

REVISIONS IN CLASSIFICATION OF GAMMARIDEAN AMPHIPODA (CRUSTACEA), PART 3

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Abstract.—The following new families are described or revived: Cardenioiidae, Clarenciidae, Pseudamphilochidae, and Bolttsiidae (the latter two are companion families); the Ochlesidae are incorporated into the Acanthonotozomatidae. The following new genera are described: *Meraldia* in Acanthonotozomatidae (Ochlesinae); *Abdia*, *Manerogeneia*, *Membrilopus*, *Nasageneia*, and *Whangarusa* in Eusiridae; *Geniculophotis* in Isaeidae; *Isipingus* in Liljeborgiidae; *Bruunosa*, *Cedrosella*, *Cicadosa*, *Galathella*, *Lepiduristes*, and *Rimakoroga* in Lysianassidae; *Stegosoladidus* in Stegocephalidae; *Aurometopa*, *Knysmetopa*, *Torometopa*, *Vonimetopa*, and *Zaikometopa* in Stenothoidae; *Hystriphlias* in Temnophliantidae. The following change in nomenclature is proposed: *Valettiella* formerly in Lysianassidae is removed to *Gammarella* in the Nuuanuids (Pherusanids).

We continue our series of expositions on new genera and nomenclatural changes necessary to realign various Amphipoda preparatory to our completion of a new compendium of genera in Gammaridea. Parts 1 and 2 are Karaman and Barnard (1979) and Barnard and Karaman (1982).

As we have indicated before, the promulgation of new taxa and substantive changes in others from the literature alone is not the most desirable of methods. We are trying to keep these changes to the minimum, but in order to write keys to genera and otherwise to define genera as precisely as possible it becomes necessary to remove certain species from selected genera or certain genera from selected families and to create new taxa. We base these changes on extensive review of the world literature in each taxonomic group. We recognize that many other taxonomists are engaged in revisions of various taxonomic groups and have left them the task of realigning those.

We frequently list species for each genus we change; for each species we list principal references and distribution in the style we propose to use in our forthcoming generic

compendium. The distribution is cited as a three-digit number in brackets which can be determined from the list on pages 184-203 of Barnard and Barnard (1983). The method of description and citation of relationships follows the pattern of the aforementioned monograph.

Any genus lacking reference can be found in J. L. Barnard (1969a).

Acanthonotozomatidae (Ochlesinae), new combination, new rank

Remarks.—New taxa recently described provide the intergradation necessitating amalgamation of Ochlesidae with Acanthonotozomatidae. We retain Ochlesinae at subfamily level temporarily, although we have little conviction that any gross differences are to be found. Ochlesinae are simply apomorphic acanthonotozomatids with loss of articles on the maxillipedal palp. One species of *Ochlesis* is so distinctive that it is relegated to a new genus, *Meraldia*.

Diagnosis.—Body massive, compressed; anterior coxae acuminate or oddly shaped. Head short, tall, partially enveloped by pe-

Ochlesis Stebbing

Ochlesis Stebbing, 1910:581 (*Ochlesis innocens* Stebbing, 1910a, monotypy).

Diagnosis. — As in key.

Removal. — *O. meraldi* to *Meraldia*.

Species. — *alii* J. L. Barnard, 1970a (?*innocens* ID of Pirlot, 1936 and ?Schellenberg, 1938) [381 + ?640];

eridunda J. L. Barnard, 1972a [785];

innocens Stebbing, 1910 [781];

lenticulosus K. H. Barnard, 1940 (Griffiths 1974b, c, 1975) [743];

levetzowi Schellenberg, 1953 (Griffiths 1974a, c) [743].

Marine, Indo-Pacific from Hawaii to southern Australia and southern Africa, 0–200 m, 5 species.

Ochlesodius Ledoyer

Ochlesodius Ledoyer, 1982:48 (*Ochlesodius spinicornis* Ledoyer, 1982, original designation).

Diagnosis. — As in key.

Species. — *spinicornis* Ledoyer, 1982 [698].

Marine, Madagascar, 26 m, 1 species.

Cardenioidae, new family

Type genus. — *Cardenio* Stebbing, 1888.

Diagnosis. — Gammaridean with non-galeate head (though probably derived from such); accessory flagellum of antenna 1 uniaarticulate but large; antenna 2 lacking facial spines on article 4; upper lip fleshy, ventrally rounded; mandibles with 3-articulate palp, article 3 short, thick, weakly bevelled apically, all setae apical, molar medium to large, triturative, spine row present; lower lip with mandibular lobes broad but not projecting, inner lobes present and separate from each other, no extraordinary wide space between outer lobes; maxillae 1–2 well developed, inner lobes strongly setose medially, palp of maxilla 1 biarticulate; plates of maxilliped well developed, palp 3-articulate;

ulate; coxae poorly setose, coxa 1 tiny and hidden by large following coxae; gnathopod 1 present, essentially 6-articulate (dactyl vestigial), carpus large and lobate, propodus small and simple, gnathopod 2 very slender, elongate, carpus dominant, dactyl vestigial or absent; pereopods 3–4 with dactyls vestigial, of pereopods 5–6 small, of pereopod 7 absent; pereopod 6 dominant, pereopods generally fossorial; uropods 1–3 present, strongly biramous; telson elongate, deeply cleft.

Relationship. — Sharing many characters of Synopiidae but head not distinctly galeate and coxa 1 strongly reduced. Characters shared with Synopiidae include the short article 3 of the mandibular palp, fossorial pereopods, rather slender though reduced antenna 1 and shape of the gnathopods.

Formerly in the old concepts of Haustoriidae-Pontoporeiidae but not now in those groups because of the non-fossorial antennae, non-haustorioid but otherwise well developed lanceolate rami on uropod 3, and elongate poorly setose telson.

The diagnosis of *Cardenio* below follows that of Synopiidae for comparisons.

Cardenio Stebbing

Cardenio Stebbing, 1888:806 (*Cardenio paurodactylus* Stebbing, 1888, monotypy); 1906:125.

Diagnosis. — Forehead not protuberant, lateral cephalic lobe not sharp, eyes present; mandible with palp, molar of medium size and not dominating mandible, moderately triturative; articles 1–2 of antenna 1 basic, article 3 as long as 1 (longer than 2), no teeth; dactyl of maxilliped vestigial or absent; coxa 1 strongly reduced; coxae 3–4 not pelagont; gnathopods simple, gnathopod 1 stout, carpus thick, lobate, with serrate spines; gnathopod 2 slender, carpus long, not lobate, without serrate spines, dactyl obsolescent or absent; pereopods 5–7 elongate, dactyls elongate, pereopod 6 dominant; article 2 of pereopod 7 strongly expanded,

subtruncate ventrally; pleonites 1–3 denticulate; uropod 3 not grossly exceeding uropod 1, peduncle elongate, uropod 2 short; telson elongate, deeply cleft.

Species. — *paurodactylus* Stebbing, 1888, 1906 (K. H. Barnard 1932, Stephensen 1947, Thurston 1974b) [835, 890].

Antiboreal and Antarctic islands, 0–70 m, 1 species.

Clarenciidae, new family

Type genus. — *Clarencia* K. H. Barnard, 1931.

Diagnosis. — Peduncle of antenna 1 short, stubby, accessory flagellum absent. Mandibular molar simple, conical. Plates of maxilliped of medium size. Gnathopod 2 enlarged and chelate, article 3 short. Uropods and telson [unknown].

See Sebidae; Lysianassidae; Eusiridae and allies.

Description. — Body compressed, dorsally carinate and toothed, urosomites 1 and 2 free, first elongate and crested [urosomite 3 unknown]. Head subcuboidal, rostrum obsolescent, lateral lobes undeveloped; eyes absent.

Antennae [broken], but peduncle of antenna 1 short and articles 1–3 progressively shorter, article 1 shorter than head, article 3 produced and almost as long as article 2, article 1 of primary flagellum ordinary [remainder broken]; antenna 2 much longer than 1 [but missing from middle of article 5].

Epistome and labrum [?separate, ?labrum dominant, ?broader than long, ?epistome unproduced], labrum apically rounded. Mandibular incisor ordinary, toothed, lacinia mobilis [?present], rakers 5, molar simple, subconical, palp attached opposite molar, article 3 shorter than 2, subfalciform, strongly setose, setae = DE. Labium with appressed outer lobes, with weak fused appressed inner lobes. Inner plate of maxilla 1 medium, with 4 marginal setae, outer plate with 9 spines, palp long, 2-articulate, article

1 short; plates of maxilla 2 moderately narrow, moderately setose, outer longer than inner; plates of maxilliped of medium size, poorly armed, palp stout, 4-articulate, dactyl long, unguiform.

Coxae 1–4 medium, coxa 4 scarcely largest, coxa 1 weakly expanded, coxa 3 weakly tapering, coxa 4 scarcely lobate and scarcely excavate, coxa 5 slightly shorter than 4. Gnathopod 1 small, carpus not lobate, propodus of medium length, as long as carpus, palm transverse; gnathopod 2 enlarged, carpus tiny, cryptic, propodus huge, palm chelate, dactyl fitting palm.

Pereopods short to medium, 3–4 ordinary, article 2 of pereopods 5–7 expanded, weakly lobate, [scarcely setulate?]. Pleopods [?ordinary, each ramus with ? articles]. Urosome elongate, epimera ordinary, urosome elongate [but urosome missing from 2 onward, uropods 1–3 missing, telson missing].

Gills [2–?], simple; oostegites [unknown].

Sexual dimorphism. — Unknown [specimen immature].

Remarks. — Apices of antennae, urosomites, and all of uropods and telson missing.

Relationship. — Differing from Sebidae (see J. L. Barnard 1969a) in the short stubby peduncle of antenna 1, and the absence of the accessory flagellum.

Differing from Lysianassidae in the enlargement of gnathopod 2 with short article 3. Differing from Eusiridae in the combination of short peduncle on antenna 1 and chelate gnathopod 2.

Vaguely resembling Acanthonotozomatidae but only coxa 4 scarcely acuminate, gnathopod 2 huge and chelate.

Clarencia K. H. Barnard

Clarencia K. H. Barnard, 1931:428 (*Clarencia chelata* K. H. Barnard, 1931, original designation); 1932:155.

Species. — *chelata* K. H. Barnard, 1931, 1932 [871B].

Marine, South Shetland Islands, 342 m, 1 species.

Eusiridae

Abdia Barnard and Karaman, new genus

Type species. — *Atylopsis latipalpus* Walker and Scott, 1903, here designated.

Etymology. — From the type locality, "Abd-el-Kuri." Feminine.

Body ordinary, compressed, smooth. Rostrum [?large], lateral cephalic lobes ordinary, anteroventral margin of head not produced. Eyes ovate.

Antenna 1 longer than 2, peduncular articles of antenna 1 progressively shorter, article 2 shorter than head, article 3 not produced; article 1 of primary flagellum short, accessory flagellum absent.

Labrum [?entire, ?subrounded, ?broader than long, ?epistome unproduced]. Molar triturative, columnar, article 2 of mandibular palp unlobed, article 3 shorter than 2. Labium: [?inner lobes absent].

Maxilla 1: inner plate with 3 medial setae, palp long, article 1 slightly elongate. Maxilla 2: [?inner plate not broader nor longer than outer, ?plates narrow, ?inner plate without facial row of setae and other medial setae]. Maxilliped: inner plate relatively long, outer plate slightly shorter than inner; palp of 4 articles, 4 slightly shorter than 3, 3 unlobed, 4 not spinose along inferior margin.

Coxae ordinary, coxa 1 not produced anteriorly nor expanded ventrally, coxa 4 with posterior lobe, excavate.

Gnathopods diverse, small (female), of similar size, subchelate, not eusirid, carpus of both scarcely shorter than propodus, of second only with strong posterodistal lobe extending distad, carpus of both without numerous long posterior setae.

Pereopods 3–7 ordinary, simple, dactyls simple, article 2 not anteriorly lobate. Coxal gills heavily pleated as in Atylidae. Epimeron 3 not serrate. Urosomites distinct. Outer rami of uropods 1–2 shortened; rami with lateral and dorsal spines. Uropod 3 ordinary, not extended beyond uropod 1,

peduncle without large process, rami lanceolate. Telson ordinary, cleft, apices without long apical armaments.

Assumption. — If *Pontogeneia barnardi* Rabindranath (1972) is a synonym of *Atylopsis latipalpus* then the rostrum of *Abdia* is large like that of *Tethygeneia* (see J. L. Barnard 1972a) and *Nasageneia* (see below).

Relationship. — Differing from the freshwater Australia *Pseudomoera* in the presence of carpal lobes only on gnathopod 2.

Differing from *Tethygeneia* in the seriate, not anthurial, calceoli.

Not Atylidae because urosomites separate. See *Nasageneia*.

Species. — *latipalpus* (Walker and Scott, 1903) (Sivaprakasam 1968) (?=*barnardi* Rabindranath, 1972) [690].

Marine, India to Abd-el-Kuri, sublittoral, 1 species.

Manerogeneia, new genus

Type species. — *Pontogeneiella maneroo* J. L. Barnard 1972a, here designated.

Etymology. — From the type species, "maneroo," and "geneia," a common suffix in this family. Feminine.

Body ordinary, compressed, smooth. Rostrum large, lateral cephalic lobes ordinary, anteroventral margin of head not produced. Eyes round.

Antenna 1 longer than 2, peduncular articles progressively shorter, article 1 shorter than head, article 3 weakly produced; article 1 of primary flagellum as long as article 3 of peduncle; accessory flagellum absent.

Labrum entire, subrounded, broader than long; epistome unproduced. Molar triturative, columnar, article 2 of mandibular palp unlobed, article 3 as long as 2. Labium: inner lobes present. Maxilla 1: inner plate with many medial setae, palp long, article 1 short. Maxilla 2: inner plate not broader nor longer than outer, inner plate with facial row of many setae and other medial setae. Maxilliped: inner plate relatively short, outer plate not longer than inner; palp of 4 articles, 4

slightly shorter than 3, 3 unlobed, 4 weakly setulate along inferior margin.

Coxae ordinary, coxa 1 not produced anteriorly nor expanded ventrally, coxa 4 not quite twice as long as 1, excavate, with posterior lobe. Gnathopods alike, medium, but 1 scarcely larger than 2, subchelate, not eusirid, carpus of both shorter than propodus, with weak or no posterior lobe not extending distad, carpus without numerous long posterior setae, propodi rectangular.

Pereopods 3–7 ordinary, simple, dactyls strongly toothed or bifid on inferior margins, article 2 not anteriorly lobate. Epimeron 3 smooth.

Outer rami of uropods 1–3 shortened; rami with lateral and dorsal spines. Uropod 3 ordinary, not extended beyond uropod 1, peduncle without large process, rami lanceolate. Telson slightly elongate, entire, linguiform, without long apical armaments.

Relationship.—Noted among its relatives for the bifid dactyls of pereopods 5–7. Closest to *Tylosapis* Thurston (1974a) but back smooth, telson not emarginate, medial margin of inner plate on maxilla 1 strongly setose, and gnathopod 1 slightly enlarged; also like *Atylopsis* but outer ramus of uropod 3 shortened. Differing from *Prostebbingia* and *Gondogeneia* (see J. L. Barnard 1972a, b) in the uncleft telson; from *Bovallia* in the short article 1 of antenna 1; from *Halirages* in the unserrate epimeron 3, short outer ramus of uropod 3 and non-emarginate telson.

See *Apherusa*, *Haliragoides*, *Membrilopus* (below).

Species.—*maneroo* (J. L. Barnard, 1972a) [775].

Marine, New Zealand, intertidal, 1 species.

Membrilopus, new genus

Type species.—*Metaleptamphopus membrisetata* J. L. Barnard, 1961, here designated.

Etymology.—“Membri,” from the type species, and L., “lopho,” comb. Masculine.

Body ordinary, compressed, smooth. Rostrum medium, lateral cephalic lobes ordinary, anteroventral margin of head scarcely produced. Eyes reniform.

Antenna 1 longer than 2, peduncular articles progressively shorter, article 1 shorter than head, article 3 not produced; article 1 of primary flagellum short, accessory flagellum 1-articulate, barrel-shaped.

Labrum entire, subrounded, broader than long, epistome unproduced. Molar triturative, columnar, article 2 of mandibular palp unlobed, article 3 as long as 2. Labium: inner lobes absent. Maxilla 1: inner plate with many medial setae, palp long, article 1 short. Maxilla 2: inner plate not broader nor longer than outer, plates narrow, inner without facial row of setae but with 2 other medial setae. Maxilliped: inner plate relatively short, outer plate slightly longer than inner; palp of 4 articles, 4 slightly shorter than 3, 3 unlobed, 4 spinose along inferior margin.

Coxae ordinary, coxa 1 not produced anteriorly nor expanded ventrally, coxa 4 almost twice as long as 1, with posterior lobe, excavate.

Gnathopods alike, medium, subchelate, not eusirid, carpus of both nearly as long as propodus, with weak posterior lobe not extending distad, with numerous long posterior setae, propodi weakly inflated, trapezoidal.

Pereopods 3–7 scarcely elongate, simple, dactyls strongly pectinate on inferior margins, article 2 not anteriorly lobate.

Epimeron 3 smooth.

Outer rami of uropods 1–3 not or slightly shortened; rami with lateral and dorsal spines. Uropod 3 ordinary, not extended beyond uropod 1, peduncle without large process, rami lanceolate, outer shortened. Telson ordinary, entire, linguiform, without long apical armaments.

Relationship.—Like *Metaleptamphopus* but lobes of maxilla 2 narrow, inferior side of pereopodal dactyls 3–7 ornamented (not superior side), accessory flagellum present, enlarged gnathopods with short lobed carpi, articles 2–3 of maxillipedal palp normally

shorter and uropod 3 neither extended well beyond uropod 1 nor bearing elongate peduncle.

Differing from *Prostebbingia* in the uncleft telson; from *Haliragoides* in the short carpi of the gnathopods and the absence of truly facial setae on maxilla 2; from *Manerogeneia* (see above) in the absence of inner lobes on the lower lip, absence of facial setae on maxilla 2, and the pectinate dactyls of the pereopods (bifid only in *Manerogeneia*). Very close to *Atylopsis* but lacking a process on article 3 of antenna 1, lacking inner lobes on the lower lip and bearing pectinate dactyls on the pereopods. Also very close to *Paracalliopiella* Tzvetkova and Kudrjaschov (1975) but differing in the pectinate dactyls and lack of inner lobes on the lower lip. Close to *Tylosapis* Thurston (1974a) but inner plate of maxilla 1 strongly setose medially. Differing from *Lopyastis* Thurston (1974a) in the short outer ramus of uropod 3 and the pectinate dactyls of the pereopods.

See *Harpinioides*.

Species.—*membrisetatus* (J. L. Barnard, 1961) (Griffiths 1974a) [416B].

Marine, southwest Africa, 537 m, 1 species.

Nasageneia, new genus

Type species.—*Pontogeneia nasa* J. L. Barnard, 1969b, here designated.

Etymology.—“Nasa,” from the type species, and “geneia,” a common suffix in this family. Feminine.

Body slender, compressed, smooth. Rostrum large, lateral cephalic lobes ordinary, anteroventral margin of head scarcely produced. Eyes reniform.

Antennae subequal, peduncular articles of antenna 1 progressively shorter, article 1 shorter than head, article 3 weakly produced; article 1 of primary flagellum ordinary to short, accessory flagellum absent.

Labrum entire, subrounded, broader than

long; epistome unproduced. Molar triturative, columnar, article 2 of mandibular palp unlobed, article 3 shorter than 2. Labium: inner lobes absent. Maxilla 1: inner plate with 1 medial and 2 apical setae, palp long, article 1 short. Maxilla 2: inner plate not broader but slightly longer than outer, inner plate without facial row of setae but with other medial setae, few, large, at least one slightly submarginal. Maxilliped: inner plate not relatively long, outer plate slightly shorter than inner; palp of 4 articles, 4 slightly shorter than 3, 3 unlobed, 4 not spinose along inferior margin.

Coxae ordinary to short, coxa 1 not produced anteriorly nor expanded ventrally, coxa 4 without posterior lobe, excavate.

Gnathopods diverse, medium, of similar size, subchelate, not eusirid, medium, carpus of both shorter than propodus, only gnathopod 2 with strong posterior lobe extending distad, carpus without numerous long posterior setae, propodi rectangular in female, inflated in male, in latter with posterior spines outside limits of oblique palm.

Pereopods 3–7 ordinary, simple, dactyls simple, article 2 not anteriorly lobate. Epimeron 3 serrate.

Outer rami of uropods 1–2 shortened; rami with lateral and dorsal spines. Uropod 3 ordinary, not extended beyond uropod 1, peduncle with small process, rami lanceolate. Telson ordinary, weakly cleft, apices without long armaments.

Relationship.—Like *Tethygeneia* J. L. Barnard (1972a) but epimeron 3 serrate and propodi of male gnathopods with posterior spines well outside palmar limits as in *Gondogeneia*. Calceoli tending to be much more strongly anthurial than in *Tethygeneia*, with one lobe quite linguiform.

Differing from *Abdia* (see above) in the serrate epimeron 3 and presence of many spines on the propodi of the gnathopods outside of the palmar area.

See *Antarctogeneia* Thurston (1974a), *Pseudomoera*.

Species.—*nasa* (J. L. Barnard, 1969b, 1979) [370]; *quinsana* (J. L. Barnard, 1964b, 1969b, 1979) [370].

Marine, warm temperate California and Mexico, 0–1 m, 2 species.

Whangarusa, new genus

Type species.—*Panoploea translucens* Chilton, 1884, here designated.

Etymology.—Composed of parts of “Whangaparoa” (Peninsula) and “translucens.” Feminine.

Body ordinary, compressed, smooth. Rostrum very small, lateral cephalic lobes ordinary, anteroventral margin of head not produced. Eyes ovate.

Antenna 1 longer than 2, peduncular articles progressively shorter, article 1 shorter than head, article 3 weakly produced; article 1 of primary flagellum ordinary, accessory flagellum absent.

Labrum [?entire, subrounded, broader than long]; epistome unproduced. Molar triturative, columnar, article 2 of mandibular palp unlobed, article 3 almost as long as 2. Labium: inner lobes small. Maxilla 1: inner plate with many medial setae, palp long, article 1 short. Maxilla 2: inner plate not broader nor longer than outer, inner plate with full facial row of setae and other medial setae. Maxilliped: inner plate not relatively long, outer plate slightly longer than inner; palp of 4 articles, 4 slightly shorter than 3, 3 unlobed, 4 not spinose along inferior margin.

Coxae ordinary, coxa 1 not produced anteriorly nor expanded ventrally, coxa 4 with posterior lobe, excavate.

Gnathopods alike, large, 1 larger than 2, subchelate, not eusirid, carpus of both in male much shorter than propodus, with weak posterior lobe not extending distad, carpus without numerous long posterior setae, gnathopods 1–2 of female much more slender, carpus as long as propodus.

Pereopods 3–7 ordinary, simple, dactyls

simple, article 2 not anteriorly lobate. Epimeron 3 smooth.

Outer rami of uropods 1–2 shortened; rami with lateral and dorsal spines. Uropod 3 ordinary to small, not extended beyond uropod 1, peduncle without large process, rami lanceolate.

Telson ordinary, entire, almost pointed, without long apical armaments.

Relationship.—Differing from *Gondogeneia* J. L. Barnard (1972a, b) in the uncleft telson. Differing from *Atylopsis*, *Laothoes*, *Apherusa*, and *Halirages* in the grossly enlarged male gnathopod 1, both gnathopods with very short carpus and large propodi.

Species.—*translucens* (Chilton, 1884, 1921) (J. L. Barnard, 1972b) [775].

Marine, New Zealand, intertidal, 1 species.

Isaeidae
Cheiriphotis Walker

Cheiriphotis Walker, 1904:283 (*Melita megacheles* Giles, 1885, monotypy).

Photis geniculata K. H. Barnard (1935) is transferred to this genus.

Liljeborgiidae
Key to the Genera of Liljeborgiidae

- 1. Article 1 of mandibular palp short *Idunella*
- Article 1 of mandibular palp elongate 2
- 2. Wrist of gnathopods 1–2 strongly produced, slender and elongate, one or both dactyls of gnathopods 1–2 deeply serrate or toothed 3
- Wrist of gnathopods 1–2 weakly produced, slender or thick or short, neither gnathopodal dactyl deeply serrate nor toothed 4
- 3. Coxa 1 enlarged, posteroventrally lobate and enveloping reduced coxae 2–3, each lobe of telson with 4+ spines *Isipingus*

- Coxa 1 ordinary, not lobate, coxae 2-3 of ordinary length and not enveloped by coxa 1, each lobe of telson with 1 spine *Liljeborgia*
- 4. Mandibular molar triturative, gnathopod 2 propodus and carpus setose anteriorly *Sextonia*
- Mandibular molar simple, gnathopod 2 propodus and carpus naked anteriorly *Listriella*

Isipingus, new genus

Type species.—*Liljeborgia epistomata* K. H. Barnard, 1932, original designation.

Etymology.—From "Isipingo," a beach in southern Africa. Masculine.

Diagnosis.—Article 2 of peduncle on antenna 1 [?short], accessory flagellum 4+articulate. *Epistome* hugely produced. Article 1 of mandibular palp elongate. In male, coxa 1 greatly enlarged, posteroventrally lobate, this lobe encompassing much reduced coxae 2-3; coxa 4 much smaller than coxa 1, abnormally narrowed and anteriorly bevelled. Wrists of gnathopods 1-2 strongly produced, dactyls deeply toothed. Outer ramus of uropod 3 [?uniarticulate]. Each lobe of telson with 4-5 apical spines.

Relationship.—Differing from *Liljeborgia* in the large epistomal process, enlarged coxa 1 enveloping reduced coxae 2-3 and the multispinose lobes of the telson.

Species.—*epistomata* (K. H. Barnard, 1932, 1940, 1955) [743].

Marine, South Africa, 44-124 m, 1 species.

Lysianassidae

We are aware that our colleagues are revising this family; we have many new genera to describe but are delaying these as long as possible to allow our colleagues, who have better information than we, time to publish; the following five genera, however, are needed in print urgently by one of us (Barnard) to service a paper in press on amphipods from thermal vents.

Bruunosa, new genus

Type species.—*Tryphosa bruuni* Dahl, 1959, here designated.

Etymology.—From roots of the type species. Feminine.

Mouthparts forming quadrate bundle. Labrum and epistome differentially produced, not prominent, separate, labrum slightly dominant in size and projection, blunt. Incisor ordinary, molar triturative, large, palp attached opposite molar. Inner plate of maxilla 1 weakly (2) setose; palp biarticulate, large. Inner and outer plates of maxilliped well developed, palp slightly exceeding outer plate, dactyl well developed.

Coxa 1 large and visible, slightly tapering or rounded below. Gnathopod 1 short, subchelate, palm oblique, article 5 slightly longer than 6, dactyl large; article 6 of gnathopod 2 much shorter than article 5, ordinary, propodus subchelate, dactyl thick and stubby.

Inner ramus of uropod 2 with large notch. Uropod 3 ordinary, peduncle elongate, inner ramus strongly shortened, outer ramus 2-articulate. Telson elongate, deeply cleft.

Additional characters.—Article 1 of accessory flagellum elongate and flattened; outer plate of maxilla 2 much broader than inner; outer plate of maxilliped with large articulate spines (versus *Cicadosa* and *Anonyx*); coxa 4 posteroventral lobe weak and blunt (versus *Anonyx* and *Cicadosa*); dactyl of gnathopod 2 especially thick; telson with dorsal spines but none terminal.

Relationship.—Differing from *Cicadosa* in the large articulate spines on outer plate of maxilliped, subchelate gnathopod 1, and slightly rounded, not expanded coxa 1.

From *Anonyx* in large spines on outer plate of maxilliped, slightly rounded, not expanded coxa 1, incised inner ramus of uropod 2, and dorsal spines on telson.

From *Tryphosella* in triturative molar, slightly dominant labrum, and dorsal not terminal telsonic spines.

From *Ambasiopsis*, *Cedrosella*, *Gala-thella*, and *Schisturella* in the non-reduced

coxa 1; in addition, from *Cedrosella* and *Galathella* by the incised inner ramus of uropod 2.

Species.—*bruuni* Dahl, 1959 [714A].

Marine, Kermadec Trench, 6660–6770 m, 1 species.

Cedrosella, new genus

Type species.—*Ambasiopsis* (?) *fomes* J. L. Barnard, 1967, here designated.

Etymology.—From “Cedros,” the type locality of the type species, and “ella” L. diminutive suffix. Feminine.

Mouthparts forming quadrate bundle. Labrum and epistome differentially produced, not prominent, separate, labrum slightly dominant in size and projection, blunt. Incisor ordinary, molar weakly triturative, large, also setulose, palp attached opposite molar. Inner plate of maxilla 1 weakly (2) setose; palp biarticulate, large. Inner and outer plates of maxilliped well developed, palp strongly exceeding outer plate, dactyl well developed.

Coxa 1 strongly shortened and partly covered by coxa 2, tapering. Gnathopod 1 short, strongly subchelate, palm transverse, article 5 shorter than 6, dactyl large; article 6 of gnathopod 2 much shorter than article 5, ordinary, propodus minutely chelate.

Inner ramus of uropod 2 without notch. Uropod 3 ordinary, peduncle ordinary, inner ramus slightly shortened, outer ramus 2-articulate. Telson ordinary, short, deeply cleft.

Additional characters.—Head lacking sinus for antenna 2; antennae very short; basalmost inner seta of maxilla 2 largest; apex of outer plate on maxilliped with 2 thick spines; dactyl of gnathopod 1 lacking inner tooth; pereopods 5–7 very short.

Relationship.—Differing from *Ambasiopsis* in: lack of carina on article 1 of peduncle on antenna 1; D-setae occupying less than half of mandibular palp article 3 (but also true of *Ambasiopsis tumicornis*); 10 spines on outer plate of maxilla 1; apex of outer plate on maxilliped with strong apical spines

(but also weakly in *Ambasiopsis tumicornis*); article 5 of gnathopod 1 shorter than article 6, dactyl without inner tooth, palm transverse; no process on urosomite 1.

From *Schisturella* in lack of notch on inner ramus of uropod 2, small antennae, weaker molar, small head without sinus for antenna 2 and short pereopods 5–7.

From *Galathella* in the slightly reduced and setulose molar, and the narrow and serrate apex of the palp on maxilla 1 (versus broad and armed with articulate bead-like spines).

Species.—*fomes* (J. L. Barnard, 1967) [309A].

Marine, Cedros Trench, Pacific Mexico, 3705–3745 m, 1 species.

Cicadosa, new genus

Type species.—*Anonyx cicadoides* Stebbing, 1888, here designated.

Etymology.—From “cicadoides” and “osus,” L. suffix denoting quality of, for example, fullness. Feminine.

Mouthparts forming quadrate bundle. Labrum and epistome separate, differentially produced, labrum slightly dominant in size and projection, subsharp. Incisor ordinary, molar simple, large, weakly conicolaminate, subconical, setulose; palp attached strongly distal to molar. Inner plate of maxilla 1 weakly (2) setose; palp biarticulate, large. Inner and outer plates of maxilliped well developed, palp strongly exceeding outer plate, dactyl well developed.

Coxa 1 large and visible, not tapering. Gnathopod 1 simple or poorly subchelate, palm oblique, article 5 shorter than 6, dactyl large; article 6 of gnathopod 2 greatly shorter than article 5, ordinary, propodus with minute palm.

Inner ramus of uropod 2 with large notch. Uropod 3 ordinary, peduncle slightly elongate, inner ramus slightly shortened, outer ramus 2-articulate. Telson elongate, deeply cleft.

Sexual dimorphism.—Male antennae 1–

2 calceolate, flagellum of antenna 2 elongate, peduncle with anterior male tufts.

Relationship. — Differing from *Anonyx* in the simple gnathopod 1, slightly elongate article 3 of gnathopod 1 and the slightly shorter palp of the maxilliped.

Differing from *Tryphosella* in the expanded coxa 1 and notched inner ramus of uropod 2.

From *Tmetonyx* in the notched inner ramus of uropod 2 and weakness of elongation on article 3 of gnathopod 1.

From *Tryphosites* in the dominant labrum.

See *Bruunosa* above.

Species. — *cicadoides* (Stebbing, 1888, as *Anonyx*) (Schellenberg 1926, Bellan-Santini and Ledoyer 1974) [851].

Marine, Kerguelen Island, 3–228 m, 1 species.

Galathella, new genus

Type species — *Schisturella galathea* Dahl, 1959, here selected.

Etymology. — From “galathea” and “ella” L. diminutive suffix. Feminine.

Mouthparts forming quadrate bundle. Labrum and epistome not differentially produced, not prominent, separate, neither dominant, blunt. Incisor ordinary; molar triturative, large, palp attached opposite molar. Inner plate of maxilla 1 weakly (2) setose; palp biarticulate, large. Inner poorly and outer plates of maxilliped well developed, palp strongly exceeding outer plate, dactyl well developed.

Coxa 1 slightly shortened, tapering, and partly covered by coxa 2. Gnathopod 1 short, subchelate, palm oblique, articles 5 and 6 subequal, dactyl large; article 6 of gnathopod 2 slightly shorter than article 5, ordinary, propodus subchelate.

Inner ramus of uropod 2 without notch. Uropod 3 ordinary, peduncle elongate, inner ramus slightly shortened, outer ramus 2-articulate. Telson ordinary, deeply cleft.

Relationship. — Differing from *Schisturel-*

la in the unproduced upper lip and lack of notch on the inner ramus of uropod 3.

Species. — *galathea* (Dahl, 1959) [715A].

Marine, Kermadec Trench, 6960–7000 m, 1 species.

Lepiduristes, new genus

Type species. — *Uristes* (?) *lepidus* J. L. Barnard, 1964a, here selected.

Etymology. — Based on the old name of the taxon, *Uristes lepidus*. Masculine.

Article 1 of antenna 1 thickened and carinate. Mouthparts forming quadrate bundle. Labrum and epistome separate, not produced, epistome slightly dominant in size. Incisor ordinary, molar weakly triturative, large, palp attached opposite molar. Inner plate of maxilla 1 weakly (?) setose; palp biarticulate, large. Inner and outer plates of maxilliped well developed, palp strongly exceeding outer plate, dactyl well developed.

Coxa 1 tapering, slightly shortened and partly covered by coxa 2. Gnathopod 1 poorly subchelate, palm oblique, article 3 elongate, article 5 scarcely longer than 6, dactyl large, gnathopod 2 scarcely subchelate, propodus slightly longer than article 5.

Inner ramus of uropod 2 without notch. Uropod 3 ordinary, peduncle ordinary, inner ramus slightly shortened, outer ramus 2-articulate. Telson ordinary, deeply cleft.

Sexual dimorphism. — Unstudied.

Relationship. — Differing from *Uristes*, *Lepidepcreum*, and *Tryphosella*, and most other similar lysianassids in the elongate article 3 of gnathopod 1. The almost complete loss of ventral cephalic integrity is not sufficient for generic differentiation because this is a feature of *Uristes perspinis* and is found moderately well developed in most of the taxa formerly assigned to *Tryphosa* or *Tryphosella*. The attachment of antenna 2 into a strong anteroventral cephalic notch is typical of most lysianassids but in the *Uristes-Tryphosa-Tryphosella* complex this cephalic support is weakened or lost and the base

of antenna 2 is shoved posteriorly and has only weak cephalic envelopment.

Species. — *lepidus* (J. L. Barnard, 1964a) [404A].

Marine, Caribbean Sea, 5419–5497 m, 1 species.

Rimakoroga, new genus

Type species. — *Pseudokoroga rima* J. L. Barnard, 1964b, here selected.

Etymology. — From the name of the type species. Feminine.

Mouthparts forming quadrate bundle. Labrum and epistome prominent, separate, epistome slightly dominant in size and projection, blunt. Incisor ordinary, molar weakly triturative, of medium size, also setulose; palp attached strongly proximal to molar. Inner plate of maxilla 1 [?weakly (2) setose]; palp biarticulate, large. Inner and outer plates of maxilliped well developed, palp strongly exceeding outer plate, dactyl well developed.

Coxa 1 large and visible, not tapering. Gnathopod 1 in male strongly enlarged, strongly subchelate, palm transverse, article 5 much shorter than 6, lobate, dactyl large; article 6 of gnathopod 2 much shorter than article 5, ordinary, propodus minutely chelate.

Inner ramus of uropod 2 without notch. Uropod 3 ordinary, peduncle ordinary, inner ramus slightly shortened, outer ramus 2-articulate. Telson ordinary, weakly to deeply cleft.

Additional characters. — Primary flagellum of antenna 1 with 5 articles only; terminal male gnathopod 1 with carpus very short, lobe thin, propodus enormous, palm and hind margin continuous (as in *Ischyrocerus*), dactyl immense and folding back on false palm; epimeron 3 weakly serrate.

Sexual dimorphism. — Female gnathopod 1 small but thick, carpus short and lobate, propodus subrectangular, palm almost transverse, dactyl fitting palm; otherwise

antennae, eyes and uropod 3 similar between the sexes.

Relationship. — Differing from *Pseudokoroga* in the cleft telson and unconstricted inner ramus of uropod 2.

From *Orchomene* in the inflated article 6 of male gnathopod 1, in the terminal male this propodus developing massively, palm and hind margin contiguous, dactyl huge and folding back on false palm.

From *Koroga* in the cleft telson, strongly transformed gnathopod 1 of the terminal male and the better developed molar.

Species. — *rima* (J. L. Barnard, 1964b, c, 1966) [370].

Marine, southern California and west Mexico, 2–30 m, 1 species.

Nuuanuids (Pherusanids, Gammarellids)

This family group cannot bear a name until some person asks the ICZN to determine its spelling. There is already a family Gammarellidae Bousfield (1977), based on the unrelated genus *Gammarellus*.

Gammarella Bate, new synonymy

Pherusa Leach, 1814:432 (homonym, Polychaeta) (*Pherusa fucicola* Leach, 1814, monotypy).

Gammarella Bate, 1857:143 (*Gammarella orchestiformis* Bate, 1857, monotypy, = *Pherusa fucicola* Leach). — Barnard and Barnard, 1983:637.

Pherusana J. L. Barnard, 1964d:62 (new name for *Pherusa*, same type species).

Nuuanu J. L. Barnard, 1970:166 (*Nuuanu amikai* J. L. Barnard, original designation).

Cottesloe J. L. Barnard, 1974:27 (*Cottesloe berringar* J. L. Barnard, 1974, original designation).

Valettiella Griffiths, 1977:116 (*Valettiella castellana* Griffiths, 1977, original designation).

Valettiella is a synonym of *Gammarella* and is not a genus of the Lysianassidae.

Pseudamphilochidae

Pseudamphilochidae Schellenberg, 1931:92.

Diagnosis. — Like Amphilochidae but coxae 1–4 ordinary, coxa 1 expanded ventrally and broader than coxa 2, coxa 4 of medium size and well excavate posteriorly. Telson cleft.

Relatively good plesiomorph of other amphilochids because of strong rostrum, round eye, mouthparts, hammer-like small gnathopods of general form, elongate (but split) telson.

Description. — Antennae longer than in other amphilochids but individual articles of similar dimensions. Accessory flagellum obsolescent. Antenna 2 longer than antenna 1, article 4 of peduncle longer than article 5. Upper lip scarcely incised (unusual). Mandibular incisor of ordinary width, toothed, lacinia mobilis present, raker row sparse (unusual), molar simple and obsolescent, palp stout (unusual). Lower lip with well developed unnotched outer lobes bearing ordinary blunt mandibular lobes, outer lobes widely separated by well developed unfused inner lobes. Inner plate of maxilla 1 small, with 1 seta, outer plate with 9 spines, palp thin, 2-articulate. Plates of maxilla 2 broad but outer much narrower than inner, latter naked medially. Maxilliped ordinary but inner plate slightly broader than normal.

Gnathopods small, alike, carpi short, weakly lobate, propodi longer, moderately expanded, palm almost transverse. Pereopods 3–7 ordinary.

Outer ramus of uropod 1 strongly, of uropod 2 scarcely shorter than inner; peduncle of uropod 3 not greatly elongate (unusual), inner ramus half as long as outer (unusual). Telson elongate, leaf-like, apex sharp but telson split more than one third its length (unusual).

See Bolttsiidae (below).

Relationship. — The unusual characters marked above spoil a tight definition of amphilochoidids. The type genus needs exten-

sive study. Though coxa 1 is broadened, *Pseudamphilochus* differs from Astyridae (=Stilipedidae) in the propodi of the gnathopods being larger than the carpi and is not a member of Acanthonotozomatidae because no anterior coxa is acuminate.

Pseudamphilochus Schellenberg

Pseudamphilochus Schellenberg, 1931:92 (*Pseudamphilochus shoemakeri* Schellenberg, 1931, monotypy). With the characters of the family.

Species. — *shoemakeri* Schellenberg, 1931 [833].

Marine, South Georgia, 12–15 m, 1 species.

Bolttsiidae, new family

Type genus. — *Bolttsia* Griffiths, 1976.

Diagnosis. — Like Amphilochidae but coxae 1–4 of ordinary size, coxa 1 not expanded ventrally and not broader than coxa 2; coxa 4 of medium size, broader than coxa 3, posterodorsal excavation small. Telson entire.

Relatively good plesiomorph of other amphilochids but probably a distinct side branch from ancestors of Pseudamphilochidae because of poorly developed excavation on coxa 4, uncleft telson and unexpanded coxa 1.

Description. — Antennae short and similar to those of amphilochids. Antenna 2 slightly shorter than antenna 1, article 5 longer than 4. Accessory flagellum obsolescent. Upper lip scarcely incised (unusual), molar large but simple, setulose, palp of medium stoutness. Lower lip with well developed unnotched outer lobes bearing ordinary blunt mandibular lobes, outer lobes widely separated by well developed unfused inner lobes. Inner plate of maxilla 1 small, naked, outer plate with 7 spines, palp thin, 2-articulate. Plates of maxilla 2 of medium width, subequal in width, inner without large

medial setae. Maxilliped ordinary, inner plates thin, apical spine of dactyl very strong.

Gnathopods moderately enlarged, alike, carpi short, weakly lobate, propodi longer, well expanded, palms almost transverse. Pereopods 3–7 ordinary.

Outer ramus of uropods 2–3 shortened; peduncle of uropod 3 elongate, rami naked and shorter than peduncle. Telson elongate, leaf-like, entire, apically rounded.

Pleonites 1–3 with dorsal tooth.

Relationship.—Differing from *Amphilochidae* in the large coxa 1.

From *Pseudamphilochidae* in the short antennae, uncleft telson, thin inner plate of maxilliped, presence of 7 (versus 9) spines on the outer plate of maxilla 1, and regular uropod 3 with elongate peduncle.

Bolttsia Griffiths

Bolttsia Griffiths, 1976:12 (*Bolttsia minuta* Griffiths, 1976, original designation). With the characters of the family.

Species.—*minuta* Griffiths, 1976 [743].

Marine, coastal disjunct lagoon (Sibaya Lake), South Africa near Mozambique border, 1 species.

Stegocephalidae

Stegosoladidus, new genus

Type species.—*Andaniotes simplex* K. H. Barnard, 1930, here designated.

Etymology.—From root of *Stegocephalidae*, “sol” L. sun, “idus” L. having the nature of.

Body smooth. Article 1 of flagellum on antenna 1 [?longer than peduncle]. Article 4 of peduncle on antenna 2 [?longer than article 5].

Labrum [?ordinary, ?elongate, ?very broad, ?asymmetrically incised]. Mandibular incisor smooth. Labium very short, with gaping extended lobes, with [?1 or 2 bidigitate distal fingers]. Maxilla 1 ordinary, palp 1-articulate (slender relative to *Andaniotes corpulentus*). Outer plate of maxilla 2 or-

dinary, spines without hooks. Inner plate of maxilliped not reaching base of palp article 1, palp 3-articulate (articles 1–2 coalesced), article 2 unproduced.

Dactyls of gnathopods simple. Pereopods 3–4 simple. Article 2 of pereopod 6 expanded. Pereopod 7 with 7 articles.

Uropod 3 biramous, outer ramus [?2-articulate, peduncle ?longer than rami]. Telson [?as broad as long], incised.

Relationship.—Like *Andaniotes* but plates of maxilliped very short, palp with only 3 articles, apparently articles 1–2 of primordial palp fused (or article 4 lost and article 1 elongate).

Species.—*simplex* (K. H. Barnard, 1930) [779].

Marine, New Zealand, Three Kings Islands, 183 m, 1 species.

Stenothoidae

Aurometopa, new genus

Type species.—*Metopoides aurorae* Nicholls, 1938, here designated.

Etymology.—From the type species, *aurorae* and the genus *Metopa*. Feminine.

Antenna 1 lacking nasiform process on article 1. Accessory flagellum [not discerned]. Palp of mandible 3-articulate; palp of maxilla 1 biarticulate. Inner plate of maxilla 2 ordinary. Inner plates of maxillipeds well separated. Gnathopods 1–2 subchelate, scarcely different from each other in shape, gnathopod 1 small, palm oblique and shorter than posterior margin of propodus; article 4 not incipiently chelate; article 5 short, lobed; article 6 expanded. Gnathopod 2 enlarged, palm strongly oblique, article 5 short, lobed. Pereopod 5 with rectilinear article 2, pereopod 7 with expanded lobate article 2; pereopod 6 with intermediate article 2. Pereonite 4 ordinary. Pleonites 4–6 free; pleonite 3 lacking dorsal process; pleonite 4 not weakly extended posterodorsally. Telson ordinary, flat.

Relationship.—Differing from *Metopoides* and *Proboloides* in the relatively short

and weakly lobate carpus of gnathopod 1 with unexpanded elongate propodus.

From *Torometopa* in the perfectly rectilinear article 2 of pereopod 5.

Aurometopa also has article 2 of pereopod 6 differing from pereopod 7 unlike the other genera mentioned.

Species. — *aurorae* (Nicholls, 1938) (J. L. Barnard 1972b) [850].

Marine, Macquarie Island, 0 m, 1 species.

Knysmetopa, new genus

Type species. — *Parametopa grandimana* Griffiths, 1974c, here designated.

Etymology. — From "Knysma," a town near the type locality, and the classic genus *Metopa*. Feminine.

Antenna 1 lacking nasiform process on article 1. *Antenna 2 half as long as antenna 1*. Accessory flagellum absent. Palp of mandible absent; palp of maxilla 1 biarticulate. Inner plate of maxilla 2 ordinary. Inner plates of maxillipeds well separated. *Coxa 2 not bevelled anteriorly*. Gnathopods 1–2 subchelate, strongly different from each other in size and shape, gnathopod 1 small, subchelate, palm oblique and as long as posterior margin of propodus; article 4 chelate and freely projecting, article 5 elongate, unlobed; article 6 slightly expanded. Gnathopod 2 greatly enlarged, palm strongly oblique, articles 4–5 short, lobed. Pereopod 5 with rectilinear article 2, pereopods 6–7 with expanded and lobate article 2. Pereonite 4 ordinary. Pleonites 4–6 free; pleonite 3 lacking dorsal process; pleonite 4 not extended posterodorsally. Telson ordinary, flat.

Variables. — *Coxa 4* adze-shaped and pointing posteriorly as in *Stenothoe*.

Relationship. — Differing from *Stenothoe* in the short antenna 2 and non-bevelled anteroventral angle of coxa 2.

From *Wallametopa* in the subchelate gnathopod 1.

From *Parametopa* in the absence of a na-

siform process on antenna 1, huge enlargement of gnathopod 2 and rearward pointing adze-shaped coxa 4.

Species. — *grandimana* (Griffiths, 1974c) [743].

Marine, South Africa, 200 m, 1 species.

Torometopa, new genus

Type species. — *Metopa crenatipalmata* Stebbing, 1888, here designated.

Etymology. — From "torus," protuberance, and the genus *Metopa*. Feminine.

Antenna 1 lacking nasiform process on article 1. Accessory flagellum 0–2-articulate. Palp of mandible 3-articulate; palp of maxilla 1 biarticulate. Inner plate of maxilla 2 ordinary. Inner plates of maxillipeds well separated. Gnathopods 1–2 different from each other in size and shape, gnathopod 1 small, almost simple or weakly subchelate, palm oblique and shorter than posterior margin of propodus; article 4 incipiently chelate; article 5 elongate, unlobed; article 6 long, weakly expanded. Gnathopod 2 enlarged, palm strongly oblique, article 5 short, lobed. Pereopod 5 with rectilinear article 2 bearing posteroventral lobe, pereopods 6–7 with expanded and lobate article 2. Pereonite 4 ordinary. Pleonites 4–6 free; pleonite 3 lacking dorsal process; pleonite 4 not weakly extended posterodorsally. Telson ordinary, flat.

Variables. — Inner plate of maxilliped adze-shaped (*perlata*); gnathopod 1 elongate, sublinear (*aequalis*, *carinata*, *dentimana*, *perlata*); pleonite 3 with dorsal tooth (*carinata*).

Relationship. — Differing from *Metopoides* and *Proboloides* in the lobation on article 2 of pereopod 5.

Species. — *aequalis* J. L. Barnard, 1962 [416A];

antarctica Walker, 1906, 1907 (K. H. Barnard, 1932) [871];

carinata (Schellenberg, 1931) (K. H. Barnard, 1932) [833 + B];

crenatipalmata (Stebbing, 1888) (K. H. Barnard, 1932) (Bellan-Santini, 1972a) [867 + 731 + B];
compacta Stebbing, 1888 (Schellenberg, 1931) [867 + B];
crassicornis Schellenberg, 1931 [831];
dentimana Nicholls, 1938 (Bellan-Santini, 1972a, b) [870 + B];
palmata Ruffo, 1949 [802B];
parallelocheir (Stebbing, 1888) (Schellenberg, 1931) (K. H. Barnard, 1932) [867];
perlata K. H. Barnard, 1930 [893];
porcellana K. H. Barnard, 1932 [831];
stephensi Ruffo, 1949 [802B].

Marine, Antarctica and antiboreal, N. to Tristan da Cunha and Magellan area, into deep southern basins, 10–4986 m, 12 species.

Vonimetopa, new genus

Type species. — *Metopella dubia* Shoemaker, 1964, here selected.

Etymology. — From *Somateria voniger*, duck from which this species was found in stomach and classic genus *Metopa*. Masculine.

Antenna 1 lacking nasiform process on article 1. Accessory flagellum absent. Palp of mandible 1-articulate; palp of maxilla 1 uniarticulate. Inner plate of maxilla 2 ordinary. Inner plates of maxillipeds well separated. Gnathopod 1 small, simple, article 4 incipiently chelate; article 5 short, unlobed; article 6 elongate, linear. Gnathopod 2 weakly enlarged, palm strongly oblique, article 5 short, lobed. Pereopods 5–7 with rectilinear article 2. Pereonite 4 ordinary. Pleonites 4–6 free; pleonite 3 lacking dorsal process; pleonite 4 not weakly extended posterodorsally. Telson ordinary, flat.

Relationship. — Differing from *Metopelloides* in the elongate simple propodus and short lobed carpus of gnathopod 1; and the fully separated inner plates of the maxillipeds.

See *Zaikometopa*.

Species. — *barnardi* Gurjanova, 1938, 1951 [280];

brazhnikov Gurjanova, 1948, 1951 (Kudrjaschov and Zujagintsev 1975) [280];

dubia Shoemaker, 1964 [277];

schellenbergi Gurjanova, 1938, 1951 [391];

shoemakeri Gurjanova, 1938, 1951 (Kudrjaschov 1979) [280];

zernovi Gurjanova, 1948, 1951 [391].

Marine, Bering Sea, Okhotsk Sea, Japan Sea, shallow to 5 m, 6 species.

Zaikometopa, new genus

Type species. — *Metopelloides erythrophthalmus* Coyle and Mueller, 1981, here selected.

Etymology. — From the paratype locality, "Zaikov Bay," Alaska, and the classic genus, *Metopa*. Feminine.

Antenna 1 bearing nasiform process on article 1. Accessory flagellum absent. Palp of mandible 1-articulate; palp of maxilla 1 biarticulate. Inner plate of maxilla 2 ordinary. Inner plates of maxillipeds mostly fused together. Coxa 2 small and hidden by coxa 3. Gnathopod 1 small, simple, article 4 incipiently chelate; article 5 short, unlobed; article 6 elongate, linear. Gnathopod 2 enlarged, palm parachelate, article 5 short, lobed. Pereopods 5–7 with rectilinear article 2. Pereonite 4 highly elongate. Pleonites 4–6 free; pleonite 3 lacking dorsal process; pleonite 4 strongly carinate posterodorsally. Telson ordinary, flat.

Relationship. — Differing from *Metopelloides* and *Vonimetopa* in the nasiform lobe on article 1 of antenna 1, the mostly fused inner plates of the maxillipeds and the carinate urosomite 1.

From *Metopelloides* also in the short lobed carpus and elongate simple propodus of gnathopod 1; and the unusually small coxa 2 hidden by coxa 3.

Species. — *erythrophthalmus* Coyle and Mueller, 1981 [272].

Marine, Gulf of Alaska westward along Alaskan Peninsula, 0 m, 1 species.

Temnophliantidae

Temnophliidae Griffiths, 1975:171.

Latinists inform us the family name should be emended to the spelling of our center heading.

Diagnosis.—Head slightly reduced in size; basal fusion of antenna 2 [unknown (but probably fused)]; urosomal fusion unknown; pleon small and flexed below body; thorax depressed, very broad and flat or triquetrous, segments laterally discontinuous and produced into pleurae; coxae, though small, splayed outwards. Eyes small, ommatidial. Antennae short. Accessory flagellum absent. Mandible lacking palp, molar degraded, styliform; maxillae feeble. Gnathopods simple. Peduncles of pleopods expanded. Uropods 1–2 with one ramus, uropod 3 without ramus. Telson entire, laminar or appearing weakly fleshy, pyriform.

See Phliantidae; Eophliantidae; Plioplateidae.

Description.—Head with thorn-like rostrum. Antennal flagella 1–2-articulate. Right lacinia mobilis absent; rakers sparse. Inner lobes of lower lip absent. Inner plate and palp of maxilla 1 absent, outer plate with 4–5 spines. Maxilla 2 poorly setose. Maxillipeds short, stout, plates ordinary, palp 2-articulate. Coxae rectangular, bifid, or trifid. Gnathopods and pereopods either simple or prehensile. Article 2 of pereopods 5–7 unexpanded. Body smooth dorsally or elevated in triquetral fashion with processes on head, pereon and pleonites 1–2. Rami of pleopods well developed. Rami of uropods 1–2 very short. Oostegite form and count and gill formulas [unknown]; gills slender; setae of oostegites curl-tipped.

Relationship.—Differing from Phliantidae, Eophliantidae, and Plioplateidae (see J. L. Barnard 1978) in the presence of pereonal pleurae. Similarity in body form be-

tween *Hystriphlias* and Plioplateidae suggests descent through common ancestor.

Key to the Genera of Temnophliantidae

1. Body flat, lacking dorsal processes, coxae simple, all thoracic legs simple *Temnophlias*
- Body triquetrous, with dorsal processes, coxae bifid or trifid, all thoracic legs prehensile *Hystriphlias*

Hystriphlias, new genus

Type species.—*Temnophlias hystrix* K. H. Barnard, 1954, here selected.

Etymology.—From the old name of the taxon, *Temnophlias hystrix*. Neuter?

Diagnosis.—Body triquetrous, with dorsal processes, coxae bifid or trifid, all thoracic legs prehensile.

Species.—*hystrix* (K. H. Barnard, 1954) (Griffiths 1975) [743].

Marine, South Africa, littoral, 1 species.

Temnophlias K. H. Barnard

Temnophlias K. H. Barnard, 1916:158 (*Temnophlias capensis* K. H. Barnard, 1916, monotypy).—Griffiths, 1975:172.

Diagnosis.—Body flat, lacking dorsal processes, coxae simple, all thoracic legs simple.

Species.—*capensis* K. H. Barnard, 1916, 1954 (Griffiths 1975) [743].

Marine, South Africa, littoral, 1 species.

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