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SOME POLYCHAETOUS ANNELIDS FROM THE ANDAMAN WATERS[1]

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The Andaman group of islands in the Bay of Bengal is well known for its rich marine invertebrate fauna. In future years, it is possible that those interested in marine zoology are attracted largely to these less exploited regions for purposes of general collections. The need for an authenticated faunistic list, therefore, cannot be over-emphasised. At present, information on specific animal groups of this region in a consolidated form is available only for fish or molluscs. More often such information is found scattered in the descriptive catalogues of the Indian Museum. The polychaetes from Andamans available in the Indian Museum collections have been described by Fauvel (1932) and subsequently incorporated in the *Fauna of India* series by the same author (1953). However, 43 species of polychaetes have been listed in the following account out of which nearly half of them have not been known previously from the Andamans. Even out of these, two are new records for the Indian waters. The occurrence of the genus *Arenicola* in this part of the tropical belt, as already communicated by us in detail (1963), is of special significance because, excepting along the shores of Bombay, this is the only other record of this genus in the Indian waters. In the present account of the various species of polychaetes some figures with essential details of the setae etc. are included together with brief descriptions. Similarly, a fairly complete list of the latest synonyms are also furnished.

The collections were made by one of the authors (P.R.S.T.) when he had an opportunity to join a preliminary fishery resources survey expedition to the Andaman and Nicobar Islands, undertaken by the Central Marine Fisheries Research Institute during March-April 1960, under the leadership of its Director, Dr. S. Jones. The collections of the littoral polychaetes were then made from localities around Port Blair, Neill Island, Mayabander and Car Nicobar. It is also a pleasure to make special mention of the fact that collections from some of the remote locations around the islands would not have been possible within such limited time but for the facilities extended to us by Shri G. K. Nair, the then Fisheries Officer at Port Blair.

List of species

1. *Gastrolepidia clavigera* Schmarda
2. *Thormora jukesii* Baird
3. *Lepidonotus tenuisetosus* (Gravier)*
4. *Harmothoe imbricata* (Linn.)*
5. *Leanira japonica* McIntosh
6. *Bhawania goodei* Webster
7. *Eurythoe complanata* (Pallas)
8. *Eurythoe parvecarunculata* Horst

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9. *Chloeia flava puchella* Baird
10. *Euphrosine foliosa* Audouin and Milne-Edwards
11. *Phyllodoce fristedti* Bergstrom*
12. *Hesione intertexta* Grube*
13. *Perinereis aibuhitensis* Grube
14. *Tylonereis bogoyawlenskyi* Fauvel*
15. *Perinereis brevicirris* (Grube)
16. *Perinereis neocaledonia* Pruvot
17. *Pseudonereis gallapagensis* Kinberg
18. *Pseudonereis anomala* Gravier
19. *Hyalinoecia tubicola* Muller*
20. *Eunice tentaculata* Quatrefages
21. *Eunice siciliensis* Grube
22. *Eunice afra* Peters*
23. *Marphysa sanguinea* (Montagu)*
24. *Lysidice collaris* Grube
25. *Lumbrinereis impatiens* (Claparede)*
26. *Drilonereis filum* (Claparede)*
27. *Arabella nutans* (Chamberlin)*
28. *Scoloplos marsupialis* Southern*
29. *Nerinides knight-jonesi* de Silva*
30. *Magelona japonica* Okuda*
31. *Mesochaetopterus minuta* Potts.*
32. *Armandia lanceolata* Willey*
33. *Capitellethus dispar* Ehlers*
34. *Arenicola brasiliensis* Nonato*
35. *Axiothella australis* Augener*
36. *Owenia fusiformis* delle Chiaje*
37. *Idanthyrsus pennatus* (Peters)
38. *Pectinaria antipoda* Schmarda*
39. *Sabella porifera* Grube
40. *Hypsicomus phaeotaenia* (Schmarda)
41. *Spirobranchus giganteus* (Pallas)
42. *Pomatostegus stellatus* (Abildgaard)
43. *Spirorbis* (*Dexiospira*) sp.

*Species whose distribution has been extended to Andaman waters.

Family POLYNOIDAE

Gastrolepidia clavigera Schmarda

Gastrolepidia clavigera Schmarda, 1861 : 159 ; Willey, 1905 : 258 ; Potts, 1909 : 341 ; Horst, 1917 : 84 ; Fauvel, 1919 : 335 ; 1932 : 25 ; 1943 : 25 ; 1953 : 51 ; Seidler, 1924 : 142 ; Pruvot, 1930 : 13 ; *Gastrolepidia amblyphyllus* Grube, 1876 : 69.

Single specimen measuring 25 mm. by 8 mm.

Locality : Kalapahad.

Distribution : Indian Ocean, Pacific Ocean.

Thormora jukesii Baird

Thormora jukesii Baird, 1865 : 199 ; *Lepidonotus* (*Thormora*) *jukesii* Seidler, 1924 : 88 ; Pruvot, 1930 : 9 ; Fauvel, 1930 : 508 ; 1953 : 57 ; *Lepidonotus atratus* Treadwell, 1940 : 3.

Single specimen measuring 18 mm. by 5 mm.

Body short, prostomium bilobed and the three tentacles inserted terminally. Palps covered with short, slender papillae. Parapodia biramous, dorsal cirri with a bulbous enlargement at the distal end (Fig. 1). Twelve pairs of large, tough, overlapping elytra, not fringed, leaving a portion of the back naked. Elytra covered with a few cylindrical, large tubercles (Fig. 2) and some smaller rounded ones. 25 setigerous segments and an anal segment carrying a pair of short anal cirri. Dorsal setae of two kinds (i) short, slightly curved, spinulose with series of small plates at the side (Fig. 3) and (ii) long, straight, smooth with an enlarged distal end (Fig. 4). Ventral setae unidentate with about eight small plates just below the tip (Fig. 5).

Colour : Dorsum brownish, elytra deep brown with scar of the elytrophore whitish. A patch of black pigment posterior to the bulbous enlargement of the tentacular and dorsal cirri.

Locality : Car Nicobar, Andamans.

Distribution : Indian Ocean, Pacific Ocean, Red Sea.

Lepidonotus tenuisetosus (Gravier)

Euphione tenuisetosa Gravier, 1902 : 222 ; Fauvel, 1911 : 368 ; *Lepidonotus tenuisetosa* Fauvel, 1919 : 330 ; 1930: 8 ; 1953 : 36 ; Seidler, 1924 : 25 ; *Lepidonotus natalensis* Day, 1951 : 9.

Two specimens, the largest measuring 15 mm. by 4 mm.

Locality : Mayabander ; Long Island.

Distribution : Indian Ocean, Persian Gulf, Red Sea.

Harmothoe imbricata (Linn.)

Aphrodita lepidota Pallas, 1766 : 94 ; *Aphrodita imbricata* Linnaeus, 1767 : 1084 ; *Aphrodita varians* Dalyell, 1853 : 167 ; *Harmothoe unicolor* Baird, 1865 : 196 ; *Harmothoe vesiculosa* Ditlevsen, 1917 : 34; *Harmothoe imbricata* Fauvel, 1923 : 55 ; 1953 : 42 ; Gravely, 1927 : 4 ; *Harmothoe levis* Treadwell, 1937 : 26.

Posteriorly incomplete specimen measuring 13 mm. by 4 mm. for 36 setigers.

Prostomium bifid with a prominent median sulcus. Two prominent lateral peaks, distally pinched off into two small spherical bulbs. Two pairs of eyes, the large anterior pair partly under the frontal peaks and the small posterior pair at the hind margin of prostomium. Three tentacles, all lost in the specimen. In the

first setigerous segment a pair of non-papillated tentacular cirri and a single, curved, stout dorsal seta. Ventral setae absent in first setiger. 15 pairs of elytra commencing on second setiger, soft, translucent, covering the entire back (Fig. 6). Elytra with short, cylindrical papillae at the posterior border. The surface of the elytra covered with a number of small, conical, excavated papillae and short cylindrical papillae (Fig. 7). Dorsal and ventral cirri with many short, cylindrical papillae on the surface. Dorsal setae stout, curved, serrated and with a smooth apex (Fig. 8). Ventral setae curved, spinulose, apex smooth and usually with bidentate tips (Fig. 9). Occasionally some of the upper ventral setae show a further split on the main tooth, exhibiting a tridentate condition (Fig. 10).

Locality : South Point (Port Blair).

Distribution : Arctic seas, Atlantic Ocean, Indian Ocean, Mediterranean Sea, Pacific Ocean.

Family SIGALIONIDAE

Leanira japonica Mc Intosh

Leanira japonica Mc Intosh, 1885 : 154 ; Fauvel, 1932 : 33 ; 1953 : 69 ; *Sthenolepis japonica* Izuka, 1912 : 88 ; Willey, 1905 : 259 ; *Leanira sibogae* Horst, 1917 : 115.

Single incomplete specimen 27 mm. by 3 mm. (51 setigers).

Locality : Dredged between South Point and Ross Island.

Distribution : Indian Ocean, Pacific Ocean.

Family CHRYSOPETALIDAE

Bhawania goodei Webster

Bhawania goodei Webster, 1884 : 308 ; *Bhawania cryptocephala* Gravier, 1902 : 263 ; Potts, 1909 : 328 ; Horst, 1917 : 137 ; Fauvel, 1919 : 347 ; 1932 : 43 ; 1939 : 266 ; 1953 : 79 ; Pruvot, 1930 : 20 ; Day, 1953 : 407.

An anteriorly incomplete specimen measuring 35 mm. by 4 mm.

Locality : South Point (Port Blair).

Distribution : Indian Ocean, Pacific Ocean, Red Sea.

Family AMPHINOMIDAE

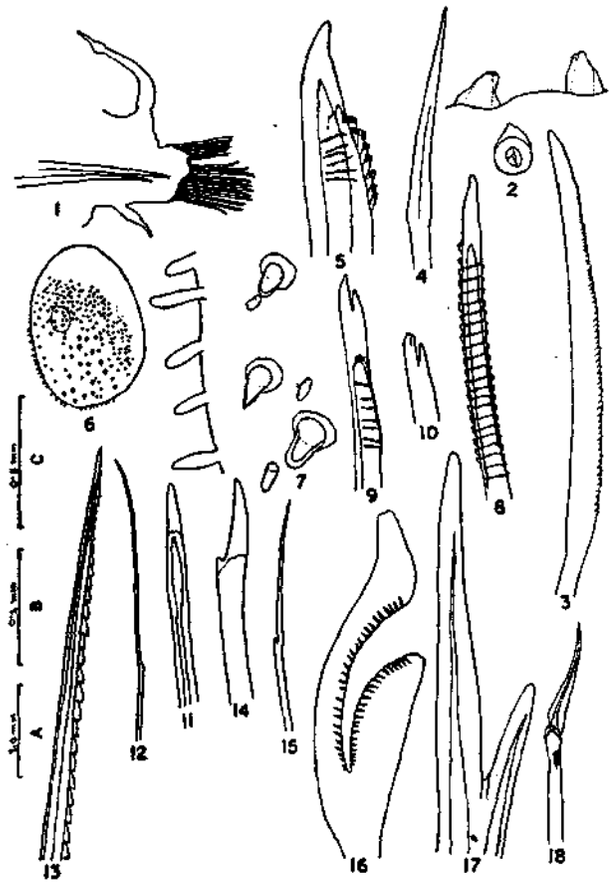
Chloeia flava puchella Baird

Chloeia flava puchella Baird, 1870 : 234.

Single specimen, 190 mm. by 20 mm. (37 setigers).

Remarks : Fauvel (1953 : 95) in his figures of the dorsal patterns of *Chloeia* spp. has shown that the spots are circular in *Ch. flava* and narrow ellipse in *Ch. flava* var. *pulchella*. In the specimen in our collection the median spots have disap-

peared from the anterior and posterior regions due to preservation, but the few spots that are clearly seen on the middle segments are in the form of narrow, elongated,



Thormora jukesi : FIG. 1. Tenth parapodium ; Fig. 2. Elytron papillae, side view and apical view; FIG. 3. Dorsal seta from tenth setiger ; FIG. 4. Dorsal seta with enlarged distal end from tenth setiger ; FIG. 5. Ventral seta from tenth setiger.

Harmothoe imbricata : FIG. 6. Elytra from the middle region ; FIG. 7. Surface of elytra magnified ; FIG. 8. Dorsal seta ; FIG. 9. Bidentate ventral seta ; FIG. 10. Upper ventral seta showing tridentate condition.

Eurythoe parvecarunculata : FIG. 11. Aciculum ; FIG. 12. Dorsal seta ; FIG. 13. Harpoon-shaped dorsal bristle ; FIG. 14. Furcate ventral seta ; FIG. 15. Elongated ventral seta. *Euphrosine foliosa* ; FIG. 16. Ringent bristle ; FIG. 17. Ventral seta. *Phyllodoce fristedti* ; FIG. 18. Compound seta from 45th setiger.

FIGS. 1 & 6 Scale A ; FIGS. 2, 3, 4, 5, 7, 8, 9, 10, 16, 17 & 18 Scale B ; FIGS. 11, 12, 13, 14 & 15 Scale C.

oval spots. In the setal structure and other characters the specimen closely resembles *Ch. flava.* As Monro (1924) has pointed out, this can, at the most, be recognised as a colour variety of *Ch. flava.*

Locality : South Point (Port Blair).

Distribution : Indian Ocean, Pacific Ocean.

Eurythoe complanata (Pallas)

Amphinome macrotricha Schmarda, 1861 : 144 ; *Amphinome (Notopygos) jamaicensis* Schmarda, 1861 : 143 ; *Aphrodita complanata* Pallas, 1766 : 109 ; *Blenda armata* Kinberg, 1867 : 90 ; *Eurythoe alboseta* Kinberg, 1867 : 90 ; *Eurythoe complanata* Augener, 1913 : 87 ; Fauvel, 1930 : 45 ; 1943 : 5 ; 1953 : 83 ; Bindra, 1927 : 9 ; Pruvot, 1930 : 23 ; *Eurythoe corallina* Kinberg, 1857 : 14 ; *Eurythoe ehlersi* Kinberg, 1867 : 90 ; *Eurythoe indica* Kinberg, 1867 : 90 ; *Eurythoe kamehameha* Kinberg, 1857 : 14 ; *Eurythoe laevisetis* Fauvel, 1914 : 116 ; *Eurythoe pacifica* Kinberg, 1857 : 14 : *Eurythoe pacifica levukaensis* Mc Intosh, 1885 : 29 ; *Lycaretus neocephalicus* Kinberg, 1867 : 56.

Four specimens ranging in length from 20 to 78 mm.

Locality : Malacca Bay (Car Nicobar) ; Mayabander.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Eurythoe parvecarunculata Horst

Eurythoe heterotricha Pott, 1909 : 369 ; *Eurythoe parvecarunculata* Horst, 1912 : 37 ; Augener, 1916 : 90 ; Fauvel, 1923 : 9 ; 1953 : 85.

Three specimens, the largest measuring 155 mm. in length and 20 mm. in breadth.

Branchiae arranged in tufts, commencing on 3rd setiger, well developed anteriorly, decreasing posteriorly. Acicula with an oval, transparent, yellow tip (Fig. 11). Dorsal setae of two kinds : (i) slender, elongated, bifurcated setae with the long limb smooth along the inner border and the short limb reduced to a mere spur (Fig. 12) and (ii) short, stout, harpoon-shaped bristles (Fig. 13). Ventral setae furcate, devoid of any denticulations (Fig. 14). A few ventral setae are small, thin, with one of its bifurcated limb very long (Fig. 15).

Locality : Malacca Bay (Car Nicobar).

Distribution : Atlantic Ocean, Indian Ocean, Red Sea.

Family EUPHROSINIDAE

Euphrosine foliosa Audouin and Milne-Edwards

Euphrosine foliosa Audouin and Milne-Edwards, 1833 : 200 ; Fauvel, 1919 : 359 ; 1923 : 136 ; 1932 : 59 ; 1953 : 102 ; *Euphrosine intermedia* Saint-Joseph, 1888 : 191 ; *Euphrosine mediterranea* Grube, 1863 : 38 ; *Euphrosine racemosa* Ehlers, 1864 : 67 ; *Lophonta audouinii O.* Costa, 1841 : 271.

Single specimen, 23 mm. long and 10 mm. broad.

Body oval, 36 segments. Prostomium long and partly ventral. Eyes two pairs, one pair dorsal and another pair ventral. Caruncle with three longitudinal parallel lobes, the outer lobes with slightly wavy margin. Median tentacle thick and

cylindrical. Tips of branchial filaments slightly hastate. Dorsal setae of two kinds: (i) setae with unequal, smooth limbs and (ii) serrated 'ringent' bristles (Fig. 16). Ventral setae smooth, with unequal limbs (Fig. 17).

Locality : Phoenix Bay (Port Blair).

Distribution: Atlantic Ocean, Indian Ocean, Mediterranean Sea, Persian Gulf, Red Sea.

Family PHYLLODOCIDAE

Phyllodoce fristedti Bergstrom

Phyllodoce fristedti Bergstrom, 1914 : 152 ; Augener, 1926 : 445 ; Fauvel, 1953 : 118.

Numerous specimens ranging in length from 230 to 400 mm.

Body long, slender, segments numerous. Prostomium heart-shaped with a pair of prominent black eyes. Posterior margin of prostomium notched and a small occipital tentacle is present. Four short, subulate tentacles. Longest tentacular cirri reaches back to 7th setiger. Numerous irregular rows of short papillae at the base of the long proboscis. Feet uniramous. Dorsal and ventral cirri foliaceous. Dorsal cirri lanceolate, nearly twice as long as broad. Ventral cirri small and broad. End pieces of the compound setae with their minutely serrated edges curved inwards, meeting each other near the distal extremity (Fig. 18).

Colour : General body colour brown. A dark brown band on the dorsal side of each segment. Patch of brown pigment in the middle of the dorsal foliaceous cirri.

Locality : Malacca Bay (Car Nicobar).

Distribution : Indian Ocean.

Family HESIONIDAE

Hesione intertexta Grube

Hesione intertexta Grube, 1878 : 102 ; Monro, 1926 : 311 ; 1937 : 270 ; Pruvot, 1930 : 29 ; Fauvel, 1953 : 105 ; *Hesione panamena* Chamberlin, 1919 : 188.

Single specimen, 63 mm. by 8 mm. (17 setigers).

Body short, cylindrical, narrow at both ends. Proboscis with smooth surface and a large unarmed, circular opening. A small conical papilla at the base of the proboscis in front of prostomium. Two pairs of eyes. A pair of minute tentacles. Eight tentacular cirri on each side, mounted on cirrophores. Dorsal cirri long with many short articles, mounted on large cirrophores (Fig. 19). Ventral cirri short, articulated and borne on short cirrophores. Parapodia uniramous ending in a small, elongated conical lobe. Aciculum single, black in colour. Ventral setae hetero-

gomph with bidentate end-pieces and a small elongated subapical spine (Fig. 20). In some ventral setae the subapical spine are short (Fig. 21) and in some entirely wanting. In some the teeth are lacking in the end-pieces (Fig. 22).

Locality : South Point (Port Blair).

Distribution : Indian Ocean, Pacific Ocean.

Family NEREIDAE

Perinereis aibuhitensis Grube

Perinereis aibuhitensis Grube, 1878 : 89 ; Horst, 1924 : 168 ; Fauvel, 1932 : 106 ; 1953 : 209.

Two specimens, the largest measuring 105 mm. in length (153 setigers) and 7 mm. in breadth.

Posteriormost pair of tentacular cirri longest, reaching back to third setiger. Dorsal ramus of the foot consists of two short conical ligules. Ventral ramus with two subequal fillets and a subulate ligule (Fig. 23). Anterior fillet slightly longer than the posterior. Homogomph spiniger with very long end-pieces in dorsal ramus (Fig. 24). Homogomph spiniger and heterogomph falciger (Fig. 25) in the upper ventral bundle. In the lower ventral bundle heterogomph spiniger and heterogomph falciger present. Acicula black with pointed tip.

Proboscidal armature : Group I, 3 paragnaths in a line ; Group II, a clustre of 6-11 ; Group III, a transverse clustre of three rows ; Group IV, a clustre of 15-18 ; Group V, 3 paragnaths in a triangle ; Group VI, on each side two stout, dark, conical, flattened paragnaths ; Groups VII and VIII, 3 transverse rows.

Locality : Mayabander ; Long Island.

Distribution : Indian Ocean, Pacific Ocean.

Tylonereis bogoyawlenskyi Fauvel

Tylonereis bogoyawlenskyi Fauvel, 1911 : 376 ; 1953 : 168 ; Gravely, 1927 : 11.

Two specimens, the longest measuring 32 mm. (158 setigers). Proboscidal armature : Proboscis with soft, conical papillae only, paragnaths absent. Group I, O ; Group II, 3 ; Group III, a single row of 8-10 ; Group IV, a group of 4-5 papillae on each side ; Group V, O ; Group VI, single, pointed, conical papilla mounted on an elevated base on each side ; Group VII, (two on each side; Group VIII, a row of depressed lobes.

All setae homogomph spinigers.

Colour : Dorsal expanded setigerous lobe black. A dark round spot on each side at the outer base of prostomial antennae, presenting an appearance of third pair of eyes.

Locality : Mayabander.

Distribution : Indian Ocean, Persian Gulf.

Perinereis brevicirris (Grube)

Nereis (*Heteronereis*) *brevicirris* Grube, 1869 : 176 ; *Nereis mictodonta* Marenzeller, 1879 : 118 ; *Nereis* (*Perinereis*) *heterodonta mictodontoides* Augener, 1913 : 177 ; *Perinereis nuntia* var. *brevicirris* Fauvel, 1932 : 110 ; 1953 : 214.

Single specimen measuring 48 mm. in length for 137 setigers.

Locality : Mayabander.

Distribution : Indian Ocean, Pacific Ocean, Red Sea.

Pseudonereis gallapagensis Kinberg

Pseudonereis formosa Kinberg, 1866 : 174 ; *Pseudonereis gallapagensis* Kinberg, 1866 : 174 ; Gravier, 1909 : 629 ; Fauvel, 1932 : 111 ; 1953 : 215.

Three specimens, the longest measuring 30 mm. for 80 setigers.

Proboscidal armature : Paragnaths of three kinds. Group I, two paragnaths one behind the other ; Groups II and III, 3-4 rows of pectinate paragnaths ; Group IV, rows of pectinate and a few conical paragnaths ; Group V, 3 small conical paragnaths arranged in a triangle ; Group VI, a transverse, flattened paragnath on each side ; Groups VII and VIII, two rows of alternating flattened paragnaths.

Locality : Ross Island ; Long Island.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Perinereis neocaledonia Pruvot

Perinereis neocaledonia Pruvot, 1930 : 50 ; *Perinereis neocaledonica* Fauvel, 1932 : 107 ; 1953 : 211.

Four specimens, the largest measuring 110 mm. in length (340 setigers).

Locality : Long Island.

Distribution : Indian Ocean, Pacific Ocean.

Pseudonereis anomala Gravier

Proboscidal anomala Gravier, 1902 : 191 ; Fauvel, 1911 : 395 ; 1932 : 112 ; 1953 : 217, Gravely, 1927 : 15.

Single specimen, 27 mm. in length (40 setigers).

Proboscidal armature : Group I, a large flattened denticle and a small one behind it ; Groups II, III and IV, 4-5 rows of small pectinate paragnaths ; Group V, O ; Group VI, two transverse rows of small conical paragnaths, about 10 on each side ; Groups VII and VIII, a single row of large, flattened paragnaths.

Locality : South Point (Port Blair).

Distribution : Indian Ocean, Pacific Ocean, Persian Gulf, Red Sea.

Family ONUPHIDAE

Hyalinoecia tubicola (Muller)

Nereis tubicola Muller, 1788 : 18 ; *Onuphis sicula* Quatrefages, 1865 : 352 ; *Hyalinoecia bilineata* Baird, 1870 : 358 ; *Hyalinoecia artifex* Verrill, 1880 : 357 ; *Hyalinoecia tubicola papuensis* Mc Intosh, 1885 : 339 ; *Onuphis* (*Paronuphis*) *gracilis* Ehlers, 1887 : 78 ; *Hyalinoecia tubicola* Fauvel, 1923 : 421 ; Augener, 1924 : 422 ; Monro, 1937 : 293.

Seven specimens, the largest measuring 49 mm. (97 setigers).

Five occipital tentacles mounted on ringed ceratophores, the median tentacle longest, reaching back to 12th setiger. A pair of eyes between the bases of inner and outer laterals. Two club-shaped frontal tentacles and two massive ovoid palps. First two parapodia enlarged and point forwards. Ventral cirri disappear on the 5th setiger and become rounded conical pads posteriorly. Pre-setal lobe of the 1st parapodia much enlarged covering the tips of setae. From second setiger onwards the post-setal lobes well developed, in the form of cirriform lobes, become gradually shorter posteriorly assuming the shape of round fillets and equal to the pre-setal lobe from 25th setiger. Gills in the form of single filaments, first appear on 21st setiger and continue to the hind end of the body. A heart-shaped anal segment with a pair of anal cirri. First three setigers carry stout bristles with slightly curved bidentate tips. Bilimbate capillary setae from fourth setiger. Comb setae first appear on 8th setiger. Acicular setae with a hooded, bidentate tip. Tube translucent, curved, tapering posteriorly and open at both ends.

Locality : Dredged between South Point and Ross Island.

Distribution : Atlantic Ocean, Indian Ocean, Mediterranean Sea, Pacific Ocean, Red Sea.

Family EUNICIDAE

Eunice tentaculata Quatrefages

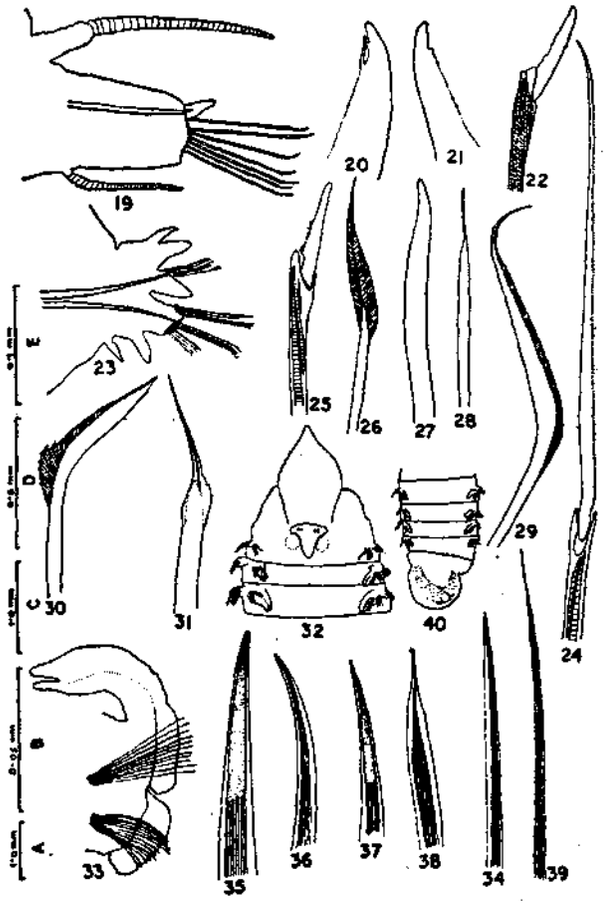
Eunice tentaculata Quatrefages, 1865 : 317 ; Fauvel, 1917 : 209 ; 1930 : 25 ; 1932 : 134 ; 1953 : 234 ; *Eunice elsyi* Baird, 1870 : 344 ; *Eunice martensi* Grube, 1878 : 102 ; *Eunice pycnobranchiata* Mc Intosh, 1885 : 294.

Single specimen 450 mm. by 18 mm. (334 setigers).

Remarks : The specimen in the collection possesses a single tentacular cirrus on the left and two cirri on the right side.

Locality : South Point (Port Blair).

Distribution : Indian Ocean, Pacific Ocean.



Hesione intertexta : FIG. 19. Tenth parapodia ; FIG. 20. Ventral seta showing the elongated subapical spine ; FIG. 21. Ventral seta with very short subapical spine ; FIG. 22. Ventral seta without subapical tooth. *Perinereis aibuhitensis :* FIG. 23. Parapodia from middle region ; FIG. 24. Dorsal homogomph spiniger ; FIG. 25. Heterogomph falciger from ventral bundle. *Drilonereis filum ;* FIG. 26. Bilimbate capillary seta ; FIG. 27. Acicular bristle ; FIG. 28. Aciculum with filiform tip. *Arabella nutans :* FIG. 29. Bilimbate capillary seta ; FIG. 30. Capillary seta with denticles at proximal end ; FIG. 31. Acicular seta with hood. *Nerinides knight-jonesi.* FIG. 32. Anterior end, dorsal view ; FIG. 33. Twenty-third setiger showing branchia and dorsal lamella ; FIG. 34. Bilimbate capillary seta from dorsal bundle of 15th setiger ; FIG. 35. Anterior notoseta from 15th setiger ; FIG. 36. Posterior notoseta from 15th setiger ; FIG. 37. Anterior neroseta from 15th setiger ; FIG. 38. Posterior neuroseta from 15th setiger ; FIG. 39. Bilimbate capillary neuroseta of most posterior setiger accompanying hooded hooks from the 8th setiger anterior to anal plate. ; FIG. 40. Posterior end of animal showing anal plate.

FIG. 19 Scale A ; FIG. 39 Scale B ; FIGS. 23, 32, 33 & 40 Scale C ; FIG. 22 Scale D ; FIGS. 20, 21, 24, 25, 26, 27, 28, 29 30, 31, 34, 35, 36, 37 & 38 Scale E.

Eunice siciliensis Grube

Palola siciliensis (Grube), 1840 : 83 ; *Eunice taenia* Claparede, 1864 : 580 ; *Eunice ebranchiata* Quatrefages, 1865 : 316 ; *Eunice adriatica* Grube, 1866 : 68 ; *Eunice bitorquata* Grube, 1870 : 56 ; *Eunice valida* Gravier, 1900 : 264 ; *Eunice leucodon* Ehlers, 1901 : 128 ; *Eunice siciliensis* Willey, 1905 : 282 ; Crossland, 1904 : 323 ; Fauvel, 1923 : 405 ; 1917 : 231 ; 1932 : 138 ; 1953 : 242 ; Augener, 1926 : 457 ; Gravely, 1927 : 17.

Three specimens, all posteriorly incomplete, the largest measuring 320 mm. (486 setigers).

Locality : Car Nicobar, Mayabander ; South Point (Port Blair).

Distribution : Atlantic Ocean, Indian Ocean, Mediterranean Sea, Pacific Ocean, Persian Gulf.

Eunice afra Peters

Eunice afra Peters, 1854 : 611 ; *Eunice collaris* Grube, 1870 : 494 ; *Eunice leucosticta* Grube, 1878 : 103 ; *Eunice mutabilis* Gravier, 1900 : 245 ; *Eunice afra*, Crossland, 1904 : 289 ; Willey, 1905 : 279 ; Augener, 1926 : 456 ; Fauvel, 1930 : 25 ; 1932 : 135 ; 1953 : 235 ; *Eunice anceps* Pruvot, 1930 : 69.

Three specimens, the largest measuring 120 mm. (193 setigers).

Tentacles smooth. Gills begin on 14-15 setiger and continue nearly to the end, pectinate, attain 4-5 filaments in the middle, posteriorly simple. Acicula very dark, thick, straight and pointed. Subacicular hooks less dark, distally bidentate. Accessory tooth in the composite bidentate falciger as equal as or slightly larger than the distal tooth. Pectinate setae strongly asymmetrical.

Remarks : The animal is strongly phosphorescent when alive.

Locality : Malacca Bay (Car Nicobar).

Distribution : Indian Ocean, Pacific Ocean, Red Sea.

Marphysa sanguinea (Montagu)

Nereis sanguinea Montagu, 1815 : 20 ; *Marphysa haemasona* Quatrefages, 1865 : 334 ; *Marphysa leidii* Quatrefages, 1865 : 337 ; *Marphysa parishii* Baird, 1870 : 352 ; *Marphysa acicularum* Webster, 1884 : 319 ; *Marphysa iwamushi* Izuka, 1907 : 141 ; *Marphysa californica* Moore, 1909 : 251 ; *Marphysa viridis* Treadwell, 1917 : 264 ; *Marphysa sanguinea* Fauvel, 1923 : 408 ; 1932 : 141 ; 1953 : 245 ; *Marphysa durbanensis* Day, 1934 : 51.

An anterior portion measuring 23 mm. (97 setigers).

Locality : Mayabander.

Distribution : Atlantic Ocean, Indian Ocean, Mediterranean Sea, Pacific Ocean, Red Sea.

Lysidice collaris Grube

Lysidice collaris Grube, 1870 : 495 ; Marenzeller, 1884 : 28 ; Willey, 1905 : 284 ; Fauvel, 1917 : 236 ; 1932 : 143 ; 1953 : 248 ; Gravely, 1927 : 19 ; Monro, 1931 : 45 ; *Lysidice sulcata* Treadwell, 1901 : 200 ; *Lysidice fallax* Ehlers, 1908 : 93.

Two specimens, the largest measuring 40 mm. (178 setigers).

Locality : On coral reefs in Neill Island ; Ross Island.

Distribution : Indian Ocean, Pacific Ocean, Persian Gulf, Red Sea.

Family LUMBRINERIDAE

Lumbrinereis impatiens (Claparede)

Lumbriconereis impatiens Claparede, 1868 : 455 ; *Zygolobus laurentianus* Grube, 1863 : 40 ; *Lumbriconereis breviceps* Ehlers, 1868 : 388 ; *Lumbriconereis hibernica* Mc Intosh, 1903 : 561 ; *Lumbriconereis impatiens*, Fauvel, 1923 : 429 ; 1932 : 152 ; Augener, 1918 : 364 ; Monro, 1937 : 297.

Two posteriorly incomplete specimens, the largest measuring 70 mm. (196 setigers).

Locality : Car Nicobar.

Distribution : Atlantic Ocean, Indian Ocean, Mediterranean Sea, Persian Gulf, Red Sea.

Family ARABELLIDAE

Drilonereis filum (Claparede)

Lumbriconereis filum Claparede, 1868 : 454 ; *Drilonereis macrocephala* Saint-Joseph, 1888 : 225 ; *Drilonereis elisabethae* Mc Intosh, 1903 : 562 ; *Drilonereis filum* Fauvel, 1923 : 436 ; 1932 : 159 ; 1953 : 276.

Three specimens, the longest measuring 55 mm. (167 setigers).

Proboscidal armature : Max. I, strongly falcate, no teeth at base ; Max. II, 4-5 teeth ; Max. III and IV with single tooth ; Max. V, absent. Lower jaw present. Carriers of maxillae long. Parapodia with an anterior rounded lobe and a posterio long, blunt conical lobe. Dorsal cirrus reduced to a knob. Capillary setae bilimbate (Fig. 26). A large blunt acicular bristle (Fig. 27). Acicula with a long, filiform protruding tip (Fig. 28).

Locality : Dredged between South Point and Ross Island ; South Point, Port Blair ; Mayabander.

Distribution : Atlantic Ocean, Indian Ocean, Persian Gulf, Red Sea.

Arabella nutans (Chamberlin)

Cenothrix nutans Chamberlin, 1919 : 330 ; *Arabella novecrinita* Crossland, 1924 : 71 ; *Arabella novecrinita atlantica* Crossland, 1924 : 78 ; *Arabella nutans*, Monro, 1933 : 88 ; Fauvel, 1943 : 24 ; 1953 : 275.

An incomplete specimen measuring 35 mm. (123 setigers).

Dorsal cirri reduced to a tubercle, ventral cirri absent. Anterior ligule of feet short, posterior ligule longer and horizontal.

Setae of three types : (1) bilimbate capillary setae with plain borders (Fig. 29), (2) capillary setae with broad borders bearing 6-7 short denticles on the proximal part (Fig. 30) and (3) acicular setae with asymmetrical hood and long pointed guard (Fig. 31). Acicula yellow in colour, embedded, not projecting.

Locality : Car Nicobar.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Family ORBINIIDAE

Scoloplos marsupialis Southern

Scoloplos marsupialis Southern, 1921 : 632 ; Gravely, 1927 : 22 ; Fauvel, 1932 : 165 ; 1953 : 306.

Single specimen measuring 42 mm. in length.

Locality : Mayabander.

Distribution : Chilka Lake, India ; Bay of Bengal.

Family SPIONIDAE

Nerinides knight-jonesi de Silva

Nerinides knight-jonesi de Silva, 1961: 185.

Two specimens, one incomplete posteriorly. The complete specimen measures 46 mm. (97 setigers) and the incomplete specimen 24 mm. (41 setigers). Taken by dredge on March 7, 1960.

This species has been recorded by de Silva (1961) from Kathaluwa, Ceylon along with *Nerinides williami*. The posterior end of the worm is not known. The speci-

mens collected from Andamans, although agreeing with the specimens from Ceylon to a very large extent, show some minor variations. Moreover the description of the setae of this species by de Silva is very brief. As the specimens from Andamans throw some additional light on the structure of the setae and their origin, a detailed description is given here.

The body is dorso-ventrally compressed and elongated. The prostomium is flattened and tapers to a point (Fig. 32). Frontal horns are absent. Four small eyes embedded in the occipital portion, arranged in a transverse line. The inner pair is circular and the outer pair kidney-shaped. The palpi are missing in the specimens but the scar of attachment near the base of the prostomium could be seen. The posterior portion of the prostomium extends back up to the first setiger.

The first setiger carries dorsal and ventral post-setal lamellae only. The branchiae commence on the second setiger and continue to the hind end of the body. The branchiae are united for most of their length with the strap-like dorsal, post-setal lamellae. Distally, however, the branchiae and the dorsal lamellae are separate. The ventral lamellae up to 24th setiger are semicircular and entire. The 23rd setiger (Fig. 33) bears branchiae and dorsal lamellae united for most of their length. Near the distal end they are separate. The ventral lamellae are large, semicircular and entire. On 25th setiger the ventral lamella shows a tendency to split up into two unequal parts and on 33rd setiger (Fig. 41) the ventral lamellae are divided into a large, flat, dorsal semicircular lobe and a small ventral conical lobe. In the middle and posterior region the branchiae as well as the dorsal, post-setal lamellae are recurved and are parallel to the dorsal surface of the worm. In the posterior region the dorsal lamellae and the branchiae are reduced in size but they are united for most of their length except at their distal end where they are separate.

The setae are arranged in two rows in all parapodia, the anterior row being slightly shorter than the posterior row. In addition to these two rows of setae, there is a bundle of bilimbate, extremely long, fine capillary setae in all parapodia on the dorsal side of the notopodium. There are six or seven setae in the dorsal bundle and the wing of the setae is narrow on one side and broad on the other (Fig. 34). The anterior notosetae are short, curved, bilimbate with extremely fine spinelets at their distal ends (Fig. 35). The posterior notosetae are slightly longer and narrower than the anterior notosetae, curved, bilimbate and devoid of spinelets at their distal ends (Fig. 36). The anterior neurosetae are short, curved, bilimbate with extremely fine spinelets at their distal ends (Fig. 37). The posterior neurosetae are similar to the anterior neurosetae except that they are slightly longer and devoid of spinelets at the distal end (Fig. 38).

The number of setiger in which the hooded hooks first appear seems to vary. In one specimen they first appear on 33rd setiger on the right side and 31st setiger on the left. In the second specimen they first appear on the 39th setiger on the right side and 38th setiger on the left side. In the specimens obtained from Ceylon the hooded hooks are present from 43rd setiger. Throughout the length of the worm the hooded hooks are present only on the neuropodium. The hoods of the hooks nearly envelop their tips which project slightly through the aperture (Figs. 42 & 43). The hoods are quite transparent and careful examination failed to reveal the presence of any cleft. The hooks of *Nerinides knight-jonesi* are unique in that there are no apical teeth. The number of hooded hooks in different neuropodia seems to be more or less constant, the most common number being four. Occasionally, however, in some neuropodia there are three or five hooks, but their number does not

exceed five in any neuropodium. In the posterior setigers the neuropodial hooks are accompanied by long, fine, bilimbate capillary setae (Fig. 39). The posterior notosetae are almost straight and bilimbate.

The posterior end of the worm terminates in a flat, rounded disc devoid of any cirri (Fig. 40).

It may be mentioned that Fauvel (1953) has reported the following six genera only of the family Spionidae from Indian waters: *Laonice*, *Nerine*, *Polydora*, *Polydorella*, *Prionospio* and *Scolelepis*. This is the first record of the genus *Nerinides* from Indian waters.

Locality : Ross Island.

Distribution : Indian Ocean.

Family MAGELONIDAE

Magelona japonica Okuda

Magelona japonica Okuda, 1937 : 247.

Single specimen, incomplete posteriorly, measuring 52 mm. (59 setigers) by 1.5 mm.

Body long, vermiform. Prostomium oval, flattened, with two slightly raised longitudinal, parallel ridges diverging anteriorly (Fig. 44). Frontal horns present at the anterior end. Proboscis glandular without any armature. No visible eyes. The palps are extremely long with a median longitudinal groove, two rows of papillae being arranged on either side of the groove (Fig. 45). The inner row of papillae are shorter than the outer. Body consists of two distinct regions, an anterior region of nine setigers carrying simple, pointed, bilimbate capillary setae (Fig. 46) and a posterior region of many segments carrying simple hooded hooks. The ninth setiger, which is smaller than the preceding and succeeding segments, carries only bilimbate capillary setae, modified setae with distal expanded tips being absent. The notopodia and neuropodia of first nine setigers carry bilimbate capillary bristles. The simple hooded hooks which are tridentate (Figs. 47, 48 & 49) first appear on the tenth setiger. The hood is spoon-shaped and wide open on the ventral side.

Remarks : Monro (1937) has recorded a juvenile specimen of *Magelona* from Maldives but was unable to establish with certainty the identity of the species. He, however, remarks that his specimen is nearer to *M. pacifica* Monro than to *M. obokensis* Gravier, recorded from Red Sea. This is the first record of *M. japonicus* from Indian waters. It may be mentioned that this has been subsequently collected from Palk Bay, India, at a depth of 4-9 meters.

Locality : Aberdeen Bay.

Distribution : Pacific Ocean, Bay of Bengal.

Family CHAETOPTERIDAE

Mesochaetopterus minuta Potts

Mesochaetopterus minuta Potts, 1914 : 963 ; Fauvel, 1930 : 41 ; Monro, 1928 : 92 ; 1931 : 25 ; *Mesochaetopterus minutus* Fauvel, 1953 : 342.

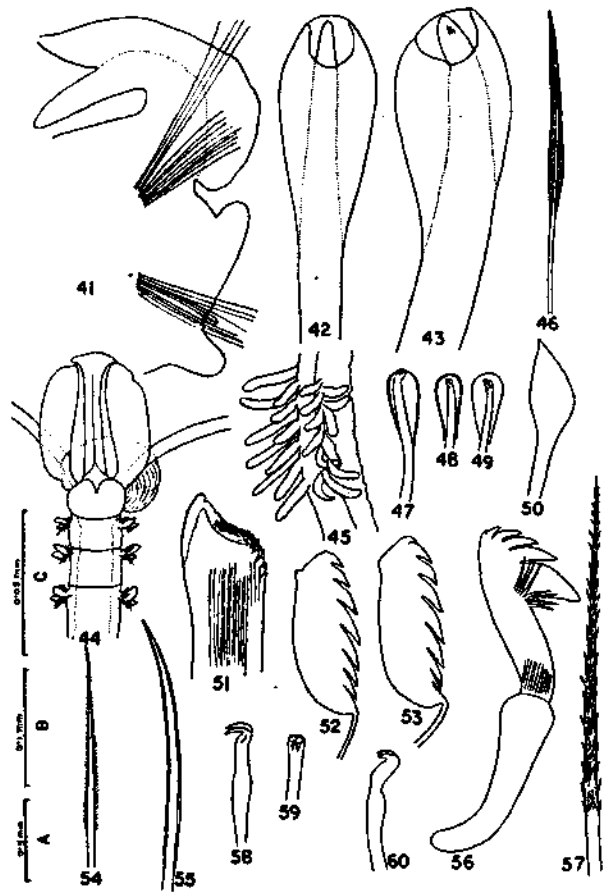


FIG. 41. *Nerinides knight-jonesi :* Thirty-third setiger ; FIG. 42. Ventral hooded hook, ventral view ; FIG. 43. Ventral hooded hook, another view. *Magelona japonica :* FIG. 44. Anterior end ; FIG. 45. Portion of palp showing the arrangement of papillae ; FIG. 46. Dorsal, bilimbate capillary seta from fifth setiger ; FIGS. 47, 48 & 49. Different views of hooded hooks ; *Mesochaetopterus minuta :* FIG. 50. Oar-shaped seta from first setiger ; FIG. 51. Stout seta from fourth setiger ; FIGS. 52 & 53. Uncini from 12th setiger. *Axiothella australis :* FIG. 54. Bipinnate capillary seta from 17th setiger ; FIG. 55. Bilimbate capillary seta from 17th setiger ; FIG. 56. Ventral hook from 17th setiger. *Owenia fusiformis :* FIG. 57. Dorsal capillary seta ; FIGS. 58, 59 & 60. Different views of uncini.

FIGS. 41, 44 & 45 Scale A ; FIGS. 46, 47, 48, 49, 50, 51, 54, 55 & 57 Scale B ; FIGS. 42, 43, 52, 53, 56, 58, 59 & 60 Scale C.

Numerous specimens measuring 20-25 mm. in length and 1 mm. broad.

Body soft, cylindrical, divided into three regions : (i) an anterior region of eleven segments carrying oar-shaped setae (Fig. 50), (ii) two abdominal segments,

elongated, with transverse ridges and (iii) posterior region consisting of large number of segments. The fourth setiger carries four stout setae with numerous conical tubercles at the distal end (Fig. 51). The parapodia are uniramous. The twelfth setiger i.e. the first abdominal segment, carries numerous uncini, each possessing 7-8 teeth (Figs. 52 & 53). Prostomium not conspicuous, mouth terminal. Two elongated palps, usually folded over the back, their tips extending upto the first abdominal segment. A pair of small eyes at the outer base of palps. A dorsal ciliated groove runs posteriorly from the mouth along the median line expanding into a cup-like structure in the middle of the second abdominal segment. Inhabits fragile, slender tubes 90-100 mm. long of fine sand grains.

Locality : Aberdeen Bay.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Family OPHELIIDAE

Armandia lanceolata Willey

Armandia lanceolata Willey, 1905 : 288 ; Augener, 1914 : 33 ; 1926 : 462 ; Fauvel, 1930 : 547 ; 1932 : 189 ; 1953 : 358.

Single specimen measuring 25 mm. by 2 mm. for 30 setigers.

Locality : Dredged between South Point and Ross Island.

Distribution : Indian Ocean, Pacific Ocean, Persian Gulf.

Family CAPITELLIDAE

Capitellethus dispar (Ehlers)

Capitellides dispar Ehlers, 1907 : 24 ; *Notomastus zeylanica* Willey, 1905 : 287 ; *Notomastus eisigi* Benham, 1916 : 148 ; *Capitellethus dispar* Chamberlin, 1919 : 466 ; Fauvel, 1930 : 548 ; 1932 : 197 ; 1953 : 371.

Two incomplete specimens, the largest measuring 60 mm. for 141 setigers.

Locality : Mayabander.

Distribution : Indian Ocean, Pacific Ocean.

Family ARENICOLIDAE

Arenicola brasiliensis Nonato

Arenicola brasiliensis Nonato, 1958 : 1 ; *Arenicola caroledn* Wells, 1961 : 1.

Several specimens varying in length from 90 to 127 mm. in length excludin the tail.

Remarks : A detailed account discussing the systematic position of this species has been already published by us [*J. Mar. biol. Ass. India,* 5 (1), 1963].

Locality : Malacca Bay, Car Nicobar.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Family MALDANIDAE

Axiothella australis Augener

Axiothella australis Augener, 1914 : 65 ; Fauvel, 1930 : 52 ; *Axiothella quadrimaculata* Augener, 1914 : 70.

Numerous specimens ranging from 13 to 15 mm. in length.

Body short, cylindrical. 18 elongated setigerous segments. Anteriorly an oval cephalic plate with thin raised edges, a small median keel and a nuchal groove on each side. Peristomium achaetous. Parapodia biramous with a dorsal setigerous lobe carrying slender, bipinnate capillary setae (Fig. 54) and bilimbate capillary setae (Fig. 55). Ventral uncinigerous tori with hooks. Each hook is provided with one big tooth at the base and five teeth above (Fig. 56). A number of fine hairs at the base of the neck of the hooks. Two ante-anal achaetous segments. An anal funnel with anus situated deep inside and the margin provided with alternating long and short cirri. No long median ventral cirrus. Numerous eye spots on the dorsal and ventral side of cephalic rim.

Remarks : Animal lives inside thin fragile tubes made of fine sand grains. Tubes closely packed forming a mass and associated with a very delicate variety of the alga, *Caulerpa festigeata.*

Locality : Sandy flats of Neill Island.

Distribution : Indian Ocean.

Family OWENIIDAE

Owenia fusiformis delle Chiaje

Owenia fusiformis delle Chiaje, 1844 : 31 ; Gravier, 1906 : 294 ; Augener, 1914 : 77 ; Fauvel, 1927 : 203 ; 1932 : 208 ; 1953 : 391 ; *Ammochares ottonis* Grube, 1846 : 163 ; *Ammochares assimilis* Sars, 1851 : 201 ; *Ops digitata* Carrington, 1865 : 187 ; *Owenia fusiformis* Claparede, 1870 : 186 ; *Owenia brachycerca* Marion, 1876 : 312 ; *Ammochares aedificator* Andrews, 1891 : 296.

Five specimens, the largest measuring 49 mm. by 2 mm.

Body cylindrical 28 setigerous segments. First three setigers long and without ventral uncini. Prostomium fused with buccal segment, carrying a branchial laciniate membrane with eight or nine lobes. A deep ventral groove from the fourth

setiger onwards till the hind end. Dorsal setae slender, spinous (Fig. 57). Uncinigerous tori long, in the form of narrow rectangular strips, touching each other on the mid-ventral line. Uncini arranged in regular manner and contain two curved, parallel teeth on the crest (Figs. 58, 59 & 60). Anal segments telescoped and short. Inhabits membranaceous tube, open and tapering at both ends. Tube covered with overlapping sand grains and thin flat bits of shells which are imbricated.

Locality : Phoenix Bay (Port Blair).

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Family SABELLARIDAE

Idanthyrsus pennatus (Peters)

Sabellaria (*Pallasia*) *pennata* Peters, 1854 : 613 ; *Hermella bicornis* Schmarda, 1861 : 24 ; *Sabellaria* (*Hermella*) *australiensis* Haswell, 1883 : 634 ; *Pallasia pennata* Willey, 1905 : 296 ; Augener, 1914 : 79 ; Fauvel, 1917 : 262 ; 1931 : 25 ; 1932 : 212 ; 1953 : 398 ; *Idanthyrsus cretus* Chamberlin, 1919 : 485.

Two specimens measuring 27 mm. by 4 mm.

Prostomium covered by two large opercular stalks bearing modified setae in two rows. The paleae of outer opercular series with strongly curved plume-like shaft (Fig. 61). Inner paleae slightly curved, pointed, plain (Fig. 62). Three parathoracic setigers with oar-shaped setae (Fig. 63) and fine twisted setae with teeth along its distal end (Fig. 64) on the dorsal rami and on the ventral rami oar-shaped setae and fine, serrated setae (Fig. 65). Abdomen with dorsal uncinigerous *tori* and ventral fine, long capillary setae with series of comb plates on either side of the main shaft. Uncini with seven teeth and a very long, fine basal process (Fig. 66). A pair of curved nuchal hooks, coppery red in colour, on the dorsal side. Dorsal filiform gills in the thoracic and abdominal segments, much reduced posteriorly. Caudal region achaetous, apodous, segments numerous and indistinguishable.

Remarks : Found attached on the inner wall of an empty tube of *Pectinaria antipoda.*

Locality : Aberdeen Bay.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

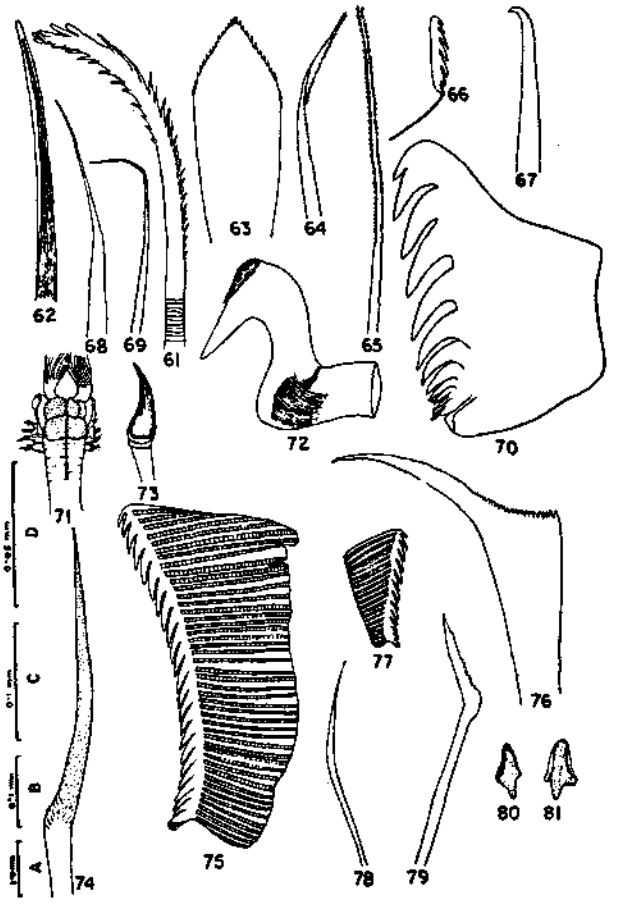
Family PECTINARIIDAE

Pectinaria antipoda Schmarda

Pectinaria antipoda Schmarda, 1861 : 46 ; Nilson, 1928 : 69 ; Pruvot, 1930 : 78 ; Fauvel, 1932 : 214 ; *Pectinaria* (*Pectinaria*) *antipoda* Fauvel, 1953 : 403.

Two specimens, the largest measuring 55 mm. in length and 12 mm. broad at the cephalic and 4 mm. at caudal ends. Length of tube 83 mm.

Body short, plump and divided into two regions. 17 setigerous segments, of which 13 are uncinigerous. Thorax consists of three segments and abdomen of fourteen segments. Scapha flat, leaf-like, with wavy edges and ten dark spines at



Idanthyrsus pennatus : FIG. 61. Outer palea ; FIG. 62. Inner palea ; FIG. 63. Dorsal oar-shaped seta from first parathoracic setiger ; FIG. 64. Twisted seta from first parathoracic setiger ; FIG. 65. Ventral seta from first parathoracic setiger ; FIG. 66. Abdominal uncini from fifth setiger. *Pectinaria antipoda :* FIG. 67. Scaphal hook ; FIGS. 68 & 69. Dorsal capillary seta from fourth setiger ; FIG. 70. Abdominal uncini from tenth setiger ; *Sabella porifera :* FIG. 71. Anterior end, dorsal view ; FIG. 72. Ventral avicular uncini from eighth setiger ; FIG. 73. Pick axe-shaped seta from eighth setiger. *Spirobranchus giganteus :* FIG. 74. Collar seta ; FIG. 75. Thoracic uncinus ; FIG. 76. Trumpet-shaped abdominal seta ; FIG. 77. Abdominal uncinus. *Spirorbis* (*Dexiospira*) sp. FIG. 78. Thoracic capillary seta ; FIG. 79. Falciform serrated seta from abdomen ; FIGS. 80 & 81. Abdominal uncini.

FIGS. 71 Scale A ; FIGS. 63 & 74 Scale B ; FIGS. 61, 62, 64, 65, 66, 67, 68, 69, 72, 73, 75, 77, 78, 80 & 81 Scale C ; FIGS. 70, 76 & 79 Scale D.

base (Fig. 67). The last setigerous segment carries only capillary setae. Dorsal rim of cephalic plate smooth. Antennal veil with 28 fringes. Dorsal setae narrow, winged with a long fine straight (Fig. 68) or curved tip (Fig. 69). Uncini with two rows of teeth and in each row nine large teeth and four or five very small ones above the gouge-like process at the base (Fig. 70). Cephalic spines 9-12 pairs, long, blunt,

coppery red in colour. Tube mainly composed of small gastropod and bivalve shells mixed with sand grains.

Locality : Aberdeen Bay.

Distribution : Indian Ocean, Pacific Ocean, Persian Gulf.

Family SABELLIDAE

Sabella porifera Grube

Sabella porifera Grube, 1878 : 252 ; Fauvely, 1953 : 439 ; *Sabella sulcata* Ehlers, 1897 : 173.

Three specimens, measuring 76 mm. by 9 mm. Length of gills 26 mm.

Body flattened, large. Eight thoracic setigers, the first one without tori. 102 abdominal setigers. Collar ventrally as well as laterally knotched. Five rectangular glandular pads on the dorsal side at the base of the branchial lobes (Fig. 71). Ventral glandular shields up to ninth setiger entire, subsequent ones divided into two halves by a longitudinal furrow which extends right up to the posterior end of the animal. Branchial lobes equal, well-developed, not spirally coiled and the edges turned inwards. Number of gill filaments 48 on the left and 52 on the right, devoid of dorsal stylodes and terminal eye spots. About 220 radial filaments in each gill filament. A dorsal groove from the base of gills runs posteriorly and crosses over to the ventral side on the right side between the eighth and ninth setiger. The thorax consists of dorsal bilimbate capillary setae and on the ventral side a single row of acicular uncini (Fig. 72) and a single row of pick-axe-shaped setae (Fig. 73). In the abdomen a single row of dorsal avicular uncini and ventral bilimbate capillary setae. Eye spots absent.

Colour : Brownish with the dorsal glandular pads deep brown.

Locality : On the coral reefs of Neill Island.

Remarks : Tube membraneous. Eggs spherical, pale yellow in colour, 95-105 micra in diameter and attached to the inner surface of the tube.

Distribution : Indian Ocean, Red Sea.

Hypsicomus phaeotaenia (Schmarda)

Sabella phaeotaenia Schmarda, 1861 : 35 ; *Sabella alticollis* Grube, 1868 : 638 ; *Sabella fusco-taeniata* Grube, 1874 : 328 ; *Sabella pyrrhogaster* Grube, 1878 : 250 ; *Sabella velata* Haswell, 1884 : 671 ; *Hypsicomus phaetaenia*, Willey, 1905 : 307 ; *Gravier*, 1908 : 84 ; Fauvel, 1927 : 312 ; 1932 : 238 ; 1953 : 447 ; *Hypsicomus marenzelleri* Gravier, 1906 : 34 ; *Hypsicomus pigmentatus* Gravier, 1906 : 36 ; *Hypsicomus* caecus Iroso, 1921 : 70.

Ten specimens, the largest measuring 28 mm. in length. Gills 7 mm. long.

Locality : Coral reefs of Neill Island ; Long Island ; South Point, Port Blair.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean, Persian Gulf, Red Sea.

Family SERPULIDAE

Spirobranchus giganteus (Pallas)

Serpula gigantea Pallas, 1766 in Morch, 1863 : 402 ; *Pomatoceros tetraceros* Schmarda, 1861 : 30 ; *Pomatoceros multicornis* Grube, 1862 : 67 ; *Pomatoceros bucephalus* Morch, 1863 : 411 ; *Cymospira brachyera* Baird, 1865 : 17 ; *Cymospira cervina* Quatrefages, 1865 : 544 ; *Cymospira crescentigera* Quatrefages, 1865 : 538 ; *Cymospira macGillivrayi* Baird, 1865 : 19 ; *Serpula quadricornis* Grube, 1878 : 275 ; *Pomatoceros elaphus* Haswell, 1884 ; 663 ; *Spirobranchus semberi acroceros* Willey, 1905 : 318 ; *Spirobranchus giganteus* Pixell, 1913 : 80 ; Fauvel, 1923 : 52 ; 1932 : 244 ; 1953 : 462 ; Pruvot, 1930 : 88 ; *Pomatoceros gaymardi* Pruvot, 1930 : 88.

Three specimens, the largest measuring 66 mm. by 7 mm.

Body long, dorso-ventrally flattened, divided into two regions : (i) thorax consisting of seven setigerous segments and (ii) abdomen with nearly 300 segments. First segment with bayonet-shaped collar setae without any conical process at their base and covered with few fine hair-like processes (Fig. 74). Next six segments with dorsal bilimbate capillary setae and ventral uncinigerous tori. Thoracic uncini have 22 teeth in addition to the large gouge-shaped basal process (Fig. 75). Abdominal setae narrow, compressed and trumpet shaped with a long process at one end (Fig. 76). Abdominal uncini have 13 teeth in addition to the basal gouge-shaped process (Fig. 77). Branchial lobes symmetrical, spirally coiled with 5-6 whorls and about 102 filaments. Each radiole possesses over 100 barbules. Operculum thick, calcareous, supported by a tall pedicle with thin expanded lateral wings.

Remarks : In the specimens under consideration, the processes of the operculum are broken, approaching the condition seen in *S. maldivensis.* But careful examination shows two small conical protruberances indicating the site of attachment of the opercular processes.

Colour : Body yellow, thorax greenish, thoracic setae with greenish irridiscence.

Locality : Ross Island.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Pomatostegus stellatus (Abildgaard)

Trebella stellata Abildgaard, 1789 : 142 ; *Pomatostegus actinoceros* Morch, 1863 : 400 ; Willey, 1905 : 314 ; Augener, 1914: 152 ; *Pomatostegus bowerbanki* Baird, 1865 : 20 ; *Pomatostegus stellatus,* Gravier, 1908 : 133 ; Pixell, 1913 : 79 ; Johanson, 1918 : 10 ; Fauvel, 1932 : 246 ; 1953 : 465.

Single specimen measuring 28 mm. by 3 mm.

Locality : Long Island.

Distribution : Atlantic Ocean, Indian Ocean, Pacific Ocean.

Spirorbis (Dexiospira) sp.

One specimen, slightly macerated and difficult to identify to the species level.

Remarks : The shell is dextral and the animal has three thoracic setigers provided with capillary setae only (Fig. 78). In the abdomen, setae with falciform serrated blade (Fig. 79) and a row of shovel-shaped uncini (Figs. 80 & 81) are present. The shape of the abdominal uncini appears to be peculiar in the specimens.

It may be mentioned that *Spirorbis foraminosus* Moore has already been recorded by Fauvel (1953) in Andaman Islands.

Locality : Mayabander.

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* Only those after 1951 are listed here. For earlier literature, see Hartman 1951.