero, Chaco, Corrientes & Santa Fé, Argentina (José de Paggi, 1990); Taruma-Mirim, S America (Serruya & Pollingher, 1984); Rio Negro, Amazonia, Brazil (Schaden, 1977c)

Lecane ercodes Harring, 1914

- Oriental region: Singapore & India (Sudzuki, 1989)
- Neotropical region: Amazonia, Brazil (Koste, 1972f); Ecuador: Oriente (Koste & Böttger, 1989); Panama (Collado *et al.*, 1984); Lago Paroni, Brazil (Koste, 1974a); Varzea near Santarem, Brazil (Koste, 1974b); Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lecane eswari Dhanapathi, 1976

- Oriental region: Andhra Pradesh, India (Dhanapathi, 1976b); India (Sharma & Michael, 1980; Sudzuki, 1989)

Lecane eupammophila Koste & Böttger, 1992

- Neotropical region: Ecuador: Oriente & Costa (Koste & Böttger, 1992)

Lecane eutarsa Harring & Myers, 1926

- Palaearctic region: C Eur. plains (Bērziņš, 1978)
- Nearctic region: N America (Bērziņš, 1978)

Lecane eylesi Russell, 1953

- Australian region: Chatham Islands (Russell, 1960)

Lecane fernandoi Chengalath & Mulamoottil, 1974

- Nearctic region: Pinehurst Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Canada (Chengalath, 1977)

Lecane flexilis (Gosse, 1886)

- Palaearctic region: Baikal Cellulose Plant, L. Baikal, R.F. (Pomazkova & Kozlova, 1976); All over Europe; Caucasus, Caspian area. Cosmopolitan (Bērziņš, 1978); Coast of S Finland (Eriksen, 1969); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Sierra Nevada, Spain (Morales-Baquero, 1987); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); N Swedish Lapland (Pejler, 1962a); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Po river, Italy (Ferrari *et al.*, 1989); Alpine lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Fish ponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Lac Léman, Fr./CH (Balvay & Laurent, 1989 & 1990; Balvay *et al.*, 1990); Lake Donk, Overmere, Belgium (Coussement & De Henau, 1975; Coussement, 1976); Rivers in Soviet Karelia, R.F. (Filimonova, 1976); La Mancha, Cast., Spain (Armengol *et al.*, 1975); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundments Saidenbach & Neunzehnhain, Germany (Althaus, 1976); Lake Bielersee, CH (Baugerter *et al.*, 1980); Lago Scure Parmense, N Italy (Antonietti *et al.*, 1988); Middle course river Po, Italy (Ferrari *et al.*, 1986); River Ybbarspså, Sweden (Bērziņš, 1979); Lake Sträken, Aneboda, Sweden (Bērziņš, 1972); Swamp in Skopun, Faröer (De Smet *et al.*, 1988); Koyama-Ike, a coastal pond in Japan (Sudzuki & Fukuta, 1989); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b & 1983); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lakes near Mikolajkie, Mazurian lake, Poland (Klimowicz, 1987); Anatolia, Turkey (Segers *et al.*, 1992); River Rybi Potok & valley Dolina Olczyka, Tatra mountains, Poland (Madalinski, 1961); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Lac d'Annecy, France (Balvay & Druart, 1992); In reed borders of river Danube, Romania (Rudescu, 1968); Middle course of river Loire, France (Lair & Sargos, 1981); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Ponds Botanical Garden Gent, Belgium (Segers *et al.*, 1991); Värmland, Sweden (Thomasson, 1970); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Peat bog area "Het Hol", Kortenhoef, NL (Vos-Kelk & Davids, 1977); Serbian section of river Danube (Zivkovic, 1987); ? China (Wulfert, 1966); Tap water Gent, Belgium (Segers *et al.*, 1991); Boatracing canal Gent, Belgium (Coussement, 1982); Spain: Ciudad real, Granada & Madrid (Velasco, 1990); Lake Biwa-ko, Japan (Yamamoto, 1960b); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); River Grabia basin, Poland (Pawlowski, 1968 & 1970); Lake Balaton, Hungary (Zankai, 1968); Camargue, S France (De Ridder, 1960a & 1961); N, W & SW Iceland (De Ridder, 1966a, 1967a, 1970 & 1972); Astrakan Preserve, Lower Volga, R.F. (Chuykov, 1981); Japanese inland waters (Yamamoto, 1960a); Shores of impoundments & free flowing stretches of river Danube, at the German-Austrian border (Donner, 1972); Lake Wallsee & r. Lobau, Austrian Danube (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Dübener Heide, N Germany (Wulfert, 1960a); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id.; Amsterdam; Nat. Res. "Het Hol" near Kortenhoef; De

Gerritsflesch, Kootwijk; River Maas near Maasbracht (Dresscher, 1976); Linkhout, Belgium (De Maeseneer, 1979); Linkhout & Overmere, Belgium (De Ridder, 1986); River Danube (Enaceanu & Brezeanu, 1970); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Lac Luitel, Isère, France (Joly, 1960); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973)

- Nearctic region: NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Illinois, Missouri & Kentucky, USA (Bérziņš, 1984); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Northern Michigan inland lakes (Stemberger, 1990); Laurentian Great lakes (Stemberger, 1979); Grizzly Lake, Banff Nat. Park & Lake Bradley, Grand Teton Nat. Park, USA (Thomasson, 1962); ? Lake 132, NW Ontario, Canada (Schindler & Novén, 1971)

- Oriental region: Taiwan, Singapore, India (Sudzuki, 1989); West Bengal, NE India (Sharma, 1978a); NE India (Sharma, 1987); India (Sharma & Michael, 1980); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Prata-Pura reserv. & Nimeta water works, India (Wulfert, 1966)

- Australian region: Darling river, SE Aust. (Koste & Shiel, 1980); Tasmania (Koste & Shiel, 1987; Shiel, Koste & Tan, 1989); Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); In many localities in Aust. (Bérziņš, 1982); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); S Tasmania (Koste, Shiel & Tan, 1988); Cosmopolitan, eurytherm. NT, Tas., Vic. Common. Abundant in humic acid waters in Tas. (Koste & Shiel, 1990a); Mt. Cook, Christchurch & Lake Taylor, New Zealand (Russell, 1960)

- Neotropical region: Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Nat. Park, 20 km S of Rio, Brazil (Donner, 1980); Provinces in NW Argentina (José de Paggi, 1989); Brazil, Chile, Argentina, Panama, Antilles (Koste & José de Paggi, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989 & 1992); Chilean lakes (Schmid-Araya, 1991); Prov. Chubut, Rio Negro, San Luis, Catamarca & Cordoba, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Caribbean Islands, Haiti & Panama (Collado *et al.*, 1984); Argentine Patagonia (Kuczynski, 1987b); Prov. Rio Negro, Argentina (Olivier, 1965)

Lecane flexiloides Wulfert

- Palaearctic region: C Eur. mountains (Bérziņš, 1978)

Lecane formosa Harring & Myers, 1926

- Australian region: NSW, Australia (Shiel & Koste, 1985); USA. Single unverified record from Hunter river, NSW, Aust. (Koste & Shiel, 1990a)

Lecane furcata (Murray, 1913)

- Palaearctic region: Cosmopolitan in periphyton (Koste & Shiel, 1990a); All over Europe; Caucasus, Caspian area. Cosmopolitan (Bérziņš, 1978); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Alpine lakes in Sierra Nevada, Spain (Morales-Baquero, 1987; Morales-Baquero *et al.*, 1989); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Lake Stechlinse, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Afghanistan (Bérziņš, 1961); Tingwall Loch, Mainland, Shetlands (Bérziņš, 1982a); Coast of S Finland (Eriksen, 1969); Delta of river Danube (Godeanu & Zinevici, 1983); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989c, 1989d); District Ostrava, CSR (Dvorakova, 1960b); N Swedish Lapland (Pejler, 1962a); W Eur. plain (Bérziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); Canals in Hran area, CSR (Terek, 1960c); Obretin lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Camargue, S France (De Ridder, 1960a & 1961); Southwest islands of Japan (Sudzuki, 1990; Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Beltschuttersloot area, NL (Dresscher, 1976); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); High mountain lakes of Sierra Nevada, Spain (Morales-Baquero *et al.*, 1988); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Anatolia, Turkey (Segers *et al.*, 1992); Palaearctis (Olivier, 1965); R. Moldova, tributary to the Danube, Romania (Prunescu-Arion, 1968); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Spain: Granada, Tarragona & Valencia (Velasco, 1990); Coastal Prefectures Tottori & Shimane-Ken, Japan (Sudzuki & Fukuta, 1992); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Canada (Chengalath, 1977); Illinois & Kentucky, USA (Bérziņš, 1984); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Vinton County, Ohio, USA (Evans, 1984); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Nearctis (Olivier, 1965)

- Oriental region: NW India (Sharma, 1976); West Bengal, NE India (Sharma, 1978a & 1987); Panjab State, India (Sharma & Sharma, 1984); India (Sharma & Michael, 1980); 2 Kumaun Himalayan lakes, India

(Sharma & Pant, 1985); Sri Lanka (Fernando, 1980a); Thailand, Indonesia, Sri Lanka & India (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Sri Lanka: paddy field close to Ratnapura. Known also from Indonesia (Chengalath, Fernando & Koste, 1974); Impoundment Kinda, C Burma (Koste & Tobias, 1990)

- Australian region: NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Koste & Shiel, 1980a); River in Aust. (Bērziņš, 1982); Rare in Aust.: NT, Qld, Tas, Vic (Koste & Shiel, 1990a); West Canterbury, New Zealand (Russell, 1960)

- Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984); Ecuador: Oriente & Costa (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992); Chilean lakes (Schmid-Araya, 1991); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Caroni river basin, Venezuela (Vasquez, 1984b); Prov. in NW Argentina (José de Paggi, 1989); Brazil, Venezuela, Colombia, Argentina, Antilles, Surinam & Panama (Koste & José de Paggi, 1982); Prov. Tierra del Fuego, San Luis, Santiago del Estero & Buenos Aires, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Caribbean Islands & Panama (Collado *et al.*, 1984); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Tierra del Fuego, Argentina; Brazil & Guatemala (Olivier, 1965); Antilles françaises (Pourriot, 1975); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lake Cocibolca & pond Pozo Azul, Nicaragua (Moreno *et al.*, 1992)

***Lecane furcata* (Murray), f. *rugosa* (Harring, 1914)**

- Palaearctic region: C & E Eur. plains (Bērziņš, 1978); Nat. Res. Meyendel, NL (Dresscher, 1976) - Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1977); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: Kalimantan (Borneo), Indonesia; Java (Koste, 1988a); ? Indonesia (Sudzuki, 1989) - Australian region: New Zealand (Koste, 1972f); Notornis valley, New Zealand (Russell, 1960); First Aust. record: Ryan's billabong at Albury, NSW, in *Eleocharis* reedbed (Koste & Shiel, 1990a)

- Neotropical region: Panama (Koste, 1972f & 1988a; Koste & Shiel, 1990a; Collado *et al.*, 1984); Amazonia, Brazil; Brazil (Koste, 1972f); Crescent Lake & Fox's Pool, Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); Ecuador: Oriente & Costa (Koste & Böttger, 1989); Lago Jacaretinga, Amazonia, Brazil (Hardy, 1980; Serruya & Pollingher, 1984); Brazil, Argentina, Panama (Koste & José de Paggi, 1982); Prov. Chubut & Corrientes, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b)

***Lecane furcata* (Murray), f. *thetis* (Harring & Myers, 1926)**

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Leczna-Włodawa Lake District, E Poland (Radwan, 1971)

- Nearctic region: Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Ross Lake, Florida (Bienert, 1986)

- Oriental region: Andhra Pradesh, S India (Dhanapathi, 1976); India (Sharma & Michael, 1980); Malaysia & India (Sudzuki, 1989)

- Australian region: L. Euramo, tropical Queensland Aust. crater lake (Green, 1981); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld, Aust. (Shiel & Koste, 1985); Rare in C Europe & N America. Single record from L. Euramo, Qld, Aust. (Koste & Shiel, 1990a); W Canterbury, New Zealand (Russell, 1960)

- Neotropical region: Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Venezuela (Koste & José de Paggi, 1982); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980)

***Lecane galeata* (Bryce, 1892)**

- Palaearctic region: Romania (Rudescu, 1960); C & S Sweden (Bērziņš & Pejler, 1987); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Darnsee near Epe, NW Germany (Koste, 1962); Achmer Grasmoor, NW Germany (Koste, 1968b); Peat bogs in the Massif Central, France (Batut, 1965); All over Europe. Cosmopolitan (Bērziņš, 1978); N, W & SW Iceland (De Ridder, 1969b & 1972); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Peat bog Laptici, Bucegi mountains, Romania (Godeanu, 1970a); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Lake Agigea, Romania (Rodewald-Rudescu & Godeanu, 1961); Nat. Res. "Ronde Put", Postel, Belgium (De Ridder, 1992); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985; Francez, 1988); Dübener Heide, N Germany (Wulfert, 1960a & 1961); Linkhout, Belgium (De Maeseneer, 1979; De Ridder, 1986)

- Nearctic region: Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980)

- Oriental region: Storage reserv. Ajwa & Nimeta waterworks, India (Wulfert, 1966); India (Sharma &

Michael, 1980); Malaysia & India (Sudzuki, 1989)

- Australian region: Lake Katrine, New Zealand (Russell, 1960)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil & Venezuela (Koste & José de Paggi, 1982)

Lecane glypta Harring & Myers, 1926

- Palaearctic region: Europe & Middle East (Koste & Shiel, 1990a); Dübener Heide, N Germany (Wulfert, 1960a); Leczna-Wlodawa Lake District, E Poland (Radwan, 1971); Ponds in Botanical Garden, Gent, Belgium (Segers *et al.*, 1991); Mountain Fuji area, Japan (Sudzuki, 1978a); Pool in C Norway (Thomasson, 1979)

- Nearctic region: N America (Koste & Shiel, 1990a)

- Oriental region: Asia (Koste & Shiel, 1990a); Singapore (Sudzuki, 1989)

- Australian region: Tasmania (Koste & Shiel, 1987); Single record for Aust.: Bicheno-Freyinet area, E Tasmania (Koste & Shiel, 1990a)

- Neotropical region: Argentina (Koste & José de Paggi, 1982); Near Concepcion, Paraguay (Koste, 1986b); Prov. Rio Negro, Argentina (Olivier, 1965; José de Paggi, 1990); Araucarian lakes, E of the Andes, Chile (Thomasson, 1963b); Ecuador: Oriente (Koste & Böttger, 1992)

Lecane glypta Harring & Myers, f. *nuda* Russell, 1956

- Australian region: Westland, New Zealand (Russell, 1960)

Lecane gracilis (Sachse, 1915)

- Palaearctic region: C Eur. mountains (Bérziņš, 1978)

Lecane grandis (Murray, 1913)

- Palaearctic region: Danish coast (Thane-Fenchel, 1968); Romania (Rudescu, 1960); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982; Haberman, 1982); Carpathes, Pontic province, E Eur. plains (Bérziņš, 1978); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Southwest islands of Japan (Sudzuki *et al.*, 1992); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Black Sea (Rudescu, 1961); Caucasus (Tarnogradsky, 1961b)

- Nearctic region: N America (Bérziņš, 1978)

- Oriental region: Singapore (Sudzuki, 1989)

- Australian region: NT, Australia (Koste & Shiel, 1980c); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Possibly cosmopolitan in brackish/athalassic saline waters. Euryhaline. Single record for Australia: billabong, Jabiluka, NT (Koste & Shiel, 1990a)

- Neotropical region: E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Prov. Chaco, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire, Caribbean Islands (Collado *et al.*, 1984)

Lecane gwileti Tarnogradsky, 1930

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); C Eur. mountains & plains; Caucasus (Bérziņš, 1978); Dübener Heide, N Germany (Wulfert, 1960a); Fens in Genk, Belgium (Schepens, 1960); Caucasus (Tarnogradsky, 1961b); Nat. Res. "Leiemeersen", Assebroek, Belgium (De Ridder, 1992); Spain: Tarragona (Velasco, 1990)

Lecane halicysta Harring & Myers, 1926

- Palaearctic region: C Eur. mountains & plains. Cosmopolitan (Bérziņš, 1978); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Dübener Heide, N Germany (Wulfert, 1960a); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Japanese inland waters (Yamamoto, 1960a); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c)

- Nearctic region: Ross Lake, Florida, USA (Bienert, 1986)

- Oriental region: Danau Teleke, near Palembang, Sumatra (Bérziņš, 1982a); NE India (Sharma, 1987); Taiwan (Sudzuki, 1988); Taiwan, Singapore & Indonesia (Sudzuki, 1989)

- Australian region: Tasmania (Koste & Shiel, 1987); Europe, Asia, N & S America. Rare in soft vegetated waters. Single record for Aust.: South Esk river, Perth, Tasmania (Koste & Shiel, 1990a)

- Neotropical region: Ecuador: Oriente & Costa (Koste & Böttger, 1989); Ecuador: Oriente (Koste & Böttger, 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil & Venezuela (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Province Chaco, Argentina (José de Paggi, 1990); Flooded savanna at Mantecal, Venezuela (Michelagelli *et al.*, 1979/1980); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane hamata (Stokes, 1896)

- Palaearctic region: C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Mt. Hoverla,

Maramarosch Alps, Hungary (Varga, 1962); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Po river, Italy (Ferrari *et al.*, 1989); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Broads & peat pits, NW Overijssel, NL (Schroevens, 1965); Minorca, Spain (de Manuel, 1990); Grote vijver, fort 8, Hoboken, Belgium (De Smet *et al.*, 1986); Kleine vijver, fort 8, Hoboken, Belgium (De Smet *et al.*, 1989); Moat of fort Merksem, Belgium (De Smet *et al.*, 1987); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Fishponds near Warsaw, Poland (Hillbright-Ilkowska, 1964); Lake Donk, Overmere, Belgium (Coussement & De Henau, 1975; Coussement, 1976); All over Europe; Caucasus, Caspian area. Cosmopolitan (Bērziņš, 1978); River Klyas'ma, R.F. (Bogoslowski, 1961); Heiluntsian province, China (Bogoslowski, 1962); River Ybbarspān, Sweden (Bērziņš, 1979); Afghanistan (Bērziņš, 1961); S Coast of Finland (Eriksen, 1969); Lower Silesia, Poland (Pawlowski, 1960); River Grabia basin, Poland (Pawlowski, 1968, 1970 & 1973); Lake Balaton, Hungary (Zankai, 1968); Canals in Hran area, CSR (Terek, 1990c); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1965); Camargue, S France (De Ridder, 1960a & 1961); Marismas, Spain (De Ridder, 1962b); SW Iceland (De Ridder, 1966); N, W & SW Iceland (De Ridder, 1970 & 1972); 3 lakes N of Bucarest, Romania (Godeanu, 1969b); Obretin embanked basin, Romania (Godeanu *et al.*, 1973); Marshy zones on the plateau of the Bucegi mountains (Godeanu, 1969a); Sewage pond near Czestochowa, Poland (Klimowicz, 1968); Lakes near Mikolajskie, Mazurian lakel., Poland (Klimowicz, 1967); New impoundments in the CSR (Kubicek, 1968b); Anatolia, Turkey (Segers *et al.*, 1992); Lowland brook-pond system, Boom, Belgium (Maes, 1985); Karelian inland water, R.F. (Kutikova, 1965); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); 3 lakes of Sosnowickie, E Poland (Radwan, 1969); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Ponds Botanical Garden Gent, Belgium (Segers *et al.*, 1991); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Lago Trasimeno, Italy (Taticchi, 1968); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Peat bog area "Het Hol", Kortenhoef, NL (Vos-Kelk & Davids, 1977); Serbian section of river Danube (Zivkovic, 1987); Tap water, Gent, Belgium (De Ridder, 1992); Spain: Barcelona, Huelva, Madrid & Valencia (Velasco, 1990); Lake Biwa-ko, Japan (Yamamoto, 1960b); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); L. Wallsee & R. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Japanese inland waters (Yamamoto, 1960a); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1988); Southwest islands of Japan (Sudzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); All over the Netherlands (Dresscher, 1976); All over Belgium (De Ridder, 1986); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Watercourses in the Bucegi mountains, Rom. (Godeanu, 1963b); Lakes of the Black Sea shore, Romania (Godeanu, 1970b)

- Nearctic region: NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Great Dismal Swamp, Virginia-N Carolina border, USA (Anderson, Benfield & Buikema, 1977); Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Wisconsin, Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Cranberry bog, Ontario, Canada (Chengalath & Mulamootttil, 1974); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Lac Echo, Québec, Canada (Nogrady, 1976); Lakes in Santee, California, USA (Nogrady, 1982); Crater Lake & Walker L., Arizona, USA (Green, 1986); Massey Lake, 16 km of Beaumont, Tx, USA (Marsh *et al.*, 1978)

- Oriental region: NE India (Sharma, 1987); Madras, India (Pasha, 1961); Thailand, Malaysia, Singapore, Indonesia, India (Sudzuki, 1989); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Singapore (Karunakaran & Johnson, 1978); Rajasthan, India (Nayar, 1968); 2 ponds at Pilani, Rajasthan, India (Nayar, 1970); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Danau Teleko, near Palembang, Sumatra & Girikbe Tank, Sri Lanka (Bērziņš, 1982a); Kathmandu, Nepal (Turner, 1987); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Impoundment Kinda, C Burma (Koste & Tobias, 1990); NW India (Sharma, 1976); W Bengal, NE India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); Fishponds at Barrackpore, W Bengal State, India (Michael, 1968); Panjab State, India (Sharma & Sharma, 1984); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Ricefields in NE Thailand (Heckman, 1979); Indomalaysia (Olivier, 1965); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966); Singapore. Cosmopolitan (Sudzuki, 1991)

- Australian region: SW Australia (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); L. Euramo & Bromfield Swamp, tropical Queensland & L. Purrumbete, freshwater temperate Australian crater lakes (Green, 1981); Tasmania (Shiel, Koste & Tan, 1989); River Murray, Aust. (Koste, 1979b); NW Aust.:

Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Darling river, SE Aust. (Koste & Shiel, 1980); Cosmopolitan in periphyton & moss pools. Common in Aust.: probably pancontinental, not recorded from S Aust. (Koste & Shiel, 1990a); In many localities in Aust. (Bērziņš, 1982); Canterbury, New Zealand; Chatham Islands (Russell, 1960)

- Neotropical region: Mato Grosso, Brazil (Turner & Da Silva, 1992); Lake Cocibolca & pond Poco Azul, Nicaragua (Moreno *et al.*, 1992); Rio Negro & Tierra del Fuego, Argentina (Olivier, 1965); Brokopondo lake, Surinam (Leentvaar, 1979); In phytotelmata on Jamaica (Koste *et al.*, 1991); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente, Costa & Sierra (Koste & Böttger, 1989 & 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Arroyo Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Prov. in NW Argentina (José de Paggi, 1989); Crescent Lake, L. Owain & Fox's pool, Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); Altiplanicie Central, Mexico (Vilaclara & Sladecek, 1989); Lago Caroni, Brazil (Koste, 1974a); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil, Venezuela, Colombia, Antilles, Argentina, Surinam & Panama (Koste & José de Paggi, 1982); Prov. Tierra del Fuego, Rio Negro, San Luis, San Juan, Tucaman, Santiago del Estero, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990); Araucarian lakes, E of the Andes, Chile (Thomasson, 1963b); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Antilles françaises (Pourriot, 1975)

Lecane hamata (Stokes), f. *sinuata* Vos-Kelk & Davis, 1977

- Palaearctic region: Peat bog area "Het Hol", Kortenhoef, NL (Vos-Kelk & Davis, 1977)

Lecane hamata (Stokes), f. *victoriensis* Koste & Shiel, 1980

- Australian region: Goulburn river billabong, SE Aust. (Koste & Shiel, 1980a); Vic, Aust. (Koste & Shiel, 1980c)

Lecane harringi Ahlstrom, 1934

- Palaearctic region: Spain (Bērziņš, 1978); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Nearctic region: N America (Bērziņš, 1978)

- Oriental region: India (Sharma & Michael, 1980; Sudzuki, 1989); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966)

- Neotropical region: Near Rio de Janeiro, Brazil (Turner, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire, Curaçao, Caribbean Islands (Collado *et al.*, 1984)

Lecane hastata (Murray, 1913)

- Palaearctic region: Pontic province, Caspian area (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Romania (Godeanu, 1961b); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Caucasus (Tarnogradsky, 1961b); Spain: Tarragona (Velasco, 1990)

- Nearctic region: Kentucky, USA (Bērziņš, 1988); Laurentian Great Lakes (Stemberger, 1979); Near Monroe, Louisiana, USA (Gallagher, 1966)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Taiwan (Sudzuki, 1988); Taiwan, Malaysia, Sri Lanka, India, Philippines (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); Sri Lanka: Molurankuliya pond. Known also from India (Chengalath, Fernando & Koste, 1974); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); 2 Kumaun Himalayan lakes, India (Sharma & Pant, 1985); Nimeta water works near Baroda, India (Wulfert, 1966); 2 localities in the 24-Parganas & Howrah districts, India (Sharma, 1979)

- Australian region: SW Australia (Koste, Shiel & Brock, 1983); Southwest W Aust. (Shiel & Koste, 1985); Possibly cosmopolitan in periphyton, fresh & slightly saline waters. Recorded in Lake Grace, SW West Aust., with a possible record from Cairns, N Qld (after C.H. Fernando) (Koste & Shiel, 1990a)

- Neotropical region: Philippines (Mamaril & Fernando, 1978); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Pescado, Canada Honda, Burgos & De La Cruz streams; Acco & Ramadillo rivers, NW Buenos Aires, Argentina (Modenutti & Claps, 1988); Orinoco basin, Venezuela (Vasquez, 1984a); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Lago Viana Canal, Maranhão, Brazil (Reid & Turner, 1988); Amazonia, Brazil. Also R.F. (Caucasus), China (Koste, 1972f); Brazil & Surinam (Koste & José de Paggi, 1982); Province Santa Fé, Argentina (José de Paggi, 1990); Brokopondo lake, Surinam (Leentvaar, 1979); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane hertzigi Koste, Shiel & Tan, 1988

- Australian region: Lake Garcia & surroundings, Straham, S Tasmania (Koste, Shiel & Tan, 1988);

Tasmania (Shiel, Koste & Tan, 1989); Endemic; dune pools, Western Tasmania (Koste & Shiel, 1990a)

***Lecane hornemannii* (Ehrenberg, 1834)**

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Romania (Rudescu, 1960); Spain, Alps, C Eur. mountains & plains, Pontic province & UK (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Suzuki *et al.*, 1992); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Caucasus (Tarnogradsky, 1961b); Spain: Valencia (Velasco, 1990); Coastal Prefectures Tottori & Shimane-Ken, Japan (Suzuki & Fukuta, 1992)

- Nearctic region: Canada (Chengalath, 1977); Illinois, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1984); NW Canada (Chengalath & Koste, 1987); Pinehurst Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Northern Michigan inland lakes (Stemberger, 1990); Par pond, S Carolina, USA (Oden, 1979); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Redrock Lake, Colorado, USA (Thomasson, 1964); Massey L., 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: Danau Teleko, near Palembang, Sumatra (Bērziņš, 1982a); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Chengalath & Fernando, 1973; Fernando, 1980a); Madras, India (Pasha, 1961); NE India (Sharma, 1987); Taiwan, Malaysia, Indonesia, Sri Lanka, India & Philippines (Suzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Singapore. Distribution: warm waters (Suzuki, 1991); Storage reservoir Ajwa & Nimeta water works, India (Wulfert, 1966); 3 localities in the 24-Parganas & Howrah districts, India (Sharma, 1979)

- Australian region: Creeks in Australia (Bērziņš, 1982); SW Aust. (Koste, Shiel & Brock, 1983); Lake Barrine, Tropical Queensland Aust. crater lake (Green, 1981); E Aust. (Koste & Shiel, 1980b); Vic & NT, Aust. (Koste & Shiel, 1980c); NW Aust.: Magela Creek (Koste, 1981b); Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Widespread in freshwaters, particularly tropics & subtropics. Occasionally in slightly saline waters. All states, except S Aust. Rare (Koste & Shiel, 1990a); W Canterbury, New Zealand; Chatham Islands (Russell, 1960)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989 & 1992); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil, Venezuela, Panama, Antilles (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Rio Negro, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Caribbean Islands, Haiti & Panama (Collado *et al.*, 1984); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Grand Bahama Island, West Indies (Nogrady, 1983); Araucarian Lakes, E of the Andes, Chile (Thomasson, 1963b); Lake Masaya, Nicaragua (Moreno *et al.*, 1992)

***Lecane hospes* Donner, 1951**

- Palaearctic region: Spain, Pyrenees, Alps, C Eur. mountains, Pontic province, Iceland (Bērziņš, 1978); N, W & SW Iceland (De Ridder, 1969b, 1970 & 1972); Fagne de la Mochette, Samrée & Plateau des Tailles, Belgium (De Ridder, 1980); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1988); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); L. Tabacaria & marsh in the E Carpathes, Rom. (Rodewald-Rudescu & Godeanu, 1961); Spain: Huesca & several reservoirs (Velasco, 1990); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964)

- Oriental region: Malaysia (Suzuki, 1989)

***Lecane hummelincki* De Ridder, 1977**

- Nearctic region: Caribbean part of the Neotropis (De Ridder, 1977); Curaçao & Antilles (Koste & José de Paggi, 1982); Curaçao (Collado *et al.*, 1984)

***Lecane ichtyoura* (Anderson & Shephard, 1892)**

- Palaearctic region: Baisse sallée, Camargue, S France (Aguesse, 1960); Afghanistan (Bērziņš, 1961); Hortobagy Nat. Park, Hungary (Forró & Ronkay, 1983); Alkal. Peteri-See, Hungary (Kertesz, 1960); Italy, C Eur. plain; Caspian area. Cosmopolitan (Bērziņš, 1978)

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Indonesia (Suzuki, 1989)

- Australian region: Vic, Australia (Shiel & Koste, 1979); Apparently a cosmopolitan halophile. Rare in Aust.: S Aust., Vic, SW West Aust. (Koste & Shiel, 1990a)

- Neotropical region: Galapagos Islands (De Smet, 1989); Ecuador: Oriente (Koste & Böttger, 1992)

***Lecane imbricata* Carlin, 1939**

- Palaearctic region: N Iceland (De Ridder, 1970 & 1972); C Eur. plain & Iceland (Bērziņš, 1978)

- Oriental region: Singapore (Sudzuki, 1989)

***Lecane inermis* (Bryce, 1892)**

- Palaearctic region: All over Europe; Caucasus. Cosmopolitan (Bērziņš, 1978); Baikal cellulose plant, Lake Baikal, R.F. (Pomazkova & Kozhova, 1976); Peat bogs in the Massif Central, France (Batut, 1965); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); River Ybbarspå, Sweden (Bērziņš, 1979); Rock-pools on S coast of Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Romania (Rudescu, 1960); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase. Eurytopic, even in thermal springs (Koste, 1976b & 1983); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); In periphyton of mosses near Vienna and in alpine brooks, Austria (Donner, 1964); Shores of impoundments & flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Dübener Heide, N Germany (Wulfert, 1960a); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1988); Happy spring, Gyakusen-dō Cave, Japan (Sudzuki & Hosoyama, 1991); Southwest islands of Japan (Sudzuki *et al.*, 1992); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Lake Numasawa, Japan (Sudzuki *et al.*, 1989); River Grabia, Poland (Pawlowski, 1960); N, W & SW Iceland (De Ridder, 1966a, 1969b, 1970 & 1972); Nov. var. in sewage biota in Tokyo & surroundings (Sudzuki, 1981); Nat. Res. Meyendel, NL (Dresscher, 1976); Near Torrelodones, Sierra de Guadarrama, Spain (Donner, 1970b); Lake Neusiedlersee, Austria (Donner, 1979); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Anatolia, Turkey (Segers *et al.*, 1992); Lowland brook-pond system at Boom, Belgium (Maes, 1985); In reed borders of river Danube, Romania (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Subtropical island Iriomote-Jima, Japan (Sudzuki, 1979); Grasslands & soils near mountain Fuji, Japan (Sudzuki, 1978b); Periphytic biota in sewages and park waters, Jap. (Sudzuki, 1981); Serbian section of river Danube (Zivkovic, 1987); Spain: Barcelona, Lerida & Madrid (Velasco, 1990)

- Nearctic region: Canada (Chengalath, 1977); Wisconsin & Illinois, USA (Bērziņš, 1984); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Altiplanicio Central, Mexico (Vilaclara & Sladecik, 1989); In Florida saltwater psammon, USA (Turner, 1990b); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: NE India (Sharma, 1987); Thailand, Malaysia & Indonesia (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); W & E Malaysia & Singapore (Fernando & Zankai, 1981)

- Australian region: Creeks and a stream in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Tasmania & New Zealand (Sudzuki, 1985); In athalasic saline waters, in thermal springs & warm waters, eurytopic. Not recorded in this study, but noted by Bērziņš (1982) from several localities in Victoria (Koste & Shiel, 1990a)

- Neotropical region: Amazonia, Brazil (Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil & Antilles (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Aruba, Bonaire, Curaçao, Caribbean islands, Panama (Collado *et al.*, 1984); Lake Monte Galan, Nicaragua (Moreno *et al.*, 1992); Ecuador: Oriente & Costa (Koste & Böttger, 1992)

***Lecane infula* Harring & Myers, 1926**

- Palaearctic region: C Eur. plains & Boreal Highland (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); Karelian inland waters, R.F. (Kutikova, 1965)

***Lecane inopinata* Harring & Myers, 1926**

- Palaearctic region: Subtropical pond Iriomote-Jima, Japan (Sudzuki, 1979); Spain, Italy, Pontic prov., C Eur. plains; Caucasus (Bērziņš, 1978); Southwest islands of Japan (Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.* 1992); Spain: Tarragona; Baleares (Velasco, 1990)

- Nearctic region: N America (Bērziņš, 1978); Northern Michigan inland lakes (Stemberger, 1990); Massey L., 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: Danau Teleko, near Palembang, Sumatra (Bērziņš, 1982a); W Bengal, NE India (Sharma, 1978a); NE India (Sharma, 1987); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Malaysia, Indonesia & India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia. In warm waters in SE Europe, Asia & N Australia (Koste, 1988a); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); Impoundment Kinda, C Burma (Koste & Tobias, 1990)

- Australian region: NSW, Aust. (Koste & Shiel, 1980a); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, N Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Probably cosmopolitan-subtropical, warm stenotherm. Single record from Wyangala Dam, NSW (Koste & Shiel,

1990a); Dunedin, New Zealand (Russell, 1960)

- Neotropical region: Ecuador: Oriente, Costa & Sierra (Koste & Böttger, 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1992); Near Panguana, Peru (Koste, 1988b); Colombia & Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971)

Lecane inquieta Myers, 1936

- Palaearctic region: C Eur. plains (Bērziņš, 1978)

Lecane intrasinuata (Olofsson, 1917)

- Palaearctic region: Romania (Rudescu, 1960); Peat bogs in the Massif Central, France (Batut, 1965); Lapland State Preserve, R.F. (Ghilarov, 1972); C Eur. mountains & plains, Hungarian plain, UK & Fennoscandia (Bērziņš, 1978); Darnsee near Epe, NW Germany (Koste, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Small lakes in Estonia (Haberman & Mäemets, 1987); Japanese inland waters (Yamamoto, 1960a); Dübener Heide, N Germany (Wulfert, 1960a & 1961); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960; Dresscher, 1976); Rock pools of the White Sea coast, R.F. (Ghilarov, 1967); Lakes near Mikolajskie, Mazurian lakel., Poland (Klimowicz, 1967); Karelian inland waters, R.F. (Kutikova, 1965); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Caucasus (Tarnogradsky, 1961b); Tap water, Gent, Belgium (De Ridder, 1992); Rybnik dam reservoir, Poland (Krzanowski, 1979)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Northern Michigan inland lakes (Stemberger, 1990)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Thailand (Sudzuki, 1989)

- Australian region: Magela Creek area, NT, Aust (Koste & Shiel, 1990a); NT, Aust. (Shiel & Koste, 1985)

Lecane islandica De Ridder, 1967

- Palaearctic region: N, W & SW Iceland (De Ridder, 1967a, 1969b, 1970 & 1972)

Lecane ivli Wiszniewski, 1935

- Palaearctic region: Lake Ohrid, Balkan peninsula (Stankovic, 1960); River Danube (Enaceanu & Brezeanu, 1970); Leczna-Włodawa Lake District, E Poland (Radwan, 1971); W Balkan (Bērziņš, 1978); Serbian section of river Danube (Zivkovic, 1987)

Lecane jaintiaensis Sharma, 1987

- Oriental region: NE India (Sharma, 1987)

Lecane jessupi Harring, 1921

- Palaearctic region: C Eur. mountains & plains, N Sweden, NW Russian taiga, Caspian area (Bērziņš, 1978); Karelian inland waters, R.F. (Kutikova, 1965)

- Nearctic region: Canada (Chengalath, 1977); N America (Bērziņš, 1978); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980)

Lecane junki Koste, 1975

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Thailand (Sudzuki, 1989)

Lecane kahouteki Chengalath, Fernando & Koste, 1974

- Oriental region: Sri Lanka. Tobbowa tank, Puttalan (Chengalath, Fernando & Koste, 1974); Sri Lanka (Sudzuki, 1989)

Lecane kawamurai Yamamoto, 1960

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lecane kluchor Tarnogradsky, 1930

- Palaearctic region: C Eur. mountains, Pontic province, Caucasus (Bērziņš, 1978); Romania (Rudescu, 1960); Sierra Nevada, Spain (Morales-Baquero, 1987); Alpine lakes in the Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Peat bogs in the Auvergne, France (Francez, 1981); Peat bogs in the Puy-de-Dôme, France (Francez & Pourriot, 1984); Water-courses in the Bucegi mts., Romania (Godeanu, 1963b); Marshy zones in the plateau of the Bucegi mountains, Romania (Godeanu, 1969a); Peat bogs Laptici, Bucegi mountains, Romania (Godeanu, 1970a); In reed borders of the river Danube, Romania (Rudescu, 1968); Caucasus (Tarnogradsky, 1961b); Spain: Granada (Velasco, 1990)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982)

Lecane kostei De Ridder, 1966

- Palaearctic region: N, W & SW Iceland (De Ridder, 1966a, 1967a, 1969b, 1970 & 1972); Iceland (Bērziņš, 1978)

Lecane kutikova Koste, 1972

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Lago do Macao, Brazil (Koste, 1989a); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lecane lamellata (Daday, 1983)

- Palaearctic region: Camargue, S France (De Ridder, 1960a & 1961); Baisse salée, Camargue, S France (Aguesse, 1960); Spain, Italy, Balkan, Hungarian lowland, Pontic prov., C Eur. plain, Caucasus & Caspian area (Bērziņš, 1978); Romania (Rudescu, 1960); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); Marismas, Spain (De Ridder, 1962); Rügener, Hiddensee & Darszer Bodden Gewässer, NE Germany (Schwarz, 1963); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Anatolia, Turkey (Segers *et al.*, 1992); Lake Agigea, Rom. (Rodewald-Rudescu & Godeanu, 1961); Caucasus (Tarnogradsky, 1961b); Spain: Huelva & Tarragona (Velasco, 1990)

Lecane lamellata thalera (Harring & Myers, 1926)

- Palaearctic region: Camargue, S France (De Ridder, 1960a & 1961); Baisse salée, Camargue, S France (Aguesse, 1960); Romania (Rudescu, 1960); Iberic peninsula, Italy, Balkan, Carpathes, Pontic prov., E Eur. plain, Caspian area (Bērziņš, 1978); Rügener, Hiddensee & Darszer Bodden Gewässer, NE Germany (Schwarz, 1963); Lake Agigea, Romania (Rodewald-Rudescu & Godeanu, 1963); Spain: Valencia (Velasco, 1990)

- Nearctic region: N America (Bērziņš, 1978); Wisconsin, USA (Bērziņš, 1984)

- Oriental region: India & Malaysia (Suzuki, 1989); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal, NE India (Sharma, 1978a); Nimeta water works, near Baroda, India (Wulfert, 1966); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); Nat. Zool. Park ponds, Delhi, India (Sarma, 1988)

- Australian region: Tasmania (Koste & Shiel, 1987); W Australia (Shiel & Koste, 1985); N & S America, Europe, Africa. Halophile, not found in freshwater. Rare in Aust.: saline waters in S Aust., Tasm., W Aust. (Koste & Shiel, 1990a)

- Neotropical region: Venezuela & Antilles (Koste & José de Paggi, 1982); Lake Monte Galan, Nicaragua (Moreno *et al.*, 1992); Provinces in NW Argentina (José de Paggi, 1989); Prov. Mendoza, San Juan, La Rioja, Cordoba & Santiago del Estero, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire, Curaçao & Caribbean Islands (Collado *et al.*, 1984)

Lecane lanka Chengalath, Fernando & Koste, 1974

- Oriental region: Sri Lanka; Paddy field near to Ratnapura (Chengalath, Fernando & Koste, 1974); Sri Lanka (Fernando, 1980a; Suzuki, 1989)

Lecane lateralis Sharma, 1978

- Oriental region: Near Calcutta, India (Sharma, 1978b); India (Sharma & Michael, 1980; Suzuki, 1989)

Lecane lativica Bērziņš, 1943

- Palaearctic region: Baltic province of Europe (Bērziņš, 1978); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986)

Lecane lauterborni (Hauer, 1924)

- Palaearctic region: N Swedish Lapland (Pejler, 1962a); Pyrenees, C Eur. mountains & plains, Pontic province, Fennoscandia (Bērziņš, 1978); Romania (Rudescu, 1960); 3 lakes of Sosnowickie, Poland (Radwan, 1968 & 1969); Peat bogs in the Puy-de-Dôme, France (Francez & Pourriot, 1984); Peat bogs Chambéry & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Japanese inland waters (Yamamoto, 1960a); Plateau des Tailles & Samrée, Belgium (De Ridder, 1980 & 1986); Peat bog Chambéry, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); Arctic N America (Chengalath & Koste, 1989); Vinton County, Ohio, USA (Evans, 1984)

- Oriental region: India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Indonesia, Sri Lanka, India (Suzuki, 1989); Lake Goang, on Flores, Indonesia (Green & Kramadibrata, 1988); Kalimantan (Borneo), Indonesia. New for SE Asia (Koste, 1988a); Sri Lanka, Mariwala water hold. Also known from Germany, the USA and the Chatham Islands near New Zealand (Chengalath, Fernando & Koste, 1974); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b)

- Australian region: Chatham Islands (Russell, 1960); Lake Jurucui, Amazonia, Brazil (Thomasson, 1971)

Lecane leontina (Turner, 1892)

- Palaearctic region: Alps (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Suzuki *et al.*, 1992); Lake Watergraafsmeer, near Amsterdam, NL (Dresscher, 1976); Lecznia-Włodawa Lake District, E Poland (Radwan, 1971)

- Nearctic region: Canada (Chengalath, 1977); Illinois, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Kingston, Ontario, Canada (Nogrady, 1989); Laurel Creek reservoir, near Waterloo,

Ontario, Canada (Chengalath & Mulamoottil, 1974); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); L. Whitney, Cumberland Island Nat. Seashore, USA (Stoneburger & Schmock, 1980)

- Oriental region: Orissa, E India (Sharma, 1980b); Tank near Nagpur, C India (Arora, 1966c); Danau Teleko, near Palembang, Sumatra (Bērziņš, 1982a); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Sri Lanka (Fernando, 1969 & 1980); Singapore (Karunakaran & Johnson, 1978); Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Philippines (Mamaril & Fernando, 1978); In different localities in Sri Lanka (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Panjab State, NE India (Sharma & Sharma, 1984); W Bengal, NE India (Sharma, 1978a); Sakardhara Tank near Nagpur, C India (Arora, 1965)

- Australian region: NW Australia: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld, Aust. (Shiel & Koste, 1979); In vegetated shallow waters, tropical & subtropical lake littorals. Rare, possibly widespread in N Aust., although records are few: NT, Qld, S Aust. (Congie lakes), WA (Kimberley). Last two records: Shiel, unpublished (Koste & Shiel, 1990a); Lake Tekapo, New Zealand (Russell, 1960)

- Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Laguna del Tesoro, Cuba (Alonso, 1984); Crescent Lake & Fox's Pool, Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1985); River Santa Fé, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Lago do Macao, Brazil (Koste, 1989a); Provinces in NW Argentina (José de Paggi, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Paraguay, Brazil, Argentina, Venezuela, Colombia, Antilles, Panama & Surinam (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990); Prov. Rio Negro, San Juan, La Rioja, Tucuman, Santiago del Estero, Chaco, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990); Caribbean Islands, Cuba, Haiti, Jamaica, Panama (Collado *et al.*, 1984); Lago de Valencia, Venezuela (De Infante, 1980); Argentine Patagonia (Kuczynski, 1987b); Brokopondo Lake, Surinam (Leentvaar, 1979); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Antilles françaises (Pourriot, 1975); Mato Grosso, Brazil (Turner & Da Silva, 1992); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Several localities in S America (Serruya & Pollingher, 1984); Lago Jurucui, Amazonia, Brazil (Schaden, 1977c); Lago Jacaretinga, Amazonia, Brazil (Hardy, 1980); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992)

Lecane levistyla (Olofsson, 1917)

- Palaearctic region: Romania (Rudescu, 1960); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); N Swedish Lapland (Pejler, 1962a); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); C Eur. mountains & plains, Fennoscandia, Caspian area (Bērziņš, 1978); Dragon pond, Gyokusen-dō cave, Japan (Sudzuki & Kosayamara, 1991); Southwest islands of Japan (Sudzuki *et al.*, 1992); Dübener Heide, N Germany (Wulfert, 1961); Walviertel area, lower Austria (Naidenow & Wawrik, 1984); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Impoundments in r. Bistrița valley, Romania (Cerneanu, 1972); Pelagic zone of the Leczna-Włodawa lakes, Pol. (Radwan, 1975); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)

- Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1977); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989)

- Australian region: NT, Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Shiel & Koste, 1985); Cosmopolitan in inundation areas. Rare in Aust.: single record from Magela Creek, NT (Koste & Shiel, 1990a)

- Neotropical region: Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Amazonia, Brazil. Cosmopolitan (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Prov. Rio Negro, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b)

Lecane levistyla (Olofson), f. *depressa* (Bryce, 1891)

- Palaearctic region: C Eur. plains & UK (Bērziņš, 1978)

- Nearctic region: Canada (Chengalath, 1977); 5 small mountain lakes, Alberta, Canada (Anderson, 1968);

Ross Lake, Florida, USA (Bienert, 1986)

- Neotropical region: Lake Hemmen, Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); Brazil (Koste & José de Paggi, 1982)

Note: See also *L. depressa* (Bryce)

Lecane ligona (Dunlop, 1901)

- Palaearctic region: Romania (Rudescu, 1960); Finland (Eriksen, 1969); Lakes in the Spanish Pyrenees (Miracle, 1981); Pyrenees, C Eur. mountains & plains, Carpathes, E Eur. plains, Fennoscandia, Caspian area (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); Hilversumse Wasmeer & Leersumse Veld, NL (Leentvaar, 1967b); W Svalbard (Thomasson, 1961); Nat. Res. "Het Hol" near Kortenhoef; lakes Leersumse Veld & Leersumse plassen; Hilversumse Wasmeer; Grote Huisven, Oisterwijk; prov. Drente, NL (Dresscher, 1976); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Lac Echo, Québec, Canada (Nogrady, 1976); Pond in Erbsville, Ontario, Canada (Chengalath & Mulamootttil, 1974); Northern Michigan inland lakes (Stemberger, 1990); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991)

- Oriental region: Locality Bally in Howrah District, India (Sharma, 1979)

Lecane ligona (Dunlop), f. *abnokensis* (Hauer, 1929)

- Palaearctic region: Rivers in Soviet Karelia, R.F. (Filimonova, 1976)

Lecane longidactyla Arora, 1965

- Oriental region: Sakardhara Tank, near Nagpur, India (Arora, 1965 & 1966c)

Lecane ludwigii (Eckstein, 1883)

- Palaearctic region: Romania (Rudescu, 1960); Zwanewater in Callantsoog, NL (Leentvaar, 1967); Darnsee near Epe, NW Germany (Koste, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); River Klyas'ma, R.F. (Bogoslawski, 1961); River Ybbarspå, Sweden (Bērziņš, 1979); Lake Balaton, Hungary (Zankai, 1968; Zankai & Ponzi, 1971a); Coast of S Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Asiatic Turkey (Dumont & De Ridder, 1987); Pools of river Elbe, CSR (Dvorakova, 1961); Spain, Alps, C Eur. mountains, Carpathes, Hungarian plain, Pontic prov., C & E Eur. plains, UK, Fennoscandia, Caucasus, Caspian area. Cosmopolitan (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1968 & 1970); Lakes of Sosnowickie, Poland (Radwan, 1968 & 1969); Canals in Hran area (Terek, 1990c); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Japanese inland waters (Yamamoto, 1960a); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Southwest islands of Japan (Sudzuki *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Prov. Zuid-Limburg; Nat. Res. "Het Hol" near Kortenhoef; De Venematen; Maria- & Helenapeel; L. Zwanewater in Callantsoog; Zuidelijke Vechtplassen; Zuid-Willemsvaart near Den Bosch, NL (Dresscher, 1976); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Danube delta (Popescu-Marinescu & Zinevici, 1967); Parczew area peat bogs, Poland (Radwan, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Pool in the Paris suburb, France (Pourriot, 1965); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Impoundment in Spain (Velasco, 1990); Lake Biwa-ko, Japan (Yamamoto, 1960b); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Canada (Chengalath, 1977); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Lac Echo, Québec, Canada (Nogrady, 1976); Calabogie Lake, Ontario, Canada (Chengalath & Mulamootttil, 1974); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Laurentian Great Lakes (Stemberger, 1979); Walker Lake & Stoneman Lake, Arizona, USA (Green, 1986)

- Oriental region: Singapore & Malaysia (Karunakaran & Johnson, 1978); Yammu (J. & K.), India (Jyoti & Sehgal, 1980); 2 localities in the 24 Parganas & Howrah districts, India (Sharma, 1979); NE India (Sharma, 1987); W Bengal, NE India (Sharma, 1978a); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Singapore, Indonesia, Sri Lanka, Taiwan, Thailand, Malaysia & Philippines (Sudzuki, 1989); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1969 & 1980a); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Pond in Tobbawa, Sri Lanka (Chengalath & Fernando, 1973); Singapore & Taiwan. Cosmopolitan (Sudzuki, 1991); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Panjab State, NW India (Sharma & Sharma, 1984); Orissa, E India (Sharma, 1980b); In 2 sewage channels of Gwalior, India (Sakseena & Kulkarni, 1986)

- Australian region: NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); SW Aust. (Koste, Shiel & Brock, 1983); Cosmopolitan, warm

stenothenm. Rare in Aust. The typical form is known from NT, Qld and SW West Australia (Koste & Shiel, 1990a); SW Aust. (Koste, Shiel & Brock, 1983); Lake Euramo, Tropical Queensland Aust. crater lake (Green, 1981); Christchurch, New Zealand (Russell, 1960)

- Neotropical region: Surinam (Leentvaar, 1975); River Parana, Argentina (Paggi & José de Paggi, 1974); River Saladillo basin, Argentina (José de Paggi & Koste, 1983); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Provinces in NW Argentina (José de Paggi, 1989); Amazonia, Brazil (Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Paraguay, Colombia, Venezuela, Argentina, Brazil, Surinam, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Tucuman, Santiago del Estero, Chaco & Santa Fé, Argentina (José de Paggi, 1990); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Mato Grosso, Brazil (Neumann-Leitao *et al.*, 1992); Lago Jacaretinga, Amazonia, Brazil (Hardy, 1980)

Lecane ludwigii (Eckstein), f. *abrupta* Hauer, 1938

- Palaearctic region: Serbian section of river Danube (Zivkovic, 1987)
 - Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Concepcion, Paraguay (Koste, 1986b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Prov. Santa Fé, Argentina (José de Paggi, 1990)

Lecane ludwigii (Eckstein), f. *appendiculata* (Levander, 1894)

- Palaearctic region: Hungarian plain, Pontic prov., NW Russian taiga (Bērziņš, 1978)

Note: See also *Lecane appendiculata* (Levander, 1894)

Lecane ludwigii (Eckstein), f. *brevicaudata* Hauer, 1938

- Palaearctic region: Serbian section of river Danube (Zivkovic, 1987)
 - Nearctic region: Wisconsin, USA (Bērziņš, 1984)
 - Oriental region: India (Sharma & Michael, 1980); W Bengal, NE India (Sharma, 1978a)
 - Neotropical region: Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane ludwigii (Eckstein), f. *lacinulata* Hauer, 1938

- Nearctic region: Everglades Nat. Park, Florida, USA (Nogrady, 1983)
 - Oriental region: W Bengal, NE India (Sharma, 1978a); India (Sharma & Michael, 1980)
 - Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Ecuador: Oriente & Costa (Koste & Böttger, 1992)

Lecane ludwigii (Eckstein), f. *laticaudata* Hauer, 1938

- Palaearctic region: Obretin lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973)
 - Oriental region: W Bengal, NE India (Sharma, 1978a); India (Sharma & Michael, 1980)
 - Australian region: Congie lake, S Australia (Koste & Shiel, 1990)
 - Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

Lecane ludwigii (Eckstein), f. *marshi* (Harring, 1914)

- Oriental region: W Bengal, NE India (Sharma, 1978a); India (Sharma & Michael, 1980)
 - Neotropical region: Panama (Collado *et al.*, 1984; Koste & José de Paggi, 1982)

Lecane luna (O.F. Müller, 1776)

- Palaearctic region: C & S Sweden (Bērziņš & Pajler, 1987, 1989a, 1989b, 1989c & 1989d); Alpine lakes in the Pyrenees (Miracle, 1978); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Romania (Rudescu, 1960); Po river, Italy (Ferrari *et al.*, 1989); Lake Nehmitzsee, Brandenburg, Germany (Kasprzak & Ronneberger, 1982); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Lake Mikolajskie & L. Taltowisko, ibid. (Klimowicz, 1972a); Alkal. Péteri-See, Hungary (Kertesz, 1960); Impoundment Kninicky & R. Svatka, CSR (Kubicek, 1964); Lake Van Hunenplak, Terschelling, NL (Leentvaar, 1967); L. Quackjeswater & Breede water, Voorne; L. Vogelmeer, Ymuiden, NL (Leentvaar, 1963); Delta of river Danube, Romania (Godeanu & Zinevici, 1983; Prunescu-Arion, 1989; Zinevici & Teodorescu, 1990); Nat. Res. Neeruti Lakes, NE Estonia (Määmets A. & A., s.d.); Camargue, S France (De Ridder, 1960a & 1961); Baisse salée & St. Séren, Camargue, S France (Aguesse, 1960); Lago di Giulianello, Latium, Italy (Ferrara & Margaritora, 1977; Bazzanto & Stella, 1977); La Mancha, Cast., Spain (Armengol *et al.*, 1975); Lake Bodensee, near Konstanz, Germany (Koch-Althaus, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); River Klys'ma, R.F. (Bogoslawski, 1961); Heiluntsian province, China (Bogoslawski, 1962); Albufera de Valencia, Spain (Oltra & Miracle, 1984); Steppic waters, Spain (Miracle, 1982); Mine waters in E Poland (Radwan & Paleolog, 1983); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Lakes in Estonia (Määmets, 1983); Asiatic

Turkey (Dumont & De Ridder, 1987); Alps (Morales-Baquero, 1987); Croatia, ex-Yugoslavia (Erben, 1987); C & S Sweden (Pejler & Bērziņš, 1989); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Black Sea (Rudescu, 1961); C Finland (Eloranta, 1982b); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Reserve Jursky Sur, CSR (Hudec, 1978); Lago Scuro Parmense, N Italy (Antonietti *et al.*, 1988); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1981 & 1982); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Afghanistan (+distribution notes) (Bērziņš, 1961); Tingwall Loch, Mainland, Shetlands (Bērziņš, 1982a); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Lakes in Estonia (Haberman, 1978); Sea, brackish & freshwater pools, S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); River Loire, France (Lair *et al.*, 1978; Lair, 1980); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); River Hase, NW Germany (Koste, 1976b & 1983); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Inundation area of Danube delta, Romania (Dorobantu, 1964); Lower Silesia, Poland (Pawlowski, 1960); Lake Volvi, Macedonia, Greece (Zarfdjian *et al.*, 1990); River Grabia basin, Poland (Pawlowski, 1968, 1970 & 1973); Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Lake Donk, Overmere, Belgium (Dumont, 1968b; Coussement & De Henau, 1975; Coussement, 1976); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Akgöl (Selçuk-Izmir), Turkey (Ustaoglu & Balik, 1987); Lake Gebekirse, Izmir, Turkey (Ustaoglu & Balik, 1990b); Lake Marmara, Turkey (Ustaoglu & Balik, in press); Ponds in Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); River Vistula, near Warsaw, Poland (Klimowicz, 1981); New impoundments in the CSR (Kubicek, 1968b); Anatolia, Turkey (Segers *et al.*, 1992); River Bistritza & its tributaries, Romania (Miron, 1960); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); Bog pond near Budapest, Hungary (Nogrady, 1962); Karelian inland waters, R.F. (Kutikova, 1965); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Lake Montcineyre, Puy-de-Dôme, France (Persoone *et al.*, 1968); Lac d'Annecy, France (Balvay & Druart, 1992); Luga district in the Leningrad area, R.F. (Kutikova, 1962b); In reed borders of the Danube, Romania (Rudescu, 1968); Lake Agigea, Romania (Rodewald-Rudescu & Godeanu, 1961); Leczna-Włodawa lake district, E Poland (Kowalczyk & Radwan, 1982); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); Lac Léman, Fr./CH (Balvay *et al.*, 1990; Balvay & Laurent, 1981, 1989, 1990a & 1990b); 3 lakes in Sosnowickie, E Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Middle course of river Loire, France (Lair & Sargas, 1981); R. Oltet & its most important tributaries, Rom. (Rogoz, 1972); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Ponds Botanical Garden, Gent, Belgium (Segers *et al.*, 1991); Fens in Genk, Belgium (Schepens, 1960); Doiran Lake, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Lago Trasimeno, Italy (Taticchi, 1968); Pool in C Norway (Thomasson, 1979); L. Stechlinsee, Brandenburg, Germany (Ronneberger & Schönborn, 1985); Caucasus (Tarnogradsky, 1961b); Lake Ohrid, Balkan peninsula (Stankovic, 1960); Peat bog area "Het Hol", Kortenhoef, NL (Vos-Kelk & Davids, 1977); Serbian section of river Danube (Zivkovic, 1987); All over Spain (Velasco, 1990); Coastal Prefectures Tottori & Shimane-Ken, Jap. (Suzuki & Fukuta, 1992); China (Wulfert, 1968); Ponds in Mirwart, Belgium (Marlier & Wattiez, 1977); Lakes in NE Norway (Saeter, 1971); Dübener Heide, N Germany (Wulfert, 1960a, 1960b & 1961); Southwest islands of Japan (Suzuki *et al.*, 1992); Lake Nobel, Ukraina (Polishchuk, 1991); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); All over the Netherlands (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1972d & 1979); N, W & SW Iceland (De Ridder, 1966a, 1967a, 1969b, 1970 & 1972); Brackish waters in the Lorraine, France (De Ridder, 1969a); 4 localities in Belgium (De Ridder, 1986); Nat. Res. "Het Leen", Eeklo, Belgium (De Maeseneer, 1969); Clay pit in Stuivekenskerke, Belgium (Espeel, 1979); River Danube (Enaceanu & Brezeanu, 1970); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Water-courses in the Bucegi mountains, Rom. (Godeanu, 1963b); Rock pools of the White Sea coast, R.F. (Ghilarov, 1967); Lakes of the Black Sea coast, Romania (Godeanu, 1970b); 3 lakes, N of Bucharest, Romania (Godeanu, 1969b); Knowsley Park, Liverpool, UK (Galliford, 1964); Lac Luitel, Isère, France (Joly, 1960); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Small permanent ponds on the plateau of the Bucegi mountains, Romania (Godeanu, 1979a); Lake near Mikolajkie, Mazurian lakeland, Poland (Klimowicz, 1967); Installation for water treatment in Okocim, Pol. (Klimowicz, 1975); Canal of river Odra, Poland (Klimowicz, 1979); Marismas, Spain (De Ridder, 1962); Moat of fort Merksem, Belgium (De Smet *et al.*, 1987); Large & Middle-sized rivers, tributary to Kiev reservoir, R.F. (Polishchuk, 1987); Fish ponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); Peridunar Pond Dulce, Donâna Nat. Park, Spain (Lopez *et al.*, 1991); Courland Spit, R.F. (Zhadin *et al.*, 1972); Fish fattening ponds in the Ukraina (Krazhan *et al.*, 1976);

Rivers in W Kazakhstan, R.F. (Petrova, 1976); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); All over Europe; Caucasus, Caspian area, Asia Minor. Cosmopolitan (Bērziņš, 1978); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Kanev Reservoir, Dnieper, R.F. (Mogil'chenko, 1986); Lower Volga, R.F. (Chuykov & Merkulov, 1986); Terek delta, Astrakhan peninsula, R.F. (Chuykov & Deneskin, 1985); Soviet section of the Danube, R.F. (Parchuk, 1985); Lzhima river, Lake Onega basin, R.F. (Kruglova, 1981); Lake Monterosi, Latium, Italy (Stella & Margaritora, 1966); Karatas Lake & Beysehir Lake, Turkey (Emir, 1991); Backwater Labicko, Middle Elbe, CSR (Straskraba, 1965); Japanese inland waters (Yamamoto, 1960a); Artificial lakes near Köln, Germany (Trahms, 1972); Near Drebencen, Hungary (Dévai, 1972); In periphyton of mosses in the Danube near Vienna and in alpine brooks, Austria (Donner, 1964); Shores of impoundments & free flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); In the lower Danube in Romania (Enaceanu, 1964); River Danube, from Austria to Romania (Wawrik, 1968); Lake Biwa-ko, Japan (Yamamoto, 1960b); Rybnik dam reservoir, Poland (Krzanowski, 1979); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Colorado, USA (Turner, 1988); Acid lakes in Maine, USA (Brett, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Canada (Chengalath, 1977); Ontario, Canada (Chengalath & Fernando, 1973); NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); NE Pennsylvania, USA (Havens & Da Costa, 1988); Illinois river, USA (Brown *et al.*, 1989); Degop Lake, Fentrus L., Highland L. & Trapper's Lake, Colorado, USA (Pennak, 1966); Wisconsin, Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Ontario, Canada (Chengalath *et al.*, 1971); Columbia Lake, Ontario, Canada (Chengalath & Mulamoottil, 1974); Lake O'Woods, W Virginia, USA (Havens & Da Costa, 1987); In Florida saltwater psammon, USA (Turner, 1990a); Altiplanicio Central, Mexico (Vilaclara & Sladeczek, 1989); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Lake Wabamun, Alberta, Canada (Gallup & Heckman, 1975); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); In borrow-pitponds, W Illinois, USA (Lipsey & Malcom, 1981); Lakes in Santee, California, USA (Nogrady, 1982); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Triangle Lake, Portage Cy, Ohio, USA (Havens, 1991); Bayou de Siard, Monroe, Louisiana, USA (Gallagher, 1965); Triangle L., highly humic lake in NE Ohio, USA (Havens K. E. III, 1969); Experimental ponds near Bakersfield, Kern Cy, California (Hurlbert *et al.*, 1972); Lakes in the Churchill Falls area, Labrador, Can. (Duthie & Ostrovsky, 1974); Stoneman Lake, Arizona, USA (Green, 1986); Massey L., 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991)

- Oriental region: Rajasthan, India (Nayar, 1968); NE India (Sharma, 1987); Singapore (Karunakaran & Johnson, 1978); India (Sharma, 1978a; Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Lake Parakrama, Sri Lanka (Fernando, 1984); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1968 & 1980a); Taiwan, Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & the Philippines (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); In ricefields of N Kriau, Perak, Malaysia (Ali, 1990); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Stocking Tank & Nursery Tank, Delhi, India (George, 1966); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Panjab State, India (Sharma & Sharma, 1984); W Bengal, NE India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); In two sewage channels of Gwalior, India (Saksena & Kulkarni, 1986); Ricefields in Lamphoon, Thailand (De Ridder, 1971); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); NW India (Punjab) (Sharma, 1976); Dal Lake, a Kashmir Himalayan lake, India (Vass & Zutshi, 1983); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966); Many localities in the 24-Parganas & Howrah districts, India (Sharma, 1979); 2 ponds at Pilani, Rajasthan, India (Nayar, 1970)

- Australian region: NSW, Qld, S Aust. & W Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); E Aust. (Koste & Shiel, 1980b); SW Aust. (Koste, Shiel & Brock, 1983); Reservoirs SE Aust. (Shiel *et al.*, 1987); Tasmania (Koste & Shiel, 1987); Darling river, SE Aust. (Koste & Shiel, 1980); Lake Elangamite, freshwater temperate Aust. crater lake (Green, 1981); In many localities of Aust. (Bērziņš, 1982); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); River Murray at Mannum, S Aust. (Koste, 1980; Shiel, 1979); Rivers & reservoirs of the Murray-Darling system, Aust. (Shiel, 1986); Cosmopolitan in littoral fresh & athalassic saline & estuarine waters. In Aust. pancontinental, common Murray river, Aust. (Serruya & Pollingher, 1984) (Koste & Shiel, 1990a); Oamaru, New Zealand (Russell, 1960)

- Neotropical region: River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente,

Sierra & Costa (Koste & Böttger, 1989); Ecuador: Sierra (Koste & Böttger, 1992); Orinoco river basin, Venezuela (Vasquez, 1984a); Lower Orinoco r. and its delta, Venezuela (Vasquez & Rey, 1989); Arroyo Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Galapagos islands (De Smet, 1987 & 1989); Argentina, Paraguay, Brazil, Venezuela, Colombia, Chile, Surinam & Panama (Koste & José de Paggi, 1982); Amazonia, Brazil (Gillard, 1967; Koste, 1972f); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Nearly all over Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire, Caribbean Islands, Costa Rica, Cuba, Haiti & Panama (Collado *et al.*, 1984); Lake Monte Alegre, SE Brazil (Arcifa *et al.*, 1992); In a floodplain lake of the Lower Orinoco, Ven. (Vasquez *et al.*, 1991); Lago de Valencia, Venezuela (De Infante, 1980); Argentine Patagonia (Kuczynski, 1987b); Brokopondo Lake, Surinam (Leentvaar, 1979); Rio Negro, Santa Cruz, Tierra del Fuego & Mendoza, provinces in Argentina (Olivier, 1965); Antilles françaises (Pourriot, 1975); Lakes in Amazonia, Brazil (Thomasson, 1971); Araucarian lakes, E of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Chile (Löffler, 1962); Lake Cocibolca & pond Esteli, Nicaragua (Moreno *et al.*, 1992)

Lecane luna (O.F. Müller), f. *dorsicalis* Sharma, 1978

- Oriental region: India (Sharma, 1978a; Sharma & Michael, 1980)

Lecane luna (O.F. Müller), f. *presumpta* Ahlstrom, 1938

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Hungarian plain & Pontic province; Asia minor (Bérziņš, 1978); Southwest islands of Japan (Sudzuki *et al.*, 1992); Romania (Godeanu, 1961b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Serbian section of river Danube (Zivkovic, 1987); Caucasus (Tarnogradsky, 1961)

- Nearctic region: Illinois & Kentucky, USA (Bérziņš, 1984)

- Oriental region: Ricefields in NE Thailand (Heckman, 1979)

- Australian region: Lake Mc Gregor, New Zealand (Russell, 1960)

- Neotropical region: Brokopondo lake, Surinam (Leentvaar, 1979)

Lecane luna (O.F. Müller), f. *submagna* De Ridder, 1960

- Palaearctic region: Camargue, S France (De Ridder, 1960a & 1961)

Lecane lunaris (Ehrenberg, 1832)

- Palaearctic region: Romania (Rudescu, 1960); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Po river, Italy (Ferrari *et al.*, 1989); Alpine lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Azibo reservoir, near Porto, Portugal (Vascoucelos, 1990); River Hase, NW Germany. Cosmopolitan, eurotopical (Koste, 1976b & 1983); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Coast of S Finland (Eriksen, 1969); River Loire, France (Lair *et al.*, 1968; Lair, 1980); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain (Morales-Baquero, 1987); Loch Leven, Scotland (May, 1986); District Ostrava, CSR (Dvorakova, 1960b); C Finland (Eloranta, 1982b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Bodensee near Konstanz (Koch-Althaus, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundments Säidenbach & Neunzehnhain, G. (Althaus, 1976); Lake Bielersee, CH (Baugerter *et al.*, 1980); River Klyas'ma, R.F. (Bogoslawski, 1961); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1981 & 1982; Heckman, 1986); River Ybbarspå, Sweden (Bérziņš, 1979); Lake Stråken, Aneboda, Sweden (Bérziņš, 1972); Tingwall Loch, Mainland, Shetlands (Bérziņš, 1982a); Skopun, moorland, Far Öer (De Smet *et al.*, 1988); Lake Constance, CH/Germany (Walz *et al.*, 1987); Freshwater ponds, S Finland (Björklund, 1972a); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Lake Mikolajskie & L. Taltowisko, ibid. (Klimowicz, 1972a); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Alkal. Péteri-See, Hungary (Kertesz, 1960); Impoundment Kninicki, CSR (Kubicek, 1964); Quackjeswater & Breede water, Voorne; Vogelmeer in Ymuiden, NL (Leentvaar, 1963); Broads & peat pits in NW Overijssel, NL (Leentvaar, 1965; Schroevens, 1965); Nat. Res. Neeruti Lakes, NE Estonia (Määmets A. & A., s.d.); N Swedish Lapland (Pejler, 1962a); Lake Donk, Overmere, Belgium (Dumont, 1968b; Coussement & De Henau, 1975; Coussement, 1976); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Sphagnum bogs in the Massif Central, France (Batut, 1965); Lac Léman, Fr./CH (Martin, 1961; Balvay & Laurent, 1981, 1989, 1990a & 1990b); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); Lapland State Preserve, R.F. (Ghilarov, 1972); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); All over Europe; Caucasus, Caspian area, Asia Minor (Bérziņš, 1978); Inundation area of Danube delta, Romania (Dorobantu, 1964);

Lower Silesia, Poland (Pawlowski, 1960); River Grabia basin, Poland (Pawlowski, 1960, 1968, 1970 & 1973); Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963); Lake Balaton, Hungary (Zankai, 1968); Impoundments in E Bohemia (Sladeckowa & Sladecek, 1960); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1960c); Mountain Fuji, Japan (Suzuki, 1971a); Lakes near mountain Fuji, Japan (Suzuki, 1971b); Mountain Fuji, area, Japan (Suzuki, 1978a); Garden ponds in Tokyo, Japan (Suzuki, 1975); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1978); N, W & SW Iceland (De Ridder, 1966a, 1967a, 1969b, 1970 & 1972); Salt marsh near Puerto de Pollensa, Majorca, Spain (De Ridder, 1967c); Brackish waters in the Lorraine, France (De Ridder, 1969a); Fagne de la Mochette, Samrée & Plateau des Tailles, Belgium (De Ridder, 1980); 4 localities in Belgium (De Ridder, 1986); Installations for water treatment at Okocim, Poland (Klimowicz, 1975); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Terek delta, Astrakhan Peninsula, R.F. (Chuykov & Deneskin, 1985); Cine Stream, Turkey (Emir, 1991); River Svatka, CSR (Kubicek, 1968); Leczna-Włodawa Lake district, E poland (Kowalczyk & Radwan, 1982; Radwan, 1984); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); Canal Isebek, Hamburg, Germany (Caspers & Schulz, 1960); Hilversumse Wasmeer & Leersumse veld, NL (Leentvaar, 1967b); Artificial ponds near Köln, Germany (Trahms, 1972); In periphyton of mosses near Vienna and in alpine brooks, Austria (Donner, 1964); Shores of impoundments and flowing stretches of r. Danube, at the German-Austrian border (Donner, 1972); River Salzach & its tributaries, Austria (Donner, 1970); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Lakes in NE Norway (Saeter, 1971); Dübener Heide, N Germany (Wulfert, 1960a, 1960b, 1961); 3 small ponds near Besse-en-Chandes, Massif Central, France (Omaly & Dévaux, 1971); Peat bogs Chambedaze & La Godivelle, Puy-de-Dôme, France (Francez, 1988); Southwest islands of Japan (Suzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); All over the Netherlands (Dresscher, 1976); Barrage de la Vierre, Suix, Belgium (De Maeseneer, 1979); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs in the Auvergne, France (Francez, 1981 & 1984a); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); Water-courses in the Bucegi mountains, Rom. (Godeanu, 1963b); Rock pools of the White Sea coast, R.F. (Ghilarov, 1967); Knowsley Park, Liverpool, UK (Galliford, 1964); Dozmary Pool, Bodwin Moor, Cornwall, UK (Galliford, 1967); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Small permanent ponds & marshy zones of the plateau in the Bucegi mountains, Romania (Godeanu, 1969a); Lakes near Mikolajskie, Mazurian lakeland, P. (Klimowicz, 1967); New impoundments in the CSR (Kubicek, 1968b); Anatolia, Turkey (Segers *et al.*, 1992); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); Bog pond near Budapest, Hungary (Nogrady, 1962); River Rybi Potoc & valley Dolina Olczynska, Tatra mountains, Poland (Madalinski, 1961); Karelian inland waters, R.F. (Kutikova, 1965); R. Moldova, tributary to the Danube, Romania (Prunescu-Arion, 1968); Lac d'Annecy, France (Balvay & Druart, 1992); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Black Sea (Rudescu, 1961); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Ponds in Oltina, SE Dobrogea, Romania (Popescu-Gorj & Costea, 1961); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); 3 lakes in Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Middle course of river Loire, France (Lair & Sargos, 1981); Hamburg area, Germany (Rühmann, 1961); R. Oltet & its most important tributaries, Rom. (Rogoz, 1972); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Etang de la Tour, Sologne, France (Pourriot, 1965); River Sambre in Hachette, France (Waeyaert, 1973); Fens in Genk, Belgium (Schepens, 1960); Lago Trasimeno, Italy (Taticchi, 1968); Pool in C Norway (Thomasson, 1979); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Peat bog area "Het Hol", Kortenhoef, NL (Vos-Kelk & Davids, 1977); Serbian section of river Danube (Zivkovic, 1987); China (Wulfert, 1968); All over Spain (Velasco, 1990); Lake Biwa-ko, Japan (Yamamoto, 1960b); River Cernia basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Reservoir Vrané, 17 km S of Prague, CSR (Sladecek, 1962b)

- Nearctic region: Crater Lake, Walker L. & Stoneman L., Arizona, USA (Green, 1986); Brainard L., Redrock L., Long L. & L. Isabelle, N Colorado, USA (Thomasson, 1964); L. Breitenbush, Papoose L., Jenny L., Waterton L., Bow L. & Larix L., Rocky mts. USA (Thomasson, 1962); Pond near Edmonton, Alberta, Canada (Daborn, 1974); Massey L., 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991); Northern Ontario lakes, Canada (Roff & Kwiatkowski, 1977); Colorado, USA (Turner, 1988); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Acid lakes in Maine, USA (Brett, 1989); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Alberta, Canada (Stewart & Green, 1976); Great Dismal Swamp, Virginia-N Carolina border, USA (Anderson, Benfield & Buikema, 1977); Waterton lakes, Alberta, Canada (Anderson & Green, 1976); Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); Canada

(Chengalath, 1977); Ontario, Canada (Chengalath & Fernando, 1973); NE Canada (Chengalath & Koste, 1983); 9 mountain lakes in W Canada (Anderson & De Henau, 1980); Deggs Lake, Highland L., Parvin L., Hayden's L., Redrock L., Gansby Reservoir, Colorado, USA (Pennak, 1966); Wisconsin, Illinois & Kentucky, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Lake Weir, Florida, USA (Beaver & Crisman, 1990); Ontario, Canada (Chengalath *et al.*, 1971); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Newfoundland lakes, Canada (Chengalath *et al.*, 1984); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Vinton county, Ohio, USA (Evans, 1984); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); In borrow-pit ponds, N Illinois, USA (Lipsey & Malcom, 1981); Lakes in Santee, California, USA (Nogrady, 1982); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Clearwater L. & Swan L., near Sudbury, Ontario (Yan & Geiling, 1985); Triangle Lake, Portage County, Ohio, USA (Havens, 1991); Lakes in the Churchill Falls area, Labrador, Can. (Duthie & Ostrovsky, 1974)

- Oriental region: NE India (Sharma, 1987); Taiwan (Suzuki, 1988); Taiwan, Thailand, Malaysia, Indonesia, Sri Lanka & the Philippines (Suzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Lake Parakrama, Sri Lanka (Fernando, 1984); Philippines (Mamaril & Fernando, 1978); Singapore & Malaysia (Karunakaran & Johnson, 1978); Danau Teleko, near Palembang, Sumatra (Bērziņš, 1982a); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Several localities in Sri Lanka (Chengalath & Fernando, 1973); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); Impoundment Kinda, C Burma (Koste & Tobias, 1990); W Bengal, NE India (Sharma, 1978c); Lake Ramu Lamongau, Indonesia (Green *et al.*, 1976); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); South India (Naidu, 1967); Dal Lake, a Kashmir Himalayan lake, India (Vass & Zutshi, 1983); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: NSW, Qld, S Aust. & Vic (Shiel & Koste, 1979); Lower river Murray (Shiel, Walker & Williams, 1982); Tasmania (Koste & Shiel, 1967; Shiel, Koste & Tan, 1989); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); River Murray at Mannum, S Aust. (Koste, 1980); S Tasmania (Koste, Shiel & Tan, 1988); Billabongs of the Murray-Darling system, Aust. (Shiel, 1986); SW Aust. (Koste, Shiel & Brock, 1983); Valley Lake, freshwater temperate Aust. crater lake (Green, 1981); Mt. Paparoa; swamp near Dunedin; swamp near mt. Hayes, South Island, New Zealand (Bērziņš, 1982); In many localities in Australia (Bērziņš, 1982a); Darling river, SE Aust. (Koste & Shiel, 1980); Sidney reservoirs, NSW, Aust. (Thomasson, 1973); Many localities in New Zealand; Chatham Islands (Russell, 1960); Cosmopolitan in a remarkable range of habitats: standing & flowing waters, fresh to saline, soda lakes, acid moss pools etc. Common in Australia: pancontinental. Extremely variable eurytopic species (Koste & Shiel, 1990a)

- Neotropical region: River Santa Fé, Argentina (José de Paggi, 1976b); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Sierra (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992); E Chaco & Rio de la Plata, Argentina (Martinez & José de Paggi, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Provinces in NW Argentina (José de Paggi, 1989); Amazonia, Brazil (Hauer, 1965b; Gillard, 1967; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Paraguay, Venezuela, Argentina, Brazil, Peru, Bolivia, Surinam, Antilles, Panama (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Laguna del Tesoro, Cuba (Alonso, 1984); Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990a); Chilean lakes (Schmid-Araya, 1991); Lake Escondido, prov. Rio Negro, Argentina (Balseiro & Modenutti, 1990); Prov. Tierra del Fuego, Chubut, Rio Negro, Neuquen, San Luis, Cordoba, Chaco, Corrientes, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire, Curaçao, Caribbean Islands, Haiti & Panama (Collado *et al.*, 1984); Argentine Patagonia (Kuczynski, 1987b); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Buenos Aires, prov. Neuquen, Rio Negro & Tierra del Fuego, Argentina (Olivier, 1965); Araucarian lakes, W & E of the Andes, Chile; Araucarian lakes and pools (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Chile (Löffler, 1962); Lago Cigana, Amazonia, Brazil (Schaden, 1977c); Lake Massaya & L. Tiscapa, Nicaragua (Moreno *et al.*, 1992)

- Antarctic region: Potter peninsula, Antarctica (José de Paggi, 1982a; Paggi, 1986); Antarctica (Dartnall & Hollowday, 1985; Suzuki, 1988); Antarctica & Subantarctica (José de Paggi & Koste, 1984); Signy Island, Antarctica (Dartnall, 1987)

Lecane lunaris (Ehrenberg), f. *australis* Bērziņš, 1982

- Australian region: Lake Catani, mt. Buffalo, Vic, Aust. (Bērziņš, 1982); Ibid. Perhaps formalin artefact (Shiel & Koste, 1985); Falls within the range of variation of the parent species and is here synonymised (Koste & Shiel, 1990a)

Lecane lunaris (Ehrenberg), f. *crenata* (Harring, 1913): See *Lecane crenata*

Lecane lunaris (Ehrenberg), f. *perplexa* (Ahlstrom, 1938)

- Palaearctic region: River Ybbarspān, Sweden (Bērziņš, 1979); Asiatic Turkey (Dumont & De Ridder, 1987); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b & 1989d); Carpathes, Hungarian plain, C Eur. plain, Iceland, Boreal highlands (Bērziņš, 1978); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); N Iceland (De Ridder, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); In periphyton of mosses in the Danube near Vienna and some alpine brooks (Donner, 1964); Southwest islands of Japan (Sudzuki *et al.*, 1992); Lake Neusiedlersee, Austria (Donner, 1972d & 1979); Plateau des Tailles, Belgium (De Ridder, 1980); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); Lake Mosogoaia, Romania (Godeanu, 1961a); In tap water Gent, Belgium (De Ridder, 1992); 2 impoundments in Spain (Velasco, 1990)

- Nearctic region: Illinois & Kentucky, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Arctic N America (Chengalath & Koste, 1989)

- Oriental region: India (Sharma & Michael, 1980; Sudzuki, 1989); ? Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: In many localities in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985; Koste & Shiel, 1990a); Tasmania (Koste & Shiel, 1987); Lake Katrine, New Zealand (Russell, 1960)

- Neotropical region: River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Pov. Rio Negro & Santa Fé, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b)

Lecane macrodactyla Daday

- Oriental region: Sri Lanka (Mendis & Fernando, 1962)

Lecane magna (Stenoos, 1898)

- Palaearctic region: Coast of S Finland (Eriksen, 1969); C Eur. mountains, C & E Eur. plains, Iceland, N Tundra, NW Russian taiga (Bērziņš, 1978); N, W & SW Iceland (De Ridder, 1969b, 1970 & 1972); Ketelven near Nijmegen, NL (Dresscher, 1976); Serbian section of river Danube (Zivkovic, 1987)

- Oriental region: Malaysia (Sudzuki, 1989)

Lecane marchantaria Koste & Robertson, 1983

- Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Panguana, Peru (Koste, 1988b)

Lecane margalefi de Manuel, 1992

- Palaearctic region: Balearic Archipelago, Spain (de Manuel *et al.*, 1992)

Lecane margarethae Segers, 1991

- Neotropical region: NW Provinces of Argentina (José de Paggi, 1989); Lake Monte Galan, Nicaragua (Moreno *et al.*, 1992)

Lecane marlieri Gillard, 1967

- Neotropical region: Amazonia, Brazil (Gillard, 1967; Thomasson, 1971); ? Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)

Lecane matsaluensis Riikoja, 1933

- Palaearctic region: Baltic province of Europe (Bērziņš, 1978)

Lecane mawsoni Russell, 1958

- Antarctic region: Antarctica (Sudzuki, 1988); Antarctica & Subantarctica (José de Paggi & Koste, 1984)

Lecane melini Thomasson, 1953

- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Rio Uatumá, Amazonia, Brazil (Koste & Hardy, 1984); Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lago do Macaco, Brazil (Koste, 1989a); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Lago Jurucui & Rio Negro, Amazonia, Brazil (Schaden, 1977c); Rio Negro, Brazil (Serruya & Pollingher, 1984)

Lecane methoria Harring & Myers, 1926

- Palaearctic region: Peat bogs in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b)

- Nearctic region: Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974)

- Neotropical region: Amazonia, Brazil (Thomasson, 1971); Lago Cigana, Amazonia, Brazil (Schaden, 1977c); Ecuador: Oriente (Koste & Böttger, 1989 & 1992)

Lecane mira (Murray, 1913)

- Palaearctic region: Small lakes in Estonia (Haberman & Mäemets, 1987); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Coast of S Finland (Eriksen, 1969); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Nat. Res. Neeruti Lakes, NE Estonia (Mäemets A. & A., s.d.); N Swedish Lapland (Pejler, 1962a); Achmer Grasmoor, NW Germany (Koste, 1968b); Romania (Rudescu, 1960); Corbi Ciungi plain, ± 50 km W-NW of Bucarest, Romania (Botoseanu & Negrea, 1961); Pyrenees, C Eur. mountains, Carpathes, C & E Eur. plains, Boreal highland, N Tundra, NW Russian taiga (Bērziņš, 1978); 3 lakes of Sosnowickie, Poland (Radwan, 1968 & 1969); Japanese inland waters (Yamamoto, 1960a); Shores of dammed or flowing stretches of r. Danube at the German-Austrian border (Donner, 1972); Southwest islands of Japan (Suzuki *et al.*, 1992); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960; Dresscher, 1976); Pool in C Norway (Thomasson, 1979); Spain: Gerona (Velasco, 1990); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Lac Pavin & Lac Montcineyre, Puy-de-Dôme, France (Persoone *et al.*, 1968); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966)
- Nearctic region: Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Redrock Lake, Colorado, USA (Pennak, 1966); Wisconsin, USA (Bērziņš, 1984); Colorado, USA (Turner, 1988); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Pond in Jasper Nat. Park, USA (Thomasson, 1962); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991)
- Oriental region: Singapore (Suzuki, 1989)
- Australian region: Brisbane, Australia (Shiel & Koste, 1985); S Tasmania & Qld, Aust. (Koste, Shiel & Tan, 1988); Widely distributed in acid (*Sphagnum*) waters. (Koste & Shiel, 1990a); There is an unverified record from Qld (Bērziņš, 1982)

Lecane mitis (Harring & Myers, 1926)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina (Anderson, Benfield & Buikema, 1977)

Lecane monostyla (Daday, 1897)

- Palaearctic region: Spain, C & E Eur. plains, Caucasus (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1970); Lava caves of mountain Fuji, Japan (Suzuki, 1971a); Mountain Fuji, Japan (Suzuki, 1971b); Mountain Fuji area, Japan (Suzuki, 1978a)
- Nearctic region: Canada (Chengalath, 1977)
- Oriental region: Swamp near Menggala, Sumatra (Bērziņš, 1982a); Thailand, Malaysia & Indonesia (Suzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981)
- Australian region: Lake Euramoo, tropical Queensland Aust. crater lake (Green, 1981); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld, Aust. (Shiel & Koste, 1985); Pantropical & pansubtropical, also in temperate latitudes in summer. Single record from Lake Euramoo, Qld. (Koste & Shiel, 1990a)

- Neotropical region: Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); River Parana, Argentina (José de Paggi, 1985); Ecuador: Oriente & Costa (Koste & Böttger, 1989); Ecuador: Oriente (Koste & Böttger, 1992); E Chaco & Rio de la Plata, Argent. (Martinez & José de Paggi, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Provinces in NW Argentina (José de Paggi, 1989); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil; Paraguay. Also known from New Guinea, Sumatra, Africa (N Rhod.), USA, Katanga, R.F. (Moscow area) (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Paraguay, Brazil, Argentina, Venezuela, Surinam & Peru (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Santiago del Estero, Chaco & Santa Fé, Argentina (José de Paggi, 1990); Panama (Collado *et al.*, 1984); In phytotelmata on Jamaica (Koste *et al.*, 1991); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Argentina (José de Paggi, 1979); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992)

Lecane monostyla bryocola Suzuki, 1971

- Palaearctic region: Lakes near mountain Fuji, Japan (Suzuki, 1971b)

Lecane mucronata Harring & Myers, 1926

- Nearctic region: Canada (Chengalath, 1977); Wisconsin, USA (Bērziņš, 1984); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Cranberry bog, Ontario, Canada (Chengalath & Mulamoottil, 1974); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Silver Lake, Adirondack mts., NY State (Siegfried, 1991); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Mt. Tremblant Nat. Park, Québec, Canada (Nogady, 1980)

Lecane murrayi (Hauer, 1965)

- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil & Venezuela (Koste & José de Paggi, 1982); Orinoco river basin, Venezuela (Vasquez, 1984a); Il sand of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente (Koste & Böttger, 1992)

Lecane murrayi (Hauer), f. *larga* Koste, 1978

- Nearctic region: Ross Lake, Florida, USA (Bienert, 1986)

Lecane muscicola (Bryce, 1891)

- Palaearctic region: Peat bogs in the Caucasus (Tarnogradsky, 1961a)

Lecane mylacris Harring & Myers, 1926

- Australian region: Creek in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); North America.

Not recorded in our collections. Unconfirmed record from Central Vic, Aust. (Koste & Shiel, 1990a)

Lecane myriophylli Varga, 1945

- Palaearctic region: Lake Balaton, Hungary (Zankai, 1968); Hungarian plain (Bērziņš, 1978)

Lecane nana (Murray, 1913)

- Palaearctic region: Romania (Rudescu, 1960); River Danube (Enaceanu & Brezeanu, 1970); Spain: Huelva (Velasco, 1990); Camargue, S France (De Ridder, 1960a & 1961); Baisse salée, Camargue, S France (Aguesse, 1960); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Brackish ponds in S Finland (Björklund, 1972a); Minorca, Spain (de Manuel, 1990); Italy, Spain, Alps, C Eur. mountains, Carpathes, Hungarian plain, Pontic province, C & E Eur. plains, Iceland, Caspian area (Bērziņš, 1978); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); Rügener, Hiddensee & Darszer Boddenwässer, NE Germany (Schwarz, 1963); Lake Balaton, Hungary (Zankai, 1968); Marismas, Spain (De Ridder, 1962b); N, W & SW Iceland (De Ridder, 1966a, 1967a, 1970 & 1972); Japanese inland waters (Yamamoto, 1960a); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Brackish waters near Bruges, Belgium (De Ridder & Verheyen, 1980; De Ridder, 1986); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Anatolia, Turkey (Segers *et al.*, 1992); In reed borders of the river Danube, Rom. (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Canada (Chengalath, 1977); Illinois & Missouri, USA (Bērziņš, 1984); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Laurel Creek reservoir, Ontario, Canada (Chengalath & Mulamoottil, 1974)

- Oriental region: India (Sharma & Michael, 1980); Rajasthan, India (Nayar, 1968); Thailand, Indonesia & India (Suzuki, 1989); Singapore. Distribution: warm waters (Suzuki, 1991); W Bengal, NE India (Sharma, 1978a); Bangkok, Thailand (De Ridder, 1971); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Nimeta water works, near Baroda, India (Wulfert, 1966); 2 ponds at Pilani, Rajasthan, India (Nayar, 1970)

- Australian region: Creek & lake in Australia (Bērziņš, 1982); L. Barrine, tropical Queensland Aust. crater lake (Green, 1981); Qld, Aust. (Shiel & Koste, 1979); Stock dam near Tunbridge, Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Cosmopolitan in fresh and brackish waters. Rare in Aust.: Qld, Vic, Tas. (Koste & Shiel, 1990a)

- Neotropical region: Bolivia, Venezuela, Brazil, Antilles & Panama (Koste & José de Paggi, 1982); Ecuador: Sierra (Koste & Böttger, 1989); Ecuador: Oriente & Sierra (Koste & Böttger, 1992); Provinces in NW Argentina (José de Paggi, 1989); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Caribbean part of the Neotropis (De Ridder, 1977); Prov. Rio Negro, San Luis, Cordoba & Santiago del Estero, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Antilles françaises (Pourriot, 1975)

Lecane nana (Murray), f. *monostyla* Rodewald, 1940

- Palaearctic region: Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Carpathes & E Eur. plains (Bērziņš, 1978)

Lecane neali Wulfert, 1966

- Oriental region: Nimeta water works, near Baroda, India (Wulfert, 1966); India (Sharma & Michael, 1980; Suzuki, 1989)

Lecane niotthis Harring & Myers, 1926

- Palaearctic region: C & E Eur. plains, Caspian area (Bērziņš, 1978)

- Nearctic region: Canada (Chengalath, 1977)

Lecane nodosa Hauer, 1938

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a); Lake Numasawa, Japan (Suzuki *et al.*, 1989)

- Nearctic region: Experimental ponds, C Florida, USA (Fry & Osborne, 1980)

- Oriental region: Singapore (Karunakaran & Johnson, 1978); India (Sharma & Michael, 1980); Malaysia, Singapore, Indonesia & India (Sudzuki, 1989); Indonesia (Koste, 1972f); Kalimantan (Borneo), Indonesia (Koste, 1988a); Thailand (Boonsom, 1984b); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: Lake in Australia (Bērziņš, 1982); NT, Aust. (Koste & Shiel, 1980c); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); In periphyton. Java, India. Rare in Aust.: Jabiluka, NT & Lake Catani, Vic (Koste & Shiel, 1990a)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Caribbean Islands, Haiti, Panama (Collado *et al.*, 1984)

Lecane nodosa Hauer, f. *elongata* Sudzuki, 1992

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

Lecane nymphae Sudzuki, 1992

- Oriental region: Malaysia (Sudzuki, 1989)

Lecane obtusa (Murray, 1913)

- Palaearctic region: Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); C & S Sweden (Bērziņš & Pejler, 1987, 1989a & 1989d); Europe, including R.F. (Koste, 1972f); Iberic peninsula, C & E Eur. plains, Boreal highlands (Bērziņš, 1978); Spain: Valencia (Velasco, 1990)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); 9 mountain lakes in W Canada (Anderson & De Henau, 1980); Illinois & Kentucky, USA (Bērziņš, 1984); USA (Koste, 1972f); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: Swamp near Menggala, Sumatra (Bērziņš, 1982a); India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Lake Parakrama, Sri Lanka (Fernando, 1984); Indonesia, Sri Lanka & India (Sudzuki, 1989); Java & Sumatra (Koste, 1972f); Kalimantan (Borneo), Indonesia (Koste, 1988a); Several localities in Sri Lanka (Chengalath & Fernando, 1973); Parakrama Samudra, Sri Lanka (Fernando & Rajapaksa, 1983); Belur, in the Howrah district, India (Sharma, 1979)

- Australian region: Creek in Australia (Bērziņš, 1982); L. Euramoo, tropical Queensland Aust. crater lake (Green, 1981); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld & Vic, Aust. (Shiel & Koste, 1985); Cosmopolitan pH-tolerant, eurytopic. In Aust. known only from L. Euramoo, Qld, and Jackendaada Creek (Koste & Shiel, 1990a)

- Neotropical region: Prov. in NW Argentina (José de Paggi, 1989); Varzea near Santarem, Brazil (Koste, 1974b); Brazil, Venezuela, Colombia, Panama, Antilles (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Prov. La Rioja, Tucuman & Santiago del Estero, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Caribbean Islands; Panama (Collado *et al.*, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane obtusa (Murray), f. *vastita* (Harring & Myers, 1926)

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982)

Lecane ohioensis (Herrick, 1885)

- Palaearctic region: Romania (Rudescu, 1960); Iberic peninsula, Italy, Alps, C Eur. mountains & plains, Carpathes, Pontic province, NW Russian taiga, Caspian area (Bērziņš, 1978); Sea and brackish ponds, S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); Rügener, Hiddensee & Darszer Boddenwässer, NE Germany (Schwarz, 1963); Latorica, E Slovakia Lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Lower delta of river Volga, R.F. (Chuykov, 1981); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973); Parczew area peat bogs, Poland (Radwan, 1974); Periphytic biota in sewages & park waters, Jap. (Sudzuki, 1981); Serbian section of river Danube (Zivkovic, 1987); Spain: Tarragona (Velasco, 1990)

- Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1977); Deggs Lake & Highland L. Colorado, USA (Pennak, 1966); Illinois & Kentucky, USA (Bērziņš, 1984); Illinois river, USA (Brown *et al.*, 1989); Colorado, USA (Turner, 1988); Kingston, Ontario, Canada (Nogrady, 1989); Stoneman Lake, Arizona, USA (Green, 1986); Lac Echo, Québec, Canada (Nogrady, 1976); Laurel Creek reservoir, Ontario, Canada (Chengalath & Mulamoottil, 1974); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Near Monroe, Louisiana, USA (Gallagher, 1966)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Malaysia, Indonesia, Sri Lanka & India (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988b); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1973); In a few localities on Sri Lanka (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal, NE India (Sharma, 1978a)

- Australian region: Castlereagh river, Murray-Darling system, Aust. (Shiel, 1986); Tasmania (Koste & Shiel, 1987); Qld & Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Cosmopolitan in littoral of freshwaters. Rare in Aust.: NT, Qld, S Aust., Tas. (in moderately) saline stockdams, East coast (Koste & Shiel, 1990a)

- Neotropical region: L. Owain, Rio Snia Missu, Mato Grosso, C Brazil (Green, 1972); River Parana, Argentina (Paggi & José de Paggi, 1974); Ecuador: Orienta & Costa (Koste & Böttger, 1989); Ecuador: Costa (Koste & Böttger, 1992); Argentina (Modenutti & Claps, 1988); Brazil & Argentina (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Chaco & Santa Fé, Argentina (José de Paggi, 1990); Haiti (Collado et al., 1984); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971)

Lecane ohioensis appendiculata (Levander, 1894)

- Palaearctic region: Spain: Castellon & Valencia (Velasco, 1990)

- Australian region: Brackish stock dam, near St. Helens, Tasmania (Koste & Shiel, 1986b)

- Neotropical region: Paraguay (Koste & José de Paggi, 1982)

Note: See also *L. appendiculata*

Lecane ohioensis (Herrick), f. *ichtyoura* (Andersen & Shephard, 1982)

- Palaearctic region: Anatolia, Turkey (Segers et al., 1992); Minorca, Spain (de Manuel, 1990)

- Neotropical region: Galapagos Islands (De Smet, 1987)

Note: See also *L. ichtyoura*

Lecane ohioensis (Herrick), f. *jorroi* (Arevalo, 1918)

- Palaearctic region: Romania (Godeanu, 1961b); Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963); East Persian salt desert, Ozbahkuh area, Iran (Ruttner-Kolisko, 1966); Caucasus (Tarnogradsky, 1961b)

Lecane opias Harring & Myers, 1926

- Palaearctic region: Romania (Rudescu, 1960); Darnsee near Epe, NW Germany (Koste, 1962); C Eur. mountains, Carpathes, C & E Eur. plains, Iceland, Caucasus (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1960 & 1970); N, W & SW Iceland (De Ridder, 1969b, 1970 & 1972); Japanese inland waters (Yamamoto, 1960a); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Nat. Res. Leimeersen, Assebroek, Belgium (De Ridder, 1992)

- Nearctic region: N America (Bērziņš, 1978); Lac Echo, Québec, Canada (Nogrady, 1976)

- Australian region: Creek of Yarra river, Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); S Tasmania (Koste, Shiel & Tan, 1988); Europe & America, between *Sphagnum*. Aufwuchs. Acidophil. Single record from Aust.: Yarra r., Mc Mahons Creek, Vic. Needs confirmation (Koste & Shiel, 1990a); Takahe valley, New Zealand (Russell, 1960)

- Neotropical region: Peru & Bolivia (Koste & José de Paggi, 1982)

Lecane ordwayi Bienert, 1986

- Nearctic region: Ross lake, Florida, USA (Bienert, 1986); Described from Florida (Koste & Shiel, 1990a)

Lecane ornata (Harring & Myers, 1926)

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982)

Lecane ozensis Yamamoto, 1953

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lecane ozolini Bērziņš, 1943

- Palaearctic region: Baltic province of Europe (Bērziņš, 1978)

Lecane papuana (Murray, 1913)

- Palaearctic region: River Loire, France (Lair et al., 1968; Lair, 1980); Iberic peninsula, Caucasus, Asia Minor. Subtropical Japanese inland waters (Bērziņš, 1978); Southwest islands of Japan (Suzuki et al., 1992); Anatolia, Turkey (Segers et al., 1992); Middle course of river Loire, France (Lair & Sargas, 1981); Caucasus (Tarnogradsky, 1961b); Spain: Valencia (Velasco, 1990)

- Nearctic region: Highland lake, Colorado, USA (Pennak, 1966); Colorado, USA (Turner, 1988); Walker Lake, Arizona, USA (Green, 1986)

- Oriental region: Java (Green & Oey, 1974); India (Sharma & Michael, 1980; Suzuki, 1989); Andhra Pradesh, S India (Dhanapathi, 1976); River Yamuna, India (Dvorakova, 1963); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1969 & 1980a); Rajasthan, India (Nayar, 1968); Madras, India (Pasha, 1961); NE India (Sharma, 1987); Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Suzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); All over Sri Lanka (Chengalath & Fernando, 1973); Taiwan. Distribution: warm waters (Suzuki, 1991); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal,

NE India (Sharma, 1978a); Bangkok; ricefield in Lamphoon; pool near r. Kwai in Kanchanaburi, Thailand (De Ridder, 1971); 2 Kumaun Himalayan lakes, India (Sharma & Pant, 1985); South India (Naidu, 1967); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); River Murray at Mannum, S Aust. (Koste, 1980); Creek in Australia (Bērziņš, 1982); Qld, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Between macrophytes in tropical & subtropical shallow waters. Rare in Aust.: NT, Qld, S Aust., Vic (Koste & Shiel, 1990a)

- Neotropical region: L. Hemmen & Fox's Pool, Rio Snia Missu, Mato Grosso, C Brazil (Green, 1982); River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1978 & 1985); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente & Costa (Koste & Böttger, 1989); Ecuador: Costa (Koste & Böttger, 1992); E Chaco & Rio de la Plata, Argentina (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Provinces in NW Argentina (José de Paggi, 1989); Panama: also USA (Florida), Mexico, New Guinea, India, Sri Lanka, Africa (L. Kariba, Nile, L. Vict.) (Koste, 1972f); Brazil, Venezuela, Colombia, Antilles, Argentina, Surinam & Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Catamarca, Tucuman, Cordoba, Santiago del Estero, Chaco & Santa Fé, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Caribbean Islands, El Salvador, Jamaica, Panama (Collado *et al.*, 1984); Lago de Valencia, Venezuela (De Infante, 1980); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); River Parana, Argentina (Bonetto, 1986); Brokopondo Lake, Surinam (Leentvaar, 1979); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Antilles françaises (Pourriot, 1975); Mato Grosso, Brazil (Turner & Da Silva, 1992); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Lake Cocibolca & pond in Esteli, Nicaragua (Moreno *et al.*, 1972)

Lecane paraclosterocerca (Pennak, 1939)

- Palaearctic region: Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a)

- Nearctic region: Kentucky, USA (Bērziņš, 1984); Vinton county, Ohio, USA (Evans, 1984)

- Oriental region: Malaysia & Singapore (Sudzuki, 1989); Singapore. Cosmopolitan. (Syn. of *L. pyriformis*?) (Sudzuki, 1991)

- Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b)

Lecane paradeciopiens (Nayar, 1968)

- Oriental region: Rajasthan, India (Nayar, 1968)

Lecane paradoxa (Steinecke, 1916)

- Palaearctic region: W Eur. plain (Bērziņš, 1978); Camargue, S France (De Ridder, 1960a & 1961); Basse salée, Camargue, France (Aguesse, 1960); Plateau des Tailles, Belgium (De Ridder, 1980 & 1986); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Lake Agigea, Romania (Rodewald-Rudescu & Godeanu, 1961); Spain: Granada (Velasco, 1990)

Lecane pauliani Bērziņš, 1960

- Oriental region: Singapore (Sudzuki, 1989)

Lecane pawłowski Wulfert, 1966

- Oriental region: Prata-pura reservoir, India (Wulfert, 1966); W Bengal, NE India (Sharma, 1978a); India (Sharma & Michael, 1980; Sudzuki, 1989)

Lecane paxiana Hauer, 1940

- Palaearctic region: Pond Mansfeldowna, near Sedlcan, upper Elbe river, CSR (Dvorakova, 1961); W & C Eur. mountains (Bērziņš, 1978)

Lecane pelatis Harring & Myers, 1926

- Nearctic region: Lac Echo, Québec, Canada (Nogrady, 1976)

Lecane perpusilla Hauer, 1929

- Palaearctic region: Romania (Rudescu, 1960); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); C Eur. mountains, Carpathes, C & E Eur. plains, Caucasus (Bērziņš, 1978); C & S Sweden (Bērziņš & Pejler, 1989d); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); Obretin embanked basin, Romania (Godeanu *et al.*, 1973); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Peats in the Caucasus (Tarnogradsky, 1960a); Caucasus (Tarnogradsky, 1960b)

- Oriental region: Philippines (Mamaril & Fernando, 1978; Sudzuki, 1989)

- Australian region: River Jarra, Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); In *Sphagnum* & capillary water of beach sands; single record of Jarra river near Ivanhoe, needs confirmation (Koste & Shiel, 1990a)

***Lecane pertica* Harring & Myers, 1926**

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)
 - Nearctic region: USA (Koste, 1972f); N America (Koste & Shiel, 1990a); Ross Lake, Florida, USA (Bienert, 1986)

- Oriental region: Sumatra (Koste, 1972f); NE India (Sharma, 1987); Singapore (Sudzuki, 1989); Indonesia (Koste & Shiel, 1990a)

- Australian region: NT, Aust. (Koste & Shiel, 1980c); NT, Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Acidophil. Rare in Aust.: billabongs of Magela Creek, NT (Koste & Shiel, 1990a)

- Neotropical region: S America (Koste & Shiel, 1990a); Orinoco river basin, Venezuela (Vasquez, 1984a); Lago do Macaco, Brazil (Koste, 1989a); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); ? Prov. Chaco, Argentina (José de Paggi, 1990); Ecuador: Oriente (Koste & Böttger, 1992)

***Lecane physalis* Wulfert, 1939**

- Palaearctic region: Dübener Heide, N Germany (Wulfert, 1960a & 1961); C Eur. mountains & plains (Bērziņš, 1978)

- Oriental region: Malaysia (Sudzuki, 1989)

***Lecane piovanelli* Bartos**

- Palaearctic region: C Eur. mountains (Bērziņš, 1978)

***Lecane plesia* Myers, 1934**

- Neotropical region: Caribbean part of the Neotropis (De Ridder, 1977); Antilles (Curaçao) (Koste & José de Paggi, 1982); Caribbean Islands (Collado *et al.*, 1984)

***Lecane plesiaides* Chengalath & Fernando, 1973**

- Oriental region: Pond in Tobowwa, Sri Lanka (Chengalath & Fernando, 1973); Sri Lanka (Fernando, 1980a; Sudzuki, 1989)

***Lecane projecta* Hauer, 1956**

- Oriental region: Taiwan (Sudzuki, 1988 & 1989)

- Neotropical region: River Parana, Argentina (Paggi & José de Paggi, 1974; José de Paggi, 1978a, 1978b & 1985); Rio Tocantins & Rio Negro, Amazonia, Brazil (Schaden, 1977c); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Lake Tinco, Orinoco floodplain lake, Venezuela (Hamilton *et al.*, 1990); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Lago Açu, Maranhão, Brazil (Reid & Turner, 1988); Amazonia, Brazil (Hauer, 1965; Gillard, 1967; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Venezuela, Brazil, Argentina (Koste & José de Paggi, 1982); Rio Jatapu & Rio Uatuma, Amazonia, Brazil (Koste & Hardy, 1984); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990); Prov. Santa Fé, Argentina (José de Paggi, 1990); Apure river, W Venezuela (Saunders & Lewis, 1988); L. Orsinera & L. Rio Claro, Orinoco floodplain lakes, Venezuela (Vasquez & Rey, 1992)

***Lecane psammophila* (Wiszniewski, 1932)**

- Palaearctic region: Romania (Rudescu, 1960); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Courland Spit, R.F. (Zhadin, 1972); W Balkan, C Eur. mountains, Pontic province, C & E Eur. plains & Boreal Highlands (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1960, 1968 & 1970); Rügener, Hiddensee & Darszer Boddenwässer, NE Germany (Schwarz, 1963); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Lake Ohrid, Balkan peninsula (Stankovic, 1960)

***Lecane pumila* (Rousselet, 1906)**

- Palaearctic region: C Eur. mountains, Pontic province, C Eur. plains, UK (Bērziņš, 1978); N Germany, Scotland, Sweden, CSR & Romania (Koste & Shiel, 1986b); Europe, Indonesia, N America. In moss in standing & flowing waters. (Koste & Shiel, 1990a)

- Nearctic region: Canada (Koste & Shiel, 1986b)

- Oriental region: Asia (Bērziņš, 1978); Java & Sumatra (Koste & Shiel, 1986b); Indonesia (Sudzuki, 1989)

- Australian region: Lake St. Clair, Tasmania (Koste & Shiel, 1986b); Single record from Aust.: Lake St.

Clair, Tas. (Koste & Shiel, 1990a)

***Lecane punctata* (Murray, 1913)**

- Palaearctic region: Iberic peninsula & C Eur. plains (Bērziņš, 1978); Minorca, Spain (de Manuel, 1990); Lake Võrtsjärv, Estonia (Kutikova & Haberman, 1986); Camargue, S France (De Ridder, 1960a & 1961); Rügener, Hiddenseer & Darsser Boddenwässer, NE Germany (Schwarz, 1963); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Anatolia, Turkey (Segers *et al.*, 1992); Spain: Alicante, Barcelona, Lerida & Valencia (Velasco, 1990)

- Nearctic region: N America (Bērziņš, 1978)

- Oriental region: Rajasthan, India (Nayar, 1968); India (Sharma & Michael, 1980; Sudzuki, 1989)

- Neotropical region: Prov. NW Argentina (José de Paggi, 1989); Prov. San Luis, San Juan, Cordoba & Santiago del Estero, Argentina (José de Paggi, 1990); Brazil, Venezuela, Antilles (Koste & José de Paggi, 1982); Near Rio de Janeiro, Brazil (Turner, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Bonaire (Collado *et al.*, 1984)

***Lecane pusilla* Harring, 1914**

- Palaearctic region: C & E Eur. plains (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Sudzuki *et al.*, 1992); Serbian section of river Danube (Zivkovic, 1987); Spain: Alicante (Velasco, 1990)

- Nearctic region: Wisconsin & Illinois, USA (Bērziņš, 1984)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Malaysia, Sri Lanka & India (Sudzuki, 1989); Ponds in Sri Lanka (Chengalath & Fernando, 1971); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal, NE India (Sharma, 1978a)

- Australian region: Creek in Australia (Bērziņš, 1982); Bromfield Swamp, tropical Queensland Aust. crater lake (Green, 1981); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld & Vic, Aust. (Shiel & Koste, 1985); C America, E Europe, Iran. Rare in Aust.: Bromfield Swamp, Qld; Vic (Koste & Shiel, 1990a)

- Neotropical region: Panama & Surinam (Koste & José de Paggi, 1982); Panama (Collado *et al.*, 1984); Ecuador: Costa (Koste & Böttger, 1992)

***Lecane pustulosa* Myers, 1938**

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Nearctic region: Ross Lake, Florida, USA (Bienert, 1986)

***Lecane pycina* Harring & Myers, 1926**

- Nearctic region: Canada (Chengalath, 1977)

***Lecane pygmaea* Daday, 1897**

- Palaearctic region: Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Lakes of Sosnowickie, E Poland (Radwan, 1968 & 1969); Japanese inland waters (Yamamoto, 1960a); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Caucasus (Tarnogradsky, 1961b); Peat bog "Het Hol", Kortenhoef, NL (Vos-Kelk & Davids, 1977); Nat. Res. "Het Hol", Kortenhoef, & Grote Huisven, Oisterwijk, NL (Dresscher, 1976)

- Nearctic region: Canada (Chengalath, 1977); Northern Michigan inland lakes (Stemberger, 1990)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Taiwan & Thailand (Sudzuki, 1989)

- Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980)

***Lecane pyriformis* (Daday, 1905)**

- Palaearctic region: Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Romania (Rudescu, 1960); Heilunshan province, China (Bogoslawski, 1962); Asiatic Turkey (Dumont & De Ridder, 1987); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Minorca, Spain (de Manuel, 1990); Achmer Grasmoor, NW Germany (Koste, 1968b); Peat bogs in the Massif Central, France (Batut, 1965); Baikal Cellulose plant, Lake Baikal, R.F. (Pomazkova & Kozhova, 1976); C Eur. mountains, Carpathes, Hungarian plain, Pontic province, W, C & E Eur. plains, NW Russian taiga, Caucasus. Cosmopolitan (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1978); Lake Balaton, Hungary (Zankai, 1968); Praha, CSR (Sladecek, 1968); Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a); Camargue, S France (De Ridder, 1960a & 1961); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Nat. Res. Meyendel; Prov. Zuid-Limburg; Grote Huisven, Oisterwijk, NL (Dresscher, 1976); Peat bogs in the Auvergne, France (Francez, 1981); Peat bog Chambédaize, Puy-de-Dôme, France (Francez, 1982); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Anatolia, Turkey (Segers *et al.*, 1992); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Luga district of the Leningrad

area, R.F. (Kutikova, 1962b); In reed borders of the river Danube, Romania (Rudescu, 1968); Ponds in the Botanical Garden, Gent, Belgium (Segers *et al.*, 1991); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Spain: Madrid (Velasco, 1990)

- Nearctic region: Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Illinois, USA (Bērziņš, 1984); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Columbia reservoir, near Waterloo, Ontario, Can. (Chengalath & Mulamoottil, 1974); Vinton County, Ohio, USA (Evans, 1984); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Laurentian Great Lakes (Stemberger, 1979); Near Monroe, Louisiana, USA (Gallagher, 1966); Massey L., 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: India (Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); NE India (Sharma, 1987); Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Saravanay near Keyts, Jaffna, Sri Lanka (Chengalath, Fernando & Koste, 1974); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); W Bengal, NE India (Sharma, 1978a); In 2 Kumaun Himalayan lakes, India (Sharma & Pant, 1984 & 1985); Ricefields in NE Thailand (Heckman, 1979)

- Australian region: NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); NT, Qld & Vic, Aust. (Shiel & Koste, 1985); In many localities in Australia (Bērziņš, 1982); Lake Euramoo & Bromfield Swamp, tropical Queensland Australian crater lakes (Green, 1981); Cosmopolitan in inundation zones, periphyton, moss, margins of standing & flowing waters. Rare in Aust.: NSW, Qld, NT & Vic (Koste & Shiel, 1990a); Localities Westland & Buller, New Guinea (Russell, 1960)

- Neotropical region: Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989 & 1992); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Argentina (José de Paggi, 1979); Antilles françaises (Pourriot, 1975); In phytotelmata on Jamaica (Koste *et al.*, 1991); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Caroni river basin, Venezuela (Vasquez, 1984b); Arroyo Rodriguez, prov. de Buenos Aires, Arg. (Modenutti, 1987); Prov. in NW Argentina (José de Paggi, 1989); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Paraguay, Venezuela, Colombia, Brazil, Antilles, Argentina, Surinam, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Chilean lakes (Schmid-Araya, 1991); Found in half the territory of Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Bonaire, Caribbean Islands, Panama (Collado *et al.*, 1984); Argentine Patagonia (Kuczynski, 1987b)

Lecane pyrrha (Harring & Myers, 1926)

- Palaearctic region: C Eur. plains (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1977); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Ross lake, Florida, USA (Bienert, 1986); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Northern Michigan inland lakes (Stemberger, 1990); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980)

- Australian region: Beaufort dam, Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); N America, in soft acid waters. Not recorded in this study. Single record from Victoria by Bērziņš (1982) needs confirmation (Koste & Shiel, 1990a)

Lecane quadridentata (Ehrenberg, 1832)

- Palaearctic region: Romania (Rudescu, 1960); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Po river, Italy (Ferrari *et al.*, 1989); Afghanistan (Bērziņš, 1961); Coast of S Finland (Eriksen, 1969); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Alkal. Péteri-See, Hungary (Kertesz, 1960); Lake Numasawa, Japan (Sudzuki *et al.*, 1989); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); In C Europe during warm summers (Koste, 1983); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1970); Lake Balaton, Hungary (Zankai, 1968); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968);

Lake Donk, Overmere, Belgium (Dumont, 1968b); Lake Akgöl, Selçuk-Izmir, Turkey (Ustaoglu & Balik, 1987); Lake Marmara, Turkey (Ustaoglu, in press); Camargue, S France (De Ridder, 1960a & 1961); Marismas, Spain (De Ridder, 1962b); Lower Volga, R.F. (Chuykov & Merkulov, 1986); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Sudzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Lakes de Venematen; L. Zuidelijke Vechtplassen; De Eem; peat pits in NW Overijssel; river Waal, NL (Dresscher, 1976); Eeklo (het Leen), Belgium (De Maeseneer, 1979); Eeklo & Overmere, Belgium (De Ridder, 1986); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); 3 lakes, N of Bucharest, Romania (Godeanu, 1969b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Anatolia, Turkey (Segers *et al.*, 1992); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); In reed borders of the river Danube, Romania (Rudescu, 1968); Parczew area peat bogs, Poland (Radwan, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Doiran Lake, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Lago Trasimeno, Italy (Taticchi, 1968); Caucasus (Tarnogradsky, 1961b); Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Serbian section of river Danube (Zivkovic, 1987); Spain: Barcelona, Castellon, Huelva, Orense, Tarragona & Valencia (Velasco, 1990); Coastal Prefectures Tottori & Shimane-Ken, Jap. (Sudzuki & Fukuta, 1992); Lake Biwa-ko, Japan (Yamamoto, 1960b); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Canada (Chengalath, 1977); Ontario, Canada (Chengalath & Fernando, 197); Deggs Lake, Little Swede n°1 L., Hayden's Lake, Colorado, USA (Pennak, 1966); Illinois & Kentucky, USA (Bérziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Kingston, Ontario, Canada (Nogrady, 1989); Lac Echo, Québec, Canada (Nogrady, 1976); Ontario, Canada (Chengalath *et al.*, 1971); Cranberry bog, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Northern Michigan inland lakes, USA (Stemberger, 1990); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); In borrow-pit ponds, N Illinois, USA (Lipsey & Malcom, 1981); Lac Echo, Québec, Canada (Nogrady, 1976); Laurentian Great Lakes (Stemberger, 1979); Mantondan marsh, Northumberland Cy, Pa, USA (Seelbach & McDowell, 1983); James bay area, Canada (Pinel-Alloul *et al.*, 1979); Near Monroe, Louisiana, USA (Gallagher, 1966); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Experimental ponds near Bakersfield, Kern Co, California (Hurlbert *et al.*, 1972); Crater Lake, Walker Lake & Stoneman Lake, Arizona, USA (Green, 1986); Massey L., 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: Kalimantan (Borneo), Indonesia. Cosmopolitan (Koste, 1988a); NE India (Sharma, 1987); Taiwan (Sudzuki, 1983); Taiwan, Thailand, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Tank near Nagpur, C India (Arora, 1965, 1966c & 1966d); Oxidation pond in Nagpur, C India (Arora, 1966a); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1969 & 1980a); Singapore (Karunakaran & Johnson, 1978); Surinam (Leentvaar, 1975); Rajasthan, India (Nayar, 1968); Lakelet Tan Taha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Several localities in Sri Lanka (Chengalath & Fernando, 1973); Thailand (Boonsom, 1984b); Nursery fishpond, Delhi, India (George, 1966); Panjab State, India (Sharma & Sharma, 1984); W Bengal State, NE India (Sharma, 1978a & 1979a); Orissa, E India (Sharma, 1980b); In two sewage channels of Gwalior, India (Saksena & Kulkarni, 1986); Bangkok, Thailand (De Ridder, 1971); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966); Several localities in the 24-Panganas & Howrah districts, India (Sharma, 1979c)

- Australian region: Tasmania (Koste & Shiel, 1987); Lake Purrumbete, freshwater temperate Aust. crater lake (Green, 1981); Swamp near Lake Hayes, South Island, New Zealand (Bérziņš, 1982a); Qld, Vic, Aust. (Shiel & Koste, 1979); NW Aust.: Magela Creek (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Cosmopolitan, warm-stenotherm, between macrophytes in littoral of fresh and slightly brackish waters. Rare in Aust.: NT, Qld, Vic & W Aust. (Koste & Shiel, 1990a)

- Neotropical region: River Parana (José de Paggi, 1978a); Tropical rain forest in Peru (Schlüter, 1984); Antilles françaises (Pourriot, 1975); Grand Bahama Islands, West Indies (Nogrady, 1983); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Floodplain of Rio Solimoes, Brazil (Aranjo-Lima & Hardy, 1987); Lago do Macaco, Brazil (Koste, 1989a); Arroyo Rodriguez, prov. de Buenos-Aires, Argentina (Modenutti, 1987); Prov. in NW Argentina (José de Paggi, 1989); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Paraguay, Brazil, Venezuela,

Colombia, Argentina, Peru, Antilles, Surinam, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Chilean lakes (Schmid-Araya, 1991); In nearly the whole of Argentina (José de Paggi, 1990); Caribbean Islands, Jamaica & Panama (Collado *et al.*, 1984); Argentine Patagonia (Kuczynski, 1987b); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Lago do Rei, Amazonia, Brazil (Schaden, 1977c)

Lecane quadridentata (Ehrenberg), f. *arthrodactyla* Bērziņš, 1982

- Australian region: Lake Barracoota, Australia (Bērziņš, 1982a)

Lecane quadridentata (Ehrenberg), f. *gigantea* Koste, 1988

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a)

Lecane quadridentata (Ehrenberg), f. *grandis* Heckman, 1979

- Oriental region: Ricefields in NE Thailand (Heckman, 1979)

Lecane quintata Sudzuki, 1992

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

Lecane remanei Hauer, 1964

- Neotropical region: Tapajos river area, a tributary to the Orinoco, Venezuela (Hauer, 1964); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Rio Negro & Lago Jurucui, Amazonia, Brazil (Schaden, 1977c)

Lecane rhacois Harring & Myers, 1926

- Australian region: Chatham Islands (Russell, 1960)

Lecane rhenana Hauer, 1929

- Palaearctic region: C Eur. mountains & plains (Bērziņš, 1978); ? La Mancha, Castill., Spain (Armengol *et al.*, 1975); Mountain Fuji lava caves, Japan (Sudzuki, 1971a); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a); Lake Nobel, Ukraina (Polishchuk, 1991); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Spain: ? Ciudad real, ? Sevilla (Velasco, 1990)

- Nearctic region: Northern Michigan inland lakes (Stemberger, 1990)

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Indonesia (Sudzuki, 1989)

- Neotropical region: Argentina, Venezuela, Panama, Guatemala (Koste & José de Paggi, 1989); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Prov. Santa Fé, Argentina (José de Paggi, 1990)

Lecane rhopalura Harring & Myers, 1926

- Nearctic region: Laurentian Great Lakes (Stemberger, 1979); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988)

- Australian region: Swamp near Dunedin, South Island, New Zeal. (Bērziņš, 1982a)

Lecane rhytida Harring & Myers, 1926

- Nearctic region: USA (Koste, 1972f); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); N America, soft acid waters (Koste & Shiel, 1990a)

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Indonesia (Sudzuki, 1989)

- Australian region: Yarra river, Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); S Tasmania (Koste, Shiel & Tan, 1988); Not recorded in this study. Single record from Victoria by Bērziņš needs confirmation (Koste & Shiel, 1990a)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989 & 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Colombia, Brazil & Venezuela (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Chaco, Argentina (José de Paggi, 1990); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane robusta Sudzuki, 1989

- Oriental region: Malaysia & Sri Lanka (Sudzuki, 1989)

Lecane rotundata (Olofsson, 1918)

- Palaearctic region: Alps, C Eur. mountains, N Eur. tundra (Bērziņš, 1978); N Swedish Lapland (Pejler, 1962a); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Japanese inland waters (Yamamoto, 1960a); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); N Europe & Japan (Koste & Shiel, 1990a)

- Nearctic region: Near Kingston, Ontario, Canada (Nogrady, 1989); Illinois & Kentucky, USA (Bērziņš,

1984); Cape Herschel, Ellesmore Island, NWT, Can. (Nogrady & Smol, 1989); Arctic N America (Chengalath & Koste, 1989)

- Oriental region: Singapore (Suzuki, 1989)

- Australian region: Lake Pedder, S Tasmania (near Strathgordon) (Koste, Shiel & Tan, 1988); Only known from L. Pedder, Tas (Koste & Shiel, 1990a)

- Neotropical region: Brokopondo Lake, Surinam (Leentvaar, 1979); Guatemala (Collado *et al.*, 1984); Surinam (Koste & José de Paggi, 1982)

Lecane rudescri Hauer, 1965

- Palaearctic region: Poland & R.F. (Koste & Shiel, 1990a)

- Neotropical region: Amazonia, Brazil (Hauer, 1965; Thomasson, 1971; Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil. Second record in the Amazon near Manaos. (the first by Hauer, 1965) (Koste, Robertson & Hardy, 1984)

Lecane ruttneri Hauer, 1938

- Oriental region: Singapore & Indonesia (Suzuki, 1989); Indonesia (Koste & Shiel, 1990a); Sumatra (Koste, 1972f)

- Australian region: Vic, Australia (Koste & Shiel, 1980a); Single record in Aust.: Lake Boort, Vic (Koste & Shiel, 1990a)

- Neotropical region: Amazonia, Brazil (Koste, 1972f)

Lecane rylovi Tarnogradsky, 1961

- Palaearctic region: Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b)

Lecane saginata (Harring & Myers, 1926)

- Palaearctic region: C Eur. mountains & plains (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1960); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Maria- and Helenapeel, NL (Dresscher, 1976)

- Nearctic region: N America (Bērziņš, 1978); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Northern Michigan inland lakes (Stemberger, 1990)

- Oriental region: W & E Malaysia & Singapore (Fernando & Zankai, 1981); Malaysia (Suzuki, 1989)

- Neotropical region: Amazonia, Brazil (Thomasson, 1971)

Lecane sagula Harring & Myers, 1926

- Palaearctic region: Peat bogs in the Puy-de-Dôme, France (Francez, 1981 & 1984c; Francez & Pourriot, 1984); Peat bogs Chambéry & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Caucasus (Tarnogradsky, 1961b)

- Nearctic region: Northern Michigan inland lakes (Stemberger, 1990)

Lecane satyrus Harring & Myers, 1926

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Canada (Chengalath, 1977); Ross lake, Florida, USA (Bienert, 1986); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Bog pond on Cape Breton Island, Canada (Koste, 1983); Between *Sphagnum* in N America & N Canada (Koste, 1988c); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980)

- Oriental region: Taiwan (Suzuki, 1989)

Lecane schraederi Wulfert, 1966

- Oriental region: Nimeta water works, near Baroda, India (Wulfert, 1966); India (Sharma & Michael, 1980; Suzuki, 1989)

Lecane scobis Harring & Myers, 1926

- Palaearctic region: Boreal highlands of Europe (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978); Grizzly Lake, Banff Nat. Park, USA (Thomasson, 1962)

Lecane scutata (Harring & Myers, 1926)

- Palaearctic region: Bog pond near Budapest, Hungary (Nogrady, 1962); Romania (Rudescu, 1960); All over Europe. Cosmopolitan (Bērziņš, 1978); Impoundments Sädenbach & Neunzehnhain, G. (Althaus, 1976); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); C & S Sweden (Bērziņš & Pejler, 1989a, 1989c & 1989d); N Swedish Lapland (Pejler, 1962a); R.F., CH, Germany, Poland, CSR & Romania (Koste, 1972f); River Grabia basin, Poland (Pawlowski, 1960, 1968 & 1970); 3 lakes of Sosnowickie, E Poland (Radwan, 1968 & 1969); Lake Balaton, Hungary (Zankai, 1968); Peat bogs Chambéry & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Peat bog Chambéry, Massif Central, France (Francez, 1982, 1987 & 1988); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Lakes De Venematen; Maria- & Helenapeel, NL (Dresscher, 1976); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Fens in Genk, Belgium (Schepens,

- 1960); Lake Ohrid, Balkan peninsula (Stankovic, 1960); Serbian section of river Danube (Zivkovic, 1987); Waters near Bodrog river, NE Hungary (Dévai *et al.*, 1972/1973); Spain: Alicante (Velasco, 1990)
- Nearctic region: NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Wisconsin & Missouri, USA (Bērziņš, 1984); USA (Koste, 1972f); Lac Echo, Québec, Canada (Nogrady, 1976)
 - Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); NE India (Sharma, 1987); Indonesia & Sri Lanka (Sudzuki, 1989); Java & Sumatra (Koste, 1972f); Sri Lanka: in a gem-pit, Ratnapura (Chengalath, Fernando & Koste, 1973); In 2 localities of the 24 Parganas & Howrah districts, India (Sharma, 1979)
 - Australian region: Tasmania (Koste & Shiel, 1987); NT, Aust.: Magela Creek floodplain (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); NT, Aust. (Shiel & Koste, 1985); Cosmopolitan; acidophil, in *Sphagnum*. Rare in Aust.: NT, S Aust., Tasmania (Koste & Shiel, 1990a)
 - Neotropical region: Venezuela, Brazil, Argentina, Surinam, Antilles (Koste & José de Paggi, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1992); Argentina (José de Paggi, 1979); Amazonia, Brazil; Haiti; Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Prov. Santa Fé, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire, Curaçao, Caribbean Island & Haiti (Collado *et al.*, 1984)

Lecane seculata

- Oriental region: 2 Kumaun Himalayan lakes, India (Sharma & Pant, 1985)

***Lecane serrata* Hauer, 1938**

- Oriental region: Singapore (Karunakaran & Johnson, 1978); Kalimantan (Borneo), Indonesia (Koste, 1988a); Singapore & Indonesia (Sudzuki, 1989)

***Lecane serrata* Hauer, f. *echinata* Koste, 1988**

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a)

***Lecane sibina* Harring, 1914**

- Palaearctic region: Alps & C Eur. mountains (Bērziņš, 1978); ? Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); ? Lakes near mountain Fuji, Japan (Sudzuki, 1971b); ? Mountain Fuji area, Japan (Sudzuki, 1978a)
- Nearctic region: Northern Michigan inland lakes (Stemberger, 1990)
- Neotropical region: Amazonia, Brazil (Thomasson, 1971); Haiti & Panama (Collado *et al.*, 1984); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980)

***Lecane signifera* (Jennings, 1896)**

- Palaearctic region: Dragon Pond, Gyokusen-dō Cave, Japan (Sudzuki & Hosoyama, 1991); Southwest islands of Japan (Sudzuki *et al.*, 1992)
- Nearctic region: Lac Echo, Québec, Canada (Nogrady, 1976); Canada (Chengalath, 1977); Wisconsin, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Pinehurst Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Northern Michigan inland lakes (Stemberger, 1990); Bay of Quinte, Lake Ontario, Canada (Nogrady, 1988)
- Oriental region: Danan Teleko, near Palembang, Sumatra (Bērziņš, 1982a); NE India (Sharma, 1987); Bung-Borapet, C Thailand (Koste, 1975a); Impoundment Kinda, C Burma (Koste & Tobias, 1990)
- Australian region: Lake Catani, Mt. Buffalo, Aust. (Bērziņš, 1982); Darling river, SE Aust. (Koste & Shiel, 1980a); Qld, Aust. (Shiel & Koste, 1979); E Aust. (Koste & Shiel, 1980b); Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Cosmopolitan. Possibly acidophile. Rare in Australia: NT, Qld, Tas & Vic (Koste & Shiel, 1990a)
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1992); E Chaco & Rio de la Plata basin, Argent. (Martinez & José de Paggi, 1988); Argentina (Modenutti & Claps, 1988); Brazil & Panama (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Mato Grosso, Brazil (Turner & Da Silva, 1992)

***Lecane signifera* (Jennings), f. *aquila* (Harring & Myers, 1926)**

- Palaearctic region: C Eur. plains & UK (Bērziņš, 1978)

***Lecane signifera* (Jennings), f. *glandulosa* Sudzuki, 1991**

- Oriental region: Singapore (Sudzuki, 1991)

***Lecane signifera* (Jennings), f. *ploenensis* Voigt, 1909**

- Palaearctic region: Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Spain: Valencia (Velasco, 1990); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn,

1985); Pelagic zone of the Leczna-Wlodawa lakes, Pol. (Radwan, 1975); Lakes near Mikolajskie, Mazurian lakel., Poland (Klimowicz, 1967); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Iberic peninsula, Alps, C Eur. mountains & plains, UK, Iceland, NW Russian taiga (Bērziņš, 1978); Lago Trasemino, Italy (Taticchi, 1968); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + De Geritsfles, Kootwijk, NL (Dresscher, 1976); Romania (Rudescu, 1960); Coast of S Finland (Eriksen, 1969); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Peat bogs in the Massif Central, France (Batut, 1965); N Iceland (De Ridder, 1970 & 1972); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970)

- Nearctic region: Canada (Chengalath, 1977); Kentucky, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Northern Michigan inland lakes (Stemberger, 1990); Par pond, S Carolina, USA (Oden, 1979); ? Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); ? Lake 122, NW Ontario, Canada (Schindler & Novén, 1971)

- Oriental region: India (Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); Rajasthan, India (Nayar, 1968); NE India (Sharma, 1987); Thailand, Indonesia, Sri Lanka, India, Philippines (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); In several localities of Sri Lanka (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal, NE India (Sharma, 1978a); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Ricefields in NE Thailand (Heckman, 1979); Nimeta water works near Baroda, India (Wulfert, 1966)

- Australian region: Qld & NSW, Aust. (Shiel & Koste, 1979); Qld, Aust. (Shiel & Koste, 1985); E Aust. (Koste & Shiel, 1980b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); NSW, NT, Qld, Aust. (Koste & Shiel, 1990a); Lake Wanaka, New Zealand (Russell, 1960)

- Neotropical region: Crescent Lake, Rio Snia Missu, Mato Grosso, C Brazil (Green, 1972); Ecuador: Oriente (Koste & Böttger, 1989 & 1992); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Hauer, 1965; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco river and its delta, Venezuela (Vasquez & Rey, 1989); Venezuela, Colombia, Brazil, Argentina & Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Uatumá, Amazonia, Brazil (Koste & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Cuba, Haiti & Panama (Collado *et al.*, 1984); Prov. Chaco & Santa Fé, Argentina (José de Paggi, 1990); Argentina (José de Paggi, 1979); Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lecane similis Russell, 1959

- Australian region: Chatham Islands (Russell, 1960)

Lecane sinuata (Hauer, 1938)

- Palaearctic region: Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a)

- Oriental region: Storage reservoir Prata-pura, India (Wulfert, 1966); Singapore (Karunakaran & Johnson, 1978); India, Taiwan & Indonesia (Sudzuki, 1989); India (Sharma & Michael, 1980); 3 localities in 24-Parganas & Howrah districts, India (Sharma, 1979); W Bengal, NE India (Sharma, 1978a)

- Australian region: ? Tasmania (Koste & Shiel, 1986b); Sumatra, India. Rare in Aust.: Tas (Koste & Shiel, 1990a)

Lecane sinuosa Nogrady, 1957

- Palaearctic region: Hungarian plain (Bērziņš, 1978)

Lecane sola Hauer, 1938

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Oriental region: India (Sharma & Michael, 1980); Kalimantan (Borneo), Indonesia; C Burma (Koste, 1988a); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Nimeta water works, near Baroda, India (Wulfert, 1966); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b)

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989)

Lecane solfatarae Hauer, 1938

- Oriental region: Indonesia (Sudzuki, 1989)

Lecane spenceri (Shephard, 1892)

- Australian region: Vic, Aust. (Shiel & Koste, 1979)

Lecane spinulifera (Edmondson, 1935)

- Neotropical region: Lake Paulista, near Rio de Janeiro, Brazil (Turner, 1990); Also: Edmondson (1934): Hispanolian lakes, Haiti; Nogrady: brackish ponds near the beach and on Grand Bahama Island, West Indies

(1983) Everglades Nat. Park, Florida; Myers (1941): Florida; First record for S America, and the first for the S hemisphere and Brazil; Haiti (Collado *et al.*, 1984)

***Lecane stenroosi* (Meiszner, 1908)**

- Palaearctic region: All over Europe; Caucasus, Caspian area (Bērziņš, 1978); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Japanese inland waters (Yamamoto, 1960a); Koyama-Ike, a coastal pond in Japan (Sudzuki & Fukuta, 1989); Darnsee near Epe, NW Germany (Koste, 1962); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); Volga river, R.F. (V'yushkova & Lakhnova, 1974); River Klyas'ma, R.F. (Bogoslawski, 1961); Coast of S Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Pools of the Upper Elbe river, CSR (Dvorakova, 1961); District Ostrava, CSR (Dvorakova, 1960b); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Impoundment Kninicki, CSR (Kubicek, 1964); River Grabia basin, Poland (Pawlowski, 1968 & 1970); Lakes of Sosnowickie, Poland (Radwan, 1968); Lake Balaton, Hungary (Zankai, 1983); Canals in Hran area, CSR (Terek, 1990c); Obretin lake, Danube delta, Rom. (Neagu-Godeanu *et al.*, 1968); Akgöl, Selçuk-Izmir, Turkey (Ustaoglu & Balik, 1987); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Lake Neusiedlersee, Austria (Donner, 1972); River Danube (Enaceanu & Brezeanu, 1970); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Lake Victoria, Oltenia area, Romania (Marx *et al.*, 1967); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); 3 lakes of Sosnowickie, Poland (Radwan, 1969); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Spain: Valencia (Velasco, 1990); Lake Biwa-ko, Japan (Yamamoto, 1960b); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)
- Nearctic region: Canada (Chengalath, 1977); Wisconsin & Missouri, USA (Bērziņš, 1984); Pinehurst Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1978); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: Taiwan, Thailand, Malaysia, Sri Lanka, India & Philippines; (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Danan Teleko, near Palembang, Sumatra (Bērziņš, 1982a); India (Sharma & Michael, 1980); Andhra Pradesh, S India (Dhanapathi, 1976); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); NE India (Sharma, 1987); Handapangala Tank, Sri Lanka (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); W Bengal, NE India (Sharma, 1978a); 3 localities in the 24-Parganas & Howrah districts, lower Bengal, India; (Sharma, 1979); Nimeta water works, near Baroda, India (Wulfert, 1966)
- Australian region: Darling river, SE Aust. (Koste & Shiel, 1980); Qld & NSW, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Widespread, but isolated. Abundant in algal mats & ephemeral pools, in periphyton and littoral of larger waters. Warmstenotherm. Rare in Aust.: NSW & Qld (Koste & Shiel, 1990a)
- Neotropical region: Arroyo Rodriguez, prov. de Buenos Aires, Arg. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Surinam (Leentvaar, 1975); Brazil & Surinam (Koste & José de Paggi, 1982); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Prov. San Luis, Rioja, Tucuman, Santa Fé & Buenos Aires, Argentina (José de Paggi, 1990); Costa Rica (Collado *et al.*, 1984); Rio Parana medio, Argentina (José de Paggi, 1982b)

***Lecane stenroosi* (Meiszner), f. *californica* Wulfert, 1966**

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

***Lecane stenroosi* (Meiszner), f. *lineata* Wulfert, 1966**

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992); Coastal Prefectures Tottori & Shimane-Ken, Jap. (Sudzuki & Fukuta, 1992)

- Oriental region: India (Wulfert, 1966; Sharma & Michael, 1980)

***Lecane stichaea* Harring, 1913**

- Palaearctic region: N Swedish Lapland (Pejler, 1962a); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Romania (Rudescu, 1960); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Afghanistan (Bērziņš, 1961); Moor in Skopun, Faröer (De Smet *et al.*, 1988); Coast of S Finland (Eriksen, 1969); Lake Mikolajskie, Mazurian lakeland, Poland (Klimowicz, 1972a); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Peat bogs in the Massif Central, France (Batut, 1965); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); All over Europe; Caucasus (Bērziņš, 1978); River Ybbarspå, Sweden (Bērziņš, 1979); Lakes of Sosnowickie, E Poland (Radwan, 1968 & 1969); Peat bogs

Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1988); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + Nat. Res. "Het Hol" near Kortenhoef; Maria- and Helenapeel; lakes in the Leersumse veld; Hilversumse wasmeer, NL (Dresscher, 1976); Hilversumse Wasmeer & Leersumse veld, NL (Leentvaar, 1967b); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Installations for water treatment in Okocim, Pol. (Klimowicz, 1975); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Karelian inland waters, R.F. (Kutikova, 1965); Leczna-Włodawa lake district, E Poland (Kowalczyk & Radwan, 1982); Parczew area peat bogs, Poland (Radwan, 1974); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Peat bogs in the Paris suburb, France (Pourriot, 1965); Garden ponds in Tokyo, Japan (Suzuki, 1975); Pool in C Norway (Thomasson, 1979); Tap water, Gent, Belgium (De Ridder, 1992); Wiszni III Pond in Golysz, Poland (Lewkowicz, 1972); Spain: Barcelona, Gerona, Orense, Valencia & Zamora; Andorra (Velasco, 1990)

- Nearctic region: Canada (Chengalath, 1977); Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Wisconsin, Illinois & Missouri, USA (Bērziņš, 1984); Ross lake, Florida, USA (Bienert, 1986); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Northern Michigan inland lakes (Stemberger, 1990); ? Lake 132, NW Ontario, Canada (Schindler & Novén, 1971)

- Oriental region: Madras, India (Pasha, 1961); India (Sharma & Michael, 1980); Malaysia, India & Indonesia (Suzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988)

- Australian region: In many localities in Australia (Bērziņš, 1982); Tasmania (Koste & Shiel, 1987); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); S Aust. (Koste & Shiel, 1980c); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NW Aust.: Magela Creek; (Koste, 1981b); Cosmopolitan in standing waters, springs. Rare in Aust.: 3 records, all flowing waters: Magela Creek, NT, river Murray, S Aust. & Macquarie river, Tasmania (Koste & Shiel, 1990a)

- Neotropical region: Chilean lakes (Schmid-Araya, 1991); Amazonia, Brazil (Koste, 1972f); Lago Paroni, Brazil (Koste, 1974a); Varzea near Santarem, Brazil (Koste, 1974b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente & Sierra (Koste & Böttger, 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1992); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Lower Orinoco and its delta, Venezuela (Vasquez & Rey, 1989); Venezuela & Brazil (Koste & José de Paggi, 1982); Prov. Chaco, Argentina (José de Paggi, 1990); Laguna Cocha Cashu, Amazonia, Brazil (Schaden, 1977c)

Lecane stichaea Harring, f. *amazonica* Koste, 1978

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ross Lake, Florida, USA (Bienert, 1986)

Lecane stichaeoides Hauer, 1938

- Oriental region: Thailand & Indonesia (Suzuki, 1989)

- Neotropical region: ? Lake Owain, Rio Snia Missu, Mato Grosso, C Brazil (with interesting records of distribution (Green, 1972); E Chaco & Rio de la Plata basin, Argentina (Martinez & José de Paggi, 1988); Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Concepcion, Paraguay (Koste, 1986b); Prov. Chaco, Argentina (José de Paggi, 1990)

Lecane stokesi (Pell, 1890)

- Palaearctic region: C Eur. mountains, W Eur. plains, UK (Bērziņš, 1978); Fens in Genk, Belgium (Schepens, 1960); Genk, Belgium (De Ridder, 1986); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Prov. Zuid-Limburg; Maria- & Helenapeel, NL (Dresscher, 1976); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); 3 lakes of Sosnowickie, Poland (Radwan, 1966 & 1968)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Canada (Chengalath, 1977); Illinois, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Mt. Tremblant prov. park, Québec, Canada (Nogrady, 1980)

- Oriental region: Sibpur, Howrah district, India (Sharma, 1979)

- Neotropical region: Surinam (Leentvaar, 1975; Koste & José de Paggi, 1982)

Lecane strandi Bērziņš, 1943

- Palaearctic region: Baltic province of Europe (Bērziņš, 1978)

Lecane submagna De Ridder, 1960

- Palaearctic region: W Eur. plain (Bērziņš, 1978)

Note: see also *Lecane luna*, f. *submagna* De Ridder

Lecane subtilis Harring & Myers, 1926

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a); Romania (Rudescu, 1960); Canal Hondsbosse vaart, NL (Dresscher, 1976); Darnsee near Epe, NW Germany (Koste, 1962); C Eur. mounains, C & E Eur. plains, Baltic prov., Caucasus, Asia Minor (Bērziņš, 1978); Lakes of Sosnowickie, E Poland (Radwan, 1968 & 1969); Peat bogs Chambedaze & La Godivelle, Massif Central, France; (Francez & Dévaux, 1985); Peat bog Chambedaze, Massif Central, France (Francez, 1982, 1987 & 1988); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Water-courses in the Bucegi mts. Romania (Godeanu, 1963b); Marshy zones on the plateau of the Bucegi mountains, Romania (Godeanu, 1969a); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Impoundment in Spain (Velasco, 1990); Parczew area peat bogs, Poland (Radwan, 1974); Middle course of river Loire, France (Lair & Sargas, 1981); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Pond Chylinski Maly II, Lipowy pond & Wiszni III pond, Poland; (Lewkowicz, 1972)

- Nearctic region: Ross Lake, Florida, USA (Bienert, 1986)

- Oriental region: Singapore & Malaysia (Karunakaran & Johnson, 1978); Philippines (Mamaril & Fernando, 1978); Singapore, Indonesia, Philippines (Sudzuki, 1989)

- Australian region: Creek in Vic, Aust. (Bērziņš, 1982); NT, Aust. (Shiel & Koste, 1985); Probably cosmopolitan. Not recorded in this study. Unconfirmed record from Sunbury, Vic (Koste & Shiel, 1990a; Bērziņš, 1982)

- Neotropical region: Brazil (Koste & José de Paggi, 1982)

Lecane subulata (Harring & Myers, 1926)

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Achmer Grasmoor, near Druchhorn, NW Germ. (Koste, 1965); W Balkan, C Eur. mountains, Carpathes, C & E plains, UK, N Eur. tundra, Caucasus (Bērziņš, 1978); Lakes of Sosnowickie, E Poland (Radwan, 1968 & 1969); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Id. + S Part of Noordzee, NL (Dresscher, 1976); Plateau des Tailles & Samrée, Belgium (De Ridder, 1980 & 1986); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Peats in the Caucasus (Tarnogradsky, 1961a); Caucasus (Tarnogradsky, 1961b); Nat. Res. Ronde Put, Postel, Belgium (De Ridder, 1992)

- Nearctic region: Illinois, USA (Bērziņš, 1984)

- Australian region: S Tasmania (Koste, Shiel & Tan, 1988); Not recorded from Australia (Koste & Shiel, 1990a)

- Neotropical region: Chilean lakes (Schmid-Araya, 1991); Chile (Koste & José de Paggi, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lecane sulcata Gosse, 1886

- Palaearctic region: W Balkan, Carpathes, Pontic province, C Eur. plain, UK (Bērziņš, 1978); Romania (Rudescu, 1960); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Oriental region: Impoundment Kinda, C Burma (Koste & Tobias, 1990)

Lecane supinoi Manfredi, 1929

- Palaearctic region: Italy (Bērziņš, 1978)

Lecane sverigis Ahlstrom, 1934

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lecane sylvatica Harring, 1913

- Nearctic region: Illinois, USA (Bērziņš, 1984)

Lecane sympoda (Hauer, 1929)

- Palaearctic region: Spain, Italy, C Eur. mts., Hungarian plain, Pontic prov., Caucasus. Cosmopolitan; (Bērziņš, 1978); Romania (Rudescu, 1960); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Lake Balaton, Hungary (Zankai, 1968); Caucasus (Tarnogradsky, 1961b); Serbian section of river Danube (Zivkovic, 1987); Spain: Valencia & impoundment elsewhere (Velasco, 1990)

- Nearctic region: Canada (Chengalath, 1977); Wisconsin & Illinois, USA (Bērziņš, 1984); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Pond in Jasper Nat. Park, USA (Thomasson, 1962)

- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Ponds in Sri Lanka (Chengalath & Fernando, 1978); Philippines (Mamaril & Fernando, 1978); Singapore (Karunakaran &

- Johnson, 1978); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal, NE India (Sharma, 1978a); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Nimeta water works, near Baroda, India (Wulfert, 1966); Singapore, Indonesia, Sri Lanka, India, Philippines; (Sudzuki, 1989)
- Australian region: N Qld, Aust. (Shiel & Koste, 1985); Tasmania (Koste & Shiel, 1987); Cairns, Qld, Aust. (after C. H. Fernando, pers. comm.). Is unverified (Koste & Shiel, 1990a)
 - Neotropical region: Brazil (Koste & José de Paggi, 1982); Ecuador: Oriente & Sierra (Koste & Böttger, 1989); Ecuador: Oriente (Koste & Böttger, 1992); Galapagos Islands (De Smet, 1987 & 1989); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lecane syngenes (Hauer, 1938)

- Nearctic region: Illinois, USA (Bērziņš, 1984)
- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Sri Lanka. Met with also in Indonesia (Chengalath, Fernando & Koste, 1974); 2 localities in the 24-Parganas & Howrah districts, India; (Sharma, 1979); Malaysia, Indonesia, India (Sudzuki, 1989)
- Neotropical region: Brazil (Chengalath, Fernando & Koste, 1974); ? Tropical rain forest near the coast, 70 km S of Rio de Janeiro, Brazil (Donner, 1980); Ecuador: Oriente (Koste & Böttger, 1989); Amazonia, Brazil. Also Venezuela, Philippines, Indonesia, Sumatra, Spain, Germany, Romania & R.F. (Caucasus) (Koste, 1972f)

Lecane tabida Harring & Myers, 1926

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Amazonia, Brazil (Hauer, 1965; Thomasson, 1971); Ecuador: Oriente (Koste & Böttger, 1992)

Lecane tasmaniensis Koste & Shiel, 1985

- Australian region: Lake St. Clair road, Tasmania (Koste & Shiel, 1985); Tasmania (Koste & Shiel, 1986b & 1987); Stock dams in Tasmania (Shiel, Koste & Tan, 1989); Apparently endemic to Tasmania (west coast & Tasman peninsula) (Koste & Shiel, 1990a)

Lecane tenuiseta Harring, 1914

- Palaearctic region: Romania (Rudescu, 1960); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1982); Coast of S Finland (Eriksen, 1969); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); River Hase, NW Germany. Cosmopolitan, eurytopic (Koste, 1983); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Peat bogs in the Massif Central, France (Batut, 1965); Lake Donk, Overmere, Belgium (Coussement & De Henau, 1975; Coussement, 1976; De Ridder, 1986); Balkan, Carpathes, Pontic prov., C & E Eur. plains, Boreal heights, NW Russian taiga, Caucasus, Caspian area (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1970); Lake Balaton, Hungary (Zankai, 1968); Lakes near mountain Fuji, Japan (Sudzuki, 1971b); Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Mountain Fuji area, Japan (Sudzuki, 1978a); Etang de Pommereau, Loir-et-Cher, France (Tassigny *et al.*, 1970); Lake Aumar & L. Aubert, Pyr. Central., France (Rey, 1988a); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Nat. Res. Oisterwijkse venen, NL (De Graaf, 1960); Id. + Amsterdam area; Nat. Res. "Het Hol" near Kortenhoef, NL (Dresscher, 1976); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Caucasus (Tarnogradsky, 1961b); Peat bog area "Het Hol", Kortenhoef, NL (Vos-Kelk & Davids, 1977); Serbian section of river Danube (Zivkovic, 1987); Lipowy pond at Golysz, Poland (Lewkowicz, 1972); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA; (Anderson, Benfield & Buikema, 1977); Mesotrophic fen, Newfoundland, Canada (Bateman & Davis, 1980); NE Canada (Chengalath & Koste, 1983); Wisconsin, Illinois & Kentucky, USA (Bērziņš, 1984); Lac Echo, Québec, Canada (Nogradi, 1976); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a); Thailand & Indonesia (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Ricefields in NE Thailand (Heckman, 1979); L. Manguao, Palawan, the Philippines (Davies & Green, 1990)

- Australian region: River & Creek in Aust. (Bērziņš, 1982); SW Aust. (Koste, Shiel & Brock, 1983); NT, Aust. (Koste & Shiel, 1980c); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Cosmopolitan, eurytopic. Two records in Aust.: NT, WA (Koste & Shiel, 1990a); Westland, New Zealand and Chatham islands (Russell, 1960)

- Neotropical region: Island of Maraca, Roaraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente & Sierra (Koste & Böttger, 1989); Ecuador: Costa (Koste & Böttger, 1992); E Chaco & Rio de la Plata basin,

Argentina (Martinez & José de Paggi, 1988); Provinces in NW Argentina (José de Paggi, 1989); Panama, Colombia, Honduras & Antilles (Koste & José de Paggi, 1982); Near Concepcion, Paraguay (Koste, 1986b); Caribbean part of Neotropis (De Ridder, 1977); Caribbean islands & Panama (Collado *et al.*, 1984); Prov. Santiago del Estero & Chaco, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b)

Lecane tenuiseta Harring, f. *punctata* Carlin 1939

- Palaearctic region: Caucasus (Tarnogradsky, 1961b); Pool in C Norway (Thomasson, 1979)

Lecane tenuiseta Harring, f. *spina* Sudzuki, 1992

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

Lecane tessellata Arora, 1965

- Oriental region: Sakandhara Tank, near Nagpur, India (Arora, 1965 & 1966c); India (Sharma & Michael, 1980; Sudzuki, 1989)

Lecane thienemannii Hauer, 1938

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Oriental region: NE India (Sharma, 1987); India (Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Kalimantan (Borneo), Indonesia (Koste, 1988a); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Singapore, Indonesia, India, Philippines (Sudzuki, 1989); Storage reservoir Ajwa & Nimeta water works, India (Wulfert, 1966); 2 localities in the 24-Paranas & Howrah districts, lower Bengal, India (Sharma, 1979)

- Neotropical region: Ecuador: Oriente & Sierra (Koste & Böttger, 1992)

Lecane triloba Yamamoto, 1960

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lecane truncata Yamamoto, 1960

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lecane tryphema Harring & Myers, 1926

- Palaearctic region: Balkan, Carpathes, Pontic province, C & E Eur. plains (Bērziņš, 1978); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Lake Grote Huisven, in the Oisterwijkse vennen, NL (Dresscher, 1976); Romania (Rudescu, 1960); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); In reed borders of the Danube, Romania (Rudescu, 1968); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Nearctic region: N America (Bērziņš, 1978)

- Oriental region: Rajasthan, India (Nayar, 1968); India (Sharma & Michael, 1980; Sudzuki, 1989)

Lecane tudicola Harring & Myers, 1926

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); River Hase. Cosmopolitan; rare (Koste, 1983); Balkan, C & E Eur. plains, Boreal highlands, N Eur. tundra, NW Russian taiga (Bērziņš, 1978); Shores of dammed or flowing stretches of river Danube, at the German-Austrian border (Donner, 1972); Caucasus (Tarnogradsky, 1961b); Lakes in NE Norway (Saeter, 1971); Luga district in the Leningrad area, R.F. (Kutikova, 1962b); Pod Padurka pond, pond Chylinski Maly II and Baginiec pond, at Golysz, Poland (Lewkowicz, 1972)

- Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1977); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Pond in Jasper Nat. Park, USA; Grizzly Lake in Banff Nat. Park, USA (Thomasson, 1962)

- Australian region: Beauffort dam, Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Asia, N & S America. Unconfirmed record from Victoria (Koste & Shiel, 1990a); Chatham islands, New Zealand (Russell, 1960)

Lecane tudicola Harring & Myers, f. *dentata* Tarnogradsky, 1961

- Palaearctic region: Caucasus (Tarnogradsky, 1961; Bērziņš, 1978)

Lecane tuxeni De Ridder, 1970

- Palaearctic region: Iceland (De Ridder, 1970; Bērziņš, 1978)

Lecane uenoi Yamamoto, 1951

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lecane undulata Hauer, 1938

- Palaearctic region: River Volga, R.F. (Mordukhai-Boltovskoi, 1979b)

Lecane unguittata (Fadeev, 1925)

- Palaearctic region: N Swedish Lapland (Pejler, 1962a); Iberic peninsula, E Eur. plain, Caucasus, Caspian area (Bērziņš, 1978); Rare in E Europe (Koste & Shiel, 1990a); Japanese inland waters (Yamamoto, 1960a);

Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Nearctic region: Rare in N America (Koste & Shiel, 1990a)
- Oriental region: India (Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); NE India (Sharma, 1987); Kalimantan (Borneo), Indonesia (Koste, 1988a); Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Rare in Asia & Sri Lanka (Koste & Shiel, 1990a); Several localities in Sri Lanka (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Panjab State, India (Sharma, 1976; Sharma & Sharma, 1991); W Bengal, NE India (Sharma, 1978a); Storage reservoir Ajwa, Prata-Pura reservoir & Nimeta water works, near Baroda, India (Wulfert, 1966); Several localities in the 24-Parganas & Howrah districts, lower Bengal, India (Sharma, 1979)
- Australian region: Bromfield swamp, tropical Queensland crater lake (Green, 1981); NT, Aust. (Koste & Shiel, 1980c); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Rare in Aust.: billabongs at Alberty, NSW, and Jubiluka, NT (Koste & Shiel, 1990a)

Note: Nov. var. in Coleman river, Cape York, Qld, Aust. (Shiel & Koste, 1985)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Trinidad (Collado *et al.*, 1984); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago Cigano, Amazonia, Brazil (Schaden, 1977c); Ecuador: Oriente (Koste & Böttger, 1992)

Lecane ungulata (Gosse, 1887)

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Coast of S Finland (Eriksen, 1969); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Croatia, ex-Yugoslavia (Erben, 1987); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); District Ostrava, CSR (Dvorakova, 1960b); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany. Cosmopolitan (Koste, 1983); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); All over Europe; Caucasus, Caspian area, Asia Minor (Bérziņš, 1978); Romania (Rudescu, 1960); River Grabia basin, Poland (Pawlowski, 1960, 1968 & 1970); Lake Balaton, Hungary (Zankai, 1968); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Camargue, S France (De Ridder, 1960a & 1961); Marismas, Spain (De Ridder, 1962b); N Iceland (De Ridder, 1972); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Sudzuki *et al.*, 1992); Dübener Heide, Germany (Wulfert, 1961); Lake Neusiedlersee, Austria (Donner, 1979); Plateau des Tailles & Turnhout, Belgium (De Ridder, 1980 & 1986); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Lake Erken, Sweden (Nauwerck, 1963); River Rybi Potoc & valley Dolina Olczyska, Tatra mountains, Poland (Madalinski, 1961); Karelian inland waters, R.F. (Kutikova, 1965); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); 3 lakes of Sosnowickie, Poland (Radwan, 1969); River Volga, R.F. (Mordukhai-Boltovskoi, 1979b); Fens in Genk, Belgium (Schepens, 1960); Lago Trasimeno, Italy (Taticchi, 1968); Caucasus (Tarnogradsky, 1961b); Waters near Bodrog river, NE Hungary (Dévai *et al.*, 1972/1973); Spain: Huelva & Valencia (Velasco, 1990)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Canada (Chengalath, 1977); Ross Lake, Florida, USA (Bienert, 1986); NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Miller's Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1974); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Lac Echo, Québec, Canada (Nogrady, 1976); Crater Lake, Arizona, USA (Green, 1986); Massey L., 16 km N of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: NE India (Sharma, 1987); India (Sharma & Michael, 1980); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969 & 1980a); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Thailand, Malaysia, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); In many localities in Sri Lanka (Chengalath & Fernando, 1973); Singapore (Sudzuki, 1991); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Panjab State, India (Sharma, 1976; Sharma & Sharma, 1984); W Bengal, NE India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Storage reservoir Ajwa & Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: NT, Aust.: Magela Creek floodplain (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Creek in Aust. (Bérziņš, 1982); Qld, Aust. (Shiel & Koste, 1979); Cosmopolitan. Rare in Aust.: NT & Qld (Koste & Shiel, 1990a)

- Neotropical region: Brokopondo Lake, Surinam (Leentvaar, 1979); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Lake Owain & Fox's Pool, Rio Snia Missu, Mato Grosso, C

Brazil (Green, 1972); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Argentina (Martinez & José de Paggi, 1988); Lower Orinoco river & its delta, Venezuela (Vasquez & Rey, 1989); Provinces in NW Argentina (José de Paggi, 1989); Lago Paroni, Brazil (Koste, 1974a); Varzea near Santarem, Brazil (Koste, 1974b); Paraguay, Brazil, Venezuela, Surinam, Panama & Antilles (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Santiago del Estero, Chaco & Santa Fé, Argentina (José de Paggi, 1990); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire & Caribbean Islands (Collado *et al.*, 1984); Amazonia, Brazil (Hauer, 1965; Thomasson, 1971)

***Lecane unguilata* (Gosse), f. *acronycha* Harring & Myers, 1926**

- Palaearctic region: C Eur. plains (Bērziņš, 1978)
- Nearctic region: N America (Bērziņš, 1978)

Note: see also *L. acronycha*

***Lecane unguilata* (Gosse), f. *australiensis* Koste, 1979**

- Australian region: Goulburn river floodplain, Alexandra, Vic (Koste, 1979); NT, Aust.: Magela Creek floodplain (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Vic, Aust. (Shiel & Koste, 1979); Magela Creek billabongs, NT; Goulburn river billabongs, Vic (Koste & Shiel, 1990a)

***Lecane unguilata* (Gosse), f. *curvicornis* (Murray, 1913)**

- Palaearctic region: District Ostrava, CSR (Dvorakova, 1960b); Alps, Balkan, Carpathes, C Eur. plain, Asia Minor (Bērziņš, 1978)

Note: see also *L. curvicornis*

***Lecane unguilata* (Gosse), f. *nitida* Michael, 1968**

- Oriental region: Pond at Barrackpore, W Bengal State, India (Michael, 1968)

***Lecane unguilata* (Gosse), f. *tenuior* (Stenoos, 1898)**

- Palaearctic region: NW Russian taiga (Bērziņš, 1978)

***Lecane urna* Nogrady, 1962**

- Palaearctic region: Bog pond near Budapest, Hungary (Nogrady, 1962); Hungarian plain (Bērziņš, 1978)

***Lecane vastita* (Harring & Myers, 1926)**

- Nearctic region: Vinton county, Ohio, USA (Evans, 1984)

***Lecane venusta* Harring & Myers, 1926**

- Australian region: Creek in Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); N America & R.F.. Rare in Aust. Not recorded in this study. Unconfirmed record from Vic (Koste & Shiel, 1990a)

***Lecane verecunda* Harring & Myers, 1926**

- Palaearctic region: River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)
- Nearctic region: Pinehurst Lake, near Waterloo, Ontario, Canada (Chengalath & Mulamoottil, 1978); Canada (Chengalath, 1977)
- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Malaysia, Sri Lanka & India (Chengalath & Fernando, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); W Bengal, NE India (Sharma, 1978a)
- Australian region: Wellington, New Zealand (Russell, 1960)

***Lecane virga* (Harring, 1914)**

- Neotropical region: Panama (Collado *et al.*, 1984)

***Lecane* spec.**

- Palaearctic region: Lago Scuro Parmense, N Italy (Antonietti *et al.*, 1988); Lake Bielersee, CH (2 species) (Berner-Fankhauser, 1986); Middle course of river Po, Italy (sev. species) (Ferrari *et al.*, 1986); Po river, Italy (Ferrari *et al.*, 1989); 2 lakes in N Sweden (Axelson, 1961); Peat bogs in Finland (Selin & Koskinen, 1988); Jotumheimen, Norw. high mountains (Blakar & Jakobsen, 1979); Lakes Quackjeswater & Breede water, Voorne; Lake Vogelmeer in Ymuiden, NL (Leentvaar, 1963); Broads & peat pits in NW Overijssel, NL (Leentvaar, 1965); Lake Zwanewater in Callantsoog; L. Muy on Texel; L. Oerd in Ameland & L. Van Hunenplak, Terschelling (Leentvaar, 1967a); Moerdijk-Hollands Diep, NL (Leentvaar, 1980); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Asiatic Turkey (Dumont & De Ridder, 1987); Lake Königssee, Bavaria, Germany (Laxhuber, 1987); Impoundment Kninicki, CSR (Kubicek, 1964); Lake Blankvatn, near Oslo, Norway (Larsson, 1971); Nat. Res. Neeruti lakes, NE Estonia (Mäemets A. & A., s.d.); Lake Suwa, Japan (Hanazato *et al.*, 1989) Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Lake Sempachersee, CH (Zimmermann, 1974); Lake Mälaren, Sweden (Grönberg, 1975); Norfolk Broads, UK (Irvine *et al.*, 1990); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Lac d'Aydat, Massif

Central, France (Lair, 1978; Oulad Ali *et al.*, 1990); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Lake Derwart, near Tournai, Belgium (Bogaert & Dumont, 1989); Fish fattening ponds in the Ukraina (Krazhan *et al.*, 1976); Reservoir Sedlice, near Zeliv, Bohemia, CSR (Sladeckowa, 1960a); Slapy reservoir, 30 km upstream from Prague, CSR (Sladeckowa, 1960b); Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Ryukyu Shoto, SW Japan (Sudzuki, 1979b); Fukushima Prefecture, Japan (Sudzuki, 1982); Lake Nimetön, S Finland (Arvola *et al.*, 1986); Lago Trasimeno, Italy (Taticchi, 1968); Peats in the Caucasus (Tarnogradsky, 1961a); R. Oltet & its principal tributaries, Romania (Rogoz, 1972); Canal de Séclin, Nord, France (Angeli, 1972); Karagöl, Izmir, Turkey (Ustaoglu, 1986); Lake Poletskoye, 73 km W of Moskou, R.F. (Smirnov, 1961); Lough Erne system, NW Ireland (Gibson *et al.*, 1980); Hilversumse Wasmeer & Leersumse Veld, NL (Leentvaar, 1967b); Shores of dammed or flowing stretches of river Danube, at the German-Austrian border (Donner, 1972); In the lower Danube in Romania (Enaceanu, 1964); Estuary of river Elbe, Germany (Giere, 1968); Hamburg harbour, Germany (Tent, 1981); River Loire, France (Lair, 1980); Lac Pavin, Massif Central, France (Omaly, 1968); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982, 1987 & 1988); Dragon pond & Happy spring, Gyokusen-Dô cave, Japan (Sudzuki & Hosoyama, 1991); Southwest islands of Japan (Sudzuki *et al.*, 1992); Loosdrecht Lakes, NL (Van Tongeren *et al.*, 1992); All over the Netherlands (Dresscher, 1976); In several ponds in SW France (De Ridder, 1967b); River Elbe estuary, Germany (Schulz, 1961); Lake Uiversnest, near Nijmegen, NL (Geelen, 1969); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1987); River lower Sambre at Mornimont, Belgium (Dumont & Van Vossel, 1973); Brook-pond system at Boom, Belgium (Maes, 1985); River Bistritza & tributaries, Romania (Miron, 1960); Bog pond near Budapest, Hungary (Nogrady, 1962); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); Middle course of river Loire, France (Lair & Sargos, 1981); Hamburg area, Germany (Rühmann, 1961)

- Nearctic region: Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Lake Whitney, Cumberland Island Nat. Seashore, USA (Stoneberger & Schmock, 1980); Clearwater Lake & Swan Lake, near Sudbury, Ontario, Canada (Yan & Geiling, 1985); Hogans pond, Newfoundland, Canada (Davis, 1972); Spring pond & Cottonwood pond, Color., USA (Herrmann, 1977); Long pond, St. John's, Newfoundland, Canada (O'Connell & Andrews, 1977); Severson Lake, Minnesota, USA (Comita, 1972); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Baoline Long pond, Newfoundland, Canada (Davis, 1973); Experimental ponds, near Bakersfield, Kern Cy, California, USA (Hurlbert, 1972); Massey Lake, 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978); L. St. George, King township, Ontario, Canada (Malone & Mc Queen, 1983); Lake Michigan & Milwaukee Harbor, USA (Stemberger, 1974); Highland Lake & Redrock Lake, Colorado, USA (Pennak, 1966); Indiana, USA (Whitman *et al.*, 1988); Little Rock Lake, Wisconsin, USA (Frost & Montz, 1988); Mud Pond, S Grafton Cy, New Hampshire, USA (Wallace & Starkweather, 1983); Lake Brooker, Florida, USA (Sheda & Cowell, 1988); Fayetteville, Onondago Sp., NY State, USA (Jackson, 1972); Adirondack Lakes, NY State, USA (Siegfried *et al.*, 1984); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Greens Lake, Beaver Island, Michigan, USA (Foran & King, 1982); Lake Wabamun, Alberta, Canada (Gallup & Hickman, 1975); Lake 382, Experimental lake area, NW Ontario, Canada (Malley & Chang, 1991); Northern Michigan inland lakes (Stemberger, 1990); NW Colorado, USA (Cauton & Ward, 1981); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983)

- Oriental region: Sagar Lake, Sagar, India (Saksena & Adoni, 1973); Surinam (Leentvaar, 1975); Malaysia (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Singapore (Sudzuki, 1991); Reservoir Parakrama Samudra, Sri Lanka (Duncan, 1984); Himalaya (Suwalik & Kashmir) (Zutshi *et al.*, 1980); Rice paddy in Vientiane, Laos (Heckman, 1974); River Yamuna, India (Rai, 1974); Near Patiala, Punjab, India (Vasisht & Jindal, 1980); Lake Sat Tal, Utar Pradesh, India (Pant *et al.*, 1985); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); Montane lakes of Bali, Indonesia (Green *et al.*, 1978); Lake Surinsar, Jammu (J. & K.), India (Jyoti & Sehgal, 1979); Parakrama Samudra, Sri Lanka (Duncan, 1983a); Suray Kund, India (Sarkar & Rai, 1964); Freshwater pond at Barkreswar, W Bengal, India (Jana, 1973); Nepal valley lakes (Serruya & Pollingher, 1984)

- Australian region: In many localities in Australia (Bērziņš, 1982)

- Neotropical region: Eutrophic water Santa Fé, Argentina (José de Paggi, 1976); River Parana, Argentina (José de Paggi, 1978 & 1985); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Broa reservoir, Sao Paulo, Brazil (Matsumura-Tundisi & Tundisi, 1976); Arroyo Rodriguez, prov. de Buenos Aires, Argentina (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Lago Paroni, Brazil (Koste, 1974a); Amazonia, Brazil (Hauer, 1965b; Gillard, 1967; Thomasson, 1971; Koste, 1972f); South Brazil (Arcifa, 1984); Rivers in the E plain of Venezuela (Sanchez *et al.*, 1985); Bulabi pond, Aruba, Dutch Leeward Islands (Higler & Van Halewijn, 1991); In a floodplain of the lower Orinoco river, Ven. (Vasquez *et al.*, 1991); Lake Tilopozo, Salar de Atacama, Chile (Zuniga *et al.*, 1991); Lower Orinoco, Venezuela (Saunders

& Lewis, 1989); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Mato Grosso, Brazil (Turner & Da Silva, 1992); Lago Cristalino, Amazonia, Brazil (Hardy, 1980)

Lepadella Bory de St. Vincent, 1826

Subgenus *Eulepadella* Hauer, 1926

Lepadella abbei Wulfert, 1956

- Palaearctic region: Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); C Eur. plain (Bērziņš, 1978)

Lepadella acuminata (Ehrenberg, 1834)

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Lake Dümmen, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Lake Orog-Nur, Gobi desert, Mongolia (Koste & Wulfert, 1964); Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Peat bogs in the Massif Central, France (Batut, 1965); All over Europe, Caucasus, Caspian area. Cosmopolitan (Bērziņš, 1978); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); River Klyas'ma, R.F. (Bogoslowski, 1961); Afghanistan (Bērziņš, 1961); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); River Ybbarspå, Sweden (Bērziņš, 1979); Scatt Ness, Shetlands (De Smet *et al.*, 1988a); Coast of S Finland (Eriksen, 1969); Freshwater pools & rock-pools, S Finland (Björklund, 1972a); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Romania (Rudescu, 1960); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain (Morales-Baquero, 1987); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); District Ostrava, CSR (Dvorakova, 1960b); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Impoundment Kninicki, CSR (Kubicek, 1964); N Swedish Lapland (Pejler, 1962a); Edgeøya & Bjørnøya, Svalbard (De Smet *et al.*, 1988b); Alpine lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Koyama-Ike, a coastal pond in Japan (Sudzuki & Fukuta, 1989); Lake Sempachersee, CH (Zimmermann, 1974); Lower Silesia & river Gracia basin, Poland (Pawlowski, 1960); River Gracia basin, Poland (Pawlowski, 1968, 1970 & 1973); Lake Balaton, Hungary (Zankai, 1968); Canals in Hran area, CSR (Terek, 1990c); Mountain Fuji lava caves, Japan (Sudzuki, 1971a); Lakes around mountain Fuji, Japan (Sudzuki, 1971b); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Mountain Fuji area, Japan (Sudzuki, 1978a); Periphytic biota in sewages & park waters, Japan (Sudzuki, 1981); Obretin lake, Danube delta, Romania (Neagu-Godeanu, 1968); Camargue, S France (De Ridder, 1960a & 1961); Marismas, Spain (De Ridder, 1962b); N, W & C Iceland (De Ridder, 1970 & 1972); Peat bogs Chambéry & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Southwest islands of Japan (Sudzuki *et al.*, 1992); Fens in Genk, Belgium (Schepens, 1960); Peats in the Caucasus (Tarnogradsky, 1961a); Pool, S of Trondheim, Norway (Thomasson, 1979); Serbian section of river Danube (Zivkovic, 1987); All over Spain; Andorra (Velasco, 1990); Lake Biwa-ko, Japan (Yamamoto, 1960b); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); All over the Netherlands (Dresscher, 1976); Korea (Turner, 1986); Japanese inland waters (Yamamoto, 1960a); In peryphiton of mosses & *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); Lake Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Dübener Heide, N Germany (Wulfert, 1960a & 1960b); Peat bogs Chambéry & La Godivelle, Massif Central, France (Francez, 1988); Peat bog Chambéry, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Lake Neusiedlersee, Austria (Donner, 1979); Linkhout, Belgium (De Maeseneer, 1979; De Ridder, 1986); Water-courses in the Bucegi mts., Romania (Godeanu, 1963b); Marshy zones in the Bucegi mts., Romania (Godeanu, 1969a); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Small water bodies in the Mikolajski area, Mazurian lakeland, Poland (Klimowicz, 1967); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Bog pond near Budapest, Hungary (Nogradi, 1962); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lake Osbysjön, near Stockholm, Sweden (Pejler, 1961); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); 3 lakes of Sosnowickie, Poland (Radwan, 1969); River Volga, R.F. (Mordukhai-Boltovskoi, 1979)

- Nearctic region: Colorado, USA (Turner, 1988); NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Wisconsin, Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Cape Herschel, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989); Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Adirondack lakes, NY State, USA (Siegfried *et al.*, 1984); All over Ontario, Canada (Chengalath, 1976); Vinton County, Ohio, USA (Evans, 1984); Lac Echo, Québec, Canada (Nogrady, 1976); Lakes in Santee, California, USA (Nogrady, 1982); Bayou de Siard, Monroe, La, USA (Gallagher, 1965); Everglades Nat. Park, Florida, USA (Nogrady, 1983)
- Oriental region: Thailand, Indonesia, India & Philippines (Suzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Philippines (Mamaril & Fernando, 1978); Thailand (Boonsom, 1984b); Impoundment Kinda, C Burma (Koste & Tobias, 1990); West Bengal, NE India (Sharma, 1987c); Pool near river Kwai in Kanchanaburi, Thailand (De Ridder, 1971)
- Australian region: Qld, Australia (Shiel & Koste, 1979); Pancontinental in Aust. (Koste & Shiel, 1989b); SW Aust. (Koste, Shiel & Brock, 1983); Bromfield Swamp, tropical Queensland & Lake Purrumphete, freshwater Aust. crater lakes (Green, 1981); In many localities in Australia (Bērziņš, 1982a); NW Aust.: Magela Creek area (Koste, 1981b); Stock dams (acid waters), Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Swamp near Dunedin, South Isl., New Zealand (Bērziņš, 1982a); Taieri Beach & Canterbury, New Zealand; Campbell Island (Russell, 1960)
- Neotropical region: In phytotelmata on Jamaica (Koste *et al.*, 1991); Amazonia, Brazil. Cosmopolitan (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Near Concepcion, Paraguay (Koste, 1986b); Near Panguana, Peru (Koste, 1988b); Paraguay, Chile, Brazil, Argentina, Antilles (Koste & José de Paggi, 1982); Galapagos Islands (De Smet, 1987 & 1989); Chilean lakes (Schmid-Araya, 1991); Ecuador: Oriente & Sierra (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992); Argentina (José de Paggi, 1979; Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Prov. Chubut, Rio Negro, Neuquen & Buenos Aires, Argentina (José de Paggi, 1990); Curaçao (De Ridder, 1977; Collado *et al.*, 1984); Argentine Patagonia (Kuczynski, 1987b); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Mato Grosso, C Brazil (Turner & Da Silva, 1992); Lago Cigana, Amazonia, Brazil (Schaden, 1977c)
- Antarctic region: Anarctica & Subantarctica (José de Paggi & Koste, 1984; Suzuki, 1988)

***Lepadella acuminata* (Ehrenberg), f. *cryphaea* Harring, 1916**

- Palaearctic region: Carpathes, Pontic province, C & E Eur. plains, UK, Caspian area (Bērziņš, 1978); Peat bogs in the Massif Central, France (Batut, 1965); Japanese inland waters (Yamamoto, 1960a); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Peat bog Laptici, Bucegi mountains, Romania (Godeanu, 1970); Water-courses in the Bucegi mts., Romania (Godeanu, 1963b); Marshy zones on the plateau of the Bucegi mts., Romania (Godeanu, 1969a); Impoundments in the river Bistrila valley, Rom. (Corneanu, 1972); River Moldova, tributary of the Danube, Rom. (Prunescu-Arion, 1968)

- Nearctic region: N America (Bērziņš, 1978); Illinois & Missouri, USA (Bērziņš, 1984)

- Neotropical region: Brokopondo Lake, Surinam (Leentvaar, 1979); Surinam (Koste & José de Paggi, 1982)

***Lepadella acuminata* (Ehrenberg), f. *septemcostata* Bērziņš, 1982**

- Australian region: Lake in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985)

***Lepadella acuminata* (Ehrenberg), f. *sexcostata* Bartos, 1965**

- Palaearctic region: Balkan & Baltic province of Europe (Bērziņš, 1978)

- Australian region: Creek & lake in Australia (Bērziņš, 1982a); Vic, Aust. (Shiel & Koste, 1985)

***Lepadella adjuncta* Donner, 1973**

- Palaearctic region: Balkan (Bērziņš, 1978)

***Lepadella amphitropis* Harring, 1916**

- Palaearctic region: Pyrenees, Balkan, Hungarian plain, Pontic province, C & E Eur. plains, Caucasus (Bērziņš, 1978); Anatolia, Turkey (Segers *et al.*, 1992); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Japanese inland waters (Yamamoto, 1960a); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); River Klyas'ma, R.F. (Bogoslowski, 1961); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Peats in the Caucasus (Tarnogradsky, 1961); Spain: Barcelona, Gerona & Léon (Velasco, 1990); Nat. Res. "Ronde Put", Postel, Belgium (De Ridder, 1992)

- Nearctic region: N America (Bērziņš, 1978); Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); NE Canada (Chengalath & Koste, 1983); Cap Breton Island, Nova Scotia, Canada (Chengalath

& Koste, 1988); Wisconsin & Illinois, USA (Bērziņš, 1984); Lake Jasper, N West America (Thomasson, 1962)

- Australian region: Creek & river in Australia (Bērziņš, 1982a); Vic, Aust. (Shiel & Koste, 1985); Tasmania (Koste & Shiel, 1987); NSW, Tas & Vic, Aust. (Koste & Shiel, 1989)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Argentina & Brazil (Koste & José de Paggi, 1982); Prov. Rio Negro, Argentina (José de Paggi, 1990); Argentina (Olivier, 1965); Pond Pozo Azul, Nicaragua (Moreno *et al.*, 1992); Ecuador: Oriente & Costa (Koste & Böttger, 1992)

Lepadella amphitropis Harring, f. *victoriensis* Bērziņš, 1982

- Australian region: River in Vic, Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985)

Lepadella alona Wulfert, 1956

- Palaearctic region: C Eur. plain (Bērziņš, 1978)

Lepadella angusta Bērziņš, 1961

- Australian region: Victoria, Australia (Bērziņš, 1961); River in Aust. (Bērziņš, 1982a); Vic, Aust. (Koste & Shiel, 1980c); Endemic in Australia (Koste & Shiel, 1989)

Lepadella apsida Harring, 1916

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992); Pool in hothouse of Botanical Garden, Gent, B. (Segers *et al.*, 1991b)

- Nearctic region: Illinois, USA (Bērziņš, 1984); Lakes in Santee, California, USA (Nogrady, 1982); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: India (Sharma & Michael, 1980); Malaysia, Singapore, Indonesia & India (Sudzuki, 1989); Impoundment Kinda, C Burma (Koste & Tobias, 1990); West Bengal, NE India (Sharma, 1978c); Panjab State, NW India (Sharma, 1976; Sharma & Sharma, 1984)

- Australian region: Lake Euramoo, tropical Queensland Aust. crater lake (Green, 1981); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld & NT, Aust. (Shiel & Koste, 1985); NT & Qld, Aust. (Shiel & Koste, 1989)

- Neotropical region: Mato Grosso, Brazil (Turner & Da Silva, 1992)

Lepadella bela Sharma & Pant, 1984

- Oriental region: 2 Kumaun Himalayan lakes, India (Sharma & Pant, 1984)

Lepadella benjamini Harring, 1916

- Palaearctic region: C Eur. plain (Bērziņš, 1982); Japanese inland waters (Yamamoto, 1960a)

- Nearctic region: N America (Bērziņš, 1978); Illinois, USA (Bērziņš, 1984); Near Monroe, Louisiana, USA (Gallagher, 1966)

- Australian region: Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NW Aust.: Magela Creek area (Koste, 1981b); Vic & NT, Aust. (Koste & Shiel, 1980c & 1989)

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Near Concepcion, Paraguay (Koste, 1986b); Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992)

Lepadella benjamini Harring, f. *braziliensis* Koste, 1972

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); River Orinoco basin, Venezuela (Vasquez, 1984a); Rivers in the E plains of Venezuela (Sanchez *et al.*, 1985)

Lepadella bicornis Vasilsh & Battish, 1971

- Oriental region: India (Sharma & Michael, 1980; Sudzuki, 1989); "The status of this species needs further confirmation" (Sharma & Michael, 1987)

Lepadella bidentata Voronkov, 1913

- Palaearctic region: C Eur. plain & Caspian area (Bērziņš, 1978)

Lepadella buangensis Bērziņš, 1982

- Australian region: Mountain in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1984)

Lepadella canadensis Myers, 1934

- Nearctic region: Canada (Chengalath, 1977)

Lepadella chengalathi Koste & Shiel, 1980

- Australian region: Vic, Aust. (Koste & Shiel, 1980c); Vic. Endemic in Aust. (Koste & Shiel, 1989)

Lepadella chorea Bērziņš, 1982

- Australian region: NSW, Australia (Bērziņš, 1982); NSW, Aust. Possibly formalin artefact (Shiel & Koste, 1985)

Lepadella christinei Koste & Robertson, 1990

- Neotropical region: Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lepadella cornuta Schmarda, 1859

- Australian region: Synonym with *L. latusinus* f. *mucronata* (Koste, 1981b); NT. Endemic in Australia (Koste & Shiel, 1989)

Lepadella costata Wulfert, 1940

- Palaearctic region: Germany, R.F., Romania (Danube delta), CSR (Koste, 1972f); Romania (Rudescu, 1960); Balkan, Carpathes, Pontic province, C & E Eur. plains (Bērziņš, 1978); Pool in hothouse of Botanical Garden, Gent, B. (Segers *et al.*, 1991b); Anatolia, Turkey (Segers *et al.*, 1992); Peat bog Laptici, Bucegi mts., Romania (Godeanu, 1970a); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); In reed borders of the Danube delta, Romania (Rudescu, 1968)

- Nearctic region: Canada (Chengalath, 1977); Sphagnum bog near Waterloo, Ontario, Canada (Chengalath, 1976)

- Oriental region: Sri Lanka (Fernando, 1980a; Sudzuki, 1989); Sri Lanka; found only in one pond, Tabbowa (Chengalath, Fernando & Koste, 1973); ? Ricefields in NE Thailand (Heckman, 1979)

- Neotropical region: Brazil (Koste, 1972f; Koste & José de Paggi, 1982); Lago Paroni, Brazil (Koste, 1974a); ? Prov. Cordoba, Argentina (José de Paggi, 1990)

Lepadella costatoides Segers, 1992

- Palaearctic region: Belgium, Oman (Segers, Emir & Mertens, 1992)

- Neotropical region: Brazil (Segers, Emir & Mertens, 1992)

Lepadella cristata (Rousselet, 1893)

- Palaearctic region: Romania (Rudescu, 1960); Iberic peninsula, Italy, Balkan, Carpathes, C Eur. mts., Hungarian plain, W, C & E Eur. plains, UK & Boreal highlands (Bērziņš, 1978); Germany, Sweden, R.F., Poland, Romania (Koste, 1972f); Lake Balaton, Hungary (Zankai, 1968); Pelagic zone of the Lecznia-Włodawa lakes, Pol. (Radwan, 1975); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Nearctic region: N America (Bērziņš, 1978); USA (Koste, 1972f); Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983)

- Oriental region: India (Sharma & Michael, 1980; Sudzuki, 1989); NE India (Sharma & Sharma, 1987)

- Neotropical region: Amazonia, Brazil (Gillard, 1967; Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Near Concepcion, Paraguay (Koste, 1986b); Chilean lakes (Schmid-Araya, 1991); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Lago Cigana, Amazonia, Brazil (Schaden, 1977b); Ecuador: Oriente (Koste & Böttger, 1992)

Lepadella dactyliseta (Stenoos, 1898)

- Palaearctic region: River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Romania (Rudescu, 1960; Koste, 1972f); Darnsee near Epe, NW Germany (Koste, 1962); Finland, Poland, Germany, CSR, Sweden & R.F. (Koste, 1972f); Balkan, Carpathes, Pontic province, C & E Eur. plains, NW Russian taiga (Bērziņš, 1978); Coast of S Finland (Eriksen, 1969); Naardermeer, Keverdijk, NL (Knotnerus, 1973)

- Nearctic region: USA (Koste, 1972f); Illinois & Missouri, USA (Bērziņš, 1984); Great Dismal Swamp, Virginia-N Carolina border, USA (Anderson, Benfield & Buikema, 1977)

- Oriental region: India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Kalimantan (Borneo), Indonesia. First record for SE Asia (Koste, 1988a); Singapore, Indonesia & India (Sudzuki, 1989); South India (Naidu, 1967)

- Australian region: Creeks in Australia (Bērziņš, 1982); Vic, Aust. (Koste & Shiel, 1980c & 1989); New Zealand (Koste, 1972f); Chatham Islands (Russell, 1960)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Varzea near Santarem, Brazil (Koste, 1974b); Mato Grosso, C Brazil (Turner & Da Silva, 1992); Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992)

Lepadella decora Bērziņš, 1982

- Australian region: River in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Loddon river, Vic, Aust. (Koste & Shiel, 1989)

Lepadella degreffi De Smet, 1987

- Neotropical region: Galapagos Archipelago (De Smet, 1987 & 1989)

Lepadella donneri Koste, 1972

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Near Panguana, Peru (Koste, 1988b); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Island of Maraca, Roraima,

Brazil (Koste & Robertson, 1990); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989); Ecuador: Oriente (Koste & Böttger, 1992); Mato Grosso, C Brazil (Turner & Da Silva, 1992); Laguna Cocha Cashu, Amazonia, Brazil (Schaden, 1977c); Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990)

Lepadella duvigneaudi De Ridder, 1969

- Palaearctic region: Brackish waters in the Lorraine orientale, France (De Ridder, 1969a); W Eur. plain (Bērziņš, 1978)

Lepadella elliptica Wulfert, 1939

- Palaearctic region: Romania (Rudescu, 1960); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1982); Darnsee near Epe, NW Germany (Koste, 1962); Balkan, Pontic province, C & E Eur. plain (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1973); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Peat bog Chambedaze, Massif Central, France (Francez, 1982 & 1987; Francez, with doubt, 1988); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973); In reed borders of river Danube delta, Romania (Rudescu, 1968)

- Oriental region: Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b)

- Australian region: NT, Australia (Koste & Shiel, 1980c & 1989); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)

- Neotropical region: Argentina (Koste & José de Paggi, 1982); Prov. Chaco & Santa Fé, Argentina (José de Paggi, 1990)

- Antarctic region: Antarctica & Subantarctica (José de Paggi & Koste, 1984; Sudzuki, 1988)

Lepadella elongata Koste, 1991

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

Lepadella favorita Klement, 1962

- Palaearctic region: Favorite Park near Ludwigsburg, Württemberg, G. (Klement, 1962); C Eur. plain (Bērziņš, 1978)

Lepadella gelida Bērziņš, 1976

- Palaearctic region: Aneboda, Sweden (Bērziņš, 1976); C Eur. plain (Bērziņš, 1978)

Lepadella glossa Wulfert, 1960

- Palaearctic region: Dübener Heide, N Germany (Wulfert, 1960a); C Eur. plain (Bērziņš, 1978)

Lepadella hyalina Smirnov, 1927

- Palaearctic region: C Eur. plains (Bērziņš, 1978)

Lepadella imbricata Harring, 1916

- Palaearctic region: River Klyas'ma, R.F. (Bogoslawski, 1961); Japanese inland waters (Yamamoto, 1960a); Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Oriental region: India (Sharma & Michael, 1980); Singapore & India (Sudzuki, 1989); West Bengal, NE India (Sharma, 1978c)

- Neotropical region: Amazonia, Brazil (Hauer, 1965; Thomasson, 1971); Brokopondo Lake, Surinam (Leentvaar, 1979); Colombia & Panama (Koste & José de Paggi, 1982); Lago Paroni, Brazil (Koste, 1974a); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); Curaçao (De Ridder, 1977); Curaçao & Panama (Collado *et al.*, 1984); Ecuador: Oriente (Koste & Böttger, 1992); Mato Grosso, C Brazil (Turner & Da Silva, 1992)

Lepadella intermedia Dartnall & Hollowday, 1985

- Antarctic region: Antarctica (Dartnall & Hollowday, 1985)

Lepadella koniari Bartos, 1955

- Palaearctic region: Carpathes (Bērziņš, 1978)

Lepadella koniari Bartos, f. *avernae* Francez & Pourriot, 1984

- Palaearctic region: Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Pourriot, 1984); Peat bogs in the Auvergne, France (Francez, 1984c)

Lepadella kostei Wulfert, 1966

- Oriental region: Nimeta water works, near Baroda, India (Wulfert, 1966); India (Sharma & Michael, 1980; Sudzuki, 1989)

Lepadella latusinus (Hilgendorf, 1899)

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Taiwan (Sudzuki, 1988); Taiwan, Thailand, Singapore & Indonesia (Sudzuki, 1989)

- Australian region: In many localities in Australia (Bērziņš, 1982); Vic, Aust. (Koste & Shiel, 1980c); NT, Aust. (Koste & Shiel, 1989); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); Taieri Beach & Mt. Cook, New Zealand (Russell, 1960)

- Neotropical region: Argentina (José de Paggi, 1979); Orinoco river basin, Venezuela (Vasquez, 1984a);

Brazil & Argentina (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1989); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Prov. Santa Fé, Argentina (José de Paggi, 1990)

***Lepadella latusinus* (Hilgendorf), f. *americana* Myers, 1934**

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)
- Nearctic region: USA (Koste, 1972a)
- Australian region: Lake Ellesmere, New Zealand (Russell, 1960)
- Neotropical region: Amazonia, Brazil (Koste, 1972a); Lago Paroni, Brazil (Koste, 1974a); Varzea near Santarem, Brazil (Koste, 1974b); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Argentina (José de Paggi, 1979); Laguna Cocha Cashu, Amazonia, Brazil (Schaden, 1977c)

***Lepadella latusinus* (Hilgendorf), f. *compressa* Koste, 1988**

- Oriental region: Kalimantan (Borneo), Indonesia (Koste, 1988a)

***Lepadella latusinus* (Hilgendorf), f. *mucronata* Koste, 1981**

- Australian region: NW Aust.: Magela Creek area (Koste, 1981b); NT, Aust. (Shiel & Koste, 1985)

***Lepadella latusinus* (Hilgendorf), f. *striata* Koste, 1991**

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

***Lepadella lindaui* Koste, 1981**

- Australian region: NT, Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Shiel & Koste, 1985; Koste & Shiel, 1989)

***Lepadella longiseta* Myers, 1934**

- Nearctic region: Point Pelée Nat. Park, Ontario, Canada (Chengalath, 1976); Canada (Chengalath, 1977)
- Oriental region: India (Sharma & Sharma, 1987); Orissa, E India (Sharma, 1980b)

***Lepadella margalefi* De Ridder, 1964**

- Palaearctic region: Pyrenees: Nat. Res. Ordesa (De Ridder, 1964); Iberic peninsula (Bērziņš, 1978); Spain: Huesca (Velasco, 1990)

***Lepadella matudai* Sudzuki, 1964**

- Antarctic region: Langhovde, Antarctica (Sudzuki, 1964a); Antarctica & Subantarctica (José de Paggi & Koste, 1984)

***Lepadella mica* Zirkovic, 1987**

- Palaearctic region: Serbian section of river Danube (Zirkovic, 1987)

***Lepadella minorui* Koste, 1981**

- Australian region: NW Aust.: Magela Creek area (Koste, 1981b); NT.: endemic in Aust. (Koste & Shiel, 1981); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Koste & Shiel, 1989)

***Lepadella minoruoides* Koste & Robertson, 1983**

- Neotropical region: Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983)

***Lepadella minuscula* Bartos, 1955**

- Palaearctic region: Balkan (Bērziņš, 1978)

***Lepadella minuta* (Montet, 1918)**

- Palaearctic region: Alps, C Eur. mountains, Pontic prov., Baltic province, E Eur. plain, UK (Bērziņš, 1978); Nat. Res. "Het Hol", Kortenhoef, NL (Dresscher, 1976); Plateau des Tailles, Belgium (De Ridder, 1980 & 1986); Water-courses in the Bucegi mts., Romania (Godeanu, 1963b); ? N Swedish Lapland (Pejler, 1962a); ? Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Marshy zones & small permanent ponds in the Bucegi mountains, Romania (Godeanu, 1969a); Nat. Res. "Leiemeersen", Assebroek, Belgium (De Ridder, 1992)
- Neotropical region: Orinoco river basin, Venezuela (Vasquez, 1984a)

***Lepadella monostyla cicatrix* Bērziņš, 1984**

- Nearctic region: Wisconsin & Illinois, USA (Bērziņš, 1984)

***Lepadella myersi* Edmondson, 1933**

- Neotropical region: Haiti (Collado *et al.*, 1984)

***Lepadella nartiangensis* Sharma & Sharma, 1987**

- Oriental region: India (Sharma & Sharma, 1987; Sudzuki, 1989)

***Lepadella neboissi* Bērziņš, 1961**

- Australian region: Victoria, Aust. (Bērziņš, 1961); Creek in Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Koste & Shiel, 1980c & 1989)

***Lepadella nympha* Donner, 1943**

- Palaearctic region: In reed borders of the Danube delta, Romania (Rudescu, 1968); Pod Padurka pond,

Poland (Lewkowicz, 1972)

Lepadella oristata Vasisht & Bhattacharjee, 1971

- Oriental region: Punjab State, NW India (Sharma, 1976)

Lepadella ovalis (O.F. Müller, 1786)

- Palaearctic region: C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Lake Mikolajskie, Mazurian lakeland, Poland (Klimowicz, 1972); Impoundment Kninicki, CSR (Kubicek, 1964); Broads & peat pits, NW Overijssel, NL (Schroevens, 1965); Jordan reservoir, Bohemia, CSR (Mitiska *et al.*, 1962); N Swedish Lapland (Pējler, 1962a); Romania (Rudescu, 1960); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Afghanistan (Bērziņš, 1961); River Ybbarspå, Sweden (Bērziņš, 1979); Coast of S Finland (Eriksen, 1969); River Loire, France (Lair, 1980); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Asiatic Turkey (Dumont & De Ridder, 1987); Croatia, ex-Yugoslavia (Erben, 1987); District Ostrava, CSR (Dvorakova, 1960b); Serbian section of river Danube (Zivkovic, 1987); Forest pond in Lembeek, Belgium (Van Elslande, 1975); All over Spain; Canaries: Tenerife (Velasco, 1990); Nat. Res. "Leiemeersen", Assebroek, Belgium (De Ridder, 1992); Lake Biwa-ko, Japan (Yamamoto, 1960b); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Hortobagy Nat. Park, Hungary (Forró & Ronkay, 1983); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Lago di Giulianello, Latium, Italy (Ferrari & Margaritora, 1977; Bazzanti & Stella, 1977); La Mancha, Castillia, Spain (Armengol *et al.*, 1975); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundment Saidenbach, Germany (Althaus, 1976); River Klyas'ma, R.F. (Bogoslawski, 1961); Fishponds near Warsaw, Poland (Hillbright-Ilkowska, 1964); Sphagnum bogs in the Massif Central, France (Batut, 1965); Lac Léman, Fr./CH (Balvay *et al.*, 1990; Balvay & Laurent, 1981, 1989 & 1990a); Lake Donk, Overmere, Belgium (Dumont, 1968a; Coussemant, 1976); Volga river & Volgograd reservoir, R.F. (V'yushkova & Lakhnova, 1974); Lapland State Preserve, R.F. (Ghilarov, 1972); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); All over Europe; Caucasus, Caspian area, Asia Minor (Bērziņš, 1978); Lake Monterosi, Latium, Italy (Stella & Margaritora, 1966); Beysehir Lake, Turkey (Emir, 1991); River Grabia basin, Poland (Radwan, 1960, 1968 & 1970); Lake Balaton, Hungary (Zankai, 1968); Impoundment in E Bohemia, CSR (Sladeckowa & Sladecek, 1960); Canals in Hran area, CSR (Terek, 1990c); Mountain Fuji lava caves, Japan (Suzuki, 1971a); Lakes around mountain Fuji, Japan (Suzuki, 1971b); Garden ponds in Tokyo, Japan (Suzuki, 1975); Iriomote Island, Japan (Suzuki, 1979); Meuse Liégeoise, Belgium (Baiverlin, 1984); Camargue, S France (De Ridder, 1960a & 1961); Canal of Handzame, Diksmuide, Belgium (De Ridder, 1960b); N, S, C & W Iceland (De Ridder, 1970 & 1972); Lakes N of Bucarest, Romania (Godeanu, 1969b); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Peat bogs in the Auvergne, France (Francez, 1984c); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Temporary waters & small permanent ponds in the Bucegi mountains, Romania (Godeanu, 1969a); Nat. Res. Wellemmeersen, Belgium (Dumont *et al.*, 1975); Small water bodies in the Mikolajski area, Poland (Klimowicz, 1967); Side-arm of river Danube near Bratislava, CSR (Lichardova, 1964); Anatolia, Turkey (Segers *et al.*, 1992); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Bog pond near Budapest, Hungary (Nogradi, 1962); Karelian inland waters, R.F. (Kutikova, 1965); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Luga district in the Leningrad area, R.F. (Kutikova, 1962b); River Moldova, tributary to the Danube, Rom. (Prunescu-Arion, 1968); Lac d'Annecy, France (Balvay & Druart, 1992); Black Sea (Rudescu, 1961); In reed borders of the Danube delta, Romania (Rudescu, 1968); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Dusnatynskie lakes, Poland (Kowalczyk & Radwan, 1962); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); River Oltet and its principal tributaries, Rom. (Rogoz, 1972); Hamburg area, Germany (Rühmann, 1961); Middle course of river Loire, France (Lair & Sargos, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Ponds in the Botanical Garden, Gent, Belgium (Segers *et al.*, 1991); Mountain Fuji area, Japan (Suzuki, 1978a); Peat bogs in the Auvergne, France (Francez & Pourriot, 1984); Peat bogs Chambédaize & La Godivelle, Puy-de-Dôme, France (Francez & Dévaux, 1985; Francez, 1988); Peat bog Chambédaize, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs in the Auvergne, France (Francez, 1981); Small brackish pools in E Iran (Ruttner-Kolisko, 1964); Southwest islands of Japan (Suzuki *et al.*, 1992); Dübener Heide, N Germany (Wulfert, 1960b & 1961); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Japanese inland waters (Yamamoto, 1960a); Channel Isebek, Hamburg, Germany (Caspers & Schulz, 1960); Lough Erne system, NW Ireland (Gibson *et al.*,

1980); River Lausitzer Neisze, Germany (Walter & Scharf, 1961); Near Debrecen, Hungary (Dévai, 1972); In periphyton of mosses & *Myriophyllum* in the Danube, and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); Lake Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); All over the Netherlands (Dresscher, 1976); Nat. Res. Ordesa & surroundings, C Pyrenees, Sp. (De Ridder, 1964); Freshwater pool near S. Vicente, N Majorca, Sp. (De Ridder, 1967c); Brackish waters in the Lorraine orientale, France (De Ridder, 1969a); All over Belgium (De Ridder, 1986); Lake Neusiedlersee, Austria (Donner, 1979); Impoundment of river Vierre, Suxy, Belgium (De Maeseneer, 1979); River Danube (Enaceanu & Brezeanu, 1970); Water-courses in the Bucegi mountains, Rom. (Godeanu, 1963b); Canal Leeds-Liverpool, UK (Galliford, 1960b); Knowsley Park, Liverpool, UK (Galliford, 1964)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Waterton Lakes, Alberta, Canada (Anderson & Green, 1976); Canada (Chengalath, 1977); NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Wisconsin, Illinois & Kentucky, USA (Bérziņš, 1984); Cape Herschell, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Colorado, USA (Turner, 1988); Alberta, Canada (Stewart & Green, 1976); Northern Michigan inland lakes (Stemberger, 1990); Ontario, Canada (Chengalath, 1976); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Lac Echo, Québec, Canada (Nogrady, 1976); Mt. Tremblant Prov. Park, Québec, Canada (Nogrady, 1980); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Laurentian Great Lakes (Stemberger, 1979); Massey Lake, 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: Ricefields in NE Thailand (Heckman, 1979); Taiwan (Sudzuki, 1988); Taiwan, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Sudzuki, 1989); Kalimantan (Borneo), Indonesia (Koste, 1988a); India (Sharma & Sharma, 1987; Sharma & Michael, 1980); River Yamuna, India (Rai, 1974; Dvarokova, 1963); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Sri Lanka. Common found in ponds, littoral of lakes & rice fields (Chengalath, Fernando & Koste, 1973); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1984 & 1985); Panjab State, NW India (Sharma, 1976; Sharma & Sharma, 1987); West Bengal, NW India (Sharma, 1978a); Orissa, E India (Sharma, 1980b); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969)

- Australian region: In several localities in Australia (Bérziņš, 1982); Swamp near L. Hayes, South Island, New Zeal. (Bérziņš, 1982a); SW Aust. (Koste, Shiel & Brock, 1983); L. Purrumbete, L. Elingamite & Valley L., freshwater temperate Aust. crater lakes (Green, 1981); L. Dulverton, near Oatlands, Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NSW, Qld & Vic, Aust. (Shiel & Koste, 1979); Pancontinental in Aust. (Koste & Shiel, 1989); Taieri Beach, Canterbury & Christchurch, New Zealand; Chatham Islands (Russell, 1960); *Nov. var.* in NW Aust.: Magela Creek area; id. in NT (Koste, 1981b; Shiel & Koste, 1985)

- Neotropical region: River Parana, Argentina (Paggi & José de Paggi, 1985); ? River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Ecuador: Sierra (Koste & Böttger, 1989); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992); Argentina (Modenutti & Claps, 1988); Arroya Rodriguez, prov. Buenos Aires, Argent. (Modenutti, 1987); Provinces in NW Argentina (José de Paggi, 1989); Brazil, Antilles, Surinam, Panama & Peru (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Panguana, Peru (Koste, 1988a); Near Concepcion, Paraguay (Koste, 1986b); L. Escondido, prov. Rio Negro, Argentina (Balseiro & Modenutti, 1990); Nearly all over Argentina (José de Paggi, 1990); Caribbean Islands & Panama (Collado *et al.*, 1984); Cayman Brac, Caribbean part of the Neotropis (De Ridder, 1977); Argentine Patagonia (Kuczynski, 1987b); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971); Brokopondo Lake, Surinam (Leentvaar, 1979); Flooded savanna at Mantecal, Venezuela (Michelangeli *et al.*, 1979/1980); Brackish ponds on Grand Bahama Island, W Indies (Nogrady, 1983); Prov. Buenos Aires & Santa Cruz, Argentina; Paraguay (Olivier, 1965); Antilles françaises (Pourriot, 1975); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Embalse Rio Tercero Fish Culture Station, Argentina, Cordoba province (Marione & Zagarese, 1991)

Lepadella ovalis (O.F. Müller), f. *larga* Sharma, 1978

- Oriental region: India (Sharma, 1978a; Sharma & Michael, 1980); West Bengal, NE India (Sharma, 1978c)

Lepadella paparoa Bérziņš, 1982

- Australian region: Mt. Paparoa, South Island, New Zealand (Bérziņš, 1982a)

Lepadella parvula (Bryce, 1893)

- Palaearctic region: Alps, Balkan, C & E Eur. plains, UK (Bérziņš, 1978); Quaking bogs in Nat. Res. "Het

Hol", in Kortenhoef, & fens in Oisterwijk, NL (Dresscher, 1976)

Lepadella patella (O.F. Müller, 1786)

- Palaearctic region: Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Romania (Rudescu, 1960); Slovenia, ex-Yugoslavia (Markic, 1983); Croatia, ex-Yugoslavia (Erben, 1987); Asiatic Turkey (Dumont & De Ridder, 1987); Sierra Nevada, Spain (Morales-Baquero, 1987); C & S Sweden (Bérziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Man-made lake Zegrzynskie, Poland (Dusoge *et al.*, 1985); Lago di Giulianello, Latium, Italy (Ferrara & Margaritora, 1977; Bazzanti & Stella, 1977); La Mancha, Castillia, Spain (Armengol *et al.*, 1975); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundments Saidenbach & Neunzehnhain, G. (Althaus, 1976); Lake Bielersee, CH (Baugerter *et al.*, 1980); River Klyas'ma, R.F. (Bogoslowski, 1961); Heiluntsian province, China (Bogoslowski, 1962); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Petén, 1973); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1981 & 1982; Heckman, 1986); Hamburg area, Germany (Heckman, 1982); Lake Bielersee, CH (Berner-Fankhauser, 1986); Near Asperg, Württemberg, Germany (Klement, 1960); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); L. Mikolajskie & L. Taltowisko, ibid., Poland (Klimowicz, 1972a); In activated sludge, Warsaw, Poland (Klimowicz, 1972b); Alkal. Peterisee, Hungary (Kertesz, 1960); L. Mikolajskie & L. Sniardny, Mazurian lakeland, Poland (Kosicki, 1960); Lakes Muy (Texel), Oerd (Ameland), Van Hunenplak, Terschelling (Leentvaar, 1967); Quackjeswater & Breede water, Voorne & Vogelmeer, near Ymuiden, NL (Leentvaar, 1963); Broads & peat pits, NW Overijssel, NL (Schroevvers, 1963); River Ybbarspå, Sweden (Bérziņš, 1979); Lake Sträken, Aneboda, Sweden (Bérziņš, 1972); Afghanistan (Bérziņš, 1961); Tingvall Loch, Mainland, Shetlands (Bérziņš, 1982a); Scat Ness, Shetlands (De Smet, 1988); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982); Pools with fresh or brackish water, S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); River Loire, France (Lair, 1980); Nat. Res. Neeruti Lakes, NE Estonia (Määmets, A. & A., s.d.); N Swedish Lapland (Pejler, 1962a); Thüringen, Germany (Ronneberger, 1975); Hopen, Svalbard Archipelago (De Smet, 1990); River Grobia basin, Poland (Pawlowski, 1960, 1968, 1970 & 1973); Lake Balaton, Hungary (Zankai & Kertesz, 1967; Zankai & Ponyi, 1971; Zankai, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Lava caves of mountain Fuji, Japan (Sudzuki, 1971a); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Iriomote Island, Japan (Sudzuki, 1979); Mountain Fuji area, Japan (Sudzuki, 1978a); Lakes around mountain Fuji, Japan (Sudzuki, 1971b); Periphytic biota in sewages & park waters, Jap. (Sudzuki, 1981); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Ponds in Botanical Garden, Gent, Belgium (Segers *et al.*, 1991b); Peats in the Caucasus (Tarnogradsky, 1961); Tarn in Värmland, Sweden (Thomasson, 1970); Pool, S of Trondheim, Norway (Thomasson, 1979); Lago Trasimeno, Italy (Taticchi, 1968); Serbian section of river Danube (Zivkovic, 1987); Brooks, pools & ponds in China (Wulfert, 1968); All over Spain; Baleares; Andorra (Velasco, 1990); Tap water in Gent, Belgium (De Ridder, 1992); River Cerna basin, Romania (Brezeanu & Marinescu-Popescu, 1964); Rybník dam reservoir, Poland (Krzanowski, 1979); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973); Impoundment Twistedalsperre, Nordhessen, G. (Meinel *et al.*, 1983); Water works Traiskirchen, S of Vienna, Austria (Weninger, 1971); Lake Donk, Overmere, Belgium (Coussement & De Henau, 1975; Coussement, 1976); Fens in Genk, Belgium (Schepens, 1960); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); Camargue, S France (De Ridder, 1960a & 1961); R. Yzer & Handzame Canal, Diksmuide, Belgium (De Ridder, 1960b); Marismas, Spain (De Ridder, 1962b); N, S, W & C Iceland (De Ridder, 1966, 1967a, 1969b, 1970 & 1972); Southwest islands of Japan (Sudzuki *et al.*, 1992); Dübener Heide, N Germany (Wulfert, 1960a, 1960b & 1961); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); All over the Netherlands (Dresscher, 1976); W Spitsberg (Thomasson, 1961); Japanese inland waters (Yamamoto, 1960a); Channel Isebek, Hamburg, Germany (Caspers & Schulz, 1960); Lake Numasawa, Japan (Sudzuki *et al.*, 1989); In periphyton of mosses and *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); River Salzach and its tributaries, Austria (Donner, 1970); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Gatterbach, Nordhessen, Germany (Dürrenfeldt, 1978); Lac Léman, Fr./CH (Balvay *et al.*, 1990; Balvay & Laurent, 1989 & 1990a); Peat bogs in the Puy-de-Dôme, C France (Francez & Pourriot, 1984); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Peat bog La Godivelle, Massif Central, France (Francez, 1988); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Spring near Asklepcion, Kos Island, Greece (De Ridder, 1967d); Brackish waters in the Lorraine orientale, France (De Ridder, 1969a); Lake Neusiedlersee, Austria (Donner, 1979); All over Belgium (De Ridder, 1986); Impoundment of river Vierre, Suxy, Belgium (De Maeseneer, 1979); Fagne de la Mochette, Samrée & Plateau des Tailles, Belgium (De

Ridder, 1980); Lake Konstanz, Germany (Walz *et al.*, 1987); River Danube (Enaceanu & Brezeanu, 1970); River Elbe estuary, Germany (Schulz, 1961); Temporary waters in the Bucegi mts., Romania (Godeanu, 1969a); Peat bog Laptici, Bucegi mountains, Romania (Godeanu, 1970a); Water-courses in the Bucegi mts. Romania (Godeanu, 1963b); Lakes in the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Shores of the White Sea & the Barents Sea, R.F. (Ghilarov, 1967); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Nat. Res. Wellemeersen, Belgium (Dumont *et al.*, 1975); River Vistula in the Warsaw area, Poland (Klimowicz, 1981); Near water works at Okocim, Poland (Klimowicz, 1975); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Small water bodies in the Mikolajki area, Poland (Klimowicz, 1967); Anatolia, Turkey (Segers *et al.*, 1992); Lowland brook-pond system at Boom, Belgium (Maes, 1985); River & valley in the Tatra mountains, Poland (Madalinski, 1961); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); In reed borders of the Danube delta, Romania (Rudescu, 1968); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); River Loire in St. Laurent-les-Eaux, France (Pourriot *et al.*, 1982); Lake Agigea, Romania (Rodewald-Rudescu & Godeanu, 1961); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); Hamburg area, Germany (Rühmann, 1961); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Middle course of river Loire, France (Lair & Sargas, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Fishponds near Warsaw, Poland (Hillbricht-Illkowska, 1964); Sphagnum bogs in the Massif Central, France (Batut, 1965); Fish-fattening ponds in the Ukraina (Krazhan, *et al.*, 1976); All over Europe; Caucasus & Asia Minor. Cosmopolitan (Bērziņš, 1976); "Grote Vijver", fort 8, Hoboken, Belgium (De Smet *et al.*, 1988a); "Kleine Vijver", fort 8, Hoboken, Belgium (De Smet *et al.*, 1989); Moat of fort Merksem, Belgium (De Smet *et al.*, 1987); Edgeøya, Svalbard (De Smet *et al.*, 1988b); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosh Alps, Hungary (Varga, 1962); Alpine lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Lake Orog-Nur & Oasis Echin-Gol, Gobi desert, Mongolia (Koste & Wulfert, 1964); Burdur Lake, Turkey (Emir, 1991); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germany (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987)

- Nearctic region: Deggs Lake, Fentrush L., Parvin L., Redrock L. & Trapper's Lake, Colorado, USA (Pennak, 1966); Ontario, Canada (Chengalath & Fernando, 1973; Chengalath, 1976; Chengalath, Fernando & George, 1981); NE Canada (Chengalath & Koste, 1983); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Bērziņš, 1961; Nogrady, 1989); Wisconsin, Illinois, Kentucky & Missouri, USA (Bērziņš, 1984); Ross Lake, Florida, USA (Bienert, 1986); Canada (Chengalath, 1977); Cape Herschel, Ellesmere Island, NWT, Canada (Nogrady & Smol, 1989); Illinois river, USA (Brown *et al.*, 1989); Altiplanic Central, Mexico (Vilaclara & Sladecik, 1989); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); Vinton County, Ohio, USA (Evans, 1984); Lakes in Santee, California, USA (Nogrady, 1982); Lac Echo, Québec, Canada (Nogrady, 1976); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Cottonwood pond, Colorado, USA (Herrmann, 1977); Crater Lake, Stoneman Lake & Walker Lake, Arizona, USA (Green, 1986); Long Lake, Colorado, USA (Thomasson, 1964b); Jenny Lake, Grizzly L., Rock Isle L., Larix L. & L. Jasper, Western N America (Thomasson, 1962); Massey L., 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978)

- Oriental region: NE India (Sharma & Sharma, 1987); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1980a); Singapore & Malaysia (Karunakaran & Johnson, 1978); India (Sharma & Michael, 1980); Bung-Borapet, C Thailand (Koste, 1975a); Rajasthan, India (Nayar, 1968); Taiwan (Sudzuki, 1988); Lakelet Tan Daha, Kathmandu valley, & pool at Godovari, Nepal (Daems & Dumont, 1974); Sri Lanka. Common; found in ponds & ricefields (Chengalath, Fernando & Koste, 1973); Taiwan. Cosmopolitan (Sudzuki, 1991); Kalimantan (Borneo), Indonesia (Koste, 1988a); Kathmandu, Nepal (Turner, 1987); Fishponds in Thailand (Boonsom, 1984a); Thailand (Boonsom, 1984b); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Fishpond at Barrackpore, W Bengal State, India (Michael, 1968); Panjab State, NW India (Sharma, 1976; Sharma & Sharma, 1987); West Bengal, NE India (Sharma, 1987c); Orissa, E India (Sharma, 1980b); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976); 2 Kumaun Himalayan lakes, UP, India (Sharma & Pant, 1985); Storage reservoir Ajwa & Prata-Pura reservoir, near Baroda, India (Wulfert, 1966)

- Australian region: L. Dulverton near Oatlands & Acid Stock dams at Huonville, Tasmania (Koste & Shiel, 1986b); Nom. Form. + nov. forma: Alligator rivers area, NT, Australia (Koste & Shiel, 1983a); Nom. form. ibid. (Tait, Shiel & Koste, 1984); Nov. var.: NT, Aust. (Shiel & Koste, 1985); Pancontinental in Aust. (Koste & Shiel, 1989); NSW, Qld, Vic & W Aust., Australia (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); River Murray, Aust. (Koste, 1979b); NW Aust.:

Magela Creek area (Koste, 1981b); In many localities in Aust. (Bērziņš, 1982); Swamp near L. Hayes, South Island, New Zealand & Edie Creek near Wau, New Guinea (Bērziņš, 1982a); SW Aust. (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); Lake Euramoo & Bromfield Swamp: tropical Queensland & L. Purrumbete, Valley Lake: freshwater temperate Australian crater lakes (Green, 1981); North Canterbury, New Zealand; Chatham Islands (Russell, 1960)

- Neotropical region: Mato Grosso, C Brazil (Turner & Da Silva, 1992); Chile (Löffler, 1962); Ecuador: Oriente, Sierra & Costa (Koste & Böttger, 1992); Surinam (Leentvaar, 1975); Brokopondo Lake, Surinam (Leentvaar, 1979); Galapagos Islands (De Smet, 1987 & 1989); Provinces in NW Argentina (José de Paggi, 1989); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Brazil, Chile, Argentina, Antilles, Colombia, Venezuela, Surinam, Panama (Koste & José de Paggi, 1982); Argentina (Modenutti & Claps, 1988); Orinoco river basin, Venezuela (Vasquez, 1984a); Caroni river basin, Venezuela (Vasquez, 1984b); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Chilean lakes (Schmid-Araya, 1991); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Caribbean part of the Neotropis (De Ridder, 1977); Aruba, Bonaire, Curaçao, Caribbean Islands, Panama (Collado *et al.*, 1984); Argentine Patagonia (Kuczynski, 1987b); Araucarian lakes, W & E of the Andes & Araucarian pools & ponds, Chile (Thomasson, 1963b); Prov. Rio Negro & Tierra del Fuego, Argentina; Peru, Brazil & Chile (Olivier, 1965); Antilles françaises (Pourriot, 1975); Santa Cruz, Galapagos Islands (Segers, 1991a); Suape area, Pernambuco, Brazil (Neumann-Leitao *et al.*, 1992); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992)

- Antarctic region: Bunger Hills & Obruchev, E coast of Antarctica (Kutikova, 1964b); Thala Hills Oasis, Enderby Land, E Antarctica (Opalinski, 1972b); Potter peninsula, Antarctica (José de Paggi, 1982); Antarctica (Everitt, 1981; Dartnall, 1983; Sudzuki, 1988); Potter peninsula, 25 km de Mayo Island, S Shetland Islands (Paggi, 1986); Anatarctica & Subantarctica (José de Paggi & Koste, 1984)

Lepadella patella (O.F. Müller), f. *biloba* Hauer, 1958

- Palaearctic region: Balkan (Bērziņš, 1978); Lake Võrtsjärv, Estonia (Kutikova & Haberman, 1986); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Serbian section of river Danube (Zivkovic, 1987)

- Australian region: SW Australia (Koste, Shiel & Brock, 1983); Lake Euramoo, tropical Queensland Aust. crater lake (Green, 1981); Stock dam, 36 km S of Burnie, Tasmania (Shiel & Koste, 1986b); Southwest W Aust. (Shiel & Koste, 1985); Tas, Vic & SW West Aust. (Koste & Shiel, 1989)

Lepadella patella (O.F. Müller), f. *elongata* Sharma & Sharma, 1987

- Oriental region: NE India (Sharma & Sharma, 1987)

Lepadella patella (O.F. Müller), f. *minor* Koch-Althaus, 1963

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); C European plain (Bērziņš, 1978)

- Nearctic region: Kentucky, USA (Bērziņš, 1984)

Lepadella patella (O.F. Müller), f. *oblonga* (Ehrenberg, 1834)

- Palaearctic region: River Ybbarspå, Sweden (Bērziņš, 1979); Pools with fresh & brackish water in S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); District Ostrava, CSR (Dvorakova, 1960b); C & S Sweden (Bērziņš & Pejler, 1989a, 1989c & 1989d); Impoundment Kninicki, CSR (Kubicek, 1964); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); Italy, Alps, Balkan, Carpathes, W, C & E Eur. plains, Ireland, UK, Boreal highland, W European tundra, NW Russian taiga, Caucasus, Caspian area (Bērziņš, 1978); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Southwest islands of Japan (Sudzuki *et al.*, 1992); Nat. Res. Meyendel, den Haag, NL (Dresscher, 1976); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Karelian inland waters (Kutikova, 1965); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Serbian section of river Danube (Zivkovic, 1987); Lake Donk, Overmere, Belgium (Dumont, 1968b); Lake Palaeostomi, Georgia, R.F. (Haberman & Laugaste, 1982)

- Nearctic region: Throughout Ontario, Canada (Chengalath, 1976); Canada (Chengalath, 1977); Wisconsin, Illinois & Kentucky, USA (Bērziņš, 1984)

- Australian region: Qld, Aust. (Shiel & Koste, 1979); Vic, Aust. (Shiel & Koste, 1985); Vic, Aust. (Koste & Shiel, 1989); Christchurch, New Zealand (Russell, 1960)

- Neotropical region: Venezuela (Koste & José de Paggi, 1982); Lower Orinoco & its delta, Venezuela (Vasquez & Rey, 1989); Lago de Valencia, Venezuela (De Infante, 1980); In phytotelmata on Jamaica (Koste *et al.*, 1991)

- Antarctic region: Antarctica (Dartnall & Hollowday, 1985)

Lepadella patella (O.F. Müller), f. *matsudai* Sudzuki, 1964

- Antarctic region: Langhovde, Antarctica (Sudzuki, 1964a); Antarctica (Sudzuki, 1988)

Lepadella patella (O.F. Müller), f. *parvula* De Graaf, 1960

- Palaearctic region: Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); River Ybbarsån, Sweden (Bērziņš, 1979)
- Oriental region: Swamp near Menggala, Sumatra (Bērziņš, 1982a)

Lepadella patella (O.F. Müller), f. *similis* (Lucks, 1912)

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Lake Balaton, Hungary (Zankai, 1968); Camargue, S France (De Ridder, 1960a & 1961); Marismas, Spain (De Ridder, 1962b); All over Europe (Bērziņš, 1978); River Ybbarsån, Sweden (Bērziņš, 1979); Pools with brackish water in S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); Asiatic Turkey (Dumont & De Ridder, 1987); Peat bogs in the Massif Central, France (Batut, 1965); N & W Iceland (De Ridder, 1969b, 1970 & 1972); Southwest islands of Japan (Suzuki *et al.*, 1992); Dübener Heide, N Germany (Wulfert, 1961); In periphyton of mosses & *Myriophyllum* in the Danube & in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of river Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); Petgaten, E of the Driessenpolder & Zuid-Limburg, NL (Dresscher, 1976); Spring near Asklepion, Kos Island, Greece (De Ridder, 1967d); Lake Neusiedlersee, Austria (Donner, 1979); River Danube (Enaceanu & Brezeanu, 1970); Black Sea (Rudescu, 1961); Pond Heinrichsweiher, Bonn, Germany (Reck, 1981); Hamburg area, Germany (Rühmann, 1961); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Garden ponds in Tokyo, Japan (Suzuki, 1975); Serbian section of river Danube (Zivkovic, 1987); Ditch in Kaifeng, China (Wulfert, 1968); Spain: Huelva & Madrid (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Colorado, USA (Turner, 1988); Altiplanicio Central, Mexico (Vilaclara & Sladecek, 1989)

- Oriental region: South India (Naidu, 1967); India (Sharma & Michael, 1980); Taiwan, Thailand, Malaysia, Singapore, Indonesia, Sri Lanka, India & Philippines (Suzuki, 1989)

- Australian region: Vic, Aust. (Koste & Shiel, 1989)

- Neotropical region: Prov. Rio Negro, Argentina (José de Paggi, 1990); Bonaire & Curaçao (De Ridder, 1977; Collado *et al.*, 1984); Argentine Patagonia (Kuczynski, 1987b)

Lepadella pejleri Eriksen, 1969

- Palaearctic region: Coast of S Finland (Eriksen, 1969); C Eur. plain (Bērziņš, 1978)

Lepadella pontica Althaus, 1957

- Palaearctic region: Carpathes, Pontic province (Bērziņš, 1978); Black Sea (Rudescu, 1961)

Lepadella princisi Bērziņš, 1943

- Palaearctic region: Baltic province of Europe (Bērziņš, 1978)

Lepadella psammophila Tzschaschel, 1979

- Palaearctic region: Island Sylt, North Sea (Tzschaschel, 1979 & 1983)

Lepadella pseudosimilis Koch-Althaus, 1963

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); C Eur. plain (Bērziņš, 1978)

Lepadella pterygoidea (Dunlop, 1897)

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Kingston, Ontario, Canada (Nogrady, 1989)

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Ecuador: Oriente (Koste & Böttger, 1989)

Lepadella ptilota Bērziņš, 1961

- Australian region: Victoria, Aust. (Bērziņš, 1961); Creek in Aust. (Bērziņš, 1982); Vic, Aust. (Koste & Shiel, 1980c); Vic; endemic in Aust. (Koste & Shiel, 1989)

Lepadella pumilo Hauer, 1931

- Palaearctic region: C Eur. mountains & plains (Bērziņš, 1978); Southwest islands of Japan (Suzuki *et al.*, 1992); River Salzach & its tributaries (Donner, 1970); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960; Dresscher, 1976)

- Oriental region: Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974)

Lepadella punctata Wulfert, 1939

- Palaearctic region: C Eur. mountains, C & E Eur. plains (Bērziņš, 1978)

Lepadella pyriformis Myers, 1938

- Nearctic region: Illinois, USA (Bērziņš, 1984)

Lepadella quadricarinata (Stenroos, 1898)

- Palaearctic region: C Eur. mountains, Carpathes, Pontic prov., W, C & E Eur. plains, Boreal highlands, N Eur. tundra & taiga (Bérziņš, 1978); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976); Skopun (Heimara Halsavatn), Faröer (De Smet *et al.*, 1988); Pools with brackish water in S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); District Ostrava, CSR (Dvorakova, 1960b); Hortobagy Nat. Park, Hungary (Forro & Ronkay, 1983); Near Asperg, Württemberg, Germany (Klement, 1960); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); River Hase, NW Germany (Koste, 1976b); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982; Francez & Pourriot, 1984); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Lower Silesia, Poland (Pawlowski, 1960); River Grabia basin, Poland (Pawlowski, 1968, 1970 & 1973); 3 lakes of Sosnowickie, Poland (Radwan, 1968 & 1969); Obretin Lake, Danube delta, Romania (Neagu-Godeanu *et al.*, 1968); N, W & SW Iceland (De Ridder, 1969b, 1970 & 1972); In periphyton of mosses & *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Lake Neusiedlersee, Austria (Donner, 1979); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973); Anatolia, Turkey (Segers *et al.*, 1992); River Bistritza & its tributaries, Romania (Miron, 1960); Karelian inland waters, R.F. (Kutikova, 1965); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Sinia, S Carpathes, Romania (Rodewald-Rudescu & Godeanu, 1961); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Canada (Chengalath, 1977); Near Kingston, Ontario, Canada (Bérziņš, 1961); Illinois & Kentucky, USA (Bérziņš, 1984); Arctic N America (Chengalath & Koste, 1989); Miller's Lake & Columbia L., near Waterloo, Ontario, Canada (Chengalath, 1976)

- Oriental region: Malaysia (Sudzuki, 1989); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); W Bengal, NE India (Sharma, 1978c)

- Australian region: Creek in Australia (Bérziņš, 1982); Swamp near Lake Hayes, S island, New Zealand (Bérziņš, 1982a); Vic, Aust. (Shiel & Koste, 1985; Koste & Shiel, 1989); Lake Ellesmere, New Zealand (Russell, 1960)

- Neotropical region: Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Ecuador: Oriente (Koste & Böttger, 1992)

Lepadella quadricarinata (Stenoos), f. *octocarinata* Wulfert, 1939

- Palaearctic region: C Eur. mountains & Pontic prov. of Europe (Bérziņš, 1978)

Lepadella quadricarinata (Stenoos), f. *sexfarinata* Klement, 1959

- Palaearctic region: Ponds in the Botanical Garden, Gent, Belgium (Segers *et al.*, 1991b)

- Australian region: Creek in Vic, Australia (Bérziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Ecotype of *L. quadricarinata*? (Koste & Shiel, 1989)

Lepadella quadricurvata Francez & Pourriot, 1984

- Palaearctic region: Peat bogs Chambedaze & La Godivelle, Puy-de-Dôme, France (Francez & Pourriot, 1984); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1984c)

Lepadella quinquecostata (Lucks, 1912)

- Palaearctic region: Alps, C Eur. mountains, Carpathes, Hungarian plain, W, C & E Eur. plains, Iceland, Boreal highland, NW Eur. taiga, Caspian area. Cosmopolitan (Bérziņš, 1978); Lakes N of Bukarest, Romania (Godeanu, 1969b); Asiatic Turkey (Dumont & De Ridder, 1987); CH, CSR, Hungary, Romania, R.F. & Germany (Koste, 1972f); Romania (Rudescu, 1960); Lake Balaton, Hungary (Zankai, 1968); W Iceland (De Ridder, 1969b & 1972); Pond Trou de Pisseport, near Besse-en-Chandesse, France (Omaly & Dévaux, 1971); Coast of Ysselmeer & Nat. Res. Meyendel, NL (Dresscher, 1976); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973); Karelian inland waters, R.F. (Kutikova, 1965); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Peats in the Caucasus (Tarnogradsky, 1961); River Volga, R.F. (Mordukhai-Boltovskoi, 1979)

- Nearctic region: Great Dismal Swamp, border Virginia-N Carolina, USA (Anderson, Benfield & Buikema, 1977); Illinois, USA (Bérziņš, 1984)

- Australian region: Australia (Koste, 1972f); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NSW, Aust. (Shiel & Koste, 1979); Qld, Aust. (Koste & Shiel, 1989)

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Mato Grosso, C Brazil (Turner & Da Silva, 1992); Araucarian lakes, W & E of the Andes, Chile (Thomasson, 1963b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Near Concepcion, Paraguay (Koste, 1986b); Prov. Chubut & Chaco, Argentina (José de Paggi, 1989); In phytotelmata on Jamaica (Koste *et al.*, 1991); Ecuador: Oriente (Koste & Böttger, 1992)

Lepadella quinquecostata (Lucks), f. *nevadensis* Morales-Baquero, 1987

- Palaearctic region: Sierra Nevada, Spain (Morales-Baquero, 1987); Alpine lakes, Sierra Nevada, Spain (Morales-Baquero *et al.*, 1989); Spain: Granada (Velasco, 1990)

Lepadella rhodesiana Wulfert, 1965

- Palaearctic region: Iriomote Island, Japan (Sudzuki, 1979)

Lepadella rhomboides (Gosse, 1886)

- Palaearctic region: River Danube (Enaceanu & Brezeanu, 1970); Afghanistan (Bérziņš, 1961); Romania (Rudescu, 1960); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); L. Mikolajskie, Mazurian lakeland, Poland (Klimowicz, 1972); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1972f); Lake Dummer, NW Germany (Koste & Poltz, 1984); Italy, C Eur. mts., Carpathes, Hungarian plain, Pontic prov., W, C & E Eur. plains, Ireland, UK, Boreal highlands, Caspian area, Asia Minor. Cosmopolitan (Bérziņš, 1978); River Grabia basin, Poland (Pawlowski, 1970); Lake Balaton, Hungary (Zankai, 1968); Southwest islands of Japan (Sudzuki, 1990; Sudzuki *et al.*, 1992); Balearic Archipelago Spain (de Manuel *et al.*, 1992); Side-arm of r. Danube, near Bratislava, CSR (Lichardova, 1964); Prov. of S Limburg; Nat. Res. "Het Hol", near Kortenhoef; Nat. Res. Peel; petgaten in NW Overijssel, NL (Dresscher, 1976); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973); Small water bodies in the Mikolajski are, Poland (Klimowicz, 1967); Near water works at Okocim, Poland (Klimowicz, 1975); Anatolia, Turkey (Segers *et al.*, 1992); Bog pond near Budapest, Hungary (Nogrady, 1962); In reed borders of the Danube delta, Romania (Rudescu, 1968); 3 lakes of Ssonowickie, Poland (Radwan, 1969); Ponds in the Botanical Garden, Gent, Belgium (Segers *et al.*, 1991b); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Periphytic biota in sewages & park waters, Jap. (Sudzuki, 1981); Lago Trasimeno, Italy (Taticchi, 1968); Serbian section of river Danube (Zivkovic, 1987); Spain: Alicante (Velasco, 1990); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Canada (Chengalath, 1977); Illinois & Kentucky, USA (Bérziņš, 1984); Throughout Ontario, Canada (Chengalath, 1976); Laurentian Great Lakes (Stemberger, 1979); Crater Lake, Walker L. & Stoneman L., Arizona, USA (Green, 1986)

- Oriental region: India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Philippines (Mamaril & Fernando, 1978); Sri Lanka (Fernando, 1980a); Taiwan (Sudzuki, 1980a); Taiwan; cosmopolitan (Sudzuki, 1991); Taiwan, Thailand, Malaysia, Indonesia, India, Philippines (Sudzuki, 1989); Sri Lanka. Not common; found in ponds & ricefields (Chengalath, Fernando & Koste, 1973); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Impoundment Kinda, C Burma (Koste & Tobias, 1990); West Bengal, NE India (Sharma, 1978c); Orissa, E India (Sharma, 1980b); Lake Manguao, Palawan, The Philippines (Davies & Green, 1990); Nimeta water works, near Baroda, India (Wulfert, 1966)

- Australian region: NSW, Australia (Shiel & Koste, 1979); NT, Aust. (Koste & Shiel, 1980c); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Koste & Shiel, 1983a; Tait, Shiel & Koste, 1984); SW Aust. (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); NSW, NT, Tas & Vic, Aust. (Koste & Shiel, 1989); Oamaru, New Zealand (Russell, 1960)

- Neotropical region: Galapagos Islands (De Smet, 1987 & 1989); Lago Camaleão, Amazonia, Brazil (Koste, Robertson & Hardy, 1984); Near Concepcion, Paraguay (Koste, 1986b); Near Panguana, Peru (Koste, 1988b); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Chilean lakes (Schmid-Araya, 1991); Ecuador: Oriente & Costa (Koste & Böttger, 1989); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Chile, Brazil, Argentina, Columbia, Venezuela & Surinam (Koste & José de Paggi, 1982); Prov. Rio Negro & Buenos Aires, Argentina (José de Paggi, 1990); Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980); Argentina (Olivier, 1965); Santa Cruz, Galapagos Islands (Segers, 1991a); Mato Grosso, C Brazil (Turner & Da Silva, 1992); Lake Cocibolca, Nicaragua (Moreno *et al.*, 1992)

Lepadella rhomboides (Gosse), f. *carinata* Donner, 1943

- Palaearctic region: Romania (Rudescu, 1960); Pelagic zones of the Leczna-Wlodawa lakes, Poland (Radwan, 1975); C Eur. mountains, Carpathes, C Eur. plains (Bérziņš, 1978); Germany & CSR (Koste, 1972f); In sewage biota in Tokyo & surroundings, Japan (Sudzuki, 1981)

- Australian region: Vic, Australia (Koste & Shiel, 1980c)

- Neotropical region: Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972f); Argentina (Koste & José de Paggi, 1982); Prov. Buenos Aires, Argentina (José de Paggi, 1990)

Lepadella rhomboides (Gosse), f. *haueri* Bartos, 1955

- Palaearctic region: Italy, C Eur. mountains & plains (Bérziņš, 1978); Southwest islands of Japan (Sudzuki *et al.*, 1992)

- Australian region: Stock dam, 36 km S of Burnie, Tasmania (Koste & Shiel, 1986b)

Lepadella rhomboides (Gosse), f. *lata* Wulfert, 1956

- Palaearctic region: C Eur. plain (Bērziņš, 1978)

Lepadella rhomboides leentvaari Bērziņš, 1979

- Neotropical region: Brokopondo Lake, Surinam (Leentvaar, 1979); Surinam (Koste & José de Paggi, 1982)

Lepadella rhomboides signiensis Dartnall & Hollowday, 1985

- Antarctic region: Antarctica (Dartnall & Hollowday, 1985)

Lepadella rhomboidula (Bryce, 1890)

- Palaearctic region: Alps, W & C Eur. plains, UK, Iceland, Caucasus (Bērziņš, 1978); Lake Quackjeswater, Voorne Island, NL (Leentvaar, 1963; Dresscher, 1976); Camargue, S France (De Ridder, 1960a & 1961); W & SW Iceland (De Ridder, 1966a & 1972); Lago Trasimeno, Italy (Taticchi, 1968)

- Oriental region: Indonesia & India (Sudzuki, 1989); West Bengal, NE India (Sharma, 1978c; Sharma & Sharma, 1987)

- Australian region: New Zealand (Bērziņš, 1978)

Lepadella riedeli De Ridder, 1966

- Nearctic region: Wisconsin, USA (Bērziņš, 1984)

- Neotropical region: Lake Managua, Nicaragua (De Ridder, 1966b)

Lepadella rottenburgi (Lucks, 1912)

- Palaearctic region: C Eur. mountains, Carpathes, Pontic province, C & E Eur. plains & Boreal highlands (Bērziņš, 1978); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Peat bogs in the Auvergne, France (Francez, 1981); Peat bog Chambedaze, Massif Central, France (Francez, 1982, 1987 & 1988); Peat bog in the Hohe Tatra mountains, CSR (Fott, 1960); Peat bog Laptici, Bucegi mts, Romania (Godeanu, 1970); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978)

- Australian region: Creek in Vic, Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985; Koste & Shiel, 1989)

- Neotropical region: Crescent Lake & Fox's Pool, Rio Snia Missu, Mato Grosso, Brazil (Green, 1972); Amazonia, Brazil (Hauer, 1965b; Thomasson, 1971; Koste, 1972); Brazil (Koste & José de Paggi, 1982); Lago Paroni, Brazil (Koste, 1974a)

Lepadella sali Bērziņš, 1976

- Palaearctic region: Aneboda, Sweden (Bērziņš, 1976); C Eur. plain (Bērziņš, 1978)

Lepadella salpina Ehrenberg, 1834

- Australian region: NSW & Qld, Australia (Shiel & Koste, 1979)

Lepadella serrata Yamamoto, 1951

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

Lepadella sexcostata Koste & Böttger, 1992

- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

Lepadella strepta Bērziņš, 1984

- Nearctic region: Illinois, USA (Bērziņš, 1984)

Lepadella tana Koste & Shiel, 1986

- Australian region: Lake Pedder, Tasmania (Koste & Shiel, 1986b); Tasmania (Shiel, Koste & Tan, 1989); Endemic in Tasmania (Koste & Shiel, 1989)

Lepadella tenella Wulfert, 1942

- Palaearctic region: Alps (Bērziņš, 1978)

Lepadella triba Myers, 1934

- Palaearctic region: C Eur. plain, Baltic province, N Eur. tundra (Bērziņš, 1978); River Hase, NW Germany (Koste, 1976b); Nat. Res. Leiemersen, Assebroek, Belgium (De Ridder, 1992); Achmer Grasmoor, NW Germany (Koste, 1968b); Ponds in Botanical Garden, Gent, Belgium (Segers *et al.*, 1991b); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d)

- Nearctic region: Ponds near Ontario, Canada (Chengalath, 1976); Canada (Chengalath, 1977); Illinois & Missouri, USA (Bērziņš, 1984)

- Oriental region: Sri Lanka (Fernando, 1980a); Thailand & Sri Lanka (Sudzuki, 1989); Sri Lanka: Dothella Mahamewa & Hettyiali (Chengalath, Fernando & Koste, 1973); Bung-Borapet, C Thailand (Koste, 1975a)

- Australian region: Qld, Aust. (Bērziņš, 1982; Shiel & Koste, 1985; the record needs confirmation after Koste & Shiel, 1989)

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Lago Paroni, Brazil (Koste, 1974a); Varzea near Santarem, Brazil (Koste, 1974b)

Lepadella tricostata Koste & Robertson, 1990

- Neotropical region: Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lepadella triprojectus Sharma, 1978

- Oriental region: West Bengal, NE India (Sharma, 1978c); India (West Bengal) (Sharma & Michael, 1980); India (Sudzuki, 1989)

***Lepadella triptera* (Ehrenberg, 1830)**

- Palaearctic region: Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); River Hase, NW Germany (Koste, 1976b); Romania (Rudescu, 1960); All over Europe; Caucasus, Caspian area, Asia Minor. Cosmopolitan (Bērziņš, 1978); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); L. Mikolajskie & L. Sniardny, Mazurian lakeland, Poland (Kosicki, 1960); Lake Breedewater, Voorne & Lake Vogelmeer, Ymuiden, NL (Leentvaar, 1963); N Swedish Lapland (Pejler, 1962a); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Mt. Hoverla, Maramarosch Alps, Hungary (Varga, 1962); Lake Bodensee, near Konstanz (Koch-Althaus, 1962); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1982); Pools with fresh & brackish water, S Finland (Björklund, 1972a); Coast of S Finland (Eriksen, 1969); Sierra Nevada, Spain (Morales-Baquero, 1987); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Camargue, S France (De Ridder, 1960a & 1961); N & W Iceland (De Ridder, 1969b, 1970 & 1972); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Southwest islands of Japan (Sudzuki *et al.*, 1992); Dübener Heide, NW Germany (Wulfert, 1960a, 1960b & 1961); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Japanese inland waters (Yamamoto, 1960a); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Amsterdam; Nat. Res. Meyendel; Rijn, Waal & Yssel; Nat. Res. Het Hol, Kortenhoef; near Nijmegen; Nat. Res. de Venematen; Lake Breedewater, Voorne, NL (Dresscher, 1976); Etang Blanc, Landes, SW France (De Ridder, 1967b); Lake Neusiedlersee, Austria (Donner, 1979); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Small water bodies in the Mikolajski area, Poland (Klimowicz, 1967); Anatolia, Turkey (Segers *et al.*, 1992); River Bistritza & its tributaries, Romania (Miron, 1960); Bog pond near Budapest, Hungary (Nogrady, 1962); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Karelian inland waters, R.F. (Kutikova, 1965); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Peat bogs Poiana Stampei, Bukowina, Rom. (Rudescu, 1966); Fens in Genk, Belgium (Schepens, 1960); Lago Trasimeno, Italy (Taticchi, 1968); Serbian section of river Danube (Zivkovic, 1987); Brook in Lao-Shan mountains, China (Wulfert, 1968); Spain: Barcelona, Granada, Orense; Baleares: Menorca (Velasco, 1990); Nat. Res. "Leiemeersen", Assebroek, Belgium (De Ridder, 1992); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972/1973)

- Nearctic region: Mesotrophic fen in Newfoundland, Canada (Bateman & Davis, 1980); Canada (Chengalath, 1977); Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogrady, 1989); Wisconsin & Illinois, USA (Bērziņš, 1984); Pond near Waterloo & Calaboogie Lake, Renfrew County, Ontario, Canada (Chengalath, 1976); Lac Echo, Québec, Canada (Nogrady, 1976); Laurentian Great Lakes (Stemberger, 1979); Silver Lake, Adirondack mts., NY State, USA (Siegfried, 1991); Everglades Nat. Park, Florida, USA (Nogrady, 1983)

- Oriental region: Singapore (Karunakaran & Johnson, 1978); Singapore, Indonesia & India (Sudzuki, 1989); India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); Panjab State, India (Sharma & Sharma, 1984); West Bengal, NE India (Sharma, 1978c); Impoundment Kinda, C Burma (Koste & Tobias, 1990); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969)

- Australian region: In many localities in Australia (Bērziņš, 1982); Qld, Aust. (Shiel & Koste, 1979); NW Aust.: Magela Creek area (Koste, 1981b); Lake Dulverton, Tasmania (Koste & Shiel, 1986b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NSW, NT, Qld, Tas & Vic, Aust. (Koste & Shiel, 1989); Lincoln, mt. Cook, New Zealand; Campbell Isl. (Russell, 1960)

- Neotropical region: Amazonia, Brazil (Thomasson, 1971; Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil, Argentina, Chile, Venezuela & Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Near Concepcion, Paraguay (Koste, 1986b); Island of Maraca, Brazil (Koste & Robertson, 1990); Chilean lakes (Schmid-Araya, 1991); Panama (Collado *et al.*, 1984); Prov. Tierra del Fuego, Chubut, Rio Negro & Neuquen, Argentina (José de Paggi, 1990); Argentine Patagonia (Kuczynski, 1987b); Brackish ponds on Grand Bahama Island, W Indies (Nogrady, 1983); Prov. Neuquen & Tierra del Fuego, Argentina (Olivier, 1965); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b); Ecuador: Sierra & Costa (Koste & Böttger, 1992)

- Antarctic region: Antarctica (Dartnall & Hollowday, 1985)

***Lepadella triptera* (Ehrenberg), f. *alata* Myers, 1934**

- Palaearctic region: Japanese inland waters (Yamamoto, 1960a)

- Oriental region: Indonesia (Sudzuki, 1989)

- Neotropical region: Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982)
- Lepadella triptera* (Ehrenberg), f. *clydona* Bērziņš, 1949
 - Palaearctic region: C Eur. plain (Bērziņš, 1978)
- Lepadella triptera* (Ehrenberg), f. *deconincki* De Ridder, 1966
 - Palaearctic region: W & SW Iceland (De Ridder, 1966a, 1969b, 1970 & 1972); Iceland (Bērziņš, 1978)
- Lepadella triptera* (Ehrenberg), f. *rhomboïdula* (Bryce, 1890)
 - See *L. rhomboïdula* (Bryce, 1890)
- Lepadella tyleri* Koste & Shiel, 1987
 - Australian region: Tasmania (Koste & Shiel, 1986b & 1987; Shiel, Koste & Tan, 1989); Endemic in Tasmania (Koste & Shiel, 1989)
- Lepadella vanoyei* De Ridder, 1966a
 - Palaearctic region: Iceland (De Ridder, 1966a; Bērziņš, 1978)
- Lepadella venefica* Myers, 1934
 - Palaearctic region: C Eur. plain (Bērziņš, 1978)
 - Neotropical region: ? Brokopondo Lake, Surinam (Leentvaar, 1979)
- Lepadella vitrea* (Shephard, 1911)
 - Palaearctic region: Leczna & Włodawa Lake District, E Poland. New to Europe (Radwan, 1971)
 - Australian region: South Westland, New Zealand (Koste & Shiel, 1989); Qld & Vic, Aust. (Shiel & Koste, 1979); Notornis valley, New Zealand (Russell, 1960)
- Lepadella whitfordi* Ahlstrom, 1938
 - Australian region: Lake Mc Gregor; New Zealand (Russell, 1960)
 - Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b); Brazil (Koste & José de Paggi, 1982)
- Lepadella williamsoni* Koste & Shiel, 1980
 - Oriental region: Kuala Lumpur, Malaysia (Koste & Shiel, 1989)
 - Australian region: NT, Australia (Koste & Shiel, 1980c); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Koste & Shiel, 1989)
- Lepadella wrighti* Koste, 1972
 - Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)
- Lepadella* spec.
 - Palaearctic region: Lago Scuro Parmense, N Italy (Antonietti *et al.*, 1988); Middle course of river Po, Italy (Ferrari *et al.*, 1986); Po river, Italy (Ferrari *et al.*, 1989); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); Peat bogs in Finland (Selin & Koskinen, 1988); Jotunheimen, high mountains in Norway (Blakar & Jacobsen, 1979); Central Finland (Eloranta, 1982b); Lake Zwanewater in Callantsoog, NL (Leentvaar, 1967a); Delta of river Danube, Romania (Prunescu-Arion, 1989); Norfolk broads, UK (Irvine *et al.*, 1990); River Elbe near Hamburg, Germany (Caspers & Schulz, 1964); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); River Lausitzer Neisse, Germany (Walter & Scharf, 1961); Artificial ponds near Köln, Germany (Trahms, 1972); Lake in Leersumse Veld, NL (Leentvaar, 1967b); In periphyton of mosses & *Myriophyllum* in the Danube, and in some Alpine brooks, Austria (Donner, 1964); Hamburg harbour, Germany (Tent, 1981); Lake Nimetön, S Finland (Arvola *et al.*, 1986); All over the Netherlands (Dresscher, 1976); Etang de Pinsolle & Etang de Hardy, Landes, SW France (De Ridder, 1967b); River Elbe estuary, Germany (Schulz, 1961); Lakes Uiversnest & Meeuwenven, near Nijmegen, NL (Geelen, 1969); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Lower course of Sambre river, Belgium (Dumont & Van Vossel, 1973); Lowland brook-pond system at Boom, Belgium (Maes, 1985); 6 lakes in the Puy-de-Dôme, France (Persoone *et al.*, 1968); Rés. biol. de Villars-la-Dombes, France (Rostan, 1976); Hamburg area, Germany (Rühmann, 1961 & 1965a); Middle course of river Loire, France (Lair & Sargos, 1981); Fukushima Prefecture, Japan (Sudzuki, 1982); Peats in the Caucasus (Tarnogradsky, 1961); Lago Trasimeno, Italy (Taticchi, 1968)
 - Nearctic region: Massey Lake, 16 km of Beaumont, Texas, USA (Marsh *et al.*, 1978); Everglades Nat. Park, Florida, USA (Nogrady, 1983); Milwaukee harbor, USA (Stemberger, 1974); Indiana, USA (Whitman *et al.*, 1988); Patricia L. & Celestine L., in Jasper Nat. Park, Alberta, Canada (Anderson, 1970b); Lake 382, experimental lake area, NW Ontario, Canada (Malley & Chang, 1991); Northern Michigan inland lakes (Stemberger, 1990); Kalamazoo river, Michigan, USA (Prins & Davis, 1966); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); NW Colorado, USA (Cauton & Ward, 1981); Atchafalaya river basin, Louisiana, USA (Holland *et al.*, 1983); Desaulniers reservoir, Québec, Canada (Pinel-Alloul *et al.*, 1982); Long pond, St. John's, Newfoundland, Canada (O'Connell & Andrews, 1977); Severson Lake, Minnesota, USA (Comita, 1972); Mirror Lake, New Hampshire, USA (Strayer, 1985); Experimental ponds near Bakersfield, Cern (Hurlbert *et al.*, 1972); County, California, USA); Lake 122, NW Ontario, Canada

(Schindler & Novén, 1971)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Lake Sat Tal, Utar Pradesh, India (Pant *et al.*, 1985); Ricefields in NE Thailand (Heckman, 1979); Waltair coast, Madras, India (Rao & Ganapati, 1968); Ponds in Pilani, Rajasthan, India (Nayar, 1970)
- Australian region: River & reservoir in Australia (Bérziņš, 1982); Lake Purrumbete & Valley Lake, freshwater temperate Australian crater lakes (Green, 1981)
- Neotropical region: Surinam (Leentvaar, 1975); River Parana, Argentina (José de Paggi, 1978a); Provinces in NW Argentina (José de Paggi, 1989); Arroyo Rodriguez, prov. of Buenos Aires, Argentina (Modenutti, 1987); Varzea near Santarem, Brazil (Koste, 1974b); Rivers in the E plain of Venezuela (Sanchez *et al.*, 1985); Amazonia, Brazil (Gillard, 1967; Thomasson, 1971); Araucarian lakes, W of the Andes & Araucarian pools a ponds, Chile (Thomasson, 1963b); Mato Grosso, C Brazil (Turner & Da Silva, 1992)

Subgenus *Heterolepadella* Bartos, 1955

Lepadella (H) apsicora Myers, 1934

- Nearctic region: Kentucky, USA (Bérziņš, 1984)
- Oriental region: India (Sharma & Michael, 1980); Singapore (Karunakaran & Johnson, 1978); Malaysia, Singapore, Indonesia & India (Sudzuki, 1989); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); W & E Malaysia & Singapore (Fernando & Zankai, 1981); West Bengal, NE India (Sharma, 1978c); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976)
- Australian region: Vic, Australia (Koste & Shiel, 1980c); NW Aust.: Magela Creek area, NT, Aust. (Tait, Shiel & Koste, 1984); NT & Vic, Aust. (Koste & Shiel, 1989)
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

Lepadella (H) cyrtopus Harring, 1914

- Palaearctic region: Hungarian plain (Bérziņš, 1978); Eastern Europe (Koste & Shiel, 1989; Sudzuki, 1991)
- Nearctic region: N & C America (Koste & Shiel, 1989); N & S America (Sudzuki, 1991)
- Oriental region: Singapore (Sudzuki, 1989 & 1991)
- Neotropical region: Panama (Koste & José de Paggi, 1982; Collado *et al.*, 1984); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984)

Lepadella (H) ehrenbergi (Perty, 1890)

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Romania (Rudescu, 1960); Afghanistan (Bérziņš, 1961); N Swedish Lapland (Pejler, 1962a); All over Europe. Cosmopolitan (Bérziņš, 1978); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Spain: Gerona, Léon & Valencia (Velasco, 1990); Japanese inland waters (Yamamoto, 1960a); Lago Trasimeno, Italy (Taticchi, 1968)
- Nearctic region: Jasper Lake, western N America (Thomasson, 1962); Canada (Chengalath, 1977); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); 2 temporary ponds near Waterloo, Ontario, Can. (Chengalath, 1976); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Lac Echo, Québec, Canada (Nogrady, 1976)
- Oriental region: India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Indonesia & India (Sudzuki, 1989); Impoundment Kinda, C Burma (Koste & Tobias, 1990); West Bengal, NE India (Sharma, 1978c)
- Australian region: Lake Euramoo & Bromfield Swamp, tropical Queensland Australian crater lakes (Green, 1981); NSW, Aust. (Shiel & Koste, 1979); NT & Vic, Aust. (Koste & Shiel, 1980c); NW Aust. (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NSW, NT, Qld & Vic, Aust (Koste & Shiel, 1989)
- Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b); Venezuela & Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982)

Lepadella (H) heterodactyla Fadeev, 1925

- Palaearctic region: Pontic province & E Eur. plain (Bérziņš, 1978)
- Australian region: Vic, Australia (Koste & Shiel, 1980c & 1989); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Shiel & Koste, 1985)
- Neotropical region: Orinoco river basin, Venezuela (Vasquez, 1984a); Ecuador: Oriente & Costa (Koste & Böttger, 1989)

Lepadella (H) heterodactyla Fadeev, f. *nympha* Donner, 1943

- Palaearctic region: C Eur. mountains & plains, Pontic province (Bérziņš, 1978); Romania (Rudescu, 1960); Prov. Zuid-Limburg, NL (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1979)
- Oriental region: Malaysia (Sudzuki, 1989)

Lepadella (H) heterostyla (Murray, 1913)

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); C Eur. plain & Caspian area (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Spaarnwoude, near Amsterdam, NL (Oosten, 1972); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973)
- Nearctic region: Mer Bleue Swamp near Ottawa, Ontario, Canada (Chengalath, 1976); Canada (Chengalath, 1977)
- Oriental region: India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Singapore & India (Sudzuki, 1989); West Bengal, NE India (Sharma, 1978c); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976)
- Australian region: NSW, Australia (Shiel & Koste, 1979); Vic, Aust. (Koste & Shiel, 1980c); S Tasmania & NSW, Aust. (Koste, Shiel & Tan, 1988); NSW, Tas & Vic, Aust. (Koste & Shiel, 1989)
- Neotropical region: Varzea near Santarem, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)

Subgenus *Xenolepadella* Hauer, 1926*Lepadella (X) astacicola* Hauer, 1926

- Palaearctic region: Romania (Rudescu, 1960); Balkan, Pontic province, C & E Eur. plains (Bērziņš, 1978)
- Neotropical region: Argentina (Olivier, 1965; Koste & José de Paggi, 1982); Prov. Tierra del Fuego, Argentina (José de Paggi, 1990)

Lepadella (X) borealis Harring, 1916

- Palaearctic region: Balkan, Carpathes, Pontic province, C & E Eur. plains, Boreal highlands, N Sweden & NW Russian taiga (Bērziņš, 1978); Romania (Rudescu, 1960); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Luga district of the Leningrad area, R.F. (Kutikova, 1962b)
- Nearctic region: NE Canada (Chengalath & Koste, 1983); Wisconsin, USA (Bērziņš, 1984); Near Monroe, Louisiana, USA (Gallagher, 1966)
- Oriental region: Malaysia (Sudzuki, 1989)

Lepadella (X) branchicola Hauer, 1926

- Palaearctic region: Balkan, Pontic province, C & E Eur. plains (Bērziņš, 1978); Romania (Rudescu, 1960); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakbayev, 1972); Mountain Fuji lava caves, Japan (Sudzuki, 1971a); Lakes around mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a)
- Neotropical region: Surinam (Koste & José de Paggi, 1982)

Lepadella (X) curvicaudata Turner, 1990

- Neotropical region: Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990)

Lepadella (X) lata Wiszniewski, 1939

- Palaearctic region: Balkan, Pontic province, C & E Eur. plains (Bērziņš, 1978)
- Palaearctic region: C Eur. mountains, Pontic province, E Eur. plains (Bērziņš, 1978); Romania (Rudescu, 1960)
- Oriental region: Singapore (Karunakaran & Johnsoin, 1978)

Lepadella (X) monodactyla Bērziņš, 1960

- Oriental region: Malaysia (Sudzuki, 1989)
- Australian region: NT, Australia (Koste & Shiel, 1980c & 1989); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)
- Neotropical region: Amazonia, Brazil (Koste, 1972f); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lepadella (X) monodactyla Bērziņš, f. *braziliensis* Koste, 1972

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Lago Cigana, Amazonia, Brazil (Schaden, 1977c)

Lepadella (X) monodactyla Bērziņš f. *caudata* Koste, 1972

- Oriental region: Bung-Borapet, C Thailand (as *L. monostyla* f. *caudata*) (Koste, 1975a); W & E Malaysia & Singapore (Fernando & Zankai, 1981)
- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)

Lepadella (X) parasitica Hauer, 1926

- Palaearctic region: Balkan, Carpathes, Pontic province, C & E plains (Bērziņš, 1978)

(Schindler & Novén, 1971)

- Oriental region: Bung-Borapet, C Thailand (Koste, 1975a); Lake Sat Tal, Utar Pradesh, India (Pant *et al.*, 1985); Ricefields in NE Thailand (Heckman, 1979); Waltair coast, Madras, India (Rao & Ganapati, 1968); Ponds in Pilani, Rajasthan, India (Nayar, 1970)
- Australian region: River & reservoir in Australia (Bérziņš, 1982); Lake Purrumbete & Valley Lake, freshwater temperate Australian crater lakes (Green, 1981)
- Neotropical region: Surinam (Leentvaar, 1975); River Parana, Argentina (José de Paggi, 1978a); Provinces in NW Argentina (José de Paggi, 1989); Arroyo Rodriguez, prov. of Buenos Aires, Argentina (Modenutti, 1987); Varzea near Santarem, Brazil (Koste, 1974b); Rivers in the E plain of Venezuela (Sanchez *et al.*, 1985); Amazonia, Brazil (Gillard, 1967; Thomasson, 1971); Araucarian lakes, W of the Andes & Araucarian pools a ponds, Chile (Thomasson, 1963b); Mato Grosso, C Brazil (Turner & Da Silva, 1992)

Subgenus *Heterolepadella* Bartos, 1955

Lepadella (H) apsicora Myers, 1934

- Nearctic region: Kentucky, USA (Bérziņš, 1984)
- Oriental region: India (Sharma & Michael, 1980); Singapore (Karunakaran & Johnson, 1978); Malaysia, Singapore, Indonesia & India (Sudzuki, 1989); Lakelet Tan Daha, Kathmandu valley, Nepal (Daems & Dumont, 1974); W & E Malaysia & Singapore (Fernando & Zankai, 1981); West Bengal, NE India (Sharma, 1978c); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976)
- Australian region: Vic, Australia (Koste & Shiel, 1980c); NW Aust.: Magela Creek area, NT, Aust. (Tait, Shiel & Koste, 1984); NT & Vic, Aust. (Koste & Shiel, 1989)
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1992)

Lepadella (H) cyrtopus Harring, 1914

- Palaearctic region: Hungarian plain (Bérziņš, 1978); Eastern Europe (Koste & Shiel, 1989; Sudzuki, 1991)
- Nearctic region: N & C America (Koste & Shiel, 1989); N & S America (Sudzuki, 1991)
- Oriental region: Singapore (Sudzuki, 1989 & 1991)
- Neotropical region: Panama (Koste & José de Paggi, 1982; Collado *et al.*, 1984); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984)

Lepadella (H) ehrenbergi (Perty, 1890)

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Romania (Rudescu, 1960); Afghanistan (Bérziņš, 1961); N Swedish Lapland (Pejler, 1962a); All over Europe. Cosmopolitan (Bérziņš, 1978); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Lake Doiran, Macedonia, ex-Yugoslavia (Popovska-Stankovic, 1990); Spain: Gerona, Léon & Valencia (Velasco, 1990); Japanese inland waters (Yamamoto, 1960a); Lago Trasimeno, Italy (Taticchi, 1968)
- Nearctic region: Jasper Lake, western N America (Thomasson, 1962); Canada (Chengalath, 1977); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990); 2 temporary ponds near Waterloo, Ontario, Can. (Chengalath, 1976); Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Lac Echo, Québec, Canada (Nogrady, 1976)
- Oriental region: India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Indonesia & India (Sudzuki, 1989); Impoundment Kinda, C Burma (Koste & Tobias, 1990); West Bengal, NE India (Sharma, 1978c)
- Australian region: Lake Euramoo & Bromfield Swamp, tropical Queensland Australian crater lakes (Green, 1981); NSW, Aust. (Shiel & Koste, 1979); NT & Vic, Aust. (Koste & Shiel, 1980c); NW Aust. (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NSW, NT, Qld & Vic, Aust (Koste & Shiel, 1989)
- Neotropical region: Varzea near Santarem, Brazil (Koste, 1974b); Venezuela & Brazil (Koste & José de Paggi, 1982); Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982)

Lepadella (H) heterodactyla Fadeev, 1925

- Palaearctic region: Pontic province & E Eur. plain (Bérziņš, 1978)
- Australian region: Vic, Australia (Koste & Shiel, 1980c & 1989); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); NT, Aust. (Shiel & Koste, 1985)
- Neotropical region: Orinoco river basin, Venezuela (Vasquez, 1984a); Ecuador: Oriente & Costa (Koste & Böttger, 1989)

Lepadella (H) heterodactyla Fadeev, f. *nympha* Donner, 1943

- Palaearctic region: C Eur. mountains & plains, Pontic province (Bérziņš, 1978); Romania (Rudescu, 1960); Prov. Zuid-Limburg, NL (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1979)
- Oriental region: Malaysia (Sudzuki, 1989)

Lepadella (H) heterostyla (Murray, 1913)

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); C Eur. plain & Caspian area (Bērziņš, 1978); Japanese inland waters (Yamamoto, 1960a); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Spaarnwoude, near Amsterdam, NL (Oosten, 1972); Obretin embanked basin, Danube delta, Romania (Godeanu *et al.*, 1973)
- Nearctic region: Mer Bleue Swamp near Ottawa, Ontario, Canada (Chengalath, 1976); Canada (Chengalath, 1977)
- Oriental region: India (Sharma & Michael, 1980); NE India (Sharma & Sharma, 1987); Singapore & India (Sudzuki, 1989); West Bengal, NE India (Sharma, 1978c); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976)
- Australian region: NSW, Australia (Shiel & Koste, 1979); Vic, Aust. (Koste & Shiel, 1980c); S Tasmania & NSW, Aust. (Koste, Shiel & Tan, 1988); NSW, Tas & Vic, Aust. (Koste & Shiel, 1989)
- Neotropical region: Varzea near Santarem, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)

Subgenus *Xenolepadella* Hauer, 1926*Lepadella (X) astacicola* Hauer, 1926

- Palaearctic region: Romania (Rudescu, 1960); Balkan, Pontic province, C & E Eur. plains (Bērziņš, 1978)
- Neotropical region: Argentina (Olivier, 1965; Koste & José de Paggi, 1982); Prov. Tierra del Fuego, Argentina (José de Paggi, 1990)

Lepadella (X) borealis Harring, 1916

- Palaearctic region: Balkan, Carpathes, Pontic province, C & E Eur. plains, Boreal highlands, N Sweden & NW Russian taiga (Bērziņš, 1978); Romania (Rudescu, 1960); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); Luga district of the Leningrad area, R.F. (Kutikova, 1962b)
- Nearctic region: NE Canada (Chengalath & Koste, 1983); Wisconsin, USA (Bērziņš, 1984); Near Monroe, Louisiana, USA (Gallagher, 1966)
- Oriental region: Malaysia (Sudzuki, 1989)

Lepadella (X) branchicola Hauer, 1926

- Palaearctic region: Balkan, Pontic province, C & E Eur. plains (Bērziņš, 1978); Romania (Rudescu, 1960); Aral Sea spawning grounds, R.F. (Yerekeyev & Kazakhbayev, 1972); Mountain Fuji lava caves, Japan (Sudzuki, 1971a); Lakes around mountain Fuji, Japan (Sudzuki, 1971b); Mountain Fuji area, Japan (Sudzuki, 1978a)
- Neotropical region: Surinam (Koste & José de Paggi, 1982)

Lepadella (X) curvicaudata Turner, 1990

- Neotropical region: Lake Coca-Cola, near Rio de Janeiro, Brazil (Turner, 1990)

Lepadella (X) lata Wiszniewski, 1939

- Palaearctic region: Balkan, Pontic province, C & E Eur. plains (Bērziņš, 1978)
- Oriental region: Singapore (Karunakaran & Johnsoin, 1978)

Lepadella (X) monodactyla Bērziņš, 1960

- Oriental region: Malaysia (Sudzuki, 1989)
- Australian region: NT, Australia (Koste & Shiel, 1980c & 1989); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)
- Neotropical region: Amazonia, Brazil (Koste, 1972f); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990)

Lepadella (X) monodactyla Bērziņš, f. *braziliensis* Koste, 1972

- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982); Lago Cigana, Amazonia, Brazil (Schaden, 1977c)

Lepadella (X) monodactyla Bērziņš f. *caudata* Koste, 1972

- Oriental region: Bung-Borapet, C Thailand (as *L. monostyla* f. *caudata*) (Koste, 1975a); W & E Malaysia & Singapore (Fernando & Zankai, 1981)
- Neotropical region: Amazonia, Brazil (Koste, 1972f); Brazil (Koste & José de Paggi, 1982)

Lepadella (X) parasitica Hauer, 1926

- Palaearctic region: Balkan, Carpathes, Pontic province, C & E plains (Bērziņš, 1978)

Liliferotrocha Sudzuki, 1959

Liliferotrocha subtilis (Rodewald, 1940)

- Palaearctic region: Romania (Rudescu, 1960); Lake Balaton, Hungary (Zankai, 1989); Japan; St. Ghioł Lake, r. Danube delta; several pools near Bucarest; Sirca, near Roman; near Tabacaria L., Romania (Godeanu, 1971); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973)
- Oriental region: Delhi, India (Sarma, 1988)
- Neotropical region: Lago de Valencia, Venezuela (De Infante, 1980); Venezuela (Koste & José de Paggi, 1982); Lake Valencia, Venezuela (Saunders & Lewis, 1988)

Liliferotrocha spec.

- Oriental region: Singapore (Sudzuki, 1989); Singapore. Distribution: France, Romania, New Zealand, Japan (Sudzuki, 1991)

Limnias Schrank, 1803

Limnias ceratophylli Schrank, 1803

- Palaearctic region: River Oude Waal near Nijmegen, NL (Delbecque & Suykerbuyk, 1988); River Ybbarspå, Sweden (Bērziņš, 1979); Coast of S Finland (Eriksen, 1969); Romania (Rudescu, 1960); Darnsee near Epe, NW Germany (Koste, 1962); Achmer Grasmoor, NW Germany (Koste, 1968b); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); All over Europe. Cosmopolitan (Bērziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); Dübener Heide, N Germany (Wulfert, 1960a, 1960b & 1961); River Maas, Waal & Yssel, NL (Dresscher, 1976); Frankenland, Germany (Tiefenbacher, 1972); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1984a); Peat bogs Chambedaze & La Godivelle, ibid. (Francez, 1984b); Lake Neusiedlersee, Austria (Donner, 1975 & 1979); Canal Leeds-Liverpool, UK (Galliford, 1960b)
- Nearctic region: Canada (Chengalath, 1977); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Kingston, Ontario, Canada (Nogradi, 1989); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Fernando, 1980a); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Sri Lanka. Gem Pit, Ratnapura (Chengalath, Fernando & Koste, 1974); Thailand, Malaysia, Singapore, Indonesia, India & Sri Lanka (Sudzuki, 1989)
- Australian region: Tasmania (Koste & Shiel, 1987); NSW, Qld & Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); North Otago, New Zealand (Russell, 1960)
- Neotropical region: Galapagos Islands (De Smet, 1987 & 1989); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Argentina (Modenutti & Claps, 1988); Amazonia, Brazil (Koste, 1972f); Varzea near Santarem, Brazil (Koste, 1974b); Brazil, Panama, Colombia, Honduras (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Panama (Collado *et al.*, 1984); In phytotelmata on Jamaica (Koste *et al.*, 1991); Mato Grosso, C Brazil (Turner & Da Silva, 1992)

Limnias ceratophylli Schrank, f. *socialis* Leidy, 1874

- Nearctic region: River Ocqueoc, Michigan, USA (Beach, 1960)

Limnias ceratophylli Schrank, f. *sphagnicola* Zacharias, 1886

- Palaearctic region: C Eur. mountains & plains, Carpathes, E Eur. plains (Bērziņš, 1978); Lake Balaton, Hungary (Zankai, 1968); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

Limnias cornuella Rousselet, 1889

- Palaearctic region: Alps & UK (Bērziņš, 1978)
- Neotropical region: Brazil (Koste & José de Paggi, 1982)

Limnias melicerta Weisze, 1848

- Palaearctic region: All over Europe. Cosmopolitan (Bērziņš, 1978); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bog La Godivelle, Puy-de-Dôme, France (Francez, 1984a); Peat bogs Chambedaze & La Godivelle, ibid. (Francez, 1984b); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); Lake Dümmer, NW Germany (Koste & Poltz, 1984); Lake Alfsee, NW Germany (Koste & Poltz, 1987); Coast of S Finland (Eriksen, 1969); River Grabia basin, Poland (Pawlowski, 1970); Lake Balaton, Hungary (Zankai, 1968); Southwest islands of Japan (Sudzuki *et al.*, 1992); Dübener Heide, N Germany (Wulfert, 1960a, 1960b & 1961); Frankenland, Germany (Tiefenbacher, 1972); Ponds in Botanical Garden, Gent, Belgium (Segers *et al.*, 1991); Spain:

Orense (Velasco, 1990b)

- Nearctic region: Canada (Chengalath, 1977); NW Canada (Chengalath & Koste, 1987); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988); Arctic N America (Chengalath & Koste, 1989); Mud Pond, S Grafton County, New Hampshire, USA (Wallace, 1977a; Wallace & Starkweather, 1985); Laurentian Great Lakes (Stemberger, 1979)
- Oriental region: India (Sharma & Michael, 1980); Sri Lanka (Mendis & Fernando, 1962; Fernando, 1969 & 1980a); Singapore (Karunakaran & Johnson, 1978); Thailand, Malaysia, Singapore, Indonesia, Sri Lanka & India (Sudzuki, 1989); Bung-Borapet, C Thailand (Koste, 1975a); Kalimantan (Borneo), Indonesia (Koste, 1988a); Sri Lanka. Gem Pit Ratnapura (Chengalath, Fernando & Koste, 1974); W & E Malaysia & Singapore (Fernando & Zankai, 1981); Lake Ranu Lamongau, Indonesia (Green *et al.*, 1976)
- Australian region: SW Australia (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); Bromfield Swamp, tropical Queensland Aust. crater lake (Green, 1981); NSW, Qld & Vic, Aust. (Shiel & Koste, 1979); NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984)
- Neotropical region: Rio Nhamunda, Amazonia, Brazil (Brandorff, Koste & Smirnov, 1982); Island of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Near Panguana, Peru (Koste, 1988b); Near Concepcion, Paraguay (Koste, 1986b); Paraguay, Brazil, Panama (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983; Koste, Robertson & Hardy, 1984); Varzea near Santarem, Brazil (Koste, 1974b); Ecuador: Oriente & Costa (Koste & Böttger, 1989 & 1992); Mato Grosso, C Brazil (Turner & Da Silva, 1992)

Limnias melicerta Weisze, f. *granulosus* Weber, 1888

- Palaearctic region: Alps (Bērziņš, 1978)
- Australian region: Vic, Australia (Bērziņš, 1978; Shiel & Koste, 1979)

Limnias melicerta shiawasseensis Kellicott, 1888

- Nearctic region: Laurentian Great Lakes (Stemberger, 1979)

Limnias myriophylli (Tatem, 1868)

- Palaearctic region: Italy, Alps & UK (Bērziņš, 1978)

Limnias nymphaea Stenroos, 1898

- Palaearctic region: Coast of S Finland (Eriksen, 1969); NW Russian taiga (Bērziņš, 1978)

Limnias spec.

- Palaearctic region: Southwest islands of Japan (Sudzuki *et al.*, 1992)
- Oriental region: Malaysia (Sudzuki, 1989)
- Neotropical region: Flooded savanna at Mantecal, Venezuela (Michelangelli *et al.*, 1979/1980)

Lindia Dujardin, 1841

Subgenus *Lindia* Dujardin, 1841

Lindia anebodica Bērziņš, 1949

- Palaearctic region: C Eur. plain (Bērziņš, 1978)

Lindia annecta Harring & Myers, 1922

- Palaearctic region: C Eur. plain (Bērziņš, 1978); Rügener, Hiddenseer & Darszer Boddengewässer, NE Germany (Schwarz, 1963)

- Nearctic region: N America (Bērziņš, 1978)

- Australian region: Mountain Buffalo, Vic, Aust. (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Single unconfirmed record from 2000m, mountain Buffalo (Koste & Shiel, 1990b; Bērziņš, 1982)

Lindia candida Harring & Myers, 1922

- Palaearctic region: Italy & C Eur. plain (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

- Oriental region: Indonesia (Sudzuki, 1989)

Lindia coerulea Harring & Myers, 1933

- Nearctic region: NE Canada (Chengalath & Koste, 1983)

Lindia deridderi Koste, 1979

- Australian region: Near Wodonga, Vic, Aust. (Koste, 1979b); Vic, Aust. (Koste & Shiel, 1980c); Billabong river Murray, SE Aust. (Shiel & Koste, 1983); Endemic. Recorded only in billabongs on the river Murray floodplain, between Wodonga & Yarrawonga (Koste & Shiel, 1990b)

Lindia ecela Myers, 1933

- Australian region: Tasmania (S) (Koste, Shiel & Tan, 1988); In permanent acid waters. Single record from

humic waters in Tasmania, near L. Garcia on the west coast (Koste & Shiel, 1990b)

Lindia euchromatica Edmondson, 1938

- Nearctic region: Skaha Lake, B.C., Canada (Findley *et al.*, 1973)
- Australian region: Wellington, New Zealand (Russell, 1960)

Lindia euchromatica Edmondson, f. *europaea* Koch-Althaus, 1962

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Koch-Althaus, 1962 & 1963; Ronneberger & Schönborn, 1985); C Eur. plain (Bērziņš, 1978)

- Nearctic region: Canada (Chengalath, 1977)

Lindia fulva Harring & Myers, 1922

- Palaearctic region: C Eur. plain (Bērziņš, 1978)
- Nearctic region: USA (Koste, 1978)

Lindia gravitata Lie-Petterson, 1905

- Palaearctic region: C Eur. plain & Boreal highlands (Bērziņš, 1978)

Lindia janickii Wieszniewski, 1934

- Palaearctic region: C & E Eur. plains, Boreal highlands (Bērziņš, 1978); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lake Orog-Nur, Gobi desert, Mongolia (Koste & Wulfert, 1964); River Grabia basin, Poland (Pawlowski, 1960); Lakes of the Central Asia area, Mongolia (Dulma, 1979)

- Oriental region: Malaysia (Sudzuki, 1989)

Lindia pallida Harring & Myers, 1922

- Palaearctic region: Italy, C Eur. mts., Carpathes, C & E Eur. plains (Bērziņš, 1978); NW Germany (Koste, 1970c); Peat bogs in the Massif Central, France (Batut, 1965); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Romania (Rudescu, 1960); Lakes of Sosnowickie, Poland (Radwan, 1968); ? Roscoff, Atlantic coast of Brittany, France (D'Hondt, 1970); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

- Nearctic region: N America (Bērziņš, 1978); Canada (Chengalath, 1977)

- Australian region: Christchurch, New Zealand (Russell, 1960)

- Neotropical region: Mato Grosso, C Brazil (Turner & Da Silva, 1992)

Lindia parrotti Russell, 1947

- Australian region: Described from Victoria Lake, Christchurch, New Zealand (Koste & Shiel, 1990b)

Lindia torulosa Dujardin, 1841

- Palaearctic region: Lake Neusiedlersee, Austria (Donner, 1979); Romania (Rudescu, 1960); Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Impoundment Saidenbach, Germany (Althaus, 1976); Lake Stråken, Aneboda, Sweden (Bērziņš, 1972); S coast of Finland (Eriksen, 1969); Slovenia, ex-Yugoslavia (Markic, 1983); C & S Sweden (Bērziņš & Pejler, 1987, 1989a, 1989b, 1989c & 1989d); ? Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Engelbergs Moor, Druchhorn, NW Germany (Koste, 1965); Achmer Grasmoor, NW Germany (Koste, 1968b); NW Germany (Koste, 1970c); River Hase, NW Germany (Koste, 1976b); All over Europe; Caucasus, Caspian area. Cosmopolitan (Bērziņš, 1978); River Grabia basin, Poland (Pawlowski, 1960); Rügener, Hiddensee & Darszer Boddenwässer, Germany (Schwarz, 1963); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985; Francez, 1988); Dübener Heide, N Germany (Wulfert, 1961); River Maas, Rijn, Waal & Yssel, NL (Dresscher, 1976); In periphyton of mosses & *Myriophyllum* in the Danube and in some Alpine brooks, Austria (Donner, 1964); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); River Salzach & its tributaries, Austria (Donner, 1970); In the lower Elbe, Germany (Grimm, 1968); Interstitial fauna of the Elbe estuary, Germany (Riemann, 1966); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982 & 1987); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Knowsley Park, Liverpool, UK (Galliford, 1964); Lakes of the Black Sea shore, Romania (Godeanu, 1970b); In reed borders of the Danube delta, Romania (Rudescu, 1968); River Loire in St. Laurent-les Eaux, France (Pourriot *et al.*, 1982); Ponds in the Botanical Garden, Gent, Belgium (Segers *et al.*, 1991b)

- Nearctic region: NE Canada (Chengalath & Koste, 1983); Illinois, USA (Bērziņš, 1984); L. Hodger, San Diego County, California, USA (Nogrady, 1983)

- Oriental region: India (Sudzuki, 1989)

- Australian region: Tasmania (Koste & Shiel, 1987); Vic, Aust. (Koste & Shiel, 1980c); River Murray, Aust. (Koste, 1979b); Cosmopolitan in still and flowing waters; single record from Sheepwash billabong, Yea, Vic, Aust. (Koste & Shiel, 1990b); Mountain Cook & Wellington, New Zealand (Russell, 1960)

- Neotropical region: Peru & Venezuela (Koste & José de Paggi, 1982); Near Concepcion, Paraguay (Koste, 1986b); Lago de Valencia, Venezuela (De Infante, 1980); Ecuador: Oriente & Costa (Koste & Böttger, 1992); Panama (Collado *et al.*, 1984)

- Antarctic region: Antarctica & Subantarctica (José de Paggi & Koste, 1984); Antarctic islands Jenny & Bahia Margarita (Olivier, 1965); *Nov. var.* in Ablation Point area, Alexander Isl. (Heywood, 1977)

***Lindia truncata* (Jennings, 1894)**

- Palaearctic region: Garden ponds in Tokyo, Japan (Sudzuki, 1975); Romania (Rudescu, 1960); Coast of S Finland (Eriksen, 1969); Lake Vörtsjärv, Estonia (Kutikova & Haberman, 1986); NW Germany (Koste, 1970c); River Hase, NW Germany (Koste, 1976c); Peat bogs in the Massif Central, France (Batut, 1965); E Balkan, Pontic province, C & E Eur. plains, Boreal highland, NW Russian taiga (Bērziņš, 1978); Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972)
- Nearctic region: N America (Bērziņš, 1978); Kingston, Ontario, Canada (Nogrady, 1989); In Florida saltwater psammon, USA (Turner, 1990b); Laurentian Great Lakes (Stemberger, 1979)
- Australian region: SW Aust. (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1986b); SW West Aust. (Shiel & Koste, 1985); Europe, N America, E Asia. Two records: Yamup Swamp, W Aust. and Scotts Peak, near Lake Pedder, Tasmania (Koste & Shiel, 1990b); Bealey, New Zealand (Russell, 1960)
- Neotropical region: Ecuador: Oriente (Koste & Böttger, 1989); Ecuador: Oriente & Sierra (Koste & Böttger, 1992); Brazil (Koste & José de Paggi, 1982); Lago Camaleão, Amazonia, Brazil (Koste & Robertson, 1983); IlSand of Maraca, Roraima, Brazil (Koste & Robertson, 1990); Varzea near Santarem, Brazil (Koste, 1974b); Near Concepcion, Paraguay (Koste, 1986b); Mato Grosso, C Brazil (Turner & Da Silva, 1992)

***Lindia virgata* Rudescu, 1960**

- Palaearctic region: Romania (Rudescu, 1960); Carpathes (Bērziņš, 1978); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966)

Subgenus *Halolindia* Remane, 1933

***Lindia (H) brotzkayae* Bogoslowski, 1950**

- Palaearctic region: E Eur. plain (Bērziņš, 1978)

***Lindia (H) sphagnophila* Rudescu, 1960**

- Palaearctic region: Romania (Rudescu, 1960); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Carpathes (Bērziņš, 1978)

***Lindia (H) tecusa* Harring & Myers, 1922**

- Palaearctic region: Romania (Rudescu, 1960); Black Sea (Rudescu, 1961); Garden ponds in Tokyo, Japan (Sudzuki, 1975); Island of Sylt, North Sea (Tzschaschel, 1979); Scandinavian coastal waters (Thane-Fenchel, 1968); NW Germany (Baltrum Island). In brackish water (Koste, 1970c); Courland Spit, R.F. (Zhadin *et al.*, 1972); E Balkan, C Eur. mountains, Pontic province, C Eur. plains (Bērziņš, 1978); Rügener, Hiddensee & Darszer Boddengewässer, NE Germany (Schwarz, 1963); Korea (Turner, 1986); Roscoff, Atlantic coast of Brittany, France (D'Hondt, 1970)

- Nearctic region: N America (Bērziņš, 1978); Cap Breton Island, Nova Scotia, Canada (Chengalath & Koste, 1988)

***Lindia* spec.**

- Palaearctic region: Shores of dammed or flowing stretches of the Danube, at the German-Austrian border (Donner, 1972); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Mountain Fuji lava caves, Japan (Sudzuki, 1971a); ? Garden ponds in Tokyo, Japan (Sudzuki, 1975); Mountain Fuji area, Japan (Sudzuki, 1978a)
- Nearctic region: Experimental ponds, C Florida, USA (Fry & Osborne, 1980); Northern Michigan inland lakes (Stemberger, 1990)
- Australian region: River in Australia (Bērziņš, 1982)
- Neotropical region: Mato Grosso, C Brazil (Turner & Da Silva, 1992)

Lophocharis Ehrenberg, 1838

***Lophocharis curvata* Bērziņš, 1982**

- Australian region: Creek in Vic, Australia (Bērziņš, 1982); Vic, Aust. May be a formalin artefact (Shiel & Koste, 1985); King Parrot Creek, King Lake, Vic, Aust. (Koste & Shiel, 1989a)

***Lophocharis gracilis* Dvorakova, 1960**

- Palaearctic region: CSR (Dvorakova, 1960a); C Eur. mountains (Bērziņš, 1978)

***Lophocharis hutchinsoni* Edmondson, 1935**

- Palaearctic region: Lake Fortuna, in the Danube delta, Romania (Rodewald-Rudescu & Godeanu, 1961); Pontic province (Bērziņš, 1978)

- Nearctic region: N America (Bērziņš, 1978)

Lophocharis kutikovae Mirabdullaev, 1992

- Palaearctic region: Uzbekistan, C Asia (Mirabdullaev, 1992)

Lophocharis lepadelloides Rodewald, 1935

- Palaearctic region: Romania (Rudescu, 1960); Carpathes, Pontic province & E Eur. plain (Bērziņš, 1978)

Lophocharis najas Wulfert, 1942

- Palaearctic region: Alps & W Eur. plains (Bērziņš, 1978); Lake Võrtsjärv, Estonia (Kutikova & Haberman, 1986); Blatna, CSR (Dvorakova, 1960a); Small water bodies in Soviet Karelia, R.F. (Filimonova, 1976); Terek delta, Astrakhan peninsula, R.F. (Chuykov & Deneskin, 1985); Camargue, S France (De Ridder, 1960a & 1961); Anatolia, Turkey (Segers *et al.*, 1992); Impoundment in Spain (Velasco, 1990)

- Oriental region: Nimeta water works, near Baroda, India (Wulfert, 1966); India (Suzuki, 1989)

- Australian region: Australia (Koste & Shiel, 1989a)

- Neotropical region: Chilean lakes (Schmid-Araya, 1991); Prov. Tierra del Fuego, Argentina (José de Paggi, 1990); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b)

Lophocharis najas Wulfert, f. *ambidentata* De Ridder, 1960

- Palaearctic region: Camargue, S France (De Ridder, 1960a & 1961); W Eur. plain (Bērziņš, 1978)

Lophocharis oxysternon (Gosse, 1851)

- Palaearctic region: Lake Stechlinsee, Brandenburg, Germany (Althaus, 1963; Ronneberger & Schönborn, 1985); Romania (Rudescu, 1960); Coast of S Finland (Eriksen, 1969); Lake Võrtsjärv, Estonia (Kutikova & Haberman, 1986); Asiatic Turkey (Dumont & De Ridder, 1987); Hortobagy Nat. Park, Hungary (Forró & Ronkay, 1983); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); Lake Mikolajskie & L. Taltowisko, ibid. (Klimowicz, 1972); Bjørnøya (Bear Island), Svalbard (De Smet, 1988); Volga river, R.F. (V'yushkova & Lakhnova, 1974); All over Europe; Caucasus, Caspian area, Asia Minor. Cosmopolitan (Bērziņš, 1978); Lower Volga, R.F. (Chuykov & Merkulov, 1980); River Grabia basin, Poland (Pawlowski, 1968, 1970 & 1973); Lake Balaton, Hungary (Zankai, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Camargue, S France (De Ridder, 1960a & 1961); Nat. Res. Oisterwijkse vennen; Nat. Res. Het Hol, Kortenhoef; NW Overijssel, NL. Ponds in Artis, Amsterdam; Dune lake Breedewater on Voorne Island (Dresscher, 1976); Marismas, Spain (De Ridder, 1962b); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Lake Neusiedlersee, Austria (Donner, 1979); Lowland brook-pond system, Boom, Belgium (Maes, 1985); Boom, Belgium (De Ridder, 1986); Ellesmere district, UK (Galliford, 1960a); Canal Leeds-Liverpool, UK (Galliford, 1960b); Lakes, N of Bucharest, Romania (Godeanu, 1969b); Nat. Res. Oisterwijkse vennen, NL (De Graaf, 1960); Small water bodies in the Mikolajski area, Mazurian lakeland, Poland (Klimowicz, 1967); Sewage ponds near Czestochowa, Poland (Klimowicz, 1968); Anatolia, Turkey (Segers *et al.*, 1992); Bog pond near Budapest, Hungary (Nogradi, 1962); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Parczew area peat bogs, Poland (Radwan, 1974); River Volga, R.F. (Mordukhai-Boltovskoi, 1979); Serbian section of river Danube (Zivkovic, 1987); Spain: Huelva, Madrid & Valencia (Velasco, 1990)

- Nearctic region: Arctic N America (Chengalath & Koste, 1989); Kingston, Ontario, Canada (Nogradi, 1989); Kentucky & Missouri, USA (Bērziņš, 1984); Lac Echo, Québec, Canada (Nogradi, 1976); Laurentian Great Lakes (Stemberger, 1979)

- Oriental region: Singapore (Karunakaran & Johnson, 1978); India (Suzuki, 1989)

- Australian region: Creek and river in Australia (Bērziņš, 1982); Vic, Aust. (Shiel & Koste, 1985); Australia (Koste & Shiel, 1989a)

- Neotropical region: Provinces in NW Argentina (José de Paggi, 1989); Antilles françaises: Martinique (Pourriot, 1975); Antilles (Koste & José de Paggi, 1982); Araucarian lakes, W of the Andes, Chile (Thomasson, 1963b)

- Antarctic region: Antarctica & Subantarctica (José de Paggi & Koste, 1984; Suzuki, 1988)

Lophocharis parva Rudescu, 1960

- Palaearctic region: S Bukowina, Romania (Rudescu, 1960); C & S Bukowina, Romania (Rodewald-Rudescu & Godeanu, 1961); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Carpathes (Bērziņš, 1978)

Lophocharis rubens Wulfert, 1939

- Palaearctic region: Cine stream, W Anatolia, Turkey (Emir, 1989); R. Maas, Rijn, Waal & Yssel, NL (Dresscher, 1976); C Eur. mountains, C & E Eur. plains (Bērziņš, 1978)

Lophocharis salpina (Ehrenberg, 1834)

- Palaearctic region: Fishponds near Warsaw, Poland (Hillbricht-Ilkowska, 1964); Danube delta, Romania (Popescu-Marinescu & Zinevici, 1967); Romania (Rudescu, 1960); All over Europe; Caucasus, Caspian

- area, Asia Minor (Bērziņš, 1978); C & S Sweden (Bērziņš & Pejler, 1987, 1989a & 1989d); Anatolia, Turkey (Emir, 1989); Minorca, Spain (de Manuel, 1990); Darnsee near Epe, NW Germany (Koste, 1962); Engelbergs Moor, near Druchhorn, NW Germ. (Koste, 1965); River Hase, NW Germany (Koste, 1976b); Impoundment "Eisernes Tor", Danube, Rom. (Brezeanu & Petén, 1973); "Altes Land" near Hamburg, Germany (Caspers & Heckman, 1981 & 1982; Heckman, 1986); Lake Cullera, near Valencia, Spain (Miracle & Vicente, 1983); Delta of river Danube, Romania (Godeanu & Zinevici, 1983); Slovenia, ex-Yugoslavia (Markic, 1983); District Ostrava, CSR (Dvorakova, 1960b); Nat. Res. Jursky Sur, CSR (Hudec, 1978); Near Asperg, Württemberg, Germany (Klement, 1960); Lake Kisajno, Mazurian lakeland, Poland (Klimowicz, 1964); In reed borders of the Danube delta, Romania (Rudescu, 1968); 3 lakes of Sosnowickie, Poland (Radwan, 1969); Peat bogs Poiana Stampei, Bukowina, Romania (Rudescu, 1966); Etang de Vaugien & Etang de la Tour, Paris suburb, France (Pourriot, 1965); Serbian section of river Danube (Zivkovic, 1987); Spain: Barcelona, Gerona, Valencia-Albacete & Valencia (Velasco, 1990); Lowland brook-pond system at Boom, Belgium (Maes, 1985); Anatolia, Turkey (Segers *et al.*, 1992); River Grabia basin, Poland (Pawlowski, 1960, 1968 & 1970); Lake Balaton, Hungary (Zankai, 1968); Latorica, E Slovakia lowland, CSR (Terek, 1990a); Canals in Hran area, CSR (Terek, 1990c); Lake Donk, Overmere, Belgium (Dumont, 1968b); Peat bogs Chambedaze & La Godivelle, Massif Central, France (Francez & Dévaux, 1985); Peat bog Chambedaze, Puy-de-Dôme, France (Francez, 1982); Peat bogs in the Auvergne, France (Francez, 1981 & 1984c); Peat bog La Godivelle, Massif Central, France (Francez, 1988); Southwest islands of Japan (Suzuki *et al.*, 1992); Balearic Archipelago, Spain (de Manuel *et al.*, 1992); Waldviertel area, lower Austria (Naidenow & Wawrik, 1984); Japanese inland waters (Yamamoto, 1960a); L. Wallsee & r. Lobau, Austrian Danube basin (Donner, 1978); Dübener Heide, N Germany (Wulfert, 1960a & 1960b); Alkal. Peteri-See, Hungary (Kertesz, 1960); Lakes Breedewater & Quackjeswater, Voorne & Lake Vogelmeer near Ymuiden, NL (Leentvaar, 1963); Western substeppic floodplain of lower Volga, R.F. (Chuykov & Merkulov, 1986); Obretin embanked basin, Danube delta, Rom. (Godeanu *et al.*, 1973); Uzbekistan, C Asia (Mirabdullaev, 1992); New impoundments in the CSR (Kubicek, 1968); Small water bodies in the Mikolajki area, Mazurian lakeland, Poland (Klimowicz, 1967); Nat. Res. Het Hol, Kortenhoef; Nat. Res. de Venematen; dune waters Quackjeswater; Breedewater & Vogelmeer, NL (Dresscher, 1976); Lake Neusiedlersee, Austria (Donner, 1979); Boom, Belgium (De Ridder, 1986); Roscoff, Atlantic coast of Brittany, France (D'Hondt, 1970); Peat bog Laptici, Bucegi mountains, Romania (Godeanu, 1970); Luga district of the Leningrad area, R.F. (Kutikova, 1962b); Lago Trasimeno, Italy (Taticchi, 1968); Lake Biwako, Japan (Yamamoto, 1960b); Waters near river Bodrog, NE Hungary (Dévai *et al.*, 1972-1973)
- Nearctic region: NW Canada (Chengalath & Koste, 1987); Arctic N America (Chengalath & Koste, 1989); Lac Echo, Québec, Canada (Nogrady, 1976); Lakes in Santee, California, USA (Nogrady, 1982); Kingston, Ontario, Canada (Nogrady, 1989); Canada (Chengalath, 1977); Kentucky, USA (Bērziņš, 1984); Laurentian Great Lakes (Stemberger, 1979); Northern Michigan inland lakes (Stemberger, 1990)
 - Oriental region: Taiwan (Suzuki, 1988 & 1991); Taiwan, India & Philippines (Suzuki, 1989); Philippines (Mamaril & Fernando, 1978); Impoundment Kinda, C Burma (Koste & Tobias, 1990); 2 Kumaun Himalayan lakes, India (Sharma & Pant, 1985)
 - Australian region: NW Aust.: Magela Creek area (Koste, 1981b); Alligator rivers area, NT, Aust. (Tait, Shiel & Koste, 1984); Qld & Vic, Aust. (Shiel & Koste, 1979); Lower river Murray, S Aust. (Shiel, Walker & Williams, 1982); River & lake in Australia (Bērziņš, 1982); SW Aust. (Koste, Shiel & Brock, 1983); Tasmania (Koste & Shiel, 1987); Australia (Koste & Shiel, 1989a); Otago & ? Christchurch, New Zealand (Russell, 1960)
 - Neotropical region: Chilean lakes (Schmid-Araya, 1991); Lujan river, NW Buenos Aires prov., Argentina (Modenutti & Claps, 1988); Brazil, Chile, Surinam & Panama (Koste & José de Paggi, 1982); River Saladillo basin, Argentina (José de Paggi & Koste, 1988); Bolivia (Iltis *et al.*, 1984); Prov. San Luis, San Juan, Tucuman, Santiago del Estero & Santa Fé, Argentina (José de Paggi, 1990); Brokopondo Lake, Surinam (Leentvaar, 1979); Ecuador: Sierra (Koste & Böttger, 1992)
- Lophocharis salpina*** (Ehrenberg), f. *parvidentata* Hauer, 1937
- Palaearctic region: C Eur. mountains (Bērziņš, 1978); Near Asperg, Württemberg, Germany (Klement, 1960)
- Lophocharis turanica*** Mirabdullaev, 1992
- Palaearctic region: Uzbekistan, C Asia (Mirabdullaev, 1992)
- Lophocharis* spec.**
- Palaearctic region: Lakes in Estonia (Haberman, 1978); Fish-fattening ponds in the Ukraina (Krazhan *et al.*, 1976)
 - Australian region: Lake Barracoota, Australia (Bērziņš, 1982)
 - Neotropical region: Prov. Chaco, Argentina (José de Paggi, 1990)