

CHAPTER 7

POLYCHAETE DIVERSITY OF KUNG KRABAEN BAY

A. Background

Polychaetes belong to the Class Polychaeta, Phylum Annelida. They are closely related to earthworms (Class Oligochaeta) - common well-known terrestrial invertebrates. Polychaete differs from earthworms by having many spines (setae) on each segment whereas oligochaetes have only a few. Polychaete means many setae (in Latin); they are numerous, diverse, almost entirely marine, and often constitute a major component of benthic communities. These worms represent a wide spectrum of adaptations in nature, from free-swimming, through crawlers, burrowers, temporary tube builders, to those which construct permanent tubes; there are even a few parasitic species. The body is generally elongated with numerous segments, and consists of a prostomium (anterior cephalic lobe), a metastomium (the following body segments) and a pygidium (the last segment). Shape and structure of worms are variable resulting in a large number of families (88 are given in Fauchald and Rouse, 1997). The total number of polychaete species in the world is not clearly known and new species are recorded and described each year.

The history of polychaete taxonomy in Thailand is relatively recent with limited numbers of studies being done, probably because of the small size of the animals, difficulty in identification of their complex structure and less interest because of their lower economic importance compared to aquaculture, for example. However, in the late 1980s and early 1990s Anuwat Nateewathana and Jorgen Hylleberg pioneered the study of Thai polychaetes with a series of papers on polychaete taxonomy and ecology. These papers revealed that much of the polychaete fauna was new to science and was also rich in species. For example in 1988, Nateewathana published new species of Onuphidae, *Heptaceras hylleberg*, from Phuket Island, Andaman Sea. In the same year Hylleberg and Nateewathana (1988) published 3 species in Gymnonereidinae (Family Nereididae) of which 2 were new to science, namely, *Ceratocephale andaman* and *Gymnonereis phuketensis*.

These studies were followed by a study of magelonid polychaetes at Phuket Island and the Andaman Sea coast of Thailand. They had identified and described 10 species with 8 new species being recorded, namely, *Magelona cincta*, *M. crenulifrons*, *M. kamala*, *M. methae*, *M. mickmini*, *M. pectinata*, *M. petersenae*, *M. pygmaea*, *M. tinae*, *M. noppi* (Hylleberg and Nateewathana, 1991). They were able to relate the distribution and ecology of these species with environmental change from the offshore tin mining along the west coast of Phuket Island (Hylleberg and Nateewathana, 1991). In the same year they published a study of the spionids of the genus *Prionospio* of the 'steentrup' group from the Andaman Sea. They described 8 new species from the area, namely *Prionospio andamanensis*, *P. cf. andamanensis*, *P. cornuta*, *P. cf. cornuta*, *P. henriki*, *P. komaeti*, *P. neenae*, *P. nielsenii*, *P. phuketensis* and *P. runei* together with *P. malayensis* (Caullery, 1914), *P. cf. malayensis*.

Recently Jacobson (1997) described new species of Spionidae, *Scolelepis laciniata*, from sandy beaches along the west coast of Phuket Island. Paxton & Chou (2000) reviewed polychaetous annelids from the South China Sea including some Thai's polychaetes. Results from this current study will have some new records from Thai waters that should be added to their database.

B. Polychaete Diversity of Kung Krabaen Bay

There is limited taxonomic literature to support identification of Thai polychaetes. The propose of this chapter to provide identification notes for the species collected during this study. Such notes are not full taxonomic descriptions, as this would take a considerable amount of time,

rather the descriptions given here illustrate what characters were used to separate the species encountered. All species were identified to the lowest taxonomic level, usually species and were classified to the best solution possible from the literature available, usually a genus name and sometimes a species name.

It is in fact that polychaetes have complex characteristics. To manipulate the identification of polychaete, it needs to determine the characteristics of several features of the animals, for example, the shape of body, head or prostomium part, type of setae, and also the structure of proboscis.

Further analyses of the species are needed to provide a formal classification. This second step will take longer and is constrained by the fact that there are few full-time taxonomists in Thailand who could provide support for the kinds of study undertaken here. I carried out all identifications and drawing using stereo- and compound microscope. Specimens were stained with the Gentian Violet which help see key characters, particularly in small specimens.

Staining used of the Gentian Violet solution, conveniently purchased from the drug store. 10%-20% concentration of diluted solution was prepared by mixing with distilled water in separated container. Specimen was placed in a prepared aqueous solution of Gentian Violet for 5-10 seconds then examined and drawing under camera lucida. Colour of gentian violet can be easily cleaned up by ethylalcohol solution.

Key to Families of Polychaeta (Modified from James A. Blake, 1975)

- 1 -Dorsal surface more or less covered with overlapping paleae.....CHRYSOPETALIDAE
-Dorsal surface not covered with elytra, paleae, or felt2
- 2 -Pharynx well developed, muscular, often armed with jaws or teeth; parapodia well developed, commonly bear compound setae, setal lobes supported by internal acicula; prostomium usually with sensory appendages.....3
-Pharynx without jaws or teeth, usually saclike, not muscular; parapodia reduced, simple setae predominate; prostomium seldom with sensory appendages and often fused with the peristomium, which may bear grooved palps, buccal cirri, or a branchal crown.....14
- 3 -Notosetae not in rows across dorsum; prostomium extended posteriorly as a prominent caruncle.....AMPHINOMIDAE
-Notosetae not in rows across dorsum; caruncle not prominent.....4
- 4 -Dorsal and ventral cirri flattened, leaf-like, paddle-like, or globular; prostomium with 4 frontal antennae and sometimes a median one as well; tentacular cirri 2-4 pairs; parapodia uniramous; setae compound.....PHYLLODOCIDAE
-Dorsal and ventral cirri if present, not leaf-like or globular.....5
- 5 -Prostomium pointed, annulated cone terminating distally in 4 minute antennae; peristomium fused with prostomium, without tentacular cirri; a large, powerful proboscis; burrows in sand or mud.....6
-Prostomium otherwise.....7
- 6 -Body with parapodia similar throughout, either uniramous or biramous; dorsal cirri small, ventral cirri larger, conical; proboscis with 4 horny jaws with supports.....GLYCERIDAE
-Body divided into 2-3 regions: 1) anterior region with uniramous parapodia; 2) transitiona region in which notopodia gradually develop (ro this region may be lacking); 3) posterior region with well-developed biramous parapodia; both dorsal and ventral cirri conical to finger-like; proboscis with 2 large, toothed jaws and a circle of denticles.....GONIADIDAE
- 7 -Prostomium flattened, pentagonal, with 4 small antennae; body subrectangular in cross-section; biramous parapodia with rami well separated and with long cilia along the interramal border; notosetae and neurosetae arranged in fan-shaped fascicle, with more or less developed presetal and postsetal lamellae; burrow in sand and mud.....
.....NEPHTYIDAE
-Prostomium, body, and parapodia otherwise.....8

- 8 -With an elaborate jaw apparatus consisting of a pair of ventral mandibles and dorsal maxillae consisting of few to numerous paired piece; with 1-2 achaetous and apodous tentacular or buccal segments, without tentacular cirri, or with only a single short, laterodorsal pair.....9
 -Jaws absent or otherwise; with 1-8 pairs of tentacular cirri.....11
- 9 -Protomium simple, conical or suboval, without antennae or distinct palps; parapodia without dorsal or ventral cirri, first 2 segments achaetous and apodous, without tentacular cirri; body smooth, elongate, cylindrical; neurosetae consisting of limbate setae with fine tips and hooded hooks; jaw apparatus with 2 short, broad maxillary carriers, no median piece, eyes absent; resembling an earth-worm; burrowing, carnivorous....LUMBRINERIDAE
 -Prostomium suboval, with 1-7 antennae, 2 palps; parapodia with dorsal and ventral cirri; body otherwise10
- 10 -First segment apodous and achaetous; 7 prostomial antennae (5 long occipital, 2 short frontal); paired ventral palps short, globular; tube dwelling.....ONUPHIDAE
 -First 2 segments apodous and achaetous; prostomium with 1-5 occipital antennae and a pair of short, globular ventral palps more or less fused to prostomium; tube dwelling.....EUNICIDAE
- 11 -Neurosetae compound (some may have blades secondarily fused to shaft).....12
 -Neurosetae and notosetae simple, not compound (notosetae may be stout or hooked); tentacular segment apodous and achaetous, more or less fused with prostomium, usually with 2 pairs of small tentacular cirri.....PILARGIDAE
- 12 -Parapodia biramous or sub-biramous; notopodia at least represented by internal acicula.....13
 -Parapodia uniramous (may be biramous in sexual epitokes); tentacular segment apodous and achaetous, with 1-2 pairs of tentacular cirri; prostomium suboval with 3 antennae, 2 palps (palps may be reduced or fused; prostomial appendages absent in Exogonella)....SYLLIDAE
- 13 -Parapodia with varying degree of development of extra tongue-like lobes or ligules; prostomium suboval to subpyriform, with 2 frontal antennae and 2 biarticulate plaps; proboscis with a pair of distal dentate, hooked jaws; with single apparent tentacular segment bearing 3-4 pairs of cirri; notosetae compoundNEREIDIDAE
 -Parapodia without ligules; prostomium suboval to subquadrangular, with 2-3 antennae, 2 palps (may be biarticulate) proboscis without jaws; with 1-4 achaetous tentacular segments and 2-8 pairs of tentacular cirri; notosetae simple or lacking.....HESIONIDAE
- 14 -Body short and stout; with a tuft of filamentous and gills.....STERNASPIDAE
 -Body elongate; no anal gills.....15
- 15 -Head modified by develop of frilly membranes, buccal tentacle or a branchial crown of feathery tentacles around the mouth; prostomium often reduced and indistinguishable from buccal segment.....25
 -Head not greatly modified; prostomium usually well developed and obvious; buccal segment sometimes with parapodia and may bear a pair of adhesive palps or a few grooved tentacles.....16
- 16 -Buccal segment with a pair of adhesive palps or several grooved tentacles located on anterior setigers.....17
 -Buccal segment without appendages.....19
- 17 -Anterior end with a pair of papillose, adhesive palps; head flattened and spadelike; gills absent.....MAGELONIDAE
 -Palps, if present, not papillose or adhesive; head not flattened; gills often present.....18
- 18 -Body divided into 3 distinct regions; prostomium reduced; peristomium with a large lip; setiger 4 bears large, modified setae; inhabit distinctive tubes.....CHAETOPTERIDAE
 -Body not divided into distinct regions.....20
- 19 -Prostomium with 2 dorsolaterally grooved palps, often long and coiling; neuropodia and/or notopodia of posterior setigers bear hooded hooks; some, none, or many segments with paired branchiae.....SPIONIDAE
 -Prostomium usually lacking appendages; first setigerous segment often bearing 1 pair of large palpi or numerous tentacular filaments; numerous long, filamentous gills present on body setigers.....CIRRATULIDAE
- 20 -Multidentate hooks (sometimes with hoods) present at least in posterior setigers.....21
 -Setae not of this type.....22

- 21 -Multidentate hooks (with hood) present at least in posterior setigers; body resembles an earth-worm.....CAPITELLIDAE
 -Multidentate hooks without hoods; body not resembling an earth-worm; body segment elongated, with body appearing jointed, but never annulate; gills rare; construct sand- or mud- covered tubes.....MALDANIDAE
- 22 -A single long, filiform gill arising from dorsum of setiger 2 or 3.....COSSURIDAE
 -Gills, if present, in pairs along the body segments.....23
- 23 -Bogy sleek, ventral groove often present; segmental eyes sometimes present; prostomium a sharply tapered cone; a pair of evaginable nuchal organs present OPHELIDAE
 -Body otherwise; segmental eyes absent; prostomium conical or rounded; body not rough in appearance or swollen anteriorly; branchiae dorsally directed and distributed over along body region.....24
- 24 -Parapodia with internal acicula, lobes well developed; often elongate; branchiae continue to posterior end of body; capillary setae crenulated, often arranged in palisade; prostomium without medial antenna.....ORBINIIDAE
 -Parapodia without internal acicula, lobes reduced; branchiae absent from posterior end of body; setae all smooth or faintly striated, not crenulated; prostomium with medial antenna in some genera; small, threadlike worms.....PARAONIDAE
- 25 -Head terminates in a frilled membrane; body enclosed in tube of closely fitting sand grains.....OWENIIDAE
 -Head has tentacles, palps, or branchial crown of feathery tentacles around the mouth; head without setae or paleae.....26
- 26 -Head with soft tentacles for deposit feeding; gills often present on anterior segments; setae types not inverted in posterior region; tubes leathery or of mucus, sand or mud, operculum absentSABELLIDAE
 -Head with crown of bipinnate radioles; gills absent in body segments; setal types inverted in posterior region. Tentacles not retractile into mouth, grooved but never papillose.....TEREBELLIDAE

C. Account of Species

Total 27 families and 78 species of polychaete were recorded in this area. All specimens preserved in 70% ethyl alcohol and deposited in the collections at the Fishery Museum of Natural History, Department of Fisheries, Ministry of Agriculture and Cooperatives, Thailand. Identified species were labeled and registered in order that taxonomists can carry out the further study in details of systematics of these species.

Family Orbiniidae Hartman 1942

Orbiniid are commonly found in muddy sand and sandy mud bottom of intertidal and subtidal zone. The information of this worm is rather poorly known. Worms have usually flattened thoracic setigers, conical prostomium with a pointed tip, body is elongate, cylindrical posteriorly with parapodia emerging dorsally, setae usually simple capillaries, simple hooks and sometimes brush-topped, bifid or furcate setae.

Key to the species of Orbiniidae in Kung Krabaen Bay (Modified from Fauchald 1977)

- 1-Prostomium pointed; a single setigerous anterior segment; branchiae present from 5 – 6 segment.....*Scoloplos (Leodamus) sp.A*
 -Protomium pointed; a single setigerous anterior segment; branchiae present from 10 – 11 segment..... 2
- 2-Abdominal setigers with pouches.....*Scoloplos (Scoloplos) marsupialis*
 -Abdominal setigers without pouches..... 3
- 3-Without podial or stomach papillae on ventral side of abdominal segment.....
*Scoloplos (Scoloplos) sp.A*
 -With podial or stomach papillae on ventral side of some abdominal segment from 16 – 17 segment*Scoloplos (Scoloplos) sp.B*

Scoloplos (Leodamus) sp. A
(Figure 7.1)

Material examined: Registration No. DOFM-POL0001. Total 125 specimens, incomplete specimens.

Description: The body is widest in thorax and slightly flattened dorso-laterally, becoming cylindrical shape on posterior abdominal setigers. Prostomium has conical shape with tip point. Thoracic notopodial post setal lobe first present on the second setiger and gradually increasing in size from a small papillae to a longer lobe in setiger 3 to 4 remaining approximately the same size in posterior setigers. This orbinid worm bears with branchiae starting on setiger 6, branchiae initially large. Thoracic neuropodia with hooks arranged in five regular rows, stout acicular spines not obvious Hook-tipped emergent in abdominal neuropodia: orbinid worm with branchiae starting on Ch6, branchiae initially large. Creamy white colour in alcohol preservation.

Localities: Stations TAin, TA4, TA3, TA1, TA2, TB3, TB4, TB2, TC5, TC4, TC3, TD5, TD4, TD3, TD2, TEin, TE3, TE2, TE1, C1, C2, C3, CT, CN

Habitat: This species is found in muddy sand and fine sand substratum on intertidal zone in the bay and outside the bay.

Remark: This species is first recorded for Kung Krabaen Bay. It characterizes by the regular rows of thoracic hooks and the hooked tip internal aciculum of the abdominal neuropodia. This species is identified to subgenus *Leodamus* because the species has the branchiae occur before the setiger 10 and no podial or stomach papillae on the ventrum.

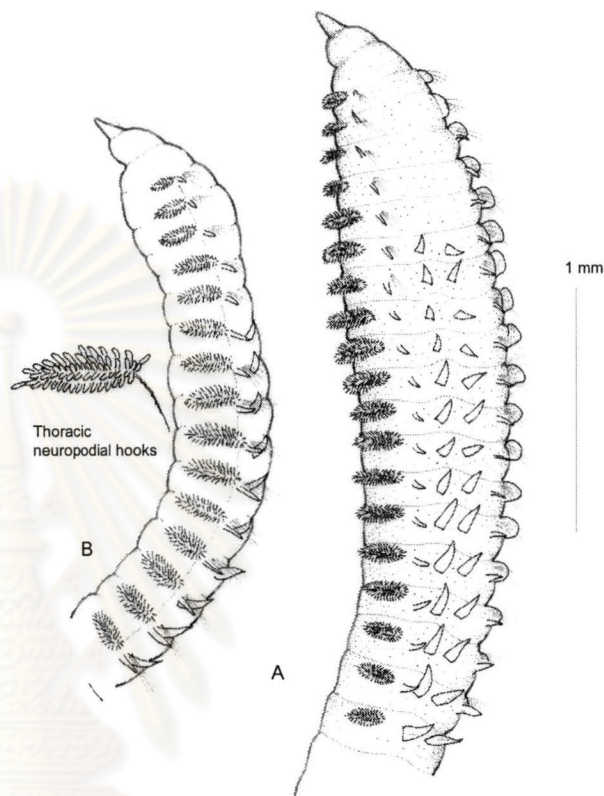


Figure 7.1 *Scoloplos (Leodamus) sp. A*: A, Dorsal view and B, Lateral view with thoracic neuropodial hooks.

Scoloplos (Scoloplos) marsupialis Southern, 1921
(Figure 7.2)

Scoloplos marsupialis Mackie, 1991, p. 35-38, Fig. 1: Table 2.

Scoloplos marsupialis Day, 1967, p. 550, fig. 23.5.e-j.

Material examined: Registration No. DOFM-0002. Total 79 specimens, most incomplete condition.

Description: Most specimens damaged with posterior parts missing. This orbinid

has anterior thoracic chaetigers slightly swollen, then flattened, segments wider than tall becoming more cylindrical in abdominal region. Lateral setal lobes in anterior setiger becomes dorsal towards abdominal region. Prostomium slightly conical, producing tip. Peristomium a setigerous and without eyes. Thoracic region 19 setigers long. Notopodial post-setal lobes inconspicuous, consisting of a small papillae (which can only be seen under high power microscope) gradually becoming more triangular and conspicuous from chaetiger 11. Neuropodial post-setal lobes becomes more conspicuous distally, consisting of a low flang with a small papillae in the middle of the fascicule. No podial or stomach papillae are present. Pouches develop at base of neuropodia from chaetiger 15 – 16 until the end of the fragments. Branchiae present from setiger 11, small and inconspicuous low papillae becoming triangular then strap-like with slightly lanceolate tip (Fig. 7.2), margins ciliated. Thoracic notochaete short crenulated capillaries. Thoracic neurochaetae rows of blunt-tipped serrated hooks and simple capillaries. Abdomental setae all crenulated capillaries, longer than thoracic setae. Each podia with four or five long acicular. No furcate setae observed.

Localities: Stations TA1, TB3, TB2, TB1, TC5, TC4, TC3, TC2, TD4, TD3, TD2, TE3, TE2, TE1, C1

Distribution: India; Gulf of Manaar

Remarks: The description of species well agrees with Mackie (1991).

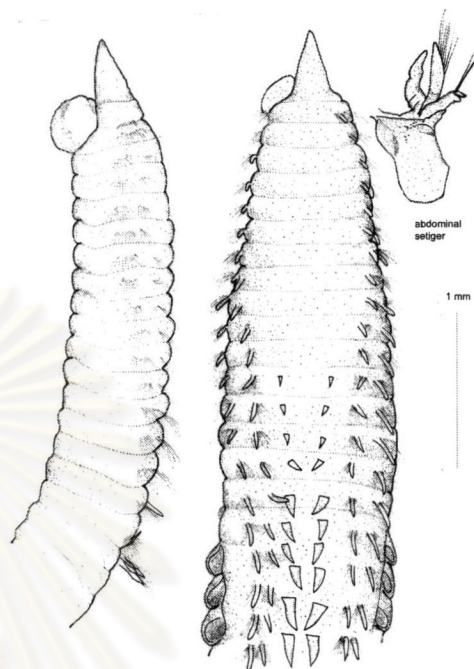


Figure 7.2 *Scoloplos (Scoloplos) marsupialis*
Southern, 1921

Scoloplos (Scolophos) sp. A (Figure 7.3)

Material examined: Registration No. DOF-POL0003. Total 30 specimens

Description: Specimens incomplete. Body slightly flattened in anterior and gradually cylindrical to posterior setigers. Prostomium short conical with sharply pointed tip. Peristomium fused with setiger 1. Eyes absent. 12 thoracic setigers with transition setigers 13–15. Thoracic notopodial lobe bears small digitiform process. Thoracic neuropodial lobe represented by a small papillae. Crenulated capillaries setae in both notopodia and neuropodia. Number of setae on notopodia fewer than on neuropodia. Branchiae starting from setiger 11, first branchiae minute triangular in shape, gradually increasing in size down the body. Abdominal notopodia bilobed, slender in posterior abdominal setigers, inner lobe cylindrical and pointed tip, and outer lobe rounded tip. Abdomen without podial or stomach papillae.

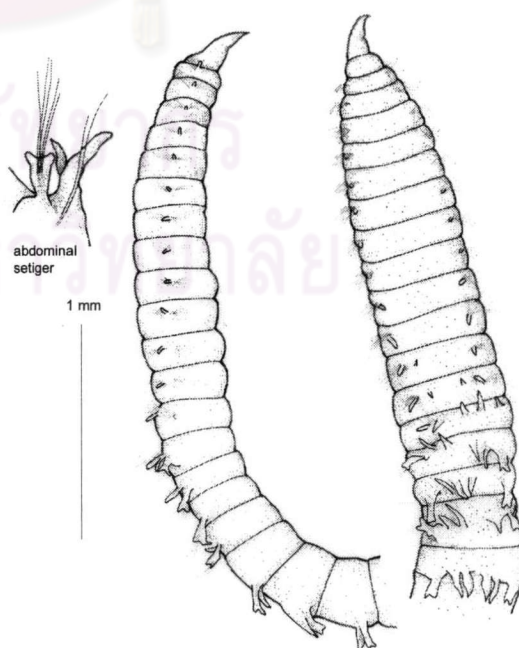


Figure 7.3 *Scoloplos (Scolophos) sp. A*

Localities: Stations TB4, TB2, TB1, TC5, TC4, TC3, TC2, TD3, TD2, TE1

Habitat: The species is often found in association with *S. marsupialis* on intertidal and subtidal areas inside the Bay, never in canals.

Distribution: Kung Krabaen Bay, Chanthaburi Province, Thailand.

Remark: This species belongs to subgenus *Scoloplos* because of the first appearance of branchiae starting after setiger 10 and without podial or stomach papillae on the ventrum.

Scoloplos (Scolophos) sp. B

(Figure 7.4)

Material examined: Registration No. DOFM-POL0004. Total 154 specimens.

Description: Body has 5 - 6 anterior setigers swollen dorso-ventrally and extremely flattened to the subsequent setigers and slightly cylindrical shape on posterior part. Prostomium conical with sharply pointed tip. Peristomium fused to segment 1. Eyes absent. About 10 - 11 thoracic setigers with transition setigers 12-15. Thoracic notopodial lobe small digitiform on setiger 1 becoming more elongated gradually. Thoracic neuropodial postchaetal lobe bears a low crest with a papillae. Ventral region is slightly round on setiger 3 - 5 and forms low median groove along thoracic ventrum approximate between setiger 6 - 18. Branchiae start from setiger 10 and gradually increase in size posteriorly. Branchiae is conical shape with broadly base and slightly forming pointed tip.

Abdominal notopodia simple with elongated tip. Abdominal neuropodia lobe with two low elongated tip and postchaetal lobe low crest with a papillae. Numerous stomach papillae appearing from posterior thoracic setiger to transition setigers 16-24 with a maximum of 19 papillae on setiger 16. Number of papillae slightly decreases on anterior abdominal setigers. Crenulated capillaries presenting in both noto- and neuropodia. Number of capillaries on thoracic notopodia is more than thoracic neuropodia. No hooks found in either notopodia and neuropodia.

Localities: Stations TA5, TA3, TB3, TB2, TB1, TC4, TC3, TC2, TD5, TD4, TD3, TD2, TE3, TE1, C1, C2

Habitat: This species is found in muddy sand and sandy mud bottom in intertidal and subtidal zones.

Distribution: Kung Krabaen Bay, Chanthaburi Province, eastern coast of the Gulf of Thailand.

Remark: The species differs from the subgenus *Leodamus* in the first occurrence

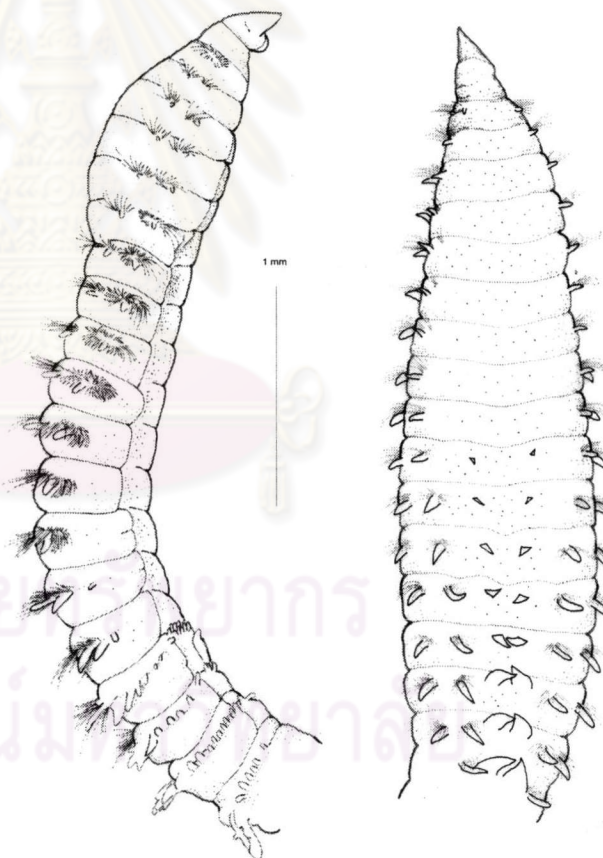


Figure 7.4 *Scoloplos (Scolophos) sp. B*

of branchiae and it differs from other *Scoloplos* species by characteristics of post-setal ridge bearing one papillae while the post-setal ridge of the *Scoloplos* with several accessory papillae (as defined in Fauchald, 1977). This species closely resembles the description of *Scoloplos armiger* (Muller, 1776) recorded by Day (1967), species from South Africa has 16-18 thoracic setigers with branchiae starting on setiger 12 to 15. Thoracic neuropodia with at least one papillae but two on the last three to four segments. One to two stomach papillae at the junction of the thorax and abdomen. The distinctly transverse row of numerous papillae in this species bears maximum 19 stomach papillae on the setiger 16 in transitional thoracic setigers and abdominal setigers.

Family Paraonidae Cerruti, 1909

The paraonids are usually slender worms with numerous segments. The prostomium is conical and a median dorsal antenna is often present. Dorsal digitate branchiae are present on a number of median segments. Setae are simple but may include spines and a variety of modified forms, i.e. winged, forked, hooks or otherwise modified setae.

There were 3 genera belonging to this family, namely *Tauberia* Strelzov 1973, 1 species; *Cirrophorus* Ehlers 1908, 1 species and *Aricidea* Webster 1879b, 3 species. The Paraonidae are not well represented in the fauna of South East Asia that probably it has small size and often missed when use sieve mesh sizes larger than 0.5 mm. The useful documents for identification were regarded to, Imaijima (1973), Fauchald (1977), Strelzov (1979).

Key to species of family Paraonidae Cerruti 1909

- 1-Branchiae starting from setiger 4..... 2
 -Branchiae starting after setiger 4 *Tauberia gracilis*
 2-Modified setae on notopodia, prostomium without median antenna, furcate setae present
 *Cirrophorus* sp.A
 -Modified setae on neuropodia, branchiae first appearing on setiger 4 *Aricidea* 3
 3-Median antenna long extending beyond to setiger 4..... 4
 -Median antenna short extending to end of setiger 1..... *Aricidea* cf *fragelisi*
 4-Branchiae digitiform 18 – 19 pairs, with last 3 pairs more slender *Aricidea* sp.A
 -Branchiae digitiform at anterior pairs and foliaceous posterior pairs..... *Aricidea* sp.B

Tauberia gracilis (Tauber, 1879) (Figure 7.5)

Tauberia gracilis Strelzov, 1973, p. 155-160, figs. 14, 54-57.

Material examined: Registration No. DOFM-POL0005. Total 237 specimens, with minut size.

Description: Prostomium triangular, acutely pointed anteriorly with sensory organ at tip, slight incision; no eyes and antenna, having a pair of oblique nuchal slits. Branchiae present on setigers 6 to 10, number varying from 3 to 15 pairs; branchiae small and lanceolate. Parapodia with capillaries and acicular hooks.

Localities: Stations TA5, TA4, TA3, TA2, TA1, TB4, TB1, TC2, TD5, TD2, TE5, TE4, TE3, TE2, TE1, C1, C2, C3, CT, CS

Habitat: This species is recorded in muddy sand on intertidal and subtidal zone of Kung Krabaen Bay.

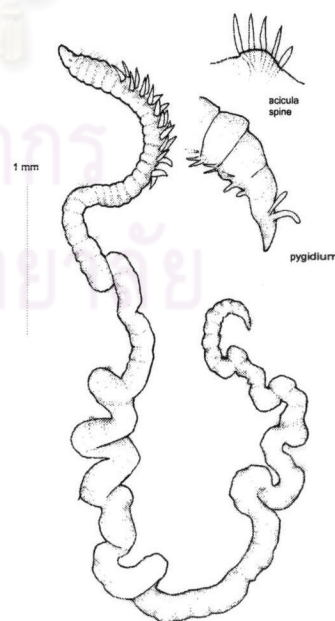


Figure 7.5 *Tauberia gracilis* (Tauber, 1879)

Distribution: widely distribution species to temperate and tropical sea: Greenland, Iceland, Sea of Norway, Barents Sea, East Siberian Sea, Bering Sea, Pacific Ocean, Puget Sound, Moucca Islands, New Guinea, Atlantic Ocean, Black Sea, Red Sea, Indian Ocean.

Remark: The specimens agree well with the description given by Strelzov (1979).

Cirrophorus sp.A

(Figure 7.6)

Materia examined: Registration No. DOFM-POL0006. Total 57 specimens.

Description: Thread-liked worm of small size, body is pale yellow in alcohol preservation. Protomium triangular and truncate front. Eyes and median antenna absent. A pair of distinct nuchal slits present. There are 16 pairs of branchiae present from setiger 4 to 20, elongated with conical tip. Branchiae slightly large at middle part of thorax and decreasing size at posterior part. Notopodial post-setal lobe is short digitate, obviously seen from setiger 2 to whole body about 3-4 small size than branchiae. All setae is simple capillaries, long and distally pointed. There are 1-4 furcate setae on setiger 3 and other thoracic notopodia but only 1 furcate setae on abdominal notopodail fascicle, tines of the fork unequal bearing a row of tiny teeth at inner side. Neuropodial post-setal lobe small with fascicle of capillaries. Setae on neuropodial lobe more numerous than notopodial lobe.

Localities: Stations TA5, TA3, TB5, TD4, TE4, TE3, TE1, C1, C3, CS

Habitat: This species is recorded in muddy sand and sandy mud bottom on intertidal and subtidal zone of Kung Krabaen Bay.

Distribution: Kung Krabaen Bay, Thailand.

Remark: This species is resemble to *Paraonides nipponica* described by Imajima (1973) on the distinct characteristics of elongated branchiae and shape of furcate setae on notopodial lobe.

Aricidea cf. *fragilis* Webster, 1879

(Figure 7.7)

Aricidea (*Aricidea*) *fragilis* Strelzov, 1979, p. 63-65, Fig. 21.

Material examined: Registration No. DOFM-POL0007. Total 8 specimens with posterior parts missing.

Description: Body cylindrical shape with numerous pairs of branchiae arranged along dorsal part of anterior segements. Protomium has triangular shape with rounded tip. Median antenna is short and extends little beyond base of head. 29 to 30 pairs of branchiae, cylindrical with a slender tip. Posterior pairs of branchiae with

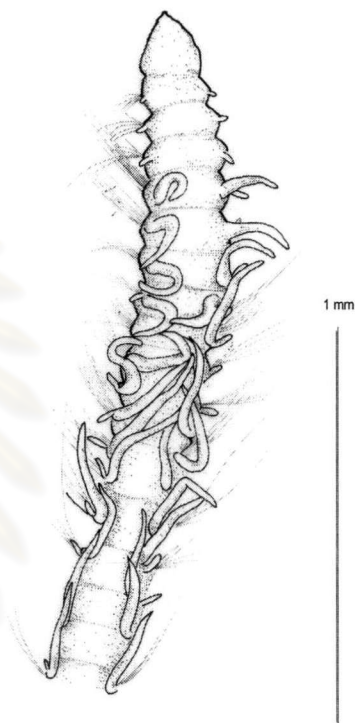


Figure 7.6 *Cirrophorus* sp.A

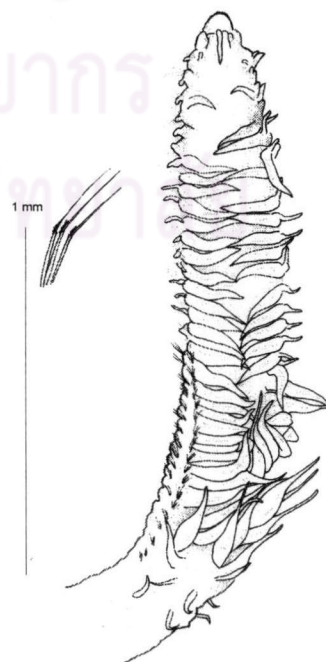


Figure 7.7 *Aricidea* cf. *fragilis* Webster, 1879

enlarged asymmetrical basal with slender tips. Last pair of branchiae shorter than other pairs. Abdominal neuropodia bears modified pseudocompound capillary long with fringe of elastic hairs and characteristic break.

Localities: Stations TA1, TB2, TD3, TE1, TE5, C1

Habitat: This species is found in mud and very fine sediment on intertidal and subtidal zone.

Distribution: Atlantic Ocean, Gulf of Mexico, Adriatic Sea. South China Sea, Yellow Sea.

Remark: Specimens agrees with the description given by Strelzov (1979).

Aricidea sp.A
(Figure 7.8)

Material examined: Registration No. DOFM-POL0009-8. Total 90 specimens.

Description: The worm has slightly broad anterior portion with arrangement of pairs of branchiae and parapodia bearing of densely capillary setae. Prostomium forms rounded tip, two obvious nuchal slits near posterior edge. Median antennae arising in middle part of prostomium, gradually tapering with a blunt rounded tip to the rear of setiger setiger 3. Branchiae arise on setiger 4 extending to setiger 15, anterior pairs of branchiae cylindrical with slightly slender tip, approximately similar size for anterior pairs. Poster pairs of branchiae, from setiger 10 to 15 forms foliaceous shape with broad leaf-like branchiae. Last pair of branchiae is smallest. The rest setigers of body entire.

Localities: Stations TA5, TA4, TA2, TA1, TB5, TB4, TB3, TB2, TC5, TC4, TC3, TC2, TD5, TD4, TD3, TE3, TE1, C1, C2, CT, CS

Habitat: This species is recorded from the intertidal and subtidal zone in Kung Krabaen Bay, Chanthaburi Provined.

Remark: The present species differs from *A. cf fragilis* by it has not the modified pseudocompound setae and the number and shape of the branchiae.

Aricidea sp.B
(Figure 7.9)

Material examined: Registratin No. DOFM-POL0009. Total 78 specimens.

Description: Worms are in small size with pale white colour in alcohol preservation. Prostomium forms with rounded tip, approximately as wide as long. Median antenna arises in middle, extending approximately to the rear of setiger 1 sometimes

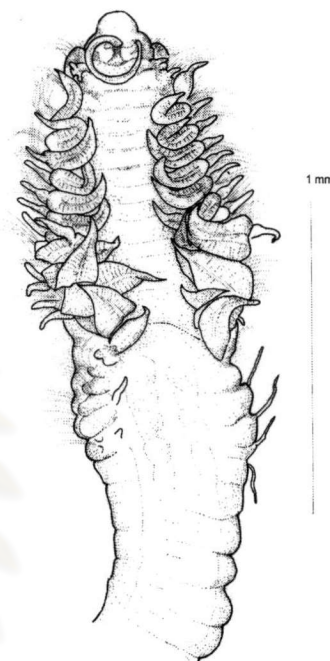


Figure 7.8 *Aricidea* sp.A

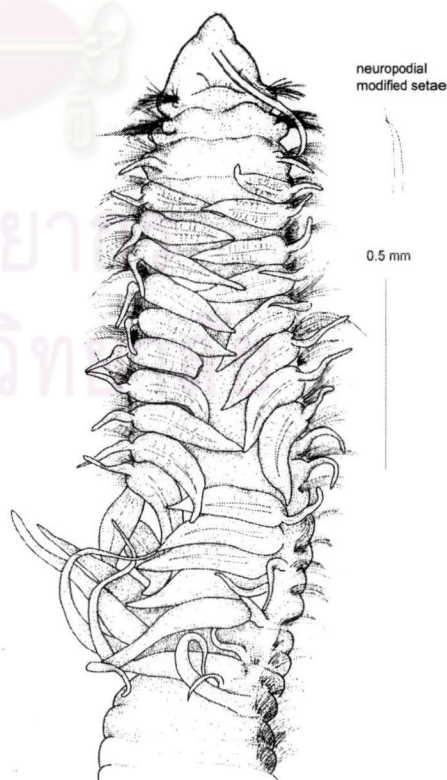


Figure 7.9 *Aricidea* sp.B

setiger 2, with gradually tapering at the end. Branchiae arise on setiger 4 extending a variable number of setigers, branchiae long gradually tapering, posterior branchiae longer and thinner than others.

Notopodial postchaetal lobes on setiger 1 small rounded mounds increasing in size to become long thin on branchial chaetigers, thereafter lobes become much thinner and less obvious. Capillaries in thoracic segments are arranged in three rows in notopodia and two in the neuropodia to setiger 9, thereafter become less dense and not obviously arranged in rows.

Localities: Stations TA4, TA3, TA2, TB4, TB3, TB2, TC5, TC4, TC3, TC2, TD4, TD3, TD2, TE3, TE2, TE1, C1, C3, CT, CS

Habitat: This species is found in muddy sand and sandy mud on intertidal and subtidal zone of Kung Krabaen Bay

Distribution: Kung Krabaen Bay, Thailand.

Remark: The species differs from the former species by without modified setae pseudocompound and by the number and shape of branchiae which posterior pairs in this species is more slender and cylindrical.

Family Cossuridae Day 1963

Worms with belonging to this family has protomium without appendages but a single filamentous dorsal palp is present on an anterior segment. These parts are usually retained after all the roughest sample treatment. Parapodia is biramous, with reduced prarpodial lobes. All setae are simple, including bilimbate or hirsute setae in two or more fascicles; thick spines and capillary setae present in the abdomen of some forms. The cossurids are common in sand and muddy sand by burrowing. They are detritus feeders with the help of the pharynx. There is only genus *Cossura* Webster and Benedict (1887) classified (Fauchald, 1977).

The only species *Cossura* spA is found.

Cossura sp.A (Figure 7.10)

Material examined: Registration No. DOFM-POL0010. Total 46 specimens.

Description: The worm has white colour in alcohol preservation. Prostomium is triangular with blunt tip. A long single palp bears at middle body arising on setiger 4 or 5. Parapodial lobes is absent but fringe with sharp curved capillary. Along anterior dorsal portion to mid of body appears a low surface.

Localities: Stations TAin, TA4, TA3, TA2, TA1, TB5, TB1, TD4, TD2, TE5, TE4, TE3, TE1, C1, CS

Habitat: The species is recorded in muddy sand on intertidal and subtidal zone in Kung Krabaen Bay.

Distribution: Kung Krabaen Bay, Thailand.

Remark: The species is distinctive character of a long palp and having body smooth dorsal and ventral surface. The systematics of this family in this area is limited.

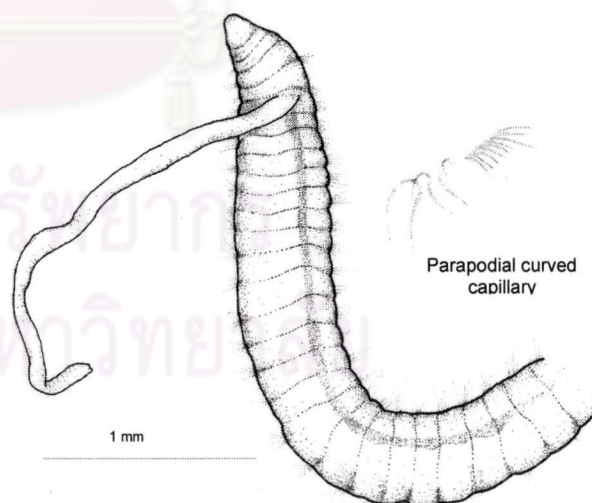


Figure 7.10 *Cossura* sp.A

Family Spionidae Grube, 1850

Description of family is briefly given by Fauchald (1977). The worms of spioniforms with body elongated. Prostomium anteriorly blunt, with frontal horns, or pointed; an occipital papillae may be present, other appendages absent. Palps at the postectal corners of the prostomium. Parapodia biramous, parapodial lobes cirriform or foliose, never serrated. All setae simple, including capillaries and bi- or multidentate, hooded or non-hooded hooks. The spionids are very common in all environments. Some forms are burrowers, free living in sand and mud, or living in tubes.

The spionids are dominant group of this area study. They share the highest diversity of species and some species trend a dominant species in benthic community. There are 20 species of 9 genera belonging to the family. They are *Pseudopolydora* sp.A, *Pseudopolydora* sp.B, *Pseudopolydora* sp.C, *Spiophanes* cf. *japonicum*, *Malacoceros indicus*, *Spio* sp.A, *Scolecopsis* sp.A, *Scolecopsis* sp.B, *Aonides* sp.A, *Paraprionospio pinnata*, *Prionospio* (*Prionospio*) *casperi*, *P. (Prionospio) membranacea*, *P. (Prionospio) depauperata*, *P. (Prionospio) neilsoni*, *P. (Prionospio) malayensis*, *P. (Minuspio) japonica*, *P. (Minuspio) pulchra*, *P. (Minuspio) multibranchiata*, cf. *P. (Minuspio) sp.A*, and *P. (Aquilaspio) sexoculata*.

Key to genera of family Spionidae in the Kung Krabaen Bay (modified from Fauchald, 1977; Blake & Kudenov, 1978).

- 1- Setiger 5 slightly modified *Pseudopolydora*
- Setiger 5 not modified..... 2
- 2- Branchiae absent *Spiophanes*
- Branchiae present..... 3
- 3- Branchiae limited to less than half the length of body..... 4
- Branchiae present on nearly the whole body..... 7
- 4- At least 2 pairs of branchiae present on setigers 2-3..... *Prionospio (Aquilaspio)*
- More than 2 pairs of branchiae present..... 5
- 5- Branchiae 3 pairs on setigers 1-3..... *Paraprionospio*
- More than 3 pairs of branchiae present 6
- 6- Branchiae 4 pairs starting from setiger 2, with either 1 or 2 pinnate pairs.....
- *Prionospio (Prionospio)*
- Branchiae 4 pairs starting from setiger 2, without pinnate form..... *Prionospio (Minuspio)*
- 7- Branchiae present from setiger 1..... 7
- Branchiae present from setiger 2, with partly fused to notopodial postsetal lobes.....
- *Scolecopsis*
- 8- Prostomium anteriorly pointed..... *Aonides*
- Prostomium anteriorly rounded or other shapes..... 9
- 8- Prostomium anteriorly rounded..... *Spio*
- Prostomium with laterofrontal horns..... *Malacoceros*

Genus *Pseudopolydora* Czerniavsky, 1881

Description of genus is clearly given by Blake & Kudenov (1978). Prostomium entire or incised, extending posteriorly as a cruncle; occipital tentacle present or absent; eyes present or absent. Setiger 1 generally reduced, with or without notosetae (and in some species without neurosetae if animals are reproducing asexually and regenerating). Setiger 5 generally not distinctly enlarged, with noto- and neuropodia often well-developed with postsetal lobes and bearing spreading fascicles of capillaries; with curved row of heavy spines of 2 types, or single type with companion setae; modified setae often forming J- or U-shaped setal group. Posterior notopodial spines or 'boat hooks' present or absent. Neuropodial hooded hooks from setiger 8, these hooks bidentate, with secondary tooth closely applied to main fang, with constriction on shaft; accompanying capillaries present or absent. Branchiae first appearing posterior to setiger 5. Pygidium enlarged or reduced, collar-like or divided into lobes or small lappets.

In my collection, I identified 3 different species which each species is described and drawings.

Pseudopolydora sp.A
(Figure 7.11)

Material examined: Registration No. DOFM-POL0011. Total 2 specimens.

Description: Prostomium rounded, not incised, caruncle narrow, extending to end of setiger 8. Two pairs of eyes. Anterior setae capillaries. Setiger 5 with 2 kinds of setae, curved spines and simple acicular. Brachiae starting after setiger 8. Pygidium with two later broad lobes.

Localities: Stations TC5

Habitat: This species is found living in membranous tube burrowed in very fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Remark: The present species has modified setiger 5 and beared 2 different kind of spines.

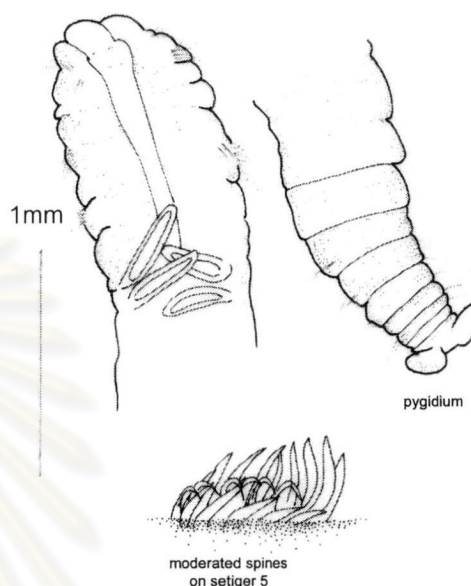


Figure 7.11 *Pseudopolydora* sp.A

Pseudopolydora sp.B
(Figure 7.12)

Material examined: Registration No.: DOFM-POL0012. Total 7 specimens.

Description: Prostomium rounded, without eyes. Caruncle extending to mid of setiger 5. Anterior notopodial setae capillaries, setae on setiger 5 moderately modified to 2 kinds of spines, thick aciculate spine series and curve simple pointed tip spines. Pygidium lacking.

Localities: Stations TC5, TD2, TE4

Habitat: This species is found living in tube burrowed in fine very fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Remark: The present species has protomium divided into 2 lobes by wide gap. Notopodial setae distinctly erects from hiding area of parapodia.

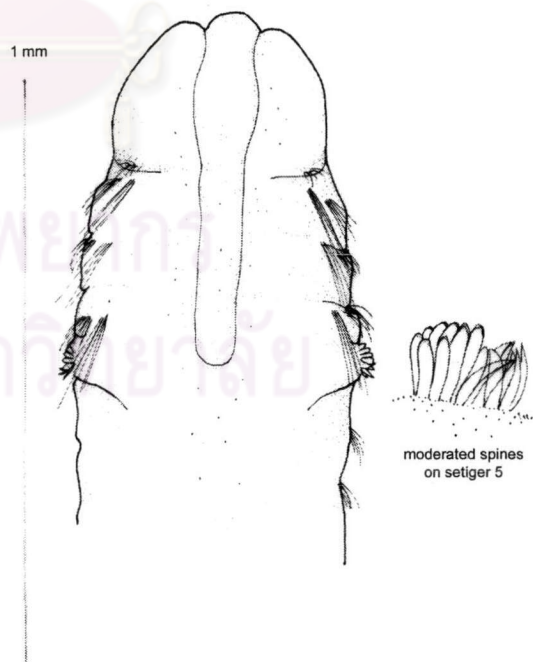


Figure 7.12 *Pseudopolydora* sp.B

Pseudopolydora sp.C
(Figure 7.13)

Material examined: Registration No.: DOFM-POL0013. Total 62 specimens.

Description: Prostomium bilobe, triangular pointed tip. Two pairs of eyes, anterior one bigger size than the latter. Carucle narrow, extending to segment 10-10. Body inflated anteriorly, with bundle of capillary setae on each segment. Setiger 5 moderately developed, bearing two kinds of spine, winged pointed tip spines and thick acicular spine. Pygidium lacking.

Localities: Stations TAin, ta4, TA3, TA2, TA1 TBin, TB5, TB4, TB2, YDin, TD4, TD3, TD2, TEin, TE4. Te3, C1, CS

Habitat: This species is found living in tube burrowed in mud to very fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: The present species is different from the former species by the type of spines on setiger 5.

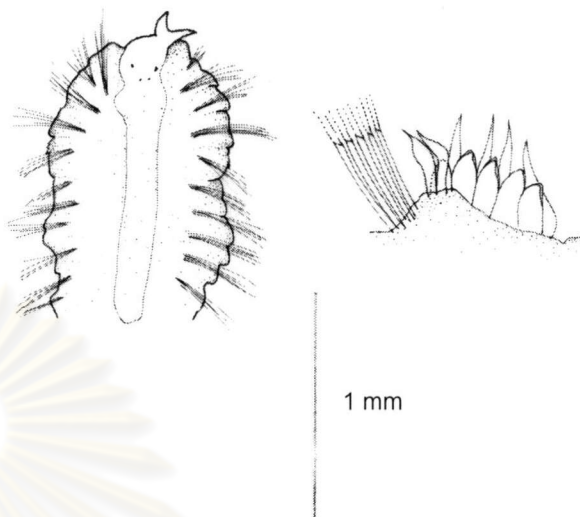


Figure 7.13 *Pseudopolydora* sp.C

Malacoceros indicus (Fauvel, 1928)
(Figure 7.14)

Scolecoplepis indicus Fauvel, 1928, p.93, fig. 2g-m; 1932, p. 170-171.

Malacoceros indicus Blake & Kudenov, 1978, p.195.

Malacoceros indicus Imajima, 1991, p. 6-9, Figs. 2a-g, 3a-j.

Material examined: Registration No. DOFM-POL0011. Total 20 specimens.

Description: All specimens incomplete, missing of posterior parts, yellowish to light brown in alcohol. Prostomium T-shape with frontal horns, short, thick, tapering abruptly to blunt caruncle extending to posterior of setiger 1. Two irregular clusters of small eyespots present; occipital tentacle absent. Proboscis not observed. One grooved palps present, bulging and expanding to mid length, slightly reducing of body distally, extending to posterior setiger 5. Branchiae present from setiger 1, continuing to end of fragments; branchiae elongate, tapered, fused basally with notopodial lamellae, heavily setae capillaries. Parapodia well developed; notopodial postsetal lamellae slender, triangular, with tapered end; neuropodial postsetal lamellae conical; noto- and neuropodial presetal lamellae transforming into interramal glandular structures. Anterior setae all capillary; posterior capillary including short and long non-granulated

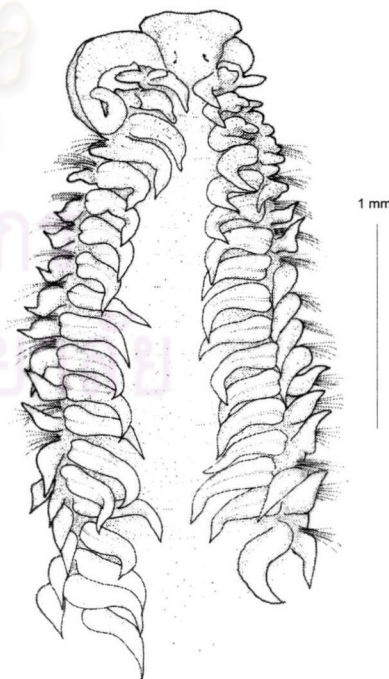


Figure 7.14 *Malacoceros indicus* (Fauvel, 1928)

setae. Neuropodial hooded hooks from setigers 30-57, hooks accompanied by capillaries throughout; hooks with four small teeth above main fang. Ventral sabre setae from about neuropodial setger 20, numbering 2-5 per fascicle. Pygidium not observed.

Localities: Stations TB4, TC4, TD3, TD2, TE4, TE3, TE1, C2, CS

Habitat: This species is found in fine sand on intertidal zone in Kung Krabaen Bay and subtidal zone outside the Bay at 6-7 m deep.

Distribution: India; Caribbean; New Caledonia; southwest Africa; Queensland; Chile; Japan.

Remark: The specimens agreed well with the description given by Imajima (1973). This is the first recorded of this species in Thailand from Kung Krabaen Bay.

Spiophanes cf. japonicum Imajima, 1991
(Figure 7.15)

Spiophanes cf. japonicum Imajima, 1991, p. 123-128, Figs. 5a-h, 6a-h, 7a-n.

Material examined: Registration No. DOFM-POL0015. Total 2 specimens.

Description: Incomplete specimens, missing posterior part. Prostomium T-shaped, broad on anterior margin, with laterally directed processes reaching back to setiger 1; eyes inconspicuous, digitiform occipital tentacle arising from posterior end of prostomium. Setigers 1-4 with long notopodial lamellae, all lamellae subequal in length. Subsequent notopodial lamellae of setigers 5 - 8 reduced, semicircular. Neuropodial lamellae slightly tapered on setiger 1, wider triangular on setigers 2-4, thereafter lower, rounded glandular. Lateral pouches lacking. Notopodial capillary setae of first 4 setigers much longer than those of subsequent setigers, setae of setiger 1 the longest extending past anterior end; notopodial setae on posterior setigers with curved setae and narrow limbation at distal part. Neuropodial setae of setae 1 include 2 stout, curved spine, in addition to short and long capillaries; neuropodial setae of setiger 5 arranged in one row, setae broad, bilimbate distally pointed.

Localities: Stations TB1, TC2

Habitat: This species is found in fine sand substratum on intertidal and subtidal zone inside Kung Krabaen Bay.

Distribution: Japan: 29-314 m.

Remark: The present specimens agree with the description of the species given in Imajima (1991).

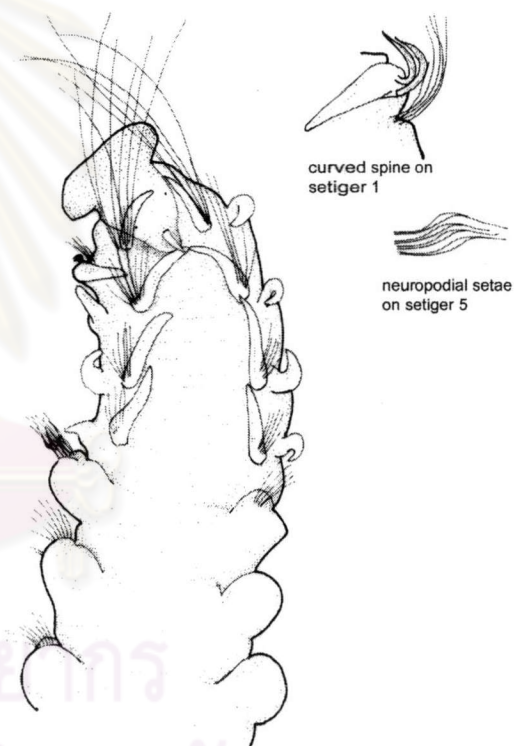


Figure 7.15 *Spiophanes cf. japonicum*
Imajima, 1991

Genus *Prionospio* (Malmgren, 1867)

This genus has three subgeneric groupings as recognised by Blake and Kudenov (1983), namely *Prionospio*, *Minuspio* and *Aquilaspio*. The subgenus *Prionospio* has both pinnate and apinnate brachiae on the anterior part while the *Minuspio* bears only apinnate brachiae. The subgenus *Aquilaspio* has only pinnate brachiae on the anterior part.

Genus *Prionospio* (*Minuspio*) Foster, 1971

This worm characterized the subtriangular prostomium with round, blunt or inflat anterior margin. Peristomium forms a hood surrounding prostomium. Branchiae are all apinnate and starts on chaetiger 2 which vary from 4 to 40 pairs. Anterior chaetae are all capillaries. Hooded hooks appear in posterior neuro-and notopodia of bidentate to multidentate. Pygidium with anal cirri.

Prionospio (*Minuspio*) *japonica* Okuda, 1935 (Figure 7.16)

Prionospio (*Minuspio*) *japonica* Imajima, 1973, pp. 63-64, Fig. 2-Fig.3

Material examined: Registration No. DOFM-POL0016. Total 961 specimens.

Description: All specimens are small size, ranging from 0.5 to 1.2 cm. Prostomium bluntly triangular, with small median peak. Caruncle extend to the base of setiger 1. Eyes present, two pairs in trapezoidal arrangement. Palps slender, extending posterior. Branchiae apinnate, cirriform, present on setiger 2-5; first pair longest about twice length of others. Notopodial lamellae in setiger 1 lacking but enlarged on setiger 2-6; lamellae becoming smaller, triangular in post-branchial setigers, not forming dorsal ridges or crests. Neuropodia lamellae on setiger 1 small, conical; becoming large, square in branchial setigers, small triangular in post-branchial chaetigers.

Anterior chaetae straited capillaries arranging in two rows and setae of anterior row shorter. Neuropodial hooded hooks from setigers 16-18; notopodial hooks present from setigers 28-35. Shaft of hook long and hook with 4 to 5 pairs of small teeth above main fang. Ventral sabre setae from neuropodial setiger 10, numbering one per fascicle, each setae curved and slightly granulated and sheathed. Pygidium with two short, broad ventrolateral lobes, and one short, dorsomedial cirrus.

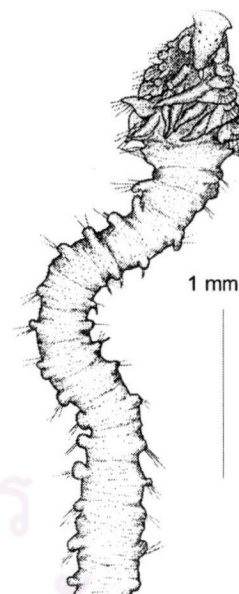


Figure 7.16 *Prionospio* (*Minuspio*) *japonica* Okuda, 1935

Localities: Stations TAin, TA5, TA4, TA3, TA2, TBin, TB5, TB4, TB3, TCin, TC5, TC4, TDin, TD5, TD4, TD3, TEin, TE5, TE4, TE3, CN, CS

Habitat: This species are found in mud and very fine sand of high organic content sediment of intertidal zones and inside canals of Kung Krabaen Bay, Thailand.

Distribution: Japan: intertidal to 5 m., Korea

Remark: The species agree well with the description given by Imajima (1973). This species is first recorded to Thailand. It appears to be an opportunistic species found in the high organic enriched sediment boundaries. Remarkably these worms were associated with high mud content and were able to tolerate low salinity and high content of hydrogen sulfide in sediment.

Prionospio (Minuspio) pulchra Imajima, 1973

(Figure 7.17)

Prionospio (Minuspio) pulchra Imajima, 1973, p.68-71, fig.6-fig.7.

Material examined: Registration No. DOFM-POL0017. Total 20 specimens.

Description: Prostomium subtriangular, broadly rounded anteriorly, with five small marginal peaks; caruncle extending to base of setiger 1; eyes two pairs, posterior pair larger than anterior pair. Peristomium fused to setiger 1, forming moderate lateral wings. Branchiae cylindrical, apinnate, present from setigers 2-8 or 10, numbering 9-10 pairs; pairs 1-4 longest, last pair shortest, extending over two setigers. Parapodia of setiger 1 reduced, without notopodial lamellae, neuropodial lamellae very small. Parapodia of setiger 2 with triangular notopodial lamellae and bluntly rounded neuropodial postchaetal lamellae. Notopodial lamellae largest in brancial region, those of posterior setigers rounded, forming low dorsal crest on several post-branchial setigers. Neuropodial lamellae rounded, well developed from setiger 2, posterior setigers lamellae low.

Anterior noto- and neuropodial setae all moderately capillaries; thoracic setae arranged in three rows. Ventral sabre setae from setigers 11-12. Neuropodial hooded hooks from setigers 15-16. Notopodial hooks from setigers 25-33, hooded hooks with three pairs of small teeth above main fang. Pygidium with one long dorsomedial and two shorter ventrolateral cirri.

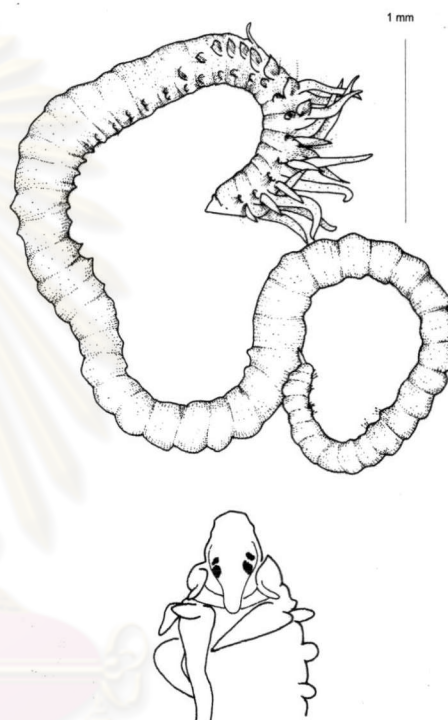


Figure 7.17 *Prionospio (Minuspio) pulchra* Imajima, 1973

Localities: Stations TB1, TC3, TD3, TE3, TE2, TE1, C3, CT, CS

Habitat: This species was found in very fine and fine sand substrats in intertidal and subtidal zones of Kung Krabaen Bay, Thailand.

Distribution: Japan: intertidal to 67 m; Thailand: intertidal to shallow subtidal.

Remark: The specimens agree well with the description given in Imajima (1973). This species of *P. (Minuspio)* differs from *P. (Minuspio) japonica* in the number of pairs of branchiae – 9 to 10 pairs compared with 4 in *P. (Minuspio) japonica*; the ventral sabre setae start on setiger 10 as opposed to setiger 11 or 12. This is the first recorded of this species in Thailand.

Prionospio (Minuspio) multibranchiata Berkeley, 1927
(Figure 7.18)

Prionospio (Minuspio) multibranchiata Imajima, 1973, p.71-74, Fig.8-Fig.9.

Material examined: Registration No. DOFM-POL0018. Total 46 specimens.

Description: Prostomium subtriangular, broadly rounded anteriorly, extending as narrow caruncle to base of setiger 1. Two pairs of eyes, posterior pair very large. Peristomium fused to setiger 1, forming moderate lateral wings distally curled back. Notopodial lamellae lacking on setiger 1; lamellae largest in branchial region, triangular with elongated tip, but becoming low, rounded in setigers 11-13, and extending to form low dorsal crests, posterior notopodial lamellae separated from each other. Neuropodial lamellae from setiger 2 well developed, rectangular with rounded edges. 9 pairs of branchiae.

Anterior setae capillaries, arranged in two rows from setiger 2, shorter in anterior row. Neuropodial hooded hooks from setigers 16-17, notopodial hooks from setigers 28-30, hooks accompanied by capillaries throughout, hooks with 4 pairs of small teeth above main fang. Ventral sabre setae from neuropodial setigers 12-13.

Pygidium with one long dorsomedial and two shorter ventrolateral cirri.

Localities: Stations TB5, TB4, TB2, TCin, TC5, TC4, TD5, TD4, TEin, TE4, TE3, TE1, C2, CN

Habitat: The worms were found in very fine sand bottom in intertidal and subtidal zone of Kung Krabaen Bay, Thailand.

Distribution: Gulf of Mexico, Florida, Japan: intertidal to 83 m.

Remark: These specimens conform to the description of this species given by Imajima (1973). This is the first recorded of this species from Thailand.

cf. *Prionospio (Minuspio) sp.A*
(Figure 7.19)

Material examined: Registration No. DOFM-POL0019. Total 6 specimens.

Description: All specimens incomplete condition, missing posterior parts. Prostomium round, flattened anteriorly; caruncle broadly triangular, extending to base of setiger 2; peristomium expanding to form later wings and fused to setiger 1. Setiger 1 reduced, with small notopodial and neuropodial lobe, without branchiae. Setiger 2 with notopodial lobe well-developed notopodial lamellae, attached to dorsal branchiae. Branchiae well developing, apinnate, firstly appear on setiger 2; distinctly longest in first four pairs, starting from setigers 2-5; branchiae on setiger 6 to posterior setiger sub-equal in size, slightly decreasing in size

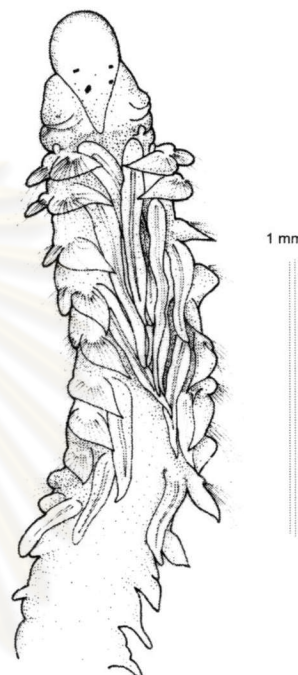


Figure 7.18 *Prionospio (Minuspio) multibranchiata*
Berkeley, 1927

posteriorly; anterior branchiae attached at base of notopodial lamellae and completely separated in posterior region. Anterior setae simple capillaries on noto- and neuropodial lobes, appearing from setiger 1 to setigers 19-20. Hooded hooks tri-dentate, appearing from setiger 20-21 to rest posterior setigers. Pygidium lacking.

Localities: Stations TB5, TB3, TC4, TC3, TD3, C2

Habitat: This species is found in mud and very fine sand on intertidal and subtidal zone inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: All specimens for examination are in incomplete condition with lacking posterior parts. This species has distinctive apinnate branchiae over the whole fragment. First four pairs of branchiae are longest and sub-equal size. It is unfortunate that the specimens are not completely enough to describe the whole animal.

This species has basically morphologic characteristics of family Spionidae Grube, describing that it has elongate body; prostomium anteriorly blunt, with frontal horns or pointed; an occipital papillae may be present, other appendages absent. Parapodia biramous, parapodial lobes cirriform or foliose. All setae simple, including capillaries and bi- or multidentate, hooded hooks or non-hooded hooks. According to the stated description it is agreeable with that this species should belong to Spionidae. Because of the principle characteristics of branchiae single process, present on nearly whole body, setae change gradually along body, it is probably close to genus *Prionospio* (*Minuspio*) in which all branchiae are apinnate starting from setiger 2 but differ by the number of branchiae not limited on some anterior segments. However, the species well fits to the genus *Malacoceros* on its having cirriform branchiae, partly fused to notopodial lamellae and extending posteriorly. It differs from this species by the size of first four pairs of branchiae.

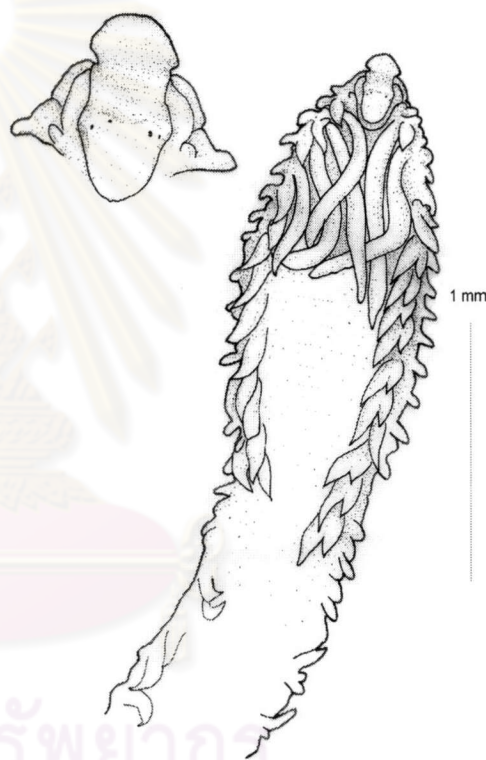


Figure 7.19 cf. *Prionospio* (*Minuspio*) sp. A

Prionospio (Prionospio) caspersi Laubier, 1962
(Figure 7.20)

Prionospio (Prionospio) caspersi Imajima, 1973, p.111-114, Fig.4-Fig.5.

Material examined: Registration No. DOFM-POL0020. Total 59 specimens.

Description: Prostomium triangular, broadly flared anteriorly, with narrow caruncle ending at base of setiger 1; two pairs of small eyes. Peristomium fused to setiger 1, not forming lateral wings. Branchiae present on chaetiger 2-5; pairs 1-3 apinnate, elongate, heavily ciliated, usually shorter than pair 4; pair 4 with numerous digitiform pinnules irregularly arranged on posterior face, not covering apical tip. Setiger 1 well-developed, with noto- and neuropodial lamellae and setae. Notopodial postchaetal lamellae largest in branchial region, lamellae triangular with pointed tip; neuropodial lamellae lanceolate. Notopodial lamellae forming high membranous crest across dorsum of setiger 7. Following notopodial lamellae not forming crests; neuropodial postchaetal lamellae rounded throughout.

Anterior chaetae all heavily granulated capillaries with wide sheath, arranged in two rows with setae of anterior row shorter than those of posterior row; capillaries of posterior chaetigers thinner. Ventral sabre setae from neuropodial chaetiger 11, numbering one or two per fascicle, each setae exhibiting distinct granulations and wide limbation. Neuropodial hooded hooks from setigers 18-21, numbering up to 10 per fascicle; notopodial hooks from setigers 34-36, numbering up to eight per fascicle; hooks accompanied by capillaries throughout; hooks bidentate in lateral and frontal views, with small secondary hood.



Figure 7.20 *Prionospio (Prionospio) caspersi* Laubier, 1962

Localities: Stations TA3, TA2, TB3, TB2, TB1, TC4, TC3, TC2, TD3, TD2, TE3, TE1, C1, CT, CS

Habitat: The worms are found in fine and very fine sand bottoms in intertidal and subtidal zone of Kung Krabaen Bay, Thailand.

Distribution: Adriatic; Japan

Remark: The species well agreed with Imajima (1973). This species is the first recorded to Kung Krabaen Bay.

Prionospio (Prionospio) membranacea Imajima, 1990

(Figure 7.21)

Prionospio (Prionospio) membranacea Imajima, 1990, p. 128-130, Fig. 14 & 15.**Material examined:** Registration No. DOFM-POL0021. Total 246 specimens.

Description: Prostomium truncate on anterior margin, as wide at level of eyes as at anterior margin, giving rectangular appearance to anterior portion of prostomium, tapering posteriorly, with narrow caruncle extending to end of chaetiger 1; two pairs of eyes present, posterior pair very large. Peristomium ventrally separated and dorsally fused to setiger 1, forming moderate lateral wings. Branchiae present on saetigers 2-5; pairs 1 and 4 with digitiform pinnules, elongate, subequal in length; pinnules irregularly arranged on posterior side, not extending to tip of branchiae; pairs 2-3 apinnate, triangular heavily ciliated on lateral edge, branchiae as long as notopodial lamellae. Saetiger 1 reduced, with noto- and neuropodial lamellae smaller than on subsequent chaetigers; notopodial lamellae foliaceous, largest in branchial region; notopodial lamellae on setiger 7 connected by high membranous dorsal crest; setiger 8 and subsequent chaetigers without dorsal ridge; lamellae becoming lower in posterior chaetigers. Neuropodial lamellae on setiger 2 with ventral elongation; lamellae square thereafter, and low, rounded in far posterior setigers. Interparapodial pouches lacking.



Figure 7.21 *Prionospio (Prionospio) membranacea* Imajima, 1990

Anterior chaetae all capillaries, with narrow sheaths, setae of anterior row shortest. Neuropodial hooded hooks from setiger 15, numbering up to seven per fascicle; notopodial hooks from setiger 49, numbering up to seven per fascicle; notopodial hooks from setiger 49, numbering up to four per fascicle; hooks accompanied by capillaries throughout hooks with 5-6 pairs of small teeth above main fang, secondary hood small. Ventral sabre setae from neuropodial setiger 10, moderately granulated, numbering one per fascicle.

Pygidium with one long dorsomedial and two shorter ventrolateral cirri.

Localities: Stations TA3, TA1, TB5, TB4, TB3, TB2, TC4, TC3, TC2, TD5, TD4, TD3, TD2, TE4, TE3, TE2, TE1, C2, CT, CS

Habitat: The worms are found in mud and very fine sand substratums in intertidal and subtidal zones of Kung Krabaen Bay, Thailand.

Distribution: Japan: intertidal to 90 m.

Remark: The description of species is agreed with Imajima (1973). This species is the first recorded to Thailand from Kung Krabaen Bay.

Prionospio (Prionospio) depauperata Imajima, 1990
(Figure 7.22)

Prionospio (Prionospio) depauperata sp.nov. Imajima, 1990, p. 114-118, Fig. 6 & 7.

Material examined: Registration No. DOFM-POL0022. Total 60 specimens.

Description: Prostomium truncate or weakly concave anteriorly, as wide at level of eyes as at anterior margin, giving rectangular appearance to anterior portion of prostomium, tapering posteriorly, with narrow caruncle extending to base of setiger 2; four eyes present, anterior pair small and subdermal, posterior pair large, crescentric. Peristomium fused dorsally with setiger 1, forming low lateral wings. Branchiae present on setigers 2-5; pairs 1 and 4 pinnate, pairs 2 and 3 apinnate; first pair of branchiae usually larger, extending back to setiger 7, pinnules numerous, irregularly arranged on posterior face, extending to near tip of branchiae, pairs 2 and 3 equal in length, shorter than pinnate pairs, heavily ciliated; fourth pair of branchiae subequal in length to first pair, with digitiform pinnules. Parapodia of setiger 1 with lanceolate notopodial postsetal lamellae with notosetae and small squarish neuropodial postchaetal bearing neurosetae. Parapodia of setiger 2 with erect, triangular notopodial postsetal lamellae and neuropodial lamellae extending ventrally. Notopodial lamellae of setiger 3 enlarged, triangular, with pointed tip, slightly folded anteriorly; neuropodial lamellae broadly triangular. Notopodial lamellae of setiger 7 connected in well-developed dorsal crest; thereafter, low crests continuing to about setiger 13. Noto- and neuropodial lamellae on median parapodia low, rounded. Posterior parapodia with small, bluntly triangular noto- and neuropodial lamellae. Interparapodial pouches lacking.

Anterior noto- and neuropodial setae all capillaries. Ventral sabre setae from neuropodial setiger 10, numbering one per fascicle, each setae slender, moderately granulated, with short, distal filament. Neuropodial hooded hooks from setiger 15-16, numbering up to 10 per fascicle; notopodial in posterior not observed; hooks accompanied by capillaries throughout. Pygidium missing.

Localities: Stations TA3, TA1, TB4, TB3, TB2, TB1, TC3, TC2, TD2, TE2, TE1, C1, C2, CT

Habitat: The species is recored in fine sand very fine sand on intertidal and subtidal zones of Kung Krabaen Bay, Thailand.

Distribution: Japan: 8-920 m.; Thailand

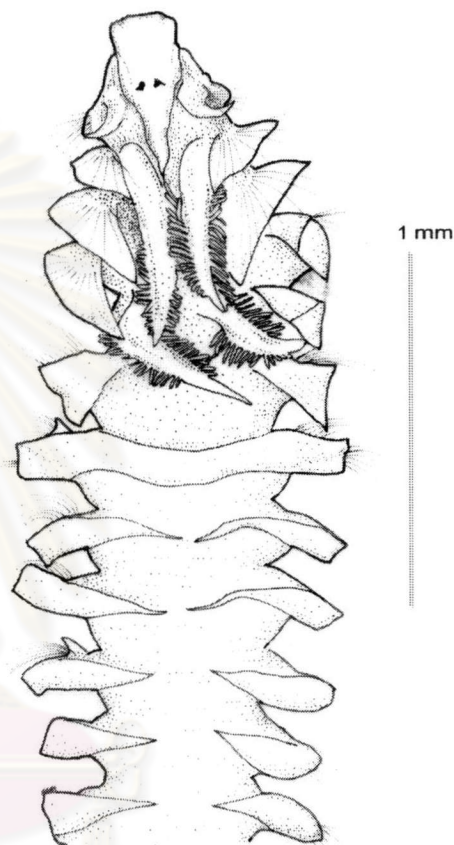


Figure 7.22 *Prionospio (Prionospio) depauperata* Imajima, 1973

Remark: The description of species is well agreed with Imajima (1973). This species is the first recorded to Thailand from Kung Krabaen Bay.

Prionospio (Prionospio) cf. nielseni Hylleberg & Nattewathana, 1991
(Figure 7.23)

Prionospio (Prionospio) nielseni Hylleberg & Nattewathana, 1991, p.23-25, Figure 11A-U.

Material examined: Registration No. DOFM-POL0023. Total 7 specimens.

Description: Incomplete specimens, posterior parts missing. Prostomium broad, anterior margin slightly concave, tapering posteriorly to narrow caruncle, extending to base of setiger 2. One pair of small rounded eyes. Peristomium fused with setiger 1, not forming peristomial wings. Branchiae present on setigers 2-5; first and fourth pair sparsely pinnate, first pair usually thinner and shorter than the fourth; second and third pair ciliated, apinnate, triangular, shorter than pinnate pairs. Setiger 1 small with low rounded noto- and neuropodial presetal lobes, well developed square not- and neuropodial postsetal lobes. Setiger 2 with notopodial postsetal lobe erect auricular, slender pointed tip, neuropodial presetal lobe triangular with pointed tip at lower corner. Setiger 3 with greatest size notopodial lamellae lobe, slightly reduced to setigers 4. From setiger 5 notopodial lamellae lobe similar posteriorly. Dorsal membranous folds distinct on setigers 10-24. Interparaodial pouches absent. Lateral surface of body from setiger 24 bearing a circular mark to end of fragment. Pygidium missing.

Localities: Stations TA2, TB4, TB1, TC3, TC2, TD3, TD2, TE2

Habitat: The species was firstly recorded on subtidal zone at 10-20 m depth from Patong and Kamala Bay, western coast of Phuket Island, Andaman Sea, Thailand. I found this similar species in fine sand substratum from intertidal zone to 3 m depth inside Kung Krabaen Bay.

Distribution: Phuket Island, Andaman Sea, Thailand.

Remark: The description of species agreed well with Hylleberg & Nateewathana (1991).

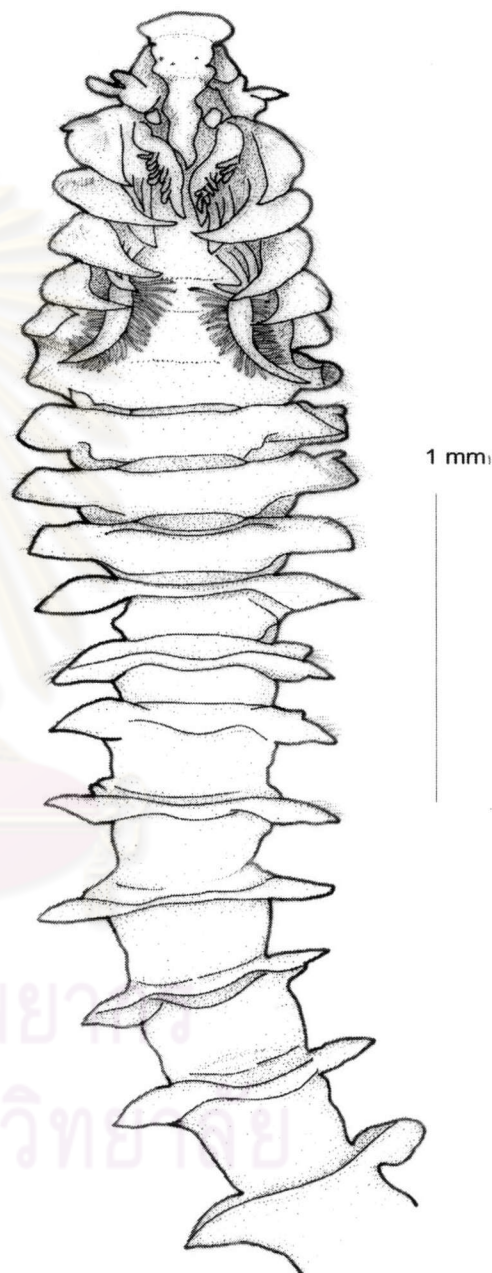


Figure 7.23 *Prionospio (Prionospio) cf. nielseni* Hylleberg & Nateewathana, 1991

Prionospio (Prionospio) cf. malayensis Caullery, 1914
(Figure 7.24)

Prionospio (Prionospio) malayensis Hylleberg & Nateewathana, 1991, p. 16-19, Figure 8A-R.

Material examined: Registration No. DOFM-POL0024. Total 15 specimens.

Description: Specimens mostly incomplete. Prostomium subtriangular, anterior margin broad, truncate, caruncle to the base of setiger 2. One pair of eyes. Peristomium fused with setiger 1, not forming peristomial wings. Four pairs of branchiae present on setigers 2-5, first and fourth pairs pinnate subequal size, second and third pairs ciliated, apinnate. Parapodia of setiger 1 small, inconspicuous neuropodial presetal lobe. Parapodia of setigers 2-10 basically similar; presetal lobes low and rounded. Notopodial postsetal lobes erect auricular with pointed tip on setigers 2-5, gradually inclined and changed to more rounded and expanded lobes on setigers 6-10. Dorsal membranous folds on setigers 10-18 and low membranous fold on setiger 19. Hooded hooks on neuropodia starting on setiger 14. Interparapodial pouches absent. Hooded hooks on neuropodia starting on setiger 14. Sabre setae and notopodial hooded hooks. Pygidium with 2 cirri at posterior terminal.

Localities: Stations TA1, TB4, TB1, TC2, TD2, TE2, C2

Habitat: This species is found in fine and very fine sand on intertidal zone in Kung Krabaen Bay and at 6-7 m depth outside the Bay.

Distribution: Malay Archipelago; Vietnam; Andaman Sea coast of Thailand.

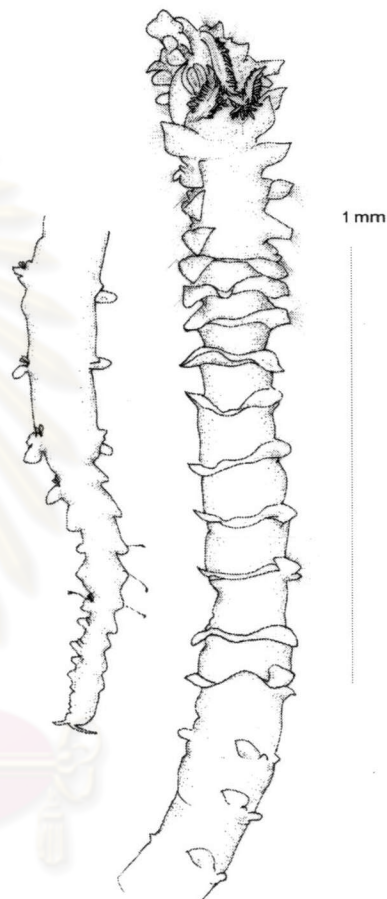


Figure 7.24 *Prionospio (Prionospio) cf. malayensis* Caullery, 1914

Prionospio (Aquilaspio) sexoculata Augener, 1918
(Figure 7.25)

Prionospio sexoculata Augener, 1918, p. 405-408, Tafel VII Fig. 159 u. 172, Textfig. LII.
Prionospio (Aquilaspio) sexoculata Imajima, 1990, p. 2-5, Fig. 2 a-k.
Prionospio sexoculata Day, 1967, p. 489, fig. 18.8.m-o.

Material examined: Registration No. DOFM-POL0025. Total 119 specimens.

Description: Mostly complete specimens of minute size. Prostomium rectangular, with a minute medial protuberance on anterior margin, slightly inflated at level of eyes, truncate, then

narrowing to form caruncle extending to setiger 1; two pair of eyes, posterior pair larger. Peristomium dorsally fused with setiger 1, forming moderate lateral wings. Branchiae present on setigers 2 and 3, both pairs with digitiform pinnules extending to near tip of branchiae; first pair of branchiae usually larger, extending back to setigers 7-9. Setiger 1 reduced, with only digitiform neuropodial lamellae bearing neurosetae, smaller than subsequent setigers; notopodia lacking. Parapodia of setiger 2 with erect, lanceolate notopodial postsetal lamellae and triangular neuropodia with long axis extending ventrally. Notopodial lamellae of setiger 3 enlarged, triangular, with pointed tip, slightly folded anteriorly; neuropodial lamellae broadly triangular. Median parapodia with small, bluntly triangular notopodial lamellae and flattened neuropodial lamellae. No membraneous dorsal crests.

Anterior noto- and neuropodial setae all moderately capillaries. Ventral sabre setae from setiger 10. Neuropodial hooded hooks from setiger 16-17; notopodial hooks from setigers 29-30; hook accompanied by capillaries throughout. Pygidium with one long dorsomedial and two shorter ventrolateral cirri.

Localities: Stations Tain, TA5, TA3, TA2, TBin, TB5, TB4, TB3, TC5, TC4, TC3, TC2, TDin, TD5, TD4, TD3, TEin, TE5, TE4, TE3, TE2, C2, C3, CN, CS

Habitat: This species is found in mud and very fine sand inside canals, on intertidal and subtidal zone to 6-7 m depth inside and outside Kung Krabaen Bay, eastern coast of Thailand.

Distribution: South West Africa; Japan; Thailand.

Remark: Specimens agree with the description of species given in Imajima (1990) and Day (1967). This species is the first recorded to Thailand.

Paraprionospio pinnata Caullery, 1914
(Figure 7.26)

Prionospio pinnata Fauvel, 1953, p. 323-324, Fig. 174 e.
Prionospio pinnata Day, 1967, p. 488, fig. 18.8.i-l.

Material examined: Registration No. DOFM-POL0026. Total 17 specimens.

Description: Most species incomplete, missing posterior parts. Prostomium bluntly pointed and produced back as a ridge enfolded by large, wing-like lateral expansions of the peristome. Eyes seldom visible in adults. Membraneous ridge across dorsally behind the origin of palps. First setiger well developed. Three pairs of large pinnate brachiae on setigers 1-3. Postsetal lamellae of notopodia large and pointed on the first five setigers and smaller and more rounded thereafter. Neuropodial lamellae prominent and pointed anteriorly, low and rounded posteriorly. Setae winged capillaries in both rami anteriorly. Hooded hooks appearing from setiger 9, accompanied by an inferior sabre seta.

Localities: Stations TB1, TC5, C1, C2, C3, CS

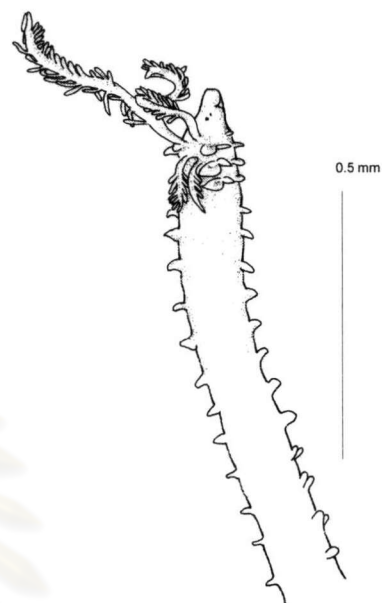


Figure 7.25 *Prionospio (Aquilaspio) sexoculata* Augener, 1918

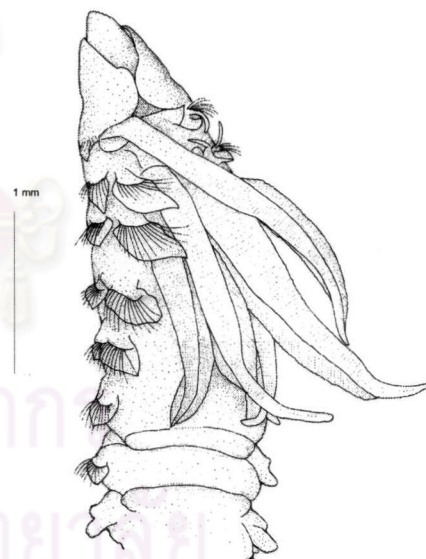


Figure 7.26 *Paraprionospio pinnata* Caullery, 1914

Habitat: This species is found in mud and very fine sand from intertidal zone inside Kung Krabaen Bay to 6-7 m depth outside the bay, eastern coast of Thailand.

Distribution: South West Africa; Atlantic from North Carolina and Morocco; Indian Ocean; Pacific Ocean, from Canada and Japan to Chile; New Zealand.

Remark: Specimens conform to description given in Fauvel (1953) and Day (1967).

Spio sp. A
(Figure 7.27)

Material examined: Registration No. DOFM-POL0027. Total 3 specimens.

Description: All specimens incomplete condition, missing posterior parts. Prostomium rounded, not incised, without frontal horns. One pair of eyes present. Branchiae starting from setiger 1 to near end of body, partly fused to notopodial lamellae anteriorly, continuing throughout body, fully developed. Notosetae capillaries only; neurosetae including capillaries, hooded hooks and sabre setae. Pygidium missing.

Localities: Stations TB4, TB2, TC4, TC3, TD4, TE3, C2

Habitat: This species is found in mud and very fine sand from intertidal zone inside Kung Krabaen Bay to 6-7 m depth outside the bay.

Remark: The species belongs to genus *Spio* Fabricius characterised by the distinct prostomium shape and branchiae fused to notopodial lamellae and starting on setiger 1 continuing through out the body.

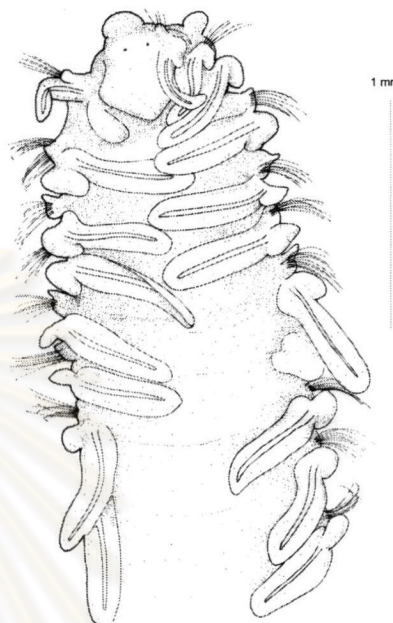


Figure 7.27 *Spio* sp.A

Scolelepis sp.A
(Figure 7. 28)

Material examined: Registration No. DOFM-POL0028. Total 3 specimens.

Description: All specimens incomplete condition, missing posterior parts. Prostomium distally pointed; posteriorly produced into a flattened, triangular lobe to base of setiger 1. Eyes absent. Palps missing. Peristomium moderately developed small lateral wings. Setiger 1 reduced, with small digitiform asetigerous notopodial lobes; neuropodial lobe rounded, bearing capillary setae. Anterior notopodial lamellae partly fused with branchiae from setiger 2, but distally free; lamellae elongate with pointed tips in anterior segments. Branchiae cirriform and sub-equal through out the fragment, fused with base of notopodial lamellae from setiger 2.

Localities: Stations TA2, TC3

Habitat: This species is found in fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Remark: This species is belong to *Scolelepis* by its having prostomium distinctly pointed and brachiae partly fused with notopodial lamellae starting on setiger 2 and extending to whole animal.

Scolelepis sp.B
(Figure 7.29)

Material examined: Registration No.: DOFM-POL0029. Total 6 specimens.

Description: All specimens incomplete condition, posterior parts lacking. Prostomium prominently trilobated, with median lobe conical pointed tip extending beyond the two lateral rounded tip lobes; caruncle broadly tribangular fused and extending to base of setiger 1; peristomium expanding and fused with setiger 1 form moderately lateral wings. Branchiae figitiform, apinnate, sub-equal size, well-developed with pointed tip, starting from setiger 2 to rest posterior segments; branchiae larger size on anterior than ones at posteriorly; all branchiae partly fused with notopodial lamellae in whole fragment.

Setiger 1 reduced, with small notopodial lobe and lacking notopodial lamellae. Notopodial lobe well-developed consisting of 2 lobes, ear-shaped notopodial lamellae and notopodial presetal lobe; about one-third to half length of notopodial lamellae fused with dorsal branchiae. Notopodial presetal lobe without bulb on setiger 1 and 2, starting from setiger 3 extending to mid of body. Neuropodial lobe in setiger 1 reduced and shifting dorsally, size increasing posteriorly with dividing into 2 or 3 lobes. Neuropodial lobe of preceding segments larger with granulated capillaries from setigers 1-16.

Anterior setae granulated capillaries on noto- and neuropodial lobes, starting from setigers 1-15 or 16, arranging to 1 or 2 rows; capillaries on rest body segments thin with pointed distally. Hooded hooks bi-dentate; notopodial hooded hooks starting from setigers 50 with 1-2 hooks per fascicle; neuropodial hooded hooks starting on setiger 25 with 2 hooks per fascicle accompanying with slender capillaries, pointed distally. Pygidium lacking.

Localities: Stations TA1, TC3, TC4, TD4, TE3

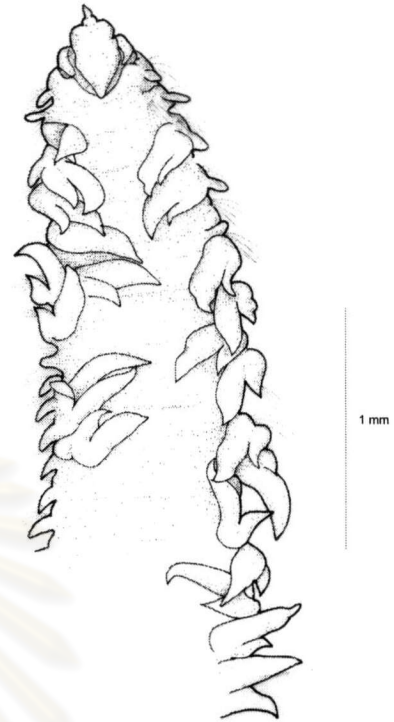


Figure 7.28 *Scolelepis* sp.A



Figure 7.29 *Scolelepis* sp.B

Habitat: This species is found in mud and very fine sand on intertidal zone inside Kung Krabaen Bay.

Remark: This species shared characters with genera *Australospio* Blake & Kudenov and *Scolelepis* Blainville. It is likely to *Australospio* by its having tri-lobated prostomium and branchiae extend to whole body. It differs by branchiae partly fused with notopodial lamellae whereas the *Australospio* does not. In addition, the referred species bears geniculated setae on anterior parapodia, branchiae starting on setiger 1 and thin branchiae, separated from notopodial lamellae. This species bears no geniculated setae, branchiae starting from setiger 2 and branchiae more conical than thin. Of these characters to my species, it is familiar with *Scolelepis* in spite of *Australospio*.

***Aonides* sp.A**
(Figure 7.30)

Material examined: Registration No. DOFM-POL0030. Total 3 specimens.

Description: All specimens incomplete, lacking posterior parts. Prostomium bluntly triangular, extending anteriorly to long, tapering point, widest at midregion, posteriorly pointed, ending on setiger 1. One pair of eyes. Peristomium surrounding nearly half of prostomium, narrow laterally. Parapodia of setiger 1 small, subtriangular notopodial postsetal lamellae and small conical neuropodiak postsetal lamellae. Parapodia from setigers 2 to rest some anterior setigers well-developed, slightly largest on setiger 3. Branchiae cirriform, apinnate, present from setiger 2, numbering 6 pairs sub-equal size anteriorly and gradually small size thereafter. Anterior noto- and neuropodial setae capillaries with sharp pointed distally. Hooded hooks not observed. Pygidium lacking.

Localities: Stations TB5, TB1, TE2

Habitat: This species is found in very fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Remark: The species belongs to *Aonides* by its having distinct character of conical prostomium and peristomium poorly developed, branchiae apinnate, cirriform, beginning on setiger 2 and present on variable number of anterior segments, absent posteriorly.

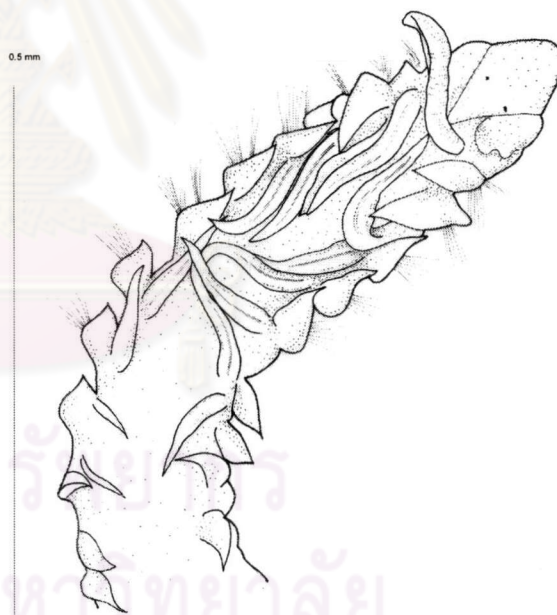


Figure 7.30 *Aonides* sp.A

Family Magelonidae Cunningham and Ramage 1888

The worms magelonids have long, slender bodies, separated into two regions. Prostomium flatten and anteriorly ovate or truncate, without appendages. Pair of palp bears at the junction of pro- and peristomium on the ventral side. Setae include capillaries and hooded bi- or multidentate hooks. The magelonids are commonly found in sandy bottom by building very flimsy tube-structures and tend to move through the sediment. These worms are assigned to a single genus, *Magelona* Muller 1858 (Fauchald, 1977).

There are 3 species described from this study, namely, *Magelona crenulifrons*, *M. kamala* and *M. pygmaea*.

Magelona crenulifrons Gallardo, 1968

(Figure 7.31)

Magelona crenulifrons Nateewathana & Hylleberg, 1991, p. 171-173, figure 1 A-L.

Material examined: Registration No. DOFM-POL0031. Total 115 specimens.

Description: The worms are with prostomium truncate, slightly wider than long, with rudimentary frontal horns and with a pair of prostomial ridges. Palp long, bearing 5 longitudinal rows of papillae. Parapodia are similar on setigers 1 – 8. Setiger 9 has basically same as setiger 8 but dorsal medial lobe absent. Thoracic setae are limbate. Abdominal parapodia with foliaceous noto- and neuropodial lateral lamellae, smooth interlamellae present. Abdominal setae are tridentate hooded hooks. Lateral pouches are absent.

Localities: Stations TA3, TA1, TB5, TB3, TB2, TB1, TC5, TC4, TC3, TC2, TD3, TD2, TE3, TE1, C1, C2, C3,CT

Habitat: The species was reported from Kamala Bay and Patong Bay, west coast of Phuket Island, Andaman Sea, in fine and very fine sand between 10-20 m depth. This is the first recorded from Kung Krabaen Bay, eastern coast of Thailand, in mud and very fine sand bottoms on intertidal and subtidal zones at 2- 7 m depth in Kung Krabaen Bay.

Distribution: Nha Trang, South Viet Nam; Andaman Sea coast of Thailand.

Remark: Nateewathana & Hylleberg (1991) described 9 species of magelonid polychaetes found in the Andaman coast of Thailand and they found out that the 3 most abundant species were in accordance with monsoon-associated sediment disturbance at the same sampling sites (Hylleberg & Nateewathana, 1991). They noted that *M. crenulifrons*, *M. pygmaea* and *M. tinae* were sampled at stations near an offshore tin mine where mining activity increased the turbidity due to release of silt-clay from dredges. This showed that the *M. crenulifrons* can tolerate the environmental change by water turbidity, such in the estuaries system of Kung Krabaen Bay.

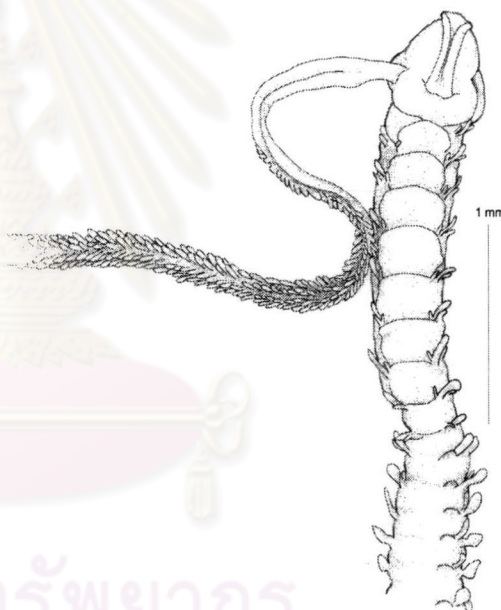


Figure 7.31 *Magelona crenulifrons* Gallardo, 1968

Magelona kamala Nateewathana & Hylleberg, 1991
(Figure 7.32)

Megalona kamala Nateewathana & Hylleberg, 1991, p. 173-174, figure 3 A-M.

Material examined: Registration No. DOFM-POL0032. Totals 15 specimens.

Description: The worms are with protomium truncate, slightly wider than long, with rudimentary frontal horns and with a pair of prostomial ridges. Palps are long with 2 regular rows of papillae. Thoracic parapodia are similar on setigers 1 to 8, with digitiform dorsal medial lobes, cylindrical to somewhat flattened notopodial lateral lamellae and long digitiform infrasetal ventral neuropodial lobes. Setiger 9 dorsal medial lobe absent. Thoracic setae limbate. Abdominal parapodia are with foliaceous noto- and neuropodial lateral lamellae and smooth interlamellae is present. Abdominal setae are tridentate hooded hooks. Lateral pouches are absent.

Localities: Stations TA4, TB2, TB1, TC3, TC2, TD4, TD2, C1, C2, CT

Habitat: The worms were first described fine and very fine sand bottom at 10–20 m depth off Kamala Bay and Patong Bay, Phuket Island, Thailand (Nateewathana & Hylleberg, 1991). For the species from Kung Krabaen Bay was collected from fine sand and very fine sand on intertidal and subtidal zone at 6-7 m depth.

Distribution: Thailand: Phuket Island, Andaman Sea.

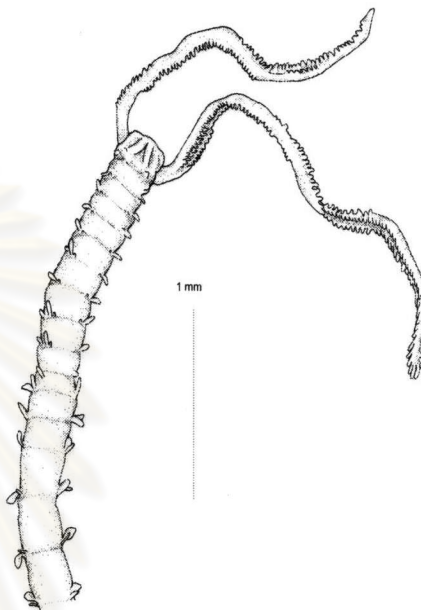


Figure 7.34 *Megalona kamala* Nateewathana & Hylleberg, 1991

Magelona pygmaea Nateewathana & Hylleberg, 1991
(Figure 7.33)

Magelona pygmaea Nateewathana & Hylleberg, 1991
p. 180-181, figure 9 A-L.

Material examined: Registration No. DOFM-POL0033. Total 4 specimens.

Description: The worms small. Prostomium truncate, slightly wider than long, with rudimentary frontal horns, a pair of prostomial ridges. Palps are very long extending to setiger 30 with 2 regular rows of papillae. Thoracic parapodia are similar from setigers 1 to 9 with lanceolate postsetal notopodial lateral lamellae and thoracic notopodia with lanceolate infrasetal or postsetal lobes. Thoracic setae are limbate. Abdominal parapodia bear with foliaceous lateral lamellae. Abdominal setae are tridentate hooded hooks. Lateral pouches absent.

Localities: Stations TC2, TE3, C1

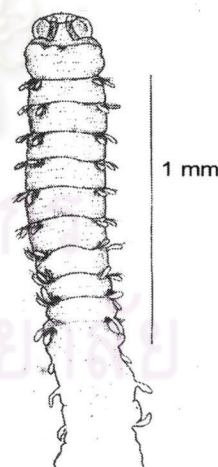


Figure 7.33 *Magelona pygmaea* Nateewathana & Hylleberg 1991

Habitat: This species is recorded in fine and very fine sand bottom at Kamala Bay, west coast of Phuket Island, Andaman Sea. This study found this worm inhabits in very fine sand in Kung Krabaen Bay, eastern coast of the Gulf of Thailand.

Distribution: Phuket Island, Andaman Sea and Kung Krabaen Bay, Chanthaburi Province, Thailand.

Remark: The specimens conform to the description given in Nateewathana and Hylleberg (1991).

Family Poecilochaetidae Hannerz 1956

The worms under this family have long and slender body. Prostomium is small with either a frontal or a median antenna. Nuchal organs are present. First segment is asetigerous and first setiger lacks dorsal and ventral cirri. Neuropodial acicular spines are present in most setiger from segment 4 (Fauchald, 1977).

There is only one species belonging to genus *Poecilochaetus* Claparede 1875 .

Poecilochaetus sp.A (Figure 7.34)

Material examined: Registration No. DOFM-POL0034. Total 19 specimens.

Description: The worm is easily broken posteriorly. The frontal part or protomium has 2 pairs of eyespots. Cephalic organ inserts at the antero-ventrally. Nuchal organ with 3 tentaculiform of which the median one slightly longer than the other two, extending to setiger 4. First segment bears long setae forming a cephalic cage. Neuropodial acicular spines present in a few anterior segments only. Ampullaceous postsetal lobes present on parapodia from setiger 7 to 13, the base is thickened and the neck is slender terminating in a bulbous tip.

Localities: Stations TB4, TC5, TC4, TD3, TD2, TE3, TE2, TE1, C1, C2, C3, CS

Habitat: This species is found in fine and very fine sand on intertidal zone inside Kung Krabaen Bay and subtidal zone at 6-7 m outside the bay.

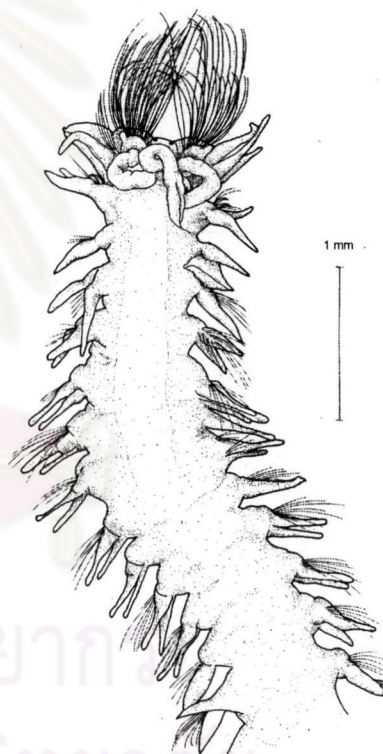


Figure 7.34 *Poecilochaetus* sp.A

Family Chaetopteridae Malmgren 1867

The description of family is given by Day (1967): Worms have very soft mucilaginous body always protected in a tube. Body elongate and composed of numerous segments always divided into three regions. Prostomium inconspicuous and enfolded by a broad, collar-like buccal segment. Head appendages include a pair of long grooved palps and sometimes a pair of inconspicuous tentacular cirri. Anterior region of nine to fifteen uniramous, dorsally flattened segments with stout acicular setae in setiger 4 and elongate simple setae elsewhere. Middle region of biramous segments with fine internal notosetae and minute serpuliform uncini in the neuropodia; the notopodia are often bilobed and one or more pairs produce mucus bags which are caught by cup-shaped organs and carried forward to the mouth. Posterior region of biramous segments always with simple notopodia which do not produce mucus bags.

There only species was found in this study, *Chaetopterus variopedatus* Renier.

Chaetopterus variopedatus Renier, 1804

(Figure 7.35)

Chaetopterus variopedatus Fauvel, 1953, p. 337-338, Figure 175 a-n.

Material examined: Registration No.: DOFM-POL0035. Total 5 specimens.

Description: Incomplete specimens.

The worms easily broken, always found with thick clear mucus and live in tubes. Body is thick, soft, divided into three distinct regions. Head bears two small palps or tentacles. Stout modified bristles appears on the setiger 4. There is 5 biramous on the middle part of body with two aliform appendages of the first segments, the next with dorsal rami cup-shaped and the others paddle-shaped. Ventral rami is coalescent bearing pectinate uncini. Posterior region bears unilobed dorsal rami whereas ventral rami bilobed. Tube consisting of layers of parchment-like membranes. I found this species incomplete body after sieving. There is much mucous around the worm while living in tube.

Localities: Stations TB3, TB2, TB1, TC4, TD2

Habitat: This species is found in fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Distribution: Pacific, Indian and Atlantic Oceans, cosmopolitan.

Remark: The species is characteristic body consisting of easily broken segments. The worm is found in a sand tube surrounding with thick mucus.

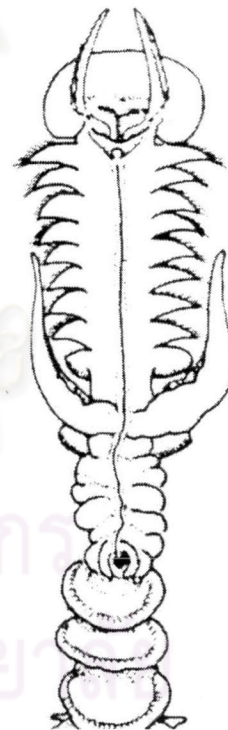


Figure 7.35 *Chaetopterus variopedatus* Renier, 1804

Family Cirratulidae Carus 1863

General characteristics, the worm forms cylindrical body. Postomium conical or blunt whereas the peristomium fused with at least two segments. Parapodia reduce with slender filiform or clavate branchiae presenting on at least some setigers. All setae are simple with capillaries and curved or excavate hooks.

Key to genera is modified from Fauchald (1978). There are 5 species from this study, namely *Raricirrus* sp.A, *Tharyx* sp.A, *Cirratulus* sp.A, *Cualleriella* sp.A and *Chaetozone* sp.A. The difficulties in the identification are due to the small size of worms, they are easily fragmented. It require experience and extensive literature to classify the species from SE Asia. However, there are sufficient characters to classify these worms to genus level and to be able to differentiate the different species from one another

Key to genera and species (modified from Fauchald, 1978)

- 1- Anterior region with long tentacular cirri..... 2
 - Anterior region without long tentacular cirri *Raricirrus* sp.A
 2- All setae slender, smooth or serrated cutting edge 3
 - At least some setae either curved hooks or spines..... 4
 3- Setae with capillaries, smooth cutting edge, distally pointed..... *Cirriformia* sp.A
 - Setae with capillaries, serrated cutting edge..... *Monticellina* sp.A
 4- Acicular spines in posterior segments distally entire *Chaetozone* sp.A
 - Acicular spines in posterior segments distally bifid *Tharyx* sp.A

Raricirrus sp. A
 (Figure 7.36)

Material examined: Registration No. DOFM-POL0016. Total 9 specimens.

Description: Incomplete specimens. The worms have very small size body, slender with long capillaries setae. First two anterior segment fused, without setae.

Localities: Stations TE4, TE1, C3

Habitat: The species is found in mud and very fine sand substratums on intertidal zone inside Kung Krabaen Bay and subtidal zone at 6-7 m depth outside the bay.

Remark: I suggest these specimens probably belong to genus *Raricirrus* Harman 1961, by body narrow anteriorly, without long tentacular structure and setae capillaries on anterior segments. Petersen & George (1991) added this genus to Family Ctenodrilidae Kennel 1882, this specimen possibly does not belong to the family by its body shape and setae type.



Figure 7.36 *Raricirrus* sp.A

Cirriformia sp.A
 (Figure 7.37)

Material examined: Registration No. DOFM-POL0037. Total 19 specimens.

Description: The worms have very characteristic of long tentacular cirri present on a few anterior segments. Prostomium conical and usually without eyes. Buccal segment triannulate. Numerous grooved tentacular filaments arise in a group from an extension of peristome above setigers 2-7. Branchial filaments over the greater part of the body. Rami of parapodia well separated and bear both capillary setae and simple acicular hooks.

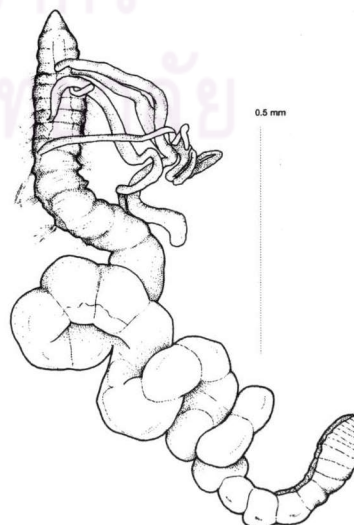


Figure 7.37 *Cirriformia* sp.A

Localities: Stations TE4, TE3, TE2, CS

Habitat: This species is found in mud and very fine sand substratums on intertidal zone inside Kung Krabaen Bay. Localities for this worms are along Transect E and vicinity area (Station CS) on the south of the bay.

Remark: The species appears to most closely belong to the genus *Ciriformia* following the description given in Day (1967).

Tharyx sp.A
(Figure 7.38)

Material examined: Registration No. DOFM-POL0038. Total 4 specimens.

Description: The worms have small size body. Body elongate with numerous segments. Prostomium conical; peristomium elongated and achaetous, with a pair of long grooved palps arising at its junction with setiger 1; first pair of branchiae frequently on peristomial segments, arising immediately posterior to palps; abdominal segments not beadlike; setae include simple capillaries and acicular spines with irregular knobbed tips; knobs sometimes with shallow notches, but never with distinct teeth.

Localities: Stations TE3, TE2

Habitat: This species is found in very fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Remark: These specimens agree well with the definition of genus given by Blake (1991).

Monticellina sp.A
(Figure 7.39)

Material examined: Registration No. DOFM-POL0039. Total 10 specimens.

Description: A small, threadlike species with approximately 50 setigers for specimens 8 mm long and 0.3 mm wide at the thorax. Prostomium elongate, pointed; peristomium elongated, without pseudosegmentations, palps arising from anterior margin of setiger 1. Branchiae arising dorsal to notosetae. Parapodia reduced, low, simple. Middle body segments bead-like; neurosetae all capillaries with distinct sawtooth (denticulate) edge.

Localities: Stations TA1, TE1

Habitat: This species is found in very fine sand substrata on subtidal zone at 2-3 m depth, near entrance, inside Kung Krabaen Bay.

Remark: These specimens agree well with the definition of genus given by Blake (1991).

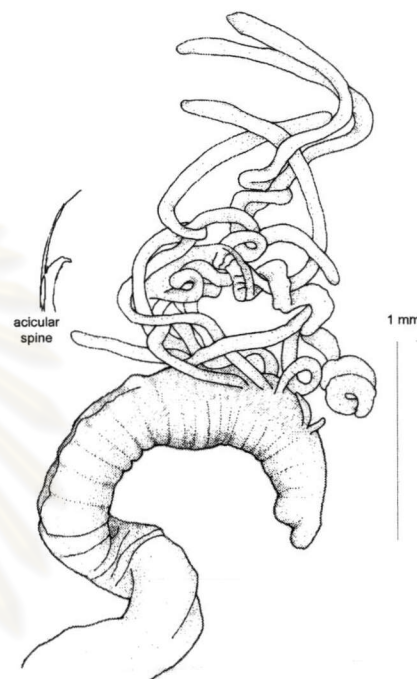


Figure 7.38 *Tharyx* sp.A

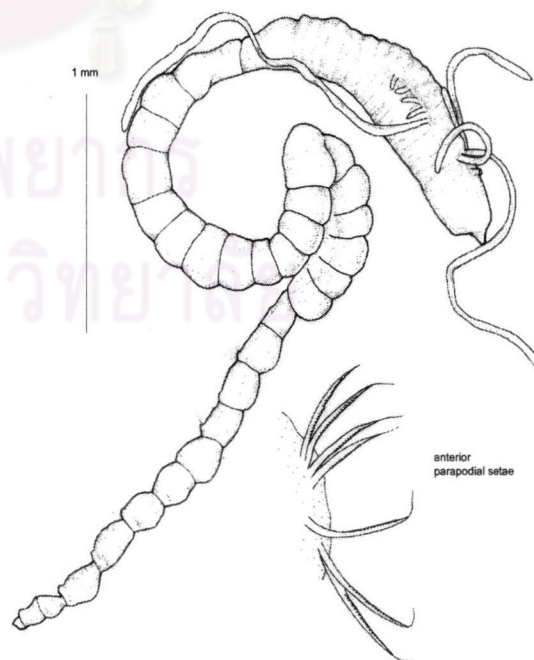


Figure 7.39 *Monticellina* sp.A

Chaetozone sp.A
(Figure 7.40)

Material examined: Registration No. DOFM-0040. Total 21 specimens.

Description: The body elongate, rounded in section and tapered at both ends. Prostomium conical. Buccal segment triannular. A pair of elongate, grooved palps at the junction between the third annulus and setiger 1. Branchial filaments on numerous segments. Setae include slender capillaries and simple acicular hooks; the latter form a continuous dorso-ventral arc on posterior segments.

Localities: TA1, TD2, TE4, TE2, C1

Habitat: This species is found in very fine to fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: The identification of genus with the definitions given in Day (1967) and Fauchald (1977).

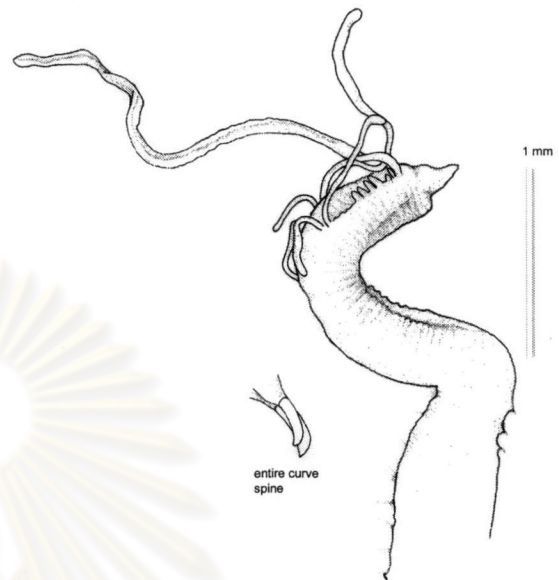


Figure 7.40 *Chaetozone* sp.A

Family Capitellidae Grube 1862

Worms with cylindrical body, usually slender. Fauchald's (1978) description of this family is that it has short and truncate protomium without appendages; thorax and abdomen defined on internal structures and parapodial development; generally, thorax with capillary setae and abdomen with rostrate hooded hooks. The capitellids are referred to as pollution indicators, e.g. *Capitella capitata*. The anterior thorax of most capitellids is usually strongly areolated and they are usually reddish pink or brown. In general appearance, they are perhaps the most earthworm-like of the common marine polychaetes. I mostly found the capitellids from this area in mud and muddy sand substratum. There are 5 species from this study area belonging to the family, namely *Mediomastus* sp.A, *Notomastus* sp.A, *N. latericeus*, *Capitella* sp.A and *Capitomastus* sp.A.

Key to species of the Family Capitellidae Grube 1862 (Modified from Fauchald, 1977)

- 1- Eleven setigers with capillary setae only, perhaps branchiae present2
 - Four or more setigers with capillary setae only.....3
- 2- Branchiae present on parapodial.....*Notomastus latericeus*
 - Without branchiae present on parapodial.....*Notomastus* sp.A
- 3- Setae on setigers 2-5, capillaries only, thereafter hooks.....*Mediomastus* sp.A
 - Setae on setigers 2-7, capillaries, setigers 8-9 genital spine present.....*Capitella* sp.A
 - Setae on setigers 1-5, capillaries, setigers 8-9 genital spine present*Capitomastus* sp.A

Notomastus latericeus Sars
(Figure 7.41)

Notomastus latericeus Fauvel, 1953, p. 364-365,
Figure 189 a-h.

Material examined: Registration No. DOFM-POL0041. Total 5 specimens.

Description: The species distinctly has a thick body. This species has thorax tessellated, segments bi-annular. Peristomium bi-annular, achaetous. First dorsal tori close to each other, coalescent; further back they are well apart. Gills rudimentary and are represented by lateral processes of the dorsal ridges and of the upper end of the ventral tori. Genital pores from the 2nd abdominal segment. Very brittle in the posterior part. Colour in life, bright red anteriorly.

Localities: Stations TD2, TE1, C3

Habitat: This species is found in very fine sand substratum on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Distribution: Andaman Islands; Bay of Bengal; Ceylon; Gulf of Oman; Magellan, Chile; Atlantic Ocean; Mediteranean Sea, Falkland Islands.

Remark: Specimens from this study conform with the description given by Fauvel (1953). However such is the widespread occurrence of this species that further research is needed to determine whether all populations really are this species.

Notomastus sp.A
(Figure 7.42)

Material examined: Registration No. DOFM-POL0042. Total 132 specimens.

Description: The worm has thorax of eleven setigerous segments, with only dorsal and ventral capillary setae. Thorax tessellated. Abdoment with hooded hooks borne on raised tori. Gills reduced to short processes of the parapodial ridge.

Localities: Stations TA3, TA1, TB4, TB3, TB2, TB1, TCin, TC5, TC4, TC3, TC2, TD4, TD3, TD2, TE3, TE1, C1, C2, C3, CT

Habitat: This species lives in mud to very fine sand substrata on intertidal and subtidal zones inside Kung Krabaen Bay to at 6-7 m depth outside the bay.

Remark: The species belongs to genus *Notomastus* by its distinct shape of body and number of capillaries present on 12 anterior segments. Fauchald (1977) notes there were 34 known species at the time of his paper.

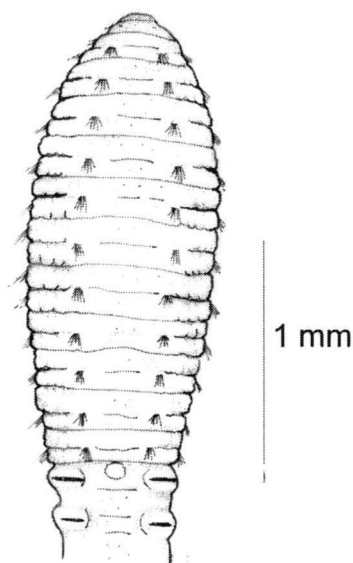


Figure 7.41 *Notomastus latericeus* Sars

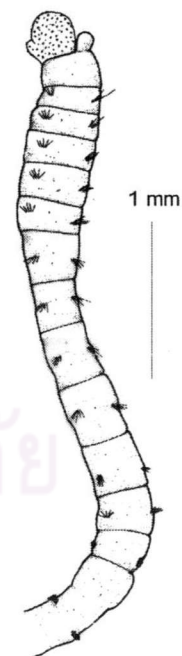


Figure 7.42 *Notomastus* sp.A

Mediomastus sp.A
(Figure 7.43)

Material examined: Registration No. DOFM-POL0043. Total 412 specimens.

Description: Thorax with 11 segments; one asetigerous segment present; first setiger complete. Up to segment 5 with capillary setae only; thereafter, all setigers with hooded hooks abdominal. Branchiae absent.

Localities: Stations TAin, TA5, TA4, TA3, TA2, TA1, TBin, TB5, TB4, TB3, TB2, TB1, TCin, TC5, TC4, TC3, TC2, TD5, TD4, TD3, TD2, TEin, TE5, TE4, TE3, TE2, TE1, C1, C2, C3, CT, CN, CS

Habitat: This species is found in all habitats inside and outside Kung Krabaen Bay. It is common species that was found in all stations.

Remark: The species belongs to genus *Mediomastus* from its distinctive body shape and there are 4 anterior setigers present capillaries setae. This species conspicuously showed a positive relationship to high organic enriched sediment. Fachauld (1977) notes there were seven known species at the time of his paper.

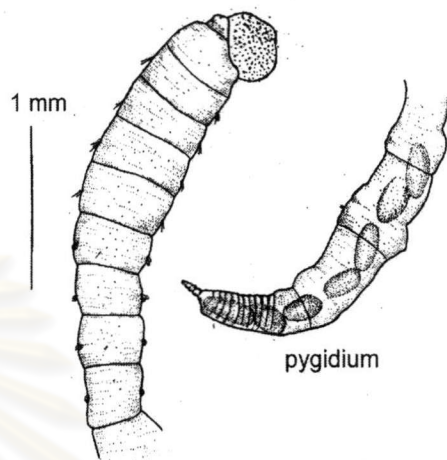


Figure 7.43 *Mediomastus* sp.A

Capitella sp.A
(Figure 7.44)

Material examined: Registration No. DOFM-POL0044. Total 108 specimens.

Description: Thorax of nine segments. Six setigerous segments with winged capillaries. Hooded hooks present in posterior thoracic segments, starting from segment 5 so that segments 5, 6 and 7 may have both hooks and capillaries. Segments 8 and 9 with copulatory setae in the notopodia of the male but hooded hooks only in the female. Lateral organs absent and genital apertures limited to the last few thoracic segments. Abdominal segments with hooded hooks in both rami. No branchiae.

Localities: Stations TA5, TA2, TB5, TB4, TB3, TCin, TC5, TC3, TD5, TD3, TEin, TE5, TE2, TE1, CN, CS

Habitat: This species is found in mud and very fine sand substratums on intertidal zone inside Kung Krabaen Bay. It is recorded in associated with sea-grass of this area.

Remark: The species belongs to genus *Capitella* by its having 7 anterior setigers bearing capillary setae and distinctive genital spines on setigers 8-9, Fauchald (1977) noted that there were 15 known species. My specimens appears to be closely relate to species *Capitella*

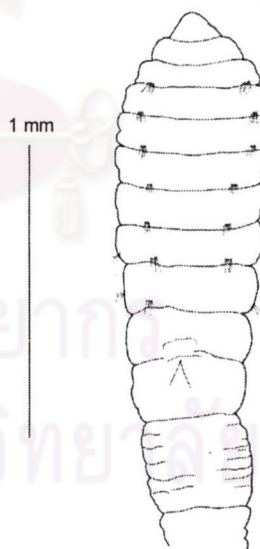


Figure 7.44 *Capitella* sp.A

capitata (Fabricius, 1780). As known this species is cosmopolitan distribution: Arctic; North Atlantic from Greenland and Scotland to North Carolina and Senegal; Mediterranean; Black Sea; cold North Pacific from Behring Sea to N.W. Japan; Southern California; subantarctic. However, other research has indicated that there may be several cryptic species which are morphological similar (e.g. Grassle and Grassle, 1978). Without reference to further molecular assessments it will not be possible to determine the identification of Thai populations the specimens in hands are the same species *Capitella capitata* (Fabricius, 1780).

Capitomastus sp.A

(Figure 7.45)

Material examined: Registration No. DOFM-POL0045. Total 7 specimens.

Description: Body cylindrical, with with ten thoracic segments; one asetigerous segment present; first three setigers with capillaries only, next with hooded hooks. Genital spines not seen on setiger 8-9 (probably juvenile stage). Without gills.

Localities: Stations TA4, TBin, TB5, TCin, TD4, TE5

Habitat: This species occurs in mud and very fine sand in canals and on intertidal zone inside Kung Krabaen Bay.

Remark: The species is agreed with Fauchald (1977) description that there is one asetigerous segment, 3 setigers with capillaries. Genital spines could not be seen that probably was in juvenile stage.

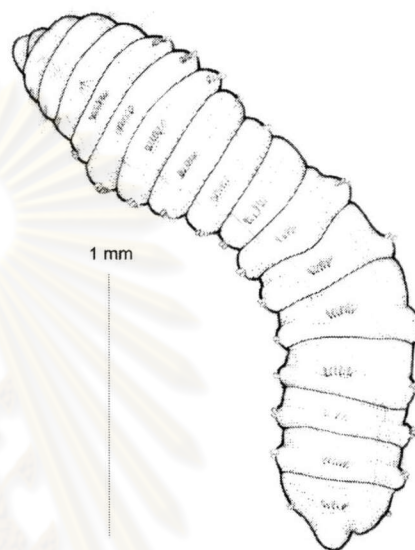


Figure 7.45 *Capitomastus* sp.A

Family Maldanidae Malmgren 1867

The maldanid polychaetes or the bamboo-worms having capitelliform with long cylindrical bodies, usually truncate at one or both ends; most species with long, cylindrical segments. Fauchald (1977) gave details of characteristics that the prostomium without appendages, with a pair of nuchal slits and a median cephalic keel. Notopodia short and rounded; neuropodia elongated tori. Notosetae smooth or spinose capillaries; neurosetae rostrate hooks, anterior modified spines present in several forms. Fauvel (1953) prompted remarks that in the Maldanidae the head, anterior segments, and the pygidium, provide the most important features which differentiate species and genera. Incomplete specimens can, therefore, be but exceptionally identified with certainty. Unfortunately, Maldanidae are very brittle worms and are often incomplete in the collection.

It is fortunate to me that my species are some in good collection. The difficulty is lacking of experience and referent literatures available to identify at species levels. There two species were found and described from this area belonging to subfamily Euclymeninae, namely *Euclymene* sp.A and ? *Clemenura* sp.A. It is noted that the maldanids are common in shelf sediments. They usually live in mud- and sand-walled tubes.

Euclymene sp.A
(Figure 7.46)

Material examined: Registration No. DOFM-POL0046. Total 48 specimens.

Description: Head with a slanting cephalic plate with a raised rim. Nuchal grooves straight and parallel. Up to 25 setigerous segments and four achaetous preanals. The first three setigers with one to three acicular neurosetae which usually have smooth tips or occasionally vestigial denticles; subsequent neurosetae are numerous hooks with a vertical series of five to seven denticles above the main fang and chitinous tendons below. Pygidial funnel rimmed with cirri. Anus sunk in the funnel and has no glandular streaks on posterior ones. Color dark brown in alcohol solution for large worms but pale brown for small worms.

Localities: Stations TA3, TB5, TB4, TB3, TB2, TC5, TC4, TC3, TD3, TD2, TE5, TE3, TE2, TE1, C3, CT, CS

Habitat: The species is found in fine to very fine sand substratums and associated with sea-grass beds inside Kung Krabaen Bay and subtidal zone at 6-7 m depth outside the bay.

Remark: The present species has cylindrical body sheltering inside sandy tube. It is very characteristic head with expansion at lateral to form cephalic plate. Pygidium marginates by several broadly triangular cirri with sheltering anus inside.

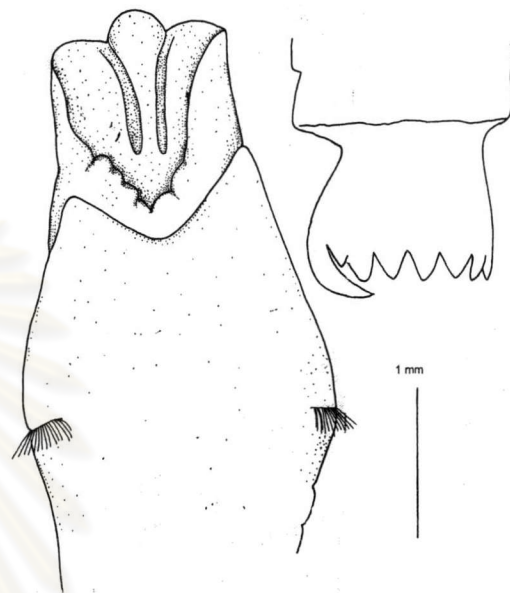


Figure 7.46 *Euclymene* sp.A

? *Clymenura* spA
(Figure 7.47)

Material examined: Registration No.: DOFM-POL0047. Total 23 specimens.

Description: Prostomium well developed and followed by long parallel nuchal grooves. Cephalic plate rudimentary or absent. Anterior segments with glandular rings, the eighth with a ventral glandular patch. Achaetous preanals present. Anus on a cone with an enlarge ventral valve, anal cirri few and longate or absent. In my specimens an enlarge ventral valve could be found, anus strictly located at sub-terminal pygidium and no anal cirri. Notosetae include both winged capillaris and feathered forms. The first few neurosetae essentially similar to the hooks of succeeding segments though the denticles on the rostrum are poorly developed. Later hooks with a vertical series of teeth above the main fang and tendons below.

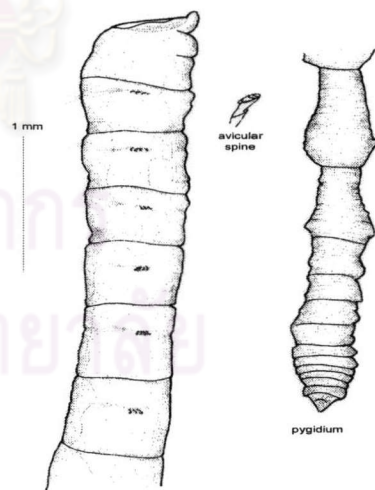


Figure 7.47 ? *Clymenura* sp.A

Localities: Stations TA3, TB5, TB4, TB3, TB2, TC5, TE4, TE3, TE2, CS

Habitat: The present species is found in fine to very fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay.

Remark: My species bears no enlarge cephalic plate on head and anal cirri. The pygidium has conical shape with anus opening at sub-terminal mid way between pygidium tip and its base. Pygidium shape is closely relate to the genus *Lumbriclymene* Sars, 1872 but the head and anterior part relate to *Clymenura* Verrill, 1900.

Family Ophelidae Malmgren 1867

The opheliids have distinct body shapes: short, thick and grub-shaped; others are very slender, nearly smooth and torpedo-shaped. Fauchald's (1977) definition of the family is as follows: body with a limited number of segments; often with a deep ventral furrow. Prostomium without appendages, blunt or conical. Parapodia biramous or uniramous. With small button-shaped parapodial lobes; all setae capillary, either smooth or marginally dentate. These worms are commonly found in sandy and muddy bottoms.

In my collection there are 3 species described, namely, *Armandia* cf. *lanceolata* Willey 1905, *Ophelina* cf. *acuminata* Oersted 1843 and *Polyopthalmus* cf. *pictus* (Dujardin, 1839). They are commonly found in mud and muddy sand bottom on inter-tidal zone from the study area.

Key to species of Family Ophelidae of the Kung Krabaen Bay.

- 1- Body thick, grub-shaped, with anterior blunt; branchiae absent... *Polyopthalmus* cf. *pictus*
 - Body fusiform, with ventral furrow along whole body, protomium acute tip.....2
- 2- Gills present, with lateral eyes..... *Armandia* cf. *lanceolata*
 - Gills present, without later eyes..... *Ophelina* cf. *acuminata*

Armandia cf. *lanceolata* Willey 1905 (Figure 7.48)

Armandia lanceolata Willey, 1905, p. 288, pl. V, fig. 120.

Armandia lanceolata Fauvel, 1977, p. 358.

Material examined: Registration No. DOFM-POL0048. Total 255 specimens.

Description: This opheliid is very characteristic with fusiform body shape, elongate, with acute tip anteriorly. Ventral groove along the whole body. Branchiae present 26 pairs. 11 pairs of lateral eyes, present from setiger 7. Anal tube long and slender, with paired long internally attached ventral cirri and shorter dorsal cirri.

Localities: Stations TA3, TBin, TB5, TB4, TB3, TB1, TCin, TC5, TC4, TC3, TC2, TD2, TD1, TE3, TE1, C2, C3, CN

Habitat: This species is found in canal and on intertidal and subtidal zones inside and outside the bay at 6-7 m depth.

Distribution: Australia, New Caledonia, Indo-China, India, Persian Gulf.



Figure 7.48 *Armandia* cf. *lanceolata* Willey 1905

Remark: The present species is relatively close to species *A. lanceolata* described by Fauvel (1977) from Mergui Archipelago, Ceylon and Pamban. The referred species has 29-30

setigerous segment, gills from the 2nd segment, absent on the last 3 segments, generally 11-12 eye-spots beginning about the 7th setigerous segment. These characters are in agreement with the description given by Fauvel. The present species differs from *A. leptocirrus* Grube, 1878 by its having 33-37 setigerous segments and characterizing of long papillae on anal funnel.

Ophelina cf. *acuminata* Oersted, 1843

(Figure 7.49)

Ophelina cf. *acuminata* Day, 1967, p. 579, fig. 25.2.i-j.

Material examined: Registration No. DOFM-POL0049. Total 19 specimens.

Description: Body with ventral furrow along the whole length. Prostomium conical with a filiform tip. 50 branchiae from setiger 2 to the last 2 or 3 segments. Lateral eyes absent. Anal cone long in my species. Anal funnel long, scoop-shaped and slit ventrally. The posterior end is fringed by many small marginal papillae and two much stouter ones with paired internally attached ventral cirri and shorter dorsal cirri.

Localities: Stations TA4, TA3, TA1, TB4, TB3, TB1, TE3, TE1, C2, CS

Habitat: This species is found in fine to very fine sand substrata in intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Distribution: Arctic; N. Atlantic from Norway and Greenland to the English Channel; N. Pacific from the Behring Sea to Japan; tropical Indian Ocean.

Remark: The present species agrees with Day's (1967) description. It has similar numerous of setigerous segments. The species has characteristics of acute tip in front of prostomium and distinctly two stout papillae at the anterior end of the slit and long median internal cirrus.

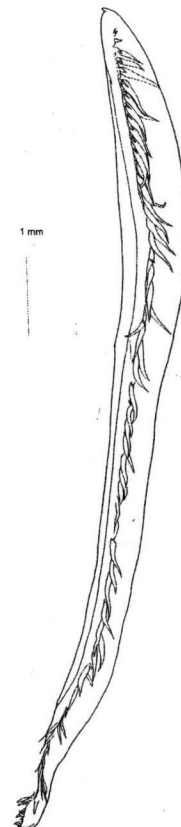


Figure 7.49 *Ophelina* cf. *acuminata* Oersted, 1843

Polyopthalmus cf. *pictus* (Dujardin, 1839)

(Figure 7.50)

Polyopthalmus cf. *pictus* Fauvel, 1977, p. 360-361, Figure 187 I-o.

Material examined: Registration No. DOFM-POL0050. Total 8 specimens.

Description: Protomium blunt, short. Nuchal organ protrusible. No eyes. A longitudinal ventral groove. 11 lateral eye-spots. Gills and ventral cirri absent. Biramous parapodia with simple capillary setae. Anal funnel fringed with papillae.

Localities: Stations TB4, TB2, TD3

Habitat: This species is found in fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Distribution: Pacific, Indian and Atlantic Oceans, Mediterranean Sea. Cosmopolitan.

Remark: Specimens from the study site have many transversal brownish to blackish color bands dorsal surface, starting at the anterior end and extending to posterior. Fauchald (1977) noted that the genus had 3 known species. Fauvel (1953) described the species *Polyopthalmus pictus* Dujardin from Gulf of Manner, Ceylon, Pamban, Kilakarai; Maldive Archipelago, Fehendu. The same author had referred the pelagic species, *P. longisetosus* Michaelsen found off Ceylon. The species had long setae. My species shares characters with *P. pictus* as described in Fauvel (1977) it has similar size, no prominent setigerous lobes, a single capillary setae in each ramus, except in the last ones, and more or less conspicuous brown spots or streaks, arrange in several different dorsal patterns.

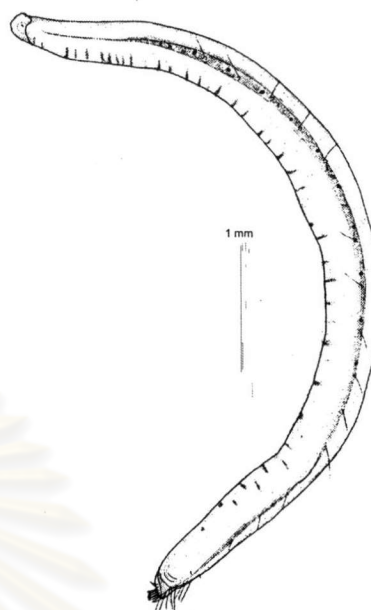


Figure 7.50 *Polyopthalmus cf. pictus* (Dujardin, 1839)

Family Phyllodocidae Williams 1851

The worms of this family have long and slender bodies. Fauchald's (1977) definition of the family: prostomium with four or five antennae, eyes, when present, small. Two to four pairs of tentacular cirri present. Parapodia uniramous (usually) or biramous with the notopodia represented by a short stalk and large, foliose dorsal cirri held erect over the dorsum, rarely with acicula or setae. All neurosetae composite; notosetae, when present, simple. The phyllodocids are common shallow-water polychaetes, more commonly associated with hard substrates than with sands and muds. They are frequently highly colored in life, and these colors are diagnostic but fade very rapidly upon preservation. The same author suggested the most important characters in the Phyllodocidae includes the number and arrangement of antennae on the prostomium and the numbers of tentacular cirri and their arrangement on the first few segments.

There are 2 species described in my collection, namely, *Eteone* sp.A and *Genytyllis* sp.A.

Eteone sp.A (Figure 7.51)

Material examined: Registration No. DOFM-POL0051. Total 8 specimens.

Description: Body long, linear, segment numerous. Prostomium triangular, with four small tentacles on the truncate anterior border. Generally two small eyes. Two pairs of tentacular cirri. Dorsal cirrus absent on the second setigerous segment. Prosoboscis not observed. Dorsal and ventral cirri foliaceous. Setae compound.

Localities: Stations TB4, TC3, TC2, C2, C3

Habitat: This species is found in fine sand substratum on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: My species belongs to the genus *Eteone* Savigny 1818 having 4 antennae and two pairs of tentacular cirri. Fauchald (1977) listed 40 species belong to this genus.

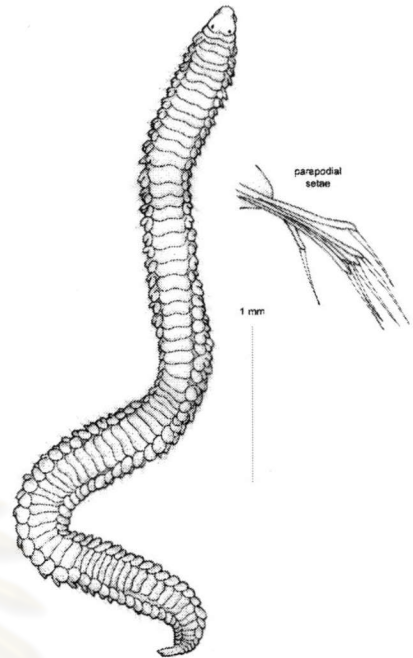


Figure 4.51 *Eteone* sp.A

Genytyllis sp.A
(Figure 7.52)

Material examined: Registration No. DOFM-POL0052. Only 1 specimen.

Description: Prostomium with four antennae; short wide prostomium and no nuchal papilla. First and second tentacular segments are fused and reduced dorsally; all tentacular cirri cylindrical. Eversible pharynx not seen. Parapodia uniramous.

Localities: Station TD2

Habitat: This species is found in very fine sand substratum on intertidal zone inside Kung Krabaen Bay.

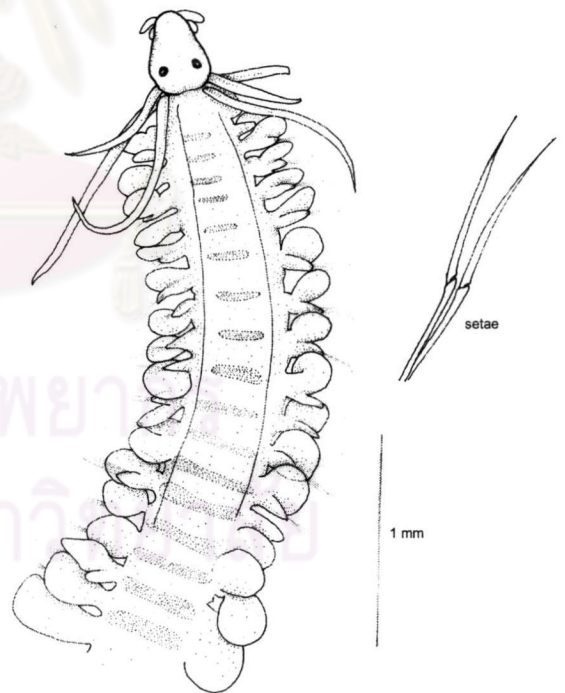


Figure 7.52 *Genytyllis* sp.A

Family Chrysopetalidae Ehlers 1864

The worms chrysopetalaceans characters are in agreeable to Fauchald (1977) description of family that the worm of short or long bodies, usually strongly flattened. Three antennae. Notosetae in transverse rows, held erect over the dorsum or covering the back as tiles on a roof. Neurosetae composite.

There are 4 genera described under the family, namely, *Dysponetus*, *Bhawania*, *Paleanotus* and *Chrysopetalum*. In my collection there is only species under genus *Chrysopetalum* with shape of notosetae flattened paleae covering whole body as the same kind paleae and the length of body is short about 38 segments. Following with a key to genera in Fauchald (op. cit.) the *Dysponetus* has notosetae cylindrical rather than flattened and not covering dorsum whereas the *Bhawania* has prostomium without a conspicuous caruncle overlapping the peristomium and body short and the *Paleanotus* with dorsal paleae of two abruptly different kinds. These characters of corresponding genera are not fitted to my species, therefore, it is well agreeable to the genus *Chrysopetalum*.

Chrysopetalum sp.A

(Figure 7.53)

Material examined: Registration No. DOFM-POL0053. Total 2 specimens.

Description: Body with about 38 segments, completely covered by paleae. Caruncle present. Paleae of one kind only; first segment with paired, similar ventral cirri. Caruncle not observed. Parapodial lobe uniramous.

Localities: Stations TD2, TE1

Habitat: The species is found in fine sand substratum on subtidal zone at 2-4 m depth inside Kung Krabaen Bay.

Remark: The present species characters are agreeable to genus *Chrysopetalum* by its having short body, about 38 segments, completely covered by similar paleae.

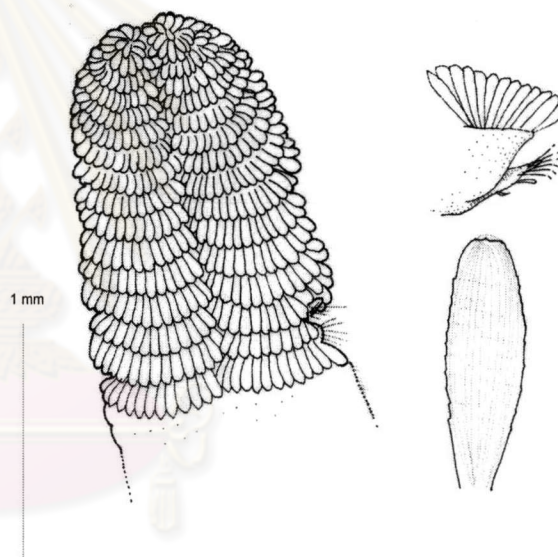


Figure 7.53 *Chrysopetalum* sp.A

Family Hesionidae Sars 1862

The worms are relatively short-body, dorsoventrally flattened. Two or three antennae (antennae rarely absent); palps may be absent or have from one to three articles. Two to eight pairs of tentacular cirri present. Jaws may be present. Parapodia uniramous or biramous, but notopodia always reduced compared to the neuropodia. Dorsal cirri long and slender. Neurosetae composite; notosetae, if present, simple. The hesionids are common animals in hard substrates and in shallow water; they are more rarely found in deep water. They trend to be fragile and fragment easily upon collection. The definition of this family have been given in Fauchald (1977).

There is only one species found from this area, belonging to genus *Leocrates* Kinberg 1866b, characterized by having eight pairs of tentacular cirri, prostomium with three antennae

and the median one attached frontally, eversible pharynx distally papillated, and parapodia uniramous.

Leocrates sp. A
(Figure 7.54)

Material examined: Registration No. DOFM-POL0054. Total 22 specimens.

Description: All specimens incomplete condition, missing posterior parts. Body cylindrical, segments few. Prostomium bilobed. Four eyes. Three tentacles. Two biarticulate palps. Proboscis with a chitinous jaw in the mid-dorsal and mid-ventral lines. Eight pairs of tentacular cirri. Parapodia biramous. Dorsal ramus small. Dorsal setae simple. Ventral setae compound. Dorsal cirri long, articulate. Most my specimens are incomplete.

Localities: Stations TA3, TB5, TB4, TC4, TC3, TC2, TD3, TE4, TE3, TE1, C3, CN, CS

Habitat: This species is found in fine to very fine sand on intertidal zone and also occurs associated with sea-grass, *Halodule pinnifolia*, beds inside Kung Krabaen Bay.

Remark: The present species agrees well with the definition of the genus *Leocrates* given by Fauvel (1953).

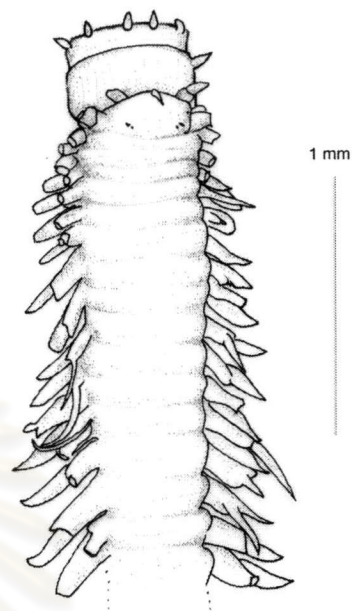


Figure 7.54 *Leocrates* sp.A

Family Pilargidae Saint-Joseph 1899

Nereidiform worm with ribbon-shaped or cylindrical bodies. Two or three antennae present (rarely absent). Palps simple or biarticulated; two pairs of tentacular cirri (rarely absent). Proboscis unarmed. Parapodia biramous, but notopodia always reduced. Setae simple; notosetae sometimes as a thick spine or hook. Notosetae may be absent. The family description is given in Fauchald (1977).

There are 2 different species, namely, *Sigambra* cf. *tentaculata* (Treadwell 1941) and *Anchistrostylis* sp.A. Both species have elongate body, flattened dorso-ventrally, with parapodia deeply incised. Dorsal and ventral cirri distinct. Notopodia stout emergent dorsal setae hooked. They are separated by the shape of prostomium, antennae, tentacular cirri.

Key to species of the family Pilargidae from Kung Krabaen Bay (modified from Pettibone 1966).

- 1- Prostomium small, inconspicuous, with antennae shorter than palps. Tentacular cirri short. Dorsal cirri of first setiger similar to or slightly longer than following. Dorsal cirri short. Neurosetae long becoming shorter, with tips slightly bent, smooth, and spinous. Integument papillated..... *Anchistrostylis* sp.A
- Prostomium larger, with antennae longer than palps. Tentacular cirri long. Dorsal cirri of first setiger unusually long. Dorsal cirri long and slender. Neurosetae with capillary tips. Integument smooth. Stout hooked notosetae beginning on setiger 4. Median antennae longer than lateral ones..... *Sigambra* cf. *tentaculata*

Ancistrostylis sp.A
(Figure 7.55)

Material examined: Registration No. DOFM-POL0055. Total 4 species.

Description: Body elongate, flattened, with lateral parapodia deeply cut. Prostomium small, inconspicuous; 2 biarticulate palps with large palpophores and small palpostyles; antennae short, usually 3 in number, consisting of lateral antennae (rarely absent) and posterior median antenna (may be absent). Tentacular segment more or less fused with prostomium, achaetous, with 2 pairs of short tentacular cirri (rarely only 1 pair). Dorsal and ventral cirri short. Parapodia sub-biramous. Notopodia inflated, with notoacicula curved distally, with stout emergent hooked setae beginning on setgers 3-13. Neuropodia with conical to truncate setigerous lobes, with neuroacicula and simple neurosetae. Neurosetae variable in length, smooth, finely to coarsely spinous, ususally ending in slightly hooked tips (tips may be indistinctly bidentate). Pygidium with paired short anal cirri. Proboscis not observed. Integument with scattered papillae. Color brownish with black scattered dots on whole body.



Figure 7.55 *Ancistrostylis* sp.A

Localities: Stations TB1, C2

Habitat: This species is found in fine sand and mud substratum on subtidal zone at 2-7 m depth inside and outside Kung Krabaen Bay.

Remark: The present species belongs to the genus *Ancistrostylis* McIntosh 1879 following the key given in Pettibone (1966).

Sigambra cf. *tentaculata* (Treadwell 1941)
(Figure 7.56)

Sigambra tentaculata Pettibone 1966, p.182-186, Figure 14, 15.

Material examined: Registration No. DOFM-POL0056. Total 261 specimens.

Description: Species about 10 mm in length, width 1 mm, up to 88 segments. Body inflated and widest anteriorly, tapered gradually posteriorly. Integument smooth, without papillae. Prostomium with biarticulate palps, large palpophores indistinctly separated from prostomium and with small filiform palpostyles; 3 antennae at posterior part of prostomium, median antennae longer than lateral ones and extending beyond palps. Tentacular segment longer than following segment, with 2 pairs of tentacular cirri similar to lateral antennae. Dorsal cirri of first setiger longer than following ones, similar to median antennae. Parapodia subbiramous; notopodia low, conical, with notoaciculum curving distally; stout, hooked, emergent notoseta beginning on setiger 4. Dorsal cirri wide basally, tapering distally, extending beyond setal

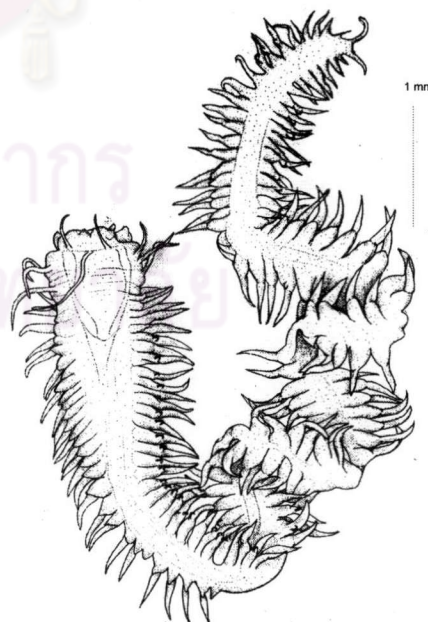


Figure 7.56 *Sigambra* cf. *tentaculata*
(Treadwell 1941)

lobes. Neuropodia conical, with neuroaciculum and numerous simple neurosetae. Ventral cirri slender, shorter than setal lobes, lacking on setiger 2. Pygidium with 2 long anal cirri. Proboscis not observed.

Localities: Stations TDIN, TA4, TA3, TA2, TA1, TB5, TB2, TB1, TC3, TC2, TD4, TD3, TD2, TD1, TE4, TE3, TE2, TE1, C1, C2, C3, CT, CN, CS

Habitat: This species occurs in almost localities in mud, very fine and fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth. It can be found associated with sea-grass beds in this area.

Distribution: Off New England, Chesapeake Bay, Gulf of Mexico (Texas), northeastern South America, southern California, Korea.

Remark: This species was a dominant species in the area. It shows small relationship to enriched organic sediment.

Family Syllidae Grube 1850

The worms of small to medium-sized nereidiform polychaetes, slender bodies (sometimes dorsoventrally flattened). Three antennae and simple palps present, the latter sometimes fused to each other. Two pairs of tentacular cirri. Eversible pharynx armed with a single tooth or a circlet of smaller teeth or unarmed. Proventricle present in nearly all forms. Parapodia uniramous, dorsal cirri usually conspicuous, setae simple or composite. The syllids are very common shallow-water forms, and trend to be most numerous on hard substrates.

There are 3 different species identified, described and drawn.

Dentatissyllis sp.A (Figure 7.57)

Material examined: Registration No.: DOFM-POL0057. Total 7 specimens.

Description: Length 5 mm, width 0.2 mm, about 51 setigerous segments. The species belongs to Syllinae with body subcylindrical, integument smooth. Prostomium with 2 fleshy, simple palps and 3 articulated antennae, latter positioned on posterior half of prostomium. Usually 4 eyes in trapezoidal arrangement. Nuchal organs slitlike, located along posterior margin of prostomium. Pharynx with several small marginal teeth and papillae in addition to single middorsal tooth. Peristomium achaetous, with 2 pairs of articulated peristomial cirri. Parapodia uniramous; notopodia each with more or less articulated dorsal cirrus; neuropodia well developed, each with ventral cirrus, one or more aciculae, several compound and maximally two simple chaetae. Pygidium with two articulated anal cirri and unpaired median anal cirrus (not seen in my specimen).



Figure 7.57 *Dentatissyllis* sp.A

Localities: Stations TD3

Habitat: This species is found in fine sand sediment and associated with sea-grass beds, *Holodule pinnifolia*, on intertidal zone inside Kung Krabaen Bay.

Remark: It belongs to *Dentatisyllis* Perkins, 1981 by characters described by Ding, Licher & Westheide (1998). Ding, et al. (1998) recorded 3 new species belonging to *Dentatisyllis* Perkin, namely, *D. hongkongensis*, *D. mortoni* and *D. uebelackerae* and another species *D. inflata* in new combination. However, there is no documents related to the identification of this family in Thai waters.

? *Pionosyllis* sp.A

(Figure 7.58)

Material examined: Registration No. DOFM-POL0058. Total 6 specimens.

Description: Length 5 mm, width 0.5 mm, about 35 setigerous segments and posterior 3 setigerous without tentacular cirri. Body small. Palps fused at the base. Two pairs of tentacular cirri and three antennae. Pharynx chitinised but the rim is smooth and there is a large anterior dorsal tooth. Dorsal cirri usually smooth, sometimes weakly annulated. Ventral cirri present. Setae mainly compound but a superior simple setae is often present. Pygidium with 2 slender anal cirri.

Localities: Stations TAin, TB2, TB1, TD3

Habitat: This species is found in mud and very fine sand substratum in canal and on intertidal zone inside Kung Krabaen Bay.

Remark: The species is identified to *Pionosyllis* Malgrem, 1867 by description given in Day (1967).

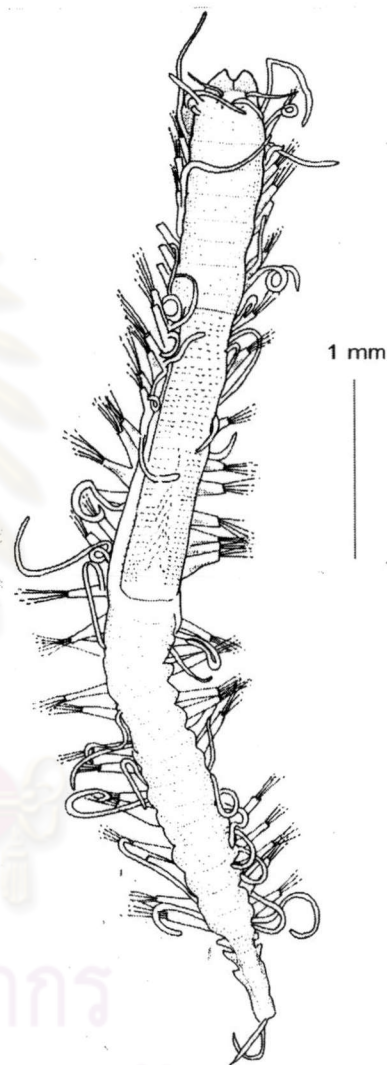


Figure 7.58 ? *Pionosyllis* sp.A

? Syllidae sp.A
(Figure 7.59)

Material examined: Registration No. DOFM-POL0059. Total 5 specimens.

Description: Prostomium rounded, not bilobed (probably folded), with 3 slender tentacles, 2 pairs of tentacular cirri. Parapodium on setiger 1 reduced, enlarging subsequent setigers; with dorsal cirri.

Localities: Stations TB5, TE3, TE2

Habitat: This species is found in fine sand substratum on intertidal zone inside Kung Krabaen Bay.

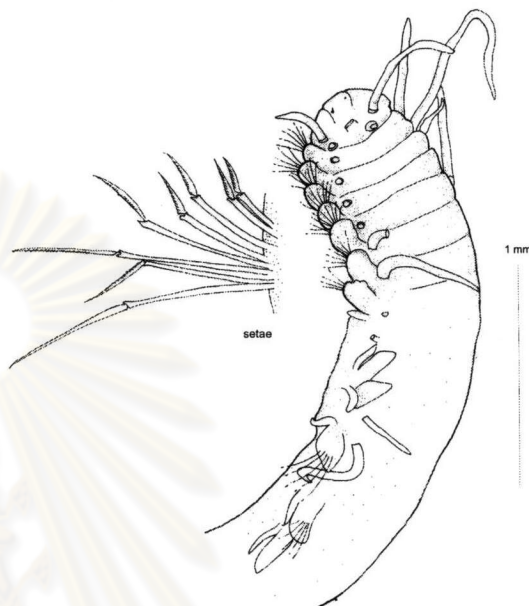


Figure 7.59 ? Syllidae sp.A

Family Nereididae Johnston 1845

Description of the family is well given by Day (1967). Body elongate with numerous segments. Head with a distinct prostomium and peristomium. Prostomium with two pairs of eyes, 0-2 frontal antennae and two large, biarticulate palps. Peristome usually apodous and bears four (or occasionally three) pairs of tentacular cirri. Proboscis with a pair of toothed jaws and often numerous chitinous pargnaths or soft papillae. Parapodia usually biramous after the first two. Gills seldom present. Notopodium with a dorsal cirrus and one to three lobes. Neuropodium with two lobes and a ventral cirrus. Setae mainly compound and usually include both spinigers and falcigers.

There is only species found,
Neanthes sp.A.

Neanthes sp.A
(Figure 7.60)

Material examined: Registration No. DOFM-POL0060. Total 84 specimens.

Description: Incomplete specimens. Prostomium sub-pentagon. Two pairs of black eyes in trapezoidal arrangement situating on upper region of prostomium; anterior pair is broad-bean; posterior pair hemisphere. Two small tentacles. Two palps

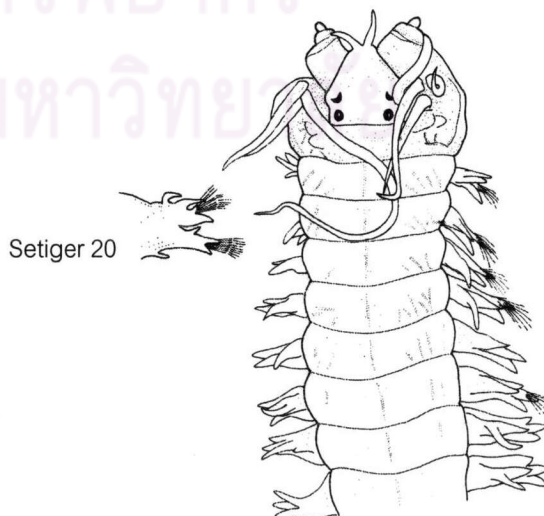


Figure 7.60 *Neanthes* sp.A

great size, extending laterally, almost vertical to the prostomium. The longest peristomial cirrus extending back to setiger 6. Prostomium not observed. First 2 pairs of parapodia uniramous, thereafter biramous. In setiger 20, supra-notoligule slender digitiform, one pointed infra-notoligule lobe carrying setae between infra-notoligule lobe and infra-notosetal lobe; one supra-neuroligule digitiform and 2 infra-neurosetal lobes carrying setae between the lobes. All noto- and neurosetae are homogomph spinigers. Neurosetae are homogomph spinigers and heterogomph spinigers.

Localities: Stations TA3, TA1, TB4, TB3, TB2, TB1, TC3, TC2, TD2, TE3, TE2, TE1, CN, CS

Habitat: This species is found in fine to very fine sand substratums on intertidal and subtidal zone inside and outside Kung Krabaen Bay.

Remark: This species is resemble to *Neanthes glandicineta* (Southern, 1921) by the shape of prostomium, eyes, and setae. It is recorded from estuaries of MinJiang River, China coasts; India, Gulf of Sima and southern Vietnam (Baoling, *et al.*, 1985).

Family Glyceridae Grube 1850

Glyceriform polychaetes with long, slender bodies and conical prostomium. Prostomium long and tapered, tipped with four small biannulate antennae and superficially ringed. One to two pairs of eyes. No palps. Eversible pharynx with four jaws in a cross. Parapodia either all biramous or all uniramous. Neurosetae composite; notosetae, when present, simple. A brief description of family is given by Fauchald (1977).

There is only a species belonging to the genus *Glycera* Savigny, 1818. The further details have not been done in this study.

Glycera sp.A (Figure 7.61)

Material examined: Registration No. DOFM-POL0061. Total 79 specimens.

Description: Complete specimens. Body rounded, tapering posterior. Prostomium acutely conical, ringed, with four small terminal tentacles. Branchiae absent. Parapodia biramous, with two equal lobes anteriorly and two posterior lobes. Eversible pharynx not observed.

Localities: Stations TA4, TA3, TA2, TA1, TB4, TB3, TB2, TB1, TC5, TC4, TD3, TD2, TE5, TE2, C2, C3, CN, CS

Habitat: This species is found in very fine to fine sand substratum on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

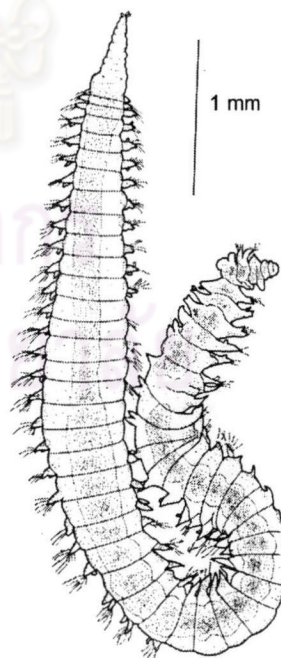


Figure 7.61 *Glycera* sp.A

Family Goniadidae Kinberg, 1866b

Worms with long and slender bodies. Prostomium is conical; eversible pharynx with a circlet of smaller and larger jaw-pieces. Parapodia anteriorly uniramous, posteriorly biramous, rarely all uniramous. Neurosetae composite, notosetae simple. The family description is briefly given in Fauchald (1977).

There is only one species commonly found in this study area, *Glycinde* spA.

Glycinde spA (Figure 7.62)

Material examined: Registration No. DOFM-POL0062. Total 172 specimens.

Description: Body elongate, tapered at both ends and divided into three regions, the anterior one having uniramous parapodia, the middle one having weak notopodia and the posterior one having biramous parapodia. Proboscis without V-shaped chevrons at its base; its surface beset with five types of papillae arranged in longitudinal rows and its mouth enriched with small micrognaths and a pair of large toothed macrognaths. Setae all compound.

Localities: Stations TAin, ta5, TA4, ta3, ta2, TBin, TB5, TB4, TB2, TB1, TCTC4, TC2, TDin, TD5, TD3, TD2, TE4, TE3, TE1, C1, C2, C3, CT, CN, CS

Habitat: This species occurs in almost localities of mud to fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay. It is also found associated with sea-grass beds.

Remark: This species belonging to genus *Glycinde* Muller, 1858 agrees with description given in Day (1967).

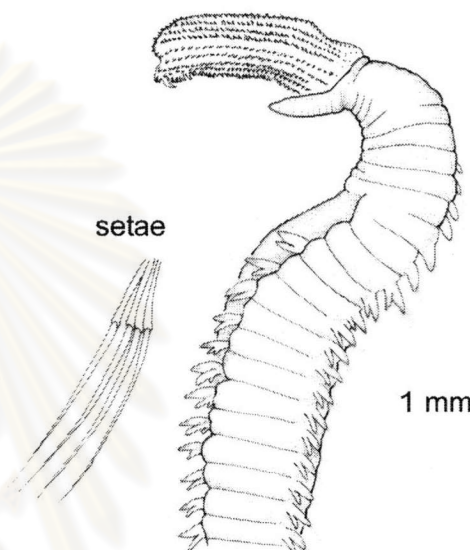


Figure 7.62 *Glycinde* spA

Family Lacydoniidae Bergstrom, 1914

Glyceriform polychaetes with short and slender bodies; prostomium trapezoidal in outline; eversible pharynx unarmed. First parapodia uni- or biramous, all others biramous. Neurosetae composite, notosetae simple. This lacydoniids somewhat resembles the nephtyids in that both noto- and neuropodia are developed equally, but the parapodia and setal structures, as well as the structure of the prostomium. The family description is given in Fauchald (1977).

There are 3 genera belonging to this family, *Lacydonia* Marion & Bobretzky, *Paralacydonia* Fauvel, and *Pseudolacydonia* Rullier. The species resemble to *Paralacydonia* in having no tentacular cirri; antennae short, biarticulated; first setiger uniramous (Fauchald, 1977).

Paralacydonia sp.A
(Figure 7.63)

Material examined: Registration No. DOFM-POL0063. Total 14 specimens.

Description: Length 7 mm, width 0.4 mm, about 45 setigerous segments. Protomium conical, with 2 pair of short articulated antennae at tip. First parapodia uniramous, the rest of parapodia biramous, without branchiae, notopodia slightly longer than neuropodia, distally curved. Anterior to mid-body parapodia broader than long parapodia, posterior segment having narrower and longer parapodia than anterior segments. Setae capillaries. Pygidium with 2 long anal cirri.

Localities: Stations TA3, TB1, TC3, TD2, TD3, TE4, TE1, C2

Habitat: This species is found in fine to very fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay. It also occurs in association with sea-grass beds in this bay.

Remark: The present species belongs to genus *Paralacydonia* Fauvel (1953).

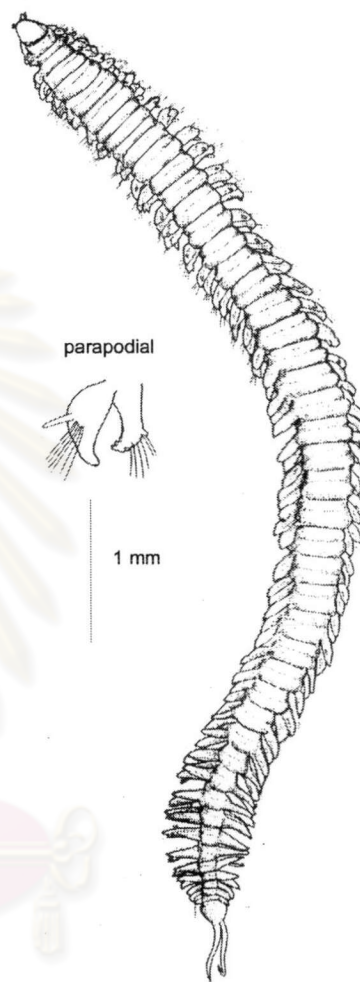


Figure 7.63 *Paralacydonia* sp.A

Family Nephtyidae Grube, 1850

Body elongate with numerous rectangular segments and usually white in colour. Prostomium small and pentagonal with four antennae. Cephalic eyes sometimes visible through the skin. Proboscis large, very muscular, with a papillose sheath and armed with a pair of internal jaws. Anterior segments with reduced parapodia. Normal body segments with biramous parapodia; the two rami are widely separated and there is usually an interrampal branchia between them. Both the notopodium and the neuropodium has a setigerous lobe, a presetal lamella and a postsetal lamella and two fans of simple setae. The preacicular row consists of barred or laddered capillaries and the postacicular row consists mainly of long capillaries minutely denticulate on one side but forked setae may also be present. A notopodial cirrus is present at the origin of the branchiae and a ventral cirrus is present below the neuropodium. Description of family is given by Day (1967).

There are 3 species found from this study area, namely, *Nephtys* sp.A, *Nephtys* sp.B and *Micronephthys* cf. *sphaerocirrus*.

Nephtys sp.A
(Figure 7.64)

Material examined: Registration No. DOFM-POL0064. Total 15 specimens.

Description: Incomplete specimen. The worm has body elongate and dorso-ventrally flattened with numerous segments. Postomium small and pentagonal with four antennae. Proboscis not observed. Parapodia biramous with divergent setigerous lobes each bearing delicate anterior and posterior lamellae. Two rows of simple setae, the anterior row consisting of laddered capillaries and the posterior row consists of long capillaries minutely denticulate on one margin. Interramal branchiae starting from setiger 7.

Localities: Stations TA2, TA1, TB1, TB5, TC4, TC3, TC2, TC1, TDin, TD5, TE2, TE1, C1, CT

Habitat: This species is found in mud to fine sand substrata in canal and on intertidal to subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: The species is closely related to *N. paradoxa* Malmgren by the branchiae starting from 8-10 and the shape of parapodia. But the related species is distributed in temperate and cold regions (Day, 1967).

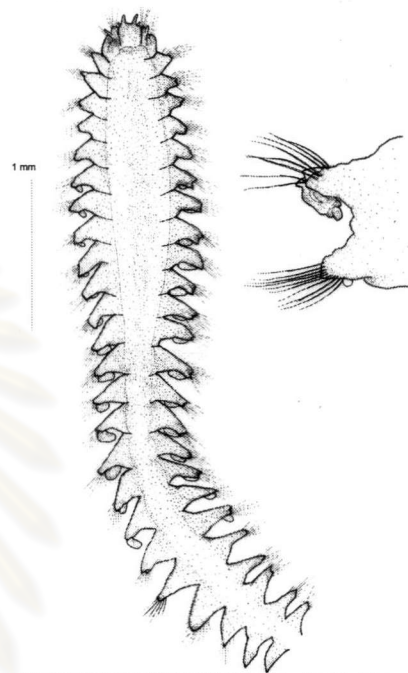


Figure 7.64 *Nephtys* sp.A

Nephtys sp.B
(Figure 7.65)

Material examined: Registration No. DOFM-POL0065. Total 42 specimens.

Description: Most incomplete specimens. Body elongate and dorso-ventrally compressed with numerous segments. Postomium small and pentagonal with four antennae. Proboscis not observed. Parapodia biramous with divergent setigerous lobes each bearing delicate anterior and posterior lamellae. Interramal branchiae starting from setiger 4.

Localities: Stations TA3, TB4, TB3, TB2, TB1, TC5, TC4, TC3, TC2, TD3, TD2, TE3, TE1, C2, C3, CS

Habitat: This species is found in fine to very fine sand sediment on intertidal and subtidal zones inside and outside Kung Krabaen Bay. It also occurs in sea-grass beds in the bay.

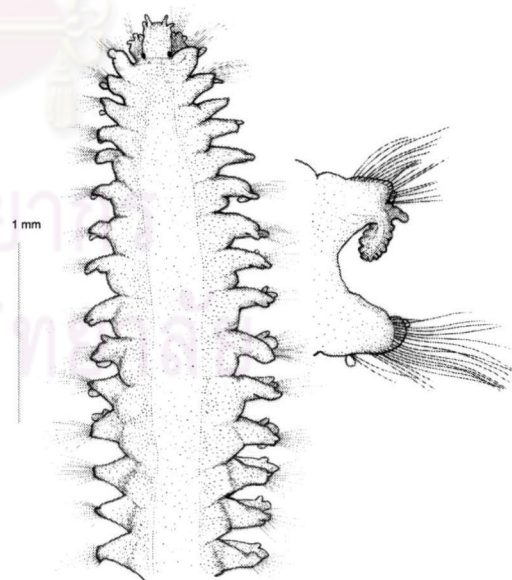


Figure 7.65 *Nephtys* sp.B

Remark: This species is similar to *Nephtys* sp.A but it differs by the shape of parapodia and branchiae. Branchiae in the present species starts from stiger 4 whereas the referred species from setiger 7.

Micronephthys sphaerocirrata Wesenberg-Lund, 1949
(Figure 7.66)

Micronephthys sphaerocirrata Day, 1967, p. 347-349, Figure 15.3 a-d.

Material examined: Registration No. DOFM-POL0066. Total 26 specimens.

Description: Incomplete specimens. Prostomium pentagonal with a straight anterior margin and rather long, distinctly long antennae, one pair of eyes lying towards the posterior margin of the prostomium. Proboscis not observed. Parapodia with vestigial lamellae, with a knobbed ventral cirrus. Without interramal branchiae.

Localities: Stations TA3, TB4, TB1, TC5, TC4, TC2, TD5, TD4, TD3, TD2, TE2, TE1, C2, C3

Habitat: This species is found in fine to very fine sand sediment on intertidal and subtidal zones inside and outside Kung Krabaen Bay. It also occurs in association with sea-grass beds in the bay.

Distribution: South Africa; Persian Gulf; Phuket Island, Andaman Sea.

Remark: The present species is separates from the former 2 species by its lack of branchiae.

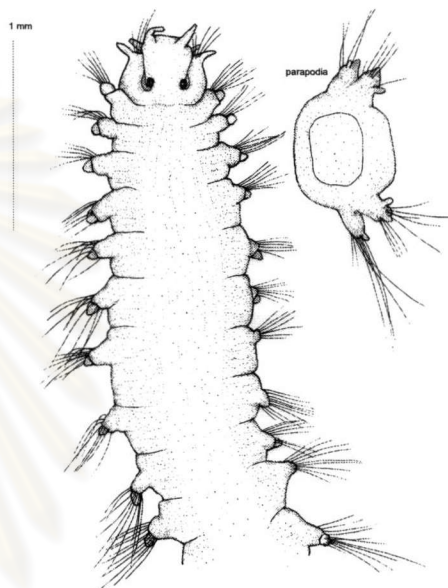


Figure 7.66 *Micronephthys sphaerocirrata* Wesenberg-Lund, 1949

Family Amphinomidae Savigny, 1818

The amphinomids have either elongate or ovate and flattened bodies. One to five antennae present; palps present. Noto- and neurosetae in tufts, notosetae protective spinous setae, at least in part. Branchiae in branching tufts. This polychaetes are common in shallow water. They generally are referred to as fire-worms, since the spines can lead to general discomfort and infections, if they break off within the inflicted cuts. A description of family is briefly given by Fauchald (1977).

Two different species are found from the area, namely, *Linopherus* sp.A and *Chloeia* sp.A.

Linopherus sp.A
(Figure 7.67)

Material examined: Registration No. DOFM-POL0067. Total 25 specimens.

Description: All specimens in this collection are small with a 'hairy' appearance. Body elongate. Protomium rounded. Two pairs of eyes. Caruncle reduced to a small knob, deeply set into the first segment. Three tentacular cirri. Parapodia biramous, with dorsal and ventral dividing far apart. Setae capillaries, forked capillaries, harpoon setae. Branchiae starting from the third segment.

Localities: Stations TA3, TA2, TA1, TB2, TB1, TC4, TC3, TC2, TD4, TD3, TE2, TE1

Habitat: This species is found in fine to very fine sand on intertidal zone inside Kung Krabaen Bay.

Remark: The present species belongs to the genus *Linopherus* Quatrefages, 1865 by agreeing with description given in Fauchald (1977).



Figure 7.67 *Linopherus* sp.A

Chloeia sp.A
(Figure 7.68)

Material examined: Registration No. DOFM-POL0068. Total 6 specimens.

Description: Body compressed and oval with about 30 segments. Prostomium rounded anteriorly and grooved ventrally with a pair of lateral pairs, two pairs of eyes and three antennae. Caruncle well developed and tapered with a median keel and pleated lateral folds. A single dorsal cirrus per notopodium. Branchia from setiger 4, each consisting of a main axis with paired lateral branches. Notosetae forked and serrated on the outer side of the longer prong; neurosetae usually smooth and forked. Both notosetae and neurosetae vary along the length of the body.

Localities: Stations TB2, TB1, TC3, TC2, TD3, TE2

Habitat: This species is found in fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Remark: The present species belongs to *Chloeia* by its having characteristic oval shape and characterized forked and serrated setae.

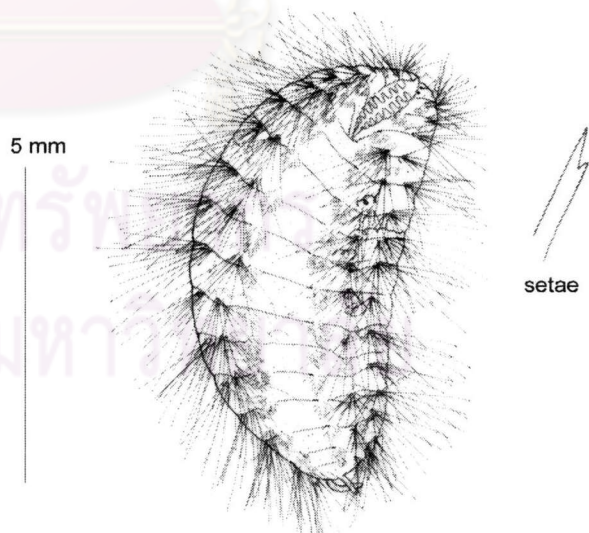


Figure 7.68 *Chloeia* sp.A

Family Lumbrineridae Malmgren 1867

Description of family is fairly given by Fauchald (1977). The lumbrinerids without prostomial appendages, but sometimes with one to three nuchal papillae emerging from a pocket between the pro- and peristomium. Maxillary carriers short, third carrier absent. Maxilla I smooth and curved. Notopodia absent or represented by small button-shaped projection, sometimes with internal acicula. Setae include limbate setae, simple and composite hooks. Subacicular hooks and pectinate setae are absent. Most worms are free-living, burrowing forms in sand or mud or between algal hold-fasts and plant-roots. They are the most common polychaetes in sandy and muddy bottoms.

There are 3 different species from the study area, namely, *Lumbrineris* spB, *Lumbrineris* spC and *Ninoe* spA. Descriptions and drawings are given.

Lumbrineris sp.B (Figure 7.69)

Material examined: Registration No. DOFM-POL0069. Total 355 specimens.

Description: Prostomium conical or globular without eyes or antennae. Maxillae and mandible not observed. Dorsal cirri absent. No branchiae. First segment without parapodia. Parapodia with a single presetal lobe and a single postsetal lobe. Setae include winged capillaries, hooded hooks starting from the second segment through out the body, posterior part bearing only hooded hooks. Posterior presetal lobe slightly longer than postsetal lobe.

Localities: Stations TA4, TA3, TA2, TA1, TB4, TB2, TB1, TC4, TC3, TC2, TD3, TD2, TD1, TE4, TE3, TE2, C2, C3, CT, CN, CS

Habitat: This species is common in fine to very fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m dept. It is also found in association with sea-grass beds inside the bay.

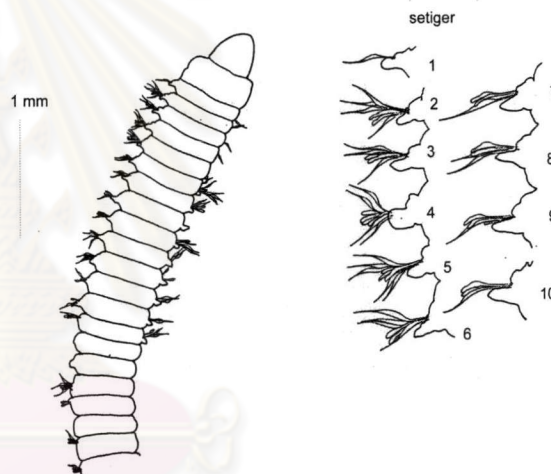


Figure 7.69 *Lumbrineris* sp.B

Lumbrineris sp.C (Figure 7.70)

Material examined: Registration No. DOFM-POL0070. Total 74 specimens.

Description: Prostomium conical or globular without eyes or antennae. Maxillae and mandible not observed. Dorsal cirri absent. No branchiae. First segment without parapodia. Parapodia with a single presetal lobe and a single postsetal lobe. Setae include winged capillaries and harpoon-shape capillaries, hooded hooks absent from anterior setigers, posterior setiger with one hooded hook. Harpoon-shape capillaries starting from setiger 7-10. Posterior presetal lobe sub-equal in length to postsetal lobe.

Localities: Stations TA5, TA4, TA3, TD5, TE5, TE4, TE3, C1, CN, CS

Habitat: This species is found in fine to very fine sand on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: This species is resemble to the former species, *Lumbrineris* sp.B, in outline. But it differs by formation of the setae on the anterior segments. I found a reduced winged capillaries likly harpoon-shaped on segment 7 to 11, without hooded hooks in anterior part. Posterior presetal lobes are sub-equal length to postsetal lobes.

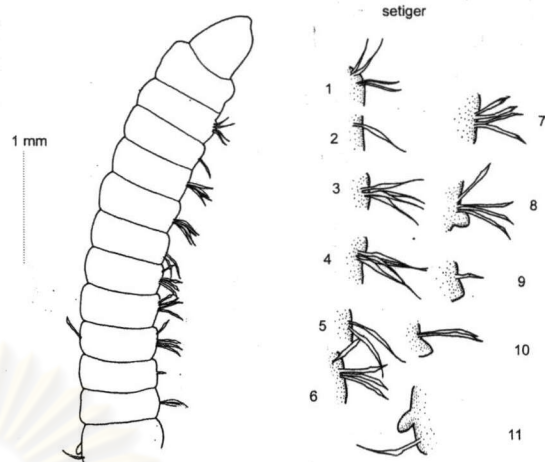


Figure 7.70 *Lumbrineris* sp.C

Ninoe sp. A
(Figure 7.71)

Material examined: Registration No. DOFM-POL0071. Total 7 specimens.

Decription: Protomium without antennae. Jaws not observed. Brachiae cirriform arise from the postsetal lobees on anterior segments starting from segment 9 to 19. Setae winged capillaries and hooded hooks.

Localities: Stations C1, C2, C3

Habitat: This species is found in mud to very fine sand substratum on subtidal zone outside Kung Krabaen Bay at 6-7 m depth. It performs as a true marine species.

Remark: This species belongs in the genus *Ninoe* Kinberg following the key in Day (1967).

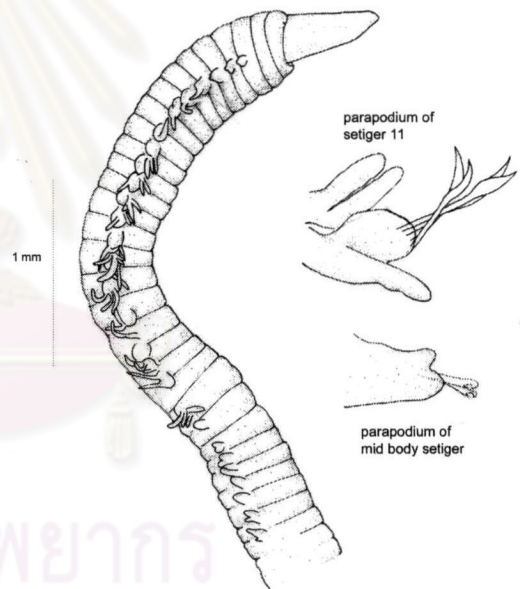


Figure 7.71 *Ninoe* sp.A

Family Sternaspidae Carus, 1863

The worms have short-bodied, with indistinct segmentation. Prostomium without appendages. All setae simple, those in the first three segments thick, falcate spines; those associated with the shield, slender capillaries. There is only genus *Sternaspis* Otto, 1821. The sternaspids are the most recognized polychaetes with the usually dark yellow or reddish chitinized shield. They are common in sandy and muddy substrates in all depths. They are burrowers in the sand and mud. Description of family is given by Fauchald (1977).

There is only a species, *Sternaspis* sp.A

Sternaspis sp.A
(Figure 7.72)

Material examined: Registration No. DOFM-POL0072. Total 212 specimens.

Description: Specimens are all small size from 1 to 3 mm. Body swollen. The first seven form an introvert. Surface velvety due to a dense covering of fine papillae. Prostomium small, papillose and normally retracted into the introvert. A pair of genital papillae on segment 7. The next eight segments have two bundles of microscopic setae embedded in the body wall. Striated rhomboidal chitinized shield on the ventrum of the posterior end, divided into two halves each surrounded with 5-7 bundles of capillary setae arising on the outer edges of the shield. Capillaries either fine and smooth or stouter and pilose. Branchiae filaments numerous, often rolled into spirals.

Localities: Stations TA3, TA1, TBin, TB5, TC4, TC3, TC2, TDin, TD5, TE3, TE1, C1, C2, CN

Habitat: This species common found in mud to fine sand substratums in canal and on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: This species is very characteristic with a swollen body and striated rhomboidal shields on ventrum.

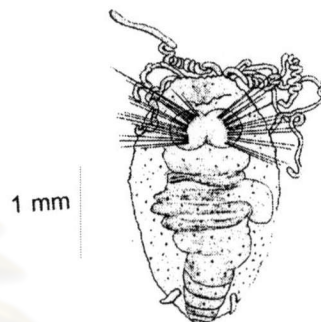


Figure 7.72 *Sternaspis* sp.A

Family Oweniidae Rioja, 1917

Body cylindrical with long anterior segments and short posterior ones; tubicolous. Notosetae capillary, neurosetae very small bi- or tridentate hooks in dense fields. The oweniids are characteristically rather small, tubicolous animals, the tubes are usually short, and they are often capable of moving around with the tube. Description of family is given by Fauchald (1977).

There are 2 different species from the area, *Owenia* sp.A and ?*Myriochele* sp.A. The characteristic tube can prior to separate the species.

Owenia spA
(Figure 7.73)

Material examined: Registration No. DOFM-POL0073. Total 7 specimens.

Description: The tuberous worms of cylindrical, slender body. Prostomium reduced with tentacular crown with flattened lobate projection on anterior part of prostomium. First three body segments short with capillary setae only, the rest elongated with notopodial capillaries and neuropodial rows of minute long-shafted hooks. They live in sand or shell fraction tubes.

Localities: Stations TC4, TE3, TE2, TE1, C1, C2

Habitat: This species is found living in sand or shell fraction tubes in fine sand substratum on intertidal

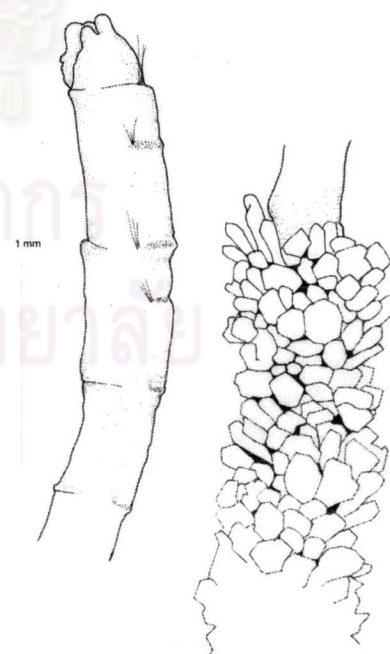


Figure 7.73 *Owenia* sp.A

and subtidal zone inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: This species probably belongs to *Owenia* Delle Chiaje, 1844 by its having prostomium forming tentacular crown and it lives in sand fraction tubes as noted by Day (1967).

Myriochele sp. A
(Figure 7.74)

Material examined: Registration No. DOFM-POL0074. Total 42 specimens.

Description: The worms live in fine sand grain tubes. Shape and sand grain for this species is comparative difference from the *Owenia* ones. Prostomium bluntly rounded. First three setigers fused, comparatively short than rest segments, setae capillaries only. Setiger 4 with capillaries notopodial and minute shafted-hooks series neuropodial. Pygidium not seen.

Localities: Stations TA5, TA4, TB2, TEin, TE5, TE4, TE3, TE1, C1, C2, C3, CS

Habitat: This species lives in fine sand tube in fine to very fine sand substratums on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: Ordinary size is rather small and slender, easily broken off. I include this species in genus *Myriochele* Malmgren, 1867 by it having prostomium rounded, without palps and the first three setigers merging with notosetae only. The rest segments long, notopodial with 2 capillaries and neuropodial with minute shafted-hooks series. It is possible to separate both species by sand grain size on the tubes.

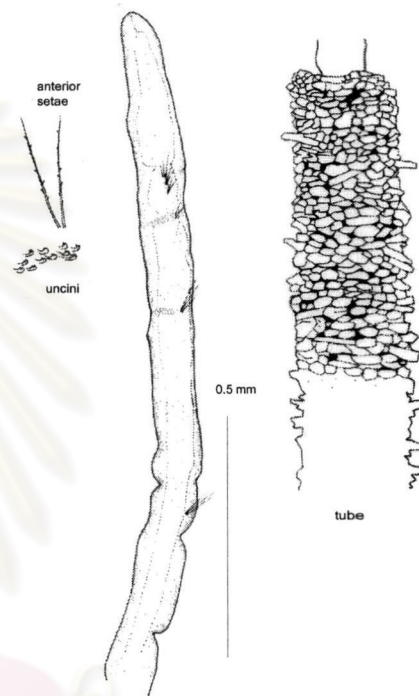


Figure 7.74 *Myriochele* sp.A

Family Terebellidae Malmgren, 1867

Body in two regions; anterior region with biramous parapodia and posterior region with neuropodia only. Prostomium a simple fold. Branchiae, when present, include one to three pairs on the first segments, associated distinctly with separated segments. Uncini usually with a large main fang and a crest of smaller teeth. The terebellids are common shallow-water polychaetes. A description of family is given briefly by Fauchald (1977).

Two species have been found in this study area both with small body size- *Pista* sp.A and *Terebellides* cf. *stroemi*.

Pista sp. A
(Figure 7.75)

Material examined: Registration No. DOFM-POL0075. Total 4 specimens.

Description: Thorax with 15-17 setigerous segments. Eyes sometimes present. Three pairs of bushy gills with a stout main stem. Lateral lobes often very conspicuous on the first segments. Distinct ventral scutes. Dorsal capillary setae with a smooth tip (very exceptionally serrated). Uncini from the 2nd setigerous segments; those of the first segments with a long process or shaft.

Localities: Stations TB2, TD3, TD2

Habitat: This species is found in fine to very fine sand substratum on intertidal zone inside Kung Krabaen Bay.

Remark: I put this species in *Pista* Malmgren because of the characteristic bushy gills on anterior part and with type of uncini hooks on thoracic segments.

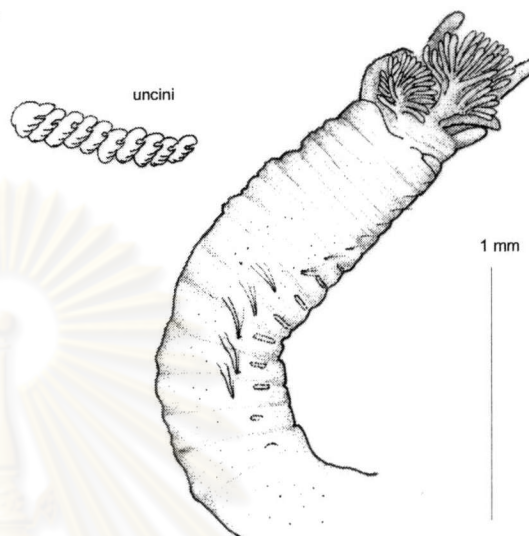


Figure 7.75 *Pista* sp.A

Terebellides cf. *stroemi* Sars, 1835
(Figure 7.76)

Terebellides stroemi Fauvel, 1953, p.436-437, Fig. 231, l-q.
Terebellides stroemi Day, 1967, p. 713, fig. 36.1.f-j.

Material examined: Registration No. DOFM-POL0076. Total 4 specimens.

Description: Incomplete specimens. The worms in my collection rather small size body. Tentacular lobe erect and frilly bearing numerous short tentacles on upper surface. No eyes. Only one gill arising from segment 2-4 as a stout trunk bearing four lamellate lobes which are partially fused. The two outer lobes are larger than the inner pair. Anterior ventral margins of the third and succeeding segments prominent. Eighteen segments with smooth-tipped notopodial capillaries starting on segment 3. Neurosetae start segment 8; the first row of uncini are stout, unidentate and acicular with a right angle bend below the rostrum; Abdominal uncini are borne on long projecting pinnules and each is avicular with one to two arcs of denticles above the main fang.

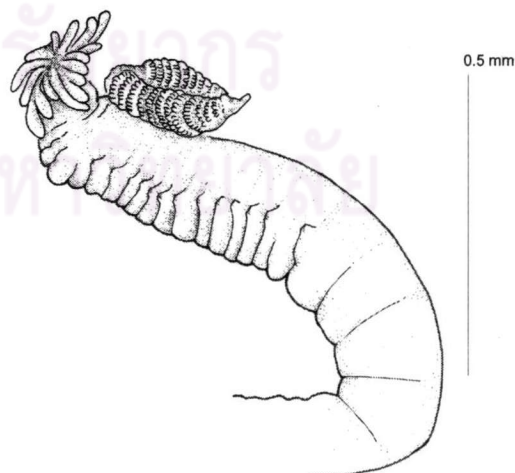


Figure 7.76 *Terebellides stroemi* Sars, 1835

Localities: Stations TB1, TC3, TD2, TE1

Habitat: This species is found in fine to very fine sand substratum on intertidal zone inside Kung Krabaen Bay. It is sometimes found in association with sea-grass beds in the bay.

Distribution: Cosmopolitan from the Arctic to the subantarctic.

Remark: The specimens agreed with the description given in Day (1967).

Family Sabellidae Malmgren, 1867

The sabellid polychaetes are tubicolous, filter-feeding worms living in tough tubes reinforced with mud or sand. Prostomium indistinct. The food-gathering apparatus consists of two terminal numerous bipinnate radioles which are sometimes united by a web. No operculum. Two grooved palps and often a pair of membraneous lips. The peristome often develops a collar which ensheaths the base of the branchial lobes and in addition there may be both eyes and otocysts internally. Body sharply divided into an anterior thorax of about eight setigers bearing winged capillaries dorsally plus avicular or long-shafted hooks ventrally and a posterior abdomens of few or many segments with the setal types inverted.

There are 2 species found from this area, *Euchone* sp.A and *Chone* sp.A. This family consists of a large number of members. The former species separates from the latter one by it having the last few abdominal segments flanged to form a ventral spoon-shaped hollow which has not appeared in the latter species. Description of family is generally given by Day (1967).

Euchone sp.A (Figure 7.77)

Material examined: Registration No. DOFM-POL0077. Total 86 specimens.

Description: There are various size of body in my collection. Prostomium indistinct. 8 radioles fused at base. Collar well developed. Abdominal uncini avicular. Abdomen with numerous setigers. The species are characteristic spoon-shape hollow on posterior segments.

Localities: Stations TAin, TA4, TA2, TBin, TB4, TB3, TC3, TC2, TD4, TD3, TD2, TE4, TE3, TE1, C1, C2, CS

Habitat: This species is found in mud to fine sand substratums in canal and on intertidal and subtidal zones inside and outside Kung Krabaen Bay at 6-7 m depth.

Remark: This genus is characterized by having spoon-shaped hollow on posterior segments.

Chone sp.A (Figure 7.78)

Material examined: Registration No. DOFM-POL0078. Total 24 specimens.

Description: Most specimens have small size body. Protomium indistinct. Radioles about 5 pairs, distinct webbing present between the radioli. Collar well developed. Abdominal uncini with short, quadrangular base. Abdomen with several setigers.

Localities: Stations TA4, TA3, TBin, TB4, Tcin, TC4, TD5, TD3, TEin, TE5, TE4, TE3, TE1, CS

Habitat: This species is found in mud to fine sand substratums in canal and on intertidal zone inside Kung Krabaen Bay.

Remark: This species is distinct from *Euchone* by the lack of a spoon-shaped hollow at posterior segements.

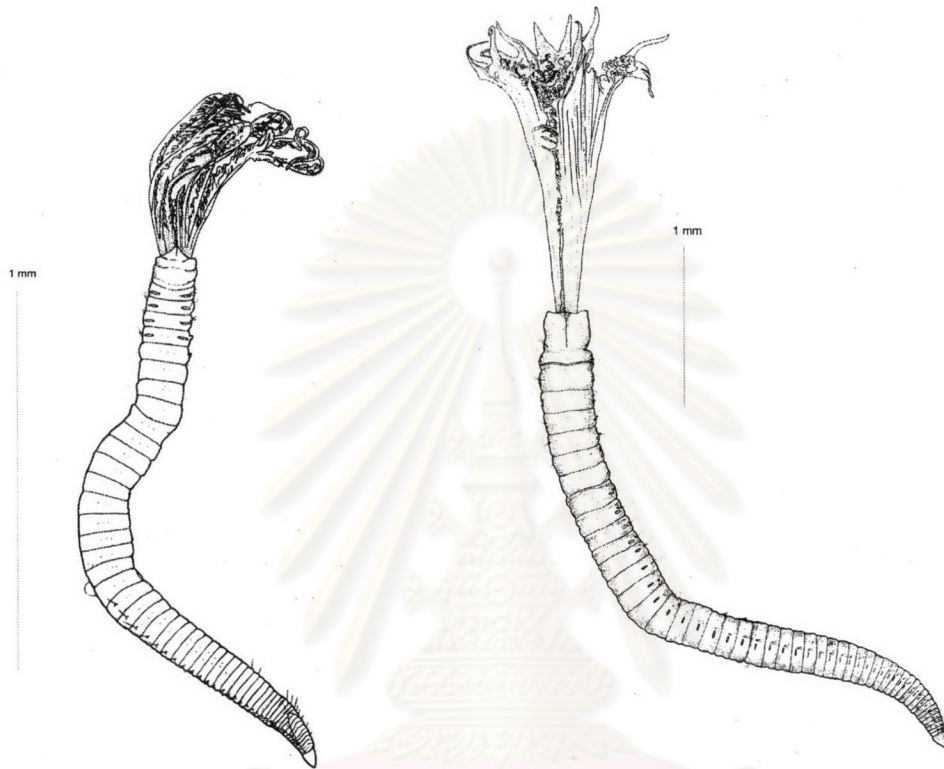


Figure 4.77 *Euchone* sp.A

Figure 4.78 *Chone* sp.A

D. Discussion and Conclusion

Polychaetes of Kung Krabaen Bay, eastern coast of Thailand, are presently recorded of 78 species from 27 families. All species have been described and illustrated individually including notes of localities and their habitats. Taxonomy is the first priority basic knowledge that essentially supports any marine researches not only for the region but also worldwide. Biodiversity becomes an important issue that many countries purpose to conserve and protect their natural resources for sustainable uses, Public awareness of biodiversity and the anthropogenic threats to it greatly increased as a result of the UN Conference on Environment and Development held in Rio de Janeiro in June 1992, or Rio Summit.

This chapter I have presented descriptions of polychaete identification for Kung Krabaen Bay, Thailand, together with drawings of each species in order that marine researchers can easily identify their material by comparing their specimens with the drawings. It is unfortunate that the keys and the pictures in this chapter are briefly and therefore limited in scope. It will be beneficial for this region if the polychaete experts can use this material to develop keys for identifying polychaete for the region. A Darwin Initiative project called *Taxonomic Information across the Internet* attempted to do this and sponsored a workshop Phuket Island in 1997 on using the internet to compare identification of polychaetes from different areas of SE Asia. A set of electronic identification keys were <http://www.nhm.ac.uk/Zoology/taxinf/BioDiv/biodive.htm>.

There have various species from this study that are new recorded for Thailand. There are about 42 species presently recorded in Paxton and Chao (2000) as shown in Table 7.1.

Table 7.1 Species lists of Thai polychaetes by Paxton & Chao (2000) and from this study. Thick species name with star are new records from Thai waters.

Family	Paxton & Chau (2000)	This study
Ampharetidae	<i>Melinna aberrans</i>	
	<i>Melinna cristata</i>	
	<i>Trana</i> sp.	
Amphinomidae	<i>Chloeia</i> sp.	<i>Chloeia</i> sp.A
	<i>Pseudoeurythoe acaruncula</i>	<i>Linopherus</i> sp.A (<i>Linopherus</i> = <i>Pseudoeurythoe</i>)
	<i>Pseudoeurythoe</i> sp.	
Aphroditidae	Aphroditid sp.	
	<i>Lepidonotus kumari</i>	
	<i>Lepidonotus</i> sp.	
	<i>Pareulepis geayi</i>	
Arabellidae	<i>Arabella iricolor</i>	
Capitellidae	<i>Dasybranchus caducus</i>	<i>Mediomastus</i> sp.A*
	<i>Heteromastus filiformia</i>	<i>Notomastus</i> sp.A
	<i>Heteromastus similis</i>	<i>N. latericeus</i>
	<i>Leiocapitella</i> sp.	<i>Capitella</i> sp.A
	<i>Mastobranthus</i> sp.	<i>Capitomastus</i> sp.A*
	<i>Notomastus latericeus</i>	
	<i>Paraheteromastus tenuis</i>	
Chaetopteridae		<i>Chaetopterus variopedatus</i>*
Chrysopetalidae		<i>Chrysopetalum</i> sp.A*
Cirratulidae	<i>Cirratulus</i> sp.	
Cossuridae	<i>Cossura</i> sp.	<i>Cossura</i> sp.A
Poecilochaetidae	<i>Poecilochaetus</i> sp.	<i>Poecilochaetus</i> sp.A
Eunicidae	<i>Diopatra neopolitana</i>	
	<i>D. monroi</i>	
	<i>Diopatra</i> sp. A	
	<i>Diopatra</i> sp.B	
	<i>Drilonereis filum</i>	
	<i>Marphysa bellii</i>	
	<i>M. macintoshi</i>	
	<i>M. mossambica</i>	
	<i>Marphysa</i> sp.	
	<i>Onuphis</i> sp.	
	Flabelligeridae	Flabelligerid sp.
Glyceridae	<i>Glycera chirori</i>	
	<i>Glycera</i> sp.	
	<i>Glycera tessellata</i>	
Goniadnidae	<i>Glycinde</i> sp.	<i>Glycinde</i> sp.A
	<i>Goniadopsis</i> sp.	
	<i>Goniada</i> sp.	
Hesionidae	<i>Sinohesione genitaliphora</i>	<i>Leocrates</i> sp.A*
Lacydonidae		<i>Paralacydonia</i> sp.A*

Table 7.1 Continue.

Family	Paxton & Chau (2000)	This study
Lumbrineridae	<i>Lumbrinereis impatientis</i>	<i>Lumbrineris</i> sp.A
	<i>L. acuta</i>	<i>Lumbrineris</i> sp.B
	<i>L. heteropoda</i>	
	<i>L. inflata</i>	
	<i>L. pseudobifilaris</i>	
	<i>Lumbrinereis</i> spp.	
Maldanidae	<i>Denone fulgida</i>	<i>Euclymene</i> sp.A
	<i>Euclymene annandatei</i>	Cf. <i>Clemenura</i> sp.A*
	<i>Euclymene</i> spp.	
	<i>Micromaldane</i> sp.	
	<i>Nicomache lumbricalis</i>	
	<i>Petaloproctus terricola</i>	
Magelonidae	<i>Magelona cincta</i>	<i>Magelona crenulifrons</i>
	<i>M. crenulifrons</i>	<i>M. kamala</i>
	<i>M. kamala</i>	<i>M. pygmaea</i>
	<i>M. methae</i>	
	<i>M. mickimini</i>	
	<i>M. pectinata</i>	
	<i>M. peterseni</i>	
	<i>M. pygmaea</i>	
	<i>M. tinae</i>	
Nephtyidae	<i>Nephtys</i> sp.	<i>Nephtys</i> sp.A
	<i>Aglaophamus phuketensis</i>	<i>Nephtys</i> cf. <i>polybranchia</i>
	<i>A. urupani</i>	<i>Micronephthys sphaerocirrata</i>
	<i>Inermonephthys</i> cf. <i>gallardi</i>	
	<i>Micronephthys aphaerocirrata</i>	
	<i>Nephtys danida</i>	
	<i>N. phasuki</i>	
Nereidae	<i>Ceratonereis erythraeensis</i>	<i>Neanthes</i> sp.A
	<i>C. andaman</i>	
	<i>Ceratonereis</i> sp.	
	<i>Dendronereis aestaurina</i>	
	<i>D. arborifera</i>	
	<i>Gymnonereis</i> cf. <i>fauveli</i>	
	<i>G. phuketensis</i>	
	<i>Leonnates decipiens</i>	
	<i>Leonnates</i> sp.	
	<i>Lycastis meraukensis</i>	
	<i>Nereis chingrighattensis</i>	
	<i>N. falsa</i>	
	<i>N. onycophora</i>	
	<i>Nereis</i> sp.	
	<i>Perinereis capensis</i>	
	<i>P. nuntia</i>	
	<i>P. vancaurica</i>	
	<i>P. aibuhitensis</i>	
	<i>P. quatrefagesi</i>	
	<i>P. singaporeniensis</i>	
<i>P. striolata</i>		
<i>Pseudonereis anomata</i>		
<i>P. gallapagensis</i>		
<i>Solomononereis phuketensis</i>		

Table 7.1 Continue.

Family	Paxton & Chau (2000)	This study
	<i>Tylonereis</i> sp	
Onuphidae	<i>Heptaceras hyllebergi</i>	
Opheliidae	<i>Ammotrypane aulogaster</i>	<i>Armandia</i> cf. <i>lanceolata</i>*
	<i>Ammotrypane</i> sp.	<i>Ophelina</i> cf. <i>acuminatus</i>*
		<i>Polyophthalmus</i> cf. <i>pictus</i>*
Orbiniidae	<i>Leodamus</i> sp.	<i>Scoloplos</i> (<i>Leodamus</i>) sp.A
	<i>Scoloplos armiger</i>	<i>S.</i> (<i>Scoloplos</i>) sp.A
	<i>S. marsupialis</i>	<i>S.</i> (<i>Scoloplos</i>) sp.B
		<i>S.</i> (<i>Scoloplos</i>) <i>marsupialis</i>
Paraonidae	<i>Aricidea</i> sp.	<i>Aricidea</i> sp.A*
		<i>Aricidea</i> sp.B*
		<i>Aricidea</i> sp.C*
		<i>Tauberia gracilis</i>*
		<i>Cirrophorus</i> sp.A*
Pectinariidae	<i>Pectinaria</i> sp.	
Phyllodocidae	<i>Eteone</i> spp	<i>Eteone</i> sp.A
	<i>Eteone picta</i>	<i>Genytyllis</i> sp.A*
Phyllodocidae	<i>Phyllodoce</i> sp.	
Pilargidae*		<i>Sigambra tentaculata</i>*
		<i>Anchistrotyllis</i> sp.A*
Polynoidae	Polyonid sp.	
Polyodontidae	<i>Polyodontes melanonotus</i>	
Sabellidae		<i>Euchone</i> sp.A*
		<i>Chone</i> sp.A*
Serpulidae	<i>Pomatoleios kraussii</i>	
	Spirorbinid sp.	
Spionidae	<i>Paraprionospio</i> sp.	<i>Paraprionospio pinnata</i>
	<i>Prionospio andamanensis</i>	<i>Spiophanes</i> cf. <i>japonicum</i>*
	<i>P. cf. andamanensis</i>	<i>Malacoceros indicus</i>*
	<i>P. henriki</i>	<i>Spio</i> sp.A*
	<i>P. nielsenii</i>	<i>Scolelepis</i> sp.A
	<i>P. cf. neilseni</i>	<i>Scolelepis</i> sp.B
	<i>P. cornuta</i>	<i>Aonides</i> sp.A
	<i>P. lomaeti</i>	<i>Pseudopolydora</i> sp.A*
	<i>P. malayensis</i>	<i>Pseudopolydora</i> sp.B*
	<i>P. neenae</i>	<i>Pseudopolydora</i> sp.C*
	<i>P. runei</i>	<i>Prionospio</i> (<i>Prionospio</i>) <i>caspersi</i>*
		<i>P.</i> (<i>Prionospio</i>) <i>membranacea</i>*
		<i>P.</i> (<i>Prionospio</i>) <i>depauperata</i>*
		<i>P.</i> (<i>Prionospio</i>) cf <i>neilseni</i>
		<i>P.</i> (<i>Prionospio</i>) cf <i>malayensis</i>
		<i>P.</i> (<i>Minuspio</i>) <i>japonica</i>*
		<i>P.</i> (<i>Minuspio</i>) <i>multibranchiata</i>*
		<i>P.</i> (<i>Minuspio</i>) <i>pulchra</i>*
		cf. <i>P.</i> (<i>Minuspio</i>) sp.A
Sternaspidae		<i>Sternaspis scutata</i>*
		<i>P.</i> (<i>Aquilaspio</i>) <i>sexoculata</i>*
Syllidae		<i>Dentatisyllis</i> sp.A*
		?<i>Pionosyllis</i> sp.A*
Terebellidae	<i>Loimia medusa</i>	<i>Terebellides</i> cf. <i>stroemi</i>*
	<i>Lysilla</i> sp.	<i>Pista</i> sp.A*
	<i>Polycirrus</i> sp.	