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NEW ZEALAND
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

BULLETIN 139 (3)

Biological Results of The Chatham Islands 1954 Expedition

PART 3

Polychaeta Errantia

by G. A. KNOX

New Zealand Oceanographic Institute
Memoir No. 6

1960

A beam trawl from Station 6 in 220 fm dominated by the polychaete,
Hyalinoecia tubicola (Müller).

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FOREWORD

The Chatham Islands 1954 Expedition was organised and led by Prof. G. A. Knox of the Zoology Department of Canterbury University. The expedition was planned to explore the distribution of benthic and pelagic animals between the New Zealand coast and the Chatham Islands over the Chatham Rise, and to investigate the faunal affinities of the Chathams group, which lies in the Sub-tropical Convergence zone.

A substantial grant towards the cost of the expedition was made by the Council for Scientific and Industrial Research on the recommendation of the N.Z. Oceanographic Committee: further financial support was given by Canterbury University, Canterbury Museum, Dominion Museum and Canterbury and Southland Branches of the Royal Society of New Zealand. The expedition was carried out from the M.V. *Alert* under the command of her owner and master, Mr A. J. Black.

The scientific staff was drawn from the following organisations: Canterbury Museum (R. R. Forster); Canterbury University (G. A. Knox, E. W. Dawson, J. R. MacIntyre); Dominion Museum (R. K. Dell, J. M. Moreland); N.Z. Oceanographic Institute (D. M. Garner); Otago University (D. Marshall); Portobello Marine Biological Station (E. J. Batham); Victoria University of Wellington (J. C. Yaldwyn).

Prof. G. A. Knox has been responsible for organisation of the sorting and allocation of material. Type material from the expedition is deposited at Canterbury Museum. Preliminary technical editing of the resulting manuscripts has been carried out by Prof. Knox and Dr D. E. Hurley. Mr M. O'Connor (Information Bureau, D.S.I.R.) has been responsible for final editing.

Further results of the expedition will be published in this series as the examinations of other animal groups are completed.

J. W. BRODIE,
Director,
N.Z. Oceanographic Institute.

CONTENTS

The Polychaeta Errantia of the Chatham Islands 1954 Expedition

G. A. KNOX,
Department of Zoology, University of Canterbury

INTRODUCTION

This paper records the Errant Polychaeta collected by the Chatham Islands 1954 Expedition. Details of this expedition are to be found in the account by Knox (1957) listed at the end of this paper. Additional material from the Chatham Islands in the collections of the Dominion Museum, Wellington, and the Canterbury Museum, Christchurch, has been examined, as well as the polychaetes from "Discovery II" Sta. 2733 on the Chatham Rise.

I would like to express my thanks to all members of the expedition, and in particular to Dr Elizabeth Batham and Dr R. K. Dell, who assisted in the collection and preservation of the specimens. A grant from the University of Canterbury Council enabled me to visit the British Museum to compare much of the material discussed in this paper with the collections housed there. As will be seen this enabled many points of synonymy to be cleared up. My work at the British Museum was facilitated by the friendly assistance of the officers of the Museum, particularly Mr Norman Tebble, to whom I offer my sincere thanks. A period was also spent at the Allan Hancock Foundation, University of Southern California, with Dr Olga Hartman, to whom I also express my gratitude for the assistance given. Much of the comparative material, from widespread localities throughout New Zealand, used in the preparation of this account was collected on field trips financed by grants from the Research Committee of the University of New Zealand. For this assistance I am very grateful.

STATION LIST

Errant Polychaetes have been recorded from the 43 Chatham Islands 1954 Expedition Stations listed below:

Sta. 1, 42°51·9′S., 175°26·5′E., Mernoo Bank, 100 fm, coarse bryozoan shell sand;
Sta. 2, 42°59·4′S., 175°30·5′E., Mernoo Bank, 61 fm, fine bryozoan shell sand;
Sta. 3, 43°10·1′S., 175°36·5′E., Mernoo Bank, 41 fm, coarse bryozoan shell sand;
Sta. 4, 43°14′S., 176°11′E., Chatham Rise, 200 fm, fine green sand;
Sta. 5, 43°32′S., 178°38′E., Chatham Rise, 300+ fm, fine green sand;
Sta. 6, 43°40′S., 179°28′E., Chatham Rise, 220 fm, fine grey sandy mud;
Sta. 7, 43°42′S., 179°55′E., Chatham Rise, 280 fm, fine grey sandy mud;
Sta. 9, Glory Bay, Pitt Island, intertidal rocks;

Sta. 10, Glory Bay, Pitt Island, surface with light;
Sta. 11, Owenga, intertidal rocky shore;
Sta. 12, Owenga, surface with light;
Sta. 13, Owenga, 4–6 fm, fine brown sand;
Sta. 14, 44°00′S., 176°21′W., Hanson Bay, 15 fm, coarse shell sand, limestone;
Sta. 15, 43°56′S., 176°18·5′W., Hanson Bay, 30 fm, fine grey sand;
Sta. 16, Kaingaroa, intertidal rocky shore;
Sta. 18, 42°41′S., 176°48′W., Off Cape Pattison, 15 fm, rock;
Sta. 19, 43°38·2′S., 176°38′W., 25 fm, rock;
Sta. 22, The Sisters Islands, intertidal shore collecting;
Sta. 23, 43°32·5′S., 176°47·5′W., N. of The Sisters, 33 fm, coarse shell sand;
Sta. 24, 43°36·2′S., 176°48·5′W., S. of The Sisters, 38 fm, coarse shell sand gravel;
Sta. 25, Waitangi Wharf, collection from piles;
Sta. 26, Waitangi, intertidal rocky shore;
Sta. 28, 43°57′S., 176°47′W., Petre Bay, 45 fm, rock;
Sta. 29, 43°55·5′S., 177°08′W., Petre Bay, 50 fm, fine grey sand;
Sta. 30, 43°56′S., 176°53′W., Petre Bay, 94 fm, fine green sand;
Sta. 31, 43°56·5′S., 176°37′W., Petre Bay, 40 fm, fine green sand;
Sta. 32, Waitangi, 7 fm, fine grey sand;
Sta. 34, 44°04′S., 175°23·5′W., E. of Forty Fours, 130 fm, fine sand gravel;
Sta. 37, 44°21·5′S., 176°13′W., Between South East Island and Pitt Island, 30 fm, rock, coarse shell sand;
Sta. 38, S. of Little Mangere, 43 fm, coarse shell sand;
Sta. 39, South East Island, intertidal rocky shore;
Sta. 40, 44°32′S., 176°05′W., S.E. of Pitt Island, 155 fm, fine green sand;
Sta. 41, 44°35·5′S., 176°04′W., S.E. of Pitt Island, 330 fm, fine green muddy sand;
Sta. 43, Owenga, 3–4 fm, coarse sand, sandstone;
Sta. 44, 43°35′S., 176°03·5′W., N.30°E. of Kaingaroa, 120–125 fm, fine green sand mud;
Sta. 46, Kaingaroa, 3 fm, fine grey sand;
Sta. 47, Kaingaroa, surface with light;
Sta. 48, Port Hutt, surface with light;
Sta. 49, Port Hutt, intertidal rocky shore;
Sta. 50, Port Hutt, 3–4 fm, fine grey sand;
Sta. 52, 44°04′S., 177°19′W., Chatham Rise, 125 fm, fine green sand;
Sta. 59, 43°38′S., 177°19′E., Chatham Rise, 290 fm, fine green sand mud;
Sta. 60, 43°36′S., 175°31′E., Chatham Rise, 205 fm, fine green sand;
"Discovery II" Sta. 2733, 45°48′S., 178°58′W., Chatham Rise, 202 fm.

A total of 99 species are recorded of which 20 are described as new species. In addition two species, *Aglaophamus maoriana* and *Aglaophamus bathamae* have previously been described from material collected by the expedition (Knox, 1960). Another 27 species are recorded from the New Zealand area for the first time. A list of species follows. New species are given in bold face type and new records are preceded by an asterisk. A consideration of the geographic distribution of the species will be postponed until the Sedentaria have been dealt with.

LIST OF SPECIES

Family AMPHINOMIDAE
Chloeia inermis Quatrefages
Pseudoeurythoe minuta n. sp.

Family APHRODITIDAE
Aphrodita australis Baird
Aphrodita talpa Quatrefages

Family POLYODONTIDAE
Panthalis novaezelandiae n.sp.

Family POLYNOIDAE
**Harmothoë crosetensis* (McIntosh)
Eunoë iphionoides (McIntosh)
**Polyeunoa laevis* McIntosh
**Antinoë kermadecensis* (McIntosh)
**Antinoë antarctica* (Bergstrom)
**Antinoë epitoka* Monro
Antinoe purpureus n. sp.
Lepidonotus polychromus Schmarda
Lepidonotus jacksoni Kinberg
Lepidonotus ambigua n. sp.

Lepidonotus purpureus Potts
Lepidametria brunnea n. sp.
Lepidasthenia platylepis n. sp.
Hyperhalosydna striata (Kinberg)
Euphione squamosa (Quatrefages)
Euphione ornata n. sp.

Family SIGALIONIDAE

Sigalion ovigerum Monro
Leanira laevis McIntosh
Sthenelais chathamensis n. sp
**Euthalenessa digitata* (McIntosh)

Family HESIONIDAE

Podarke angustifrons (Grube)
Nereimya blacki n. sp.

Family SYLLIDAE

Syllis (Typosyllis) armillaris Muller
**Syllis (Typosyllis) variegata* Grube
**Syllis (Typosyllis) tristanensis* Day
**Syllis (Typosyllis) augeneri* Haswell
Syllis (Typosyllis) brachyola Ehlers
Syllis (Typosyllis) attenuata n. sp.
**Syllis (Typosyllis) prolifera* Krohn var. *zonata* Haswell
**Syllis (Typosyllis) corsucans* Haswell
Syllis (Haplosyllis) spongicola Grube
**Syllis (Ehlersia) anops* Ehlers
Trypanosyllis taeniaeformis (Haswell)
Eusyllis kerguelensis McIntosh
Eudontosyllis n.g. aciculata n. sp.
Pionosyllis cosma Gravier
**Pionosyllis ehlersiaeformis* Augener
Pionosyllis stylifera Ehlers
Odontosyllis polycera Schmarda
Odontosyllis maorioria n. sp.
Brania kerguelensis (McIntosh)
Exogone heterosetosa McIntosh
**Sphaerosyllis hirsuta* Ehlers
Autolytus macleranus McIntosh
Autolytus chathamensis n. sp.

Family PHYLLODOCIDAE

Phyllodoce mernoensis n. sp.
Phyllodoce (Genetyllis) castanea Marenzeller
**Phyllodoce (Genetyllis) gracilis* Kinberg
**Phyllodoce (Anaitides) patagonica* (Kinberg)
**Eulalia viridis* var. *capensis* Schmarda
Eulalia (Pterocirrus) magalhaensis Kinberg
Eulalia (Eumidia) sanguinea (Oersted)
Eulalia (Euphylla) n. subg. benthicola n. sp.
**Notophyllum imbricatum* Moore
**Eteone aurantiaca* Schmarda

Family NEPHTHYIDAE

Aglaophamus macrura (Schmarda)
Aglaophamus maoriana Knox
**Aglaophamus virginis* (Kinberg)
Aglaophamus verrilli (McIntosh)
Aglaophamus bathamae Knox

Family NEREIDAE

Nereis falcaria Willey
Nereis jacksoni Kinberg
Nereis delli n. sp.
Nereis antipoda n. sp.
Neanthes cricognatha Ehlers
Neanthes aciculata n. sp.
Cheilonereis peristomialis Benham
Perinereis amblyodonta (Schmarda)
Perinereis nuntia (Savigny) var. *vallata* (Grube)
Perinereis nuntia (Savigny) var. *brevicirrus* (Grube)
Platynereis australis (Schmarda)

Family EUNICIDAE

Eunice australis Quatrefages
Eunice tentaculata Quatrefages
Eunice rubella Knox
**Eunice vittata* delle Chaije
**Eunice (Palola) siciliensis* Grube
Eunice (Nicidion) curticirrus n. sp.
Marphysa capensis (Schmarda)
Hyalinoecia tubicola (Müller)
Rhamphobrachium chuni Ehlers
**Onuphis proalopus* Chamberlain
**Onuphis (Nothria) iridescens* (Johnson)
**Onuphis conchylega* Sars
Lumbrinereis brevicirra (Schmarda)
Lumbrinereis sphaerocephala (Schmarda)
Lumbrinereis sp.
Ninoë falklandica Monro
Dorvillea australiensis (McIntosh)
Dorvillea incerta (Schmarda)

Family GLYCERIDAE

Hemipodus digitifera n. sp.
Glycera tessellata Grube
Glycera lamelliformis McIntosh

Family GONIADAE

Goniada brunnea Audouin and Edwards
**Goniada emerita* Audouin and Edwards

SYSTEMATICS

Family AMPHINOMIDAE

Genus **Chloeia** Savigny, 1818

Chloeia inermis Quatrefages, 1865

Chloeia inermis Quatrefages, 1865, p. 389.
Chloeia inermis, Benham, 1916, p. 390, text-figs. 6–11.

Records

Sta. 5 (1); Sta. 6 (2); Sta. 44 (6); Sta. 59 (6).

Remarks

All the specimens, although typical, are small, the largest measuring 12 mm.

Distribution

New Zealand.

Genus **Pseudeurythoe** Fauvel

Pseudeurythoe minuta n. sp. (figs. 1–6)

Records

Sta. 44 (4); Sta. 59 (6).

Description

The body is slender, vermiform, somewhat inflated anteriorly, tapering posteriorly. The type specimen (Sta. 44) measures 17 mm. for 48 setigers. The prostomium (fig. 1) is rounded in front, longer than broad, retracted into the first setiger, and divided into 2 regions by a transverse groove a little way behind the lateral antennae. The caruncle consists of a rounded pad in the median region of the first setiger. All 3 prostomial antennae are equal in length, the median near the posterior border of the prostomium. There are no eyes visible.

The first setiger has conspicuous dorsal and ventral cirri. The gills commence on the fourth setiger as a small tuft of filaments and rapidly increase in size. They are present on 7 setigers only. When best developed they branch dichotomously to form about 12 branches.

Both notopodia and neuropodia are inconspicuous, the chaetal sac forming a low rounded lobe (fig. 2). The dorsal and ventral cirri are short, slender, reduced posteriorly. Notosetae consist of (1) fine, capillary, serrated setae (fig. 6) and (2) stouter harpoon setae (fig. 5). Neurosetae consist of (1) slender, smooth, capillary setae, (2) stouter, serrated, capillary setae, without a spur (fig. 4) and (3) shorter, stout setae with a prominent spur and serrated ends (fig. 3).

Remarks

The shape of the prostomium of this species resembles *P. ambigua* Monro. In other described species of the genus, however, the gills cease at the 25th to the 50th setiger, whereas in the present specimens they end at the 11th setiger.

Holotype

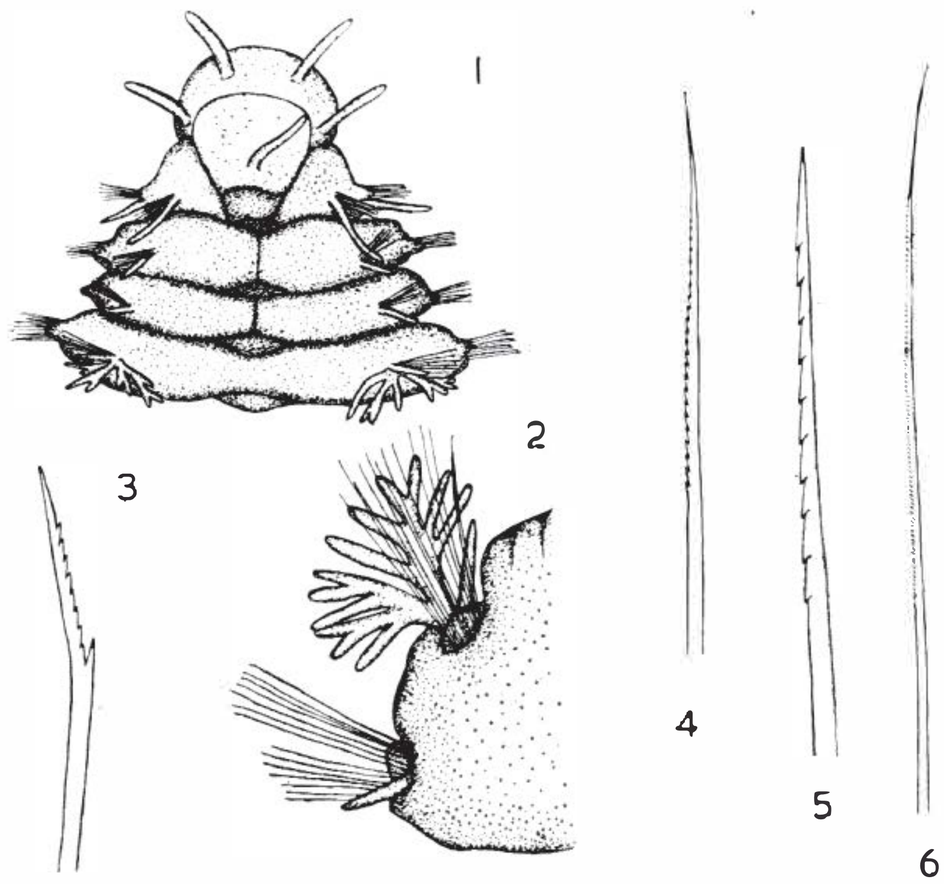
Canterbury Museum, Christchurch.

Paratypes

Dominion Museum, Wellington, and British Museum (Nat. Hist.), London.

Type locality

44°35′S., 176°03·5′W., Chatham Islands, 120–125 fm.



Pseudoeurythoe minuta n.sp. Fig. 1 – Anterior end. Fig. 2 – Ninth parapodium. Fig. 3 – Spurred neuroseta. Fig. 4 – Serrated neuroseta without a spur. Fig. 5 – Harpoon notoseta. Fig. 6 – Fine capillary notoseta.

Family APHRODITIDAE

Genus **Aphrodita** Linnaeus, 1758

Aphrodita australis Baird, 1865

Aphrodita australis Baird, 1865, p. 176.
Aphrodita australis, McIntosh, 1885, p. 34, pl. 7, figs. 6–7.
Aphrodita australis, Fauvel, 1923, p. 136, fig. 3 (Synonymy).

Records

Sta. 30 (1).

Remarks

A large specimen of this well-known species, measuring 100 mm by 40 mm.

Distribution

Japan, Indian Ocean, Australia, New Zealand.

Aphrodita talpa Quatrefages, 1865

Aphrodita talpa Quatrefages, 1865, I, p. 196, pl. 3, fig. 24.
Aphrodita talpa, Monro, 1936, p. 82, fig. 3.

Records

Sta. 30 (1); Sta. 31 (1); Sta. 41 (1).

Remarks

This species is characterised by the long slender dorsal setae, entangled for most of their length in the dorsal felt. The ventral setae are tapering with hairy tips. The largest specimen measures 27 mm by 15 mm for 40 setigers and the smallest 15 mm by 8 mm for 32 setigers. The ventral surface and parapodia are densely papillated. All specimens have the hinder fifth of the body narrowed to form a caudal prolongation as noted by Monro (1936).

Distribution

Indian Ocean, Pacific Ocean, China, South Australia, New Zealand.

Family POLYODONTIDAE

Genus **Panthalis** Kinberg, 1856

Panthalis novaezealandiae n. sp. (figs. 7–10)

Records

Sta. 52 (anterior end, Holotype); Sta. 5 (anterior end).

Description

The holotype specimen, consisting of a prostomium and 22 setigerous segments, measures 7·5 mm by 5 mm. The body in alcohol is colourless. The other specimen measures 23 mm by 6 mm for 28 setigerous segments.

The prostomium (fig. 7) is pale, bilobed, with a pair of conspicuous short, ovoid ommatophores without pigment or eyes. The posterior pair of eyes are also absent. The median antenna has a long basal stalk that extends posteriorly nearly to the posterior margin of the prostomium, its article (missing in the holotype specimen) is stout, subulate, about two-thirds the length of the prostomium plus ommatophores (fig. 8). The paired prostomial antennae are stout, subulate, equal in length to the median, and inserted ventral to the ommatophores. Palpi are pale, tapering, with deeply cut grooves forming 8 longitudinal ridges.

The peristomium is directed anteriorly at the sides of the prostomium. Its 2 pairs of cirri have prominent basal stalks with large inflated articles tapering abruptly to a fine point. A few capillary setae are present. The arrangement of the elytra is as usual in the genus. They are smooth, translucent, the lateral margins curved upwards with a prominent pouch (fig. 9). The anterior pair overlap in the mid-dorsal line.

The first parapodium (fig. 10) is directed anteriorly, elongated, but not noticably enlarged, provided with a blunt notoacicular lobe with numerous, slender, capillary setae and a broad, collar-like neuropodium with two bundles of stouter setae. The ventral cirrus is long, stout, tapering. The second parapodium resembles the more posterior ones. It has a blunt notoacicular lobe and a deep neuropodium. The dorsal cirrus is subulate and much stouter than the ventral one which is slender, tapering. Neurosetae consist of 2 superior, spinose setae, 5 median aristate setae and 7 inferior, sickle-shaped, serrulate setae.

More posteriorly the notopodium becomes flattened and closely applied to the anterior face of the neuropodium (fig. 9). A typical parapodium in the posterior part of the specimen contains short, slender, capillary notosetae and neuropodial setae as follows: (1) 2 to 3 superior penicillate setae (fig. 11), (2) stout, median, aristate setae with an appendage (fig. 12), and (3) inferior, sickle-shaped, serrulate setae (fig. 14). The penicillate setae appear in the 8th setiger, where 2 are present, there are 3 in the 9th to 13th setigers and 2 thereafter. No branchiae have been observed.

Remarks

This species resembles *P. oerstedi* in having large, ovoid, colourless ommatophores, although the presence or absence of eyes may depend on fixation. The ridged palps are a feature not found in the other described species of *Panthalis*. Other distinctive features are the peculiar club-shaped peristomial cirri and the small number of penicillate setae in the neuropodia. This is the first representative of the family Polyodontidae to be recorded from New Zealand.

Holotype

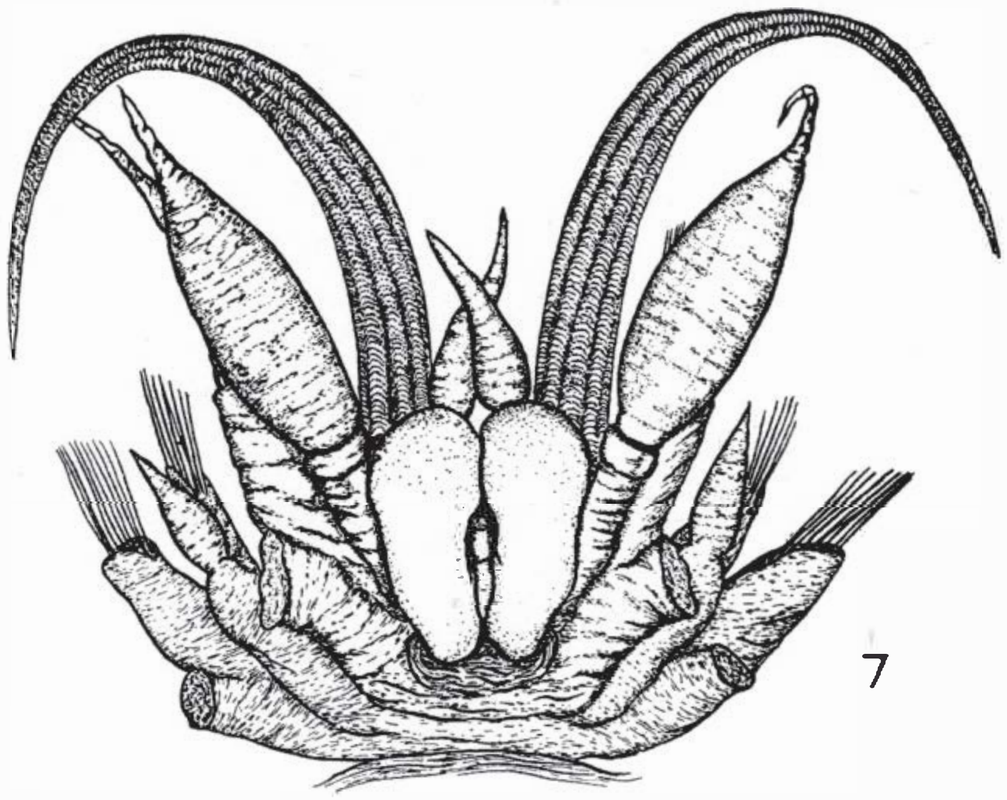
Canterbury Museum Christchurch.

Paratype

Dominion Museum, Wellington.

Type locality

44°04′S., 177°19′W., Chatham Rise, 125 fm.



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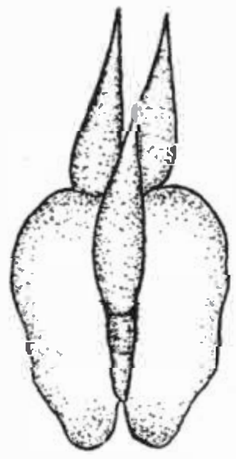

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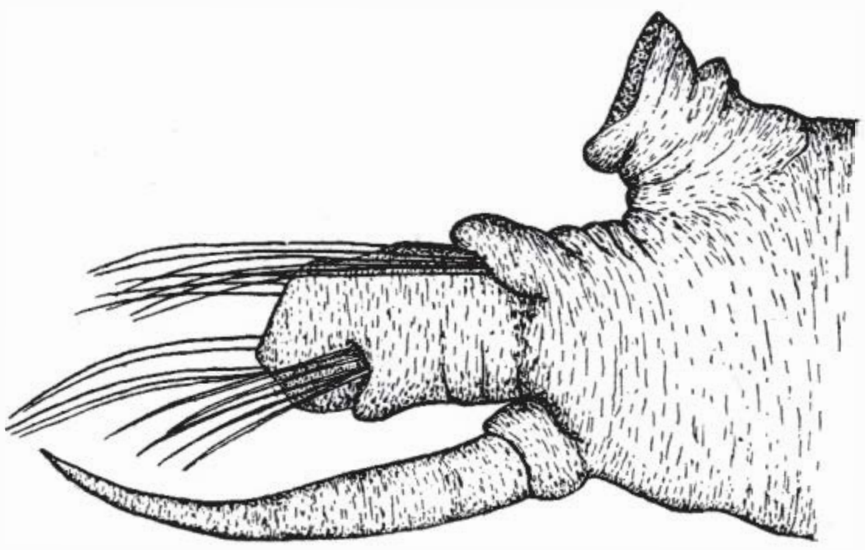

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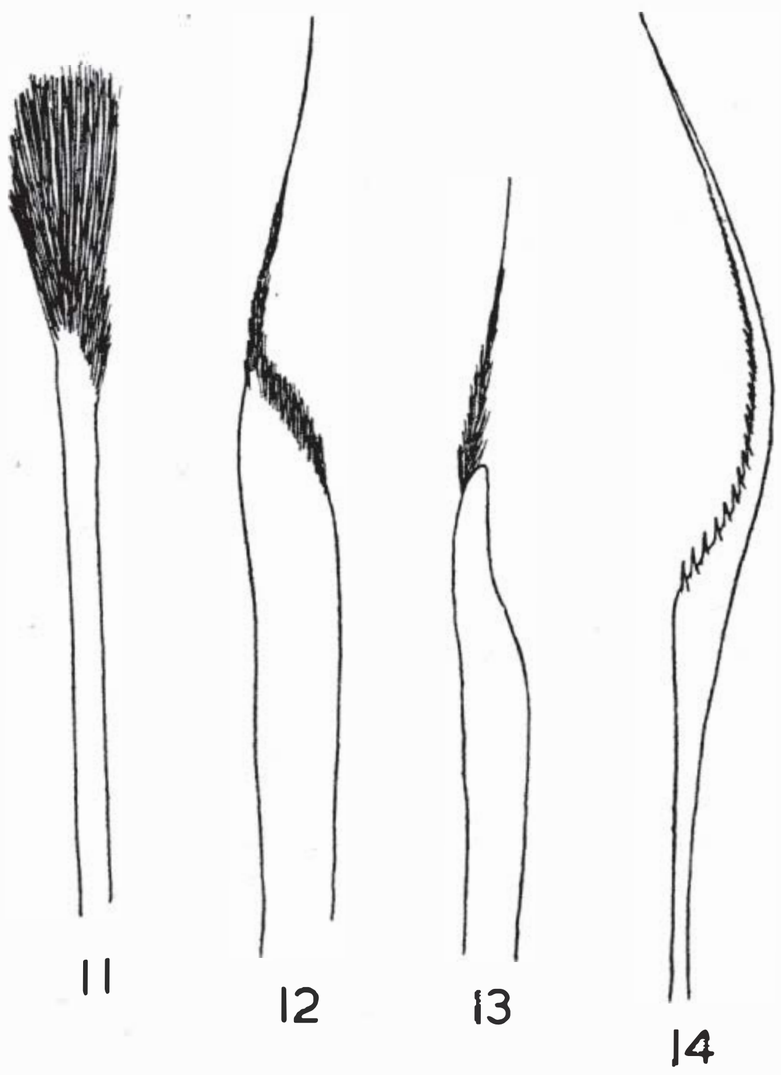


11 12 13 14

Panthalis novaezealandiae n.sp. Fig. 7 – Anterior end of holotype. Fig. 8 – Anterior end of paratype. Fig. 9 – Posterior parapodium. Fig. 10 – Anterior parapodium. Fig. 11 – Superior penicillate neuroseta. Fig. 12 – Median aristate neuroseta. Fig. 13 – Second type of median aristate neuroseta. Fig. 14 – Inferior sickle-shaped notoseta.

Family POLYNOIDAE Grube

Genus **Harmothoe** Kinberg, 1856

Harmothoe crosetensis (McIntosh) 1885 (figs. 15–21)

Lagasica crosetensis McIntosh, 1885, p. 88, pl. 8, fig. 6, pl. 13, fig. 2, pl. 18, fig. 7, pl 11A, figs. 4–6.
Harmothoë crosetensis, Willey, 1902, p. 266, pl. 13, figs. 3, 9–11.
Harmothoë crosetensis, Ehlers, 1913, p. 442, pl. 27, figs. 1–4.
Harmothoë crosetensis, Bergstrom, 1916, p. 284, pl. 2, fig. 4.
Hermadion rouchi, Benham (nec Gravier), 1921, p. 46, pl. 7, figs. 43–47.
Harmothoë crosetensis, Monro, 1930, p. 57.

Records

Sta. 6 (1).

Description

The single specimen measures 16 mm by 10 mm, including the setae. The body in alcohol is colourless. The prostomium is slightly broader than long, the posterior half rectangular, the anterior deeply incised with well developed, acutely pointed peaks (fig. 15). There are 4 large, black eyes. The ceratophore of the median antenna, which is missing, is large and bulbous. The lateral antennae are one and a half times the length of the prostomium, tapering to a fine point and clothed with long cilia with bulbous tips. The palps are elongated, smooth, tapering. The tentaculophores of the tentacular cirri are stout, elongated, and the styles smooth, slender, tapering.

The colourless elytra are deeply imbricated, overlapping mid-dorsally. On their outer edges they are fringed with elongate papillae (fig. 17). The surface is densely covered with colourless spines. Under high magnification these spines are seen to end in blunt tips (fig. 18).

The dorsal cirri are slender, tapering (fig. 16). The notopodial acicular lobe is elongated and the ventral cirrus slender, projecting beyond the neuropodial lobes. The notosetae are numerous, almost straight, with blunt tips and fine close rows of spines (fig. 19). The upper notosetae are more slender than the lower and end in unidentate, hooked tips (fig. 20). The lower notosetae are bidentate with a small subapical tooth that may be easily overlooked (fig. 21).

Remarks

The development of the subapical tooth of this species appears to be very variable. The present specimen lacks the colour pattern on the dorsum as described by Ehlers (1913). McIntosh's type was also colourless, and apart from differences in the shape of the prostomium the present specimen agrees with McIntosh's account. This is the first record of the species outside Antarctic waters.

Distribution

Circum-antarctic.

Genus **Eunoe** Malmgren, 1865

Eunoe iphionoides (McIntosh) 1885 (figs. 22–26)

Eunoa iphionoides McIntosh, 1885, p. 69, pl. 8, fig. 4, pl. 8A, figs. 1–2.

Records

Sta. 6 (2); Sta. 29 (1); Sta. 30 (1).

Description

The largest specimen from Sta. 29, with 38 setigers, measures 19 mm by 6·5 mm, including setae, and the smallest, from Sta. 30, 13 mm by 6 mm. They are colourless, except for the yellowish setae and black spots on the elytra. The prostomium is broader than long with well developed, blunt prostomial peaks and a well marked median sulcus (fig. 22). The median antenna, which arises from a short, broad ceratophore, is twice the length of the prostomium, tapering to a fine filamentous tip, as do the tentacular and dorsal cirri. The lateral antennae are short. These antennae and the tentacular and dorsal cirri are covered with short, blunt papillae.

Elytra (fig. 24) are fringed on their external margin with irregular, blunt papillae which also cover the elytral surface in the vicinity of the fringe. The rest of the surface is covered with sharply pointed, conical papillae of varying size, those nearest the external margin being the largest. Many of these papillae contain black pigment. The development of this pigment is very variable, scarcely noticeable in some specimens and better developed on the anterior elytra than on the posterior.

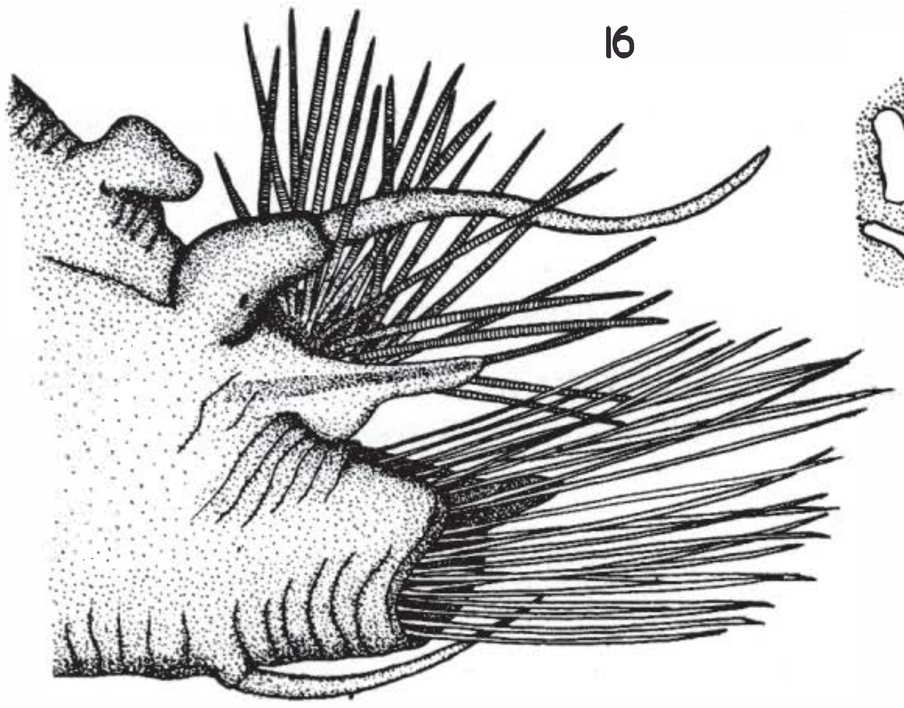
Dorsal cirri have an elongated, stout cirrophore, are somewhat enlarged below the filamentous tip and extend distally beyond the elytra (fig. 23). Ventral cirri are short not extending beyond the neuropodial lobes. Notosetae are numerous, stout, ending in a blunt tip (fig. 26). Neurosetae are unidentate throughout with blunt, tapering naked tips and a short spinous region (fig. 25).

Remarks

This species was recorded by McIntosh (1885) off New Zealand, 38°50′S., 169°20′E. in 275 fm. This is the second record of the species.

Distribution

New Zealand.



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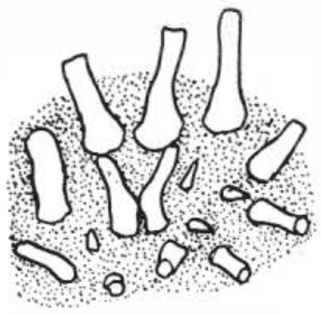

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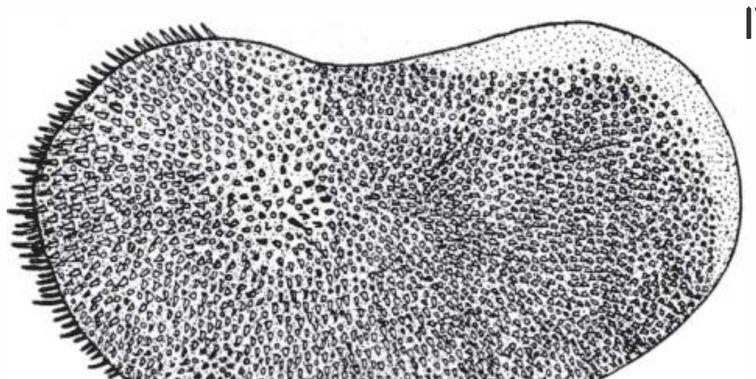

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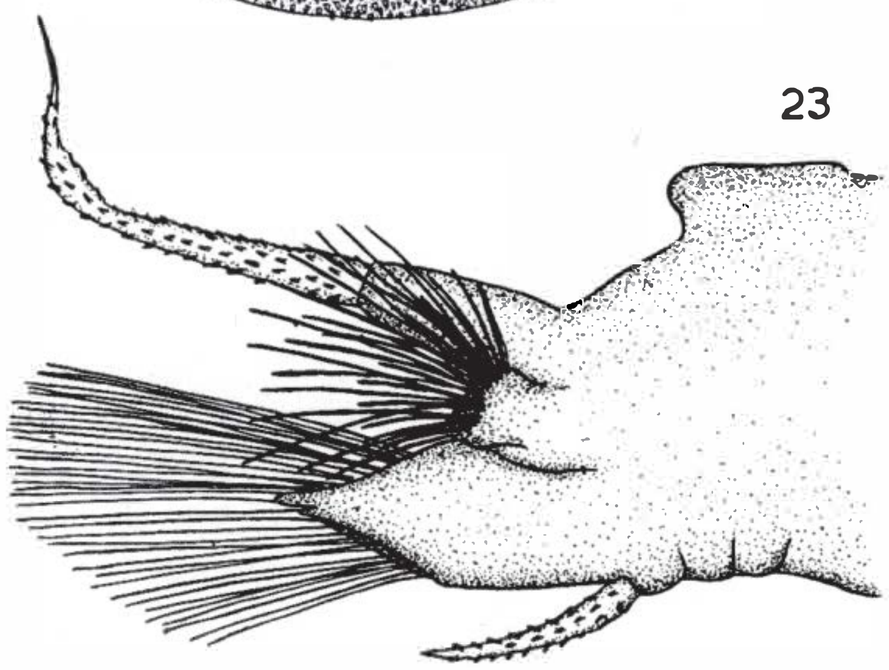

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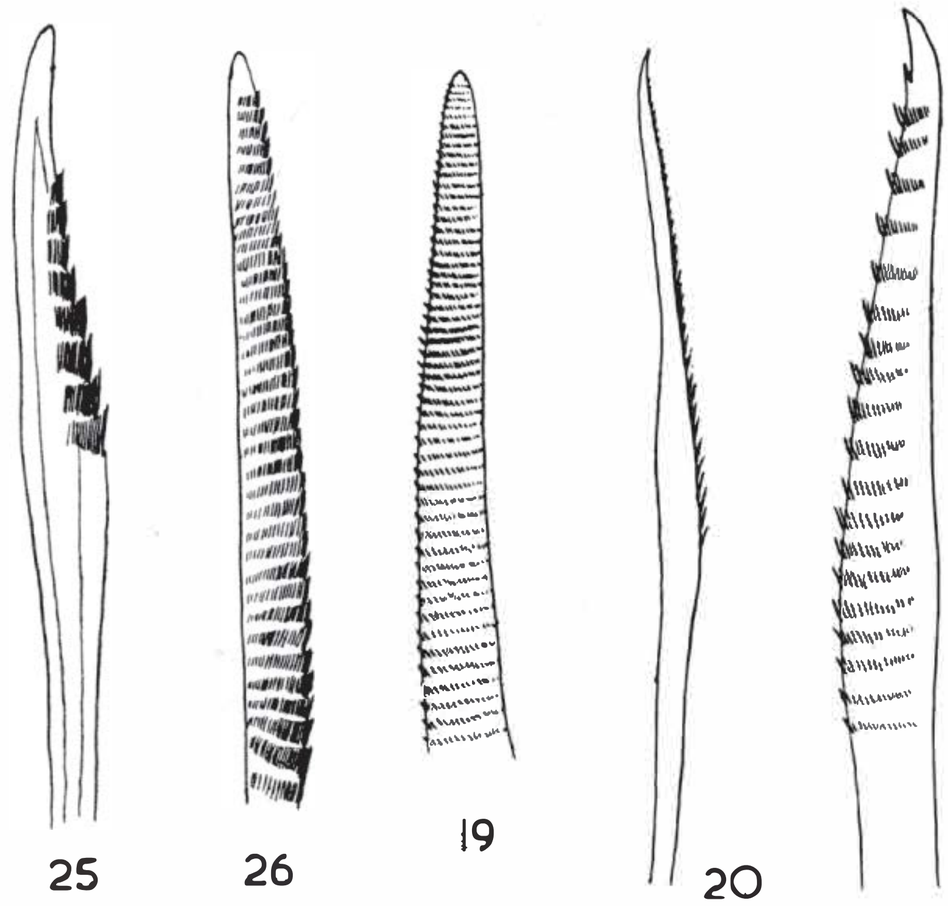

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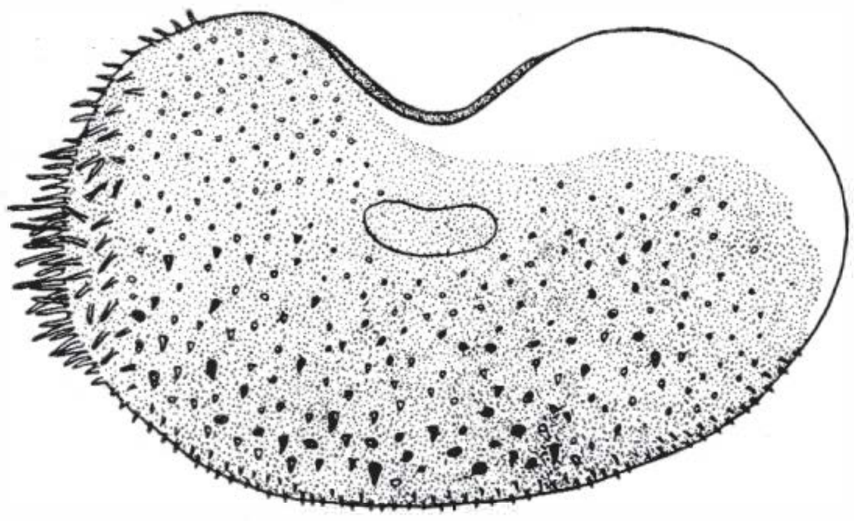

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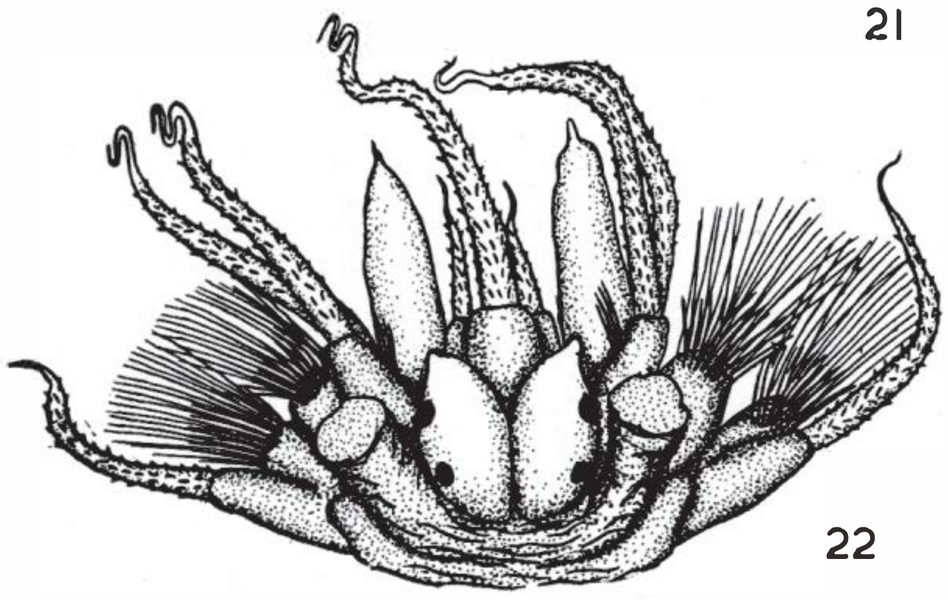

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Harmothoe crosetensis (McIntosh) Fig. 15 – Anterior end. Fig. 16 – Median parapodium. Fig. 17 – Elytrum. Fig. 18 – Elytral spines. Fig. 19 – Notoseta. Fig. 20 – Upper, unidentate neuroseta. Fig. 21 – Lower, bidentate neuroseta. *Eunoe iphionoides* (McIntosh) Fig. 22 – Anterior end. Fig. 23 – Parapodium. Fig. 24 – Elytrum. Fig. 25 – Neuroseta. Fig. 26 – Notoseta.

Genus **Polyeunoa** McIntosh, 1885

Polyeunoa laevis McIntosh, 1885 (figs. 27–29)

Polyeunoa laevis McIntosh, 1885, p. 76, pl. 12, fig. 2, pl. 10, fig. 8, pl. 7A, figs. 12–13.
Enipo rhombigera Ehlers, 1908, p. 47, pl. 4, figs. 1–12.
Enipo rhombigera, Gravier, 1911, p. 81.
Polyeunoa laevis, Bergstrom, 1916, p. 288, pl. 3, fig. 7.
Enipo rhombigera, Benham, 1921, p. 32.
Polyeunoa laevis, Monro, 1930, p. 51.
Polyeunoa laevis, Monro, 1936, p. 102.
Polyeunoa laevis, Fauvel, 1936, p. 102.

Records

Sta. 41 (2).

Description

Two anterior fragments, one measuring 18 mm for 30 setigers and the other 9 mm for 28 setigers. The body and elytra are colourless. The prostomium is slightly broader than long with well developed anterior peaks. The median antenna has a large, bulbous ceratophore and a smooth, tapering style twice the length of the prostomium. The lateral antennae are short. The tentacular cirri are missing.

The elytra are inserted in segments 1, 3, 4, 6, 8, 10, 14, 16, 18, 20, 22, 25, 28. They are smooth except for a patch of small tubercles near the outer margin. The cirrigerous parapodia have conspicuous dorsal tubercles (fig. 27). The dorsal cirri have inflated, bulbous cirrophores. The neuropodia have a bluntly triangular postsetal lobe and a dorsally expanded presetal lobe terminating in a down-curved point. The ventral cirrus does not project beyond the neuropodial lobes. Notosetae are stout, pointed, lightly serrated (fig. 29); neurosetae are unidentate, somewhat expanded towards the tip (fig. 28).

Remarks

The present specimens lack the characteristic colour pattern on the dorsum, but this may sometimes be absent. In other respects it agrees with the published accounts. This is the first record of the species from New Zealand.

Distribution

Falkland Islands, Antarctica, New Zealand.

Genus **Antinoe** Kinberg, 1856

Antinoe kermadecensis (McIntosh) 1885 (figs. 30–36)

Lagisca (?) *kermadecensis* McIntosh, 1885, p. 93, pl. 13, fig. 8, pl. 12A, figs. 4–6.

Records

Sta. 5 (1).

Description

The single specimen measures 10 mm by 4 mm for 27 setigers. The colour of the body is yellowish white with some faint brown pigment on the dorsum. The antennae and tentacular cirri are brown.

The prostomium is colourless, broader than long, with the lateral peaks poorly developed (fig. 30). The eyes are distinct, although small. The antennae and tentacular cirri are covered with fine cilia. The median antenna, which arises from a broad ceratophore, is long and slender, about three quarters the length of the palps. The lateral antennae are short, tapering, about three quarters the length of the prostomium. The palps are smooth, elongate, tapering.

The elytra (fig. 33) are deeply imbricated, overlapping in the mid-dorsal line. They are fringed on the outer and posterior edges with stout papillae of varying sizes, those on the outer edge being the longest. They are colourless except for a diffuse band of pigment on the posterior edge. The surface is covered with conical papillae. Under high magnification these are seen to be pointed, slightly curved (Fig. 31).

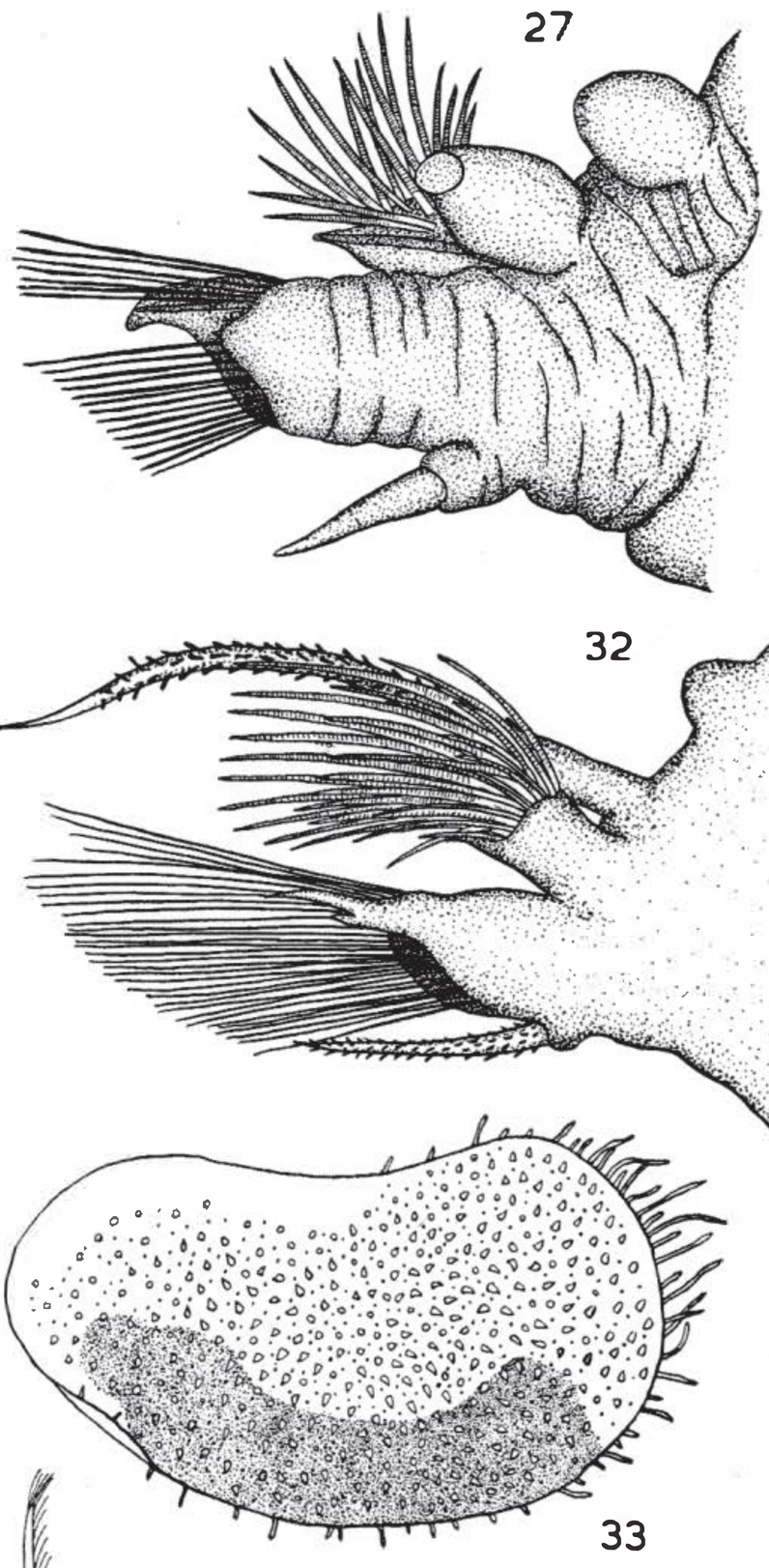
The dorsal cirri are elongated, tapering, clothed with elongated papillae with club-shaped tips (fig. 32). The ventral cirrus is slender, tapering and covered with similar papillae. The neuropodium forms a stout projecting lobe; the presetal lobe of the neuropodium is produced dorsally into an elongated, tapering, bifid tip. Notosetae are numerous and vary in size according to their position. The dorsal ones are stouter with rows of fine spines (fig. 34), while the ventral ones are more slender, pointed, with wider spaced, short rows of stouter spines (fig. 36). The neurosetae are elongated, tapering, terminating in hirsute tips (fig. 35).

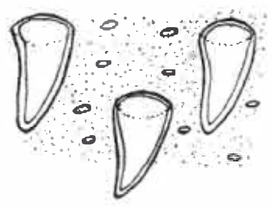
Remarks

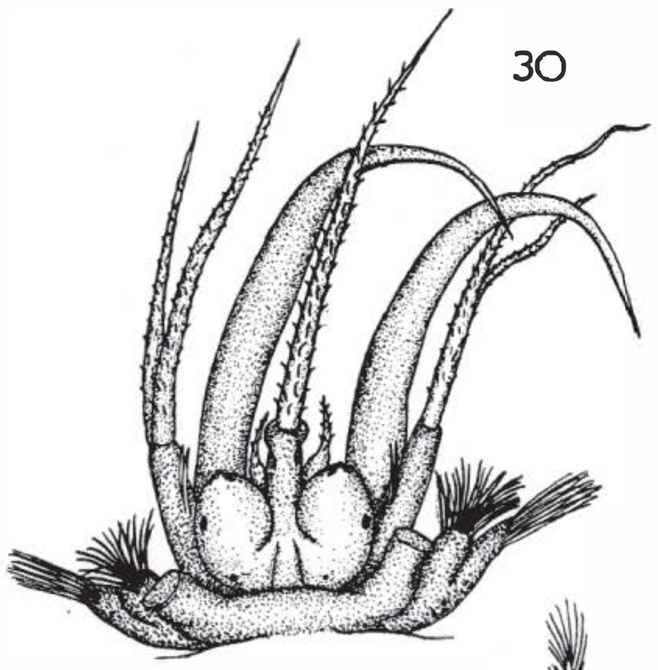
I have referred this specimen to *Antinoë kermadecensis* (McIntosh), described from a fragmentary specimen taken north of the Kermadec Islands in 520 fathoms. McIntosh's specimen lacked appendages and elytra. The setae as figured by McIntosh (pl. 12A, figs. 5 and 6) are identical with those of the present specimen. This is the second record of the species.

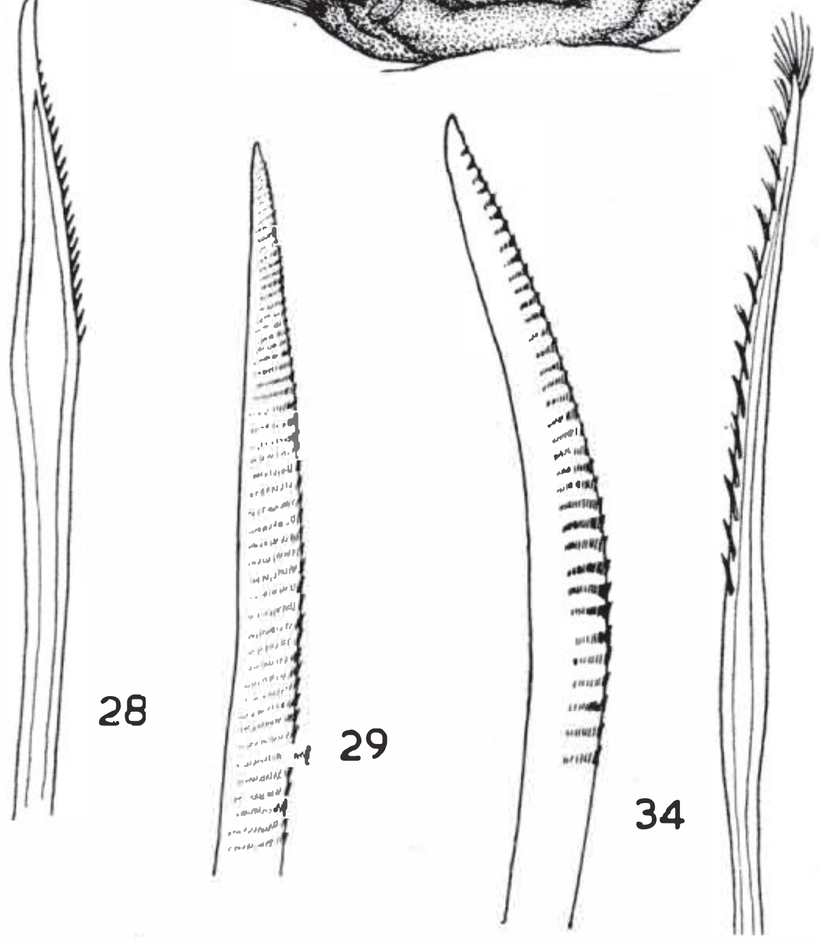
Distribution

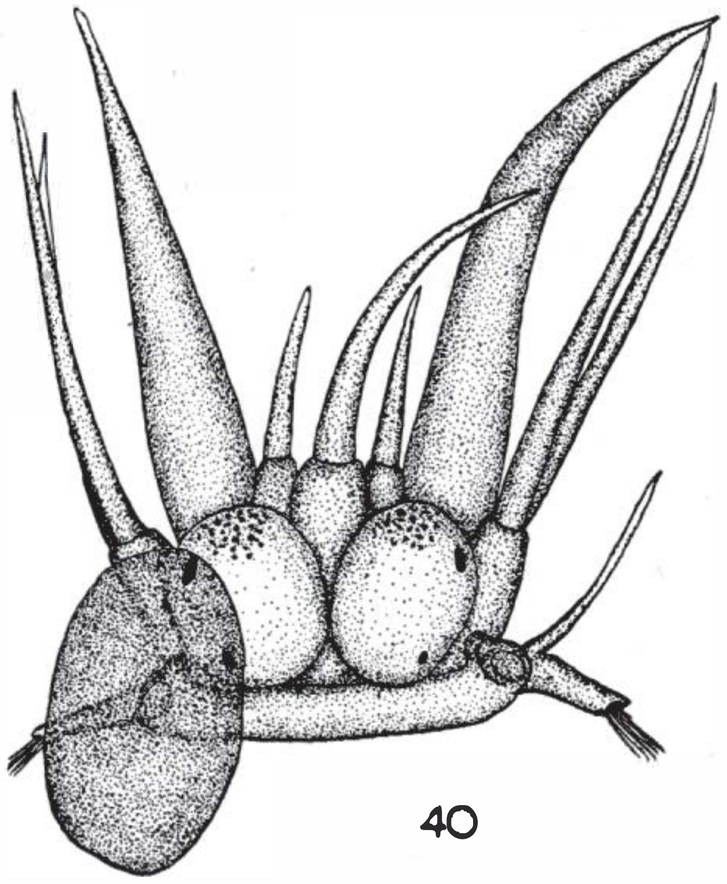
Kermadec Islands, New Zealand.











Polyeunoa laevis (McIntosh) Fig. 27 – Parapodium. Fig. 28 – Neuroseta. Fig. 29 – Notoseta. *Antinoe kermadecensis* (McIntosh) Fig. 30 – Anterior end. Fig. 31 – Elytral spines. Fig. 32 – Parapodium. Fig. 33 – Elytrum. Fig. 34 – Dorsal notoseta. Fig. 35 – Neuroseta. Fig. 36 – Ventral notoseta. *Antinoë antarctica* (Bergstrom) Fig. 37 – Neuroseta. Fig. 38 – Notoseta. *Antinoë epitoka* Monro Fig. 39 – Neuroseta. Fig. 40 – Anterior end.

Antinoe antarctica (Bergstrom) 1916 (figs. 37–38)

Astrolaenilla antarctica, Bergstrom, 1916, p. 291, pl. 3, fig. 8, pl. 5, figs. 1–2.
Antinoë antarctica, Monro, 1930, pl. 66, fig. 18.
Antinoë antarctica, Fauvel, 1936, p. 9, pl. 1, figs. 7–13.
Antinoë antarctica, Monro, 1939, p. 100.

Records

Sta. 59 (1).

Description

An anterior end measuring 10 mm by 4·5 mm, including setae, for 17 setigers. The prostomium is broader than long with a median groove and small, acutely pointed peaks. The eyes are small and faint. The ceratophore of the median antenna is stout, about two-thirds the length of the prostomium; its style is 3 times the length of the prostomium. The lateral antennae have bulbous ceratophores and small, slender styles. The palps are long, tapering, projecting beyond the median antenna. Tentacular cirri have elongated tentaculophores and are approximately equal in length to the median antenna. All these appendages are sparsely covered with long cilia.

The elytra are deeply imbricated, overlapping mid-dorsally. They are covered with small conical tubercles, and have slender clavate papillae on their outer margins. Anteriorly their posterior and outer borders have patches of brown pigment.

The dorsal cirri are long, with elongated slender cilia. Both notopodial and neuropodial presetal lobes are very elongated, tapering with projecting pointed acicula. The notosetae (fig. 38) are stout, lightly pectinated; the neurosetae long, slender, unidentate, terminating in a hirsute tip (fig. 37).

Remarks

The elongated parapodial lobes and the slender, hirsute neurosetae distinguish this species. The development of the prostomial peaks is the first record of this variable Antarctic species from New Zealand waters.

Distribution

Antarctica, New Zealand

Antinoe epitoka Monro, 1930 (figs. 39–40)

Antinoë epitoka Monro, 1930, p. 67, fig. 19a–f.

Records

Sta. 59 (1).

Description

An anterior fragment measuring 45 mm for 18 setigers. The prostomium (fig. 40) is broader than long, deeply incised in front, without peaks and with a marked median groove. There are 4 small, black eyes. The median antenna has a large ceratophore and a style about twice the length of the prostomium. The palps are long, about twice the length of the median antenna, and the tentacular cirri are about the same length.

Most of the elytra are lost. The first elytrum is present on the left side as a large oval, inflated sac, transparent on the underside, finely granular on the upper surface. There are no fringes or ornamentation. On some of the other segments there are small elytra about one-eighth the size of the anterior one. These may be regenerating.

The dorsal cirrophores are large, inflated and the tapering dorsal cirri extend beyond the tips of the setae. The parapodia are biramous. The notopodium consists of a rounded lobe on the upper and anterior face of the neuropodium. The notosetae consist of 6–8 exceedingly fine capillaries which appear to be smooth, but under high magnification minute serrations can be detected on one side.

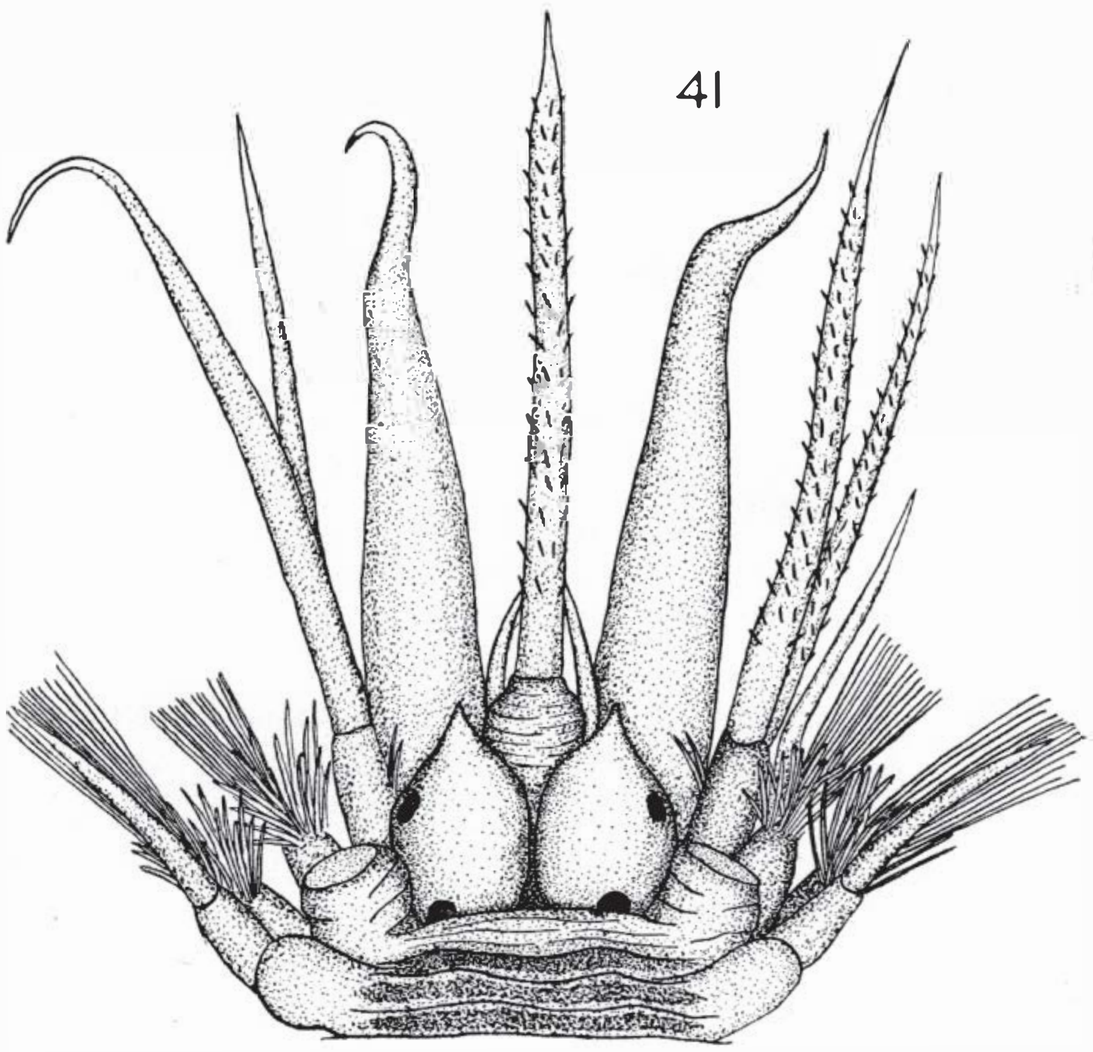
The neuropodium has elongated pointed lobes, the anterior being produced into a cirriform process. The neurosetae,, which are stouter than the notosetae, are long and slender, ending in fine hairlike tips with rows of delicate closely set teeth (fig. 39). They are slightly swollen at the proximal end of the serrated region. The ventral cirri are short, fingerlike. The specimen is colourless apart from scattered brown pigment on the prostomium, the dorsum and the cirrophores.

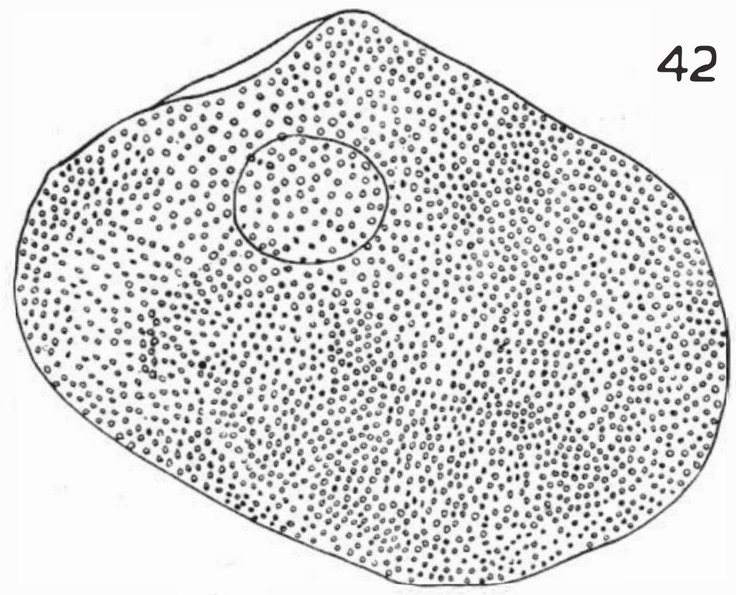
Remarks

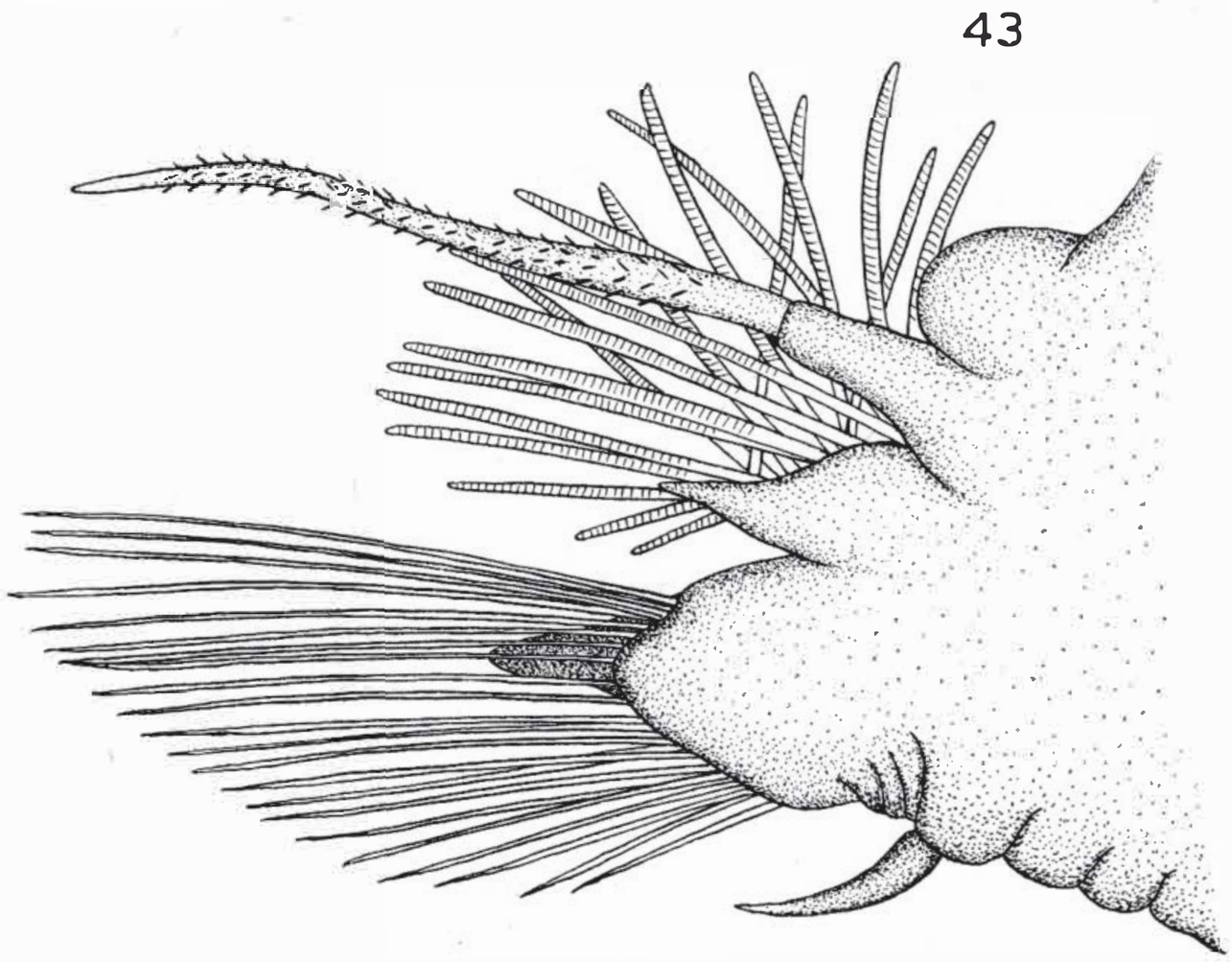
Although the present specimen differs in some respects from the one described by Monro I believe them to be identical. The structure of the setae, which are identical with those of Monro's specimen, is unique. The shape of the prostomium is the same in the two specimens, but in Monro's the eyes are enlarged, not small. The enlarged eyes may be due to sexual change as Monro's specimen was a mature female. The number of notosetae in the present specimen is 6–8 whereas Monro's had numerous notosetae. There were no elytra on Monro's specimen. I am following Monro's provisional generic placing as the specimen is too fragmentary to satisfactorily determine its position.

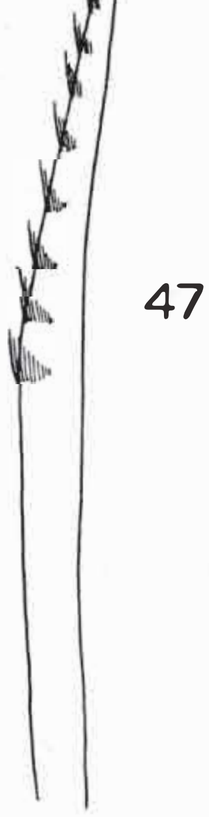
Distribution

Saint Paul Laonda, Angola; New Zealand.









Antinoe purpureus n.sp. Fig. 41 – Anterior end. Fig. 42 – Elytrum. Fig. 43 – Parapodium. Fig. 44 – Upper neuroseta. Fig. 45 – Lower neuroseta. Fig. 46 – Notoseta. Fig. 47 – Upper neuroseta.

Antinoe purpureus n. sp. (figs. 41–47)

Records

Sta. 7 (2).

Description

Two anterior ends the larger measuring 15 mm by 6 mm for 30 setigers, and the smaller 10 mm by 5 mm for 19 setigers. The dorsum of the anterior segments is conspicuously barred with dark, purplish brown pigment, two stripes per segment, the anterior being twice the width of the posterior. The prostomium is milky white, iridescent, the rest of the body colourless. The elytra are purple, white on the outer and posterior edges.

The prostomium (fig. 41) is broader than long with prominent anterior peaks and a deep median sulcus. The ceratophore of the median antenna is short, stout, the style elongated, stout, cylindrical, projecting beyond the palps. The lateral antennae are small, slender, equal in length to the prostomium. There are 4 black eyes, the posterior pair close to the posterior margin of the prostomium. The palps are smooth, tapering to a fine point, about 4 times the length of the prostomium. The tentacular cirri, borne on short, cylindrical tentaculophores, are elongated, the dorsal pair equal in length to the median antenna, the ventral pair to the palps. The median antenna and the tentacular and dorsal cirri are clothed with long, slender papillae.

The elytra (fig 42) which overlap slightly in the mid-dorsal line are covered with small, circular papillae. They have no fringe.

The dorsal cirri are long and slender, borne on elongated cirrophores with bulbous bases (fig. 43). The ventral cirri are short, tapering, reaching only about halfway along the neuropodium. The neuropodial postsetal lobe is rounded, the presetal longer, pointed. The notosetae are stout, terminating in a blunt point, with numerous rows of close spines (fig. 46). The upper neurosetae are stouter than the ventral, curved at the ends with about 9 rows of prominent spines (figs. 44 and 47). The ventral neurosetae have a shorter spinous region of smaller spines (fig. 45).

Remarks

The shape of the prostomium and its appendages of this species is distinctive, as is the colour pattern.

Holotype

Canterbury Museum, Christchurch.

Type locality

40°32′S., 179°55′E., Chatham Rise, 280 fm.

Genus **Lepidonotus** Leach, 1816

Lepidonotus polychromus Schmarda, 1861

Lepidonotus polychromus Schmarda, 1861, p. 153, pl. 37, fig. 307.

Lepidonotus polychromus, Knox, 1956, p. 44, figs. 1–6.

Records

Sta. 16 (12); Sta. 26 (1).

Remarks

Typical

Distribution

Australia, New Zealand.

Lepidonotus jacksoni Kinberg, 1858

Lepidonotus jacksoni Kinberg, 1858, p. 11, pl. 3, fig. 11, pl. fig. 48.

Lepidonotus jacksoni, Knox, 1956, p. 46, figs. 7–11.

Records

Sta. 18 (1); Sta. 19 (1); Sta. 23 (1); Sta. 24 (1).

Remarks

Typical.

Distribution

New Zealand, Australia, Malay Archipelago, Indian and Pacific Oceans.

Lepidonotus ambigua n. sp. (figs. 48–55)

Records

Sta. 5 (1).

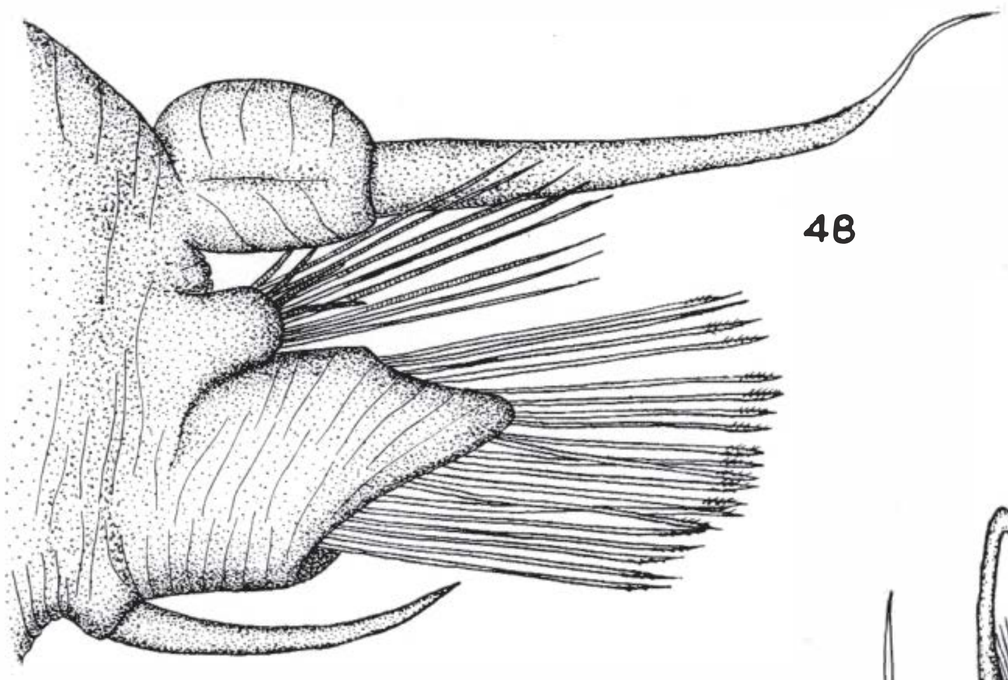
Description

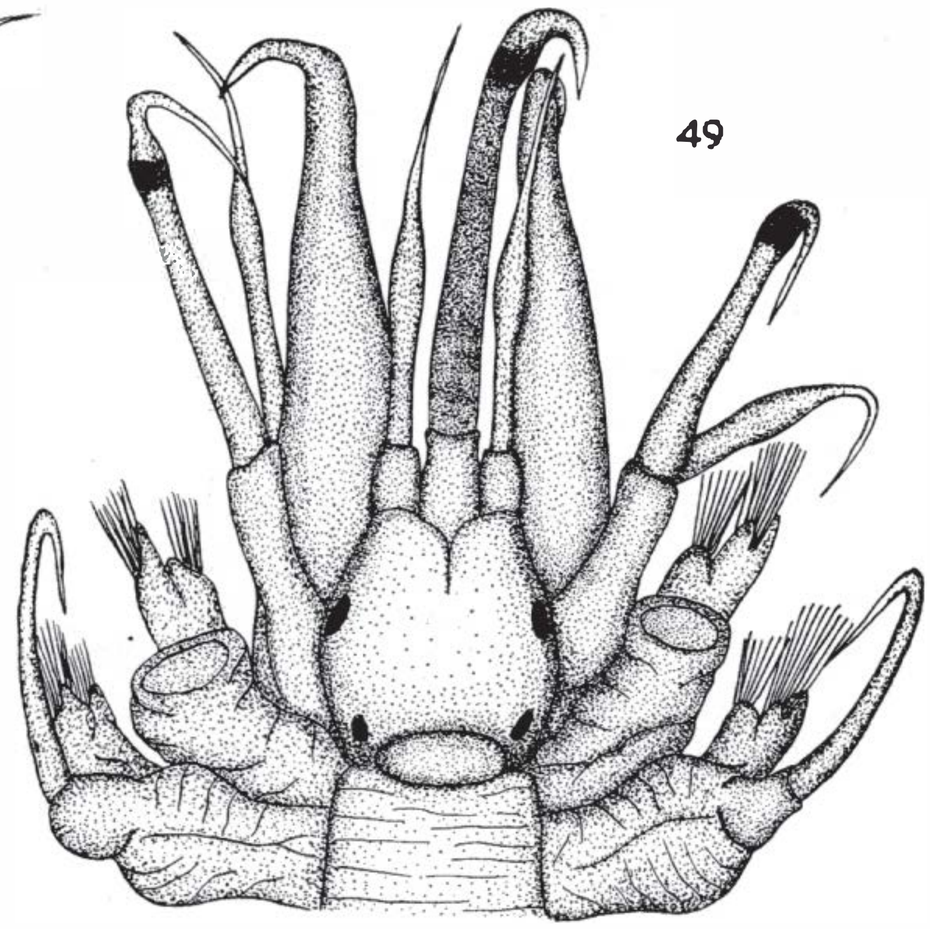
The single specimen measures 12 mm by 4 mm including setae, for 25 setigers. The body in alcohol is colourless, apart from the median antenna which is brown, and a dark brown band below the tips of the median antenna and the dorsal tentacular cirri.

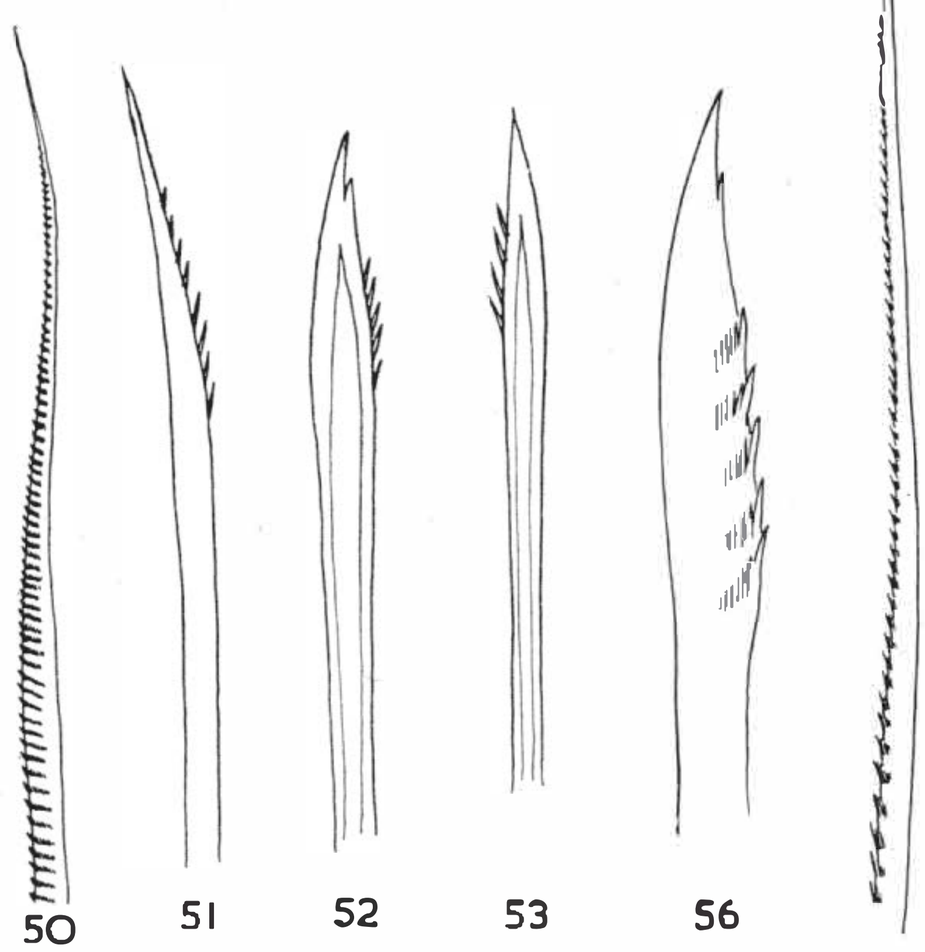
The prostomium (fig. 49) is longer than broad, with a median sulcus, and with the lateral antennae rather subterminally inserted as in the genus *Halosydna.* There are 4 oval black eyes. There is a low, oval nuchal cushion at the posterior border of the prostomium. The median antenna is stout, cylindrical, swollen below the tip. The lateral antennae are shorter, more slender, swollen about half way along their length, tapering to a filiform tip. The palps are stout, tapering, about equal in length to the median antenna. The dorsal tentacular cirrus has an elongated tentaculophore and a short, cylindrical style, swollen below the tapering, filiform tip.

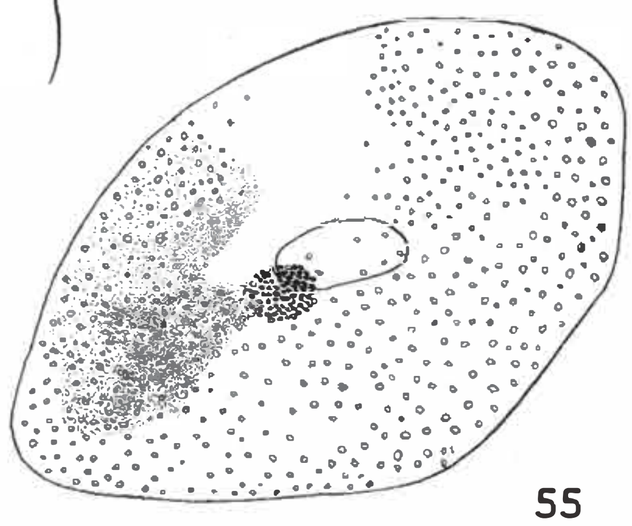
The 12 pairs of elytra completely cover the dorsum. They are firmly attached, deeply imbricated and overlap those of the opposite side. They have no fringe (fig. 55). The surface is covered with transparent tubercles, which under high magnification are seen to be cylindrical, terminating in a 3–5 rayed plate (fig. 54). There is a patch of dark brown pigment anterior to the elytral scar, and some diffuse brownish pigment on the anterior half. The amount of pigment decreases posteriorly and the posterior elytra are colourless.

The parapodia are sub-biramous with the notopodium a blunt rounded lobe arising from the dorsal surface of the neuropodium (fig. 46). Each has 8–10 slender, tapering setae with close rows of small spines (fig. 50), and several similar shorter ones. The neuropodium is short with triangular setal lobes. They bear numerous setae which vary according to their position. The dorsalmost are slender, unidentate, tapering to a fine









Lepidonotus ambigua n.sp. Fig. 48 – Parapodium. Fig. 49 – Anterior end. Fig. 50 – Notoseta. Fig. 51 – Upper, unidentate neuroseta. Fig. 52 – Median, bidentate neuroseta. Fig. 53 – Lower, unidentate neuroseta. Fig. 54 – Elytral spines. Fig. 55 – Elytrum. *Lepidonotus purpureus* Potts Fig. 56 – Neuroseta. Fig. 57 – Notoseta.

point, with 7–9 rows of spines (fig. 51); the median are stouter, bidentate, with 5–6 rows of spines (fig. 52); the ventral-most smaller, unidentate with 4–5 rows of spines (fig. 53).

Remarks

In the possession of a nuchal cushion and the shape of the prostomium with the almost subterminally inserted lateral antennae, this species resembles species of the genus *Halosydna*. The latter genus, however, has 18 pairs of elytra. The present specimen is complete and has only 12 pairs of elytra completely covering the dorsum.

Holotype

Canterbury Museum, Christchurch.

Type locality

43°32′S., 178°38′E., Chatham Rise, 300+ fm.

Lepidonotus purpureus Potts, 1910 (figs. 56–57)

Lepidonotus purpureus Potts, 1910, p. 334, pl. 18, fig. 3.
Lepidonotus hedleyi Benham, 1915, p. 181, pl. 38, figs. 1–7.
Lepidonotus hedleyi, Pruvot, 1930, p. 7, pl. 1, figs. 6–10.
Lepidonotus hedleyi, Fauvel, 1932, p. 14.
Lepidonotus hedleyi, Fauvel, 1953, p. 35, fig. 13s-u.
Lepidonotus purpureus, Day, 1957, p. 61.

Records

Sta. 34 (1).

Description

The body is colourless in alcohol. The prostomium is a little wider than long with a median sulcus and 4 conspicuous black eyes, the anterior pair at the widest part. The antennae and tentacular cirri are smooth with a slight subterminal swelling and a dark band, most pronounced on the median antenna.

Elytra are oval, without fringe, covered with widely separated low tubercles and white pigmented patches interspersed with clear areas. They are pale grey, translucent with a darker pigmented patch on the anterior elytra.

The notosetae are transversely serrated (fig. 57), mostly long, distally pointed, with a few dorsal ones short, arcuate. The neurosetae are bifid with a short serrated region (fig. 56). The dorsal-most are more slender with a longer serrated region.

Remarks

I follow Day (1957) in the above synonymy. The present specimen lacks the mauve bars on the body as described by Day, and the elytra are pale not purple. Also the neurosetae are not strongly bidentate as in Day's specimens. In other respects they are identical. This is the first record of the species from New Zealand.

Distribution

Australia, Indian Ocean, South Pacific, California, South Africa, New Zealand.

Genus **Lepidametria** Webster, 1879

Lepidametria brunnea n. sp. (figs. 58–63)

Records

Sta. 31 (1).

Description

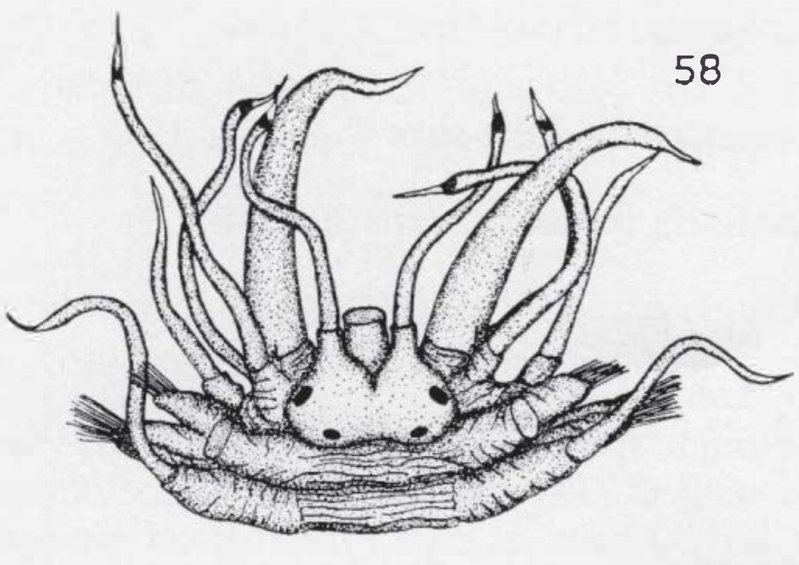
The single specimen measures 45 mm by 4 mm for 70 setigers. The body in alcohol is colourless. There are 30 pairs of elytra inserted on segments 2, 4, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 26, 29, 32, 35, 39, 42, 45, 48 etc. i.e. on alternate segments up to the twenty-third and irregularly distributed thereafter. The two anterior pairs overlap, for the rest of the anterior third of the body there is a slight gap between the elytra middorsally and over the rest of the body the elytra are overlapping. The anterior elytra (fig. 60) have a patch of brown pigment spots over the scar and irregular patches of fine brown pigment, which under high magnification are seen to be divided into polygonal areas (fig. ?). The surface is smooth, without ornamentation or fringe.

The prostomium (fig. 58) is broader than long, deeply cleft anteriorly. The ceratophore of the median antenna is short and stout; its style is missing. The lateral antennae, which do not project beyond the end of the palps, are two and a half times the length of the prostomium and slightly swollen below the tips. The palps are elongated, tapering. The tentacular cirri are slender, elongated and project beyond the lateral antennae to the tips of the palps. Both antennae and tentacular cirri have a dark band below the tip.

The dorsal cirri (fig. 59) have short cirrophores and elongate, tapering styles. The notopodium lacks setae and is reduced to a single, elongated, pointed lobe. The neuropodium is short and the ventral cirrus small, tapering. Neurosetae are of 2 kinds, a dorsal bundle of about 6 elongated, slender, tapering, serrated setae (fig. 63) and a ventral bundle of numerous stout, bidentate setae with a short spinous region of 5–6 rows of spines (fig. 62).

Remarks

This species differ from *Lepidametria irregularis* Marenzeller in lacking tubercles on the elytra and in having overlapping elytra. *Lepidametria virens*



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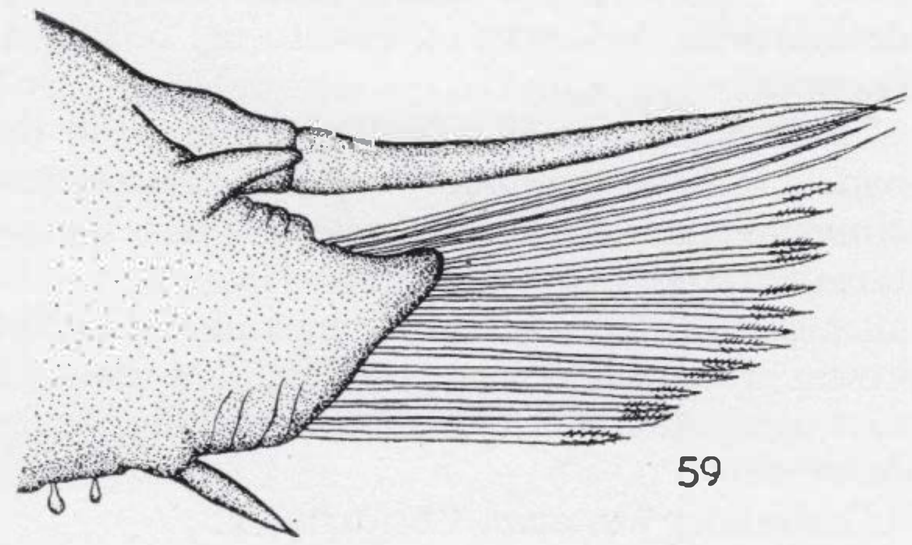

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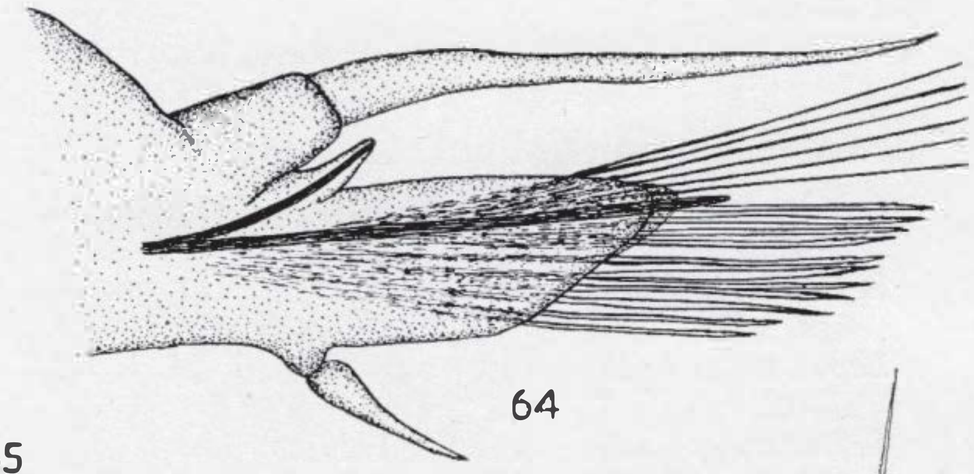

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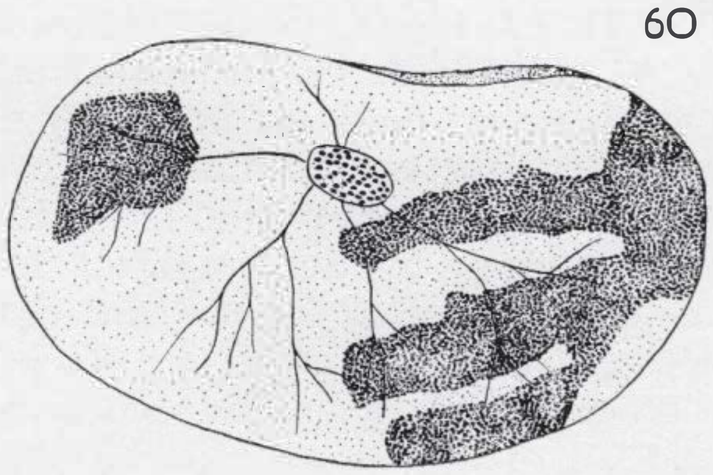

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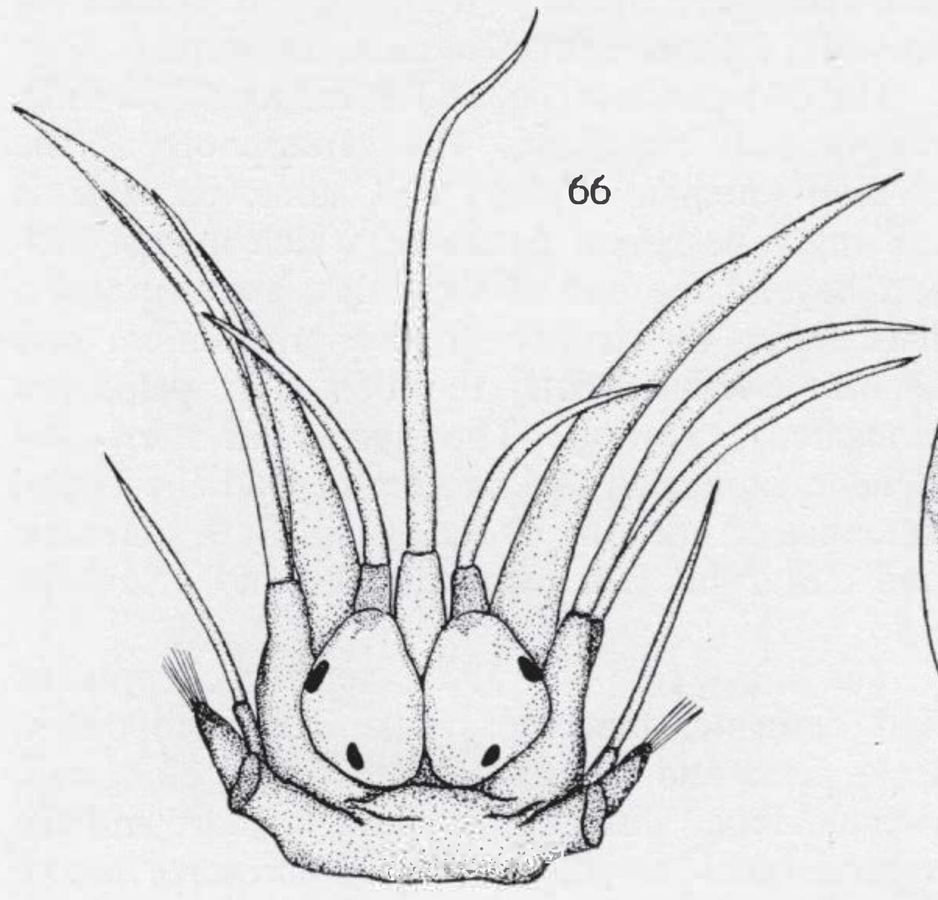
63



66

67

Lepidametria brunnea n.sp. Fig. 58 – Anterior end. Fig. 59 – Parapodium. Fig. 60 – Elytrum. Fig. 61 – Elytral pigmentation. Fig. 62 – Lower neuroseta. Fig. 63 – Upper neuroseta. *Lepidasthenia platylepis* n.sp. Fig. 64 – Parapodium. Fig. 65 – Upper neuroseta. Fig. 66 – Anterior end. Fig. 67 – Elytrum. Fig. 68 – Lower neuroseta.

(Blanchard) also has small elytra which do not overlap. The setae are different from those described for *L. gigas* (Johnson) and *L. microsetosa* (Izuka).

Holotype

Canterbury Museum, Christchurch.

Type Locality

43°56′S., 176°37′W., Petre Bay, Chatham Islands, 40 fm.

Genus **Lepidasthenia** Malmgren, 1867

Lepidasthenia platylepsis n. sp. (figs. 64–68)

Records

Sta. 34 (2).

Description

Both specimens are anterior fragments, the largest measuring 5 mm for 29 setigers. The elytra (fig. 67) have a brown pigment spot over the point of attachment and irregular patches on the anterior and posterior surfaces; otherwise there is no colour. The prostomium (fig. 66) has a pronounced median sulcus, and is swollen on each side behind the origin of the lateral antennae which have the appearance of being subterminally inserted. The ceratophore of the median antenna is elongated, the style slender, tapering, three and a half times the length of the prostomium. The lateral antennae are about half the length of the median, and the palps are slender, tapering, not reaching beyond the median antenna. The ventral cirrus of the first setiger is slender, elongated.

The anterior pair of elytra are large, circular, covering the head; the others large, transparent, overlapping, concealing the dorsum. They are borne on the following setigers 1, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28. The distribution on the posterior segments is unknown.

The cirrophore of the dorsal cirrus is stout and the style elongated, tapering, extending to the ends of the setae (fig. 64). The notopodium is represented by a curved acicula and a small conical lobe. The neuropodium is elongated with approximately equal anterior and posterior lobes and a stout, projecting aciculum. The ventral cirrus is short, tapering, with a bulbous base. The supra-acicula neurosetae are elongated, slender, finely serrated (fig. 65), the sub-acicular are stouter, bidentate, with a few rows of spines (fig. 68).

Remarks

This species lacks the prominent nuchal flap of *L. michaelseni* Augener. It comes closest to *L. interrupta* Marenzeller. This species has small cirrophores on the dorsal cirri, and the elytra are small, leaving a large portion of the dorsum exposed. The elytra of the present species overlap more than is described for other species of the genus.

Holotype

Canterbury Museum, Christchurch.

Paratype

Dominion Museum, Wellington.

Type Locality

44°04′S., 175°23·5′W., E. of the Forty Fours Islands, 130 fm.

Genus **Hyperhalosydna** Augener, 1924

Hyperhalosydna striata (Kinberg)

Hyperhalosydna striata, Seidler, 1924, p. 366.
Polynoe platycirrus McIntosh, 1885, p. 111, pl. 3, fig. 4.
Hyperhalosydna striata, Fauvel, 1953, p. 52, fig. 22i–k.
Polynoe platycirrus, Knox, 1951, p. 62.

Records

Sta. 34 (1).

Remarks

An anterior fragment, 13 mm by 7 mm for 18 setigers, with the characteristic brown stripes on the elytra and the flattened dorsal cirri. This is the second record of the species from New Zealand, having previously been recorded from off Banks Peninsula in 80 fm (Knox, 1951).

Distribution

Indian Ocean, Malay Archipelago, Japan, Australia, New Zealand.

Genus **Euphione** McIntosh, 1885

Euphione squamosa (Quatrefages) 1865

Aphrodite squamosa Quatrefages, 1865, p. 201.
Lepidonotus giganteus Kirk, 1879, p. 400.
Physalidonotus squamosus, Benham, 1919, p. 72.
Physalidonotus thompsoni, Benham, 1916, p. 387.

Records

Sta. 24 (1).

Remarks

A typical complete specimen measuring 65 mm by 35 mm.

Distribution

Australia, New Zealand.

Euphione ornata n. sp. (figs. 69–78)

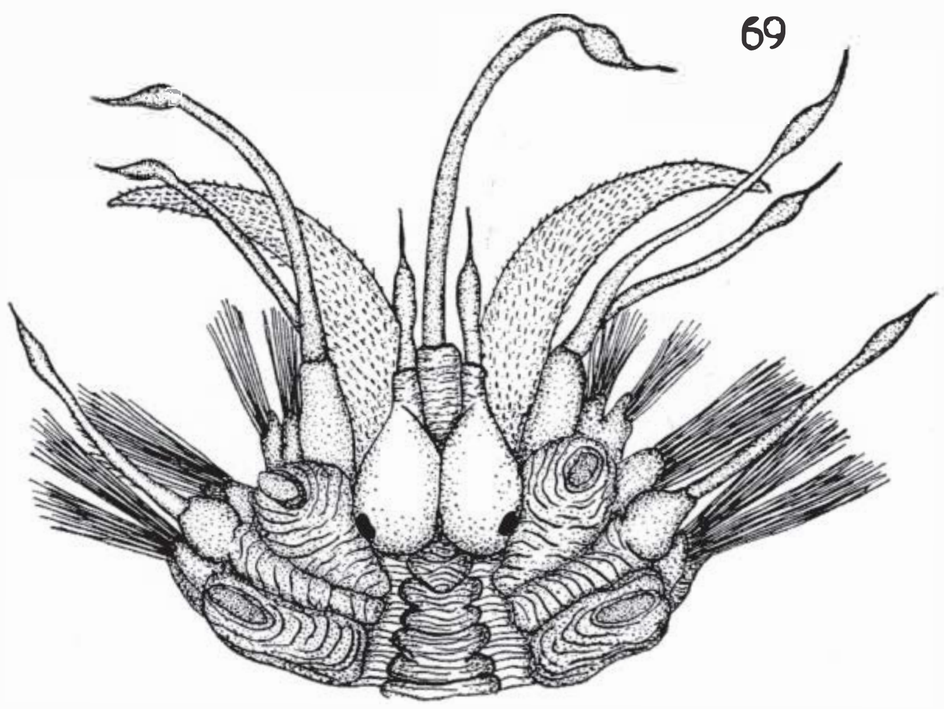
Records

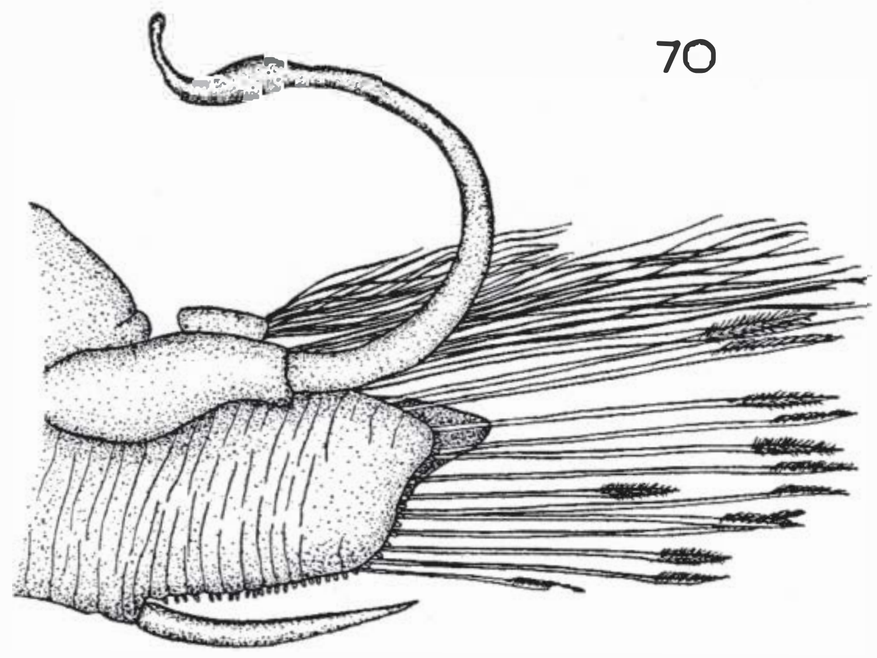
Sta. 34 (1).

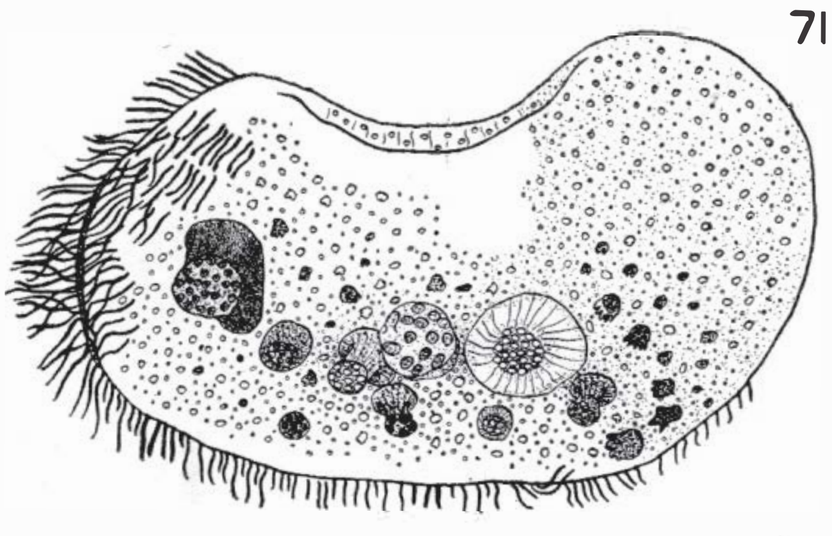
Description

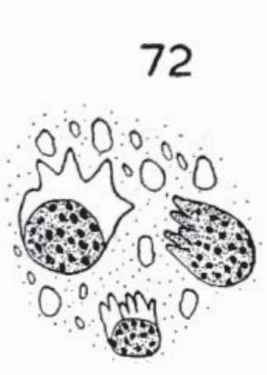
A single complete specimen measuring 8 mm by 5 mm, including setae. Apart from black pigmented, elytral papillae the specimen is colourless. The prostomium (fig. 69) is slightly broader than long, incised behind with a median sulcus. There is a single pair of eyes near the posterior border. The lateral antennae are terminally inserted, the styles short, equal in length to the prostomium, swollen below the tapering, filamentous tips. The ceratophore of the median antenna is stout, cylindrical, the style elongated, slender, about 3 times the length of the prostomium, swollen below the tip. The tentacular and dorsal cirri are clongated slender with bulbous swellings below the filamentous tips. The palps are stout, shorter than the median antenna and the tentacular cirri. The antennae, the tentacular cirri and the dorsal cirri are smooth, while the palps are covered with fine papillae.

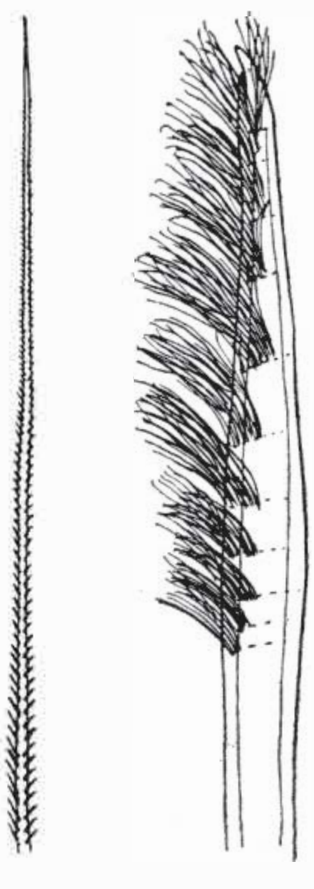
The anterior elytra are rounded, the median and posterior ones are elongate laterally, excavated on the anterior margin. They are deeply imbricated, overlapping mid-dorsally. Their outer and posterior margins are fringed with long papillae which also cover a considerable portion of the outer surface (fig. 71). Very conspicuous features are the elytral tubercles, which are of several kinds. Macro-tubercles (fig. 75) are cylindrical with flaring bases and club-shaped heads covered with

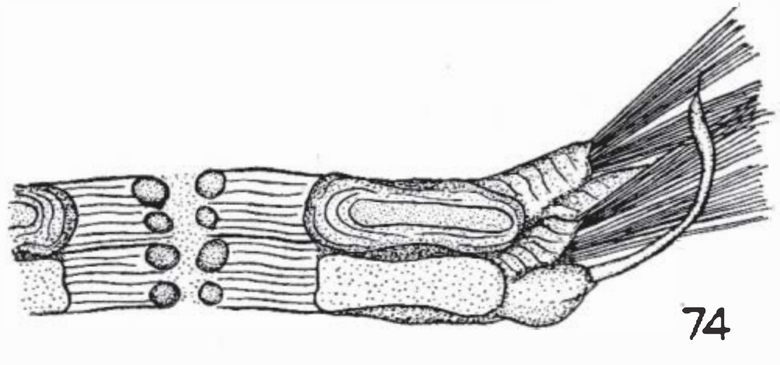












Euphione ornata n.sp. Fig. 69 – Anterior end. Fig. 70 – Parapodium. Fig. 71 – Elytrum. Fig. 72 – Intermediate sized elytral tubercles. Fig. 73 – Elytral microtubercles. Fig. 74 – Dorsum of medium region. Fig. 75 – Elytral microtubercle. Fig. 76 – Pigmentation of macrotubercle. Fig. 77 – Notoseta. Fig. 78 – Neuroseta.

rounded papillae, giving a mulberry-like appearance. These macro-tubercles may be colourless or black, the pigment on the sides being arranged in longtitudinal rows of irregularly shaped patches (fig. 76). The colourless ones show similar rows of irregular clear areas. These macro-tubercles vary in size and may number up to 12 on each elytrum; there are generally 2–3 larger ones. Tubercles of intermediate size may be darkly pigmented or colourless; they are circular with expanded heads, produced on one side into a varying number of conical lobes (fig. 72). Micro-tubercles are colourless, may resemble the intermediate ones or may be circular or irregularly oval (fig. 73). In the median and posterior regions of the body the elytrophores are elongated and there are 4 rounded tubercles near the mid-dorsal line on each segment (fig. 74).

The cirrophores of the dorsal cirri are elongated with bulbous bases (fig. 70). The notopodium is reduced with numerous, fine, hair-like setae (fig. 77) with a double row of fine spines, forming a dense mat on each side. The presetal neuropodial lobe is slightly longer than the postsetal and there is a row of small papillae on the ventral surface, extending on to the outer edge of the postsetal lobe. Neurosetae number about 17; they are stout, especially the dorsal ones, bidentate, with the subapical tooth vertical (fig. 78). They have bushy tips and rows of numerous fine hair-like spines.

Remarks

The tuberculation of the elytra of this species differs considerably from other described species of the genus.

Holotype

Canterbury Museum, Christchurch.

Type Locality

44°04′S., 175°23·5′W., E. of the Forty Fours Islands, 130 fm.

Family SIGALIONIDAE

Genus **Sigalion** Audouin and Milne-Edwards, 1929

Sigalion ovigerum Monro, 1924

Sigalion ovigerum Monro, 1924, p. 47, figs. 10–11.
Sigalion ovigerum, Monro, 1936, p. 103, figs. 12a–4.

Records

Sta. 15 (2); Sta. 31 (1); Sta. 28 (6); *Discovery* Sta. 2733 (6).

Remarks

This species was originally described from Port Jackson, Australia, and subsequently recorded from off the Three Kings Islands. Other specimens in the author's collection come from the Southern Fiords and the present records extend its distribution to the Chatham Islands. So far all the specimens obtained are incomplete consisting of anterior ends only. The largest specimen (Sta. 28) in the present collection measures 32 mm for 62 setigers. This species is characterised by the absence of compound setae with single jointed end pieces, all the compound setae being multiarticulate. All the specimens are colourless, and there is no sign of the modification of the elytra into pouches containing eggs as reported by Monro in the specimen from Port Jackson.

Distribution

Australia, New Zealand.

Genus **Leanira** Kinberg, 1856

Leanira laevis McIntosh, 1885

Leanira laevis McIntosh, 1885, p. 156, pl. 20, fig. 4, pl. 23, figs. 9–10.
Sthenelais semitecta Ehlers, 1904, p. 10, pl. 1, figs. 10–12, pl. 2, figs. 1–4.

Records

Sta. 1 (1); Sta. 5 (2); Sta. 32 (1); Sta. 34 (1); Sta. 41 (2); Sta. 44 (2); Sta. 59 (3).

Remarks

None of the specimens are complete, all consisting of anterior ends, the largest measuring 25 mm for 45 setigers.

Distribution

New Zealand.

Genus **Psammolyce** Kinberg, 1866

Psammolyce semiglabra Monro, 1936

Psammolyce semiglabra Monro, 1936, p. 106, fig. 14a–g.

Records

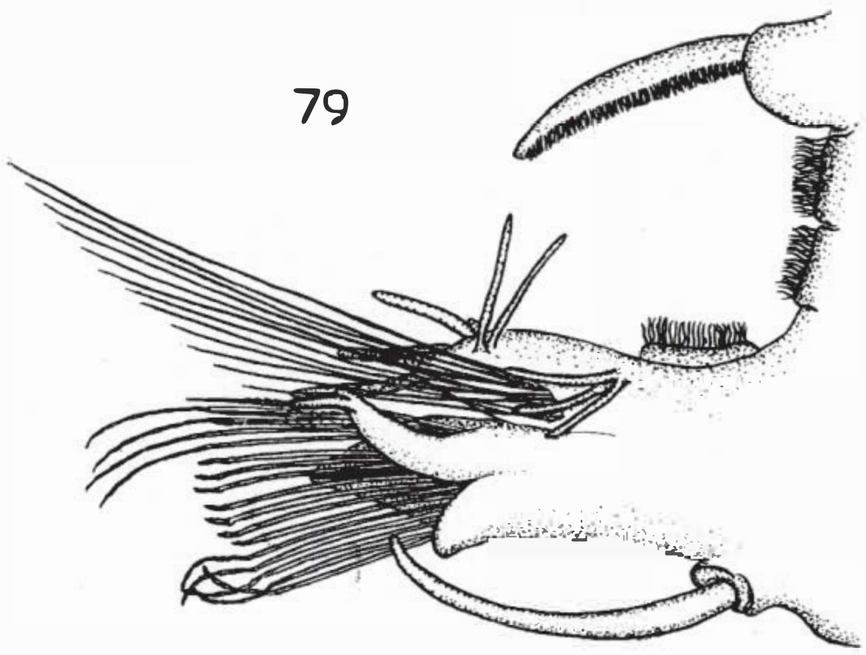
Sta. 38 (1).

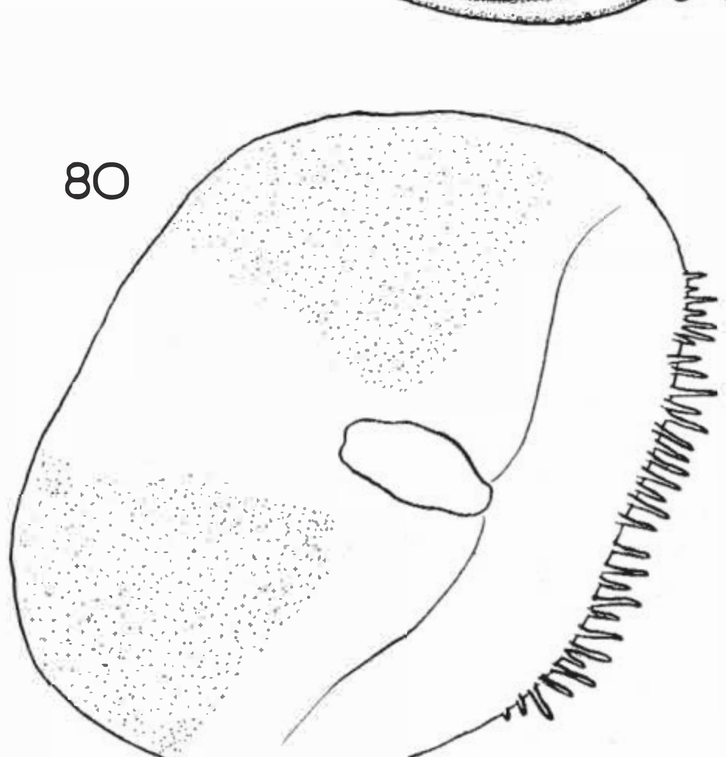
Remarks

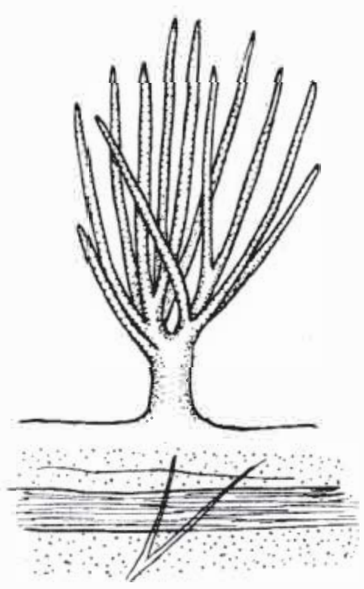
The single anterior fragment measures 58 mm by 8 mm for 105 setigers. It agrees in all respects with Monro's well illustrated account. The first pair of elytra, which were missing in Monro's specimen, are elongate, pointed anteriorly, concealing the head. This species is characterised by the absence of filiform ventral papillae and by having the outer margin of the elytra wavy with the papillae gathered into tufts. This is the second record of the species.

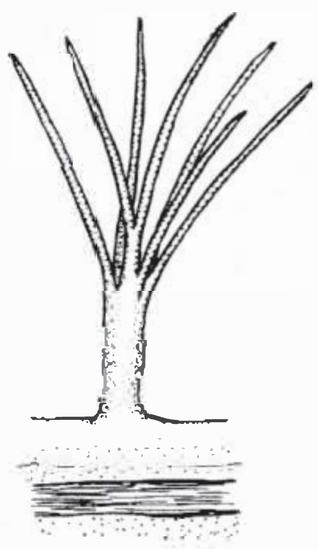
Distribution

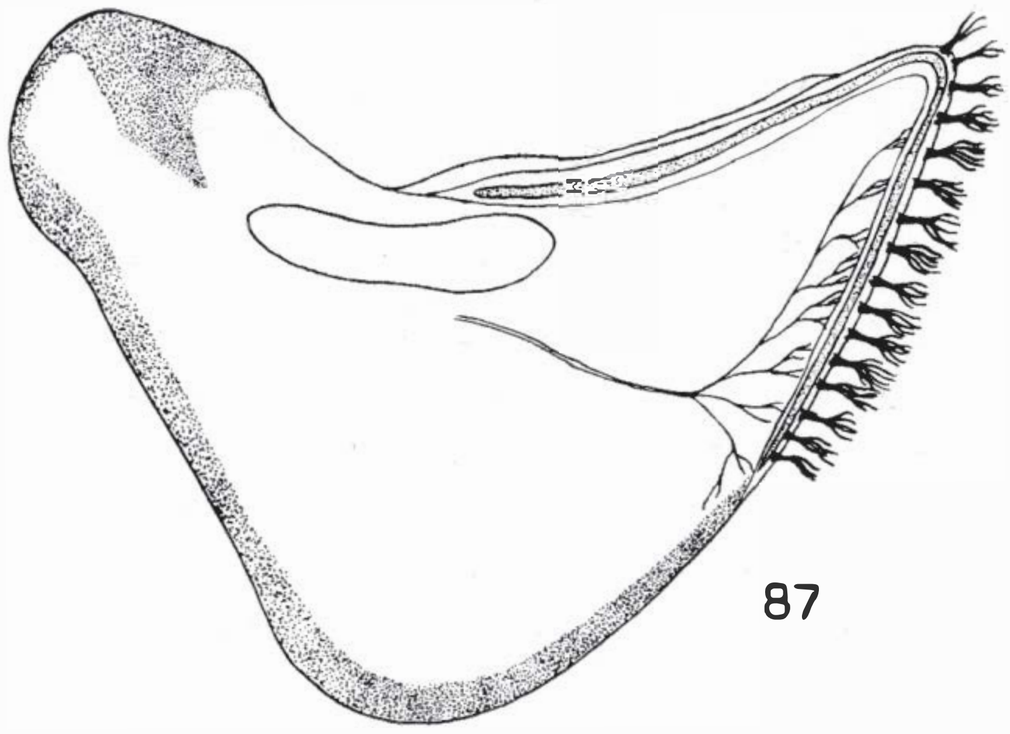
New Zealand.











Sthenelais chathamensis n.sp. Fig. 79 – Parapodium. Fig. 80 – Elytrum. Fig. 81 – Notoseta. Fig. 82 – Median, bidentate, compound neuroseta. Fig. 83 – Lower, bidentate, multi–articulate neuroseta. Fig. 84 – Upper, unidentate, multi–articulate neuroseta.
Euthalenessa digitata (McIntosh) Fig. 85 – Elytral papilla from a specimen with 12–15 filaments. Fig. 86 – Elytral papilla from speciment with 5–7 papillae. Fig. 87 – Elytrum.

Genus **Sthenelais** Kinberg, 1866

Sthenelais chathamensis n. sp. (figs. 79–84)

Records

Sta. 28 (1).

Description

The single incomplete anterior fragment is 20 mm long for 55 segments. The prostomium is wider than long, with two pairs of black eyes, the anterior smaller pair at the frontal margin of the prostomium, concealed by the prostomial antennae. The posterior pair are immediately below the base of the median ceratophore which is about the same length as the prostomium. The median antenna is elongated, tapering, equal in length to the slender palps.

The first three parapodia are directed forward alongside the prostomium. Branchial cirri are present from the fourth segment; they are cirriform, strongly curved, heavily ciliated on their ventral side (fig. 79). There are three heavily ciliated, parapodial ctenidia.

Elytra (fig. 80) are broadly imbricated, longer than broad, with a simple lateral fringe. They are transparent except for the anterior and posterior patches of diffuse brownish pigment, and the surface is smooth without ornamentation.

In the anterior parapodia the notopodium has 4 to 6 elongated papillae on its terminal portion and a tuft of about 4 on its posterior face. The neuropodium has a broadly conical acicular lobe with 2 papillae, and a deeply incised posterior lobe with a few small papillae along its anterior margin. The number of papillae, especially in the neuropodia, decrease posteriorly and at about the 50th parapodia there are only one or two present in the neuropodia. Ventral cirri are simple tapering.

Notopodial setae are numerous, elongated, spinous (fig. 81). The neuropodium of a typical segment bears: (1) superior, spinous, simple setae and slender, compound setae with elongated, multi-articulate blades with unidentate end-pieces (fig. 84); (2) median, stouter, compound setae, with short end-pieces, the secondary tooth closely adppressed (fig. 82); (3) uniform, slender, multi-articulate compound setae with bidentate end-pieces (fig. 83).

Remarks

S. chathamensis belongs to the group of species with superior simple spinous setae in the neuropodia. It resembles *S. variabilis* in the setal arrangement, but differs in that the shaft of the compound setae is smooth not spinous. The structure of the parapodia and the arrangement of the setae, especially the very elongated, multi-articulate end-pieces of the compound setae separates this species from the other described species.

Holotype

Canterbury Museum Collection.

Type Locality

43°57′S., 176°47′W., Petre Bay, Chatham Islands, 50 fm.

Genus **Euthalenessa** Darboux, 1899

Euthalenessa digitata (McIntosh) 1885 (figs. 85–87)

Thalenessa digitata McIntosh, 1885, p. 140, pl. 22, fig. 2, pl. 23, figs. 5–7, pl. 25, figs. 4–5, pl. 13A, figs. 7–10.
Thalenessa oculata McIntosh, 1885, p. 142, pl. 21, figs. 1–2, pl. 23, fig. 12, pl. 25, fig. 3, pl. 13A, figs. 11–12.
Thalenessa fimbriata McIntosh, 1885, p. 144, pl. 29, fig. 10, pl. 23, fig. 4, pl. 24, fig. 5, pl. 25, figs. 1–2, pl. 23A, fig. 13.
Thalenessa digitata, Willey, 1905, p. 260, pl. 2, fig. 52.
Thalenessa digitata, Potts, 1910, p. 351.
Thalenessa oculata, Izuka, 1912, p. 86, pl. 10, figs. 1–2.
Thalenessa oculata, Horst, 1917, p. 107, pl. 22, figs. 1–3.
Euthalenessa oculata. Monro, 1924, p. 52.
Thalenessa oculata, Okuda, 1939, p. 226.
Euthalenessa oculata, Wesenberb-Lund, 1949, p. 258, fig. 3.

Records

Sta. 2 (2); Sta. 14 (3); Sta. 24 (1); Sta. 38 (5); Sta. 40 (1).

Description

Prostomium with 2 pairs of eyes, close together on each side, the anterior pair the larger. A pair of blunt peristomial antennae with inflated tips at the anterior margin of the prostomium, and a median one somewhat posterior to the other two. In the anterior parapodia numerous, filiform stylodes which diminish and disappear posteriorly. Foliaceous parapodial lobes also well developed anteriorly. Anterior 2–3 elytra are small, rounded, whereas the succeeding ones increase rapidly in size, become reniform, overlap each other considerably in an antero-posterior direction, leaving a large part of the dorsum uncovered anteriorly, almost meeting across the dorsum posteriorly. From the second or not until the fourth elytrum the outer margin is provided with a single row of digitiform papillae which divide to form a variable

number of slender, filiform branches (fig. 87). On a single elytrum the number of ramifications varies from 1 or 2 at the end of each row to a maximum of 5–15 in the centre. The maximum number of filaments varies considerably in collections from different localities, ranging from 5–7 (fig. 86) in one case to 12–15 (fig. 85) in another. In all other respects, apart from variations in colour pattern, the specimens are identical. A large number of specimens in the author's collection from other parts of New Zealand have been examined and they show a similar variation. In some cases collections from a single locality show the same variation in the number of papillae.

Notosetae are simple, long, capillary and finely serrated. Neurosetae are compound with bidentate end-pieces, the ends of the shafts bearing a few spinous rows below the tip. The distribution of the spinous ends to the shafts varies from individual to individual and throughout the body of a single specimen. In some cases all the compound setae have spinous ends to the shafts, and in other cases they are present only on the middle setae of the bundle.

There is also considerable variation in the amount of pigment present. In some specimens the anterior rounded elytra are rusty brown, in others the pigment is confined to the outer and posterior borders, in others they are colourless. A typical elytrum from the antero-median region of the body has a brown border on the inner and posterior sides, a patch of pigment on the anterior inner corner and another over the point of attachment. The latter patch may be absent. In some specimens the amount of pigment increases posteriorly in others it decreases. The amount of pigment on the anterior dorsal surface is also variable. In one group of specimens the anterior 12 segments are colourless and a dense, brownish purple pigment commences abruptly, decreasing in intensity and breadth posteriorly. In others the pigment commences on the anterior segments as a diffuse band which becomes a broad dense band from about the 12th setiger. In others the dense pigment commences on the first few setigers. The pigmentation fades posteriorly, the dorsum of the posterior segments being colourless, the point at which the pigment fades being variable.

Remarks

In 1885 McIntosh described 3 species of *Thalenessa: T. digitata* from the Admiralty Islands in 16–26 fathoms; *T. oculata* from Bass Strait, Australia, in 38 fathoms and off Nakalafu, Tongatohu, in 18 fathoms; and *T. fimbriata* off Port Jackson, Australia, in 30–35 fathoms. *E. digitata* has subsequently been recorded by Willey (1905) and Potts (1910) from the Maldives. All other Indo-Pacific records have been assigned to *E. oculata*. From McIntosh's descriptions there is little to separate the 3 species, apart from differences in the number of ramifications of the papillae on the borders of the elytra. In view of the great variability in the number and arrangement of the filaments of the papillae in the present specimens, in the shape of the elytra and the distribution of pigment, I am of the opinion that McIntosh's three species are synonymous.

The structure of the parapodia and the shape of the prostomium agrees with those of the specimens described by McIntosh as *T. oculata*. However, the majority of the specimens have more than a dozen ramifications on the papillae of the elytra as described by McIntosh for *T. fimbriata*. Willey (1905) considered *T. oculata* as another form of *T. digitata* slightly differing from the type. Day (1953) has recently examined Peter's type of *Sigalion oculatum* and has proved that it is really an *Enthalenessa*. Hence *E. oculata* is preoccupied and could not be used for the above species.

Distribution

Widely spread throughout tropical and warm temperate Indo-Pacific, Japan.

Family HESIONIDAE

Genus **Podarke** Ehlers, 1864

Podarke angustifrons (Grube) 1878

Irma angustifrons Grube, 1878, p. 108, pl. 4, fig. 7, pl. 15, fig. 12.
Podarke angustifrons, Fauvel, 1919, p. 371.
Podarke angustifrons, Fauvel, 1953, p. 190, fig. 52a–d.

Records

Sta. 16 (2); Sta. 50 (1).

Remarks

Typical. This species is widely distributed throughout the New Zealand area.

Distribution

Philippines, Celebes, India, Ceylon, Persian Gulf, Red Sea, Pacific Ocean, Australia, New Zealand.

Genus **Nereimyra** Blainville, 1928
(= **Castalia** Savigny, 1822)

Nereimyra blacki n. sp. (figs. 88–91)

Records

Sta. 41 (2).

Description

Length 17 mm, width, including setae, 4 mm, segments 45 (Holotype). Body widest anteriorly, inflated, dorsally arched, tapering posteriorly. The prostomium (fig. 88) is wider than long, with a median ridge, no eyes. Antennae are short, subulate, about two-thirds the length of the prostomium. Palps are short, bi-articulate. Tentacular segments are distinct dorsally. There are three pairs of tentacular cirri with short, cylindrical, basal cirrophores. Only 2 ventral ones with styles present, about equal in length to the ventral cirri of the median body region.

Parapodia (fig. 89) are prominent, increasing in length posteriorly. They are sub-biramous; notopodium elongated, cylindrical with a single, pale, curved acicula and a bundle of about 6 capillary setae. Anterior dorsal cirri have blunt rounded ends, the rest slender, tapering, borne on short, cylindrical cirrophores almost equal in diameter to the notopodium. The dorsal cirri do not project beyond the setae. Neuropodia are stout, elongated, terminating in a slender, conical acicular process. Neurosetae are numerous, compound, the dorsal bundle with long, slender, unidentate, pointed end-pieces (fig. 91), finely pectinate, the ventral bundle with shorter, broader end-pieces (fig. 90). There is a single large pale neuroacicula. The proboscis is stout, oval in cross-section with numerous fine papillae round the margin. Ventral cirri are fine, tapering, scarcely projecting beyond the tip of the acicular lobe. Colour in alcohol pink.

Remarks

This is the first record of the genus from the Southern Hemisphere. Three species in this genus are recorded from the Northern Hemisphere, *Nereimyra punctata* (Müller), *N. aphroditoides* (Fabricius) and *N. multipapillata* (Théel). *N. punctata* has articulated dorsal cirri, and in all three species the notopodium shows greater reduction than in *N. blacki*. *N. blacki* differs from the other species in the shape of the prostomium and its appendages and particularly in the structure of the parapodia.

Holotype

Canterbury Museum, Christchurch.

Paratype

Dominion Museum, Wellington.

Type Locality

44°35·5′S., 176°04′W., S.E. of Pitt Island, 330 fm.

Family SYLLIDAE

Sub-family SYLLINAE

Genus **Syllis** Savigny, 1817

Sub-genus **Typosyllis** Langerhans, 1879

Syllis (Typosyllis) armillaris Müller, 1776

Syllis brachychaeta Schmarda, 1861, p. 70.
Syllis closterobranchia Schmarda, 1861, p. 72.
Syllis closterobranchia, Ehlers, 1904, p. 19.
Syllis closterobranchia, Benham, 1909, p. 237.
Syllis brachychaeta, Augener, 1918, p. 247, pl. 4, figs. 83-5, pl. 5, fig. 98, text-fig. 20.
Syllis (Typosyllis) brachychaeta, Augener, 1923, p. 42.
Syllis (Typosyllis) brachychaeta, Augener, 1924, p. 358.
Syllis brachychaeta, Benham, 1927, p. 55.
Syllis (Typosyllis) armillaris, Fauvel, 1923, p. 264, fig. 99a–f.
Syllis armillaris, Day, 1954, p. 18.

Records

Sta. 18 (5).

Description

All the specimens are short with short, fusiform dorsal cirri having 7 to 15 articles. The setae are weakly bidentate and appear unidentate in the median region of the body. The pharynx has a single anterior tooth.

Remarks

Day (1954) has established the above synonymy with which I agree. The synonymy of *S. closterobranchia* and *S. brachychaeta* in southern regions is long and involved, due in part to the variable development of the second tooth on the end-pieces of the setae.

Distribution

Cosmopolitan.

Syllis (Typosyllis) variegata Grube

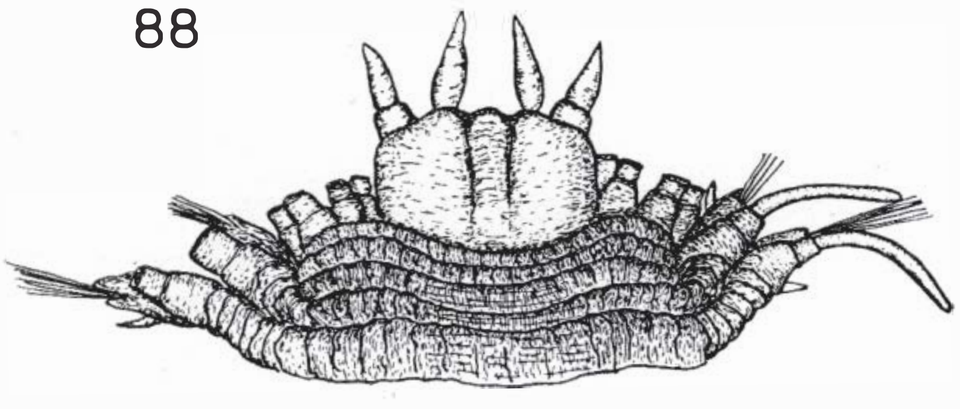
Syllis (Typosyllis) variegata, Fauvel, 1923, p. 262, fig. 7.
Syllis (Typosyllis) variegata, Augener, 1924, p. 367.
Syllis (Typosyllis) variegata, Monro, 1936, p. 102, fig. 30a–b.
Syllis (Typosyllis) variegata, Fauvel, 1953, p. 148, fig. 74h–n.

Records

Sta. 3 (2); Sta. 34 (1); Sta. 37 (1); Sta. 49 (2).

Description

The body is long and slender, the dorsal cirri alternately long and short with numerous articles. The setae are bidentate throughout. The protruded pharynx of one of the specimens has a prominent terminal tooth.



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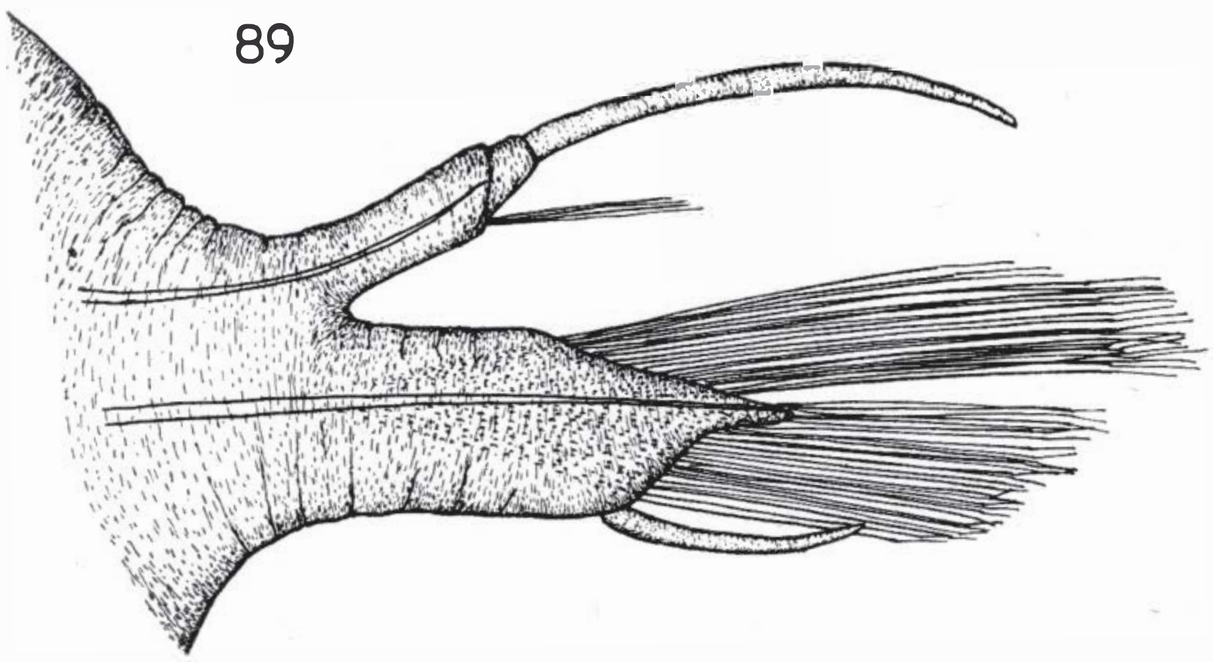

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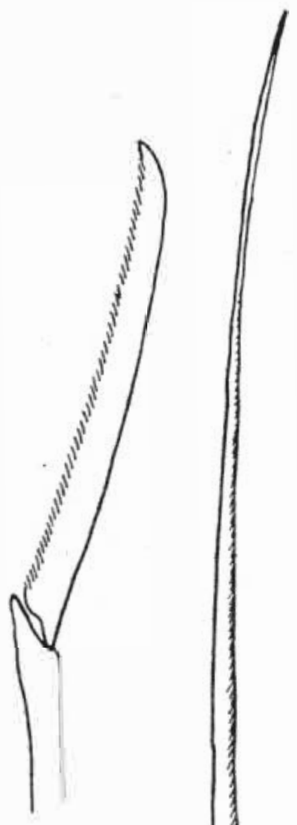

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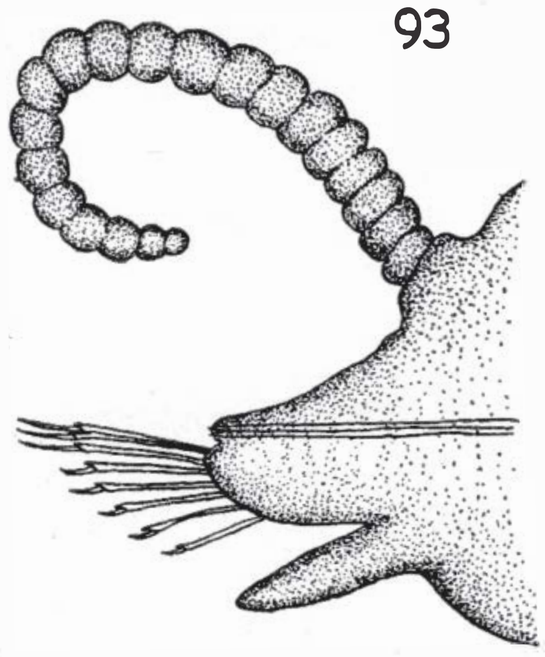

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Nereimya blacki n.sp. Fig. 88 – Anterior end. Fig. 89 – Parapodium. *Syllis* (*Typosyllis*) *tristanensis* Day Fig. 92 – Neuroseta. *Syllis* (*Typosyllis*) *augeneri* Haswell Fig. 93 – Parapodium. Fig. 94 – Median neuroseta. Fig. 95 – Lower neuroseta. Fig. 96 – Upper neuroseta. *Syllis* (*Typosyllis*) *brachyola* Ehlers Fig. 97 – Neuroseta.

Remarks

Some of these specimens have been compared with European specimens of the species in the British Museum.

Distribution

Cosmopolitan.

Syllis (Typosyllis) tristanensis Day, 1954 (fig. 92)

Syllis tristanensis Day, 1954, p. 9, fig. 1f–j.
Syllis brachychaeta, Monro, 1930, p. 100.

Records

Sta. 3 (1); Sta. 14 (1); Sta. 22 (2).

Description

The specimen from Sta. 3 measures 10 mm for about 100 setigers. The prostomium is about twice as broad as long. The median antenna, originating at the posterior margin of the prostomium, has 15 joints and the lateral antennae 12. The dorsal cirri vary in length, anteriorly being about three-quarters of the body width with 10–16 joints, while in the median region they are shorter with 8–12 joints. The posterior dorsal cirri are more slender than those of the anterior and median region which are fusiform, tapering. The parapodia are provided with 8–12 compound falcigers which are strongly bidentate throughout (fig. 92).

Remarks

Day has recently described this species from Tristan da Cunha, pointing out that it may have been found elsewhere but confused with *S. variegata* or *S. armillaris*. This is the second record of the species although some of the specimens recorded from the New Zealand area as *S. closterobranchia* or *S. brachychaeta* (= *S. armillaris*) may belong to this species.

Distribution

Tristan de Cunha, New Zealand.

Syllis (Typosyllis) augeneri Haswell, 1920 (figs. 93–96)

Syllis (Typosyllis) augeneri Haswell, 1920, p. 98, pl. 11, figs. 19–20.
Syllis (Typosyllis) kinbergiana Augener, 1913, p. 197, pl. 3, fig. 38, text-fig. 22.
Syllis (Typosyllis) kinbergiana, Fauvel, 1917, p. 194.

Records

Sta. 24 (1).

Description

The single specimen measures 12 mm for about 100 setigers. The prostomium is broader than long with 4 red eyes. The dorsum of the anterior segments is banded with light brown pigment. The protruded pharynx is short with a terminal tooth. Dorsal cirri (fig. 93) are stout with up to 20 joints and the ventral cirri are finger-like.

There are up to 9 bidentate compound setae in each parapodium (figs. 94–96). The 2 uppermost setae (fig. 96) in the anterior and median regions have elongated, slender end-pieces. In the posterior region of the body all the setae have short, broad end-pieces. Acicula number 2–4 per parapodium.

Remarks

This is the first record of the species from New Zealand.

Distribution

Australia, New Zealand.

Syllis (Typosyllis) brachyola Ehlers, 1897 (fig. 97)

Syllis brachyola Ehlers, 1897, p. 38, pl. 2, figs. 46–7.
Syllis brachyola, Augener, 1924, p. 262.
Syllis brachyola, Monro, 1930, p. 101, fig. 33a–b.

Records

Sta. 16 (4).

Remarks

The specimens resemble those figured by Monro (1930) in that the head of the shaft of the compound setae (fig. 97) is more expanded than those figured by Ehlers. This species is widely distributed throughout the New Zealand region.

Distribution

Circum-Antarctic, Falkland Islands, South America, New Zealand, Auckland Islands.

Syllis (Typosyllis) attenuata n. sp. (figs. 98–101)

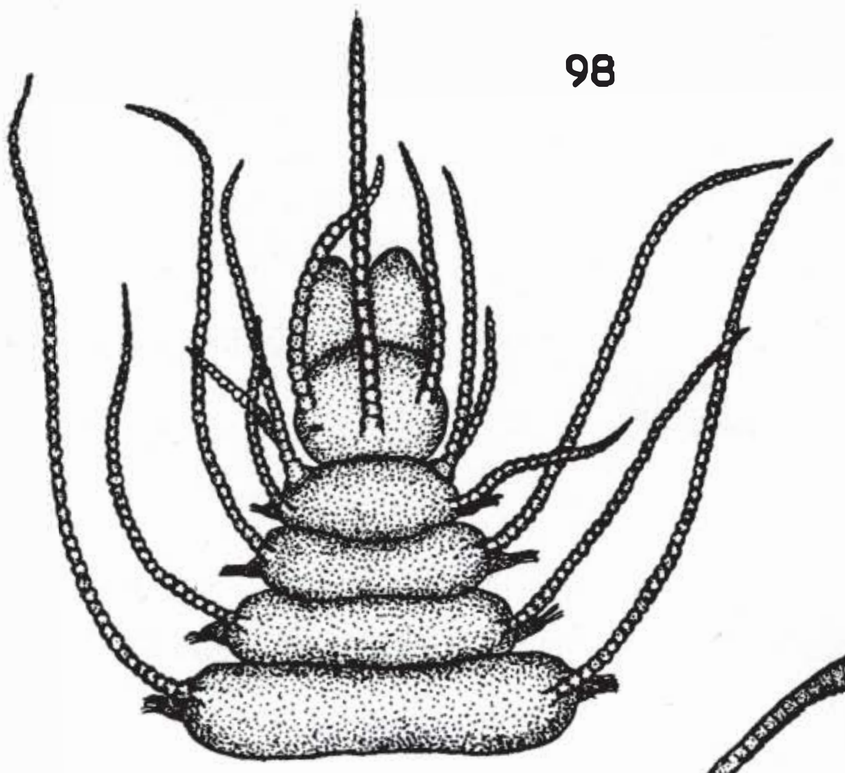
Records

Sta. 3 (1).

Description

A single complete specimen measuring 27 mm for 93 setigers. The body in alcohol is colourless, tapering markedly anteriorly, the prostomium and the first few segments being very small in relation to the rest of the body. In the median and posterior regions of the body the segments are broad, depressed with well marked inter-segmental grooves. The mid-ventral surface is grooved.

The prostomium (fig. 98) is circular without a trace of eyes. The palps are close together, the same length as the prostomium. The peristomium is hidden in dorsal view by a forwardly projecting flap from the anterior margin of the first setiger. The antennae, tentacular cirri and dorsal cirri are slender, with numerous bead-like articles. The median antenna is 3 times the length of the prostomium and the laterals about two thirds this length. The dorsal cirri are elongated, alternately long and short, that of the fourth setiger reaching as far forward as the tip of the median antenna. The ventral cirri (fig. 99) are slender, cylindrical,



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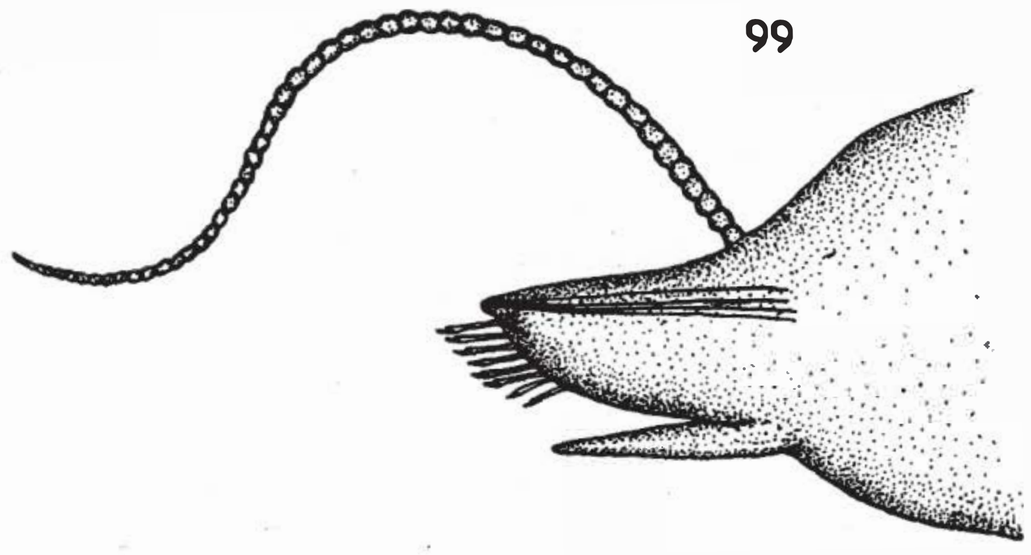

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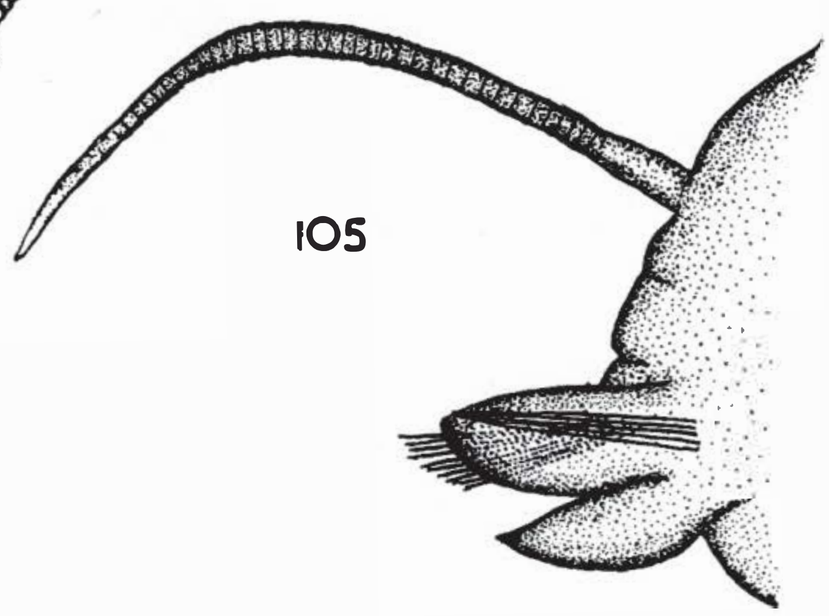

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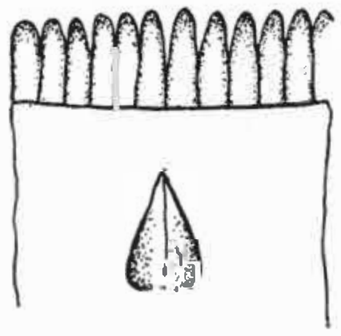

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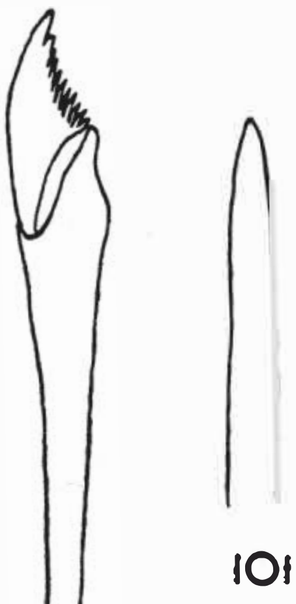

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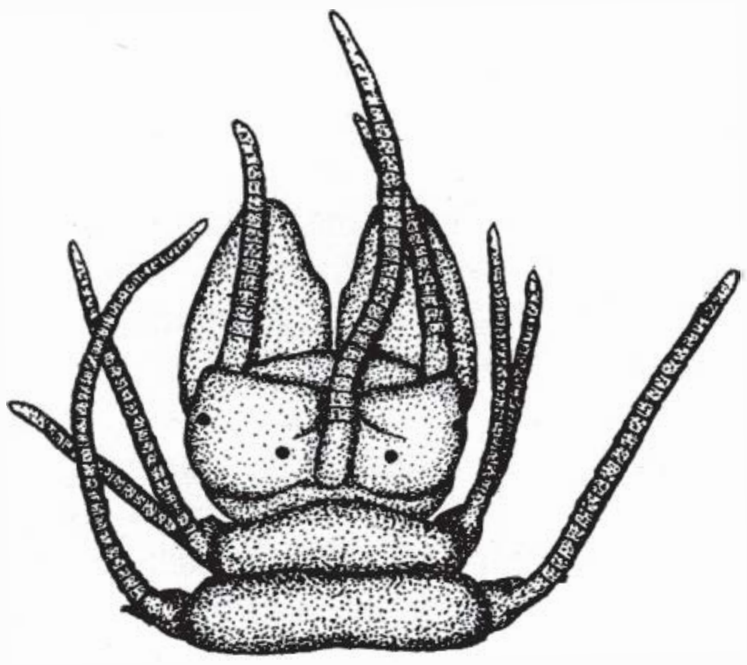

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Syllis (*Typosyllis*) *attenuata* n.sp. Fig. 98 – Anterior end. Fig. 99 – Parapodium. Fig. 100 – Neuroseta. Fig. 101 – Acicula. *Syllis* (*Typosyllis*) *prolifera Krohn* var. *zonata* (Haswell) Fig. 102 – Neuroseta. *Syllis* (*Typosyllis*) *corsucans* Haswell Fig. 103 – Dissection of the anterior end of the proboscis. Fig. 104 – Anterior end. Fig. 105 – Parapodium. Fig. 106 – Median neuroseta. Fig. 107 – Lower neuroseta. Fig. 108 – Upper neuroseta.

not projecting beyond the parapodial lobes. The parapodia are elongated with 3–4 acicula, terminating in straight, blunt tips (fig. 101). There are 8–10 short, compound setae with short, broad, bidentate end-pieces with a small secondary tooth (fig. 100).

Remarks

The structure of the anterior end of this species is distinctive.

Holotype

Canterbury Museum, Christchurch.

Type Locality

43°10·1S., 175°36·5′E., Mernoo Bank, 41 fm.

Syllis (Typosyllis) prolifera Krohn var. **zonata** (Haswell) 1886 (fig. 102)

Gnathosyllis zonata Haswell 1883, p. 14, pl. 54, figs. 4–6.

Syllis (Typosyllis) zonata, Augener, 1913, p. 195, pl. 3, fig. 22, text-fig. 21a–c.

Syllis (Typosyllis) zonata, Augener, 1918, p. 236.

Syllis prolifera var. *zonata,* Day, 1957, p. 73.

Records

Sta. 18 (1).

Description

An anterior fragment measuring 18 mm for 65 setigers. The prostomium is longer than it is broad and the palps short, triangular. There are a pair of brown transverse stripes across the dorsum of the anterior segments, and a faint stripe on the inter-segmental groove. The dorsal cirri are alternately long and short with up to 35 articles. The pharynz is short with a stout sub-terminal tooth. The parapodia are provided with up to 10 compound setae with bidentate, fringed end-pieces (fig. 102).

Remarks

This species is easily recognisable by the transverse banding on the anterior segments. The palps are shorter and broader than those of *S. prolifera*.

Distribution

West and South Africa, Australia, New Zealand.

Syllis (Typosyllis) corsucans Haswell, 1883 (figs. 103–107)

Syllis corsucans Haswell, 1883, p. 734, pl. 50, figs. 1–3, pl. 51, fig. 5.

?Syllis corsucans Augener, 1913, p. 208.

Syllis (Typosyllis) corsucans Haswell, 1920, p. 99, pl. 11, figs. 28–31.

Records

Sta. 11 (1).

Description

A single specimen measuring 30 mm for 120 setigers. There are no pigment markings, the body in alcohol being light pink. The prostomium (fig. 104) is short, twice as broad as long, with transverse grooves posteriorly, and also anteriorly where the frontal corners are beaked over the bases of the lateral antennae. There are 4 small eyes. The palps are broad at the base, longer than the prostomium, directed downwards, hollowed out below and internally. The median antenna, which is 2 and a half times the length of the prostomium, arises behind the posterior pair of eyes near the anterior border of the peristomium. The lateral antennae are a little over half the length of the median. They are all indistinctly annulated. The proboscis (fig. 103) has a large sub-terminal tooth and a circlet of 20 compressed papillae. The tentacular cirri are short, not projecting beyond the palps.

The dorsal cirri are long anteriorly, about one and a half times the breadth of the body, short posteriorly. The parapodia (fig. 105) are relatively short with a large compressed, leaflike ventral cirri not projecting beyond the parapodial lobes. Each bears 15–20 compound setae with bidentate end-pieces (figs. 106–108) the dorsalmost slender, with a gradual transition to stouter, broader ventral ones. There are 5–7 pointed acicula, one of which is sharply bent forward at the tip.

Remarks

Under low magnification the dorsal cirri appear smooth or faintly annulate, but under higher magnification they are seen to be multi-articulate with numerous cylindrical rings. This is the first record of the species from New Zealand, and the present specimens agree well with Haswell's account.

Distribution

Australia, New Zealand.

Sub-genus **Haplosyllis** Langerhans, 1879

Syllis (Haplosyllis) spongicola Grube

Syllis (Haplosyllis) spongicola, Fauvel, 1923, p. 257, fig. 95a–d.

Records

Sta. 19 (1).

Remarks

Typical.

Distribution

Cosmopolitan.

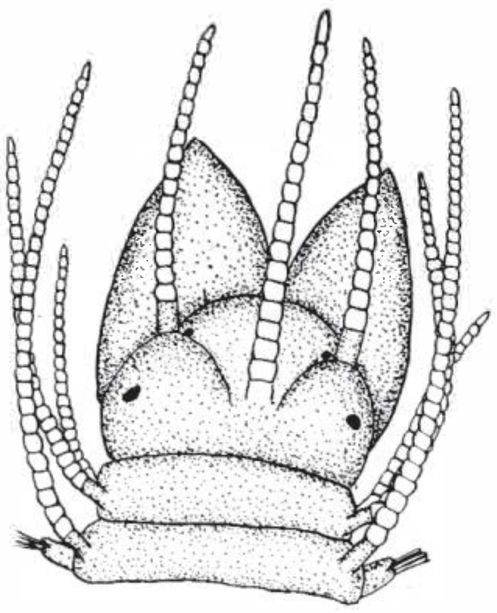
Sub-genus **Ehlersia** Quatrefages, 1866

Syllis (Ehlersia) anops Ehlers, 1897 (figs. 109–111)

Syllis (Ehlersia) anops Ehlers, 1897, p. 40, pl. 2, figs. 40–45.

Records

Sta. 5 (1).



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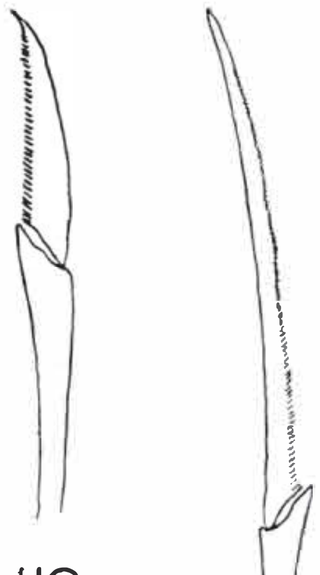

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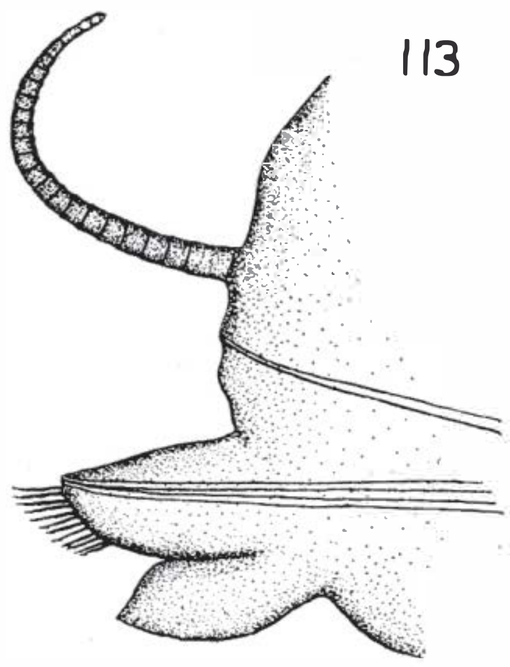

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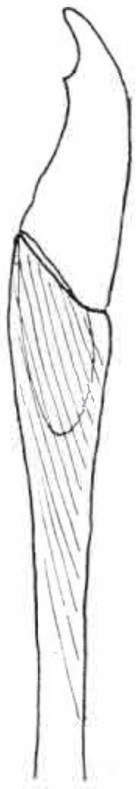

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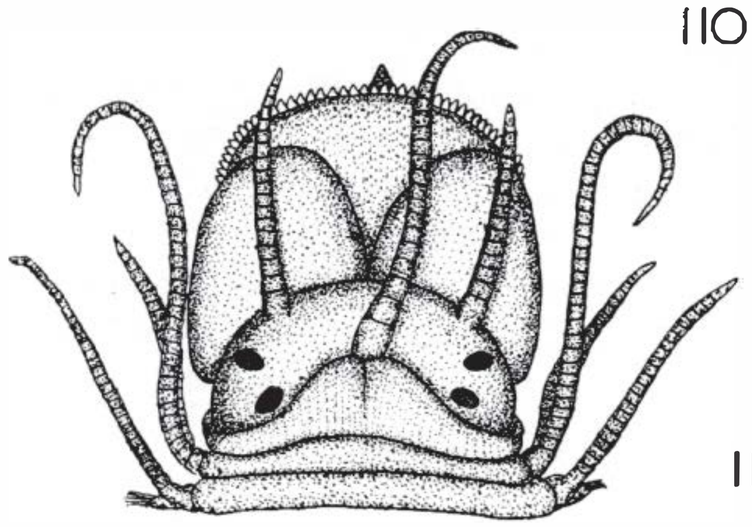

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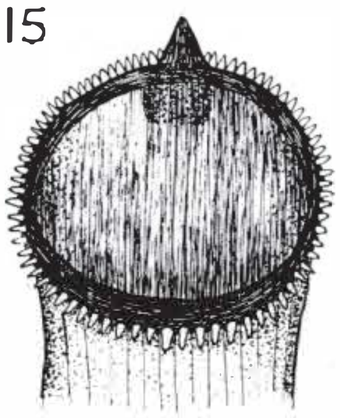

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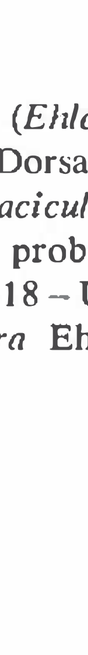

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Description

A slender elongated species measuring 9·5 mm for 104 setigers. Prostomium broader than long, rounded anteriorly with a pair of curved grooves running back from the bases of the lateral antennae (fig. 109). There are 2 pairs of eyes, the smaller anterior pair at the inner bases of the lateral antennae and the larger posterior pair on the sides at the widest part of the prostomium. The median antenna, arising from the middle of the prostomium, is twice the length of the prostomium, and the laterals a little shorter. The upper tentacular cirri are equal in length to the median antenna. The dorsal cirrus of the first setiger is elongated, almost reaching to the tip of the lateral antennae. The antennae, tentacular and dorsal cirri are all conspicuously annulated. The pharynx has an anterior tooth and a circlet of large, triangular, flattened papillae.

The dorsal setae have elongated, slender, unidentate, tapering, end-pieces (fig. 111) and the ventral setae short, unidentate, broader end-pieces (fig. 110). There are two elongated anal cirri with numerous bead-like articles.

Remarks

Ehlers' figure of the prostomium of this species is indistinct and do not show the grooves found in the present specimen. In all other respects it is identical with the specimens described by Ehlers. This is the first record of the species since Ehlers' original description.

Distribution

South America, New Zealand.

Genus **Trypanosyllis** Claparede, 1864

Trypanosyllis taeniaeformis (Haswell) 1885 (fig. 112)

Syllis taeniaeformis Haswell, 1885, p. 741, pl. 1, figs. 4–5.
Trypanosyllis richardi Gravier, 1900, p. 168, pl. 9, figs. 12–13, text-fig. 39–41.
Trypanosyllis taeniaeformis, Augener, 1913, p. 230.
Trypanosyllis taeniaeformis, Augener, 1924, p. 374.
Trypanosyllis taeniaeformis, Monro, 1933, p. 35.
Trypanosyllis taeniaeformis, Monro, 1936, p. 127, fig. 19.

Records

Sta. 14 (1); Sta. 19 (1); Sta. 23 (2); Sta. 24 (2); Sta. 37 (posterior end).

Description

The largest specimen, an anterior fragment, measures 25 mm by 4 mm. The body is flattened, ribbon-like, the dorsum of the anterior segments are marked by a pair of reddish brown bands. Dorsal cirri are colourless, apart from a trace of purple pigment on some of the anterior ones. The longer cirri are about equal to the breadth of the body, the shorter about two thirds this length. Prostomium bi-lobed, deeply incised behind. The compound setae are bidentate with a small secondary tooth (fig. 112).

Remarks

This species can be distinguished by the reddish brown stripes on the anterior segments and the bidentate setae. *T. gigantea*, which is also recorded from New Zealand, lacks these stripes and has unidentate setae.

Distribution

Australia, New Zealand, Pacific Ocean.

Sub-family EUSYLLINAE

Genus **Eusyllis** Malmgren, 1867

Eusyllis kerguelensis McIntosh, 1885

Eusyllis kerguelensis McIntosh, 1885, p. 191, pl. 29, fig. 4, pl. 33, fig. 3, pl. 15A, fig. 13.
Eusyllis kerguelensis, Gravier, 1907, p. 17, pl. 2, figs. 14–16.
Eusyllis kerguelensis, Monro, 1930, p. 94, fig. 30a–c.

Records

Sta. 6 (1).

Remarks

One complete and one damaged specimen with the characteristic setae of this species.

Distribution

Antarctic, New Zealand.

Genus **Eudontosyllis** n.g.

Palps fused at the base, an occipital flap present, antennae and cirri articulated with short cylindrical rings, ventral cirri leaflike. Pharynx with a single, large, terminal tooth and a denticulated rim. Parapodia and dorsal cirri widely separated with an aciculum below the dorsal cirrus.

Eudontosyllis aciculata n. sp. (figs. 113–7)

Records

Sta. 14 (1).

Description

The single specimen measures 9·5 mm for 80 setigers. There are no pigment markings, the body being pale pink in colour. The prostomium (fig. 114) is broader than long, rounded anteriorly, with 2 pairs of oval eyes. The palps are united at the base, broad, bluntly triangular in shape. A bi-lobed flap projects forward from the anterior margin of the peristomium over the prostomium. The median antenna, which arises underneath the anterior margin of this flap, is twice the length of

the prostomium, and the laterals two thirds of this length. The dorsal tentacular cirrus is elongated, projecting beyond the median antenna, the ventral is half its length. The dorsal cirri are alternately long and short, a half to two thirds the width of the body in length. All the cirri are annulated with cylindrical segments.

The pharynx (fig. 115) is protruded, but would extend through about 10 anterior segments. There is a large, blunt, triangular, terminal tooth and a circlet of numerous, fine teeth on the rim. Alternating with these teeth there are numerous, short papillae.

The short parapodia (fig. 113) are widely separated from the dorsal cirri, and have blunt, leaf-like ventral cirri which do not project beyond the parapodial lobes. Below the dorsal cirrus there is a single, large, curved acicula. The parapodia are provided with 2 to 3 large acicula with sharply bent ends (fig. 116), and up to 15 compound setae with short, bidentate end-pieces and a few spines on the head of the shaft (fig. 117).

Remarks

The presence of a notoaciculum in this species is a unique feature. In some syllids, e.g. *Opisthodonta pterochaeta* Southern (1914), such an aciculum may be present where swimming setae are developed at sexual maturity. The present specimen shows no sign of swimming setae or sexual maturity. In possessing an occipital flap this species resembles species of *Odontosyllis* and the structure of the pharynx is the same as species of *Eusyllis.*

Holotype

Canterbury Museum, Christchurch.

Type Locality

Hanson Bay, Chatham Islands, 15 fm.

Genus **Pionosyllis** Malmgren, 1867

Pionosyllis cosma Gravier, 1907

Pionosyllis cosma Gravier, 1907, p. 15, pl. 2, figs. 12–13.
Pionosyllis cosma, Ehlers, 1913, p. 273, pl. 22, figs. 1–4.
Pionosyllis cosma, Benham, 1921, p. 22.
Pionosyllis cosma, Monro, 1936, p. 128.

Records

Sta. 5 (1); Sta. 18 (1); Sta. 26 (1); Sta. 34 (2).

Description

An anterior fragment from Sta. 18 measures 2·5 mm for 34 setigers. The body is dorsally arched, colourless in alcohol. The prostomium is deeply cleft behind. The protruded pharynx has a smooth rim and a single anterior tooth. The setae have stout, bidentate end-pieces.

Remarks

The present specimens agree well with Gravier's (1907) description. This is the first record of the species from New Zealand.

Distribution

Antarctica, New Zealand.

Pionosyllis ehlersiaeformis Augener, 1913 (figs. 118–9)

Pionosyllis ehlersiaeformis Augener 1913, p. 225, pl. 3, fig. 32, text-fig. 31a–c.

Records

Sta. 18 (posterior fragment); Sta. 34 (1).

Description

The anterior fragment from Sta. 34 measures 5 mm for 32 setigers. The prostomium is broader than long with two pairs of eyes, the anterior pair the largest. The median antenna reaches back to the fifteenth setiger, the laterals being half this length. The dorsal cirri (fig. 120) are slender, elongated, up to one and a half times the width of the body. The ventral cirri are stout, tapering, reaching to the tip of the parapodial lobes, with a yellow pigment area on their mid-ventral surface.

The pharynx is pale yellow with a smooth rim and a single dorsal tooth. It is surrounded by a double row of triangular papillae with 12 papillae in each row. The upper compound setae have slender, elongated end-pieces (fig. 118), and the ventral ones are bidentate with a well developed fringe (fig. 119).

Remarks

The long slender dorsal cirri are characteristic of this species which was originally described from Western Australia. This is the first record of the species since its original discovery.

Distribution

Australia, New Zealand.

Pionosyllis stylifera Ehlers, 1897 (figs. 121–2)

Pionosyllis stylifera Ehlers, 1913, p. 474, pl. 31, figs. 6–10.
Pionosyllis stylifera, Augener, 1923, p. 50.
Pionosyllis stylifera, Augener, 1924, p. 380.
Pionosyllis stylifera, Monro, 1939, p. 111, fig. 6.

Records

Sta. 25 (1).

Description

The single anterior fragment of 40 setigers measures 10 mm. The prostomium is broader than long with 4 red eyes. The median antenna is about twice the length of the laterals. Dorsal cirri are alternately long and short, the longest equal

in length to the width of the body. The parapodial lobes are short and the ventral cirri blunt, triangular. Setae number up to 15 per parapodium. There is a slender, elongated, tapering, simple seta (fig. 121), the others are compound falcigers with unidentate end-pieces. The end-pieces of the uppermost compound setae are elongated, slender (Fig. 121a), while those of the ventral ones are short (fig. 122). The head of the shaft is spinous.

Remarks

The structure of the parapodia and setae are identical with the specimens described by Ehlers (1913). The species has previously been recorded from the North Island and from the Auckland Islands.

Distribution

Antarctica, Auckland Islands, New Zealand.

Genus **Odontosyllis** Claparede, 1863

Odontosyllis polycera (Schmarda) 1861

Syllis polycera Schmarda, 1861, p. 72, pl. 28, fig. 219.
Eurymedusa picta Ehlers, 1904, p. 21, pl. 3, figs. 5–9.
Odontosyllis polycera, Augener, 1918, p. 283, pl. 5, fig. 97.
Odontosyllis polycera, Monro, 1933, p. 36, text-fig. 15a–f.

Records

Sta. 11 (2); Sta. 18 (1); Sta. 23 (1); Sta. 24 (2).

Remarks

This species is one of the commonest syllids throughout the New Zealand area.

Distribution

New Zealand, Australia, South Africa, Pacific Ocean.

Odontosyllis maorioria n. sp. (figs. 123–5)

Records

Sta. 18 (1).

Description

The single specimen measures 10 mm for 100 setigers. The colour pattern is distinctive. The dorsum of the anterior segments is dark purple, whereas the prostomium, its appendages, the occipital flap and the tentacular and dorsal cirri are white. The prostomium is broader than long, slightly incised in front (fig. 123). There are no eyes. A prominent occipital flap, similar in shape to the first segment, almost conceals the prostomium in dorsal view. The antennae are short, the median, with 17 rings, being twice the length of the prostomium; the laterals, with 12 rings about half this length. The articulation of these appendages and of the tentacular and dorsal cirri is pronounced with deeply cut grooves between the articles. The palps are short, broad. The tentacular cirri are approximately equal in length.

The dorsal cirri are alternately long and short, the longer with 22–28 articles, being equal in length to the width of the body; the shorter with 15–17 articles, being about two thirds this length. The parapodial lobes are short and the ventral cirri short, triangular (fig. 125). There are 3–4 pointed acicula and up to 15 compound setae with unidentate end-pieces and expanded heads to the shaft (fig. 124).

Remarks

The colour and the deeply grooved antennae and cirri of this species are distinctive. It differs from *Odontosyllis psammochroma* Augener in the shape of the prostomium and occipital flap, and in having articulated, not smooth, cirri.

Holotype

Canterbury Museum, Christchurch.

Type Locality

Off Cape Pattison, Chatham Islands, 15 fm.

Sub-family EXOGONINAE

Genus **Brania** Quatrefages, 1866

Brania kergeuelensis (McIntosh) 1885

Salvatoria kergeuelensis McIntosh, 1885, p. 188, pl. 30, fig. 4, pl. 33, fig. 1, pl. 15A, figs 11–12.
Sphaerosyllis mcintoshi Benham, 1921, p. 26, pl. 1, figs. 4–6.
Grubeosyllis kerguelensis, Augener, 1923, p. 57.

Records

Sta. 18 (3); Sta. 50 (1).

Description

Small colourless specimens measuring up to 3·5 mm for 48 setigers. There are 4 conspicuous eyes. The dorsal cirri taper to a fine tip. Parapodia are provided with a single, dorsal, elongate, tapering seta and unidentate compound setae with serrated, slender end-pieces.

Remarks

This species has previously been recorded from the Three Kings Islands to Auckland Islands.

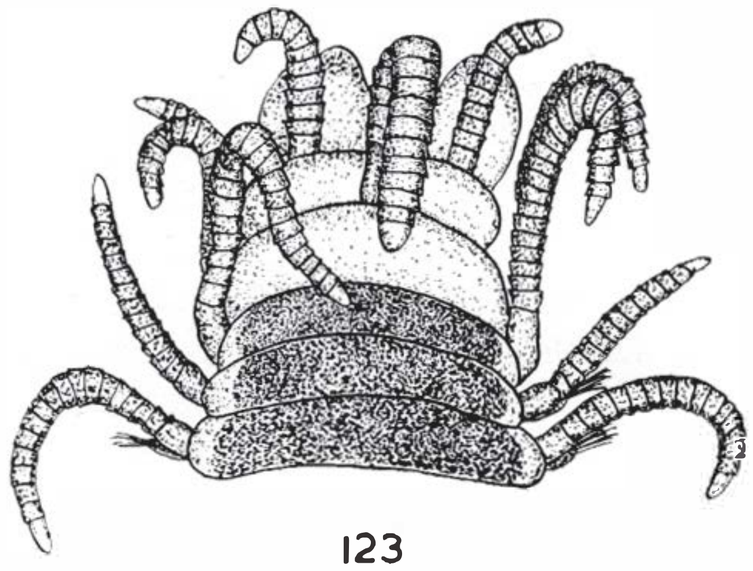
Distribution

Kerguelen, Antarctica, New Zealand.

Genus **Exogone** Oersted, 1845

Exogone heterosetosa McIntosh, 1885

Exogone heterosetosa McIntosh, 1885, p. 205, pl. 33, figs. 16–17, pl 34A, fig. 11.
Exogone heterosetosa, Ehlers, 1897, p. 51, pl. 3, figs. 51–65.



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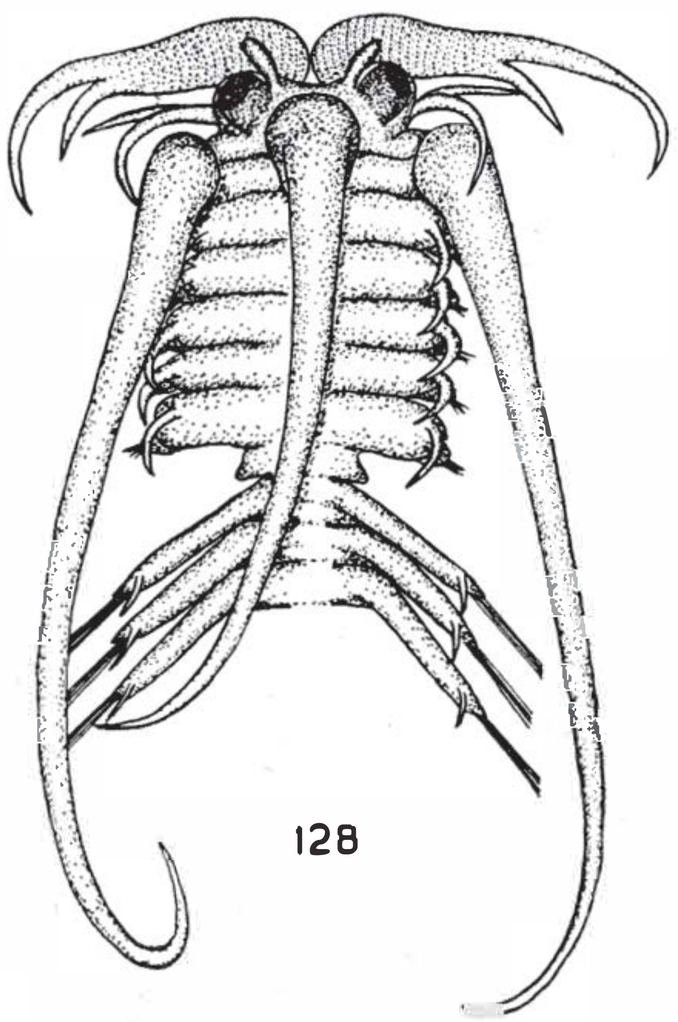

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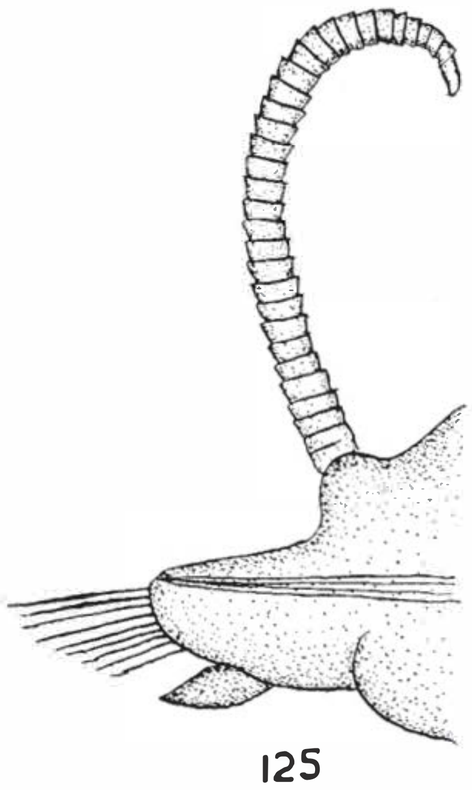

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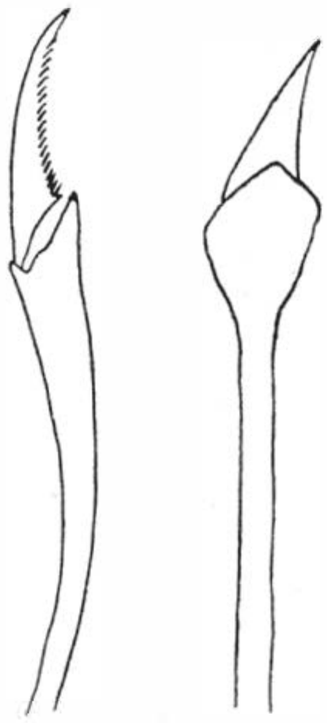

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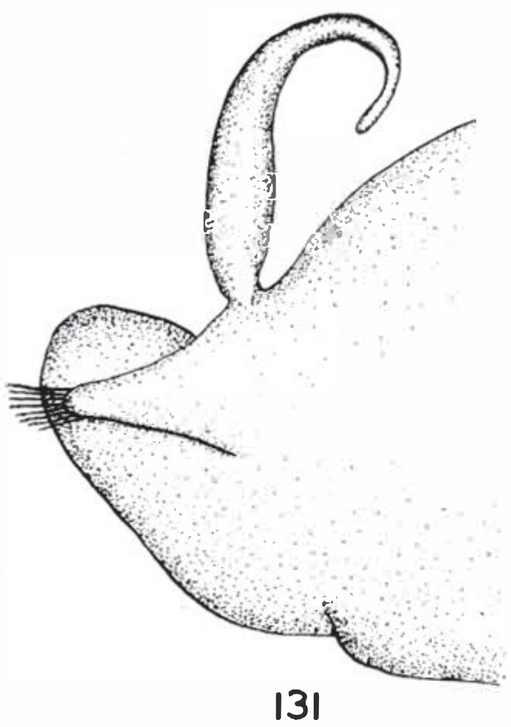

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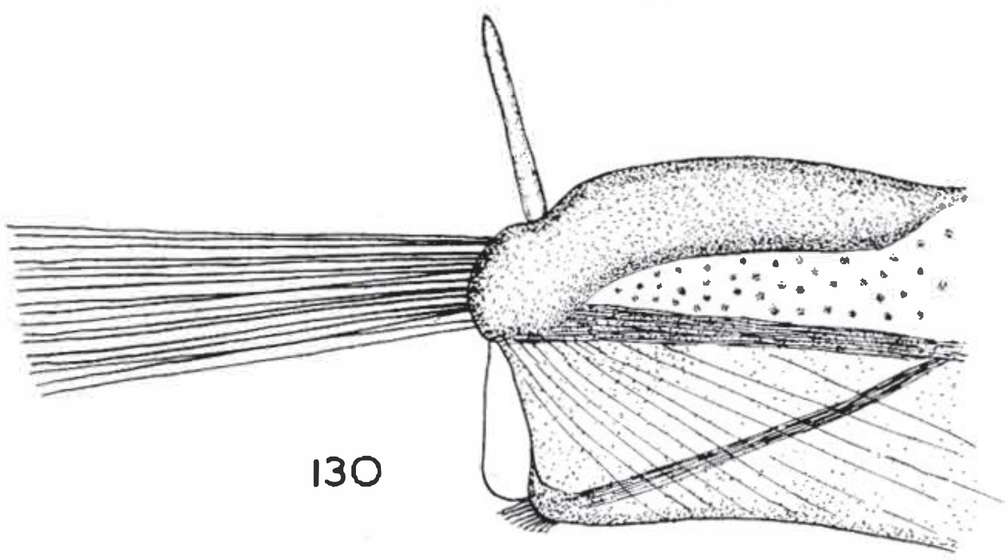


130

Odontosyllis maoriana n.sp. Fig. 123 – Anterior end. Fig. 124 – Neuroseta. Fig. 125 – Parapodium. *Exogene heterosetosa* McIntosh Fig. 126 – Dorsal neuroseta. *Sphaerosyllis hirsuta* Ehlers Fig. 127 – Neuroseta. *Autolytus chathamensis* n.sp. Fig. 128 – Anterior end. Fig. 129 – Neuroseta. Fig. 130 – Modified epitokous parapodium of a polybostrichus. Fig. 131 – Unmodified, anterior parapodium of a polybostrichus.

Exogone heterochaeta, Augener, 1913, p. 347.
Exogone heterosetosa, Haswell, 1920, p. 221, pl. 17, figs. 11–17.

Records

Sta. 11 (2).

Description

One complete specimen measuring 3 mm for 45 setigers and an anterior fragment. The palps are elongated, closely united, but notched anteriorly. The median antenna is twice the length of the laterals. The dorsal cirrus of the second segment is absent. The setae are characteristic, there being dorsal setae with the shaft expanded to form a broad plate and with thin, triangular end-pieces (fig. 126).

Remarks

This species is widespread throughout the New Zealand region being recorded from Cape Maria van Dieman to the Auckland Islands.

Distribution

Circum-Antarctic, South America, Australia, New Zealand.

Genus **Sphaerosyllis** Claparede, 1863

Sphaerosyillis hirsuta Ehlers, 1897 (fig. 127)

Sphaerosyllis hirsuta Ehlers, 1897, p. 48, pl. 3, figs. 58–60.
Spaerosyllis hirsuta, Augener, 1913, p. 249.
Sphaerosyllis hirsuta, Augener, 1923, p. 55.

Records

Sta. 26 (1).

Description

A small species measuring 3 mm for 40 setigers. There are no frontal eyes. The tentacular and dorsal cirri are short, fusiform. Parapodia are provided with a dorsal, curved, simple seta and up to 8 compound setae with unidentate, fringed end-pieces (fig. 127). The end pieces of the setae of the posterior segments are shorter than those of the anterior segments, and in many the fringe appears to be absent.

Remarks

This species has previously been recorded from Cape Maria van Dieman to the Auckland Islands.

Distribution

Circum-Antarctic, South America, Australia, New Zealand.

Sub-family AUTOLYTINAE

Genus **Autolytus** Grube, 1850

Autolytus macleararus McIntosh, 1885

Autolytus macleararus McIntosh, 1885, p. 207, pl. 19, fig. 6, pl. 23, fig. 5, pl. 15A, fig. 15.
Autolytus macleararus, Ehlers, 1913, p. 488, pl. 23, figs. 9–11.
Autolytus macleararus, Augener, 1923, p. 60.
Autolytus macleararus, Benham, 1927, p. 60.

Records

Sta. 25 (17); Sta. 26 (3).

Description

Small colourless specimens measuring up to 9 mm for 55 setigers. The anterior region of the body agrees with the figures given by Ehlers (1913). The tentacular cirri are long and coiled. In the median and posterior regions of the body the dorsal cirri are short and the parapodial lobes are rounded above. The setae are as figured by McIntosh (1885, pl. 13, fig. 5).

Remarks

This species has previously been recorded from the Auckland Islands by Augener.

Distribution

Kerguelen, Auckland Islands, Australia, New Zealand.

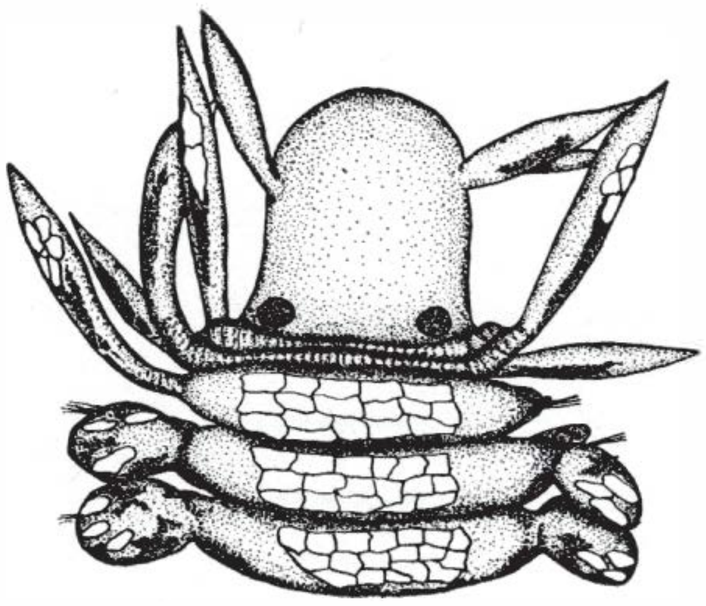
Autolytus chathamensis n. sp. (figs. 128–31)

Records

Sta. 12 (15, one Sacconereis, 14 Polybostrichus); Sta. 25 (3, 1 Sacconereis, 2 Polybostrichus); Sta. 47 (1, Polybostrichus).

Description

The following description is based on a Polybostrichus specimen from Sta. 12. The largest specimen measures 10 mm for 45 setigers of which the first 6 are unmodified. The body in alcohol is colourless. The prostomium is short, broad and wide, flattened, proximal areas of the modified palps are in contact at their bases (fig. 128). The posterior branch of these palps is half the length of the anterior branch. There are two pairs of large, brown dorsal and ventral eyes. On the outer margin of the prostomium, anterior to the dorsal eyes, are a pair of small lateral antennae, and posterior to the eyes, medially, is a large, stout, median antenna reaching back to the fourteenth or fifteenth setiger. Between the sides of the prostomium and the first setiger are 2 pairs of slender tentacular cirri, the dorsal about twice the length of the ventral. The dorsal cirrus of the first setiger is large, stout, tapering reaching back to about the eighteenth setiger. The following 5 unmodified setigers have short, tapering dorsal cirri, triangular, tapering, presetal lobes and large, inflated, postsetal lobes (fig. 131). These parapodia bear up to 8 compound setae with a bulbous, spinous head to the shaft and short, tridentate end-pieces of characteristic appearance



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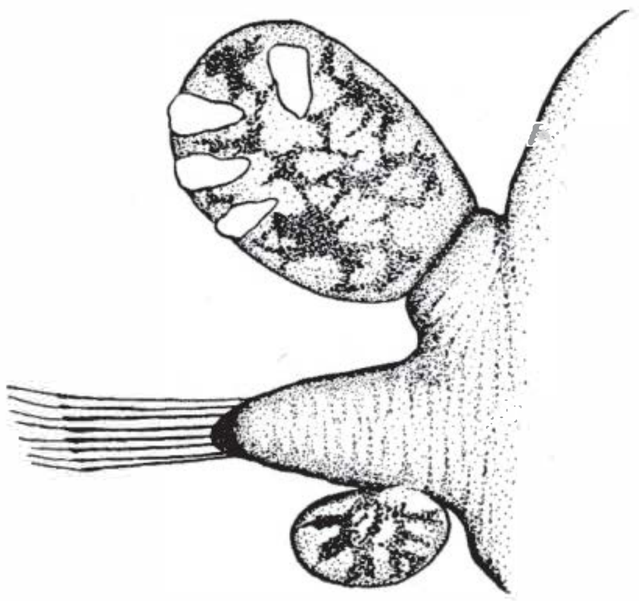

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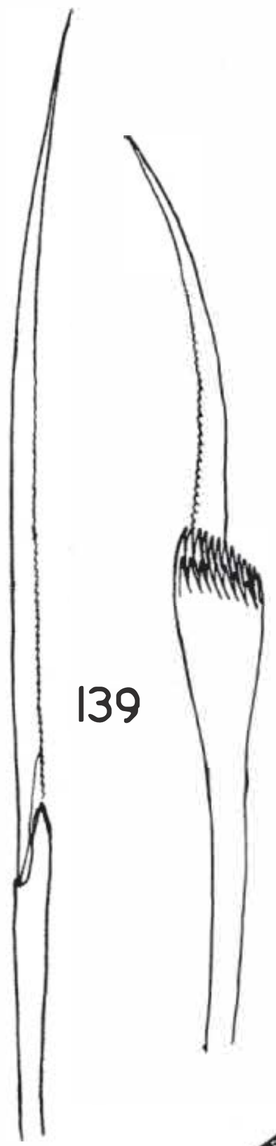

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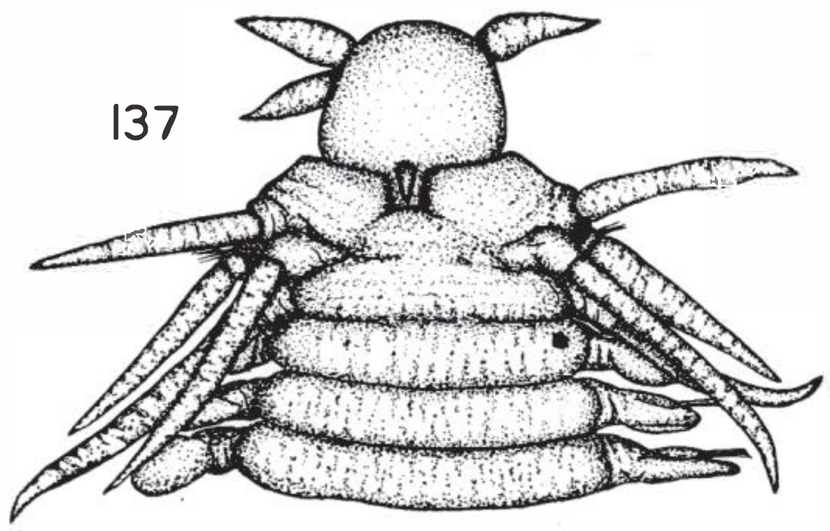

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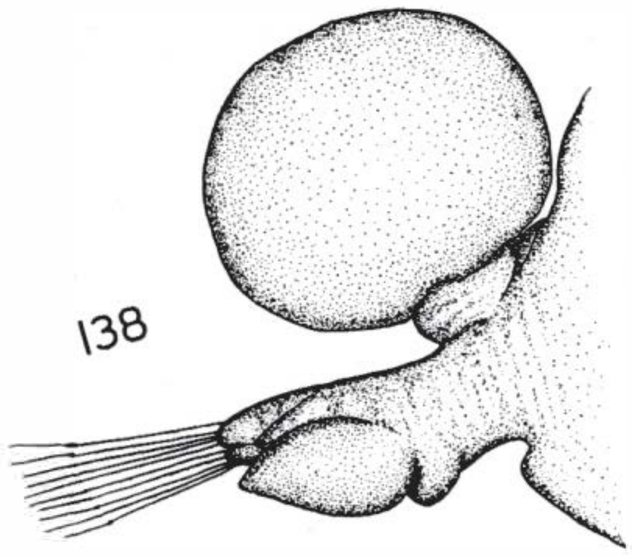

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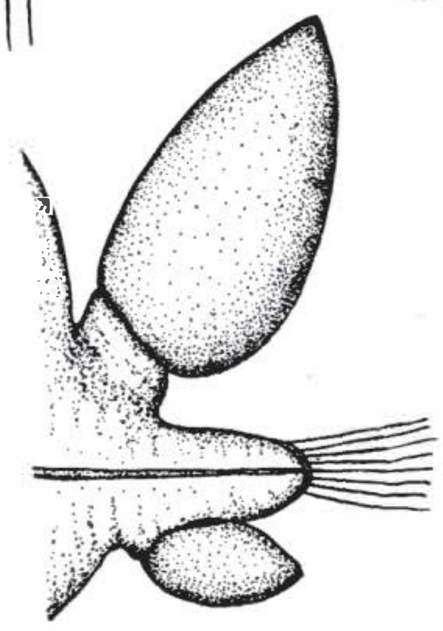

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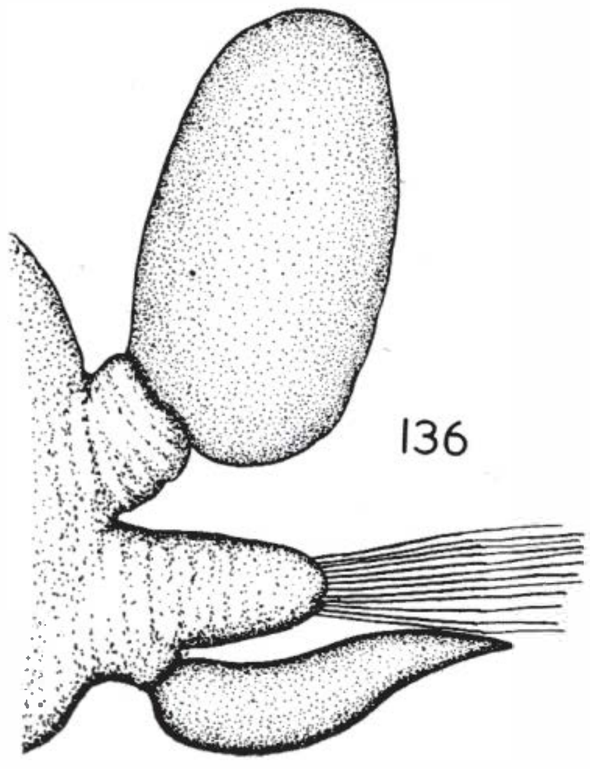

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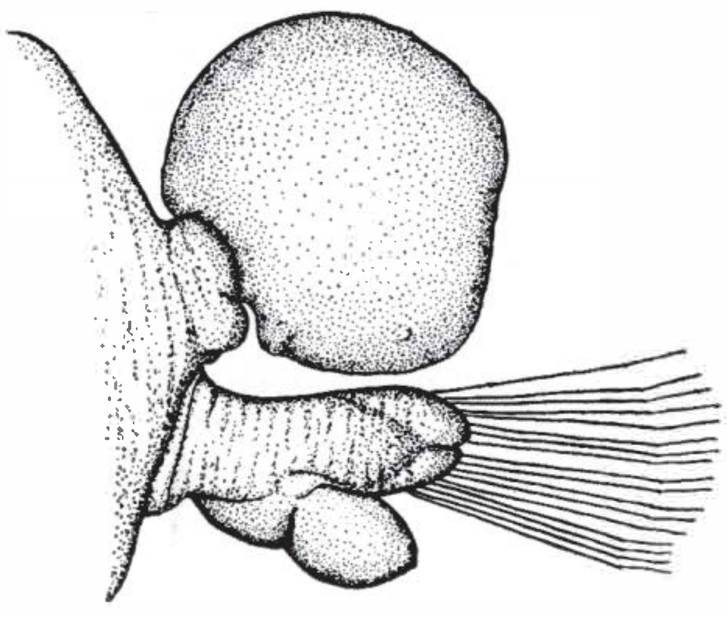


140

Phyllodoce mernoensis n.sp. Fig. 132 – Anterior end. Fig. 133 – Parapodium. Fig. 134 – Neuroseta. *Phyllodoce* (*Genetyllis*) *gracilis* Kinberg Fig. 135 – Parapodium. *Phyllodoce* (*Anaitides*) *patagonica* Kinberg Fig. 136 – Parapodium. *Eulalia* (*Euphylla*) *benthicola* n.sp. Fig. 137 – Anterior end. Fig. 138 – Posterior parapodium, posterior view. Fig. 139 – Neuroseta. Fig. 140 – Median parapodium, anterior view.

(fig. 129). The parapodia of the modified setigers are elongated, thickened dorsally, with a short erect dorsal cirrus (fig. 130). They bear a dorsal bundle of elongated, slender setae, widely separated from a ventral bundle of setae similar to the setae of the anterior segments.

In the Sacconereis specimens the prostomium is rectangular with a dorsal pair of normal eyes and a ventral pair of enlarged ones. The median antenna is two and a half times the length of the prostomium, and the laterals two-thirds this length. The tentacular cirri short, the dorsal about two thirds the length of the lateral antennae. Dorsal cirri of the anterior two thirds of the body equal in length to the width of the body, reduced posteriorly. These specimens are tightly coiled round a mass of eggs. Swimming setae are present from the seventh setiger.

Remarks

The setae of this species are distinctive and the numberof unmodified setigers is small compared with other southern species.

Holotype

Canterbury Museum, Christchurch.

Type Locality

Owenga, Chatham Islands, surface.

Family PHYLLODICIDAE Grube

Genus **Phyllodoce** Savigny, 1817

Phyllodoce mernoensis n. sp. (figs. 132–4)

Records

Sta. 3 (1).

Description

The single specimen is small, measuring 6 mm for 46 setigers. The body and parapodia are colourless, the dorsal and ventral cirri rusty brown. There are patches of white crystalline pigment on the dorsum of the segments, especially anteriorly, and on the dorsal and tentacular cirri (fig. 132).

The prostomium (fig. 132) is rounded in front, longer than broad. There are 4 subulate antennae and 2 pale eyes at the posterior border. The condition of the proboscis has not been determined. The tentacular cirri are short, somewhat flattened. All the tentacular segments are distinct dorsally and there are setae present on both the second and third tentacular segments.

The dorsal cirri are small, ovoid (fig. 133), backwardly projecting on broad cirrophores. The ventral cirri are ovoid, shorter than the parapodial lobes. There are about 10 setae per parapodium, each having a long shaft with an inflated spinous head and a short fine end-piece (fig. 134).

Remarks

The pigmentation and the shape of the tentacular cirri and parapodia separate this species from other described species of the genus.

Holotype

Canterbury Museum, Christchurch.

Type Locality

43°10·1′S., 175°36·5′W., Mernoo Bank, 41 fm.

Sub-genus **Genetyllis** Malmgren, 1865

Phyllodoce (Genetyllis) castanea (Marenzeller) 1879

Carobia castanea Marenzeller, 1879, p. 127, pl. 2, fig. 3.
Genetyllis castanea, Bergstrom, 1914, p. 158, fig. 53,
Phyllodoce castanea, Fauvel, 1953, p. 115, fig. 56a–c.

Records

Sta. 5 (1); Sta. 59 (2).

Description

The prostomium is oval. The first and second tentacular segments are fused and the tentacular cirri are slightly flattened. Dorsal cirri are large, cordate. The proboscis is diffusely papillated. Colour is rusty red in alcohol, especially the dorsal and ventral cirri.

Remarks

This species is widespread throughout the New Zealand area, being recorded from Cape Maria van Dieman to the Auckland and Campbell Islands.

Distribution

California, Japan, Ceylon, Persian Gulf, Red Sea, Australia, New Zealand.

Phyllodoce (Genetyllis) gracilis Kinberg, 1865 (fig. 135)

Phyllodoce gracilis Kinberg, 1865, p. 55, pl. 12, fig. 2.
Genetyllis gracilis, Hartman, 1948, p. 78.
Phyllodoce gracilis, Fauvel, 1953, p. 117, fig. 57a–g.

Records

Sta. 3 (2); Sta. 14 (1).

Description

A small, slender species the largest specimen measuring 15 mm for 140 setigers. The prostomium is broadly rounded in front with a pair of large red eyes. Tentacular segments I and II are fused dorsally and reduced. The tentacular cirri are cylindrical. The proboscis is covered with numerous scattered small papillae.

Dorsal cirri are erect, borne on short, broad cirrophores; they are elongate oval in outline (fig.

135). Ventral cirri resemble the dorsal in shape, but are smaller; they extend distally beyond the parapodia. The shaft of the compound setae is finely spinous on the head; the end-piece is long, tapering and finely serrated on the edge.

Remarks

The present specimens agree with Hartman's (1948) redescription of the type of *P. gracilis*. It would appear that *P. ovalifera* Augener is identical with this species. *P. gracilis* (as *P. ovalifera*) has previously been recorded from Cape Maria van Dieman, Three Kings Islands and Auckland Islands.

Distribution

Society Islands, Western Australia, New Zealand, Auckland Islands.

Sub-genus **Anaitides** Czerniavsky, 1882

Phyllodoce (Anaitides) patagonica (Kinberg) 1865 (fig. 136)

Carobia patagonica Kinberg, 1865, p. 242.
Anaitides patagonica, Bergstrom, 1914, p. 147, fig. 46a–c.
Phyllodoce patagonica, Monro, 1936, p. 110.
Phyllodoce madeirensis, Benham, 1927, p. 195.

Records

Sta. 44 (2); Sta. 59 (fragment).

Description

From Sta. 44 there are 2 anterior fragments of a slender, elongate species. The body is colourless in alcohol and the dorsal and ventral cirri are white. There is a small nuchal papilla and the tentacular segments are devoid of setae. There are 12 rows of papillae on the base of the proboscis with 10–12 in a row. There are no mid-dorsal papillae.

For the first few setigers the dorsal cirri are broadly lanceolate, but in the middle region of the body they are foliaceous, sub-rectangular (fig. 136). The ventral cirrus is elongate pointed.

Remarks

This species is separated from *P. madeirensis* by the shape of the dorsal cirri in the median and posterior regions of the body and by the possession of setae on the third tentacular segment. I confirm Day's (1954, p. 8) statement that the specimen of *P. madeirensis* from New Zealand in the British Museum, which Benham (1927) described, has setae on the third tentacular segment and is *P. patagonica*.

Distribution

Antarctica, South America, Falkland Islands, Juan Fernandez, New Zealand.

Genus **Eulalia** Savigny, 1822

Eulalia viridis (Müller) var. **capensis** Schmarda

Eulalia viridis var. *capensis,* McIntosh, 1903, p. 34.
Eulalia viridis var. *capensis,* Augener, 1918, p. 177, pl. 3, fig. 48.
Eulalia viridis var. *capensis,* Day, 1953, p. 410.

Records

Sta. 3 (1); Sta. 44 (1).

Description

The prostomium is rounded with the median antenna the longest, inserted in front of the eyes. The tentacular segments are distinct, the cirri cylindrical, the largest reaching back to the ninth setiger. Dorsal cirri are lance-like, broad basally. The largest specimen measures 25 mm and the colour in alcohol is light brown.

Remarks

This is the first record of the species from New Zealand. I confirm Day's statement that setae are lacking on the second and sparse on the third tentacular segment. The present specimens are identical with specimens of *E. viridis* var. *capensis* in the British Museum.

Distribution

South and South West Africa, Western Australia, New Zealand.

Sub-genus **Pterocirrus** Claperede, 1868

Eulalia (Pterocirrus) magalhaensis Kinberg, 1866

Eulalia magalhaensis Kinberg, 1866, p. 55, pl. 33, fig. 1.
Pterocirrus magalhaensis, Ehlers, 1904, p. 17, pl. 2, figs. 10–11.
Steggoa magalhaensis, Bergstrom, 1914, p. 129, fig. 35.
Eulalia (Pterocirrus) magalhaensis, Fauvel, 1953, p. 125, fig. 62a–h.

Records

Sta. 41 (1); Sta. 59 (1).

Description

The two specimens are incomplete. They both have the protruded proboscis covered with small papillae. The 3 tentacular segments are distinct and the ventral cirrus of the second tentacular segment is flattened and winged. The dorsal cirri are elongated, lanceolate.

Remarks

Specimens from New Zealand in the British Museum (Nat. Hist.) identified by Ehlers (1907) as *P. brevicornis* are identical with the present specimens. The species is widespread throughout the New Zealand area, being reported from the Three Kings Islands to Auckland Islands.

Distribution

New Zealand, South Pacific Ocean, Australia, Philippine Islands, Indian Ocean, Persian Gulf, Red Sea.

Sub-genus **Eumidia** Malmgren, 1865

Eulalia (Eumidia) sanguinea (Oersted)

Eulalia (Eumidia) sanguinea, Fauvel, 1923, p. 166, fig. 59f–k.
Eumidia sanguinea, Ehlers, 1907, p. 7.

Records

Sta. 29 (1); Sta. 59 (1).

Remarks

The extended proboscis of the specimen from Sta. 59 is devoid of papillae. The present specimens are identical with European specimens of this species in the British Museum (Nat. Hist.). The species has previously been recorded from Moeraki by Ehlers (1907).

Distribution

Cosmopolitan.

Euphylla, new sub-genus

All three tentacular segments fused, tentacular cirri cylindrical. Anterior margin of peristomium deeply incised.

Eulalia (Euphylla) benthicola n. sp. (figs. 137–40)

Records

Sta. 5 (1).

Description

The single specimen is an anterior fragment measuring 35 mm for 121 setigers. The body in alcohol is colourless. The prostomium (fig. 137) is rounded, longer than broad, with 4 subulate terminal antennae. The median antenna is small, conical, inserted near the posterior margin of the prostomium. Behind the origin of the median antenna the peristomium is deeply incised. No eyes are visible. The three tentacular segments are fused and the cirri are short, cylindrical, the longest reaching back to the fifth setiger.

The dorsal cirri, borne on short, stout cirrophores, are large, foliaceous, sub-circular, reduced in size and posteriorly (fig. 138). The ventral cirri are oval, lanceolate, shorter and broader anteriorly where they do not reach the tip of the parapodium. The elongated parapodia are provided with up to 20 elongated, slender, compound setae (fig. 139) with long, tapering, finely serrated end-pieces. The head of the shaft is only slightly swollen and has a single apical tooth. The proboscis is densely covered with large leaf-like papillae.

Remarks

I do not know of any other species of *Eulalia* in which all the tentacular segments are fused. Other unique features are the smallness of the median antenna and the deep oblong incision in the anterior border of the peristomium. The setae are also distinctive. These features could perhaps justify the establishment of a new genus. However, in view of the paucity of the material, I prefer to include it as a new sub-genus of *Eulalia* characterised by the fusion of the tentacular segments.

Holotype

Canterbury Museum, Christchurch.

Type Locality

43°32′S., 178°38′E., Chatham Rise, 300+ fm.

Genus **Notophyllum** Oersted

Notophyllum imbricatum Moore, 1906 (figs. 141–2)

Notophyllum imbricatum Moore, 1906, p. 217, pl. 10, figs. 1–3.
Notophyllum imbricatum, Berkeley and Berkeley, 1948, p. 42, figs. 60–61.

Records

Sta. 6 (1).

Description

The single anterior fragment is 27 mm long. The body is depressed, dorsally arched, ventrally flattened. The prostomium is bluntly triangular with subulate terminal antennae. The median antenna, rising between the large posterior pair of eyes, is longer than the laterals. There are 5 nuchal processes on one side and 6 on the other, arising from beneath the posterior dorsal margin of the prostomium. The tentacular cirri are stout, cylindrical.

Dorsal cirri are foliaceous, imbricated, reniform, lying horizontally and covering the dorsum completely in the median region (fig. 141). The ventral cirri are similar in shape curving up behind the neuropodium which bears numerous compound setae, with gently curved shafts having enlarged, denticulated ends and long, curved, lightly serrated end-pieces (fig. 142).

Remarks

This species is distinguished from *Notophyllum splendens* Schmarda by the shape of the prostomium and the antennae. The present specimen agrees in all respects with the descriptions of *N. imbricatum*, except that the number of nuchal pro-

cesses is higher than previously recorded. This is the first record of the species from southern waters.

Distribution

Western coast of North America, Japan, New Zealand.

Genus **Eteone**

Eteone aurantiaca Schmarda, 1861 (figs. 143–5)

Eteone aurantiaca, Bergstrom, 1914, p. 201, fig. 76.

Eteone aurantiaca, Monro, 1939, p. 107.

Records

Sta. 13 (1).

Description

The single incomplete fragment measures 25 mm for 140 setigers. The body is slender, filiform, sub-cylindrical. The prostomium (fig. 143) is elongated, rounded anteriorly, with 4 small, filiform tentacles. The tentacular cirri are small, the dorsal pair being equal in length to the succeeding segment.

Notophyllum imbricatum Moore Fig. 141 – Parapodium, anterior view. Fig. 142 – Neuroseta. *Eteone aurantiaca* Schmarda Fig. 143 – Anterior end. Fig. 144 – Parapodium. Fig. 145 – Neuroseta.

The dorsal cirri are small, ovoid, the shortest axis dorso-ventral (fig. 144). The ventral cirri are enlarged, ovoid. Each parapodium bears up to 10 compound setae with scythe-shaped end-pieces lightly serrated on the basal half, and with an enlarged tooth at the head of the shaft (fig. 145).

Remarks

This is the first record of this widespread Antarctic species from the New Zealand region.

Distribution

Chile, South America, Falkland Islands, South Georgia, Antarctica.

Family NEPHTHYIDAE

Genus **Aglaophamus** Kinberg, 1866

Specimens of this genus which were obtained by the Expedition have previously been dealt with in a review of the known species (Knox, 1960).

Aglaophamus macrura (Schmarda) 1861

Nephthys macroura Schmarda, 1861, p. 91.
Aglaophamus macroura, Knox, 1960.

Records

Sta. 1 (5); Sta. 2 (1); Sta. 24 (1); Sta. 28 (1); Sta. 38 (1).

Remarks

This species is widely distributed throughout the New Zealand region, especially on inter-tidal sandy shores.

Distribution

New Zealand, South America.

Aglaophamus maoriana Knox, 1960

Aglaophamus maoriana Knox, 1960.

Records

Sta. 5 (1); Sta. 40 (5); Sta. 41 (2); Sta. 44 (2); Sta. 59 (2); *Discovery* Sta. 2733 (1).

Remarks

This species has recently been described from the specimens recorded above, the Holotype specimen being from Sta. 40.

Distribution

New Zealand.

Aglaophamus virginis (Kinberg) 1866

Nephthys virginis Kinberg, 1866, p. 239.
Aglaophamus virginis, Hartman, 1953, p. 30, fig. 7a–b.
Aglaophamus virginis, Knox, 1960.

Records

Sta. 1 (3); Sta. 24 (3); Sta. 32 (5); Sta. 34 (3); Sta. 44 (8); Sta. 60 (1).

Remarks

The above records are the first of this widely distributed circum-Antarctic species from the New Zealand region.

Distribution

Circum-Antarctic, South America, New Zealand.

Aglaophamus verrilli (McIntosh) 1885

Nephthys verrilli McIntosh, 1885, p. 163, pl. 36, figs. 6–7, pl. 32A, fig. 8.
Aglaophamus dicirrus, Hartman, 1950, p. 122, pl. 18, figs. 1–8.
Agalophamus verrilli, Knox, 1960.

Records

Sta. 5 (1); Sta. 28 (2); Sta. 29 (2); Sta. 40 (5); Sta. 44 (10); Sta. 59 (2).

Remarks

This species was originally described from Queen Charlotte Sound and subsequently recorded from other parts of New Zealand as *Nephthys dibrancis*. It is the most widespread species of the genus in the New Zealand region.

Distribution

New Zealand.

Aglaophamus bathamae Knox, 1960

Aglaophamus bathami Knox, 1960.

Records

Sta. 13 (1).

Remarks

This species has recently been described from the specimens recorded above.

Distribution

New Zealand.

Family NEREIDAE Johnston

Genus **Nereis** Cuvier, 1817

Nereis falcaria (Willey) 1905 (figs. 146–53)

Ceratonereis falcaria Willey, 1905, p. 272, pl. 4, fig. 89.
Nereis kauderni Fauvel, 1921, p. 8, pl. 1, figs. 1–7.
Nereis mortenseni Augener, 1923, p. 21, figs. 7–14.
Nereis kauderni, Fauvel, 1953, p. 188, fig. 95a–d.
Nereis falcaria, Knox, 1950, p. 215, pl. 44, figs. 1–5.

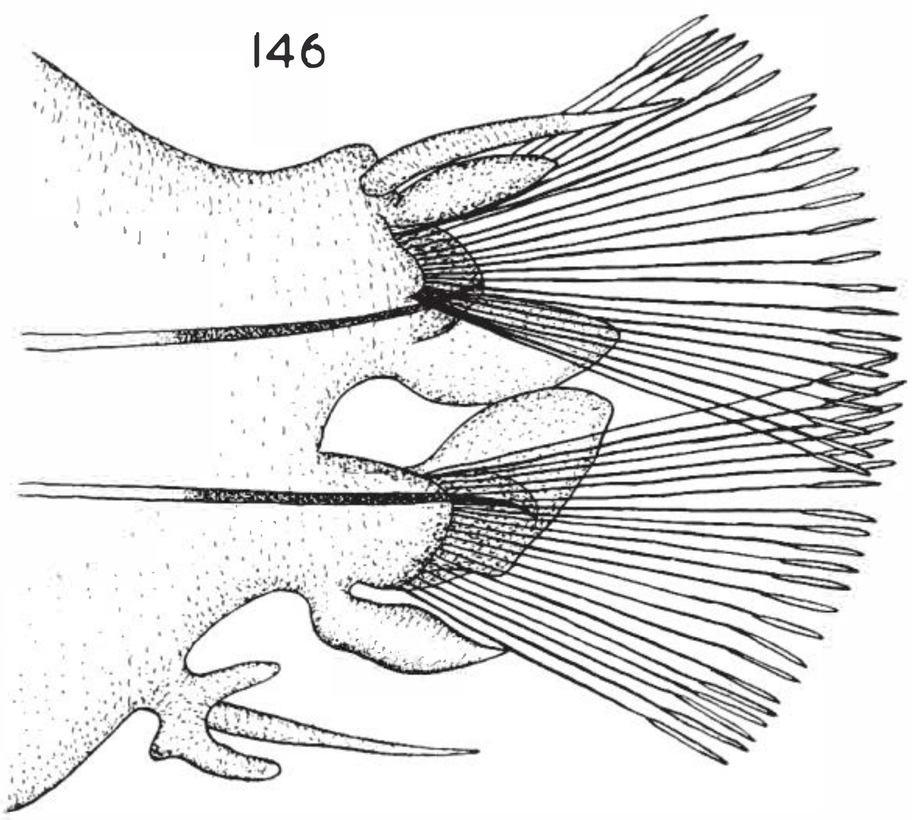
Records

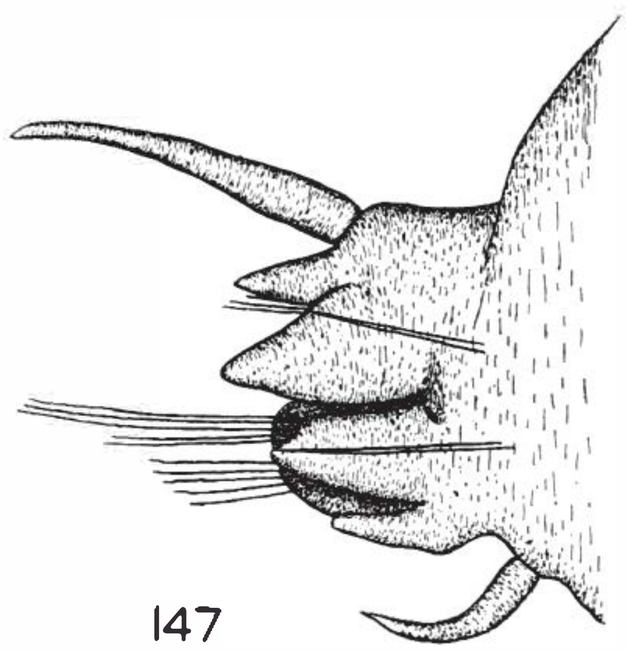
Sta. 12 (12 epitokous females); Sta. 14 (2); Sta. 16 (1); Sta. 18 (12); Sta. 43 (1).

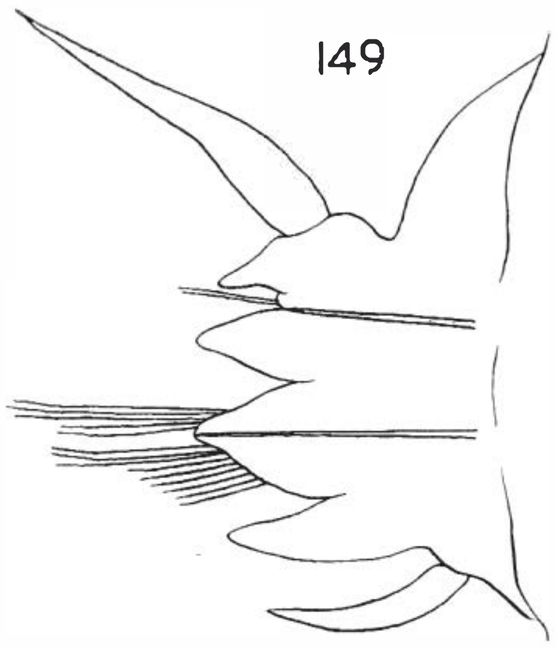
Description

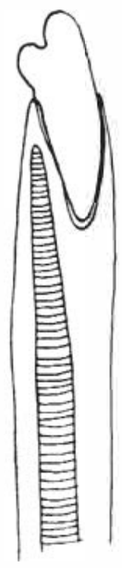
The prostomium is notched between the prostomial antennae. Peristomial cirri are short, the longest reaching only as far as the second setigerous segment. In some specimens they are shorter, inflated and in others they are wrinkled, having an annulated appearance. The paragnaths have a similar distribution to those in specimens previously described from New Zealand (Knox, 1950), except that the paragnaths are larger and fewer in number. In area VI instead of a small cluster of minute paragnaths there is a group of about 8 larger paragnaths.

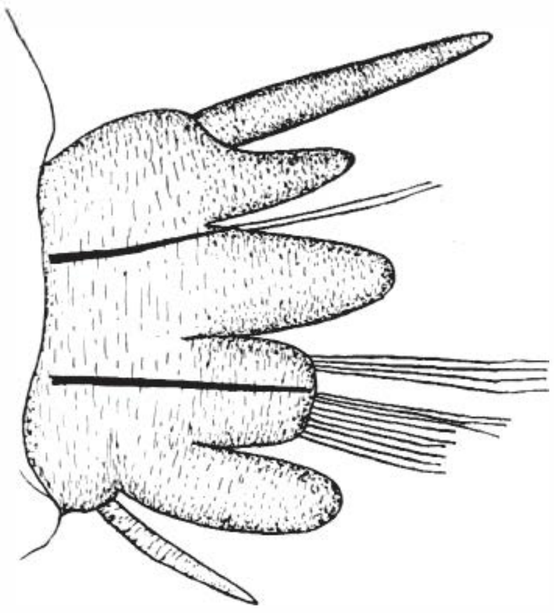
In the posterior segments the notopodial supra-acicular lobe diminishes conspicuously in size (figs. 147–53). The ventral cirrus does not extend beyond the sub-acicular neuropodial lobe. Anteriorly there are about 6 homogomph spinigers in each notopodium, by the 26th parapodium they are replaced by 2–3 homogomph falcigers and further posteriorly there is a single homogomph falciger. Anteriorly these homogomph falcigers have short, bidentate end-pieces (fig. 150), posteriorly the end-pieces are longer and tridentate (fig. 151). In the neuropodia there is a supra-acicular bundle of homogomph spinigers with











Nereis falcaria (Willey) Fig. 146 – Female epitokous parapodium. Fig. 147 – Thirty-fifth parapodium. Fig. 148 – Sub–acicular, neuropodial heterogomph falciger. Fig. 149 – Posterior parapodium. Fig. 150 – Anterior notopodial, homogomph falciger. Fig. 151 – Posterior, notopodial homogomph falciger. Fig. 152 – Supra–acicular, neuropodial, heterogomph falciger. Fig. 153 – Anterior parapodium.

one or two large heterogomph falcigers with simple end-pieces (fig. 152) and a sub-acicular bundle of heterogomph spinigers and 5 (anteriorly) to 2 (posteriorly) heterogomph falcigers with short, ciliated end-pieces (fig. 148).

The epitokous specimens from Sta. 12 are all females, the largest measuring 36 mm by 3 mm. They have an anterior, unmodified region of 15 setigers, a median region of about 30 setigers with natatory parapodia (fig. 146), and a posterior unmodified region of about 25 setigers.

Remarks

Male epitokes have been recorded by Augener (1914) with 3 body regions, an anterior unmodified region of 12–13 setigers and a posterior unmodified region of 50 setigers.

Distribution

India, Indian Ocean, Maldives, Pacific Ocean, New Zealand, New Caledonia, Australia, Indo-China.

Nereis jacksoni Kinberg, 1866 (figs. 185–6)

Nereis jacksoni Kinberg, 1866, p. 169.
Nereis jacksoni, Kott, 1951, p. 95, fig. 3.
Nereis jacksoni, Knox, 1951, p. 216.
Nereis jacksoni. Hartman, 1953, p. 31, figs. 26–29.

Description

Records

Sta. 9 (5, one an epitokous male); Sta. 16 (3, one a sub-epitoke).

The anterior margin of the prostomium is entire, not incised. The peristomial cirri are short, inflated. The epitokous male has an anterior unmodified region of 14 setigers, a median region of 26 setigers with natatory parapodia (fig. 186), and a posterior unmodified region of 18 setigers. The dorsal cirrus of the first 7 setigers is enlarged, the end expanded, flattened and cut into blunt lobes (fig. 185). The ventral cirri of the first 5 setigers is also enlarged.

Remarks

Hartman (1953) has reported ovigerous specimens of this species with no sign of epitoky, indicating a direct development. Kott (1951) has reported 2 epitokous specimens with a similar distribution of the natatory parapodia to that of the present specimens, although other ovigerous specimens showed no epitokous change.

Distribution

Pacific Ocean, Australia, New Zealand, New Caledonia, Indo-China, India, Arabian Sea.

Nereis delli n. sp. (figs. 154-61)

Records

Discovery Sta. 2733 (1).

Description

The single specimen measures 28 mm for 88 setigers. The body in alcohol is pale without pigment. The prostomium (fig. 154) is widest basally, narrowed anteriorly. The anterior pair of eyes are larger than the posterior. The prostomial cirri are long, slender, projecting beyond the palps; the peristomial cirri, slender, short, the longest pair reaching back to the third setiger. The palps are stout with small terminal joint. The peristomium is 3 times as long as the succeeding segment.

The proboscis has pale jaws provided with 8 sharp teeth (fig. 155). Paragnaths are arranged as follows: area I, 3, with one behind the other; area II with 2 rows of 5 and 4; area III with 3 one behind the other, and a single one on each side; area IV with a double row of 5 or 6 larger paragnaths, and a single row of 3 or 4 smaller ones on the outer side; area V with 0; areas VII and VIII with a single row of 10 large paragnaths, and about 4 irregular rows of minute paragnaths. The paragnaths of the oral region are enlarged, needle-like.

Anteriorly the notopodia have 2 elongated lobes (fig. 158). Posteriorly the notopodial, supra-acicular lobe increases in size to form a compressed lamella bearing the dorsal cirrus in a notch on its upper edge (fig. 157). The ventral cirrus does not project beyond the sub-acicular lobe of the neuropodium.

Anteriorly the notopodia are provided with about 8 homogomph spinigers with short, pointed end-pieces. Posteriorly these are replaced by homogomph falcigers with short, unidentate end-pieces (fig. 160). Neuropodia bear a supra-acicular bundle of 8–9 homogomph spinigers and 2 heterogomph falcigers with elongated ciliated end-pieces (fig. 159) and a sub-acicular bundle of 2 heterogomph spinigers with short, pointed end-pieces and 6 (anteriorly) to 15 (posteriorly) heterogomph falcigers with short, ciliated end-pieces (fig. 161).

Remarks

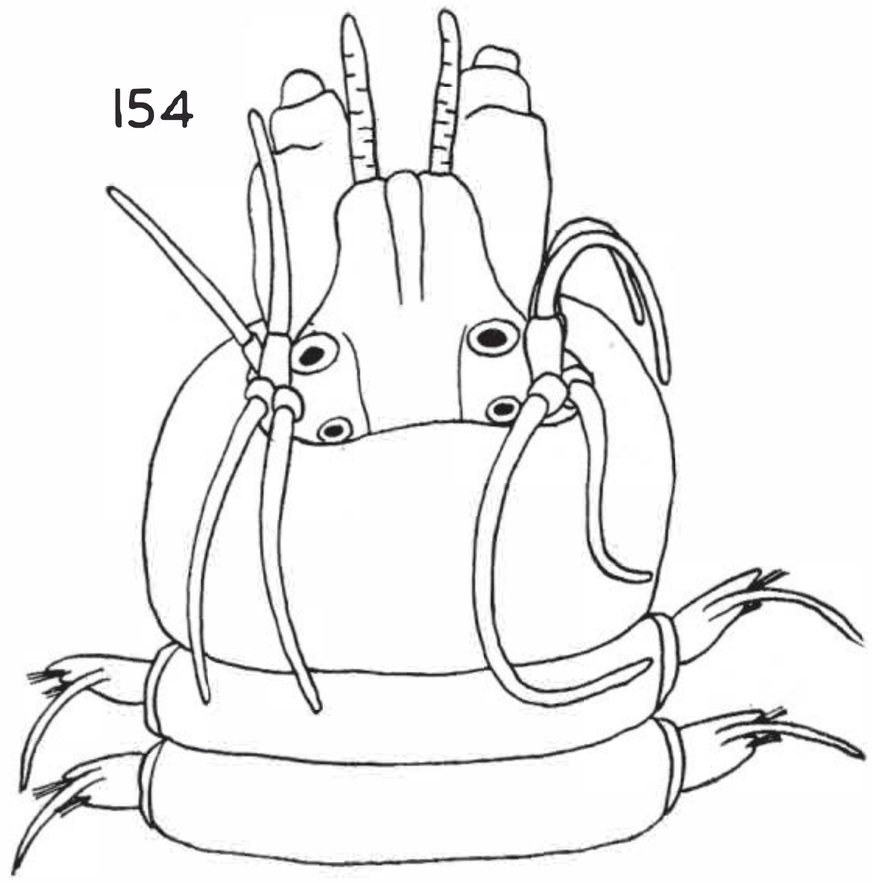
The distribution of the elongated, needle-like paragnaths on the oral ring of the proboscis of this species separates it from other described species. I have much pleasure in naming this species after Dr R. K. Dell.

Holotype

Canterbury Museum Collection.

Type Locality

45°48′S., 178°58′W., Chatham Rise, 194 fm.



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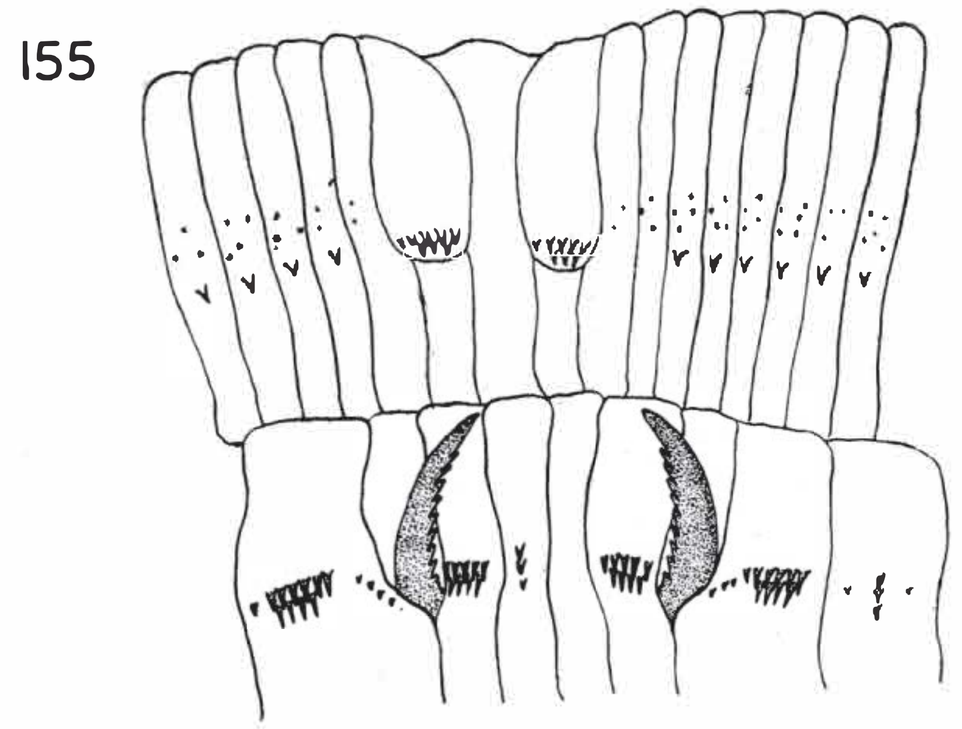

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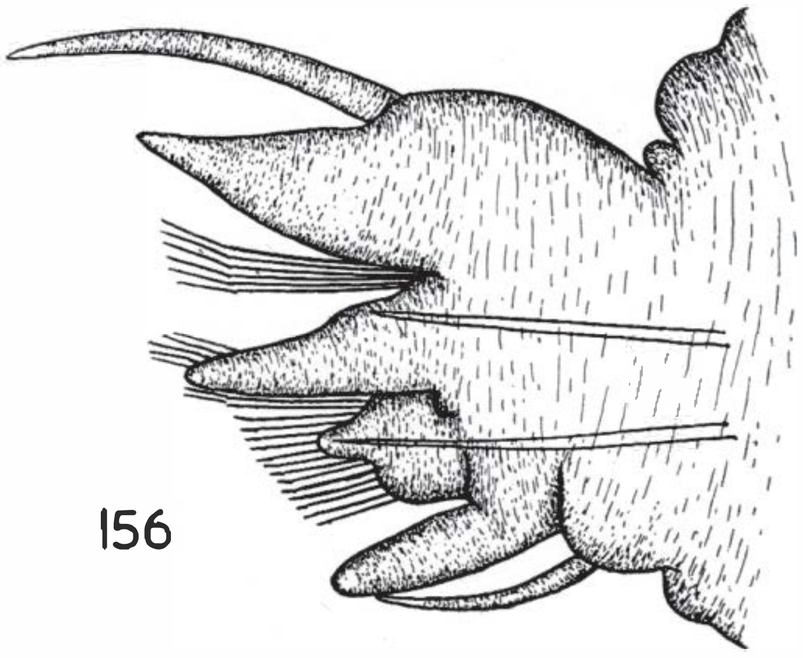

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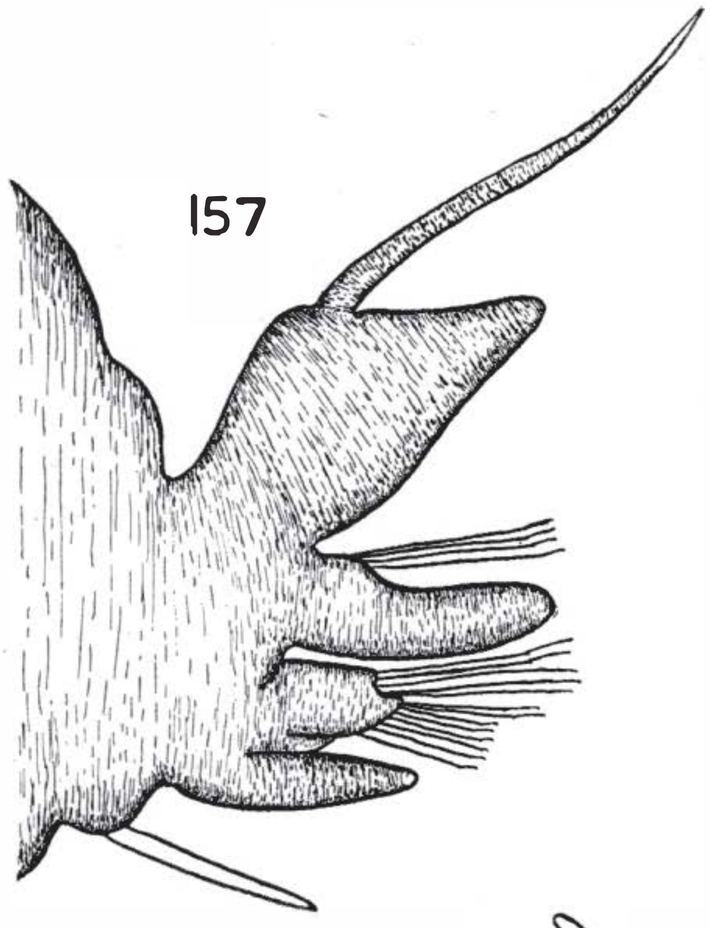

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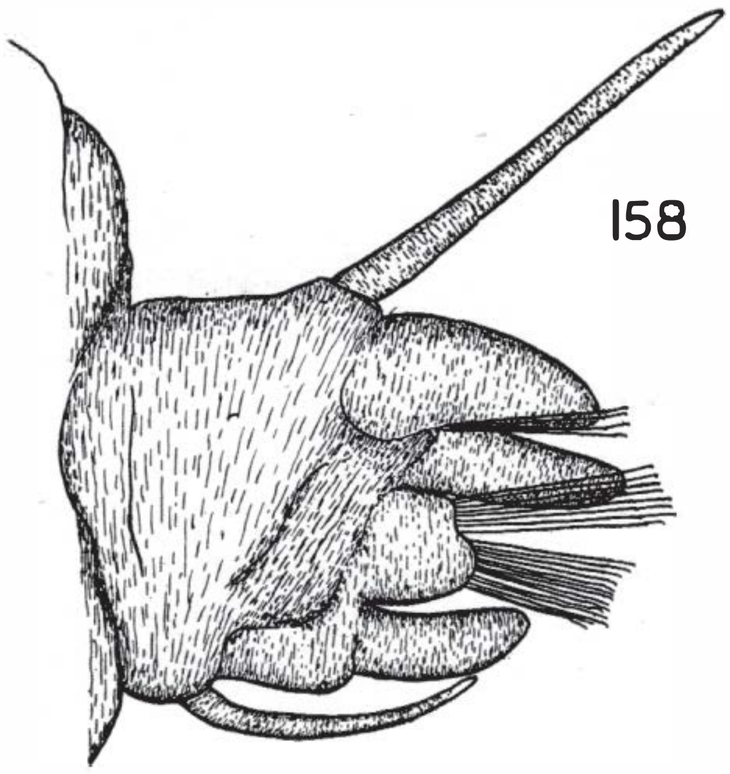

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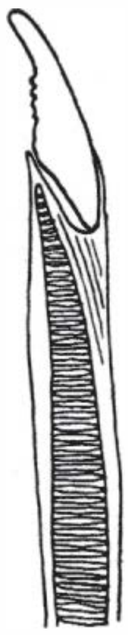

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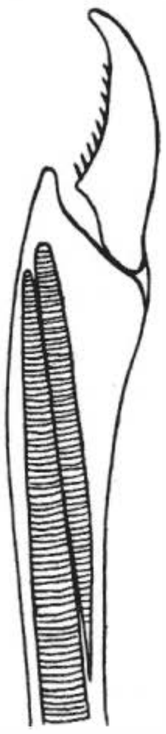


161

Nereis delli n.sp. Fig. 154 – Anterior end. Fig. 155 – Dissection of proboscis. Fig. 156 – Twenty-fifth parapodium. Fig. 157 – Posterior parapodium. Fig. 158 – Eighth parapodium. Fig. 159 – Supra-acicular, neuropodial, heterogomph falciger. Fig. 160 – Posterior, notopodial, homogomph falciger. Fig. 161 – Sub-acicular, neuropodial heterogomph falciger.

Nereis antipoda n. sp. (figs. 162–73)

Records

Sta. 12 (8); Ringdove Bay, Antipodes Islands, collected R. K. Dell, 2300 h, 5/11/50, by surface light, over 15 fm among *Macrocystis pyrifera* (numerous).

Description

All the specimens are epitokous males with the body divided into 3 regions. The length of holotype (from Ringdove Bay) is 35 mm, the anterior region 5 mm, the median 18 mm and the posterior 12 mm; the maximum width in median region is 4 mm. The prostomium and antero-dorsal surface of the body is dark brown, the eyes black. The parapodia, antennae and posterior region of the body are colourless.

The prostomium is rectangular, not notched between the prostomial cirri, with 4 large black eyes, the posterior pair the largest (fig. 164). The prostomial cirri are two-thirds the length of the prostomium, tapering. The palps have a rounded swelling on the outer basal portion. The peristomial cirri are short, slender, the longest reaching back to the 7th or 8th setiger; the others are shorter, the shortest reaching back to the 3rd setiger.

The proboscis has light brown jaws provided with 4 rather blunt teeth. The arrangement of the paragnaths of the Chatham Island specimens differs from that of those from the Antipodes. In all other respects, however, the specimens are identical. The distribution of the paragnaths in the Antipodes specimens (figs. 163–4) is as follows: area I with 0; area II with 4–6 conical paragnaths; area III with a single row of 4 or 5, sometimes a trace of a 2nd row; area IV with an oblique double row, the number variable; area V with 0; area VI with one or none; areas VII and VIII none or a trace of one or 2. The distribution in the Chatham Island specimens (figs. 165–6) is as follows: I with 0; II with a double row of 10–12 in each row, sometimes a short 3rd row; III with an oval-shaped, variable cluster of 3–4 rows; IV with 3 curved, elongated rows of small paragnaths; V with 0; VI with a double row, 3–4 in each row; VII and VIII with a single row of 8–9 larger paragnaths.

The anterior region of 14 short segments is sharply separated from the median region. The dorsal cirrus of the first 7 setigers is enlarged with a crenulated dorsal margin (fig. 170). The notopodium of anterior parapodia has 2 rounded ligules. From the ninth setiger the supra-acicular ligule becomes enlarged and pointed (fig. 169). The sub-acicular ligule of the neuropodium is rounded. Notosetae are homogomph spinigers; neurosetae consist of a dorsal bundle of homogomph spinigers and about 6 heterogomph falcigers with ciliated end-pieces (fig. 167), and a ventral bundle of heterogomph spinigers with short, knife-like blades (fig. 173) and 4–6 heterogomph falcigers with short end-pieces.

The median region of about 45 setigers has natatory parapodia provided with crenulated dorsal cirri (fig. 162). The notopodia have a short, curved lobe at the base of the dorsal cirrus and a rounded, foliaceous sub-acicular lobe. The neuropodia have a broad, foliaceous, acicular lobe and a shorter, bi-lobed, ventral one. The ventral cirrus has upper and lower bi-lobed lobes.

The posterior region is elongated, filiform, without natatory setae; the parapodia reduced to 2 conical rami with prominent black acicula (fig. 171). The notopodium is reduced to a single cylindrical lobe without setae, the aciculum protruding with recurved tip; the dorsal cirrus is inflated with a backwardly projecting tip. The neuropodia have a conical, pointed, acicular lobe and a short, pointed, sub-acicular lobe; ventral cirrus is slender, elongated. Anterior parapodia of this region have 1–2 sub-acicular, dark brown, heterogomph falcigers (fig. 172); posterior parapodia have an additional supra-acicular, heterogomph falciger.

Remarks

This species can be immediately recognised by the long filiform tail. Other species with a similar structure are *N. torta* Fauvel from Indo-China and *N. filicaudata* Fauvel from the Gulf of Tadjoura. *N. torta* differs in the distribution of the paragnaths on the proboscis, in the arrangement of the setae and the modified lobes of the natatory parapodia. *N. antipoda* closely resembles *N. filicaudata* in many respects, but differs in the following points: an anterior unmodified region of 14 setigers not 13; the paragnaths on the proboscis more numerous; natatory parapodia with a bi-lobed instead of a single lobe ventral to the ventral cirrus; neuropodia of the posterior region of the body with a short pointed sub-acicular lobe.

Holotype

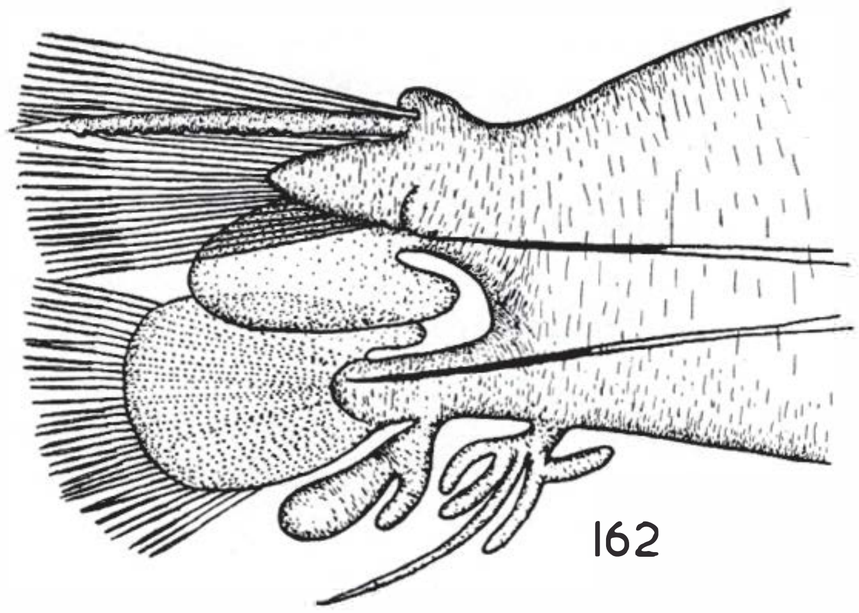
Canterbury Museum, Christchurch.

Paratypes

Dominion Museum, Wellington, and British Museum (Nat. Hist.), London.

Type Locality

Ringdove Bay, Antipodes Islands.



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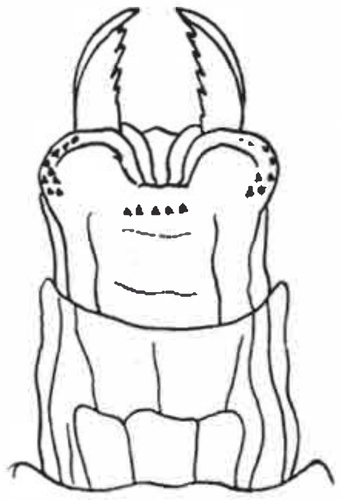

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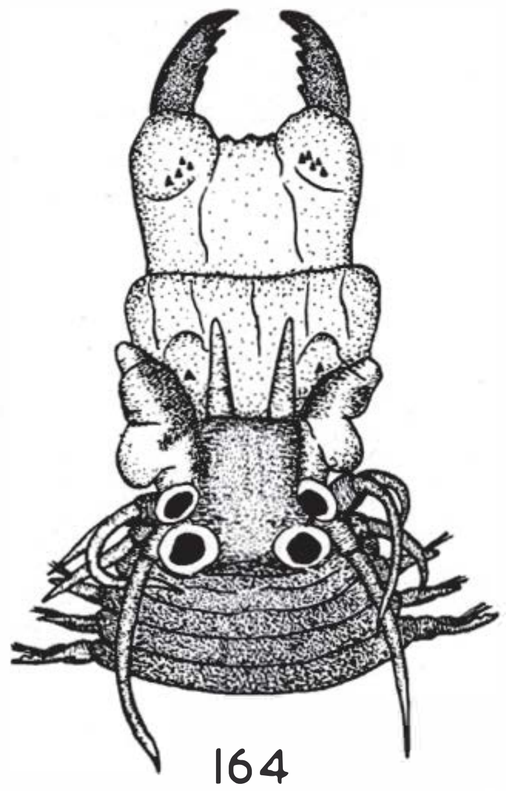

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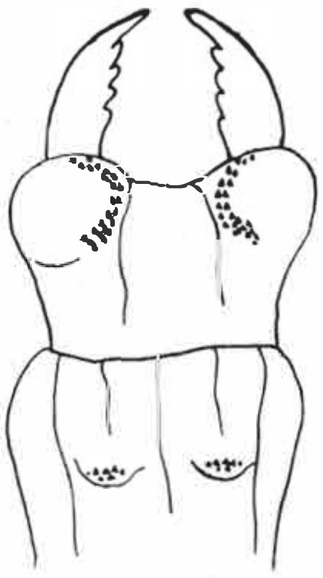

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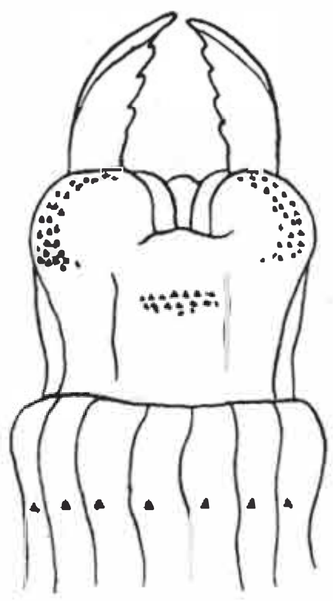

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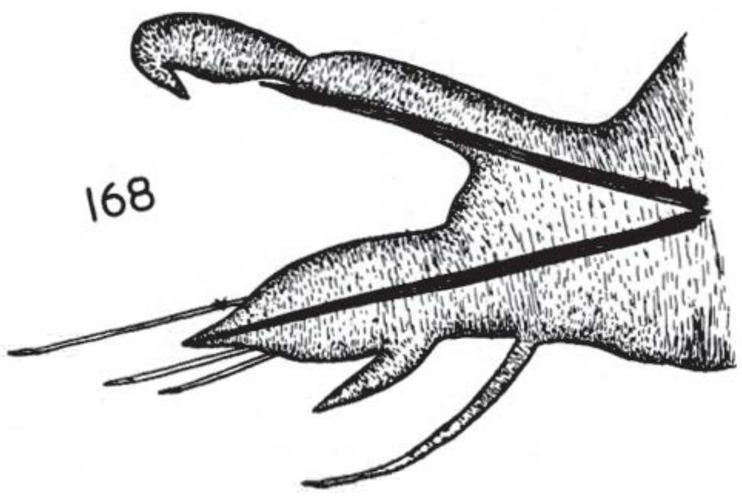

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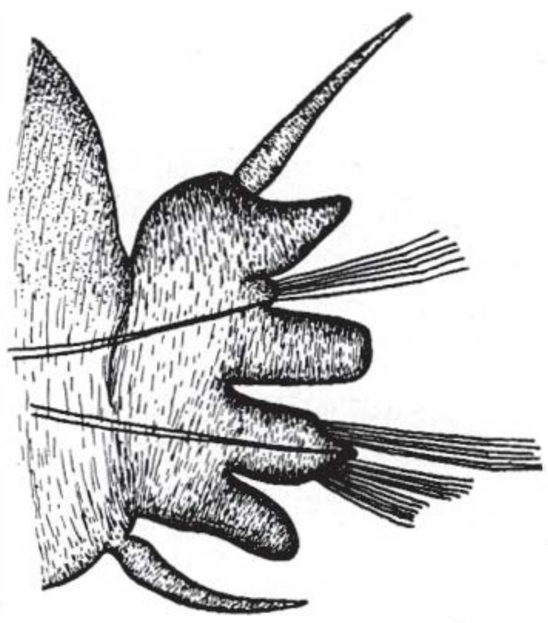

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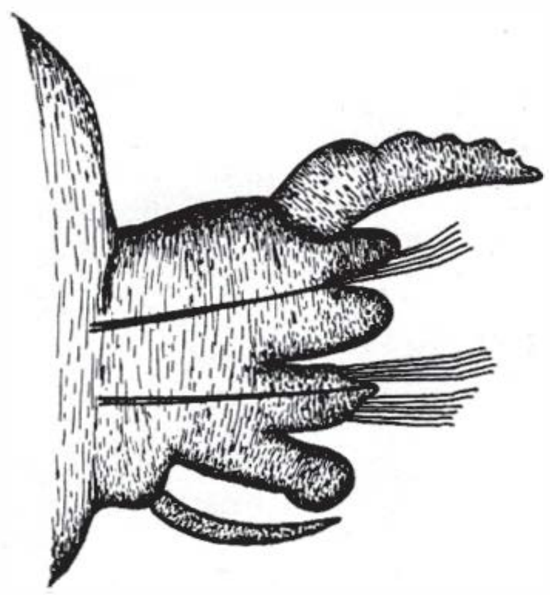

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Nereis antipoda n.sp. Fig. 162 – Male epitokous parapodium. Fig. 163 – Proboscis of holotype (from Antipodes Is.) in ventral view. Fig. 164 – Anterior end of holotype. Fig. 165 – Dorsal view of proboscis of a Chatham Island specimen. Fig. 166 – Ventral view of the same. Fig. 167 – Supra-acicular, neuropodial heterogomph falciger. Fig. 168 – Parapodium from posterior body region. Fig. 169 – Ninth parapodium. Fig. 170 – Fourth parapodium. Fig. 171 – Neuropodial acicula from a posterior parapodium. Fig. 172 – Neuropodial, heterogomph falciger from a posterior parapodium. Fig. 173 – Sub-acicular, neuropodial, heterogomph spiniger from an anterior parapodium.

Genus **Neanthes** Kinberg, 1865

Neanthes cricognatha (Ehlers), 1905

Nereis cricognatha Ehlers, 1905, p. 29.
Neanthes cricognatha, Knox, 1950, p. 217, pl. 45, figs. 6–7.

Records

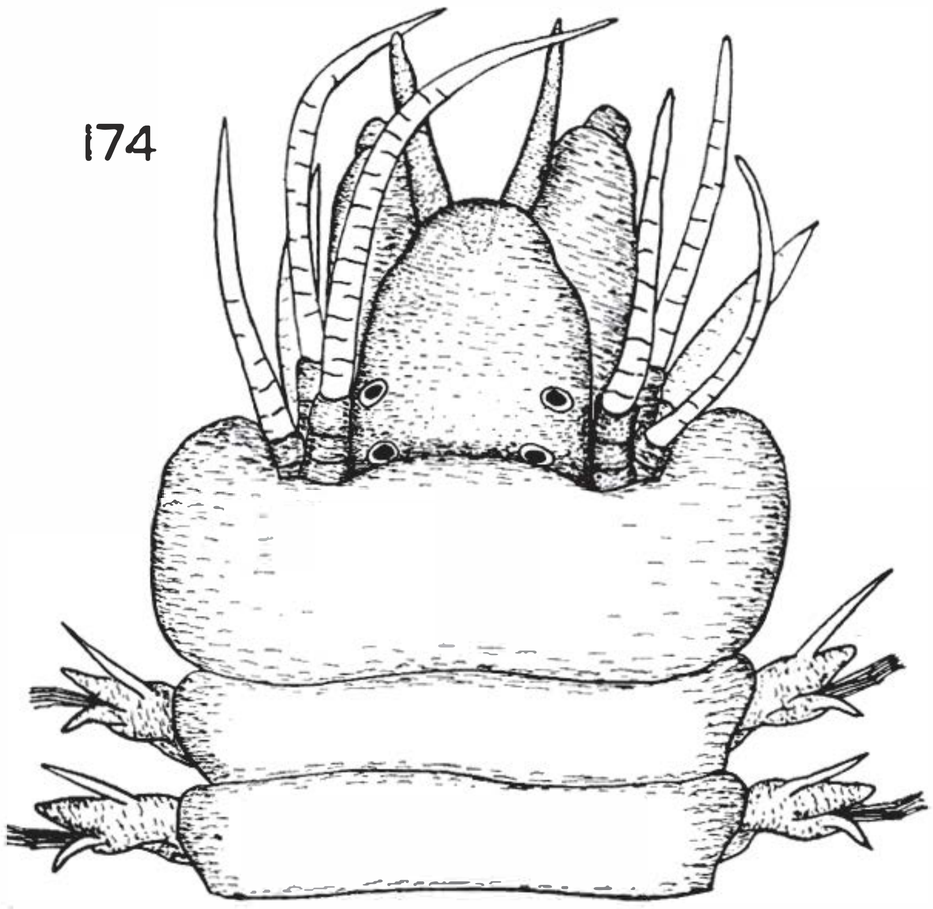
Sta. 44 (2).

Remarks

Two small colourless specimens with areas V, VI, VII and VIII of the proboscis forming a continuous band of small paragnaths, 4 deep dorsally and ventrally, and up to 8 deep laterally. This species has previously been recorded from the Chatham Islands by Ehlers (1905).

Distribution

India, Australia (Bass Strait), Philippine Islands, New Zealand.



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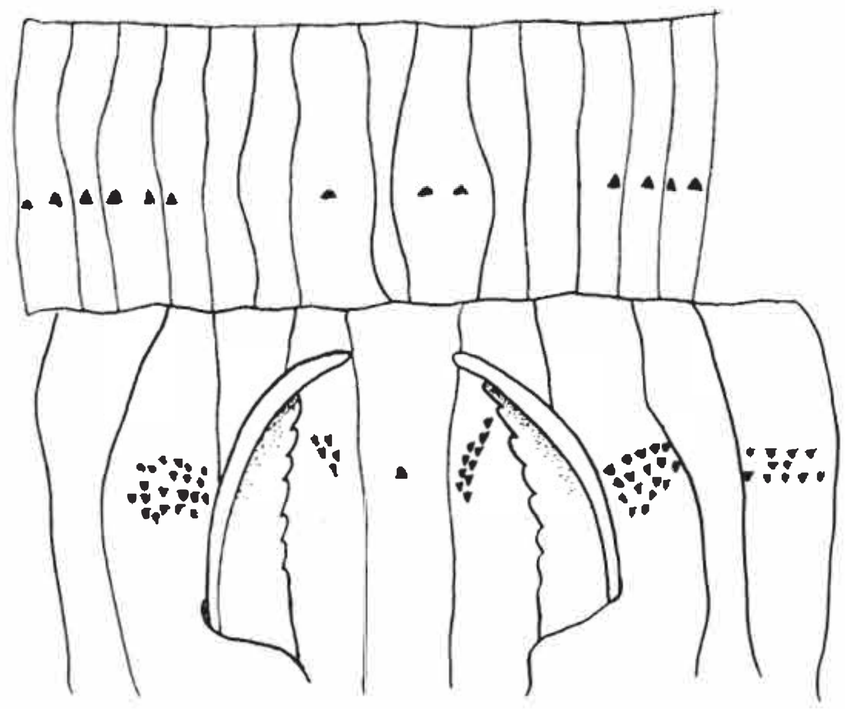

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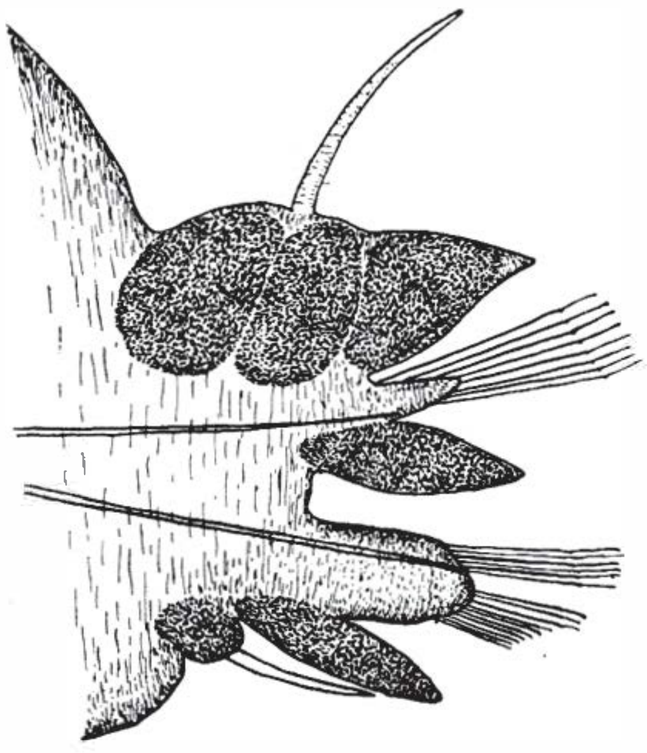

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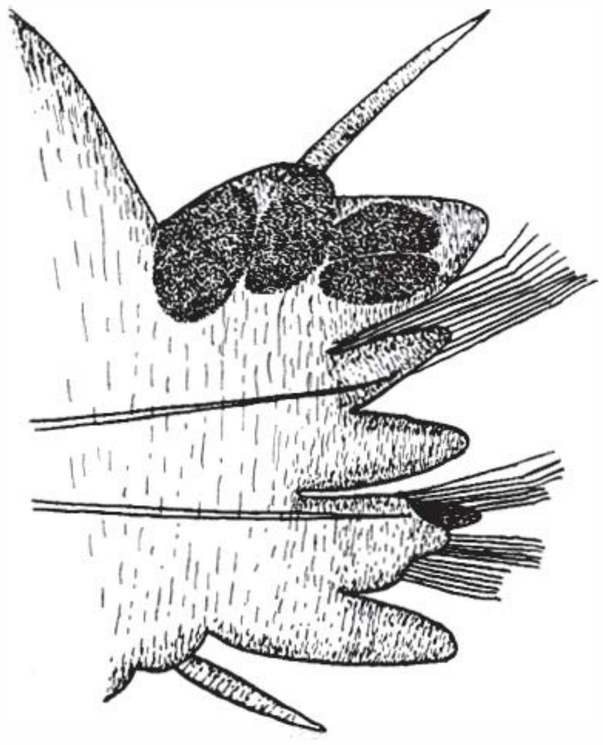

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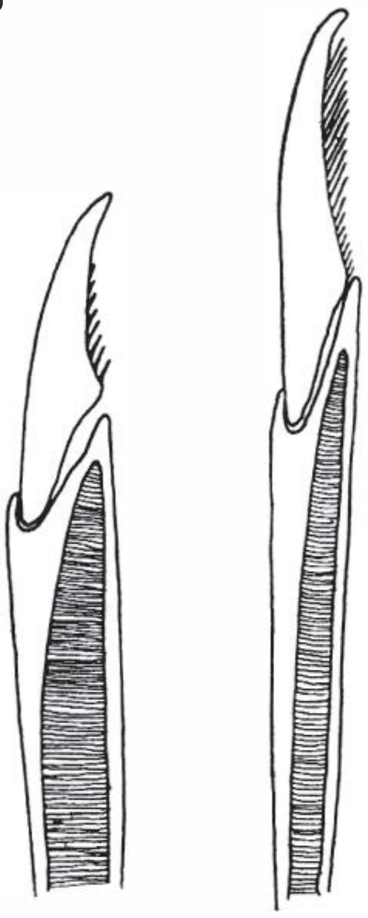

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179

Neanthes articulata n.sp. Fig. 174 – Anterior end. Fig. 175 – Dissection of proboscis. Fig. 176 – Thirty-fifth parapodium. Fig. 177 – Anterior parapodium. Fig. 178 – Supra-acicular, neuropodial, heterogomph falciger. Fig. 179 – Sub-acicular, neuropodial, heterogomph falciger.

Neanthes articulata n. sp. (figs. 174-9)

Records

Sta. 43 (1).

Description

The single specimen measures 50 mm for 94 segments. The body in alcohol is pale except for rusty brown, glandular areas on the dorsal ligule of the neuropodium. The prostomium (fig. 174) is longer than broad, widest basally, narrowed anteriorly, with 4 small red eyes. The prostomial cirri elongated, projecting beyond the palps which are stout with a short terminal joint. The peristomial cirri have articulated cirrophores with 2–3 joints; the cirri are short, wrinkled, the longest reaching back to the third setiger. The ventralmost peristomial cirri are shorter and much stouter than the others. The anterior region of the body is inflated, the peristomial ring being twice the length of the succeeding segment.

The proboscis (fig. 175) has elongated jaws provided with 7–8 blunt teeth. Paragnaths are arranged as follows: area I with a single paragnath; area II, 2 rows, 5 paragnaths on one side, 10 on the other; area II, 11 paragnaths in 3 rows of 5, 2 and 4; area IV, an oval patch of 20 paragnaths; area V with 0; area VI, one on one side, one on the other; areas VII and VIII, a single row of 10 conical paragnaths.

The dorsal ligule of the notopodium is enlarged throughout with 3 oval, rusty brown, glandular patches and with the dorsal cirrus about halfway along its dorsal edge (fig. 176). The noto-acicular lobe is prominent, especially in the anterior parapodia. The ventral cirrus is short, not projecting beyond the sub-acicular ligule of the neuropodium. In the median and posterior parapodia glandular areas are also present on the sub-acicular ligules of both the notopodia and neuropodia, and at the base of the ventral cirrus (fig. 176). The neuropodial postsetal lobe is conical, projecting backwards in the anterior segments, reduced posteriorly.

Notosetae consist of homogomph spinigers throughout; no falcigers are present. Neurosetae consist of a dorsal bundle of homogomph spinigers with 1–5 heterogomph falcigers (fig. 178) and a ventral bundle of homogomph spinigers and heterogomph falcigers (fig. 179).

Remarks

Unique features are the articulated cirrophores of the peristomial cirri and the distribution of the glandular areas on the parapodia.

Holotype

Canterbury Museum, Christchurch.

Type Locality

Owenga, Chatham Islands, 3–4 fm.

Genus **Cheilonereis** Benham, 1916

Cheilonereis peristomialis Benham, 1916

Cheilonereis peristomialis Benham, 1916a, p. 138, pl. 44, figs. 10–18, pl. 47, figs. 19–22.
Cheilonereis peristomialis, Benham, 1916b, p. 392.
Cheilonereis peristomialis, Benham, 1927, p. 82.
Cheilonereis peristomialis, Knox, 1950, p. 22, pl. 48, figs. 32–33.

Records

Sta. 6 (5); Sta. 41 (1).

Remarks

This species is easily recognisable by the dorsal ligule of the notopodium being enlarged to form a compressed, pointed lamella bearing a long, tapered, dorsal cirrus in a notch on the upper edge. All the specimens were commensal with hermit crabs of the genus *Eupagurus*.

Distribution

Australia, New Zealand.

Genus **Pereinereis** Kinberg, 1866

Perinereis amblyodonta (Schmarda), 1861 (fig. 180)

Nereilepas amblyodonta Schmarda 1861, p. 106.
Pereinereis novaehollandiae, Knox, 1950, p. 221, pl. 48, figs. 25–31.

Records

Sta. 9 (1); Sta. 16 (11); Sta. 22 (3); Sta. 39 (3); Sta. 48 (4, epitokous).

Remarks

Three of the epitokous specimens are males and one female. The female epitoke has an anterior unmodified region of 22 setigers, while the males have an anterior unmodified region of 16 setigers. Both have a posterior unmodified region of about 25 setigers. Natatory parapodia (fig. 180) are similar in the two sexes except that in the male the dorsal cirrus is crenulated, and the large postsetal lamella of the neuropodia is larger than in the female. This species is the common inter-tidal nereid of rocky shores throughout the New Zealand area. It has previously been recorded from the Chatham Islands by Ehlers.

Distribution

Australia, New Zealand.

Perinereis nuntia (Savigny) var. **vallata** (Grube), 1857 (fig. 181)

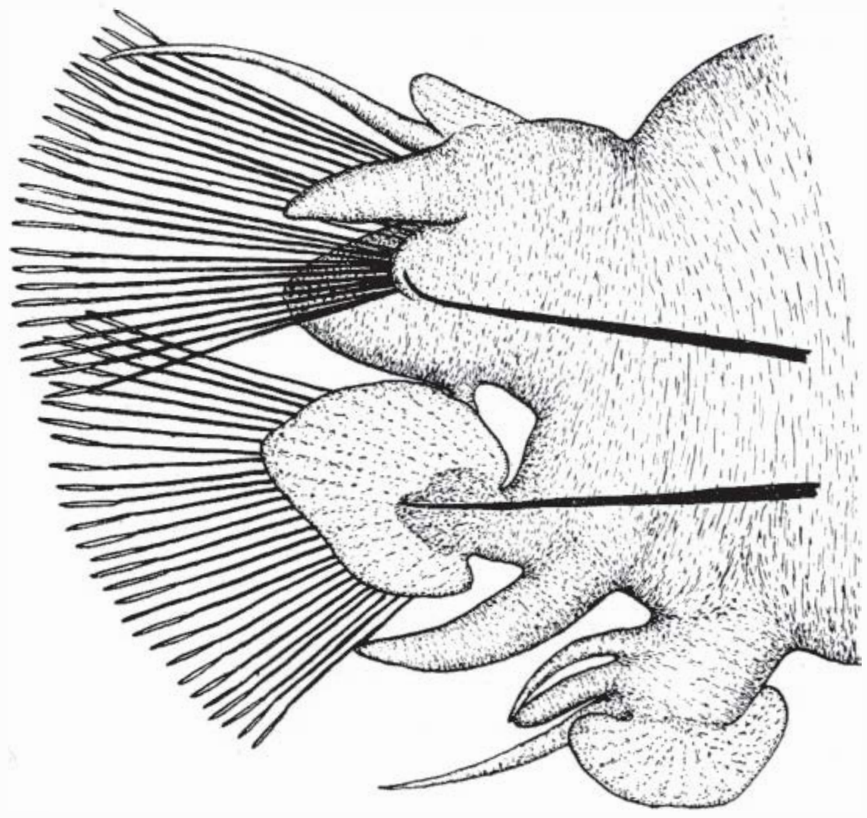
Perinereis nuntia var. *vallata* Knox, 1950, p. 218, pl. 45, figs. 9–10, pl. 46, figs. 11–13.

Records

Sta. 11 (7); Sta. 26 (1); Port Hutt, Chatham Island, collected F. Abernethy, 18/9/50, with flood light (1, epitokous female).

Description

The single epitokous female, measuring 175 mm, has an anterior unmodified region 40 mm long, and a posterior unmodified region of 30 mm, with a long median region bearing natatory parapodia. The anterior region has 33 unmodified



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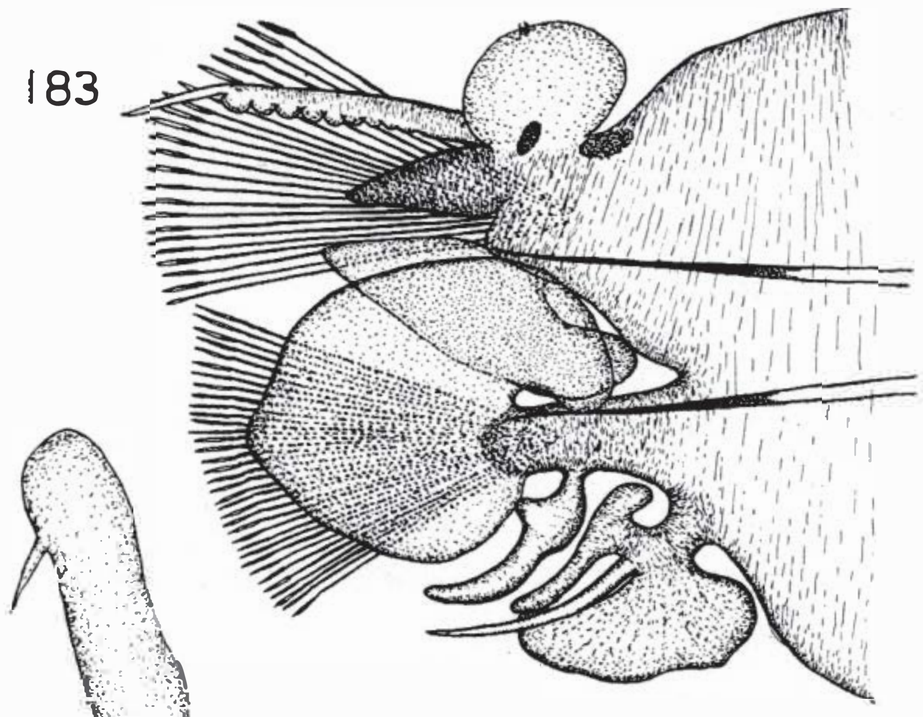

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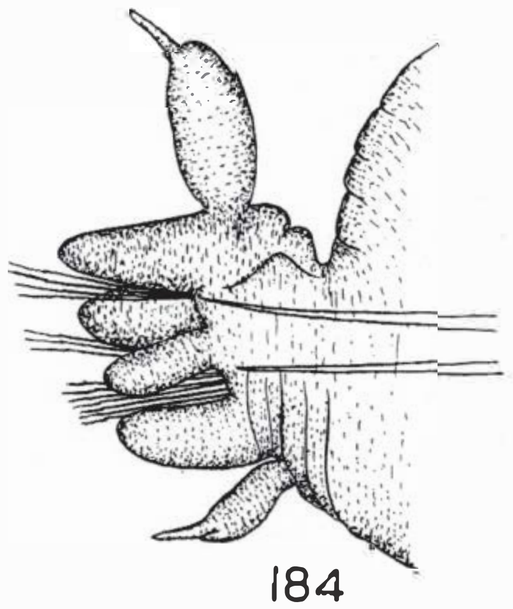

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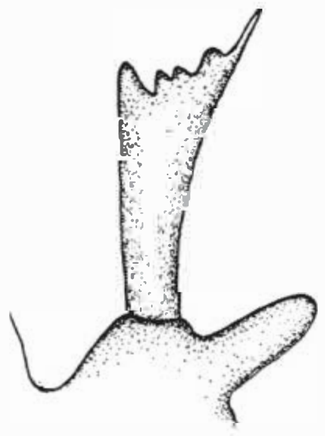

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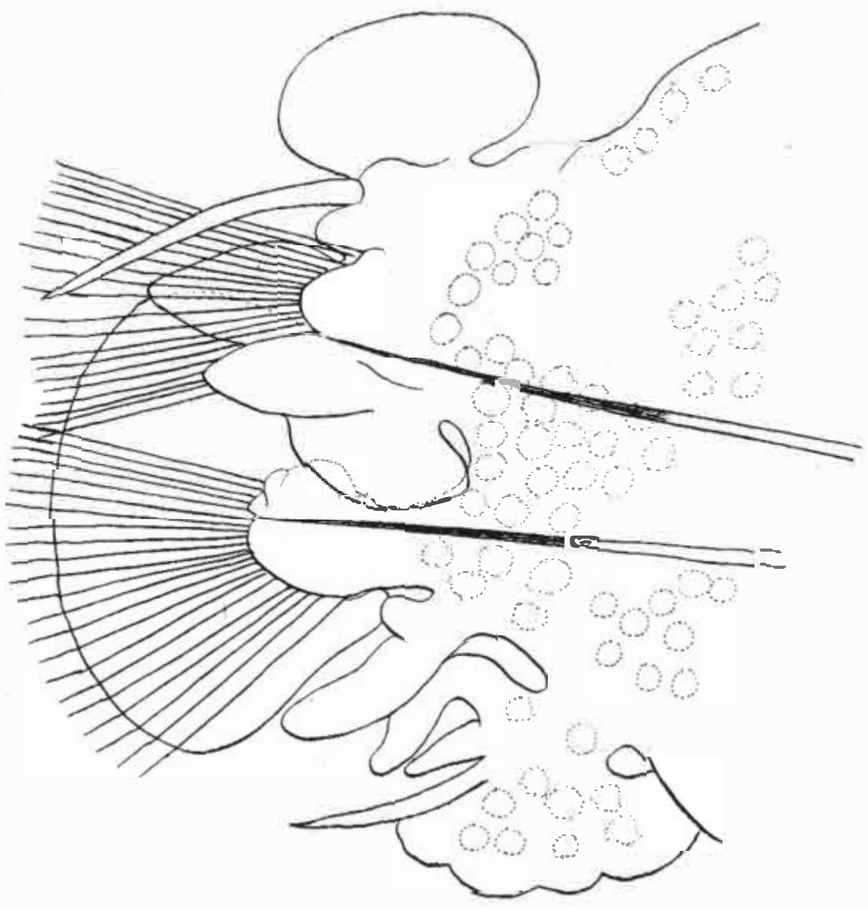

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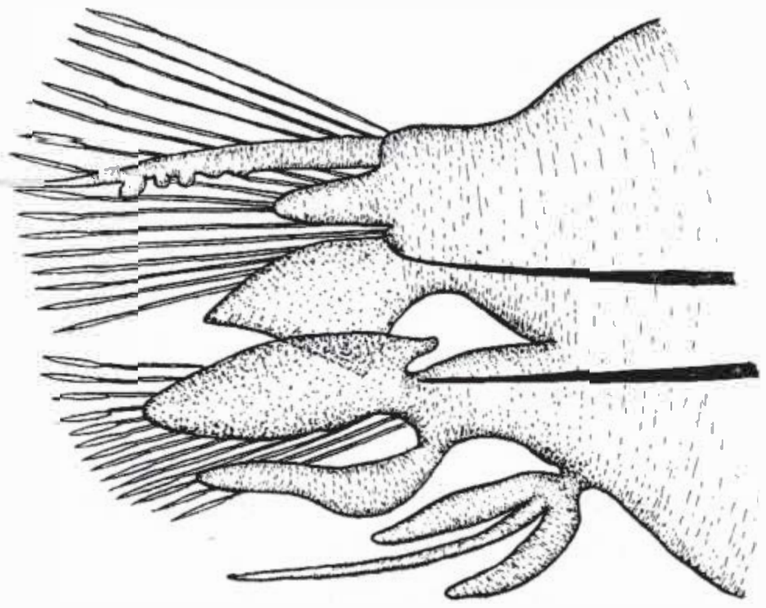

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Perinereis amblyodonta (Schmarda) Fig. 180 – Female epitokous parapodium. *Perinereis nuntia* (Savigny) var. *vallata* (Grube) Fig. 181 – Female epitokous parapodium. *Platynereis australis* (Schmarda) Fig. 182. Dorsal cirrus from a fourth parapodium of an epitokous male. Fig. 183 – Female epitokous parapodium. Fig. 184 – Fourth parapodium of an epitokous female. *Nereis jacksoni* Kinberg Fig. 185 – Dorsal cirrus of a fourth parapodium from an epitokous female. Fig. 186 – Female epitokous parapodium.

setigers with a gradual change to natatory parapodia over the next 10 setigers. The dorsal cirrus of the first 6 setigers is enlarged. Natatory parapodia have a very large, foliaceous lobe in the neuropodium (fig. 181).

Remarks

This species is widespread throughout New Zealand, being recorded from Auckland to Stewart Island.

Distribution

New Zealand, Australia, Indo-Pacific, Chile, South Africa.

Perinereis nuntia (Savigny) var. **brevicirrus** (Grube), 1857

Nereilepas brevicirrus Grube, 1857, p. 19, pl. 2, fig. 2.
Perinereis nuntia var. *brevicirrus*, Knox, 1950, p. 219, pl. 46, figs. 14–18.
Perinereis nuntia var. *brevicirrus*, Fauvel, 1953, p. 214, fig. 109a–b.

Remarks

Sta. 11 (8); Sta. 16 (2).

Remarks

Typical.

Distribution

New Zealand, Australia, New Caledonia, Malayan Archipelago, Nicobar Islands, Indian Ocean, India, Red Sea, Saint Paul Islands.

Genus **Platynereis** Kinberg, 1866

Platynereis australis (Schmarda), 1861 (figs. 182–4)

Platynereis australis, Knox, 1951, p. 223, pl. 49, figs. 34–40.

Records

Sta. 10 (2 epitokous males); Sta. 18 (7); Sta. 26 (7); Sta. 43 (3); Sta. 49 (12); Sta. 50 (5); Sta. 52 (3); Chatham Islands, collected Miss Shand, 18/10/52, Canterbury Museum Collection (6); Port Hutt, Chatham Island, collected F. Abernethy, with flood lights, Dominion Museum Collection (numerous epitokous females).

Description

The epitokous females have an anterior unmodified region of 30–32 setigers and a posterior region with natatory parapodia. The dorsal cirrus of the natatory parapodia is crenulated (fig. 183), and the dorsal cirrus of the first 7 setigers is enlarged, inflated with an attenuated, tapering tip. The ventral cirrus of the first 4 setigers is similarly modified. The maximum size of these female epitokes is 70 mm.

The male epitokes have an anterior unmodified region of 15 setigers. The dorsal cirri of the first 7 setigers show similar modifications to those of the females, except that the attenuated tip arises on the side some distance from the bulbous end (fig. 182). They increase markedly in size from the first parapodium.

Remarks

Previous accounts of epitoky place the position of modification of the females at setigers 30–31 and of the males at 19–20. The shape of the natatory parapodia resembles those figured for *P. dumerilli antipoda* by Hartman (1957, p. 35). In this latter species, however, the position of modification of the female is at setigers 22–23.

Distribution

Antarctica, Sub-antarctic Islands, South Africa, Chile, New Zealand, Australia.

Family EUNICIDAE Grube

Sub-family EUNICINAE Kinberg

Genus **Eunice** Cuvier, 1817

Eunice australis Quatrefages, 1865

Eunice australis Quatrefages, 1865, p. 316.
Eunice murrayii McIntosh, 1885, p. 228, pl. 39, figs. 7–8, pl. 20A, figs. 19–20.
Eunice australis, Knox, 1951, p. 66.
Eunice australis, Fauvel, 1953, p. 240, fig. 118h–l.

Records

Sta. 26 (1); Sta. 34 (2).

Remarks

Typical. This species is widely distributed throughout New Zealand.

Distribution

New Zealand, Australia, India, Maldive Archipelago, Gulf of Oman, Zanzibar, South Africa.

Eunice tentaculata Quatrefages, 1865

Eunice tentaculata Quatrefages, 1865, p. 317.
Eunice pycnobranchiata McIntosh, 1885, p. 294, pl. 24, figs. 13–15.
Eunice tentaculata, Fauvel, 1953, p. 234, fig. 118m–p.

Records

Sta. 14 (1, posterior end); Sta. 18 (1); Sta. 24 (1); Sta. 34 (1).

Remarks

Typical. Gills commence at the 5th setiger and have a maximum number of 7 filaments.

Distribution

New Zealand, Australia, Malayan Region, Indian Ocean.

Eunice rubella Knox, 1951

Eunice rubella Knox, 1951, p. 66, figs. 6–12.

Records

Sta. 2 (1); Sta. 23 (2).

Remarks

Gills commence on the 5th setiger and consist of 2 equal filaments as far as the 26th setiger and thereafter a single gill decreasing in size. The bidentate sub-acicular hooks have a characteristic S-shaped curve.

Distribution

This species has previously been recorded from off Banks Peninsula in 80 fm and from the Southern Fiords (Knox, in the press).

Eunice vittata delle Chiaje, 1822 (figs. 187–9)

Eunice vittata McIntosh, 1885, p. 276, pl. 38, figs. 3–5, pl. 19A, figs. 16–17.
Eunice vittata, Fauvel, 1923, p. 404, fig. 158h–n.
Eunice vittata, Hartman, 1944, p. 118.

Records

Sta. 13 (3, anterior ends); Sta. 34 (2, anterior ends, several fragments); *Discovery* Sta. 2733 (1, anterior end).

Description

The prostomium is broad, incised in front. The antennae are long, faintly annulate, the median reaching back to the 10th setiger. There are a pair of conspicuous reddish eyes between the bases of the inner and outer lateral antennae. Gills commence as a single filament on the 5th setiger, there are a pair on the 8th and by the 15th there are 10 filaments (fig. 187). There are 8 filaments on the 30th setiger, 2 on the 31st and none thereafter.

Acicular setae are yellow, tridentate (fig. 189), present in the body region posterior to the gills. There is usually one in each parapodium, although there may be two in the more posterior segments. In the anterior, gill-bearing segments the bidentate setae have the sharp, projecting guard which is characteristic of this species (fig. 188).

Discussion

Two closely related species characterised by having compound setae with a long pointed guard are *E. vittata* and *E. indica. E. vittata* is distinguished from *E. indica* in that it has annulated antennae, not smooth, and a single sub-acicular hook instead of 4 or 5. This is the first record of the species from the New Zealand area.

Distribution

South Atlantic, Mediterranean, Bermuda, West Indian Region, Trinidad, Southern California to Pacific Panama, Hawaii, Japan, Bass Strait.

Sub-genus **Palola** Gray, 1847

Eunice (Palola) siciliensis Grube, 1840

Eunice siciliensis, Fauvel, 1923, p. 405, fig. 159a–m.
Eunice siciliensis, Fauvel, 1953, p. 241, fig. 121e–m.

Records

Sta. 18 (1).

Remarks

A single specimen in three pieces with the characteristic massive, white, calcareous mandibles protruding. There are no comb or acicular setae present. The single gill commences at the 73rd setiger. This is the first record of this tropical species from the New Zealand area.

Distribution

Circum-tropical.

Sub-genus **Nicidion** Kinberg, 1865

Eunice (Nicidion) curticirrus n. sp. (figs. 190–5)

Records

Sta. 24 (1).

Description

The single specimen is 12 mm long and 1·2 mm broad, including the parapodia, with 55 segments. The dorsal surface of the anterior segments is brownish, the rest of the body colourless. The prostomium is prominent, the frontal margin entire with a deep ventral sulcus. The antennae are short, annulated, with short, inflated, bead-like articles (fig. 190); the median with 4, the inner laterals with 3 and the outer laterals with 2. There are a pair of prominent, reddish eyes between the bases of the inner and outer lateral antennae. The peristomial cirri are short, smooth, cirriform, about half as long as the peristomial ring. The first six parapodia have enlarged, finger-like dorsal and ventral cirri of about equal size. From the 7th setiger the dorsal cirri decrease in size and become more slender (fig. 194). In the anterior third of the body there are enlarged ventral pads with knob-like ventral cirri (fig. 195). Behind this region the pads decrease in size and the ventral cirri become more elongated and cirriform (fig. 194).

Sub-acicular hooks are dark, strongly curved, a single one in each parapodium from the 16th setiger. In lateral view they appear bidentate with a broad sub-apical tooth, but in dorsal view the terminal tooth is seen to be bifid (figs. 191 and 193). Anterior parapodia have two equal dark acicula, about 6 simple setae and 10–12 bidentate, compound setae (fig. 192). In the posterior parapodia the dorsal acicula is much larger than the

ventral, the simple setae are reduced to 2 or 3 and the compound setae to 4–6.

Remarks

The sub-acicular hooks commence further forward than in the other described species of the sub-genus, and the tridentate end with a bifid, terminal tooth is a unique feature. The short antennae with a few bead-like articles is also a feature not found in the other species.

Holotype

Canterbury Museum, Christchurch.

Type Locality

43°36·2′S., 170°48·5′W., S. of The Sisters, 38 fm.

Genus **Marphysa** Quatrefages, 1865

Marphysa capensis (Schmarda), 1865 (figs. 196–8)

Marphysa capensis, Augener, 1918, p. 332, text-fig. 33.
Marphysa corallina, Ehlers, 1904, p. 31.
Marphysa aenea, Ehlers, 1907, p. 12.
Marphysa aenea, Benham, 1909, p. 244.
Marphysa aenea, Augener, 1923, p. 64.
Marphysa aenea, Augener, 1924, p. 411.
Non *Marphysa capensis,* Fauvel, 1950, p. 365.

Records

Sta. 16 (3); Sta. 26 (1).

Description

A complete specimen measures 170 mm and is 7 mm broad, including the parapodia, across the widest part of the body. The anterior segments are rounded, dorsally arched, the posterior segments flattened, oval in cross-section. Gills commence on the 16th setiger and are continued almost to the end of the body. Anterior segments have a dorsal bundle of curved, limbate setae, with a few comb setae (fig. 197) and a ventral bundle of numerous compound setae with short, bidentate end-pieces (fig. 198). There are 3 dark acicula (fig. 196) and a single, yellow, unidentate acicular seta is present from the 29th setiger.

Remarks

Day (1954, 1955) has shown that *M. corallina* and *M. capensis* have been confused. *M. corallina* is a warm water species with bidentate acicular setae, while *M. capensis* is a cold water species with unidentate acicular setae. Specimens previously recorded from New Zealand as *M. corallina* and *M.* aenea are probably *M. capensis.* Previously recorded from the Chatham Islands by Ehlers (1904) as *M. corallina.*

Distribution

New Zealand, Falkland Islands, South West Africa, Antarctica.

Sub-family ONUPHIDINAE Levinsen

Genus **Hyalinoecia** Malgren, 1867

Hyalinoecia tubicola (Müller)

Hyalinoecia tubicola, Fauvel, 1923, p. 421, fig. 166i–g.
Hyalinoecia tubicola, Fauvel, 1953, p. 261, fig. 126i–q.

Records

Sta. 5 (5); Sta. 6 (numerous); Sta. 7 (1); Sta. 13 (1); Sta. 41 (6); Sta. 49 (9); Sta. 52 (1); Sta. 58 (numerous).

Remarks

Typical. This species is widely distributed throughout the New Zealand area.

Distribution

Cosmopolitan.

Genus **Rhamphobrachium** Ehlers, 1887

Rhamphobrachium chuni Ehlers, 1912

Rhamphobrachium chuni Ehlers, 1912, p. 76, pl. 9, figs. 6–15.
Rhamphobrachium chuni, Augener, 1924, p. 412.
Rhamphobrachium chuni, Fauvel, 1953, p. 261, fig. 132a–b.

Records

Sta. 1 (1); Sta. 44 (4); Sta. 46 (1); Sta. 59 (1).

Description

None of the specimens are complete. The largest specimen measures 25 mm by 4 mm for 36 segments. The antennae are short, subulate, borne on short ringed ceratophores. In the first three parapodia the dorsal cirri are enlarged, subulate and directed ventrally. The characteristic elongated setae of the anterior parapodia are missing. Gills commence on the 6th setiger, are bifid on the 13th and trifid on the 15th. The maximum number of 6 filaments is attained by the 33rd setiger.

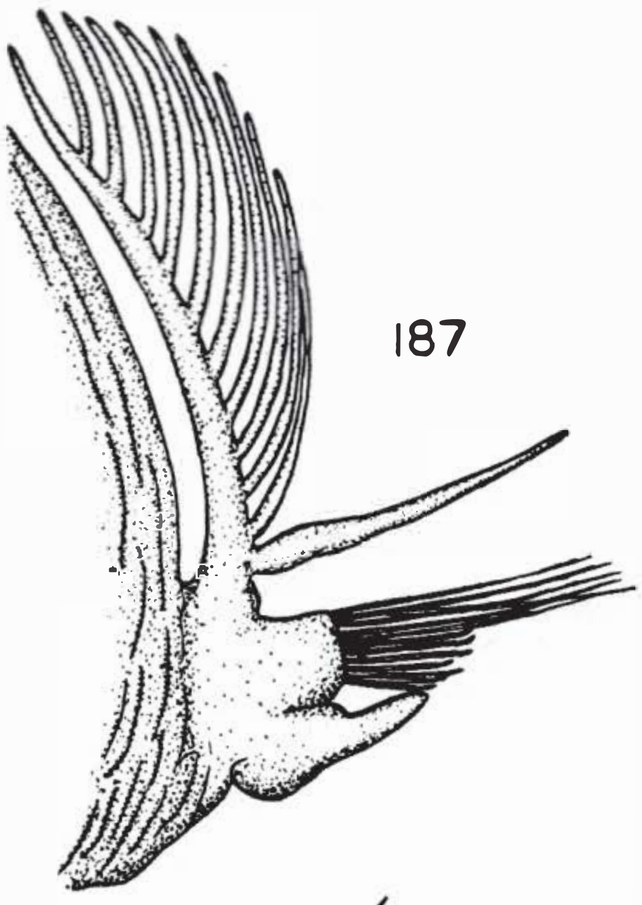
Remarks

The present specimens agree well with the published descriptions of the species except that the gills commence on the 6th setiger and not on the 12th. Previously recorded from Colville Channel in 35 fm.

Distribution

New Zealand, Australia, Adaman Islands, Ceylon, Laccadive Sea, Eastern Africa.

Genus **Onuphis** Audouin and Milne-Edwards, 1822



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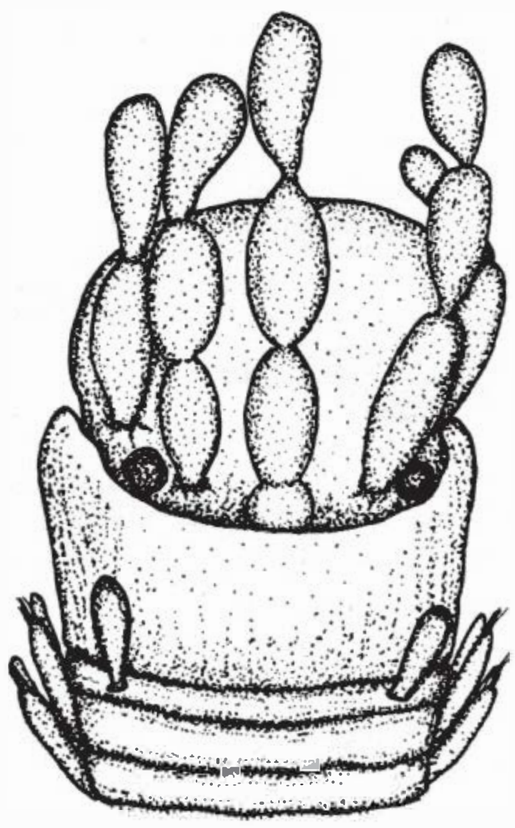

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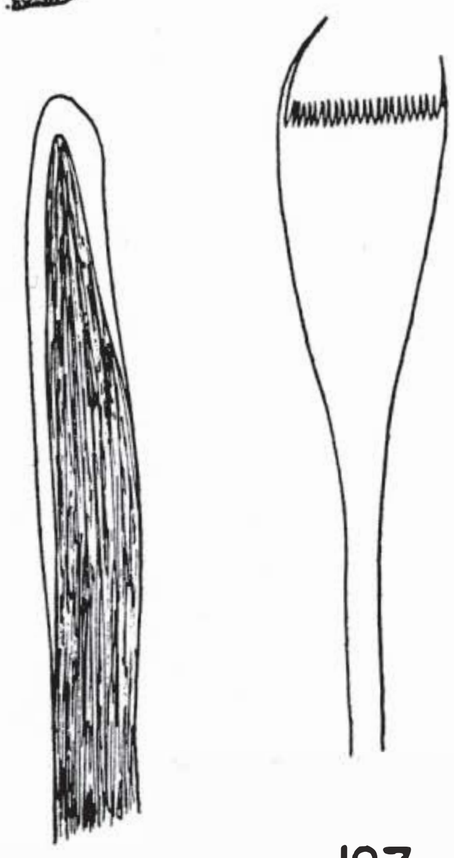

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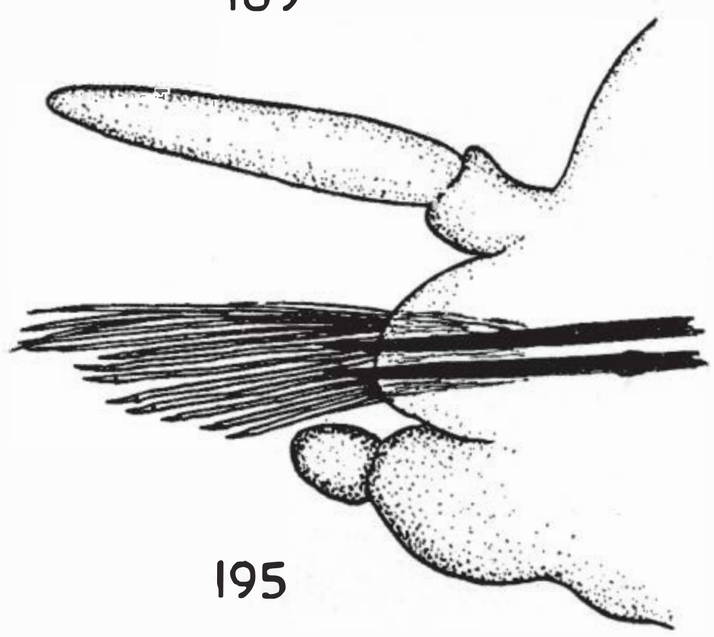

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Eunice vittata delle Chiaje Fig. 187 – Fifteenth parapodium. Fig. 188 – Anterior compound neuroseta. Fig. 189 – Acicular neuroseta. *Eunice* (*Nicidion*) *curticirrus* n.sp. Fig. 190 – Anterior end. Fig. 191 – Acicular seta. Fig. 192 – Compound neuroseta. Fig. 193 – Anterior end of an acicular seta. Fig. 194 – Median parapodium. Fig. 195 – Anterior parapodium. *Marphysa capensis* (Schmarda) Fig. 196 – Acicula. Fig. 197 – Comb seta. Fig. 198 – Compound seta.

Onuphis proalopus Chamberlain, 1919 (figs. 199–204)

Onuphis proalopus Chamberlain, 1919, p. 265, pl. 40, figs. 3–8, pl. 41, figs. 1–10.

Records

Sta. 5 (23); Sta. 13 (1); Sta. 41 (1); Sta. 59 (10); Sta. 60 (1).

Description

The tube is cylindrical with a transparent base covered by a thin layer of fine sand grains. The holotype specimen measures 105 mm for about 300 segments. The dorsum of the first 50 segments is marked by a broad band of reddish brown pigment; behind this the pigment band rapidly disappears and the rest of the body is pale. The pigmentation is faint or absent in some specimens. The prostomium has a pair of pigment patches near its anterior border; its appendages are colourless. The first few segments are cylindrical, the rest of the body broad, depressed, a uniform width throughout.

The prostomium (fig. 201) is almost circular with a pair of short, sub-cylindrical, frontal antennae. The ceratophores of the prostomial antennae are annulated with 5 small proximal rings and a longer distal one; the styles are long cylindrical, tapering, the inner laterals reaching back to the 15th setiger, the median to the 10th. There are no eyes visible. The peristomium is shorter and narrower than the 1st setiger, and the peristomial cirri are slender, filiform, equal in length to the 1st setiger.

The first 3 setigers are conspicuously longer and broader than the succeeding ones, the 7th setiger being half the length of the 3rd. The first parapodium is directed forward. The dorsal cirri of the first 3 setigers (fig. 203) are long and slender. Behind this they decrease in size, but remain comparatively elongated and slender to the end of the body. The post-setal lobe of the anterior segments is long and tapering. It gradually decreases in length and by the 20th setiger (fig. 202) is knob-like. The ventral cirri are elongated, tapering over the first 7 setigers. Beginning at the 8th setiger they are reduced to pad-like elevations. Gills are present from the 8th setiger as a single filament; on the 10th or 11th there are 2 filaments; by the 25th there are 3, with a maximum of 4 or 5 beind this. By the 75th setiger they are reduced to a single filament which continues over the next 150 setigers.

Neuro-acicula number up to 4; they are dark brown in colour, with colourless, finely pointed tips. In the first 5 parapodia there are 4–5 pseudo-compound, tridentate, hooded hooks with a pointed guard (fig. 200), and a dorsal bundle of simple limbate setae. By the 6th parapodia the pseudo-compound hooks are replaced by stout simple setae. Further posteriorly simple hooded hooks make their appearance, 2 or 3 in each parapodium, replacing the simple ventral setae. They are bidentate with the sub-apical tooth the largest (fig. 204).

The maxillae are light brown, irregularly blackish on their outer edges (fig. 199). The carriers are broad, massive, incised anteriorly. The forceps (Maxilla 1) are falcate, strongly curved. The tooth formula on the left side is as follows: Maxilla II has 5 teeth, Maxilla III 7 teeth, Maxilla IV 6 teeth and Maxilla V a single tooth. On the right side the formula is as follows: Maxilla II has 6 teeth, Maxilla III 9 and Maxilla V a single tooth.

Remarks

These specimens agree in all respects with Chamberlain's specimen except for the following differences in the arrangement of the teeth on the maxillae.

		Chamberlain	Present specimens
Left	Maxilla II	8	5
	Maxilla III	9	8
	Maxilla IV	7	6
	Maxilla V	1	1
Right	Maxilla I	10	8
	Maxilla II	10	9
	Maxilla V	1	1

Chamberlain's material consisted of a single specimen taken off Peru in 536 fm. Since its original discovery the species has remained unrecorded.

Distribution

Peru, New Zealand.

Sub-genus **Nothria** Malmgren, 1867

Onuphis (Nothria) iridescens (Johnson) 1901.

Nothria iridescens Johnson, 1901, p. 408, pl. 7, figs. 86–7, pl. 9, figs. 88–92.
Nothria iridescens, Moore, 1911, p. 255.
Nothria iridescens, Moore, 1908, p. 245.
Nothria iridescens, Hartman, 1947, p. 87, pl. 5, figs. 99–104.

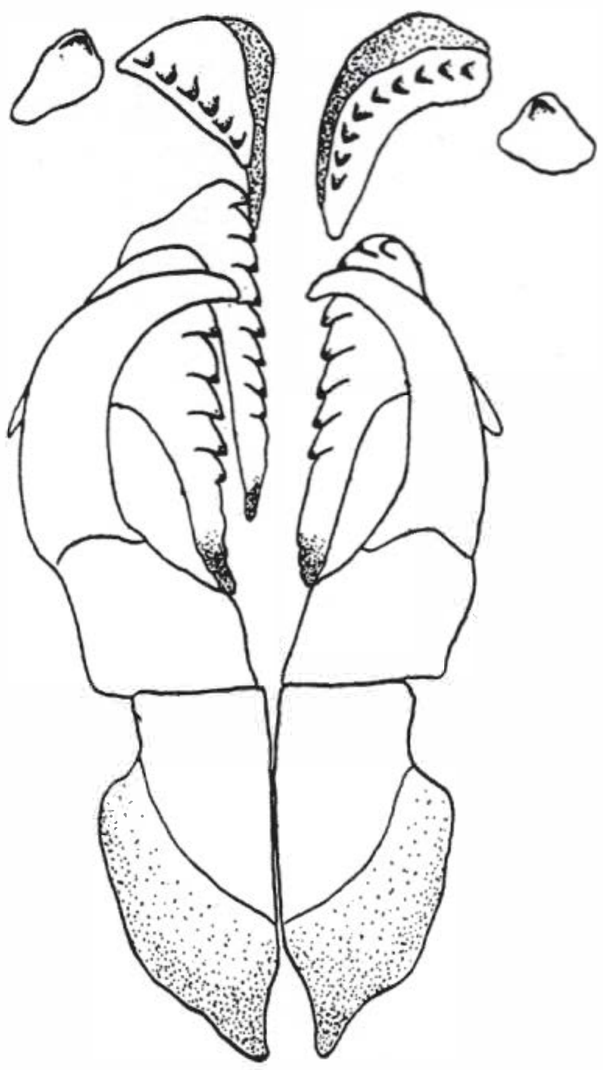
Records

Sta. 5 (1); Sta. 52 (6); Sta. 60 (1).

Description

A complete specimen measures 80 mm by 1 mm, excluding the parapodia. The colour in alcohol is pearly iridescent white. There are no dark inter-segmental grooves as reported by Hartman

(1947). The ceratophores of the antennae are long, annulate. The outer lateral ceratophores have about 10 short articles and a longer distal one, the style is about two-thirds as long. An inner, lateral, paired antenna has 15 shorter articles and a longer distal one, its style extends to about the 10th setiger. The ceratophore of the median antenna is shorter and its style extends back to the 8th setiger. The peristomial cirri are long and filiform. Pale eyespots are visible between the bases of the inner and outer lateral antennae.



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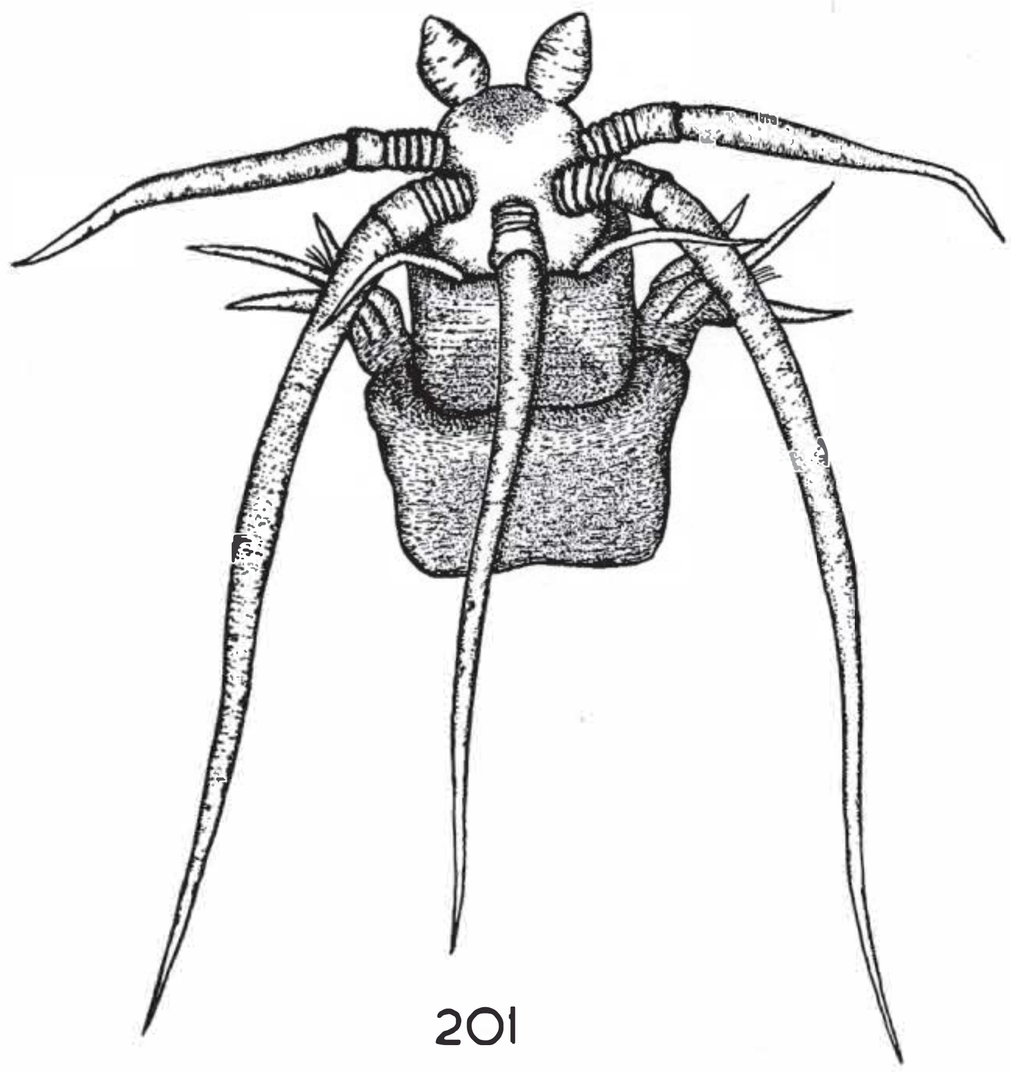

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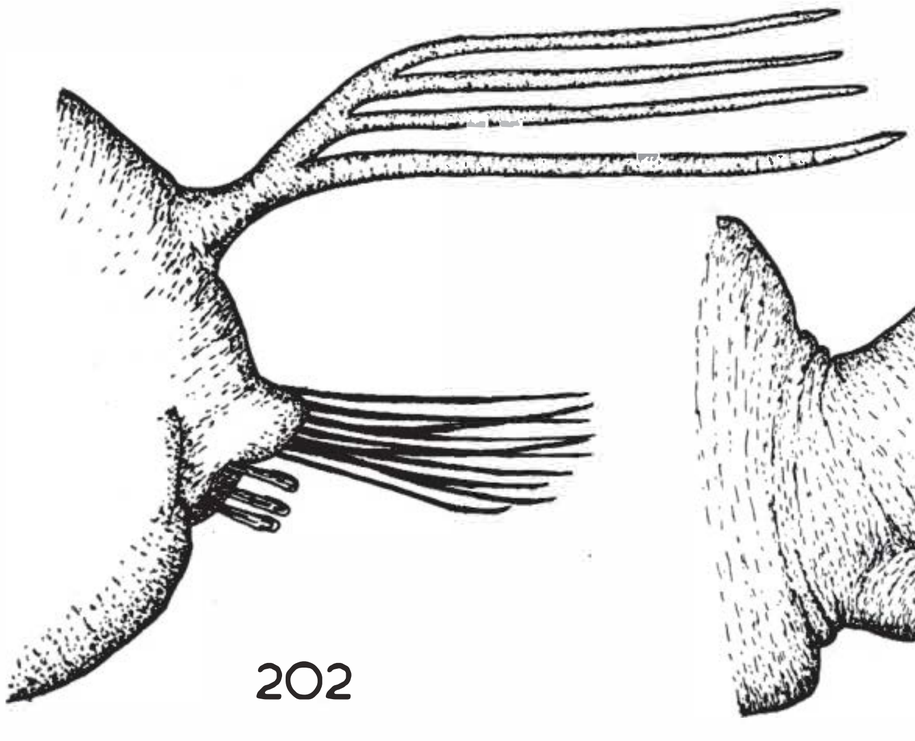

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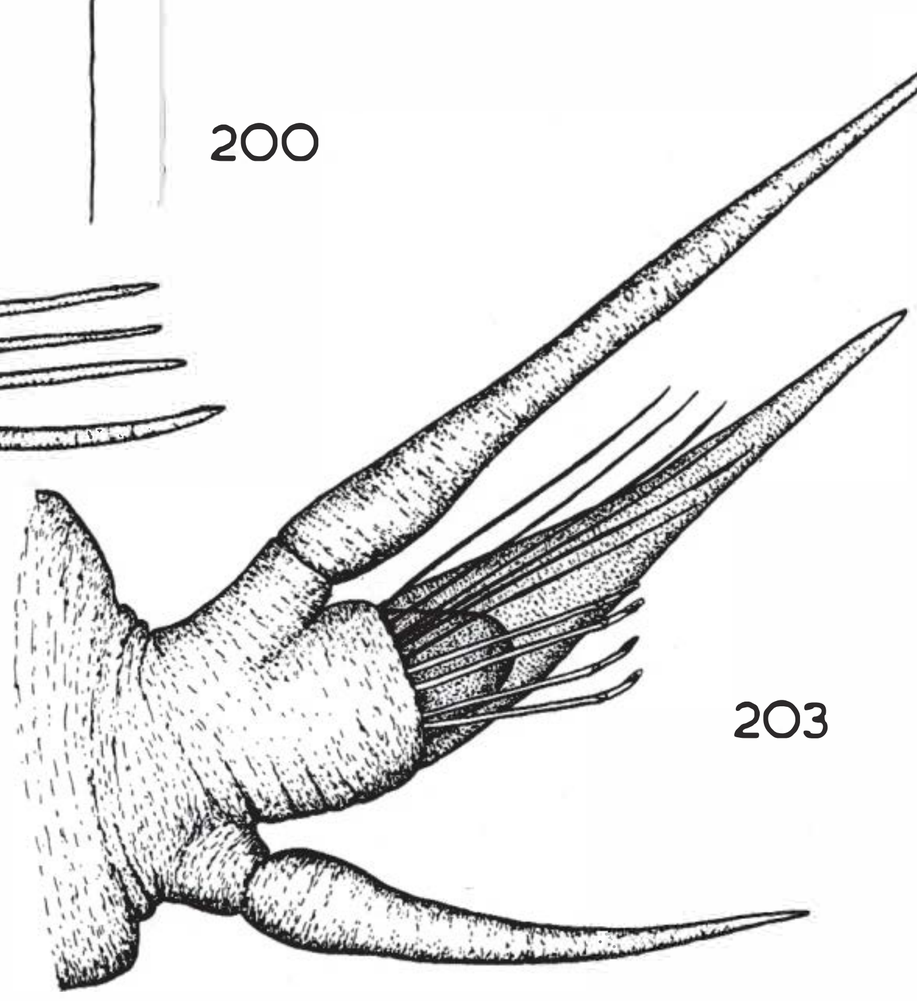

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Onuphis proalopus Chamberlain Fig. 199 – Maxillae. Fig. 200 – Pseudo-compound neuroseta. Fig. 201 – Anterior end. Fig. 202 – Median parapodium. Fig. 203 – Second parapodium. Fig. 204 – A simple hooded hook.

Branchiae are present from the 1st or 2nd setigers, longer than the dorsal cirrus after the 3rd setiger. They are present throughout the body. Ventral cirri are cirriform throughout the first 6 or 7 setigers, pad-like thereafter.

Post-setal lobes are elongated throughout the anterior region, reduced to a small papilla by the 15th setiger. Anterior parapodia have tridentate, pseudo-compound, hooded hooks, the distal tooth being the largest. There are 4 such hooks in the first parapodium and 6 in the third. There are 3 yellow, genticulate, pointed acicula. By the 7th parapodium these hooded hooks are replaced by slender, pointed, simple setae.

Remarks

Hartman (1947) has pointed out that *O. iridescens, O. elegans* (Johnson) and *O. holobranchiata* Marenzeller are three closely related species. *O. elegans* is distinguished by having heavy sub-acicular hooks, ventral cirri cirriform through 4 or 5 setigers and sub-acicular hooks present from the 10th setiger. *O. holobranchiata* has a distinctive colour pattern on the dorsum, the frontal tentacles are cirriform not ovoid as in *O. iridescens,* the paired antennae slender, and the pseudo-compound setae both bidentate and tridentate. This is the first record of the species from New Zealand.

Distribution

Western coast of North America, Cape Horn.

Onuphis (Nothria) conchylega Sars

Onuphis conchylega, Fauvel, 1923, p. 415, fig. 164.
Nothria conchylega, Hartman, 1947, p. 85, pl. 5, figs. 105–12, pl. 17, figs. 337–8.
Onuphis conchylega, Fauvel, 1953, p. 255, figs. 128a–m.

Records

Sta. 1 (1); Sta. 30 (3); Sta. 59 (1).

Remarks

This is the first record from the New Zealand region of this cosmopolitan species with its characteristic flattened tube covered with shell fragments.

Distribution

Cosmopolitan.

Sub-family LUMBRINEREINAE, Grube

Genus **Lumbrinereis** Blainville, 1828

Lumbrinereis brevicirra (Schmarda) 1861 (figs. 205–8)

Lumbriconereis brevicirra Schmarda, 1861.
Lumbriconereis brevicirra, Ehlers, 1904, p. 35, pl. 4, figs. 13–20, pl. 5, figs. 1–2.

Records

Sta. 5 (2).

Description

The prostomium is conical, depressed, longer than broad (fig. 208). Anterior parapodia are provided with a blunt, conical, backward projecting post-setal lobe. This is reduced posteriorly and by the 40th parapodium is knob-like. There are no compound setae. Anterior parapodia are provided with simple setae (fig. 206) and long, slender, simple hooded hooks (fig. 205). In the 8th parapodium there are 5 dorsal limbate setae, 5 simple hooks and 2 ventral limbate setae. Transition to shorter, stouter, hooded hooks occurs from the 25th parapodium. A 45th parapodium has 5 simple hooks (fig. 207) and a single, simple, limbate seta. Anteriorly there are 3 black acicula and posteriorly a single one. The hooks and the basal part of the simple setae are black, more noticeably so in older specimens.

Remarks

This species may be distinguished by the cirrus-like post-setal lobe and the dark acicula and setae.

Distribution

New Zealand.

Lumbrinereis sphaerocephala (Schmarda), 1861

Lumbriconereis sphaerocephala, Ehlers, 1904, p. 33, pl. 5, figs. 3–11.
Lumbriconereis sphaerocephala, Fauvel, 1953, p. 267, fig. 135c–f.

Records

Sta. 1 (1); Sta. 4 (3); Sta. 5 (13); Sta. 14 (1); Sta. 16 (3); Sta. 18 (9); Sta. 28 (2); Sta. 29 (1); Sta. 52 (2); Sta. 59 (7).

Description

The prostomium is short, globular to conical. The post-setal lobe is well-developed posteriorly, elongated and pointed. An anterior parapodium is provided with 3 dorsal, strongly curved, limbate setae with broad blades, 3 or 4 compound, bidentate, setae and 1 or 2 ventral, straight, limbate setae. Compound setae are confined to 20 to 30 anterior segments. Behind this region there are 3 hooded hooks with blunt inflated ends, and further back only 2.

Remarks

This species is widely distributed throughout the New Zealand region, from the inter-tidal region down to 80 fm. It has previously been recorded from the Chatham Islands by Ehlers (1904).

Distribution

New Zealand, New Caledonia, Australia, Gambia Islands.

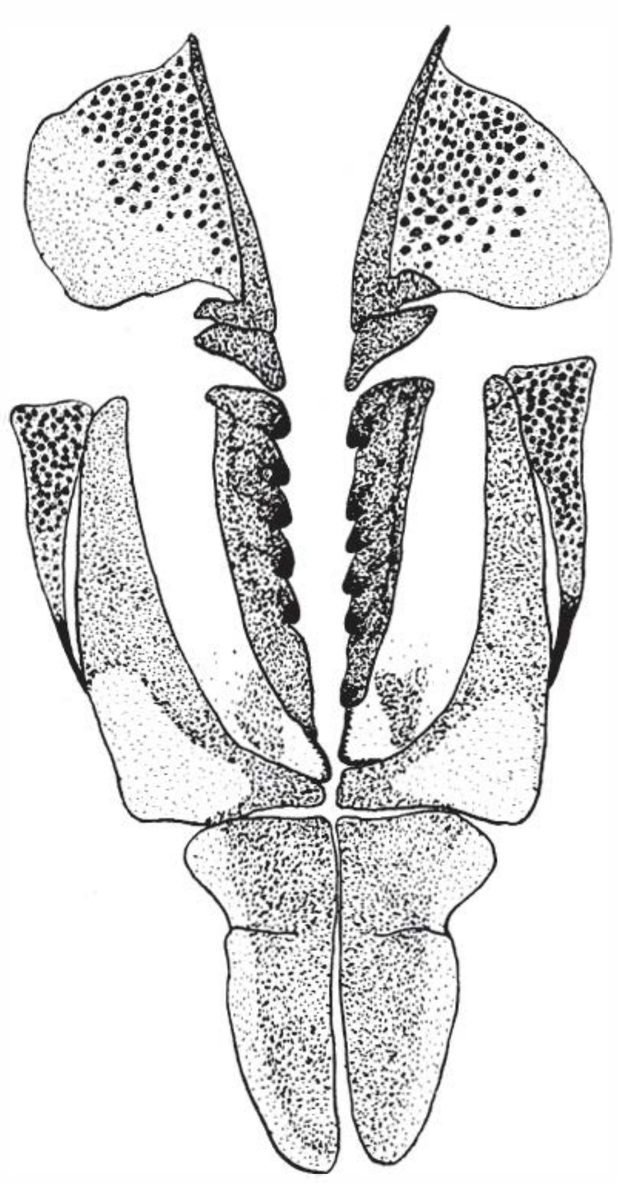
Lumbrinereis sp. (figs. 209–10a)

Records

Sta. 13 (1 anterior end); Sta. 46 (1, badly damaged).

Description

The anterior fragment from Sta. 13 measures 8 mm for 32 segments. The prostomium is conical, flattened, fused with the first segment. The prostomium, the first segment and the parapodia are pale, dorsal surface of the rest of the body has a broad band of dark brown pigment across each segment. Anterior parapodia have a conical postsetal lobe (fig. 210a) reduced to a small knob by the 30th setiger. Simple limbate setae only are present as far as the 32nd segment of the fragment, about 8 anteriorly reduced to 5 posteriorly



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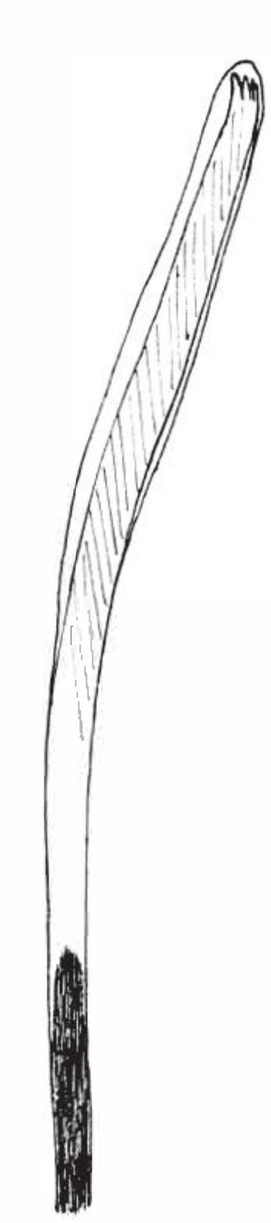

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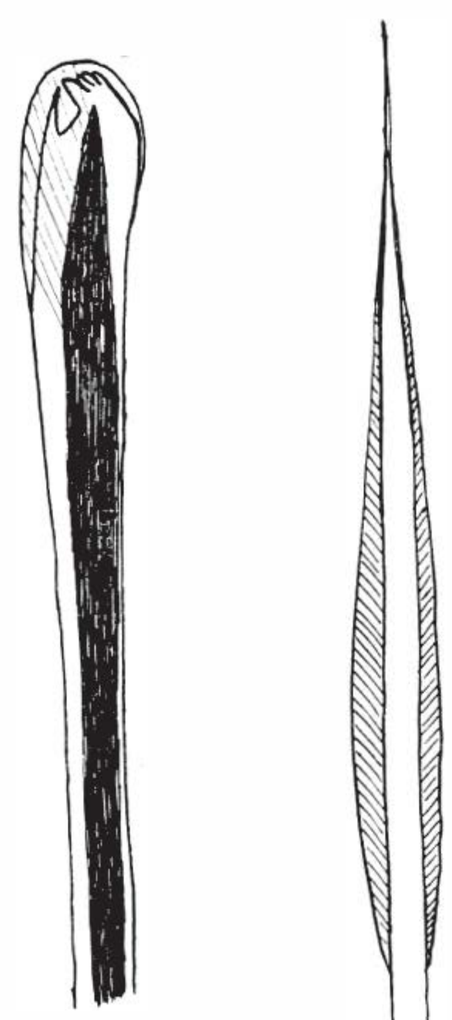

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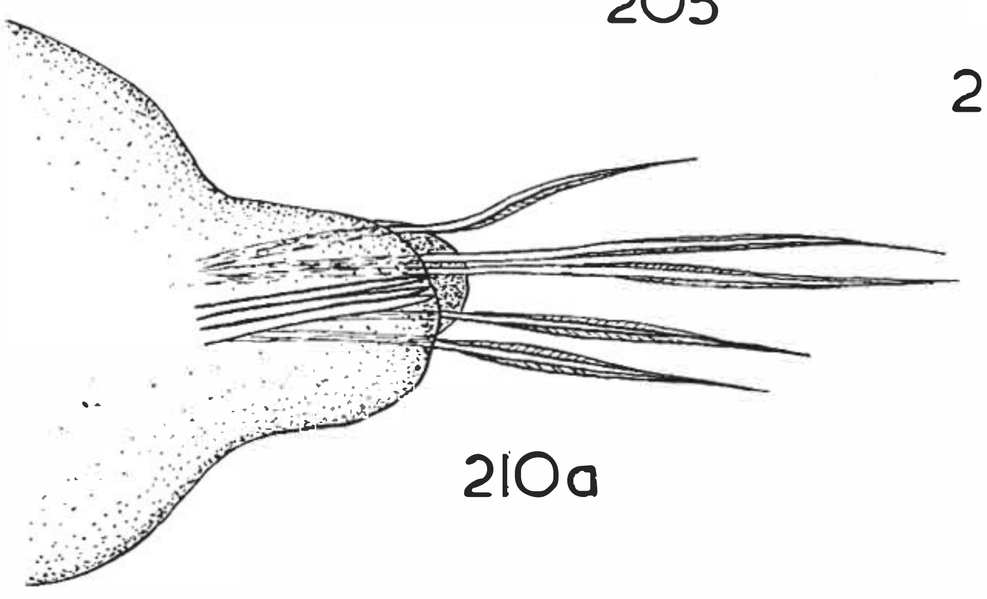

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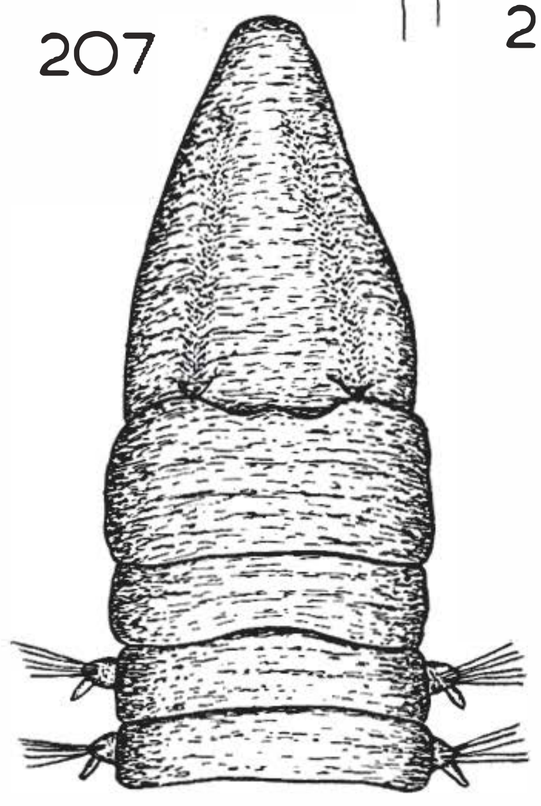

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Lumbrinereis brevicirra (Schmarda) Fig. 205 – Anterior, simple hooded hook. Fig. 206 – Anterior dorsal simple seta. Fig. 207 – Posterior, simple hooded hook. *Lumbrinereis* sp. Fig. 209 – Maxillae. Fig. 210 – Ventral simple seta. Fig. 210a – Parapodium.

(fig. 210). Dorsalmost setae are slightly curved; ventralmost are straight. There are 3 pale acicula in each parapodium.

Maxillary carriers (fig. 209) are longer than broad, basally blunt, laterally incised; the forceps (maxillae I) are falcate; maxilla II has 5 teeth on either side; maxillae III and IV have each a single tooth.

Remarks

Until the posterior region of this species is known it cannot be placed among the large number of described species of *Lumbrinereis.* The maxillae resemble those described by Hartman (1944) for *L. bicirrata,* the latter however having hooded hooks on the anterior segments. In having simple setae only in the parapodia it resembles *L. pseudobifilaris* (Fauvel).

Genus **Ninoe** Kinberg, 1864

Ninoe falklandica Monro, 1936 (figs. 211–19)

Ninoë falklandica Monro, 1936, p. 156, fig. 28a–l.
Ninoë leptognatha, Augener, 1924, p. 427.
Ninoë falklandica, Fauvel, 1941, p. 285.

Records

Sta. 5 (10); Sta. 4 (2); Sta. 13 (1).

Description

Up to 42 mm for 115 segments, incomplete posteriorly. The prostomium (fig. 211) is conical, pointed, the anterior margin of the first (apodous) segment being produced into 2 rounded prolongations. Ventrally the second (apodous) segment is continued forward in the median line to form the lower edge of the mouth. The body is divided into 3 distinct regions (fig. 211), an anterior region of about 6 narrow, elongated segments, a median gill-bearing region from about the 6th to the 32nd segments, with much broader shorter segments, and a post-branchial region of longer narrower segments. The first 6 segments of the posterior region are longer than the succeeding ones. The broadening and shortening of the gill-bearing segments is more pronounced in the larger specimens. Throughout about the first 12 setigers there is a gradual increase in the size of the parapodia from before backwards. Parapodia of the first 2 setigers consist of a short anterior lobe and a blunt triangular posterior lobe. By the 32nd setiger the posterior lobe gives rise to a dorsal cirriform process (fig. 219). By the 6th setiger the posterior lobe has a pair of cirriform branchial processes. These increase in number until by about the 20th setiger there is a maximum of 4 filaments (fig. 217). The gills disappear by the 30th setiger.

In the post-branchial region the pre-setal lobe is short rounded, the post-setal a short conical projection which disappears posteriorly (fig. 215). The parapodia are supported by short dark acicula, varying in number throughout the body with a maximum of 3 or 4 in the middle of the branchial region.

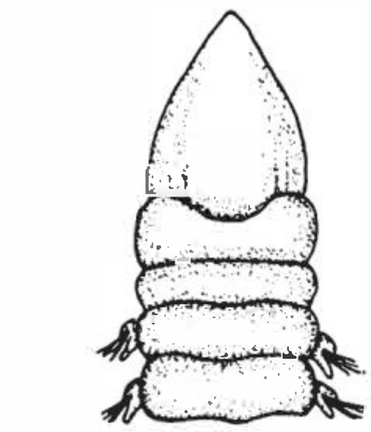
The first few parapodia have a dorsal bundle of curved, limbate setae and a ventral bundle of elongated, hooded hooks with long, narrow flanges and small, denticulated ends (fig. 216). Behind this and throughout the branchial region the parapodia have a dorsal bundle of about 6 curved, limbate setae (fig. 213), a median bundle of 3 or 4 elongated, hooded hooks and a ventral bundle of 1 or 2 straighter, limbate setae. In the hinder region the ventral limbate setae are absent, the dorsal ones reduced in number and the hooded hooks are shorter with wider flanges (fig. 218) and about 7 well-developed teeth.

The carriers of the maxillae (fig. 214) are elongate pointed; the forceps (maxilla I) are falcate with a pair of accessory plates alongside; maxillae II have 6 or 7 teeth; maxillae III have an anterior well-developed tooth and a posterior finely denticulated tooth-like region; maxillae IV are finely denticulated. The mandibles are long, slender with wide, flaring distal ends (fig. 212).

Remarks

The present specimens are very close to the one from the Falkland Islands described by Monro (1933) as *N. falklandica.* The number of gill-bearing segments is the same and the structure of the parapodia and the arrangement of the gills is identical. There are some small differences in the maxillae. Monro described maxilla III as unidentate, without denticulations, whereas in the present specimens it is denticulated. The carriers are also more elongated than shown in Monro's figure (1933, fig. 28k).

At first I thought that these specimens would prove to be *N. leptognatha* Ehlers which had previously been recorded by Augener from New Zealand. The structure of the jaws as figured by Ehlers (1897, pl. 27, fig. 19) is very similar to those of the present specimens. However, Ehlers states that there are capillary setae only present in the first 35 setigers. Augener (1924) examined one of Ehler's specimens of *N. leptognatha* from Peuto Eugenia. This was 26 mm long with a gill-bearing region extending to the 40th setiger with a maximum number of 7 filaments. In the present specimens the gill-bearing does not extend past the 30th setiger and the maximum number of gill



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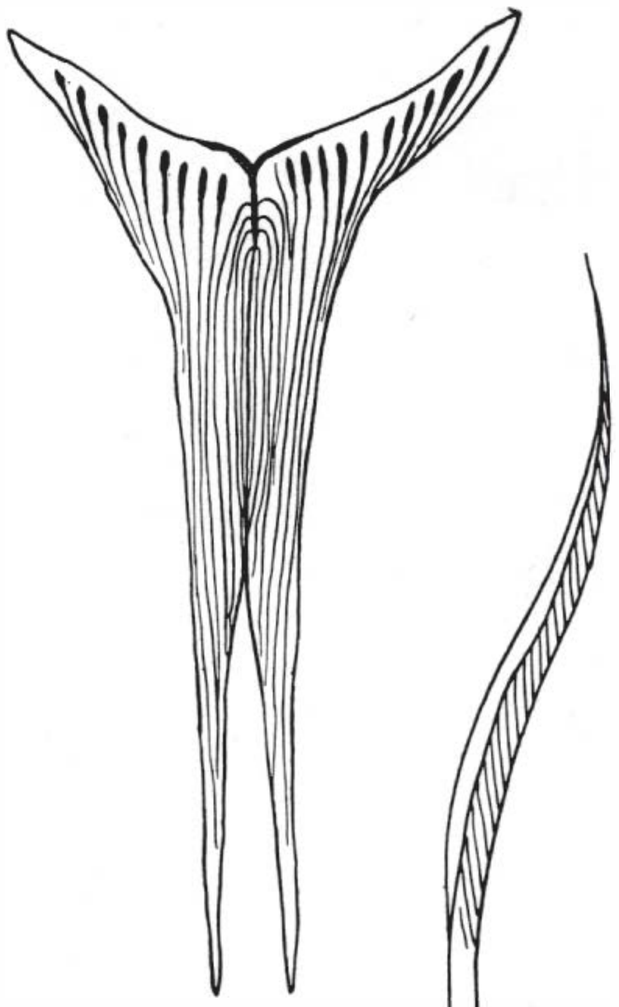

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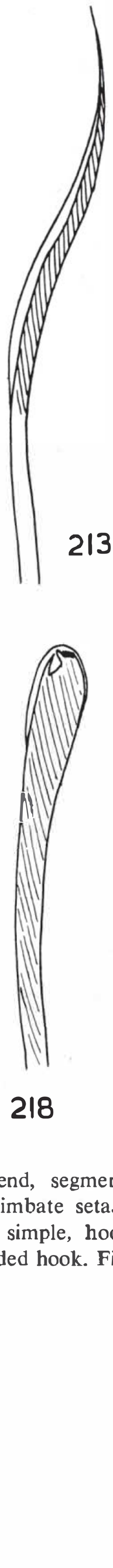

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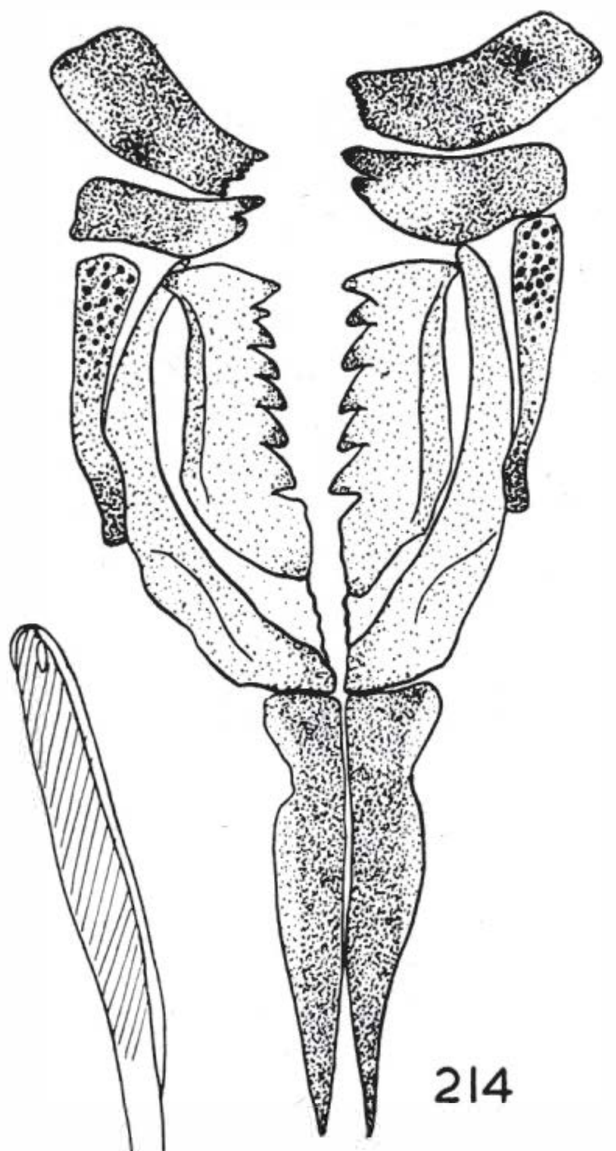

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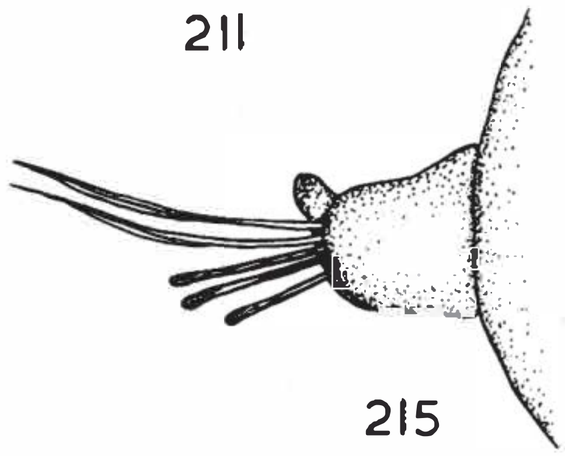

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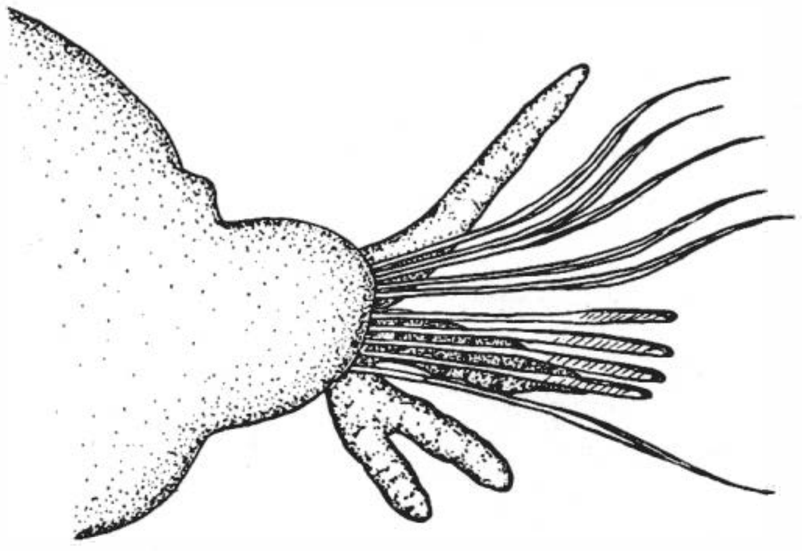

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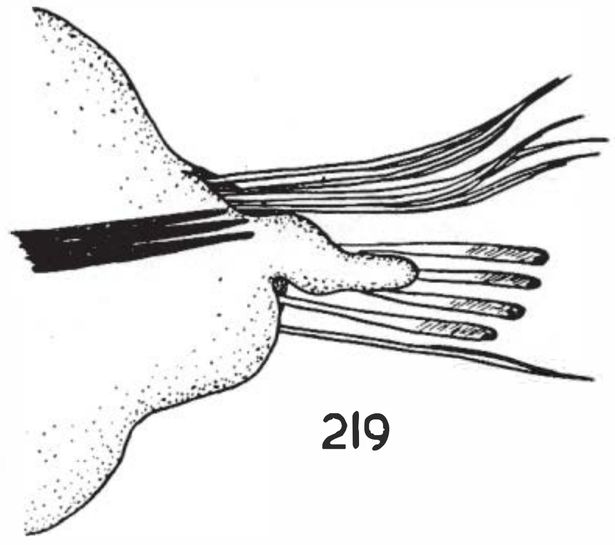

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Ninoë falklandica Monro Fig. 211 – Anterior end, segments 20–24 and segments 44–47. Fig. 212 – Mandibles. Fig. 213 – Dorsal simple limbate seta. Fig. 214 – Maxillae. Fig. 215 – Seventy-eighth parapodium. Fig. 216 – Anterior, simple, hooded hook. Fig. 217 – Twentieth parapodium. Fig. 218 – Posterior, simple, hooded hook. Fig. 219 – Fourth parapodium.

filaments is 4. Augener could not determine the point of commencement of the hooded hooks, but found none on the 12th setiger. Augener's New Zealand specimens from Bare Island, White Island and Akaroa Harbour had a gill-bearing region extending as far as the 30th setiger with a maximum number of 4 filaments. Simple hooded hooks were present in the anterior parapodia. *N. falklandica* can thus be distinguished from *N. leptognatha* by having a gill bearing region extending to the 30th setiger and simple hooded hooks in the anterior parapodia.

Distribution

Straits of Magellan, Falkland Islands, New Zealand.

Sub-family DORVILLEINAE, Chamberlain

Genus **Dorvillea** Parfitt, 1866

Dorvillea australiensis (McIntosh) 1885

Staurocephalus australiensis McIntosh, 1885, p. 232, pl. 32, fig. 6, pl. 17A, figs. 9–10.
Staurocephalus australis, Ehlers, 1904, p. 37.
Stauronereis australiensis, Augener, 1924, p. 296.

Records

Sta. 18 (1).

Remarks

This species has been widely reported from the North Cape to Stewart Island. The present specimen, a mature female, measures 25 mm for 78 setigers.

Distribution

New Zealand, Australia, Ambonia, Juan Fernandez.

Dorvillea incerta (Schmarda) 1861

Cirrosyllis incerta Schmarda, 1861, p. 79.
Staurocephalus australis Haswell, 1888, p. 65, pl. 53, figs. 1–6.
Stauronereis incerta, Ehlers, 1904, p. 36.
Stauronereis loveni, Augener, 1924, p. 438.
Stauronereis loveni, Augener, 1926, p. 193.
Staurocephalus incertus, Fauvel, 1953, p. 279, fig. 143a–c.

Records

Sta. 40 (1); Sta. 44 (1).

Remarks

A small slender species, a typical specimen measuring 9 mm for 45 setigers. *D. australiensis* on the other hand is a large, robust species. The two species can readily be distinguished by the shape of the antennae and palps. Both palps and antennae are stout, tapering in *D. australiensis* while in *D. incerta* they are slender. The antennae of *D. incerta* are distinctly moniliform and the palps have a long basal portion with a short knob-like end joint. *D. incerta* has forked setae and these are absent in *D. australiensis.*

Distribution

New Zealand, Australia, Indian Ocean, Pacific Ocean.

Family GLYCERIDAE Grube

Genus **Hemipodus** Quatrefages, 1865

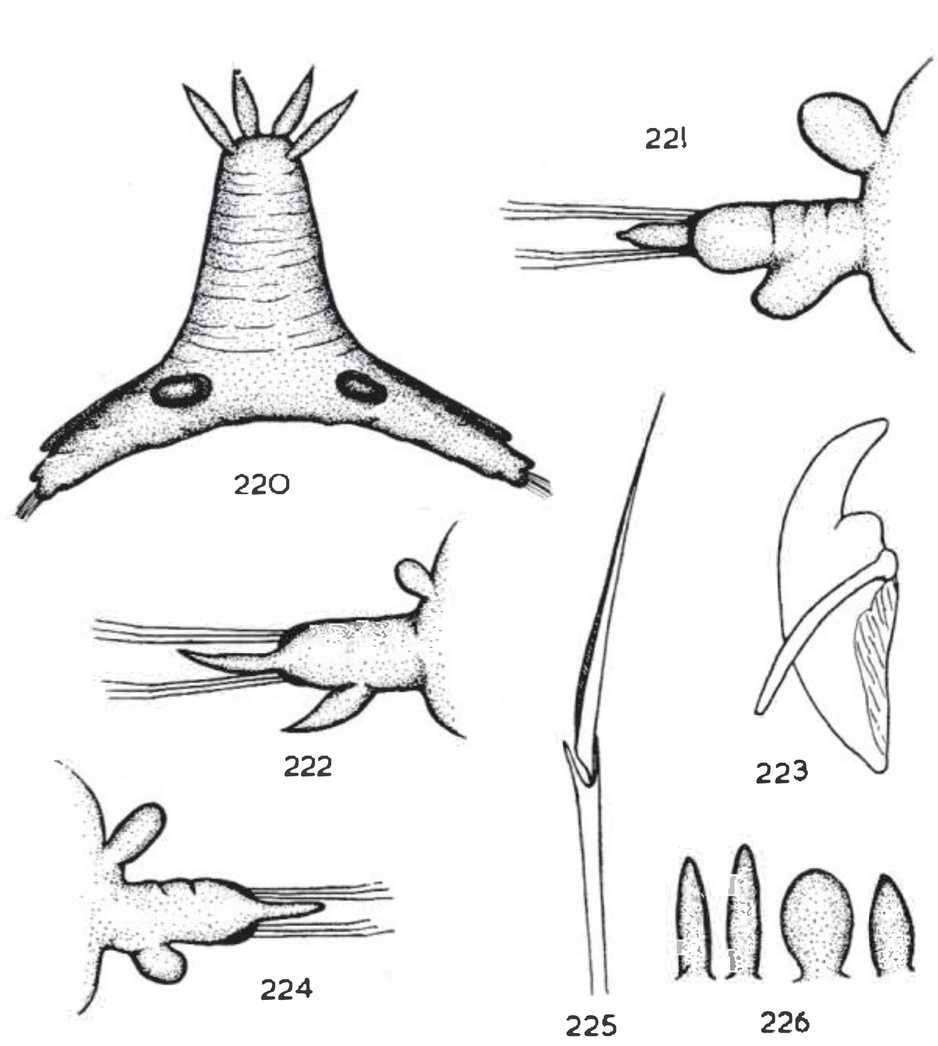
Hemipodus digitifera n. sp. (figs. 220–6)

Records

Sta. 14 (1).

Description

The single, complete individual measures 80 mm for 164 setigers. Segments appear triannulate, with the parapodial ring slightly the larger one. The anterior and posterior rings, however, show signs of subdivision and in the median region of the body there are 5 rings. The prostomium (fig. 220) is longer than broad, annulated with about



Hemipodus digitifera n.sp. Fig. 220 – Anterior end. Fig. 221 – Sixty-fifth parapodium. Fig. 222 – Posterior parapodium. Fig. 223 – Paragnath. Fig. 224 – Fifth parapodium. Fig. 225 – Seta. Fig. 226 – Proboscis papillae.

8 indistinct rings, somewhat flattened dorsoventrally and spatulate. The 4 terminal antennae are conspicuous, somewhat flattened, broadest basally, tapering distally. The anterior pair are terminally inserted, the posterior pair dorsolaterally. The peristomium has a pair of prominent nuchal organs consisting of a low oval mound surrounded by a well-defined raised rim.

The everted proboscis is short, clavate, densely covered with papillae and with prominent longitudinal furrows. The papillae (fig. 226) are of 2 sorts, one cylindrical, elongated, the length variable, the other oval to sub-spherical. The elongate papillae are much more numerous than the spherical ones. Both kinds show no trace of ornamentation. Paragnaths are black, strongly falcate, with a prominent spur on the side above the base of the embedded aileron which is a nearly straight rod.

Parapodia (fig. 221-4) are elongate, well-developed throughout. The dorsal cirrus is subglobular, longest in the median region, reduced posteriorly. The post-setal lobe is rounded throughout; the pre-setal is triangular, terminating in an elongate, slender, digitate lobe with a blunt tip anteriorly and a pointed upturned one posteriorly. The ventral cirrus is rounded anteriorly; enlarged, somewhat rectangular in the median region; elongate, pointed posteriorly.

Setae are equally developed throughout the body, numbering 6–8 in each parapodium. They are compound throughout, homogomph, with straight tapering end-pieces (fig. 225).

Remarks

The shape of the prostomium with its flattened antennae is a unique feature. The only species so far described with 2 kinds of papillae on the proboscis is *H. borealis Johnson* which differs in having bead-like triannulate body segments and differently shaped parapodial lobes and ventral cirri. *H. simplex* Grube has previously been recorded from New Zealand. This species, however, has sparse short, triangular, cusp-like papillae on the proboscis.

Holotype

Canterbury Museum, Christchurch.

Type Locality

44°00′S., 176°21′W., Hanson Bay, Chatham Islands, 15 fm.

Genus **Glycera** Lamarck, 1818

Glycera tessellata Grube, 1868

Glycera tessellata, Fauvel, 1923, p. 387, fig. 152.
Glycera tessellata, Hartman, 1950, p. 77, pl. 10, fig. 11.
Glycera tessellata, Knox, 1951, p. 70.

Records

Sta. 18 (2); Sta. 23 (2); Sta. 32 (1); Sta. 34 (2); Sta. 59 (2).

Remarks

The maximum length of the specimens is 75 mm. They are typical, without gills and with elongate, slender papillae on the proboscis. This species has previously been recorded from off Banks Peninsula in 80 fm.

Distribution

Cosmopolitan.

Glycera lamelliformis McIntosh, 1885 (figs. 227–32)

Glycera lamelliformis McIntosh, 1885, p. 347, pl. 42, figs. 9–10, p. 22A, fig. 11.

Records

Sta. 28 (1); Sta. 32 (1); Sta. 40 (1); Sta. 44 (1).

Description

The largest specimen (Sta. 40) measures 65 mm for 166 segments. The colour in alcohol is light brown, the tips of the parapodial lobes and ventral cirri darker in the anterior region. The body is cylindrical, tapering posteriorly, the segments triannulate. There is a prominent, median furrow in the mid-dorsal and mid-ventral line. The prostomium is short, conical, broad basally with 9–10 rings and 4 minute antennae. The proboscis is cylindrical, densely covered, except for the basal portion, with elongate, cylindrical papillae, variable in length, those of the distal end being the longest (figs. 230–1). Their oral side is clearly ridged with 4–9 transverse ridges, forming an acute angle in the midline. The opening is subterminal on the oral side.

The parapodia are prominent throughout, elongated posteriorly (figs. 227–9). The post-setal lobe is entire anteriorly, becoming bifid at the 28th setiger; the pre-setal lobe is bifid throughout. Anteriorly the pre-setal lobes are the longer, in the median region they are equally developed. All the setal lobes are pointed, lamelliform, the pre-setal curving anteriorly, the post-setal posteriorly. The dorsal cirrus is ovate, situated a little above the parapodium anteriorly, on the dorsal edge posteriorly. The ventral cirrus is prominent throughout, conical, laterally compressed anteriorly, expanded, foliaceous in the median region, and elongated, tapering posteriorly. Gills

are retractile, situated on the posterior face of the parapodia near the base of the dorsal cirrus. They commence at about the 25th to the 27th setiger, are single, elongated, cylindrical and in the median region greatly exceed the parapodia in length.

Notosetae are simple, curved and finely serrated. Neurosetae are compound, with elongated, tapering end-pieces with a narrow border (fig. 232).

Remarks

G. lamelliformis was described from 2 anterior fragments, obtained from Queen Charlotte Sound in 10 fm on a muddy bottom. It has not been recorded since its original discovery. The present specimens agree well with McIntosh's account and enable the description to be extended. *G. lamelliformis* falls into the group of species with transversely ridged papillae including *G. dibranchiata* Ehlers, *G. oxycephala* Ehlers, *G. robusta* Ehlers, *G. lapidum* Quatrefages, *G. tenuis* Hartman and *G. chirori* Izuka. The arrangement of the gills and the shape of the parapodial lobes of this species are distinctive.

Distribution

New Zealand.

Family GONIADAE

Genus **Goniada** Audouin and Edwards, 1834

Goniada brunnea Treadwell, 1906 (figs. 233–4)

Goniada brunnea Treadwell, 1906, p. 1174, figs. 67–70.
Goniada brunnea, Hartman, 1950, p. 17, pl. 1, figs. 1–6, pl. 4, fig. 1.

Records

Sta. 5 (2); Sta. 28 (1); Sta. 40 (1); Sta. 44 (4).

Description

The specimens range in size from 25 mm to 48 mm. The prostomium is broad, depressed, truncate, annulate with 8–10 rings, terminating in a broad, somewhat spatulate end with two pairs of short antennae.

The everted proboscis is short cylindrical, covered with small low papillae that are adpressed to the surface, resembling low flat scales. They are sub-circular with a wide flaring flange (fig. 234). The chevrons are variable, in 3 specimens with the proboscis everted they number 7, 13 and 14. Macrognaths are dark with 5 teeth, the longest at the dorsal end. Ventral micrognaths number 7, dorsal micrognaths 3 or 4 inconspicuous Y-shaped pieces.

Parapodia have a large, broad, foliaceous dorsal cirrus with a slender base (fig. 233). Notopodia have a long, triangular pre-setal lobe and a shorter, rounder post-setal lobe. Neuropodia have 2, long, triangular pre-setal lobes and a shorter post-setal lobe. Notosetae are thick, pointed, capillary; neurosetae are compound spinigers.

Remarks

The present specimens show a similar variation in the number of chevrons and micrognaths as reported by Hartman (1950). This is the first record of the species from the New Zealand area.

Distribution

Eastern Pacific Ocean from Alaska to southern California, Hawaii: depths ranging from low intertidal to over 600 fm.

Goniada emerita Audouin and Edwards, 1822 (figs. 235–8)

Goniada emerita, Fauvel, 1923, p. 391, fig. 154.
?Goniada japonica Izuka, 1912, p. 238, pl. 23, figs. 1–6.
Goniada longicirrata Monro, 1937, p. 285, fig. 12 a–e.
Goniada emerita, Hartman, 1950, p. 32.

Records

Sta. 46 (1).

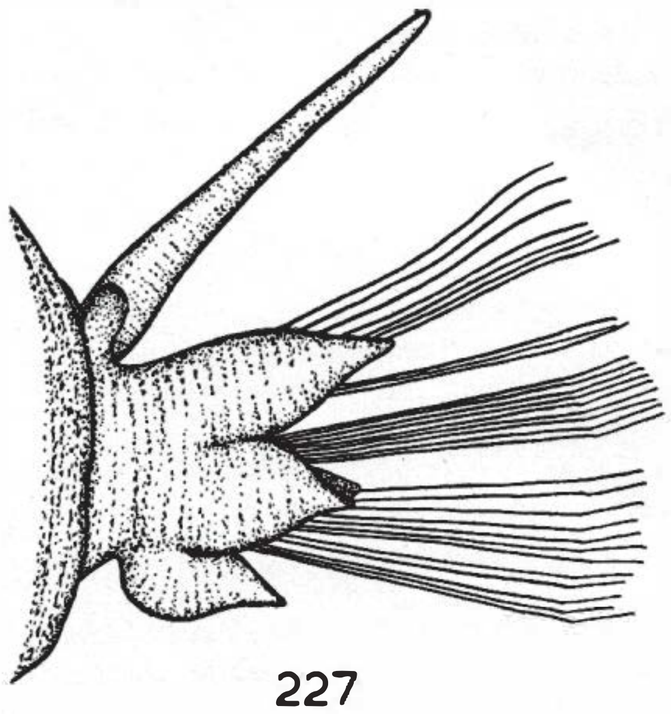
Description

The single specimen, incomplete posteriorly, measures 35 mm. The anterior uniramous region consists of 67 segments and the transition to the biramous condition is abrupt. The prostomium has 8 rings and 4 small antennae. Proboscis papillae resemble those of *G. brunnea,* but the flange is not so well-developed and the stalk is more pronounced (figs. 235–6). There are 9 pairs of chevrons. The macrognaths have 4 teeth, one minute. The micrognaths are arranged in a complete circlet of about 20 large and smaller X-shaped paragnaths in 2 irregular rows.

Anterior parapodia have an elongated, pointed dorsal cirrus, 2 elongate pre-setal lobes, a shorter single post-setal lobe (fig. 237). The ventral cirrus is equal in length to the post-setal lobe. Notosetae are thick, pointed, capillary; neurosetae are compound spinigers.

Remarks

The specimen agrees well with Fauvel's (1953) description. This is the first record of the species from New Zealand. The 4 species of *Goniada* recorded from the New Zealand area may be distinguished as follows.



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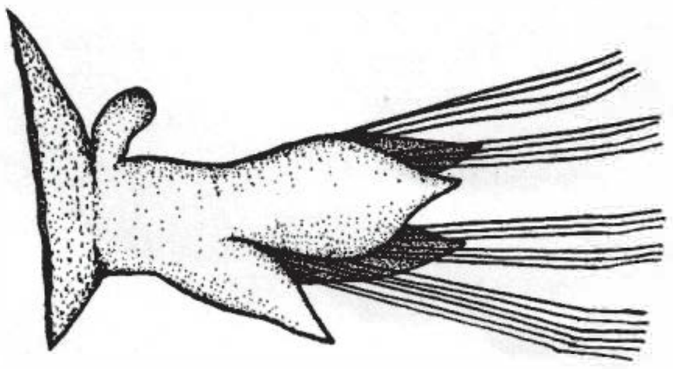

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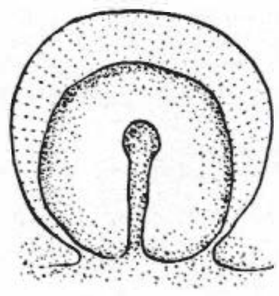

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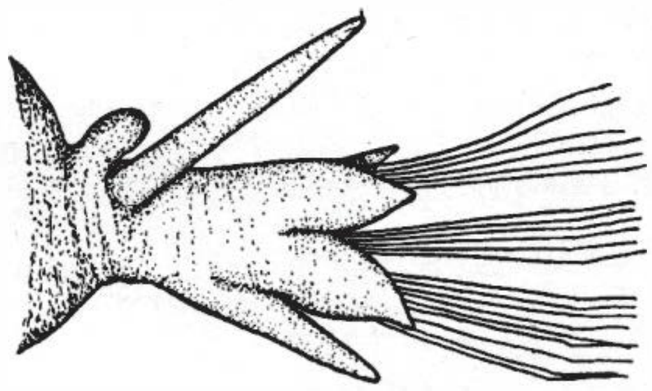

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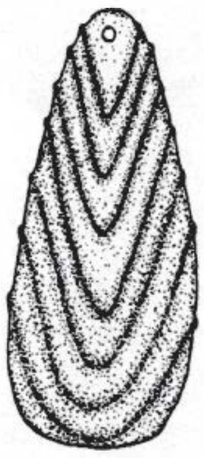

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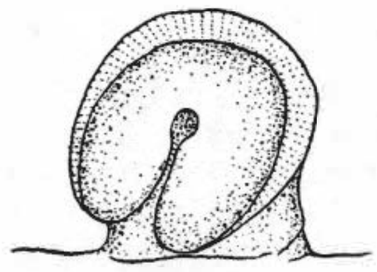

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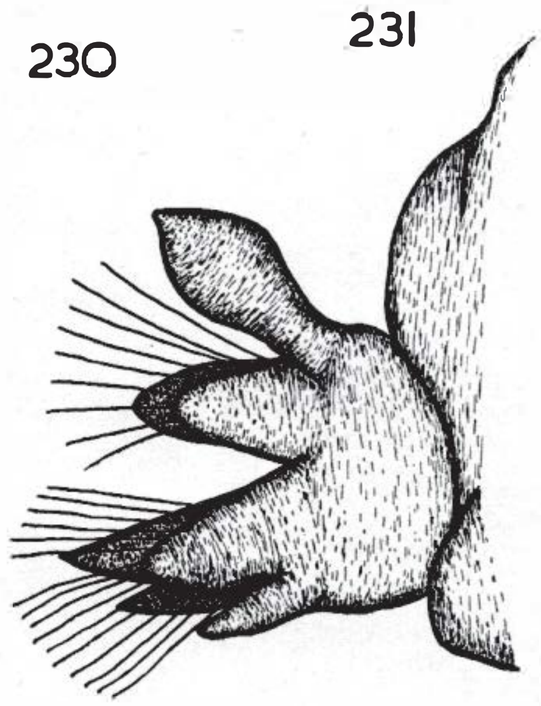

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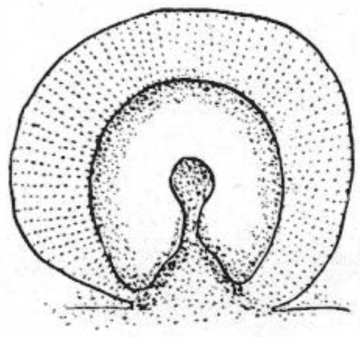

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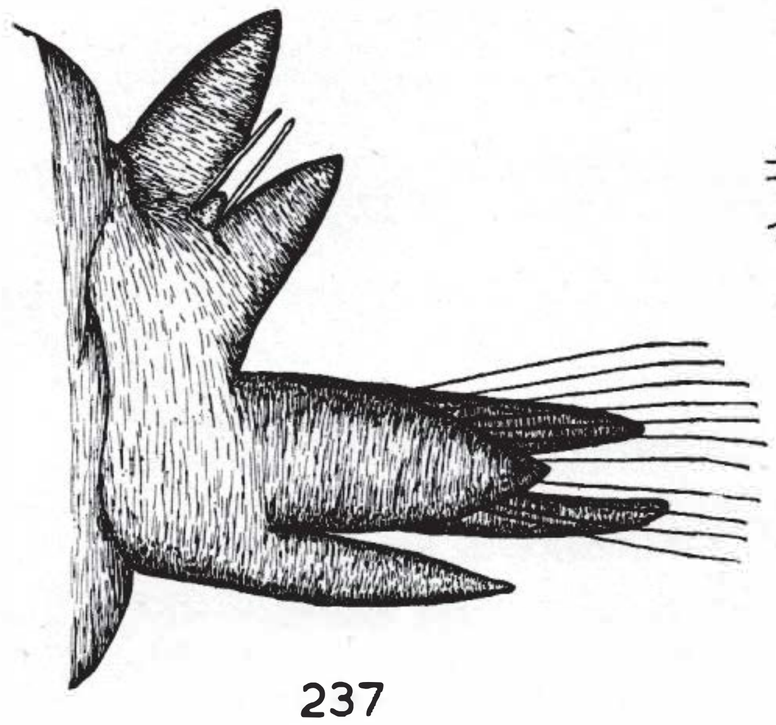

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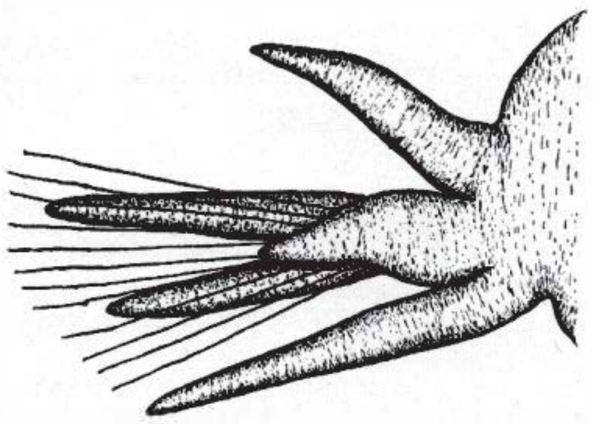

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Glycera lamelliformis McIntosh **Fig. 227** – Median parapodium. **Fig. 228** – Posterior view of a fifteenth parapodium. **Fig. 229** – Posterior parapodium. **Fig. 230** – Lateral view of proboscis papilla. **Fig. 231** – Anterior view of proboscis papilla. **Fig. 232** – Ventral compound seta. *Goniada brunnea* Treadwell **Fig. 233** – Biramous parapodium. **Fig. 234** – Proboscis papilla. *Goniada emerita* Andouin and Edwards **Figs. 235–236** – Proboscis papillae. **Fig. 237** – Biramous parapodium. **Fig. 238** – Anterior uniramous parapodium.

Key to the New Zealand Species of **Goniada**

1. Notopodia with slender hair-like setae 2
1. Notopodia with acicular or rod-like setae 3
2. Parapodial change at about segment 15, proboscis papillae rounded with broad, flaring flange ..... **G. brunnea**
2. Parapodial change gradual, at segments 70–112, parapodial papillae conical ..... **G. maorica**
3. Parapodial change at segments 60–70, neuropodial lobes of median region elongated ..... **G. emerita**
3. Parapodial change at segments 90, neuropodial lobes of median region short triangular ..... **G. grahami**

Distribution

Atlantic Ocean, Mediterranean, India, Arabian Sea, Red Sea, Japan.

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