Type-locality : Kleine-Spouwen (BZ 485), Belgium.

Type-level : *Nucula comta*-clay (= Rupelian).

Distribution. — Belgium : *Nucula*-clay of Kleine-Spouwen and Berg. Netherlands : Middle Oligocene to Miocene (coll. KUIPER).

Diagnosis. — A species of the genus *Loxoconcha* with the following characteristics : surface covered with small, closely-set depressions, placed in concentric rows parallel to the anterior and ventral margins; with curved row of four elongate, larger depressions before the middle of the valve.

Description. — Sexual dimorphism was observed. The male valve is more elongate (length/height : 2,10) than that of the female (length/height : 1,85).

The dorsal and ventral margins are straight and parallel. The anterior margin is broadly and somewhat obliquely rounded. The posterior margin has an upward swing and forms a broadly rounded angle sub-dorsally.

Excepting a narrow zone along the margins, the surface is covered with closely-set, small rounded and angular depressions. Along the anterior, ventral and posterior margins they are arranged in concentric rows, with slightly elevated ridges in between the rows. Before the middle of the valve, there are four elongate larger depressions, forming a curved row.

The internal features are as for the genus.

Dimensions. — Holotype (female left valve) : L : 0,62, H : 0,35, $\frac{1}{2}$W : 0,17; (male right valve) : L : 0,68, H : 0,33, $\frac{1}{2}$W : 0,16.

Remarks. — We compared our valves with the specimens stored in the collection KUIPER as *Loxonconcha grateloupiana* (BOSQUET) and found them to be identical. They are certainly not conspecific however, with typical *L. grateloupiana* from the Lower Miocene of the Aquitaine Basin. *L. kuiperi* is characterized by the four elongate depressions, placed in a curved row, before the middle of the valve. These depressions are situated at the place where at the interior surface the adductor muscles were attached.

Loxoconcha nystiana (BOSQUET).

Pl. XXI, fig. 12; Pl. XXII, figs. 17-19.

Cythere nystiana BOSQUET, 1852, vol. 24, p. 65, pl. 3, fig. 3.

Lectotype : A right valve (coll. BOSQUET, No. 31).

Paratypoids : 3 complete carapaces and 48 detached valves (id.).

Type-locality : Berg, near Kleine-Spouwen, Belgium.

Type-level : *Nucula-comta*-clay (= Rupelian).

Distribution. — Belgium : *Nucula*-clay of Kleine-Spouwen and Berg.

Diagnosis. — A species belonging to the genus *Loxoconcha* with the following characteristics : dorsal margin long and straight; females dorsally smooth or indistinctly reticulate; part of the reticulation arranged in five or six concentric rows, parallel to the anterior and ventral margins.

Description. — The dorsal margin is very long and straight. Both cardinal angles are pronounced. The anterior margin is broadly rounded; the ventral margin is concave before the middle; the posterior margin has an upward swing and a short, rounded, sub-dorsal caudal process.

The surface of the male is entirely reticulate. Parallel to the anterior and ventral margins 5 or 6 concentric rows of depressions are more dominant. The rest is more or less irregularly arranged. The adult females are dorsally, either entirely smooth, or only very indistinctly reticulate. A very narrow, smooth and compressed strip occurs along the anterior margin. Along the posterior margin the compressed area is much broader. The eye-tubercle is very small.

The female carapaces are widest behind the middle. In dorsal view the male carapaces have almost parallel sides, being posteriorly only slightly wider than anteriorly.

The anterior and posterior marginal areas are rather broad. The line of concrescence does not coincide with the inner margin; it runs parallel to the outer margin. Anteriorly some 8 short, straight and widely spaced, radial pore-canals perforate the duplicature; some 5 more are located along the posterior margin. In the right valve the flange is rather wide in the postero-ventral region.

The hinge pattern is as for the genus.

The muscle-scar consists of a strongly curved row of four ovate scars with one more scar in front of them. Another scar is situated below this single scar. The scars are obscured by the inwardly bulging depressions of the reticulated surface.

Dimensions. — Lectotype (female) : L : 0,71, H : 0,37, $\frac{1}{2}$W : 0,17.

Remarks. — The specimens from Jeurre and Etréchy (Paris Basin) mentioned by Bosquet belong to *Echinocythereis hispida* (Speyer) (coll. Bosquet, No. 31*b*). In his material from Berg three species of *Loxoconcha* are mixed together i.c. *Loxoconcha nystiana* (Bosquet), *Loxoconcha subtriangularis* (Speyer) and *Loxoconcha kuiperi* n. sp. In our material, derived from several shallow borings in the vicinity of Kleine-Spouwen, these three species were found also.

Loxoconcha punctatella (Reuss).

Pl. XXII, figs. 12-13.

Cypridina punctatella Reuss, 1850, vol. 3, p. 65, pl. 9, fig. 15.
Cythere punctatella (Reuss), Bosquet, 1852, vol. 24, p. 75, pl. 3, fig. 12.
Loxoconcha punctatella (Reuss), Keij, 1955, vol. 21, n° 2, p. 132, pl. 20, fig. 7-8.

Distribution. — France : Pliocene of Perpignan, Miocene of the Aquitaine Basin. Austria : Miocene.

Remarks. — Bosquet doubted the validity of this species, for he supposed it to be a young molt of *Cythere cicatricosa* (Reuss)or of *C. punctata* (von Münster).

Both these species belong to the genus *Aurila,* however. All 143 specimens found in the collection Bosquet are adult valves of a species of *Loxonconcha.*

Reuss' description and figures are poor and schematic, but as far as it can be deduced from them, it is quite possible that Bosquet's specimens belong to this species.

The valves of the males possess a distinct depressed area in the postero-ventral region.

Loxoconcha subovata (VON MÜNSTER).

Pl. XXII, figs. 15-16.

Cythere subovata VON MÜNSTER, 1830, p. 63.
Cytherina subovata (VON MÜNSTER), ROEMER, 1838, p. 515, pl. 6, fig. 4.
Loxoconcha subovata (VON MÜNSTER), LIENENKLAUS, 1894, vol. 46, p. 234, pl. 16, fig. 4.

Distribution. — Belgium : Upper Ypresian-Rupelian. Germany : Oligo-Miocene. Netherlands : Bartonian of the borings Delden (90-103 m) and Almelo (158-162 m).

Remarks. — In our Eocene material two types occur together. One is rather short, high and inflated, with the surface covered with smal angular depressions. This type agrees fairly well with the discription of *Loxoconcha subovata* given by LIENENKLAUS (1894). The second type is more elongate, with straight dorsal and ventral margins. The surface is covered with a coarse reticulation. The wing is crowned at the posterior end with a distinct curved ridge. Probably this considerable difference is still due to sexual dimorphism.

We compared our material with topotypes of *Loxoconcha subovata* from Astrup near Osnabrück (kindly furnished by Mr. H. OERTLI). Excepting the size, the Oligocene specimens are larger, they are identical.

Loxoconcha subtriangularis (SPEYER).

Pl. XXI, fig. 20; Pl. XXII, fig. 14.

Cythere subtriangularis SPEYER, 1863, vol. 13, p. 26, pl. 2, fig. 6.

Distribution. — Belgium : Rupelian (*Nucula*-clay). In literature recorded from the Upper Oligocene of the region of Cassel, Germany.

Remarks. — According to LIENENKLAUS, *Cythere subtriangularis* should be the female of *Loxoconcha tenuimargo* (REUSS). The specimens described as the latter species would then be the males. Our specimens, 7 valves (of which 3 are in the coll. BOSQUET), show a close resemblance to the carapace figured by SPEYER. In dorsal view the lateral sides are almost parallel with steep anterior and posterior slopes towards the pointed ends of the valve. The anterior margin is slightly drawn-out ventrally. The valves have a broad, very shallow vertical depression extending from the dorsal margin to halfway the height of the valve.

SUBFAMILY **CYTHERURINAE** G. W. MÜLLER, 1894.

Genus CYTHERURA SARS, 1866.

Cythere gibba (male) and **Cythere gibbera** (female) O. F. MÜLLER, 1785.

Diagnosis. — Carapace elongate, quadrangular or triangular, posterior end with caudal process; surface smooth or ornamented with pits, reticulation, ridges and spines; marginal area broad, often with large bulging protrusion in the posterior half, no vestibules, radial pore-canals fairly numerous, simple, straight or curved; muscle-scar with posterior row of four scars and single anterior scar; hinge of the right valve with terminal, crenulate dental areas, and a notched groove in between.

Range : Cretaceous to recent.

Cytherura bambruggensis n. sp.

Pl. XXIII, figs. 9-10

Etymology : Named after the village Bambrugge near Aalst, Belgium.

Holotype : A right valve (S 2504).

Paratypoids : 5 complete carapaces and 35 detached valves (S 2505-2515).

Type-locality : Bambrugge (ZD 343), Belgium.

Type-level : Ledian.

Distribution. — Belgium : Ypresian of Rumbeke, Hyon, Forest (Brussels); Lutetian of Hoegaarden, Diegem and Nalinnes; Ledian of Bambrugge and Forest; Ledian or Bartonian of the boring Heist-op-den-Berg (129,50 m and 129 m); Bartonian of Gent.

Diagnosis. — A species belonging to the genus *Cytherura* with the following characteristics : ornamentation mainly consisting of three sinuous, longitudinal ridges, a vertical zigzag ridge in the anterior half of the valve, and another irregular vertical ridge in the posterior half; with low and blunt or high and sharp postero-ventral lateral extension.

Description. — The dorsal outline is slightly undulating; it merges gradually into the broadly rounded anterior margin. The ventral margin is concave in the middle, but obscured at this place by the wing. The posterior margin has a long, upwardly directed caudal process.

The ornamentation consists of three sinuous, longitudinal ridges. The uppermost runs close to the dorsal margin and it merges into the anterior marginal rim. The middle one runs over the middle of the valve, reaching the postero-ventral margin halfway its length. The lower one forms the edge of the wing. A ridge runs zigzag from the antero-dorsal corner towards the pointed wing's end. Another irregular ridge connects the wing's top with the postero-dorsal corner of the valve. Several other small accessory ridges are situated between these main ridges. A faint reticulation was also observed. The wing ends in the postero-ventral region in a low and blunt extension, or a high and sharp spine.

The marginal area is broad anteriorly; in the posterior half of the valve its extension could not be established with certainty. There are a dozen of curved radial pore-canals in the antero-ventral region. A few more were sometimes noticed, which start in the postero-ventral region and which end in the caudal process.

The hinge of the right valve has two elongate dental areas, situated at the ends of the selvage. The left valve's hinge is the complement.

Dimensions. — Holotype (right valve) : L : 0,39, H : 0,19, $\frac{1}{2}$W : 0,13.

Remarks. — *Cytherura bambruggensis* resembles *C. nigrescens* Müller (1894, p. 290, pl. 18, figs. 3, 11, 14) in outline and in shape of the lateral spine. The juvenile *C. costellata* Brady (in Hornibrook, 1952, p. 50, pl. 14, fig. 230) also resembles our species in many details. It differs in the ornamentation of the dorsal half of the valve.

Cytherura forestensis n. sp.
Pl. XXIII, figs. 18-19.

Etymology : Named after the type-locality Forest, suburb of Brussels.

Holotype : A right valve (S 2516).

Paratypoids : 5 complete carapaces and 4 detached valves (S 2517-2520).

Type-locality : Forest (BD 391), Brussels, Belgium.

Type-level : Lutetian.

Distribution. — Belgium : Upper Ypresian of Hyon; Lutetian of Forest; Ledian of Bambrugge and the basal layer of the Ledian at Forest.

Diagnosis. — A species belonging to the genus *Cytherura* with the following characteristics : valves egg-shaped, depressed postero-ventrally; surface with wavy longitudinal ridges and faint transverse connections.

Description. — The valves are egg-shaped, with arched dorsal outline and obliquely rounded anterior end. The ventral outline is convex, and formed by the overhaning ventral swelling. In the postero-ventral region the outline is obtusely angled. The posterior end has a distinct sub-dorsal caudal process.

The carapace is swollen, but it is compressed in the postero-ventral region. The surface is ornamented with wavy longitudinal ridges, which sometimes anastomose. In between there are short, straight connective ridges.

The marginal area is ill preserved, but it looks likely to be broad and bulging inward postero-dorsally. Only two radial pore-canals could be observed, they are situated in the caudal process.

The hinge of the right valve consists of two, elongate, cusped, dental areas, the innermost teeth of which are larger than the others. Above these dental areas there is a curved groove.

The muscle-scar was not visible.

Dimensions. — Holotype : L : 0,44, H : 0,29, $\frac{1}{2}$W : 0,14.

Remarks. — Our species resembles *Cytheropteron eggerianum* Lienenklaus (1897, p. 202) from the Miocene of Bavaria, Germany. The latter species lacks the depression in the postero-ventral region, which is typical for *Cytherura forestensis*.

Cytherura gracilis Lienenklaus.
Pl. XXIII, fig. 16.

Cytherura gracilis Lienenklaus, 1895, p. 149, pl. 3, fig. 3.

Distribution. — Belgium : Lower Rupelian. France : Oligocene of Jeurre, Paris Basin.

Cytherura oedelemensis n. sp.

Pl. XXIII, figs. 11-13.

Etymology : Named after the village Oedelem near Brugge, Belgium.

Holotype : A complete carapace (S 2522).

Paratypoids : 10 complete carapaces and 15 detached valves (S 2523-2531, 2750).

Type-locality : Oedelem (BRB 246), Belgium.

Type-level : Bartonian (clay of Asse).

Distribution. — Belgium : Lutetian of Gobertange, Hoegaarden; Ledian of Asse, Bambrugge, Meldert, Forest (Brussels) probable Ledian of the boring Heist-op-den-Berg; Bartonian of Oedelem. Netherlands : Bartonian of the boring Delden (90-95 m).

Diagnosis. — A species belonging to the genus *Cytherura* with the following characteristics : ornamentation with several longitudinal and oblique ridges and with a festoon-shaped ridge in the antero-dorsal region.

Description. — Sexual dimorphism was observed, the females being somewhat more thick-set than the elongate males.

The dorsal margin is straight to slightly arched. The anterior margin is broadly or somewhat obliquely rounded. The ventral outline is straight to slightly concave. The posterior margin forms a large subdorsal caudal process.

The ornamentation consists of many ridges and it is somewhat variable. There is a straight longitudinal ridge, parallel to the dorsal margin, which anterior end is festoon-shaped. In the middle of the valve runs another undulating longitudinal ridge. In the posterior part of the valve it is connected with the dorsal one by one or two oblique ridges. On the lower half of the valve run two parallel, curved ridges, which bend upward and end against the posterior part of the middle longitudinal ridge. These two ridges are connected with each other by two obliquely placed ridges. Between the middle longitudinal ridge and the uppermost curved ridge, runs another ridge which doubles in its posterior part.

The marginal area is moderately broad. The radial pore-canals were not clearly visible, but as far as could be seen they are simple, straight and widely spaced.

The hinge of the right valve consists of two long dental areas, situated at the ends of the selvage. Above and between them, there is a groove, which is bordered dorsally by a ridge. The left valve has a crenulated ridge with a knob-like tooth at both ends. Anteriorly and posteriorly of this ridge there are depressions into which fit the dental areas of the right valve.

Dimensions. — Holotype (female carapace) : L : 0,38, H : 0,19, W : 0,19.

Remarks. — *Cytherura raadshoveni* VAN DEN BOLD (1946, p. 118, pl. 14, fig. 17) of the Cuban Miocene has a similar ornamentation, which is much less complicated however.

Genus CYTHEROPTERON SARS, 1866.

TYPE SPECIES **Cythere latissima** NORMAN, 1865.

Diagnosis. — Carapace elongate or egg-shaped, posterior end with caudal process; surface smooth, pitted, or reticulate; marginal area fairly broad, radial pore-canals few, simple or bifurcating, three in the caudal process; small anterior vestibule; muscle-scar with posterior row of four scars and single anterior scar; hinge of the right valve with crenulate, terminal dental areas and a curved notched groove in between.

Range : Cretaceous to recent.

Subgenus CYTHEROPTERON SARS, 1866.

Diagnosis. — With distinct ventral wing.

Range : Cretaceous to recent.

Cytheropteron (Cytheropteron) gulincki n. sp.

Pl. V, fig. 2; Pl. XXIII, fig. 15.

Etymology : Named after Ir. M. GULINCK, geologist of the Geological Survey of Belgium.

Holotype : A complete carpace (S **2532**).

Paratypoids : **11** detached valves (S **2533-2535**).

Type-locality : Oedelem (BRB **246**), Belgium.

Type-level : Clay of Asse (Bartonian).

Distribution. — Bartonian of Oedelem and boring Brussegem (**22,30** m).

Diagnosis. — A species of the subgenus *Cytheropteron* with the following characteristics : valves smooth, with heavy, pointed alae; anterior and posterior margins of the ala bordered by a ridge; ventral surface with three, short longitudinal ridges.

Description. — The dorsal margin is arched. In the left valve it merges gradually into the broadly rounded anterior margin; in the right valve it is concave near the anterior cardinal angle. The ventral margins of both valves are concave and partly hidden by the strongly protruding, pointed, triangular postero-ventral wing. The posterior margin is convex beneath the subdorsal caudal process; it is concave above it. In dorsal view the carapace is arrowhead-shaped.

The surface is smooth with widely scattered shallow depressions. The anterior and posterior margins of the wing are bordered by a ridge. A depression is situated at the base of the wing just behind the anterior bordering ridge. The ventral surface is ornamented with three, short, longitudinal ridges.

The anterior marginal area is moderately broad. Some five, widely spaced, simple and straight radial pore-canals are situated along the anterior margin. Some, short, false radial pore-canals were in some cases observed between them. Two radial pore-canals are situated in the caudal process. Very few were occasionally met with along the ventral and postero-ventral margin.

The hinge of the right valve consists of a curved groove, which continues dorsally of the serrate outer ends of the selvage.

Dimensions. — Holotype (complete carapace) : L : 0,42, H : 0,28, W : 0,37.

Remarks. — *Cytheropteron gulincki* differs from *C. tricorne* (Bornemann) (1855, p. 367, pl. 21, fig. 8) in dorsal and in lateral outline of the ala. Another species which resembles *C. gulincki* is *C. pipistrella* Brady (1878, p. 404, pl. 69, fig. 2) from the Upper Tertiary of Antwerp, but this species is more strongly alate. Moreover, in dorsal view its sharply pointed wings are directed backwards and have a concave posterior margin, whereas the posterior margin of the alae of *C. gulincki* are almost perpendicular to the valve, as seen from above.

Cytheropteron (Cytheropteron) steinmanni Kuiper.

Pl. V, fig. 1; Pl. XXI, fig. 13.

Cytheropteron latissimum (Norman), Brady, 1878, p. 403, pl. 69, fig. 1.
Cytheropteron steinmanni Kuiper, 1918, p. 21, pl. 1, fig. 5.

Distribution. — Belgium : Rupelian of Boom. Netherlands : Rupelian and Miocene.

Remarks. — In our material a single left valve was found in the Boom clay. We also disposed on material of the Anversian (Middle Miocene) of Antwerp-region. *Cytheropteron latissimum* (Norman) as interpreted by Brady is identical with *C. steinmanni* Kuiper from the Oligo-Miocene of the Netherlands. As long as it is not proved that Miocene specimens of Antwerp are conspecific with the recent species of Norman, we think it better to retain Kuiper's species name.

Subgenus EOCYTHEROPTERON Alexander, 1933.

Type species **Cytheropteron bilobatum** Alexander, 1929.

Diagnosis. — Carapace elongate, devoid of wing, but ventrally swollen. Other features as *Cytheropteron*.

Range : Cretaceous to recent (?).

Cytheropteron (Eocytheropteron) omaliusi n. sp.

Pl. V, figs. 3-5; Pl. XXIII, fig. 14.

Etymology : Named after Mr. J. J. d'Omalius d'Halloy, one of the founders of the Begian Tertiary stratigraphy.

Holotype : A left valve (S 2537).

Paratypoids : 65 detached valves and 3 complete carapaces (S 2538-2548).

Type-locality : Forest (BD 391) (Brussels), Belgium.

Type-level : Lutetian.

Distribution. — Belgium : Lutetian of Forest, Saint-Job and Leopoldswijk (Brussels), Diegem, Gobertange, Hoegaarden, Braine-l'Alleud, Genappe; basal layer of Ledian at Forest; Bartonian of Oedelem.

Diagnosis. — A species of the subgenus *Eocytheropteron* with the following characteristics : females ovate, males very elongate with almost parallel dorsal and ventral margins, left valve of adults of both sexes often with postero-ventral swelling.

Description. — Sexual dimorphism is pronounced. The females are ovate in outline, the males much more elongate.

The dorsal margin of the females is straight to slightly arched. The anterior margin is obiquely rounded; the ventral margin straight to slightly convex; the posterior margin is broadly rounded below the middle, about straight above it. The left valve of the males has long, straight dorsal and ventral margins, and an obliquely rounded anterior margin. The posterior end is more rounded than in the right valve. The right valve of the male has a short straight dorsal margin, ventrally drawn-out anterior and posterior margins, and a slightly convex ventral margin.

The surface is smooth. The immature specimens have a rounded ridge along the ventral swelling. The adults lack this ridge, but often have a swelling in the postero-ventral region of the left valves.

The anterior marginal area is rather broad. There are some eight widely spaced, straight radial pore-canals in the antero-ventral region. Three more canals are situated at the posterior angle.

The hinge is as for the genus.

Dimensions. — Holotype (male left valve) : L : 0,52, H : 0,24, $\frac{1}{2}$W : 0,12; paratypoid (female left valve) : L : 0,46, H : 0,25, $\frac{1}{2}$W : 0,12.

Remarks. — A postero-ventral swelling has, as far as the author knows, not yet been described in a species of this subgenus.

Cytheropteron cf. **C. fiski** Howe and Law.

Pl. XVIII, fig. 5; Pl. XXI, fig. 7.

Remarks. — Three valves were found, one in the Bartonian of the boring Delden (96-103 m) in the Netherlands, one in the Bartonian of Heizel and one in the Bartonian of the boring Brussegem (22,20 m). The peculiar, large, reticulated specimens are strongly inflated in the posterior half of their valves. The male has an indistinct, curved sulcus at the anterior base of the swelling. In its central part the lateral surface is ornamented with a reticulation which towards the border of the valve is gradually replaced by concentric ridges parallel to the antero-ventral margin. Except for their pronounced subdorsal caudal process, our specimens are identical with *Cytheropteron* (*Eocytheropteron*) *fiski* Howe and Law (1936, Louis. Dept. Cons. Geol. Bull., No. 7, p. 38, pl. 2, figs. 25-26, pl. 3, figs. 19-20) from the Oligocene of Louisiana.

These large reticulated specimens do not fit in either of both existing subgenera of *Cytheropteron*. In the author's opinion a new subgenus has to be erected for them, but lack of sufficient material prevented to do so.

Cytheropteron sp.

Pl. XXI, fig. 14.

R e m a r k s . — Only two damaged valves were found, one in the Lutetian of Gobertange (WA 165), the other in the Ledian of Bambrugge (ZD 343).

Genus EUCYTHERURA G. W. MÜLLER, 1894.

TYPE SPECIES **Cythere complexa** BRADY, 1867.

D i a g n o s i s . — Carapace small, subquadrangular and thick-shelled. Dorsal margin straight or irregular. Anterior end subtruncate, posterior end with dorsal caudal process. Surface heavily ornamented, with reticulation, ridges and/or spines. Marginal area moderately broad, line of concrescence coincides with inner margin throughout; radial pore-canals few, simple and straight. Hinge of the right valve with elongate, terminal teeth and connecting crenulate groove.

Range : Cretaceous to recent.

Eucytherura dentata LIENENKLAUS.

Pl. XXIII, figs. 4-8.

Eucytherura dentata LIENENKLAUS, 1905, p. 57, pl. 4, fig. 31.

D i s t r i b u t i o n . — Belgium : Ledian (?), Bartonian and Rupelian. Germany : Rupelian of the Mayence Basin.

R e m a r k s . — The mature specimens have a regular reticulation, consisting of ridges of equal height. Only one, though often almost imperceptible, obliquely running ridge is slightly higher than the rest. It runs from the middle of the anterior margin in postero-dorsal direction. The ridges of the juvenile specimens are very differently developed. Some are very high and sharp, bearing spines and blades at various places. Others are very low and inconspicuous.

Eucytherura hyonensis n. sp.

Pl. XXIII, figs. 1-3.

E t y m o l o g y : Named after the village Hyon, in which neighbourhood the type-locality is situated.

H o l o t y p e : A left valve (S 2560).

P a r a t y p o i d s : 10 detached valves and one complete carapace (S 2561-2562, 2777).

T y p e - l o c a l i t y : Hyon (MMV 80) near Mons, Belgium.

T y p e - l e v e l : Upper Ypresian.

Distribution. — Belgium : Upper Ypresian of Hyon. Netherlands : Ypresian of the boring Almelo (169-181 m).

Diagnosis. — A species belonging to the genus *Eucytherura* with the following characteristics : ornamentation with sinuous longitudinal ridge in the middle of the valve and a vertical ridge in its posterior part.

Description. — The dorsal and ventral margins are long, slightly undulating and parallel. The anterior margin is sub-truncate or composed of three straightened parts. The posterior margin has an upward swing and a short, rounded subdorsal caudal process.

The lateral surface is ventrally bordered by a longitudinal ridge, which turns upwards in the postero-ventral corner. A shorter ridge parallels the former one just above its posterior part. At its posterior end it forms the edge of a short, semi-circular lateral extension. In immature specimens this extension is much more strongly developed. In the posterior part of the valve there is a knobby, curved ridge, which dorsal part runs for some length along the dorsal margin. It is connected with the uppermost curved postero-ventral ridge. Another longitudinal ridge starts in the middle of the anterior margin; it is sinuous and end against the posterior vertical ridge. The surface between these ridges is coarsely reticulate.

The eye-tubercle is large and glassy.

The marginal area is broad. The radial pore-canals and the muscle-scar are obscured by the reticulation of the outer surface, visible through the transparant shell.

The hinge of the left valve is composed of a long, straight, crenulate bar with sockets at both ends. These sockets, which are open towards the interior, each have a small rounded knob situated in the middle of the opening. The right valve has two smooth, terminal teeth with a crenulate groove in between.

Dimensions. — Holotype (left valve) : L : 0,33, H : 0,18, $\frac{1}{2}$W : 0,09; paratypoid (right valve) : L : 0,32, H : 0,18, W : 0,18.

Remarks. — In outline and mode of ornamentation *Eucytherura hyonensis* has much in common with *E. decorata* Weingeist and *E. latebrosa* Weingeist (Journ. of Pal., Vol. 23, p. 373, pl. 73, fig. 9 and p. 375, pl. 73, figs. 14, 17). It is different from *E. decorata* in the possession of the wavy longitudinal ridge in the middle of the valve and the single ridge, along the ventral side of the valve. It is different from *E. latebrosa* in lacking the pronounced postero-dorsal and postero-ventral alar projections.

Genus SCHIZOCYTHERE Triebel, 1950.

Type species **Schizocythere hollandica** Triebel, 1950.

Diagnosis. — Carapace small to medium sized, ovate; ornamentation with coarse reticulation; marginal area fairly broad, radial pore-canals few, simple and straight, no vestibules; right valve hinge with schizodont anterior tooth, postjacent socket, serrate groove, ovate, cusped, posterior tooth.

Range : Eocene to Pliocene.

Schizocythere batjesi n. sp.

Pl. XX, figs. 16-18; Pl. XXI, fig. 18.

Etymology : Named after Mr. D. A. J. Batjes of Utrecht.

Holotype : A right valve (coll. S 2592).

Paratypoids : 78 detached valves and 10 complete carapaces (coll. S 2593-2605, 2753-2755, 2778, 2851).

Type-locality : Oedelem (BRB 1055), Belgium.

Type-level : Bartonian.

Distribution. — Belgium : Ledian of Saint-Gilles and Forest (Brussels), Asse and Meldert probable Ledian of boring Heist-op-den-Berg (129,50 m), 129 m); Bartonian of Heizel, Oedelem and the borings Brussegem and Heist-op-den-Berg. Netherlands : Bartonian of borings Delden (70-119 m) and Almelo (169-181 m). England : Bartonian of Barton.

Diagnosis. — A species of the genus *Schizocythere* with the following characteristics : surface with network of heavy ridges. Ventral surface bordered by evenly curved ridge which ends posteriorly against a vertical ridge; another longitudinal ridge joins this ridge postero-ventrally.

Description. — Sexual dimorphism was observed. The more numerous females are higher and more ovate in side view than the elongate males.

The dorsal margin is long and almost straight; the anterior margin is broadly rounded; the ventral outline is convex. It merges gradually into the posterior margin, which has an upward swing and an obtuse, subdorsal caudal process.

The ornamentation consists of a network of coarse, rounded ridges. A sieve-type normal pore-canal ends in each depression between these ridges. Three undulating longitudinal ridges start at the anterior margin and run towards the posterior end. The lower and middle ridge unite in the postero-ventral region. They continue as a single ridge which ends against a vertical ridge, that comes downwards from the posterior cardinal angle. Up to the junction point the lower longitudinal ridge overhangs the ventral margin. The continuing single ridge turns somewhat upwards, so that the margin becomes visible. The middle longitudinal ridge often forms a blade-like extension in the postero-ventral region. At some distance from, but parallel to the anterior margin runs a ridge which ends ventrally against the middle longitudinal ridge. In the anterior half two vertical ridges come downwards from the dorsal margin and end against the middle longitudinal ridge. The dorsal margin is obscured by a longitudinal ridge which, just before the middle turns downwards with a broad curve. It ends against the posterior part of the uppermost of the three longitudinal ridges. Posteriorly of the curved part of the dorsal ridge runs another parallel curved ridge.

The eye-tubercle is large and glassy.

The marginal area, muscle-scar, hinge are as for the genus.

Dimensions. — Holotype (female right valve) : L : 0,48, H : 0,30, $\frac{1}{2}$W : 0,14; paratypoid (female left valve) : L : 0,49, H : 0,33, $\frac{1}{2}$W : 0,15.

Remarks. — *Schizocythere batjesi* shows some resemblance to *S. tessellata* (Bosquet), but it is different from this species by the lack of the extension in the postero-ventral region and the heavier ridges.

Schizocythere appendiculata Triebel.

Pl. XX, fig. 19.

Cythere tessellata Bosquet (pars), 1852, vol. 24, p. 84.
Schizocythere appendiculata Triebel, 1950, vol. 31, p. 324, pl. 3, fig. 23-27; Apostolescu, 1955, p. 257, pl. 4, fig. 58, 59.

Distribution. — Belgium : Ypresian-Bartonian. France : Lutetian. Netherlands : Bartonian of boring Delden (90-95 m).

Schizocythere tessellata (Bosquet).

Pl. XX, figs. 14-15.

Cythere tessellata Bosquet (pars), 1852, vol. 24, p. 84, pl. 4, fig. 6.
Schizocythere tessellata (Bosquet), Triebel, 1950, vol. 31, p. 326, pl. 4, fig. 28-37.
Schizocythere tessellata tessellata (Bosquet), Apostolescu, 1955, p. 258, pl. 4, fig. 60-61.
Schizocythere tessellata hexagona Apostolescu, 1955, p. 258, pl. 4, fig. 62-65.

Lectotype : A right valve (coll. Bosquet, No. 47*c*).

Paratypoids : 25 complete carapaces and 56 single valves.

Locus-typicus-restrictus : Grignon, France.

Type-level : Lutetian IV.

Distribution. — Belgium : Upper Ypresian of Hyon and Forest (Brussels); Lutetian of Saint-Job, Saint-Josse-ten-Noode, Leopoldswijk and Forest (Brussels), Diegem, Hoegaarden, Gobertange, Genappe, Braine-l'Alleud and Nalinnes; Ledian of Forest (Brussels), Asse, Balegem, Bambrugge and Vlierzele; Bartonian of Heizel (Brussels). France : Upper Ypresian of Cuise-Lamotte and Ménilmontant (Paris); Lutetian of Grignon, Soissons, Saint-Félix, Houdan, Châteaurouge, Ferme de l'Orme, Chaumont, Chamery, Le Vivray, Courtagnon, Damery, Villiers-Saint-Frédéric, Mouchy-le-Châtel, Neauphlette, Neauphle-le-Château, Parnes, Montmirail, Chambors; Ledian of Ver, Pisseloup, Auvers and La Guépelle.

Diagnosis. — A species of the genus *Schizocythere* with the following characteristics : adult specimens with four straight longitudinal ridges in the antero-ventral region, sometimes forming a short lateral extension; surface covered with coarse, irregular reticulation.

Description. — The dorsal outline of both valves is almost straight, often somewhat irregular. The anterior outline is broadly rounded, but somewhat drawn-out ventrally. The ventral outline is convex. Often a short triangular extension overhangs the border in the postero-ventral region. The posterior outline has a slight upward swing and a short, rounded caudal process. The dorsal part of the caudal process is concave in the right valve.

The surface is covered by an intricate pattern of sharp or rounded ridges. The caudal process and a zone parallel tot the anterior margin are smooth and compressed. In the antero-ventral region there are four, almost straight longitudinal ridges. The two middle ridges unite before they reach the anterior border of ornamentation. The two upper ridges vanish before the middle into the irregular reticulation. The two lower longitudinal ridges continue to the postero-ventral region, where they unite and often form a short, triangular,

lateral extension. They continue as a single ridge, which ends against a vertical ridge. From the eye-tubercle a ridge runs downwards towards the anterior end of the uppermost longitudinal ridge. Along the dorsal margin runs another longitudinal ridge, which turns downwards and forms the posterior border of ornamentation. Just behind the middle this ridge bifurcates. The branch runs parallel to the main ridge for a short distance and than turn downwards too. This can be seen more clearly in immature specimens, which have three ridges with a horizontal anterior part and a downwardly curved posterior part. In each depression between these ridges, there is a large sieve-type normal pore-canal.

In dorsal view the female carapace is evenly tapering towards both ends. The male has parallel lateral sides.

The anterior and posterior marginal areas are rather broad. There are five widely spaced, straight radial pore-canals along the anterior margin; four were observed near the caudal process.

In the right valve the selvage and the flange are widely apart, except mid-ventrally and between the caudal process and the posterior cardinal angle. In the left valve there is only an anterior wide flange. The list is well developed in the left valve.

The muscle-scar consists of a slightly curved vertical row of four elongate scars, with a rounded scar in front of the uppermost scar.

The hinge is as for the genus.

Dimensions. — Lectotype : L : 0,61, H : 0,40, $\frac{1}{2}$W : 0,20.

Remarks. — *Schizocythere tessellata* stands quite apart from the other species of this genus by its intricate ornamentation.

Triebel (1950) mentioned two subspecies, both occurring at Grignon. In our opinion subspecies B (subspecies *tessellata* Apostolescu) is an earlier molt of subspecies A (subspecies *hexagona* Apostolescu), which represents the mature individual. The ornamentation differs markedly between these molts. In the mature specimens the two middle longitudinal ridges of the antero-ventral region, unite just before they reach the anterior border of the ornamentation. In the immature, specimens they unite much more backwardly. The younger specimens have a more distinct postero-ventral triangular extension, than the mature individuals.

Schizocythere sp.

Pl. XX, fig. 13.

Cythere truncata Bosquet, (non Reuss), 1852, vol. 24, p. 101, pl. 5, fig. 5.

Distribution. — France : Pliocene of Perpignan.

Remarks. — Only one left valve was found (coll. Bosquet, No. 60). This valve shows the outline, ornamentation, marginal area and hinge of the genus *Schizocythere*. It is certainly not conspecific with *Cnestocythere truncata* (Reuss). The central muscle-scar consists of a curved posterior row of four scars with a row of three round scars in front of it. There is another single scar at some distance below the central scar.

Genus PAIJENBORCHELLA KINGMA, 1948.

TYPE SPECIES **Paijenborchella iocosa** KINGMA, 1948.

Diagnosis. — Carapace small, ovate, with marked ventral caudal process; distinct vertical sulcus; ornamentation with three longitudinal ridges, additional ridges, spines, reticulation or pits or smooth; marginal area fairly broad, radial pore-canals few and straight, no vestibules; hinge of the right valve with schizodont anterior tooth, postjacent socket, serrate groove and elongate, lobed posterior tooth.

Range : Upper Cretaceous to recent.

Paijenborchella eocaenica TRIEBEL.

Pl. XXI, fig. 6.

Paijenborchella eocaenica TRIEBEL, 1949, vol. 30, p. 196, pl. 1, fig. 1-7, pl. 2, fig. 8.

Distribution. — Belgium : Ledian-Bartonian. Netherlands : Bartonian of the boring Delden. Germany : Upper Eocene. England : Ledian of Whitecliff Bay, Wight, and Upper Bartonian of Barton Cliff.

Remarks. — The upper longitudinal ridge is often much longer than it is figured by TRIEBEL, especially by Ledian specimens.

Paijenborchella lomata TRIEBEL.

Pl. XXI, fig. 5.

Paijenborchella lomata TRIEBEL, 1949, vol. 30, p. 198, pl. 2, fig. 9.

Distribution. — Belgium : Upper Ypresian-Bartonian. Netherlands : Upper Eocene of the boring Sibculo (TRIEBEL) and Delden. Germany : Upper Eocene of boring Neustadt-Gödens (TRIEBEL).

Remarks. — The Lower and Middle Eocene specimens are somewhat smaller than those of the Upper Eocene.

Paijenborchella longicosta n. sp.

Pl. XXI, figs. 1-4.

Holotype : A complete carapace (coll. S 2644).

Paratypoids : 20 complete carapaces and 28 detached valves (S 2645-2651, 2350).

Type-locality : Stadium of Forest (BD 391), Brussels, Belgium.

Type-level : Lutetian.

Distribution. — Belgium : Lutetian of Saint-Job and Forest (Brussels), Hoegaarden, Braine-l'Alleud and Spy; basal layer of the Ledian at Forest. England : Ledian (*Nummulites variolarius*-zone of the Bracklesham beds) of Whitecliff Bay, Wight.

Diagnosis. — A species belonging to the genus *Paijenborchella* with the following characteristics : Upper longitudinal ridge very long, starting just behind the anterior margin

and extending to a point at 4/5 of the valve's length, where it joins the backward extended lower longitudinal ridge. Caudal process rather short, with distinct triangular spine at its ventral margin.

D e s c r i p t i o n . — Sexual dimorphism is distinct. The males are considerably more elongate than the females. In dorsal view the male carapace is broadly elliptical with a rather short, compressed caudal process. The females are more ovate and have a longer caudal process.

The dorsal outline is straight with a marked posterior cardinal angle. At its anterior end the dorsal outline merges gradually into the obliquely rounded anterior outline. The latter is sometimes fringed with a thin blade, often resolved into a number of short, triangular marginal spines. The ventral outline is convex, more strongly so in the females than in the males. The posterior end of the males is often triangular. The females have a more protruding caudal process, with a deeply concave dorsal outline. At some distance beneath the caudal process there is a short triangular, marginal spine.

The vertical sulcus is well-developed. A knob-like swelling is situated at the dorsal end of the sulcus of the right valve. Just as in the other *Paijenborchella* species, there are three longitudinal ridges. The upper longitudinal ridge is very long, reaching from just behind the antero-ventral margin to a point at 4/5 of the valve's length. Here it joins the backwards extended lower longitudinal ridge. This ridge continues to the small spine beneath the caudal process. In a few specimens it was observed that the middle longitudinal ridge bears a short curved spine at its posterior end. There is sometimes a faintly developed short ridge, parallel to and just above the posterior end of the middle longitudinal ridge. With the exception of the caudal process, the compressed zone along the anterior margin and the vertical sulcus, the surface is covered with more or less coarse reticulation.

The internal features are as for the genus.

D i m e n s i o n s . — Holotype (male carapace) : L : 0,50, H : 0,27, W : 0,28.

R e m a r k s . — This species shows many affinities to *Paijenborchella eocaenica* Triebel. In outline the females are almost identical with the females of the latter species. But the males differ considerably in lateral as well as in dorsal view. The most distinct difference is found in the much greater length of the upper longitudinal ridge. In *P. eocaenica* the middle longitudinal ridge continues backward to the triangular spine beneath the caudal process, whereas in *P. longicosta* it is the lower longitudinal ridge which shows this backward extension. The upper longitudinal ridge of *P. longicosta* ends also at this marginal spine, while that of *P. eocaenica* unites with the lower longitudinal ridge before this reaches the spine.

The two species were found together in the basal layers of the Ledian at Forest (*P. longicosta* probably reworked here) and in the Ledian of Whitecliff Bay at Wight. The specimens found at Wight are not typical *P. longicosta,* but show a more or less intermediate position between this species and *P. eocaenica,* as regarded the development of the upper longitudinal ridge. In general, *P. longicosta* is typical for the Belgian Middle Eocene (Lutetian) and *P. eocaenica* for the Upper Eocene (Ledian-Bartonian) of this country.

Paijenborchella sp. cf. **P. tricostata** (LIENENKLAUS).

Pl. XXI, fig. 8.

Remarks. — Only a single right valve was found in the Boom clay of Kruibeke. It resembles *Paijenborchella eocaenica* TRIEBEL, from which it is different in outline, both in lateral as well as in dorsal view. In lateral view the postero-ventral margin is straight in stead of convex, and the anterior end is more broadly rounded. In dorsal view the outline of the tapering anterior end is not rounded as it is in *P. eocaenica*, but with straight sides. In ventral view the ridge running on the ventral surface is more pronounced than it is in *P. eocaenica*. The middle longitudinal ridge which forms the edge of the wing, is less convex than in *P. eocaenica*.

Paijenborchella tricostata (LIENENKLAUS) (1900, Zeitschr. d. geol. Ges., Vol. 52, p. 543, pl. 22, fig. 6) was originally described from the Lower Oligocene of Germany. The type material of this species must be regarded as lost (TRIEBEL, written communication). Our valve fits in fairly well with the description and figures given by LIENENKLAUS, except for the posterior end, which is not so compressed in our specimens as it is figured by LIENENKLAUS; it is more like that of *P. eocaenica*.

Genus PARACYTHERIDEA G. W. MÜLLER, 1894.

TYPE SPECIES **Paracytheridea depressa** G. W. MÜLLER, 1894.

Diagnosis. — Carapace elongate with dorsal caudal process, distinct wing and triangular postero-ventral alar extension; subcentral swelling and postero-dorsal region protruding. Surface with pits, reticulation or ridges. Marginal area fairly broad, no vestibules, radial pore-canals few, simple and straight. Muscle-scar with single anterior scar in front of posterior row of four scars.

Range : Cretaceous to recent.

Remarks. — This genus with its heavily ornamented species, its dorsal caudal process, its marginal area with only a few, simple radial pore-canals, fits better in the subfamily *Cytherurinae* than in the *Cytherideinae*, where it is placed by all other authors.

Subgenus PARACYTHERIDEA MÜLLER, 1894.

Diagnosis. — Hinge of the right valve with serrate median groove and lobed teeth at both ends, the posterior one being the largest.

Range : Cretaceous to recent.

Paracytheridea (Paracytheridea) brusselensis n. sp.

Pl. XIX, fig. 5; Pl. XXII, fig. 5.

Etymology :Named after Brussels, the capital of Belgium.

Holotype : A complete carapace (coll. S **2653**).

Paratypoids : 40 detached valves and one complete carapace (coll. S 2654-2658).

Type-locality : Forest (BD 391), Brussels, Belgium.

Type-level : Lutetian.

Distribution. — Belgium : Lutetian of Forest and Saint-Job (suburbs of Brussels), Diegem and Braine-l'Alleud.

Diagnosis. — A species belonging to the subgenus *Paracytheridea* with the following characteristics : ornamentation consisting of an anterior, curved, vertical ridge and a longitudinal ridge that connects the vertical ridge and the posterior side of the postero-ventral, triangular alar process.

Description. — The dorsal margin is almost straight. The cardinal angles of the left valve protrude. The anterior margin is sub-truncate to obliquely or broadly rounded. The ventral outline is formed by the wing, the ventral margin is straight or concave. The posterior end is formed by a long caudal process situated above the middle. A triangular alar process overhangs the postero-ventral margin.

The wing is bordered by a rounded ridge along its entire length. Before it reaches the antero-ventral end a second prominent ridge branches off towards the dorsal side, curving rapidly backwards into a longitudinal direction and continuing, just below the middle, to the posterior border of the triangular alar process. A shorter, curved, vertical ridge comes downwards from the anterior cardinal angle, joining the longitudinal ridge just behind the latter's anterior loop. Over the subcentral swelling the longitudinal ridge is often broadened or divided into two branches. The surface is covered with a coarse, irregular reticulation, except the zones adjoining the anterior and posterior ends.

The carapace is broadly arrowhead-shaped in dorsal view. The ventral surface is concave and ornamented with some longitudinal striae and a faint reticulation.

The right valve hinge consists of a groove with a cusped dental area at both ends. The anterior end of the groove is somewhat broader and deeper, in order to fit the tooth, situated at the anterior end of the bar of the left valve.

The marginal area is as for the genus.

The muscle-scar was not visible.

Dimensions. — Holotype (complete carapace) : L : 0,63, H : 0,33, W : 0,38.

Remarks. — *Paracytheridea brusselensis* resembles *P. gradata* (Bosquet) in outline and ornamentation. It is different in lacking a posterior vertical ridge.

Paracytheridea (Paracytheridea) gradata (Bosquet).

Pl. XXII, figs. 2-4.

Cythere gradata Bosquet, 1852, vol. 24, p. 127, pl. 6, fig. 11.
Paracytheridea gradata (Bosquet), Apostolescu, 1955, p. 249, pl. 2, fig. 25.

Lectotype : A left valve (coll. Bosquet, No. 80*d*).

Paratypoids : 2 detached valves (id.).

Locus-typicus-restrictus : Grignon, Paris Basin, France.

Type-level : Lutetian.

Distribution. — Belgium : Upper Ypresian of Hyon; Lutetian of Godarville, Forest, Bambrugge and Vlierzele and probable Ledian of boring Heist-op-den-Berg (129,50 m, 129 m); Bartonian of Heizel, Oedelem and the borings Heist-op-den-Berg and Brussegem. France : Lutetian of Grignon, Parnes, Chambors, Saint-Félix, Le Vivray. Netherlands : Ypresian of boring Almelo (169-181 m) and Bartonian of the boring Delden (90-103 m). England : Upper Bracklesham beds (Ledian) of Whitecliff bay, Wight.

Diagnosis. — A species of the subgenus *Paracytheridea* with the following characteristics : ornamentation with longitudinal ridge, connected at either end with a curved vertical ridge; immature specimens with additional ridge between the middle of the longitudinal ridge and postero-dorsal margin.

Description. — In some samples sexual dimorphism was observed. Some more elongate specimens were found, which probably represent the males. The dorsal margin is straight, with protruding cardinal angles in the left valve. The anterior margin is sub-truncate to obliquely rounded. The ventral margin is concave or straight, but hidden by the wing. The posterior end is formed by a subdorsal caudal process. The postero-ventral margin is hidden by a well-developed alar process.

The edge of the wing is formed by a sharp or rounded ridge. In immature specimens the wing ends posteriorly in a sharp spine; mature specimens have a rounded or angled posterior end of the wing.

A vertical ridge connects the eye-tubercle with the anterior part of the wing's edge. From the posterior end of the wing another curved ridge runs vertically or obliquely upwards in the direction of the posterior cardinal angle. Between these two vertical ridges there is an undulating longitudinal ridge. It is broadened on the subcentral swelling. Immature specimens have an obliquely placed ridge between the middle of the longitudinal ridge and the postero-dorsal swelling. The posterior half of the longitudinal ridge is often lacking in these individuals. The surface between the ridges is coarsely reticulated. Often some five or six short, broad ridges stand perpendicular on the edge of the wing.

The internal features are as for the genus.

Dimensions. — Lectotype (left valve) : L : 0,54, H : 0,27, $\frac{1}{2}$W : 0,15.

Remarks. — This species closely resembles *Paracytheridea brusselensis* n. sp., in outline and ornamentation. It differs by the possession of the posterior vertical ridge, against which the longitudinal ridge comes to an end.

The Upper Eocene representatives of *P. gradata* show considerable variation. The immature specimens have both wing and postero-ventral ala sharply pointed. In the Bartonian of Oedelem adult specimens were found with inflated and thickened carapaces. They are coarsely reticulated and without the longitudinal and the posterior vertical ridges. However, together with these aberrant types, typical valves occur as well. Such inflated variants have furthermore been found in the Ledian and Bartonian of Belgium, the Bartonian of the Netherlands, the Ledian of Wight, the Oligocene of Etréchy and Auvers-Saint-George in the Paris Basin.

Paracytheridea (Paracytheridea) grignonensis n. sp.

Pl. XIX, fig. 11; Pl. XXII, fig. 1.

Paracytheridea tuberosa APOTOLESCU (non LIENENKLAUS), 1955, p. 250, pl. 2, fig. 26-27.

Etymology : Named after the type-locality Grignon, Paris Basin, France.

Holotype : A left valve (S 2940).

Paratypoids : 9 detached valves (S 2872, 2941).

Type-locality : Grignon (CAB 1001), Paris Basin, France.

Type-level : Lutetian IV.

Distribution. — France : Lutetian II of Soissons, Lutetian III and IV of Grignon, Mouchy-le-Châtel, Châteaurouge, Parnes, Neauphlette, Montmirail-les-Marais.

Diagnosis. — A species belonging to the subgenus *Paracytheridea* with the following characteristics : postero-ventral spine long, sharp and directed backward; postero-dorsal swelling with two transverse ridges; eye-tubercle and postero-ventral spine connected by a strongly curved, low ridge.

Description. — The dorsal outline is very irregular; its posterior part is jagged. The anterior cardinal angle of the left valve protrudes strongly. The anterior margin is convex. The ventral outline is convex with a strongly projecting, sharp, postero-ventral spine that points backwards. The posterior margin has a prominent sub-dorsal caudal process with a small marginal spine at its ventral side.

The strongly developed postero-dorsal swelling bears two transverse ridges. The anterior one is connected by some low, curved ridges with the postero-ventral spine. The subcentral swelling is high and crowned with a ridge that surrounds an ovate area. From the eye-tubercle a low ridge starts off towards the ventral side of the valve, curving broadly towards the postero-ventral spine. In its ventral part this ridge is comparable to a slightly developed wing, merging into the spine and connected with the ridge on the subcentral swelling, by two short, low ridges, one ventrally and the other one anteriorly of the latter elevation. Some four or five radially arranged ridges were observed near the antero-ventral margin. Between all ridges the surface is irregularly reticulated or ornamented by indistinct ridges.

The hinge and marginal area are as for the genus.

Dimensions. — Holotype (left valve) : L : 0,62, H : 0,35, $\frac{1}{2}$W : 0,26.

Remarks. — Our new species resembles *P. tschoppi* VAN DEN BOLD (1946, p. 85, pl. 16, fig. 6), from which it differs in the ornamentation of the postero-dorsal swelling. Moreover, *P. tschoppi* has a connective ridge between the antero-ventral margin and the ridge on the subcentral swelling, while its postero-ventral spine is less sharp.

Subgenus PARACYTHEROPTERON Ruggieri, 1952.

Type species **Cytheropteron calcaratum** Seguenza, 1880.

Diagnosis. — Hinge of the right valve straight, with serrate median groove and a row of about six separate cusps at both ends.

Range : Miocene to recent.

Paracytheridea (Paracytheropteron) fenestrata (Bosquet).

Pl. XXII, fig. 6.

Cythere fenestrata Bosquet, 1852, vol. 24, p. 128, pl. 6, fig. 12.
Paracytheridea (Paracytheropteron) fenestrata (Bosquet), Keij, 1955, vol. 21, n° 2, p. 116, pl. 16, fig. 2-3.

Lectotype : A right valve (coll. Bosquet, No. 81).

Paratypoids : Six detached valves (id.).

Type-locality : Regions of Dax and Mérignac, Aquitaine Basin, France.

Type-level : Lower Miocene.

Distribution. — France : Aquitaine Basin : Aquitanian of Moulin de l'Église and Moulin de Gamachot; Burdigalian of Pont-Pourquey.

Diagnosis. — A species belonging to the subgenus *Paracytheropteron* with the following characteristics : wing widely extended and pointed behind, ornamentation with irregular ridges.

Description. — The long dorsal margin is straight or slightly arched. The anterior margin is obliquely rounded. The ventral margin is for the greater part concealed by the strongly overhanging wing. The posterior margin has a dorsal, truncate, caudal process. A triangular extension overhangs the ventral part of the posterior margin.

The wing is widely extending and pointed behind. A sinuous ridge runs downwards from the anterior cardinal angle. It bends backwards on reaching the edge of the wing, with which is coalesces. Just above this backward bend it gives off a very short, vertical, straight ridge towards the anterior margin. The remainder of the surface is ornamented by a number of low ridges in various directions. In the upper middle of the valve, two irregular, about horizontal ridges are always present; they unite on the subcentral swelling, continuing jointly to the anterior vertical ridge. A number of irregular vertical ridges fade into the surface, those over the subcentral and the postero-dorsal swellings remain mostly discernible.

In dorsal view the carapace is arrowhead-shaped. The middle parts of the lateral outline, formed by the posterior portion of the wings, are parallel.

The marginal area and the hinge are as for the subgenus.

Dimensions. — Lectotype (right valve) : L : 0,59, H : 0,32, $\frac{1}{2}$W : 0,23.

Remarks. — *Paracytheridea fenestrata* resembles *P. triquetra* (Reuss) (1850, p. 82, pl. 10, fig. 19), of which we possess one valve. In the latter species the wing is but slightly extending and the valve is much more elongate, while the triangular posterior extension is much more strongly developed.

Subfamily **PARADOXOSTOMINAE** G. W. Müller, 1894.

Genus BOLDELLA n. gen.

Type species **Boldella deldenensis** n. sp.

Etymology : Named in honour of Dr. W. A. van den Bold, specialist of Ostracoda, Point Fortin, Trinidad.

Diagnosis. — A genus belonging to the subfamily *Paradoxostominae* with the following characteristics : the carapace is elongate with obliquely rounded anterior end, and an upturned posterior end with an obtuse angle postero-dorsally; the postero-ventral margin is convex. The left valve slightly overlaps the right one ventrally. The postero-ventral region of each valve is compressed. The carapace is elliptical in dorsal view. The surface is smooth, striate, or faintly reticulate.

The marginal area is broad, except anteriorly where a deep vestibule is situated. The radial pore-canals are moderately numerous, generally bifurcating once or twice, or simple and straight.

The central muscle-scar consists of an oblique row of four scars, with a scar in front and another one antero-ventrally.

The hinge of the right valve consists of two terminal dental areas, each composed of two or three cusps. A crenulate groove connects them; its anterior end is somewhat deeper so as to fit the slightly swollen anterior end of the bar of the left valve. The anterior socket of the left valve is bordered ventrally by a curved ridge, the posterior one is open towards the interior.

Range : Upper Eocene (to Miocene ?).

Remarks. — *Boldella* resembles in outline the genera *Paradoxostoma* Fischer 1855, *Pellucistoma* Coryell and Fields 1937 and *Luvula* Coryell and Fields 1937. It is different from these genera in the structure of the hinge and the details of the marginal area. *Paradoxostoma* has no hinge-teeth and its line of concrescence does not coincide with the inner margin; *Pellucistoma* has an anterior and a posterior vestibule and its right valve hinge consists of a crenulate groove with a bar above it, and an anterior socket with an anti-slip tooth below it; *Luvula* has no vestibules and its right valve hinge consists of terminal sockets with a groove in between.

It is possible that the Miocene species *Microcythere johnsoni* Mincher (Journ. of Pal., Vol. 15, 1941, p. 344, pl. 47, fig. 4), *M. stephensoni* Puri (1953, p. 291, pl. 16, figs. 11-12) and *M. striata* Puri (id. pp. 9-10) belong to *Boldella*. Regarding the original descriptions and figures of *Microcythere* as given by G. W. Müller, it seems extremely doubtful whether these species of Mincher and Puri are really congeneric with Müller's recent species.

Boldella deldenensis n. sp.

Pl. XI, figs. 1-2.

Etymology : Named after the village of Delden, province of Overijsel, Netherlands.

Holotype : A right valve (S 2760).

Paratypoids : 7 detached valves and one complete carapace (S 2677-2679, 2761).

Type-locality : Boring Delden, Netherlands.

Type-level : Bartonian (96-103 m).

Distribution. — Belgium : Lutetian of Forest (Brussels); Ledian of Bambrugge, Forest and Meldert. Netherlands : Bartonian of the boring Delden.

Diagnosis. — A species of the genus *Boldella* with the following characteristics : posterior end obtusely pointed sub-dorsally; surface with striae and faint reticulation.

Description. — The dorsal outline of the left valve is convex in the posterior half and straight in its anterior part; the anterior margin is obliquely rounded; the ventral outline is straight to slightly concave anteriorly and convex posteriorly; the posterior margin is turned upwards and has an obtuse, subdorsal angle. The right valve is different in having a straight dorsal outline.

The surface is ornamented with some wavy, longitudinal, low ridges on the middle of the surface. Sometimes faint transverse connections between the ridges were observed. The postero-ventral region of the valve is compressed.

The marginal area is broad. The line of concrescence and the inner margin coincide, except anteriorly where a deep vestibulum is situated. The radial pore-canals are moderately numerous and generally bifurcating once or twice.

The hinge- and musclescar pattern are as for the genus.

Dimensions. — Holotype (right valve) : L : 0,59, H : 0,28, $\frac{1}{2}$W : 0,13.

Remarks. — Our species resembles *Microcythere striata* Puri (1953, p. 291, pl. 16, figs. 9-10) from the Miocene of Florida, but it is different in having less pronounced ridges and in being more pointed at the posterior end.

Subfamily **BYTHOCYTHERINAE** Sars, 1926.

Genus PSEUDOCYTHERE Sars, 1866.

Type species **Pseudocythere caudata** Sars, 1866.

Diagnosis. — Carapace drop-shaped, with dorsal caudal process, compressed postero-ventrally, surface smooth or pitted; marginal area broad, radial pore-canals few, straight and simple, no vestibules, muscle-scar with posterior row of five small scars; hinge without teeth.

Range : Cretaceous to recent.

Pseudocythere sp.

Pl. II, fig. 2.

Remarks. — Two left valves were found, one in the Ledian of Bambrugge, and one in the boring Heist-op-den-Berg at a depth of 129,5 m (very probably Ledian).

The valves are extremely inflated. The marginal area is broad. A dozen widely spaced, simple and straight radial pore-canals are situated along the anterior margin. Some six canals are arranged along the postero-ventral margin.

The muscle-scar consists of a row of 5 small scars, with at least 2 small, round scars in front of the ventral part of this row.

Dimensions. — Heist specimen : L : 0,48, H : 0,33, ½W : 0,14.

Genus MONOCERATINA Roth, 1928.

Type species **Monoceratina ventrale** Roth, 1928.

Diagnosis. — Carapace subquadrangular with dorsal caudal process and straight dorsal margin. Valves subequal. Ornamentation with wing and/or strong postero-ventral spine. Surface smooth, reticulate or spiniferous. With distinct curved, vertical sulcus. Marginal area moderately broad. Hinge without teeth.

Range : Carboniferous to Oligocene (recent ?).

Monoceratina tricuspidata (Jones and Hinde).

Pl. XIV, fig. 13.

Cytheropteron cuspidatum var. *tricuspidata* Jones and Hinde, 1890, p. 38, pl. 3, fig. 1-7.
Monoceratina tricuspidata (Jones and Hinde), Van Veen, 1936, vol. 25, p. 9 (in reprint), pl. 2, fig. 4-11.

Distribution. — Belgium : Lutetian ? England : Cretaceous. Netherlands : Cretaceous (Maastrichtian).

Remarks. — Only two damaged valves were found. It is highly probable that these valves have been derived from the Cretaceous.

Monoceratina sp.

Pl. XIV, fig. 12.

Distribution. — Lutetian of Saint-Job (BA 105).

Remarks. — Only one left valve was found.

Subfamily **XESTOLEBERINAE** Sars, 1928.

Genus XESTOLEBERIS Sars, 1866.

Type species **Cythere auriantia** Baird, 1838.

Diagnosis. — Carapace egg-shaped or elongate with postero-ventral angle. Anterior end low. Left valve larger than the right, overlapping at dorsal margin. Surface smooth. Marginal area narrow with large anterior vestibule. Radial pore-canals short and widely spaced. Hinge of the right valve with elongate dental areas of several cusps each, with crenulate groove in between. Crescentic spot in the eye-region.

Range : Cretaceous to recent.

Xestoleberis muelleriana LIENENKLAUS.

Pl. XI, fig. 11.

Xestoleberis muelleriana LIENENKLAUS, 1900, vol. 52, p. 531, pl. 21, fig. 5.

Distribution. — Belgium : Rupelian. Germany : Oligocene.

Remarks. — Only a single complete carapace was found at Steendorp.

Xestoleberis subglobosa (BOSQUET).

Pl. VIII, fig. 21.

Bairdia subglobosa BOSQUET, 1852, vol. 24, p. 23, pl. 1, fig. 7.
Xestoleberis subglobosa (BOSQUET), APOSTOLESCU, 1955, p. 260, pl. 4, fig. 70-71.

Lectotype : A left valve (coll. BOSQUET, No. 7*b*).

Paratypoids : 4 detached valves and 3 complete carapaces (coll. BOSQUET, Nos. 7 and 7*b*).

Locus-typicus-restrictus : Grignon, France.

Type-level : Lutetian IV.

Distribution. — Belgium : Ledian of Bambrugge and Meldert. France : Lutetian of Grignon, Saint-Félix, Parnes, Châteaurouge, Ferme de l'Orme, Chaumont, Chamery, Le Vivray, Courtagnon, Mouchy-le-Châtel, Gomerfontaine, Chaussy, Montmirail, Villiers-Saint-Frédéric; Ledian of Guépelle and Pisseloup. Netherlands : Ypresian of the boring Almelo, Bartonian of the boring Delden.

Diagnosis. — A species of the genus *Xestoleberis* with the following characteristics : Dorsal margin of right valve highly arched, ventral outline slightly convex. Posterior end somewhat obliquely rounded.

Description. — The dorsal margin of the right valve is highly arched; it merges gradually into the obliquely rounded anterior margin and the convex to sub-quadrate posterior margin. The ventral margin is slightly convex.

The immature valves have an upward swing posteriorly.

Dimensions. — Lecto-type [female (?) left valve] : L : 0,68, H : 0,45, $\frac{1}{2}$W : 0,24.

Genus MICROXESTOLEBERIS G. W. MÜLLER, 1894.

TYPE SPECIES **Microxestoleberis nana** G. W. MÜLLER, 1894.

Diagnosis. — Carapace elongate to ovate, with caudal process; surface smooth. Marginal area narrow, radial pore-canals fairly numerous, anterior and posterior vestibules large. Muscle-scar with a single kidney-shaped scar in front of a row of four scars. Hinge with curved, terminal dental areas and median notched groove in between. With crescentic spot in the eye-region.

Microxestoleberis parnensis (APOSTOLESCU).

Pl. XV, fig. 9.

Eocytheropteron parnensis APOSTOLESCU, 1955, p. 259, pl. 4, fig. 66-67.

Distribution. — France : Lutetian of Damery, Grignon and Parnes.

Remarks. — In the eye-region our valves show a crescent-shaped hollow elevation, such as is typical for the genera *Xestoleberis* SARS and *Microxestoleberis* MÜLLER and which is never found in *Eocytheropteron*. The outline and the presence of a small caudal process fit better into the genus *Microxestoleberis* than into *Xestoleberis*. However, the hinge of the right valve consists of a tiny, median ridge and two, prominent terminal, curved dental areas each with some nine cusps; above all these elements there is a distinct curved groove. This is in contrast with MÜLLER's genus description of *Microxestoleberis* : « hinge without distinct teeth ».

TABLE 7. — **Ypresian of Belgium.**

	Belgium																		France				
	Y 1a					*Y 1b*													*Y 2*		Coll. BOSQUET		Lutetian	Ledian-Bartonian
	Kortemark				Rumbeke	Luingne		Godarville	Hyon		Maulde	Mont-Saint-Aubert					Forest, Brussels	Frasnes-lez-Buissenal	Teralphene	Cuise-Lamotte	Cuise-Lamotte	Ménilmontant, Paris		
	RA 253	RA 254	RA 1.071	RA 1.072	YC 293	KA 1.092	KA 1.093	CO 1.241	MMV 79	MMV 80	DE 1.204	DH 1.208	DH 1.209	DH 1.210	DH 1.211	DH 1.212	BD 445	XC 1.226	BG 1.026	CAH 1.262				
Aulocytheridea faboides	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+
Bairdia sp.	.	.	.	.	.	.	.	.	r	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bairdoppilata gliberti	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	?	?	+	+
Brachycythere ventricosa	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	C	+	.	.	+
Bradleya approximata	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	r	.	.	.	.	.	+	.
(?) *Bradleya cornueliana*	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	r	+	.	+	.
Bythocypris cuisensis	.	.	.	.	.	.	.	.	r	.	.	r	r	r	.	.	r	.	.	C	+	.	+	+
Cuneocythere (M.) subovata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	+	+
Cuneocythere (M.) oblonga	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	+	+
Cuneocythere (M.) triebeli	.	.	.	.	.	.	.	.	r	C	.	.	.	.	.	.	r	.	.	.	.	.	+	+
Cytherella compressa	.	.	.	.	.	r	r	.	.	.	.	r	.	r	r	.	r	.	.	.	.	.	+	+
Cytherelloidea hieroglyphica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.
Cytheretta decipiens	.	.	.	.	.	.	.	.	r	r	.	.	.	.	.	.	r	r	.	r	.	.	+	+
Cytheretta eocaenica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	+
Cytheretta haimeana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.
Cytheridea intermedia	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
Cytherura bambruggensis	.	.	.	.	r	.	.	.	.	r	.	.	.	.	.	.	r	..	.	.	.	.	+	+
Cytherura forestensis	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.		.	.	.	+	+
Echinocythereis scabra	.	.	.	.	.	.	r	.	r	.	r	r	r	r	.	r	r	.	.	.	.	.	+	+
Eucytherura hyonensis	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Haplocytheridea hebertiana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	+	+

	Belgium																				France			
	Y 1a					Y 1b													Y 2		Coll. Bosquet			
	Kortemark				Rumbeke	Luingne		Godarville	Hyon		Maulde	Mont-Saint-Aubert					Forest, Brussels	Frasnes-lez-Buissenal	Teralphene	Cuise-Lamotte	Cuise-Lamotte	Ménilmontant, Paris	Lutetian	Ledian-Bartonian
	RA 253	RA 254	RA 1.071	RA 1.072	YC 293	KA 1.092	KA 1.093	CO 1.241	MMV 79	MMV 80	DE 1.204	DH 1.208	DH 1.209	DH 1.210	DH 1.211	DH 1.212	BD 445	XC 1.226	BG 1.026	CAH 1.262				
Haplocytheridea perforata	.	.	r	.	.	.	.	.	r	r	r	.	.	r	.	r	.	.	.	.	.	.	+	+
Hemicytherideis grosjeani	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.
Hemicytherideis mayeri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	+	+
Hermanites paijenborchiana	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	r	.	.	r	?	?	+	.
Hirsutocythere horrescens	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	?	+	+	+
Kingmaina forbesiana	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	r	.	.	.	.	+	+	+
Krithe rutoti	.	.	.	.	.	.	r	.	r	A	r	r	C	C	C	r	C	r	.	r	.	+	+	+
Leguminocythereis striatopunctata	.	.	r	.	.	.	.	r	r	r	A	.	r	r	A	A	r	.	r	r	?	?	+	+
Loxoconcha subovata	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	r	.	.	.	.	.	.	+
Paracytheridea gradata	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	+	+
Paijenborchella lomata	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	+	+
Platella gyrosa	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	r	.	.	.	.	.	+	+
Pterygocythere hilli	.	.	.	.	.	.	.	.	.	.	r	.	.	r	.	.	.	.	.	.	.	.	.	+
Pterygocythereis cornuta	r	r	.	r	.	.	.	.	r	r	.	.	.	.	r	r	.	r	.	.	.	+	+	+
Pterygocythereis fimbr. spinigera	.	.	.	.	.	.	.	.	.	.	r	.	.	.	C	r	.	.	.	.	.	.	.	+
Schizocythere appendiculata	.	.	.	.	.	.	.	.	r	r	.	.	.	.	.	.	.	.	.	.	.	.	+	+
Schizocythere tessellata	.	.	.	.	.	.	.	.	r	A	.	.	.	.	.	.	r	.	.	r	.	+	+	+
Trachyleberidea aranea	.	.	.	.	.	.	r	.	.	.	r	.	.	r	r	.	.	.	.	.	.	.	.	+
Trachyleberidea prestwichiana	.	.	.	.	.	.	.	r	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.
Trachyleberis aculeata	C	r	r	.	.	.	r	.	r	C	r	r	r	r	r	.	r	r	.	r	.	.	+	+
Triginglymus angulatopora	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	+	+

r = rare (1-4 specimens);
C = common (5-20 specimens);
A = abundant (> 20 specimens).

TABLE 8.

	Ypresian	Base	Godarville	Saint-Job, Brussels							Leopoldswijk, Brussels	Hoegaarden	Blanden	Henripont	Braine-l'Alleud		
		CO 1.240	BA 100	BA 101	BA 102	BA 103	BA 104	BA 105	BA 106	BR 1.169	LK 163	LAE 1.130	NS 1.178	NC 405	NC 406	NC 407
Aulocytheridea diegemensis	.	.	.	r	r	.	r	r	r	.	.	.	.	r	.	.
Aulocytheridea faboides	+	.	r	C	r	.	r	r	r	r	.	.	.	r	r	.
Aulocytheridea mourloni	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bairdia spp.	.	r	.	.	.	.	.	r	.	.	.	.	.	.	.	.
Bairdoppilata gliberti	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Boldella deldenensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Brachycythere nalinnesensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
(?) *Bradleya cornueliana*	+	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bythocypris cuisensis	+	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cuneocythere (M.) subovata	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r
Cuneocythere (M.) triebeli	+	r	.	.	.	.	.	.	r	.	.	.	.	.	.	.
Cytherella compressa	+	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cytherella münsteri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cytherelloidea dameriacensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.
Cytherelloidea hieroglyphica	+	.	.	.	.	.	.	r	r	.	r	.	.	r	.	.
Cytheretta bambruggensis	.	.	r	r	r	.	r	C	C	.	.	.	.	r	.	.
Cytheretta costellata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cytheretta decipiens	+	.	.	.	r	r	.	.	.	.	.	.	.	.	.	.
Cytheretta eocaenica	+	.	r	r	.	.	r	.	r	.	.	.	.	.	.	.
Cytheropteron (E.) omaliusi	.	.	.	r	r	.	.	r	.	r	r	.	.	.	r	.
Cytheropteron sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cytherura bambruggensis	+	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.
Cytherura forestensis	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cytherura oedelemensis	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.
Echinocythereis scabra	+	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Eucythere triordinis	.	.	.	r	.	.	r	.	.	.	.	.	.	.	.	.

Lutetian of Belgium.

Lutetian																				Base of Ledian		Ledian-Bartonian
Diegem					Genappe		Nalinnes				Spy		Gobertange		Forest-stadium					Forest, Av. Minerve		
BC 113	BC 114	BC 115	BC 116	BC 117	ND 410	ND 411	THB 1.189	THB 1.190	THB 1.191	THB 1.192	THB 1.193	NNA 1.151	NNA 1.152	WA 164	WA 165	BD 391	BD 392	BD 393	BD 1.255	BD 1.256	BD 1.257	
.	.	r	.	r	.	.	.	.	.	.	.	r	.	.	.	C	r	r	.	.	.	.
.	r	.	.	.	r	r	.	.	.	.	.	r	.	r	r	r	C	.	r	.	r	+
.	r	.	.	r	.	.	.	r	.	.	.	.	.	.	r	.	.	.	.	r	.	+
.	r	r	.	.	.	r	.	r	r	.	.	.	.	r	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	r	+
.	.	.	.	.	.	.	C	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
.	.	r	.	.	.	.	.	.	.	.	.	.	r	.	r	r	.	.	.	.	.	+
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.	r	.	.	.	.	.	r	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.
r	C	r	r	.	.	r	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	r	r	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
.	.	.	.	r	.	.	.	.	.	.	.	.	.	r	.	r	r	.	.	.	.	+
r	.	.	.	.	r	.	.	.	.	.	.	.	.	r	r	C	.	.	C	r	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	+
.	.	r	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	r	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	r	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	.	.	.	.	.	r	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	+

	Ypresian	Base															
		Godarville	Saint-Job, Brussels							Leopoldswijk, Brussels	Hoegaarden	Blanden	Henripont	Braine-l'Alleud			
		CO 1.240	BA 100	BA 101	BA 102	BA 103	BA 104	BA 105	BA 106	BR 1.169	LK 163	LAE 1.130	NS 1.178	NC 405	NC 406	NC 407	
Haplocytheridea hebertiana	+	.	.	r	.	r	.	r	r	r	.	.	.	r	.	r	
Hemicytherideis grosjeani	+	.	r	.	r	r	r	C	r	.	.	.	.	r	r	r	
Hemicytherideis mayeri	+	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	
Hermanites paijenborchiana	+	.	.	.	.	.	r	r	r	.	.	.	.	.	.	.	
Hirsutocythere horrescens	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Kingmaina forbesiana	+	.	.	.	.	r	.	r	r	.	.	.	.	.	.	.	
Krithe rutoti	+	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Leguminocythereis genappensis	.	.	.	r	C	.	r	C	C	.	.	r	.	C	C	r	
Leguminocythereis scrobiculata	.	.	r	r	r	.	r	r	r	r	.	.	.	r	.	.	
Leguminocythereis striatopunctata	+	C	r	r	C	r	C	A	C	.	.	.	.	.	.	.	
Monoceratina tricuspidata	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	
Monoceratina sp.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	
Paracytheridea brusselensis	.	.	.	.	r	.	.	r	r	.	.	.	.	r	.	.	
Paracytheridea gradata	+	r	.	r	r	.	r	r	C	.	.	.	.	.	.	.	
Paracypris contracta	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	
Paijenborchella lomata	+	.	.	.	r	.	.	r	.	.	.	.	.	.	.	.	
Paijenborchella longicosta	.	.	.	r	.	.	.	.	.	.	r	.	.	r	.	.	
Platella gyrosa	+	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	
Pterygocythereis cornuta	+	.	r	r	r	r	r	C	r	.	.	.	.	r	.	.	
Quadracythere vermiculata	.	.	.	.	.	.	.	C	r	.	.	.	.	r	.	.	
Trachyleberis (T.) aculeata	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Trachyleberis (T.) lichenophora	.	.	.	.	.	.	r	r	r	.	.	.	.	.	.	.	
Triginglymus angulatopora	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Schizocythere appendiculata	+	.	.	A	C	r	.	C	A	r	r	.	C	C	C	.	
Schizocythere tessellata	+	.	.	C	r	.	.	r	C	r	C	.	.	r	r	r	
Aulocytheridea tavernieri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Bradleya bosquetiana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Cytheromorpha brabantica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Haplocytheridea heinzelini	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Haplocytheridea heizelensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Loxoconcha subovata	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Paijenborchella eocaenica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Lutetian																		Base of Ledian			Ledian-Bartonian
Diegem					Genappe		Nallinnes					Spy		Gobertange		Forest-stadium			Forest, Av. Minerve		
BC 113	BC 114	BC 115	BC 116	BC 117	ND 410	ND 411	THB 1.189	THB 1.190	THB 1.191	THB 1.192	THB 1.193	NNA 1.151	NNA 1.152	WA 164	WA 165	BD 391	BD 392	BD 393	BD 1.255	BD 1.256	BD 1.257	
r	C	r	.	.	r	r	.	.	.	.	.	.	.	r	.	.	.	.	.	.	r	+
r	C	r	r	.	r	r	.	.	.	.	.	.	.	r	.	C	r	r	r	r	r	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	r	.	.	.	+
r	r	r	.	.	.	r	.	r	.	r	.	.	.	.	.	.	.	.	.	.	.	.
.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	+
.	.	r	.	.	r	r	.	.	.	.	.	.	.	.	.	C	r	r	.	.	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	+
C	C	C	r	r	r	A	.	.	r	.	.	.	.	.	.	r	.	.	.	.	.	.
r	r	C	r	r	.	.	.	r	r	.	r	.	.	r	.	r	r	.	r	.	r	+
C	A	A	r	r	r	r	.	.	r	.	.	.	.	r	r	A	C	r	C	r	C	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
r	r	r	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	C	r	.	.	.
r	r	r	r	.	r	.	r	.	r	r	.	.	.	r	r	C	r	r	r	r	r	+
.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	C	.	.	r	r	r	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
r	r	r	r	r	.	r	r	r	.	.	r	.	.	r	r	r	r	.	.	r	.	+
.	r	r	.	.	C	.	.	.	.	.	.	.	.	.	.	r	.	.	.	r	.	+
.	.	.	.	.	.	.	r	r	.	.	r	.	.	r	r	.	.	.	.	.	.	+
.	.	r	.	.	.	.	.	r	.	r	r	.	.	.	.	.	.	.	.	r	.	+
.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	r	+
A	C	C	C	C	C	C	r	r	r	r	r	r	r	C	C	A	C	C	C	C	r	+
A	C	A	C	A	C	.	.	r	r	r	.	.	.	C	C	A	r	C	C	r	C	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	C	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	C	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	+

TABLE 9. — **Eocene of the Paris Basin.**

	Cuisian	Lutetian				Auversian
		II	III	IV	IV	
	Cuise-Lamotte	Soissons	Grignon			Auvers-sur-Oise
	CAH 1.262	CAF 1.008	CAB 1.000	CAB 1.001	CAB 1.002	CAJ 1.268
Aglaiocypris enigmatica	.	.	+	+	+	.
Aulocytheridea faboides	.	+	+	+	.	+
Aulocytheridea mourloni	.	.	+	+	+	.
Bairdoppilata gliberti	+	.	+	+	+	.
Bairdoppilata sp.	.	.	.	.	+	.
Brachycythere ventricosa	+	.	+	+	+	.
Bradleya approximata	.	.	.	.	+	.
Bradleya bosquetiana	.	.	+	+	+	+
(?) *Bradleya cornueliana*	+	.	.	.	.	.
Bythocypris cuisensis	+	.	.	.	.	.
Bythocypris sp.	.	.	.	.	+	.
Caudites monsmirabiliensis	.	.	.	.	+	.
Clithrocytheridea appendiculata	.	.	+	+	+	.
Clithrocytheridea fornicata	.	.	+	.	+	.
Clithrocytheridea verrucosa	.	.	.	.	+	.
Cuneocythere (M.) oblonga	+	.	+	+	+	.
Cuneocythere (M.) foveolata	.	.	.	+	+	.
Cypridina homoeduardsiana	.	.	+	.	+	.
Cytherella münsteri	.	.	.	+	+	+
Cytherella pustulosa	.	.	+	.	+	.
Cytherelloidea dameriacensis	.	.	.	+	.	.
Cytherelloidea hieroglyphica	.	.	+	.	+	.
Cytheretta costellata	.	.	.	.	+	.
Cytheretta crassivenia	.	.	.	.	+	.
Cytheretta eocaenica	.	.	+	+	+	.
Cytheretta haimeana	.	.	+	+	+	.
Eucythere triordinis	.	.	.	.	+	.
Haplocytheridea hebertiana	.	.	.	.	.	+
Haplocytheridea perforata	.	.	+	.	+	+
Hemicytherideis mayeri	.	.	+	+	.	.
Hermanites paijenborchiana	+	.	+	+	+	.

	Cuisian	Lutetian				Auversian
		II	III	IV	IV	
	Cuise-Lamotte	Soissons	Grignon			Auvers-sur-Oise
	CAH 1.262	CAF 1.008	CAB 1.000	CAB 1.001	CAB 1.002	CAJ 1.268
Hirsutocythere horrescens	.	.	+	+	+	.
Kingmaina forbesiana	.	.	+	+	+	.
Krithe rutoti	+	.	+	.	+	.
Leguminocythereis pertusa	.	.	.	.	.	+
Leguminocythereis striatopunctata	+	.	+	+	+	+
Microxestoleberis parnensis	.	.	.	.	+	.
Paracypris contracta	.	.	.	.	.	+
Paracytheridea gradata	.	.	+	+	+	.
Paracytheridea grignonensis	.	+	+	+	+	.
Pterygocythereis cornuta	.	.	+	.	+	.
Quadracythere angusticostata	.	.	.	.	+	.
Quadracythere vermiculata	.	.	+	+	+	.
Schizocythere appendiculata	.	.	.	+	+	.
Schizocythere tessellata	+	+	+	+	+	.
Trachyleberis aculeata	+	.	+	.	+	.
Trachyleberis lichenophora	.	.	+	.	+	.
Triginglymus angulatopora	+	+	+	+	+	.
Triginglymus grignonensis	.	.	+	+	+	.
Triginglymus neauphlensis	.	.	+	+	.	.
Xestoleberis subglobosa	.	.	.	.	+	.

TABLE 10. — **Ledian of Belgium.**

	Ypresian and Lutetian	Base			Base															Ledian ?		Ledian of Paris basin	Bartonian
		Forest (Av. Minerve), Brussels			Saint-Gilles, Brussels	Forest-Brussels	Asse	Asse		Meldert	Bambrugge					Vlierzele		Balegem	Gent, Univ. Library	Boring Heist-op-den-Berg			
		BD 1.256	BD 1.257	BD 1.258	BE 446	BD 444	BL 1.035	BM 1.036	BM 1.037	MC 1.040	ZD 340	ZD 342	ZD 343	ZD 344	Additional samples	ZB 1.021 A	ZB 1.022	ZG 1.025	ZA 583	129,50 m	129 m		
Aulocytheridea faboides	+	.	r	r	r	.	r	.	.	.	.	.	r	.	r	.	r	r	.	.	r	+	+
Aulocytheridea mourloni	+	r	r	r	.	r	r	.	.	.	r	.	r	.	r	.	r	r	.	r	.	.	+
Aulocytheridea punctatella	.	.	r	r	.	r	r	.	.	.	.	r	.	.	r	.	.	C	r	.	.	.	+
Aulocytheridea tavernieri	.	r	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	r	.	.	+
Bairdia sp.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bairdoppilata gliberti	+	.	r	C	.	r	.	.	.	r	r	.	r	.	r	.	.	.	.	r	r	+	+
Boldella deldenensis	+	r	r	.	.	.	.	.	.	r	.	.	r	.	.	.	.	.	.	.	.	.	+
Brachycythere ventricosa	+	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.
Bradleya bosquetiana	+	r	.	r	.	r	C	r	.	C	C	C	A	r	A	r	C	r	r	r	r	+	+
Bradleya kaasschieteri	.	.	.	r	r	.	r	r	r	r	r	r	A	r	C	C	r	.	.	C	C	.	+
Bythocypris cuisensis	+	.	.	.	.	.	.	.	.	.	r	.	r	.	.	r	.	.	.	r	.	.	.
Cuneocythere (M.) subovata	+	.	.	r	.	r	.	.	.	r	r	r	C	.	r	.	.	r	.	.	r	.	+
Cuneocythere (M.) oblonga	+	.	.	r	.	r	C	r	.	r	r	.	C	.	C	r	.	r	r	.	.	.	+
Cuneocythere (M.) foveolata	+	.	.	C	.	r	r	.	.	.	r	.	C	.	.	r	.	C	.	r	r	.	+
Cypridina homoedwardsiana	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
Cytherella compressa	+	.	.	r	.	.	.	.	r	r	.	r	r	.	r	r	.	r	.	r	r	.	+
Cytherella münsteri	+	.	.	r	.	r	.	.	.	r	C	.	C	.	r	.	.	.	.	.	.	+	.
Cytherella pustulosa	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	r	.	.
Cytherelloidea dameriacensis	+	.	.	r	.	.	.	.	.	r	.	.	r	.	.	r	.	.	.	r	.	.	+
Cytheretta bambruggensis	+	.	.	.	r	.	.	r	.	.	.	.	.	.	r	.	.	r	.	r	C	.	+
Cytheretta costellata	+	r	r	r	r	r	r	.	r	r	C	C	A	r	C	.	.	C	.	.	.	+	+
Cytheretta crassivenia	+	.	.	C	.	r	.	.	.	.	r	.	r	.	r	r	.	r	.	r	.	+	.
Cytheretta decipiens	+	.	.	C	.	r	.	.	.	r	r	.	r	.	.	.	.	C	.	r	.	.	+
Cytheretta eocaenica	+	.	.	r	.	.	C	.	.	C	r	C	.	r	r	r	.	.	.	r	r	.	.

		Base			Base															Ledian ?			
	Ypresian and Lutetian	Forest (Av. Minerve), Brussels			Saint-Gilles, Brussels	Forest-Brussels	Asse	Asse		Meldert	Bambrugge					Vlierzele		Balegem	Gent, Univ. Library	Boring Heist-op-den-Berg		Ledian of Paris basin	Bartonian
		BD 1.256	BD 1.257	BD 1.258	BE 446	BD 444	BL 1.035	BM 1.036	BM 1.037	MC 1.040	ZD 340	ZD 342	ZD 343	ZD 344	Additional samples	ZB 1.021 A	ZB 1.022	ZG 1.025	ZA 583	129,50 m	129 m		
Cytheromorpha brabantica	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cytheropteron (E.) omaliusi	+	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
Cytheropteron sp.	+	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.
Cytherura bambruggensis	+	.	r	.	.	.	.	.	.	.	.	.	r	.	r	.	.	.	.	r	r	.	+
Cytherura forestensis	+	r	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.
Cytherura oedelemensis	+	.	r	.	.	.	r	.	.	r	.	.	r	.	.	.	.	.	.	r	.	.	+
Echinocythereis scabra	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	+
Eucytherura dentata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	+
Haplocytheridea hebertiana	+	.	r	.	r	C	r	r	.	.	r	.	.	.	C	r	.	r	.	r	.	+	+
Haplocytheridea heinzelini	.	r	C	C	.	r	C	.	.	.	.	r	r	.	C	r	.	r	r	r	r	.	+
Haplocytheridea heizelensis	.	.	r	.	.	r	.	.	.	.	.	.	.	.	.	.	.	r	.	r	r	.	+
Haplocytheridea perforata	+	.	.	r	r	.	.	.	.	r	.	r	r	r	r	.	.	r	.	r	r	+	+
Hemicytherideis grosjeani	+	r	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Hemicytherideis mayeri	+	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
Hirsutocythere horrescens	+	.	r	r	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	+	.
Kingmaina forbesiana	+	.	.	r	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	+	r
Krithe bartonensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	.	+
Krithe rutoti	+	.	r	C	.	r	C	r	r	r	r	r	C	r	C	r	r	r	r	.	.	.	.
Leguminocythereis dumonti	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	+	+
Leguminocythereis pertusa	+	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	+	.
Leguminocythereis scrobiculata	+	.	r	r	r	.	r	.	.	r	r	.	C	r	.	r	r	r	r	r	r	+	+
Leguminocythereis striatopunctata	+	r	C	C	r	C	C	r	.	A	C	A	A	r	A	C	r	C	r	C	C	+	+
Loxoconcha subovata	+	r	C	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
Paracypris contracta	+	.	.	r	.	r	r	.	.	r	r	A	r	.	r	.	.	r	.	r	r	+	r
Paracytheridea gradata	+	r	r	r	.	r	.	.	.	.	.	r	r	.	.	r	.	.	.	r	r	.	+
Paijenborchella eocaenica	.	.	r	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	.	+

	Ypresian and Lutetian	Base			Base															Ledian ?		Ledian of Paris basin	Bartonian
		Forest (Av. Minerve), Brussels			Saint-Gilles, Brussels	Forest-Brussels	Asse	Asse		Meldert	Bambrugge					Vlierzele		Balegem	Gent, Univ. Library	Boring Heist-op-den-Berg			
		BD 1.256	BD 1.257	BD 1.258	BE 446	BD 444	BL 1.035	BM 1.036	BM 1.037	MC 1.040	ZD 340	ZD 342	ZD 343	ZD 344	Additional samples	ZB 1.021 A	ZB 1.022	ZG 1.025	ZA 583	129,50 m	129 m		
Paijenborchella lomata	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	+
Paijenborchella longicosta	+	r	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Platella gyrosa	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	.	+
Pseudocythere sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	r	.	.	.
Pterygocythere hilli	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	+
Pterygocythereis cornuta	+	r	.	C	.	r	r	r	r	r	r	C	A	r	C	r	r	r	r	r	C	.	+
Pterygocythereis fimbr. fimbriata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	+
Pterygocythereis tuberosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	r	.	+
Quadracythere angusticostata	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
Quadracythere orbignyana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
Quadracythere vermiculata	+	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
Schizocythere appendiculata	+	C	r	r	r	r	C	.	r	r	.	.	.	.	.	r	r	.	r	.	.	.	+
Schizocythere batjesi	.	.	.	r	r	.	r	.	.	r	.	.	.	.	.	.	.	.	.	r	r	.	+
Schizocythere tessellata	+	r	C	r	.	.	.	r	r	.	C	r	.	.	r	r	.	r	.	.	.	+	+
Trachyleberis (T.) aculeata	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+
Trachyleberis (T.) lichenophora	+	r	.	C	.	.	.	.	.	.	r	.	.	.	.	.	.	r	.	r	r	.	.
Triginglymus angulatopora	+	.	r	r	r	r	r	.	.	r	r	C	r	.	r	r	r	r	.	r	C	+	+
Triginglymus heistensis	+	.	.	C	.	r	C	.	.	r	.	.	.	.	.	.	r	r	r	r	C	+	+
Xestoleberis subglobosa	+	.	.	.	.	.	.	.	.	r	.	.	r	.	.	.	.	.	.	.	.	+	+

TABLE 11.

Bartonian of Belgium

TABLE II.

	Ypresian and Lutetian	Ledian	Ledian?	Basal layer								
			Boring Heist-op-den-Berg	Boring Brussegem								
			129,50 m	129 m	25,10-25,90	24,20-25,10	23,25-24,20	22,20-23,25	20,25-21,30	18,20-19,20	17,60-18,20	17,20-17,60
Aulocytheridea faboides	+	+	.	r	.	.	r	r	r	.	.	.
Aulocytheridea mourloni	+	+	r	.	.	C	.	.	.	.	r	.
Aulocytheridea punctatella	.	+	.	.	.	r	.	r	.	.	.	.
Aulocytheridea tavernieri	.	+	r	.	.	.	r	r	.	.	.	.
Bairdoppilata gliberti	+	+	r	r	.	.	.	.	.	.	.	.
Boldella deldenensis	+	+	.	.	.	.	.	.	.	.	.	.
Bradleya bosquetiana	+	+	r	r	r	.	.	r	.	r	.	r
Bradleya kaasschieteri	.	+	C	C	r	r	.	.	.	.	.	.
Bythocypris cuisensis	+	+	r	.	.	.	.	.	.	.	.	.
Cuneocythere (M.) subovata	+	+	.	r	.	r	.	r	r	.	.	.
Cuneocythere (M.) oblonga	+	+	.	.	.	r	.	.	.	.	.	.
Cuneocythere (M.) foveolata	+	+	r	r	r	.	.	.	.	.	.	.
Cuneocythere (M.) triebeli	+	.	.	.	.	.	.	.	.	.	.	.
Cytherella compressa	+	+	r	r	.	.	.	r	.	.	.	.
Cytherella pustulosa	+	+	.	r	.	.	.	.	.	.	.	.
Cytherelloidea dameriacensis	+	+	r	.	.	.	.	.	.	.	.	.
Cytheretta bambruggensis	+	+	C	r	.	.	.	r	.	.	.	.
Cytheretta concinna	.	.	.	.	.	.	.	r	.	.	.	.
Cytheretta costellata	+	+	.	.	.	.	.	.	.	.	.	.
Cytheretta crassivenia	+	+	r	.	.	.	.	.	.	.	.	.
Cytheretta decipiens	+	+	r	.	.	.	.	.	.	.	.	r
Cytheretta eocaenica	+	+	r	r	.	.	.	.	.	.	.	.
Cytheretta gracilicosta	.	.	.	.	.	.	.	.	.	.	.	.
Cytheretta laticosta	.	.	.	.	.	.	.	.	.	.	.	.
Cytheridea intermedia	+	+	.	.	.	.	.	.	.	.	.	.
Cytheropteron aff. *fiski*	.	.	.	.	.	.	.	r	.	.	.	.

Bartonian of Belgium.

Sands of Wemmel										Clay of Asse					Borings Almelo and Delden, Netherlands	Oligocene
Boring Heist-op-den-Berg						Heizel-stadium		Gent		Grotenberge	Oedelem					
128,50 m	128 m	126 m	124 m	122 m	121,50 m	BS 1.259	BS 1.260	ZA 1.242	ZA 1.243	GB 1.109	BRB 246	BRB 1.054	BRB 1.055	BRB 1.056	BRB 1.057		
.	r	.	.	r	r	.	.	.	r	.	r	.	r	r	.	+	.
.	.	.	.	.	.	r	r	r	r	.	r	.	r	r	.	+	.
.	.	.	.	.	r	.	.	.	.	.	r	.	.	r	.	+	.
.	r	.	r	r	.	.	.	.	.	.	r	.	.	.	.	+	.
r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
.	.	r	.	r	.	r	r	.	.	.	r	.	r	r	.	+	.
r	.	.	.	.	.	.	.	.	.	.	.	.	r	r	.	+	.
.	r	r	.	r	r	.	C	r	r	r	C	r	r	C	r	+	+
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	r	.	r	r	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
r	.	.	r	.	r	r	.	.	.	.	r	.	.	r	.	+	+
r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.
.	.	.	.	.	.	.	.	.	.	.	r	.	.	r	r	.	.
.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	+	.

	Ypresian and Lutetian	Ledian	Ledian?	Basal layer								
			Boring Heist-op-den-Berg	Boring Brussegem								
			129,50 m	129 m	25,10-25,90	24,20-25,10	23,25-24,20	22,20-23,25	20,25-21,30	18,20-19,20	17,60-18,20	17,20-17,60
Cytheropteron (C.) gulincki	.	.	.	.	.	.	.	r	.	.	.	.
Cytheropteron (E.) omaliusi	+	?	.	.	.	.	.	.	.	.	.	.
Cytherura bambruggensis	+	+	r	r	.	.	.	.	.	.	.	.
Cytherura oedelemensis	+	+	r	.	.	.	.	.	.	.	.	.
Echinocythereis scabra	+	?	r	.	.	.	.	r	.	.	.	.
Eucythere triordinis	+	.	.	.	.	.	.	.	.	.	.	.
Eucytherura dentata	.	.	.	r	.	.	.	r	.	.	.	.
Haplocytheridea hebertiana	+	+	r	.	r	.	.	.	.	r	.	.
Haplocytheridea heinzelini	.	+	r	r	.	r	.	.	.	.	.	.
Haplocytheridea heizelensis	.	+	r	r	r	r	.	r	r	.	r	r
Haplocytheridea perforata	+	+	r	r	r	.	.	r	r	r	r	.
Hemicytherideis mayeri	+	+	.	.	.	.	.	.	.	.	.	.
Kingmaina forbesiana	+	+	r	.	.	.	.	.	.	.	.	.
Krithe bartonensis	.	.	r	r	r	r	.	C	r	.	.	.
Leguminocythereis dumonti	.	+	r	r	.	.	.	r	.	r	.	.
Leguminocythereis scrobiculata	+	+	r	r	r	r	.	r	r	.	r	.
Leguminocythereis striatopunctata	+	+	C	C	A	C	r	A	C	.	r	C
Loxoconcha subovata	+	+	.	.	.	.	.	r	.	.	.	.
Paracypris contracta	+	+	.	.	r	r	.	.	.	.	.	.
Paracytheridea gradata var.	+	+	r	r	.	.	.	.	.	r	.	.
Paijenborchella eocaenica	.	+	r	r	.	r	r	r	r	.	.	.
Paijenborchella lomata	+	?	.	r	.	.	.	.	.	.	.	.
Platella gyrosa	+	.	r	r	.	.	.	.	.	.	.	.
Pseudocythere sp.	.	+	r	.	.	.	.	.	.	.	.	.
Pterygocythere hilli	+	?	r	.	.	.	.	.	.	.	.	.
Pterygocythereis cornuta	+	+	C	r	r	.	.	r	.	r	r	r
Pterygocythereis fimbr. fimbriata	.	?	.	r	.	.	.	.	.	.	.	.

Sands of Wemmel											Clay of Asse					Borings Almelo and Delden, Netherlands	Oligocene
Boring Heist-op-den-Berg						Heizel-stadium		Gent		Grotenberge	Oedelem						
128,50 m	128 m	126 m	124 m	122 m	121,50 m	BS 1.259	BS 1.260	ZA 1.242	ZA 1.243	GB 1.109	BRB 246	BRB 1.054	BRB 1.055	BRB 1.056	BRB 1.057		
.	.	.	.	.	.	.	.	.	.	.	r	.	.	r	r	.	.
.	.	.	.	.	.	.	.	.	.	.	r	.	r	r	.	.	.
.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	+	.
.	.	r	.	.	.	.	.	.	r	.	r	.	r	r	r	+	?
.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	+	.
.	.	.	.	r	.	.	.	.	.	.	C	.	r	r	r	.	+
.	.	.	.	r	.	r	r	.	.	.	C	.	r	r	.	+	.
.	.	.	.	.	.	r	C	.	.	.	.	.	.	.	.	.	.
.	r	r	.	r	r	C	r	.	r	.	r	.	r	C	.	+	.
r	r	r	r	.	r	.	.	.	.	.	r	.	r	r	r	+	.
.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.
.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.
.	r	.	.	.	r	r	A	.	r	.	r	r	r	C	r	+	.
.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.
r	r	r	r	r	.	r	.	.	.	.	.	.	.	.	.	+	+
C	r	r	r	r	C	C	C	r	r	.	r	r	C	r	r	+	+
.	r	.	.	.	.	.	.	.	.	.	r	r	.	r	r	+	+
.	.	.	.	.	.	.	C	.	.	.	r	r	r	r	r	.	.
.	r	.	.	r	r	r	r	.	.	.	r	.	r	r	.	+	.
r	.	.	.	r	.	r	.	.	r	.	C	r	r	C	.	+	.
.	.	r	.	.	.	.	.	.	r	.	r	r	r	r	r	+	.
.	.	.	.	.	.	.	r	.	.	.	.	.	.	r	.	+	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
.	.	r	.	.	r	r	C	.	r	.	r	.	r	r	.	+	.
.	.	.	.	.	r	.	.	.	.	.	.	r	.	.	r	.	+

	Ypresian and Lutetian	Lédian	Lédian?	Basal layer									
			Boring Heist-op-den-Berg	Boring Brussegem									
			129,50 m	129 m	25,10-25,90	24,20-25,10	23,25-24,20	22,20-23,25	20,25-21,30	18,20-19,20	17,60-18,20	17,20-17,60
Pterygocythereis fimbr. spinigera	+	.	.	.	.	.	.	.	.	.	.	r
Pterygocythereis tuberosa	.	?	r	r	.	r	.	r	r	.	.	r
Schizocythere appendiculata	+	+	.	.	.	.	.	.	.	.	.	.
Schizocythere batjesi	.	+	r	r	.	r	.	r	.	.	.	r
Schizocythere tessellata	+	+	.	.	.	.	.	.	.	.	.	.
Trachyleberidea aranea	+	.	.	.	.	.	.	.	.	.	.	.
Trachyleberis (T.) aculeata	+	.	.	.	.	.	.	.	.	.	.	.
Trachyleberis (T.) lichenophora	+	+	r	r	.	.	.	.	.	.	.	.
Triginglymus angulatopora	+	+	r	C	.	r	.	C	r	r	.	r
Triginglymus heistensis	.	+	r	C	.	.	.	.	.	.	.	.
Xestoleberis subglobosa	+	+	.	.	.	.	.	.	.	.	.	.

Sand and Wemmel											Clay of Asse					Borings Almelo and Delden, Netherlands	Oligocene
Boring Heist-op-den-Berg						Heizel-stadium		Gent		Grotenberge	Oedelem						
128,50 m	128 m	126 m	124 m	122 m	121,50 m	BS 1.259	BS 1.260	ZA 1.242	ZA 1.243	GB 1.109	BRB 246	BRB 1.054	BRB 1.055	BRB 1.056	BRB 1.057		
.	.	.	.	.	.	.	.	.	.	.	r	.	r	r	.	+	.
.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.
r	.	r	.	r	.	r	r	.	.	.	r	r	r	C	r	+	.
.	.	.	.	.	.	r	r	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	r	+	.
.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	r	+	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	r	.	.	r	r	r	C	.	r	.	.	.	r	r	r	+	.
.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	r	+	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.

TABLE 12. — **Upper Eocene of Barton and Isle of Wight.**

	Lædian	Bartonian																
		Lower		Middle						Upper								
	Whitecliff Bay, Wight	Alum Bay, Wight						Barton										Alum Bay, Wight
								E			F			G	H			
	D 18	PQR 2	P 4	PQR 1	PQR 3	PQR 4	P 6	D 1	D 2	D 3	D 4	D 5	D 6	D 7	D 8	PQR 5
Cytherella compressa	r	r	r	.	.	.	.	.	.	r	.	.	.	.	.	.
Cytherella münsteri	C	r	.	.	r	.	.	.	r	.	.	r	r	.	r	.
Cytherelloidea dameriacensis	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Paracypris contracta	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.
Bairdoppilata gliberti	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.
Cytheridea intermedia	r	r	.	.	r	.	r	r	A	C	.	C	A	C	r	r
Haplocytheridea perforata	.	r	r	.	.	r	.	r	r	C	r	r	r	.	.	.
Krithe bartonensis	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.
Krithe rutoti	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cuneocythere (M.) triebeli	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cytheretta gracilicosta	.	.	.	.	.	.	r	r	.	.	.	r	.	.	.	.
Cytheretta laticosta	r	r	r	r	r	.	r	r	A	r	r	C	A	r	r	.
Trachyleberis (T.) aculeata	C	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.
Pterygocythereis fimbriata bartonensis	.	r	.	C	.	.	.	r	C	r	r	r	C	.	r	.
Leguminocythereis striatopunctata	r	r	.	C	C	C	r	C	C	C	C	C	r	.	r	.
Loxoconcha curryi	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Paijenborchella eocaenica	r	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.
Paijenborchella longicosta	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Schizocythere batjesi	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.
Paracytheridea gradata var.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TABLE 13. — **Borings Almelo and Delden Netherlands.**

	Boring Almelo	Boring Delden					
	Ypresian	Bartonian					
	169-181 m	158-162 m	70-85 m	85-90 m	90-95 m	96-103 m	111-119 m
Aulocytheridea faboides	.	.	.	.	+	.	+
Aulocytheridea mourloni	.	.	.	.	+	+	+
Aulocytheridea punctatella	+	.	.	.	+	+	+
Aulocytheridea tavernieri	.	.	.	.	+	+	+
Boldella deldenensis	.	.	.	.	.	+	.
Bradleya bosquetiana	.	.	.	.	+	+	+
Bradleya kaasschieteri	.	.	.	.	+	+	+
Bythocypris sp.	.	.	.	.	+	+	+
Cuneocythere (M.) subovata	.	.	.	.	+	.	.
Cuneocythere (M.) oblonga	.	.	.	.	+	+	.
Cuneocythere (M.) foveolata	.	.	.	.	.	+	+
Cuneocythere (M.) triebeli	.	.	.	.	+	+	+
Cytherella compressa	+	+	+	+	+	+	+
Cytheretta bambruggensis	.	.	.	.	.	+	.
Cytheretta concinna	.	+	+	.	+	+	+
Cytheretta gracilicosta	.	.	.	.	+	+	+
Cytheretta spp.	.	.	.	.	+	+	+
Cytheropteron aff. *C. fiski*	.	.	.	.	.	+	.
Cytherura oedelemensis	.	.	.	.	+	.	.
Echinocythereis scabra	+	+	+	+	+	+	+
Eucythere triordinis	.	.	.	.	.	+	.
Eucytherura hyonensis	+	.	.	.	.	.	.
Haplocytheridea hebertiana	+	.	.	.	+	+	+
Haplocytheridea heizelensis	+	+	+	+	+	+	+
Haplocytheridea perforata	.	+	+	.	+	+	+
Krithe bartonensis	+	+	+	+	+	+	+
Leguminocythereis scrobiculata	.	+	+	.	+	+	+
Leguminocythereis striatopunctata	.	.	+	+	+	+	+
Loxoconcha subovata	.	+	.	.	+	+	.
Paracytheridea gradata var.	+	.	.	.	+	+	.
Paijenborchella eocaenica	.	.	.	.	+	.	.
Paijenborchella lomata	.	.	.	.	+	.	.
Platella gyrosa	+	+	.	.	+	+	.
Pterygocythere hilli	.	.	.	.	.	+	.
Pterygocythereis cornuta	.	+	+	+	+	+	+
Pterygocythereis fimbr. spinigera	.	.	+	.	+	+	+
Pterygocythereis tuberosa	.	.	+	+	+	+	+
Schizocythere appendiculata	.	.	.	.	+	.	.
Schizocythere batjesi	+	.	+	+	+	+	+
Trachyleberidea aranea	.	.	+	.	+	+	+
Trachyleberis aculeata	.	+	.	.	.	.	.
Triginglymus angulatopora	.	.	.	+	+	+	+
Triginglymus heistensis	.	.	.	.	.	.	+
Xestoleberis subglobosa	+	.	.	.	.	+	.

TABLE 14.

	Eocene	Grimmertingen	Tongeren, Beukenberg	Hoogbutsel		Hoogbutsel, Vleminckx		Tongeren, Henis		Tongeren		Oude-Biezen
		Grimmertingen sands	Neerrepen sands	Intermediate layer		Sands and marls of Boutersem		Henis				
		SG 198	TR 580	LF 142	LF 143	LG 145	LG 149	TA 207	TA 209	TB 215	TB 216	TG 228
Leguminocythereis striatopunctata	+	r	.	.	.	.	.	.	.	.	.	.
Cytheridea pernota	.	.	r	.	.	.	.	.	.	.	.	.
Haplocytheridea helvetica	.	.	.	r	C	r	r	r	r	C	A	A
Haplocytheridea henisensis	.	.	.	.	.	.	.	.	.	.	.	.
Cyprideis (Goerl.) williamsoniana	.	.	.	.	.	.	.	.	.	.	.	.
Cytheridea praesulcata	.	.	.	.	.	.	.	.	.	.	.	.
Cytherissa spathacea	.	.	.	.	.	.	.	.	.	.	.	.
Cytheromorpha zinndorfi	.	.	.	.	.	.	.	.	.	.	.	.
Cytherella compressa	+	.	.	.	.	.	.	.	.	.	.	.

Tongrian of Belgium.

Clay				Henis or Oude-Biezen unit		Sands and marls of Oude-Biezen													Rupelian
Berg (boring 34)	Berg (boring 37)	Zammelen	Kortessem	Oude-Biezen (boring 25)	Oude-Biezen (boring 26)	Tongeren-Henis	Oude-Biezen (boring 26)			Kleine-Spouwen (boring 29)					Kleine-Spouwen (boring 30)	Kleine-Spouwen (boring 31)			
BZ 551	BZ 556	SJ 201	SK 570	BZ 517	BZ 521	TA 579	BZ 518	BZ 518 A	BZ 519	BZ 520	BZ 540	BZ 541	BZ 542	BZ 543	BZ 544	BZ 545	BZ 546	BZ 547	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	r	r	A	r	C	.	r	.	r	.	.	C	.	.	r	r	A	+
A	r	C	.	A	C	A	A	A	C	A	.	A	A	A	A	A	C	A	+
.	.	.	.	.	.	A	.	r	r	.	r	.	r	r	.	C	r	r	.
.	C	.	.	.	.	.	.	.	.	C	r	r	.	.	.	r	r	.	+
.	.	.	.	r	.	r	.	.	.	.	.	.	.	.	r	.	.	.	+
.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	C	A	.	.	r	C	.	.	.
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TABLE 15. — Rupelian of Belgium

	Tongrian	Sands of Berg														
		Hulsberg-castle	Berg, (boring 16)	Berg (boring 18)				Kleine-Spouwen (boring 5)	Kleine-Spouwen-tramway	Kleine-Spouwen-tramway	Kleine-Spouwen (boring 5)					
		SE 425	BZ 505	BZ 507	BZ 508	BZ 509	BZ 510	BZ 489	TE 427	TE 428	TE 224	BZ 485	BZ 486	BZ 487	BZ 488	
Cuneocythere (C.) lienenklausi	.	.	.	.	.	.	.	.	r	r	r	r	r	r	.	
Cuneocythere (C.) marginata	.	.	.	.	.	.	.	.	r	r	r	.	.	r	C	
Cytherella beyrichi	.	.	.	r	.	.	.	.	r	r	.	r	r	r	r	
Cytheretta concinna	.	.	r	.	.	.	.	.	r	r	C	.	.	.	C	
Cytheridea pernota	+	.	.	.	.	r	.	.	r	r	r	r	C	A	r	
Echinocythereis hispida	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.	
Haplocytheridea helvetica	+	.	.	.	r	.	r	.	r	r	.	r	.	.	.	
Paracyprideis rarefistulosa	.	r	.	.	.	.	.	.	r	r	r	C	C	A	.	
Pterygocythereis fimbr. fimbriata	.	.	.	.	.	.	.	r	r	r	r	r	.	r	.	
Cyprideis (Goerl.) williamsoniana	+	.	.	.	.	.	.	.	.	r	r	C	C	r	.	
Cytherella compressa	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Cytheretta tenuipunctata	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	
Cytheridea praesulcata	+	.	.	.	.	.	.	.	.	.	.	.	r	.	.	
Cytherura gracilis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Haplocytheridea curvata	.	.	.	.	.	.	.	.	.	.	.	C	C	.	.	
Haplocytheridea punctatella	.	.	.	.	.	.	.	.	.	.	.	r	r	r	.	
Hemicytherideis lithodomoides	.	.	.	.	.	.	.	.	.	.	.	r	r	.	.	
Hermanites hebertiana	.	.	.	.	.	.	.	.	.	r	.	r	r	r	r	
Leguminocythereis scrobiculata	.	.	.	.	.	.	.	.	.	r	r	r	r	r	.	
Loxoconcha kuiperi	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	
Loxoconcha nystiana	.	.	.	.	.	.	.	.	.	C	r	.	r	r	.	
Loxoconcha subtriangularis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
Pterygocythereis sp.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	

Sands of Berg and Nucula comta-clay.

	Nucula comta-clay																			Boom-clay
	Kleine-Spouwen (boring 6)				Kleine-Spouwen (boring 27)	Kleine-Spouwen (boring 28)		Berg (boring 16)		Berg (boring 21)	Berg (boring 35)		Berg (boring 38)	Berg (boring 39)	Bilzen-Katteberg					
BZ 490	BZ 491		BZ 492	BZ 493	BZ 534	BZ 535	BZ 536	BZ 503	BZ 504	BZ 513	BZ 552	BZ 553	BZ 557	BZ 559	TK 522	TK 523	TK 524	TK 525	TK 526	
r	.		r	.	.	r	.	.	r	.	r	.	.	r	.	.	.	.	.	.
r	r		.	r	.	r	.	.	r	r	r	.	.	r	.	.	r	r	.	+
r	r		r	r	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	+
r	.		.	.	.	r	.	.	C	r	r	.	.	.	.	.	.	.	.	.
C	C		r	A	C	C	r	r	r	r	r	r	r	r	.	.	r	r	r	.
.	.		.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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C	C		C	A	r	r	.	r	r	C	r	.	r	r	.	.	r	.	r	.
.	.		.	r	.	.	.	.	r	r	.	.	.	r	r	r	.	.	.	+
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r	r		.	r	.	.	.	r	.	.	.	.	r	.	.	.	.	.	.	.
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TABLE 16. — Rupelian

	Eocene	Tongrian	Rupelian (Nucula-clay)	Schriek	Herselt	Tielrode	Niel	Sint-Niklaas	Tielrode-« Nieuw-Gelaag »	Tielrode-« Oud-Gelaag »
				AA 657	AE 661	AE 664	JA 355	JB 359	JB 360	JB 361	JB 362	JB 363	JB 364	JB 365	JC 587	JG 610	JG 611	JG 612	JH 615	JH 616	JH 617
Cuneocythere (C.) marginata	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r
Cytherella beyrichi	.	.	+	.	.	r	.	.	.	.	.	.	.	.	.	.	r	.	r	.	.
Cytherella compressa	+	+	+	r	.	.	.	r	r	r	.	r	.	.	.	r	.	r	.	.	r
Cytherella transversa	.	.	.	.	.	.	.	.	.	.	r	.	.	r	.	.	.	.	.	.	.
Cytheropteron steinmanni	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Eucytherura dentata	+	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Haplocytheridea helvetica	.	+	+	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	.	.	.
Krithe pernoides	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Leguminocythereis scrobiculata	+	.	+	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.
Loxoconcha subovata	+	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Paijenborchella cf. *tricostata*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Pterygocythereis fimbr. fimbriata ...	+	.	+	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.
Pterygocythereis sp.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trachyleberidea hollandica	.	.	.	.	.	.	.	r	.	r	r	.	.	.	.	.	.	.	.	r	.
Trachyleberis asperrima echinata ...	.	.	.	.	r	.	.	.	r	.	r	.	.	.	.	r	.	.	.	.	.
Trachyleberis spinosa	.	.	.	r	.	.	.	.	.	.	.	r	r	.	.	.	.	.	.	.	.
Xestoleberis muelleriana	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

of Belgium : **Boom-clay.**

Belgium																														Netherlands			Germany	
Steendorp					Kruibeke	Wilrijk	Schelle			Boom								Rumst		Stekene						Boring Heist-op-den-Berg				Winterswijk		Kuiperberg-Ootmarsum	Rupelian (Septarienton)	Chattian
JJ 619	JJ 620	JJ 621	JJ 623	JJ 624	JK 628	JL 630	JM 642	JM 644	JM 646	MA 369	MA 372	MA 374	MA 648	MA 649	MA 650	MA 651	MA 652	ME 633	ME 634	OA 598	OA 599	OA 600	OA 601	OA 602	OA 604	119,50 m	113 m	40,50 m	30,50 m	NLD 459	NLD 460	NLD 672		
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+
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r	r	r	.	r	.	.	.	.	r	.	.	r	r	r	r	r	r	.	r	.	.	r	.	r	.	.	.	.	.	r	.	r	+	+
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SUMMARY

A systematic study of the Ostracoda from the Eocene and Oligocene of Belgium has been carried out. The material examined consisted in the main of surface samples collected from outcrops including sand and clay pits. In comparison the ostracodal faunas from several localities were studied such as the Eocene of the Hampshire Basin and the Eocene and Oligocene of the Paris Basin.

At the same time J. BOSQUET's (1852) collection of Tertiary Ostracoda was restudied. For each of thirty four species from his collection a lectotype was selected and a neotype for another of his species.

Four genera (*Boldella, Bosquetina, Kingmaina, Ruggieria*), one subgenus (*Goerlichia*), fourty two species and two subspecies have been erected.

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