

Canadian Translation of Fisheries and Aquatic Sciences

No. 5093

Monograph of the Harpacticoids

K. Lang

Original title: Monographie der Harpacticiden

In: Otto Koeltz Science Publishers, Koenigstein, F.R.G. Order Copepoda,
p. 149-152 only, 1948

Original language: German

Available from:

Canada Institute for Scientific and Technical Information
National Research Council
Ottawa, Ontario, Canada K1A 0S2

1984

* 10 typescript pages



MULTILINGUAL SERVICES DIVISION – DIVISION DES SERVICES MULTILINGUES
 TRANSLATION BUREAU BUREAU DES TRADUCTIONS

Client's No.—N° du client	Department — Ministère DFO	Division/Branch — Division/Direction SIPB	City — Ville Ottawa
Bureau No.—N° du bureau 1655808	Language — Langue German	Translator (Initials) — Traducteur (Initiales) AB	AUG AOUT 28 1984

From: Monographie der Harpacticiden, 1948; pp.149-152 only.

By Karl Lang.

Order Copepoda.

p.149

Suborder Podoplea GIESBRECHT.

Diagnosis: Copepods with the prosome-urosome division of the trunk located anteriorly of the last thoracic segment, i.e. anteriorly of the segment bearing the fifth pair of legs. The 5th pair of legs in the ♂ never developed as copulatory apparatus.

Tribe Harpacticoida¹⁾ SARS.

Diagnosis: Body shape variable, however it is usually elongate without sharp division between thorax and abdomen. The first segment bearing appendages is

1) STEBBING (1910) writes Arpacticoida. The name originates from the Greek word ἀσπερ. . . The spiritus asper must therefore be replaced with the letter H.

UNEDITED TRANSLATION

For information only

SEC 5-25 (Rev. 82/11)

TRANSLATION NON REVISEE

Information seulement



MULTILINGUAL SERVICES DIVISION – DIVISION DES SERVICES MULTILINGUES

TRANSLATION BUREAU

BUREAU DES TRADUCTIONS

LIBRARY IDENTIFICATION – FICHE SIGNALÉTIQUE

CTFAS 5093

Translated from - Traduction de German / Into - En English

Author - Auteur: Lang, Karl

Title in English or French - Titre anglais ou français

From: Monograph of the Harpacticoids.
Order Copepoda. Suborder Podoplea GIESBRECHT.

Title in foreign language (Transliterate foreign characters) / Titre en langue étrangère (Transcrire en caractères romains)

Aus: Monographie der Harpacticiden
Ordo Copepoda. Subordo Podoplea GIESBRECHT.

Reference in foreign language (Name of book or publication) in full, transliterate foreign characters. / Référence en langue étrangère (Nom du livre ou publication), au complet, transcrire en caractères romains.

Monographie der Harpacticiden

Reference in English or French - Référence en anglais ou français

Monograph of the Harpacticoids

Publisher - Éditeur Reprint 1975 by Otto Koeltz Science Publishers	DATE OF PUBLICATION DATE DE PUBLICATION			Page Numbers in original Numéros des pages dans l'original
	Year Année	Volume	Issue No. Numéro	149 - 152 only
Place of Publication Lieu de publication Koenigstein	1948			Number of typed pages Nombre de pages dactylographiées 10

Requesting Department / Ministère-Client: DFO

Translation Bureau No. / Notre dossier n°: 1655808

Branch or Division / Direction ou Division: SIPB

Translation (Initials) / Traducteur (Initiales): AB

Person requesting / Demandé par: A.T.Reid

AUG 28 1984

Your Number / Votre dossier n°: _____

Date of Request / Date de la demande: 19-07-84

UNEDITED TRANSLATION
For information only
TRADUCTION NON REVISÉE
information seulement

rarely free but usually fused with the cephalothorax. The first two abdominal segments in the ♀ are more or less fused with one another, in the ♂ almost always unfused. Of the furcal setae only two are well developed at the most. Rostrum²⁾ usually present. 1st antennae in the ♀ 9-segmented at most, in the ♂ 10-segmented at most. Both 1st antennae in the ♂ distinctly geniculated as a rule. 2nd antennae either with a 3-segmented endopodite and large 6 to 7-segmented exopodite, or at most with a 2-segmented endopodite and 4-segmented exopodite; mandible almost always with a more or less well developed palp. Maxillule and maxilla greatly reduced as a rule; maxillipeds developed usually as prehensile organs. 1st legs deviating most often from the other legs. One or some of the 2nd-4th legs occasionally, the 5th legs almost always different in the two sexes. The eggs are contained in one, rarely in two egg sacs, but may also be freely deposited. Heart absent. The testis with one or two sperm ducts which do not end in a spermatophore sac. Oviducts paired.

2) Translator's note: Since the German text does not include the explanations of the abbreviations, the translator is uncertain of the following ones: R., L.

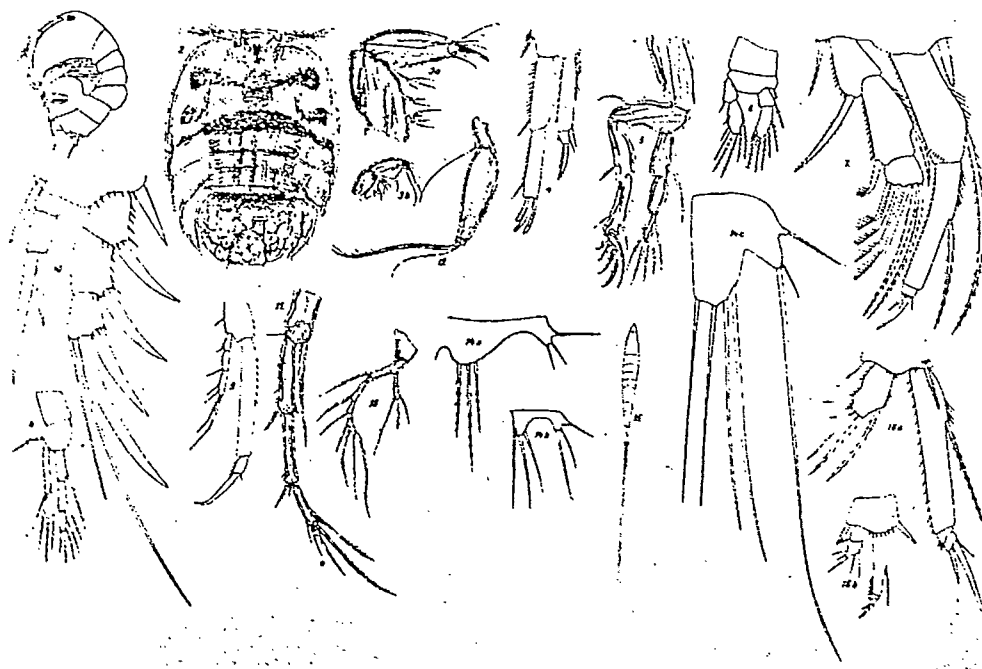


Fig.98: 1. Parateogastes sphaericus. - 2. Porcellidium viride. - 3.a. Maxilla of Bradya (Parabradya) dilatata. - 3.b. Maxilla of Microsetella norvegica. - 4. 1st leg of Harpacticus chelifer. - 5. 1st leg of Altheutha oblonga. - 6. 1st leg of Clytemnestra scutellata. - 7. 1st leg of Tisbe furcata. - 8. 1st leg of Euterpina acutifrons. - 9. 1st leg of Paralaophonte gracilipes. - 10. 1st leg of Metis ignea. - 11. 4th leg of Cylindropsyllus laevis. - 12. Maxilliped of Leptastacus macronyx. - 13. 1st leg of Anoplosoma sordidum. - 14.a. 5th leg of Pseudomesochra divaricata. - 14.b. 5th leg of Pseudomesochra longifurcata. - 14.c. 5th leg of Pseudomesochra similis. - 15. Macrosetella gracilis. - 16.a. 1st leg of Diarthrodes nobilis. - 16.b. 1st leg of Diarthrodes aegideus (fig.1 after PESTA, figs.2,3,5,6,8,11-13 and 14b after SARS, fig.15 after STEUER).

Key to the Families.

Remarks: The sole purpose of the following key is to lead as simply as possible to the family to which a particular animal belongs. It has no phylogenetic value therefore. On account of the purely practical purpose of the key all higher systematic units have been omitted.

1. Lives commensally on the baleen of Balaenoptera
..... Balaenophilidae
Does not live commensally on the baleen of Balaenoptera
..... 2.
2. Body amphipod-like (fig.98:1) Tegastidae
Body as in fig.98:2 Porcellidiidae
Body differently structured 3.
3. Exopodite of 2nd antenna at least 6-segmented p.150
..... 4.
Exopodite of 2nd antenna 4-segmented at most
..... 5.
4. End segment of endopodite of 2nd legs much longer than
the entire exopodite Longipediidae
End segment of endopodite of 2nd legs shorter than the
entire exopodite Canuellidae
5. 1st thoracic segment entirely unfused; exopodite of 2nd
antennae 1-segmented, with several setae; maxillipeds
leaflike, with several setae. Species inhabiting mosses
and freshwater Phyllognathopodidae
1st thoracic segment entirely unfused; exopodite of 2nd
antennae 2-segmented; maxillipeds not leaflike; fresh-
water species Chappuisiidae
1st thoracic segment only partially fused with the head;

- exopodite of 2nd antennae represented only by two setae;
maxillipeds reduced; freshwater and brackish-water
species D'Arcythompsoniidae
(partially)
1st thoracic segment entirely fused with the head
..... 6.
6. Maxilla chiefly as in fig.98:3a-b. Body spindle-shaped;
5th legs with only two setae Ectinosomidae
These traits not combined 7.
7. 1st legs chiefly as in fig.98:4 Harpacticidae p.151
1st legs chiefly as in fig.98:5 (endopodite may also be
2-segmented) Peltidiidae
1st legs chiefly as in fig.98:6 Pseudopeltidiidae
1st legs chiefly as in fig.98:7 Tisbidae (partially)
1st legs chiefly as in fig.98:8 Tachidiidae
(Euterpininae)
1st legs chiefly as in fig.98:9 (exopodite may also be
1 to 3-segmented); exopodite of 2nd antenna present at
least as rudiment Laophontidae
1st legs chiefly as in fig.98:10; body pear-shaped; mouth-
parts vestigial Metidae
1st legs differently structured 8.
8. Middle segment of exopodite of 1st legs without spine
at outer margin 9.

- Middle segment of exopodite of 1st legs with spine at
outer margin 10.
9. Endopodite of 2nd-4th legs in the ♀ 2-segmented; 2nd
segment of exopodite of 1st legs without seta at inner
margin; exopodite of 3rd legs in the ♂³ not modified
for copulatory activity *Cylindropsyllidae*
(*Leptopontiinae*)
Endopodite of 2nd-4th legs in the ♀ 2-segmented; 2nd
segment of the exopodite of the 1st legs with seta at
the inner margin; exopodite of the 3rd legs in the ♂³
not modified for copulatory activity
. *Ameiridae* (partially)
Endopodite of the 2nd-4th legs in the ♀ 1-segmented;
exopodite of the 3rd legs in the ♂³ modified for copula-
tory activity *Parastenocaridae*
10. 1st segment of the exopodite of the 1st legs with seta
at the inner margin; maxillipeds not prehensile
. 11.
These characters not combined 12.
11. Exopodite of 2nd antennae 1-segmented, with two setae
at most *Aegisthidae*
Exopodite of 2nd antennae 4-segmented, with several
setae *Cerviniidae*

12. Endopodite of 4th legs 2-segmented at most
..... 13.
- Endopodite of 4th legs 3-segmented
..... 28.
13. Exopodite of 2nd antennae 4-segmented; maxillipeds
not prehensile; body slim, vermiform
..... Neobradyyidae
- Exopodite of 2nd antennae 2-segmented at most
..... 14.
14. Maxillipeds not prehensile; 1st legs not prehensile,
with 2-segmented endopodite; 1st antennae 5 to 6-
segmented, with plumose setae; all segments dentate
dorsally Tisbidae (partially)
- Maxillipeds not prehensile. Remaining above-mentioned
characters not combined 15.
- Maxillipeds prehensile 17.
15. 4th legs as in fig.98:11 Cyliindropsyllidae
(partially)
4th legs differently structured .. 16.
16. End segment of exopodite of 2nd-4th legs with three
spines at the outer margin Louriniidae
- End segment of exopodite of 2nd-4th legs with two spines
at the outer margin D'Arcythompsoniidae
(partially)
17. Maxillipeds as in fig.98:12 Cyliindropsyllidae
(Leptastacinae)

- Maxillipeds differently structured ... 18.
18. Body vermiform; 5th legs form uniform plates; exopodite of
4th legs as in fig.98:11 Cylindropsyllidae
(partially)
These characters not combined 19.
19. Maxillipeds with one end claw and two end setae
..... Paramesochridae
- Maxillipeds differently structured ... 20
20. Labrum^{*)} large, more or less far protruding; furca
aberrant; rostrum^{*)} set off Tetragonicepsidae
These characters not combined 21.
21. Exopodite of 2nd antennae missing; 1st antennae 5-
segmented at most Ancorabolidae
These characters not combined 22.
22. All segments sharply set off; endopodite of 1st legs
not prehensile; 2-segmented at most .. Cletodidae
(partially)
These characters not combined 23.
23. 1st antennae 4 to 5-segmented; 1st legs not prehensile
..... Cletodidae
(partially)
These characters not combined 24.
24. 1st legs as in fig.98:13 Ameiridae
(Anoplosoma)

*) see Translator's footnote on p.2

- 1st legs not as in fig.98:13; basis of 2nd-4th legs transversely elongated Ameiridae
(Malacopsyllus)
- 1st legs and basis of 2nd-4th legs differently structured 25.
25. 2nd antennae with basis Ameiridae
2nd antennae with allobasis 26.
26. 5th legs as in fig.98:14a-c; rostrum^{*)} large Diosaccidae
(partially)
5th legs not as in fig.98:14; rostrum^{*)} large; 1st antennae 4-segmented; exopodite of 2nd antennae 1-segmented Canthocamptidae
(partially)
5th legs not as in fig.98:14; rostrum^{*)} not large 27.
27. 1st legs with prehensile rami; endopodite of 2nd-3rd legs in the ♀ 3-segmented Diosaccidae (partially)
These characters not combined Canthocamptidae
(partially)
28. Cuticular lenses present Miracidae (partially)
Cuticular lenses absent 29.
29. Body as in fig.98:15 Miracidae (partially)

*) see translator's footnote on p.2

- Body differently structured 30.
30. 2nd antennae with basis; exopodite of 2nd antennae 1-segmented; maxillae with three endites at most
..... Ameiridae (partially)
- These characters not combined 31.
31. Maxillipeds well developed, not prehensile
..... Tisbidae (partially)
- Maxillipeds differently structured .. 32.
32. Endopodites of 1st legs not prehensile .. 33.
- Endopodites of 1st legs prehensile 34.
33. Exopodites of 2nd antennae very small, 1-segmented, with two setae at most Cletodidae (partially)
- Exopodite of 2nd antennae well developed, 2 to 3-segmented, with more than two setae .. Tachidiidae (partially)
34. Seta at the inner margin of the 1st segment of the endopodite of 1st legs inserted exactly apically
..... Diosaccidae (partially)
- Seta at the inner margin of the 1st segment of the endopodite of the 1st legs inserted subapically 35.
35. 1st legs as in fig.98:16 Thalestridae
(Diarthrodes)
- 1st legs differently structured ... 36.
36. End segment of endopodite of 3rd legs with 6 setae
..... Thalestridae (partially)
- End segment of endopodite of 3rd legs with 5 setae
..... Parastenheliidae

ISSN 0704-5710
Canadian Translation of Fisheries and Aquatic Sciences

No. 5093

Monograph of the Harpacticoids

K. Lang

Original title: Monographie der Harpacticiden

In: Otto Koeltz Science Publishers, Koenigstein, F.R.G. Order Copepoda,
p. 149-152 only, 1948

Original language: German

Available from:

Canada Institute for Scientific and Technical Information
National Research Council
Ottawa, Ontario, Canada K1A 0S2

1984

10 typescript pages



Secretary of State

Secrétariat d'État

MULTILINGUAL SERVICES DIVISION - DIVISION DES SERVICES MULTILINGUES

TRANSLATION BUREAU

BUREAU DES TRADUCTIONS

LIBRARY IDENTIFICATION - FICHE SIGNALÉTIQUE

CTFAS 5093

Translated from - Traduction de German Into - En English

Author - Auteur Lang, Karl

Title in English or French - Titre anglais ou français From: Monograph of the Harpacticoids. Order Copepoda. Suborder Podoplea GIESBRECHT.

Title in foreign language (Transliterate foreign characters) Titre en langue étrangère (Transcrire en caractères romains) Aus: Monographie der Harpacticiden Ordo Copepoda. Subordo Podoplea GIESBRECHT.

Reference in foreign language (Name of book or publication) in full, transliterate foreign characters. Référence en langue étrangère (Nom du livre ou publication), au complet, transcrire en caractères romains.

Monographie der Harpacticiden

Reference in English or French - Référence en anglais ou français

Monograph of the Harpacticoids

Table with 4 columns: Publisher - Editeur, DATE OF PUBLICATION, Page Numbers in original, and Number of typed pages. Includes details for Otto Koeltz Science Publishers, 1948, 149-152 pages, 10 typed pages.

Requesting Department - DFO

Translation Bureau No. - 1655808

Branch or Division - SIPB

Translation (Initials) - AB

Person requesting - A.T.Reid

AUG 28 1984

Your Number -

Date of Request - 19-07-84

UNEDITED TRANSLATION For information only TRADUCTION NON REVISEE information seulement



MULTILINGUAL SERVICES DIVISION – DIVISION DES SERVICES MULTILINGUES

TRANSLATION BUREAU

BUREAU DES TRADUCTIONS

Client's No.—N ^o du client	Department – Ministère DFO	Division/Branch – Division/Direction SIPB	City – Ville Ottawa
Bureau No.—N ^o du bureau 1655808	Language – Langue German	Translator (Initials) – Traducteur (Initiales) AB	AUG AOUT 28 1984

From: Monographie der Harpacticiden, 1948; pp.149-152 only.

By Karl Lang.

Order Copepoda.

p.149

Suborder Podoplea GIESBRECHT.

Diagnosis: Copepods with the prosome-urosoma division of the trunk located anteriorly of the last thoracic segment, i.e. anteriorly of the segment bearing the fifth pair of legs. The 5th pair of legs in the ♂ never developed as copulatory apparatus.

Tribe Harpacticoida¹⁾ SARS.

Diagnosis: Body shape variable, however it is usually elongate without sharp division between thorax and abdomen. The first segment bearing appendages is

1) STEBBING (1910) writes Arpacticoida. The name originates from the Greek word ἀσπρᾶς. . . The spiritus asper must therefore be replaced with the letter H.

UNEDITED TRANSLATION

For information only

SEC 5-25 (Rev. 82/11)

TRANSLATION NON REVISEE

Information seulement

rarely free but usually fused with the cephalothorax. The first two abdominal segments in the ♀ are more or less fused with one another, in the ♂ almost always unfused. Of the furcal setae only two are well developed at the most. Rostrum²⁾ usually present. 1st antennae in the ♀ 9-segmented at most, in the ♂ 10-segmented at most. Both 1st antennae in the ♂ distinctly geniculated as a rule. 2nd antennae either with a 3-segmented endopodite and large 6 to 7-segmented exopodite, or at most with a 2-segmented endopodite and 4-segmented exopodite; mandible almost always with a more or less well developed palp. Maxillule and maxilla greatly reduced as a rule; maxillipeds developed usually as prehensile organs. 1st legs deviating most often from the other legs. One or some of the 2nd-4th legs occasionally, the 5th legs almost always different in the two sexes. The eggs are contained in one, rarely in two egg sacs, but may also be freely deposited. Heart absent. The testis with one or two sperm ducts which do not end in a spermatophore sac. Oviducts paired.

2) Translator's note: Since the German text does not include the explanations of the abbreviations, the translator is uncertain of the following ones: R., L.

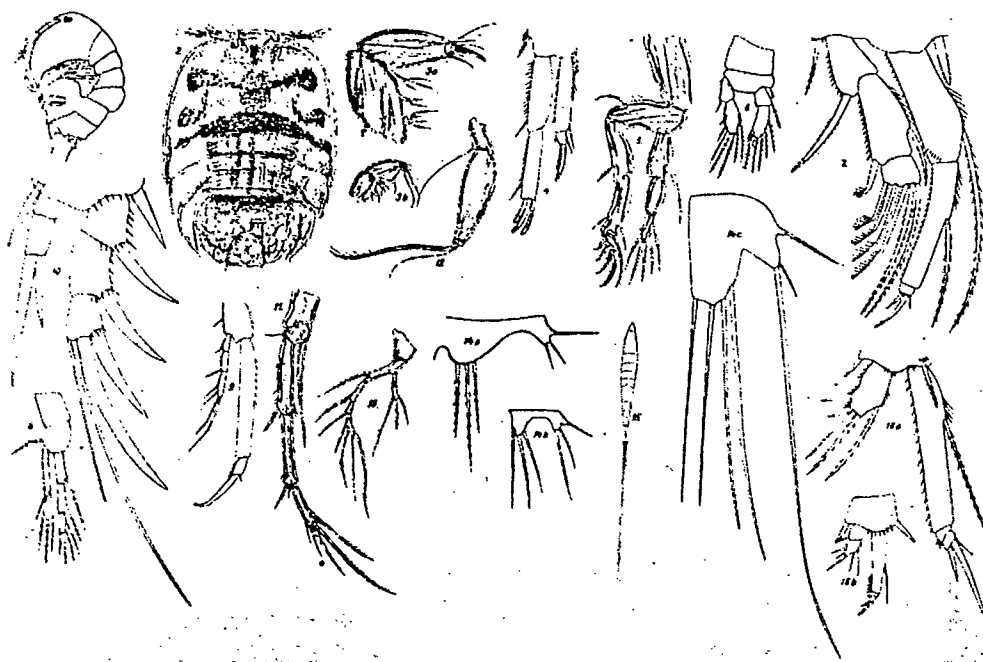


Fig.98: 1. Parategastes sphaericus. - 2. Porcellidium viride. - 3.a. Maxilla of Bradya (Parabradya) dilatata. - 3.b. Maxilla of Microsetella norvegica. - 4. 1st leg of Harpacticus chelifer. - 5. 1st leg of Altheutha oblonga. - 6. 1st leg of Clytemnestra scutellata. - 7. 1st leg of Tisbe furcata. - 8. 1st leg of Euterpina acutifrons. - 9. 1st leg of Paralaophonte gracilipes. - 10. 1st leg of Metis ignea. - 11. 4th leg of Cylindropsyllus laevis. - 12. Maxilliped of Leptastacus macronyx. - 13. 1st leg of Anoplosoma sordidum. - 14a. 5th leg of Pseudomesochra divaricata. - 14b. 5th leg of Pseudomesochra longifurcata. - 14c. 5th leg of Pseudomesochra similis. - 15. Macrosetella gracilis. - 16a. 1st leg of Diarthrodes nobilis. - 16b. 1st leg of Diarthrodes aegideus (fig.1 after PESTA, figs.2,3,5,6,8,11-13 and 14b after SARS, fig.15 after STEUER).

Key to the Families.

Remarks: The sole purpose of the following key is to lead as simply as possible to the family to which a particular animal belongs. It has no phylogenetic value therefore. On account of the purely practical purpose of the key all higher systematic units have been omitted.

1. Lives commensally on the baleen of Balaenoptera
..... Balaenophilidae

Does not live commensally on the baleen of Balaenoptera
..... 2.
2. Body amphipod-like (fig.98:1) Tegastidae

Body as in fig.98:2 Porcellidiidae

Body differently structured 3.
3. Exopodite of 2nd antenna at least 6-segmented p.150
..... 4.

Exopodite of 2nd antenna 4-segmented at most
..... 5.
4. End segment of endopodite of 2nd legs much longer than
the entire exopodite Longipediidae

End segment of endopodite of 2nd legs shorter than the
entire exopodite Canuellidae
5. 1st thoracic segment entirely unfused; exopodite of 2nd
antennae 1-segmented, with several setae; maxillipeds
leaflike, with several setae. Species inhabiting mosses
and freshwater Phyllognathopodidae

1st thoracic segment entirely unfused; exopodite of 2nd
antennae 2-segmented; maxillipeds not leaflike; fresh-
water species Chappuisiidae

1st thoracic segment only partially fused with the head;

- exopodite of 2nd antennae represented only by two setae;
maxillipeds reduced; freshwater and brackish-water
species D'Arcythompsoniidae
(partially)
1st thoracic segment entirely fused with the head
..... 6.
6. Maxilla chiefly as in fig.98:3a-b. Body spindle-shaped;
5th legs with only two setae Ectinosomidae
These traits not combined 7.
7. 1st legs chiefly as in fig.98:4 Harpacticidae p.151
1st legs chiefly as in fig.98:5 (endopodite may also be
2-segmented) Peltidiidae
1st legs chiefly as in fig.98:6 Pseudopeltidiidae
1st legs chiefly as in fig.98:7 Tisbidae (partially)
1st legs chiefly as in fig.98:8 Tachidiidae
(Euterpininae)
1st legs chiefly as in fig.98:9 (exopodite may also be
1 to 3-segmented); exopodite of 2nd antenna present at
least as rudiment Laophontidae
1st legs chiefly as in fig.98:10; body pear-shaped; mouth-
parts vestigial Metidae
1st legs differently structured 8.
8. Middle segment of exopodite of 1st legs without spine
at outer margin 9.

- Middle segment of exopodite of 1st legs with spine at
outer margin 10.
9. Endopodite of 2nd-4th legs in the ♀ 2-segmented; 2nd
segment of exopodite of 1st legs without seta at inner
margin; exopodite of 3rd legs in the ♂¹ not modified
for copulatory activity *Cylindropsyllidae*
(*Leptopontiinae*)
Endopodite of 2nd-4th legs in the ♀ 2-segmented; 2nd
segment of the exopodite of the 1st legs with seta at
the inner margin; exopodite of the 3rd legs in the ♂¹
not modified for copulatory activity
. *Ameiridae* (partially)
Endopodite of the 2nd-4th legs in the ♀ 1-segmented;
exopodite of the 3rd legs in the ♂¹ modified for copula-
tory activity *Parastenocaridae*
10. 1st segment of the exopodite of the 1st legs with seta
at the inner margin; maxillipeds not prehensile
. 11.
These characters not combined 12.
11. Exopodite of 2nd antennae 1-segmented, with two setae
at most *Aegisthidae*
Exopodite of 2nd antennae 4-segmented, with several
setae *Cerviniidae*

12. Endopodite of 4th legs 2-segmented at most
..... 13.
- Endopodite of 4th legs 3-segmented
..... 28.
13. Exopodite of 2nd antennae 4-segmented; maxillipeds
not prehensile; body slim, vermiform
..... Neobradyyidae
- Exopodite of 2nd antennae 2-segmented at most
..... 14.
14. Maxillipeds not prehensile; 1st legs not prehensile,
with 2-segmented endopodite; 1st antennae 5 to 6-
segmented, with plumose setae; all segments dentate
dorsally Tisbidae (partially)
- Maxillipeds not prehensile. Remaining above-mentioned
characters not combined 15.
- Maxillipeds prehensile 17.
15. 4th legs as in fig.98:11 Cyliandropsyllidae
(partially)
4th legs differently structured .. 16.
16. End segment of exopodite of 2nd-4th legs with three
spines at the outer margin Louriniidae
- End segment of exopodite of 2nd-4th legs with two spines
at the outer margin D'Arcythompsoniidae
(partially)
17. Maxillipeds as in fig.98:12 Cyliandropsyllidae
(Leptastacinae)

- Maxillipeds differently structured ... 18.
18. Body vermiform; 5th legs form uniform plates; exopodite of
4th legs as in fig.98:11 Cylindropsyllidae
(partially)
These characters not combined 19.
19. Maxillipeds with one end claw and two end setae
..... Paramesochridae
- Maxillipeds differently structured ... 20
20. Labrum^{*)} large, more or less far protruding; furca
aberrant; rostrum^{*)} set off Tetragonicepsidae
These characters not combined 21.
21. Exopodite of 2nd antennae missing; 1st antennae 5-
segmented at most Ancorabolidae
These characters not combined 22.
22. All segments sharply set off; endopodite of 1st legs
not prehensile; 2-segmented at most .. Cletodidae
(partially)
These characters not combined 23.
23. 1st antennae 4 to 5-segmented; 1st legs not prehensile
..... Cletodidae
(partially)
These characters not combined 24.
24. 1st legs as in fig.98:13 Ameiridae
(Anoplosoma)

*) see Translator's footnote on p.2

- 1st legs not as in fig.98:13; basis of 2nd-4th legs trans-
versely elongated Ameiridae
(Malacopsyllus)
- 1st legs and basis of 2nd-4th legs differently
structured 25.
25. 2nd antennae with basis Ameiridae
2nd antennae with allobasis 26.
26. 5th legs as in fig.98:14a-c; rostrum^{*)} large
..... Diosaccidae
(partially)
5th legs not as in fig.98:14; rostrum^{*)} large; 1st
antennae 4-segmented; exopodite of 2nd antennae 1-
segmented Canthocamptidae
(partially)
5th legs not as in fig.98:14; rostrum^{*)} not large
..... 27.
27. 1st legs with prehensile rami; endopodite of 2nd-3rd
legs in the ♀ 3-segmented Diosaccidae (partially)
These characters not combined Canthocamptidae
(partially)
28. Cuticular lenses present Miracidae (partially)
Cuticular lenses absent 29.
29. Body as in fig.98:15 Miracidae (partially)

*) see translator's footnote on p.2

- Body differently structured 30.
30. 2nd antennae with basis; exopodite of 2nd antennae 1-segmented; maxillae with three endites at most
..... Ameiridae (partially)
- These characters not combined 31.
31. Maxillipeds well developed, not prehensile
..... Tisbidae (partially)
- Maxillipeds differently structured .. 32.
32. Endopodites of 1st legs not prehensile .. 33.
- Endopodites of 1st legs prehensile 34.
33. Exopodites of 2nd antennae very small, 1-segmented, with two setae at most
..... Cletodidae (partially)
- Exopodite of 2nd antennae well developed, 2 to 3-segmented, with more than two setae .. Tachidiidae (partially)
34. Seta at the inner margin of the 1st segment of the endopodite of 1st legs inserted exactly apically
..... Diosaccidae (partially)
- Seta at the inner margin of the 1st segment of the endopodite of the 1st legs inserted subapically 35.
35. 1st legs as in fig.98:16 Thalestridae
(Diarthrodes)
- 1st legs differently structured ... 36.
36. End segment of endopodite of 3rd legs with 6 setae
..... Thalestridae (partially)
- End segment of endopodite of 3rd legs with 5 setae
..... Parastenheliidae