

**THE RECENT GENERA OF THE CARIDEAN AND
STENOPODIDEAN SHRIMPS (CLASS CRUSTACEA, ORDER
DECAPODA, SUPERSECTION NATANTIA) WITH KEYS
FOR THEIR DETERMINATION**

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INTRODUCTION

The present study was started with the primary object of producing a key to the genera of the sections Caridea and Stenopodidea of the Decapoda Natantia, a group consisting of animals commonly known as shrimps and prawns. Later it was felt that the paper would be of more use to zoologists, if also the synonyms and other particulars of the genera were given. So gradually the paper has become mainly a list of the genera of the Caridea and Stenopodidea, while the key to these genera is of secondary importance.

Fossil genera are not included in the present list. Nomina nuda also are omitted if they could not definitely be assigned to known genera. A list of the dubious genera is given on p. 139.

Of each genus the valid name and the synonyms are listed, each with the full original reference, with the indication of the type species, and the gender of the name. An attempt has been made to include all the emendations and erroneous spelling changes of those names, but this latter enumeration is necessarily incomplete. Also the synonymies of the suprageneric categories are given, as well as a short historical account of the classification of the supersection and the sections.

To facilitate the identification of the genera, the figure of a species of each is included. Practically all of these figures are taken from existing publications, a list of which is added to the end of this paper. The schematic figure of the external shape of a shrimp (fig. A) and that of the structure of a leg (fig. B) will explain most, though not all, of the technical terms used in the keys. For the explanation of the terms dealing with mouthparts a general treatise of the Crustacea should be consulted.

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It is inevitable that there are errors and omissions in this paper; the author will be grateful for any corrections and additions.

Supersection NATANTIA

- Salicoques Latreille, 1817, Cuvier's Règne anim. (ed. 1) 3: 35.
 Salicoqui Schinz, 1823, Cuvier's Thierreich 3: 51.
 Carides Latreille, 1825, Fam. nat. Règne anim.: 280.
 Palaemones s. Carides Van der Hoeven, 1828, Handb. Dierk. 1: 434.
 Caridea Burmeister, 1837, Handb. Naturgesch. 2: 564.
 Caridea McLeay, 1838, Illustr. Annul. S. Afr.: 54.
 Macroura Carides De Haan, 1849, Fauna Japon., Crust. (6): 167.
 Caridita White, 1850, List Spec. Brit. Anim. Coll. Brit. Mus. 4: 36.
 Caridina Van der Hoeven, 1855, Handb. Dierk. (ed. 2) 1: 766.
 Caridae Heller, 1863, Crust. südl. Europ.: 221
 Carididae Claus, 1876, Grundz. Zool. (ed. 3) 1: 550.
 Caridinida Schmarda, 1878, Zoologie (ed. 2) 2: 44.
 Natantia Boas, 1880, K. Danske Vidensk. Selsk. Skr. (6)1(2): 28, 155, 164.
 Macrura Caridides Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 9
 Macrura Natantia Bouvier, 1917, Rés. Camp. sci. Monaco 50: 7, 8.
 Caridoidea Hoedeman, 1950, Encycl. Aquariumhouder, Amsterdam 8(138.4): 2.

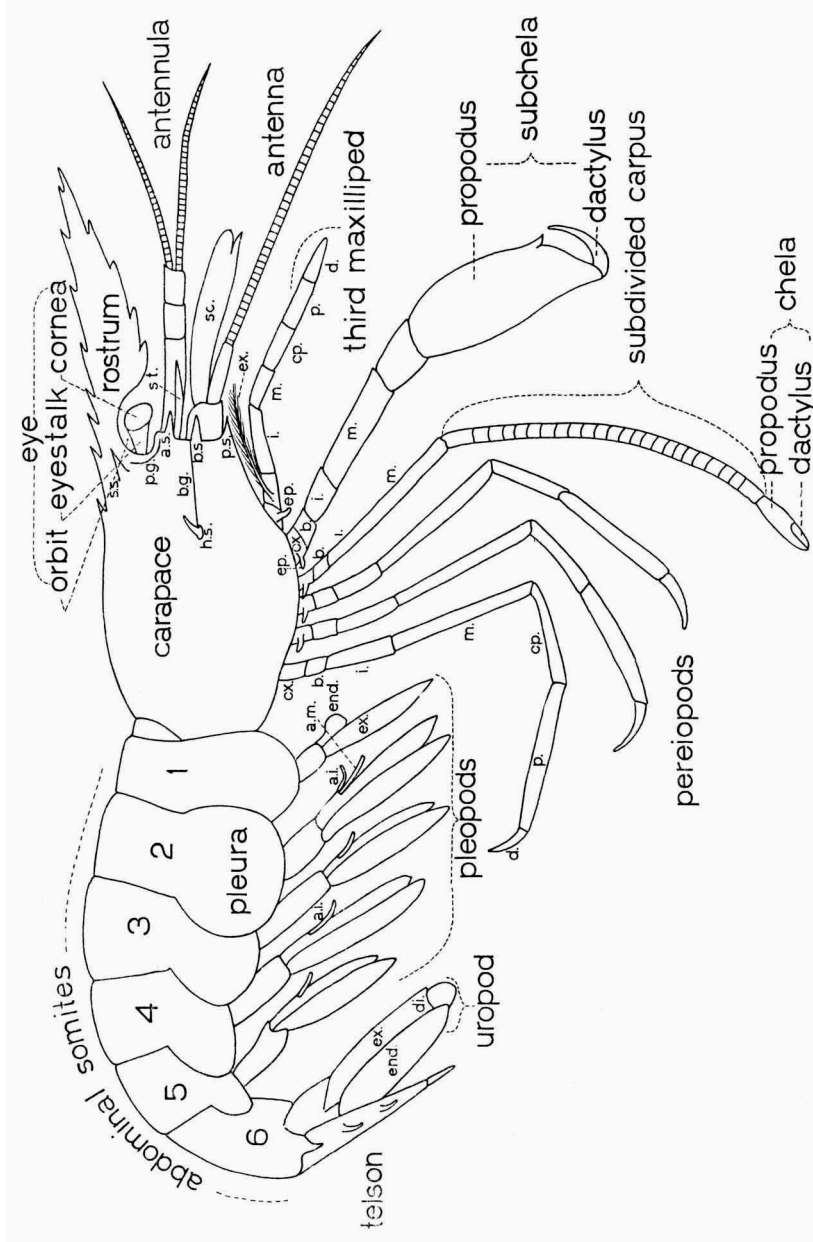


Fig. A. Schematic drawing of a shrimp in lateral view. a.i., appendix interna; a.m., appendix masculina; a.s., antennal spine; b., basis; b.g., branchiostegal groove; b.s., branchiostegal spine; cp., carpus; cx., coxa; d., dactylus; di., diaeresis; end., endopod; ep., epipod; ex., exopod; h.s., hepatic spine; i., ischium; m., merus; p., propodus; p.g., postorbital groove; p.s., pterygostomial spine; sc., scaphocerite; s.s., supraorbital spine; st., stylocerite.

Adopting Bouvier's (1917, Rés. Camp. sci. Monaco 50:8) system of the Decapod Crustacea, the Natantia, or Macrura Natantia as they are sometimes

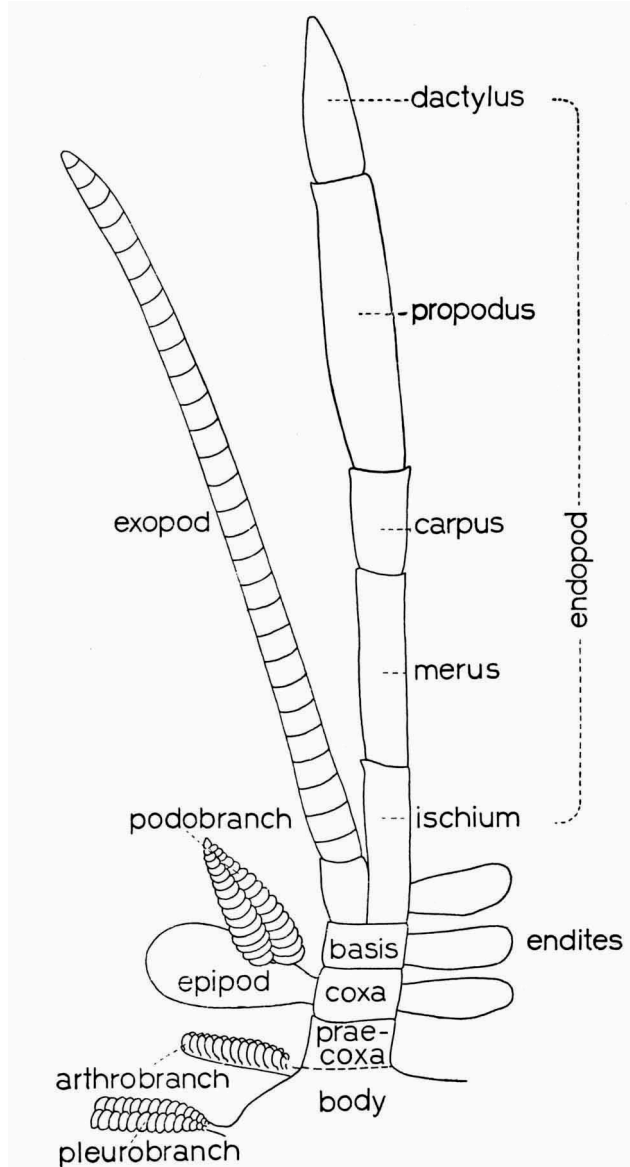


Fig. B. Schematic drawing of a thoracic leg.

called, are treated here as a supersection of the suborder Macrura. The Macrura thereby are considered to be of equal rank with the suborders Ano-

mura and Brachyura. Several zoologists assign to the Natantia the rank of a suborder and place all the other decapods in the suborder Reptantia. This is a good illustration of the fact that the classification of the Decapoda is still very unsettled; as yet no satisfactory system for this group of animals has been proposed. For the present paper it makes little difference whether the Natantia are considered to be a full suborder, or are only ranked as a supersection of the suborder Macrura.

The members of the present group, like all other Decapoda, were placed by Linnaeus (1758, Syst. Nat. (ed. 10) 1:625-634) in the genus *Cancer*. Fabricius (1775, Syst. Ent.: 413-418) erected a new genus *Astacus*, which contained all of the Natantia, in addition to the Astacidea, Palinuridae, Hippidea, Squillidae, Euphausiacea and some Amphipoda. In 1798 the Natantia were placed by Fabricius (Suppl. Ent. Syst.: 402-410) in the genera *Palaemon*, *Alpheus*, *Penaeus*, and *Crangon*. The order Decapoda was first erected by Latreille (1802-1803, Hist. nat. Crust. Ins. 3: 20), who subdivided this order into two "sections": the "Brachyures" and the "Macroures". The genera of Natantia of course were included in the latter group; they were placed, together with the astacidean genera, in the family "Homardiens; Astacini". Leach (1814, Edinb. Encycl. 7: 398-402) also included in this family, which he named "Astacini", the Mysidacea and the Thalassinidea. Latreille (1817, Cuvier's Règne anim. (ed. 1) 3: 35-38) was the first to treat the Natantia as a unit, to which he gave the name "Salicoques", and which he made a section of his family "Décapodes macroures". In 1825 the same author (Latreille, Fam. nat. Règne anim.: 280) gave this section the Latin name "Carides". In the German edition of Cuvier's Règne animal Schinz (1823, Cuvier's Thierreich 3: 51) had already given the group the Latinized name "Salicoqui", while Van der Hoeven (1828, Handb. Dierk. 1: 434) named it "Palaemones" or "Carides". A great variety of other names has been given to the group by later authors. H. Milne Edwards (1837, Hist. nat. Crust. 2: 338-431) divided the family "Salicoques" into four tribes, the "Crangoniens", "Alphéens", "Palémoniens" and "Pénéens". Though McLeay (1838, Illustr. Annul. S. Afr.: 54) gives very few details of his tribe Caridea, it evidently is identical with Latreille's Carides. De Haan (1849, Fauna Japon., Crust. (6): 167) in general followed H. Milne Edwards, the group "Salicoques" is called by him "Macroura Carides", and is divided into five families: Palemonidea, Alpheidea, Crangonidea, Atyadea and Penaeidea. Dana (1852, U. S. Explor. Exped. 13: 501) was the first to make a sharp distinction between the penaeids and stenopodids, which are grouped by him in the subtribe Penaeidea on the one hand and the Caridea on the other. Dana also was the first to use the term Caridea in the sense

in which it is now generally adopted. It is interesting to note that the same author (Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 15) in an earlier publication used the term Caridea for the entire group of the Natantia, and that he divided his "subtribus" Caridea into three "legiones": Palaemoninea, Pasiphaeinea and Penaeinea. Huxley (1878, Proc. zool. Soc. Lond. 1878: 785) divided the Decapoda in two large groups according to the structure of their gills: the carideans were placed in his Phyllobranchiata, while the peneids and stenopodids were ranged under his Trichobranchiata. Like Huxley, Bate (1888, Rep. Voy. Challenger, Zool. 24: xi-xiii, 6) attached much value to the structure of the gills for the classification of the Decapoda, and he divided the suborder Macrura into four tribes: the Trichobranchiata, in which he placed the stenopodids, the Dendrobranchiata to which the peneids were assigned, the Phyllobranchiata consisting of the carideans and some larval forms, and the Anomobranchiata, containing the Stomatopoda. Boas (1880, K. Danske Vidensk. Selsk. Skr. (6)1(2): 28, 155, 164) grouped the Decapoda in two suborders: the Natantia and the Reptantia. He is the original author of the term Natantia which he used in the sense adopted here. Practically all subsequent authors, e.g., Ortmann (1890, Zool. Jb. Syst. 5: 437), Alcock (1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 9), Borradaile (1907, Ann. Mag. nat. Hist. (7)19: 467), Calman (1909, Lankester's Treatise Zool. 7: 310), Bouvier (1917, Rés. Camp. sci. Monaco 50: 8), Balss (1927, Kükenthal & Krumbach's Handb. Zool. 3(1): 998), follow Boas in considering the group Natantia a unit, though they give it different names and place it at different levels in the system of the Decapoda. Carus (1885, Prodr. Faun. Medit. 1: 470) recognised the Sergestidae as a distinct family and placed all the other Natantia in the family Carididae. Beurlen & Glaessner (1930, Zool. Jb. Syst. 60: 49-84) in a revolutionary new classification of the Decapoda, again break up the Natantia. They place the tribes Penaeidea and Stenopodidea in the section Nectochelida of their suborder Trichelida, while the Caridea under the name of Eucyphidea form a tribe of the section Anomocarida of the suborder Heterochelida; all of their suborders and sections are proposed as new by Beurlen & Glaessner.

The definition of the Natantia as given by Calman (1909, Lankester's Treatise Zool. 7: 310) is as follows:

"Body almost always laterally compressed; rostrum usually compressed and serrated; first abdominal somite not much smaller than the rest; antennules generally with stylocerite; antennal scale generally large and lamellar; legs usually slender, except sometimes a stout chelate limb or pair, which may be any one of the first three pairs, with basipodite [= basis] and

ischiopodite [= ischium] very rarely coalesced and with only one fixed point in the carpo-propodal articulation (with some doubtful exceptions), sometimes with exopodites [= exopods], podobranchiae hardly ever present on the first three and never on the last two pairs; male genital apertures in articular membrane; pleopods always present in full number, well developed, used for swimming."

The supersection *Natantia* is divided into three sections: *Caridea*, *Stenopodidea* and *Penaeidea*. These sections usually have been termed tribes. This term, however, cannot be used for them, since during the 14th International Congress of Zoology at Copenhagen, 1953, it was decided that the term tribe is to be used only for units below the subfamily level. Therefore the term section is proposed here for those groups of Decapoda which formerly were indicated by the term tribe.

The three sections may be distinguished as follows:

1. Pleurae of second abdominal somite overlapping those of first and third segments. No chelae on the third pereopods. Gills phyllobranchiate. *Caridea*
- Pleurae of second abdominal somite not overlapping those of first segment. Third legs with a chela 2
2. Third leg distinctly stronger than the preceding. Males without petasma. Gills trichobranchiate *Stenopodidea*
- Third leg never stronger than the preceding, generally all chelipeds of equal strength. Males with petasma. Gills dendrobranchiate. *Penaeidea*

Section CARIDEA

Caridea Dana, 1852, U. S. Explor. Exped. 13: 501, 528.
Macroura Typica Dana, 1852, U. S. Explor. Exped. 13: 501.
Caridomorpha Huxley, 1878, Proc. zool. Soc. Lond.: 783, 785.
Eukyphoter Boas, 1880, K. Danske Vidensk. Selsk. Skr. (6)1(2): 28, 47.
Eucyphotes Boas, 1880, K. Danske Vidensk. Selsk. Skr. (6)1(2): 156.
Eukyphotes Boas, 1880, K. Danske Vidensk. Selsk. Skr. (6)1(2): 163, 170.
Phyllobranchiata Normalia Bate, 1888, Rep. Voy. Challenger, Zool. 24: xii.
Eucyphidea Ortmann, 1890, Zool. Jb. Syst. 5: 437.
Carida Metzger, 1891, Zool. Jb. Syst. 5: 911.
Eucipidea Magri, 1904, Atti Accad. gioen. Sci. nat. Catania (4)17(14): 8.
Carides Borradaile, 1907, Ann. Mag. nat. Hist. (7)19: 467.
Eucyphydea Bacescu, 1937, Bul. Soc. Nat. România 11: 14.
Eucyphidae Brian, 1941, Crost. eduli Mercato Genova: 22.

As has been pointed out above, Dana (1852) was the first to regard the present group as a distinct unit and he gave it the name *Caridea*. I can find no good reason not to use the name proposed by Dana, the more so since there are no definite rules as yet for the nomenclature of groups above family level. Dana's name is the first ever used to denote this group, it is short, euphonious and is not in use at present for any other group in the Animal Kingdom. Boas's (1880: 163, footnote) rejection of Dana's name

and his substitution of the name Eukyphotes for it because "le nom Carides donné par M. Dana à cette division est employé par d'autres auteurs pour tous les Salicoques (y compris les Pénéés)." is not based on any definite rule or common practice, and therefore is not followed here. If Boas's reasons for rejecting the name Caridea were considered valid, then also the name Penaeidea has to be rejected; when originally proposed by Dana, that section also contained the genus *Stenopus*, which at present is placed in a separate section Stenopodea.

Dana (1852) divided his subtribe Caridea into four families: Crangonidae (with the subfamilies Crangoninae, Lysmatinae and Gnathophyllinae), Atyidae (with the Atyinae and Ephyrinae), Palaemonidae (with the Alpheinae, Pandalinae, Palaemoninae, and Oplophorinae), and Pasiphaeidae. Dana's subfamilies agree well with the families of our present system; he includes, however, the genus *Regulus* (= *Thalassocaris*) in the Oplophorinae, and the genus *Nika* (= *Processa*) in the Lysmatinae, while the hippolytids are placed partly in the subfamily Lysmatinae and partly in that of the Alpheinae. Bate (1888, Rep. Voy. Challenger, Zool. 24: 480, 481) divided his Phyllobranchiata Normalia, which coincide exactly with Dana's Caridea, into four tribes. These tribes are the Crangonidea (containing the family Crangonidae), the Polycarpidea (consisting of the families Nikidae, Alpheidae, Hippolytidae, and Pandalidae), the Monocarpidea (with the families Thalassocaridae, Atyidae, Pontoniidae, Caricyphidae, Acanthephyridae, Palaemonidae, Nematocarinidae, Tropiocaridae, Stylodactylidae, Pasiphaeidae, and Oodeopidae), and the Haplopodea (containing only the family Hectarthropidae). The family Nikidae differs from our present Processidae by containing the genus *Glyphocrangon*. The families Caricyphidae, Oodeopidae, and Hectarthropidae consist entirely of larval forms, while also several genera based on larvae are (correctly or incorrectly) inserted in other families. The families Acanthephyridae and Tropiocaridae at present are combined and bear the name Oplophoridae, while the Pontoniidae at present are considered to be only a subfamily of the Palaemonidae. Ortmann (1890) divides the Caridea, which he named Eucyphidea, into 13 families: Pasiphaeidae, Atyidae, Alpheidae, Thalassocaridae, Pandalidae, Hippolytidae, Rhynchocinetidae, Pontoniidae, Hymenoceridae, Palaemonidae, Nikidae, Crangonidae, and Gnathophyllidae. His family Atyidae consist of two subfamilies Ephyrinae and Atyinae. Ortmann's families Hymenoceridae and Gnathophyllidae at present are combined under the name Gnathophyllidae. Later Ortmann (1896, Zool. Jb. Syst. 9: 421-425) revised his classification somewhat. He separated the Acanthephyridae as a distinct family from the Atyidae (the Nematocarinidae were considered by him only a subfamily of the Acanthephyridae).

The Thalassocaridae were inserted in the Pandalidae as a subfamily, Thalassocarinae. A new family Latreutidae was erected for the Hippolytidae with a simple mandible. Finally the name Nikidae was changed to Processidae, and the name Gnathophyllidae to Drimoidae. In 1898 Ortmann (Bronn's Klass. Ordn. Thierr. 5(2): 1122-1133) recognises a third subfamily, Noto-stominae, in the Acanthephyridae and furthermore lists the families Stylo-dactylidae and Psalidopodidae. The Drimoidae are again named Gnathophyllidae. Borradaile (1907) tried to group the Caridean families in super-families. He divided the Caridea (named Carides by him) into seven super-families: Pasiphaeoida (containing the Bresiliidae and Pasiphaeidae), the Hoplophoroida (with the Hoplophoridae, Nematocarcinidae, and Atyidae), the Stylodactyloida (containing only the Stylodactylidae), the Psalidopodoida (with only the Psalidopodidae), the Pandaloida (with the Pandalidae), the Palaemonoida (with the Alpheidae, Hippolytidae, Rhynchocinetidae, and Palaemonidae), and the Crangonoida (with the Gnathophyllidae, Processidae, Glyphocrangonidae, and Crangonidae). Borradaile divided the family Pandalidae into two subfamilies: the Pandalinae and the Thalassocarinae, as Ortmann (1896), had already done. The family Palaemonidae was divided into three subfamilies: Palaemoninae, Pontoniinae, and Hymenocerinae. Borradaile did not include in his classification the family Disciadidae erected in 1902 by Rathbun (Proc. Wash. Acad. Sci. 4: 289) for her new genus *Discias*. In 1913 Sollaud (Bull. Mus. Hist. nat. Paris 19: 184) founded a new family Campylonotidae for the genus *Campylonotus* Bate, while in 1915 Borradaile erected the family Anchistioididae for *Anchistioides* Paulson. Balss (1927, Kükenthal & Krumbach's Handb. Zool. 3(1): 1000-1003) gave a classification of the Caridea (named Eucyphidea by him) which is largely based on Borradaile's system, to which the three families just mentioned were added. The family Ogyridae of Hay & Shore (1918, Bull. U. S. Bur. Fish. 35: 388) is not accepted by Balss. Balss placed the Disciadidae and the Campylonotidae in the superfamily Hoplophoroida, while the Anchistioididae were assigned to the Crangonoida. The Thalassocaridae were again given the full rank of a family, the Hymenocerinae were combined with the Gnathophyllidae, while the family Palaemonidae was divided into four subfamilies Desmocaridinae, Palaemoninae, Typhlocaridinae, and Pontoniinae. The first of these four subfamilies was erected by Borradaile (1915, Ann. Mag. nat. Hist. (8)15: 206), the third by Annandale and Kemp (1913, Journ. Proc. Asiat. Soc. Bengal (n. ser.) 9 (6): 245). After 1927 two new families were erected: the Eugonatonotidae by Chace (1936, Journ. Wash. Acad. Sci. 26: 25) under the name Gomphonotidae, and the Physetocaridae also by Chace (1940, Zoologica, New York 25: 196).

The classification of the Caridea adopted in the present paper differs in several respects from that given by previous authors. The older classifications like those of Borradaile (1907) and Balss (1927) are based partly on characters afforded by the mouthparts. There is little doubt that the mouthparts may provide important characters for the classification of the larger categories, but as yet we know far too little about the variability of the shape and structure of these organs within the genera and higher groups to allow us to use successfully the characters provided by them. The structure of the mouthparts is well known only in a relatively small number of Caridean species. These oral appendages have received so little attention because they must be extracted to be studied; this is not only a tedious job, but it often leaves the specimen severely damaged. Furthermore it is generally assumed that the structure of the mouthparts is constant within a genus or even within a larger group, which makes it seemingly unnecessary to examine these appendages in more than one species of each genus. It is hardly necessary to point out that it is a highly dangerous practice to base a classification on characters of which the variability within the larger groups is so poorly known. The classification proposed here is based mainly on characters afforded by the general shape of the first two pairs of pereopods. The fact that these characters are remarkably constant within the larger groups fully justifies the use of them for the classification of those groups. Since authors like Borradaile (1907) and Balss (1927) also made a rather extensive use of these characters, their classifications and the one proposed here are identical in a good many respects. I fully realize that the arrangement of the families given here is by no means a natural one and that a better knowledge of the mouthparts, the gill formulae, the sexual organs, and the larval development of the Caridea will show many deficiencies in it and point the way to numerous improvements. To attain a more natural classification it is essential that more attention be given to these structures of each species and to the larval development.

The following tentative key serves to distinguish the families and superfamilies of the present section:

- | | |
|--|-----------------------------|
| 1. First pair of pereopods chelate or simple | 2 |
| — First pair of pereopods subchelate | Crangonoida 21 |
| 2. Fingers of all four chelae slender, their cutting edges pectinate | |
| | Pasiphaeoida — Pasiphaeidae |
| — Cutting edges of fingers of chelae not all pectinate | 3 |
| 3. Carpus of second pair of pereopods entire. First pair of pereopods always with well developed chelae | 4 |
| — Carpus of second pair of pereopods usually subdivided into two or more joints; if not, first pair of pereopods not chelate | 15 |

4. Last two joints of second maxilliped placed side by side at end of antepenultimate joint. Fingers of chelae extremely long and slender Stylodactyloida — Stylodactylidae
- Last two joints of second maxilliped not placed side by side at end of antepenultimate joint. Fingers not extremely long 5
5. First pair of pereiopods with both fingers movable Psalidopodoidea — Psalidopodidae
- Chela of first pereiopod with only one movable finger 6
6. First pair of pereiopods stronger and heavier, though often shorter, than second
Bresilioida 7
- First pair of pereiopods usually more slender than, rarely subequal to, second. 10
7. First pair of legs with movable finger compressed, semicircular, deeply recessed in a slit in propodus when chela is closed. Rostrum dorsoventrally flattened.
Disciadiidae
- First pair of legs with normal chelae. Rostrum laterally compressed 8
8. Ends of fingers of first two pairs of pereiopods dark coloured. Last joint of second maxilliped applied as a strip along side of penultimate joint. Exopod of first maxilliped with a distinct flagellum 13
- Ends of fingers of first two pairs of pereiopods not dark coloured. Last joint of second maxilliped placed at end of penultimate joint. Exopod of first maxilliped without flagellum Bresiliidae
9. Rostrum immovable. Exopods on pereiopods. Eugonatonotidae
- Rostrum movable. No exopods on pereiopods Rhynchocinetidae
10. Pereiopods usually with exopods; if not, fingers of chelae with terminal brushes of long hairs Oplophoroida 11
- Pereiopods without exopods. Chelae without terminal brushes of long hairs Palaemonoida 13
11. Mandible without palp. Fingers of chelae usually with conspicuous terminal brushes of hairs. Last three pairs of legs not conspicuously lengthened. Pereiopods with or without exopods. Almost exclusively confined to fresh water Atyidae
- Mandible with a palp. Fingers of chelae without terminal brushes of hairs. Pereiopods with exopods. Deep sea forms 12
12. Last three pairs of pereiopods not conspicuously lengthened; carpus of these legs distinctly shorter than propodus Oplophoridae
- Last three pairs of pereiopods enormously lengthened; carpus of these legs several times longer than propodus Nematocarcinidae
13. Arthrobranchs and epipods at bases of first four pairs of pereiopods. Upper antennular flagellum simple Campylonotidae
- Pereiopods without arthrobranchs or epipods. Upper antennular flagellum bifid. 14
14. Mandible usually with incisor process; if not, third maxilliped not expanded leaf-like.
Palaemonidae
- Mandible without incisor process. Third maxillipeds expanded leaf-like
Gnathophyllidae
15. Chela of first pair of pereiopods distinct, at least on one side. Alpheoida 16
- Chelae of first pair of pereiopods microscopically small or absent. Pandaloida 19
16. First pair of pereiopods both chelate 17
- Only one of first pair of pereiopods chelate, the other ending in a simple claw-like dactylus Processidae
17. Ends of fingers of first pair of chelae usually dark coloured. First pair of chelipeds short and rather heavy but not swollen. Eyes free, never extremely elongate.
Hippolytidae
- Ends of fingers of first pair of chelae not dark colored. Eyes either extremely long or partly or wholly covered by carapace 18
18. Eyes extremely elongate, reaching almost to end of antennular peduncle; cornea small. First pair of pereiopods shorter than and about as robust as second.
Ogyrididae

- Eyes usually partly or wholly covered by carapace, never very elongate. First pair of pereiopods distinctly stronger than second, often unequal and swollen Alpheidae
19. Carpus of second pair of pereiopods not subdivided. Chelae of second pair of pereiopods heavy, robust Thalassocarididae
- Carpus of second pair of pereiopods divided into two or more articles. Chelae of second pair of pereiopods small and slender 20
20. Mandible bifid, with palp. Rostrum laterally compressed, distinctly dentate. Pandalidae
- Mandible simple, without palp. Rostrum a broad, inflated prolongation of carapace, with some dorsal denticles Phyetocarididae
21. Carpus of second pair of pereiopods multi-articulate Glyphocrangonidae
- Carpus of second pair of pereiopods not subdivided Crangonidae

Superfamily OPLOPHOROIDA

- Hoplophorida Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 55.
- Oplophorida Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 548.
- Hoplophoroidea Balss, 1921, K. Svenska Vetensk. Akad. Handl. 61(10): 7.
- Hoplophorida Schmitt, 1926, Biol. Res. Fish. Exper. "Endeavour" 5(6): 372.
- Oplophorida Hale, 1927, Crust. S. Aust. 1: 41.

My conception of this superfamily differs from that of Balss (1927) in that I consider the families Campylonotidae and Disciadidae as belonging to other superfamilies (the Palaemonoidea and Bresilioidea respectively). Also the genus *Eugonatonotus* Schmitt, which Balss evidently included in his family Hoplophoridae and which was made the type of a separate family by Chace in 1936, is removed to the superfamily Bresilioidea.

Three families are left in this superfamily.

Family OPLOPHORIDAE

- Ephyrinae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 16.
- Oplophorinae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 18, 27.
- Ephyridae Sars, 1885, Norske Nordhavs Exped. 6: 35.
- Miersiidae Smith, 1886, Ann. Rep. U. S. Fish Comm. 13: 608, 619, 667.
- Acanthephyridae Bate, 1888, Rep. Voy. Challenger, Zool. 24: xiii, 481, 927.
- Tropiocaridae Bate, 1888, Rep. Voy. Challenger, Zool. 24: xiii, 481, 927.
- Eryphinae Bate, 1888, Rep. Voy. Challenger, Zool. 24: 732.
- Hoplophoridae Faxon, 1895, Mem. Mus. comp. Zool. Harvard 18: 159.
- Acanthephyridae Riggio, 1895, Natural. Sicil. 14: 244.
- Acanthephyrinae Ortmann, 1898, Bronns Klass. Ordn. Thierr. 5(2): 1126.
- Notostominae Ortmann, 1898, Bronns Klass. Ordn. Thierr. 5(2): 1126.
- Tropiocarinae Perrier, 1899, Trait  Zool. 3: 1030.
- Oplophoridae Rathbun, 1902, Proc. U. S. Nat. Mus. 24: 904.
- Oplophoridae Guiler, 1952, Rec. Queen Victoria Mus. Tasmania 3(3): 35.

The seven genera contained in this family may be distinguished by the following key, which is taken largely from Chace's (1936, Journ. Wash. Acad. Sci. 26: 24-31) revision of the present family. The genus *Meningodora*

Smith is resurrected here and separated from *Notostomus* on characters already mentioned by Chace (1940, Zoologica, New York 25: 153).

1. Exopods of at least the third maxillipeds and first pair of pereopods foliaceous and generally rigid; outer margin of antennal scale usually armed with a series of spines; telson not truncate at tip, but ending in a sharp point; eyes large and well pigmented. *Oplophorus*
- None of the exopods of the pereopods foliaceous or rigid. 2
2. Last four abdominal somites, at least, carinate along dorsal midline. 3
- Sixth abdominal somite never dorsally carinate 5
3. No straight ridge or carina running entire length of lateral surface of carapace from orbit to hind margin along median lateral line; hind margin of hepatic groove not cut off abruptly by an oblique ridge or carina; incisor process of mandible toothed for its entire length *Acanthephyra*
- Carapace decorated with at least one straight carina traversing the lateral surface from hind margin of orbit to posterior edge of carapace; hind margin of hepatic groove abruptly cut off from branchial region by an oblique carina; anterior half incisor process of mandible unarmed. 4
4. A single longitudinal carina on lateral surface of carapace; dorsal margin of carapace not denticulate on posterior three-fourths of its length; abdomen not dorsally carinate on first somite *Meningodora*
- More than one longitudinal carina on lateral surface of carapace; dorsal margin of carapace denticulate for nearly its entire length; abdomen dorsally carinate on every somite *Notostomus*
5. Ischial and meral joints of pereopods very broad and much compressed laterally. *Ephyrina*
- Pereiopods normal 6
6. Eyes very small and poorly pigmented; anterior margin of first abdominal somite entire, not toothed; telson terminating in a truncate, spinose tip. *Hymenodora*
- Eyes very large and well pigmented; anterior margin of first abdominal somite armed with a distinct lobe or tooth overlapping hind margin of carapace; telson terminating in a sharp-pointed end-piece laterally armed with spines *Systellaspis*

Oplophorus H. Milne Edwards, 1837 (fig. 1a)

Oplophorus H. Milne Edwards, 1837, Hist. nat. Crust. 2: 423. Type species, by monotypy: *Oplophorus typus* H. Milne Edwards, 1837, Hist. nat. Crust. 2: 424. Gender: masculine.

Hoplophorus Agassiz, 1846, Nomencl. Zool., Index Univ.: 185, 262. Invalid emendation of *Oplophorus* H. Milne Edwards, 1837. Invalid junior homonym of *Hoplophorus* Lund, 1838, Overs. K. Danske Vidensk. Selsk. Forh. 1838: 11 (Mammalia).

Acanthephyra A. Milne Edwards, 1881 (fig. 1b)

Ephyrina P. Roux, 1831, Mém. Class. Crust. Salic.: 24. Type species, selected by Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 416, : *Alpheus Pelagicus* Risso, 1816, Hist. nat. Crust. Nice: 91. Gender: feminine. Invalid junior homonym of *Ephyrina* Péron & Lesueur, 1810, Ann. Mus. Hist. nat.

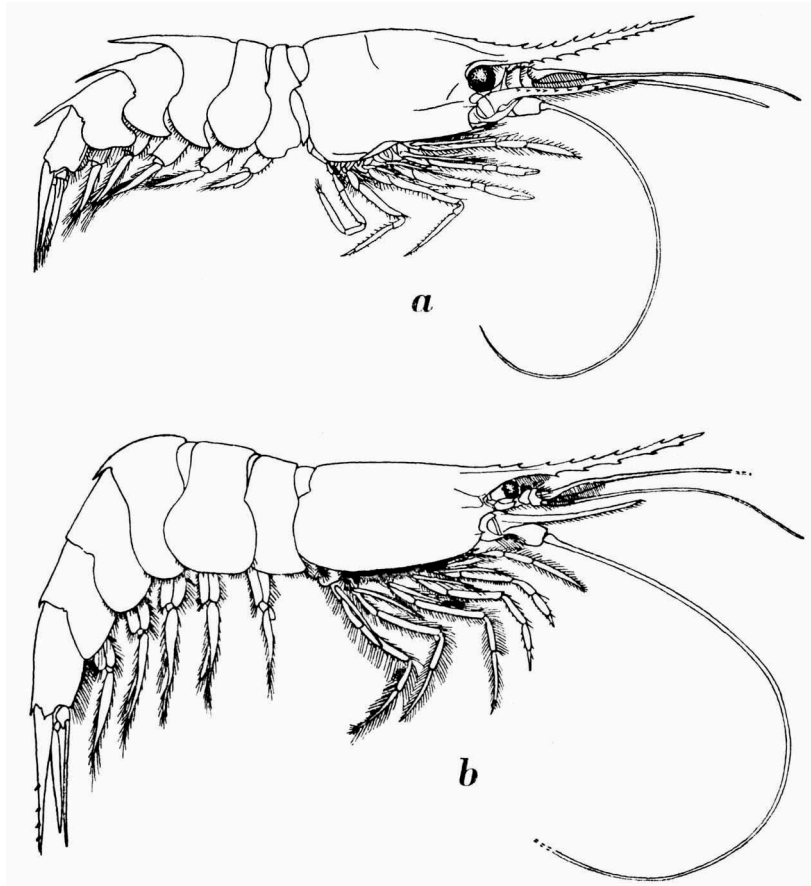


Fig. 1a. *Oplophorus spinosus* (Brullé). After Chace, 1940.
 Fig. 1b. *Acanthephyra purpurea* A. Milne Edwards. After Chace, 1940.

- Paris 14 (83): 354 (Coelenterata), and *Ephyra* Duponchel, 1829, Godart's Hist. nat. Lépid. France 7 (2) (Noct. 4 pt. 2): 108 (Lepidoptera).
Miersia Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 416. Substitute name for *Ephyra* P. Roux, 1831. Gender: feminine.
Acanthephyra A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 12. Type species, by original designation: *Acanthephyra armata* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 12. Gender: feminine.
Acantephyra Filhol, 1884, La Nature, Paris 12(1): 231. Erroneous spelling of *Acanthephyra* A. Milne Edwards, 1881.
Bentheocaris Bate, 1888, Rep. Voy. Challenger, Zool. 24: 723. Type species, by present selection: *Bentheocaris stylorostratis* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 726. Gender: feminine.

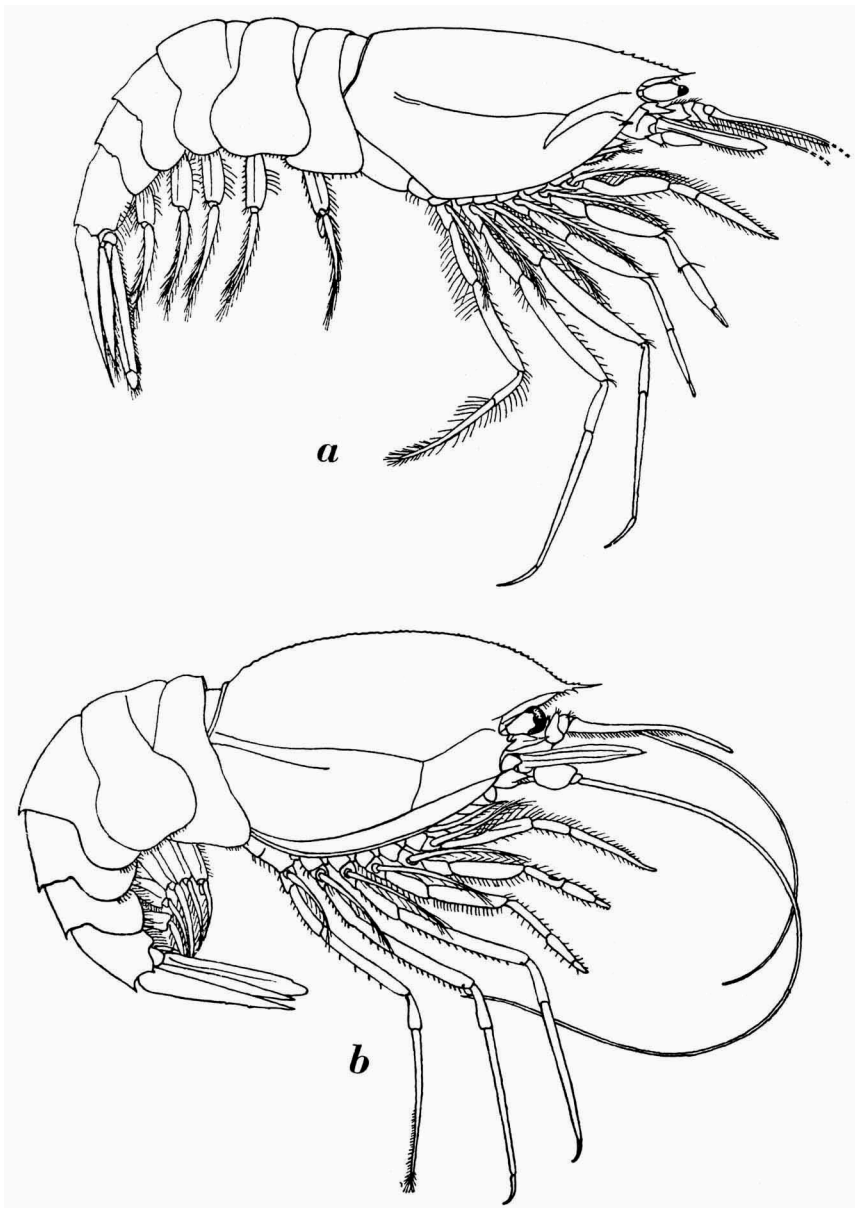


Fig. 2a. *Meningodora mollis* Smith. After Chace, 1940.
 Fig. 2b. *Notostomus robustus* Smith. After Chace, 1940.

Myersia Lo Bianco, 1901, Mitt. zool. Sta. Neapel 15: 439. Erroneous spelling of *Miersia* Kingsley, 1880.

Acanthephira Magri, 1904, Atti Accad. gioen. Sci. nat. Catania (4)17(14): 8.

Erroneous spelling of *Acanthephyra* A. Milne Edwards, 1881.

Hoplocaricyphus Coutière, 1907, Bull. Inst. océanogr. Monaco 104: 7. Type species, by monotypy: *Hoplocaricyphus similis* Coutière, 1907, Bull. Inst.

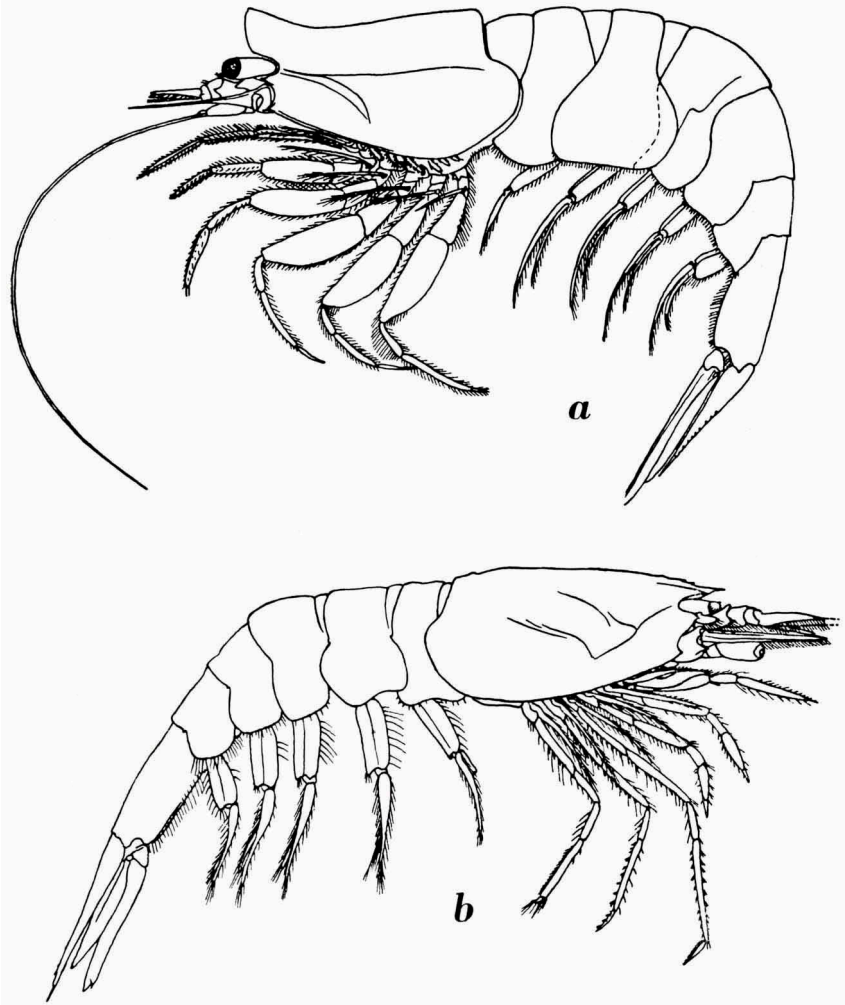


Fig. 3a. *Ephyrina hoskyni* Wood Mason & Alcock. After Chace, 1940.

Fig. 3b. *Hymenodora gracilis* Smith. After Chace, 1940.

océanogr. Monaco 104: 7 (? = *Alpheus Pelagicus* Risso, 1816, Hist. nat. Crust. Nice: 91). Gender: masculine.

Acanthephyra Calman, 1939, Sci. Rep. John Murray Exped. 6(4): 184. Erroneous spelling of *Acanthephyra* A. Milne Edwards, 1881.

Acathephyra Lebour, 1949, Proc. zool. Soc. Lond. 118(4): 1107. Erroneous spelling of *Acanthephyra* A. Milne Edwards, 1881.

Acanthephyra Lebour, 1952, Proc. zool. Soc. Lond. 121(4): 753. Erroneous spelling of *Acanthephyra* A. Milne Edwards, 1881.

Meningodora Smith, 1882 (fig. 2a)

Meningodora Smith, 1882, Bull. Mus. comp. Zoöl. Harvard, 10: 73. Type species, by monotypy: *Meningodora mollis* Smith, 1882, Bull. Mus. comp. Zoöl. Harvard 10: 74. Gender: feminine.

Notostomus A. Milne Edwards, 1881 (fig. 2b)

Notostomus A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 7. Type species by original designation: *Notostomus gibbosus* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 7. Gender: masculine.

Ephyrina Smith, 1885 (fig. 3a)

Ephyrina Smith, 1885, Proc. U. S. Nat. Mus. 7: 506. Type species, by monotypy: *Ephyrina Benedicti* Smith, 1885, Proc. U. S. Nat. Mus. 7: 506. Gender: feminine.

Calymarina Bate, 1888, Rep. Voy. Challenger, Zool. 24: 731. Gender: feminine. Nomen nudum.

Tropirinus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 750. Gender: masculine. Nomen nudum.

Tropiocaris Bate, 1888, Rep. Voy. Challenger, Zool. 24: 834. Type species, by original designation: *Tropiocaris planipes* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 835 (= *Ephyrina Benedicti* Smith, 1885, Proc. U. S. Nat. Mus. 7: 506). Gender: feminine.

Hymenodora Sars, 1877 (fig. 3b)

Hymenodora Sars, 1877, Arch. Math. Naturvidensk. 2: 340 [240]. Type species, by monotypy: *Pasiphaë glacialis* Buchholz, 1874, Zweite Deutsche Nordpolarfahrt 2: 279. Gender: feminine.

Systellaspis Bate, 1888 (fig. 4)

Systellaspis Bate, 1888, Rep. Voy. Challenger, Zool. 24: 757. Type species, by original designation: *Systellaspis lanceocaudata* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 758. Gender: feminine.

Family NEMATOCARCINIDAE

Nematocarcininae Smith, 1884, Rep. U. S. Fish Comm. 10: 368.

Nematocarcinidae Smith, 1886, Rep. U. S. Fish Comm. 13: 608, 619, 664.

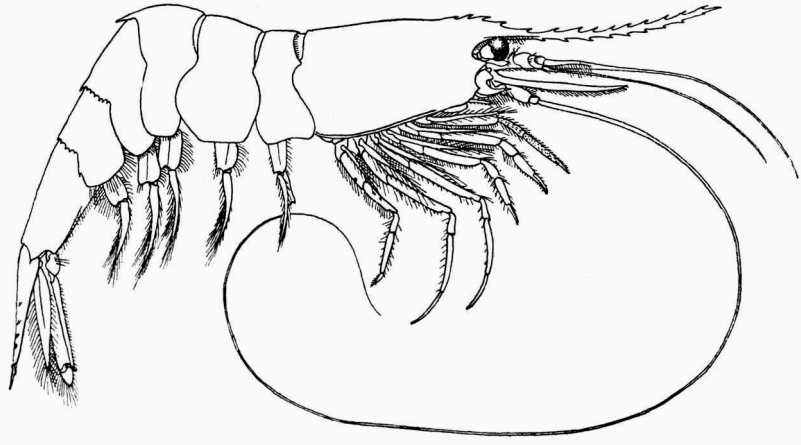


Fig. 4. *Systellaspis debilis* (A. Milne Edwards). After Chace, 1940.

The present family contains only one genus:

Nematocarcinus A. Milne Edwards, 1881 (fig. 5)

Nematocarcinus A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 14.

Type species, by monotypy: *Nematocarcinus cursor* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 14. Gender: masculine.

Eumiersia Smith, 1882, Bull. Mus. comp. Zoöl. Harvard 10: 77. Type species, by monotypy: *Eumiersia ensifera* Smith, 1882, Bull. Mus. comp. Zoöl. Harvard 10: 77. Gender: feminine.

Stochasmus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 822. Type species, by monotypy: *Stochasmus exilis* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 823. Gender: masculine.

Family ATYIDAE

Atyadea De Haan, 1849, Fauna Japon., Crust. (6): 168, 184.

Atyidae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 13, 16.

Atyinae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 16.

Atyoidées A. Milne Edwards, 1864, Ann. Soc. entom. France (4) 4: 145.

Xiphocarinae Ortmann, 1895, Proc. Acad. nat. Sci. Phila. 1894: 399.

Attidae Yu, 1936, Chin. Journ. Zool. 2: 88.

The following key to the genera of this family is largely based on Bouvier's (1925, Encycl. entom. (A) 4: 1-370) monograph of the group.

1. Arthrobranchs present on the first four pereopods. Chelae without long tufts of hairs at the tips of the fingers *Xiphocaris*
- Arthrobranchs absent from at least the last four pereopods. Chelae with long tufts of hairs at the tips of the fingers 2
2. Supraorbital spines present 3
- Supraorbital spines absent from carapace 8

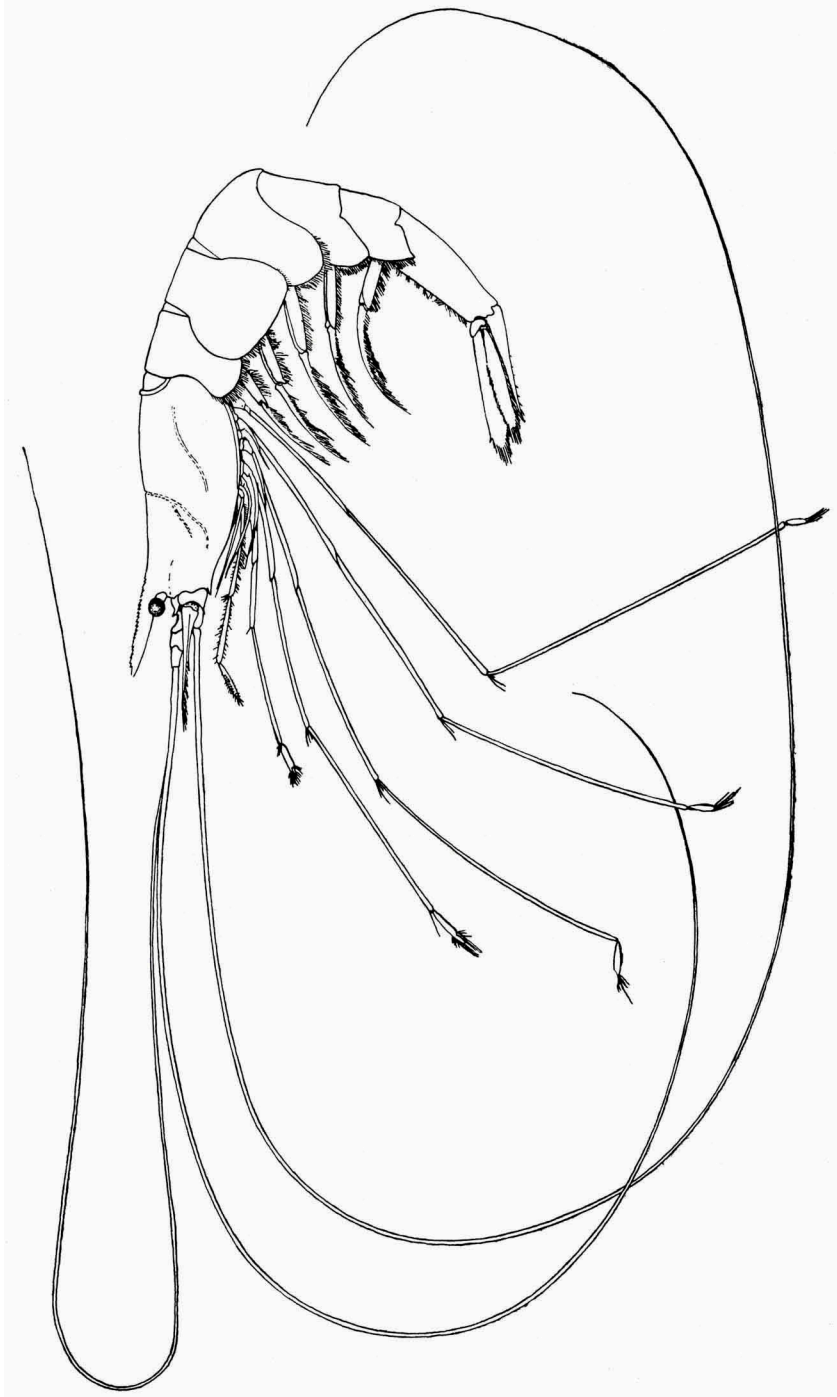


Fig. 5. *Nematocarcinus ensifer* (Smith). After Kemp, 1910.

3. Carapace without pterygostomian spine 4
 — Carapace with a pterygostomian spine 6
4. All pereiopods with exopods. Eyes well developed, cornea pigmented. *Paratya*
 — Fifth leg mostly without exopod. If, however, this exopod is present then the eyes
 are reduced and without pigment 5
5. Eyes greatly reduced, without pigment. Adult specimens with exopods on the first
 four or five legs. Third maxilliped with arthrobranch. *Troglocaris*
 — Eyes well developed, with pigment. Adult specimens without exopods on any of the
 legs. Third maxilliped without arthrobranch. *Atyaephyra*
6. Carpus of second legs without, that of first legs with an anterior excavation.
 Fifth leg without exopod. *Syncaris*
 — Carpus of both first and second legs anteriorly hollowed. Fifth leg generally with
 a rudimentary exopod 7
7. Eyes greatly reduced, without pigment. *Palaemonias*
 — Eyes well developed, with pigment. *Dugastella*
8. Exopods present on all the legs. Eyes reduced, without or with little pigment in
 the cornea 9
 — Exopods absent at least from the last 4 legs. Eyes generally well developed and
 with pigment 10
9. Pterygostomian and antennal spines present *Mesocaris*
 — Neither pterygostomian nor antennal spines present *Typhlatya*
10. First pereiopods with an arthrobranch. 11
 — No arthrobranch at the base of the first pereiopods. 14
11. Carpus of the second pair of legs very short, being shorter than broad, and
 having the anterior part deeply excavate. *Atya*
 — Carpus of second pair of legs longer than broad, generally not very deeply
 excavate anteriorly 12
12. Exopod present at the base of the first pereiopod. *Caridinides*
 — First pereiopod without exopod 13
13. Palmar portion of chelae distinct. Dactylus of these chelae much shorter than
 the propodus. Rostrum generally laterally compressed and with teeth on both upper
 and lower margin, seldom unarmed on one or both margins. Carpus of second
 chelipeds hardly if at all excavate anteriorly. Africa, Indo-West Pacific region.
Caridina
 — Palmar portion of chelae very small. Dactylus of these chelae almost as long as
 the propodus. Rostrum short, in the basal part dorsoventrally depressed and without
 dorsal, though with ventral teeth. Carpus of second chelipeds generally distinctly
 excavate anteriorly. America *Potimirim*
14. Carpus of first pereiopod anteriorly excavate. 15
 — Carpus of first pereiopod not or not noticeably excavate anteriorly 17
15. Palmar portion of the chelae obsolete. Chelae cleft to or almost to their base so
 that the dactylus and propodus are of the same length. Carpus of second leg
 excavate anteriorly 16
 — Chelae with a distinct palmar portion. Dactylus of these chelae much shorter
 than propodus. Carpus of second leg not excavate. *Caridella*
16. Anterolateral angle of basal segment of antennular peduncle with a slender tooth.
 Several teeth of dorsal rostral series are placed behind the orbit. Lake Tanganyika.
Atyella
 — Anterolateral angle of basal segment of antennular peduncle without a tooth. All
 dorsal rostral teeth confined to the rostrum proper. Cuba. *Micratya*
17. Epipods present on the first four pereiopods. All pereiopods with pleurobranchs.
 Third maxilliped with two arthrobranchs, second maxilliped with a podobranch.
 Rostrum rather long, but the dorsal spines concentrated behind the orbit, no spines
 or teeth on the dorsal margin of the rostrum proper *Caridinopsis*

- No epipods on the fourth pereopod. Pleurobranch on the fifth leg generally (or always?) absent. Third maxilliped with at most 1 arthrobranch, no podobranch on the second maxilliped. Rostrum with teeth on the upper margin in front of the posterior limit of the orbit. 18
18. Epipods present on the first three pereopods. A rudimentary arthrobranch present on the base of the third maxilliped *Limnocaridella*
- No epipods on any of the pereopods. No gills on the third maxilliped. *Limnocaridina*

Xiphocaris Von Martens, 1872 (fig. 6a)

- Xiphocaris* Von Martens, 1872, Arch. Naturgesch. 38(1) : 139. Type species, by monotypy: *Hippolyte elongatus* Guérin Méneville, 1856, R. de la Sagra's Historia Cuba, Hist. nat. 7:xx. Gender: feminine.
- Xiphicaris* Edmondson, 1935, Occ. Pap. Bishop Mus. Honolulu 10(24) : 17. Erroneous spelling of *Xiphocaris* Von Martens, 1872.

Paratya Miers, 1882 (fig. 6b)

- Paratya* Miers, 1882, Ann. Mag. nat. Hist. (5)9 : 194. Type species, by monotypy: *Ephyra compressa* De Haan, 1844, Fauna Japon., Crust. (6/7) : pl. 46 fig. 7. Gender: feminine.
- Xiphocaridina* Bouvier, 1909, C. R. Acad. Sci. Paris 148 : 1729. Type species, by present selection: *Ephyra compressa* De Haan, 1844, Fauna Japon., Crust. (6/7) : pl. 46 fig. 7. Gender: feminine.
- Xiphatyoida* J. Roux, 1915, Act. Soc. Helv. Sci. nat. 1915 (2) (Zool.) : 225. Type species, selected by J. Roux, 1926, Nova Caledonia 4(2) : 196; *Paratya* (*Xyphatyoida*) *typa* J. Roux, 1926, Nova Caledonia 4(2) : 196. Gender: feminine.
- Xyphatyoida* J. Roux, 1926, Nova Caledonia 4(2) : 196. Erroneous spelling of *Xiphatyoida* J. Roux, 1915.
- Xiphicaridina* Edmondson, 1935, Occ. Pap. Bishop Mus. Honolulu 10(24) : 17. Erroneous spelling of *Xiphocaridina* Bouvier, 1909.

Troglocaris Dormitzer, 1853 (fig. 6c)

- Troglocaris* Dormitzer, 1853, Lotos, Prague 3 : 85. Type species, by monotypy: *Troglocaris Schmidti* Dormitzer, 1853, Lotos, Prague 3 : 85 (= *Palaeomon anophthalmus* Kollar, 1848, S. B. Akad. Wiss. Wien 1 : 137). Gender: feminine.
- Xiphocaridinella* Sadovsky, 1930, Zakavk. Kraeved. Sborn. (A) 1 : 95. Type species by monotypy: *Xiphocaridinella kutaissiana* Sadovsky, 1930, Zakavk. Kraeved. Sborn. (A) 1 : 95. Gender: feminine.
- Troglocaridella* Babič, 1930, Glasnik hrvad. Zagreb 34 : 303. Type species, by monotypy: *Troglocaridella hercegovinensis* Babič, 1930, Glasnik hrvad. Zagreb 34 : 303. Gender: feminine.

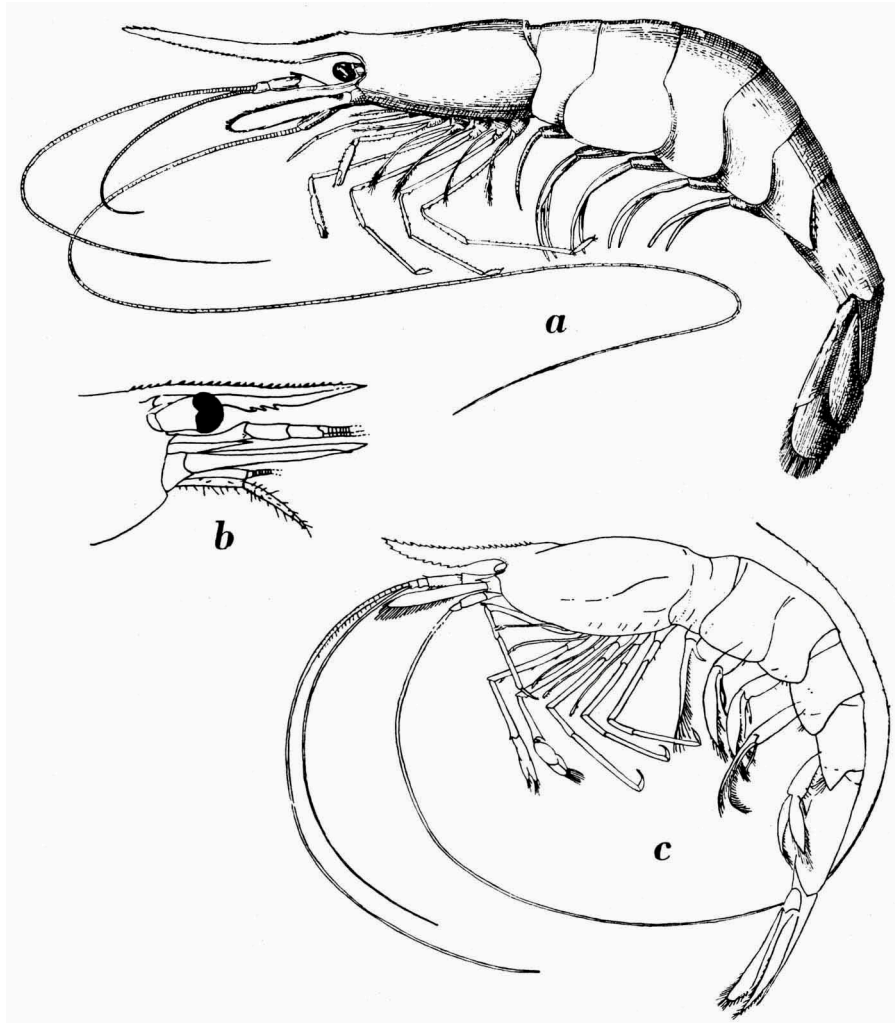


Fig. 6a. *Xiphocaris elongata* (Guérin-Méneville). After Bouvier, 1925.

Fig. 6b. *Paratya compressa* (De Haan). Anterior part of body. After Kubo, 1938.

Fig. 6c. *Trogloncaris anophthalmus* (Kollar). After Stammer, 1932.

Atyaephyra de Brito Capello, 1867 (fig. 7)

Symethus Rafinesque, 1814, Préc. Découv. somiol.: 23. Type species, by monotypy: *Symethus fluviatilis* Rafinesque, 1814, Préc. Découv. somiol.: 23 (= *Hippolyte Desmarestii* Millet, 1831, Mém. Soc. agric. sci. Angers 1: 56). Gender: masculine.

Symathus Rafinesque, 1815, Anal. Nature: 98. Erroneous spelling of *Symethus* Rafinesque, 1814.

Acilius Rafinesque, 1815, Anal. Nature: 221. Substitute name for *Symethus* Rafinesque, 1814. Gender: masculine.

Symaethus Agassiz, 1846, Nomencl. Zool., Index Univ.: 357. Invalid emendation of *Symethus* Rafinesque, 1814.

Atyaephyra de Brito Capello, 1867, Mem. Acad. R. Sci. Lisboa, Sci. math. phys. nat. (n. ser.) 4(1) (7): 5. Type species, by monotypy: *Atyaephyra Rosiana* de Brito Capello, 1867, Mem. Acad. R. Sci. Lisboa, Sci. math.

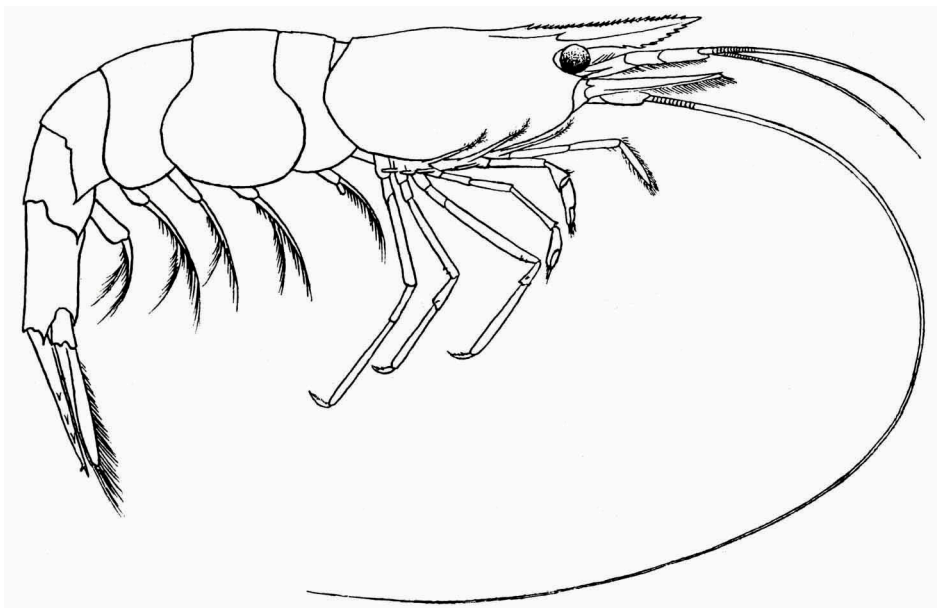


Fig. 7. *Atyaephyra desmaresti* (Millet). After Holthuis, 1950.

phys. nat. (n. ser.) 4(1) (7): 6 (= *Hippolyte Desmarestii* Millet, 1831, Mém. Soc. agric. sci. Angers 1: 56). Gender: feminine.

Atyephyra Von Martens, 1868, Arch. Naturgesch. 34(1): 51. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.

Atyephira Ishikawa, 1885, Quart. Journ. micr. Sci. (n. ser.) 25: 391. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.

Hemicaridina Ortmann, 1890, Zool. Jb. Syst. 5: 464. Type species, by monotypy: *Hippolyte Desmarestii* Millet, 1831, Mém. Soc. agric. sci. Angers 1: 56. Gender: feminine.

Lemicaridina Matzdorff, 1894, Helios 12(7): 118. Erroneous spelling of *Hemicaridina* Ortmann, 1890.

- Atyaephyra* Ortmann, 1895, Proc. Acad. nat. Sci. Phila. 1894: 398, 399, 401, 413. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.
- Athejaephira* Magri, 1923, Natural. Sicil. 24: 83. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.
- Athejephira* Magri, 1923, Natural. Sicil. 24: 94, 97. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.
- Atyaephira* Ferrer Galdiano, 1924, Bol. Soc. Esp. Hist. nat. 24: 210. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.
- Atyaephrya* Hertzog, 1930, Bull. Ass. philom. Alsace Lorraine 7(5): 355. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.
- Athyaeephyra* Werner, 1938, S. B. Akad. Wiss. Wien, math.-naturw. Kl. (1)147: 134. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.
- Atyalphyra* Birstein, 1939, Zool. Journ. Moscow 18: 972. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.
- Athyaepora* Sterk, 1950, Natuurhist. Maandbl. Maastricht 39: 14. Erroneous spelling of *Atyaephyra* de Brito Capello, 1867.

Syncaris Holmes, 1900 (fig. 8a)

- Syncaris* Holmes, 1900, Occ. Pap. Calif. Acad. Sci. 7: 211. Type species, by original designation: *Miersia pacifica* Holmes, 1895, Proc. Calif. Acad. Sci. (2)4: 577. Gender: feminine.

Palaemonias Hay, 1901 (fig. 8b)

- Palaemonias* Hay, 1901, Proc. biol. Soc. Wash. 14: 179. Type species, by monotypy: *Palaemonias Ganteri* Hay, 1901, Proc. biol. Soc. Wash. 14: 180. Gender: masculine.
- Palaemonias* J. Roux, 1915, Act. Soc. Helv. Sci. nat. 1915 (2) (Zool): 226. Erroneous spelling of *Palaemonias* Hay, 1901.
- Palaemonies* Giovannoli, 1933, Amer. Midl. Nat. 14: 620. Erroneous spelling of *Palaemonias* Hay, 1901.
- Poiotmonias* Birstein, 1939, Zool. Journ. Moscow 18: 972. Erroneous spelling of *Palaemonias* Hay, 1901.

Dugastella Bouvier, 1912 (fig. 8c)

- Dugastella* Bouvier, 1912, C. R. Acad. Sci. Paris 155: 993. Type species, by monotypy: *Dugastella marocana* Bouvier, 1912, C. R. Acad. Sci. Paris 155: 993. Gender: feminine.

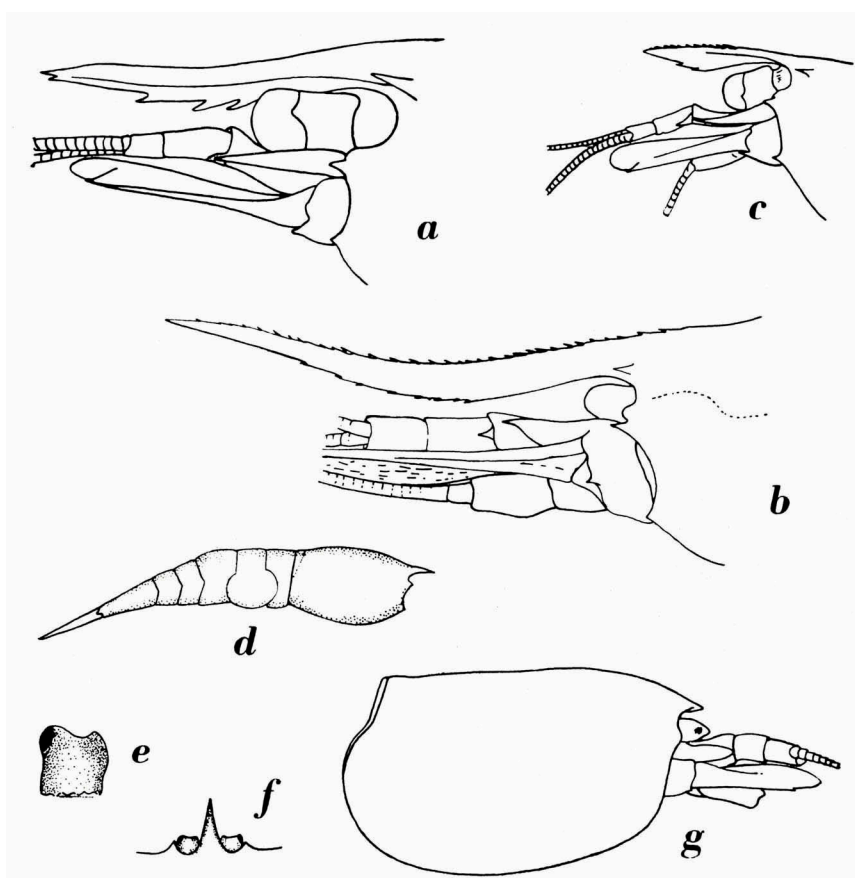


Fig. 8a. *Syncaris pasadenae* (Kingsley). Anterior part of body. After Bouvier, 1925.

Fig. 8b. *Palaemonias ganteri* Hay. Anterior part of body. After Fage, 1931.

Fig. 8c. *Dugastella marocana* Bouvier. Anterior part of body. After Bouvier, 1925.

Fig. 8d-f. *Antecaridina lauensis* (Edmondson), d, body in lateral view; e, eye; f, rostrum in dorsal view. After Edmondson, 1935.

Fig. 8g. *Typhlatya garciai* Chace. Carapace. After Chace, 1942a.

Antecaridina Edmondson, 1954 (fig. 8d-f)

Mesocaris Edmondson, 1935, Occ. Pap. Bishop Mus. Honolulu 10(24) : 13.

Type species, by monotypy: *Mesocaris lauensis* Edmondson, 1935, Occ. Pap. Bishop Mus. Honolulu 10(24) : 13. Gender: feminine. Invalid junior homonym of *Mesocaris* Ortman, 1893, *Ergebn. Plankton Exped.* 2 (Gb) : 73, 82 (Crustacea, Decapoda, Macrura).

Antecaridina Edmondson, 1954, *Pacific Sci.* 8: 368. Substitute name for *Mesocaris* Edmondson, 1935. Gender: feminine.

Typhlatya Creaser, 1936 (fig. 8g)

Typhlatya Creaser, 1936, Publ. Carnegie Inst. Wash. 457: 128. Type species, by monotypy: *Typhlatya pearsei* Creaser, 1936, Publ. Carnegie Inst. Wash. 457: 128. Gender: feminine.

Atya Leach, 1816 (fig. 9)

Atys Leach, 1815, Trans. Linn. Soc. Lond. 11: 345. Type species, by monotypy: *Atys scaber* Leach, 1815, Trans. Linn. Soc. Lond. 11: 345. Gender: masculine. Invalid junior homonym of *Atys* de Montfort, 1810, Conch. 2: 342 (Mollusca).

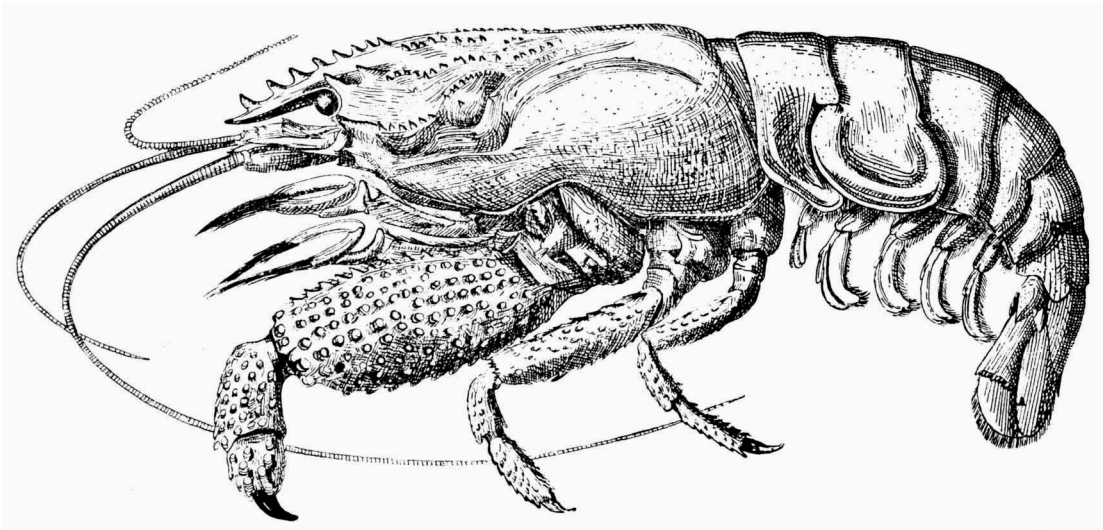


Fig. 9. *Atya crassa* (Smith). After Bouvier, 1925.

Atya Leach, 1816, Suppl. 4th-6th eds. Encycl. Brit. 1: 421. Type species, by monotypy: *Atys scaber* Leach, 1815, Trans. Linn. Soc. Lond. 11: 345. Gender: feminine.

Atia Latreille, 1817, Cuvier's Règne anim. (ed. 1) 3: 37. Erroneous spelling of *Atya* Leach, 1816.

Atyoida Randall, 1839, Journ. Acad. nat. Sci. Phila. 8: 140. Type species, by monotypy: *Atyoida bisulcata* Randall, 1839, Journ. Acad. nat. Sci. Phila. 8: 140. Gender: feminine.

Evatya Smith, 1871, Ann. Rep. Peabody Acad. Sci. 1869: 95. Type species, by monotypy: *Evatya crassa* Smith, 1871, Ann. Rep. Peabody Acad. Sci. 1869: 95. Gender: feminine.

- Euatya* Koelbel, 1884, S. B. Akad. Wiss. Wien 90(1): 317, 318, 320. Invalid emendation of *Evatya* Smith, 1871.
- Ortmannia* Rathbun, 1902, Bull. U. S. Fish Comm. 20(2): 120. Type species, by original designation: *Ortmannia henshawi* Rathbun, 1902, Bull. U. S. Fish Comm. 20(2): 120, footnote (= *Atyoida bisulcata* Randall, 1839, Journ. Acad. nat. Sci. Phila. 8: 140). Gender: feminine.
- Pseudatya* J. Roux, 1928, Treubia 10: 209. Type species, by monotypy: *Pseudatya beauforti* J. Roux, 1928, Treubia 10: 209. Gender: feminine.
- Vanderbiltia* Boone, 1935, Bull. Vanderbilt mar. Mus. 6: 159. Type species, by monotypy: *Vanderbiltia rosamondae* Boone, 1935, Bull. Vanderbilt mar. Mus. 6: 160 (= *Atya serrata* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 699). Gender: feminine.
- Orthmannia* Sawaya, 1946, Zoologia, São Paulo 11: 412. Erroneous spelling of *Ortmannia* Rathbun, 1902.

Caridinides Calman, 1926 (fig. 10a, b)

- Caridinides* Calman, 1926, Ann. Mag. nat. Hist. (9)17: 242. Type species, by monotypy: *Caridinides wilkinsi* Calman, 1926, Ann. Mag. nat. Hist., (9)17: 242. Gender: masculine.

Caridina H. Milne Edwards, 1837 (fig. 10c)

- Caridina* H. Milne Edwards, 1837, Hist. nat. Crust. 2: 362. Type species, by monotypy: *Caridina typus* H. Milne Edwards, 1837, Hist. nat. Crust. 2: 363. Gender: feminine.
- Caradina* Bate, 1863, Proc. zool. Soc. Lond. 1863: 499. Erroneous spelling of *Caridina* H. Milne Edwards, 1837.
- Carinida* Filhol, 1886, Miss. Ile Campbell, Zool. 3(2): 430. Erroneous spelling of *Caridina* H. Milne Edwards, 1837.
- Caridine* Urita, 1921, Zool. Mag. Tokyo 33: 216. Erroneous spelling of *Caridina* H. Milne Edwards, 1837.
- Cardina* Hora, 1933, Curr. Sci. Bangalore 1: 385. Erroneous spelling of *Caridina* H. Milne Edwards, 1837.
- Caradrina* Carvalho, 1936, Mem. Est. Mus. zool. Univ. Coimbra (1)66: 19. Erroneous spelling of *Caridina* H. Milne Edwards, 1837.
- Neocaridina* Kubo, 1938, Journ. Imp. Fish. Inst. Japan 33: 73. Type species, by original designation: *Hippolyte denticulatus* De Haan, 1844, Fauna Japon., Crust. (6/7): pl. 45 fig. 8. Gender: feminine.

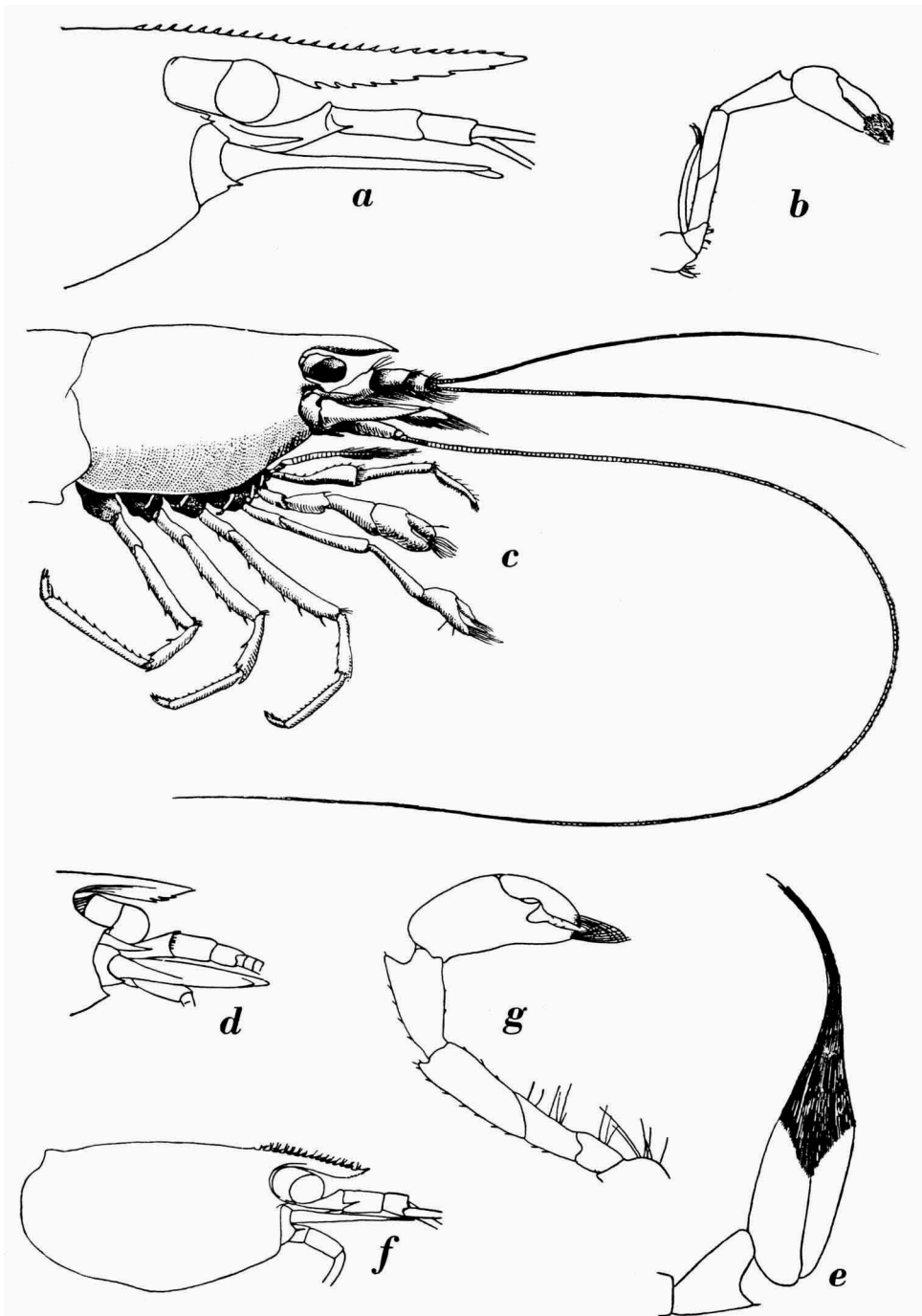


Fig. 10a, b. *Caridinides wilkinsi* Calman. a, anterior part of body; b, first pereiopod. After Calman, 1926.

Fig. 10c. *Caridina acuminata* Stimpson. Anterior part of body. After Balss, 1914.

Fig. 10d, e. *Potimirin mexicana* (De Saussure). d, anterior part of body; e, first chela. After Bouvier, 1925.

Fig. 10f, g. *Caridella cunningtoni* Calman. f, anterior part of body; g, first pereiopod. After Calman, 1906.

Potimirim Holthuis, 1954 (fig. 10d, e)

Potimirim Holthuis, 1954, Zool. Verh. Leiden 23: 2. Type species, by original designation: *Caridina mexicana* De Saussure, 1857, Rev. Mag. Zool. (2)9: 505. Gender: feminine.

Caridella Calman, 1906 (fig. 10f, g)

Caridella Calman, 1906, Proc. zool. Soc. Lond. 1906 (1): 198. Type species, by original designation: *Caridella cunningtoni* Calman, 1906, Proc. zool. Soc. Lond. 1906 (1): 199. Gender: feminine.

Atyella Calman, 1906 (fig. 11a, b)

Atyella Calman, 1906, Proc. zool. Soc. Lond. 1906 (1): 201. Type species, by original designation: *Atyella brevisrostris* Calman, 1906, Proc. zool. Soc. Lond. 1906 (1): 201. Gender: feminine.

Micratya Bouvier, 1913 (fig. 11c, d)

Calmania Bouvier, 1909, C. R. Acad. Sci. Paris 148: 1730. Type species, by monotypy: *Atya Poeyi* Guérin Méneville, 1856, R. de la Sagra's Historia Cuba, Hist. nat. 7: xviii. Gender: feminine. Invalid junior homonym of *Calmania* Laurie, 1906, Rep. Ceylon Pearl Oyster Fish. 5: 406 (Crustacea Brachyura) and *Calmania* Nobili, 1907, Annu. Mus. zool. Univ. Napoli (n. ser.) 2(21): 3 (Crustacea Macrura Palaemonidae).
Micratya Bouvier, 1913, Bull. Soc. entom. France 1913: 181. Type species, by monotypy: *Atya Poeyi* Guérin Méneville, 1856, R. de la Sagra's Historia Cuba, Hist. nat. 7: xviii. Gender: feminine.
Balssiola Strand, 1922, Arch. Naturgesch. 88 (A4): 142. Substitute name for *Calmania* Bouvier, 1909. Gender: feminine.

Caridinopsis Bouvier, 1912 (fig. 11e)

Caridinopsis Bouvier, 1912, Bull. Mus. Hist. nat. Paris 18: 300. Type species, by monotypy: *Caridinopsis Chevalieri* Bouvier, 1912, Bull. Mus. Hist. nat. Paris 18: 300. Gender: masculine.

Limnocaridella Bouvier, 1913 (fig. 11f)

Limnocaridella Bouvier, 1913, Bull. Soc. entom. France 1913: 180. Type species, by monotypy: *Limnocaridina Alberti* Lenz, 1910, Wiss. Ergebn. Deutsch. Zentral-Afr. Exped. 1907-1908 3(3): 12. Gender: feminine.

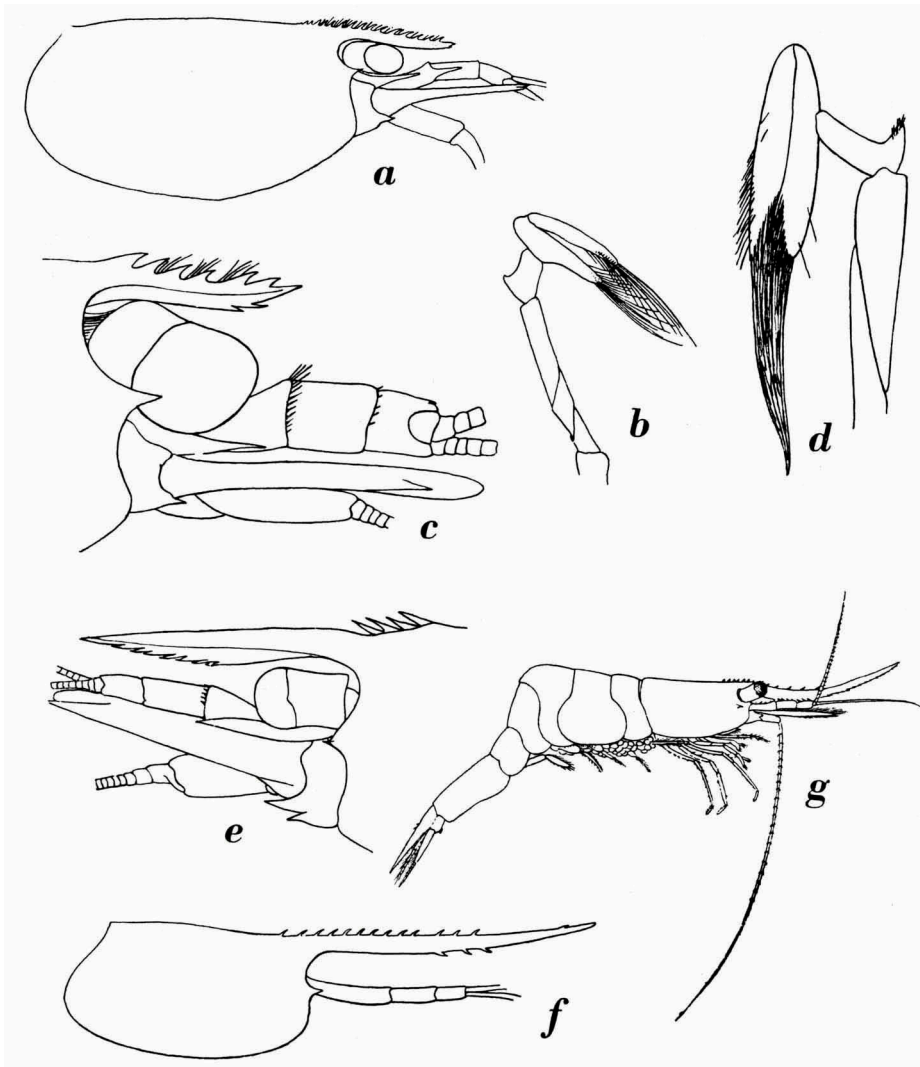


Fig. 11a, b. *Atyella brevirostris* Calman. a, anterior part of body; b, first pereiopod. After Calman, 1906.

Fig. 11c, d. *Micratya poeyi* (Guérin). c, anterior part of body; d, first leg. After Bouvier, 1925.

Fig. 11e. *Caridimopsis chevalieri* Bouvier. Anterior part of body. After Bouvier, 1925.

Fig. 11f. *Limnocaridella alberti* (Lenz). Carapace. After Lenz, 1910.

Fig. 11g. *Limnocaridina tanganyikae* Calman. After Calman, 1899.

Limnocaridina Calman, 1899 (fig. 11g)

Limnocaridina Calman, 1899, Proc. zool. Soc. Lond. 1899: 704. Type species, by monotypy: *Limnocaridina tanganyikae* Calman, 1899, Proc. zool. Soc. Lond. 1899: 704. Gender: feminine.

Superfamily STYLODACTYLOIDA

Stylodactyloida Borradaile, 1907, Ann. Mag. nat. Hist. (7)19: 467, 471.

This superfamily contains only one family with one genus:

Family STYLODACTYLIDAE

Stylodactylidae Bate, 1888, Rep. Voy. Challenger, Zool. 24: 481, 850.
Stylodactylinae Perrier, 1899, Traité Zool. 3: 1031.

Stylodactylus A. Milne Edwards, 1881 (fig. 12)

Stylodactylus A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 11.
Type species, by monotypy: *Stylodactylus serratus* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 11. Gender: masculine.

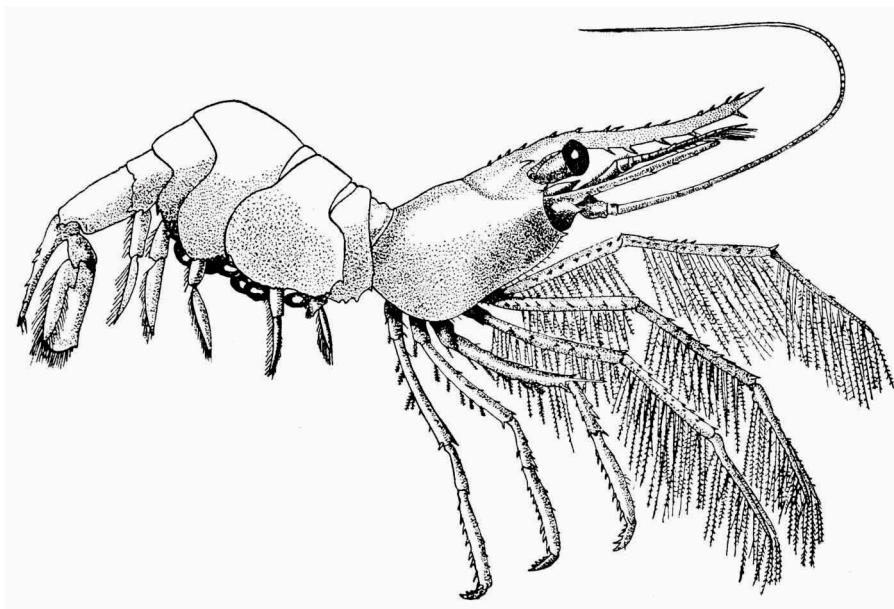


Fig. 12. *Stylodactylus amarynthus* De Man. After De Man, 1920.

Superfamily PASIPHAEOIDA

- Pasiphaeina Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 13, 18.
 Pasiphaeoida Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 55.
 Pasiphaeoida Balss, 1914, Abh. Bayer. Akad. Wiss. (suppl.) 2 (10): 19.
 Pasiphaeoida Balss, 1921, K. Svenska Vetensk. Akad. Handl. 61 (10): 7.

Only one family is included in this superfamily:

Family PASIPHAEIDAE

- Pasiphaeidae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 13, 18.
 Leptocheilidae Paulson, 1875, Issljed. Rakoobr. Krasn. Morja (Stud. Crust. Red Sea): 99.
 Pasiphaeinae Claus, 1876, Grundzüge Zool. (ed. 3): 551.
 Pasiphaidae Smith, 1884, Rep. U. S. Fish Comm. 10: 381.
 Pasiphaidae Wood Mason & Alcock, 1893, Ann. Mag. nat. Hist. (6) 11: 161.
 Pasiphaeiidae Faxon, 1893, Bull. Mus. comp. Zoöl. Harvard 24: 208.
 Pasyphaeinae Perrier, 1899, Traité Zool. 3: 1032.
 Pasiphaeidae Balss, 1915, Denkschr. Akad. Wiss. Wien 91: 17.
 Pasipheidae De Miranda y Rivera, 1933, Not. Res. Inst. Españ. Oceanogr. (2) 67: 6.
 Pasiphaeidae Barnard, 1950, Ann. S. Afr. Mus. 38: 648.

As several of the genera of this family are insufficiently known, their systematic status is quite uncertain. A revision of this group therefore is highly desirable. The following tentative key to the genera should be used with some reserve:

1. Mandible without a palp. Rostrum formed by an erect postfrontal spine *Pasiphaea*
 — Mandibular palp present. Rostrum a normal forwards directed prolongation of the carapace 2
2. Fourth pereopod distinctly shorter than either third or fifth leg. 3
 — Fourth pereopod longer than fifth leg, though sometimes shorter than third. 7
3. Antennal and branchiostegal spines absent. Dorsal margin of carapace usually without teeth 4
 — Antennal and branchiostegal spines present. Dorsal margin of carapace with teeth. 5
4. Mandibular palp two-jointed *Parapasiphaë*
 — Mandibular palp consisting of a single joint. *Dantecia*
5. Mandibular palp consisting of a single joint. *Sympasiphaea*
 — Mandibular palp two-jointed 6
6. Third maxilliped with one arthrobranch *Glyphus*
 — Third maxilliped with two arthrobranches *Eupasiphaë*
7. Third and fourth pereopods slender, of about equal length and not shorter than the first. Pleopods with the exopod very long and narrow, the endopod much shorter. Rostrum dorsally with teeth *Psathyrocaris*
 — Fourth pereopod shorter than third, both much shorter than first. Pleopods with exo- and endopod short and about equal in length. Rostrum dorsally without teeth.
Leptocheila

Pasiphaea Savigny, 1816 (fig. 13a)

- Pasiphaea* Savigny, 1816, Mém. Anim. s. Vert. 1: 50. Type species, by monotypy: *Alpheus Sivado* Risso, 1816, Hist. nat. Crust. Nice: 93. Gender: feminine.
- Pasiphae* Latreille, 1819, Nouv. Dict. Hist. nat. (ed. 2) 30: 73. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Pasiphaë* Burmeister, 1837, Handb. Naturgesch. 2: 565. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Pasiphae* Krøyer, 1845, Naturhist. Tidsskr. (n. ser.) 1: 453. Invalid emendation of *Pasiphaea* Savigny, 1816.
- Pasyphaea* Veranyi, 1846, Catal. Anim. Golfo Genova: 8. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Pasiphaerea* Grube, 1864, Jber. Schles. Ges. vaterl. Cult. 41: 62. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Passive* Lovett, 1884, Proc. Trans. Croydon micr. nat. Hist. Club 1882-1883: 131. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Phye* Wood Mason, 1892, Illustr. Zool. Invest. Crust. 1: pl. 3 fig. 5. Type species, by monotypy: *Parapasiphaë Alcocki* Wood Mason & Alcock, 1891, Ann. Mag. nat. Hist. (6)7: 196. Gender: feminine.
- Pasiphaeia* Faxon, 1893, Bull. Mus. comp. Zoöl. Harvard 24: 208. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Pasiphaeia* Faxon, 1895, Mem. Mus. comp. Zoöl. Harvard 18: 173. Invalid emendation of *Pasiphaea* Savigny, 1816.
- Pasiphea* Magri, 1904, Atti Accad. gioen. Sci. nat. Catania (4)17(14): 4. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Passiphaea* Björck, 1911, Ark. Zool. 7(15) 1. Erroneous spelling of *Pasiphaea* Savigny, 1816.
- Phasiphae* (Risso MS) Monod, 1931, Arch. Mus. Hist. nat. Paris (6)7: 123. Erroneous spelling of *Pasiphaea* Savigny, 1816.

Parapasiphaë Smith, 1884 (fig. 13b)

- Parapasiphaë* Smith, 1884, Rep. U. S. Fish Comm. 10: 383. Type species, selected by Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 547; *Parapasiphaë sulcatifrons* Smith, 1884, Rep. U. S. Fish Comm. 10: 384. Gender: feminine.
- Orphanina* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 872. Type species, by monotypy: *Orphanina tenuimana* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 872. Gender: feminine. Invalid junior homonym of *Orphanina* Fischer, 1853, Orthopt. Europ.: 197, 222 (Orthoptera).

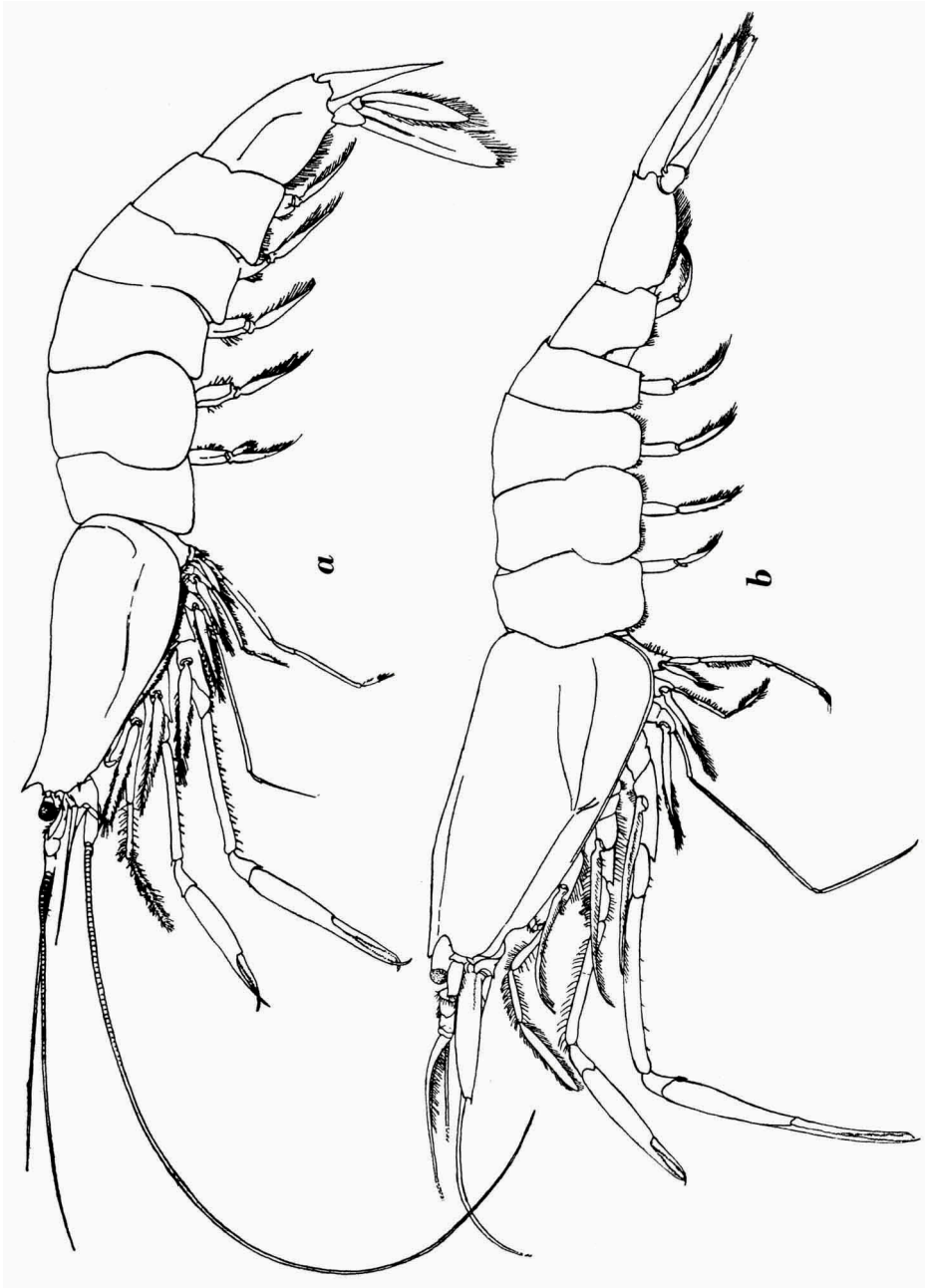


Fig. 13a. *Pasiphaea multidentata* Esmark. After Kemp, 1910.
Fig. 13b. *Parapasiphae sulcatifrons* Smith. After Kemp, 1910.

Parapasiphaea Alcock & Anderson, 1894, Journ. Asiat. Soc. Bengal 63(2): 158. Erroneous spelling of *Parapasiphaë* Smith, 1884.

Parasiphaea Grieg, 1927, Bergens Mus. Aarb. 1926(7): 47. Erroneous spelling of *Parapasiphaë* Smith, 1884.

Dantecia Caullery, 1896 (fig. 14a, b)

Dantecia Caullery, 1896, Ann. Univ. Lyon 26: 372. Type species, by monotypy: *Dantecia Caudani* Caullery, 1896, Ann. Univ. Lyon 26: 372. Gender: feminine.

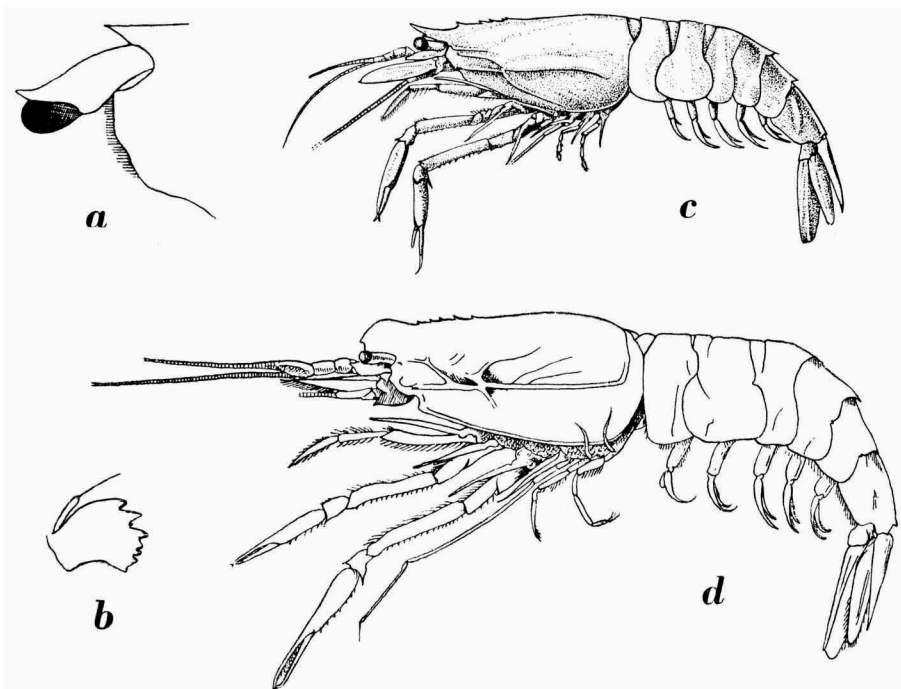


Fig. 14a, b. *Dantecia caudani* Caullery. a, anterior part of carapace; b, mandible. After Caullery, 1896.

Fig. 14c. *Sympasiphaea annectens* Alcock. After Alcock & McArdle, 1901.

Fig. 14d. *Eupasiphaë latirostris* (Wood Mason & Alcock). After Wood Mason & Alcock, 1893.

Sympasiphaea Alcock, 1901 (fig. 14c)

Sympasiphaea Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 58, 62. Type species, by monotypy: *Sympasiphaea annectens* Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 63. Gender: feminine.

Sympasiphaea Balss, 1925, Wiss. Ergebn. Valdivia Exped. 20(5): 233. Erroneous spelling of *Sympasiphaea* Alcock, 1901.

Glyphus Filhol, 1884

Glyphus Filhol, 1884, La Nature, Paris 12(1):231, 328. Type species, by monotypy: *Glyphus marsupialis* Filhol, 1884, La Nature, Paris 12(1):231, 328. Gender: masculine.

Eupasiphaë Wood Mason & Alcock, 1893 (fig. 14d)

Eupasiphaë Wood Mason & Alcock, 1893, Ann. Mag. nat. Hist. (6)11:165.

Type species, by present selection: *Parasiphaë Gilesii* Wood Mason, 1892, Illustr. Zool. Invest. Crust. 1: pl. 3 fig. 8. Gender: feminine.

Eupasiphaea Alcock & Anderson, 1894, Journ. Asiat. Soc. Bengal 63(2):158. Erroneous spelling of *Eupasiphaë* Wood Mason & Alcock, 1893.

Psathyrocaris Wood Mason & Alcock, 1893 (fig. 15a)

Psathyrocaris Wood Mason & Alcock, 1893, Ann. Mag. nat. Hist. (6)11:

168. Type species, by monotypy: *Psathyrocaris fragilis* Wood Mason & Alcock, 1893, Ann. Mag. nat. Hist. (6)11:168. Gender: feminine.

Leptochela Stimpson, 1860 (fig. 15b)

Leptochela Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860:42. Type species, by present selection: *Leptochela gracilis* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860:42. Gender: feminine.

Superfamily BRESILIOIDA nov.

The four families grouped in this superfamily, formerly were placed in three different superfamilies. The Bresiliidae generally were believed to belong to the Pasiphaeoida, the Eugonatonotidae and the Disciadidae were placed in the Oplophoroida, while the Rhynchocinetidae formed part of the Palaemonoida. I am not certain whether the present group is a natural one. The Rhynchocinetidae and the Eugonatonotidae certainly are closely related. They differ from the two other families in having the mandible more Palaemonoid, with a distinct incisor and molar process, by the articulate palp of the first maxilliped, by the second maxilliped having the last joint applied sidewise to the penultimate joint, by the shape of the finger tips of the first pair of legs, by the exopods of the pereopods which are rudimentary or absent. The Disciadidae in several respects are intermediate between the Bresiliidae and the other two families, e.g., in the shape of the last joint of the second maxilliped.

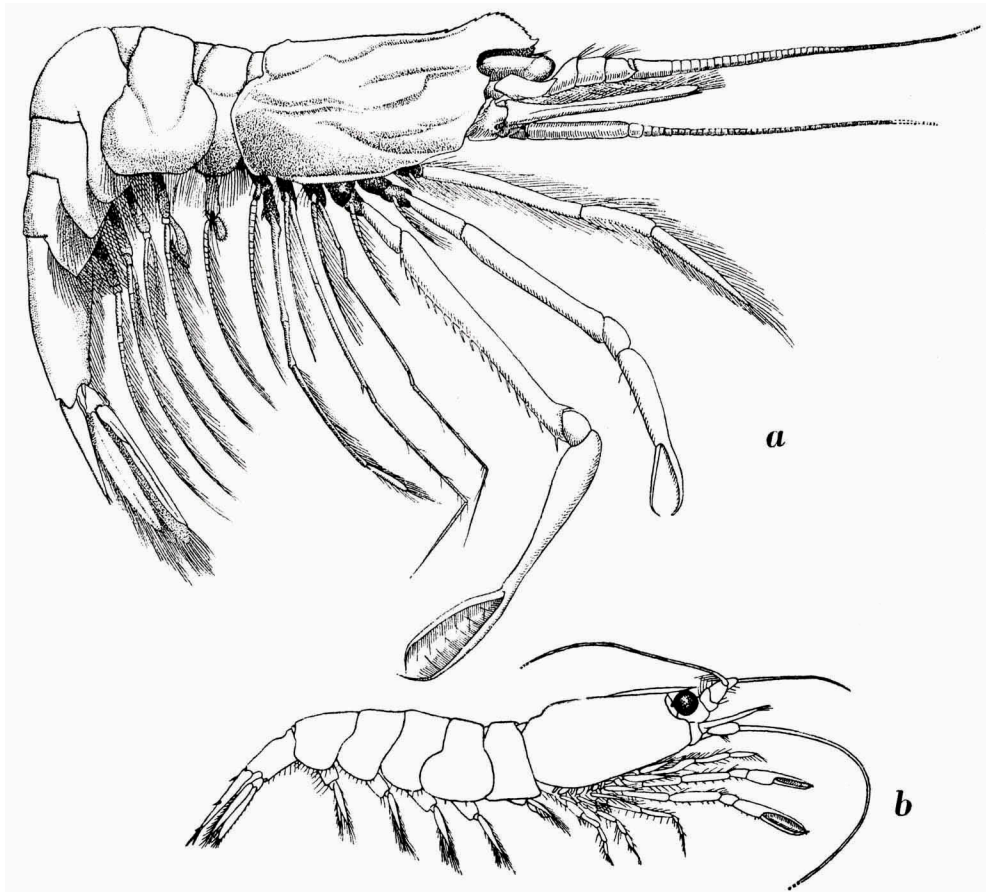


Fig. 15a. *Psathyrocaris infirma* Alcock & Anderson. After Balss, 1925.
 Fig. 15b. *Leptochela bermudensis* Gurney. After Chace, 1940.

Family BRESILIIDAE

Bresiliidae Calman, 1896, Trans. Roy. Irish Acad. 31: 7.
 Bresilidae Kemp, 1910, Sci. Invest. Fish. Ireland 1908(1): 35

The two genera contained in this family may be separated as follows:

- 1. Exopods present on the first two pairs of pereopods. Fifth leg with a rudimentary pleurobranch *Bresilia*
- Exopods present on all pereopods. Fifth leg with a well-developed pleurobranch. *Lucaya*

Bresilia Calman, 1896 (fig. 16a)

Bresilia Calman, 1896, Trans. Roy. Irish Acad. 31: 7. Type species, by monotypy: *Bresilia atlantica* Calman, 1896, Trans. Roy. Irish Acad. 31: 7.
 Gender: feminine.

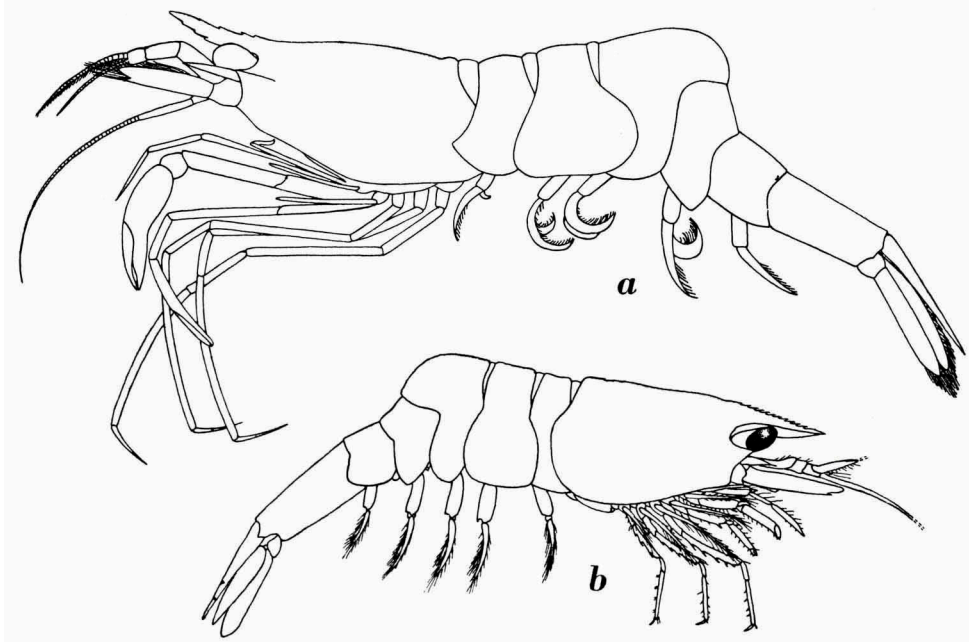


Fig. 16a. *Bresilia atlantica* Calman. After Calman, 1896.
 Fig. 16b. *Lucaya bigelowi* Chace. After Chace, 1940.

Lucaya Chace, 1939 (fig. 16b)

Lucaya Chace, 1939, Mem. Soc. Cubana Hist. nat. 13: 34. Type species, by monotypy: *Lucaya bigelowi* Chace, 1939, Mem. Soc. Cubana Hist. nat. 13: 34. Gender: feminine.

Family DISCIADIDAE

Discidae Rathbun, 1902, Proc. Wash. Acad. Sci. 4: 289.

Disciadiidae Kemp, 1920, Rec. Indian Mus. 19: 137, 138.

Disciidae Lebour, 1949, Proc. zool. Soc. Lond. 118(4): 1107.

Only one genus of this family is known:

Discias Rathbun, 1902 (fig. 17)

Anisocaris Ortmann, 1893, Ergebn. Plankton Exped. 2 (Gb): 72, 74. Type species, by monotypy: *Anisocaris dromedarius* Ortmann, 1893, Ergebn. Plankton Exped. 2 (Gb): 74 (? = *Discias atlanticus* Gurney, 1939, Ann. Mag. nat. Hist. (11)3: 398). Gender: feminine.

Discias Rathbun, 1902, Proc. Wash. Acad. Sci. 4: 290. Type species, by monotypy: *Discias serrifer* Rathbun, 1902, Proc. Wash. Acad. Sci. 4: 290. Gender: masculine.

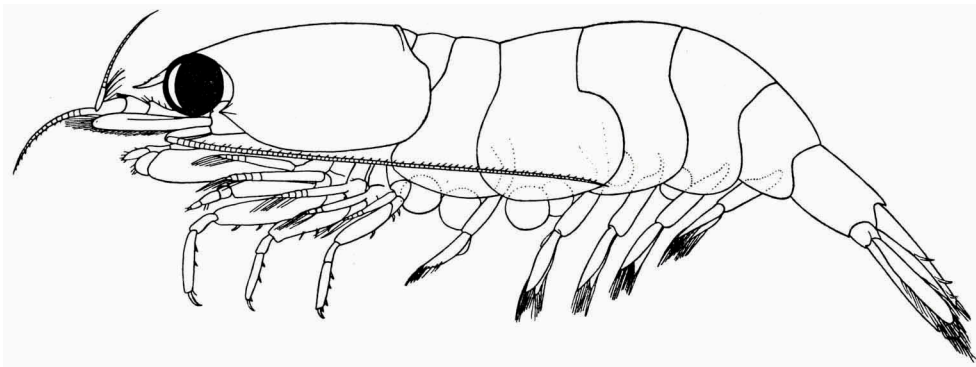


Fig. 17. *Discias exul* Kemp. After Kemp, 1920.

Family EUGONATONOTIDAE

Gomphonotidae Chace, 1936, Journ. Wash. Acad. Sci. 26: 25.

Eugonatonotidae Chace, 1937, Proc. New England zool. Club 16: 15.

Gonatonotidae Gurney, 1941, in Gurney & Lebour, Journ. Linn. Soc. Lond. Zool. 41: 122.

The only known genus of this family is:

Eugonatonotus Schmitt, 1926 (fig. 18)

Gonatonotus A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 10.

Type species, by monotypy: *Gonatonotus crassus* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 10. Gender: masculine. Invalid junior homonym of *Gonatonotus* Adams & White, 1847, Proc. zool. Soc. Lond. 15: 57 (Crustacea Brachyura).

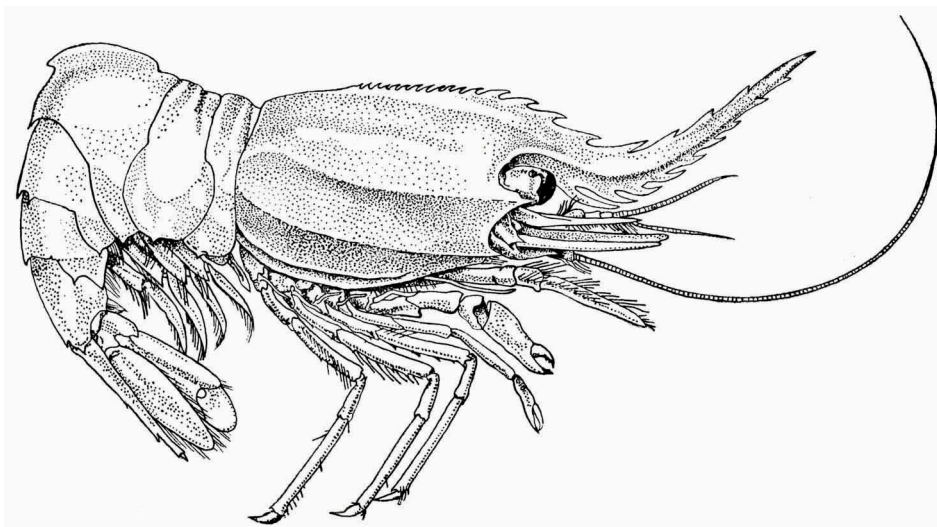


Fig. 18. *Eugonatonotus crassus* (A. Milne Edwards). After Boone, 1927.

Eugonatonotus Schmitt, 1926, Biol. Res. Fish. Exper. "Endeavour" 5(6): "Corrigenda et Addenda" sheet, second page. Substitute name for *Gonatonotus* A. Milne Edwards, 1881. Gender masculine.

Gomphonotus Chace, 1936, Journ. Wash. Acad. Sci. 26: 25. Substitute name for *Gonatonotus* A. Milne Edwards, 1881. Gender: masculine.

Family RHYNCHOCINETIDAE

Rhynchocinetidae Ortmann, 1890, Zool. Jb. Syst. 5: 459.

Rhincocynetidae Sharp, 1893, Proc. Acad. nat. Sci. Phila. 1893: 118.

Rhynchocynetidae Borradaile, 1907, Ann. Mag. nat. Hist. (7)19: 467.

Rynchocinetidae Gurney, 1939, Ray Soc. 125: 72.

The only known genus of this family is:

Rhynchocinetes H. Milne Edwards, 1837 (fig. 19)

Rhynchocinetes H. Milne Edwards, 1837, Ann. Sci. nat. Zool. (2)7: 168.

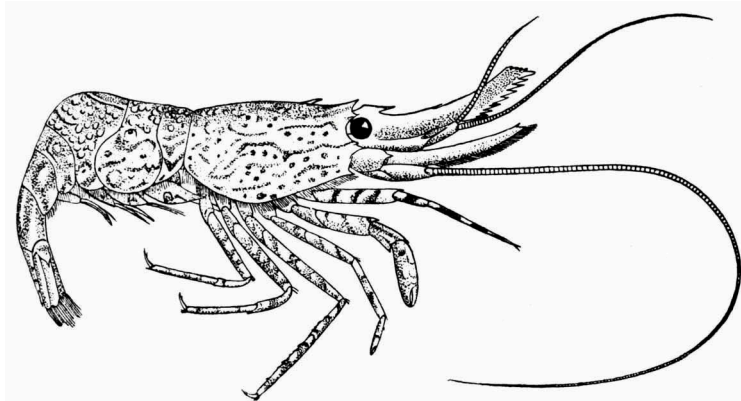


Fig. 19. *Rhynchocinetes typus* H. Milne Edwards. After Dana, 1855.

Type species, by monotypy: *Rhynchocinetes typus* H. Milne Edwards, 1837, Ann. Sci. nat. Zool. (2)7: 168. Gender: masculine.

Rhynchocinete Agassiz, 1846, Nomencl. Zool., Crust.: 25. Erroneous spelling of *Rhynchocinetes* H. Milne Edwards, 1837.

Rhyncocinetes Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 17. Erroneous spelling of *Rhynchocinetes* H. Milne Edwards, 1837.

Rhinococynetes Sharp, 1893, Proc. Acad. nat. Sci. Phila. 1893: 118. Erroneous spelling of *Rhynchocinetes* H. Milne Edwards, 1837.

Rynchocinetes Coutière, 1899, Ann. Sci. nat. Zool. (8)9: 15. Erroneous spelling of *Rhynchocinetes* H. Milne Edwards, 1837.

Rhynchocinites Armstrong, 1941, Amer. Mus. Novit. 1137: 12. Erroneous spelling of *Rhynchocinetes* H. Milne Edwards, 1837.

Superfamily PALAEMONOIDA

- Palaemonina Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 13, 15.
 Palaemonoida Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 56.
 Palaemonoidea Balss, 1921, K. Svenska Vetensk. Akad. Handl. 61(10): 7.
 Palaemonidea Sivertsen, 1933, Nyt Mag. Naturvid. 74: 2.

The superfamily Palaemonoida has been restricted here to the families Campylonotidae, Palaemonidae, and Gnathophyllidae. The families Alpheidae and Hippolytidae that were placed in this superfamily by Alcock (1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 56, 57), Borradaile (1907, Ann. Mag. nat. Hist. (7)19: 467) and Balss (1927, Kükenthal & Krumbach's Handb. Zool. 3(1): 1002), have been removed to a separate superfamily, while the Rhynchocinetidae have been placed in the superfamily Bresilioida. The Campylonotidae were placed by Balss in the Oplophorida and the Gnathophyllidae in the Crangonoida. As suggested by Gordon (1935, Journ. Linn. Soc. Lond. Zool. 39: 339-343) the family Anchistioididae is abandoned and its only genus *Anchistioides* is placed in the subfamily Pontiinae.

Family CAMPYLONOTIDAE

Campylonotidae Sollaud, 1913, Bull. Mus. Hist. nat. Paris 19: 184.

The two genera of this family are distinguished as follows:

1. Second legs equal. Basal part of rostrum with not more than 5 teeth, the first of which stands behind the middle of the carapace. *Campylonotus*
- Second pair of legs very unequal. Basal part of rostrum with more than 10 dorsal teeth, all of which are placed on the anterior half of the carapace. *Bathypalaemonella*

Campylonotus Bate, 1888 (fig. 20a)

Campylonotus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 767. Type species, by present selection: *Campylonotus semistriatus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 768. Gender: masculine.

Anchistiella A. Milne Edwards, 1891, Miss. sci. Cap Horn, Zool. 6 (2F): 37. Type species, by present selection: *Anchistiella Hyadesi* A. Milne Edwards, 1891, Miss. sci. Cap Horn, Zool. 6 (2F): 38 (= *Campylonotus vagans* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 775). Gender: feminine.

Bathypalaemonella Balss, 1914 (fig. 20b)

Bathypalaemonella Balss, 1914, Zool. Anz. 44: 597. Type species, by monotypy: *Bathypalaemonella zimmeri* Balss, 1914, Zool. Anz. 44: 598. Gender: feminine.

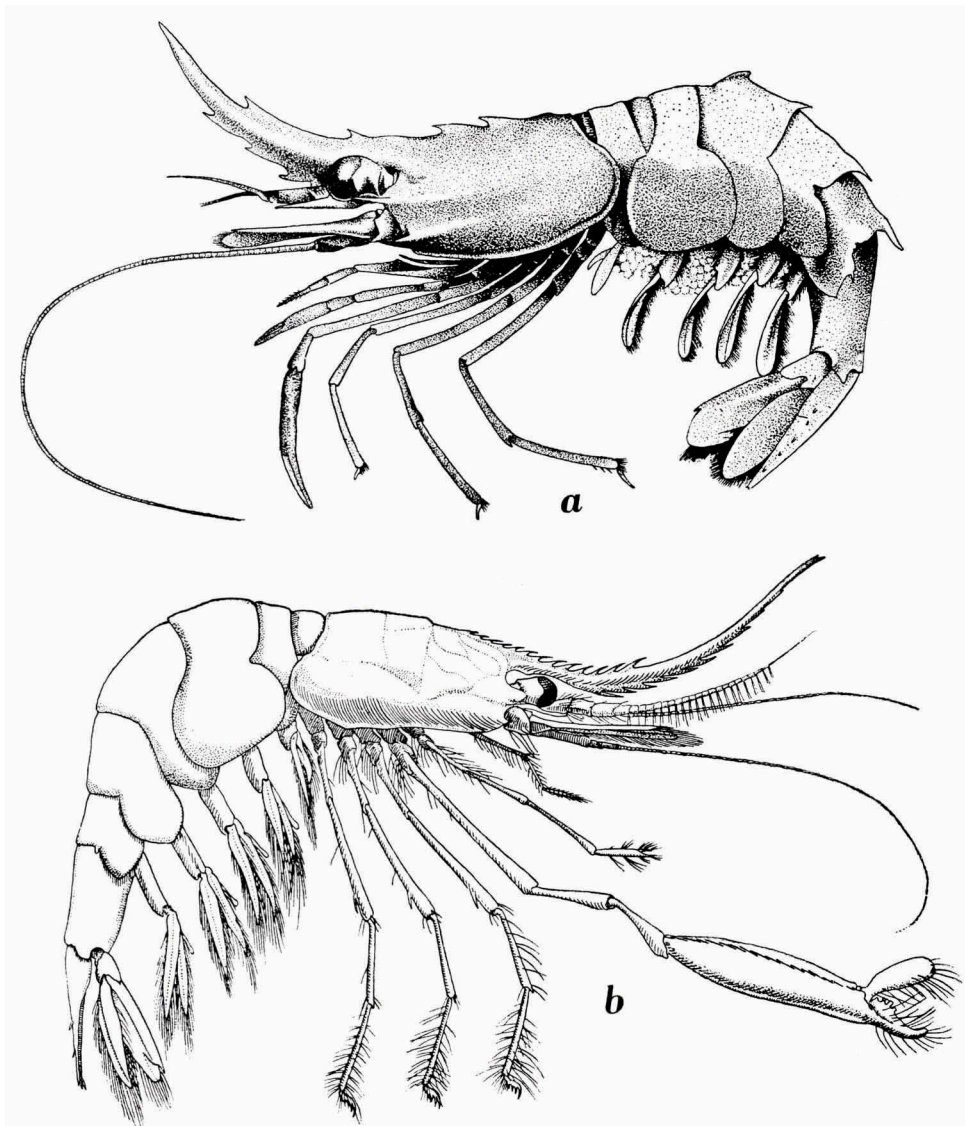


Fig. 20a. *Campylonotus rathbunae* Schmitt. After Schmitt, 1926.

Fig. 20b. *Bathypalaemonella zimmeri* Balss. After Balss, 1925.

Family PALAEMONIDAE

The present family is divided into four subfamilies, which may be distinguished as follows:

1. Upper antennular flagellum with the two rami free throughout their length. Second pleopods of the male without an appendix masculina. Appendix interna absent from

- the second pleopod in the females. No pleurobranch at the base of the third maxilliped Euryrhynchinae
- Upper antennular flagellum with the two rami fused in the basal part. Second pleopods of the male generally with an appendix masculina. Females with an appendix interna on the second pleopod 2
2. Lateral surface of the carapace with a longitudinal suture-line over its whole length, extending posteriorly from the antennal region. No pleurobranch on the third maxilliped Typhlocaridinae
- Lateral surface of the carapace without such a suture-line. 3
3. Pleurobranches absent from the third maxillipeds. Posterior margin of the telson with three pairs of spines (except in *Anchistioides*, in which there are fewer). Pontoniinae
- A pleurobranch present at the base of the third maxilliped. Posterior margin of telson with two pairs of spines and two or more setae Palaemoninae

Subfamily PALAEMONINAE

Palaemonia Rafinesque, 1815, Anal. Nature: 98.
 Palaemonidae Samouelle, 1819, Entomol. usef. Compend: 96.
 Palaemones Van der Hoeven, 1829, Handb. Dierk. (ed. 1) 1: 434.
 Palémoniens H. Milne Edwards, 1837, Hist. nat. Crust. 2: 339, 367.
 Palaemonidae Randall, 1839, Journ. Acad. nat. Sci. Phila. 8: 141.
 Palaemonidea De Haan, 1849, Fauna Japon., Crust. (6): 168, 169.
 Palaemoniana Gibbs, 1850, Proc. Amer. Ass. Adv. Sci. 3: 197.
 Palaemonina Brandt, 1851, Middendorff's Reise Sibir. 2(1): 115.
 Palaemoninae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 17, 24.
 Palaemonidi Acloque, 1899, Faune de France, Thysan.-Protoz.: 155, 162.
 Desmocaridés Sollaud, 1911, C. R. Acad. Sci. Paris 152: 916.
 Desmocaridinae Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 206.

The numerous genera of this subfamily are distinguished as follows:

1. Supraorbital spine present *Desmocaris*
- Supraorbital spine absent 2
2. Branchiostegal spine present 3
- Branchiostegal spine absent 7
3. Mandible without palp 4
- Mandible with a palp 5
4. First pleopod of male with a well developed appendix interna on the endopod. Branchiostegal groove absent. Propodus of fifth leg without transverse setae on the distal part of the posterior margin. *Leandrites*
- First pleopod of male without an appendix interna on the endopod. Branchiostegal groove visible as a sharp line. Propodus of fifth leg with transverse rows of setae on the distal part of the posterior margin *Palaemonetes*
- a. Eyes usually with pigment. Second legs much stronger than first. Outer margin of uropodal exopod ending in a tooth and a movable spine subgenus *Palaemonetes*
- Eyes without pigment. Second legs about as strong as first. Outer margin of uropodal exopod ending in a tooth, but without a movable spine. subgenus *Alaocaris*
5. Eyes without pigment, cornea reduced. Anterior margin of basal segment of antennular peduncle concave, gradually merging into a strong antero-lateral spine. No branchiostegal groove on the carapace. Propodus of fifth pereiopod with

- transverse rows of hairs in the distal part of the posterior margin. Mandibular palp two-jointed *Creaseria*
- Eyes distinctly pigmented, cornea well developed. Anterior margin of the basal segment of the antennular peduncle rounded, anterolateral spine small. 6
6. First pleopod of the male with a well developed appendix interna on the endopod. Branchiostegal groove absent. Propodus of fifth pereopod without transverse rows of setae on the distal part of the posterior margin. The two median setae of the posterior margin of the telson very strong. Mandibular palp two-jointed. *Leander*
- First pleopod of male without or with a rudimental appendix interna on the endopod. Branchiostegal groove generally present, visible as a sharp line. Propodus of fifth pereopod with transverse rows of setae on the distal part of the posterior margin. The two median hairs of the posterior margin of the telson are slender. *Palaemon*
- a. Rostrum with an elevated basal crest of teeth. Pleurae of fifth abdominal segment with the apex broadly rounded. Mandibular palp three-jointed. b
- Rostrum without an elevated basal crest. Pleurae of fifth abdominal segment generally ending in a small sharp point. Branchiostegal groove present. c
- b. Dactyli of last three legs enormously lengthened, longer than carpus and propodus together. No branchiostegal groove on the carapace. Stylocerite with a large tooth on the upper surface. subgenus *Nematopalaemon*
- Dactyli of last three legs always shorter than propodus, never excessively long. Branchiostegal grooves present on carapace. Stylocerite without a large dorsal tooth subgenus *Exopalaemon*
- c. Mandibular palp two-jointed subgenus *Palaeander*
- Mandibular palp three-jointed subgenus *Palaemon*
7. Hepatic spine absent. 8
- Hepatic spine present 10
8. Mandible without palp. Eyes without pigment. *Troglocubanus*
- Mandible with a palp. Eyes distinctly pigmented 9
9. Second legs slender, smooth; carpus 1.5 times or more as long as the chela. Rostrum elongate, reaching beyond the scaphocerite *Leptocarpus*
- Second legs robust, spinulate; carpus less than half as long as the chela. Rostrum very short and high, not reaching the end of the scaphocerite *Cryphiops*
10. Mandibular palp absent. Dactylus of last three legs simple *Pseudopalaemon*
- Mandibular palp present 11
11. Dactylus of last three legs simple *Macrobrachium*
- Dactylus of last three legs biunguiculate *Brachycarpus*

Desmocariss Sollaud, 1911 (fig. 21a)

Desmocariss Sollaud, 1911, C. R. Acad. Sci. Paris 152:913. Type species, by monotypy: *Palaemonetes trispinosus* Aurivillius, 1898, Bih. Svenska Vetensk. Akad. Handl. 24(4)1:29. Gender: feminine.

Creaseria Holthuis, 1950 (fig. 22a)

Creaseria Holthuis, 1950, Siboga Exped. 39 (a9):5, 6. Type species, by monotypy: *Palaemon morleyi* Creaser, 1936, Publ. Carnegie Inst. Wash. 457:126. Gender: feminine.

Leander E. Desmarest, 1849 (fig. 21b)

Leander E. Desmarest, 1849, Ann. Soc. entom. France (2)7:92. Type species, by monotypy: *Leander erraticus* E. Desmarest, 1849, Ann. Soc.

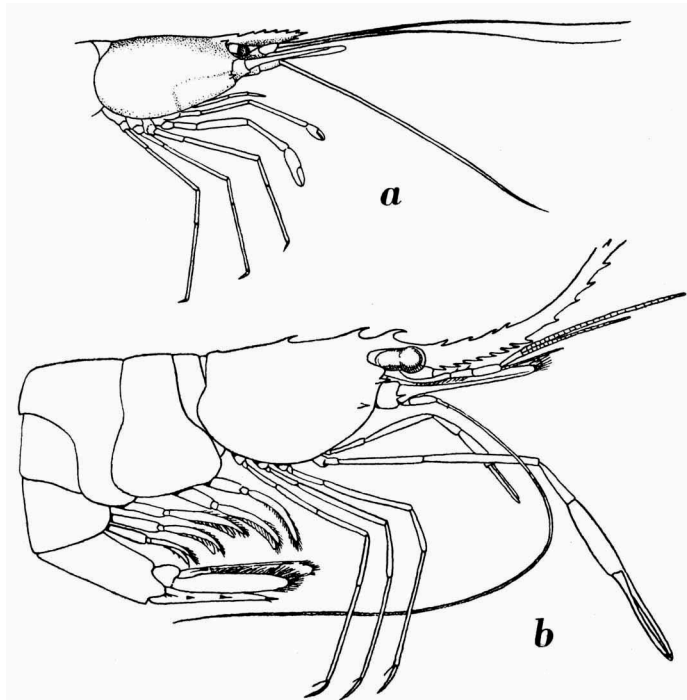


Fig. 21a. *Desmocaris trispinosa* (Aurivillius). Anterior part of body. After Aurivillius, 1898.

Fig. 21b. *Leander urocaridella* Holthuis. After Borradaile, 1917b.

entom. France (2)7:92 (= *Palaemon tenuicornis* Say, 1818, Journ. Acad. nat. Sci. Phila. 1:249). Gender: masculine.

Laeander Lenz, 1910, Wiss. Ergebn. Deutsch. Zentral-Afr. Exped. 3 (Zool. I): 126. Erroneous spelling of *Leander* E. Desmarest, 1849.

Urocaridella Borradaile, 1915, Ann. Mag. nat. Hist. (8)15:207. Type species, by monotypy: *Urocaridella gracilis* Borradaile, 1915, Ann. Mag.

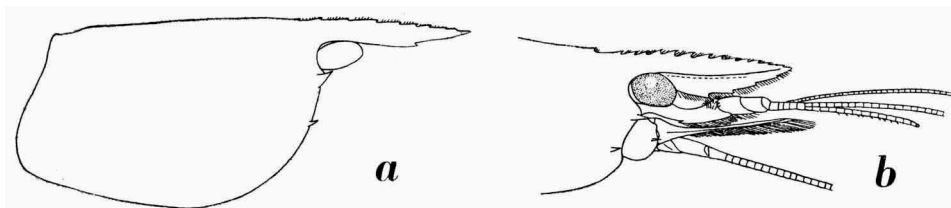


Fig. 22a. *Creaseria morleyi* (Creaser). Carapace. After Creaser, 1936.

Fig. 22b. *Leandrites celebensis* (De Man). Anterior part of body. After Kemp, 1925.

nat. Hist. (8)15:210 (= *Leander urocaridella* Holthuis, 1950, Siboga Exped. 39 (a9):6, 28). Gender: feminine.

Urocardella Gurney, 1938, Sci. Rep. Great Barrier Reef Exped. 6(1):28.

Erroneous spelling of *Urocaridella* Borradaile, 1915.

Cryptoleander Gurney, 1938. (See p. 140).

Lenader L. Nouvel, 1939, Bull. Inst. océanogr. Monaco 773:2. Erroneous spelling of *Leander* E. Desmarest, 1849.

Leandrites Holthuis, 1950 (fig. 22b)

Leandrites Holthuis, 1950, Siboga Exped. 39 (a9):4, 6, 34. Type species, by original designation: *Leander celebensis* De Man, 1881, Notes Leyden Mus. 3:141. Gender: masculine.

Palaemon Weber, 1795 (figs. 23, 24, 25a)

Palaemon Weber, 1795, Nomencl. Entomol.: 94. Type species, selected by Schmitt, 1926, Bull. Amer. Mus. nat. Hist. 53:66, : *Cancer Squilla* Linnaeus, 1758, Syst. Nat. (ed. 10) 1:632. Gender: masculine.

Palaemon Fabricius, 1798, Suppl. Ent. Syst.: 378, 402. Type species, selected by Latreille, 1810, Consid. gén. Crust. Arachn. Ins.: 422, : *Cancer Squilla* Linnaeus, 1758, Syst. Nat. (ed. 10) 1:632. Gender: masculine.

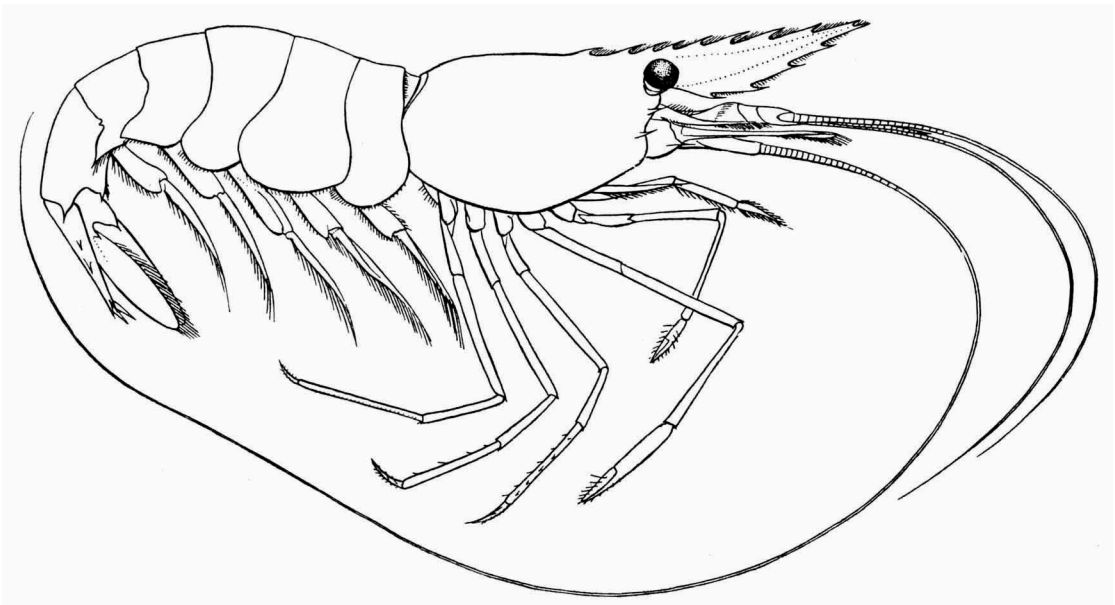


Fig. 23. *Palaemon* (*Palaemon*) *longirostris* H. Milne Edwards. After Holthuis, 1950.

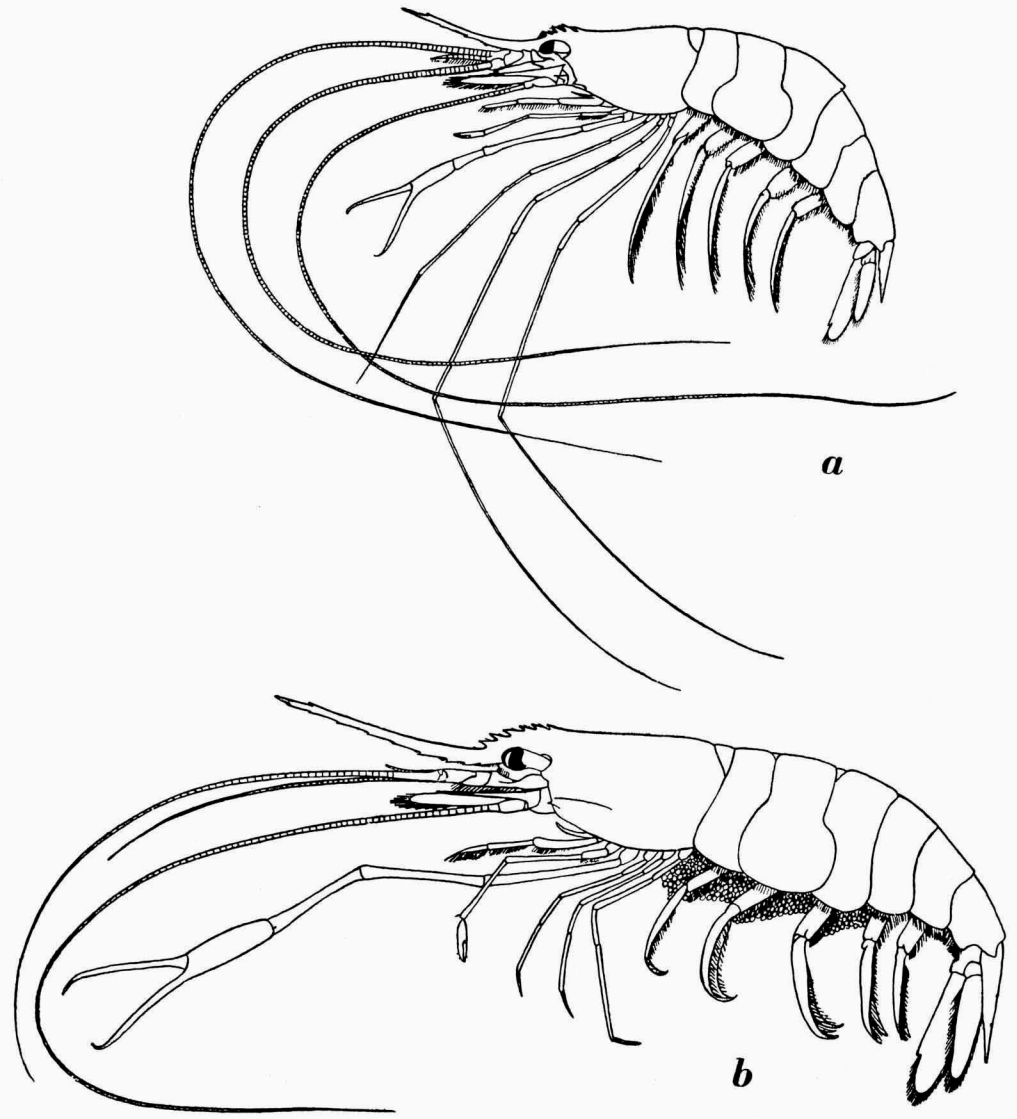


Fig. 24a. *Palaemon* (*Nematopalaemon*) *tenuipes* (Henderson). After Kemp, 1917.
 Fig. 24b. *Palaemon* (*Exopalaemon*) *styliiferus* H. Milne Edwards. After Kemp, 1917.

Palaemon Duméril, 1806, Zool. anal.: 339. Erroneous spelling of *Palaemon* Weber, 1795.

Palaemou Heller, 1862, S. B. Akad. Wiss. Wien 45:413. Erroneous spelling of *Palaemon* Fabricius, 1798.

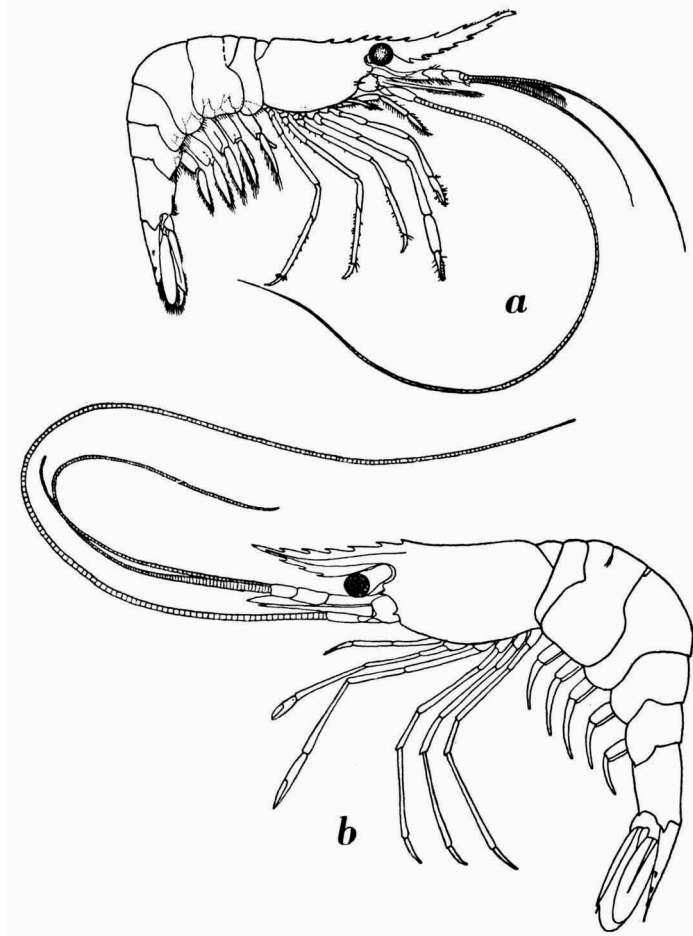


Fig. 25a. *Palaemon (Palaeander) floridanus* Chace. After Chace, 1942b.
 Fig. 25b. *Palaemonetes (Palaemonetes) kadiakensis* Rathbun. After Rathbun, 1904.

Palaemaon Borcea, 1934, Ann. Univ. Jassy 29: 404. Erroneous spelling of *Palaemon* Weber, 1795.

Palaenmon Collings, 1935, Trans. Suffolk Nat. Soc. 3: 77. Erroneous spelling of *Palaemon* Weber, 1795.

Palaeman Boone, 1938, Bull. Vanderbilt mar. Mus. 7: 255. Erroneous spelling of *Palaemon* Fabricius, 1798.

Palaenon Hedgpeth, 1949, Texas Journ. Sci. 1(3): 29. Erroneous spelling of *Palaemon* Weber, 1795.

Nematopalaemon Holthuis, 1950, Siboga Exped. 39 (a9): 5, 9, 44. Type species, by original designation: *Leander tenuipes* Henderson, 1893,

Trans. Linn. Soc. Lond. Zool. (2)5:440. Gender: masculine.

Exopalaemon Holthuis, 1950, Siboga Exped. 39 (a9): 5, 9, 45. Type species, by original designation: *Palaemon styliiferus* H. Milne Edwards, 1840, Hist. nat. Crust. 3:638. Gender: masculine.

Palaeander Holthuis, 1950, Siboga Exped. 39 (a9): 5, 8, 55. Type species, by original designation: *Palaemon elegans* Rathke, 1837, Mém. Acad. Sci. Petersb. (6B) 3:370. Gender: masculine.

Palaander De Paiva Carvalho, 1953, Bol. Inst. oceanogr. São Paulo 4:136, 141, 142. Erroneous spelling of *Palaeander* Holthuis, 1950.

Palaemonetes Heller, 1869 (figs. 25b, 26)

Palaemonopsis Stimpson, 1860, Amer. Journ. Sci. (2)29:444. Nomen nudum.

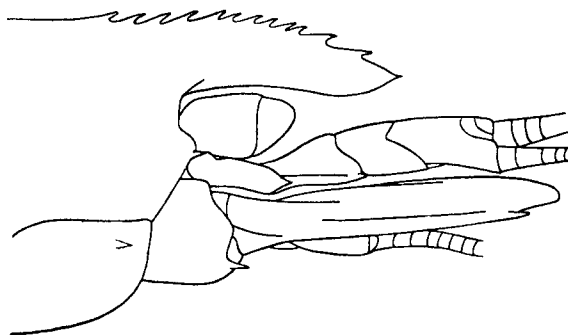


Fig. 26. *Palaemonetes (Alaocaris) antrorum* Benedict. Anterior part of body. After Holthuis, 1952a.

Palaemonetes Heller, 1869, Zeitschr. wiss. Zool. 19:157, 161. Type species, by monotypy: *Palaemon Varians* Leach, 1814, Edinb. Encycl. 7(2):432. Gender: masculine.

Palaemonopsis Stimpson, 1871, Ann. Lyc. nat. Hist. New York 10:128. Type species, by present designation: *Palaemonopsis carolinus* Stimpson, 1871, Ann. Lyc. nat. Hist. New York 10:129 (= *Palaemon vulgaris* Say, 1818, Journ. Acad. nat. Sci. Phila. 1:248). Gender: masculine.

Palaemonites Gourret, 1892, Ann. Mus. Hist. nat. Marseille (4)2:9, 12, 18, 19, 24. Erroneous spelling of *Palaemonetes* Heller, 1869.

Palaemonetes Cary & Spaulding, 1909, Contr. mar. Fauna Louisiana Coast: 11. Erroneous spelling of *Palaemonetes* Heller, 1869.

Allocares Sollaud, 1911, Bull. Mus. Hist. nat. Paris 17:50. Type species, by monotypy: *Allocares sinensis* Sollaud, 1911, Bull. Mus. Hist. nat. Paris 17:50. Gender: feminine.

Coutierella Sollaud, 1914, Bull. Soc. zool. France 39: 318. Type species, by monotypy: *Coutierella tonkinensis* Sollaud, 1914, Bull. Soc. zool. France 39: 315, 318. Gender: feminine.

Palaemonetes Tattersall, 1930, Lawson's Checklist Fauna Lancash.: 107. Erroneous spelling of *Palaemonetes* Heller, 1869.

Palaemonetes Dickinson, 1949, Quart. Journ. Florida Acad. Sci. 11(2/3):23. Erroneous spelling of *Palaemonetes* Heller, 1869.

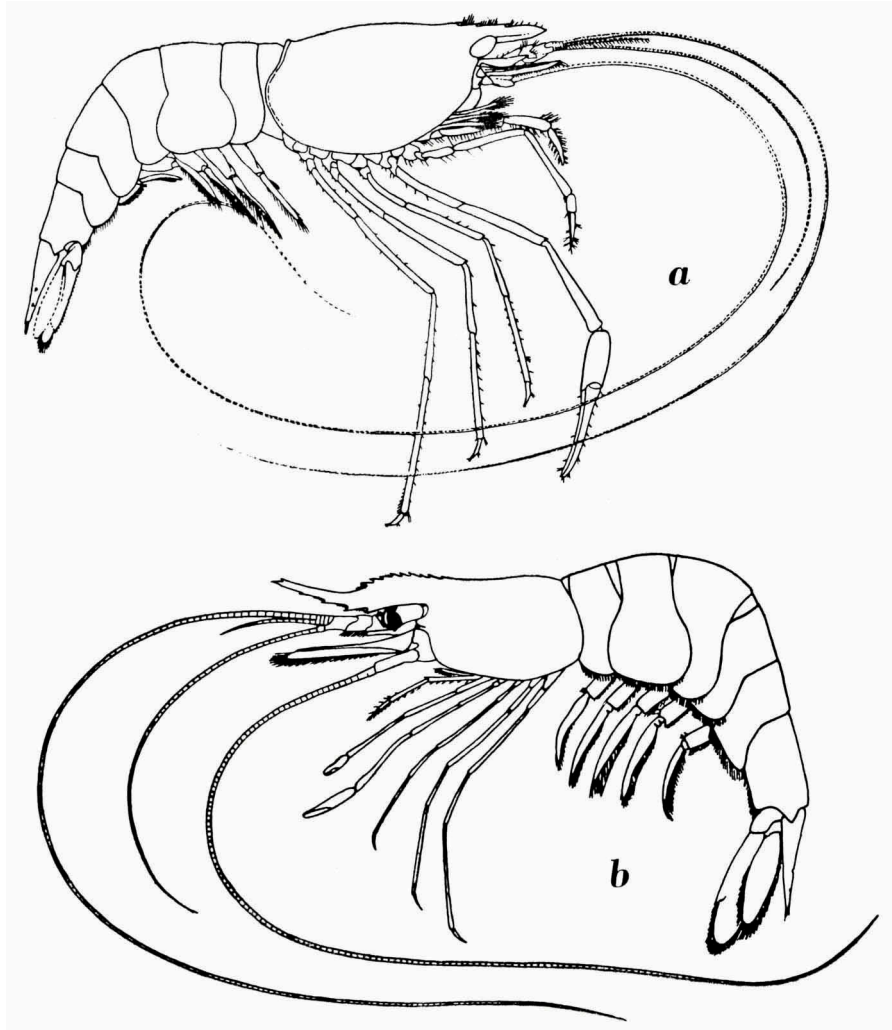


Fig. 27a. *Trogllocubanus gibarensis* (Chace). After Chace, 1943.

Fig. 27b. *Leptocarpus flumimicola* (Kemp). After Kemp, 1917.

Alaocaris Holthuis, 1949, Proc. Kon. Nederl. Akad. Wetensch. 52: 88, 89.

Type species, by monotypy: *Palaemonetes antrorum* Benedict, 1896, Proc. U. S. Nat. Mus. 18: 615. Gender: feminine.

Palaemonetus Kristensen, 1950, Encycl. Aquariumhouder, Amsterdam 8(138.4): 2. Erroneous spelling of *Palaemonetes* Heller, 1869.

Troglocubanus Holthuis, 1949 (fig. 27a)

Troglocubanus Holthuis, 1949, Proc. Kon. Nederl. Akad. Wetensch. 52: 91.

Type species, by original designation: *Palaemonetes eigenmanni* Hay, 1903, Proc. U. S. Nat. Mus. 26: 431. Gender: masculine.

Leptocarpus Holthuis, 1950 (fig. 27b)

Leptocarpus Holthuis, 1950, Siboga Exped. 39 (a9): 5, 11, 95. Type species, by original designation: *Leander fluminicola* Kemp, 1917, Rec. Indian Mus. 13: 223. Gender: masculine.

Cryphiops Dana, 1852 (fig. 28)

Cryphiops Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 18, 26. Type species, by monotypy: *Cryphiops spinuloso-manus* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 26 (= *Cancer caementarius* Molina, 1782, Saggio Stor. nat. Chili: 208). Gender: masculine.

Bithynis Philippi, 1860, Arch. Naturgesch. 26(1): 164. Type species, by monotypy: *Bithynis longimana* Philippi, 1860, Arch. Naturgesch. 26(1): 164 (= *Cancer caementarius* Molina, 1782, Saggio Stor. nat. Chili: 208). Gender: feminine.

Pseudopalaemon Sollaud, 1911 (fig. 29)

Pseudopalaemon Sollaud, 1911, Bull. Mus. Hist. nat. Paris 17: 12, 15. Type species, by monotypy: *Pseudopalaemon Bouvieri* Sollaud, 1911, Bull. Mus. Hist. nat. Paris 17: 12. Gender: masculine.

Brachycarpus Bate, 1888 (fig. 30a)

Brachycarpus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 781, 795. Type species, by original designation: *Brachycarpus savignyi* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 795 (= *Palaemon biunguiculatus* Lucas, 1846, Explor. sci. Algérie, Hist. nat. Anim. art. (1): 45). Gender: masculine.

Retrocaris Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 73, 83. Type species, by present selection: *Retrocaris spinosa* Ortmann, 1893, Ergebn.

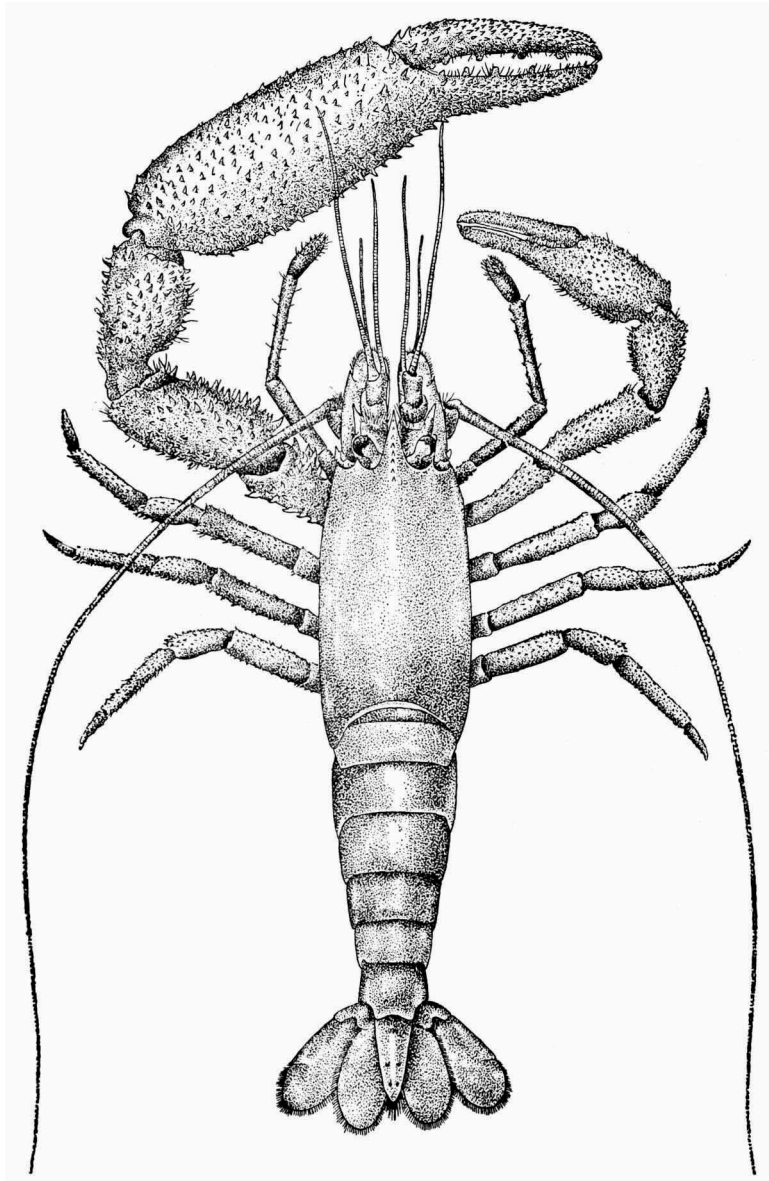


Fig. 28. *Cryphiops caementarius* (Molina). After Holthuis, 1952a.

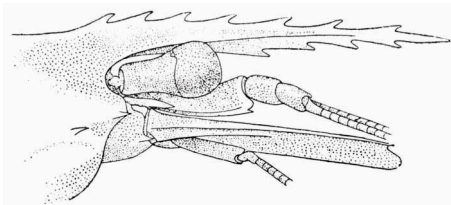


Fig. 29. *Pseudopalaemon bouvieri* Sollaud. Anterior part of body, After Holthuis, 1952a.

- Plankton-Exped. 2 (Gb): 84 (= *Palaemon biunguiculatus* Lucas, 1846, Explor. sci. Algérie, Hist. nat. Anim. art. (1): 45). Gender: feminine.
- Calmania* Nobili, 1907, Annu. Mus. zool. Univ. Napoli (n. ser.) 2(21): 3, 4. Type species, by original designation: *Palaemon biunguiculatus* Lucas, 1846, Explor. sci. Algérie, Hist. nat. Anim. art. (1): 45. Gender: feminine. Invalid junior homonym of *Calmania* Laurie, 1906, Rep. Ceylon Pearl Oyster Fish. 5: 406 (Crustacea Brachyura).
- Brachyrarpus* Nobili, 1907, Annu. Mus. zool. Univ. Napoli (n. ser.) 2(21): 4. Erroneous spelling of *Brachycarpus* Bate, 1888.
- Crachycarpus* Magri, 1911, Atti Accad. gioen. Sci. nat. Catania (5)4(14): 40, 41. Erroneous spelling of *Brachycarpus* Bate, 1888.
- Brachicarpus* Magri, 1923, Natural. Sicil. 24: 92. Erroneous spelling of *Brachycarpus* Bate, 1888.

Macrobrachium Bate, 1868 (fig. 30b)

- Macrobrachium* Bate, 1868, Proc. zool. Soc. Lond. 1868: 363. Type species, selected by Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 558. *Macrobrachium americanum* Bate, 1868, Proc. zool. Soc. Lond. 1868: 363. Gender: neuter.
- Macrobrachion* Von Martens, 1872, Arch. Naturgesch. 38(1): 137. Erroneous spelling of *Macrobrachium* Bate, 1868.
- Eupalaemon* Ortmann, 1891, Zool. Jb. Syst. 5: 696, 697. Type species, by present selection: *Palaemon acanthurus* Wiegmann, 1836, Arch. Naturgesch. 2(1): 150. Gender: masculine.
- Parapalaemon* Ortmann, 1891, Zool. Jb. Syst. 5: 696, 731. Type species, by present selection: *Palaemon dolichodactylus* Hilgendorf, 1879, Mber. Akad. Wiss. Berlin, 1878: 840 (= *Palaemon scabriculus* Heller, 1862, Verh. zool. bot. Ges. Wien 12: 527). Gender: masculine.
- Macrobrachium* Bouvier, 1906, Bull. Mus. Hist. nat. Paris 12: 493. Erroneous spelling of *Macrobrachium* Bate, 1868.
- Macroterocheir* Stebbing, 1908, Ann. S. Afr. Mus. 6: 39. Type species, by monotypy: *Palaemon lepidactylus* Hilgendorf, 1878, Mber. Akad. Wiss. Berlin, 1878: 838. Gender: masculine.
- Paralaemon* Boone, 1935, Bull. Vanderbilt mar. Mus. 6: 157. Erroneous spelling of *Parapalaemon* Ortmann, 1891.
- Macrobranchium* Coventry, 1944, Monogr. Acad. nat. Sci. Phila. 6: 535. Erroneous spelling of *Macrobrachium* Bate, 1868.
- Macrobracium* Sawaya, 1946, Zoologia, São Paulo 11: 403. Erroneous spelling of *Macrobrachium* Bate, 1868.

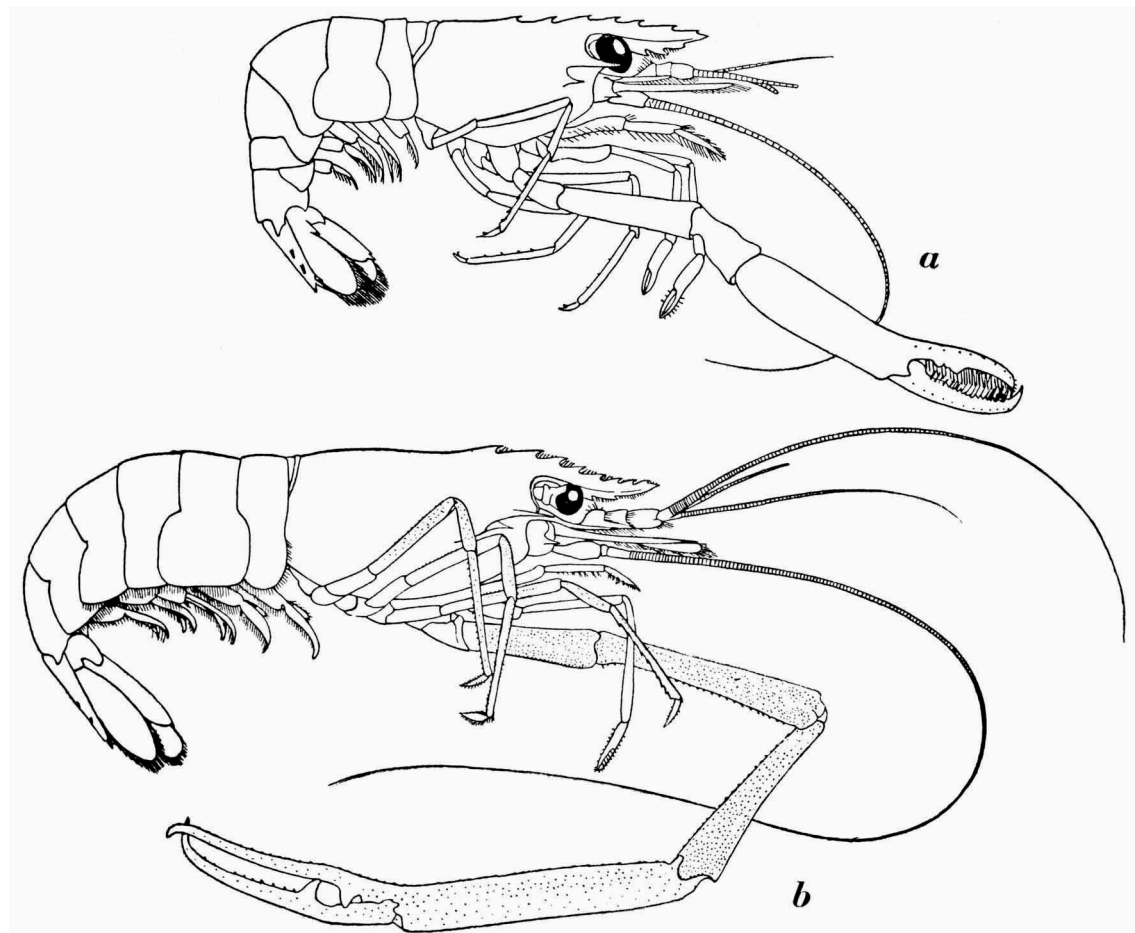


Fig. 30a. *Brachycarpus biunguiculatus* (Lucas). After Bate, 1888.

Fig. 30b. *Macrobrachium lar* (Fabricius). After Bate, 1888.

Macrobrachiuu Kubo, 1950, Ecol. Stud. Japan. freshw. Shrimps (2/3): 105.

Erroneous spelling of *Macrobrachium* Bate, 1868.

Subfamily PONTONIINAE

Pontoninae Kingsley, 1878, Bull. Essex Inst. 10: 64.

Pontiidae Bate, 1888, Rep. Voy. Challenger, Zool. 24: 481, 927.

Pontiinae Borradaile, 1907, Ann. Mag. nat. Hist. (7)19: 467, 472.

Anchistioididae Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 205.

Pontonidae Boone, 1930, Bull. Vanderbilt mar. Mus. 3: 7, 148.

Anchistioidinae Gurney, 1938, Sci. Rep. Great Barrier Reef Exped. 6(1): 2, 41.

The number of genera in this subfamily is quite considerable. They are distinguished as follows:

- 1. Mandibular palp present 2
- Mandibular palp absent 3
- 2. Hepatic spine present *Palaemonella*
- Hepatic spine absent *Vir*
- 3. Scaphocerite well deve'oped 4
- Scaphocerite rudimentary 31
- 4. All maxillipeds provided with exopods 5
- Exopods absent at least from third maxilliped 23
- 5. Dactylus of last three pereiopods without basal protuberance; sometimes the dactylus is broadened in the basal region, but this broadened part disappears in a slit of the propodus, when the dactylus is curved backwards 6
- Dactylus of last three pereiopods with a distinct basal protuberance which does not disappear from view when the dactylus is curved backwards. 18
- 6. Pleurae of first five abdominal segments broadly rounded or bluntly pointed, never produced to a sharp point 7
- Pleurae of at least the fourth and fifth abdominal segments produced to a distinct sharp point 17
- 7. Hepatic spine present 8
- Hepatic spine absent 10
- 8. Rostrum large, flat dorsally, with a longitudinal median carina ventrally; thereby T-shaped in transverse section. Carapace with a broad and well defined post-orbital groove *Stegopontonia*
- Rostrum laterally compressed, never flattened dorsally and not T-shaped in transverse section. Post-orbital groove, if present, narrow and indistinct 9
- 9. Hepatic spine immovable. Body mostly slender. Rostrum with conspicuous teeth. *Periclimenes*
 - a. Dactylus of last three pereiopods biunguiculate. Subgenus *Periclimenes*
 - Dactylus of last three pereiopods simple. Subgenus *Harpilius*
 - Hepatic spine movable. Body rather clumsy. Rostrum with small teeth, that are all placed close to the apex *Paranchistus*
- 10. Rostrum compressed, usually provided with teeth. 11
- Rostrum depressed or cylindrical, usually toothless. 15
- 11. Carpus of first pereiopod segmented. First pereiopods unequal *Thaumastocaris*
- Carpus of first pereiopod not segmented. First pereiopods equal. 12
- 12. Second pereiopods very unequal in size and shape. Larger second pereiopod very heavy, with the fingers short and broad, bearing 1 to 3 teeth, one of which is molar-shaped and fits in a cavity of the opposite finger. Outer margin of basal antennular segment often triangularly produced in front of the stylocerite. *Periclimenaeus*
- Second pereiopods equal in shape, sometimes more or less unequal in size. Fingers of these legs elongate, provided with small teeth, never with a large molar-shaped tooth. Outer margin of basal antennular segment without a lateral triangular process. 13
- 13. Rostrum very short, not reaching beyond the eyes, without or with very few teeth. Chela of second pereiopod high, somewhat compressed, fingers with one or two teeth. *Onyccaris*
- Rostrum reaching distinctly beyond the eyes, mostly provided with teeth. Chela of second pereiopods cylindrical, somewhat swollen, fingers provided with numerous (more than 3) denticles 14
- 14. Scaphocerite broad, oval in shape, final tooth failing to reach the end of the lamella. When teeth are present on the rostrum, then they are very small and placed close to the apex, leaving the larger part of both upper and lower margin entire. *Anchistus*

- Scaphocerite slender, final tooth reaching beyond lamella. Rostrum with large teeth placed over the entire length of its dorsal margin. *Philarius*
15. Telson rather broad, generally with large dorsal spines. One tooth at the end of the outer margin of uropodal exopod. 16
- Telson elongate with very small dorsal spines. Outer margin of uropodal exopod ending in two spines, the inner of which is movable *Pontoniopsis*
16. Third maxilliped without arthrobranch. Body not strongly depressed. Dactylus of last three pereopods never strongly curved, generally with one or more accessory teeth behind apex *Pontonia*
- Third maxilliped with arthrobranch. Body very strongly depressed. Dactylus of last three pereopods simple, strongly curved *Platycaris*
17. Body clumsy, not depressed. Carapace and abdomen areolated. Lower margin of rostrum entire. Pleura of third abdominal segment pointed *Dasycaris*
- Body strongly depressed. Carapace and abdomen smooth. Lower margin of rostrum with teeth. Pleura of third abdominal segment broadly rounded. *Harpiliopsis*
18. A row of 3 or 4 spines on carapace behind antennal spine. Second legs with the fingers short and depressed *Fennera*
- No spines on the carapace except the antennal and hepatic. Fingers of second legs laterally compressed 19
19. Body strongly depressed. Basal protuberance of last three pereopods hoof-shaped. Rostrum usually with teeth 20
- Body clumsy, not strongly depressed. Basal protuberance of last three pereopods flat. Rostrum usually without teeth 21
20. Hepatic spine absent. Second pereopods equal in shape, though sometimes unequal in size *Coralliocaris*
- Hepatic spine present. Second pereopods very different in shape and size. *Jocaste*
21. Rostrum depressed, without teeth. Antennal spine absent *Conchodytes*
- Rostrum compressed. Antennal spine present. 22
22. Rostrum without teeth. Basal protuberance of dactylus of last three pereopods rounded, smooth. Arthrobranch present on third maxilliped. *Dasella*
- Rostrum with teeth. Basal protuberance of dactylus of last three legs pointed, provided with small ventral squamae. No arthrobranch on third maxilliped *Cavicheles*
23. Pleurae of the first five abdominal segments broadly rounded or bluntly pointed. 24
- Pleurae of at least the fourth and fifth abdominal segments produced to a distinct sharp point 29
24. Hepatic spine present. 25
- Hepatic spine absent 26
25. Antennal spine present. Dactylus of second pereopod much longer than fixed finger, hook-shaped *Hamodactylus*
- Antennal spine absent. Dactylus of second pereopod as long as the fixed finger, chela normal in shape *Waldola*
26. Second maxilliped with a well developed exopod. Dactylus of last three legs biunguiculate. Rostrum compressed, with teeth. Postorbital tubercle present. *Anchistioides*
- Second maxilliped without exopod. Dactylus of last three legs simple. Rostrum depressed, at least in the basal part. No postorbital tubercle. 27
27. Rostrum entirely depressed, without dorsal teeth. 28
- Rostrum compressed distally, generally with dorsal teeth *Neopontonides*
28. Rostrum anteriorly ending in a distinct point, being triangular or tridentate. Posterior orbital margin without a notch behind the eye; this margin formed by the anterior margin of the carapace *Pontonides*
- Rostrum broadly truncate anteriorly, the anterior margin being straight or dentate

- Posterior margin of the orbit formed by a carina, which is placed some distance behind the anterior margin of the carapace. A distinct notch is present in this posterior orbital margin *Veleronia*
29. Rostrum with dorsal teeth. Postorbital and antennal spines present, two additional spines on the median and posterior regions of the lateral surfaces of the carapace. *Balsia*
- Rostrum without teeth. Carapace with at most some postorbital, two antennal and two pterygostomian spines 30
30. Pterygostomian and postorbital spines present. Dactylus of last three legs with a basal protuberance *Coutièrea*
- Pterygostomian and postorbital spines absent. Dactylus of last three legs without basal protuberance *Pseudocoutièrea*
31. Exopods present on all maxillipeds. Rostrum present. Dactylus of last three pereopods biunguiculate *Typton*
- Second and third maxillipeds without exopods. Rostrum absent. Dactylus of last three pereopods simple *Paratypton*

Palaemonella Dana, 1852 (fig. 31a)

Palaemonella Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 17. Type species, selected by Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 425; *Palaemonella tenuipes* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 25. Gender: feminine.

Palaemonella Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 425. Erroneous spelling of *Palaemonella* Dana, 1852.

Vir Holthuis, 1952 (fig. 31b)

Vir Holthuis, 1952, Siboga Exped. 39 (a10): 4, 8, 29. Type species, by monotypy: *Palaemonella orientalis* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 26. Gender: masculine.

Stegopontonia Nobili, 1906 (fig. 32a)

Stegopontonia Nobili, 1906, Bull. Mus. Hist. nat. Paris 12: 258. Type species, by monotypy: *Stegopontonia commensalis* Nobili, 1906, Bull. Mus. Hist. nat. Paris 12: 258. Gender: feminine.

Periclimenes Costa, 1844 (fig. 33)

Pelias P. Roux, 1831, Mém. Class. Crust. Salicoques: 25. Type species, by present selection: *Alpheus amethystea* Risso, 1826, Hist. nat. Europ. mérid. 5: 77. Gender: masculine. Invalid junior homonym of *Pelias* Merrem, 1820, Tent. Syst. Amph.: 148 (Reptilia).

Periclimenes Costa, 1844, Ann. Accad. Aspir. Nat. Napoli 2: 290. Type species, by monotypy: *Periclimenes insignis* Costa, 1844, Ann. Accad. Aspir. Nat. Napoli 2: 291 (= *Alpheus amethystea* Risso, 1826, Hist. nat. Europ. mérid. 5: 77). Gender: masculine.

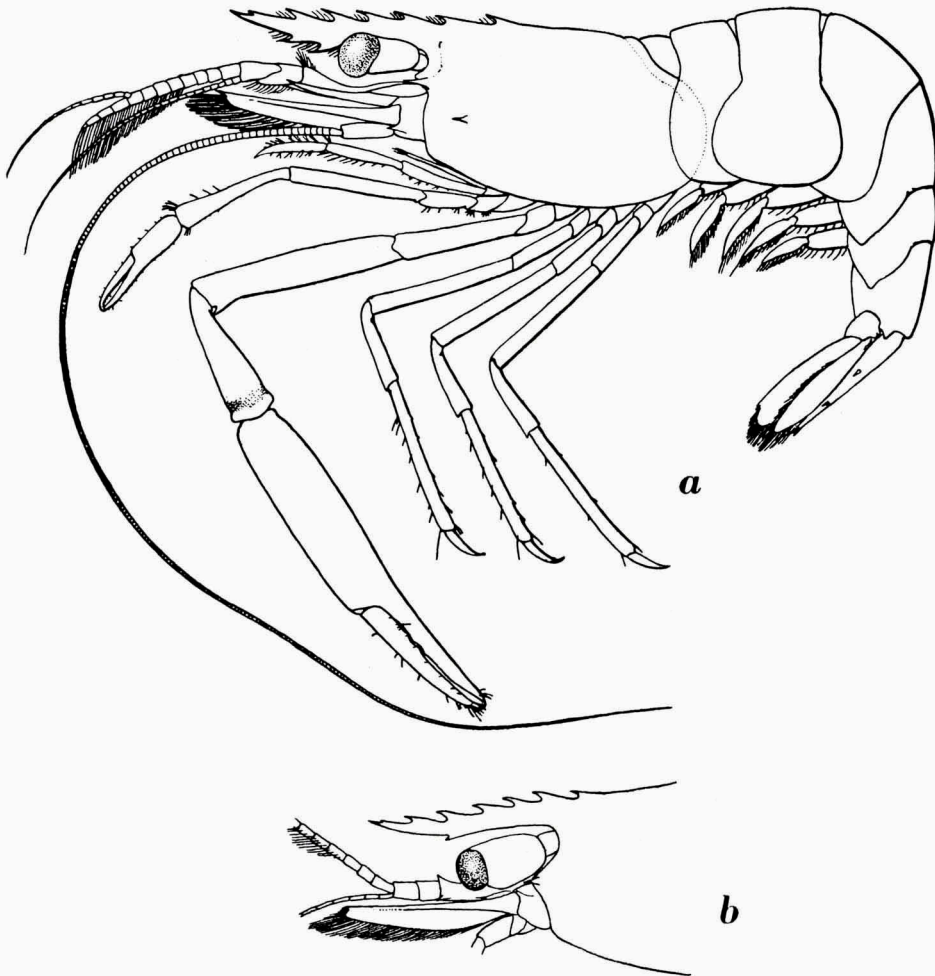


Fig. 31a. *Palaemonella vestigialis* Kemp. After Kemp, 1922.

Fig. 31b. *Vir orientalis* (Dana). Anterior part of body. After Kemp, 1922.

Anchistia Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 17. Type species, selected by Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 424, : *Anchistia gracilis* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 25. Gender: feminine.

Harpilius Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 17. Type species, by monotypy: *Harpilius lutescens* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 25. Gender: masculine.

Urocaris Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 39. Type species,

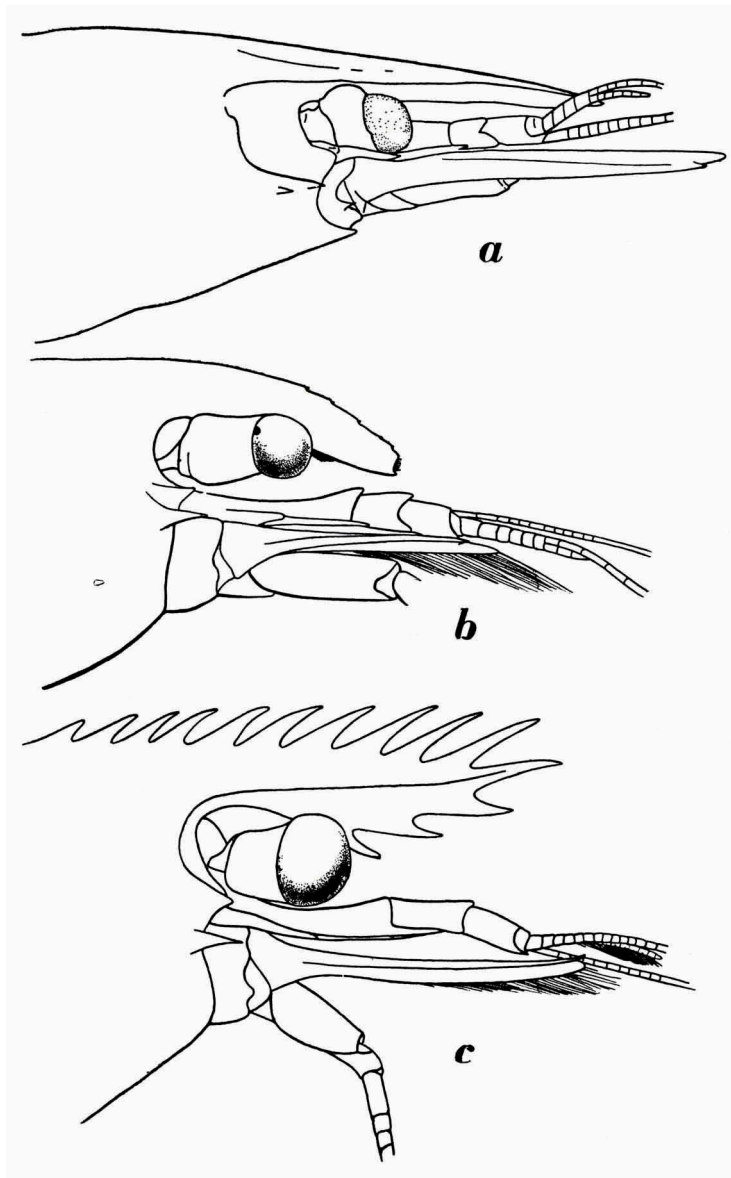


Fig. 32a. *Stegopontonia commensalis* Nobili. Anterior part of body. Original.

Fig. 32b. *Paranchistus biunguiculatus* (Borradaile). Anterior part of body. After Holthuis, 1952b.

Fig. 32c. *Thaumastocaris streptopus* Kemp. Anterior part of body. After Holthuis, 1952b.

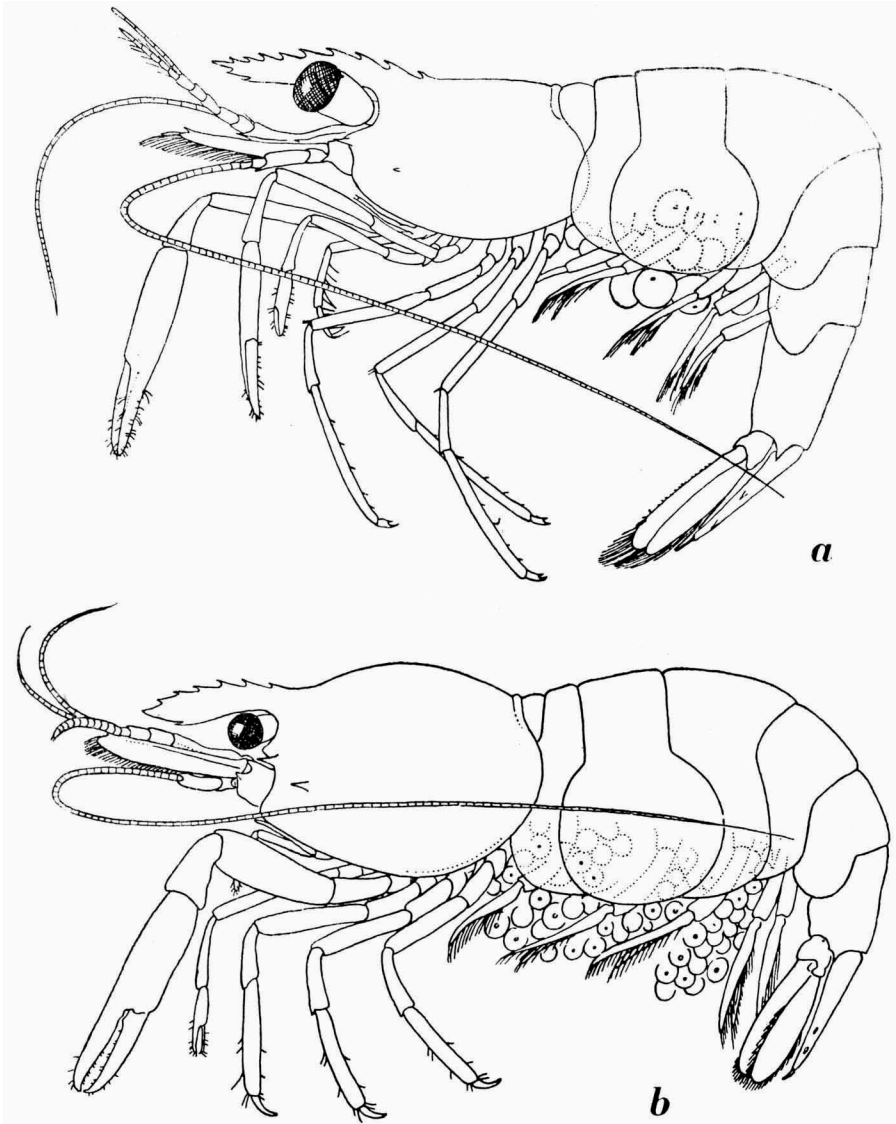


Fig. 33a. *Periclimenes (Periclimenes) impar* Kemp. After Kemp, 1922.

Fig. 33b. *Periclimenes (Harpilius) brevicarpalis* (Schenkel). After Kemp, 1922.

by original designation: *Urocaris longicaudata* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 39. Gender: feminine.

Dennisia Norman, 1861, Ann. Mag. nat. Hist. (3)8: 278. Type species, by monotypy: *Dennisia sagittifera* Norman, 1861, Ann. Mag. nat. Hist. (3)8: 278 (= *Alpheus amethystea* Risso, 1826, Hist. nat. Europ. mérid. 5: 77). Gender: feminine.

- Anchystia* Nardo, 1869, Mem. Ist. Veneto Sci. Lett. Art. 14: 22. Erroneous spelling of *Anchistia* Dana, 1852.
- Periclemenes* Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 418. Erroneous spelling of *Periclimenes* Costa, 1844.
- Anchista* Holmes, 1900, Occ. Pap. Calif. Acad. Sci. 7: 216. Erroneous spelling of *Anchistia* Dana, 1852.
- Ancylocaris* Schenkel, 1902, Verh. naturf. Ges. Basel 13: 563. Type species, by monotypy: *Ancylocaris brevicarpalis* Schenkel, 1902, Verh. naturf. Ges. Basel 13: 563. Gender: feminine.
- Corniger* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 207. Type species, selected by Borradaile, 1917, Trans. Linn. Soc. Lond. Zool. (2)17: 365; *Periclimenes* (*Corniger*) *ceratophthalmus* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 211. Gender: masculine. Invalid junior homonym of *Corniger* Agassiz, 1831, in Spix, Pisc. Brasil.: 121 (Pisces), and of *Corniger* Boehm, 1879, S. B. Ges. naturf. Fr. Berlin 1879: 140 (Pycnogonida).
- Cristiger* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 207. Type species, by present selection: *Periclimenes* (*Cristiger*) *commensalis* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 211¹). Gender: masculine. Invalid junior homonym of *Cristiger* Gistel, 1848, Nat. Thierr.: 144 (Hymenoptera).
- Falciger* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 207. Type species, by present selection: *Periclimenes* (*Falciger*) *nilandensis* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 211²). Gender: masculine. Invalid junior homonym of *Falciger* Say, 1824, Journ. Acad. nat. Sci. Phila. 3: 309 (Coleoptera), *Falciger* Bucholz, 1869 (Arachnoidea), and *Falciger* Trouesart & Mégnin, 1883, C. R. Acad. Paris 97: 1321 (Arachnoidea).
- Ancylocaris* Borradaile, 1917, Trans. Linn. Soc. Lond. Zool. (2)17: 329-333, 338, 341, 342, 346, 348-350, 355. Erroneous spelling of *Ancylocaris* Schenkel, 1902.
- Laomenes* Clark, 1919, Proc. biol. Soc. Wash. 32: 199. Substitute name for *Corniger* Borradaile, 1915. Gender: masculine.
- Cuapetes* Clark, 1919, Proc. biol. Soc. Wash. 32: 199. Substitute name for *Falciger* Borradaile, 1915. Gender: masculine.
- Periclimines* Ramadan, 1936, Bull. Fac. Sci. Egypt. Univ. 6: 22. Erroneous spelling of *Periclimenes* Costa, 1844.

1) Borradaile's (1917, Trans. Linn. Soc. Lond. Zool. (2)17: 362) selection of *Alpheus scriptus* Risso, 1822, as the type of the subgenus *Cristiger*, is invalid as that species is not among those originally included in *Cristiger*.

2) Borradaile's (1917, Trans. Linn. Soc. Lond. Zool. (2)17: 369) selection of *Periclimenes petithouarsii* var. *spinifera* De Man, 1902, as the type of the subgenus *Falciger*, is invalid as that species is not among those originally included in *Falciger*.

Periclimens Yu, 1936, Chin. Journ. Zool. 2:91. Erroneous spelling of *Periclimenes* Costa, 1844.

Paranchistus Holthuis, 1952 (fig. 32b)

Paranchistus Holthuis, 1952, Siboga Exped. 39 (a10):5, 13, 91. Type species, by original designation: *Anchistus biunguiculatus* Borradaile, 1898, Ann. Mag. nat. Hist. (7)2:387. Gender: masculine.

Anchistus Borradaile, 1898 (fig. 34)

Anchistus Borradaile, 1898, Ann. Mag. nat. Hist. (7)2:387. Type species, by original designation: *Harpilius Miersi* De Man, 1888, Journ. Linn. Soc. Lond. Zool. 22:274. Gender: masculine.

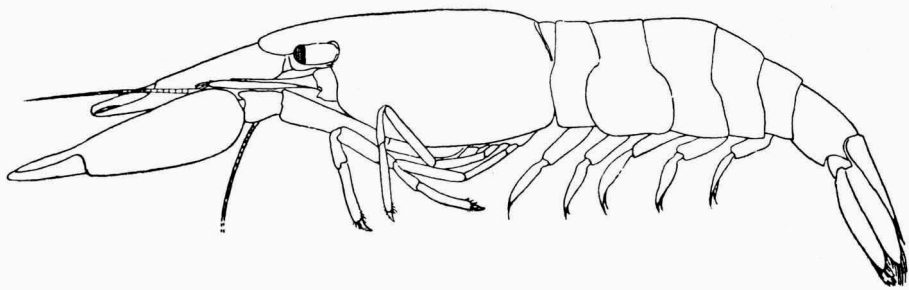


Fig. 34. *Anchistus custos* (Forskål). After Kubo, 1940a.

Tridacnocaris Nobili, 1899, Ann. Mus. civ. Stor. nat. Genova 40:235. Substitute name for *Anchistus* Borradaile, 1898. Gender: feminine.

Marygrande Pesta, 1911, Zool. Anz. 38:571. Type species, by monotypy: *Marygrande mirabilis* Pesta, 1911, Zool. Anz. 38:571. Gender: feminine.

Ensiger Borradaile, 1915, Ann. Mag. nat. Hist. (8)15:207. Type species, being the first species placed in this subgenus, which was described without any nominate species: *Anchistia aurantiaca* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6:25 (= *Cancer custos* Forskål, 1775, Descript. Anim.: xxi, 94); first placed in *Ensiger* by Borradaile, 1917, Trans. Linn. Soc. Lond. Zool. (2)17:376. Gender: masculine.

Thaumastocaris Kemp, 1922 (fig. 32c)

Thaumastocaris Kemp, 1922, Rec. Indian Mus. 24:244. Type species, by monotypy: *Thaumastocaris streptopus* Kemp, 1922, Rec. Indian Mus. 24:244. Gender: feminine.

Periclimenaeus Borradaile, 1915 (fig. 35)

Periclimenaeus Borradaile, 1915, Ann. Mag. nat. Hist. (8)15:207. Type species, selected by Borradaile, 1917, Trans. Linn. Soc. Lond. Zool. (2)17:

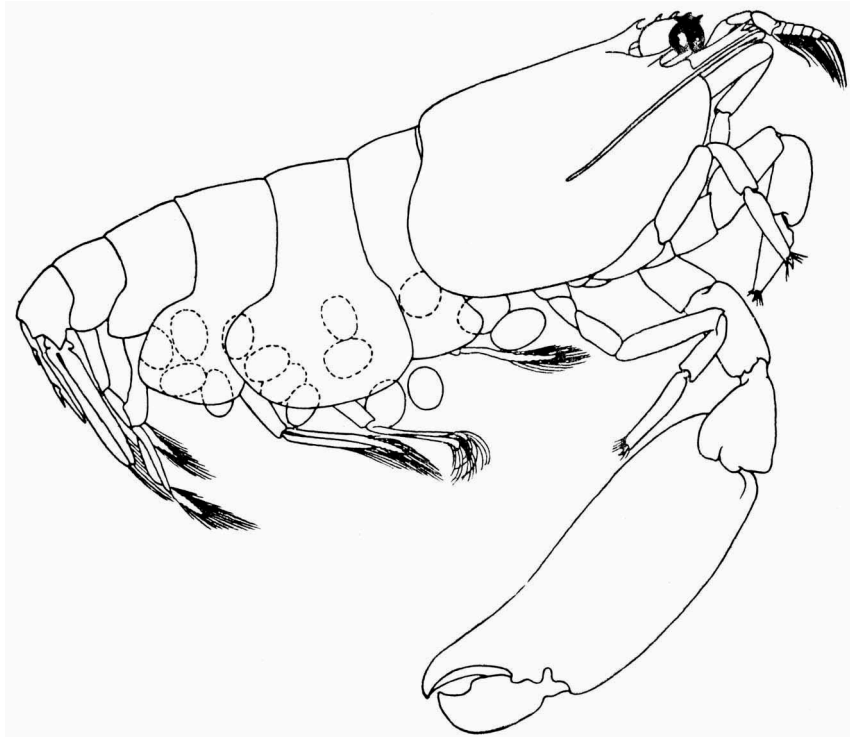


Fig. 35. *Periclimenaeus tridentatus* (Miers). After Calman, 1939.

378, : *Periclimenaeus robustus* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 213. Gender: masculine.

Hamiger Borradaile, 1916, Nat. Hist. Rep. Brit. Antarct. Exped., Zool. 3 (2): 87. Type species, by monotypy: *Periclimenes (Hamiger) novae-zealandiae* Borradaile, 1916, Nat. Hist. Rep. Brit. Antarct. Exped., Zool. 3(2): 87. Gender: masculine.

Onyccaris Nobili, 1904 (fig. 36)

Onyccaris Nobili, 1904, Bull. Mus. Hist. nat. Paris 10: 233. Type species, selected by Holthuis, 1952, Siboga Exped. 39 (a10): 14, : *Coralliocaris (Onyccaris) aualitica* Nobili, 1904, Bull. Mus. Hist. nat. Paris 10: 233. Gender: feminine.

Onychocaris Gurney, 1938, Sci. Rep. Great Barrier Reef Exped. 6(1): 29, 33. Erroneous spelling of *Onyccaris* Nobili, 1904.

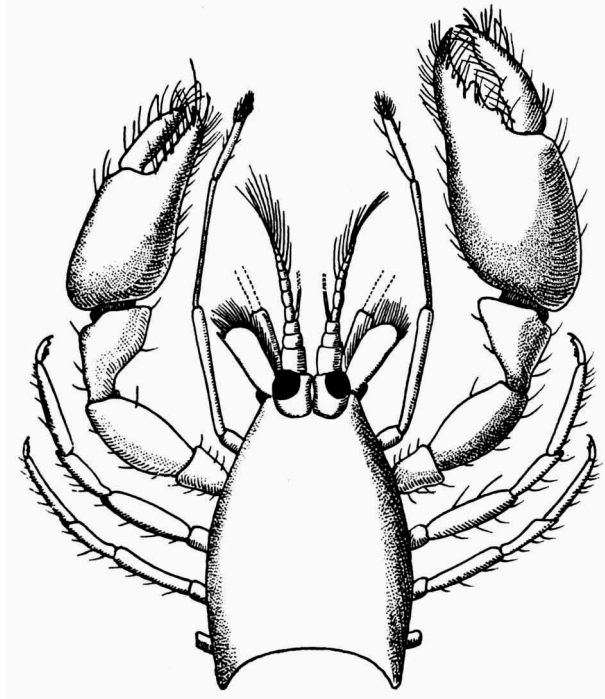


Fig. 36. *Onycocaris quadratophthalma* (Balss). Anterior part of body. After Balss, 1921.

Philarius Holthuis, 1952 (fig. 37a)

Philarius Holthuis, 1952, Siboga Exped. 39 (a10): 5, 15, 151. Type species, by original designation: *Harpilius Gerlachei* Nobili, 1905, Bull. Mus. Hist. nat. Paris 11: 160. Gender: masculine.

Pontoniopsis Borradaile, 1915 (fig. 38a, b)

Pontoniopsis Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 207. Type species, by monotypy: *Pontoniopsis comanthi* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 213. Gender: masculine.

Pontonia Latreille, 1829 (fig. 37b)

Alciopé Rafinesque, 1814, Préc. Découv. somiol.: 24. Type species, by monotypy: *Alciopé heterochelus* Rafinesque, 1814, Préc. Découv. somiol.: 24 (= *Pontonia flavomaculata* Heller, 1864, Verh. zool.-bot. Ges. Wien 14: 51). Gender: masculine.

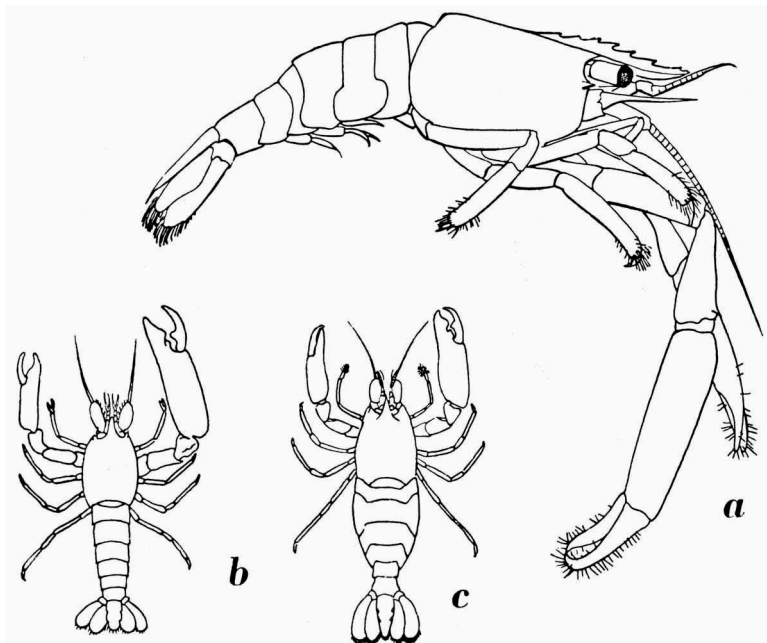


Fig. 37a. *Philarius imperialis* (Kubo). After Kubo, 1940b.
Fig. 37b, c. *Pontonia pinnophylax* (Otto). b, male; c, female. After Borradaile, 1917b.

Pontonia Latreille, 1829, Cuvier's Règne anim. (ed. 2) 4: 96. Type species, designated under plenary powers by the International Commission on Zoological Nomenclature: *Palaemon pinnophylax* Otto, 1821, Consp. Anim. marit. non edit.: 12. Gender: feminine.

Panthonia Valdés Ragués, 1909, Mis Trabajos Acad.: 181. Erroneous spelling of *Pontonia* Latreille, 1829.

Platycaris Holthuis, 1952 (fig. 38c, d)

Platycaris Holthuis, 1952, Siboga Exped. 39 (a10): 5, 16, 172. Type species, by monotypy: *Platycaris latirostris* Holthuis, 1952, Siboga Exped. 39 (a10): 173. Gender: feminine.

Dasycaris Kemp, 1922 (fig. 39)

Dasycaris Kemp, 1922, Rec. Indian Mus. 24: 240. Type species, by monotypy: *Dasycaris symbiotes* Kemp, 1922, Rec. Indian Mus. 24: 240. Gender: feminine.

Harpiliopsis Borradaile, 1917 (fig. 40a)

Harpiliopsis Borradaile, 1917, Trans. Linn. Soc. Lond. Zool. (2)17: 324, 329-334, 336-338, 341-343, 347-351, 379, 395. Type species, by original

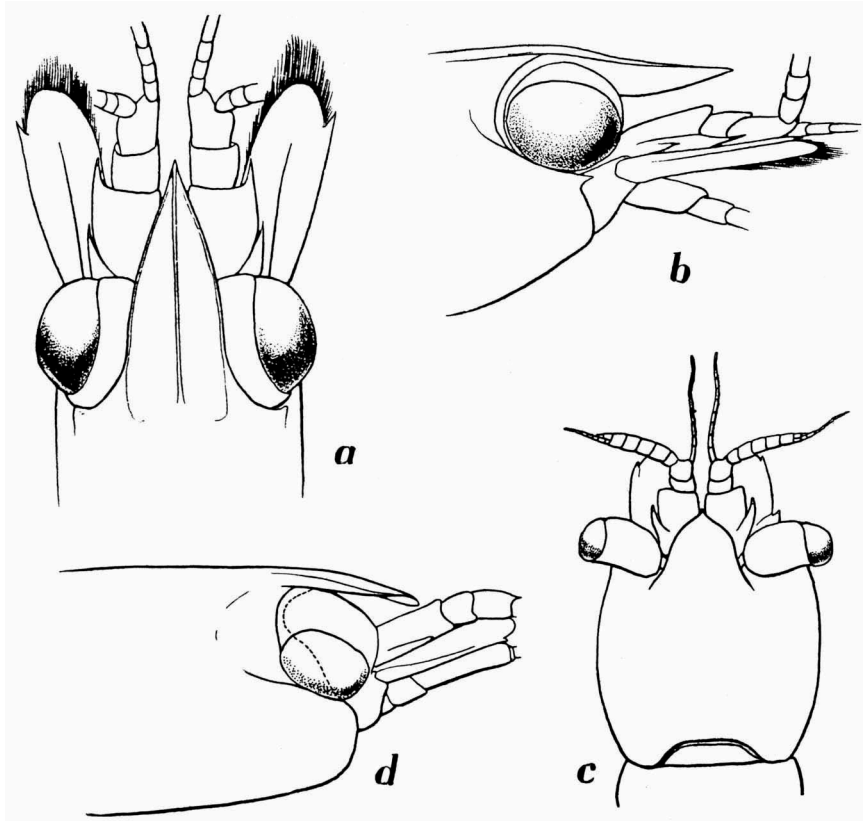


Fig. 38a, b. *Pontoniopsis comantli* Borradaile. Anterior part of body: a, dorsal view; b, lateral view. After Holthuis, 1952b.

Fig. 38c, d. *Platycaris latirostris* Holthuis. Anterior part of body: c, dorsal view; d, lateral view. After Holthuis, 1952b.

designation: *Palaemon Beaupresii* Audouin, 1825, Descr. Égypte, Hist. nat. 1(4):91. Gender: masculine.

Fennera Holthuis, 1951 (fig. 40b)

Fennera Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 10, 171. Type species, by monotypy: *Fennera chacei* Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 171. Gender: feminine.

Coralliocaris Stimpson, 1860 (fig. 41a)

Oedipus Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 17. Type species, selected by Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 423, : *Oedipus*

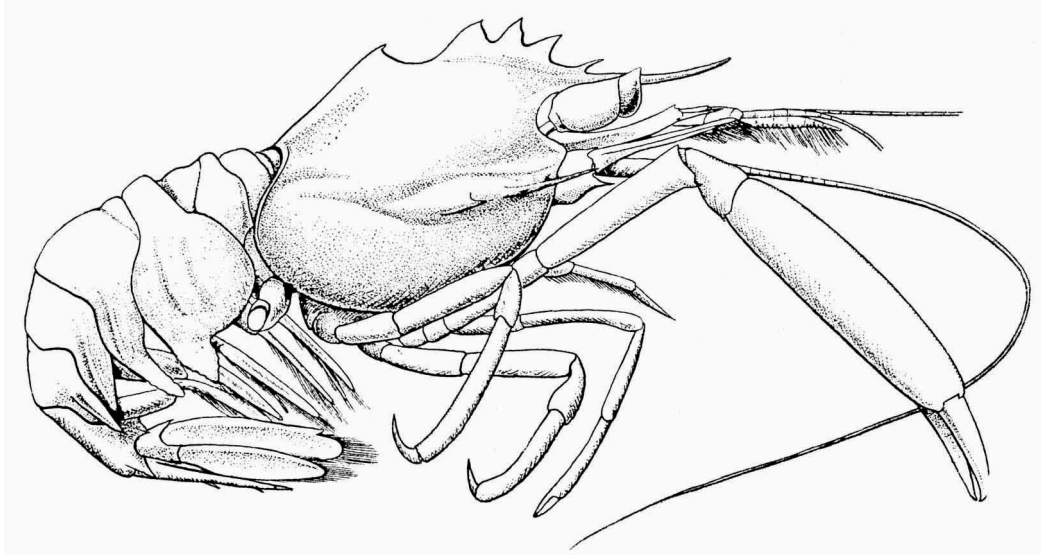


Fig. 39. *Dasycares ceratops* Holthuis. After Holthuis, 1952b.



Fig. 40a. *Harpiliopsis depressus* (Stimpson). Anterior part of body. After Kemp, 1922.
 Fig. 40b. *Fennera chacei* Holthuis. Anterior part of body. After Holthuis, 1951b.

superbus Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 25. Gender: masculine. Invalid junior homonym of *Oedipus* Berthold, 1827, Latreille's Nat. Fam. Thierr.: 411 (Orthoptera), *Oedipus* Tschudi, 1838, Classif. Batrach. (Amphibia), and *Oedipus* Lesson, 1840, Spec. Mamm.: 197 (Mammalia).

Coralliocaris Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 38. Substitute name for *Oedipus* Dana, 1852. Gender: feminine.

Corallocaris Boone, 1930, Zoologica, New York 12: 41, 42, 45. Erroneous spelling of *Coralliocaris* Stimpson, 1860.

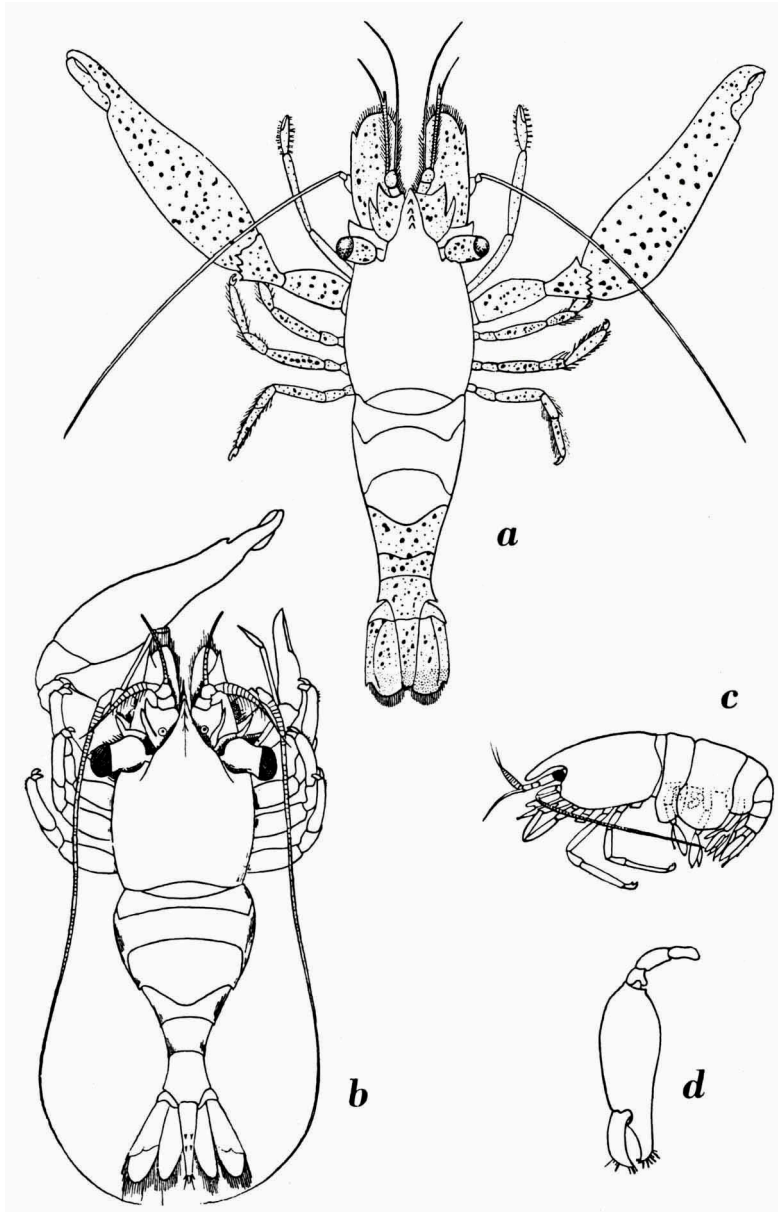


Fig. 41a. *Coralliocaris superba* (Dana). After Dana, 1855.

Fig. 41b. *Jocaste lucina* (Nobili). After Borradaile, 1917b.

Fig. 41c, d. *Dasella herdmaniae* (Lebour). c, animal in lateral view; d, second leg. After Lebour, 1939.

Jocaste Holthuis, 1952 (fig. 41b)

Jocaste Holthuis, 1952, Siboga Exped. 39 (a10): 6, 17, 192. Type species, by monotypy: *Coralliocaris lucina* Nobili, 1901, Annu. Mus. zool. Univ. Napoli (n. ser.) 1(3): 5. Gender: feminine.

Conchodytes Peters, 1852 (fig. 42)

Conchodytes Peters, 1852, Ber. Verh. Akad. Wiss. Berlin 1852: 588, 591. Type species, selected by Hilgendorf, 1879, Mber. Akad. Wiss. Berlin 1878: 835.: *Conchodytes tridacnae* Peters, 1852, Ber. Verh. Akad. Wiss. Berlin 1852: 594. Gender: masculine.

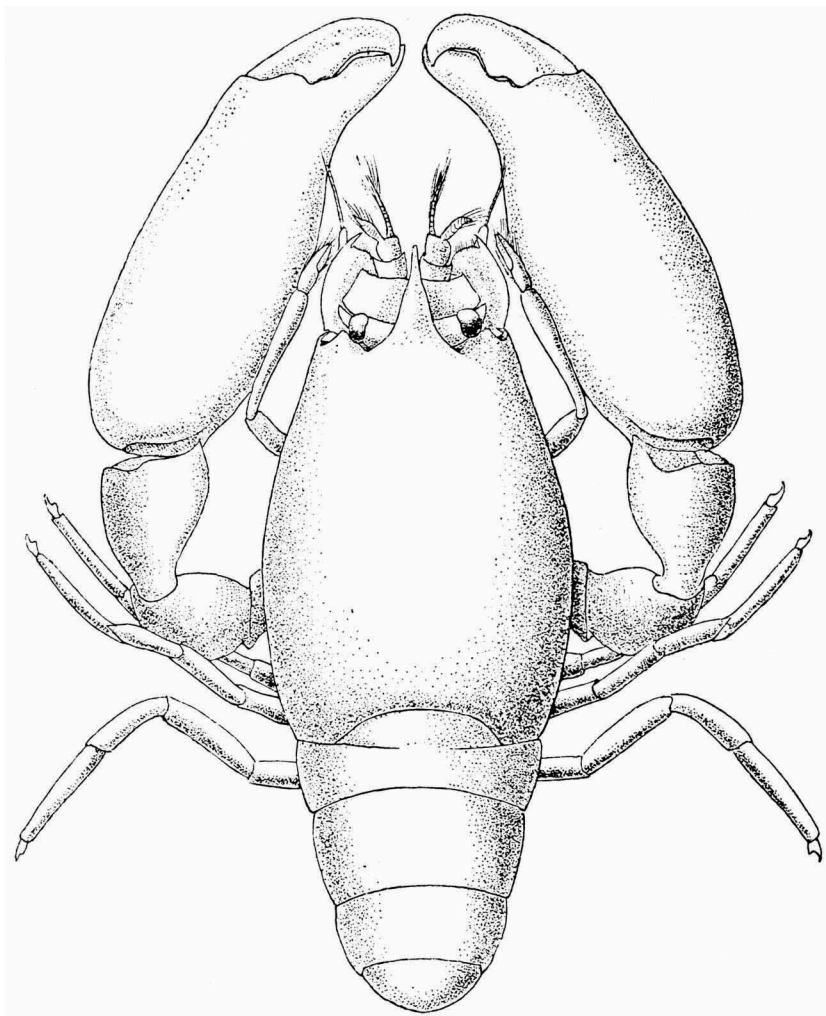


Fig. 42. *Conchodytes monodactylus* Holthuis. After Holthuis, 1952b.

Conchyodytes Ramadan, 1936, Bull. Fac. Sci. Egypt. Univ. 6: 23. Erroneous spelling of *Conchodytes* Peters, 1852.

Conchodites Kubo, 1937, Syokubutu oyobi Dôbutu (Bot. & Zool.) Tokyo 5: 629. Erroneous spelling of *Conchodytes* Peters, 1852.

Dasella Lebour, 1945 (fig. 41c, d)

Dasia Lebour, 1939, Proc. zool. Soc. Lond. (B) 108: 650. Type species, by monotypy: *Dasia herdmaniae* Lebour, 1939, Proc. zool. Soc. Lond. (B) 108: 650. Gender: feminine. Invalid junior homonym of *Dasia* Gray, 1839, Ann. nat. Hist. 2: 331 (Reptilia), and *Dasia* Van der Goot, 1918, in Das, Mem. Indian Mus. 6: 152 (Hemiptera).

Dasella Lebour, 1945, Proc. zool. Soc. Lond. 115: 297. Substitute name for *Dasia* Lebour, 1938.

Cavicheles Holthuis, 1952 (fig. 43a)

Cavicheles Holthuis, 1952, Siboga Exped. 39 (a10): 6, 17, 204. Type species,

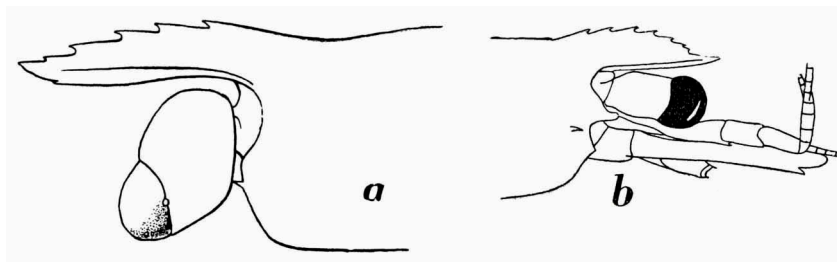


Fig. 43a. *Cavicheles kempi* Holthuis. Anterior part of carapace. After Holthuis, 1952b.

Fig. 43b. *Waldola schmitti* Holthuis. Anterior part of body. After Holthuis, 1951b.

by monotypy: *Cavicheles kempi* Holthuis, 1952, Siboga Exped. 39 (a10): 205. Gender: feminine.

Hamodactylus Holthuis, 1952 (fig. 44)

Hamodactylus Holthuis, 1952, Siboga Exped. 39 (a10): 6, 18, 208. Type species, by monotypy: *Hamodactylus boschmai* Holthuis, 1952, Siboga Exped. 39 (a10): 209. Gender: masculine.

Waldola Holthuis, 1951 (fig. 43b)

Waldola Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 11, 185. Type species, by monotypy: *Waldola schmitti* Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 186. Gender: feminine.

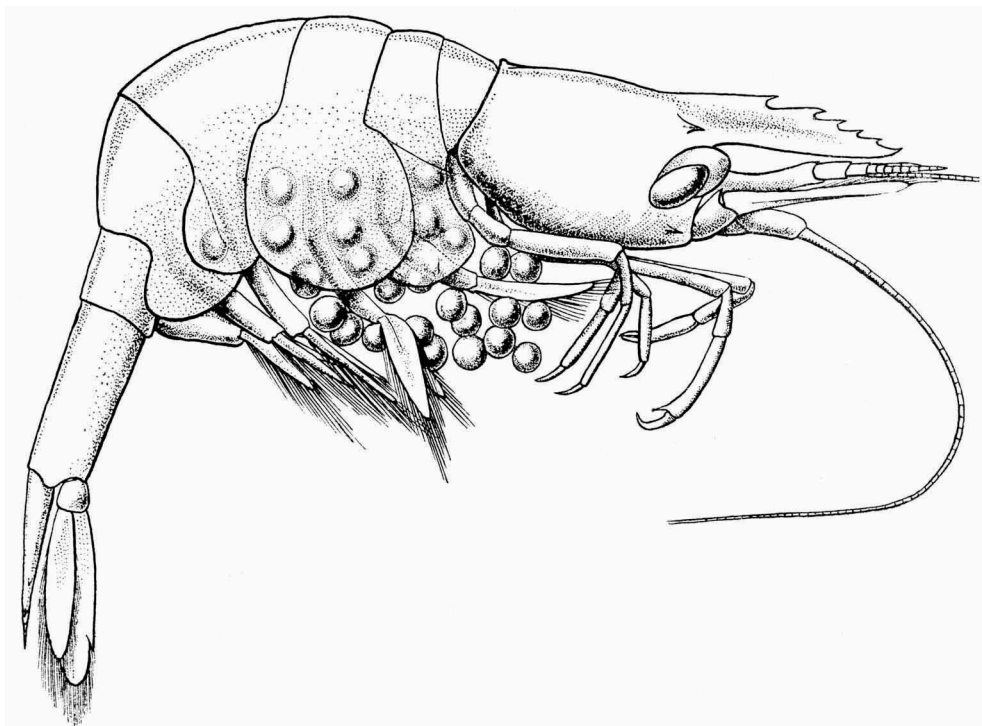


Fig. 44. *Hamodactylus boschmai* Holthuis. After Holthuis, 1952b.

Anchistioides Paulson, 1875 (fig. 45a)

Anchistioides Paulson, 1875, Issljed. Rakoobr. Krasn. Morja (Stud. Crust. Red Sea): 115. Type species, by monotypy: *Anchistioides compressus* Paulson, 1875, Issljed. Rakoobr. Krasn. Morja: 115. Gender: masculine.

Palaemonopsis Borradaile, 1899, Willey's Zool. Res. 4:410. Type species, by monotypy: *Palaemonopsis willeyi* Borradaile, 1899, Willey's Zool. Res. 4:410. Gender: masculine. Invalid junior homonym of *Palaemonopsis* Stimpson, 1871, Ann. Lyc. nat. Hist. New York 10: 128 (Crustacea Decapoda Macrura).

Amphipalaemon Nobili, 1901, Boll. Mus. Zool. Anat. comp. Torino 16(402): 5. Substitute name for *Palaemonopsis* Borradaile, 1899. Gender: masculine.

Pontonides Borradaile, 1917 (fig. 45b)

Pontonides Borradaile, 1917, Trans. Linn. Soc. Lond. Zool. (2)17:387. Type species, by monotypy: *Pontonia maldivensis* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15:213. Gender: masculine.

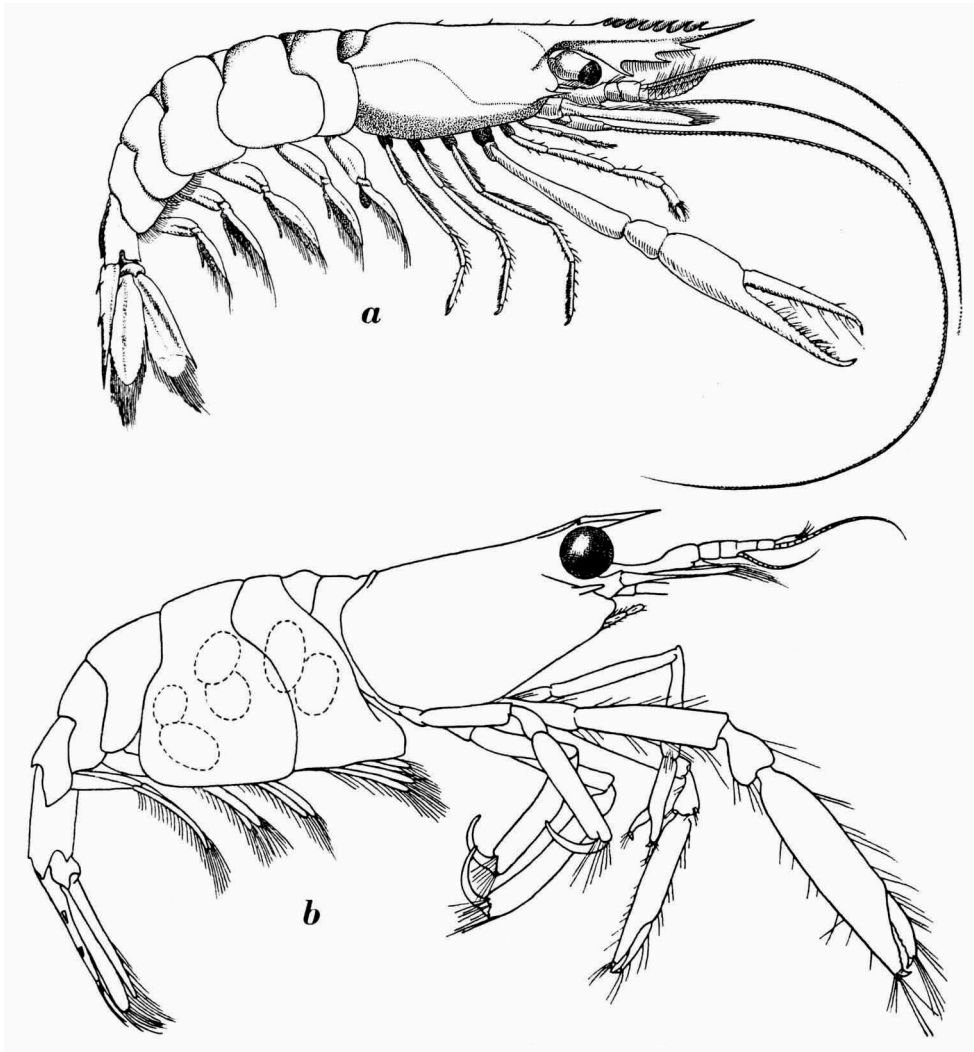


Fig. 45a. *Anchistioides willeyi* (Borradaile). After Balss, 1921.

Fig. 45b. *Pontonides unciger* Calman. After Calman, 1939.

Neopontonides Holthuis, 1951 (fig. 46a)

Neopontonides Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 11, 189. Type species, by original designation: *Periclimenes beaufortensis* Borradaile, 1920, Ann. Mag. nat. Hist. (9)5: 132. Gender: masculine.

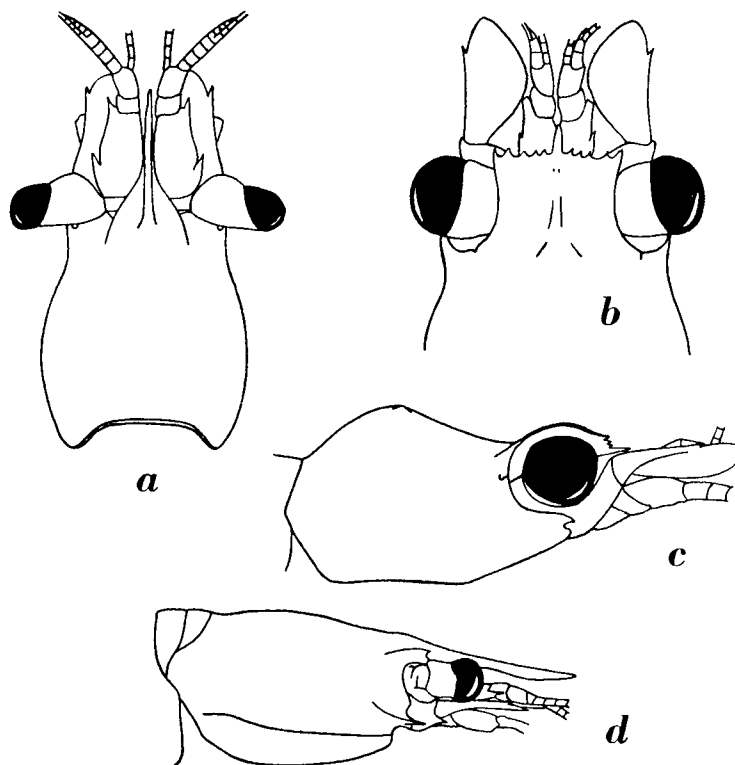


Fig. 46a. *Neopontonides beaufortensis* (Borradaile). Anterior part of body. After Holthuis, 1951b.

Fig. 46b, c. *Veleronia serratifrons* Holthuis. Anterior part of body: b, dorsal view; c, lateral view. After Holthuis, 1951b.

Fig. 46d. *Pseudocoutièrea elegans* Holthuis. Anterior part of body. After Holthuis, 1951b.

Veleronia Holthuis, 1951 (fig. 46b, c)

Veleronia Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 11, 195. Type species, by original designation: *Veleronia serratifrons* Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 195, 196. Gender: feminine.

Balssia Kemp, 1922 (fig. 47a)

Balssia Kemp, 1922, Rec. Indian Mus. 24: 267. Type species, by monotypy: *Amphipalaemon Gasti* Balss, 1921, Mitt. zool. Sta. Neapel 22: 523. Gender: feminine.

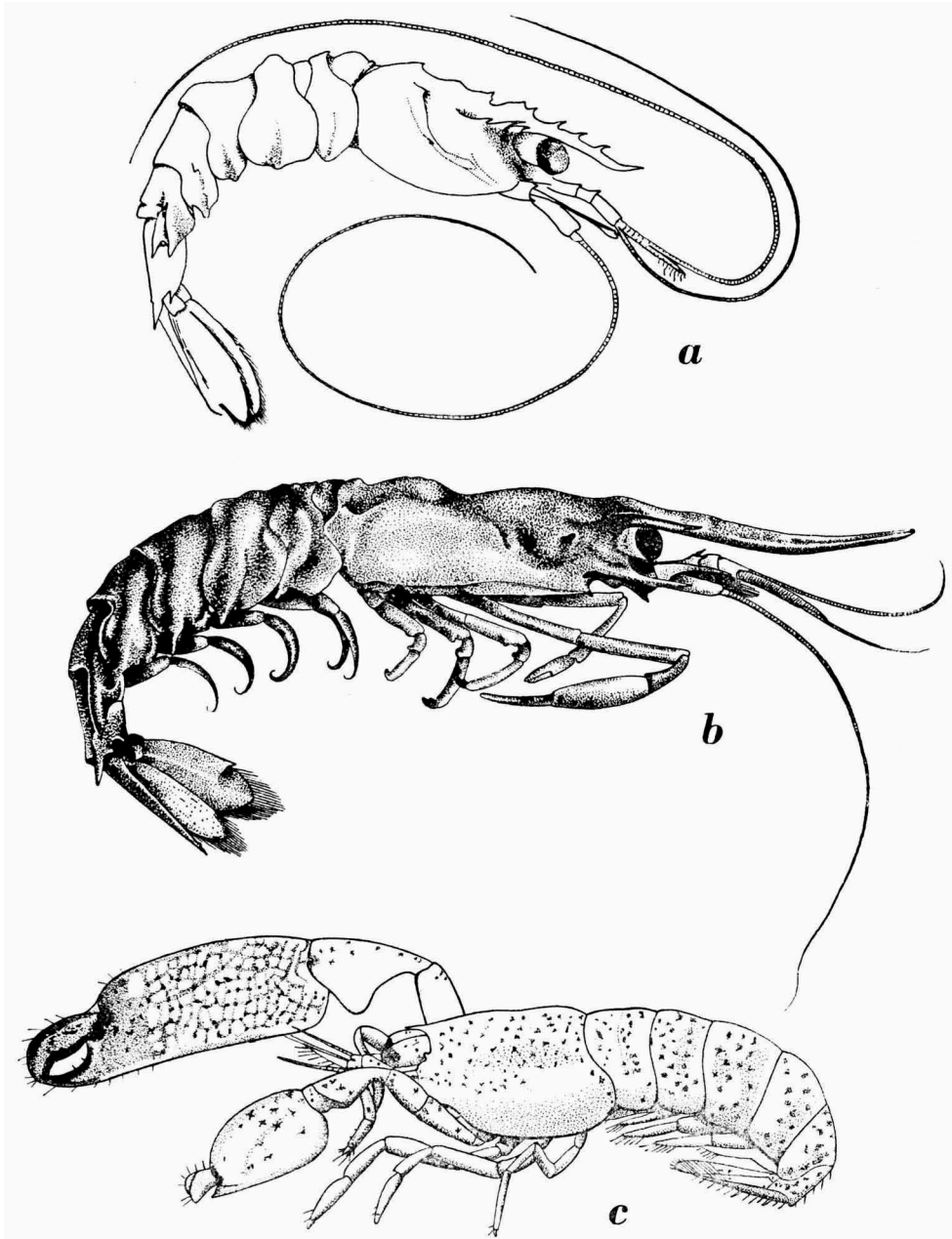


Fig. 47a. *Balssia gasti* (Balss). After Zariquiey Cenarro, 1935.

Fig. 47b. *Coutièrea agassizi* (Coutière). After Coutière, 1901.

Fig. 47c. *Typton tortugae* McClendon. After McClendon, 1911.

Coutièrea Nobili, 1901 (fig. 47b)

- Coutièrea* Nobili, 1901, Boll. Mus. Zool. Anat. comp. Torino 16(415):4.
 Type species, by monotypy: *Coralliocaris Agassizi* Coutièrea, 1901, Bull. Mus. Hist. nat. Paris 7:115. Gender: feminine.
Coutièrea Borradaile, 1917, Trans. Linn. Soc. Lond. Zool. (2)17: 329, 330, 332, 345, 347, 349, 350, 386. Erroneous spelling of *Coutièrea* Nobili, 1901.

Pseudocoutièrea Holthuis, 1951 (fig. 46d)

- Pseudocoutièrea* Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 11, 182. Type species, by monotypy: *Pseudocoutièrea elegans* Holthuis, 1951, Occ. Pap. Allan Hancock Found. 11: 182. Gender: feminine.

Typton Costa, 1844 (fig. 47c)

- Typton* Costa, 1844, Ann. Accad. Aspir. Nat. Napoli 2: 288. Type species, by monotypy: *Typton spongicola* Costa, 1844, Ann. Accad. Aspir. Nat. Napoli 2: 289. Gender: masculine.
Pontonella Heller, 1856, Verh. zool.-bot. Ver. Wien 6: 629. Type species, by monotypy: *Pontonella glabra* Heller, 1856, Verh. zool.-bot. Ver. Wien 6: 634 (= *Typton spongicola* Costa, 1844, Ann. Accad. Aspir. Nat. Napoli 2: 289). Gender: feminine.
Tipton Nardo, 1869, Mem. Ist. Veneto Sci. Lett. Art. 14: 24, 33, 34, 45, 66. Erroneous spelling of *Typton* Costa, 1844.
Trypton Calvet, 1905, Trav. Inst. Zool. Univ. Montpellier (2)15: 61. Erroneous spelling of *Typton* Costa, 1844.

Paratypton Balss, 1914 (fig. 48)

- Paratypton* Balss, 1914, Zool. Anz. 45: 83. Type species, by monotypy: *Paratypton siebenrocki* Balss, 1914, Zool. Anz. 45: 84. Gender: masculine.

Subfamily TYPHLOCARIDINAE

Typhlocaridinae Annandale & Kemp, 1913, Journ. Asiat. Soc. Bengal (n. ser.) 9(6): 245.

The only genus contained in the present subfamily is:

Typhlocaris Calman, 1909 (fig. 49)

- Typhlocaris* Calman, 1909, Trans. Linn. Soc. Lond. Zool. (2)11: 93, 94. Type species, by monotypy: *Typhlocaris galilea* Calman, 1909, Trans. Linn. Soc. Lond. Zool. (2)11: 93. Gender: feminine.

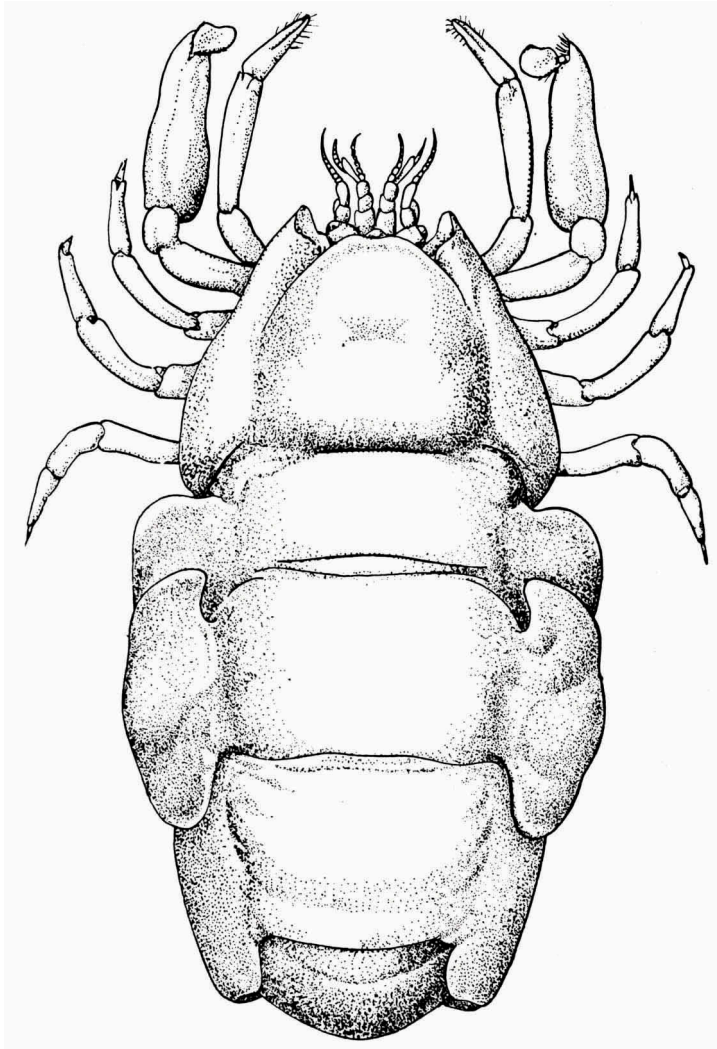


Fig. 48. *Paratypton siebenrocki* Balss. After Balss, 1915.

Subfamily EURYRHYNCHINAE

Euryrhynchinae Holthuis, 1950, Siboga Exped. 39 (a9) : 1, 2.

This subfamily contains only one genus:

Euryrhynchus Miers, 1877 (fig. 50)

Euryrhynchus Miers, 1877, Proc. zool. Soc. Lond. 1877: 662. Type species, by monotypy: *Euryrhynchus wrzesniowski* Miers, 1877, Proc. zool. Soc.

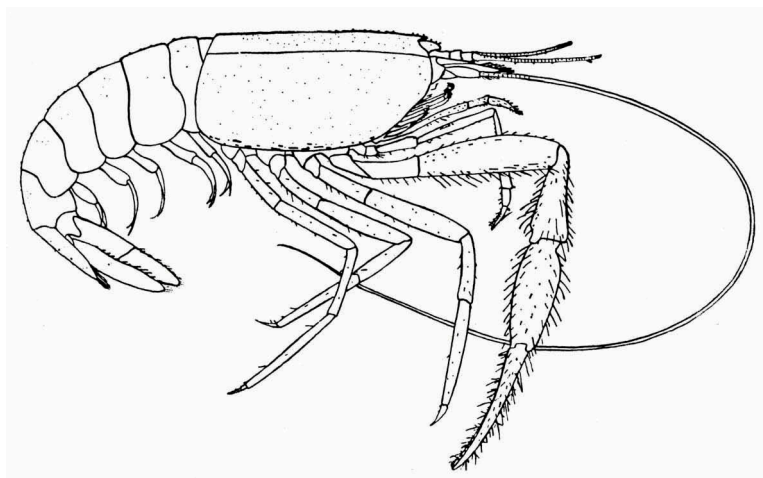


Fig. 49. *Typhlocaris galilea* Calman. After Calman, 1909.

Lond. 1877: 662. Gender: masculine. Junior homonym of *Euryrhynchus* Nitzsch, 1829, Obs. Avium. Art. carot. comm.: 18; which is an erroneous spelling change of *Eurynorhynchus* Nilsson, 1821, Ornit. suc. 2(1): 29. *Euryrhynchus* Nitzsch thus has no nomenclatorial standing and does not invalidate *Euryrhynchus* Miers, 1877.

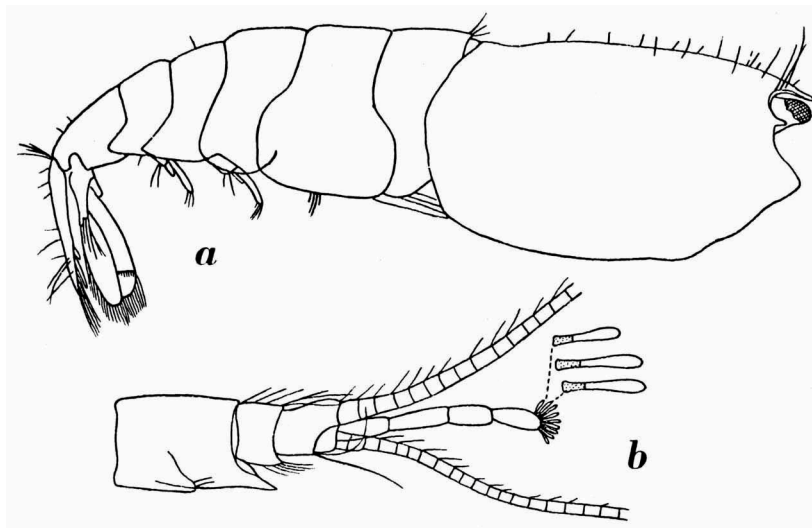


Fig. 50. *Euryrhynchus wrzesniowski* Miers. a, animal in lateral view; b, antennula. After Gordon, 1935.

Family GNATHOPHYLLIDAE

Gnathophyllinae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 16.

Hymenoceridae Ortmann, 1890, Zool. Jb. Syst. 5: 511.

Gnathophyllidae Ortmann, 1890, Zool. Jb. Syst. 5: 537.

Hymenocerinae Ortmann, 1896, Zool. Jb. Syst. 9: 424.

Drimoidae Ortmann, 1896, Zool. Jb. Syst. 9: 425.

The four genera of this family may be distinguished as follows:

1. The last two joints of the third maxilliped less than half as broad as the antepenultimate joint; the latter about as broad as the joint preceding it. Dactylus of second leg not serrate above; carpus and merus of that leg without anterior spines 2
- The last two joints of the third maxilliped almost as broad as or broader than the antepenultimate joint; the latter distinctly broader than the joint preceding it. Dactylus of second leg serrate above; carpus and merus of that leg with strong spines on the anterior margin 3
2. Exopod of third maxilliped shorter than endopod. Dactylus of last three legs biunguiculate, without tubercles on the lower margin. Outer antennular flagellum bifid *Gnathophyllum*
- Exopod of third maxilliped much longer than endopod. Dactylus of last three legs ending in a simple claw, with blunt tubercles on the lower margin. Outer antennular flagellum simple *Gnathophylloides*
3. Outer antennular flagellum normal in shape, thread-like. Chelae of second legs broad and flat, but not leaf-shaped. Last two joints of third maxilliped, though broad, not broader than antepenultimate joint. *Phyllognathia*
- Outer antennular flagellum deformed by the extreme broadening of the larger part of its joints to a broad, flat, leaf-shaped appendage. Chelae of second legs also leaf-shaped in that the lower border is produced to a large thin flap. Last two joints of third maxilliped distinctly broader than the antepenultimate joint. *Hymenocera*

Gnathophyllum Latreille, 1819 (fig. 51)

Gnathophyllum Latreille, 1819, Nouv. Dict. Hist. nat. (ed. 2) 30: 72. Type species, selected by H. Milne Edwards, 1837, Cuvier's Règne anim. (ed. 4, Discip. ed.) 18: pl. 52 fig. 2.: *Alpheus Elegans* Risso, 1816, Hist. nat. Crust. Nice: 92. Gender: neuter.

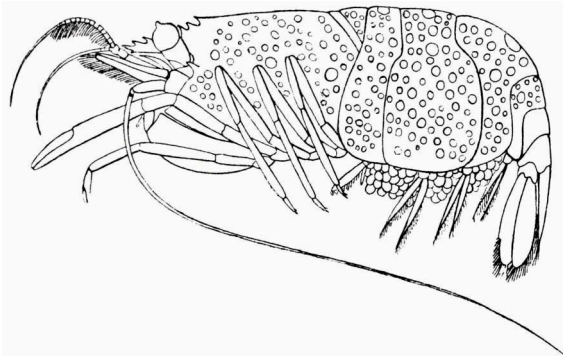


Fig. 51. *Gnathophyllum panamense* Faxon. After Faxon, 1895.

- Gnathophyllum* Desmarest, 1823, Dict. Sci. nat. 28: 322, 323, 324. Emendation of *Gnatophyllum* Latreille, 1819.
- Drimo* Risso, 1826, Hist. nat. Europ. mérid. 5: 70. Type species, by monotypy: *Alpheus Elegans* Risso, 1816, Hist. nat. Crust. Nice: 92. Gender: masculine.
- Gnathophilum* Cocco, 1832, Effem. Sci. Lett. Sicilia 2: 204. Erroneous spelling of *Gnathophyllum* Latreille, 1819.
- Gnathophyllium* Burmeister, 1837, Handb. Naturgesch. 2: 565. Erroneous spelling of *Gnathophyllum* Latreille, 1819.
- Gnathophillum* H. Milne Edwards, 1837, Cuvier's Règne anim. (ed. 4, Discip. ed.): explan. pl. 52. Erroneous spelling of *Gnathophyllum* Latreille, 1819.
- Gnathoptylus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: xxxv. Erroneous spelling of *Gnathophyllum* Latreille, 1819.
- Gnathophylum* Bate, 1888, Rep. Voy. Challenger, Zool. 24: xxxvii. Erroneous spelling of *Gnathophyllum* Latreille, 1819.
- Gnathophyllum* Condorelli, 1899, Boll. Soc. Rom. Stud. Zool. 8: 39. Erroneous spelling of *Gnathophyllum* Latreille, 1819.
- Gnatophillum* Magri, 1923, Natural. Sicil. 24: 90. Erroneous spelling of *Gnathophyllum* Latreille, 1819.
- Gnathopyllum* Zariquiey Cenarro, 1935, Butll. Inst. Catal. Hist. nat. 35: 95. Erroneous spelling of *Gnathophyllum* Latreille, 1819.

***Gnathophylloides* Schmitt, 1933 (fig. 52)**

- Gnathophylloides* Schmitt, 1933, Amer. Mus. Novit. 662: 5. Type species, by monotypy: *Gnathophylloides mineri* Schmitt, 1933, Amer. Mus. Novit. 662: 7. Gender: masculine.



Fig. 52. *Gnathophylloides mineri* Schmitt. Anterior part of carapace: a, dorsal view; b, lateral view. Original.

Phyllognathia Borradaile, 1915 (fig. 53)

Phyllognathia Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 205, 206. Type species, by monotypy: *Hymenocera*(?) *ceratophthalma* Balss, 1913, Zool. Anz. 42: 236. Gender: feminine.

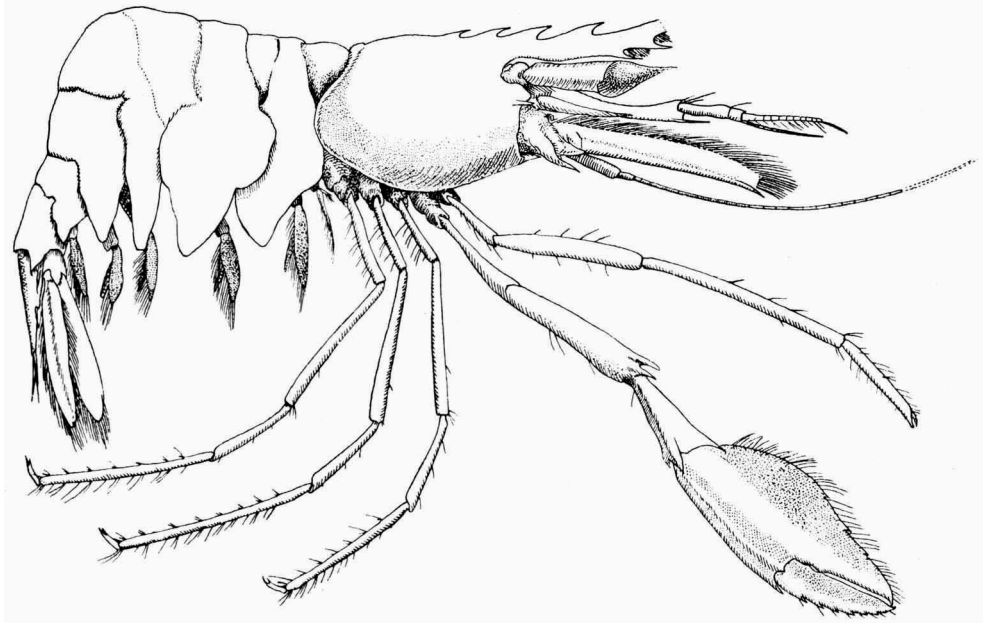


Fig. 53. *Phyllognathia ceratophthalma* (Balss). After Balss, 1914.

Hymenocera Latreille, 1819 (fig. 54)

Hymenocera Latreille, 1819, Nouv. Dict. Hist. nat. (ed. 2) 30: 71. Type species, designated under the plenary powers of the International Commission on Zoological Nomenclature: *Hymenocera picta* Dana, 1852, U. S. Explor. Exped. 13: 593. Gender: feminine.

Nematophyllum Bleeker, 1856, Reis Minahassa Moluksch. Archip. 2: 37. Type species, selected by Holthuis, 1952, Bull. zool. Nomencl. 6: 345, : *Hymenocera picta* Dana, 1852, U. S. Explor. Exped. 13: 593. Gender: neuter. Invalid junior homonym of *Nematophyllum* Milne Edwards & Haime, 1850, Brit. foss. Corals (1)lxxi (Coelenterata).

Superfamily PSALIDOPODOIDA

Psalidopodoida Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 56.
 Psalidopodia Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 557.
 Psalidopoida Balls, 1927, Kükenthal & Krumbach, Handb. Zool. 3(1): 1001.

Only one family with one genus.

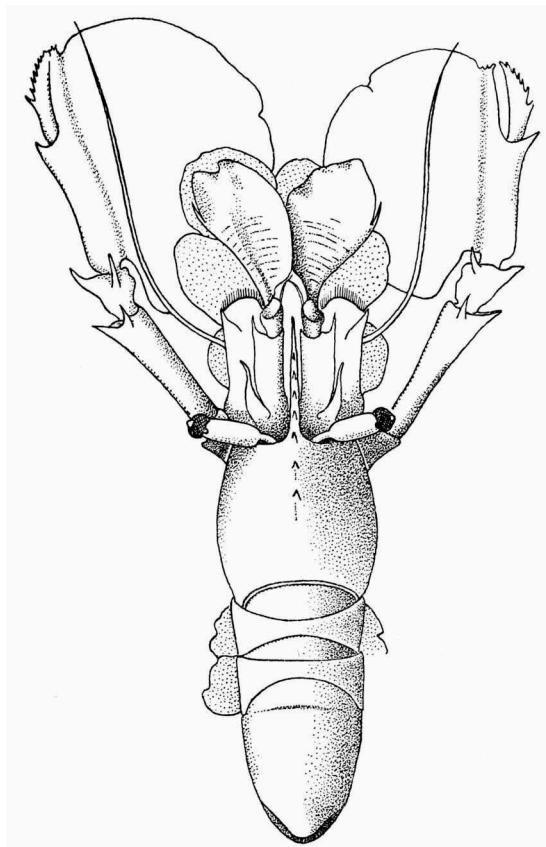


Fig. 54. *Hymenocera elegans* Heller. After Barnard, 1950.

Family PSALIDOPODIDAE Wood Mason & Alcock, 1892

Psalidopodidae Wood Mason & Alcock, 1892, Ann. Mag. nat. Hist. (6)9: 265.

Psalidopus Wood Mason & Alcock, 1892 (fig. 55)

Psalidopus Wood Mason & Alcock, 1892, Ann. Mag. nat. Hist. (6)9: 266.

Type species, by present selection: *Psalidopus Huxleyi* Wood Mason & Alcock, 1892, Ann. Mag. nat. Hist. (6)9: 273. Gender: masculine.

Superfamily ALPHEOIDA nov.

Three of the families contained in the present superfamily, viz., the Alpheidae, the Ogyrididae, and the Hippolytidae, were placed by Borradaile (1907, Ann. Mag. nat. Hist. (7)19: 467) and Balss (1927, Kükenthal & Krumbach, Handb. Zool. 3(1): 1002) in the superfamily Palaemonoidea.

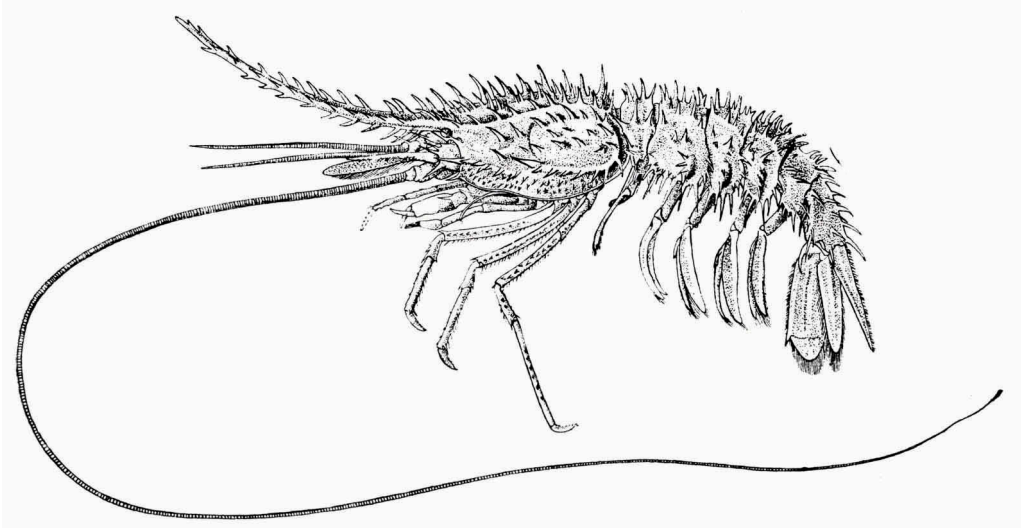


Fig. 55. *Psalidopus huxleyi* Wood Mason & Alcock. After Alcock & McArdle, 1901.

However, the Alpheoidea differ from the Palaemonoidea s.s. in several characters, which in my opinion justify their separation as an independent superfamily. The Palaemonoidea always have the second leg more robust than the first and the carpus of that leg undivided; in the Alpheoidea the second leg practically always is slender with the carpus subdivided, while the first leg often is very heavy, being more robust than the second. In my opinion the Processidae are so closely related to the Hippolytidae, especially to the *Lysmata* section of that family, that they cannot be placed in a different superfamily. Both Borradaile and Balss assigned the Processidae to the superfamily Crangonoida, but this certainly is incorrect.

Family ALPHEIDAE

- Alphidia Rafinesque, 1815, Anal. Nature: 98.
 Alpheens H. Milne Edwards, 1837, Hist. nat. Crust. 2: 339, 345.
 Alpheidae Randall, 1839, Journ. Acad. nat. Sci. Phila. 8: 140.
 Alpheadae Bell, 1846-1851, Hist. Brit. stalk-eyed Crust.: 270.
 Alpheidea De Haan, 1849, Fauna Japon., Crust. (6): 168, 173.
 Alpheana Gibbes, 1850, Proc. Amer. Ass. Adv. Sci. 3: 196.
 Alpheinae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 16, 21.
 Alpheidi Acloque, 1899, Faune de France, Thysan.-Protoz.: 155, 161.
 Crangonidae Rathbun, 1904, Proc. biol. Soc. Wash. 17: 172.
 Autonomaeidae Borradaile, 1907, Ann. Mag. nat. Hist. (7)19: 467, 472.
 Alphaeidae Balss, 1915, Denkschr. Akad. Wiss. Wien 91: 20.
 Synalpheidae Verrill, 1922, Trans. Conn. Acad. Arts Sci. 26: 35.
 Synalpheidae Verrill, 1922, Trans. Conn. Acad. Arts Sci. 26: 60.
 Alpheuidae Yu, 1936, Chin. Journ. Zool. 2: 91.
 Crangoninae Ward, 1942, Mauritius Inst. Bull. 2(2): 58.

The genera of the present family may be distinguished with the help of the following key, which is based in part on an unpublished key prepared by Dr. Fenner A. Chace, Jr., curator of the Division of Marine Invertebrates, U. S. National Museum, Washington, D. C., that Dr. Chace with his usual kindness placed at my disposal.

1. Thoracic and abdominal pleurae laid out horizontally, much broadened. Pleurae of first abdominal segment covering a large part of the carapace. *Pterocaris*
- Thoracic and abdominal pleurae normal, not laid out horizontally and not unusually broadened. Pleurae of first abdominal segment covering at most a very small part of the posterolateral corners of the carapace. 2
2. Epipods present on at least the first two pairs of pereopods. 3
- No epipods on the pereopods. 17
3. Sixth abdominal segment with a movable plate articulated at the posterolateral angle 4
- No articulated plate at the posterolateral angle of the sixth abdominal segment. 11
4. Rostrum prominent 5
- Rostrum absent or indistinct. 10
5. Rostrum slender, pointed in lateral view. 6
- Rostrum with a broad vertical lamella ventrally, tip of rostrum broadly rounded. 9
6. An arthrobranch present at the base of the third maxilliped, or at that of the first pereopod 7
- Both third maxilliped and first pereopod without arthrobranch 8
7. Large chela carried extended. Posterior margin of telson straight or slightly arcuate. *Alpheopsis*
- Large chela carried flexed. Posterior margin of telson ending in an acute triangular median tooth *Neoalpheopsis*
8. Epipods on first three pairs of pereopods. Carpus of second legs 5-jointed *Athanas*
- Epipods on the first two pairs of pereopods only. Carpus of second legs 4-jointed. *Arete*
9. Dactyli of last three pairs of pereopods simple. Eyes almost completely hidden from dorsal view *Athanopsis*
- Dactyli of last three pereopods biunguiculate. Eyes largely free and uncovered. *Aretopsis*
10. Telson broad, distally rounded *Betaeus*
- Telson slender, terminating distally in an acute median triangular point. *Parabetaeus*
11. Movable finger of larger chela without a large molar-shaped tooth. Eyes always visible in anterior view 12
- Movable finger of larger chela with a large molar-shaped tooth that fits into a cavity in the fixed finger. Eyes often entirely covered by the carapace, even anteriorly 14
12. Eyes dorsally fully exposed. Rostrum, if present, not reaching the end of the eyestalks *Automate*
- Eyes in dorsal view completely or almost completely covered by the carapace. Rostrum present, reaching far beyond the eyes. 13
13. Arthrobranch present on third maxilliped *Salmoneus*
- No arthrobranch on third maxilliped *Metabetaeus*
14. Carapace concealing the eyes from dorsal but not from anterior view. First pair of pereopods folded beneath the body. *Amphibetaeus*
- Carapace more or less completely covering the eyes, anteriorly as well as dorsally. First pair of legs not folded beneath the body. 15

15. Body strongly compressed. Abdominal segments with a dorsal carina. Carapace with a median dorsal carina over its entire length *Racilius*
 — Body not strongly compressed. Abdominal segments not carinated. Carina on carapace, if present, not extending over the full length of the carapace. 16
16. Cardiac notch present in the posterior margin of the carapace. Exopods of uropods with a transverse suture *Alpheus*
 — Cardiac notch absent. Exopods of uropods without transverse suture. *Thunor*
17. Movable finger of larger chela without a molar-shaped tooth. Dactylus of last three pereopods simple. Chela of second legs very long with unusually short fingers. *Batella*
 — Movable finger of larger chela with a molar-shaped tooth that fits in a socket in the fixed finger. Dactylus of last three pereopods bi- or triunguiculate. Chela of second legs normal. 18
18. Third maxilliped with ischio-meral segment greatly expanded to form an operculum over the mouthparts. *Pomagnathus*
 — Third maxilliped normal in shape *Synalpheus*

Pterocaris Heller, 1862 (fig. 56)

Pterocaris Heller, 1862, S. B. Akad. Wiss. Wien 45(1): 395. Type species, by monotypy: *Pterocaris typica* Heller, 1862, S. B. Akad. Wiss. Wien 45(1): 398. Gender: feminine.

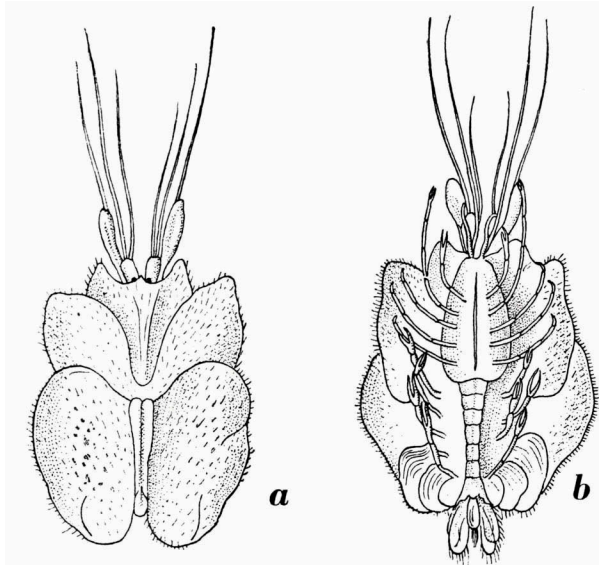


Fig. 56. *Pterocaris typica* Heller. a, dorsal view; b, ventral view. After Heller, 1862.

Alpheopsis Coutière, 1897 (fig. 57a, b)

Alpheopsis Coutière, 1897, Bull. Mus. Hist. nat. Paris 2: 382. Type species, by present selection: *Betaeus trispinosus* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 32. Gender: masculine.

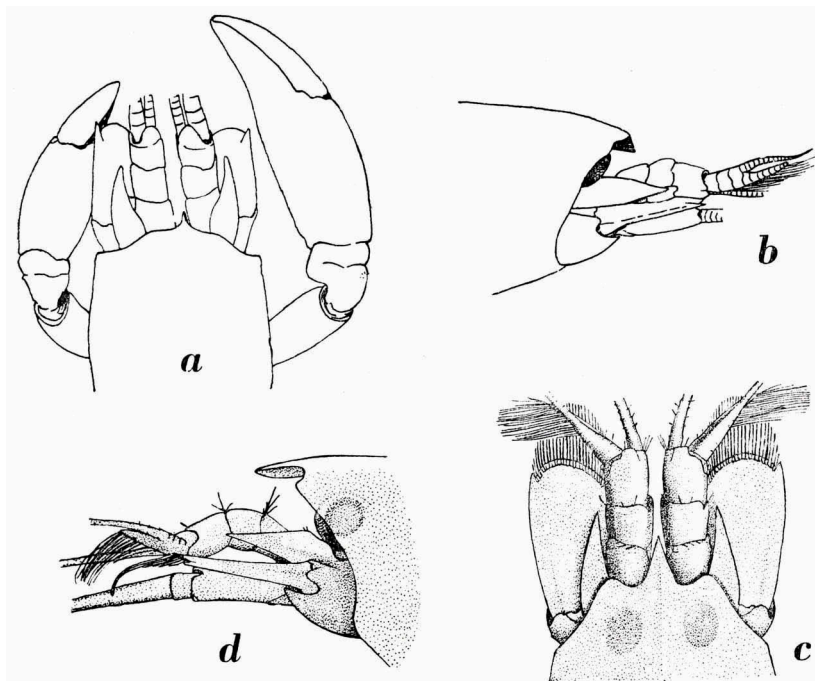


Fig. 57a, b. *Alpheopsis equalis truncatus* Coutière. Anterior part of body: a, dorsal view; b, lateral view. After Coutière, 1905.

Fig. 57c, d. *Neoalpheopsis hiatti* Banner. Anterior part of body: c, dorsal view; d, lateral view. After Banner, 1953.

Neoalpheopsis Banner, 1953 (fig. 57c, d)

Neoalpheopsis Banner, 1953, Pacific Sci. 7: 10, 20. Type species, by original designation: *Neoalpheopsis hiatti* Banner, 1953, Pacific Sci. 7: 21. Gender: masculine.

Athanas Leach, 1814 (fig. 58)

Athanas Leach, 1814, Edinb. Encycl. 7(2): 432. Type species, by monotypy: *Palaemon nitescens* Leach, 1814, Edinb. Encycl. 7(2): 401. Gender: masculine.

Athanasus H. Milne Edwards, 1837, Hist. nat. Crust. 2: 352. Erroneous spelling of *Athanas* Leach, 1814.

Athamias d'Urban, 1884, Zoologist, London (3)8: 152. Erroneous spelling of *Athanas* Leach, 1814.

Athanus Hale, 1927, Crust. S. Aust. 1: 47. Erroneous spelling of *Athanas* Leach, 1814.

Athas Bulgurkov, 1938, Arb. biol. Meeressta. Varna 7: 86. Erroneous spelling of *Athanas* Leach, 1814.

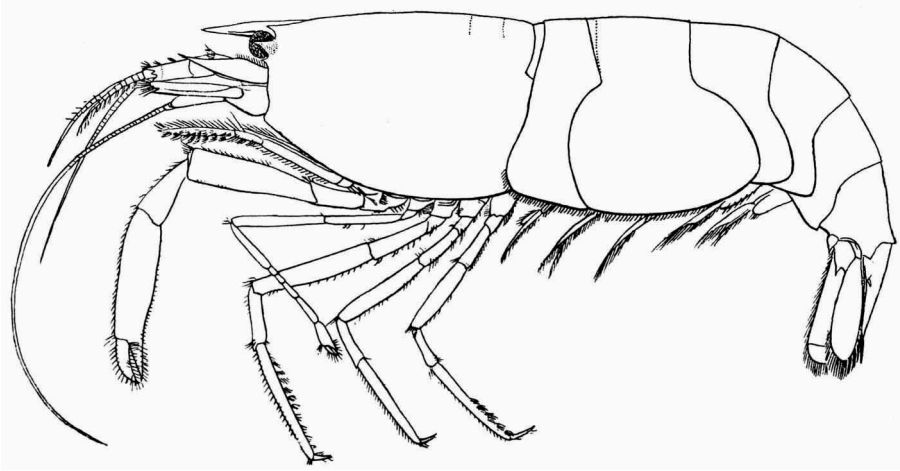


Fig. 58. *Athanas nitescens* (Leach). After Kemp, 1910.

Arete Stimpson, 1860 (fig. 59a, b)

Arete Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 32. Type species, by monotypy: *Arete dorsalis* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 32. Gender: feminine.

Athanopsis Coutière, 1897 (fig. 59c, d)

Athanopsis Coutière, 1897, Bull. Mus. Hist. nat. Paris 3: 301. Type species, by monotypy: *Athanopsis platyrhynchus* Coutière, 1897, Bull. Mus. Hist. nat. Paris 3: 301. Gender: masculine.

Aretopsis De Man, 1910 (fig. 59e, f)

Aretopsis De Man, 1910, Tijdschr. Nederl. dierk. Ver. (2)11: 310. Type species, by monotypy: *Aretopsis amabilis* De Man, 1910, Tijdschr. Nederl. dierk. Ver. (2)11: 311. Gender: masculine.

Fig. 59a, b. *Arete dorsalis* Stimpson. Anterior part of body: a, dorsal view; b, lateral view. After Coutière, 1905.

Fig. 59c, d. *Athanopsis platyrhynchus* Coutière. Rostrum: c, dorsal view; d, lateral view. After Coutière, 1899.

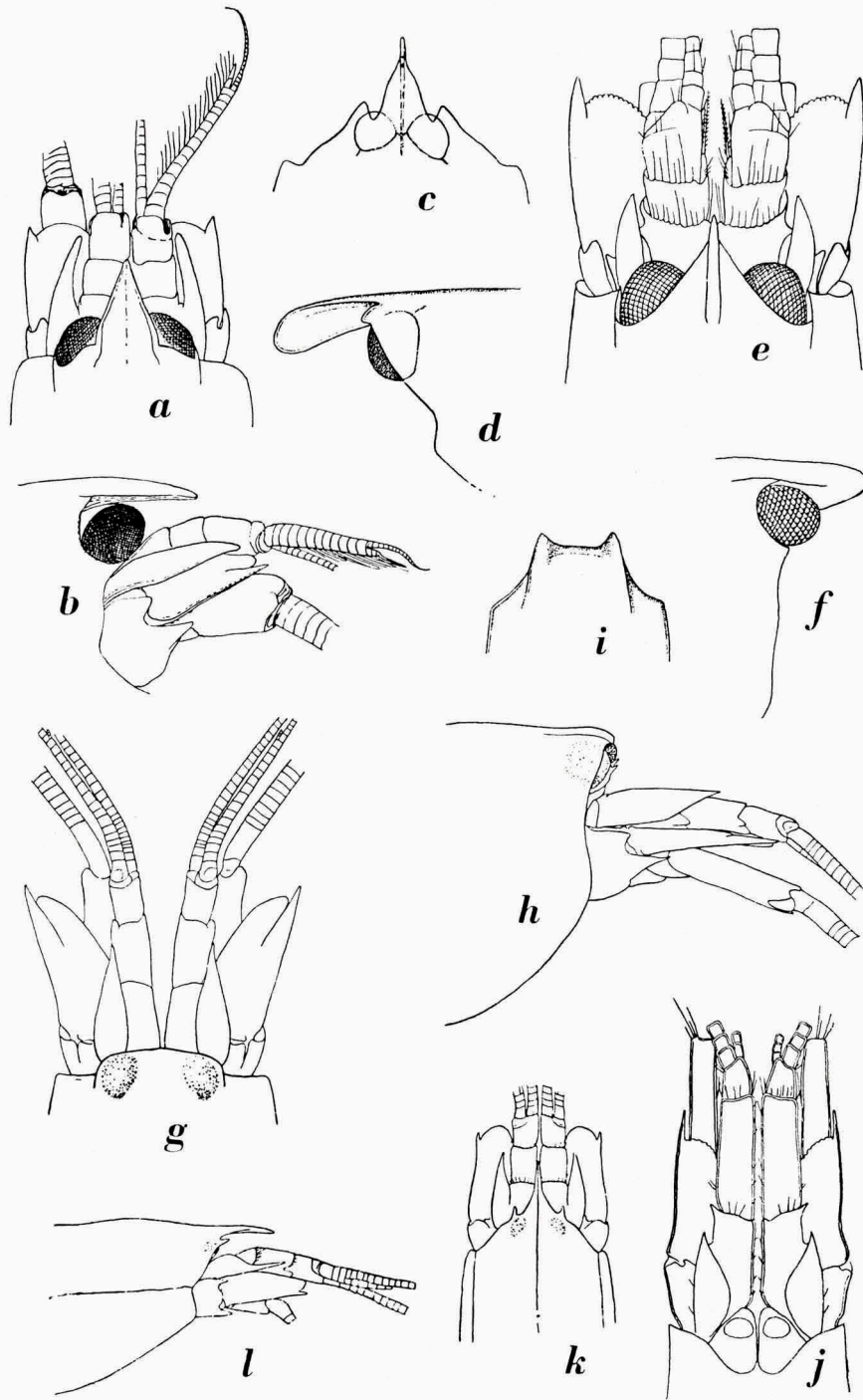
Fig. 59e, f. *Aretopsis amabilis* De Man. e, anterior part of body in dorsal view; f, rostrum in lateral view. After De Man, 1915.

Fig. 59g, h. *Betaeus truncatus* Dana. Anterior part of body: g, dorsal view; h, lateral view. After Holthuis, 1952c.

Fig. 59i. *Parabetaeus culliereti* Coutière. Rostrum in dorsal view. After Coutière, 1899.

Fig. 59j. *Automate anacanthopus* De Man. Anterior part of body in dorsal view. After De Man, 1915.

Fig. 59k, l. *Salmoneus jarli* (Holthuis). Anterior part of body: k, dorsal view; l, lateral view. After Holthuis, 1951a.



Betaeus Dana, 1852 (fig. 59g, h)

Betaeus Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 16. Type species, selected by Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 558, : *Betaeus truncatus* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 23. Gender: masculine.

Parabetaeus Coutière, 1897 (fig. 59i)

Parabetaeus Coutière, 1897, Bull. Mus. Hist. nat. Paris 2: 383. Type species, by monotypy: *Parabetaeus Culliereti* Coutière, 1897, Bull. Mus. Hist. nat. Paris 2: 383. Gender: masculine.

Automate De Man, 1888 (fig. 59j)

Arethusa De Man, 1888, Arch. Naturgesch. 53(1): 216. No type species indicated. Nomen nudum.

Automate De Man, 1888, Arch. Naturgesch. 53(1): 529. Type species, by monotypy: *Automate dolichognatha* De Man, 1888, Arch. Naturgesch. 53(1): 529. Gender: feminine.

Automata Anonymus, 1888, Zool. Anz. 11: 461. Erroneous spelling of *Automate* De Man, 1888.

Salmoneus Holthuis, 1955 (fig. 59k, l)

JousseauMEA Coutière, 1897, Bull. Mus. Hist. nat. Paris 2: 381. Type species, selected by Holthuis, 1955, Bull. zool. Nomencl. 11 (in press): *JousseauMEA serratidigitus* Coutière, 1897, Bull. Mus. Hist. nat. Paris 2: 382. Gender: feminine. Invalid junior homonym of *Jousseaumia* Sacco, 1894, Moll. terz. Piemonte Liguria 15: 8 (Mollusca).

Salmoneus Holthuis, 1955, Bull. zool. Nomencl. 11 (in press). Substitute name for *JousseauMEA* Coutière, 1897. Gender: masculine.

Metabetaeus Borradaile, 1899 (fig. 60a)

Metabetaeus Borradaile, 1899, Proc. zool. Soc. Lond. 1898: 1014. Type species, by monotypy: *Betaeus minutus* Whitelegge, 1897, Mem. Aust. Mus. 3: 147. Gender: masculine.

Amphibetaeus Coutière, 1897 (fig. 60b, c)

Amphibetaeus Coutière, 1897, Bull. Mus. Hist. nat. Paris 2: 384. Type species, by monotypy: *Betaeus JousseauMEI* Coutière, 1896, Bull. Mus. Hist. nat. Paris 2: 236. Gender: masculine.

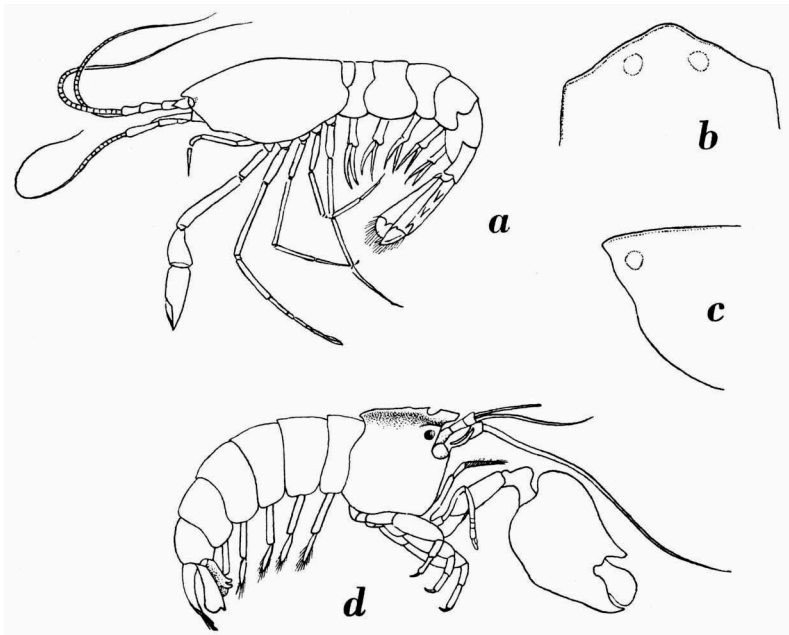


Fig. 60a. *Metabetaeus minutus* (Whitelegge). After Whitelegge, 1897.
 Fig. 60b, c. *Amphibetaeus jousseauinei* Coutière. Rostrum: b, dorsal view; c, lateral view. After Coutière, 1899.
 Fig. 60d. *Racilius compressus* Paulson. After Paulson, 1875.

Racilius Paulson, 1875 (fig. 60d)

Racilius Paulson, 1875, Issljed. Rakoobr. Krasn. Morja (Stud. Crust. Red Sea): 107. Type species, by monotypy: *Racilius compressus* Paulson, 1875, Issljed. Rakoobr. Krasn. Morja (Stud. Crust. Red Sea): 107. Gender: masculine.

Alpheus Fabricius, 1798 (fig. 61)

Crangon Weber, 1795, Nomencl. entomol.: 94. Type species, by monotypy: *Astacus Malabaricus* Fabricius, 1775, Syst. Entomol.: 415. Gender: feminine.

Alpheus Fabricius, 1798, Suppl. Ent. Syst.: 380, 404. Type species, selected by Latreille, 1810, Consid. gén. Crust. Arachn. Ins.: 422, : *Alpheus avarus* Fabricius, 1798, Suppl. Ent. Syst.: 404. Gender: masculine. Junior homonym of *Alpheus* Weber, 1795, Nomencl. entomol.: 91 (Crustacea Brachyura).

Alphaeus Bosc, 1802, Hist. nat. Crust. 1: 18. Erroneous spelling of *Alpheus* Fabricius, 1798.

Cryptophthalmus Rafinesque, 1814, Préc. Découv. somiol.: 23. Type species, by monotypy: *Cryptophthalmus ruber* Rafinesque, 1814, Préc. Découv. somiol.: 23 (= *Cancer glaber* Olivi, 1792, Zool. Adriat.: 51). Gender: masculine.

Autonomaea Risso, 1816, Hist. nat. Crust. Env. Nice: 166. Type species, by monotypy: *Autonomaea Olivii* Risso, 1816, Hist. nat. Crust. Env. Nice: 166 (= *Cancer glaber* Olivi, 1792, Zool. Adriat.: 51). Gender: feminine.

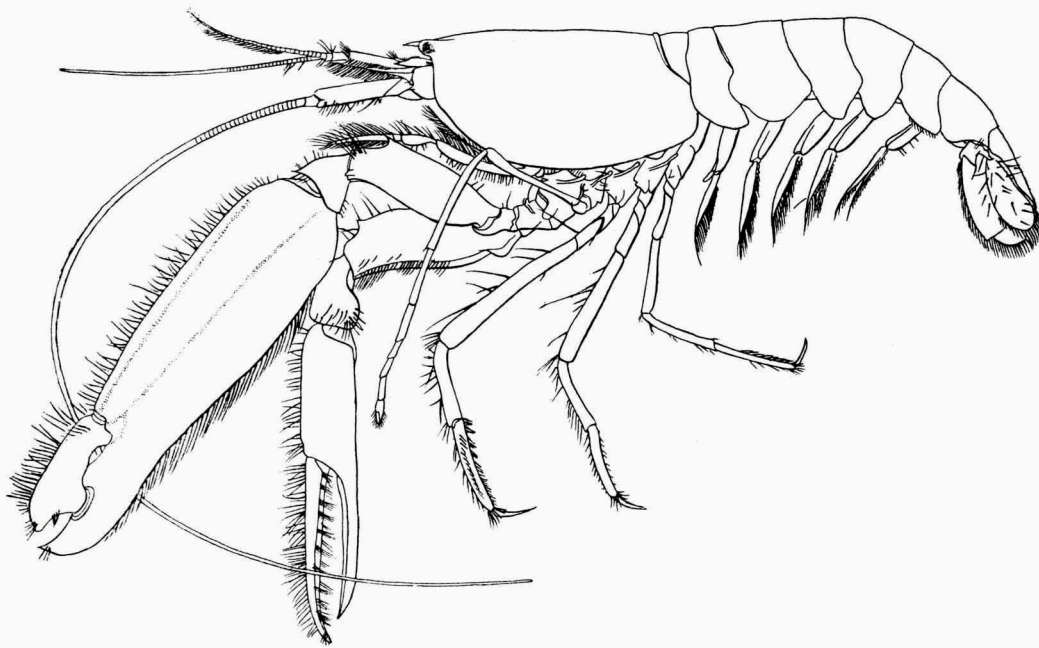


Fig. 61. *Alpheus glaber* (Olivi). After Kemp, 1910.

Autonomea Desmarest, 1823, Dict. Sci. nat. 28: 326, 421. Erroneous spelling of *Autonomaea* Risso, 1816.

Cryptophthalmus P. Roux, 1831, Mém. Class. Crust. Salic.: 18. Erroneous spelling of *Cryptophthalmus* Rafinesque, 1814.

Cryptophthalmus P. Roux, 1831, Mém. Class. Crust. Salic.: 18. Erroneous spelling of *Cryptophthalmus* Rafinesque, 1814.

Asphalius P. Roux, 1831, Mém. Class. Crust. Salic.: 22. Type species, by monotypy: *Palaemon brevirostris* Olivier, 1811, Encycl. méthod. Hist. nat. 8: 664. Gender masculine.

Alphheus P. Roux, 1831, Mém. Class. Crust. Salic.: 26. Erroneous spelling of *Alpheus* Fabricius, 1798.

- Cryptophthalmus* Westwood, 1835, in Hailstone, Mag. nat. Hist. 8: 274. Erroneous spelling of *Cryptophthalmus* Rafinesque, 1814.
- Dienecea* Westwood, 1835, Mag. nat. Hist. 8: 552. Type species, by monotypy: *Hippolyte? rubra* Hailstone, 1835, Mag. nat. Hist. 8: 272 (= *Hippolyte macrocheles* Hailstone, 1835, Mag. nat. Hist. 8: 395). Gender: feminine.
- Phleusa* Nardo, 1847, Sinon. modern. Spec. Lag. Golfo Veneto: 6. Type species, by monotypy: *Phleusa cynea* Nardo, 1847, Sinon. modern. Spec. Lag. Golfo Veneto: 6 (= *Cancer glaber* Olivi, 1792, Zool. Adriat.: 51). Gender: feminine.
- Halopsyche* De Saussure, 1857, Rev. Mag. Zool. (2)9: 100. Type species, by monotypy: *Halopsyche lutaria* De Saussure, 1857, Rev. Mag. Zool. (2)9: 100. (= *Alpheus heterochaelis* Say, 1818, Journ. Acad. nat. Sci. Phila. 1: 243). Gender: feminine.
- Automea* Nardo, 1869, Mem. Ist. Venet. Sci. Lett. Art. 14: 21, 45. Erroneous spelling of *Autonomaea* Risso, 1816.
- Alpheoides* Paulson, 1875, Issljed. Rakoobr. Krasn. Morja (Stud. Crust. Red Sea): 105. Type species, by present selection: *Alpheus insignis* Heller, 1861, Verh. zool.-bot. Ges. Wien 11: 26. Gender: masculine.
- Automomea* Bate, 1878, Journ. Roy. Inst. Cornwall 5(19): 396. Erroneous spelling of *Autonomaea* Risso, 1816.
- Antonomea* Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 422. Erroneous spelling of *Autonomaea* Risso, 1816.
- Alpheodes* Sowinsky, 1882, Zapiski Kiev. Obsch. 6: 220, 225, 226, 244. Erroneous spelling of *Alpheoides* Paulson, 1875.
- Paralpheus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 567. Type species, by monotypy: *Palaemon diversimanus* Olivier, 1811, Encycl. method. Hist. nat. 8: 663. Gender: masculine.
- Metalpheus* Coutière, 1908, Bull. Soc. philom. Paris (9)10: 213. Type species is not named in original publication, nor is any species assigned to the genus by later authors. Genus provisionally identified by Coutière, 1908, with *Alpheus* Fabricius, 1798. Gender: masculine.
- Criptophthalmus* Magri, 1911, Atti Accad. gioen. Sci. nat. Catania (5)4(14): 27. Erroneous spelling of *Cryptophthalmus* Rafinesque, 1814.
- Cragon* Hilton, 1916, Journ. Entom. Zool. Pomona Coll. 8: 67. Erroneous spelling of *Crangon* Weber, 1795.
- Alphous* Torralbas, 1917, An. Acad. Ci. méd. fis. nat. Habana 53: 612. Erroneous spelling of *Alpheus* Fabricius, 1798.
- Alphens* Miranda y Rivera, 1921, Bol. Pesca Madrid 6: 183. Erroneous spelling of *Alpheus* Fabricius, 1798.

Crangon Yu, 1935, Chin. Journ. Zool. 1: 57, 60, 61. Erroneous spelling of *Crangon* Weber, 1795.

Thunor Armstrong, 1949 (fig. 62a)

Thunor Armstrong, 1949, Amer. Mus. Novit. 1410: 12. Type species, by monotypy: *Crangon rathbunae* Schmitt, 1924, Univ. Iowa Stud. nat. Hist. 10(4): 74. Gender: masculine.

Batella nom. nov. (fig. 62b)

Cheirothrix Bate, 1888, Rep. Voy. Challenger, Zool. 24: 532. Type species, by monotypy: *Cheirothrix parvimanus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 533. Gender: feminine. Invalid junior homonym of *Cheirothrix* Pictet & Humbert, 1866, Poissons foss. Liban.: 51 (Pisces).

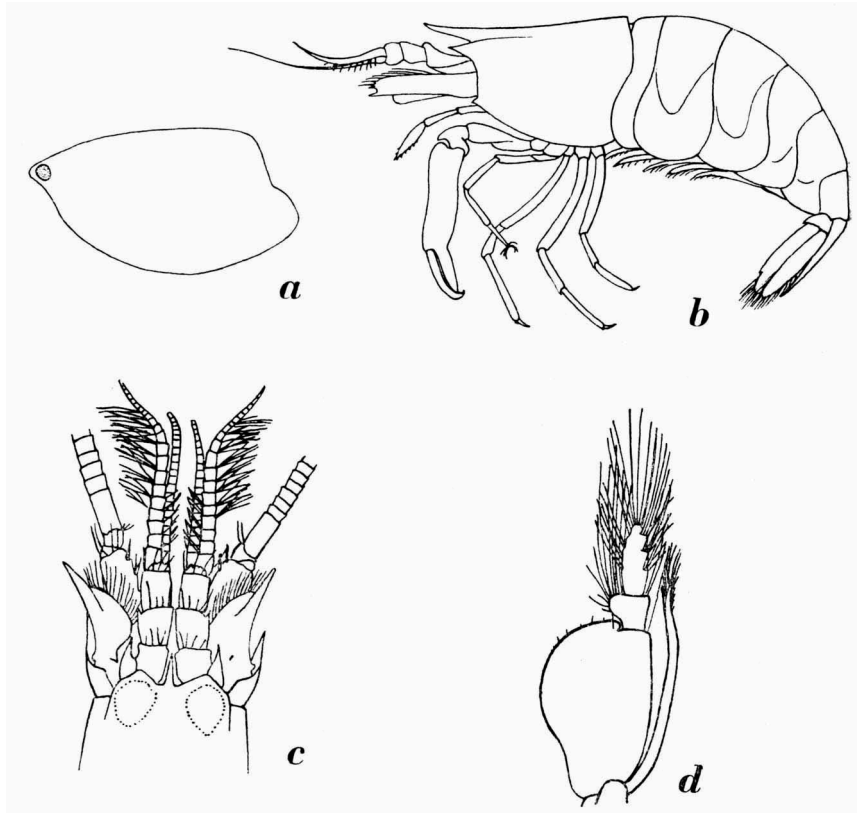


Fig. 62a. *Thunor rathbunae* (Schmitt). Carapace. After Armstrong, 1949.

Fig. 62b. *Batella parvimanus* (Bate). After Bate, 1888.

Fig. 62c, d. *Pomagnathus corallinus* Chace. c, anterior part of body in dorsal view; d, third maxilliped. After Chace, 1937.

Pomagnathus Chace, 1937 (fig. 62c, d)

Pomagnathus Chace, 1937, Zoologica New York 22: 124. Type species, by monotypy: *Pomagnathus corallinus* Chace, 1937, Zoologica, New York, 22: 124. Gender: masculine.

Synalpheus Bate, 1888 (fig. 63)

Homaralpheus Bate, 1876, Proc. Roy. Soc. Lond. 24: 378. Nomen nudum.
Homaralpheus Bate, 1888, Rep. Voy. Challenger, Zool. 24: lxxx, 539. Type species, by present selection: *Alpheus minus* Say, 1818, Journ. Acad. nat. Sci. Phila. 1: 245. Gender: masculine.

Homaralpheus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 231. Erroneous spelling of *Homaralpheus* Bate, 1888.

Synalpheus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 572. Type species, by monotypy: *Synalpheus falcatus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 574 (= *Alpheus Comatularum* Haswell, 1882, Proc. Linn. Soc. New S. Wales 6: 762). Gender: masculine.

Alpheinus Borradaile, 1899, Willey's Zool. Res. 4: 415. Type species, by monotypy: *Alpheinus tridens* Borradaile, 1899, Willey's Zool. Res. 4: 415. Gender: masculine.

Sinalpheus Porter, 1917, Bol. Mus. Nac. Chile 10: 98. Erroneous spelling of *Synalpheus* Bate, 1888.

Family OGYRIDIDAE

Ogyridae Hay & Shore, 1918, Bull. U. S. Bur. Fish. 35: 388.

The only genus contained in this family is:

Ogyrides Stebbing, 1914 (fig. 64)

Ogyris Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 36. Type species, by monotypy: *Ogyris orientalis* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 36. Gender: feminine. Invalid junior homonym of *Ogyris* Westwood, 1851, in Doubleday & Westwood, Gen. diurn. Lep.: pl. 75 (Lepidoptera).

Ogyrides Stebbing, 1914, Ann. S. Afr. Mus. 15: 31. Substitute name for *Ogyris* Stimpson, 1860. Gender: masculine.

Family HIPPOLYTIDAE

Lysmatinae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 16, 20.

Thorinae Kingsley, 1878, Bull. Essex Inst. 10: 64.

Hippolytidae Bate, 1888, Rep. Voy. Challenger, Zool. 24: xii, xli, 480, 503, 574, 576.

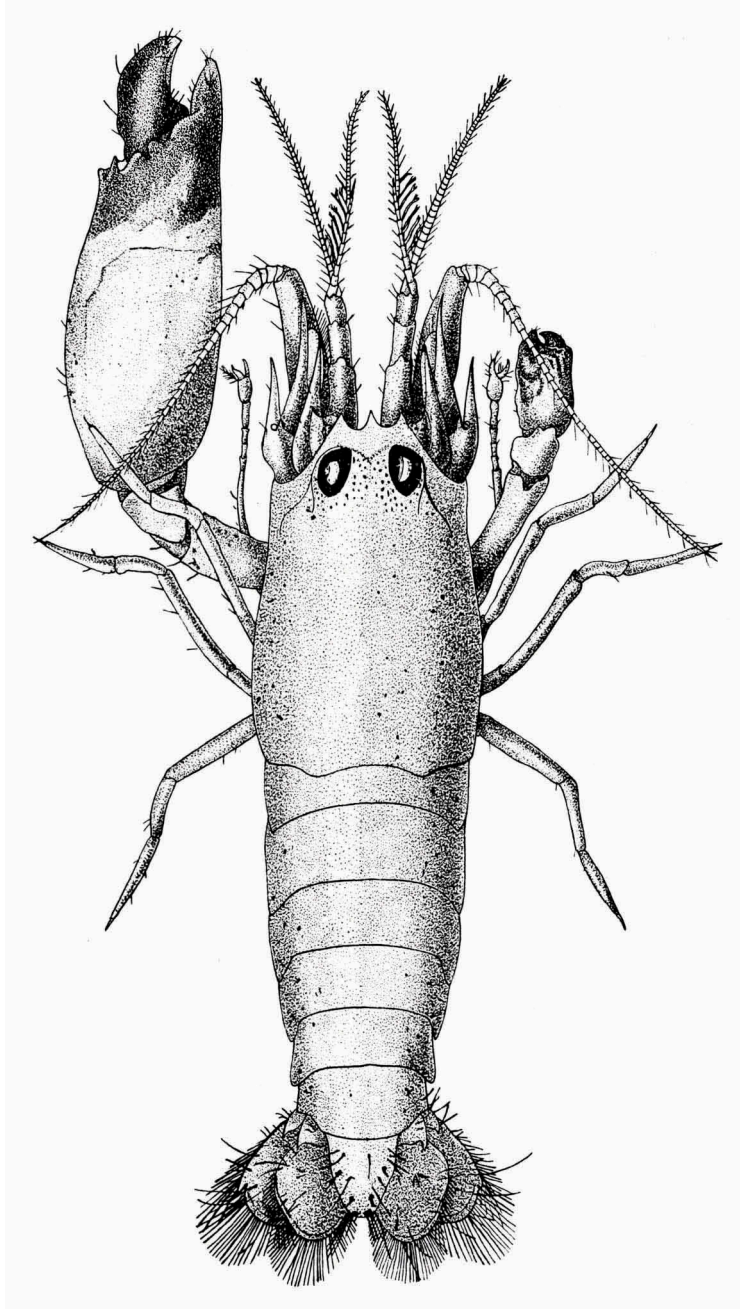


Fig. 63. *Synalpheus brevicarpus* (Herrick). After Brooks & Herrick, 1893.

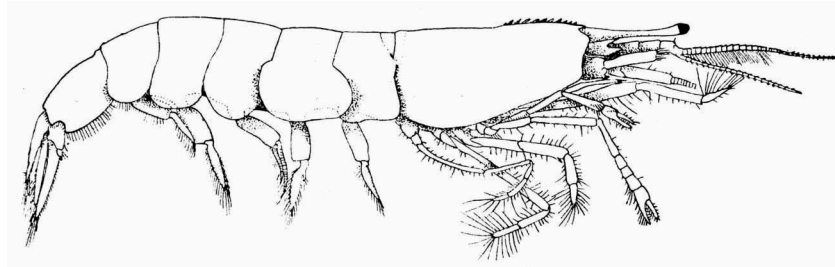


Fig. 64. *Ogyrides striaticauda* Kemp. After Kubo, 1951.

Latreutidae Ortmann, 1896, Zool. Jb. Syst. 9: 415, 424.
 Hippolytinae Perrier, 1899, Traité Zool. 3: 1030.
 Hippolyidae Yu, 1935, Chin. Journ. Zool. 1: 43, 45, 47, 49, 51, 53.
 Hyppolitidae Dohrn, 1950, Pubbl. Sta. zool. Napoli 22: 257, 259, 261, 263, 265, 267, 269, 271.

The Hippolytid genera may be distinguished as follows:

- | | |
|--|----------------------|
| 1. Arthrobranchs present at the bases of the first four pairs of pereopods. | 2 |
| — Bases of the pereopods without arthrobranchs. | 5 |
| 2. An articulated plate at the posterolateral angle of the sixth abdominal segment. | 3 |
| — No articulated plate at the posterolateral angle of the sixth abdominal segment. | 4 |
| 3. Mandible with incisor process | <i>Saron</i> |
| — Mandible without incisor process | <i>Nauticaris</i> |
| 4. Mandible with incisor process. | <i>Merhippolyte</i> |
| — Mandible without incisor process | <i>Ligur</i> |
| 5. Mandible with palp | 6 |
| — Mandible without palp | 16 |
| 6. Supraorbital spines absent from carapace | 7 |
| — Carapace with one or more supraorbital spines | 12 |
| 7. Mandibular palp composed of three segments | 8 |
| — Mandibular palp composed of one or two segments | 10 |
| 8. Mandible without incisor process | <i>Barbouria</i> |
| — Mandible with incisor process | 9 |
| 9. Carpus of second pereopod two-jointed | <i>Caridion</i> |
| — Carpus of second pereopod with 9 to 12 joints | <i>Chorismus</i> |
| 10. Mandibular palp consisting of only one segment. Carpus of second pereopod with 4 joints | <i>Leontocaris</i> |
| — Mandibular palp consisting of two segments. Carpus of second pereopod with seven joints | 11 |
| 11. Third maxilliped provided with an exopod. | <i>Eualus</i> |
| — Third maxilliped without exopod | <i>Heptacarpus</i> |
| 12. Mandibular palp three-jointed. | <i>Alope</i> |
| — Mandibular palp two-jointed | 13 |
| 13. Carpus of second pereopod two-jointed. Lateral surface of carapace with many scattered spines | <i>Trachycaris</i> |
| — Carpus of second pereopod seven-jointed. Lateral surface of carapace smooth (except for the supraorbital spines) | 14 |
| 14. Carapace with two or more supraorbital spines at each side. Third maxilliped with an exopod | <i>Spirontocaris</i> |

- Carapace with only one supraorbital spine on each side. Third maxilliped without exopod 15
- 15. Abdominal segments dorsally rounded. Both antennal and pterygostomial spines present. No branchiostegal spine *Lebbeus*
- Abdominal segments 1 and 5 with two, 2, 3, and 4 with one dorsal carina. One large branchiostegal spine present on carapace, no antennal or pterygostomial spines. *Birulia*
- 16. Mandible with incisor process 17
- Mandible without incisor process. 21
- 17. Carpus of second pereopod composed of 2 or 3 segments. 18
- Carpus of second pereopod composed of 6 or 7 segments. 19
- 18. Carpus of second pereopod two-jointed. *Phycocaris*
- Carpus of second pereopod three-jointed *Hippolyte*
- 19. Dactylus of first pereopod less than $\frac{1}{8}$ of the length of the propodus. Telson with about 20 spinules along each lateral margin. *Cryptocheles*
- Dactylus of first pereopod $\frac{1}{3}$ or more of the length of the propodus. Telson with less than 5 pairs of lateral spinules; these are placed some distance from the lateral margin. 20
- 20. Epipods present on the first two pairs of pereopods. No movable plate at the anterior margin of the third segment of the antennular peduncle . . . *Thoralus*
- No epipods present at the bases of the pereopods. Third segment of the antennular peduncle with a broad movable plate at the upper part of the anterior margin. *Thor*
- 21. Carpus of second pereopod composed of three segments 22
- Carpus of second pereopod multi-articulate 25
- 22. Dactylus of last three pairs of pereopods bearing a cluster of large teeth. Outer margin of scaphocerite provided with small movable teeth. Lower border of abdominal pleurae denticulate *Gelastocaris*
- Dactylus of last three pairs of pereopods normal in shape. Outer margin of scaphocerite without teeth. Abdominal pleurae without small marginal denticles. 23
- 23. Third maxilliped with exopod *Latreutes*
- Third maxilliped without exopod 24
- 24. Epipods on first four pereopods. Anterolateral angle of carapace with a series of small spines *Paralatreutes*
- No epipods on the pereopods. Anterolateral angle of carapace entire. *Tozeuma*
- 25. Abdominal segments ending in large median posterior spines. Pleurae ending in one or two sharp points. Carapace with longitudinal carinae. . . *Mimocaris*
- Abdominal segments without large posterior spines. Pleurae rounded. Carapace smooth 26
- 26. Supraorbital spines present on carapace. *Bythocaris*
- Supraorbital spines absent. 27
- 27. Third maxilliped without exopod *Merguia*
- Third maxilliped with exopod. 28
- 28. Upper antennular flagellum biramous *Lysmata*
- Upper antennular flagellum uniramous *Hippolysmata*
- a. Rostrum longer than carapace, provided with a dorsal basal crest of teeth, which are placed close together. subgenus *Exhippolysmata*
- Rostrum shorter than carapace; teeth divided more or less regularly over its dorsal margin, never forming a basal crest. b
- b. Epipods present on first four pereopods. subgenus *Hippolysmata*
- No epipods at the bases of the pereopods. subgenus *Lysmatella*

Saron Thallwitz, 1891 (fig. 65a)

Saron Thallwitz, 1891, Zool. Anz. 14: 99. Type species, by monotypy: *Hippolyte gibberosus* H. Milne Edwards, 1837, Hist. nat. Crust. 2: 378 (= *Palaemon marmoratus* Olivier, 1811, Encycl. méthod. Hist. nat. 8: 663). Gender: masculine.

Nauticaris Bate, 1888 (fig. 65b)

Nauticaris Bate, 1888, Rep. Voy. Challenger, Zool. 24: 577, 602. Type species, selected by Calman, 1906, Ann. Mag. nat. Hist. (7)17: 31, : *Nauticaris marionis* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 603. Gender: feminine.

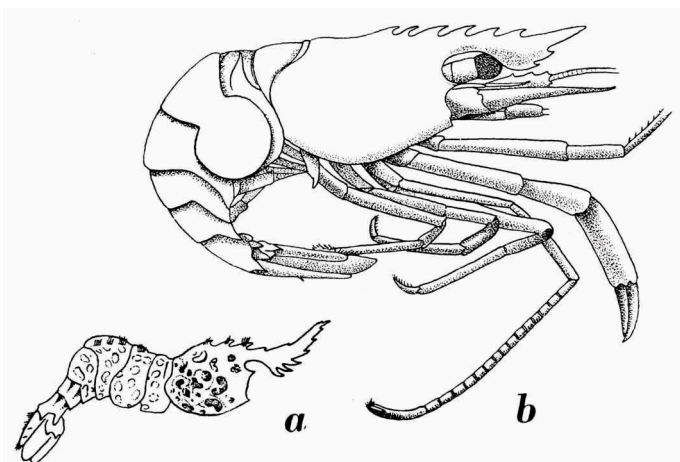


Fig. 65a. *Saron marmoratus* (Olivier). After Barnard, 1950.
Fig. 65b. *Nauticaris marionis* Bate. After Thomson, 1903.

Merhippolyte Bate, 1888 (fig. 66a)

Merhippolyte Bate, 1888, Rep. Voy. Challenger, Zool. 24: 577, 618. Type species, by original designation: *Merhippolyte agulhasensis* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 619. Gender: feminine.
Merhyppolyte Dohrn, 1950, Pubbl. Sta. zool. Napoli 22: 257. Erroneous spelling of *Merhippolyte* Bate, 1888.

Ligur Sarato, 1885 (fig. 66b)

Lybia Hope, 1851, Catal. Crust. Ital.: 18. Type species, by monotypy: *Palaemon Ensiferus* Risso, 1816, Hist. nat. Crust. Nice: 106. Gender: feminine. Invalid junior homonym of *Lybia* H. Milne Edwards, 1834, Hist. nat. Crust. 1: 431 (Crustacea Brachyura).

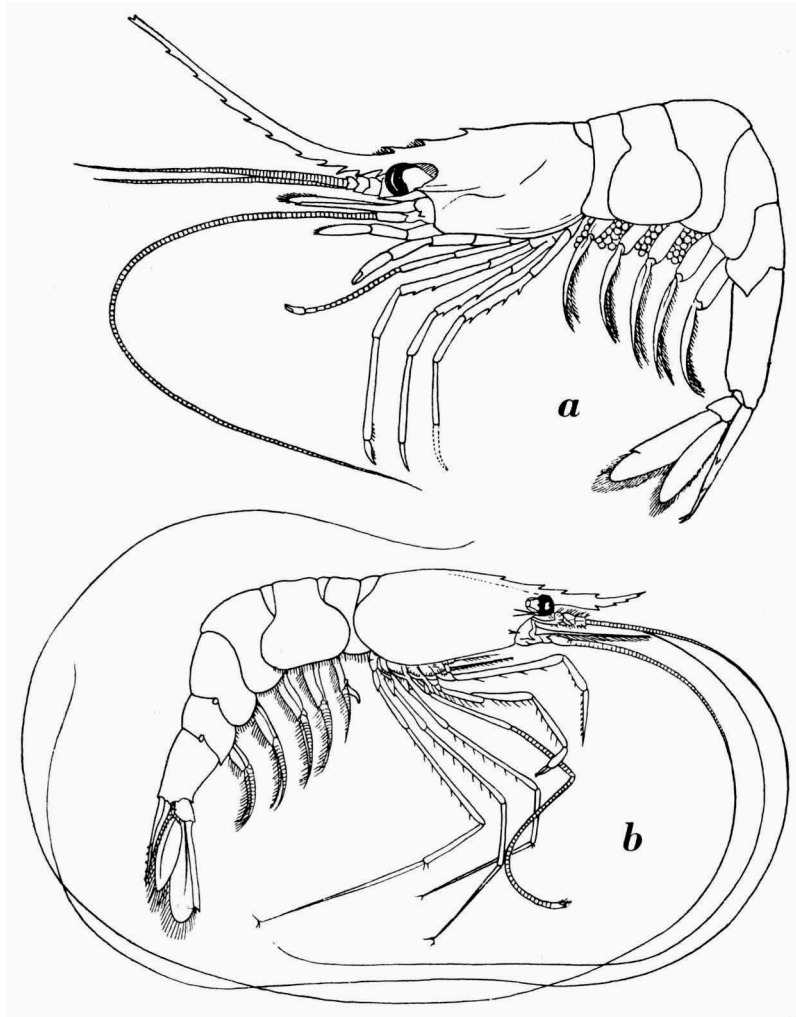


Fig. 66a. *Merhippolyte calmani* Kemp & Sewell. After Kemp & Sewell, 1912.

Fig. 66b. *Ligur ensiferus* (Risso). After Senna, 1903.

Ligur Sarato, 1885, *Moniteur des Étrangers Nice* 9(222): 2. Type species, by monotypy: *Ligur Edwardsii* Sarato, 1885, *Moniteur des Étrangers Nice* 9(222): 2 (= *Palemon Ensiferus* Risso, 1816, *Hist. nat. Crust. Nice*: 106). Gender: masculine.

Ligus Lucas, 1886, *Ann. Soc. entom. France* (6)5: ccix. Erroneous spelling of *Ligur* Sarato, 1885.

Parhippolyte Borradaile, 1899, *Willey's Zool. Res.* 4: 414. Type species, by

monotypy: *Parhippolyte uveae* Borradaile, 1899, Willey's Zool. Res. 4:414. Gender: feminine.

Barbouria Rathbun, 1912 (fig. 67)

Barbouria Rathbun, 1912, Bull. Mus. comp. Zoöl. Harvard 54:455. Type species, by monotypy: *Barbouria poeyi* Rathbun, 1912, Bull. Mus. comp. Zoöl. Harvard 54:455 (= *Hippolyte cubensis* Von Martens, 1872, Arch. Naturgesch. 38(1):136). Gender: feminine.

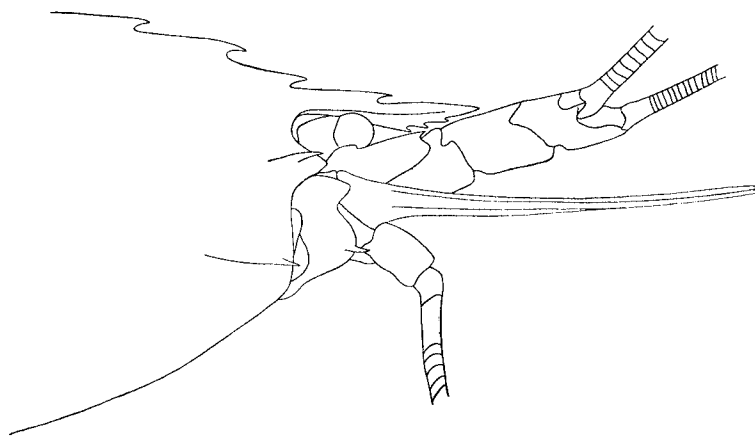


Fig. 67. *Barbouria cubensis* (Von Martens). Anterior part of body. Original.

Caridion Goës, 1863 (fig. 68a)

Doryphorus Norman, 1861, Ann. Mag. nat. Hist. (3)8:276. Type species, by monotypy: *Hippolyte Gordoni* Bate, 1858, Nat. Hist. Rev. Proc. Soc. Dublin 5:iv. Gender: masculine. Invalid junior homonym of *Doryphorus* Cuvier, 1829, Règne anim. (ed. 2) 2:34 (Reptilia).

Caridion Goës, 1863, Oefvers. K. Svensk. Vetensk. Akad. Förh. 20:170. Substitute name for *Doryphorus* Norman, 1861. Gender: masculine.

Caridium Conseil Intern. Explor. Mer, 1909, Publ. Circ. 48:134. Erroneous spelling of *Caridion* Goës, 1863.

Chorismus Bate, 1888 (fig. 68b)

Chorismus Bate, 1888, Rep. Voy. Challenger, Zool. 24:577, 616. Type species, by monotypy: *Chorismus tuberculatus* Bate, 1888, Rep. Voy. Challenger, Zool. 24:617. Gender: masculine.

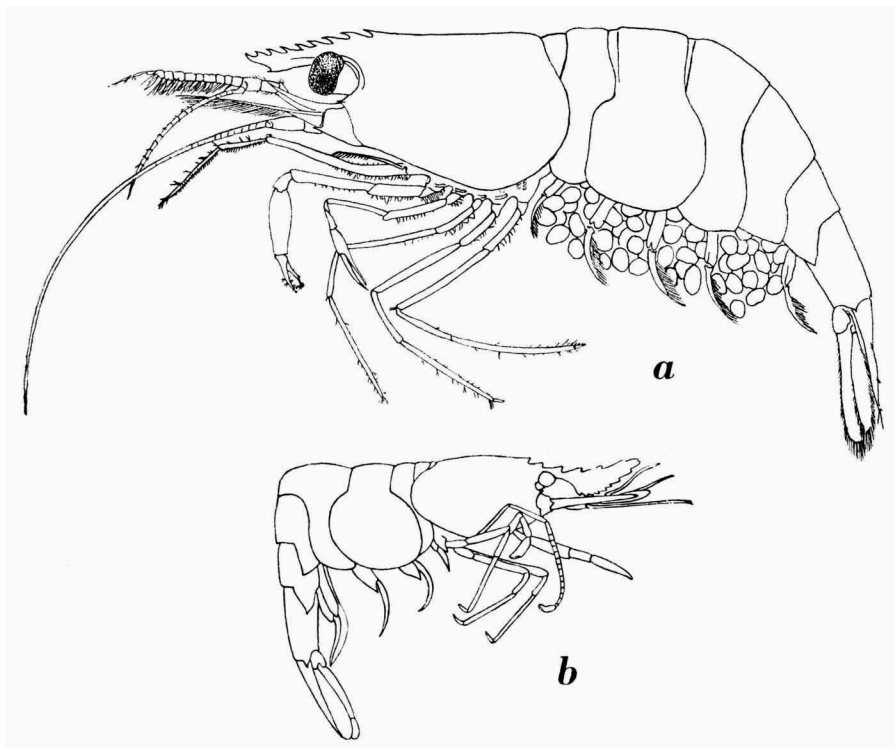


Fig. 68a. *Caridion gordonii* (Bate). After Kemp, 1910.

Fig. 68b. *Chorismus antarcticus* (Pfeffer). After Pfeffer, 1887.

Leontocaris Stebbing, 1905 (fig. 69a)

Leontocaris Stebbing, 1905, Mar. Invest. S. Afr. 4: 21, 98. Type species, by monotypy: *Leontocaris paulsoni* Stebbing, 1905, Mar. Invest. S. Afr. 4: 99. Gender: feminine.

Eualus Thallwitz, 1892 (fig. 69b)

Eualus Thallwitz, 1892, Abh. Ber. zool.-anthrop. Mus. Dresden 1890-91 (3): 23, 50. Type species, by monotypy: *Euales obses* Thallwitz, 1892, Abh. Ber. zool.-anthrop. Mus. Dresden 1890-91 (3): 23 (= *Hippolyte Gaimardii* H. Milne Edwards, 1837, Hist. nat. Crust. 2: 378). Gender: masculine.

Euales Thallwitz, 1892, Abh. Ber. zool.-anthrop. Mus. Dresden 1890-91 (3): 23. Erroneous spelling of *Eualus* Thallwitz, 1892.

Helia Thallwitz, 1892, Abh. Ber. zool.-anthrop. Mus. Dresden 1890-91 (3): 24, 50. Type species, by monotypy: *Hippolyte Fabricii* Krøyer, 1841,

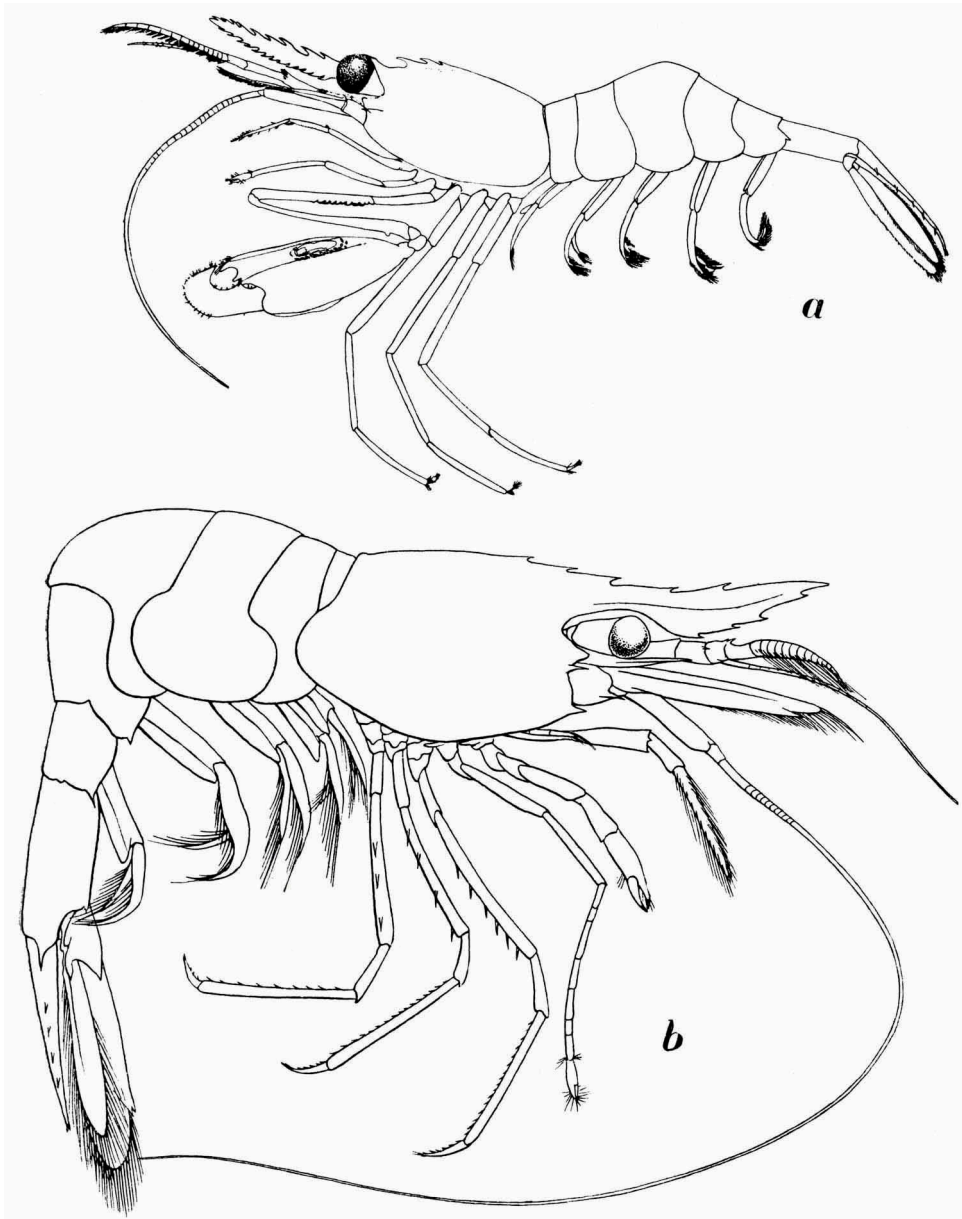


Fig. 69a. *Leontocaris lar* Kemp. After Kemp, 1910.

Fig. 69b. *Eualus gaimardi* (H. Milne Edwards). After Holthuis, 1950.

Naturhist. Tidsskr. 3: 571. Gender: feminine. Invalid junior homonym of *Helia* Huebner, 1818, Zuträge Exot. Schmett. 1: 27, 29 (Lepidoptera).

Spirontocarella Brashnikov, 1907, Mém. Acad. Sci. Petersb. (8)20(6): 170.
 Type species, by monotypy: *Hippolyte macilenta* Krøyer, 1841, Naturhist.
 Tidsskr. 3: 574. Gender: feminine.

Heptacarpus Holmes, 1900 (fig. 70a)

Heptacarpus Holmes, 1900, Occ. Pap. Calif. Acad. Sci. 7: 195. Type species,
 by original designation: *Hippolyte palpator* Owen, 1839, Zool. Beechey's
 Voy. Blossom: 89. Gender: masculine.

Heptacartus Kuznetzov, 1950, C. R. Acad. Sci. Moscow (n. ser.) 75: 316.
 Erroneous spelling of *Heptacarpus* Holmes, 1900.

Heptacartus Kuznetzov, 1950, C. R. Acad. Sci. Moscow (n. ser.) 75: 317.
 Erroneous spelling of *Heptacarpus* Holmes, 1900.

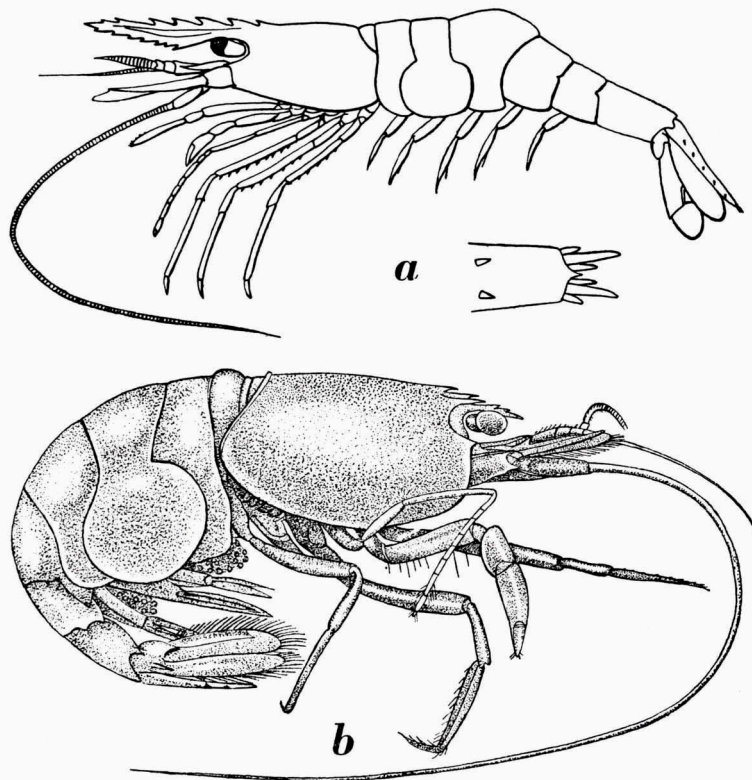


Fig. 70a. *Heptacarpus minutus* Yokoya. After Yokoya, 1930.

Fig. 70b. *Alope orientalis* (De Man). After De Man, 1890.

Alope White, 1847 (fig. 70b)

Alope White, 1847, Proc. zool. Soc. Lond. 15: 123. Type species, by monotypy: *Alope palpalis* White, 1847, Proc. zool. Soc. Lond. 15: 124 (= *Hippolyte spinifrons* H. Milne Edwards, 1837, Hist. nat. Crust. 2: 377). Gender: feminine.

Hetairocaris De Man, 1890, Notes Leyden Mus. 12: 120. Type species, by monotypy: *Hetairocaris orientalis* De Man, 1890, Notes Leyden Mus. 12: 122. Gender: feminine.

Trachycaris Calman, 1906 (fig. 71a)

Trachycaris Calman, 1906, Ann. Mag. nat. Hist. (7)17: 31, 33. Type species, by monotypy: *Platybema rugosus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 579 (= *Hippolyte restrictus* A. Milne Edwards, 1878, Bull. Soc. philom. Paris (7)2: 231). Gender: feminine.

Spirontocaris Bate, 1888 (fig. 71b)

Sowerbyus Hoek, 1887, Tijdschr. Nederl. dierk. Ver. (2)1: ccviii. Type species, by monotypy *Sowerbyus spinus* Hoek, 1887, Tijdschr. Nederl. dierk. Ver. (2)1: ccviii (= *Cancer Spinus* Sowerby, 1805, Brit. Miscell. (4): 47). Gender: masculine. Nomen nudum.

Spirontocaris Bate, 1888, Rep. Voy. Challenger, Zool. 24: 576, 595. Type species, by monotypy: *Cancer Spinus* Sowerby, 1805, Brit. Miscell. (4): 47. Gender: feminine.

Spirontocharis Clark, 1909, Zoologist, London (4)13: 306, 307. Erroneous spelling of *Spirontocaris* Bate, 1888.

Spirontocanus Taylor, 1912, Contr. Canad. Biol. 1906-1910: 196. Erroneous spelling of *Spirontocaris* Bate, 1888.

Spirontocan's Taylor, 1912, Contr. Canad. Biol. 1906-1910: 199. Erroneous spelling of *Spirontocaris* Bate, 1888.

Spriontocaris Cowles, 1930, Bull. U. S. Bur. Fish. 46: 356. Erroneous spelling of *Spirontocaris* Bate, 1888.

Lebbeus White, 1847 (fig. 72a)

Lebbeus White, 1847, List Crust. Brit. Mus.: 76, 135. Type species, by monotypy: *Lebbeus orthorhynchus* (Leach MSS) White, 1847, List Crust. Brit. Mus.: 76 (= *Alpheus Polaris* Sabine, 1824, Suppl. App. Parry's Voy. N. W. Pass.: ccxxxviii). Gender: masculine.

Hetairus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 577, 610. Type species, designated under the plenary powers of the International Commission

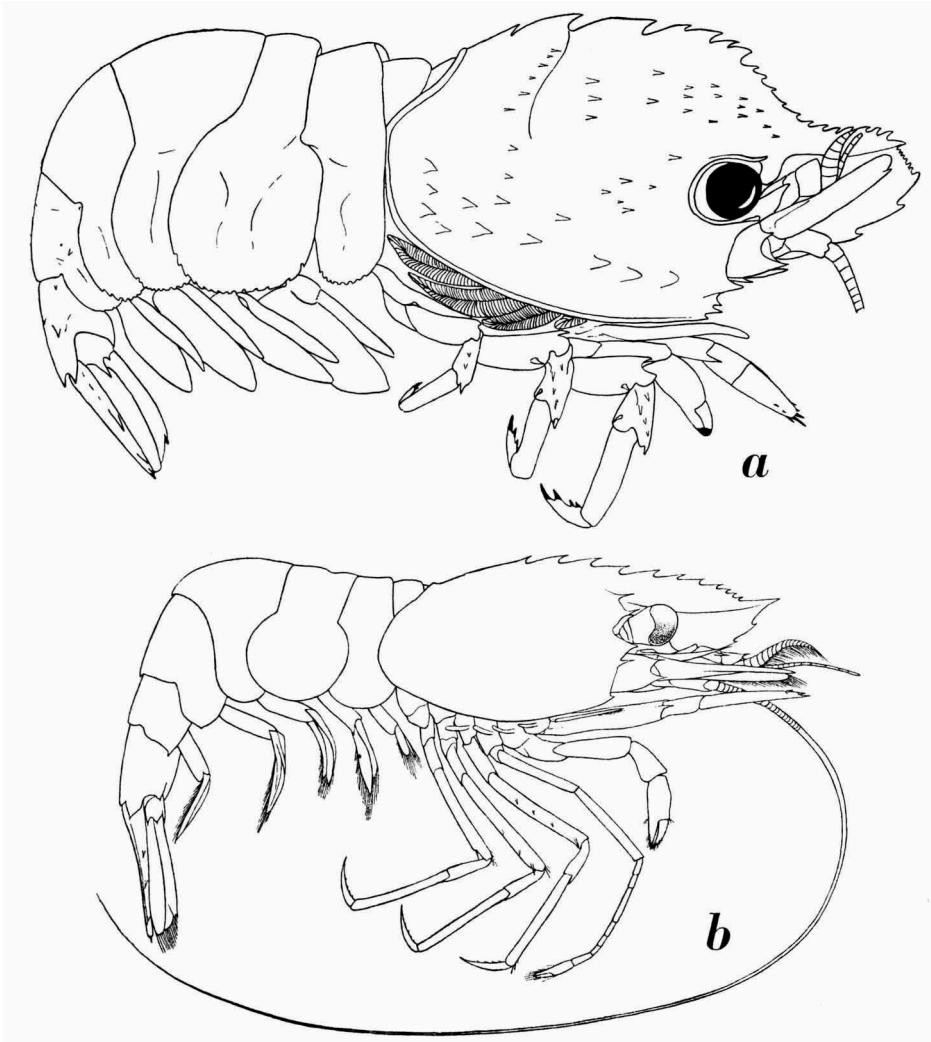


Fig. 71a. *Trachycaris restricta* (A. Milne Edwards). After Holthuis, 1949.

Fig. 71b. *Spirontocaris lilljeborgi* (Danielssen). After Holthuis, 1950.

on Zoological Nomenclature: *Alpheus Polaris* Sabine, 1824, Suppl. App. Parry's Voy. N. W. Pass.: ccxxxviii. Gender: masculine.

Hetavirus Perrier, 1899, *Traité Zool.* 3: 1030. Erroneous spelling of *Hetairus* Bate, 1888.

Birulaecaris Dons, 1915, *Tromsø Mus. Aarsh.* 37: 26. Type species, by monotypy: *Hippolyte mysis* Birula, 1898, *Annu. Mus. zool. Petersb.* 3: 184

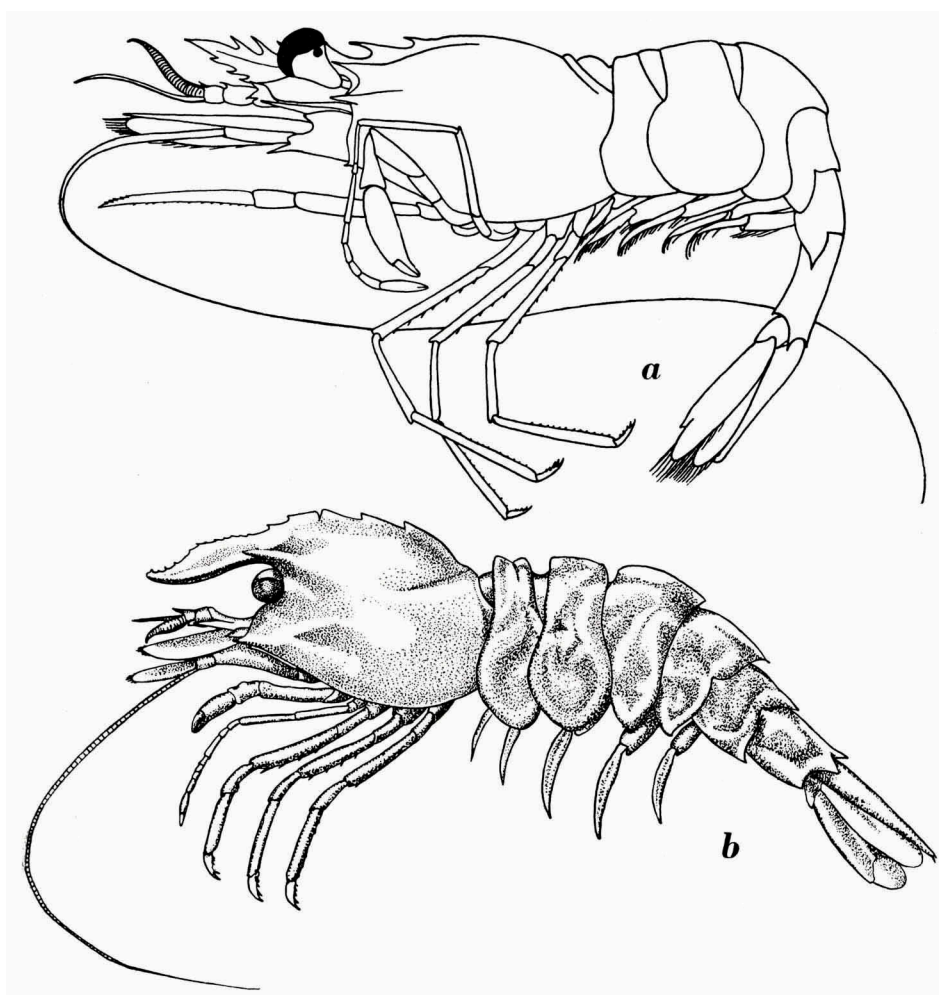


Fig. 72a. *Lebbeus polaris* (Sabine). After Bate, 1888.

Fig. 72b. *Birulia kishinouyei* (Yokoya). After Yokoya, 1930.

(= *Alpheus Polaris* Sabine, 1824, Suppl. App. Parry's Voy. N. W. Pass.: ccxxxviii). Gender: feminine.

Heterius Alpatov, 1923, Ber. wiss. Meeresinst. Moskau 1(7): 4, 5, 9, 33. Erroneous spelling of *Hetairus* Bate, 1888.

Birulia Brashnikov, 1903 (fig. 72b)

Birulia Brashnikov, 1903, Annu. Mus. zool. Petersb. 8: xlv. Type species, by monotypy: *Birulia sachalinensis* Brashnikov, 1903, Annu. Mus. zool. Petersb. 8: xlv. Gender: feminine.

Paraspirontocaris Yokoya, 1930, Sci. Rep. Tôhoku Imp. Univ. (4)5: 535.
Type species, by monotypy: *Paraspirontocaris kishinouyei* Yokoya, 1930,
Sci. Rep. Tôhoku Imp. Univ. (4)5: 536. Gender: feminine.

Phycocaris Kemp, 1916 (fig. 73)

Phycocaris Kemp, 1916, Rec. Indian Mus. 12: 391. Type species, by monotypy: *Phycocaris simulans* Kemp, 1916, Rec. Indian Mus. 12: 392. Gender: feminine.

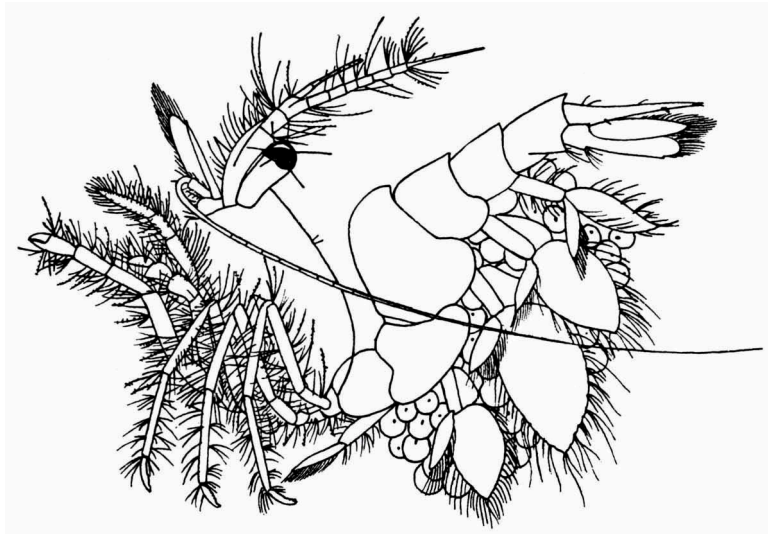


Fig. 73. *Phycocaris simulans* Kemp. After Kemp, 1916.

Hippolyte Leach, 1814 (fig. 74)

Hippolyte Leach, 1814, Edinb. Encycl. 7(2): 431. Type species, by monotypy: *Hippolyte Varians* Leach, 1814, Edinb. Encycl. 7 (2): 431. Gender: feminine.

Hyppolyte Leach, 1815, Trans. Linn. Soc. Lond. 11: 346. Erroneous spelling of *Hippolyte* Leach, 1814.

Nectoceras Rafinesque, 1817, Amer. monthly Mag. crit. Rev. 2: 41. Type species, by monotypy: *Nectoceras pelagica* Rafinesque, 1817, Amer. monthly Mag. crit. Rev. 2: 41 (= *Astacus coerulescens* Fabricius, 1775, Syst. Ent.: 414). Gender: neuter.

Nectocerus Desmarest, 1823, Dict. Sci. nat. 28: 421. Erroneous spelling of *Nectoceras* Rafinesque, 1817.

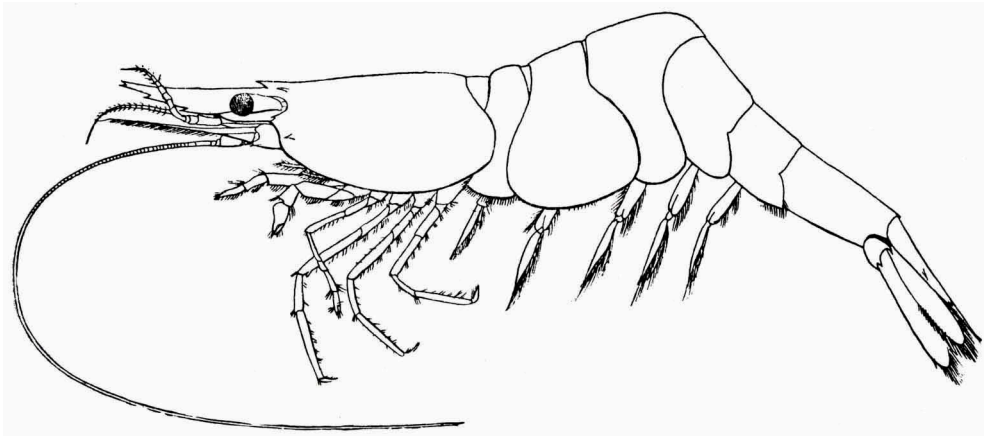


Fig. 74. *Hippolyte varians* Leach. After Kemp, 1910.

- Hippolytes* Risso, 1826, Hist. nat. Europ. mérid. 5: 78. Erroneous spelling of *Hippolyte* Leach, 1814.
- Hippolytus* Guérin, 1832, Expéd. sci. Morée, Zool. 2: 41. Erroneous spelling of *Hippolyte* Leach, 1814.
- Hippolite* J. C. Ross, 1835, J. Ross's App. Narrat. 2nd Voy. N. W. Pass.: lxxxiii. Erroneous spelling of *Hippolyte* Leach, 1814.
- Hippolyta* Burmeister, 1837, Handb. Naturgesch. 2: 565. Erroneous spelling of *Hippolyte* Leach, 1814.
- Hippolithe* Brullé, 1839, Webb & Berthelot's Hist. nat. Iles Canaries 2 (2, Entomol.): 18. Erroneous spelling of *Hippolyte* Leach, 1814.
- Hyppolite* Veranyi, 1846, Catal. Anim. Golfo Genova: 8. Erroneous spelling of *Hippolyte* Leach, 1814.
- Virbius* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 35. Type species, selected by Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 421, : *Hippolyte acuminatus* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 24 (= *Astacus coerulescens* Fabricius, 1775, Syst. Ent.: 414). Gender: masculine.
- Bellidia* Gosse, 1877, Ann. Mag. nat. Hist. (4)20: 313. Type species, by monotypy: *Bellidia Huntii* Gosse, 1877, Ann. Mag. nat. Hist. (4)20: 313, 314. Gender: feminine.
- Verbius* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 587, 589, 942. Erroneous spelling of *Virbius* Stimpson, 1860.
- Hippolyte* Newcombe, 1898, Catal. Coll. Provinc. Mus. Brit. Columb.: 79. Erroneous spelling of *Hippolyte* Leach, 1814.
- Hyppolytte* Valdés Ragués, 1909, Mis Trabajos Acad.: 182. Erroneous spelling of *Hippolyte* Leach, 1814.

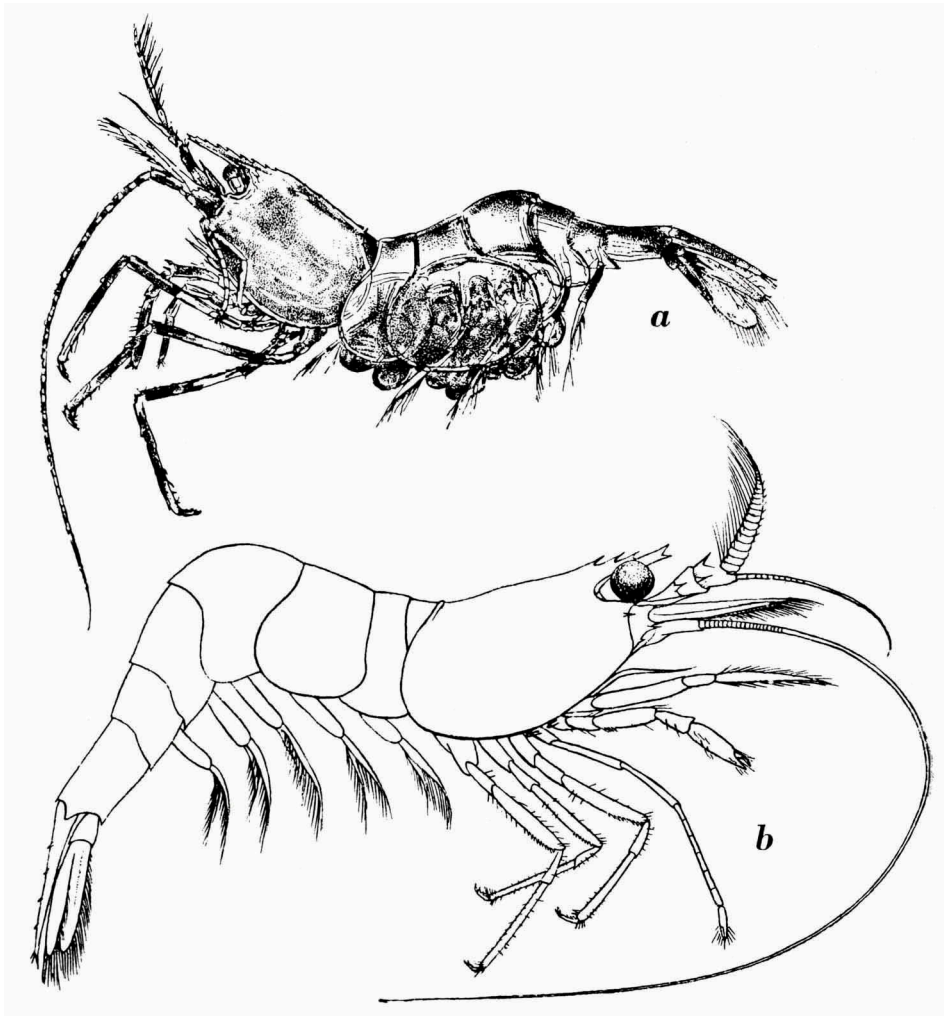


Fig. 75a. *Cryptocheles pygmaea* Sars. After Sars, 1912.

Fig. 75b. *Thoralus cranchi* (Leach). After Holthuis, 1950.

Ippolyte Magri, 1911, Atti Accad. gioen. Sci. nat. Catania (5)4(14): 25.
Erroneous spelling of *Hippolyte* Leach, 1814.

Hyppolythe Borcea, 1934, Ann. Univ. Jassy 29: 405. Erroneous spelling of
Hippolyte Leach, 1814.

Vlrbius Bulgurkov, 1938, Arb. biol. Meeressta. Varna 7: 86. Erroneous spelling of
Virbius Stimpson, 1860.

Cryptocheles Sars, 1870 (fig. 75a)

Cryptocheles Sars, 1870. Forh. Vidensk. Selsk. Christiania 1869: 150. Type species, by monotypy: *Cryptocheles pygmaea* Sars, 1870, Forh. Vidensk. Selsk. Christiania 1869: 150. Gender: feminine.

Thoralus Holthuis, 1947 (fig. 75b)

?*Vianellia* Nardo, 1847, Sinon. modern. Spec. Lag. Golfo Veneto: 8. Type species, by monotypy: *Vianellia dorsioculata* Nardo, 1847, Sinon. modern. Spec. Lag. Golfo Veneto: 8 (? = *Hippolyte Cranchii* Leach, 1817, Malac. Podophth. Brit. (16): pl. 38 figs. 17-21). Gender: feminine.

Lysippe Kinahan, 1858, Nat. Hist. Rev. Dublin 5: 266. Type species, by monotypy: *Hippolyte Cranchii* Leach, 1817, Malac. Podophth. Brit. (16): pl. 38 figs. 17-21. Gender: masculine. Generic name suppressed under the plenary powers of the International Commission on Zoological Nomenclature.

Thoralus Holthuis, 1947, Siboga Exped. 39(a8): 5, 14, 45. Type species, by original designation: *Hippolyte Cranchii* Leach, 1817, Malac. Podophth. Brit. (16): pl. 38 figs. 17-21. Gender: masculine.

Thor Kingsley, 1878 (fig. 76a)

Thor Kingsley, 1878, Proc. Acad. nat. Sci. Phila. 1878: 94. Type species, by monotypy: *Thor floridanus* Kingsley, 1878, Proc. Acad. nat. Sci. Phila. 1878: 95. Gender: masculine.

Paschocaris Nobili, 1905, Bull. Mus. Hist. nat. Paris 11: 395. Type species, by monotypy: *Hippolyte paschalis* Heller, 1862, S. B. Akad. Wiss. Wien 44(1): 276. Gender: feminine.

Tor Balss, 1915, Denkschr. Akad. Wiss. Wien 91: 25. Erroneous spelling of *Thor* Kingsley, 1878.

Gelastocaris Kemp, 1914 (fig. 76b)

Gelastocaris Kemp, 1914, Rec. Indian Mus. 10: 106. Type species, by monotypy: *Latreutes Paronae* Nobili, 1905, Boll. Mus. Zool. Anat. comp. Torino 20(506): 2. Gender: feminine.

Latreutes Stimpson, 1860 (fig. 77a)

Cyclorhynchus De Haan, 1849, Fauna Japon., Crust. (6): 173, 174, 175. Type species, by monotypy: *Hippolyte planirostris* De Haan, 1844, Fauna Japon., Crust. (6/7 p.p.): pl. 45 fig. 7. Gender: neuter. Invalid junior homonym of *Cyclorhynchus* Kaup, 1829, Skizz. Europ. Thierw.: 195 (Aves), *Cyclorhynchus* Sundevall, 1836, K. Svenska Vetensk. Akad.

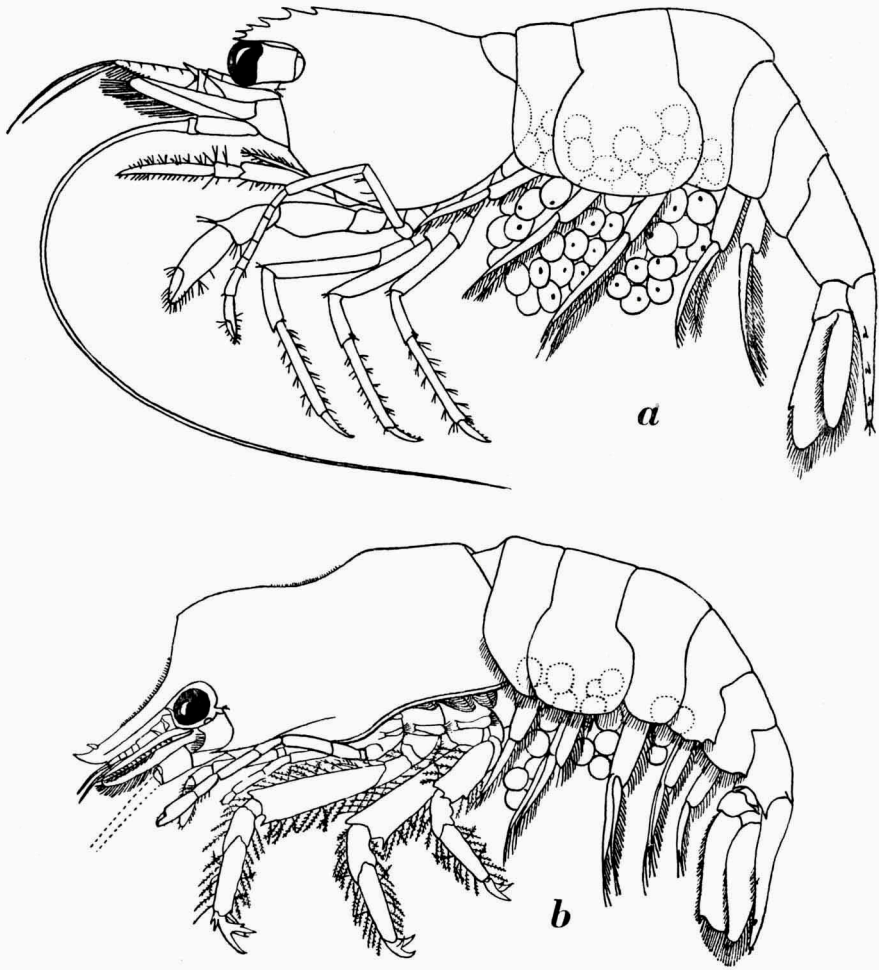


Fig. 76a. *Thor paschalis* (Heller). After Kemp, 1914.
 Fig. 76b. *Gelastocaris paronae* (Nobili). After Kemp, 1914.

Handl. 1835: 83 (Aves), *Cyclorhynchus* Macquart, 1841, Mém. Soc. Sci. Lille 1840: 392 (Diptera).

Latreutes Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 27. Type species, selected by Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 413, : *Hippolyte ensiferus* H. Milne Edwards, 1837, Hist. nat. Crust. 2: 374 (= *Palaemon fucorum* Fabricius, 1798, Suppl. Ent. Syst.: 404). Gender: masculine.

Rhynchocyclyus Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 27. Substitute name for *Cyclorhynchus* De Haan, 1849. Gender: masculine. (In-

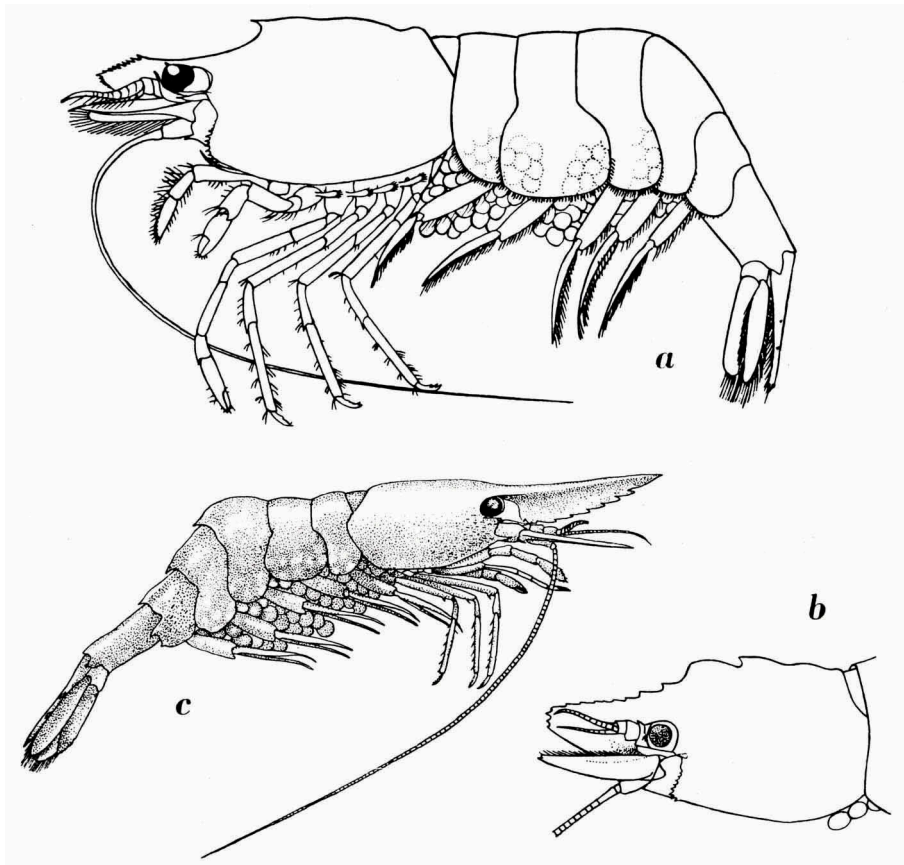


Fig. 77a. *Latreutes mucronatus* (Stimpson). After Kemp, 1914.
 Fig. 77b. *Paralatreutes bicornis* Kemp. Anterior part of body. After Kemp, 1925.
 Fig. 77c. *Tozeuma novae-zealandiae* Borradaile. After Borradaile, 1916.

valid junior?) homonym of *Rhynchocyclus* Cabanis & Heine, 1860, Mus. Hein. 2: 56 (Aves).

Concordia Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 413. Type species, by monotypy: *Concordia gibberosus* Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 414 (= *Rhynchocyclus parvulus* Stimpson, 1866, Proc. Chicago Acad. Sci. 1: 48). Gender: feminine.

Platybema Bate, 1888, Rep. Voy. Challenger, Zool. 24: 576, 578. Substitute name for *Cyclorhynchus* De Haan, 1849, and *Rhynchocyclus* Stimpson, 1860. Gender: neuter.

Cyclorhynchus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 578. Erroneous spelling of *Cyclorhynchus* De Haan, 1849.

- Conchordia* Cary & Spaulding, 1909, Contrib. mar. Fauna Louisiana Coast: 10. Erroneous spelling of *Concordia* Kingsley, 1880.
- Platyblema* Bouvier, 1918, Bull. Mus. Hist. nat. Paris 24: 6. Erroneous spelling of *Platybema* Bate, 1888.
- Latrentes* Urita, 1921, Zool. Mag. Tokyo 33: 216. Erroneous spelling of *Latrentes* Stimpson, 1860.
- Laterlutes* Urita, 1921, Zool. Mag. Tokyo 33: 219. Erroneous spelling of *Latrentes* Stimpson, 1860.

Paralatreutes Kemp, 1925 (fig. 77b)

- Paralatreutes* Kemp, 1925, Rec. Indian Mus. 27: 334. Type species, by monotypy: *Paralatreutes bicornis* Kemp, 1925, Rec. Indian Mus. 27: 334. Gender: masculine.

Tozeuma Stimpson, 1860 (fig. 77c)

- Tozeuma* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 26. Type species, by monotypy: *Tozeuma lanceolatum* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 27. Gender: neuter.
- Angasia* Bate, 1863, Proc. zool. Soc. Lond. 1863: 498. Type species, by monotypy: *Angasia pavonina* Bate, 1863, Proc. zool. Soc. Lond. 1863: 498. Gender: feminine.
- Tizeuma* Perrier, 1886, Explor. sous-mar.: 81. Erroneous spelling of *Tozeuma* Stimpson, 1860.

Mimocaris Nobili, 1903 (fig. 78a)

- Mimocaris* Nobili, 1903, Boll. Mus. Zool. Anat. comp. Torino 18(447): 5. Type species, by monotypy: *Mimocaris heterocarpoides* Nobili, 1903, Boll. Mus. Zool. Anat. comp. Torino 18(447): 6. Gender.: feminine.

Bythocaris Sars, 1870 (fig. 78b)

- Bythocaris* Sars, 1870, Forh. Vidensk. Selsk. Christiania 1869: 149. Type species, by monotypy: *Bythocaris simplicirostris* Sars, 1870, Forh. Vidensk. Selsk. Christiania 1869: 149. Gender: feminine.

Merguia Kemp, 1914 (fig. 78c)

- Merguia* Kemp, 1914, Rec. Indian Mus. 10: 121. Type species, by monotypy: *Hippolyte oligodon* De Man, 1888, Journ. Linn. Soc. Lond. Zool. 22: 277. Gender: feminine.

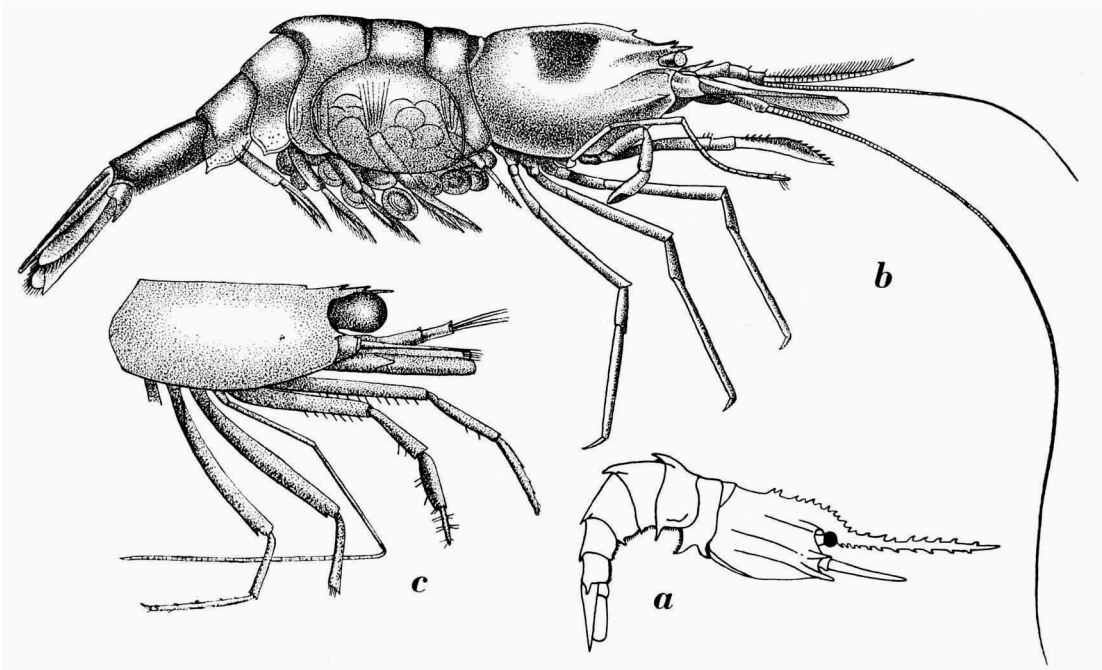


Fig. 78a. *Mimocaris heterocarpoides* Nobili. After Nobili, 1903.

Fig. 78b. *Bythocaris leucopis* Sars. After Sars, 1885.

Fig. 78c. *Merguia oligodon* (De Man). Anterior part of body. After De Man, 1888.

Lysmata Risso, 1816 (fig. 79a)

Aglaope Rafinesque, 1814, Préc. Découv. somiol.: 24. Type species, by monotypy: *Aglaope striata* Rafinesque, 1814, Préc. Découv. somiol.: 24 (= *Melicerta Seti Caudata* Risso, 1816, Hist. nat. Crust. Nice: 110). Gender: feminine. Invalid junior homonym of *Aglaope* Latreille, 1809, Gen. Crust. Ins. 4: 214 (Lepidoptera).

Niphea Rafinesque, 1815, Anal. Nature: 98. Substitute name for *Aglaope* Rafinesque, 1814. Gender: feminine.

Melicerta Risso, 1816, Hist. nat. Crust. Nice: 109. Type species, selected by H. Milne Edwards, 1837, Cuvier's Règne anim. (ed. 4, Discip. ed.) 18: pl. 54 fig. 3.; *Melicerta Seti Caudata* Risso, 1816, Hist. nat. Crust. Nice: 110. Gender: feminine. Invalid junior homonym of *Melicerta* Schrank, 1803, Fauna Boica 3(2): 302 (Vermes), and *Melicerta* Péron & Lesueur, 1810, Ann. Mus. Hist. nat. Paris 14: 352 (Coelenterata).

Lysmata Risso, 1816, Hist. nat. Crust. Nice: 175. Substitute name for *Melicerta* Risso, 1816. Gender: feminine.

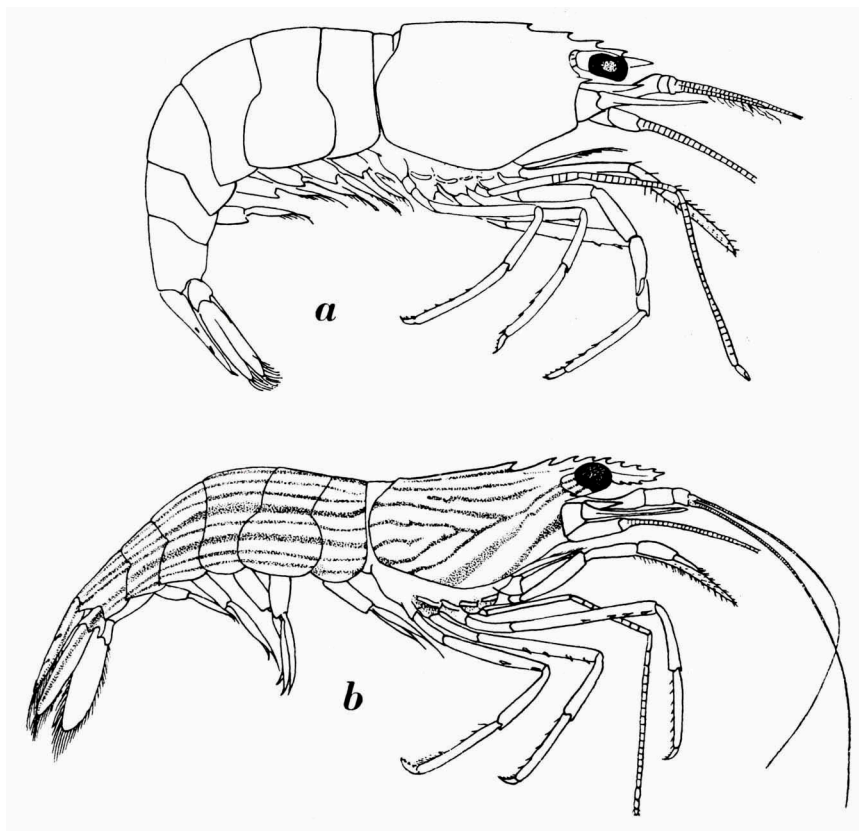


Fig. 79a. *Lysmata trisetacea* (Heller). After Kubo, 1940c.

Fig. 79b. *Hippolysmata* (*Hippolysmata*) *vittata* Stimpson. After Kubo, 1951.

Arno Roux, 1831, Mém. Class. Crust. Salic.: 18, 19. Substitute name for *Aglaope* Rafinesque, 1814. Gender: feminine.

Lismata Veranyi, 1846, Catal. Anim. Golfo Genova: 8. Erroneous spelling of *Lysmata* Risso, 1816.

Lysimata Nardo, 1869, Mem. Ist. Venet. Sci. Lett. Art. 14: 256. Erroneous spelling of *Lysmata* Risso, 1816.

Eretmocariss Bate, 1888, Rep. Voy. Challenger, Zool. 24: 894. Type species, by present selection: *Eretmocariss stylorostris* Bate, 1888, Rep. Challenger, Zool. 24: 898. Gender: feminine.

Milicerta Magri, 1911, Atti Accad. gioen. Sci. nat. Catania (5)4(14): 24, 31. Erroneous spelling of *Melicerta* Risso, 1816.

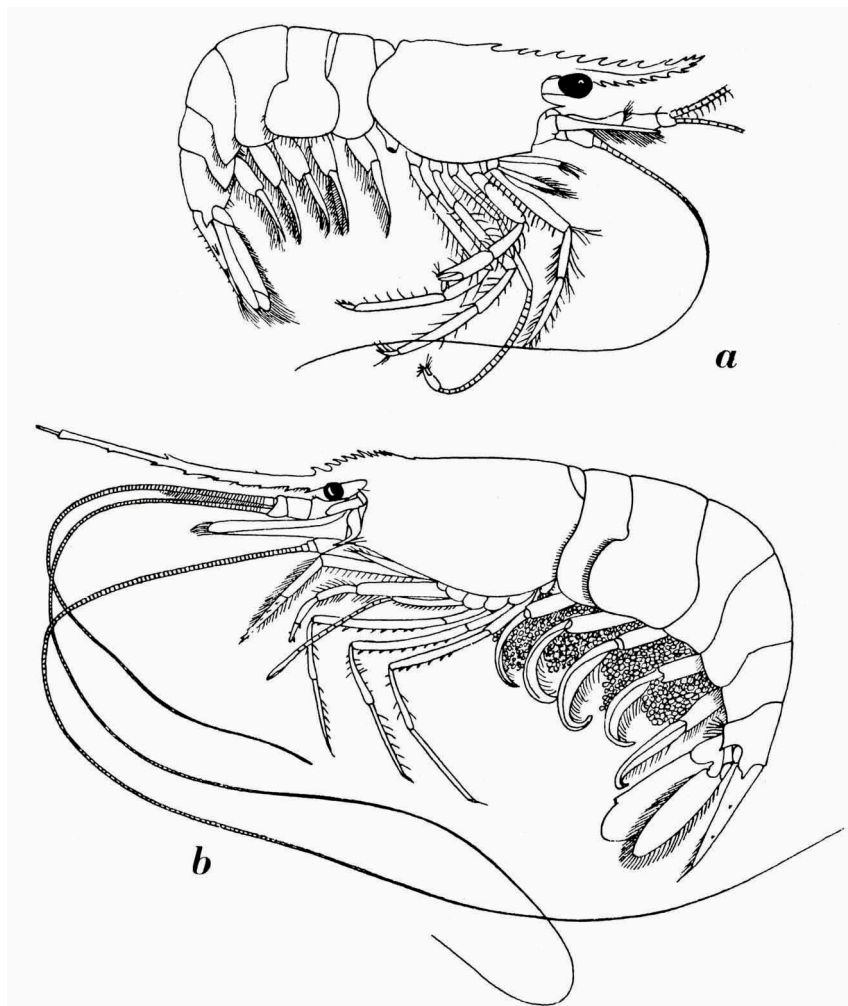


Fig. 80a. *Hippolysmata (Lysmatella) prima* (Borradaile). After Borradaile, 1917a.
 Fig. 80b. *Hippolysmata (Exhippolysmata) ensirostris* Kemp. After Kemp, 1914.

Hippolysmata Stimpson, 1860 (figs. 79b, 80)

Hippolysmata Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 26. Type species, by monotypy: *Hippolysmata vittata* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 26. Gender: feminine.

Lysmatella Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 206. Type species, by monotypy: *Lysmatella prima* Borradaile, 1915, Ann. Mag. nat. Hist. (8)15: 209. Gender: feminine.

Exhippolysmata Stebbing, 1915, Ann. S. Afr. Mus. 15: 94. Type species,

by present selection: *Hippolysmata ensirostris* Kemp, 1914, Rec. Indian Mus. 10: 118. Gender: feminine.

Family PROCESSIDAE

Nikidae Bate, 1888, Rep. Voy. Challenger, Zool. 24: xii, xli, 480, 503.
 Hectarthropidae Bate, 1888, Rep. Voy. Challenger, Zool. 24: 481, 883.
 Processidae Ortmann, 1896, Zool. Jb. Syst. 9: 415, 424.
 Processinae Ortmann, 1896, Zool. Jb. Syst. 9: 425.
 Nikinae Perrier, 1899, Traité Zool. 3: 1031.
 Nikiidae Yokoya, 1933, Journ. Coll. Agric. Tokyo 12: 30.

This family consists of two genera:

1. First pereiopod without exopod. *Processa*
 — An exopod present at the base of the first pereiopod *Nikoides*

Processa Leach, 1815 (fig. 81)

Thalassalpes Bosc, 1813, Nouv. Bull. Sci. Soc. philom. Paris 3(66): 233.

Type species, by present selection: *Nika Edulis* Risso, 1816, Hist. nat. Crust. Nice: 85. Gender: masculine.

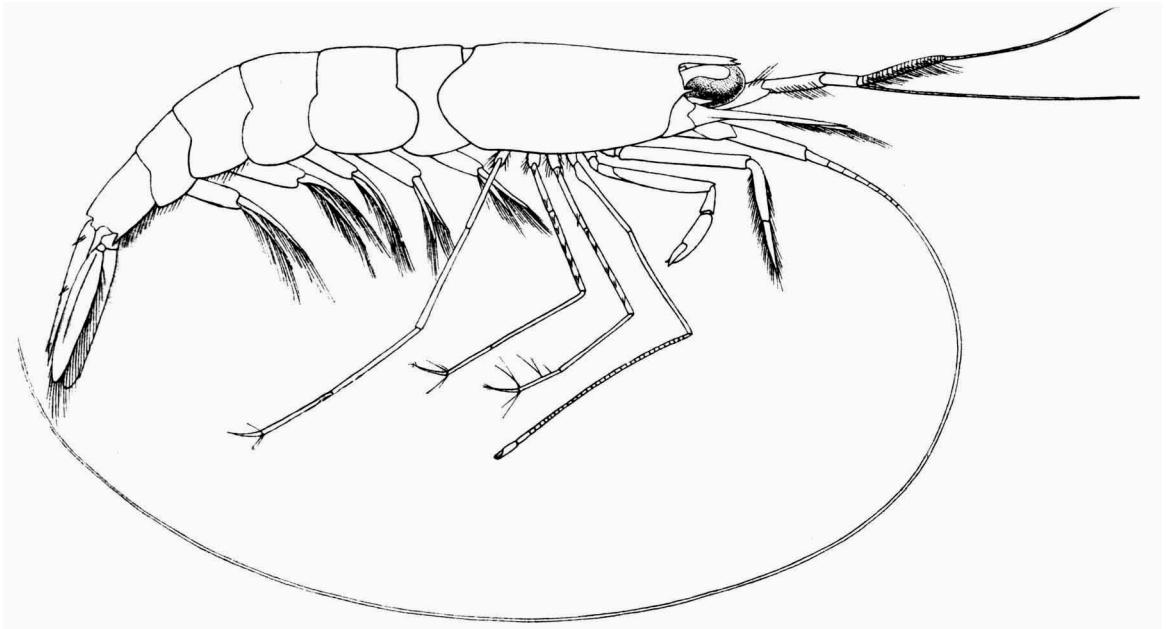


Fig. 81. *Processa canaliculata* Leach. After Holthuis, 1950.

Processa Leach, 1815, Malac. podophth. Brit. (4): explanation of pl. 41.

Type species, by monotypy: *Processa canaliculata* Leach, 1815, Malac. podophth. Brit. (4): explanation of pl. 41. Gender: feminine.

Nika Risso, 1816, Hist. nat. Crust. Nice: 84. Type species, selected by H. Milne Edwards, 1837, Cuvier's Règne anim. (ed. 4, Discip. ed.) 18: pl. 52 fig. 1; *Nika Edulis* Risso, 1816, Hist. nat. Crust. Nice: 85. Gender: feminine.

Nica Berthold, 1826, Latreille's Nat. Fam. Thierreich: 586. Erroneous spelling of *Nika* Risso, 1816.

Velocina Gistel, 1848, Naturgesch. Thierr.: x. Substitute name for *Processa* Leach, 1815. Gender: feminine.

? *Chiereghina* Nardo, 1869, Mem. Ist. Veneto Sci. Lett. Art. 14: 320. Type species, by monotypy: *Cancer pellucidus* Nardo, 1847, Sinon. modern. Spec. Lag. Golfo Veneto: 5. Gender: feminine.

Hectarthropus Bate, 1888, Rep. Voy. Challenger, Zool. 24: 889. Type species, by present selection: *Hectarthropus expansus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 892. Gender: masculine.

Niki Watkin, 1925, Rep. Inv. Dept. Zool. Univ. Aberystw. (n. ser.) 1: 48. Erroneous spelling of *Nika* Risso, 1816.

Nikoides Paulson, 1875 (fig. 82)

Nikoides Paulson, 1875, Issljed. Rakoobr. Krasn. Morja (Stud. Crust. Red Sea): 98. Type species, by monotypy: *Nikoides Danae* Paulson, 1875, Issljed. Rakoobr. Krasn. Morja (Stud. Crust. Red Sea): 98. Gender: masculine.

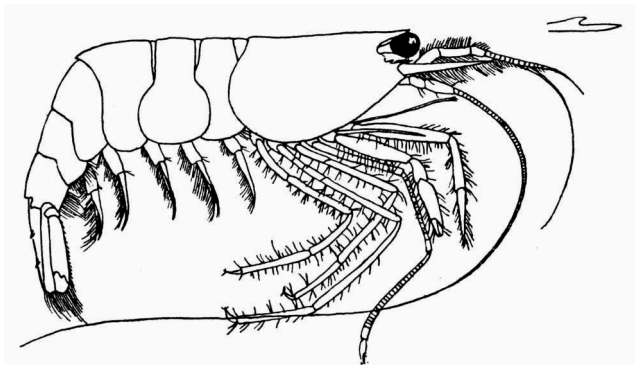


Fig. 82. *Nikoides maldivensis* Borradaile. After Borradaile, 1917a.

Nicoides Balss, 1915, Denkschr. Akad. Wiss. Wien 91: 32. Erroneous spelling of *Nikoides* Paulson, 1875.

Superfamily PANDALOIDA

Pandaloida Alcock, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 55.

This superfamily consists of the three families Pandalidae, Thalassocarididae, and Phyetocarididae.

Family PANDALIDAE

Pandalinae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 17, 24.

Pandalidae Bate, 1888, Rep. Voy. Challenger, Zool. 24: xii, 480, 625.

The genera of this family may be distinguished with the help of the following key, which is largely based on the key given by De Man (1920, Siboga Exped. 39 (a3): 101, 102); use has also been made of Kemp's (1925, Rec. Indian Mus. 27: 271, 272) key to the *Chlorotocus* section of this family.

1. Carpus of second pereopods consisting of more than three joints. 2
- Carpus of second pereopods consisting of 2 or 3 joints. 13
2. No longitudinal carinae on the carapace except for the postrostral crest. 3
- Carapace with longitudinal carinae on the lateral surfaces. Integument very firm. 12
3. Rostrum movably connected with the carapace *Pantomus*
- Rostrum not movable 4
4. Eyes poorly developed, cornea narrower than the eyestalk *Dorodotes*
- Eyes well developed, cornea much wider than the eyestalk 5
5. Third maxilliped with an exopod. 6
- Third maxilliped without exopod 8
6. Epipods on at least the first two pereopods 7
- No epipods on any of the pereopods *Parapandalus*
7. Posterior lobe of scaphognathite broadly rounded or truncate. Stylocerite pointed anteriorly. Rostrum with at least some fixed teeth dorsally. *Plesionika*
- Posterior lobe of scaphognathite acutely produced. Stylocerite broad and rounded. Rostrum with only movable spines dorsally. *Dichelopandalus*
8. Laminar expansion of the inner border of the ischium of the first pair of pereopods very large *Pandalopsis*
- Laminar expansion of the inner border of the ischium of the first pair of pereopods wanting or inconspicuous. 9
9. No epipods at the bases of the pereopods *Peripandalus*
- The first four pereopods with epipodes 10
10. No arthrobranchs at the bases of the pereopods *Pandalina*
- Arthrobranchs present at the bases of the first four pereopods. 11
11. Posterior lobe of scaphognathite acutely produced. Upper margin of rostrum with movable spines only *Pandalus*
- Posterior lobe of scaphognathite truncate. Upper margin of rostrum with both movable spines and fixed teeth *Austropandalus*
12. Pereopods of the second pair very unequal *Heterocarpus*
- Second pereopods equal, carpus 6-jointed *Heterocarpoides*
13. Arthrobranchs and epipods present at the bases of the first 4 pereopods. Third maxilliped with an exopod. Carpus of second pereopod 2-jointed. 14
- Pereopods without arthrobranchs and epipods. Third maxilliped without an exopod. Carpus of second leg 3-jointed 15
14. First four abdominal pleurae rounded. Sixth abdominal segment without median spine. Apex of telson pointed. *Chlorotocus*
- Abdominal pleurae acutely pointed beneath. Sixth abdominal segment with a large spine in the middle of the distal margin. Apex of telson forked. *Chlorotocoides*
15. Supra-orbital spine present. Mandible with 3-jointed palp. Rostrum long and very slender *Chlorotocella*
- Supra-orbital spine absent. Mandible without palp. Rostrum short and deep. *Chlorocurtis*

Pantomus A. Milne Edwards, 1883 (fig. 83a)

Pantomus A. Milne Edwards, 1883, Rec. Fig. Crust. nouv. peu conn.: pl. 26 fig. 1. Type species, by monotypy: *Pantomus parvulus* A. Milne Edwards, 1883, Rec. Fig. Crust. nouv. peu conn.: pl. 26 fig. 1. Gender: masculine.

Dorodotes Bate, 1888 (fig. 83b)

Dorodotes Bate, 1888, Rep. Voy. Challenger, Zool. 24:627, 677. Type species, by present selection: *Dorodotes reflexus* Bate, 1888, Rep. Voy. Challenger, Zool. 24:678. Gender: masculine.

Parapandalus Borradaile, 1899 (fig. 83c)

Parapandalus Borradaile, 1899, Willey's Zool. Res. 4:411. Type species, selected by Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 94,: *Pandalus* (*Parapandalus*) *serratifrons* Borradaile, 1899, Willey's Zool. Res. 4:411 (= *Plesionika spinipes* Bate, 1888, Rep. Voy. Challenger, Zool. 24:646). Gender: masculine.

Stylopandalus Coutière, 1905, C. R. Acad. Sci. Paris 140: 1115. Type species, by monotypy: *Pandalus* (*Stylopandalus*) *Richardi* Coutiere, 1905, C. R. Acad. Sci. Paris 140: 1115. Gender: masculine.

Parapanalus Urita, 1921, Zool. Mag. Tokyo 33: 216. Erroneous spelling of *Parapandalus* Borradaile, 1899.

Nisea (Risso MSS) Monod, 1931, Arch. Mus. Hist. nat. Paris (6)7: 122, 123. Type species, by monotypy: *Nisea formosa* (Risso MSS) Monod, 1931, Arch. Mus. Hist. nat. Paris (6)7: 122, 123 (= *Astacus Narval* Fabricius, 1787, Mant. Ins. 1: 331). Nomen nudum.

Plesionika Bate, 1888 (fig. 84a)

Plesionika Bate, 1888, Rep. Voy. Challenger, Zool. 24:626, 640. Type species, selected by Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 93,: *Plesionika uniproducta* Bate, 1888, Rep. Voy. Challenger, Zool. 24:641 (= *Acanthephyra ensis* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 14). Gender: feminine.

Nothocaris Bate, 1888, Rep. Voy. Challenger, Zool. 24:626, 650. Type species, selected by Fowler, 1912, Ann. Rep. New Jersey State Mus 1911: 551,: *Nothocaris rostricrescentis* Bate, 1888, Rep. Voy. Challenger, Zool. 24:653. Gender: feminine.

Plesionica Alcock, 1899, Sci. Mem. med. Off. Army India 11: 31. Erroneous spelling of *Plesionika* Bate, 1888.

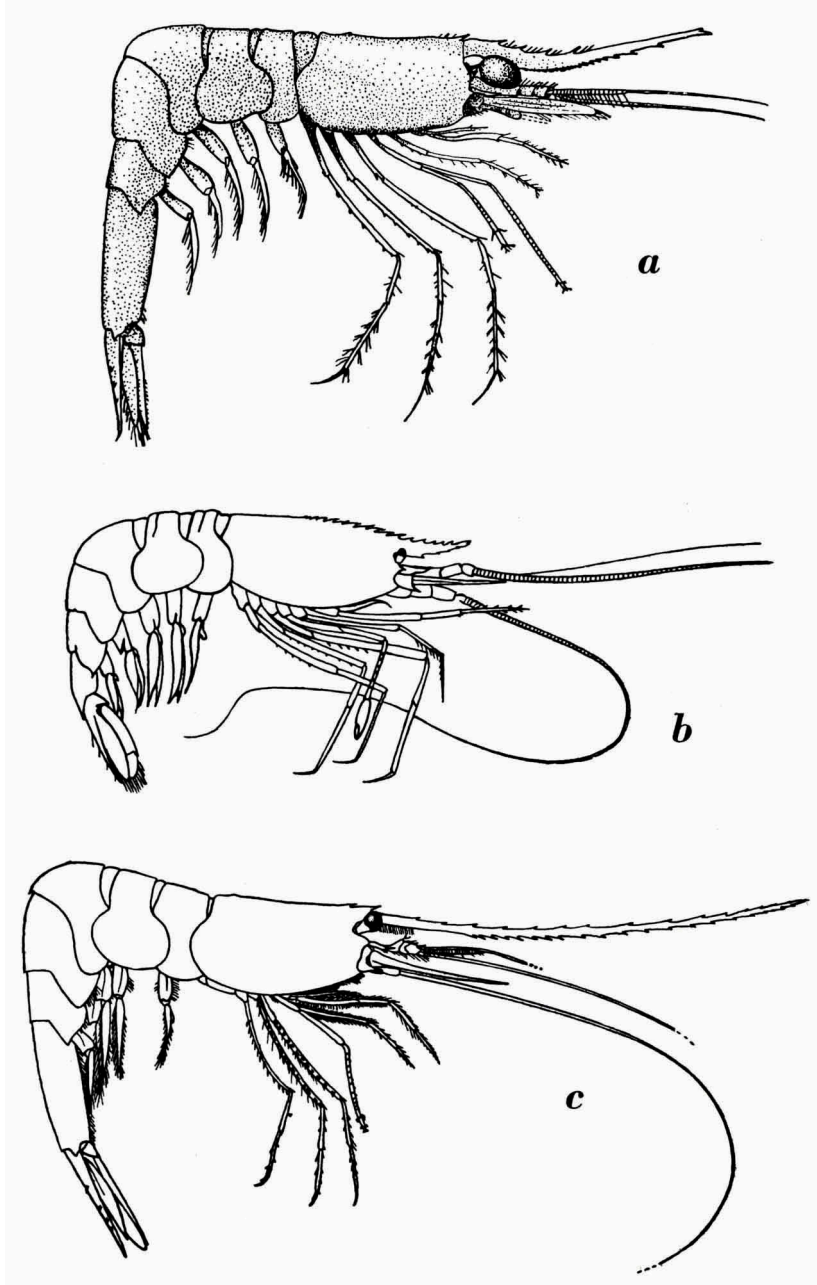


Fig. 83a. *Pantomus affinis* Chace. After Chace, 1937.

Fig. 83b. *Dorodotes reflexus* Bate. After Bate, 1888.

Fig. 83c. *Parapandalus richardi* (Coutière). After Chace, 1940.

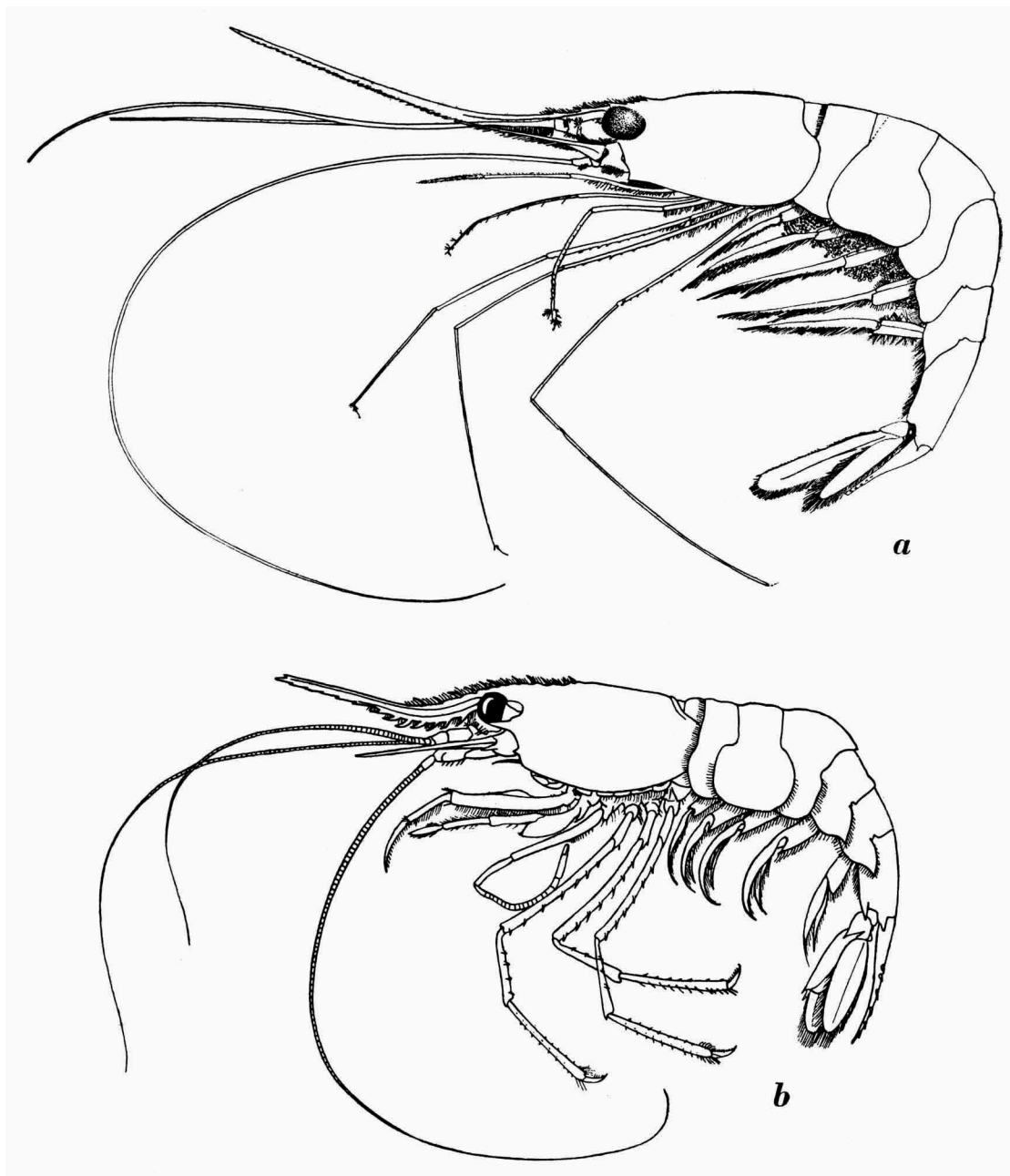


Fig. 84a. *Plesionika martia* (A. Milne Edwards). After Kemp, 1910.
 Fig. 84b. *Pandalopsis ampla* Bate. After Bate, 1888.

Dichelopandalus Caullery, 1896 (fig. 85a)

Dichelopandalus Caullery, 1896, Ann. Univ. Lyon 26: 379. Type species, by monotypy: *Dichelopandalus Bonnierii* Caullery, 1896, Ann. Univ. Lyon 26: 379. Gender: masculine.

Dichelopandalus Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 551. Erroneous spelling of *Dichelopandalus* Caullery, 1896.

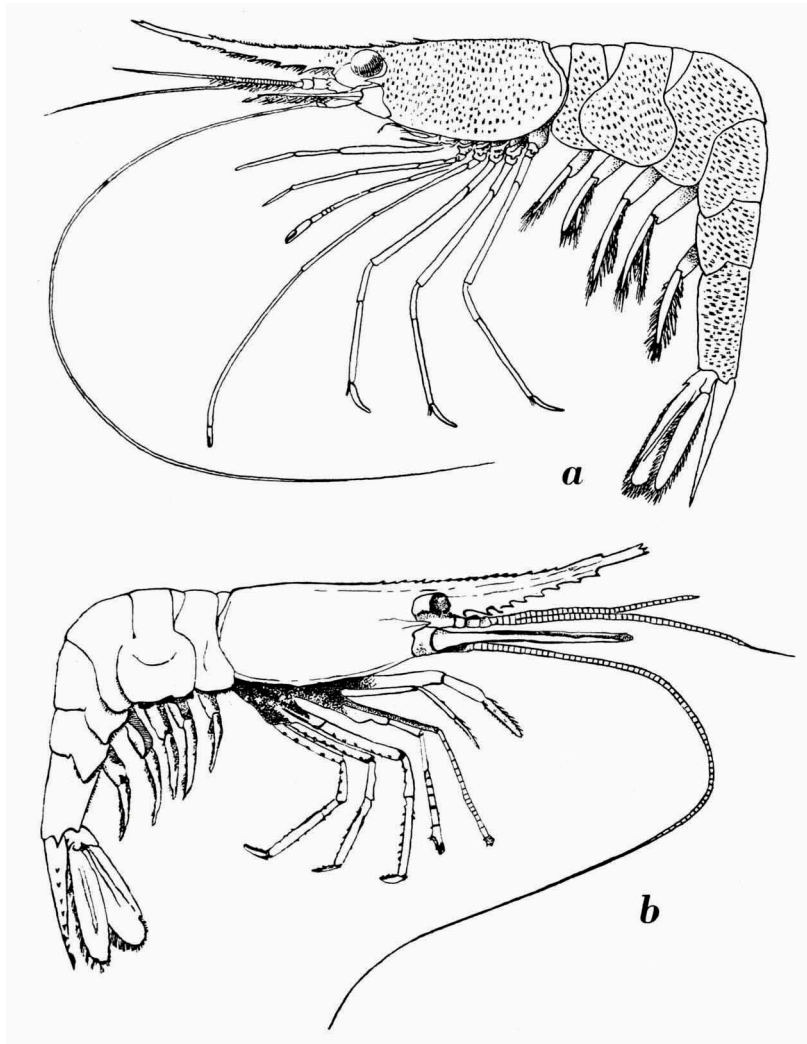


Fig. 85a. *Dichelopandalus leptocerus* (Smith). After Smith, 1884.

Fig. 85b. *Peripandalus serratus* (A. Milne Edwards). After A. Milne Edwards, 1883.

Pandalopsis Bate, 1888 (fig. 84b)

Pandalopsis Bate, 1888, Rep. Voy. Challenger, Zool. 24:627, 671. Type species, by monotypy: *Pandalopsis ampla* Bate, 1888, Rep. Voy. Challenger, Zool. 24:671. Gender: feminine.

Peripandalus De Man, 1917 (fig. 85b)

Peripandalus De Man, 1917, Zool. Meded. Leiden 3:281. Type species, by monotypy: *Pandalus serratus* A. Milne Edwards, 1873, Journ. Mus. Godeffroy 1(4):87. Gender: masculine.

Pandalina Calman, 1899 (fig. 86)

Pandalina Calman, 1899, Ann. Mag. nat. Hist. (7)3:37. Type species, by monotypy: *Pandalus brevirostris* Rathke, 1843, Nova Acta Acad. Leop. Carol. 20(1):17. Gender: feminine.

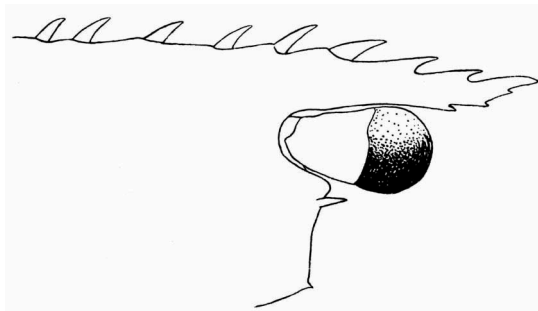


Fig. 86. *Pandalina brevirostris* (Rathke). Rostrum. After Holthuis, 1950.

Paladina Collings, 1935, Trans. Suffolk Nat. Soc. 3:77. Erroneous spelling of *Pandalina* Calman, 1899.

Pandolina Vinogradov, 1938, Bull. Pacific sci. Inst. Fish. Oceanogr. Vladivostoc 14:8. Erroneous spelling of *Pandalina* Calman, 1899.

Pandalus Leach, 1814 (fig. 87a)

Pandalus Leach, 1814, Edinb. Encycl. 7(2):432. Type species, by monotypy: *Pandalus Montagu* Leach, 1814, Edinb. Encycl. 7(2):432. Gender: masculine.

Dymas Krøyer, 1861, Naturhist. Tidsskr. (3)1:63. Type species, by monotypy: *Dymas typus* Krøyer, 1861, Naturhist. Tidsskr. (3)1:63 (= *Pandalus borealis* Krøyer, 1838, Naturhist. Tidsskr. 2:254). Gender: masculine.

Padnalus Scott, 1889, Ann. Rep. Fish. Board Scotland 6 (app.):261. Erroneous spelling of *Pandalus* Leach, 1814.

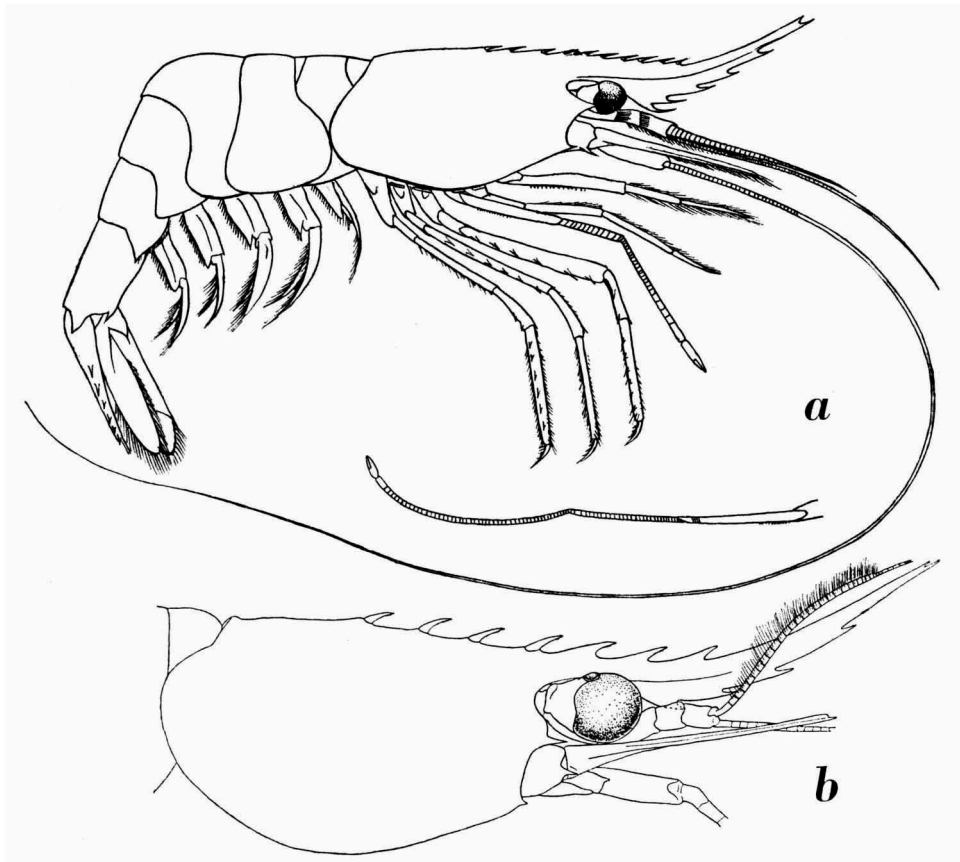


Fig. 87a. *Pandalus montagui* Leach. After Holthuis, 1950.

Fig. 87b. *Austropandalus grayi* (Cunningham). Anterior part of body. After Holthuis, 1952c.

Boreocaris Ortmann, 1893, *Ergebn. Plankton-Exped. 2 (Gb)*: 73, 84. Type species, by monotypy: *Boreocaris möbiusi* Ortmann, 1893, *Ergebn. Plankton-Exped. 2 (Gb)*: 84 (? = *Pandalus montagui* Leach, 1814, *Edinb. Encycl.* 7(2): 432). Gender: feminine.

Pandalus Riggio, 1905, *Natural. Sicil.* 17: 282. Erroneous spelling of *Pandalus* Leach, 1814.

Pandulus Taylor, 1912, *Contr. Canad. Biol.* 1906-1910: 194. Erroneous spelling of *Pandalus* Leach, 1814.

Candalus Kuznetsov, 1950, *C. R. Acad. Sci. Moscow, (n. ser.)* 75: 316. Erroneous spelling of *Pandalus* Leach, 1814.

Austropandalus Holthuis, 1952 (fig. 87b)

Austropandalus Holthuis, 1952, Lunds Univ. Årsskr. (n. ser.) (2)47(10): 16. Type species, by monotypy: *Hippolyte Grayi* Cunningham, 1871, Trans. Linn. Soc. Lond. 27: 496. Gender: masculine.

Heterocarpus A. Milne Edwards, 1881 (fig. 88a)

Heterocarpus A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 8. Type species, by original designation: *Heterocarpus ensifer* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 8. Gender: masculine.

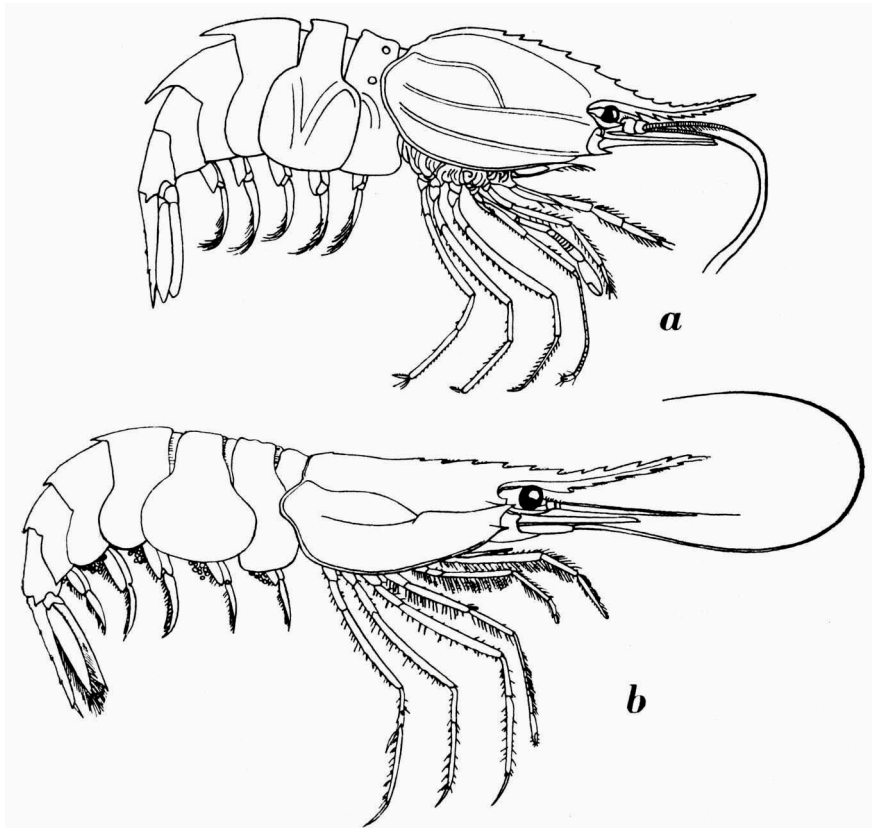


Fig. 88a. *Heterocarpus sibogae* De Man. After De Man, 1920.

Fig. 88b. *Heterocarpoides levicarina* (Bate). After De Man, 1920.

Procletes Bate, 1888, Rep. Voy. Challenger, Zool. 24: 883. Type species, by present selection: *Procletes biangulatus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 884. Gender: masculine.

Atlantocaris Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 73, 79. Type

species, by present selection: *Atlantocaris gigas* Ortmann, 1893, *Ergebn. Plankton-Exped. 2 (Gb): 80* (= *Heterocarpus ensifer* A. Milne Edwards, 1881, *Ann. Sci. nat. Zool. (6)11(4): 8*). Gender: feminine.

Heterocarpoides De Man, 1917 (fig. 88b)

Heterocarpoides De Man, 1917, *Zool. Meded. Leiden 3: 284*. Type species, by monotypy: *Dorodotes levicarina* Bate, 1888, *Rep. Voy. Challenger, Zool. 24: 680*. Gender: masculine.

Chlorotocus A. Milne Edwards, 1882 (fig. 89a)

Chlorotocus A. Milne Edwards, 1882, *Arch. Miss. sci. litt. (3)9: 14*. Type species, by monotypy: *Chlorotocus gracilipes* A. Milne Edwards, 1882,

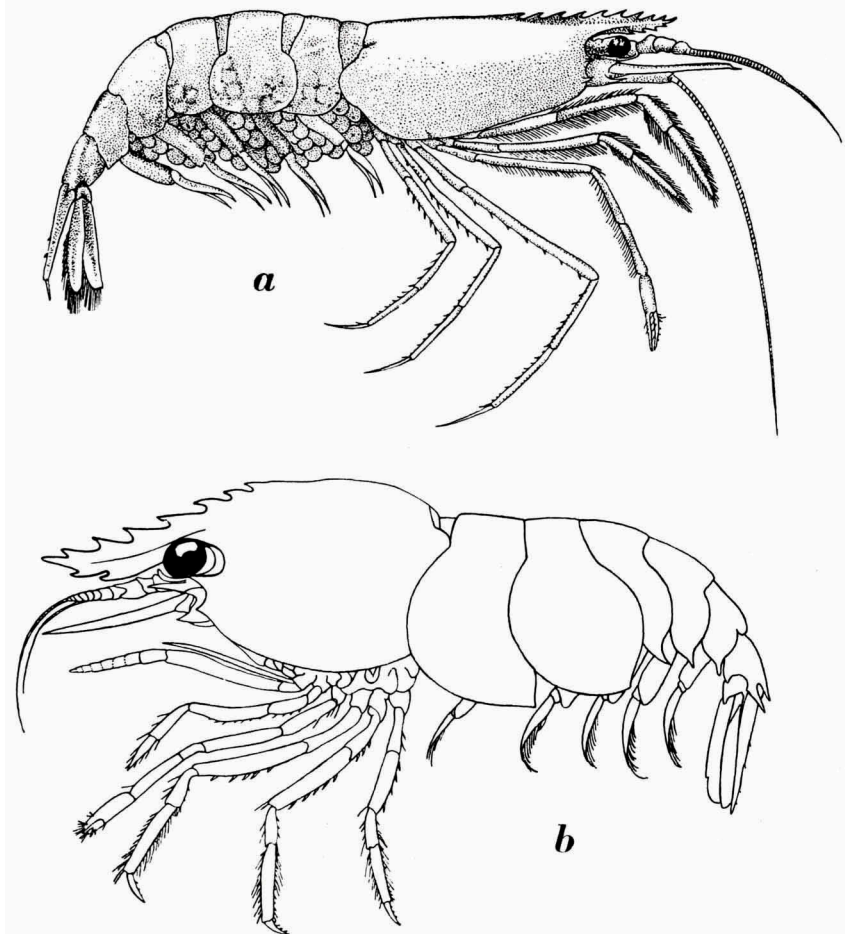


Fig. 89a. *Chlorotocus novae-zealandiae* (Borradaile). After Borradaile, 1916.

Fig. 89b. *Chlorotocoides spinicauda* (De Man). After De Man, 1920.

Arch. Miss. sci. litt. (3)9:14 (= *Pandalus crassicornis* Costa, 1871, Annu. Mus. zool. Univ. Napoli 6:89). Gender: masculine.

Chlorotocoides Kemp, 1925 (fig. 89b)

Chlorotocoides Kemp, 1925, Rec. Indian Mus. 27:271, 276. Type species, by monotypy: *Chlorotocus spinicauda* De Man, 1902, Abh. Senckenb. naturf. Ges. 25:856. Gender: masculine.

Chlorotocella Balss, 1914 (fig. 90)

Chlorotocella Balss, 1914, Abh. Bayer. Akad. Wiss. (suppl.) 2(10):33. Type species, by monotypy: *Chlorotocella gracilis* Balss, 1914, Abh. Bayer. Akad. Wiss. (suppl.) 2(10):33. Gender: feminine.

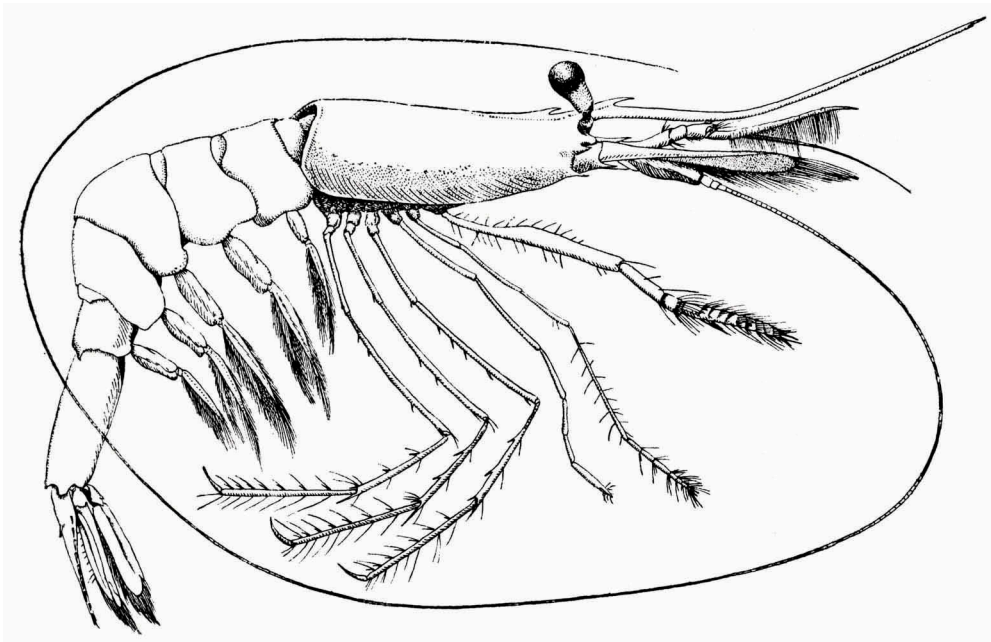


Fig. 90. *Chlorotocella gracilis* Balss. After Balss, 1914.

Chlorocurtis Kemp, 1925 (fig. 91)

Chlorocurtis Kemp, 1925, Rec. Indian Mus. 27:272, 279. Type species, by monotypy: *Chlorocurtis miser* Kemp, 1925, Rec. Indian Mus. 27:280 (= *Virbius* (?) *jactans* Nobili, 1904, Bull. Mus. Hist. nat. Paris 10:230). Gender: masculine.

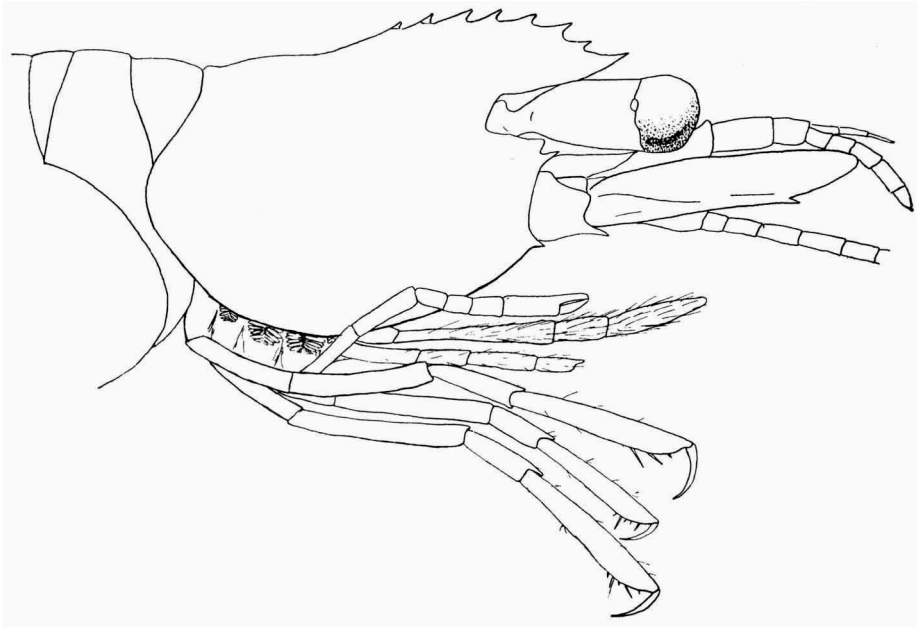


Fig. 91. *Chlorocurtis jactans* (Nobili). Anterior part of body. Original.

Family THALASSOCARIDIDAE

Thalassocaridae Bate, 1888, Rep. Voy. Challenger, Zool. 24: lxxvii, 481, 682.
Thalassocarinae Ortmann, 1896, Zool. Jb. Syst. 9: 423.

Only genus:

Thalassocaris Stimpson, 1860 (fig. 92)

Regulus Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 18, 27. Type species, selected by Kingsley, 1880, Proc. Acad. nat. Sci. Phila. 1879: 426, : *Regulus lucidus* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 27. Gender: masculine. Invalid junior homonym of *Regulus* Cuvier, 1800, Leçons Anat. comp. 1: tabl. 2 (Aves).

Thalassocaris Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 42 Substitute name for *Regulus* Dana, 1852. Gender: feminine.

Family PHYSETOCARIDIDAE

Physetocaridae Chace, 1940, Zoologica, New York 25: 196.

Only genus:

Physetocaris Chace, 1940 (fig. 93)

Physetocaris Chace, 1940, Zoologica, New York 25: 196. Type species, by monotypy: *Physetocaris microphthalma* Chace, 1940, Zoologica, New York 25: 196. Gender: feminine.

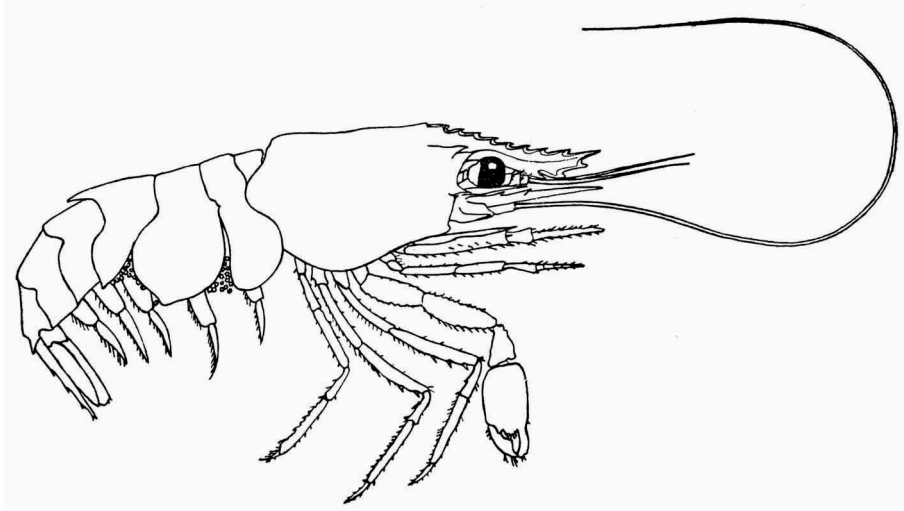


Fig. 92. *Thalassocaris crinita* (Dana). After De Man, 1920.

Superfamily CRANGONOIDA

Crangonidea Bate, 1888, Rep. Voy. Challenger, Zool. 24: lxxvi, 480, 481.

Crangoninea Stebbing, 1893, Hist. Crust.: 224.

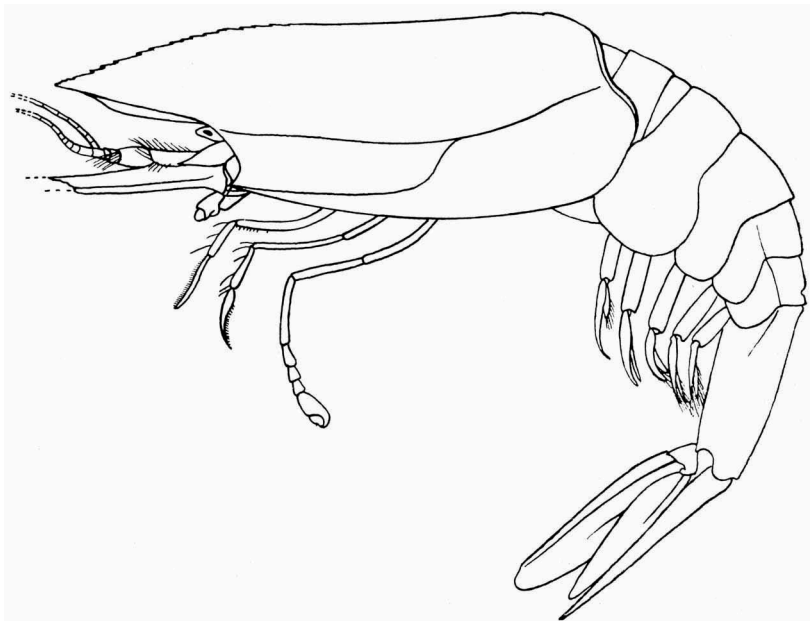


Fig. 93. *Phyetocaris microphthalmia* Chace. After Chace, 1940.

Crangonoida Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. *Macr. Anom.*: 56.

Crangonoidea Balss, 1915, Denkschr. Akad. Wiss. Wien 91: 32.

Crangonoida Hale, 1927, Crust. S. Aust. (1): 60.

Crangonida Sivertsen, 1933, Nyt Mag. Naturvidensk. 74: 6.

After the removal of the families Anchistioididae, Gnathophyllidae, and Processidae to other subfamilies, only two remain of the five families assigned by Borradaile and Balss to this superfamily. These families are the Crangonidae and the Glyphocrangonidae.

Family GLYPHOCRANGONIDAE

Rhachocarinae Smith, 1882, Bull. Mus. comp. Zoöl. Harvard 10: 41.

Glyphocrangonidae Smith, 1884, Rep. U. S. Fish Comm. 10: 364.

Only one genus:

Glyphocrangon A. Milne Edwards, 1881 (fig. 94)

Glyphocrangon A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 3.

Type species, by original designation: *Glyphocrangon spinicauda* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4): 3. Gender: feminine.

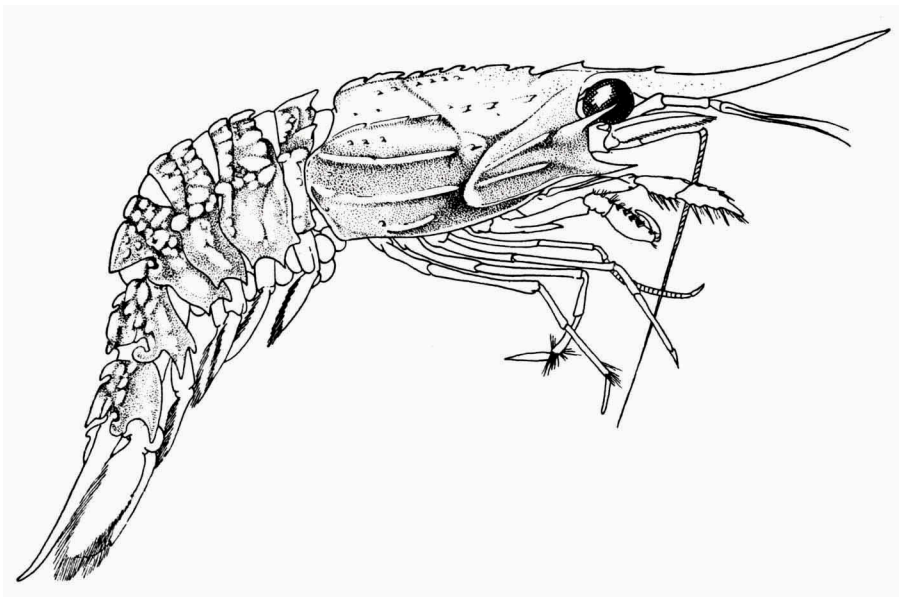


Fig. 94. *Glyphocrangon dentatus* Barnard. After Calman, 1939.

Rhachocaris Smith, 1882, Bull. Mus. comp. Zoöl. Harvard 10: 41. Type species, selected by Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 556, : *Rhachocaris Agassizii* Smith, 1882, Bull. Mus. comp. Zoöl.

- Harvard 10:43 (= *Glyphocrangon aculeatum* A. Milne Edwards, 1881, Ann. Sci. nat. Zool. (6)11(4):5). Gender: feminine.
- Plastocrangon* Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 125, 133. Type species, selected by Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 556, : *Glyphocrangon caecescens* Wood Mason & Alcock, 1891, Ann. Mag. nat. Hist. (6)8:357. Gender: feminine.
- Rhacocaris* Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 125. Erroneous spelling of *Rhachocaris* Smith, 1882.
- Glyptocrangon* Norman, 1905, Mus. Norm. (ed. 2)3:9. Erroneous spelling of *Glyphocrangon* A. Milne Edwards, 1881.

Family CRANGONIDAE

- Crangoniens H. Milne Edwards, 1837, Hist. nat. Crust. 2:339.
- Crangonidae White, 1847, List Crust. Brit. Mus.:73.
- Crangonidea De Haan, 1849, Fauna Japon., Crust. (6):168, 181.
- Crangoniana Gibbes, 1850, Proc. Amer. Ass. Adv. Sci. 3:195.
- Crangonina Brandt, 1851, Middendorff's Reise Sibir. 2(1):112.
- Crangoninae Dana, 1852, Proc. Acad. nat. Sci. Phila. 6:15, 20.
- Crangonidi Acloque, 1899, Faune de France, Thysan.-Protoz.: 155, 159.
- Crangonidae Rathbun, 1904, Proc. biol. Soc. Wash. 17:172.

Our knowledge of the status of the various genera of this family still is very imperfect and many changes may be expected in our present conception of the size of these genera, especially in the *Crangon-Notocrangon-Sclerocrangon* and the *Pontophilus-Pontocaris* groups. Therefore the present key, which is chiefly based on that given by De Man (1920, Siboga Exped. 39 (a3):248), necessarily is not very satisfactory as far as these groups of genera are concerned.

- | | |
|---|----------------------|
| 1. Second pereopods wanting | <i>Paracrangon</i> |
| — Second pereopods present | 2 |
| 2. Second pereopods simple, not chelate | 3 |
| — Second pereopods chelate | 5 |
| 3. Eyes reduced to small pointed processes. Cornea absent | <i>Prionocrangon</i> |
| — Eyes well developed. Cornea present, large. | 4 |
| 4. Second pereopods rudimental, thin and short, failing to reach the end of the merus of the first pereopods. Scaphocerite with a terminal tooth. | <i>Sabinea</i> |
| — Second pereopods rather well developed, with broad joints, reaching beyond the merus of the first pereopods. Scaphocerite without a terminal tooth. | <i>Vercoia</i> |
| 5. Dactylus of fourth and fifth pereopods flat and broadened, natatorial. | <i>Argis</i> |
| — Dactylus of fourth and fifth pereopods normal, not broadened. | 6 |
| 6. Second pereopods subequal in length to the other pereopods. | 7 |
| — Second pereopods much shorter than the other legs. | 9 |
| 7. Third maxillipeds with an arthrobranch | <i>Crangon</i> |
| — Third maxillipeds without arthrobranches. | 8 |
| 8. Slender animals. Antarctic. | <i>Notocrangon</i> |
| — Broad and heavy animals. Arctic. | <i>Sclerocrangon</i> |

9. Six or seven branchiae on each side of the body. Apices of these branchiae directed backwards *Pontophilus*
 — Eight branchiae on each side of the body. Apices of these branchiae turned forwards. *Pontocaris*

Paracrangon Dana, 1852 (fig. 95a)

Paracrangon Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 16, 20. Type species, by monotypy: *Paracrangon echinatus* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6: 20. Gender: feminine.

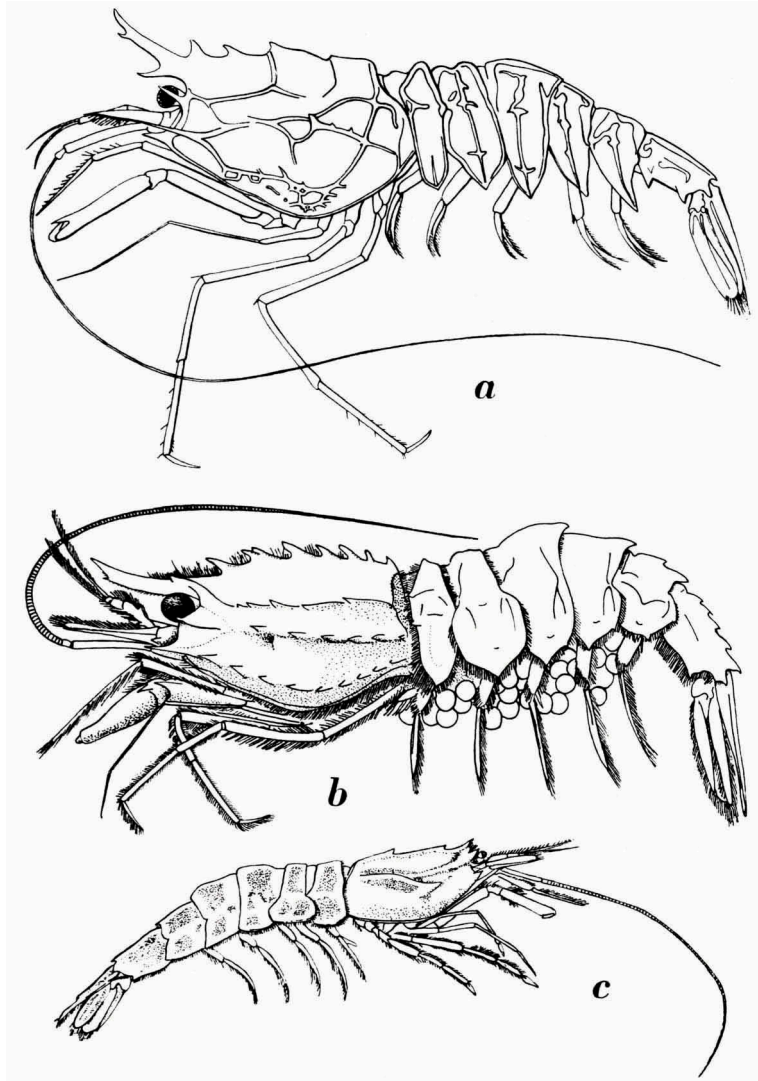


Fig. 95a. *Paracrangon areolata* Faxon. After Faxon, 1895.
 Fig. 95b. *Sabinea hystrix* (A. Milne Edwards). After Smith, 1882.
 Fig. 95c. *Argis toyamaensis* (Yokoya). After Yokoya, 1933.

Prionocrangon Wood Mason & Alcock, 1891

Prionocrangon Wood Mason & Alcock, 1891, Ann. Mag. nat. Hist. (6)8: 361. Type species, by monotypy: *Prionocrangon ommatosteres* Wood Mason & Alcock, 1891, Ann. Mag. nat. Hist. (6)8: 362. Gender: feminine.

Sabinea J. C. Ross, 1835 (fig. 95b)

Sabinea J. C. Ross, 1835, J. Ross's App. Narrat. 2nd Voy. N.W. Pass.: lxxxii. Type species, by monotypy: *Crangon Septemcarinatus* Sabine, 1824, Suppl. App. Parry's Voy. N. W. Pass.: ccxxxvi. Gender: feminine.

Myto Krøyer, 1845, Naturhist. Tidsskr. (2)1: 470, 476. Type species, by monotypy: *Myto Gaimardii* Krøyer, 1845, Naturhist. Tidsskr. (2)1: 470, 476 (= *Crangon Septemcarinatus* Sabine, 1824, Suppl. App. Parry's Voy. N. W. Pass.: ccxxxvi). Gender: masculine.

Sabinaea Norman, 1869, Rep. Brit. Ass. Adv. Sci. 38: 255, 256, 260, 265. Erroneous spelling of *Sabinea* J. C. Ross, 1835.

Sabenea Alpatov, 1923, Ber. wiss. Meeresinst. Moskau 1(7): 4. Erroneous spelling of *Sabinea* J. C. Ross, 1835.

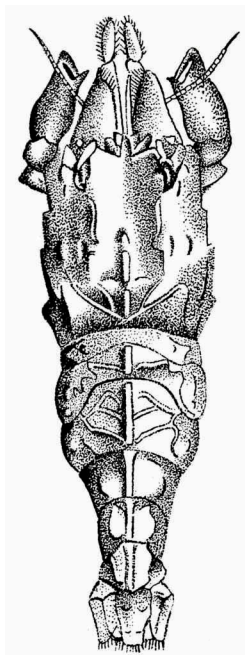


Fig. 96. *Vercoia gibbosa* Baker. After Baker, 1904.

Vercoia Baker, 1904 (fig. 96)

Vercoia Baker, 1904, Trans. Roy. Soc. S. Aust. 28: 157. Type species, by

monotypy: *Vercoia gibbosa* Baker, 1904, Trans. Roy. Soc. S. Aust. 28: 158. Gender: feminine.

Argis Krøyer, 1842 (fig. 95c)

Argis Krøyer, 1842, Naturhist. Tidsskr. 4: 255, 267. Type species, by monotypy: *Crangon Lar* Owen, 1839, Zool. Beechey's Voy. Blossom: 88. Gender: feminine.

Nectocrangon Brandt, 1851, Middendorff's Reise Sibir. 2(1): 114. Type species, by monotypy: *Crangon Lar* Owen, 1839, Zool. Beechey's Voy. Blossom: 88. Gender: feminine.

Nectocranagon Smith, 1928, Canad. Field Nat. 42: 165. Erroneous spelling of *Nectocrangon* Brandt, 1851.

Crangon Fabricius, 1798 (fig. 97)

Crangon Fabricius, 1798, Suppl. Ent. Syst.: 387, 409. Type species, by absolute tautonymy: *Cancer Crangon* Linnaeus, 1758, Syst. Nat. (ed. 10) 1: 632. Gender: feminine. Junior homonym of *Crangon* Weber, 1795, Nomencl. Ent.: 94 (Crustacea Decapoda Macrura).

Crango Lamarck, 1801, Syst. Anim. sans Vertèbr.: 159. Type species, by monotypy: *Cancer Crangon* Linnaeus, 1758, Syst. Nat. (ed. 10) 1: 632. Gender: masculine.

Crangonus Rafinesque, 1815, Anal. Nature: 98. Substitute name for *Crangon* Fabricius, 1798. Gender: masculine.

Crango Voigt, 1836, Cuvier's Thierreich 4: 179. Erroneous spelling of *Crangon* Fabricius, 1798.

Steiracrangon Kinahan, 1862 (sep. 1861), Trans. Roy. Irish Acad. 24(1): 56, 57, 58, 64. Type species, selected by Fowler, 1912, Ann. Rep. New Jersey State Mus. 1911: 319, : *Crangon Allmanni* Kinahan, 1857, Proc. nat. Hist. Soc. Dublin 2: 28. Gender: feminine.

Cragnon Leach, 1875, Malac. Podophth. Brit. (19): pl. 37C. Erroneous spelling of *Crangon* Fabricius, 1798.

Cangron Filhol, 1886, Miss. Ile Campbell, Zool. 3(2): 430. Erroneous spelling of *Crangon* Fabricius, 1798.

Crangoi Taylor, 1912, Contr. Canad. Biol. 1906-1910: 199. Erroneous spelling of *Crangon* Fabricius, 1798.

Cragon Hilton, 1916, Journ. Entom. Zool. Pomona Coll. 8: 67. Erroneous spelling of *Crangon* Fabricius, 1798.

Crangon Boudarel, 1948, Encycl. biol. 29: 260. Erroneous spelling of *Crangon* Fabricius, 1798.

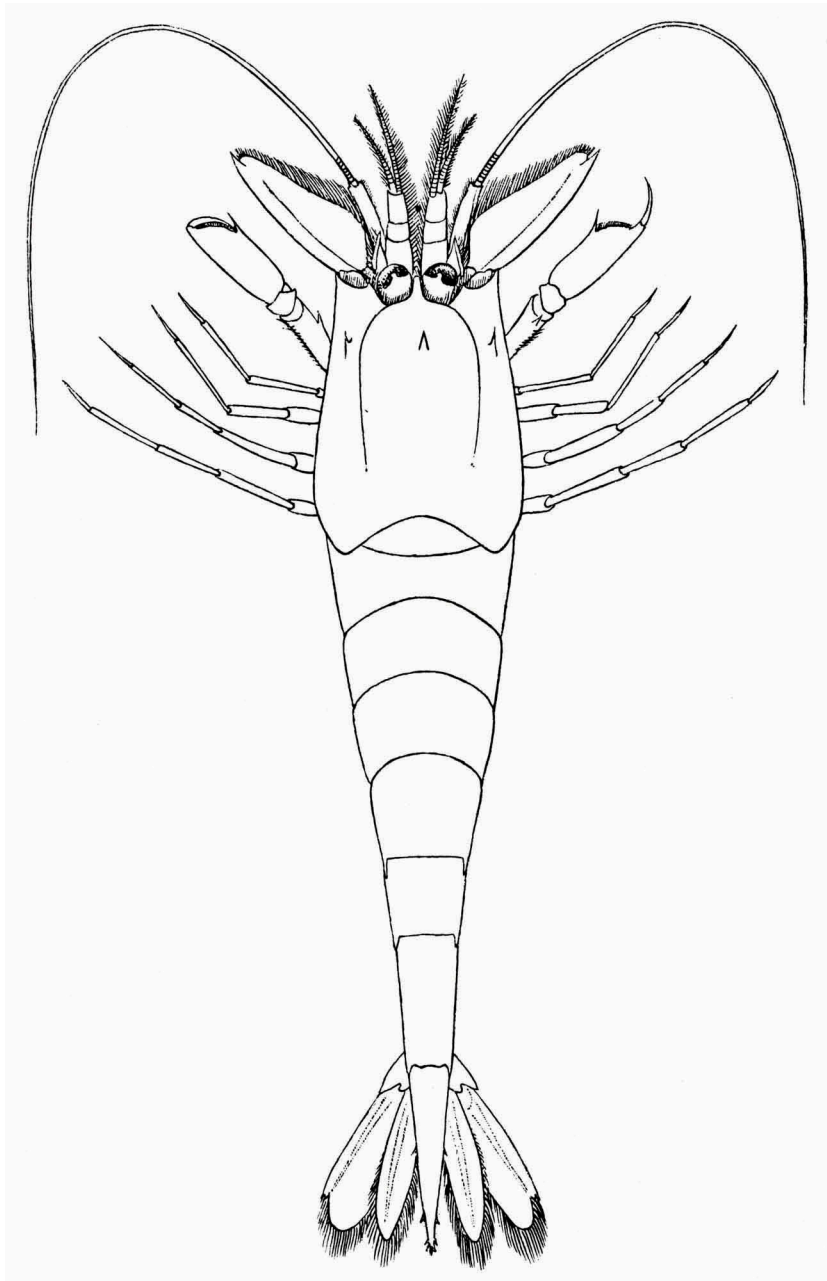


Fig. 97. *Crangon crangon* (Linnaeus). After Holthuis, 1950.

Notocrangon Coutière, 1900 (fig. 98)

Notocrangon Coutière, 1900, C. R. Acad. Sci. Paris 130: 1640. Type species, by monotypy: *Crangon antarcticus* Pfeffer, 1887, Jb. Hamb. wiss. Anst. 4: 45. Gender: feminine.

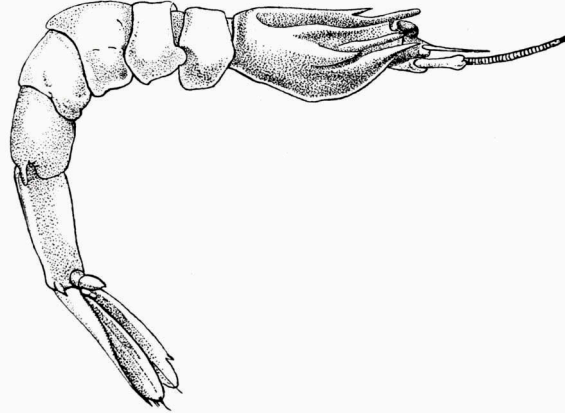


Fig. 98. *Notocrangon antarctica* (Pfeffer). After Pfeffer, 1887.

Sclerocrangon Sars, 1883 (fig. 99a)

Sclerocrangon Sars, 1883 (sep. 1882), Forh. Vidensk. Selsk. Christiania 1882 (18): 7, 45. Type species, by monotypy: *Cancer Boreas* Phipps, 1774, Voy. North Pole: 190. Gender: feminine.

Pontophilus Leach, 1817 (fig. 100)

Mesapus Rafinesque, 1814, Préc. Découv. somiol.: 22. Type species, by monotypy: *Mesapus fasciatus* Rafinesque, 1814, Préc. Découv. somiol.: 23 (= *Crangon Fasciatus* Risso, 1816, Hist. nat. Crust. Nice: 82). Gender: masculine.

Pontophilus Leach, 1817, Malac. podophthal. Brit. (15): pl. 37A. Type species, by monotypy: *Crangon spinosus* Leach, 1815, Trans. Linn. Soc. Lond. 11: 346. Gender: masculine.

Pontophilus H. Milne Edwards, 1837, Cuvier's Règne anim. (ed. 4, Discip. ed.) 18: expl. pl. 54. Erroneous spelling of *Pontophilus* Leach, 1817.

Cheraphilus Kinahan, 1862 (sep. 1861), Trans. Roy. Irish Acad. 24(1): 54, 55, 57, 59, 60, 66-75. Substitute name for *Pontophilus* Leach, 1817. Gender: masculine.

Cheiraphilus Meinert, 1877, Naturhist. Tidsskr. (3) 11: 199. Erroneous spelling of *Cheraphilus* Kinahan, 1862.

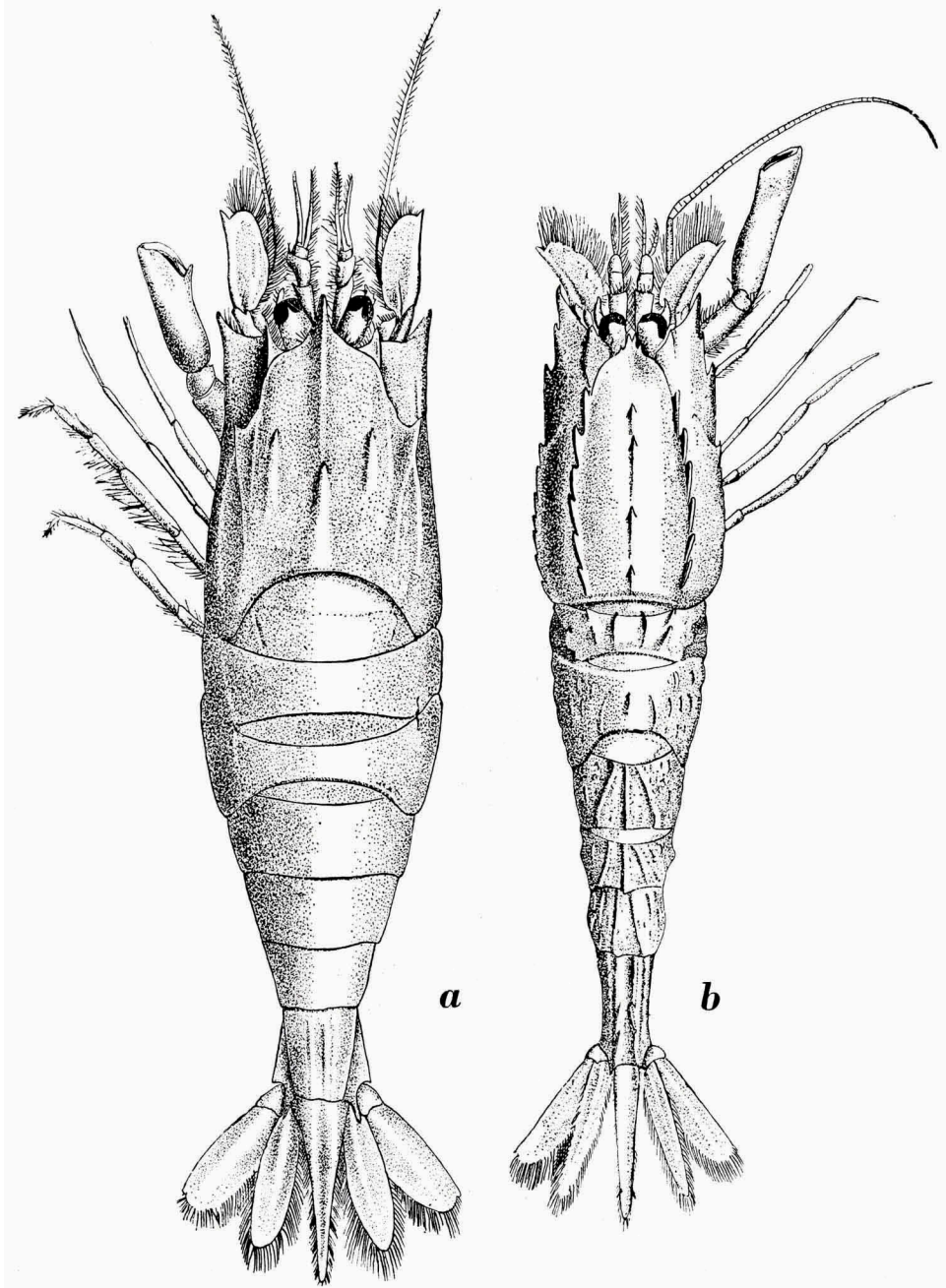


Fig. 99a. *Sclerocrangon jacqueti* (A. Milne Edwards). After Kemp, 1910.

Fig. 99b. *Pontocaris lacazei* (Gourret). After Kemp, 1910.

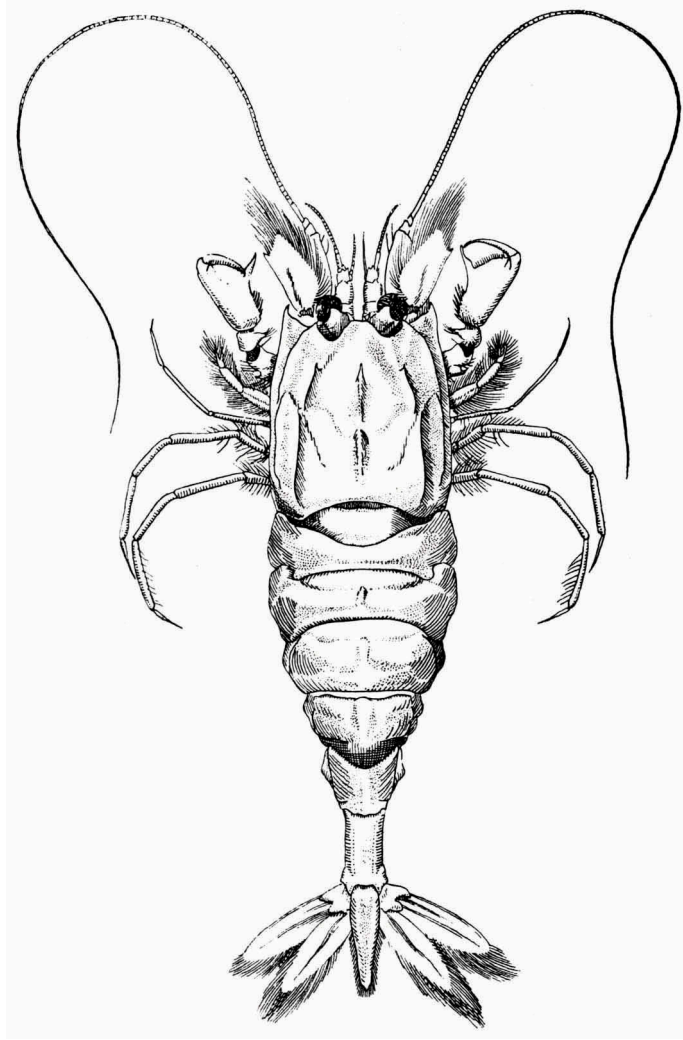


Fig. 100. *Pontophilus bidentatus* (De Haan). After Balss, 1914.

Ceraphilus Smith, 1882, Bull. Mus. comp. Zoöl. Harvard 10: 32. Erroneous spelling of *Cheraphilus* Kinahan, 1862.

Cherophilus Meinert, 1893, Vidensk. Udb. "Hauchs" Togter: 223. Erroneous spelling of *Cheraphilus* Kinahan, 1862.

Philocheras Stebbing, 1900, Mar. Invest. S. Afr. 1: 48. Type species, by present selection: *Crangon nanus* Krøyer, 1842, Naturhist. Tidsskr. 4: 231 (= *Pontophilus bispinosus* Hailstone, 1835, Mag. nat. Hist. 8: 271). Gender: masculine.

- Pantophilus* Dons, 1915, Tromsø Mus. Aarsh. 37: 55. Erroneous spelling of *Pontophilus* Leach, 1817.
- Pontophyllus* (Risso MSS) Monod, 1931, Arch. Mus. Hist. nat. Paris (6)7: 123. Erroneous spelling of *Pontophilus* Leach, 1817.
- Pomtophilus* Collings, 1934, Trans. Suffolk Nat. Soc. 2: 270. Erroneous spelling of *Pontophilus* Leach, 1817.
- Pnotophilus* Zariquiey Alvarez, 1952, Crust. Decap. Rutlant Mellila: 17. Erroneous spelling of *Pontophilus* Leach, 1817.

Pontocaris Bate, 1888 (fig. 99b)

- Egeon* Bosc, 1813, Nouv. Bull. Sci. Soc. philom. Paris 3(66): 233. Type species, by monotypy: *Cancer cataphractus* Olivi, 1792, Zool. Adriat.: 50. Gender: masculine. Invalid junior homonym of *Egeon* Montfort, 1808, Conch. Syst. 1: 166 (Protozoa).
- Aegaeon* Agassiz, 1846, Nomencl. Zool. Index Univ.: 8, 134. Invalid emendation of *Egeon* Risso, 1813.
- Aegeon* Kinahan, 1862 (sep. 1861), Trans. Roy. Irish Acad. 24: 53, 54, 55, 57, 58, 60, 73, 74, 76, 78, 79, 80. Erroneous spelling of *Egeon* Risso, 1813.
- Pontocaris* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 495. Type species, selected by Holthuis, 1947, Zool. Meded. Leiden 27: 320, : *Pontocaris propensalata* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 496. Gender: feminine.
- Parapontocaris* Alcock, 1901, Descr. Catal. Indian Deep Sea Crust. Macr. Anom.: 114, 120. Type species, by present selection: *Crangon bengalensis* Wood Mason & Alcock, 1891, Ann. Mag. nat. Hist. (6)8: 360. Gender: feminine.

GENERA DUBIA CARIDEORUM

- Amphion* H. Milne Edwards, 1833, Ann. Soc. entom. France 1: 336. Type species, by monotypy: *Amphion Reynaudii* H. Milne Edwards, 1833, Ann. Soc. entom. France 1: 336. Gender: masculine. Invalid junior homonym of *Amphion* Huebner, 1819, Verz. bekannt. Schmett. (9): 135 (Lepidoptera), and of *Amphion* Pander, 1830, Beitr. Geogn. Russ.: 139 (Trilobita). (Family Amphionididae; see under *Amphionides* Zimmer).
- Amphionides* Zimmer, 1904, Zool. Anz. 28: 225. Type species, by monotypy: *Amphionides valdiviae* Zimmer, 1904, Zool. Anz. 28: 225. Gender: masculine. (Family Amphionididae (often spelled: Amphionidae); Gurney, 1942, Ray Soc. 129: 223-225, points out that *Amphion* H. Milne Edwards

- is the larva of *Amphionides* Zimmer; the status of the Amphionididae is uncertain, Gurney, 1942, considers it to belong to the Caridea).
- Amphiplectes* Carus, 1888, Zool. Anz. 11: 461. Erroneous spelling of *Amphiplectus* Bate, 1888.
- Amphiplectus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 578, 622. Type species, by monotypy: *Amphiplectus depressus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 623. Gender: masculine. (Assigned by Bate, 1888, to the Hippolytidae, but Calman, 1906, Ann. Mag. nat. Hist. (7)17: 34, doubts this and is inclined to consider the genus more closely related to *Nematocarcinus*).
- Anebocaris* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 722. Type species, by monotypy: *Anebocaris quadroculus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 722. Gender: feminine. (Family Alpheidae; based on a larval stage).
- Camptocaris* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 73, 81. Type species, by monotypy: *Camptocaris maxima* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 87. Gender: feminine. (Based on a larval stage).
- Caricyphus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 712. Type species, by present selection: *Caricyphus gibberosus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 716. Gender: masculine. (Family Ophrophoridae; based on a larval stage).
- Chiereghina* Nardo, 1869. See *Processa* (p. 116).
- Copiocaris* Thiele, 1905, Zool. Jb. Suppl. 8: 454. Type species, by monotypy: *Copiocaris messinensis* Thiele, 1905, Zool. Jb. Suppl. 8: 454. Gender: feminine. (Pandalidae; based on a larval stage).
- Coronocaris* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 73, 81. Type species, by present selection: *Coronocaris gracilis* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 81. Gender: feminine. (Palaemonidae, based on a larval stage).
- Cryptoleander* Gurney, 1938, Sci. Rep. Great Barrier Reef Exped. 6(1): 35. Type species, being first nominate species to be placed in this genus, which was described without any included nominate species: *Palaemon tenuicornis* Say, 1818, Journ. Acad. nat. Sci. Phila. 1: 249; first assigned to *Cryptoleander* by Gurney & Lebour, 1941, Journ. Linn. Soc. Lond. Zool. 41: 145, 159. Gender: masculine. (It is doubtful whether *Cryptoleander* actually can be considered to be a true generic name, since Gurney, 1938, when proposing this name stated: "I have coined a name [*Cryptoleander*] which is not intended as a generic designation but simply as a convenient term for reference".)
- Diaphoropus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 686. Type species,

- by present selection: *Diaphoropus versipellis* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 687. Gender: masculine. (Alpheidae; based on a larval stage).
- Falcicaris* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 72, 74. Type species, by monotypy: *Falcicaris tenuis* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 74. Gender: feminine. (?Pasiphaeidae; based on a larval stage).
- Hippocaricyphus* Coutière, 1907, Bull. Inst. océanogr. Monaco 104: 14. Type species, by present selection: *Hippocaricyphus acutus* Coutière, 1907, Bull. Inst. océanogr. Monaco 104: 14. Gender: masculine. (Hippolytidae; based on a larval stage).
- Icotopus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 886. Type species, by monotypy: *Icotopus arcurostris* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 886. Gender: masculine. (Pandalidae; based on a larval stage).
- Kyptocaris* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 689. Type species, by monotypy: *Kyptocaris stylofrontalis* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 690. Gender: feminine. (Pandalidae; based on a larval stage).
- Mesocaris* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 73, 82. Type species, by monotypy: *Mesocaris recurva* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 82. Gender: feminine. (Palaemonidae; based on a larval stage).
- Odontolophus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 665. Type species, by monotypy: *Odontolophus serratus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 665. Gender: masculine. (Palaemonidae; based on a larval stage).
- Oligocaris* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 73, 85. Type species, by monotypy: *Oligocaris bispinosa* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 85. Gender: feminine. (Pandalidae; based on a larval stage).
- Pandacaricyphus* Coutière, 1907, Bull. Inst. océanogr. Monaco 104: 21. Type species, by monotypy: *Pandacaricyphus pandaliformis* Coutière, 1907, Bull. Inst. océanogr. Monaco 104: 21. Gender: masculine. (Pandalidae; based on a larval stage).
- Parathanas* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 530. Type species, by present selection: *Parathanas decorticus* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 530. Gender: masculine. (Alpheidae; based on a larval stage).
- Rhomaleocaris* Bate, 1888, Rep. Voy. Challenger, Zool. 24: 720. Type species, by monotypy: *Rhomaleocaris hamulus* Bate, 1888, Rep. Voy. Challenger,

Zool. 24: 720. Gender: feminine. (? Palaemonidae: based on a larval stage).

Stylorostris Gurney, 1939, Ray Soc. 125: 76. Typographical error: In Gurney's paper, under *Eretmocarid*, is printed "*E. remipes, longicaulis, Stylorostris corniger*" instead of "*E. remipes, longicaulis, stylorostris, corniger*".
Vianellia Nardo, 1847. See *Thorulus* (p. 109).

Section STENOPODIDEA

Stenopidea Bate, 1888, Rep. Voy. Challenger, Zool. 24: 206.
Stenopides Borradaile, 1907, Ann. Mag. nat. Hist. (7) 19: 469.
Stenopodea Sclater, 1936, Zool. Rec. 73: 39.
Stenopodidea Holthuis, 1946, Temminckia 7: 2.

Until 1878 the Stenopodidea were placed in the family Penaeidae. Huxley (1878) raised the group to the rank of a separate family, and Bate (1888) made them a separate tribe in his Trichobranchiata. Though the various authors differed about the place of the Stenopodidea in the classification of the Decapoda (see introduction Natantia), there was no difference of opinion about the systematics within the section itself. All authors are unanimous in assigning only one family to the Stenopodidea.

Family STENOPODIDAE

Stenopidae Huxley, 1878, Proc. zool. Soc. Lond. 1878: 785.
Stenopodidae Smith & Weldon, 1909, in Harmer & Shipley, Cambridge nat. Hist. 4: 162.

The genera of this family may be distinguished as follows:

1. Body compressed. Telson elongate lance-shaped, ending in two strong spines, sometimes with a minute median spinule in between. Endopod of uropod with two dorsal ridges, a strong median and a weaker inner one, the inner ridge with some dorsal hairs. Third maxilliped with a distinct exopod 2
- Body depressed. Telson broadly lance-shaped or quadrangular, ending in three or five spines of equal size (sometimes without terminal spines). Endopod of uropod with one median dorsal ridge. Third maxilliped without or with a rudimentary exopod (exopod sometimes well developed). 5
2. Dactylus of fourth and fifth pereopod biunguiculate, short. 3
- Dactylus of fourth and fifth pereopod simple, relatively long and slender. 4
3. Carapace and abdomen densely covered with uniformly distributed strong spines, which sometimes are arranged in longitudinal rows. Spines erect, curved forward. Ischium of third maxilliped with external spinules *Stenopus*
- Abdomen without spines dorsally, sometimes with some spinules near the lateral margins of the pleurae. Carapace with a cincture of spines along the posterior margin of the cervical groove; often more parallel cinctures present. These spines are straight, directed forwards and are pressed against the surface of the carapace. Ischium of third maxilliped without external spinules. *Odontozona*

4. Carapace with a distinct dorsal cincture of spines along the posterior margin of the cervical groove. Propodus of third pereiopod not more than twice as broad as the carpus. Fingers of third pereiopod without teeth. *Richardina*
 — Carapace glabrous or with evenly placed spines, no distinct cincture of spines along posterior margin of cervical groove. Propodus of third pereiopod more than twice as broad as the carpus. Fingers of third pereiopod with distinct teeth on the cutting edges *Engystenopus*
5. Third maxilliped with the exopod long and slender. Carapace covered with many spines. First pereiopod with setiferous organ at ventral side of anterior part of carpus and posterior part of propodus. *Microprosthemis*
 — Third maxilliped with the exopod rudimentary or absent. Carapace glabrous or with some spines near the anterior margin. First pereiopods without setiferous organs. 6
6. Chela of third pereiopod with upper and lower margin serrate. Exopod of second maxilliped present, that of third maxilliped rudimentary. *Spongicola*
 — Chela of third pereiopod with upper and lower margin entire. Exopod of second and third maxillipeds absent *Spongicoloides*

Stenopus Latreille, 1819 (fig. 101a)

- Byzenus* Rafinesque, 1814, Préc. Découv. somiol.: 23. Type species, by monotypy: *Byzenus scaber* Rafinesque, 1814, Préc. Découv. somiol.: 23 (= *Stenopus spinosus* Risso, 1826, Hist. nat. Europ. mérid. 5:66). Gender: masculine.
- Stenopus* Latreille, 1819, Nouv. Dict. Hist. Nat. (ed. 2) 30:71. Type species, by monotypy: *Palaemon hispidus* Olivier, 1811, Encycl. méthod. Hist. nat. 8:666. Gender: masculine.
- Bizenus* Desmarest, 1823, Dict. Sci. nat. 28:312. Erroneous spelling of *Byzenus* Rafinesque, 1814.
- Stenops* Desmarest, 1823, Dict. Sci. nat. 28: tab. 5, footnote 1. Erroneous spelling of *Stenopus* Latreille, 1819.
- Stenope* H. Milne Edwards, 1838, Ann. Sci. nat. Zool. (2)10:164. Erroneous spelling of *Stenopus* Latreille, 1819.
- Embryocaris* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 73, 85. Type species, by monotypy: *Embryocaris stylicauda* Ortmann, 1893, Ergebn. Plankton-Exped. 2 (Gb): 85 (= *Palaemon hispidus* Olivier, 1811, Encycl. méthod. Hist. nat. 8:666). Gender: feminine.
- Stenopsus* Maluquer, 1917, Junta Ci. nat. Barcelona 2:225. Erroneous spelling of *Stenopus* Latreille, 1819.

Odontozona Holthuis, 1946 (fig. 101b)

- Odontozona* Holthuis, 1946, Temminckia 7:5, 31. Type species, by original designation: *Stenopus ensiferus* Dana, 1852, Proc. Acad. nat. Sci. Phila. 6:27. Gender: feminine.

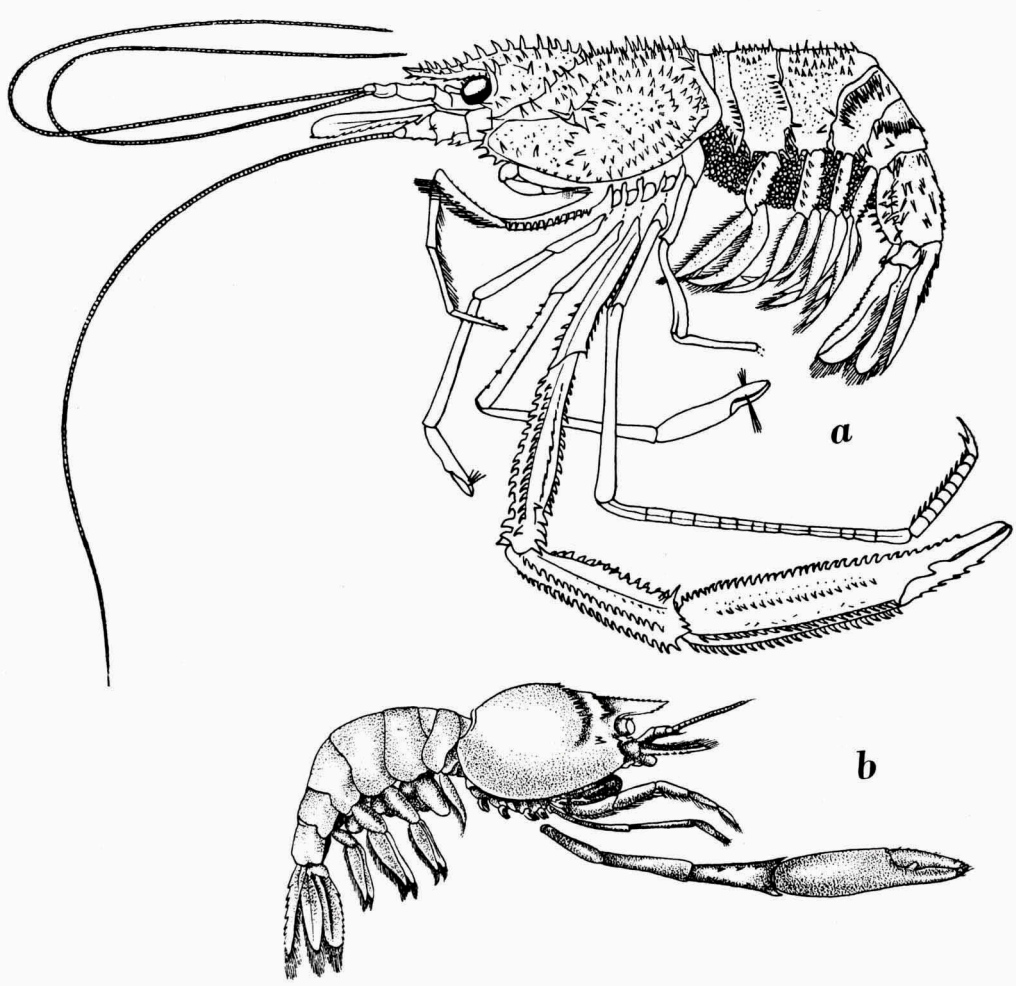


Fig. 101a. *Stenopus hispidus* (Olivier). After Bate, 1888.

Fig. 101b. *Odontozona spongicola* (Alcock & Anderson). After Alcock, 1899.

Richardina A. Milne Edwards, 1881 (fig. 102)

Richardina A. Milne Edwards, 1881, C. R. Acad. Sci. Paris 93: 933. Type species, by monotypy: *Richardina spinicincta* A. Milne Edwards, 1881, C. R. Acad. Sci. Paris 93: 933. Gender: feminine.

Engystenopus Alcock & Anderson, 1894 (fig. 103)

Engystenopus Alcock & Anderson, 1894, Journ. Asiat. Soc. Bengal 63(2): 149. Type species, by monotypy: *Engystenopus palmipes* Alcock & Anderson, 1894, Journ. Asiat. Soc. Bengal 63(2): 149. Gender: masculine.

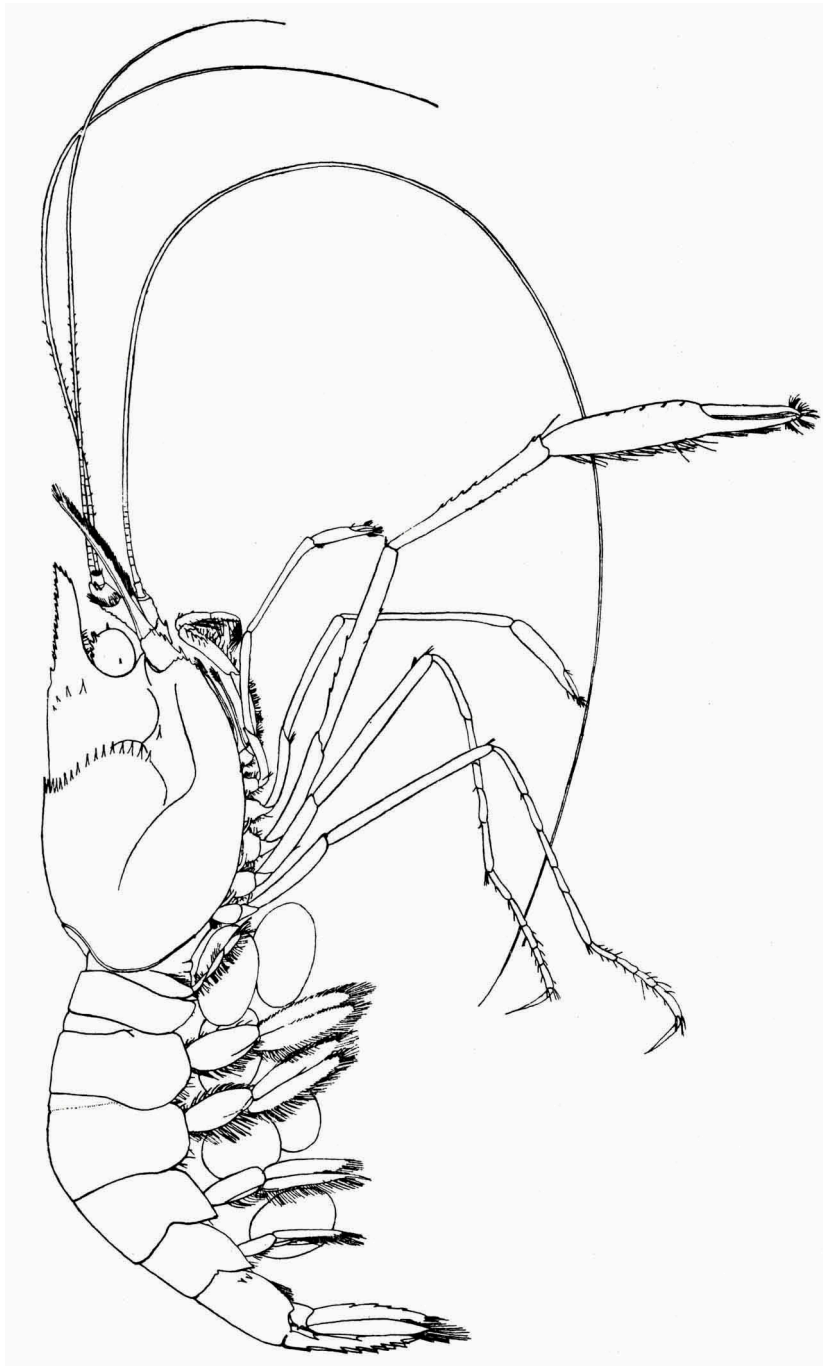


Fig. 102. *Richardina spicincta* A. Milne Edwards. After Kemp, 1910.

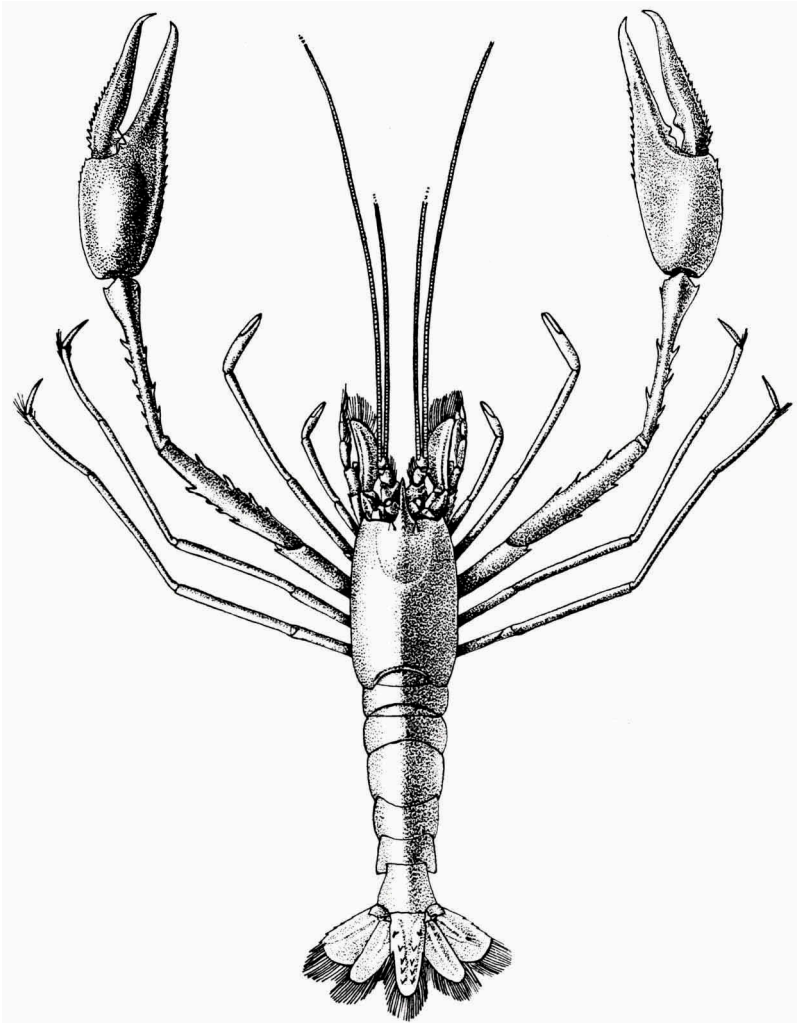


Fig. 103. *Engystenopus palmipes* Alcock & Anderson. After Alcock & McArdle, 1901.

Microprosthema Stimpson, 1860 (fig. 104)

Microprosthema Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 44. Type species, by monotypy: *Microprosthema valida* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 45. Gender: neuter.

Stenopusculus Richters, 1880, Möbius's Beitr. Kenntn. Meeresf. Mauritius: 167. Type species, by present selection: *Stenopusculus crassimanus* Richters, 1880, Möbius's Beitr. Kenntn. Meeresf. Mauritius: 168 (= *Microprosthema valida* Stimpson, 1860, Proc. Acad. nat. Sci. Phila. 1860: 45). Gender: masculine.

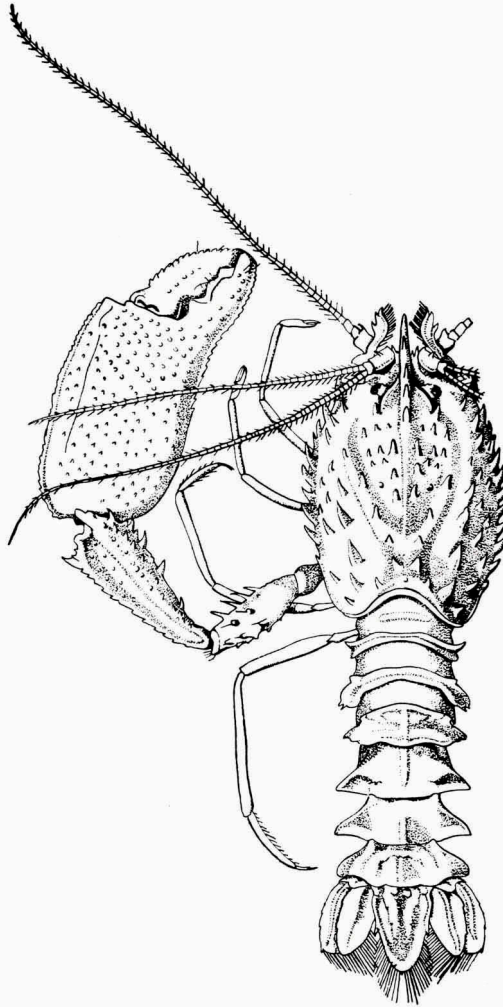


Fig. 104. *Microprosthema validum* Stimpson. After Borradaile, 1910.

Stenopunculus Lebour, 1941, in Gurney & Lebour, Journ. Linn. Soc. Lond. Zool. 41: 181. Erroneous spelling of *Stenopusculus* Richters, 1880.

Spongicola De Haan, 1844 (fig. 105a)

Spongicola De Haan, 1844, Fauna Japon., Crust. (6/7 p.p.): pl. 46 fig. 9.

Type species, by monotypy: *Spongicola venusta* De Haan, 1844, Fauna Japon., Crust. (6/7 p.p.): pl. 46 fig. 9. Gender: masculine.

Spongicolas A. Milne Edwards & Bouvier, 1909. Mem. Mus. comp. Zoöl. Harvard 27 (3): expl. pl. 9. Erroneous spelling of *Spongicola* De Haan, 1844.

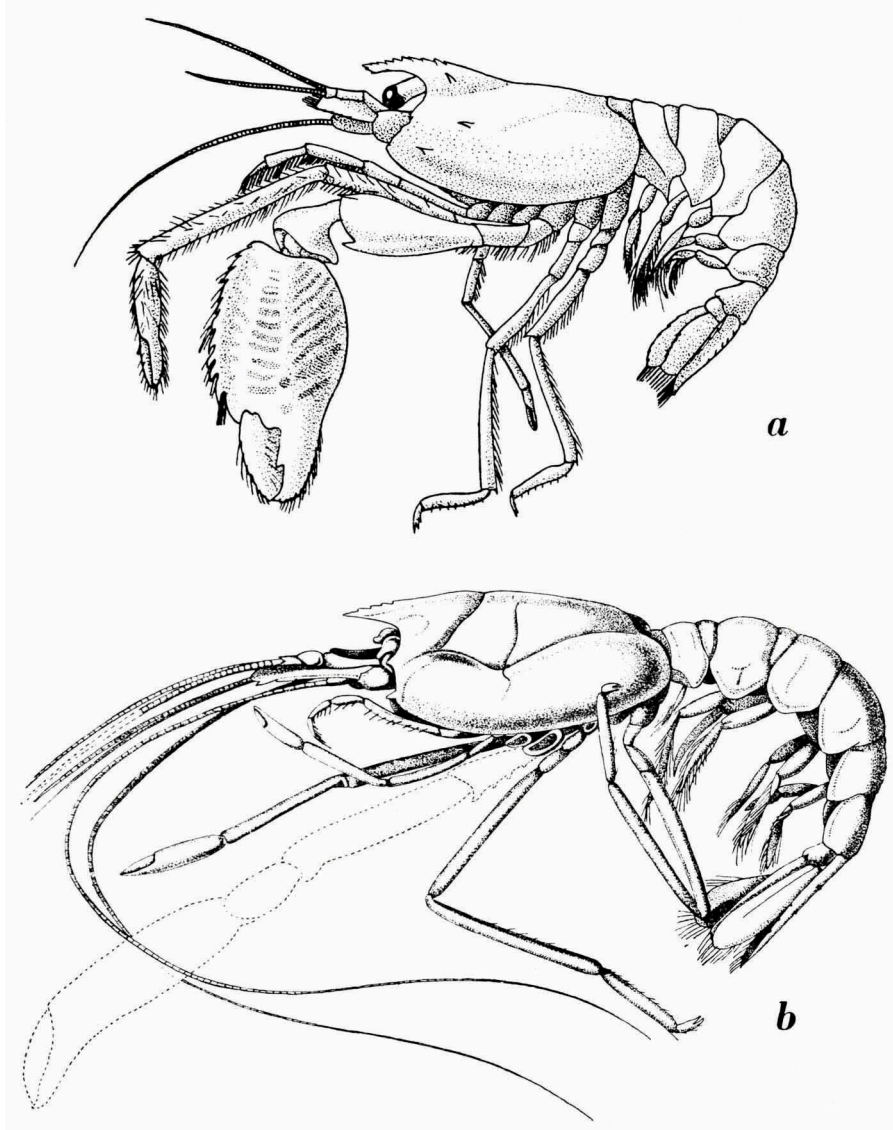


Fig. 105a. *Spongicola venusta* De Haan. After Bate, 1888.

Fig. 105b. *Spongicoloides inermis* (Bouvier). After A. Milne Edwards & Bouvier, 1909.

Spongicoloides Hansen, 1908 (fig. 105b)

Spongicoloides Hansen, 1908, Danish Ingolf Exped. 3(2): 44. Type species, by monotypy: *Spongicoloides profundus* Hansen, 1908, Danish Ingolf Exped. 3(2): 45. Gender: masculine.

LIST OF PUBLICATIONS FROM WHICH ILLUSTRATIONS ARE
REPRODUCED HERE

- ALCOCK, A., 1899. Illustrations of the Zoology of the Royal Indian Marine Survey Ship Investigator, under the Command of Commander T. H. Heming, R. N. Crustacea. Pt. 7, pls. 36-45.
- ALCOCK, A. & McARDLE, A. F., 1901. Illustrations of the Zoology of the Royal Indian Marine Survey Ship Investigator, under the Command of Commander T. H. Heming, R. N. Crustacea. Pt. 9, pls. 49-55.
- ARMSTRONG, J. C., 1949. New Caridea from the Dominican Republic. Amer. Mus. Novit., n. 1410, pp. 1-27, figs. 1-9.
- AURIVILLIUS, C. W. S., 1898. Krustaceen aus dem Kamerun-Gebiete. Bih. Svenska Vetensk. Akad. Handl., vol. 24 pt. 4 n. 1, pp. 1-31, pls. 1-4.
- BAKER, W. H., 1904. Notes on South Australian Decapod Crustacea. Part. 1. Trans. Roy. Soc. S. Aust., vol. 28, pp. 146-161, pls. 27-31.
- BALSS, H., 1914. Ostasiatische Decapoden II. Die Natantia und Reptantia. In: Doflein, F., Beiträge zur Naturgeschichte Ostasiens. Abh. Bayer. Akad. Wiss., suppl. vol. 2 pt. 10, pp. 1-101, textfigs. 1-50, pl. 1.
- , 1915. Die Decapoden des Roten Meeres. I. Die Macruren. Expeditionen S. M. Schiff „Pola“ in das Rote Meer. Nördliche und südliche Hälfte 1895/96-1897/98. Zoologische Ergebnisse XXX. Berichte der Kommission für ozeanographische Forschungen. Denkschr. Akad. Wiss. Wien, vol. 91 suppl., pp. 1-38, textfigs. 1-30.
- , 1921. Stomatopoda, Macrura, Paguridea und Galatheidea. In: Results of Dr. E. Mjöberg's Swedish Scientific Expeditions to Australia 1910-13. XXIX. K. Svenska Vetensk. Akad. Handl., vol. 61 pt. 10, pp. 1-24, textfigs. 1-12.
- , 1925. Macrura der Deutschen Tiefsee-Expedition. 2. Natantia, Teil A. Wiss. Ergebn. Valdivia Exped., vol. 20, pp. 217-315, textfigs. 1-75, pls. 20-28.
- BANNER, A. H., 1953. The Crangonidae, or Snapping Shrimp, of Hawaii. Pacific Science, vol. 7, pp. 2-144, 147, frontisp., figs. 1-50.
- BARNARD, K. H., 1950. Descriptive Catalogue of South African Decapod Crustacea. Ann. S. Afr. Mus., vol. 38, pp. 1-837, figs. 1-154.
- BATE, C. S., 1888. Report on the Crustacea Macrura collected by H. M. S. Challenger during the years 1873-76. Rep. Voy. Challenger, Zool., vol. 24, pp. i-xc, 1-942, textfigs. 1-76, pls. 1-150.
- BOONE, L., 1927. Crustacea from tropical east American Seas. Scientific Results of the First Oceanographic Expedition of the "Pawnee". Bull. Bingham oceanogr. Coll., vol. 1 pt. 2, pp. 1-147, figs. 1-33.
- BORRADAILE, L. A., 1910. Penaeidea, Stenopidea, and Reptantia from the Western Indian Ocean. The Percy Sladen Trust Expedition to the Indian Ocean in 1905, under the leadership of Mr. J. Stanley Gardiner. Trans. Linn. Soc. Lond. Zool., ser. 2 vol. 13, pp. 257-264, pl. 16.
- , 1916. Crustacea, Part I. — Decapoda. Nat. Hist. Rep. Brit. Antarct. Exped., vol. 3 pt. 2, pp. 75-110, figs. 1-16.
- , 1917a. On Carides from the Western Indian Ocean. The Percy Sladen Trust Expedition to the Indian Ocean in 1905, under the leadership of Mr. J. Stanley Gardiner. Trans. Linn. Soc. Lond. Zool., ser. 2 vol. 17, pp. 397-412, pls. 58, 59.
- , 1917b. On the Pontoniinae. The Percy Sladen Trust Expedition to the Indian Ocean in 1905, under the leadership of Mr. J. Stanley Gardiner. Trans. Linn. Soc. Lond. Zool., ser. 2 vol. 17, pp. 323-396, pls. 52-57.
- BOUVIER, E. L., 1925. Recherches sur la morphologie, les variations, la distribution géographique des Crevettes de la famille des Atyidés. Encycl. ent., ser. A vol. 4, pp. 1-370, figs. 1-716.
- BROOKS, W. K. & HERRICK, F. H., 1893. The Embryology and Metamorphosis of the Macroura. Mem. Nat. Acad. Sci., vol. 5, pp. 321-576, textfigs. 1-13, pls. 1-57.

- CALMAN, W. T., 1896. On Deep-Sea Crustacea from the South West of Ireland. *Trans. Roy. Irish Acad.*, vol. 31, pp. 1-20, pls. 1, 2.
- , 1899. On two Species of Macrurous Crustaceans from Lake Tanganyika. *Proc. zool. Soc. Lond.*, 1899, pp. 704-712, pls. 39, 40.
- , 1906. Report on the Macrurous Crustacea. Zoological Results of the Third Tanganyika Expedition, conducted by Dr. W. A. Cunnington, 1904-1905. *Proc. zool. Soc. Lond.*, 1906, pp. 187-206, pls. 11-14.
- , 1909. On a Blind Prawn from the Sea of Galilee (*Typhlocaris galilea* g. et sp. n.). *Trans. Linn. Soc. Lond. Zool.*, ser. 2 vol. 11, pp. 93-97, pl. 19.
- , 1926. On Freshwater Prawns of the Family Atyidae from Queensland. *Ann. Mag. nat. Hist.*, ser. 9 vol. 17, pp. 241-246, figs. 1-3.
- , 1939. Crustacea: Caridea. *Sci. Rep. John Murray Exped.*, vol. 6, pp. 183-224, figs. 1-8.
- CAULLERY, M., 1896. Crustacés Schizopodes et Décapodes. In: Koehler, R., *Résultats scientifiques de la Campagne du „Caudan” dans le Golfe de Gascogne — Août-Septembre 1895* —. *Ann. Univ. Lyon*, vol. 26, pp. 365-419, pls. 13-17.
- CHACE, F. A., 1937. Caridean Decapod Crustacea from the Gulf of California and the West Coast of Lower California. The Templeton Crocker Expedition. VII. *Zoologica New York*, vol. 22, pp. 109-138, figs. 1-9.
- , 1940. The Bathypelagic Caridean Crustacea. Plankton of the Bermuda Oceanographic Expeditions. IX. *Zoologica New York*, vol. 25, pp. 117-209, figs. 1-64.
- , 1942a. A new Cave Shrimp from Cuba. *Proc. New Engl. zool. Cl.*, vol. 19, pp. 99-102, pl. 29.
- , 1942b. Six new Species of Decapod and Stomatopod Crustacea from the Gulf of Mexico. *Proc. New Engl. zool. Cl.*, vol. 19, pp. 79-92, pls. 23-28.
- , 1943. Two new blind Prawns from Cuba with a Synopsis of the subterranean Caridea of America. *Proc. New Engl. zool. Cl.*, vol. 22, pp. 25-40, pls. 5-7.
- COUTIÈRE, H., 1899. Les "Alpheidae", morphologie externe et interne, formes larvaires, bionomie. *Ann. Sci. nat. Zool.*, ser. 8 vol. 9, pp. 1-559, textfigs. 1-409, pls. 1-6.
- , 1901. Note sur *Coralliocaris Agassizi* n. sp. provenant des dragages du Blake (1878-1879). *Bull. Mus. Hist. nat. Paris*, vol. 7, pp. 115-117, 1 fig.
- , 1905. Les Alpheidae. In: Gardiner, J. S., *The Fauna and Geography of the Maldive and Laccadive Archipelagoes. Being the Account of the Work carried on and of the Collections made by an Expedition during the years 1899 and 1900*, vol. 2 pt. 4, pp. 852-918, pls. 70-79.
- CREASER, E. P., 1936. Crustaceans from Yucatan. In: Pearse, A. S., Creaser, E. P. & Hall, F. G., *The Cenotes of Yucatan. A zoological and hydrographic Survey*. *Publ. Carnegie Inst.*, n. 457, pp. 117-132, figs. 1-43, tabs. 1-3.
- DANA, J. D., 1855. Crustacea. United States Exploring Expedition during the years 1838, 1839, 1840, 1842 under the command of Charles Wilkes, U.S.N., vol. 13 atlas, pp. 1-27, pls. 1-96.
- EDMONDSON, C. H., 1935. New and rare Polynesian Crustacea. *Occ. Pap. Bishop Mus. Honolulu*, vol. 10 pt. 24, pp. 1-38, textfigs. 1-11, pls. 1, 2.
- FAGE, L., 1931. Crustacés Amphipodes et Décapodes. Campagne spéologique de C. Bolivar et R. Jeannel dans l'Amérique du Nord (1928). *Biospeologica*. LVI. *Arch. Zool. exp. gén.*, vol. 71, pp. 361-374, figs. 1-21.
- FAXON, W., 1895. The Stalk-eyed Crustacea. Reports on an Exploration off the west Coasts of Mexico, Central and South America, and off the Galapagos Islands, in charge of Alexander Agassiz, by the U. S. Fish Commission Steamer "Albatross", during 1891, Lieut. Commander Z. L. Tanner, U.S.N., commanding. *Mem. Mus. comp. Zool. Harvard*, vol. 18, pp. 1-292, textfigs. 1-6, pls. A-K, 1-57, 1 map.
- GORDON, I., 1935. On new or imperfectly known species of Crustacea Macrura. *Journ. Linn. Soc. Lond. Zool.*, vol. 39, pp. 307-351, figs. 1-27.

- HELLER, C., 1862. Beiträge zur näheren Kenntniss der Macrouren. S. B. Akad. Wiss. Wien, vol. 45 pt. 1, pp. 389-426, pls. 1, 2.
- HOLTHUIS, L. B., 1949. The Caridean Crustacea of the Canary Islands. Zool. Meded., vol. 30, pp. 227-255, figs. 1-8.
- , 1950. Decapoda (K IX) A. Natantia, Macrura Reptantia, Anomura en Stomatopoda (K X). In: Boschma, H., Fauna van Nederland, vol. 15, pp. 1-166, figs. 1-54, 1 map.
- , 1951a. The Caridean Crustacea of Tropical West Africa. Atlantide Rep., vol. 2, pp. 7-187, figs. 1-34.
- , 1951b. The Subfamilies Euryrhynchinae and Pontoniinae. A general Revision of the Palaemonidae (Crustacea Decapoda Natantia) of the Americas. I. Occ. Pap. Allan Hancock Found. Publ., vol. 11, pp. 1-332, pls. 1-63.
- , 1952a. The Subfamily Palaemoninae. A general Revision of the Palaemonidae (Crustacea Decapoda Natantia) of the Americas. II. Occ. Pap. Allan Hancock Found. Publ., vol. 12, pp. 1-396, textfig. 1, pls. 1-55.
- , 1952b. Subfamily Pontoniinae. The Palaemonidae collected by the Siboga and Snellius Expeditions with Remarks on other Species. II. The Decapoda of the Siboga Expedition. Part XI. Siboga Exped., mon. 39a10, pp. 1-253, figs. 1-110, 1 tab.
- , 1952c. The Crustacea Decapoda Macrura of Chile. Reports of the Lund University Chile Expedition 1948-49. 5. Con resumen en Español. Lund Univers. Årsskr., n. ser. sect. 2 vol. 47 pt. 10, pp. 1-110, figs. 1-19.
- KEMP, S., 1910. The Decapoda Natantia of the Coasts of Ireland. Sci. Invest. Fish. Br. Ire., 1908, pt. 1, pp. 3-190, pls. 1-23.
- , 1914. Hippolytidae. Notes on Crustacea Decapoda in the Indian Museum. V. Rec. Indian Mus., vol. 10, pp. 81-129, pls. 1-7.
- , 1916. Further Notes on Hippolytidae. Notes on Crustacea Decapoda in the Indian Museum. VII. Rec. Indian Mus., vol. 12, pp. 385-405, textfigs. 1-5, pl. 36.
- , 1917. Leander styliferus, Milne-Edwards, and related forms. Notes on Crustacea Decapoda in the Indian Museum. IX. Rec. Indian Mus., vol. 13, pp. 203-231, textfigs. 1-7, pls. 8-10.
- , 1920. On the occurrence of the Caridean genus Discias in Indian waters. Notes on Crustacea Decapoda in the Indian Museum. XIV. Rec. Indian Mus., vol. 19, pp. 137-143, textfigs. 1-3, pl. 8.
- , 1922. Pontoniinae. Notes on Crustacea Decapoda in the Indian Museum. XV. Rec. Indian Mus., vol. 24, pp. 113-288, textfigs. 1-105, pls. 3-9.
- , 1925. On various Caridea. Notes on Crustacea Decapoda in the Indian Museum. XVII. Rec. Indian Mus., vol. 27, pp. 249-343, figs. 1-24.
- KEMP, S. & SEWELL, R. B. S., 1912. The Species obtained by R.I.M.S.S. "Investigator" during the Survey Season 1910-11. Notes on Decapoda in the Indian Museum. III. Rec. Indian Mus., vol. 7, pp. 15-32, pl. 1.
- KUBO, I., 1938. On the Japanese Atyid Shrimps. Journ. Imp. Fish. Inst. Tokyo, vol. 33, pp. 67-100, figs. 1-24.
- , 1940a. Pontoniinae. Studies on Japanese Palaemonoid Shrimps. II. Journ. Imp. Fish. Inst. Tokyo, vol. 34, pp. 31-75, figs. 1-36.
- , 1940b. A New Shrimp, Harpilius imperialis. Journ. Imp. Fish. Inst. Tokyo, vol. 34, pp. 1-4, figs. 1-3.
- , 1940c. On Some Littoral Shrimps Collected from Micronesia. Journ. Imp. Fish. Inst. Tokyo, vol. 34, pp. 77-99, figs. 1-15.
- , 1951. Some macrurous Decapod Crustacea found in Japanese Waters, with Descriptions of four new Species. Journ. Tokyo Univ. Fish., vol. 38, pp. 259-289, figs. 1-16.
- LEBOUR, M. V., 1939. Decapod Crustacea associated with the Ascidian Herdmania. Proc. zool. Soc. Lond., vol. 108 B, pp. 649-653, pls. 1, 2.

- LENZ, H., 1910. Dekapode Crustaceen Aequatorialafrikas. *Wiss. Ergebn. Deutsch. Zentral-Afr. Exped.*, vol. 3, pp. 121-134, pl. 3.
- MCCLENDON, J. F., 1911. On Adaptations in Structure and Habits of some marine Animals of Tortugas, Florida. *Pap. Tortugas Lab. Carnegie Inst.*, vol. 3, pp. 55-62, pls. 1, 2.
- MAN, J. G. DE, 1888. Report on the Podophthalmous Crustacea of the Mergui Archipelago, collected for the Trustees of the Indian Museum, Calcutta, by Dr. John Anderson, F.R.S., Superintendent of the Museum. *Journ. Linn. Soc. Lond. Zool.*, vol. 22, pp. 1-312, pls. 1-19.
- , 1890. Carcinological Studies in the Leyden Museum. No. 4. *Notes Leyden Mus.*, vol. 12, pp. 49-126, pls. 3-6.
- , 1915. The Decapoda of the Siboga Expedition. Plates of Part II Family Alpheidae. *Siboga Exped.*, mon. 39a1 suppl., pls. 1-23.
- , 1920. The Decapoda of the Siboga Expedition. Part IV. Families Pasiphaeidae, Styliodactylidae, Hoplophoridae, Nematocarcinidae, Thalassocaridae, Pandalidae, Psalidopodidae, Gnathophyllidae, Processidae, Glyphocrangonidae and Crangonidae. *Siboga Exped.*, mon. 39a3, pp. 1-318, pls. 1-25.
- MILNE EDWARDS, A., 1883. *Recueil de Figures de Crustacés nouveaux ou peu connus*, pp. 1-3, pls. 1-44.
- MILNE EDWARDS, A. & BOUVIER, E. L., 1909. *Les Pénéides et Sténopides*. Reports on the Results of Dredging, under the Supervision of Alexander Agassiz, in the Gulf of Mexico (1877-78), in the Caribbean Sea (1878-79), and along the Atlantic Coast of the United States (1880), by the U. S. Coast Survey Steamer "Blake", Lieut.-Com. C. D. Sigsbee, U.S.N., and Commander J. R. Bartlett, U.S.N., Commanding. XLIV. *Mem. Mus. comp. Zoöl. Harvard*, vol. 27, pp. 177-274, textfigs. 1-91, pls. 1-9.
- NOBILI, G., 1903. Contributo alla fauna carcinologica di Borneo. *Boll. Mus. Zool. Anat. comp. Torino*, vol. 18 n. 447, pp. 1-32, figs. 1-3.
- PAULSON, O., 1875. Investigations on the Crustacea of the Red Sea with Notes on Crustacea of the adjacent Seas. Part I. Podophthalmata and Edriophthalmata (Cumacea), pp. i-xiv, 1-144, pls. 1-21.
- PFEFFER, G., 1887. Die Krebse von Süd-Georgien nach der Ausbeute der Deutschen Station 1882-83. I. Teil. *Jb. Hamb. wiss. Anst.*, vol. 4, pp. 41-150, pls. 1-7.
- RATHBUN, M. J., 1904. Decapod Crustaceans of the Northwest Coast of North America. *Harriman Alaska Exped.*, vol. 10, pp. 1-190, textfigs. 1-95, pls. 1-10.
- SARS, G. O., 1885. *Crustacea I. Norske Nordhavs-Exped.*, vol. 14, pp. 1-280, pls. 1-21, 1 map.
- , 1912. On the Genera *Cryptocheles* and *Bythocaris* G. O. Sars with Description of the Type Species of each Genus. *Arch. Math. Naturvidensk.*, vol. 32 pt. 5, pp. 1-19, pls. 1, 2.
- SCHMITT, W. L., 1926. Report on the Crustacea *Macrura* (Families *Peneidae*, *Campylonotidae* and *Pandalidae*) obtained by the F.I.S. "Endeavour" in Australian Seas. With notes on the species of "*Penaeus*" described by Haswell and contained, in part, in the collections of the MacLay Museum, at the University of Sydney. *Biol. Res. Endeavour*, vol. 5, pp. 311-381, pls. 57-68.
- SENNA, A., 1903. Nota sui Crostacei Decapodi. Le esplorazioni abissali nel Mediterraneo del R. Piroscopo Washington nel 1881. II. *Bull. Soc. ent. Ital.*, vol. 34, pp. 235-367, textfigs. 1-7, pls. 4-18.
- SMITH, S. I., 1882. Report on the Crustacea. Part I. Decapoda. Reports on the Results of Dredging, under the Supervision of Alexander Agassiz, on the East Coast of the United States, during the Summer of 1880, by the U. S. Coast Survey Steamer "Blake", Commander J. R. Bartlett, U.S.N., Commanding. *Bull. Mus. comp. Zoöl. Harvard*, vol. 10, pp. 1-108, pls. 1-15.

- SMITH, S. I., 1884. Report on the Decapod Crustacea of the Albatross Dredgings off the East Coast of the United States in 1883. Rep. U. S. Fish Comm., vol. 10, pp. 345-426, pls. 1-10.
- STAMMER, H. J., 1932. Die Fauna des Timavo. Ein Beitrag zur Kenntnis der Höhlen-gewässer, des Süß- und Brackwassers im Karst. Zool. Jb. Syst., vol. 63, pp. 521-656, figs. 1-16.
- THOMSON, G. M., 1903. On the New Zealand Phyllobranchiate Crustacea-Macrura. Trans. Linn. Soc. Lond. Zool., ser. 2 vol. 8, pp. 433-453, pls. 27-29.
- WHITELEGGE, T., 1897. The Crustacea of Funafuti. The Atoll of Funafuti, Ellice Group: its Zoology, Botany, Ethnology, and General Structure based on collections made by Mr. Charles Hedley, of the Australian Museum Sydney, N.S.W. Mem. Aust. Mus., vol. 3, pp. 125-151, pls. 6, 7.
- WOOD MASON, J. & ALCOCK, A., 1893. On the Results of Deep-sea Dredging during the season 1890-91. Natural History Notes from H. M. Indian Marine Survey Steamer "Investigator", Commander R. F. Hoskyn, R.N., commanding. — Series II, No. 1. Ann. Mag. nat. Hist., ser. 6 vol. 11, pp. 161-172, textfigs. 1, 2, pls. 10, 11.
- YOKOYA, Y., 1930. Macrura of Mutsu Bay. Report of the Biological Survey of Mutsu Bay. 16. Sci. Rep. Tohōku Univ., ser. 4 vol. 5, pp. 525-548, textfigs. 1-5, pl. 16.
- , 1933. On the Distribution of Decapod Crustaceans inhabiting the Continental Shelf around Japan, chiefly based upon the Materials collected by S. S. Sōyō-Marū, during the Years 1923-1930. Journ. Coll. Agric. Tokyo, vol. 12, pp. 1-226, textfigs. 1-71.
- ZARIQUIEY CENARRO, R., 1935. *Balssia gastii* (Balss), en la costa Catalana (España-Mediterráneo) (Crust. Decap.). Eos Madrid, vol. 11, pp. 101-107, figs. 1-14.