

Key to genera (based on postmetamorphic females)

1. Brush-like processes present on abdomen.....2
Abdomen without processes.....4
2. Egg sacs linear.....3
Egg sacs spirally coiled.....*Lernaeolophus*
3. Cephalothorax disc-shaped with rounded lateral lobes and lobe-like antennary processes.....*Parinia*
Cephalothorax with pair of long lateral processes and cluster of branching antennary processes.....*Pennella*
4. Trunk sigmoid.....5
Trunk not sigmoid.....8
5. Egg sacs coiled loosely round axial rod.....*Lernaeocera*
Egg sacs spirally coiled.....6
6. Neck with lateral processes or lobes.....*Haemobaphes*
Neck without lateral processes or lobes.....7
7. Legs 1 to 3 biramous, leg 4 uniramous.....*Trifur*
Legs 1 to 4 uniramous.....*Allotrifur*
8. Neck formed by first to third pedigerous somites; fourth pedigerous somite forming part of trunk; body cylindrical, neck in line with trunk; egg sacs linear.....9
Neck formed by pedigerous somites 1 to 4 and incorporating part of region posterior to leg 4; body cylindrical or ovoid, neck in line with trunk or set at angle; egg sacs coiled or linear.....11
9. Long posterolateral processes present on trunk.....*Peniculisa*
Trunk without processes.....10
10. Leg 4 present.....*Peniculus*
Leg 4 absent.....*Metapeniculus*

11. Cephalothorax attached externally by flattened disc formed by antennary process; egg sacs spirally coiled.....*Exopenna*
Cephalothorax embedded in host, attached by lateral cephalothoracic lobes and/or branching antennary processes; egg sacs linear or coiled..... 12
12. Neck longer than trunk, bearing several sets of branched processes.....*Creopelates*
Neck shorter than trunk or, if longer, never with sets of branching processes..... 13
13. Branched antennary processes present; egg sacs coiled or linear... 16
Antennary processes absent; egg sacs linear..... 14
14. Oral cone borne on tip of proboscis that is much longer than body.....
.....*Ophiolernaea*
Oral cone short, not located on long proboscis..... 15
15. Neck of more or less uniform diameter; abdomen typically well developed.....*Lernaeenicus*
Neck narrowest at midlength, expanding anteriorly and posteriorly; abdomen very reduced.....*Sarcotretes*
16. Cephalothoracic holdfast and neck in line with trunk.....*Cardiodectes*
Cephalothoracic holdfast and neck set at angle to trunk..... 17
17. Trunk distinctly subdivided into swollen anterior part and small posterior bearing genital apertures.....*Serpentisaccus*
Trunk not subdivided..... 18
18. Egg sacs spirally coiled..... 19
Egg sacs linear.....*Peroderma*
19. Rear margin of cephalothorax with 2 pairs of large hemispherical lobes.....*Impexus*
Rear margin of cephalothorax without such lobes.....*Phrixocephalus*

Brazilian species and records

Genus *Lernaeenicus*

Lernaeenicus longiventris Wilson, 1917

Description (Fig. 3.77): Body length of metamorphic female between 40 and 50mm. Body comprising head, extremely elongate neck, short trunk and

slender abdomen; ratio of lengths of neck to trunk to abdomen about 60: 15: 25. Head with median dorsal lobe and small paired lateral lobes. Antenna subchelate. Maxilla with 2 spinous processes on syncoxa.

Hosts: *Mugil platanus*, *Scomberomorus maculatus* and *Xenomelaniris brasiliensis* (Carvalho, 1951, 1953, 1957; Knoff & Boeger, 1994).

Genus *Metapeniculus*

Metapeniculus haemuloni (Alexander, 1983)

Description (Fig. 3.78): Body length of metamorphic female about 5.6mm. Body comprising head, neck and trunk; ratio of lengths of these regions about 11: 14: 75. Head with large proboscis-like oral cone ventrally. Neck formed by elongation anterior to first pair of legs. Legs 1 to 3 located close together at boundary between neck and trunk. Leg 4 absent.

Host: On fins of *Haemulon steindachneri* (Alexander, 1983).

Genus *Pennella*

Pennella balaenoptera Koren & Daniellsen, 1877

Description (Fig. 3.79): Metamorphic adult female ranging from 82 to 264mm body length. Head with median dorsal cephalic process and pair of long lateral branches. Neck and trunk about equal in length. Abdomen relatively short, with well developed brush of branching processes.

Hosts: Whales (*Balaenoptera* sp.)

Pennella filosa (Linnaeus, 1758)

Description (Fig. 3.80): Metamorphic adult female up to 200mm body length. Anterior cephalic processes irregularly papilliform, covering anterior and part of ventral surface of cephalothorax. Holdfast with pair of lateral branches, dorsal branch sometimes present. Processes of abdominal brush irregularly branched.

Host: Embedded in *Mola mola* (Carvalho, 1951).

Genus *Trifur*

Trifur tortuosus Wilson, 1917

Description (Fig. 3.79): Body of metamorphic adult female sigmoid, comprising head, neck, trunk and abdomen. Head with median dorsal cephalic process and pair of lateral branches. Neck slender, lacking processes. trunk swollen, sigmoid, with pair of genital lobes at level of origin of paired, tightly coiled egg sacs. Abdomen long and cylindrical. Approximate body length between 11 and 20mm.

Host: Unpublished record from Rio Grande do Sul.

Family **Pseudocycnidae** C.B. Wilson, 1922

(Figs. 3.81- 3.82)

Podoplea, Siphonostomatoida. Body elongate, cylindrical, comprising cephalothorax, incorporating first pedigerous somite, 2 or 3 free pedigerous

somites, a genital complex consisting of fused fifth pedigerous and genital somites (and possibly first abdominal somite in the female), and a free abdomen of 1 somite. Genital apertures dorsolateral in female, ventral in male. Caudal rami short or modified as long processes; with or without setae.

Nauplius eye present. Antennule 7-segmented in female; 6 to 7-segmented in male; segmental homologies indeterminate. Male antennule non-geniculate. Antenna uniramous; comprising separate coxa and basis, bearing a curved distal claw formed by fusion of endopodal segments and claw; exopod absent. Oral cone well developed, opening formed by labrum and labium. Mandible reduced to a stylet bearing teeth on one side near apex; palp absent. Maxillule unilobed: single lobe bearing 2 or 3 setae. Maxilla comprising syncoxa and basis bearing distal claw; basis and claw both with extensive patches of stout denticles. Maxilliped 2-segmented, comprising massive protopod and distal subchela, representing endopod plus terminal claw.

Swimming legs 1 and 2 biramous with 1-segmented rami; leg 3 reduced to unsegmented lobe bearing 3 distal spines; leg 4 reduced to unsegmented process armed with single seta (process very long in male *Pseudocycnus*). Inner seta on basis of leg 1 absent. Inner coxal seta absent. Fifth leg absent or represented by spinous process of genital complex. Leg 6 represented by genital opercula in both sexes. Egg sacs uniseriate.

Type-genus: *Pseudocycnus* Heller, 1865.

Included genera:

Pseudocycnoides Yamaguti, 1963, *Pseudocycnus* Heller, 1865.

Taxonomic notes

Kabata (1979a) recognized 3 valid genera in this family, *Cybicola*, *Pseudocycnoides* and *Pseudocycnus*, but stated that his opinions were tentative because he had been unable to examine material of several species. Cressey & Cressey (1980) retained only the latter two genera as valid, relegating the type species of *Cybicola* to synonymy with *Pseudocycnoides*. There are only four valid species of Pseudocycnidae and all are widely distributed parasites of teleost fishes, mainly scombrids. They are gill parasites and may attain lengths up to 24 mm.

Key to genera

1. Male leg 4 a prominent lateral process with apical seta; female caudal rami about half length of genital complex.....*Pseudocycnus*
Male leg 4 reduced to a seta on surface of somite; female caudal rami less than one third length of genital complex.....*Pseudocycnoides*

Brazilian species and records

Genus *Pseudocycnoides*

Pseudocycnoides buccata (Wilson, 1922)

Description (Fig. 3.81): Body length of female about 5mm, of male about 1.9mm. Dorsal cephalothoracic shield well developed. Second and third pedigerous somites clearly defined. Genital complex comprising well over two thirds of body length, with long parallel lateral margins. Abdomen unsegmented, small. Caudal rami short, rounded distally. Male similar body form to female but with smaller genital somite. Endopod of leg 1 modified as curved process in male. Vestigial fourth leg carried on small lateral process. Fifth leg represented by single tiny seta.

Hosts: On gill filaments of *Scomberomorus brasiliensis*, *S. cavalla*, *S. concolor* and *S. regalis* (Cressey & Cressey, 1980).

Genus *Pseudocycnus*

Pseudocycnus appendiculatus Heller, 1865

Description (Fig. 3.82): Body length of female about 7 to 24mm. Dorsal cephalothoracic shield not well developed; narrow neck-like constriction present between cephalothorax and first free somite. Two poorly defined free somites present, then genital complex comprising about two thirds of body length, with two parallel rows of pits on dorsal surface. Abdomen unsegmented, small. Caudal rami tapering, about half length of genital complex. Male similar to female but with smaller genital somite. Vestigial fourth leg carried on prominent lateral process. Fifth leg represented by single tiny seta.

Host: On gill filaments of *Euthynnus alletteratus* (Carvalho, 1950).

Family **Sphyrriidae** C.B. Wilson, 1919

(Fig. 3.83)

Podoplea, Siphonostomatoida. Body highly transformed; sexually dimorphic, with dwarf male. Female body devoid of external segmentation, comprising cephalothorax, incorporating first pedigerous somite, neck and trunk. Abdomen greatly reduced, represented by minute bilobed process. Trunk bearing genital apertures posteriorly; representing a genital complex consisting of fifth pedigerous, genital and first abdominal somites. Cephalothorax and neck sometimes bearing processes which may be simple or branched, and arranged in one plane or multiple planes. Caudal rami modified as unarmed cylindrical processes. Male body small; comprising large cephalothorax and reduced trunk, which may show signs of indistinct segmentation. Paired genital apertures posteroventral on trunk. Caudal rami small setiferous lobes.

Rostrum absent. Antennule 1 or 2-segmented with few setae in female; 1 to 4-segmented, non-geniculate in male; first segment in *Norkus* with a long (whip) seta and a short (solus) seta. Antenna biramous, with robust protopodal part; endopod 1 or 2-segmented, with 1 large claw and several other elements on distal segment; exopod 1-segmented. In *Sphyrion* and *Lophoura* the

antennule and antenna reduced to tubercular swelling. Oral cone short. Mandible forming a stylet armed with teeth on one side near apex; primary and secondary teeth present; palp absent. Maxillule comprising large, digitiform inner lobe (endite) armed with 3 elements, and a minute outer lobe (palp) located laterally on inner lobe, bearing 1 or 2 elements. Maxilla typically digitiform or conical, comprising syncoxa and reduced distal claw. Maxilliped subchelate, 2-segmented, comprising basal corpus (representing protopod) and apical subchela (representing endopod plus claw); corpus typically with swelling or process on myxal surface. Subchela bearing up to 2 setae in addition to claw. Left and right maxillipeds often fused basally in male.

Swimming legs 1 to 4 typically absent in adults of both sexes; 2 leg pairs represented by paired setae in male *Sphyrion lumpi* Krøyer. Leg 6 represented by unarmed genital operculum in both sexes. Egg sacs multiseriate.

Type-genus: *Sphyrion* Cuvier, 1830.

Included genera:

Lophoura Kölliker in Gegenbaur, Kölliker & Müller, 1853, *Norkus* Dojiri & Deets, 1988, *Opimia* C.B. Wilson, 1908, *Paeon* C.B. Wilson, 1919, *Paeonocanthus* Kabata, 1965, *Periplexis* C.B. Wilson, 1919, *Sphyrion* Cuvier, 1830, *Tripaphylus* Richiardi, 1880.

Taxonomic notes

The rather confused history of this family, and its confusion with both the Pennellidae and the Lernaepodidae, was reviewed by Kabata (1979a). Kabata recognized seven valid genera and only one new genus, *Norkus*, has been added since his review. A detailed description of male *Sphyrion lumpi* was provided by Moran & Piasecki (1994).

Sphyrinids are highly transformed parasites of fishes. Postmetamorphic females are mesoparasitic, with the cephalothorax and anterior part of the neck forming the holdfast embedded in the host. The dwarf males are found attached to the females. Dojiri & Deets (1988) reviewed host parasite relationships and recognized a *Tripaphylus* clade (*Norkus*, *Paeon*, *Tripaphylus* and *Opimia*) that inhabits the branchial cavity of epipelagic elasmobranchs, and a *Sphyrion* clade (*Periplexis*, *Paeonocanthus*, *Sphyrion* and *Lophoura*) that inhabits the body musculature of mesopelagic and bathypelagic teleosts.

Key to genera

1. Posterior processes long, simple, cylindrical.....2
Posterior processes short and cylindrical, constricted or clustered....4
2. Slender neck and broad trunk sharply defined; expanded collar present on neck.....*Norkus*
Neck merging gradually into trunk; collar absent.....3

3. Cephalothorax cylindrical.....*Opimia*
 Cephalothorax bulbous, with paired, rounded protruberances..*Paeon*
 Cephalothorax bulbous, with lateral horn-like projections.....
*Tripaphylus*
4. Posterior processes branching and clustered.....5
 Posterior processes simple, not branching.....6
5. Neck processes in a single plane; cephalothorax cylindrical.....
*Lophoura*
 Neck processes absent; cephalothorax with lateral lobes.....*Sphyrion*
6. Posterior processes transversely constricted.....*Periplexis*
 Posterior processes simple cylinders.....*Paeonocanthus*

Brazilian species and records

None.

Family **Tanypleuridae** Kabata, 1969
 (Fig. 3.84)

Podoplea, Siphonostomatoida. Body of adult female highly transformed, with all segments fused. Head small, fully incorporated into trunk; trunk with processes. Body anchored to host by means of branching processes at apex of maxillae. Genital apertures paired and ventral in female.

Antennule small and unsegmented; with a cluster of apical setae. Antenna reduced; uniramous and unsegmented; with 4 apical elements. Oral cone minute. Mandible a short stylet bearing teeth on one side of apex; palp absent. Maxillule unilobed; armed with 2 apical setae. Maxillae fused to form stalk that penetrates host; tip of maxillary stalk dividing into a multibranching rootlet system inside host. Maxilliped absent. Swimming legs 1 to 5 absent in adult female. Leg 6 unarmed. Egg sacs multiseriate.

Type and only included genus: *Tanypleurus* Steenstrup & Lütken 1861.

Taxonomic notes

According to Kabata (1969c) the affinities of this family lie with the Lernaeopodidae. He based this assessment largely on the use of the maxillae as the primary organs of attachment and drew comparisons with the lernaeopodid genus *Dendrapta*, which also attaches via a branching holdfast derived from the maxillary tips. Differences from the Lernaeopodidae include: the form of the antenna, the form of the maxillule and the absence of maxillipeds in the adult female. In the latter two characters the Tanypleuridae more closely resemble the Pennellidae than the Lernaeopodidae. The only known species,

Tanypleurus alicornis Steenstrup & Lütken, is a parasite found on the gills of marine fishes (*Eumicrotremus spinosus* (Müller) and *Lycodes reticulatus* Reinhardt) in the North Atlantic.

Brazilian species and records

None.

Family **Trebiidae** C.B. Wilson, 1905
(Fig. 3.85)

Podoplea, Siphonostomatoida. Body dorsoventrally flattened, comprising caligiform anterior cephalothorax, incorporating first and second pedigerous somites, 2 free pedigerous somites, a genital complex consisting of fused fifth pedigerous and genital somites (and possibly first abdominal somite in the female), and a free abdomen of 1 to 3 somites. Free third pedigerous somite with or without lateral plates. Genital apertures ventral, near posterior margin of genital complex. Caudal rami with 6 setae.

Rostrum absent; paired frontal plates present between antennules; lunules absent. Nauplius eye present. Antennule 2-segmented in both sexes; first segment with 27 setae, second with 13 setae plus 1 aesthetasc in female, 12 + 2 aesthetascs in male. Segmental homologies indeterminate. Male antennule non-geniculate, as in female.

Antenna uniramous, comprising coxa, basis and laterally directed subchela formed by fusion of endopod and distal claw; exopod absent. Postantennal process present. Oral cone with opening formed by both labrum and labium. Mandible reduced to a stylet bearing teeth on one side near apex; palp absent. Maxillule bilobed, with basal portion incorporated into body wall; anterior lobe (palp) papillate, bearing 3 setae; posterior lobe (endite) an unarmed spinous process, sometimes bifid. Maxilla brachiform, comprising syncoxa (lacertus) and basis (brachium) bearing calamus and canna distally. Maxilliped 2-segmented, comprising massive protopod (corpus) and distal subchela representing fused endopod segments plus distal claw. Sternal furca present or absent.

Swimming legs 1 to 4 biramous; rami of first leg 2-segmented; rami 3-segmented in legs 2 to 4. Intercoxal sclerite present legs 1 to 4. Inner seta on basis of leg 1 present. Inner coxal seta present on legs 2 and 3. Spine and seta formula typically as follows:

	coxa	basis	exopodal segments	endopodal segments
leg 1	0-0	1-1	I-0; III,4	0-0; 3
leg 2	0-1	1-0	I-1; I-1; II/III,5	0-1; 0-2; 6
leg 3	0-1	1-0	I-1; I-1; III,5	0-1; 0-2; 4
leg4	0-0	1-0	I-1; I-1; III,4/5	0-1; 0-1/2; I,3

Fifth leg reduced to papilla representing exopod; bearing 3 setae/spines; outer seta of incorporated protopodal segment present on surface of somite. Leg 6 represented by unarmed genital operculum in female; by papilla bearing 3 setae on genital operculum in male. Egg sacs uniseriate.

Type-genus: *Trebius* Krøyer, 1838.

Included genera:

Kabataia Kazachenko, Korotaeva & Kurochkin, 1972, *Trebius* Krøyer, 1838

Taxonomic notes

Wilson (1905) created the subfamily Trebiinae within the Caligidae and later (Wilson, 1932) raised it to family rank. The first and second pedigerous somites are incorporated into the flattened caligiform cephalothorax but the presence of a free third pedigerous somite is the key character separating this family within the caligiform group of families. This family also retains a biramous fourth leg, as in the Dissonidae, whereas in the Caligidae the fourth leg is uniramous due to the loss of the endopod.

The largest genus, *Trebius*, contains 14 species, all of which are parasitic on elasmobranch fishes, predominantly skates and rays (Deets & Dojiri, 1989). The only species of *Kabataia* is parasitic on a teleost fish, *Ostorhinchus conwaili*.

Key to genera

1. Sternal furca present; third pedigerous somite without lateral plates....
.....*Trebius*
Sternal furca absent; lateral plates on free third pedigerous somite.....
.....*Kabataia*

Brazilian species and records

None.

Order Cyclopoida

Family **Lernaevidae** Cobbold, 1879
(Fig. 3.86)

Podoplea, Cyclopoida. Body of adult female transformed, ranging from swollen, cylindrical bodies retaining some external segmentation to mesoparasitic forms comprising elongate, unsegmented trunk, neck and embedded, branched anchor-like head. Prosome urosome boundary indistinct in female, with fifth pedigerous somite fused to genital double-somite, forming genital complex. Up to 3 free abdominal somites present. Genital apparatus comprising single copulatory pore on ventral surface of genital complex and paired gonopores on lateral or dorsolateral surface. Male cyclopiform. Prosome

comprising cephalothorax incorporating first pedigerous somite, and 3 free pedigerous somites. Urosome 6-segmented in male; comprising fifth pedigerous, genital and 4 free abdominal somites. Genital apertures paired, located on ventral surface of genital somite. Caudal rami with up to 6 setae; often reduced, sometimes apparently absent.

Nauplius eye present. Antennule typically indistinctly 2 to 5-segmented in adult female and segmental homologies usually indeterminate, postulated as I-V, VI-XI, XII-XIV, XV-XXIII, XXIV-XXVIII for 5-segmented antennule of *Lernaea devastatrix* Boxshall, Montú & Schwarzbald; apical segment usually defined from proximal part. Male antennule up to 7-segmented, non-geniculate but retaining vestige of sheath derived from ancestral segment XV in *L. devastatrix*. Antenna uniramous; with fused coxa and basis forming coxobasis; endopodal segments typically fused to form single compound segment bearing up to 3 setae and distal claw along inner margin (derived from second endopodal segment) and up to 6 setae on offset tip, representing elements of third endopodal segment. Antenna sometimes reduced, rarely absent. Mandible reduced, stylet-like, or absent. Máxillule vestigial, lobate or absent. Maxilla 2-segmented comprising robust proximal segment (syncoxa) and distal claw representing basis; claw sometimes bearing several additional spinous element. Maxilliped 2 or 3-segmented; comprising robust proximal segment bearing a single spinous process and distal 1 or 2-segmented endopodal part, armed with 3 strong, claw-like spines on first endopodal segment and 2 strong claw-like spines and 1 minute seta on second; endopodal segments often fused and armature often reduced; entire maxilliped sometimes reduced, absent in *Mesolamproglena*.

Swimming legs 1 to 4 biramous, primitively with 3-segmented rami in both sexes, rami sometimes 2-segmented. Legs 1 to 4 joined by intercoxal sclerites, or lacking sclerites and with protopodal parts incorporated into body as in *Indopeniculus*. Legs often reduced or modified in adult females. Inner spine on basis of leg 1 present or secondarily absent; sometimes sexually dimorphic as in *Lernaea cyprinacea* Linn. Inner coxal seta present in legs 1 to 4, or secondarily absent. Spine and seta formula typically as follows (based on *Lernaea cyprinacea*):

	coxa	basis	exopodal segments	endopodal segments
leg 1	0-0/1	1-0/1	I-1; i-1; II,5	0-1; 0-1; II,4
leg 2	0-0/1	1-0	I-1; I-1; III,4/5	0-1; 0-2; III,3
leg 3	0-0/1	1-0	I-1; I-1; III,4/5	0-1; 0-2; III,3
leg 4	0-0/1	1-0	I-1; I-1; III,5	0-1; 0-2; III,2

Setation often reduced. Leg 4 absent in *Indolernaea*; legs 2 to 4 sometimes absent, as in *Taurocheres* and *Afrolernaea*. Fifth leg typically with protopodal part incorporated into somite, marked by outer basal seta; free exopodal segment with up to 4 setae in females and up to 6 setae in males; leg 5 often

reduced to simple setiferous lobe, or absent. Leg 6 represented by unarmed genital operculum of female; by setiferous genital operculum in male. Egg sacs paired, typically multiseriate, uniseriate in genera such as *Lamproglena*.

Type-genus: *Lernaea* Linnaeus, 1758.

Included genera:

Afrolernaea Fryer, 1956, *Areotrachelus* C.B. Wilson, 1924, *Dysphorus* Kurtz, 1924, *Indolernaea* Kabata, 1983, *Indopeniculus* Kumari, Khera & Gupta, 1988, *Lamproglena* von Nordmann, 1832, *Lamproglenoides* Fryer, 1964, *Lernaea* Linnaeus, 1758, *Lernaeogiraffa* Zimmermann, 1923, *Mesolamproglena* Kuang, 1980, *Opistholernaea* Yin, 1960, *Perulernaea* Thatcher & Paredes, 1985, *Pillainus* Kabata, 1983, *Pseudolamproglena* Boxshall, 1976, *Taurocheros* Brian, 1924.

Taxonomic notes

Kabata (1983) provided a key to the 13 genera known at that time. Since then Thatcher & Paredes (1985a) added *Perulernaea* and Kumari *et al.* (1988) added *Indopeniculus*, bringing the total to 14. *Mesolamproglena* is very similar to *Pseudolamproglena*, sharing the same body form and maxilla structure. They differ only in the apparent absence of maxillipeds in the former genus. In *Pseudolamproglena* the maxillipeds are small, rather hyaline, and largely concealed at the base of the enlarged maxillae. They may have been overlooked in *Mesolamproglena* in which case it may not be possible to maintain the validity of both these genera. The poorly described genus *Catlapthila* Tripathi closely resembles the *Lamproglena* group of genera in body form. The Catlapthilidae is here regarded as a junior synonym of the Lernaeidae. The genus *Channaculina* Kumari, Gupta & Khera, 1987 is a synonym of *Pillainus*, which occurs on the same host genus. *Indopeniculus* Kumari, Khera & Gupta, 1988 is a valid genus and has recently been redescribed by Ho & Kim (1997). *Pseudolernaea* Manohar, Venkateshappa & Seenappa, 1991 is regarded here as a synonym of *Indolernaea*. The absence of leg 4 from *Indolernaea manohari* Kabata requires confirmation as the specimens upon which the original description was based were damaged (Kabata, 1983).

Over 100 species of lernaeids are known, all of them parasites of freshwater fishes. The *Lamproglena* group of genera are ectoparasitic, usually on the gills of their hosts. The other genera are mesoparasitic, living with their anterior holdfasts embedded in the host. *Lernaea* comprises over 40 nominal species, including some serious parasites of economically important fishes. The life cycle of *L. cyprinacea* Linnaeus comprises three naupliar and five copepodid stages preceding the adult (Grabda, 1963). After mating, the cyclopidiform pre-metamorphosis adult female undergoes a gross transformation in body form, by a process of differential growth (Kabata, 1979a).

Key to genera

1. Head forming well developed holdfast with antler-like processes, lobes or dendrites.....2
Head not forming holdfast.....8
2. Holdfast comprising 2 pairs of antler-like processes, simple or with 1 or 2 dichotomous branches.....3
Holdfast not of this form.....4
3. Body straight.....*Lernaea*
Body with at least one strong flexion.....*Opistholernaea*
4. Holdfast comprising 1 pair of antler-like processes.....5
Holdfast compact with numerous small dendrites or lobes.....7
5. Neck longer than genitoabdominal trunk region.....6
Neck shorter than genitoabdominal trunk region.....*Areotrachelus*
6. Antler-like processes more than half the length of neck; genital openings located in anterior third of genito-abdominal region.....
.....*Taurocheros*
Antler-like processes less than one quarter the length of neck; genital openings just posterior to mid level of genito-abdominal region.....
.....*Perulernaea*
7. Holdfast compact, comprising numerous small dendrites...*Dysphorus*
Holdfast consisting of rounded lobes.....*Lernaeogiraffa*
8. Rostral area of head carrying fleshy, stellate lobe ventrally.....
.....*Indopeniculus*
Rostral area of head without such lobe.....9
9. Body with elongated neck region anterior to genito-abdominal trunk..
.....10
Body without distinct neck region anterior to trunk.....12
10. Maxilliped with a single claw or modified into spinous process.....
.....*Afrolernaea*
Maxilliped with multiple claws.....11

11. Legs 1 to 4 present, biramous with 2 or 3-segmented rami.....*Pillainus*
Legs 1 to 3 with endopods modified into tapering spinous processes;
leg 4 similarly modified or absent.....*Indolernaea*
12. Maxilla with massive, inflated proximal segment; distal claw located
on medial margin midway along segment..... 13
Maxilla with tapering, cylindrical proximal segment bearing typically
bifid distal claw..... 14
13. Maxilliped present.....*Pseudolamproglena*
Maxilliped absent.....*Mesolamproglena*
14. Body with distinct division into cephalothorax, trunk and abdomen.....
.....*Lamproglena*
Body vermiform, with indistinct tagmosis.....*Lamproglenoides*

Brazilian species and records

Genus *Lernaea*

Lernaea devastatrix Boxshall, Montú & Schwarzbald, 1997

Description (Fig. 3.86): Adult postmetamorphic female comprising head forming cephalothoracic anchor and long trunk lacking any external segmentation. Cephalothorax with 2 pairs of anchor processes, anterior longer than posterior. Trunk with legs 1 to 4 spaced out along its length. Trunk widest posteriorly at level of paired genital openings. Abdominal region short, bearing caudal rami. Antennule 7-segmented. Antenna with distal segment with parallel margins, main claw strongly reflexed. Adult male about 0.7mm in length, appendages as for female except inner spine on basis of leg 1 bifid, and for partial subdivision of fourth antennular segment.

Hosts: On body surface of *Hoplias malabaricus*, *Astyanax* sp., *Cyprinius carpio* var. *specularis* and *Rhamdia* aff. *sapo* (Boxshall et al., 1997).

Chapter 4. Host parasite List

Ablennes hians

Bomolochus bellones

Caligodes laciniatus

Acanthocycbium solandri

Gloiopotes hygomianus

Brachiella thynni

- Aluterus scripta*
Caligus balistae
- Arius heudeloti*
Lepeophtheirus monacanthus
- Astyanax* sp.
Lernaea devastatrix
- Bagre marina*
Lepeophtheirus monacanthus
- Brevoortia pectinata*
Ergasilus euripedesi
- Canthidermis maculatus*
Caligus balistae
- Canthidermis sobaco*
Caligus balistae
- Carangoides bartholomaei*
Caligus chorinemi
- Carangoides crysos*
Caligus chorinemi
- Caranx carangus*
Caligus chorinemi
Lernanthropus giganteus
- Caranx hippos*
Caligus chorinemi
Caligus tenax
- Carcharinus squamatus*
Pandarus bicolor
- Carcharinus* sp.
Dinemoura latifolia
- Cathrops spixi*
Taeniastrotes brasiliensis

- Chaetodipterus faber*
Lernanthropus pupa
- Chilomycterus schoepfii*
Tucca impressus
- Chilomycterus spinosus*
Naobranchia lizae
- Coryphaena hippurus*
Caligus balistae
- Dactylopterus volitans*
Orbitacolax dactylopterusi
- Ephippus gigas*
Anuretes heckeli
- Eques balteatus*
Lernanthropus pagodus
- Eulamia limbata*
Pandarus smithii
Pandarus sinuatus
Perissopus dentatus
- Euthynnus alletteratus*
Unicolax collateralis
Pseudocycnus appendiculatus
- Felichthys marinus*
Lepeophtheirus monacanthus
- Galeichthys felis*
Lepeophtheirus monacanthus
- Haemulon aurolineatum*
Colobomatus belizensis
- Haemulon steindachneri*
Colobomatus belizensis
Caligus haemulonis
Caligus sepetibensis
Clavellotis dilatata
Lernanthropus rathbuni
Metapeniculus haemuloni

Hexanemathichthys felis
Lepeophtheirus monacanthus

Hoplias malabaricus
Lernaea devastatrix

Isurus oxyrinchus
Anthosoma crassum
Dinemoura latifolia

Katsuwonus pelamis
Caligus bonito
Caligus coryphaenae
Caligus productus

Lobotes surinamensis
Lernanthropus pupa

Lycengraulis grossidens
Ergasilus euripedesi

Merluccius hubbsi
Chondracanthus merluccii

Micropogonias furnieri
Ergasilus euripedesi

Mola mola
Pennella filosa

Monacanthus hispidus
Caligus balistae

Mugil cephalus
Ergasilus versicolor

Mugil platanus
Bomolochus nitidus
Ergasilus lizae
Ergasilus versicolor
Caligus bonito
Tuxophorus caligodes
Naobranchia lizae
Neobrachiella exilis
Lernaeenicus longiventris

Mugil sp.

Ergasilus longimanus

Therodamas serrani

Oligoplitis saliens

Caligus oligoplitisi

Orthopristis chrysopterus

Colobomatus belizensis

Orthopristis ruber

Caligus haemuloni

Caligus sepetibensis

Lernanthropus rathbuni

Pagrus pagrus

Clavellopsis sargi

Lernanthropus atrox

Pimelodus maculatus

Lepeophtheirus monacanthus

Plagioscion squamosissimus

Therodamas tamarae

Potamorrhaphis guianensis

Ergasilus orientalis

Prionace glauca

Echthrogaleus coleoptratus

Prionotus nudiqula

Orbitacolax haplogenyos

Prionotus punctatus

Blias prionoti

Prionotus sp.

Blias prionoti

Pseudotylosurus angusticeps

Acusicola cunula

Rhypticus saponaceus

Thysanote lobiventris

- Sarda sarda*
Ceratocolax euthynni
Caligus bonito
- Scomberomorus brasiliensis*
Acantholochus divaricatus
Shiinoa inauris
Caligus mutabilis
Pseudocycnoides buccata
- Scomberomorus cavalla*
Acantholochus asperatus
Pseudocycnoides buccata
- Scomberomorus concolor*
Pseudocycnoides buccata
- Scomberomorus maculatus*
Shiinoa inauris
Lernaeenicus longiventris
- Scomberomorus regalis*
Shiinoa inauris
Pseudocycnoides buccata
- Serranus* sp.
Caligus irritans
- Sphyrna zygaena*
Pandarus smithii
- Strongylura timucu*
Lernanthropus belones
Lernanthropus cornutus
- Strongylura* sp.
Lernanthropus belones
Lernanthropus cornutus
- Temnodon saltator*
Lernanthropus nobilis
- Thunnus alalunga*
Euryphorus brachypterus

Thunnus albacores
Caligus coryphaenae
Caligus productus
Euryphorus brachypterus

Thunnus obesus
Caligus coryphaenae
Euryphorus brachypterus

Trachynotus sp.
Caligus trachynoti

Trachyurus barbatus
Therodamas serrani

Trichiurus sp.
Metacaligus uruguayensis

Xenomelaniris brasiliensis
Bomolochus xenomelanirisi
Lernaeenicus longiventris

Acknowledgements

This research for this handbook and its publication were supported by grant from the Darwin Initiative for the Survival of Species, administered by the Department of the Environment, UK. We are grateful to many colleagues who helped in the preparation of this work, including Dr Rony Huys (The Natural History Museum) and we are very grateful to Dr. Tagea K.S. Björnberg for her meticulous checking of the manuscript and her critical review of the content.

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Chapter 6. GLOSSARIES

6.1. English-Portuguese Glossary

The terms in Portuguese are written in italic letters.

Accessory antennule (*antênula acessória*): the atrophied and offset terminal segment of the antennary endopod.

Acuminate (*acuminado*): used for a sharply pointed structure.

Aesthetasc, aesthete or aesthetask (*estetasco*): a thin-walled, sensory element with putative chemoreceptive function, found on the antennules.

Anal operculum (*opérculo anal*): a small median process on dorsal surface of the anal somite protecting the anus; pl. opercula.

Antenna (*antena*): the second cephalic appendage or second antenna.

Antennule (*antênula*): the first cephalic appendage or first antenna.

Apomorphic (*apomórfico*): derived from and different from the ancestral condition.

Armature (*armadura*): the setae and spines carried on the paired limbs and caudal rami.

Arthrite (*artrito*): a movable endite, used for the praecoxal endite of the maxillule.

Basis (*basis*): the distal segment of the protopod of postantennular appendages, bearing the rami.

Bifurcate (*bifurcado*): used for an element or structure divided into two branches.

Brachium (*braquia*): the distal segment of the maxilla of some siphonostomatoid copepods, corresponding to the basis plus basal endite.

Bulla (*bula*): a small, chitinous anchor-like structure fused to the tips of the maxillary arms in lernaepodid copepods, embedded in the surface of the host fish, serving as an anchor.

Calamus (*cálamo*): the main claw on the apex of the basis of the maxilla of some siphonostomatoid copepods.

Canna (*cana*): the armature element representing the basal endite of the maxilla of some siphonostomatoid copepods.

Caudal ramus (*ramo caudal*): the paired, setiferous and usually articulated structures carried on the anal somite of copepods.

Cephalon (*céfalo*): head: the anterior region of the body, comprising the first five somites (antennulary to maxillary somites).

Cephalosoma (*cefalossoma*): the anterior tagma of the body in copepods, covered by the dorsal cephalic shield and comprising 5 cephalic somites and the first thoracic (maxilliped-bearing) somite.

Chalimus (*calima* ou *chalimus*): the post-copepodid developmental stage of most siphonostomatoid fish parasites, characterized by the possession of a frontal filament for attachment to the host; pl. chalima.

Clavus (*clavus*): an accessory spiny process on the apex of the basis of the maxilla of some siphonostomatoid copepods.

Copepodid or copepodite (*copepódito*): the postnaupliar phase in copepod development.

Corpus or corpus maxillipedis (*corpo*): the massive proximal part of the subchelate maxilliped in some parasitic copepods, corresponding either to the basis or the fused basis plus syncoxa.

Coxa or coxopodite (*coxa*): the middle segment of the 3-segmented protopod of postmandibular limbs, the proximal segment of the 2-segmented protopod of the antennae and mandibles.

Coxobasis (*coxobase*): a compound protopodal segment representing coxa plus basis.

Crista (*crista*): a group of small spinules or setules on the apex of the maxilla of some siphonostomatoid copepods.

Dwarf male (*macho anão*): a small male modified through loss of appendages and expressed body somites; living attached to the female.

Ectoparasite (*ectoparasito*): a parasite inhabiting the outer surface of its host, usually attached by means of antenna, maxilla or maxillipeds modified into claws.

Egg sac (*saco ovífero*): a batch of one or more eggs contained within a sac-like membrane that remains attached to the genital opening(s); typically paired in parasite copepods.

Elytra (*élitros*): wing-like expansions of the dorsal or dorsolateral surface of postcephalic trunk somites in some parasitic siphonostomatoids; pl. of elytron or elytrum.

Endite (*endito*): an inner lobe or process on a protopodal segment of an appendage.

Endopod or endopodite (*endópodo*): the inner ramus of a biramous appendage.

- Endopodital lobe** (*lóbulo endopodial*): the inner lobe of the baseoendopod of the fifth leg, derived from the endopod.
- Endosoma** (*endossoma*): that part of the body of a herpyllobiid that is inside the host.
- Epipodite** (*epipódito*): an outer lobe (exite) on the outer margin of a protopodal segment of an appendage.
- Exopod or exopodite** (*exópodo*): the outer ramus of a biramous appendage.
- Falcate** (*falcado*): hooked or curved like a sickle.
- Furcal rami** (*ramo furcal*): see **Caudal rami**.
- Geniculate** (*geniculado*): referring to male antennules with a specialised articulation with restricted adduction/abduction movement, dividing the limb into proximal and distal regions; also used for armature elements with a well-defined articulated zone.
- Genital complex** (*complexo genital*): part of body formed by the fifth pedigerous and the genital double-somites.
- Genital double-somite** (*somito genital duplo*): a double-somite formed by the genital and first abdominal somites.
- Genital operculum** (*opérculo genital*): the plate derived from the sixth legs that covers the genital aperture(s) or gonopore(s).
- Genital somite** (*somito genital*): the somite bearing the genital apertures corresponding the seventh thoracic somite.
- Genitoabdomen** (*genito-abdomen*): a posterior body region formed by fusion, or failure to separate, of the genital and abdominal somites.
- Genus inquirendum** (*genus inquirendum*): genus of dubious position and requiring further taxonomic research; pl. genera inquirenda.
- Gnathobase** (*gnatobase*): the projecting medial surface of the coxal segment of mandible.
- Gonopore** (*gonoporo*): the external opening(s) of the oviduct(s) in the female and of the vas deferens (*vasa deferentia*) in the male.
- Homology** (*homologia*): the relationship between structures that are derived from the same part of the body and have a common ancestry, but not necessarily the same structure or function.
- Intercoxal sclerite** (*esclerito intercoxal*): A flat chitinous plate, connecting the coxae of a pair of swimming legs.
- Interpodal bar**: see **Intercoxal sclerite**.
- Labium** (*lábio*): the lower lip; a median lobe derived from the fusion of the paragnaths, forming the posterior wall of the oral tube in siphonostomatoids.

Labrum (*labro*): the upper lip; a posteroventrally-directed, muscular, median lobe forming the anterior margin of the oral opening.

Lacertus (*lacertus*): the proximal segment (representing the syncoxa) of the maxilla of some siphonostomatoid copepods.

Lunule (*lúnula*): a sucker-like structure located ventrally on the frontal plates of the anterior margin of the flattened cephalothorax of some caligiform copepods.

Mandible (*mandíbula*): the third cephalic appendage.

Mandibular stylet (*estilete mandibular*): the gnathobase of siphonostomatoid copepods in the form of a long slender process.

Maxilla (*maxila*): the fifth and last pair of cephalic appendages; uniramous in copepods.

Maxilliped (*maxilipédio*): The first pair of thoracic appendages located on the last somite of cephalosome; uniramous in copepods.

Maxillule (*maxilula*): The fourth cephalic appendage.

Mesoparasite (*mesoparasito*): a parasitic copepod that lives partly embedded in its host; usually with the anterior end forming an anchor process.

Metasome (*metassoma*): the posterior part of the prosome comprising the free pedigerous somites; a locomotory tagma.

Myxal surface (*superfície mixal*): the medial surface of the corpus of the maxillipeds of the Siphonostomatoida, sometimes produced into a short (myxal) process or ornamented with a bunch of short setules, spines or denticles.

Neck (*pescoço*): a narrow part of the body separating the head from the trunk in highly metamorphic parasites, typically formed by the first and second pedigerous somite.

Oostegite (*oostegito*): a plate-like process on the coxa of the peraeopods of female parasitic isopods, forming the marsupium or brood pouch.

Oral opening (*abertura oral*): the mouth.

Oral cone (*cone oral*): the conical or tubular mouth of siphonostomatoid copepods, formed by the anterior labrum and posterior labium.

Ovigerous spines (*espinhos ovígeros*): the long spinous processes on the ventral surface of the genital double-somite of females monstrolloid copepods, used for carrying eggs.

Palp (*palpo*): the part of the mandible or maxillule distal to the segments bearing the gnathobase or arthrite respectively.

Paragnath (*paragnato*): A small paired lobe located on ventral surface of cephalosome, between the bases of mandibles and maxillules.

- Pedigerous** (*pedígero*): with reference to the swimming legs; used for somites bearing swimming legs.
- Pereion or pereon** (*pereion*): thorax; the anterior tagma of the postcephalic trunk in malacostracan crustaceans.
- Pleon** (*pleon*): the abdomen in malacostracans.
- Plesiomorphic** (*plesiomórfico*): referring to the ancestral state of a character.
- Postantennal process** (*processo pós-antenal*): a paired, ventral sclerite modified to form a spiniform, tapering process located on the ventral surface of the cephalothorax in some siphonostomatoids (e.g. Caligidae) and poecilostomatoids (e.g. Taeniacanthidae).
- Praniza** (*praniza*): the parasitic larval stage of Gnathiidae (Isopoda).
- Precoxa or praecoxa** (*precoxa*): the proximal segment of the three-segmented protopod of a postmandibular appendage.
- Prosoma** (*prossoma*): the anterior tagma of the body in copepods up to the major articulation; comprising the cephalosome and free pedigerous somites.
- Protopod or protopodite** (*protopodo*): the basal part of a limb.
- Ramus** (*ramo*): a branch of an appendage; the exopod or the endopod.
- Reniform** (*reniforme*): kidney-shaped.
- Retrostylet** (*retrostilete*): a movable stylet projecting posteriorly from the margin of the dorsal cephalic shield in some ergasilid and kroyeriid copepods.
- Rostrum** (*rostro*): the unpaired frontal projection of the dorsal cephalic shield, located between the antennules.
- Segment** (*segmento*): a section or division of an appendage separated from the next section by an articulation.
- Seminal receptacle** (*receptáculo seminal*): the chamber of the female reproductive system for the reception and storage of spermatozoa.
- Sclerite** (*esclerito*): a hardened area of cuticle in the exoskeleton.
- Solus** (*solus*): a short seta on the antennule of some siphonostomatoid copepods.
- Somite** (*somito*): a segment or division of the body.
- Spermatophore** (*espermatóforo*): a cuticular capsule or vesicle containing spermatozoa, transferred from the male to the female.
- Sternite** (*esternito*): the ventral chitinous plate of a body somite.

Subchela (*subquela*): the terminal, movable part of an appendage, which, when adducted to the opposing surface of the subterminal segment, functions as a prehensile structure.

Sympod (*simpodo*): a compound segment formed by fusion or failure to separate the coxa from the basis.

Syncoxa (*sincoxa*): a segment formed by the fusion or failure to separate the praecoxa and coxa.

Tagma (*tagma*): a major region of the body defined by a common function. pl. tagmata.

Tagmosis (*tagmosis*): the division of the body into functional regions.

Tergite (*tergito*): the dorsal chitinous plate of a body somite.

Uncinate (*uncinado*): referring to hooked, hook-like.

Uropods (*uropodos*): see **Caudal rami**.

Urosoma (*urossoma*): the region of the body posterior to the major articulation, comprising the fifth pedigerous, genital and abdominal somites in parasitic copepods.

6.2. Portuguese-English Glossary

The terms in English are written in italic letters.

Abertura oral (*oral opening*): a boca.

Acuminado (*acuminate*): usado para referir-se a uma estrutura com ponta aguda.

Antena (*antenna*): segundo apêndice cefálico ou segunda antena.

Antênula (*antennule*): primeiro apêndice cefálico ou primeira antena.

Antênula acessória (*accessory antennule*): segmento atrofiado localizado no terminal do endópodo antenal.

Apomórfico (*apomorphic*): derivado de, e diferente da condição ancestral.

Armadura (*armature*): cerdas e espinhos dos membros pares e ramo caudal.

Artrito (*arthritis*): endito móvel, localizado no endito precoxal da maxilula.

Barra interpodal: ver **esclerito intercoxal**.

Basis (*basis*): segmento distal do protópodo dos apêndices pós-antenuares, sustentando o exópodo e o endópodo.

Bifurcado (*bifurcate*): termo usado para um elemento ou estrutura dividida em dois ramos.

- Braquia** (*braquium*): segmento distal da maxila de alguns copépodos Siphonostomatoida correspondente a base + endito basal.
- Bula** (*bulla*): pequena estrutura quitinosa semelhante a uma âncora fundida ao extremo dos braços maxilares nos copépodos Lernaeopodidae, permitindo a fixação sobre a superfície do corpo do peixe hospedeiro.
- Calamus** (*calamus*): a garra principal sobre o ápice da base da maxila de alguns copépodos Siphonostomatoida.
- Calima** (*chalimus*): estágio de desenvolvimento seguinte a fase de copepódito da maioria dos parasitos Siphonostomatoida de peixes, caracterizado por apresentar um filamento frontal para fixação no hospedeiro.
- Cana** (*canna*): elemento da armadura representado pelo endito basal da maxila de alguns copépodos Siphonostomatoida.
- Céfalo** (*cephalon*): cabeça; região anterior do corpo que compreende os cinco primeiros somitos (desde os somitos antenulares aos maxilares).
- Cefalossoma** (*cephalosoma*): tagma anterior do corpo nos copépodos, coberto pela carapaça cefálica e compreende 5 somitos cefálicos + o primeiro torácico (com os maxilipédios).
- Clavus** (*clavus*): processo acessório espinhoso localizado no ápice da base da maxila de alguns copépodos Siphonostomatoida.
- Complexo genital** (*genital complex*): a parte do corpo formada pelo 5º somito pedígero e os somitos genitais duplos.
- Cone oral** (*oral cone*): a boca cônica ou tubular dos copépodos Siphonostomatoida, formada anteriormente pelo labro e posteriormente pelo lábio.
- Copepódito** (*copepodid*): fase pós-naupliar do desenvolvimento de copépodos.
- Corpo** (*corpus*): parte maciça dos maxilipédios subquelados em alguns copépodos parasitos, correspondendo tanto a base como a base fundida com a sincoxa.
- Coxa ou coxopódito** (*coxa or coxopodite*): segmento médio do protópodo tri-segmentado dos membros pós-mandibulares, segmento proximal do protópodo bi-segmentado da antena e mandíbula.
- Coxobase** (*coxobasis*): segmento protopodal composto, formado por coxa + basis.
- Crista** (*crista*): grupo de pequenas espínulas ou cérdulas sobre o ápice da maxila de alguns copépodos Siphonostomatoida.
- Ectoparasito** (*ectoparasite*): parasito que habita a superfície exterior de seus hospedeiros, geralmente fixo mediante a antena, maxila ou maxilipédios modificados em garras.

Élitros (*elytra*): expansões semelhantes a asas localizadas na superfície dorsal ou dorso lateral dos somitos do tronco pós-cefálico em alguns parasitos Siphonostomatoida.

Endito (*endite*): lóbulo interno ou processo do segmento protopodal de um apêndice.

Endópodo ou endopódito (*endopod or endopodite*): ramo interno de um apêndice bi-ramoso.

Endossoma (*endosoma*): a parte do corpo dos Herpyllobiidae que se encontra dentro do hospedeiro.

Epipódito (*epipodite*): lóbulo externo (*exito*) situado na margem externa de um segmento protopodal de um apêndice.

Esclerito (*sclerite*): área endurecida da cutícula do exoesqueleto.

Esclerito intercoxal (*intercoxal sclerite*): lâmina achatada, quitinosa, que conecta a coxa com um par de patas natatórias.

Espinhas ovígeras (*ovigerous spines*): processo longo e espinhoso localizado na superfície ventral do somito duplo genital das fêmeas dos copépodos Monstrilloida, cuja função é transportar e /ou levar os ovos.

Espermatóforo (*spermatophore*): cápsula cuticular ou vesícula que contém os espermatozóides a ser transferidos do macho para a fêmea.

Esternito (*sternite*): lâmina ventral quitinosa de um somito do corpo.

Estetasco (*aesthetasc, aesthete or aesthetasc*): elemento sensorial de paredes finas, com função supostamente quimiorreceptiva, encontrado nas antênulas.

Estilete mandibular (*mandibular stylet*): gnatobase dos copépodos Siphonostomatoida modificada em um processo fino e longo.

Exópodo ou exopódito (*exopod or exopodite*): o ramo externo de um apêndice bi-ramoso.

Falcado (*falcate*): refere-se a um elemento curvado ou com forma de foice.

Geniculado (*geniculate*): referente a antênula do macho com uma articulação especializada, com movimento de adução/abdução, que divide o membro em regiões proximais e distais; também usado para referir-se a elementos da armadura com uma área de articulação bem definida.

Genito-abdome ou genito-abdomen (*genitoabdomen*): a região posterior do corpo formada pela fusão, ou separação incompleta, dos somitos genital e abdominal.

Genus inquerendum (*genus inquerendum*): do latim, gênero de posição duvidosa e que requer uma pesquisa taxonômica mais profunda; pl. *genera inquirenda*.

- Gnatobase** (*gnathobase*): superfície medial dentada, cortante, que se projeta do segmento coxal da mandíbula.
- Gonóporo(s)** (*gonopore*): a (s) abertura (s) externa (s) do (s) oviduto (s) das fêmeas e dos vasos deferentes (*vasa deferentia*) dos machos.
- Homologia** (*homology*): as relações entre as estruturas derivadas da mesma parte do corpo e que tem um ancestral comum, mas não necessariamente a mesma estrutura ou função.
- Lábio** (*labium*): lábio inferior; lóbulo mediano derivado da fusão dos paragnatos, formando a parte posterior do tubo oral dos Siphonostomatoida.
- Labro** (*labrum*): lábio superior; lóbulo mediano, muscular, dirigido postero-ventralmente, formando a margem da abertura oral.
- Lacertus** (*lacertus*): segmento proximal da maxila de alguns copépodos Siphonostomatoida (representa a sincoxa).
- Lóbulo endopodial** (*endopodital lobe*): lóbulo interno do basendopódito da quinta pata, derivada do endópodo.
- Lúnula** (*lunule*): estrutura semelhante a uma ventosa, localizada sobre a placa frontal da margem anterior do cefalotórax achatado, em alguns copépodos caligiformes.
- Macho anão** (*Dwarf male*): pequeno macho modificado pela perda de apêndices e determinados somitos do corpo; vive fixado na fêmea.
- Mandíbula** (*mandible*): o terceiro apêndice cefálico.
- Maxila** (*maxilla*): o quinto e último par dos apêndices cefálicos; uniramoso em copépodos.
- Maxilipédio** (*maxilliped*): o primeiro par de apêndices torácicos localizado no último somito do cefalosoma; uniramoso em copépodos.
- Maxílula** (*maxillule*): o quarto apêndice cefálico.
- Mesoparasito** (*mesoparasite*): diz-se do copépodo parasito que habita o corpo do seu hospedeiro parcialmente fixado, encravado, geralmente com seu extremo anterior formando um processo similar a uma âncora.
- Metassoma** (*metasome*): a parte posterior do prossoma que compreende os somitos pedígeros livres; o tagma locomotor.
- Oostegito** (*oostegite*): processo laminar formado sobre a coxa dos pereopodos das fêmeas de isópodos parasitos, formando o marsúpio ou bolsa de ovos.
- Opérculo anal** (*anal operculum*): pequeno processo, mediano, localizado sobre a superfície dorsal do somito anal que protege o ânus.

Opérculo genital (*genital operculum*): lâmina derivada do sexto par de patas que fecha a (s) abertura (s) genital (s) ou gonóporo (s).

Palpo (*palp*): a parte da mandíbula ou maxílula localizada distalmente a inserção do apêndice no segmento.

Paragnato (*paragnath*): pequeno lóbulo, par, localizado na superfície ventral do cefalossoma.

Pedígero (*pedígerous*): com patas natatórias; diz-se dos somitos das patas

Pereion (*pereion or pereon*): tórax; tagma anterior do tronco pós-cefálico dos crustáceos malacóstracos.

Pescoço (*neck*): parte estreita do corpo que separa a cabeça do tronco em parasitos altamente metamórficos, tipicamente formado pelo primeiro e segundo somito pedígero.

Pleon (*pleon*): o abdômen nos malacóstracos.

Plesiomórfico (*plesiomorphic*): refere-se ao estado ancestral de um caráter.

Processo pós-antenal (*postantennal process*): esclerito ventral, par, modificado formando um processo cônico espiniforme localizado na superfície ventral do cefalotórax em alguns Siphonostomatoida (ex: Caligidae) e Poecilostomatoida (ex: Taeniacanthidae).

Praniza (*praniza*): o estágio larval parasítico dos Gnathiidae (Isopoda).

Precoxa (*precoxa or praecoxa*): o segmento proximal do protópodo tri-segmentado de um apêndice pós-mandibular.

Prossoma (*prossoma*): tagma anterior do corpo dos copépodos, até a maior articulação; compreende o cefalossoma e os somitos pedígeros livres.

Protopodo ou protopódito (*protopod or protopodite*): a parte basal de um membro.

Ramo (*ramus*): a subdivisão de um apêndice; o exópodo ou o endópodo.

Ramo caudal (*caudal ramus*): estrutura par, cerdosa e geralmente articulada, localizada posteriormente ao somito anal nos copépodos.

Reniforme: em forma de rim.

Retroestilete: estilete móvel que se projeta posteriormente a partir da carapaça cefálica dorsal em alguns copépodos Ergasilidae e Kroyeriidae.

Receptáculo seminal (*seminal receptacle*): câmara do sistema reprodutivo da fêmea para recepção e armazenamento dos espermatozóides.

Rostro (*rostrum*): projeção ímpar frontal da carapaça cefálica dorsal, localizada entre as antênulas.

- Saco ovígero** (*egg sac*): conjunto de um ou mais ovos contidos em um saco de membrana transparente que permanece fixada na (s) abertura (s) genital (s) das fêmeas; tipicamente par em Copepoda parasita.
- Segmento** (*segment*): o artículo ou divisão de um apêndice separado do seguinte por uma articulação.
- Símpodo** (*sympod*): segmento composto formado pela fusão ou separação incompleta entre a coxa e a base.
- Sincoxa** (*syncoxa*): segmento formado pela fusão ou separação incompleta da praecoxa e coxa.
- Solus** (*solus*): cerda curta da antênula de alguns copépodos Siphonostomatoida.
- Somito** (*somite*): segmento ou divisão do corpo.
- Somito genital** (*genital somite*): somito com as aberturas genitais e corresponde ao sétimo somito torácico.
- Somito genital duplo** (*genital double-somite*): somito duplo formado pelo genital e primeiro abdominal.
- Subquela** (*subchela*): parte móvel terminal, de um apêndice, podendo opor-se à superfície do segmento subterminal, formando estrutura preênsil.
- Superfície mixal** (*myxal surface*): superfície medial do corpo dos maxilipédios dos Siphonostomatoida, algumas vezes apresentando um processo curto ou ornamentado com um grupo de cerdulas curtas, espinhos ou dentículos.
- Tagma** (*tagma*): grande região do corpo definida por uma função comum; pl. tagmata.
- Tagmosis** (*tagmosis*): divisão do corpo em regiões funcionais.
- Tergito** (*tergite*): lâmina quitinosa dorsal de um somito do corpo.
- Uncinado** (*uncinate*): aplica-se a um elemento ou estrutura terminada em gancho.
- Urópodos** (*uropods*): ver **ramo caudal**.
- Urossoma** (*urossoma*): região do corpo posterior a maior articulação, que compreende o quinto somito pedígero mais o genital e abdominal em copépodos parasitos.