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V. *On new or imperfectly-known Ostracoda, chiefly from a Collection in the Zoological Museum, Copenhagen.* *By* GEORGE STEWARDSON BRADY, *M.D., LL.D., D.Sc., F.R.S., C.M.Z.S.*

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[PLATES XXI.–XXV.]

FOR the opportunity of examining and describing examples of most of the species noticed in this paper, I am indebted to the kindness of Drs. Meinert and H. J. Hansen, of the Zoological Museum at Copenhagen. The specimens were collected by different observers and in various parts of the world, the particulars as to collectors and habitat being recorded, so far as they are known to me, under the description of each species. As a supplement to this report, I have given in tabular form an account of the Ostracoda contained in a series of tow-net captures made in the North Atlantic by Dr. George Murray, F.R.S., of the Natural History Museum, South Kensington.

Among these there is a single new species—*Conchœcissa cucullata*—which I have to thank Dr. Murray for allowing me to describe here. This, indeed, is the only new species outside of the Copenhagen Collection which is noticed in the present paper.

Family ASTEROPIDÆ Brady & Norman.

Genus ASTEROPE Philippi.

ASTEROPE OCULATA, sp. nov. (Plate XXI. figs. 6–13.)

Shell of the *male* subovate: seen from the side (fig. 6) elliptical, slightly higher in front than behind, height equal to rather more than half the length; anterior extremity rounded, antennal notch rather wide and shallow; posterior extremity not so fully rounded and bearing two fascicles of hairs, one near the dorsal, the other near the ventral end; dorsal margin very feebly arched, often with a slight depression behind the middle, ventral somewhat more distinctly arched: seen from above (fig. 7) the outline is subcuneate, much wider in front than behind, the greatest width equal to about one-third of the length; anterior extremity obtusely pointed, almost mucronate; posterior subacute; lateral margins evenly curved, but flattened and almost rectilinear in the middle third. Surface of the shell smooth, whitish or cream-coloured, the large eyes showing very conspicuously as black circular patches beneath the middle of the dorsal margin. Length 1·35 mm.

The secondary branch of the antenna (fig. 10) is long and slender, and bears a strongly falcate terminal unguis, which towards its tapering extremity has a sigmoid twist, and at its base a single stout seta: in some cases, though not always, its outer margin is rather coarsely crenulated; the penultimate joint (dactylon) is elongated and bears three short setæ on the distal portion of its inner margin; the second joint of the mandibular foot (fig. 11) bears a short digitiform process in addition to the usual setæ, but there is no toothed process on the basal joint. Claws of the post-abdominal laminæ (fig. 12) five to eight, varying in number with the age of the specimen; margins devoid of spines or pectinations.

Female. Several of the terminal setæ of the antennules (fig. 9) are divided apically into lashes of fine filaments, and the concave margins of the postabdominal ungues (fig. 13) bear a few minute spines, the intervals between which are very finely pectinated. Shell shorter and broader than that of the male (fig. 8), greatest height situated behind the middle and equal to more than two-thirds of its length; anterior margin narrowly, posterior very broadly rounded; dorsal margin forming a flattened arch, ventral boldly arcuate. Eye-spot much smaller than in the male and paler in colour. Length 1 mm.

Hab. Taken in the surface-net at Trincomalee, Ceylon, plentifully; also at Cruz Bay. These gatherings consisted, with one or two exceptions, entirely of males.

Among a considerable number of specimens one female only could be found, and this occurred with only one or two males in the collection from Cruz Bay. I figure here in outline an example of both sexes from this locality. I think there can be little doubt as to its belonging to the female of this species, although there is a distinct pectinated armature of the postabdominal ungues which is not visible in the male. I have, however, already noticed [1] in a very closely allied species (*A. quadrata*) that the pectination of these ungues is more pronounced in the female than in the opposite sex. The Trincomalee specimens show a considerable diversity in the number of ungues, which, I think, may be accounted for by the differences of age.

ASTEROPE LICHENOIDES, sp. nov. (Plate XXIII. figs. 22–24.)

Shell of the *male* subquadrangular as seen from the side (fig. 22), about twice as long as broad; anterior extremity irregular, wide and obliquely truncated, the antennal notch forming a large and deep gap below the middle; posterior extremity rectangularly truncate, with a large rounded median prominence; dorsal margin gently convex, with a slight sinuation in front of the posterior angle, ventral very gently arcuate, with a slight posterior sinus: seen from above the outline is elongated, quadrate, wider in front than behind, all the angles very well marked, greatest width equal to half the length

[1] "On new or imperfectly known Species of Ostracoda, chiefly from New Zealand," Trans. Zool. Soc. London, vol. xiv. pt. viii. p. 432 (December 1898).

(fig. 23); anterior extremity wide, irregular, truncated, but with a very deep median sinus, posterior sharply truncated, but concave and fringed with hairs; lateral margins very irregular, with many sinuations, elevated at the anterior third whence they slope irregularly towards either extremity; surface of the shell marked throughout with extremely irregular crested ridges and bosses. Length 4·4 mm. Joints of the antennæ not produced into lateral spines, secondary branch with a narrow, elongated hand (fig. 24) which is slightly dilated distally and bears a brush of numerous hairs; terminal claw strongly falcate, bulbous at the base, and slightly so at the apex, a single stout seta at the base; penultimate joint of the mandibular foot bearing a digitiform appendage. Postabdominal laminæ armed with five long and slender pectinate claws.

Hab. Lat. 0° 37′ N., long. 109° 47′ E. One specimen only.

Genus Cyclasterope G. S. Brady [1].

This genus was founded on a species taken in Madras Harbour, the name being suggested by the circular outline of the shell, supplemented by certain anatomical characters. The shape of the shell can no longer be maintained as a generic character, several other species having been discovered, which with a very different form of shell combine the other distinctive characters of *Cyclasterope*. The points which I now suggest as diagnostic of the genus are the presence of a digitiform process on the penultimate joint of the mandibular foot, the profusely setiferous character of the vermiform limb, each ring of which toward the distal extremity usually supports two or three setæ, and the spinous armature of the joints of the swimming-branch of the antenna.

Cyclasterope fascigera, sp. nov. (Plate XXI. figs. 20–31.)

Male. Shell seen from the side subovate, slightly higher behind than in front, greatest height equal to rather more than half the length; left valve overlapping the right at the antero-dorsal angle, beneath which it is sinuated and forms a slightly prominent beak (fig. 20); anterior extremity of the right valve evenly rounded, the antennal notch deep and narrow; posterior extremity wider, rounded off, but strongly angulated in the middle and again between that point and the dorsum; dorsal margin almost flat for the greater part of its length, but gently curved behind, ventral forming a continuous gentle curve: seen from above the outline is elliptical (fig. 21), with broad, slightly rounded or subtruncate extremities; lateral margins gently and evenly arcuate, greatest width situated in the middle and equal to half the length. Surface of

[1] Trans. Zool. Soc. London, vol. xiv. pt. iii., 1897, p. 85: "A Supplementary Report on the Crustaceans of the Group Myodocopa, &c."

the shell smooth, fringed with rather long hairs on the anterior margin below the beak, slightly pubescent on the ventral aspect, the posterior extremity with a thick fringe of long hairs which ends abruptly both above and below. Colour yellowish-white. Length 6 mm. Sensory appendage of the antennule (fig. 24) large and very densely setiferous; joints of the swimming-branch of the antenna (fig. 25) spined on the outer margin—each spine as long as the following joint—and on the inner margin bearing fascicles of short hairs; secondary branch (fig. 26) having a long, flexuous claw which for the greater part of its length is more or less distinctly cross-furrowed and has a single stout seta near the base; basal joint bearing a few marginal hairs; second joint elongated, with sinuous margins and a brush of short setæ near the distal end (fig. 26); pectinated process of the mandibular foot rather feebly developed (fig. 27) and having seven or eight curved apical teeth; penultimate joint of the limb very densely setose; postabdominal laminæ of the usual type, each with 5 or 6 strongly pectinated ungues (fig. 29); spines of the larger ungues arranged in sequences, one large and one small alternately (fig. 30).

Female. Shell seen from the side broadly ovate, greatest height situated behind the middle and equal to nearly three-fourths of the length, the left valve overlapping the right posteriorly (fig. 22); anterior extremity narrowly rounded, beak and antennal notch well developed, posterior extremity distinctly angulated in the middle; dorsal and ventral margins very boldly arched, dorsal highest behind the middle, ventral quite evenly arcuate: seen from above (fig. 23) the outline is subovate, widest in the middle, about twice as long as broad; anterior extremity produced and subtruncate, posterior wider, rounded, the left valve produced much beyond the right; lateral margins arcuate, rather deeply sinuated behind the anterior extremity; surface of the shell smooth, with a few short hairs below the antennal notch. Length 5·2 mm. The "masticating" process of the mandibular foot (fig. 28) is more largely developed and more strongly serrated than in the male; the claws of the postabdominal laminæ are regularly spined (fig. 31), and the terminal joints of the mandibular foot are destitute of the setose covering which is found in the male.

Hab. Sourabaya (Java), several specimens, ♂ ♀; Chiribon (Java), 4½ fathoms, one specimen, ♂; Madeira, one specimen, ♂.

The fact of male and female specimens being found together in the same gathering leads to the supposition that both belong to the same species, though the remarkable differences in the shape of the shell may be thought to throw some doubt on that view of the matter. Pending further observation the two forms may be considered identical. The antennal setæ of this species are often much encumbered, or even glued together by crystalline calcareous concretions similar to those which I have already described and figured as occurring in *Philomedes sculpta*[1].

[1] "On new or imperfectly-known Ostracoda," *tom. cit.* p. 435.

CYCLASTEROPE BREVIS (G. W. Müller). (Plate XXIV. figs. 16–22.)

Asterope brevis G. W. Müller, "Neue Cypridiniden," Zoologisch. Jahrbüch. vol. v. p. 239, pl. xxv. fig. 10, pl. xxvi. fig. 7, pl. xxvii. figs. 7–10, 15, 16.

Shell of the *female* seen from the side (fig. 16) almost circular, the length being only about one-seventh longer than the width, antennal notch situated slightly below the middle of the somewhat narrowed anterior extremity; posterior extremity boldly rounded, as is also the ventral margin; dorsal margin well arched, but flatter than the ventral; the right valve is slightly overlapped by the left throughout its entire circumference: seen from above the outline is elongated, ovate, nearly twice as long as broad, extremities obtusely rounded, rather narrower in front than behind. Shell-surface smooth; colour brown. Length 3·3 mm. The fifth joint of the antennule (fig. 17) has five marginal papilliform humps; the external margins of the antennal joints (fig. 18) are produced into very large, stout spines; the principal swimming-setæ are profusely ciliated and have, at intervals of five or six rings throughout the greater part of their length, delicate marginal spines (fig. 19); secondary branch of the antennæ (fig. 20) two-jointed, the first joint bearing five or six marginal hairs, the last a single long, ringed seta. Postabdominal laminæ armed with four finely pectinated claws (fig. 22).

Hab. St. Thomas, West Indies. Very few specimens, all females.

The male is unknown; the one female specimen described by Müller was taken off the coast of South America (Pernambuco): in all essential respects it seems to agree with those here noticed.

CYCLASTEROPE SIMILIS, sp. nov. (Plate XXIII. figs. 25–29.)

Shell of the *female*, seen from the side, subelliptical, height equal to nearly two-thirds of the length (fig. 25); antennal notch rather wide and shallow, situated in the middle of the evenly rounded anterior extremity; posterior extremity as wide as the anterior, evenly rounded; dorsal margin almost rectilinear for the greater part of its length, ventral moderately arcuate; both extremities fringed with short hairs; surface smooth. Length 5 mm. Penultimate joint of the antennule (fig. 26) having a single large papilliform hump and a few fine marginal hairs: outer margins of the antennal joints, except the first, produced into long stout spines (fig. 27), first swimming-seta short and plumose, none of the setæ bearing marginal spines; secondary branch (fig. 28) indistinctly three-jointed, the last joint bearing a single ringed seta, the first five marginal hairs. Male unknown.

Hab. One specimen only, from a depth of 8 fathoms in Java Sound.

This species approaches *Asterope brevis* G. W. Müller in the single hump of the fifth antennular joint, but differs widely in the shape of the shell and the characters of the antennal swimming-setæ.

Family CYPRIDINIDÆ Baird.

Genus Cypridina M.-Edwards.

Cypridina granulosa, sp. nov. (Plate XXI. figs. 32–34.)

Shell of the *female*, seen from the side, elongated, subovate; height equal to two-thirds of the length (fig. 32); anterior extremity rounded, with a sharp downward-pointing beak; antennal notch near the middle line, rather wide and deep; posterior extremity narrowly rounded; dorsal margin evenly arched, highest in the middle, sloping steeply toward the posterior extremity; ventral margin gently arcuate: seen from above (fig. 33) the outline is narrowly ovate, twice as long as broad, greatest width in the middle. The shell is thin, membranous, and granular in appearance. Length 1·95 mm. Male unknown.

One specimen only. Memorandum of locality lost.

Cypridina foveolata, sp. nov. (Plate XXII. figs. 15–19.)

Shell of the *female*, seen from the side (fig. 15), elongated, ovate, produced behind into an obtuse median beak; greatest width situated in the middle and equal to two-thirds of the length; anterior extremity rounded, beak not prominent, antennal notch small and shallow; posterior extremity narrow, forming an obtuse subtriangular beak; dorsal and ventral margins boldly and evenly arched, the ventral the more arcuate of the two and forming a continuous curve throughout, the dorsal sinuated in front of the posterior beak: seen from above (fig. 16) the outline is ovate, widest in the middle, width equal to half the length, very narrowly rounded in front, subacuminate behind. Shell thin, smooth, almost membranous, marked throughout with small, closely-set circular impressions. Length 3·5 mm.

The soft parts present no abnormal characters; caudal laminæ (fig. 19) with four slightly curved, pectinated ungues.

Hab. China Sea. One specimen only.

Cypridina insolita, sp. nov. (Plate XXII. figs. 11–14.)

Shell of the *female* broadly ovate, tumid; seen from the side subovate, narrow in front, broadly and obliquely truncated behind, width equal to three-fourths of the length (fig. 11); anterior extremity narrow, rounded, beak short and sharp, antennal notch narrow and moderately deep; posterior extremity very irregularly sinuous; dorsal and ventral angles strongly marked, dorsal margin gently arcuate, ventral very boldly convex: seen from above (fig. 12) the outline is broadly ovate, widest in the middle, both extremities broadly rounded, width nearly equal to the height. Surface

of the shell marked with distant circular pittings, in the intervals of which are minute puncta. Length 3·7 mm. The antennal swimming-setæ, excepting the first, are densely plumose and without spines, the first much smaller, imperfectly jointed, non-plumose, and bearing several short but sharp marginal spines; secondary branch of the antenna simple, two-jointed, and bearing a long terminal seta (fig. 13). The vermiform limb has a simple terminal claw (fig. 14), beneath which is a large quadrate gap, and following this a still larger unjointed space beyond the ringed portion of the limb.

Hab. Java Sound, in a depth of 8 fathoms. One female only.

Genus Pyrocypris G. W. Müller.
(=*Eupathistoma* G. S. Brady.)

Pyrocypris americana G. W. Müller. (Plate XXI. figs. 14–19.)

Pyrocypris americana G. W. Müller, Neue Cypridiniden, *tom. cit.* p. 233, pl. xxv. fig. 3.

Shell, seen from the side, elongated, obliquely subquadrate, about twice as long as broad (fig. 14); anterior extremity narrow, beak short, obtusely pointed in front, acutely below, antennal notch small and narrow; posterior extremity produced into a prominent rounded beak; dorsal margin gently arcuate, sloping steeply behind, ventral boldly rounded in front, thence gently curved throughout its whole length; shell smooth, thin, chitinous. Length 2 mm. Secondary branch of the antenna (fig. 16) reduced to a fascicle of five short setæ; mandibular foot nearly as in *Cypridina* (fig. 17), bearing an ovate setiferous lobe and digitiform process; vermiform limb armed at the free extremity with three slender curved claw-like setæ (fig. 18), caudal laminæ (fig. 19) having four strong pectinated ungues and three shorter spine-like setæ. The first long seta of the antennule is dilated bulbously at the base (fig. 15), and bears a short tubular (?) barb (*a*) on the distal side of the bulb. The labial papillæ (phosphorescent organs of Müller) are not unlike those of *P. chierchiæ* (*Eupathistoma natans* Brady), which have been previously figured and described by me as sense-organs.

I do not fully understand the nature of the bulbous enlargement at the base of the antennular setæ, but it has an appearance somewhat similar to the poison-glands of the Cytheridæ, and I would suggest that it may have a similar function, the barb-like appendage being its efferent duct.

Taken by the 'Galathea' Expedition, Sept. 10th, 1875.

Specimens from this collection have been identified by Dr. G. W. Müller as belonging to *Pyrocypris americana*, which species was described from specimens taken off the west coast of Central America.

PYROCYPRIS CHIERCHIÆ G. W. Müller.

Pyrocypris chierchiæ G. W. Müller, *tom. cit.* p. 232, pl. xxv. figs. 1, 5, 6, pl. xxvi. figs. 12, 19, pl. xxvii. figs. 1, 2, 13, 14, 18, 24, 37.

Eupathistoma natans G. S. Brady, *tom. cit.* p. 437, pl. xliv. figs. 21–26.

Hab. Bay of Bengal: 'Galathea' Expedition, July 10th & 11th, 1896.

This and other species of *Pyrocypris* occur in immense numbers in tropical seas, and seem to contribute a very large share to the phosphorescence of those regions. This has been noticed by many authors. Dr. G. W. Müller notes that of *P. chierchiæ* as many as twenty thousand individuals were taken in a single haul, and of *P. revilli* fifteen thousand, and he attributes their light-producing faculty to the labial papillæ which, so far as at present appears, are peculiar to this genus.

Genus PHILOMEDES Lilljeborg.

PHILOMEDES SORDIDA G. W. Müller. (Plate XXIV. figs. 23–26.)

Philomedes sordida G. W. Müller, *tom. cit.* p. 237, pl. xxv. fig. 17, pl. xxvi. fig. 17, pl. xxvii. figs. 28, 33.

Shell of the *male* (fig. 23), seen from the side, oblong-ovate, widest in the middle, scarcely twice as long as broad; anterior extremity narrow, rounded, without a beak, antennal notch forming a wide and shallow sinus quite on the ventral margin; posterior extremity broader, well rounded; dorsal margin well arched, forming an even curve throughout its entire length; ventral margin boldly arcuate from the antennal notch to the posterior extremity: margins of the valves fringed at both extremities with numerous closely-set setæ, which extend in front on to the ventral and behind on to the dorsal surface; right valve slightly overlapping the left in front: shell chitinous, its surface marked with small closely-set subrotund pittings. Length 1·55 mm.

The anatomy of the animal agrees generally with *Philomedes*, but the following characteristic points may be noted:—The secondary branch of the antenna (fig. 24) is extremely slender, the penultimate joint linear and bearing on its inner margin two short setæ, terminal joint dilated at the base, strongly curved and blunt, a long seta at the base and a short one near the extremity; vermiform limb bearing very few setæ, armed at the distal end with three small claws at one side of the gape and two on the other (fig. 25); postabdominal laminæ (fig. 26) with two large simple basally-pectinated terminal ungues, followed twice by sequences of a short and a long unguis, and finally three small setæ.

Hab. Cruz Bay. Three specimens, ♂. Müller's specimens were all females and were taken off the north of Japan.

PHILOMEDES DEBILIS, sp. nov. (Plate XXI. figs. 1–5.)

Shell of the *male*, seen from the side, ovate, widest in the middle, width equal to nearly two-thirds of the length (fig. 1); anterior extremity narrow, rounded, without a

beak, but with a shallow antennal notch just in front of the ventral margin, posterior margin broadly and evenly rounded; dorsal and ventral margins boldly and evenly arcuate: seen from above the outline (Pl. XXI. fig. 2) is regularly ovate, twice as long as broad, greatest width in the middle. Shell chitinous, smooth, its edges above and below the antennal notch bordered with a thin chitinous flange, within which is a nodulated crest having an appearance somewhat like the corneal lenses of an insect-eye (fig. 3). Length 1 mm. The antennæ are of the normal type, but with the first joint smaller than usual (fig. 4); caudal laminæ (fig. 5) narrow; at the proximal end three small ungues, followed by one larger, then three small and one larger, one small and two very much larger terminal claws.

Hab. Trincomali, Ceylon. Three specimens, ♂.

Genus Cypridinodes, gen. nov.

Like *Cypridina*, except as to the three pairs of maxillæ. The first pair (Pl. XXII. fig. 26) form a simple, elongated, triarticulate limb, which bears at its distal extremity several strongly pectinated claws and setæ; to the basal joint is attached a small single-jointed trisetose palp. The second maxilla (fig. 27) is in general build like that of *Philomedes* or *Cypridina*, but the principal masticating processes are armed with blunt nodular marginal teeth (fig. 27, *a–c*); third maxilla (fig. 28) without the hatchet-shaped lobe of *Cypridina*, which is replaced by a digitiform prolongation, retaining, however, something of the hatchet-shape.

Cypridinodes favus, sp. nov. (Plate XXII. figs. 20–31.)

Shell of the *female* seen from the side (fig. 20) broadly subovate, width equal to nearly three-fourths of the length; anterior extremity rectangularly truncated, posterior produced into a broad, truncated, subconical beak; dorsal and ventral margins boldly arched: seen from above (fig. 21) the outline is irregularly hexagonal, greatest width in the middle, and equal to two-thirds of the length; extremities wide and truncated, the anterior broadly mucronate, the posterior irregularly notched; lateral margins deeply furrowed in the middle, thence sloping steeply in a sinuous line to each extremity. Surface of the valves coarsely pitted with deep irregularly-angular impressions, and raised into two subcentral mammilliform elevations, between which is a deep transverse furrow; a little within, and parallel with, the ventral margins the central portion of the valve is bounded by an irregular jagged crest; the left valve is overlapped by the right in front and on the dorsal aspect. Length 3 mm. The penultimate joint of the antennule (fig. 22) has at its distal end a stout ringed seta, which bears a series of about twelve stout lash-like setæ arranged in a secund manner along its inner edge; two of the principal setæ of the terminal joint are dilated at their bases, forming a pair of globular or subglobular sacs; first seta of the swimming-

branch of the antenna (fig. 23) non-plumose, but bearing a series of about twelve lanceolate spines; secondary branch of the antenna three-jointed, with one terminal seta and one plumose seta on the first joint; mandibles as in *Cypridina*; caudal laminæ armed with six strong curved ungues, the first of which is strongly pectinated.

The locality of this species appears to have been lost.

Genus Codonocera, gen. nov. [1]

(? *Heterodesmus* Brady [2].)

Shell flat dorsally, very convex ventrally, with a well-marked anterior beak and antennal notch, and at the posterior extremity a wide rounded protuberance (Pl. XXII. fig. 1). The antennules bear at their apices, in addition to the ordinary sensory setæ, two shorter filaments (figs. 8, 9), which are dilated in the middle and divided distally into two branches, one of which is bifurcate, the other shorter and terminating in a bunch of six bell-shaped suctorial disks; secondary branch of the antenna (fig. 3) provided with a very large and powerfully muscular hand, the claw of which is marginally nodulated; mouth-organs as in *Philomedes*; postabdominal laminæ (fig. 7) with only three ungues.

Codonocera cruenta, sp. nov. (Plate XXII. figs. 1–10.)

Shell of the *male*, seen from the side (fig. 1), subquadrate, height equal to two-thirds of the length; anterior extremity rounded both above and below the notch; beak short and sharp; antennal notch moderately deep; posterior extremity wide, obliquely subtruncate, with a wide angular notch in the middle; dorsal margin straight, sloping steeply in front from its angulated extremity, rounded off posteriorly; ventral margin very boldly and evenly arcuate: seen from above (fig. 2) regularly ovate, widest in the middle, twice as long as broad; extremities subacuminate. Shell smooth, chitinous, pale-coloured, irregularly marked with black, stellate pigment-patches of various size, and with some pale clouded streaks near the centre of the valves. Length 2·8 mm. First swimming-seta of the antenna (fig. 3) short, non-plumose and spinous on the outer margin; secondary branch (fig. 3) very large, the hand armed with two strong spine-like setæ, which oppose the terminal claw; claw sigmoidally bent, nodulated on its inner edge and round the base of the outer edge; vermiform limb very sparingly setiferous, its apex armed with four small spines on the outer and one on the inner

[1] κώδων, a bell; κέρας, a horn.

[2] G. S. Brady: "On new or imperfectly-known Species of Marine Ostracoda," Trans. Zool. Soc. Lond. vol. v. p. 387.

side (fig. 6); copulatory organs large and massive (fig. 20), the vasa deferentia very distinct and wide. Postabdominal laminæ (fig. 7) short, with three very slightly curved, unequal, feebly pectinated claws. All the appendages of the animal are symmetrically blotched here and there with patches of red pigment.

Hab. Pulo Penang. One specimen, ♂.

The genus *Heterodesmus*, instituted many years ago for the reception of a single species taken in the China Sea, has in general form, though not in minor characters, a very marked resemblance to this species. It was described, however, from a single dried shell, from which the soft parts of the animal had almost entirely disappeared, so that it is impossible to say whether or no it might be properly referable to the genus here described.

Family SARSIELLIDÆ Brady & Norman.

Genus SARSIELLA Norman.

SARSIELLA (?) ORNITHOIDES, sp. nov. (Plate XXIII. figs. 16–21.)

Shell of the *female*, seen from the side, elongated, much produced both before and behind (fig. 16), fully twice as long as broad; anterior extremity produced into a subquadrate prominence which is about one-half the width of the valve and subtruncate or only slightly rounded in front, posterior forming a truncated conical protuberance; dorsal margin flattened, irregularly sinuated throughout; ventral margin boldly arcuate in the middle, sloping almost in a right line to the posterior extremity and forming a deep sinus beneath the anterior prominence; seen from above (fig. 17) elongated, subovate, more than twice as long as broad, with broadly mucronate prominences before and behind. Surface of the shell smooth, with a slight median longitudinal depression. Length 1 mm. Swimming-setæ of the antennæ very faintly plumose, but bearing fine marginal spines (fig. 19); secondary branch rudimentary, simple, digitiform, granulated (fig. 19). Postabdominal laminæ with two strong but almost straight toothless spines (fig. 21) and a few small setæ anteriorly.

Hab. Trincomalee, Ceylon. One specimen only.

The characters of the caudal laminæ seem to associate this species with *Sarsiella*, the shell also bearing some distant resemblance to that genus, but its position here must be regarded as purely provisional.

Family HALOCYPRIDÆ Claus.

Genus CONCHŒCIA Dana.

CONCHŒCIA SPINIROSTRIS Claus.

Conchœcia spinirostris Claus, Die Halocypriden des atlantischen Oceans und Mittelmeeres, p. 56, pl. i. figs. 1–12.

A few specimens of both sexes from lat. 26° 15′ N., long. 29° 56′ W.; lat. 22° 20′ N., long. 27° 0′ W.; "*Patellaria* Syd overfladen" (Pacific), surface-net (females only).

CONCHŒCIA STRIATA Claus.

Conchœcia striata Claus, *loc. cit.* p. 62, pl. viii. figs. 1–6.

Taken in lat. 22° 55′ N., long. 29° 19′ W.

Genus EUCONCHŒCIA G. W. Müller.

Shell as in *Conchœcia*: groups of glands placed symmetrically at the postero-dorsal angles of the valves; frontal tentacle long, slender, and unjointed; antennule with three nearly equally long joints, the second of which is without setæ, while the third (coalescent third and fourth) instead of two sensory filaments bears a brush of about twenty setæ; last joint short, bearing one short and two long setæ, none of which are toothed. Secondary branch of the antenna with a slightly dilated basal joint, without papillary processes and with slender setæ; the three setæ of the last joint not of a sensory kind, but attached to the knee-like angle of the claw are two shorter setæ. Masticatory-plate of the mandible without setæ, the teeth numerous, short and stout. Last joint of the penultimate limb bearing setæ which are as long as the limb itself. Antennule of the female short, simple, two-jointed, bearing a terminal brush of setæ similar to that of the male.

This generic definition, so far as it applies to the male, is adapted from G. W. Müller (*loc. cit.*).

The only species is

EUCONCHŒCIA CHIERCHIÆ G. W. Müller. (Plate XXIV. figs. 9–15.)

Euconchœcia chierchiæ G. W. Müller, *loc. cit.* p. 277, pl. xxviii. figs. 1–10.

Shell, seen from the side, subquadrangular, elongated; twice as long as broad (fig. 9), produced in front into a prominent, curved beak, beneath which is a large sinus; posterior extremity subtruncate, rounded-off ventrally, and produced into a short spine (right valve only) dorsally; dorsal margin almost straight, or only slightly sinuated, ventral boldly arcuate. Length of the *male* 1·1 mm.; of the *female* ·85 mm.

The secondary branch of the antenna in the *female* (fig. 12) is two-jointed, the last joint short and bearing two long, but unequal setæ; that of the left side in the *male* is almost exactly similar, but on the right side bears as usual a very acutely angular hook-like claw (fig. 13). The ungues of the caudal lamina are five in number, very slender, and scarcely at all curved (fig. 15). The copulatory organ in the *male* is unusually broad and short (fig. 15).

Hab. The gathering here noticed consists of about equal numbers of males and females, and was taken at Cruz Bay. Müller's specimens, five in number and all males, were from the coast of Brazil.

Genus Conchœcissa Claus.

Conchœcissa cucullata, sp. nov. (Plate XXIV. figs. 1–8.)

Shell, seen from the side, oblong, much more than twice as long as broad; greatest width near the hinder extremity (fig. 1); anterior extremity forming a narrow, subcuneate, or hood-shaped prominence which is very acute at its apex, curvate on its ventral, and perfectly straight on its dorsal margin, a shallow notch on its posterior termination, from which point the ventral margin of the valve becomes boldly arcuate as far as the posterior extremity, which is well rounded below but obtusely rounded at the dorsal angle; dorsal margin almost perfectly straight, but armed behind with a few slender, backward-pointed spines; postero-dorsal angle of the left valve (figs. 1 & 2) produced into a very long spine-like process, below which is a broad curved sinus terminated by a short papilliform process, beyond which the curve of the ventral margin as far as the middle of its course is finely serrated; dorsal angle of the right valve rounded and spineless, but bearing a mammillated process like that of the opposite valve; there are groups of gland-cells connected with these processes and with the dorsal spine, and similar, but smaller, cells are continued for a considerable distance round the margin of the valves: seen from below the shell is elongated, subovate, widest in the middle, three times as long as broad, tapering nearly to the extremities, which are sharply mucronate. Surface of the valves sculptured with regular, subparallel wavy striæ, from which are given off numerous delicate cross striæ; the course of many of the larger striæ, especially on the posterior and ventral portions of the valves, being marked by small irregularly-placed circular pits or areolæ. The chewing-plates of the mandible (fig. 6) are armed with unusually short and blunt teeth, and are only sparingly setiferous. Antennule of the *female* (fig. 3) bearing five (or six?) equal terminal setæ, and one very short plumose hair; frontal tentacle very slender, linear, and sharply pointed, and having a sharp needle-like hair alongside of it; secondary branch of the antenna of the *female* (fig. 5) short, ovate, bearing two short, spine-like setæ and a brush of five sensory filaments of moderate and equal length, that of the

male (fig. 4) having four sensory setæ and a strongly falcate claw. Postabdominal laminæ armed with eight slender, curved, slightly pectinate claws, which increase progressively in length from before backward. The crop is excessively stout and muscular (fig. 8). Length 2·6 mm.

Hab. This appears to be a rather scarce species: the few specimens which were noticed occurred in plankton gatherings from the North Alantic, for the opportunity of examining which I am indebted to Dr. George Murray, F.R.S., of the Natural History Museum, South Kensington. The following are the localities:—Lat. 52° 27′·6 N., long. 15° 40′ W., 1570 fathoms (1 specimen); lat. 52° 18′·1 N., long. 15° 53′·9 W., 950 fathoms (1 specimen), 500 fathoms (1 specimen); lat. 52° 27′·6 N., long. 15° 40′ W., 1170 fathoms (1 specimen); lat. 52° 18′·1 N., long. 15° 53′·9 W., 1070 fathoms (3 specimens).

Only one male specimen was seen, and I failed to find the antennule, which had probably been detached in the process of capture.

The reference to the genus *Conchœcissa* must be taken as provisional only, as some important characters could not be clearly made out from the material at my command.

Family CYPRIDIDÆ.

Genus Cypris Müller.

Cypris virens (Jurine). (Plate XXIII. fig. 8.)

Several specimens collected by Dr. Meinert at Bona, Algiers, one of which is here figured, appear to be referable to *C. virens*, although differing somewhat from typical examples in the shorter and more tumid form of the shell. The soft parts conform accurately to the type.

Cypris flexilis, sp. nov. (Plate XXIII. figs. 11–15.)

Shell, seen from the side, oblong, subreniform, about twice as long as broad (fig. 11); anterior extremity moderately rounded, posterior rounded off above, obscurely angular below owing to a production of the left valve; dorsal margin forming a flattened arch, ventral very slightly sinuated in the middle. Shell extremely thin, flexible, and almost transparent. Length 4 mm. The swimming-setæ of the antennæ (fig. 12) reach scarcely to the apices of the terminal claws; principal ungues of the first pair of maxillæ finely ciliated, but without marginal spines; terminal claw of the first pair of feet (fig. 14) extremely long and slender, equal in length to the four preceding joints; caudal laminæ very long and slender, their posterior margins very finely (almost imperceptibly) ciliated; the terminal setæ, two apical and two marginal, crowded together at the distal extremity.

Hab. A few specimens taken at St. Croix, West Indies.

Cypris lætevirens, sp. nov. (Plate XXIII. figs. 3–5.)

Shell, seen from the side, elongated, subovate, highest in the middle; height slightly exceeding one-half of the length (fig. 3); extremities rounded, the anterior broad and rather flattened, the posterior narrower; dorsal margin evenly arcuate, highest in the middle where it is almost angular, ventral margin slightly sinuated in the middle: seen from above (fig. 4) ovate, twice as long as broad, widest in the middle; anterior extremity gently tapered and acuminate, posterior acuminate and more abruptly tapered; lateral margins evenly arcuate, slightly sinuated behind the anterior extremity. Surface of the shell smooth, finely hirsute, more particularly round the margins, thin, semitransparent. Colour very pale green. Length 2·55 mm. The swimming-setæ of the antennæ are plumose, and reach to the extremity of the limb; ungues of the first maxillæ destitute of marginal spines; postabdominal rami bearing four setæ (fig. 5), two at the apex, one of which is very short and delicate, the other quite half as long as the ramus itself; the two marginal setæ are rather closely approximated and of moderate size.

Hab. Puerto de St. Maria, near Cadiz.

Genus Cypridopsis Brady.

Cypridopsis aculeata Lilljeborg.

Numerous specimens taken at Puerto de St. Maria, near Cadiz.

Cypridopsis marmorata, sp. nov. (Plate XXIII. figs. 1, 2.)

Shell, seen from the side, subreniform (fig. 1), widest in the middle, scarcely twice as long as broad; extremities well rounded and nearly equal; dorsal margin boldly arched, ventral very slightly sinuated in the middle: seen from above (fig. 2) broadly ovate, widest behind the middle, width equal to two-thirds of the length, broadly rounded posteriorly, obtusely pointed in front. Surface of the valves covered with small, impressed puncta, and round the margins with fine, closely-set, short hairs; marked dorsally, after the manner of *C. vidua*, with three flexuous, transverse, deeply-coloured striæ. Length ·65 mm.

Hab. Bahia.

Subgenus Candonella Claus, Vávra [1].

Candonella virescens, sp. nov. (Plate XXV. figs. 16–29.)

Shell, seen from the side subreniform, highest in the middle, height equal to nearly two-thirds of the length (fig. 16); anterior extremity well rounded, posterior narrowly rounded-off below; dorsal margin very boldly arcuate, ventral distinctly sinuated in the

[1] Vávra, 'Die Süsswasser-Ostracoden Deutsch-Ost-Afrikas,' p. 12.

middle: seen from above elongate-ovate (fig. 17), more than twice as long as broad, lateral margins evenly arcuate, tapering to the extremities, of which the anterior is subacuminate, the posterior narrowly rounded. Surface of the shell smooth, pubescent, with very fine and rather closely-set short hairs (fig. 19); colour light green. The ventral margin of the left valve is produced in the centre so as to form an overlapping flange, which is marked by fine transverse striæ (fig. 18). Length ·87 mm. Swimming-setæ of the antennæ (fig. 6) reaching somewhat beyond the apices of the claws; terminal joint of the antennæ narrow, about one-third as long as the preceding joint; second pair of maxillæ (maxillipeds) in the female (fig. 22) digitiform, with a terminal brush of rather long setæ, and bearing an elongated palp which ends in one short and two very long setæ; in the *male* the limb is strongly prehensile, on the right side (fig. 24) thick, with angulated margins, and bearing a very broad, blunt, almost falcate terminal claw, on the left side (fig. 23) the limb is much narrower, is not marginally angulated, but has on the inner side a tuft of four or five small hairs and terminates in a sharply bent, hook-like claw; terminal unguis of the first pair of feet (fig. 25) stout and strongly curved; the second foot bears terminally two slender curved claws, one of which is very short, and a long seta; postabdominal rami (fig. 27) simple, cylindrical, each of them bearing a long terminal seta and another very minute seta placed a little on the proximal side of the apex. Copulative organs (fig. 28) elongated, very complex, ending in a somewhat hatchet-shaped intromittent process (?): on each side of the postabdominal rami in the *female* is situated an irregularly shaped laminar process —spermatheca? (fig. 29); the testes form two large ovoid coils of delicate spermatic tubes.

Hab. A gathering from Puerto de St. Maria, near Cadiz, contains numerous examples of this species.

The genus *Cypridopsis* proper is distinguished from the subgenus *Candonella* chiefly by a much greater tumidity of shell and by the armature and relative lengths of the last two joints of the antennæ—the penultimate joint in *Cypridopsis* being prolonged as far, or nearly as far, as the extremity of the last joint, and the claws being slightly different in the two sexes. Except as a matter of convenience, the differences seem to me scarcely sufficient to warrant the separation of *Candonella* as a subgenus.

Genus Cypretta Vávra[1].

Shell as in *Cypridopsis*. Second pair of legs forcipate. Postabdominal rami as in *Cypris*, but much smaller and more slender.

The name *Cypretta* has been applied by Vávra to this group as a subgenus of

[1] Vávra, "Süsswasser-Ostracoden Zanzibar's" (Jahrbuch der Hamburgischen wissenschaftlichen Anstalten xii. 1895).

Cypridopsis. The characters appear to me to be sufficiently distinct to warrant the adoption of the name as a generic one, and in any case the build of the caudal rami would seem to ally it more closely with *Cypris* than with *Cypridopsis*.

CYPRETTA SARSI, nom. nov. (Plate XXV. figs. 10–15.)

Cypridopsis minna G. O. Sars, Contributions to the Knowledge of the Freshwater Entomostraca of New Zealand, p. 30, pl. iv. figs. 3 *a–d*.

Shell extremely tumid, ovate; seen from the side ovoid, highest in the middle, height equal to two-thirds of the length (fig. 10), extremities well rounded, dorsal margin very boldly arcuate, ventral straight, with a slight median sinuation: seen from above (fig. 11) ovate, widest behind the middle, width equal to three-fourths of the length, broadly rounded behind, abruptly tapered and subacuminate in front; the right valve is higher and longer than the left, overlapping it a little dorsally and in front, also with a protuberant flange in the middle of the ventral margin (fig. 13); the anterior margin of the valves forms a narrow, produced lip, within and parallel with which is a series of 12–16 very conspicuous, curved, radiating black bands, connected at their extremities so as to mark off quadrangular spaces (fig. 12). Surface of the shell covered with minute circular impressions and fine hairs; on the dorsal aspect there is a conspicuous, sharply-defined, angular black patch (eye-spot) extending across the junction of the valves at their anterior third. Colour yellowish-brown; some of the larger specimens green. Length ·77 mm. Extremities of the second pair of legs produced into nodulated lip-like processes (fig. 14); postabdominal rami very slender, with two slender claws, the larger of which is nearly as long as the ramus. The body and limbs are marked with a few irregular red blotches.

Hab. St. Thomas, West Indies. Numerous specimens.

These specimens are I think, without doubt, identical with those described by Professor G. O. Sars under the name of *Cypridopsis minna* King. They do not, however, agree with those described by me [1] under that name, which are considerably higher in proportion to their length and have a glistening, yellowish, non-pubescent surface. Sars has, indeed, recognized the difference in outline, and supposes that both Mr. King's drawings and my own are probably incorrect owing to the difficulty of getting a nearly globular shell into accurate lateral or dorsal position; in this, however, he is mistaken, my drawings, and doubtless Mr. King's, being quite correct. Assuming my previous identification of the Australian specimens as *C. minna* King to be correct, it becomes necessary to give a new name to the present species. I have pleasure, therefore, in naming it after Professor G. O. Sars. And though Sars seems to agree with Mr. King in thinking that the varieties of colour—green, brown, and

[1] "Notes on Freshwater Entomostraca from South Australia," Proceedings of the Zoological Society of London, 1886, p. 91, pl. x. figs. 1–3.

yellow—noted by that author as occurring among his specimens may indicate distinct species, I am myself scarcely disposed to accept that view, for among the specimens here described there are many green ones, although the bulk are of the brownish colour so well described and figured by Professor Sars.

Genus Cyprinotus G. S. Brady.

Cyprinotus dentato-marginatus (Baird). (Plate XXIII. figs. 6, 7.)

Specimens apparently referable to this species were collected by Dr. Meinert at Bona, Algiers. I give a figure of one of these. It differs somewhat from Dr. Baird's figure, being rather more elongated, but has proportions similar to those figured by Prof. G. O. Sars in his paper on "Ostracoda and Copepoda raised from dried Australian mud." Dr. Baird's specimens were from Nagpur, India.

Cyprinotus fragilis, sp. nov. (Plate XXIII. figs. 9, 10; Plate XXV. figs. 37–39.)

Shell, seen from the side (Pl. XXV. fig. 37), very closely similar in outline to *C. prasina* Fischer, but entirely without surface-markings: seen from above (fig. 38) the posterior extremity is broader and more rounded, the anterior not so distinctly produced or sinuated; it is also wider in proportion to the length. Shell very thin and fragile, colourless. Length 1·5 mm.

I figure here some of the soft parts of the animal (Pl. XXIII. figs. 9, 10), which do not differ from those of the foregoing species.

Hab. Biskra, North Africa; females only (*Dr. Meinert*).

Genus Candonopsis Vávra [1].

Antennæ destitute of swimming-setæ. Mandibles and maxillæ with much elongated palps. Maxillipeds (second pair of maxillæ) with a rudimentary branchial plate bearing three or more plumose setæ. Posterior margins of the caudal rami without setæ.

Vávra's definition of this genus gives the "fan-plate" of the maxillipeds as bearing only three plumose setæ. None of the few specimens of *C. complanata* which I have dissected have had these limbs in a perfect condition, but the remains of at least five setæ were plainly visible in one of them. Inasmuch as in other respects the animals agree with the typical *Candonopsis*, it becomes necessary to modify the definition so far as regards the number of setæ.

Candonopsis complanata, sp. nov. (Plate XXV. figs. 30–36.)

Shell, seen from the side, elongated, subreniform, more than twice as long as broad (fig. 30), extremities rounded, equal, dorsal margin forming a flattened curve, almost

[1] Vávra, Monographie der Ostracoden Böhmens, 1891: Süsswasser-Ostracoden Zanzibar's, 1895.

straight in the middle and sloping steeply toward each extremity, ventral straight, with a slight median sinuation: seen from above (fig. 31) ovate, twice and a half as long as broad, acuminate in front, rounded behind, widest in the middle; left valve overlapping the right at both extremities. Surface of the shell smooth, whitish; anterior and posterior margins fringed with short hairs. Length 2 mm. The two principal ungues of the second maxillar segment laterally spined (fig. 32). Branchial plate of the maxillipeds (fig. 33) bearing five or six plumose setæ; last joint of the second foot (fig. 34) curved, with two small, but unequal hook-like apical claws, in front of which is a small adpressed marginal spine, one long apical seta and another of equal length arising from the middle of the joint; caudal rami with two slightly curved, pectinate, apical claws and two shorter setæ (fig. 35).

Hab. Biskra, North Africa (*Dr. Meinert*). Females only.

Family BAIRDIIDÆ Brady & Norman.

Genus Bairdia M'Coy.

Bairdia longisetosa, sp. nov. (Plate XXV. figs. 8, 9.)

Shell, seen from the side, elongated, subrhomboidal, height equal to more than half the length (fig. 8); anterior extremity broad, obliquely subtruncate, rounded off above and below, posterior produced to an acute submedian point; dorsal margin boldly arcuate, highest in the middle, thence sloping with a steep curve backward, more gently and with a distinct sinuation to the front; ventral margin nearly straight, rounded off in front, sloping upwards behind; the right valve is overlapped by the left everywhere, except at the upper part of the anterior extremity, and is much narrower and more sinuous in outline, its anterior margin slightly crenulated below, ventral margin armed posteriorly with a series of eight sharp backward-pointing spines; margins of the right valve devoid of spines: seen from above (fig. 9) the outline is regularly ovate, widest in the middle, acuminate behind, but wider in front, about twice as long as broad. Surface of the shell beset with hairs of moderate length, and, more especially toward the extremities, with extremely long and coarse hairs, some of them reaching one-third the length of the valves. Colour pale brown, semitransparent. Length 1·1 mm.

Hab. St. Thomas, West Indies. Four specimens.

Among known species, *Bairdia hirsuta* Brady is the one which bears most resemblance to the present, but the likeness is not remarkably close, except as to the setose clothing of the shell. *B. hirsuta* was taken by the 'Challenger' Expedition in 33°–38° South latitude in the Pacific at depths of from 1375–1825 fathoms. Both *B. hirsuta* and *B. villosa* are without marginal serrations or spines.

Family CYTHERIDÆ.

Genus CYTHERE Müller.

CYTHERE SICULA, sp. nov. (Plate XXV. figs. 1–7.)

Shell of the *male* (fig. 1), seen from the side, elongated, subquadrangular, widest in front of the middle, more than twice as long as broad; anterior extremity broadly rounded, posterior obliquely subtruncate, rounded off at the angles; dorsal margin sloping steeply toward the front from the region of the hinge-tubercles, less steeply and with a gentle curve backward; ventral margin straight, with a slight sinuation anteriorly: seen from above (fig. 2) elongate-ovate, fully twice as long as broad, tapering evenly to the obtusely pointed extremities, greatest width in the middle. Right valve larger than the left, which it overlaps considerably on the dorsal and posterior margins; valve of the left side much narrower, with no elevation over the hinge-tubercle and distinctly excavated above the middle of its posterior margin. Valves fringed, except on the dorsal and middle of the ventral margins, with closely-set, short hairs; the marginal portions of the valves, more especially at the two extremities, form a smooth encircling flange which is marked radially by transverse lines prolonged from the bases of the fringing hairs; bordering the inner margin of the flange, the shell-surface is marked out into polygonal areas (fig. 4), the interspaces being dotted with small closely-set impressions; beneath the dorsal margin at its anterior third is, on each valve, a very conspicuous polished tubercle, partially surrounded by a smooth, non-punctate area. The shell of the *female* is nearly as long as that of the male, but wider, and the lower half of the posterior margin is prolonged into a wide angular beak (fig. 3). Length ·88 mm. The internal anatomy presents no characteristic features. The antennules, antennæ, and third pair of feet are here figured (figs. 5–7).

Hab. In fresh water, Syracuse. Numerous specimens of both sexes.

This species has many points of resemblance to *Cythere lutea* Müller and *C. rubida* Brady; but from the former it is separated by the more angular outline and the conspicuous marginal flange, from the latter by slight diversity of form as well as by its greater size and more delicate sculpture; both of these are, however, littoral marine forms, whereas the recorded habitat of *C. sicula* is "fresh water." One can easily imagine that differences such as characterise *C. sicula* may well have been produced by change of environment in species like *C. rubida* or *C. lutea*.

To Dr. George Murray, F.R.S., of the Natural History Museum, South Kensington, I am indebted for the opportunity of examining a series of Ostracoda from plankton collections made by him in the North Atlantic. The following list shows in tabular form the species found in each gathering, their comparative abundance or scarcity being noted roughly by the number of asterisks attached to each: * means scarcity; ** moderate number; *** abundance.

Locality.	Depth in fathoms.	*Conchœcia spinirostris* Claus.	*Conchœcia magna* Claus.	*Conchœcia maxima* Brady & Norman.	*Conchœcia hyalophyllum* Claus.	*Conchœcia porrecta* Claus.	*Conchœcia striata* Claus.	*Paraconchœcia oblonga* Claus.	*Paraconchœcia spinifera* Claus.	*Paraconchœcia inermis* Claus.	*Paraconchœcia gracilis* Claus.	*Conchœcilla lacerta* Brady & Norman.	*Conchœcissa imbricata* Brady.	*Conchœcissa cucullata*, sp. n.	*Microconchœcia clausii* G. O. Sars.	*Asterope* sp.
Lat. 52° 4′·5 N. Long. 12° 27′ W.	270	**	..	..	..	..	..	..	*							
	374	..	?													
	464	..	..	..	..	..	..	**								
	620	..	..	..	*	..	..	**	..	..	..	..	*			
	650	..	..	..	..	..	..	**								
Lat. 52° 18′·1 N. Long. 15° 53′·9 W.	Surface.	..	..	?												
	500	..	..	..	***	..	..	..	..	..	..	..	*			
	810	..	..	..	***	..	..	..	..	..	..	..	*			
	950	..	..	..	***	..	..	..	..	..	..	..	*			
	1070	**	***	..	..	..	..	..	..	..	**	*	*	*		
	1190	..	..	..	..	..	?	..	..	..	..	..	**			
	1300	..	..	..	..	..	***									
	1410	..	..	..	..	..	..	..	..	**	**	..	*	*	*	
	1510	**	..	..	***	..	..	..	..	..	..	..	**			
	1610	..	..	..	***	..	..	..	..	..	..	..	..	*	**	
	1710	..	..	..	..	***	..	..	..	..	..	..	**			
Lat. 52° 20′ N. Long. 15° 7′·9 W.	150	***	***													
	310 [1]															
	375	..	..	..	..	..	..	..	..	..	..	..	..	..	**	
	510	..	..	..	***	..	..	..	..	..	..	*	**			
	560	..	..	..	***	..	..	..	..	..	..	*	**			
Lat. 52° 27′·6 N. Long. 15° 40′ W.	790	..	..	..	..	..	..	..	?							
	920	..	..	*	..	..	..	..	..	..	..	..	*			
	1065	..	..	..	..	..	***									
	1170	..	..	**	..	..	..	..	..	..	..	..	..	*		
	1275	..	..	..	..	***	..	..	..	..	..	..	*	..	**	
	1370	..	*													
	1470	**	..	..	..	..	..	..	..	..	..	..	*			
	1570	..	**	..	..	..	..	..	..	..	..	..	*	*		
	1670	..	..	..	..	..	**	..	..	..	..	*	..	..	*	
	1770	..	..	*?												

[1] Many immature forms; species not recognizable.

PLATE XXI.

Philomedes debilis, ♂ (p. 186).

Fig. 1. Outline of shell seen from right side, × 55.
2. „ „ above, × 55.
3. Margin of shell round antennal sinus, × 110.
4. Antenna seen from side, × 84.
5. One of the caudal laminæ, × 120.

Asterope oculata (p. 179).

Fig. 6. Shell of male seen from left side, × 40.
7. „ „ above, × 40.
8. Outline of shell of female seen from left side, × 40.
9. Antennule of female, × 100.
10. Internal branch of antenna of male, × 84.
11. Mandibular foot, × 100.
12. One of the caudal laminæ of male, × 84.
13. „ „ ungues of female, × 240.

Pyrocypris americana, ♀ (p. 185).

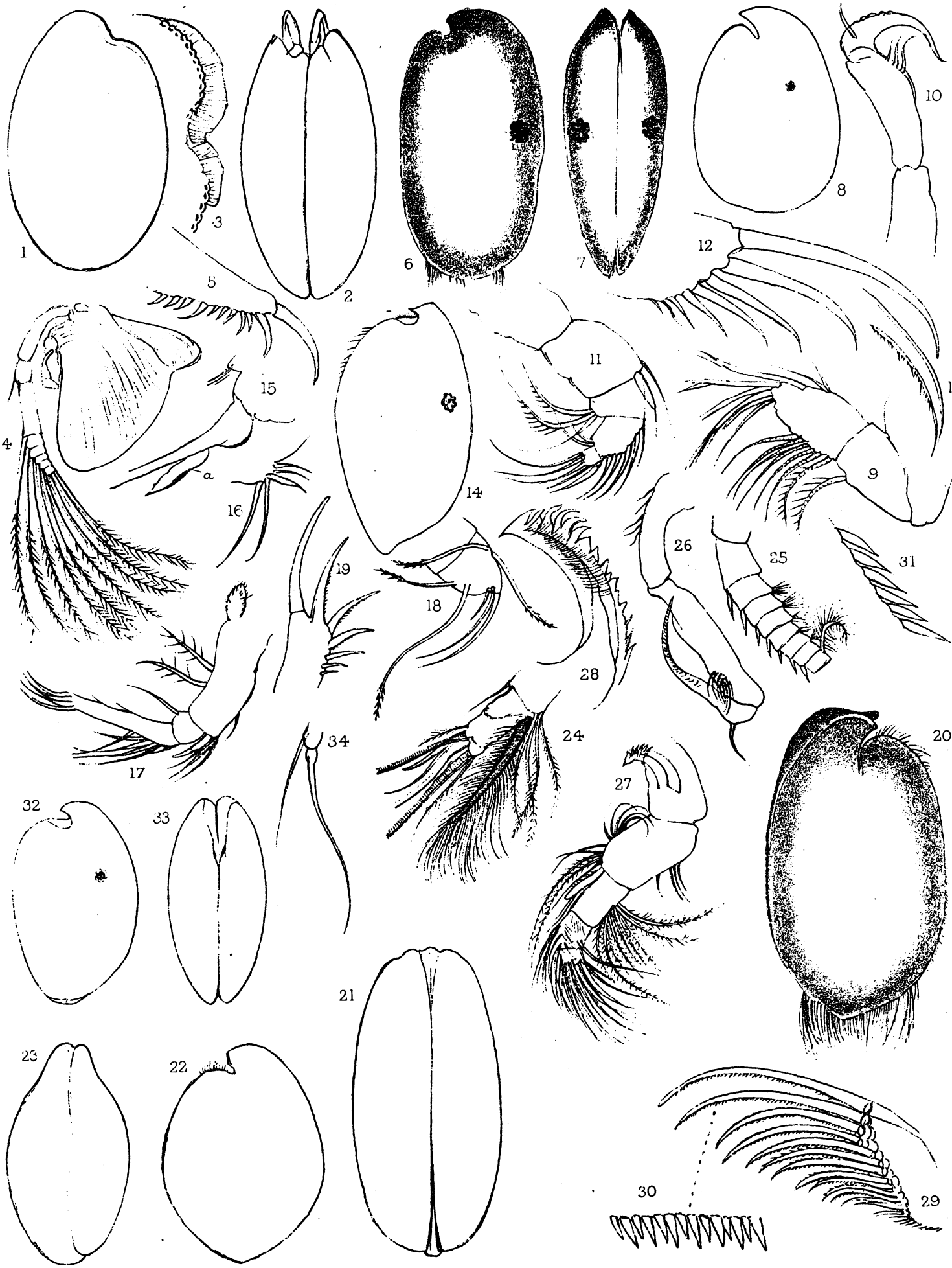
Fig. 14. Outline of shell, seen from left side, × 28.
15. Base of one of the principal antennular setæ, × 240.
16. Internal (rudimentary) branch of antenna, × 100.
17. Mandibular foot, × 84.
18. Apex of vermiform limb, with setæ, × 240.
19. Caudal lamina, × 100.

Cyclasterope fascigera (p. 181).

Fig. 20. Shell of male, seen from right side, × 10.
21. „ „ above, × 10.
22. Outline of shell of female, seen from left side, × 8.
23. „ „ „ above, × 8.
24. Terminal joints and setæ of antennule of male, × 24.
25. Joints of antenna of male, × 40.
26. Internal branch of antenna of male, × 40.
27. Mandibular foot of male, × 26.
28. Masticating process of mandible of female, × 120.
29. Caudal laminæ of male, × 26.
30. Marginal armature of unguis of male, × 240.
31. „ „ „ female, × 240.

Cypridina granulosa, ♀ (p. 184).

Fig. 32. Outline of shell of female, seen from left side, × 20.
33. „ „ „ above, × 20.
34. Internal branch of antenna, × 150.



G S Brady del.

Bale & Danielsson, Ltd, lith.

NEW OR IMPERFECTLY-KNOWN OSTRACODA.

PLATE XXII.

Codonocera cruenta, ♂ (p. 188).

Fig. 1. Shell seen from left side, × 25.
2. „ „ above, × 25.
3. Antenna with internal (prehensile) branch and first swimming-seta (the other setæ omitted), × 84.
3 *a*. Armature of claw, × 240.
4. Mandibular foot, × 60.
5. Maxilla of second pair, × 115.
6. End of vermiform limb, with setæ, × 240.
7. Postabdominal laminæ, × 60.
8. Suctorial seta of antennule, × 200.
9. Suctorial discs of the same, × 440.
10. Copulatory organs.
(*v.d.*, vasa deferentia.)

Cypridina insolita, ♀ (p. 184).

Fig. 11. Shell seen from right side, × 16.
12. Inner branch of antenna, × 115.
13. First swimming-seta of antenna, × 115.
14. End of vermiform limb, × 84.

Cypridina foveolata, ♀ (p. 184).

Fig. 15. Shell seen from right side, × 16.
16. „ „ above, × 16.
17. Process of mandibular foot, × 120.
18. End of vermiform limb, × 84.
19. Postabdominal laminæ, × 40.

Cypridinodes favus, ♀ (p. 187).

Fig. 20. Shell seen from left side, × 16.
21. „ „ above, × 16.
22. Last two joints and setæ of antennule, × 300.
23. One of the swimming-setæ of antenna, × 240.
24. Inner branch of antenna, × 115.
25. Mandibular foot, × 55.
26. Maxilla of first pair, × 55.
26 *a*, *b*. Setæ of the same, × 300.
27. Maxilla of second pair, × 84.
27 *a*, *b*, *c*. Setæ of the same, × 300.
28. Maxilla of third pair, × 84.
29. End of vermiform limb, × 120.
30. Postabdominal laminæ, × 55.
31. Eye, × 84.

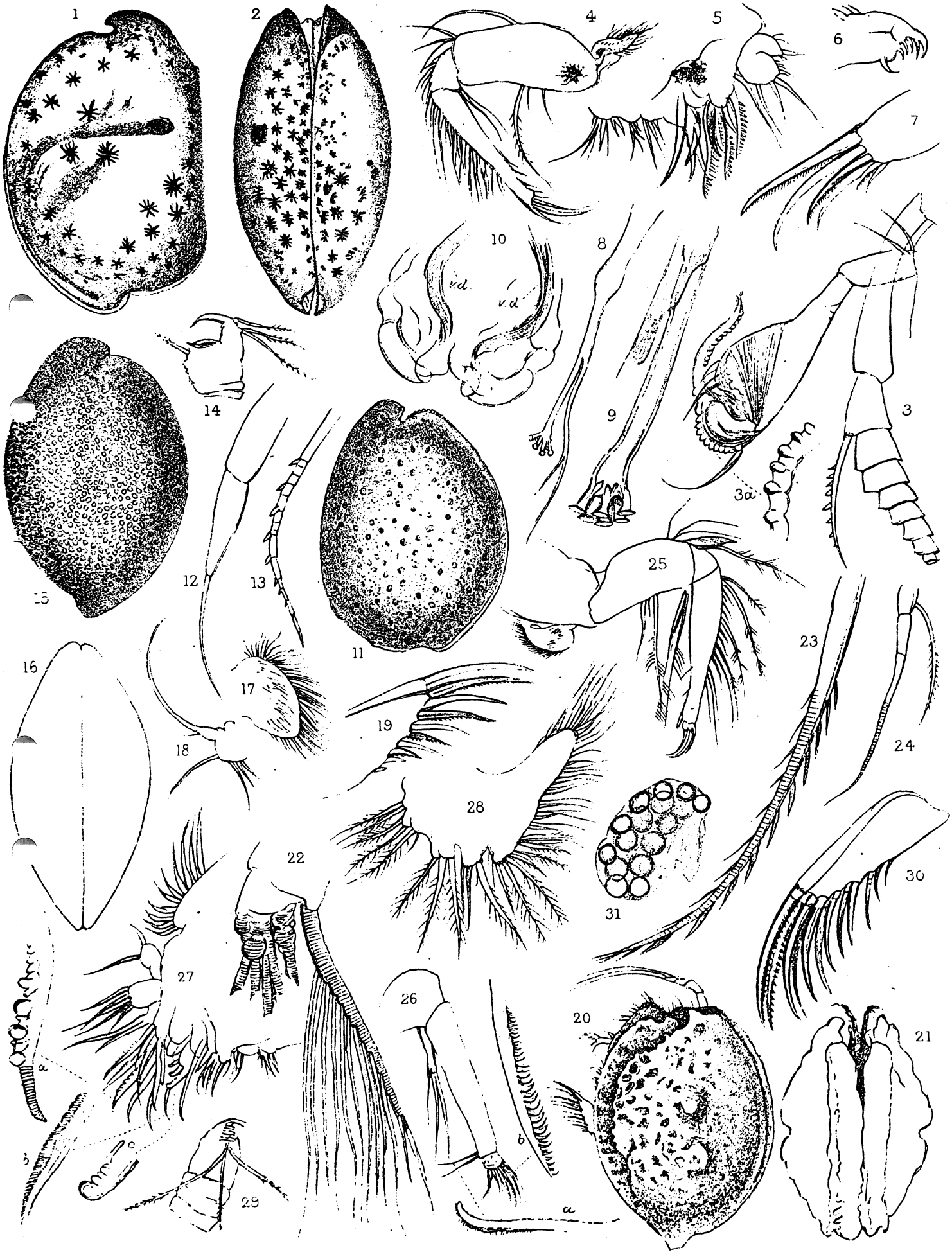

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PLATE XXIII.

Cypridopsis marmorata (p. 193).

Fig. 1. Shell, seen from right side, × 84.
2. „ „ above, × 84.

Cypris lætevirens (p. 193).

Fig. 3. Shell, seen from left side, × 25.
4. „ „ above, × 25.
5. Postabdominal ramus, × 84.

Cyprinotus dentato-marginatus (p. 196).

Fig. 6. Shell, seen from left side, × 40.
7. Anterior margin of the right valve, × 84.

Cypris virens (p. 192).

Fig. 8. Shell, seen from left side, × 16.

Cyprinotus fragilis (p. 196).

Fig. 9. End of second foot, × 240.
10. Postabdominal ramus, × 90.

Cypris flexilis (p. 192).

Fig. 11. Outline of shell, seen from right side, × 16.
12. Antenna, × 40.
13. Maxilliped, × 40.
14. Foot of first pair, × 40.
15. Postabdominal ramus, × 40.

Sarsiella ornithoides (p. 189).

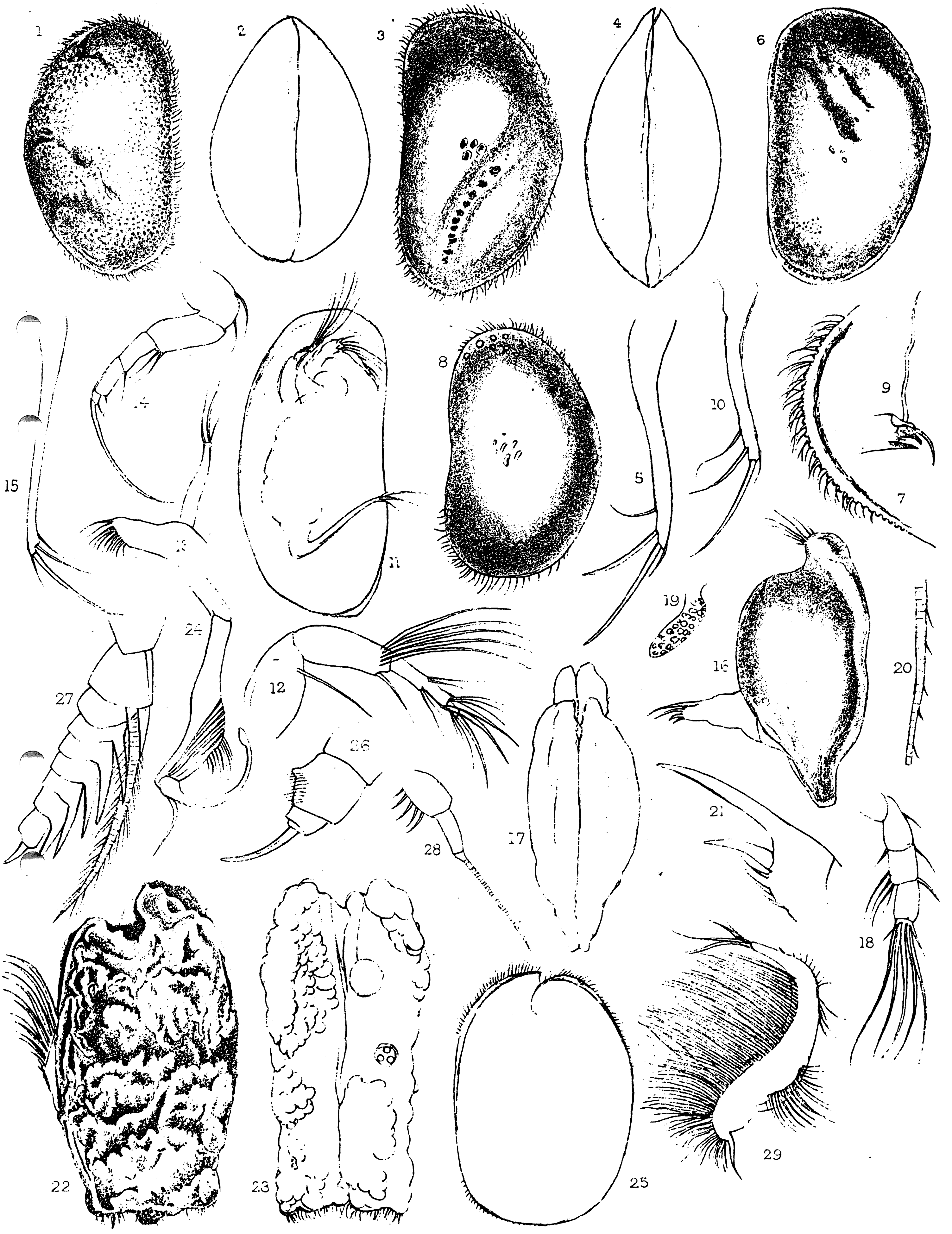
Fig. 16. Shell, seen from left side, × 55.
17. „ „ above, × 55.
18. Antennule (imperfect), × 60.
19. Inner branch of antenna, × 320.
20. Portion of one of the antennal setæ, × 320.
21. Postabdominal lamina, × 240.

Asterope lichenoides, ♂ (p. 180).

Fig. 22. Shell, seen from left side, × 16.
23. „ „ above, × 16.
24. Inner branch of antenna, × 50.

Cyclasterope similis, ♀ (p. 183).

Fig. 25. Outline of shell, seen from right side, × 12.
26. Last two joints of antennule, × 55.
27. Joints and first seta of antenna, × 55.
28. Inner branch of antenna, × 84.
29. Maxilla of first pair, × 40.



G.S. Brady del.

Hale & Danielsson Ltd lith.

NEW OR IMPERFECTLY KNOWN OSTRACODA

PLATE XXIV.

Conchœcissa cucullata (p. 191).

Fig. 1. Shell (with open valves) seen from outside, × 40.
2. Shell seen from left side, × 40.
3. Antennule (with frontal tentacle) of female, × 84.
4. Inner branch of antenna of male, × 84.
5. „ „ female, × 84.
6. Chewing-plates of mandible, × 240.
7. Postabdominal lamina, × 84.
8. Gullet and stomach, × 84.

Euconchœcia chierchiæ (p. 190).

Fig. 9. Outline of shell, ♂, seen from left side, × 55.
10. Antennule of male, × 120.
11. „ female, × 120.
12. Antenna of female, × 110.
13. Inner branch of antenna of male, × 110.
14. Mandible and palp of female, × 120.
15. Copulatory organ and caudal laminæ of male, × 110.

Cyclasterope brevis, ♀ (p. 183).

Fig. 16. Outline of shell seen from right side, × 16.
17. Last three joints of antennule (setæ omitted), × 55.
18. Joints and first seta of antenna, × 84.
19. Portion of one of the antennal setæ, × 240.
20. Inner branch of antenna, × 84.
21. Maxilla of first pair, × 40.
22. Postabdominal laminæ, × 40.

Philomedes sordida, ♂ (p. 186).

Fig. 23. Outline of shell seen from left side, × 40.
24. Inner branch of antenna, × 100.
25. End of vermiform limb, with setæ, × 240.
26. One of the caudal laminæ, × 100.

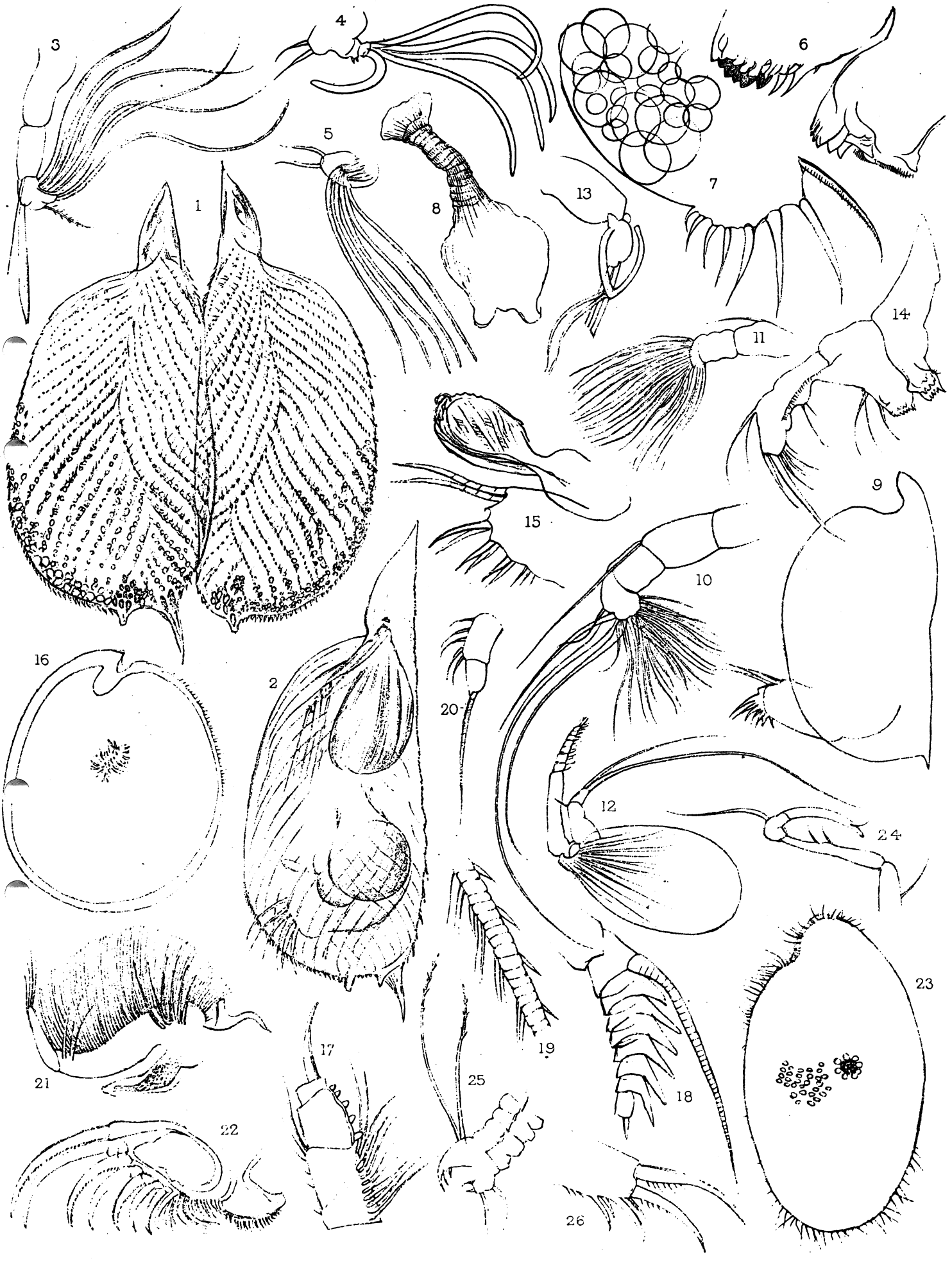

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PLATE XXV.

Cythere sicula (p. 198).

Fig. 1. Shell of male, seen from left side, × 45.
2. ,, ,, above, × 45.
3. Shell of female, seen from left side, × 45.
4. Portion of anterior margin of shell, × 240.
5. Antennule of male, × 120.
6. Antenna of male, × 120.
7. Foot of third pair, × 100.

Bairdia longisetosa (p. 197).

Fig. 8. Shell, seen from right side, × 35.
9. ,, ,, above, × 35.

Cypretta sarsi (p. 195).

Fig. 10. Shell, seen from left side, × 50.
11. ,, ,, above, × 50.
12. Portion of anterior margin of shell, × 84.
13. Ventral margin of right valve, seen from inside, × 84.
14. Terminal joint of last foot, × 440.
15. Postabdominal ramus, × 240.

Candonella virescens (p. 193).

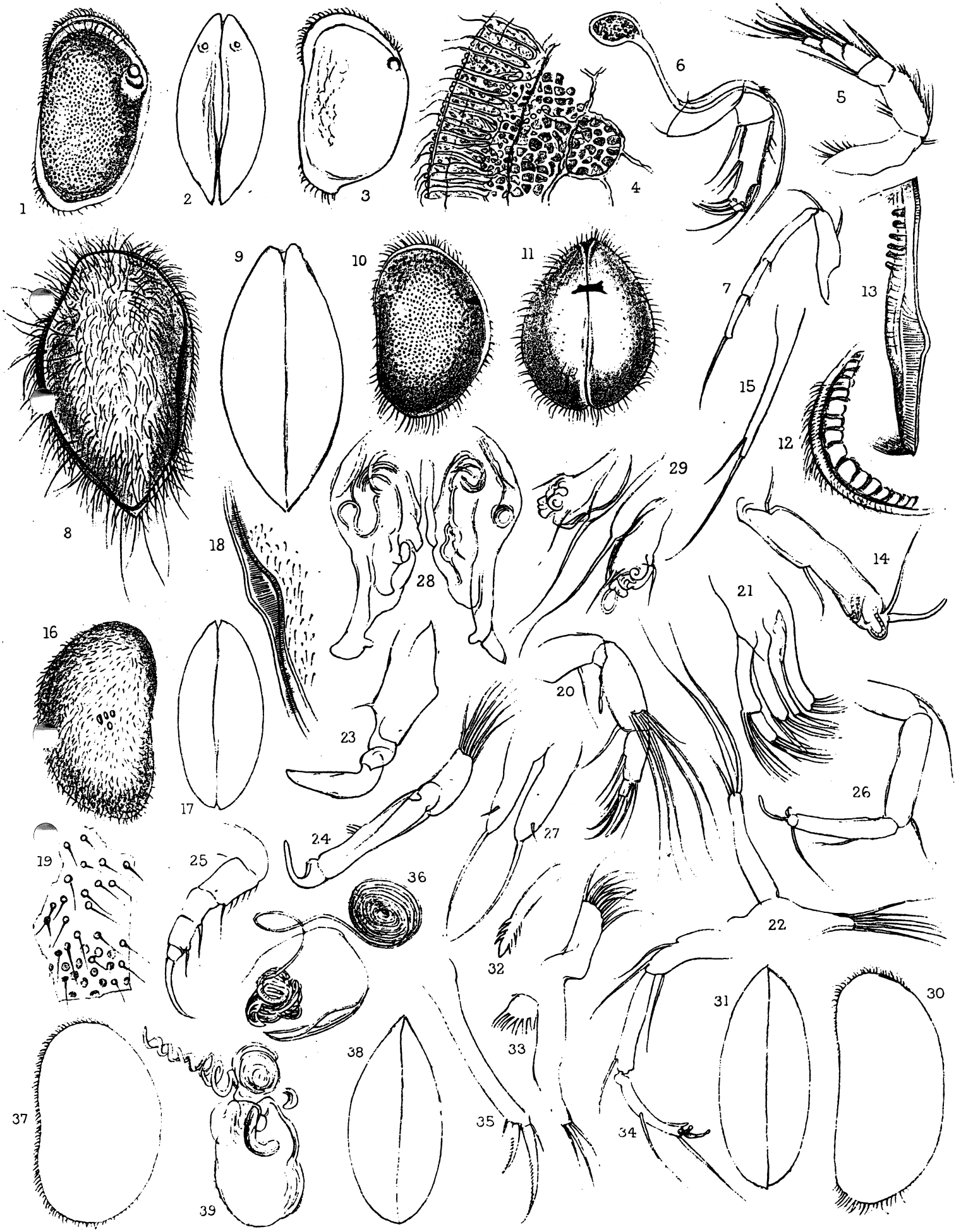
Fig. 16. Shell, seen from right side, × 46.
17. ,, ,, above, × 46.
18. Ventral margin of left valve, seen from inside, × 84.
19. Portion of shell, × 240.
20. Antenna, × 120.
21. Maxilla, × 240.
22. Maxilliped of female, × 240.
23. ,, male, left side, × 240.
24. ,, ,, right side, × 240.
25. Foot of first pair, × 120.
26. ,, last pair, × 240.
27. Caudal rami, × 240.
28. Copulatory organ of male, × 240.
29. Spermatheca and caudal rami of female, × 240.

Candonopsis complanata (p. 196).

Fig. 30. Outline of shell, seen from left side, × 25.
31. ,, ,, above, × 25.
32. Spine of second digit of maxilla, × 120.
33. Maxilliped of female with basal portion of palp, × 120.
34. Leg of second pair, × 84.
35. Caudal ramus, × 84.
36. Spermatheca of female, with spermatic coil, × 120.

Cyprinotus fragilis, ♀ (p. 196).

Fig. 37. Outline of shell, seen from left side, × 25.
38. ,, ,, above, × 25.
39. Spermatheca with spermatic coil, × 120.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CONTENTS.

V. *On new or imperfectly-known Ostracoda, chiefly from a Collection in the Zoological Museum, Copenhagen.* *By* GEORGE STEWARDSON BRADY, *M.D., LL.D., D.Sc., F.R.S., C.M.Z.S.* (Plates XXI.–XXV.) . . . . . page 179

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THE scientific publications of the Zoological Society of London are of two kinds—"Proceedings," published in an octavo form, and "Transactions," in quarto.

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April, 1902.

P. L. SCLATER,
Secretary.