

JEAN, 1949). This mite is common in waters in several countries of Europe. It is the first time that it is recorded from Belgium.

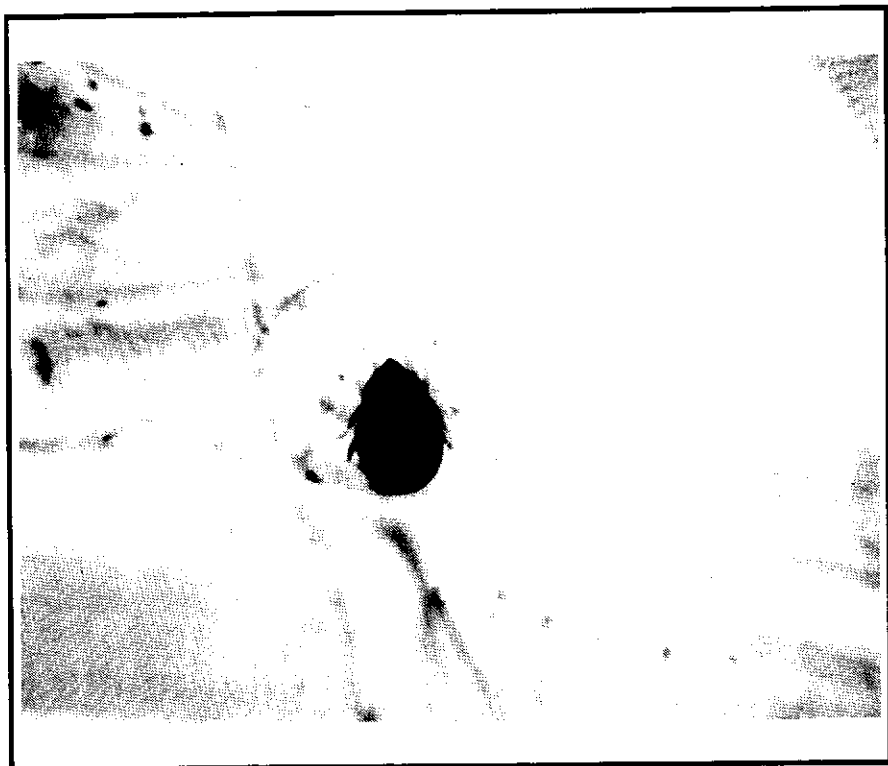


Fig. 1. A specimen of *Hydrozetes lemnae* embedded in mucus on the gills of *Discus* fish.

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2. De secretaris geeft een samenvatting van de mededeling van Dhr. G. HAGHEBAERT die zich liet verontschuldigen.

## The Micropeplidae from Belgium (Coleoptera)

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### Summary

The family Micropeplidae from Belgium is discussed. Phenological and chorological notes, distribution maps and an identification key for the six species are given.

### Résumé

Les espèces belges de la famille Micropeplidae sont traitées. La phénologie, la distribution et le tableau d'identification pour les six espèces sont donnés.

### Introduction

*Micropeplus*, the type genus of the Micropeplidae, was described by LATREILLE (1809) in the family Nitidulidae. Later it was transferred to the Staphylinidae, in the division Aplatys (1829). HEER (1838) recognized the nature of this genus and placed it in the Micropeplida, one of his seven divisions of the Staphylinidae. There seems to be recently an agreement as to the classification of this group in the taxonomic hierarchy; various authors consider it as a subfamily of the Staphylinidae. However, after the study of the larvae, CROWSON (1955) states that the genus *Micropeplus* hardly belongs to the Staphylinidae or to the Staphyloidea as a whole. Further studies based on larval characters have given the group family status (LÖBL *et al.*, 1988). In total four genera can be recognized. The genus *Micropeplus* includes forty-six recent and three fossil species in the Holarctic region.

### Material and methods

Most of the *Micropeplus* species are living in the same kind of microhabitats, especially decaying plant matter. Good methods for collecting *Micropeplus* include sifting leaf debris and mammal nests, sweeping, pitfalltraps and Berlese sampling. *M. porcatus* was captu-

red several times with Malaise traps and with colour dishes. Most of the examined material for this study is deposited in the collections of the I.R.Sc.N.B.: collection E. DERENNE (coll. E. D.), G. FAGEL (coll. G. F.), L. FRENNET (coll. L. F.), A. D'ORCHY-MONT (coll. D'O.), P. ROELOFS (coll. P. R.), G. VREURICK (coll. G. V.) and the collection of the author (coll. G. H.).

### Systematics

Micropeplidae HEER, 1838

Micropeplini KRAATZ, 1858

Micropeplidae THOMSON, 1859

Micropeplines MOTSCHULSKY, 1860

Micropeplinae LECONTE *et al.*, 1883

Micropeplids can be distinguished from all other beetles by the presence of deep antennal grooves on the sides of the head and the ventral side of the prothorax, and by the nine-segmented antennae, which ends in a distinct large one-segmented club. On the mandibels, the molar area is greatly enlarged, and the inner margin of the apex bears two or three teeth. The maxillary palpi are four-segmented, the labial palpi three-segmented. Head retracted into pronotum as far as the rather protruding eyes, and in front triangular, narrowing. The large clypeus is separated from the vertex by a transverse suture, and possesses in the male of some species a sharp tooth. The antennae are short and situated just in front of the eyes.

Pronotum and elytra are closely connected to each other and on inner side, the strong curved margins have diamond-shaped ridges. The metasternum is large and rugose by the presence of grooves and excavations. Pro-, meso- and metacoxae small, oval. Legs short and thin. Tarsi short, three-segmented, first two segments short, the last segment two or three times as long as the first and second segment together. Wings developed. Elytra scarcely longer than wide, covering the first three tergites, margins sharply elevated. The epipleural margins are also sharply elevated and have strong ridges. Abdomen short and broad. Sternites at the base with transverse grooves, the end of the sixth sternite, in male is truncated.

### Key to the Belgium *Micropeplus* species

- 1 - Elytra strongly punctate between the ridges .....2
- Elytra smooth between the ridges, 3 ridges on each side. Vertex with 2 basal round depressions. Sides of pronotum, base of antennae and legs reddish.  
The smallest Belgian species. 1.5 mm ..... *tesserula*
- 2 - Each elytron with 5 ridges .....3
- Each elytron with 4 ridges .....4
- 3 - Tergites shining. Last tergites with disordered microsculpture and with strongly shining ridges. Vertex depressed with upwards sides. Pronotum almost twice as broad

as long, anterior side strongly narrowed. Legs and antennae reddish brown, antennal club dull. Pronotum partly dull reddish. 2,5 mm. Aedeagus with ventral side strongly asymmetrical, with a distinct bend to the right side (fig. 1) ..... *porcatus*

- Tergites dull. Last tergites with ordered microsculpture, without or with scarcely indicated furrows. Smaller than *porcatus*. 2 mm. Aedeagus with ventral side weakly asymmetrical, with a very weak bend to the right side (fig.2) ..... *ripicola*

- 4 - Elytra together wider than long, narrower than pronotum. Vertex with two indistinct furrows converging anteriorly, connected by two basal round depressions. Abdomen with a keel-shaped midline, on the central ridge of the 4th visible tergite prolonged into a tooth-shaped process almost reaching the hind margin of the segment when viewed from the side (fig. 3). Sides of pronotum, antennae and legs reddish. 2 mm ..... *staphylinoides*
- Elytra together as long as broad, not or only slightly narrower than pronotum. Central ridge of 4th visible tergite ending bluntly near the middle of the segment. Vertex with 5 furrows. Clypeus of male with a sharp tooth (Fig. 4) .....5
- 5 - Fuscous, allmost dull. Sides of pronotum, antennae and legs reddish. Smaller than the next species. 1.8-2.25 mm. Aedeagus symmetrical (fig. 6) ..... *fulvus*
- Antennal club brown. Very similar to *fulvus*. 2.25-2.5 mm. Aedeagus asymmetrical (fig. 5) ..... *marietti*

### Chorology

#### 1. *Micropeplus tesserula* (CURTIS, 1828) (map 1)

*Micropeplus tesserula* CURTIS, 1828, p. 204 (7 fig.); FAUVEL, 1872, p. 11; BERNHAUER *et al.*, 1910, p. 29; SCHEERPELTZ, 1933, p. 1023; TOTTENHAM, 1954, p. 11.

*Arrhenopeplus tesserula* KOCH, 1937, p. 258; BLACKWELDER, 1952, p. 63; LOHSE, 1964, p. 16.

*Micropeplus costatus* LECONTE, 1850, p. 221 (synonymized by FAUVEL, 1878, p. 7).

*Micropeplus costipennis* MÄKLIN, 1853, p. 200 (synonymized by LECONTE, 1877, p. 252).

Distribution in Belgium (map 1): OOST-VLAANDEREN: Gontrode 1973 (BAERT, 1973); BRABANT: Keerbergen 4.VII.1971 (coll. E. D.); LIÈGE: Eupen, Hertogenwald (after HORION); NAMUR: Vierves-Viroin 11.VII.1986 (coll. D. D.), le Mesnil 12.V.1987 (coll. D. D.) Matagne la Grande 1.VIII.1987 (coll. D. D.); LUXEMBOURG: Baraque Michel (after HORION), Muno 19.VII.1939 (coll. E. D.), Torgny 30.VII.1947 (coll. E. D.), Bouillon 11.VII.1957 (coll. E. D.), Orval 10.VIII.1965 (coll. E. D.), Bihain 9.VI.1975 (coll. E. D.), Buzenol 17.V.1978 (coll. E. D.), Chimay 15.VII.1980 (coll. G. B.), Muno 28.VII.1981 (coll. G. B.).

Phenology: Earliest capture 12.V.1987 (Le Mesnil) and latest capture 10.VIII.1965 (Orval), with a peak in July.

Discussion: First capture in Belgium: 29.VII.1939 (Muno). This species occurs in woodland in the highest parts of Belgium; some scarce records are available from the Kempen and low Belgium. It is probably more common than the records suggest.

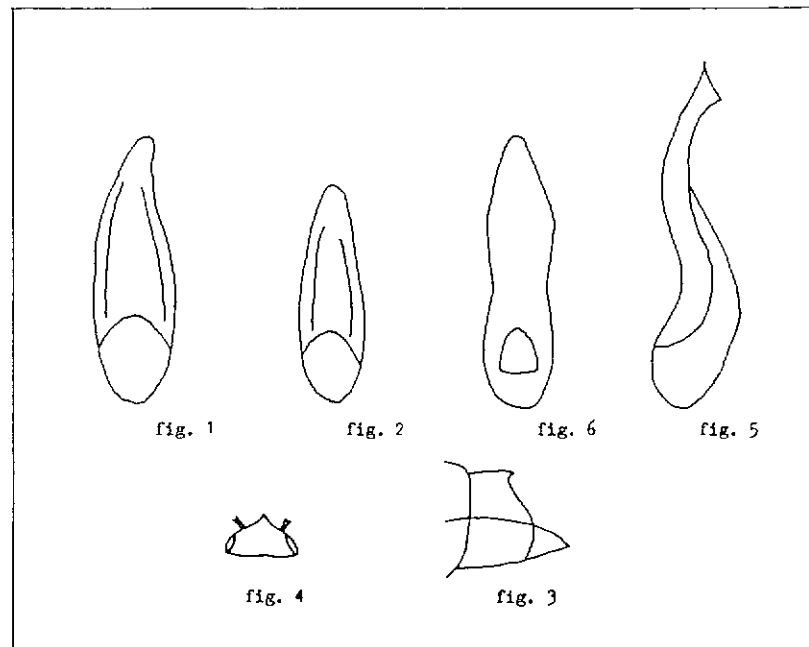


Fig. 1: aedeagus of *Micropeplus porcatus* (ventral).

Fig. 2: aedeagus of *Micropeplus ripicola* (ventral).

Fig. 3: 4th tergite of *Micropeplus staphylinoides* (lateral).

Fig. 4: head of *Micropeplus fulvus* group (male).

Fig. 5: aedeagus of *Micropeplus marietti* (lateral).

Fig. 6: aedeagus of *Micropeplus fulvus* (ventral).

Distribution in Europe: Finland, Sweden, Norway, Denmark, England, Ireland, Germany, Poland, Czechoslovakia, Italy, Switzerland, Austria, France, U.S.S.R.

Distribution in the nearctic region: Canada, U.S.A., Mexico.

## 2. *Micropeplus fulvus* (ERICHSON, 1840) (map 2)

*Micropeplus fulvus* ERICHSON, 1840, p. 912; KRAATZ, 1858, p. 1054; FAUVEL, 1872, p. 10; EVERTS, 1899, p. 370; BERNHAUER *et al*, 1910, p. 27; TOTTENHAM, 1954, p. 11 (1 fig.); LOHSE, 1964, p. 16 (1 fig.).

*Micropeplus angulosus* MOTSCHULSKY, 1860, p. 54.

*Micropeplus margaritae* JAQ. DU VAL, 1857, p. 82.

Distribution in Belgium: WEST-VLAANDEREN: De Panne VI.1928 (coll. G. V.); OOST-VLAANDEREN: Melle (coll. R.U.G., 1986), Hamme 8.XI.1985 (coll. R. P.); HAINAUT: Ellezelles IV.1982 (coll. H. B.); BRABANT: Tervuren 1862 (TENNESTEDT, 1862), Forêt de Soignes 1931 (ROELOFS, 1931), Jette V.1920 (coll. G. V.), Vorst IV.1930 (coll. G. V.), Wemmel 19.IV.1945 (coll. G. F.), Brussegem 15.X.1945 (coll. G. F.), Vleserbeek 13.X.1934 (coll. G. F.), Ukkel 13.V.1935 (coll. G. F.), Rosières 18.IV.1974 (coll. E. D.), Bosvoorde 13.X.1943 (coll. E. D.); ANTWERPEN: Schoten 1935 (coll. P. R.); NAMUR: Houx 10.X.1947 (coll. E. D.), Gembloux 9.IV.1987 (coll. G. H.); LIÈGE: Spa 1935 (coll. P. R.), Ben Ahin 11.X.1948 (coll. L. F.); LUXEMBOURG: Torgny 17.VII.1962 (coll. E. D.), Muno 14.IX.1972 (coll. E. D.), Herbeumont 26.V.1970 (coll. E. D.), Orval 4.IX.1976 (coll. E. D.), Manhay 27.VI.1977 (coll. E. D.), Bouillon 30.V.1980 (coll. E. D.), Buzenol 23.V.1980 (coll. G. B.), Focant 12.VI.1980 (coll. E. D.).

Phenology: Earliest capture: 9.IV.1987 (Gembloux). Latest capture: 15.X.1954 (Brussegem). We can find this species throughout the year with a peak in October and November.

Discussion: First capture in Belgium: 1862 (Tervuren). Known from 22 U.T.M. squares; it is one of our most common species, however never found in large numbers.

Distribution in Europe: England, Ireland, Denmark, Sweden, Finland, Netherlands, France, Switzerland, Spain, Portugal, Germany, Austria, Italy, Yugoslavia. Also known from Algeria and Libya.

## 3. *Micropeplus porcatus* (PAYKULL, 1789) (map 3)

*Micropeplus porcatus* PAYKULL, 1789, p. 79; ERICHSON, 1840, p. 911; KRAATZ, 1858, p. 1052; FAUVEL, 1872, p. 9; EVERTS, 1899 (1 fig.), p. 369; BERNHAUER *et al*, 1910, p. 28; TOTTENHAM, 1954 (1 fig.), p. 11; LOHSE, 1964, p. 17 (2 fig.).

*Staphylinus porcatus* FABRICIUS, 1792, p. 530; PAYKULL, 1800, p. 413.

*Micropeplus mathani* FAUVEL, 1860, p. 256.

*Micropeplus sulcatus* HERBST, 1793, p. 247.

Distribution in Belgium: WEST-VLAANDEREN: Geluwe 21.VIII.1910 (coll. D'O.), Houthulst 1974 (coll. R.U.G., 1986), Hertsberge 1982 (coll. R.U.G., 1986); OOST-VLAANDEREN: Gent 1973 (coll. R.U.G., 1986), Erpe-Mere 1982 (coll. R.U.G., 1986), Poëke 1982 (coll. R.U.G., 1986), Smee-rebbe 1982 (coll. R.U.G., 1986), Vloerzegem 1982 (coll. R.U.G., 1986), Hamme 8.VII.1981 (coll. R. P.); ANTWERPEN: (Roelofs 1935); BRABANT: St. Servais 5.VIII.1910 (coll. G. V.), Eigenbrakel VI.1911 (coll. G. V.), Jette 19.V.1924 (coll. G. V.), Vorst 15.V.1937 (coll. G. F.), Herverlé 19.IV.1944 (coll. DEBAUCHE), Anderlecht 19.V.1945 (coll. G. F.), Ukkel 2.VIII.1936 (coll. G. F.), Wemmel 22.V.1937 (coll. G. F.), Ruisbroek 2.V.1937 (coll. G. F.), Relegem 14.V.1937 (coll. G. F.), Forêt de Soignes 2.VIII.1907 (coll. D'O.), Galmaarden 1982 (coll. R.U.G., 1986); HAINAUT: Ath 4.V.1967 21.V.1967, 24.VI.1967, 1.V.1969 (coll. G. B.); NAMUR: Anseremme 30.VIII.1947 (coll. G. F.), Crupet 17.V.1947 (coll. G. F.), Vierves-Viroin 11.VII.1986 (coll. D. D.); LIÈGE: Counthuin VI.1987 (coll. G. H.); LUXEMBOURG: Orval 16.VI.1956 (coll. D. D.), Torgny 15.VIII.1958 (coll. E. D.), Bouillon 18.VI.1964 (coll. E. D.), Etbe 2.VII.1965 (coll. E. D.), Hotton 12.VI.1978 (coll. E. D.); G. D. LUXEMBOURG: Viane 1982 (coll. R.U.G., 1986).

Phenology: Earliest capture: 2.III.1936 (Ukkel). Latest capture: 30.VIII.1947 (Anseremme). This species can be found throughout the year.

Discussion: First capture in Belgium: 2.VIII.1907 (forêt de Soignes). Together with *M. staphylinoides* our most common species.

Distribution in Europe: known from all countries.

4. *Micropeplus staphylinoides* (MARSHAM, 1802) (map 4)

*Nitidula staphylinoides* MARSHAM, 1802, p. 137.

*Micropeplus staphylinoides* ERICHSON, 1839-40; KRAATZ, 1859, p. 68; GANGLBAUER, 1895, p. 769; EVERTS, 1899, p. 370; FAUVEL, 1872, p. 10; BERNHAUER *et al.*, 1910-26, p. 29; TOTTENHAM, 1954 (1 fig.), p. 11; LOHSE, 1964, p. 16 (1 fig.).

*Micropeplus obtusus* NEWMAN, 1834, p. 201.

*Micropeplus duvali* FAUVEL, 1860, p. 261.

*Micropeplus fulvus* JAQ. DU VAL, 1854, p. 82.

Distribution in Belgium: WEST-VLAANDEREN: De Panne 17.VI.1928 (coll. G. V.), Nieuwpoort 1974 (coll. R.U.G., 1986), Houthulst 1974 (coll. R.U.G., 1986), Zwijnaarde 1974 (coll. R.U.G., 1986), De Panne II.1983 (coll. H. B.), Raversijde III-IX.1984 (coll. H. G.), Klemskerke IX.1985 (coll. G. H.); OOST-VLAANDEREN: Elene 1973 (coll. R.U.G., in lit.), Smeerebbe 1982 (coll. R.U.G., 1986), St. Jan in Eremo 1986 (coll. DALL'ASTA); BRABANT: Brussel 1862 (coll. TENNSTEDT), Stockel 9.IV.1909 (coll. G. V.), Rouge-Cloître 24.V.1926 (coll. G. V.), Bosvoorde 8.VI.1981 (coll. G. C.), Evre 17.X.1987 (coll. H. B.), Berg 20.X.1987 (coll. H. B.); HAINAUT: Ellezelles V.1981 IV.V.VI.1983 VI.1984 V.1985-IX.1986 (coll. H. B.); NAMUR: Treignes II.IX.XII.1982 XII.1983 I.II.V.VI.VII.IX.XI.1984 (coll. H. B.), Nismes II.1984 (coll. H. B.), Vierves II.IX.XII.1979 (coll. H. B.); LUXEMBOURG: Torgny 21.IX.1959 (coll. E. D.), Bihain 14.IX.1975 (coll. E. D.), Orval 17.VIII.1931 (coll. D. RUETTE), Hotton IX.1970 (coll. G. F.).

Phenology: Earliest capture: I.1984 (Treignes). Latest capture: XII.1979 (Vierves). The species can be found throughout the year.

Discussion: First capture in Belgium: 1862 (Brussel). Known in the Netherlands from only two localities (Limburg). In Belgium this species seems to have the northern limit of its distribution area.

Distribution in Europe: England, Netherlands, France, Switzerland, Spain, Italy, Greece, Austria, Germany.

5. *Micropeplus marietti* (JACQUELIN DU VAL, 1858)

*Micropeplus marietti* JACQUELIN DU VAL, 1858, p. 82; GANGLBAUER, 1895, p. 770; BERHAUER *et al.*, 1910-26, p. 28; LOHSE, 1964, p. 16.

Distribution in Belgium: BRABANT: Audergem 14.IV.1926 (coll. G. V.), Wommel 19.IV.1945 (coll. G. F.); LUXEMBOURG: Torgny 30.VII.1964 (coll. E. D.), Muno 12.V.1966 (coll. E. D.).

Phenology: Earliest capture: 14.IV.1926 (Audergem). Latest capture: 30.VII.1964 (Torgny).

Discussion: First capture in Belgium: 14.IV.1926 (Audergem).

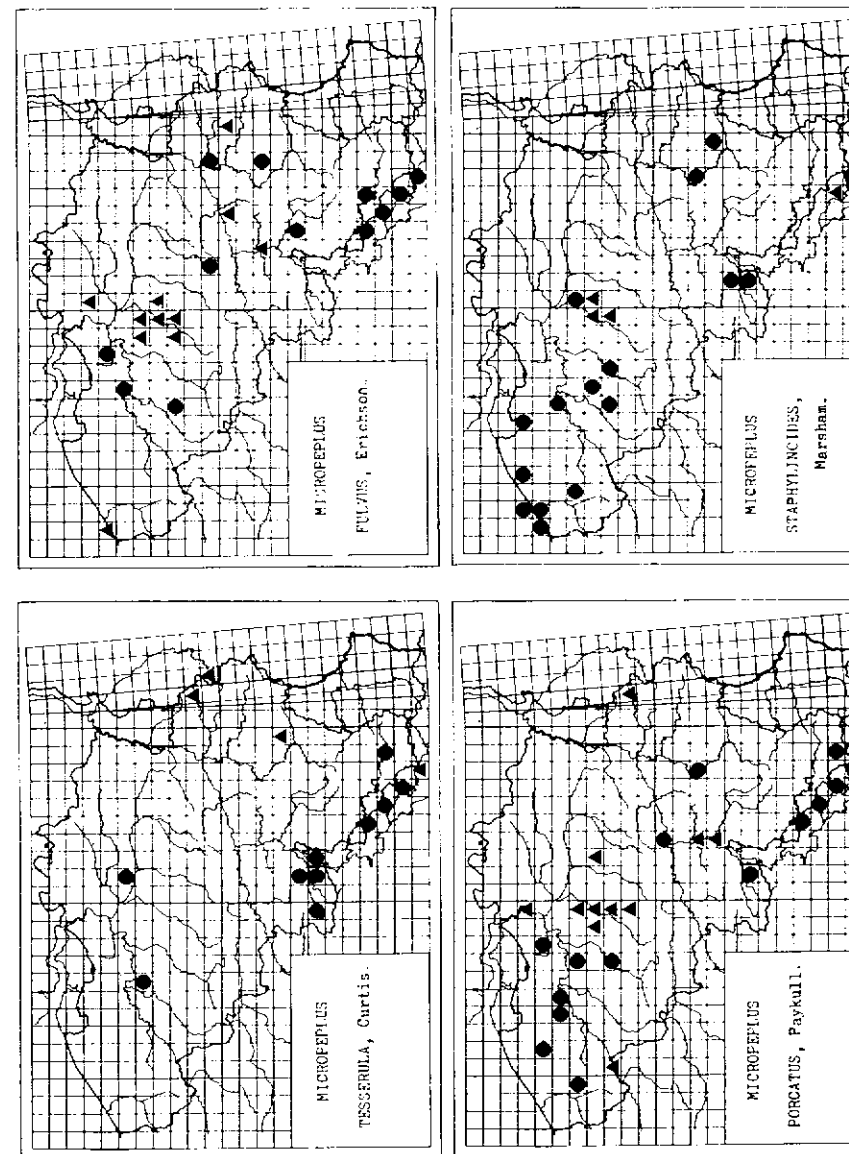
Distribution in Europe: Italy, Yugoslavia, Albania, Czechoslovakia, Bulgaria, Roumania, France, Switzerland, Austria, Germany.

6. *Micropeplus ripicola* (KERSTENS, 1964)

*Micropeplus ripicola* KERSTENS, 1964, p. 10; LOHSE, 1964, p. 17.

Distribution in Belgium: BRABANT: Wommel 17.V.1936 (coll. G. F.).

Distribution in Europe: Germany (Oldenburg, 1963), Netherlands (Denekamp, 1940), Winterswijk, 1952).



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