

ON A COLLECTION OF POLYCHAETA FROM THE SOUTH-EAST
COAST OF INDIA WITH A NEW EUNICID RECORD

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WIIXEY (1905) in his 'Report of the Polychaeta collected by Professor Herdman at Ceylon', gave brief descriptions of about 30 species of polychaetes obtained from the Gulf of Mannar. Gravely (1927) gave a comprehensive account of the polychaete fauna of the Krusadi Island in the Gulf of Mannar by recording nearly 36 species of polychaetes belonging to 11 families. Subsequently, Fauvel (1930, 1932, 1940 and 1953) recorded a large number of species mostly collected from the East and South-East coast of India. The present account deals with 16 species and 2 varieties of which 2 species, *Perinereis nigro-punctata* Horst and *Pseudonereis gallapagensis* Kinberg, have hitherto not been recorded from the Gulf of Mannar. *Marphysa corallina* (Kinberg) is being recorded for the first time from the Indian Peninsula. Collections were made during the faunistic survey of the inshore areas of Point Calimere, Tiruchendur, Mandapam, Vedalai and also from the Manauli Island in the Gulf of Mannar, by a party from the Zoological Survey of India, in the month of February, 1962.

LIST OF SPECIES

<i>Name of Species</i>	<i>Number of Specimens</i>	<i>Localities</i>
ERRANTIA		
Family. NEREIDAE.		
1. <i>Lycastis indica</i> Southern	2	Tiruchendur.
2. <i>Perinereis cultrifera</i> (Grube)	1	Mandapam Camp.
3. <i>Perinereis nuntia</i> (Savigny)	5	Palk Bay.
4. <i>Perinereis nuntia</i> var. <i>brevicirris</i> Grube	2	Mandapam & Point Calimere.-
*5. <i>Perinereis nigro-punctata</i> (Horst)	11	Mandapam.
*6. <i>Pseudonereis gallapagensis</i> Kinberg	12	Tiruchendur & Mandapam.
Family. EUNICIDAE.		
7. <i>Eunice antennata</i> (Savigny)	10	Vedalai & Point Calimere.
8. <i>Eunice afra</i> Peters	1	Manauli Island.
• 9. <i>Marphysa sanguinea</i> (Montagu)	4	Manauli Island.
10. <i>Marphysa mossambica</i> (Peters)	1	Manauli Island.
** 11. <i>Marphysa corallina</i> (Kinberg)	2	Mandapam camp.
12. <i>Lysidice collaris</i> Grube	2	Vedalai & Point Calimere.

* New record from Gulf of Mannar.

** New record from Indian Peninsula.

Family. GLYCERIDAE.

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|--|---|--|
| 13. <i>Glycera rouxii</i> Audouin and
Milne-Edwards | 8 | Vedaranyam & Agasti-
yampalli, Point
Calimere. |
|--|---|--|

SEDENTARIA

Family. SABELLARIIDAE.

- | | | |
|--|---|------------------------------|
| 14. <i>Sabellaria spinulosa</i> var. <i>alcocki</i>
Gravier | 2 | Vedalai & Manauli
Island. |
|--|---|------------------------------|

Family. TERBELLIDAE.

- | | | |
|--|----|-----------------|
| 15. <i>Eupolymnia nebulosa</i> (Montagu) | 20 | Mandapam. |
| 16. <i>Nicolea gracilibranchis</i> (Grube) | 1 | Pamban Bridge. |
| 17. <i>Terebella ehrenbergi</i> Grube | 1 | Point Calimere. |
| 18. <i>Pista herpini</i> Fauvel | 1 | Mandapam. |

Family NEREIDAE

Lycastis indica Southern

Lycastis indica Southern, 1921, p. 598.

Horst, 1924, p. 3.

Fauvel, 1932, p. 82 ; 1953, p. 167.

Material: Two specimens from the mouth of the brackish water canal near Subhramanyan temple, Tiruchendur.

Remarks : In all essential features the two specimens in the present collection agree with Southern's (1921) description except in the pit of the head and the presence of pigment at the base of tentacular cirri.

Distribution: Chilka Lake (Southern); Calcutta, Madras, brackish waters of India (Fauvel). Outside India the species has been recorded from Macassar (Horst).

Perinereis nuntia var. *brevicirris* (Grube)

Nereilepas brevicirris Grube, 1876, p. 19.

Perinereis mictodonta var. *mictodontoides* Augener, 1913, p. 177.

Perinereis nuntia var. *brevicirris* Fauvel, 1932, p. 110 ; 1953, p. 214.

Material: Two specimens, one from Mandapam, Gulf of Mannar and the other from Point Calimere.

Remarks: Tentacular cirri reach upto the 7th setiger. The specimen from Point Calimere has 4 conical paraganths in group V instead of the usual 3 set in a triangle. On the other hand the specimen from Mandapam, is provided with only five flattened broad paraganths on each side of Group VI instead of usual 8-10. Except this minor variation the specimens agree well with Fauvel's (1932) description.

Distribution : Gulf of Mannar, Nicobar Islands, Tuticorin, Cape Comorin & Bombay (Fauvel). The specimen is also known from Australia, New Caledonia, Saint Paul Island and Red Sea to Japan (Fauvel).

Perinereis nigro-punctata Horst

Perinereis nigro-punctata Horst, 1924, p. 171.

Perinereis marjorii Southern, 1921, p. 595.

Perinereis nigro-punctata Fauvel, 1932, p. 107 ; 1953, p. 210.

Material: Eleven specimens from Mandapam, Gulf of Mannar.

Remarks: The specimens agree in all respects with the description given by Southern (1921) except that they possess 4 paraganths in Group I instead of the usual range of variation, 5-12.

Fauvel (1932) referred about this anomaly in the armature of the proboscis Group I by stating, 'In one case I observed four paraganths set in a lozenge-shaped area in Group I, and 6 in a rounded cluster on another.'

Distribution: Chilka Lake (Southern); Andaman, Nicobar Islands, Nankauri & Cape Comorin (Fauvel). This species is also known from Malaya Archipelago (Horst) and Australia (Augener). This is the first record of the species from the Gulf of Mannar.

Pseudonereis gallapagensis (Kinberg)

Pseudonereis gallapagensis Fauvel, 1932, p. 111 ; 1953, p. 215.

Perinereis variegata Day, 1934, p. 41.

Pseudonereis variegata Hartman, 1948, p. 69.

Material: Four specimens from Mandapam, Gulf of Mannar and eight specimens from Tiruchendur.

Remarks : The dorsal cirrus in the posterior foot is usually carried along with the dorsal margin of the ligule thus keeping a gap at the ventral edge. But when the cirrus is placed at the middle of the oblique tip of the ligule as observed in some specimens, it forms a slight shoulder on each side. Last few parapodia at the posterior end are without any lateral margins.

Distribution: Andaman Island, Diamond Islands, Murmugo Bay (Fauvel). The species is distributed in the Indo-Pacific region and Atlantic Ocean. This is the first record of the species from the Gulf of Mannar.

Family EUNICIDAE

Eunice antennata Savigny

Eunice antennate" Crossland, 1904, p. 312.

Gravelly, 1927, p. 17.

Fauvel, 1932, p. 138 ; 1953, p. 240.

Material: Ten specimens from Vedalai, Gulf of Mannar and from Point Calimere Coast.

Remarks: Anterior and posterior gills better developed than the middle. The decrease in the size of the whole gill in the middle is associated with the decrease in the number of filaments, which varies between 4-6 in a parapodium.

Distribution : Singapore (Crossland); Andaman Islands, Ceylon, Tuticorin (Fauvel) ; Krusadi Island in the Gulf of Mannar (Gravely). This species is widely distributed throughout the Indo-Pacific region from the Red Sea and East Africa to Australia and New Zealand.

Marphysa mossambica (Peters)

Marphysa mossambica Gravely, 1927, p. 19.

Monro, 1931, p. 45.

Fauvel, 1932, p. 142 ; 1953, p. 246.

Material: One specimen from the muddy northern shore of Manauli Island, Gulf of Mannar.

Remarks : According to Fauvel (1932) one of the characters of this species is that the gills begin from 30-33 setiger. But the present specimen differs from Fauvel's (*loc. cit.*) description in having gills from 16th setiger on one side and from 17th setiger on the other. Simple dorsal and ventral setae, which are considered to be of greater specific value, are present throughout. Compound setae missing altogether.

Distribution : Krusadi Island in the Gulf of Mannar (Gravely) ; Singapore (Monro); Nicobar Island, Nankauri, Pondicherry, Kilakari (Fauvel). The species is widely distributed in Indo-Pacific region from Red Sea, East Africa to Bay of Bengal, Fiji and Australia.

Marphysa corallina (Kinberg)

Nauphanta corallina Kinberg, 1865, p. 564.

Marphysa corallina (Kinberg) Fauvel, 1916, p. 432.

Day, 1951, p. 38.

Material: Two specimens from the furrows of coral stones at Mandapam Camp, Gulf of Mannar.

Remarks : Body rounded anteriorly, gradually flattened in the posterior region, length 142 and 167 mm. ; diameter 5 and 6 mm. at widest part with 286 and 334 setigerous segments respectively. Tentacles small, smooth, almost equal. Branchiae first present from 33-35 setiger with simple filaments ; 5-6 pectinating filaments best developed between 70-128 setiger. Acicula dark, vary from 1-3 in a parapodium. Sub-acicular hooks and falcigerous compound setae present. A postmedian segment has the following setal structures ; (i) light brown sub-acicular hooks with variable tip, (ii) composite falcigerous setae with distinct bidentate terminal piece, (iii) black acicula, (iv) large comb-setae with variable number of teeth, (v) limbate setae and (iv) small comb-setae with serrated teeth. (Text figs. 1-6).

The present specimens correspond with the description and figure of *Nauphanta corallina* Kinberg in having (1) compound falcigerous setae, limbate setae, acicular and sub-acicular setae, (2) parapodia of the median segments with short dorsal cirri and with 5-6 gill filaments, (3) anterior segments narrow with unequal margins,

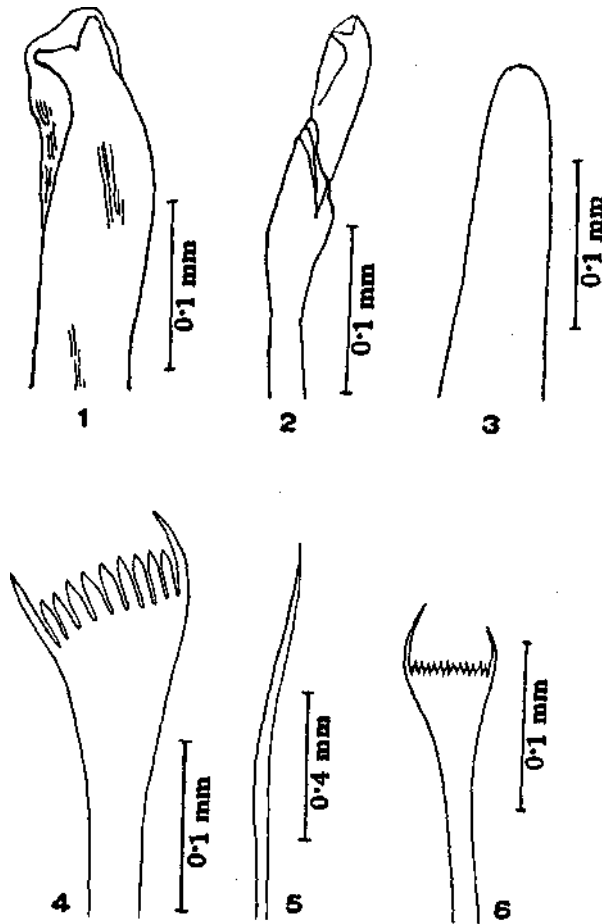


Fig. 1-6. *Marphysa corallina* (Kinberg)

1. Distal end of subacicular bidentate hook. 2. Distal end of bidentate compound falciger. 3. Distal end of black aciculum. 4. Large comb-seta. 5. Limbate seta. 6. Small comb-seta. (all from post-median parapodia)

(4) gill best developed at the median segments and then decrease posteriorly. It differs mainly from Kinberg's description in having branchiae extending from 33-35 instead of 18th setiger as reported by Kinberg. The presence of comb-setae has not been referred by Kinberg. However, Fauvel has described and figured them which closely agree with the present description. The specimens from Mandapam Camp resemble *JV. aenea* (Blanchard) in respect of post-median setal structures, but they differ in the diagnostic character of the species as given by Hartman (1944), i.e., the branchiae being first present from about segments 13-20 and with 7-9 filaments.

M. corallina (Kinberg), as reported by Day from South African Coast, **resembles** the present forms in having gills starting from 30-40 setiger and having rounded anterior and flattened posterior end.

Distribution : Fauvel (1953) in giving a key to species of *Marphysa* mentioned its occurrence from Madagascar, Red Sea, Cape of Good Hope and Pacific. This is the first record of this species from Indian waters.

Family SABELLARIIDAE

Sabellaria spinulosa var. **alcocki** Gravier

Sabellaria spinulosa var. *alcocki* Fauvel, 1932, p. 209 ; 1953, p. 394.

Material: Two specimens from Vedalai and from Manauli Island in the Gulf of Mannar.

Remarks : Outer palae are with 6-7 processes of which the median barbed one is the longest. The middle row consists of short and long projecting palae arranged alternatively.

Distribution : Mergui Archipelago, Paway Island, Malta river, Gangetic delta (Fauvel). The species is also known from Indo-China, Indian Ocean, Persian Gulf and Atlantic Ocean (Fauvel).'

One incomplete specimen of this variety was recorded by Fauvel (1930) from Rameswaram. It also occurs in Manauli Island in the Gulf of Mannar.

Family TERESELLIDAE

Terebella ehrenbergi Grube

Terebella ehrenbergi Grube, 1870, p. 511.
Gravier, 1906, p. 213.
Fauvel, 1932, p. 226 ; 1953, p. 421.

Material: One specimen from the sandy shore of Point Calimere. The specimen agrees closely with Fauvel's (1932) description. Two types of dorsal capillary bristles are present. The longer winged at the tips beset with fine serrations and the shorter bristles with broadly winged tips, spirally twisted and finely serrated.

Distribution : Gulf of Mannar, Andamans, Kilakarai, Rameswaram, Pamban (Fauvel). This species is also known from Japan, China Sea, Burma and **Red** Sea (Fauvel).

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