

MEIO FAUNA OF PALK BAY WITH SPECIAL REFERENCE TO FREE-LIVING MARINE NEMATODES

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ABSTRACT

This paper provides information about diversity and distribution of Marine nematodes of Palk Bay from different habitat of Sandy, Muddy and Mangroves. A total of 84 species distributed belongs to 16 families under 48 genera. Out of these 28-species recorded first time in this area. Tamilnadu harbours 199 species belongs to 33 families under 96 genera.

INTRODUCTION

The Palk Bay region lies between 9° 17 N and 100° 18 'N Latitudes, which is bounded on the North and west by the coastline of the State of Tamil Nadu in India, on the south by the Pamban island of India. Although it is commonly referred to as Palk Bay, which connects the Bay of Bengal to the northeast with the Gulf of Mannar to the south. The northern part of the Bay that opens to the Bay of Bengal is called the Palk Strait. The Palk Bay is a shallow and flat basin, the depth of which being on an average 9 metres and nowhere exceeding 15 metres. The distributions of temperature, salinity, density and dissolved oxygen of the surface waters of the Palk Bay indicate that the Bay of Bengal waters entering through the Palk Strait have major influence on the hydrographic conditions of the Palk Bay. The Palk Bay is muddy and sandy with extensive growth of sea grasses. It is rich in biodiversity having all the important groups of flora and fauna. Many of the studies were carried out on nematodes in both east and west coast of India and which includes Ansari and Parulekar in Zurai estuary, Rao, 1983-88, Chinnadurai and Oliva, F.

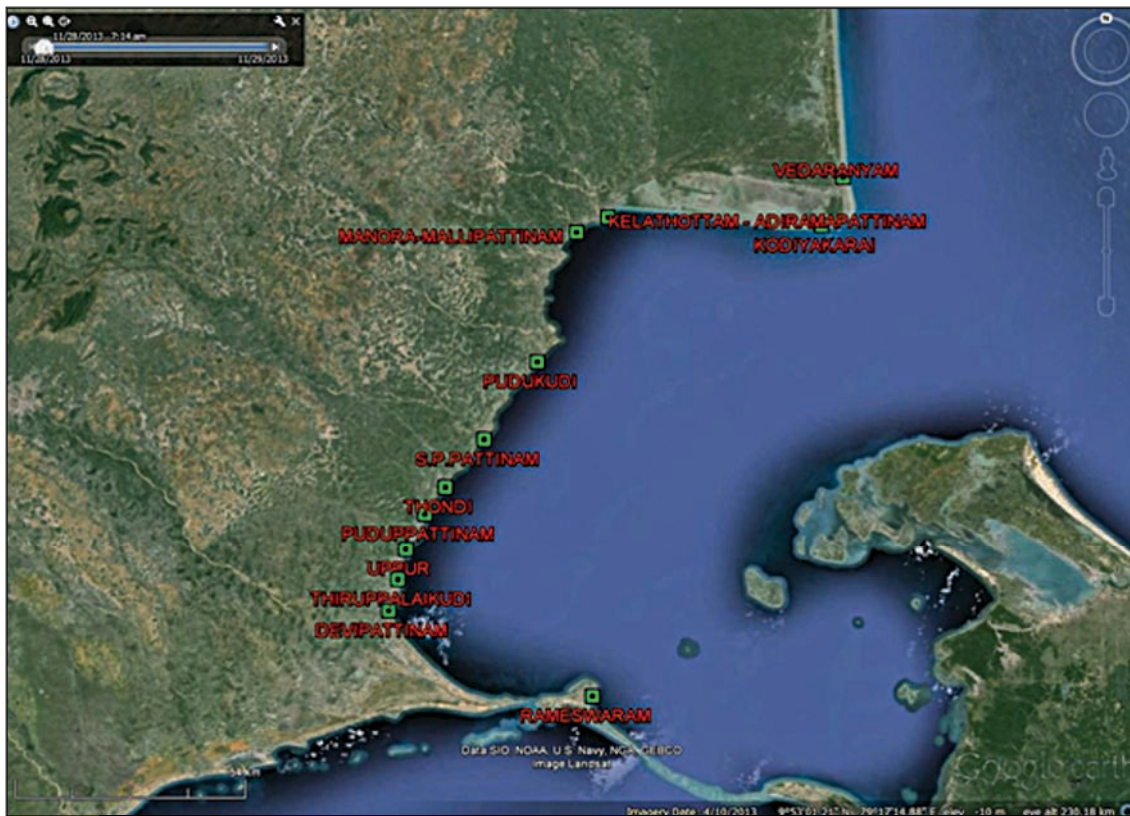
2006-2010 and Sultan Ali *et al.*, in Pitchavaram mangroves. Nematode families have reported in western Kutch mangroves by Sesh Serebiah. There are very few works contributed to nematodes taxonomy and ecology in Palk Bay (Anbuechezian *et al.*, 2010). Hence, the present investigation was taken to initiate the further detail exploration of nematodes taxonomy of different habitats in Palk Bay coast.

Methodology of Collection: Sampling was made during low tide, mostly near the mid tide level from 2012-2014 in different stations. (Fig. 1) Sediment samples were collected using hand corer (3 cm diameter). At each station, five replicate samples were collected. Meiobenthos was extracted from sediments by decanting with tap water and washing through a 500-µm sieve suspended above a 45 µm sieve (McIntyre, 1969). Animals were stored in 5% formaldehyde solution

SYSTEMATICS AND SPECIES DESCRIPTION

1. *Epsilonema pustulatum* (Gerlach, 1952) (Fig. 1)
1952. *Bathypsilonema pustulatum* Gerlach, *Abh. math. naturw. ki. akad. wiss. Mainz*, 6: 315-372.

Area Surveyed



Map of study areas

- (1. Rameswaram, 2. Devipattinam, 3. Thirupalakudi, 4. Uppur, 5. Pudupattinam, 6. Thondi, 7. S.P.Pattinam, 8. Pudukudi, 9. Mallipattinam, 10. Adirampattinam, 11. Vedaranyam, 12. Point Calimere.)

Material examined: 2 exs, sta.; Thondi and Devipattinam. Date, 10.7.2012, Reg. No. N-52. Coll. Ms. G. Sivaleela

Description: Cuticle thick with irregularly arranged vesicles. Body sharp ventral curvature and sharp dorsal curvature forming epsilon shape. Cephalic capsule rounded and set-off. 5–7 μm labial setae on rounded lips; anterior circle of six 3 μm and four 6 μm cephalic setae level with anterior of amphid and a dorso-sublateral subcephalic setae beside each amphid, other setae on cephalic capsule scattered. Amphids a rounded loop, 5 μm wide. Buccal cavity with hollow anteriorly directed dorsal tooth, arrangement of subventral teeth unclear due to thickness of cuticle of cephalic capsule. Tail is conical and tip untreated.

Measurements: L= 0.4 mm, a = 40, b = 8, C = 17.9

Distribution: India, Palk Bay. *Elsewhere:* Exe

estuary, South West England, Isles of Scilly and British Isles (Platt and Warwick, 1988)

Remarks: The specimens examined with the description of the species given by Gerlach (1952) from Indian Ocean.

2. *Desmodora (Desmodorella) schulzi*

Gerlach, 1950

(Fig. 2)

1950. *Desmodora schulze* Gerlach Zool. Anz. 145 Ergänzungsband pp. 178-198 9 figs.

Material Examined: 2 exs, sta: Devipattinam & Adirampattinam. Date, 1.7.2012, Reg. No. N-42. Coll. Ms. G. Sivaleela.

Description: Cuticle with coarse striation and longitudinal files of fine setae, eight pairs of subcephalic setae seen. Amphids are loop shape. Buccal cavity with a hollow dorsal tooth. Oesophagus with elongated bulb with cuticle line Tail is conical and un striated tip.

Measurements: L = 1.3-1.5 mm, a = 27-43, b = 18, C = 3.5.

Distribution: India: (Sultan Ali, 1983)
Elsewhere: Exe estuary, South west England, isles of Scilly.

Remarks: The specimens examined well with the description of the species made by Gerlach

3. *Desmodora (Desmodora) communis*,
(Butschli, 1874)
(Fig. 3)

1889. *Spiliphora communis* Butschli Verlag. Von. C. Winter. Pp. 1-56, Taf. VI, Fig. 27c.

Material examined: 6 exs, sta: Uppur. Date, 1.7.2012, Reg. No. N-140. Coll. Ms. G. Sivaleela

Description: Maximum diameter 25µm. Cuticle coarsely striated. Six conical labial papillae. Amphids 5µm wide. Buccal cavity with dorsal teeth and small sub-ventral teeth. Tail is conical with un-striated tip. Spicules 40 µm in length.

Measurements: L = 1.6mm, a = 60, b = 10, C = 21.

Distribution: India: (Sultan Ali, 1983)
Elsewhere: Plymouth, South west England, Isles of Scilly, Exe estuary, South west England, North east Ireland, North east Coast of England.

Remarks: The specimens examined well with the description of the species by Butschli, 1874.

4. *Desmodora (Desmodorella) tenuispiculum*,
Allgen, 1924.
(Fig. 4)

1928. *Desmodora (Desmodorella) tenuispiculum* Allgen. *Nyt Magazin for Naturvidenskaberne*. B. LXVI: 249-309.

Material Examined: 12 exs, station Uppur, Date. 1.7.12. Reg. No. S-106, Coll. Ms. G. Sivaleela & Party.

Description: Maximum diameter of body 80 µm. Cuticle with transverse striation and longitudinal files of ridges. Posterior part of cephalic capsule with rounded punctuations. Six slender about 1 µm labial setae; six slender 4 µm and 4 stouter 6 µm cephalic setae, the lateral level with the anterior of the amphids four stout sub cephalic setae on cephalic capsule posterior

to amphids. Amphids spiral, 14 µm wide. Buccal cavity with weakly cuticularised dorsal tooth. Tail is conical with un striated tip, 2.0.a.b.d. Spicules 72 µm in length, slender, indistinct and preloacal supplements absent.

Measurements: L = 0.7-0.8 mm, a = 16, b = 3.5, C = 2.5.

Distribution: India: India (Palk Bay, G. Sivaleela and K. Venkataraman, 2013). *Elsewhere:* North east England and british Isles.

Remarks: The specimens examined well with the description of the species by Allgen, 1928.

5. *Desmodora (Desmodora) scaldensis*
De Man, 1889
(Fig. 5)

1889. *Desmodora (Desmodora) scaldensis* De Man. *Mem Soc. zool. Fr.* 2: 1-10.

Material Examined: 10 exs, station Mandapam, Date. 23.11.13. Reg. No. S-163., Coll. Ms. G. Sivaleela & Party.

Description: Cuticle coarsely striated. Amphids 4µm and spiral. Buccal cavity with pointed dorsal tooth. Tail tip is un-striated. Spicules 30µm and arcuate. Gubernaculum present.

Measurements: L = 1.8, a = 35, b = 8.1, C = 11

Remarks: The specimens examined well with the description of the species by De Man 1889

Distribution: India: (Chinnadurai, 2006)
Elsewhere: Plymouth, South West England, Isles of Scilly,

6. *Spirinia laevis* (Bastian, 1865)
(Fig. 6)

1865. *Spirinia laevis* Bastian. *The Transactions of the Linnean Society of London*. Volume XXV. Part II: 73-184.

Material Examined: 3exs, sta: Pichavaram. Date, 4.7.2012, Reg. No. N-64. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 48 µm. Cuticle is finely striated and amphids is surrounded by cuticle striations. It is distinguished from the other groups in having teeth in the buccal cavity absent or minute.

Measurements: L = 3.5 mm, a = 54, b = 22, C = 30.

Distribution: India: *Elsewhere:* Falmouth, South west England, Exe estuary.

Remarks: The specimens examined well with the description of the species by Bastian, 1865.

7. *Spirinia parasitifera* (Bastian, 1865)
(Fig. 7)

1865. *Spirinia parasitifera* Bastian *The Transactions of the Linnean Society of London*. Volume XXV. Part II: 73, P. 159, tab. 13, fig. 8.

Material Examined: 4 exs, sta: Devipattinam. Date, 30.6.2012, Reg. No. N-151. Coll. Ms. G. Sivaleela.

Description: Cuticle annulated. Amphids a single loop, 10 µm wide, thick-walled, very close to anterior extremity, fully surrounded by striations. Head with six small labial papillae and a circle of four cephalic setae. Short scattered somatic setae. Buccal cavity narrow, with a small dorsal tooth and slightly posteriorly two minute subventral teeth. Oesophagus short, rounded posterior bulb. Tail conical and larger, 1.9 a.b.d. Spicules 40 µm in length, cephalated.

Measurements: L = 1.9, a = 42, b = 10, C = 27.

Distribution: India, (Tamilnadu, Sultan Ali, 1983). *Elsewhere:* New England, Long Island Sound, Massachusetts, Florida, Falka land Island, North Sea, Isles Scilly, English Channel and British Isles (Platt and Warwick, 1988).

Remarks: The specimens examined well with the description of the species by Bastian 1865.

8. *Chromaspirinia multipapillata* Jayasree and Warwick, 1977
(Fig. 8)

1977. *Chromaspiinia multipapilaata* Jayasree and warwick *J. Nat. Hist.* 11: 289-302

Material examined: 2 exs, sta: Pichavaram. Date, 4.7.2012, Reg. No. N-63. Coll. Ms. G. Sivaleela

Description: Somatic setae absent. Amphids 12-12.5 µm. Buccal cavity with small dorsal and two small subventral teeth. Tail conical

Measurements: L = 2.2 mm, a = 38

Remarks: The specimens examined well with the description of the species by Warwick, 1977.

Distribution: India (Chinnadurai, 1995) *Elsewhere:* West scotland.

9. *Chromaspirina parapontica* Luc and De Coninck, 1959
(Fig. 9)

1959. *Chromaspirina parapontica* Luc and De Coninck, *Archs. Zool. Exp. gen.* 98: 103-165. Fig. 34, 35, 36 & 37.

Material examined: 8 exs, sta: Uppur . Date, 1.7.2012, Reg. No. N-139. Coll. Ms. G. Sivaleela

Description: Amphids 3-4 µm wide. Buccal cavity with cuticularised dorsal and ventral tooth. Tail 1.8 a.b.d conical. Spicules 75 µm and arcuate. Gubernaculum present.

Measurements: Body length 2.0 mm. Maximum diameter 45 µm. l = 2516-3732 mm. a = 16.5-36, b = 11.3-15.2, c = 21.8-29.8.

Distribution: India: Indian Ocean (Ansari *et al.*, 2012), *Elsewhere:* Exe estuary, South west England, Isles of Scilly.

Remarks: The specimens examined well with the description of the species by De Coninck, 1959.

10. *Monoposthia costata* (Bastian, 1865)
de Man, 1889
(Fig. 10)

1865. *Sphilophorella costata* Bastian. *The Transactions of the Linnean Society of London*. Volume XXV. Part II: 73-184.

Material Examined: 5exs, sta: Pasipattinam. Date, 10.7.2012, Reg. No. N-33. Coll. Ms. G. Sivaleela

Description: Cuticle with v shaped markings and strongly striated cuticle. Amphids 1-2 µm wide wide. Buccal cavity with small dorsal tooth. Tail with un striated tip. Gubernaculum hooked and swollen.

Measurements: L = 1.48 mm, a = 34.48, b = 7, c = 14.

Distribution: India: *Elsewhere:* Plymouth, South West England, East Coast of England, Isles of Scilly, Falmouth, Blyth estuary, Skippers Island, Exe estuary.

Remarks: The species has been described in detail by several authors with variations. The present specimens agree with the descriptions of the species given by Weiser (1959) from Puget sound.

11. *Paracanthonchus longicaudatus*

Warwick, 1971

(Fig. 11)

1971. *Paracanthonchus longicaudatus* Warwick. *Cah. Biol. Mar.* **12**(1): 95-110. Fig. 2

Material Examined: 2 exs, sta: Pasipattinam. Date, 10.7.2012, Reg. No. N-127. Coll. Ms. G. Sivaleela

Description: Cuticle with transverse rows of small dots. Six small conical labial papillae 1.5µm. Four short 5-6µm and six longer 7-8 µm Amphids of 5-5.2 turns in male, 3.2 turns in female. Tail with distal, cylindrical.

Spicules 31 µm curve, arcuate, weakly cuticularized along ventral edge, with central lamella. Gubernaculum 40-42 µm measured as curve, paired, distal half swollen

Measurements: a = 36.3-38.0, b = 5.-6, c = 8-8.2

Distribution: India: (Ansari *et al.*, 2012)
Elsewhere: Northumberland

12. *Paracanthonchus longus* Allgen, 1934

(Fig. 12)

1934. *Paracanthonchus longus*. Allgen. *Mikrokosmos.* **28**(11): 175-177.

Material examined: 3 exs, sta: Date, 10.7.2012, Reg. No. N-116. Coll. Ms. G. Sivaleela.

Description: Cuticle with transverse rows of dots. Four cephalic setae and somatic setae are present. Amphids 4 turns, 10 µm wide. Buccal cavity represented by dorsal and sub ventral teeth. Tail half cylindrical. Spicules 45 µm and curved. Gubernaculum 30 µm.

Measurements: L = 3.110 mm, a = 53.83, b = 6.91, c = 11.96.

Distribution: India: *Elsewhere:* Strangford Lough, North east Ireland.

Remarks: The specimens examined well with the earlier description of the species by Gerlach, 1973.

13. *Paracanthonchus spectabilis* Allgen, 1931 (Fig. 13)

1931. *Paracanthonchus spectabilis* Allgen. *Zool. Jb. (Syst).* **61**: 235-236, fig. 7a-b.

Material examined: 2 exs, sta: S.P. Pattinam & Adirampattinam. Date, 10.7.2012, Reg. No. N-96. Coll. Ms. G. Sivaleela.

Description: Cuticle with transverse rows of dots. Cephalic setae 0.1 h.d. Amphids are 4 turns and spiral. Buccal cavity with dorsal tooth. Tail with conical. Spicules 1.0 a.b.d.

Measurements: L = 1.500 mm, a = 29.5-31, b = 5, c = 14.29.

Distribution: India: Palk Bay. (Sultan Ali)
Elsewhere: Skippers island, Essex (Intertidal mud), Isles of Scilly.

Remarks: The specimens examined well with the description of the species by Stekhoven, 1931.

14. *Paracanthonchus platti* Vadhyar, 1980

(Fig. 14)

1980. *Paracanthonchus micoletzky* Vadhyar. *Cah. Biol. mar.* **21**: 375-381.

Material examined: 4 exs, sta: Uppur. Date, 10.7.2012, Reg. No. N-104. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 20 µm. Cuticle with fine dots. Six labial and four cephalic setae. Amphids 5 turns and 10 µm wide. Buccal cavity with dorsal tooth. Spicules 25 µm in length and slender.

Measurements: Body L-1500-1770 mm, a = 29.5-33, b = 5, c = 14.

Distribution: India: (Bay of Bengal) *Elsewhere:* Firth of Forth, East Scotland, Firth of Clyde, West Scotland.

Remarks: The specimens examined well with the species described by Gerlach, 1953 in the head region and buccal cavity in Ireland.

15. *Paracanthonchus heterodontus*

(Schulze, 1932)

(Fig. 15)

1932. *Paracanthonchus heterodontus*, Schulze. *Zool. Jahrb. Jena (Syst).* **62**: 331-430, 51.

Material examined: 10 exs, sta: Pudukudi. Date, 4.7.2013, Reg. No. N-142. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 45µm. Cuticle with trasverse rows of dots Amphids of spiral 4 turns. Buccal cavity with dorsal tooth and vrntral teeth. Tail is conical. Spicules 35 µm and curved. Gubernaculum with denticles.

Measurements: Body length 13.36 mm, a = 27.4, b = 5.5, c = 10.8.

Distribution: India (Bay of Bengal) *Elsewhere:* Strang for Lough, East Ireland.

Remarks: The specimens examined well with the description of the species by Gerlach, 1965

16. *Praeacanthonchus opheliae*

(Warwick, 1970)

(Fig. 16)

1970. *Praeacanthonchus opheliae* Warwick, *Bull. Br. Mus. nat. Hist. (Zool.)*, **19**(4): 137-177. 172-176.

Material examined: 4 exs, sta: Pudukudi and Thondi. Date, 4.7.2013, Reg. No. N-145. Coll. Ms. G. Sivaleela

Description: Maximum diameter 55 µm. Cuticle with transverse rows of dots. Amphids 12 µm in wide. Buccal cavity with dorsal tooth. Spicules 35 µm in length. Gubernaculum present.

Measurements: Body length 2.14 mm, a = 32.92, b = 9, c = 10.

Distribution: India: *Elsewhere:* South West England, Exe estuary.

Remarks: The specimens examined well with the description of the species by Warwick, 1970.

17. *Paracanthonchus caecus* Micoletzky, 1924.

(Fig. 17)

1865. *Cyatholaimus caecus* Bastian *The Transactions of the Linnean Society of London*. Volume XXV. Part II: 73-184.

Material examined: 13 exs, sta: Pudukudi, Uppur and Rameswaram. Date, 10.7.2012 Reg. No. N-165. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 38 µm. Cuticle with transverse rows, Amphids 8µm wide. Buccal cavity with dorsal tooth and two subventral teeth. Tail is conical and Spicules 36 µm. Gubernaculum 30 µm and curved.

Measurements: Body length L = 1.5 mm, a = 38, b = 6, c = 12

Distribution: India: *Elsewhere:* Northumberland. Distribution: Exe estuary, South west England, Blyth estuary, South West England, West Scotland.

Remarks: The specimens examined well with the description of the species by Bastian, 1865

18. *Paracanthonchus multitubifer* Timm, 1961.

(Fig. 18)

1961. *Paracanthonchus multitubifer* Timm *Proc. Pakist. Acad. Sci.* **1**(1): 25-88. Material examined: 6 exs, sta: Pudukudi. Date, 4.7.2013 Reg. No. N-144. Coll. Ms. G. Sivaleela

Description: Maximum diameter is 65µm. Cuticle with transverse rows of dots. Amphids 3.2 turns and spiral. Buccal cavity with rounded dorsal tooth. Tail is filiform. Spicules 25 µm and slender. Gubernaculum 25 µm in size.

Measurements: Body length 1.1-1.24 mm, a = 19.5-26.3, b = 6, c = 10.

Distribution: India: *Elsewhere:* South west England Exe estuary.

Remarks: The specimens examined well with the description of the species by Timm, 1961.

19. *Southernia zosteræ* Allgen 1929

(Fig. 19)

1929. *Southernia zosteræ* Allgen. *Zoologische jahrbucher (Systematik)*, **57**(5): 431-496.

Material examined: 1 ex, sta: Adirampattinam. Date, 2.7.2012 Reg. No. N-90. Coll. Ms. G. Sivaleela

Description: Maximum diameter 23 µm Cuticle striated. Amphids are 10 µm wide. Tail is cylindrical

Measurements: L = 0.1, a = 38, b = 8, c = 9.

Distribution: India: *Elsewhere:* Strangford Lough, North East Ireland Loch Ewe, West Scotland, Firth of Clyde, West Scotland.

Remarks: This speciemens examined agree with *S. zosteræ* in all morphological features.

20. *Paracyatholaimus occultus* Gerlach, 1956

(Fig. 20)

1956. *Paracyatholaimus occultus* Gerlach, *S.A Kieler Meeresforsch.* **12**: 85-109.

Material Examined: 8 exs, sta: Karaikal,

Thondi and Thiruchendur. Date, 10.7.2012, Reg. No. N-10. Coll. Ms. G. Sivaleela

Description: Cuticle is punctated. 10 cephalic setae. Amphids are spiral with 10 turns. Buccal cavity with large dorsal tooth and minute sub ventral tooth. Tail is conical. Spicules are 21 μm and arcuate. Gubernaculum is simple.

Measurements: Body length $l = 1295 \mu\text{m}$, $a = 36$, $b = 6$, $c = 11.3$.

Distribution: India, *Elsewhere:* Loch Ewe, West Scotland.

Remarks: The specimens examined well with the description of the species by Lorenzen, 1971

21. *Paracyatholaimus intermedius*

De Man, 1880

(Fig. 21)

1880. *Cyatholaimus intermedius* De Man Theil. *Tijdschr. Ned. Dierkd. Ver.* V. 1-104, 1 map.

Material Examined: 5 exs, sta: Pudukudi. Date, 4.7.2013, Reg. No. N-136. Coll. Ms. G. Sivaleela

Description: Maximum diameter 25 μm . Amphids 4 turns and 3 μm . Buccal cavity with dorsal tooth. Tail is conical shape. Spicules 15 μm and curved. Gubernaculum 16 μm .

Measurements: $L = 0.865-1.04 \text{ mm}$, $a = 26.9-33.2$, $b = 6.5-7.7$, $c = 11.6-13.5$

Distribution: India: *Elsewhere:* Loch Ewe, West Scotland.

Remarks: The specimens examined well with the description of the species by De Man, 1880

22. *Paracyatholaimoides multispiralis*

Gerlach, 1953

(Fig 22)

1953. *Paracyatholaimus multispiralis* Gerlach *Teil. Archo zool. ital.* 37: 517-640. page (s): 549-553.

Material Examined: 7 exs, sta: Karaikal, Thondi and Thiruchendur. Date, 10.7.2012, Reg. No. N-174. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 20 μm . Cuticle with transverse rows of dots. Amphids 8 μm wide. Buccal cavity with pointed dorsal tooth. Tail is conical. Spicules are 18 μm and arcuate.

Measurements: Body length = 1.3-1.9 mm, $a = 46-60$, $b = 9.3$, $c = 9$.

Distribution: India: *Elsewhere:* South West England, Exe estuary.

Remarks: The specimens examined well with the description of the species by Gerlach, 1953

23. *Paralongicyatholaimus minutus*

Warwick, 1971

(Fig. 23)

1971. *Paralongicyatholaimus minutus* Warwick *Cah. Biol. mar.* 12: 95-110. page(s): 101-102.

Material examined: 8 exs, sta: Pudukudi. Date, 4.7.2013, Reg. No. N-148. Coll. Ms. G. Sivaleela

Description: Maximum diameter 12 μm . Cuticle with small dots. Four cephalic setae present. Buccal cavity cup shaped. Amphids 4 turns and spiral. Tail is filiform Spicules 10 μm and curved.

Measurements: Body length $l = 790 \text{ mm}$, $a = 26.7-37.6$, $b = 8.3-8.6$, $c = 3$.

Distribution: India

Elsewhere: Northumberland Coast, North east England.

Remarks: The specimens examined well with the description of the species by Stekhoven, 1950.

24. *Prochromadorella macrocellata*

(Fig. 24)

1951. *Prochromadorella macrocellata* Wieser *Ost. Zool.* 3: 425-480.

Material examined: 2 exs, sta: Pasipattinam. Date, 1.7.2012, Reg. No. N-128. Coll. Ms. G. Sivaleela.

Description: Body length 0.5 mm. Cuticle with transverse rods. Cephalic setae 2 μm in length. Buccal cavity with dorsal tooth. Spicules 10 μm in length.

Measurements: Body length $l = 0.77$, $a = 34$, $b = 6.2$, $c = 7.7$

Distribution: India: East Coast of India *Elsewhere:* Plymouth, South west England.

Remarks: The specimens examined well with the description of the species by Wieser.

25. *Prochromadorella ditlevseni*

(De Man, 1922)

(Fig. 25)

1922. *Chromadora ditleveseni* De Man *Tijdschr. ned. dierk. Vereen.* 2(18): 124-134.

Material examined: 12 exs, sta: Rameswaram. Date, 10.7.2012, Reg. No. N-185.1. Coll. Ms. G. Sivaleela.

Description: Cuticle with transverse rods. Cephalic setae 2 µm in length. Buccal cavity with dorsal tooth. Spicules 10 µm in length.

Measurements: L = 0.9, a = 42, b = 36, C = 8

Distribution: India, *Elsewhere:* Plymouth, South west England.

Remarks: The specimens examined well with the description of the species by Gerlach, 1951

26. *Praeacanthonchus punctatus*

(Bastian, 1865)

(Fig. 25)

1865. *Cyatholaimus punctatus* Bastian *The Transactions of the Linnean Society of London*. Volume XXV. Part II: 73-184.

Material examined: 5 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-58. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 30 µm. Cuticle with transverse rows of dots. Amphids of 3 turns 4 µm in length. Buccal cavity cup-shaped.

Spicules are 40 µm in length and curved, and projections on either side of spicules.

Measurements: Body length 2 mm, a = 30, b = 8, c = 11.

Distribution: India, *Elsewhere:* Falmouth, South West England, Skippers Island, South west England, Tamar estuary, South west England.

Remarks: The specimens examined well with the description of the species by Micoletzky, 1924.

27. *Paracomesoma dubium* Filipjev, 1918

(Fig. 26)

1918. *Paracomesoma dubium* Filipjev *Trans. Zool Lab and the Sevastopol Biol Stat of the Rus Acad of Sciences*. Series II No 4 (Issue I & II)

Material examined: 4 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-88. Coll. Ms. G. Sivaleela.

Description: Maximum diameter of body 42 µm. Cuticle smooth, without punctation. Six small labial papillae. Six anterior cephalic setae; four 6 µm posterior cephalic setae; four files of setae upto

4 µm long in oesophageal region and numerous short setae on tail but setae sparse in mid-body region. Amphids spiral, of 3 turns, 7 µm wide. Buccal cavity conical with three small pointed triangular teeth. Tail long and cylindrical, Spicules long, 210 µm in length (2.4 a.b.d.), slender

Measurements: L = 1.4 mm, a = 42, b = 13, c = 14.

Distribution: India (Bay of Bengal), *Elsewhere:* Tamar estuary, South West England; Island of Scilly and British Isles (Platt and Warwick, 1988).

Remarks: The specimens examined well with the description of the species by Chinnadurai *et al.*, at Pichavaram. The Body size was 1.8 mm. The length of present specimen is 1.4 mm.

28. *Acantholaimus ewensis* Platt and

Zhang, 1982

(Fig. 27)

1933. *Acantholaimus ewensis* Platt, H.M. Zhang, Z.N. *Bull. Br. Mus. Nat. Hist. (Zool.)*. 42: 227-246, p 512, fig. 73 a-c.

Material examined: 7 exs, sta: Pichavaram. Date, 20.10.2012, Reg. No. N-75. Coll. Ms. G. Sivaleela.

Description: Body length 0.4 mm. Maximum diameter 15µm. Cuticle is punctated. Amphids are circular 7 µm wide. Buccal cavity conical with dorsal and sub ventral teeth. Tail long and tapering swollen at tip. Spicules are paired and 20 µm in length.

Measurements: L = 0.78, a = 36, b = 6.8, c = 3.

Distribution: *Elsewhere:* Loch Ewe, West Scotland.

Remarks: The specimens examined well with the description of the species by Platt, 1982 becous of the body size difference. The total length of the specimen was 0.8. The present specimen length is 0.78.

29. *Chromadora macrolaimus* De Man, 1889

(Fig. 28)

1889. *Chromadora macrolaima* De Man *Mem. Soc. Zool. Fr.*, 2: 1-35 (182-216), Pls. 5-8.

Material Examined: 6 exs, sta: Devipattinam & Adirampattinam. Date, 30.6.2012, Reg. No. N-47. Coll. Ms. G. Sivaleela.

Description: Cuticle punctated with lateral differentiation of two longitudinal rows of dots joined by transverse bars and cuticular plates. Ornamentation homogeneous. four 4-5 μm fine cephalic setae. Somatic setae 3-4 μm in four longitudinal files throughout body. Amphid indistinct and loop shaped. Buccal cavity with solid dorsal tooth, opposed by two small sub ventral teeth. Oesophagus with well developed rounded posterior bulb. Tail conico cylindrical. Spicules are curved with prominent ventral ala. Gubernaculum 20 μm , well cuticularised distally, proximally paired.

Measurements: L = 0.6, a = 19, b = 8.1, c = 11

Distribution: India, *Elsewhere:* North Sea, Baltic and Tasmania.

Remarks: The shape of the Amphids are differing from *Chromadorina* species.

30. *Chromadorina cervix* wieser, 1954
(Fig. 29)

1954. *Chromadorina cervix* Wieser *Acta Univ. lund* (N.F.2). **50**(16): 1-148.

Material Examined: 5 exs, sta: Pudukudi. Date, 4.7.2013, Reg. No. N-133. Coll. Ms. G. Sivaleela

Description: Cuticle is lining. Four pairs of setae 0.5 c.d. Pigment spots not visible. Amphids not visible. Tail tapering with spinneret. Spicules 40 μm in length and curve.

Measurements: L = 0.5, a = 32, b = 8.6, C = 8

Distribution: India (Ansari *et al.*, 2012)
Elsewhere: Blyth estuary, Exe estuary, South west England.

Remarks: The specimens resembles with the earlier specimen by Wieser, 1954.

31. *Neochromadora poecilosomoides*
Filipjev, 1918
(Fig. 30)

918. *Chromadora poecilosomoides*, *Tran. Zool. Lab and the Sevast Biol Stat of the Rus Acad. of Sciences*. Ser II No 4 (Issue I & II), fig. 5.2, tab. 8.

Material examined: 4 exs, sta: Rameswaram. Date, 1.7.2012, Reg. No. N-92. Coll. Ms. G. Sivaleela.

Description: Body length 0.8 mm. Maximum

diameter 20 μm . Cuticle ornamentation. Cephalic setae 5 μm . Buccal cavity is pointed tooth. Tail is conical. Spicules 20 μm and arcuate.

Measurements: L = 1.0, a = 33, b = 19, c = 8.

Distribution: India: (Ansari *et al.*, 2012)
Elsewhere: Isles of Scilly, Plymouth, South West England.

Remarks: The specimens examined well with the description of the species by Filipjev, 1918.

32. *Neochromadora trichiphora* Steiner, 1921
(Fig. 31)

1921. *Spiliphora trichiphora* Steiner. *Zool. Jb. (Syst.)*. **44** (1-2): 1-68.

Material examined: 3 exs, sta: Rameswaram. Date, 1.7.2012, Reg. No. N-93. Coll. Ms. G. Sivaleela.

Description: L Cuticle with transverse rows of punctuations. Six cephalic setae. Buccal cavity with dorsal tooth. Amphids are pear shaped. Oesophagus with posterior bulb. Tail tapering.

Measurements: L = 0.5, a = 21, b = 5, c = 6

Distribution: India, *Elsewhere:* Exe estuary, South west England, Firth of Clyde, West Scotland

Remarks: The specimens examined well with the description of the species by Schuurmans Stekhoven, 1935 except body size.

33. *Neochromadora tecta* Gerlach, 1951
(Fig. 32)

1951. *Neochromadora tecta* Gerlach *Zool. Jb. (Syst.)*. **44** (1-2): 1-68.

Material examined: 7 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-97. Coll. Ms. G. Sivaleela.

Description: Cuticle with enlarged dots. Six cephalic setae are present. Amphids are 5 μm in wide. Buccal cavity with dorsal teeth and smaller sub-ventral teeth. Tail conico-cylindrical. Spicules 50 μm in length curve and slender.

Measurements: L = 1.2, a = 28, b = 6, C = 6

Distribution: India, *Elsewhere:* South west England, Loch Ewe, West Scotland.

Remarks: The specimens examined well with the species described by Schuurmans Stekhoven, 1933 except body size.

34. *Prochromadora orleji* De Man, 1880

(Fig. 33)

1880. *Chromadora orleji* De Man *Tijdschr. Ned. Dierkd. Ver.* **V**: 138-143

Material examined: 6 exs, sta: Karaikal, Thondi and Thiruchendur. Date, 10.7.2012, Reg. No. N-176. Coll. Ms. G. Sivaleela.

Description: Amphids are oval. Buccal cavity with dorsal tooth. Tail conico cylindrical. Spicules are 35 µm wide.

Measurements: L = 0.5, a = 20, b = 8, c = 8.

Distribution: India: Elsewhere: Northumberland

Remarks: The specimens examined well with the species described by de Man, 1880 by body size.

35. *Dichromadora cephalata* (Steiner, 1916)

(Fig. 34)

1916. *Chromadora cephalata* Steiner *Zool. Jb. (Syst.)*. **39**: 511-664.

Material examined: 4 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-95. Coll. Ms. G. Sivaleela.

Description: Cuticle with longitudinal dots in mid body. Buccal cavity with hollow dorsal and ventral tooth. Amphids 5 µm wide. Tail is tapering. Spicules 34 µm and curve.

Measurements: L = 0.9, a = 21, b = 7, c = 7.

Distribution: India, Elsewhere: South west England, Tamar estuary, Firth of Clyde, West Scotland.

Remarks: The specimens examined well with the description of the species by Gerlach, 1951.

36. *Chromadorella duopapillata* Platt, 1973

(Fig. 35)

1973. *Chromadorella duopapillata* Platt *Cah. Biol. Mar.*, **14**: 295-321, fig. 10.

Material examined: 2 exs, sta: S.P. Pattinam and Adirampattinam. Date, 1.7.2012, Reg. No. N-98. Coll. Ms. G. Sivaleela

Description: Cuticle punctated. Fine cervical and caudal setae. Amphids 2 µm curved and oval. Buccal cavity conical with indistinct teeth. Spicules 1.0 a.b.d.

Measurements: L = 1.1, a = 25, b = 7, C = 8 mm.

Distribution: Strangford Lough, North east Ireland.

Remarks: The specimens examined well with the description of the species by Platt 1973.

37. *Chromadorita tendabunda* (De Man, 1890)

(Fig. 37)

1890. *Spilophorella tendabunda* De Man, J.G. *Mem. Soc. Zool. Fr.*, **3**: 169-194, Pl. 3, fig. 4.

Material examined: 10 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-101. Coll. Ms. G. Sivaleela.

Description: Body length 0.4 mm. Maximum diameter 25 mm. Cuticle with enlarged lateral punctations. Tail conical. Spicules are long and slender.

Measurements: L = 0.5, a = 16, b = 6, C = 5.

Distribution: India, Elsewhere: South West England, Tamar estuary, South West England, Strangford Lough.

Remarks: The specimens examined well with the species described by de Man, 1890 by body size.

38. *Chromadorina granulopigmentata*

(Wieser, 1951) Wieser, 1954

(Fig. 38)

1951. *Chromadorina granulopigmentata* Wieser *Öst. zool. Z.* **3**(3/4): 425-480.

Material Examined: 10 exs, station Mandapam, Date. 23.11.13. Reg. No. S-187., Coll. Ms. G. Sivaleela & Party.

Description: Body cylindrical and striated. Length is 0.2 mm. Amphids slit like. Granular pigments spot seen. Oesophagus with bulb.

Measurements: L = 0.7, a = 24, b = 7, C = 9.

Distribution: India: (Ansari *et al.*, 2012) Elsewhere: Plymouth, South West England

Remarks: The specimens examined well with the description of the species by Gerlach 1965.

39. *Halalaimus gracilis* De Mann, 1888

(Fig. 39)

1888. *Halalaimus gracilis* De Man *Mémoires de la Société Zoologique de France.* **1**: 1-51., P. 3, fig. 1a-1b.

Material examined: 5 exs, sta: Uppur and Rameswaram. Date, 1.7.2012, Reg. No. N-172. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 12 μm . Cuticle smooth. Amphids long and narrow. Tail long and slender. Spicules are 14 μm and long. Gubernaculum surrounds spicules.

Measurements: L = 0.8-1.2 mm, a = 52, b = 7, C = 35.

Distribution: India: Bay of Bengal, *Elsewhere:* Plymouth Exe estuary.

Remarks: The specimens examined well with the description of the species by De Man, 1888 from Carolina.

40. *Oncholaimus campylocercoides* De Coninck and Stekhoven, 1933
(Fig. 40)

1933. *Oncholaimus campylocercoides* De Coninck and Stekhoven *Mém. Mus. r. Hist. nat. Belg.* **58**: 3-163.

Material Examined: 10 exs, sta: Adirampattinam and Devipattinam. Date, 30.6.2012, Reg. No. N-44. Coll. Ms. G. Sivaleela.

Description: Body length 1.6 mm. Maximum diameter 50 μm . Six conical labial setae. Somatic setae absent. Amphids are not clear. Tail is cylindrical with unstriated tip. Spicules unequal in length 65 μm .

Measurements: L = 3.8, a = 52, b = 7, C = 37.

Distribution: India (Ansari *et al.*, 2012), *Elsewhere:* Strangford Lough, Northern Ireland.

Remarks: The specimens examined well with the description of the species by Gerlach, 1952.

Remarks: The specimens examined well with the description of the species by Rachor, 1969.

41. *Oncholaimus oxyuris* Ditlevsen, 1921
(Fig. 41)

1921. *Oncholaimus oxyuris* Ditlevsen *Vidensk. Meddr dansk naturh. Foren.*, **63**: 230, Pl. 2, fig. 9.

Material examined: 2exs, sta: Pudukudi. Date, 4.7.2013, Reg. No. N-131. Coll. Ms. G. Sivaleela

Description: Body length 2.0 mm. Maximum diameter 45 μm . Six longer cephalic setae. Amphids 0.1 c.d. Tail and conical posterior half cylindrical. Spicules slightly bent.

Measurements: L = 2.5, a = 44, b = 7, C = 8.

Distribution: Exe estuary.

Remarks: The Specimens examined well with the description of the species by Schneider, 1926.

42. *Oncholaimus skawensis* Ditlevsen, 1921
(Fig. 42)

1921. *Oncholaimus skawensis* Ditlevsen *Vidensk. Meddr dansk naturh. Foren.* **74**: P. 61-62, fig. 38.

Material examined: 10 ex, sta: pudukudi. Date, 4.7.2013, Reg. No. N-132. Coll. Ms. G. Sivaleela

Description: longer cephalic setae 2 μm . Amphids 7.5 μm wide. Tail is long and cylindrical. Spicules 22 μm in length.

Measurements: L = 3.8, a = 58, b = 75, C = 9.

Distribution: Northumberland.

Remarks: The specimens examined well with the description of the species by Chitwood, 1960.

43. *Oncholaimus brachycercus* De Man, 1889
(Fig. 43)

1889. *Oncholaimus brachycercus* De Man *Mém. Soc. zool. Fr.*, **2**: 1-39, Pl. III. fig. 12-12e.

Material examined: 3 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-78. Coll. Ms. G. Sivaleela.

Description: Six labial setae and labial setae. Buccal cavity is cuticularized. Tail is cylindrical with swollen tip. Spicules are not equal.

Measurements: L = 3.8, a = 58, b = 75, C = 9.

Distribution: Whitstable, Exe estuary.

Remarks: The specimens examined well with the description of the species by De Man, 1889.

44. *Oncholaimus dujardinii* De man, 1876
(Fig. 44)

1876. *Oncholaimus dujardinii* De man *Tijdschr. ned. dierk. Vereen.*, **3**: 88-118.

Material examined: 4 exs, sta: Mallipattinam. Date, 1.7.2012, Reg. No. N-114. Coll. Ms. G. Sivaleela.

Distribution: Body length 1.0 mm. Maximum diameter 20 μm . Six cephalic setae and small. Tail reduced behind anus. Spicules are 0.8 a.b.d in length.

Measurements: L = 2.2, a = 47, b = 5, C = 42.

Distribution: North east England, Plymouth, Isles of Scilly.

Remarks: The specimens examined well with the description of the species by Dujardin, 1845 at Mediterranean.

45. *Adoncholaimus panicus* Cobb, 1930
(Fig. 45)

1930. *Adoncholaimus panicus* Cobb *J. Wash. Acad. Sci.*, **20**: 225-241.

Material examined: 7 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-65. Coll.Ms. G. Sivaleela.

Description: Amphids are 0.1 times c.d. Tail is. long. Spicules 80 μ m.

Measurements: L = 46, a = 44, C = 3.3

Distribution: India:

Elsewhere: Scotland.

Remarks: The specimens examined well with the description of the species by Cobb, 1930.

46. *Metoncholaimus albidus* (Bastian, 1865)
(Fig. 46)

1865. *Metoncholaimus albidus* Bastian *Trans. Linn. Soc. Lond.*, **25**(92): 73-78, Pls. 9-13, Pl. VII, Fig. 11.

Material examined: 10 exs, sta: Pudukudi. Date, 4.7.2013, Reg. No. N-134. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 45 μ m. Cuticle smooth. Ten cephalic setae. amphids with dorsal tooth. Buccal cavity large and closed. Spicules 130 μ m and elongated and 2.2 a.b.d.

Measurements: L = 54, a = 62, b = 78, C = 11.

Distribution: India, *Elsewhere:* Falmouth, Cornwall, Essex Coast, Isles of Scilly.

Remarks: The specimens examined well with the description of the species by de Man, 1893

47. *Viscosia viscosa* (Bastian 1865)
(Fig. 47)

1865. *Viscosia viscosa* Bastian *Trans. Linn. Soc. Lond.* Volume XXV. Part II: 73-184.

Material examined: 3 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-81. Coll. Ms. G. Sivaleela.

Description: Body length 1.6 mm. Maximum

diameter of body 50 μ m. Cuticle smooth. Cephalic setae reduced to papillae one sixth of head diameter in length, labial papillae indistinct. Buccal cavity with large right sub ventral tooth, left sub ventral tooth double tipped, dorsal tooth small, single tipped. Amphids pocket-like, 10 μ m wide. Oesophagus cylindrical, 0.15 times of body length. Tail long and proximal two-thirds conical, distal third cylindrical; no caudal setae. Ovaries paired, equal, opposed and reflexed.

Distribution: India: Bay of Bengal, *Elsewhere:* British coast, Falkland Islands, Norway, North Sea, Oresund, Kiel Bay, English Channel, Isles of Scilly (Platt and Warwick, 1983)

Remarks: The specimens examined well with the description of the species by de Man, 1890.

48. *Viscosia glabra* (Bastian 1865)
(Fig. 48)

1865. *Viscosia glabra* Bastian *Trans. Linn. Soc. Lond* Volume XXV. Part II: 73-184.

Material examined: 6 exs, sta: Uppur. Date, 10.7.2012, Reg. No. N-178. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 25 μ m. Six cephalic sense organs. Amphids 2.5 μ m wide. Tail long and cylindrical. Spicules 20 μ m.

Measurements: L = 1.8 mm, a = 48, b = 8, C = 7.

Distribution: India: (Sultan Ali, 1983), *Elsewhere:* Penzance, Isles of Scilly, Skippers island, Essex, Northern Ireland, North east England,

49. *Camacolaimus barbatus* Warwick, 1970
(Fig. 49)

1970. *Camacolaimus barbatus* Warwick. *Bull. Br. Mus. Nat. Hist. (Zool)*, **19**: 137-177.

Material Examined: 2 exs, sta: Devipattinam and Adirampattinam. Date, 30.6.2012, Reg. No. N-39. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 32 μ m. Cuticle with widely spaced transverse striations. Six anterior cephalic sensilla minute, conical, papilliform; four short 2.5 μ m cephalic setae. Amphids spiral, of 2.5 turns, 6 μ m wide. Buccal cavity with a long style-like dorsal tooth, 30 μ m long, with a prominent shoulder near its distal

tip. Oesophagus narrow cylindrical. Tail conical with a pointed, unstriated spinneret. Ovaries paired and reflexed.

Measurements: L = 2.2, a = 48, b = 7, C = 21.18.

Distribution: India: (Rao, 1988), *Elsewhere:* Exe estuary, South West England and British Isles (Platt and Warwick, 1988) and Great Nicobar Islands.

Remarks: The specimens examined well with the species by Warwick, 1970.

50. *Daptonema furcatum* (Juario, 1974)
(Fig. 50)

1974. *Daptonema furcatum* Juario veroff. Indt. Meeresforsch. Bremerh. 14: 275-303

Material Examined: 6 exs, sta: uppur. Date, 1.7.2012 Reg. No. N-120. Coll. Ms. G. Sivaleela.

Description: Amphids are round. Tail. distal end is cylindrical. Spicules are S-shaped.

Measurements: L = 0.57, a = 28, b = 4, C = 8.

Distribution: India: *Elsewhere:* North East coast of England.

Remarks: The specimens examined well the description of the species by Platt 1970.

51. *Daptonema tenuispiculum* (Ditlevsen, 1918)
(Fig. 51)

1918. *Theristus tenuispiculum* Ditlevsen Vidensk. Meddr. dansk naturh. Foren. 70, 7: 147-214.

Material Examined: 4 exs, sta: Devipattinam and Adirampattinam. Date, 30.6.2012, Reg. No. N-48. Coll. Ms. G. Sivaleela.

Description: Six cephalic setae Tail cylindrical. Spicules S shaped. Gubernaculum is rounded

Measurements: L = 0.9, a = 22, b = 4, C = 6.

Distribution: India (Sivaleela, G and Venkataraman, 2013). *Elsewhere:* Blyth estuary, North east England, South west England.

Remarks: The specimens examined well the species by Gerlach, 1965.

52. *Daptonema oxycerca* (De Man, 1888)
(Fig. 52)

1888. *Daptonema oxycercus* De Man Mémoires de la Société Zoologique de France., 1: 1-51.

Material Examined: 2 exs, sta: Devipattinam and Adirampattinam. Date, 30.6.2012, Reg. No. N-50. Coll. Ms. G. Sivaleela.

Description: Maximum diameter of body 65 µm. Cuticle striated. Head with six labial setae, 4µm in length. Cephalic setae: six 24 µm, six 12 µm. Somatic setae scarce, short. Buccal cavity spacious, bulbous; transversely arranged cheilorhabdions and buccal ring present. Amphids roundish, situated at base of buccal cavity, 5 µm wide. Tail posterior third cylindrical, terminal setae short. Spicules stout, 58 µm in length (1.2a.b.d.), as curve, proximally cephalate. Gubernaculum surrounds distal ends of spicules, no apophysis.

Measurements: L = 1.6, a = 16, b = 6, C = 6.

Distribution: India (Sultan Ali, 1983) *Elsewhere:* Whitstable, South East England; Tamar and Exe estuaries, South West England; Skippers Island, Essex, South East England; Northumberland coast, North East England.

53. *Daptonema vicinum* (Riemann, 1966)
(Fig. 53)

1966. *Theristus vicinus* Riemann Hydrobiol. Suppl. XXXI. 1/2: 1-279

Material Examined: 1 ex, sta: Devipattinam and Adirampattinam. Date, 30.6.2012, Reg. No. N-49. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 40 µm. Six cephalic setae. Amphids are circle 0.5 h.d. Tail is cylindrical. Spicules L – shaped.

Measurements: L = 1.1, a = 24, b = 5, c = 5.

Distribution: India: (Chinnadurai, 2008). *Elsewhere:* Firth of Forth, East Scotland.

54. *Daptonema hirsutum* (Vitiello, 1967)
(Fig. 54)

1967. *Daptonema hirsutum* Gerlach Cah. Biol. mar. 8: 403-416.

Material examined: 10 exs, sta: uppur. Date, 1.7.2012, Reg. No. N-102. Coll. Ms. G. Sivaleela.

Description: Body length 1.0 mm. Maximum diameter 40 µm. Cephalic setae short. Amphids are long and 1.0 µm wide. Tail 2.0 a.b.d. and cylindrical. Spicules 20 µm.

Measurements: L = 2.1, a = 26, b = 12, c = 5.

Distribution: India: *Elsewhere:* Strangford Lough, North east Ireland, Isles of Scilly.

Remarks: The specimens examined well with the description of the species by Palacin (1990) except for the body size.

55. *Daptonema procerum* (Gerlach, 1951)
(Fig. 55)

1951. *Theristus procerus* Gerlach *Zool. Jb. (Syst.)*, **80**: 379-406.

Material examined: 11 exs, sta: Pasipattinam. Date, 1.7.2012, Reg. No. N-124. Coll. Ms. G. Sivaleela.

Description: Body cylindrical and length is about 0.3 mm. Maximum diameter 27 μm . Amphids 0.2 h.d. Tail is cylindrical. Spicules 27 μm and curve and slender. Gubernaculum tubular.

Measurements: L = 0.7, a = 18, b = 1.4, C = 3.2.

Distribution: India: *Elsewhere:* Tamar and Fal estuaries South West England.

56. *Daptonema setosum* (Butschli, 1874)
(Fig. 56)

1874. *Daptonema setosus* Butschli *Zootaxa.*, **2568**: 3P-29, Pl. 2, fig. 11a.

Material examined: 2 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-59. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 80 μm . Amphids 0.4 h.d in diameter. Tail is cylindrical. Spicules 45 μm and curve. Gubernaculum long with apophysis.

Measurements: 1.2 mm, a = 2.5, b = 4.4, c = 7.

Distribution: India: *Elsewhere:* British Isles.

Remarks: The specimens examined well with the species description by de Man, 1922.

57. *Daptonema narmandicum* (De Man, 1890)
(Fig. 57)

1890. *Daptonema narmandicus* De Man *Mém. Soc. zool. Fr.*, **3**: 169, pl. 11, fig. 127.

Material Examined: 10 exs, station Thondi. Date. 26.11.2013. Reg. No. S-160., Coll. Ms. G. Sivaleela & Party.

Description: Maximum diameter 20 μm . Cuticle with transverse lining. Amphids 3 μm in diameter. Tail is cylindrical. Spicules 30 μm and curved. Gubernaculum with apophysis.

Measurements: L = 1.2, a = 38, b = 6, C = 6.

Distribution: England, Ireland, Scotland.

Remarks: The specimens examined well with the description of the species by Timm, 1963.

58. *Daptonema psammoides* (Warwick, 1970)
(Fig. 58)

1970. *Trichotheristus psammoides* Warwick. *Bull. Br. Mus. nat. Hist. (Zool.)*, **19**(4): 137-177.

Material Examined: 10 exs, station Thondi, Date. 23.12.07. Reg. No. S-161., Coll. Ms. G. Sivaleela & Party.

Description: Body length 1.0 mm. Maximum diameter 25 μm . Amphids 4.5 μm in diameter. Tail is cylindrical. Spicules 30 μm and arcuate. Gubernaculum with rounded apophysis.

Measurements: L = 1.2, a = 32, b = 12, C = 2.8.

Distribution: India: *Elsewhere:* Exe estuary, South West England.

59. *Terschellingia longicaudata* De Man, 1907
(Fig. 59)

1907. *Terschellingia magna* De Man *Mém. Soc. zool. Fr.*, **20**: 33-90.

Material examined: 2 exs, sta: Devipattinam and Adirampattinam. Date, 30.6.2012, Reg. No. N-45. Coll. Ms. G. Sivaleela.

Description: Maximum diameter of body 28 μm . Cuticle very finely striated. Four 4 μm cephalic setae, no other cephalic sensilla discernible. Four 5 μm subcephalic setae situated either side of the amphid. A pair of cervical setae behind each amphid, and more posteriorly a circle of six cervical setae. Somatic setae otherwise absent. Amphids circular, thin-walled, 5.2 μm diameter. Buccal cavity absent. Oesophagus with prominent round posterior bulb and small heart-shaped cardia present. Tail with filiform tip constituting 80% of the total length. Ovaries paired and outstretched.

Measurements: L = 1.8, a = 34, b = 12.1, c = 3.

Distribution: India (Bay of Bengal). *Elsewhere:* Long Island Sound, Florida, Kiel Bay, North Sea,

English Channel, Mediterranean Sea, Maldives, Bay of Bengal, Australia, British Isles, Essex, Exe, Tamar and Fal estuaries, Skippers Island, Northumberland coast and British Isles (Warwick *et al.*, 1998).

Remarks: The present specimen correspond well with the original description of the species by Chitwood by 1951.

60. *Terschellingia goubaultae* Austen, 1989
(Fig. 60)

1989. *Terschellingia goubaulte* Austen *Journal of the Marine Biological Association, U.K.*, **69**: 93-99.

Material examined: 12 exs, sta: Nagaipattinam. Date, 3.7.2012, Reg. No. N-85. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 25 μm . Cuticle with enlarged dots. Six cephalic setae are present. Amphids are 5 μm in wide. Buccal cavity with dorsal teeth and smaller subventral teeth. Tail conico-cylindrical. Spicules 50 μm in length curve and slender.

Measurements: L = 2.2, a = 24, b = 9.6, c = 5.2

Distribution: India: *Elsewhere:* South west England, Loch Ewe, West Scotland.

61. *Araeolaimus paucisetosus* Wieser, 1951
(Fig. 61)

1951. *Araeolaimus paucisetosus* Wieser *Öst. zool. Z. fig.* 122.

Material examined: 3 exs, sta. Thirupalakudi & Mimisal Date, 10.7.2012, Reg. No. N-153. Coll. Ms. G. Sivaleela.

Description: Cuticle simple no ornamentation. Amphids 0.5 h.d. and elongated loops. Buccal cavity cylindrical. Tail is conical

Measurements: L = 0.7-1.1, a = 38, C = 5.

Distribution: India: *Elsewhere:* Plymouth, South West England.

62. *Araeolaimus microphthalmus*
De Man, 1893
(Fig. 62)

1893. *Araeolaimus microphthalmus* De Man *Öst. zool. Z. fig.* 121a.

Material Examined: 10 exs, station Thondi & Thirupalakudi, Date. 23.12.07. Reg. No. S-159., Coll. Ms. G. Sivaleela & Party.

Description: Body length 0.8 mm. numerous cervical setae and loop amphids present. Spicules 18 μm .

Measurements: L = 1.2 mm, a = 40.

Distribution: Falmouth, South West England.

63. *Anticoma eberthi* Bastian, 1865
(Fig. 63)

1865. *Anticoma eberthi* Bastian *The Transactions of the Linnean Society of London. Volume XXV. Part II:* 73-184

Material examined: 2 exs, sta: Uppur. Date, 10.7.2012, Reg. No. N- 51. Coll. Ms. G. Sivaleela.

Description: Body thin and cylindrical. Length 4 mm. Cephalic setae 20 μm . Tail is long Spicules 1.2 a.b.d. long.

Measurements: a = 23.74, b = 4.45, c = 5.36.

Distribution: India: *Elsewhere:* Falmouth, Clare island, West Ireland, North east England, Isles of Scilly.

Remarks:

64. *Anticoma acuminata* (Eberth, 1863)
(Fig. 64)

1865. *Anticoma limalis.* Bastian. *The Transactions of the Linnean Society of London. Volume XXV. Part II:* 73-184, pl. 1, fig. 1-6.

Material Examined: 10 exs, sta: Devipattinam and Adirampattinam Date, 30.6.2012, Reg. No. N-52. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 45 μm . Cuticle smooth. Six rounded lips. Six cephalic setae. Buccal cavity conical. Amphids pocket like. Tail is filiform and long. Spicules are arcuate 40 μm in length.

Measurements: L = 1.56 mm, a = 32.5, b = 3, c = 7.

Distribution: India: Bay of Bengal. *Elsewhere:* Plymouth, North east England, Exe estuary and Isles of Scilly.

65. *Actinonema pachydermatum* Cobb, 1920
(Fig. 65)

1920. *Actinonema pachydermatum* Cobb N. A. (1920). *Contr. Sci. Nematol.*, **9**: 217-343, fig. 142. a-d.

Material examined: 3 exs, sta: Uppur. Date, 1.7.2012, Reg. No. N-169. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 20 µm. Cuticle ornamentation. Amphid oval and 0.5 c.d. Tail conical with pointed tip and 2 a.b.d. Spicules small.

Measurements: L = 0.7, a = 16, b = 4, c = 7.

Distribution: India: *Elsewhere:* Northumberland Coast, North east England.

Remarks: The specimens examined well with the earlier description of the species by Allgen, 1929.

66. *Laimella longicauda* Cobb, 1920
(Fig. 66)

1920. *Laimella longicauda* Cobb. P. 261. fig. 44.

Material examined: 2 exs, sta: Uppur. Date, 1.7.2012, Reg. No. N-62. Coll. Ms. G. Sivaleela.

Description: Cuticle with punctuations. Amphids spiral and 4 turns. Buccal cavity cylindrical. Oesophagus with posterior bulb. Tail is filiform. Spicules 35 µm and arcuate.

Measurements: L = 1.2 mm, b = 2, c = 8.

Distribution: India: (Ansari *et al.*, 2012). *Elsewhere:* Liverpool Bay, North West England.

Remarks: The specimens examined well with the earlier description of the species Chitwood, 1937.

67. *Sabatieria punctata* (Kreis, 1924)
(Fig. 67)

1924. *Sabatieria punctata* Kreis *Büsum.*, 2: 157-170, fig.18

Material examined: 5 exs, sta: Adirampattinam. Date, 2.7.2012, Reg. No. N-87. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 25 µm. Cuticle has larger dots. Amphids are spiral in three turns.

Measurements: L = 1.7mm, a = 26, b = 9, c = 8.

Distribution: India. *Elsewhere:* Northumberland Coast, North East England, South Wales.

Remarks: The specimens examined well with the earlier description of the species by Schurmans Stekhoven, 1935.

68. *Sabatieria celtica* Southern, 1914
(Fig. 68)

1914. *Sabatieria celtica* Southern *Proc. R. Ir. Acad.* Volume XXXI: 1-80 (Clare Island survey, part 54). Pl. III, fig. 8 A-D.

Material examined: 60 exs, sta: Devipattinam. Date, 30.6.2012, Reg. No. N-29. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 25 µm. Cuticle with larger dots. Cervical setae longer 2µm in length. Amphids 3 turns, 5 µm in length. Tail 2.2 a.b.d and conico-cylindrical. Spicules 20µm and arcuate.

Measurements: L = 2, a = 0.2, b = 0.6, c = 0.15

Distribution: India. *Elsewhere:* A common cosmopolitan species recorded from many localities all around British Isles,

69. *Sabatieria ornata* (Ditlevsen, 1918)
(Fig. 69)

1918. *Sabatieria ornate* Naturh. Foven. 70, 7: 147, Pl. III, fig. 23 a-d.

Material examined: 60 exs, sta: Thirupalakudi. Date, 27.11.2013, Reg. No. N-150. Coll. Ms. G. Sivaleela.

Description: Cuticle simple with dots in the tail region. Amphids are 2.5 µm wide with three turns. Tail conico-cylindrical 3.5 a.b.d. Spicules 20 µm and arcuate. Gubernaculum with curved apophyses.

Measurements: L = 2.2 mm, a = 28, b = 15, C = 12.

Distribution: India; *Elsewhere:* Northumberland Coast, North east England.

Remarks: The specimen examined well with the earlier description of the species by Ditlevsen, 1918.

70. *Comesa vitia* (Warwick, 1971)
(Fig. 70)

1971. *Comesa vitia* Warwick british fauna no. 38, fig. 100.

Material examined: 60 exs, sta: uppur. Date, 28.11.2013, Reg. No. N-170. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 18µm. Cuticle punctated. Amphids are 3 turns 5.5 µm wide. Tail 1.9 a.b.d. Spicules are 14 a.b.d and curve.

Measurements: L = 0.7, b = 6, C = 2.

Distribution: India: *Elsewhere:*
Northumberland coast, North east England

71. *Dorylaimopsis punctata* Ditlevsen, 1918
(Fig. 71)

1918. *Dorylaimopsis punctata* Ditlevsen P. 163-164, PL. ii, Fig. 6.

Material examined: 60 exs, sta: Devipattinam and adirampattinam. Date, 30.6.2012, Reg. No. N-151. Coll. Ms. G. Sivaleela.

Description: Body slender, gradually tapering at both extremities, 0.92 mm in length. Maximum width of body 27 μ m. Cuticle with transverse rows of punctations; punctations laterally differentiated into two longitudinal rows; however lateral arrangement of dots irregular in caudal region. Cephalic sense organs arranged in three rows; six labial papillae, six external labial setae, four cephalic setae. Amphids spiral, of 3 turns. Buccal cavity with anterior vestibulum and a posterior cylindrical portion,

Measurements: L = 1-2, A = 27, B = 7, C = 13.

Distribution: India: (Bay of Bengal). *Elsewhere:*
West Scotland, North Sea, Celtic Sea.

Remarks: The specimens examined well with the earlier description of the species by Allgen, 1953 at Denmark.

72. *Trichotheristus mirabilis* (Stekhoven &
De Coninck, 1933)
(Fig. 72)

1933. *Steinieria mirabilis* Stekhoven & De Coninck *Bull. Mus. royal d'Hist. Nat. Belg.* 9(4): 1-15, 5, pl. IV, Abb-16, a-f.

Material examined: 1 ex, sta: S.P. Pattinam. Date, 10.7.2012, Reg. No. N-58. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 30 μ m. Cephalic setae 14 and 10 μ m in h.d. Amphids 2 μ m in diameter. Tail 4.0 a.b.d. and cylindrical. Spicules 25 μ m in length. Gubernaculum long.

Distribution: India: *Elsewhere:* Strangford Lough, North east Ireland, Exe estuary, South west England, West Scotland, India.

Remarks: The specimens examined well with the earlier description by Allgen, 1951 at

73. *Theristus ensifer* Gerlach, 1951
(Fig. 73)

1951. *Theristus ensifer* Gerlach S. A. *Zool. Jb. (Syst.)*. 80: 379-406.

Material examined: 2 exs, sta: Devipattinam and Adirampattinam. Date, 30.6.2012, Reg. No. N-54. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 10 μ m. Somatic setae is short. Amphids 10 μ m in length. Tail 2.2 a.b.d. with cylindrical. Spicules are curve and un equal 1.0 a.b.d.

Measurements: L = 0.9, a = 45, b = 5, C = 8.

Distribution: India, (Ansari *et al.*, 2012)
Elsewhere: South west England, Exe estuary.

74. *Theristus flevensis* Stekhoven, 1935
(Fig. 74)

1935. *Theristus flevensis* Stekhoven *Nord-und Ostsee (Leipzig 1935)*. V b: 1-173, fig. 9, d.

Material examined: 6 exs, sta: Adirampattinam. Date, 2.7.2012, Reg. No. N-91. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 35 μ m. Cuticle with transverse striations. Cephalic setae are 10. Amphids 0.4 μ m wide. Spicules are curved, 25 μ m in length. Gubernaculum is tubular.

Measurements: L = 1.4mm, a = 52, b = 8, C = 7.

Distribution: India: *Elsewhere:* Exe estuary, South west England, Skippers Island, South east England, West Scotland.

75. *Theristus pertenuis* Bresslau &
Stekhoven, 1935
(Fig. 75)

1935. *Theristus pertenuis* Bresslau & Stekhoven. *Nord-und Ostsee (Leipzig 1935)*. V b: 1-173., Abb 12 and b.

Material examined: 6 exs, sta: Thirupalakudi. Date, 10.7.2012, Reg. No. N-152. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 20 μ m. Amphids 1.3 h.d. Tail 5.0 a.b.d. Spicules 20 μ m and L shaped. Gubernaculum with apophyses.

Measurements: 0.8 mm, a = 38, b = 5.2, C = 8.

Distribution: India: *Elsewhere:* Strangford Lough, North East Ireland.

76. *Theristus heterospiculum* (Allgen, 1932)
(Fig. 76)

1932. *Theristus heterospiculum* Allgen *Nyt Mag. Naturvid.* **70**: 623, Abb-53.

Material examined: 2 exs, sta: Thirupalakudi & Uppur. Date, 10.7.2012, Reg. No. N-177. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 20 μ m. Cephalic setae are 2 μ m. Amphids 1.2 μ m in diameter. Tail 2-3 a.b.d. Spicules are 22 μ m and curved.

Measurements: a = 26, b = 3.6, C = 6.2.

Distribution: India: *Elsewhere*: Isles of Scilly

77. *Pamponema multipapillatum* Wieser, 1954
(Fig. 77)

1954. *Endolaimus multipapillata* Wieser *Acta Univ. lund (N.F.2)*. **50**(16): 1-148, p. 96.

Material Examined: 60 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-182. Coll. Ms. G. Sivaleela.

Description: Cuticle with transverse rows of dots. 6 labial setae and 10 cephalic setae. Amphids are spiral with 5 turns. Buccal cavity with large dorsal tooth. Tail with cylindrical. Spicules are 35 μ m in length. Gubernaculum well developed with latera flanges.

Measurements: L = 1.0 mm, a = 21, b = 6.0, C = 3.5.

Distribution: India: *Elsewhere*: Northumberland Coast, East England.

78. *Enoplolaimus denticulatus* Warwick 1970
(Fig. 78)

1970. *Enoplolaimus denticulatus* Warwick *Bull. Br. Mus. nat. Hist. (Zool.)*, **19**(4): 137, fig. 1.

Material examined: 60 exs, sta: S.P. Pattinam. Date, 10.7.2012, Reg. No. N-115. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 20 μ m. Cuticle smooth. Lips with Semi lunar striations. Six cephalic and four median setae. Tail 2.0 a.b.d. Spicules 20 μ m long.

Measurements: L = 54, b = 4, C = 19.

Distribution: India: Palk Bay, *Elsewhere*: Exe estuary, Isles of Scilly.

Remarks: This species closely resembles with *E.connexus* Wieser, 1953.

79. *Cricolaimus elongates* Southern, 1914
(Fig. 79)

1914. *Cricolaimus elongates* Southern. *Proc. R. Ir. Acad.* Volume XXXI: 1-80 (Clare Island survey, part 54, fig. 4.

Material examined: 60 exs, sta: Uppur. Date, 1.7.2012, Reg. No. N-123. Coll. Ms. G. Sivaleela.

Description: Maximum diameter 25 μ m. Cuticle with striations. Amphids 0.2.c.d Oesophageal bulb spherical. Tail 2.5 a.b.d, conical. Spicules 15 μ m and arcuate. Gubernaculum with apophysis.

Measurements: L = 1.2, a = 83, b = 12, C = 16.

Distribution: India: *Elsewhere*: Balcksod Bay, West Ireland.

80. *Quadricoma scanica* Allgen 1935
(Fig. 80)

1914. *Desmoscolex scanicus* Allgen *Capita Zoologica*. **6**(3): 1-192.

Material examined: 60 exs, sta: Pasipattinam. Date, 1.7.2012, Reg. No. N-121. Coll. Ms. G. Sivaleela.

Description: Body consists of 37 asymmetrical desmans. Four cephalic setae. Amphids cover the whole head. Spicules 60 μ m, long and slender. Gubernaculum are paired apophyses.

Measurements: L = 0.1 mm. a = 7-8.

Remarks: The specimen examined agreed well with the original description.

Distribution: India: Palk Bay; *Elsewhere*: Tamar estuary, South west England.

81. *Oxystomina asetosa* (Southern, 1914)
(Fig. 81)

1914. *Oxystomina asetosa* Southern. *Proc. R.Ir. Acad.* **31** (3): 1, Pl. 1, fig. 3a.

Material examined: 60 exs, sta: uppur. Date, 1.7.2012, Reg. No. N-126. Coll. Ms. G. Sivaleela.

Description: Body length 2.8mm. Maximum diameter 28 μ m. Cuticle is smooth. Cephalic setae s scarcely visible. Amphids 10 μ m long. Tail 2.5 a.b.d. Spiclues 36 μ m long. Gubernaculum is small.

Measurements: L = 3, a-100, b = 6.7, C = 31.

Remarks: The specimens agree well with the description of the species given by Timm.

Distribution: India: *Elsewhere:* Clew Bay, West Ireland.

82. *Enoplus communis* Bastian, 1865

(Fig. 82)

1865. *Enoplus communis* Bastian. *Trans. Linn. Soc. Lond.* 25(2); 73, Pls. 9, Pl. XII, figs. 168.

Material examined: 2 exs, sta: S.P. Pattinam. Date, 1.7.2012, Reg. No. N-116. Coll. Ms. G. Sivaleela.

Description: Amphids 0.1 c.d. wide. Tail 0.1.a.b.d. and cylindrical. Gubernaculum with paired lateral wings. Spicules are curved 130 μ m.

Measurements: L = 0.3 mm, a = 26, b = 5, C = 16.

Distribution: India: Palk Bay (Chinnadurai *et al.*). *Elsewhere:* British isles.

Remarks: The specimens examined well with the description of the species by Bastian 1865.

83. *Anoplostoma viviparum* Bastian 1865

(Fig. 83)

1865. *Simplocostoma viviparum* Bastian. *Trans. Linn. Soc. Lond.* Volume XXV. Part II: 73, Pl. 1, fig. 8, Abb-2c.

Material Examined: 60 exs, sta: Devipattinam and Adirampattinam. Date, 30.6.2012, Reg. No. N-37. Coll. Ms. G. Sivaleela.

Description: Body length 1.0 mm. Maximum diameter 25 μ m. Cuticle is smooth. Six labial papillae and no somatic setae. Buccal cavity cylindrical and long. Spicules are short. Tail long and tapering.

Measurements: L = 1.1 mm, a = 25, b = 4.3, C = 9.3.

Distribution: India: *Elsewhere:* Blyth estuary, Exe estuary, Northern Ireland.

Remarks: The specimens examined well with the description of the species by de Man, 1907 at Europe.

84. *Siphonolaimus niger* de Man, 1893

(Fig. 84)

1893. *Siphonolaimus niger* De Man. *Mem. Soc. Zool. Fr.* 6(1-2): 1-45, Pls. 5.

Material examined: 60 exs, sta: Thondi. Date, 10.7.2012 Reg. No. N-167. Coll. Ms. G. Sivaleela.

Description: Body length 4.5 mm. Amphids are circular and small. Tail 2.5 a.b.d. Spicules 45 μ m. Gubernaculum with apophysis.

Measurements: a = 110, b = 26, C = 28.

Distribution: India. *Elsewhere:* Falmouth, South West England, South east England.

Remarks: The specimens examined well with the description of the species by de Man 1893.

SUMMARY

A total of 84 species of nematodes as belonging to 16 families under 49 genera have been identified and recorded during the present study. Of these 6 species belongs to Desmodoridae, 13 species to Chromodoridae, 12 species to Oncholaimidae, 14 species to Cyatholaimidae 12 species from Xylidae, 5 species to Comesomatidae 6 species to Monhysteridae in all the stations of Palk Bay. Desmodoridae occurred in high diversity in the species belongs to Oncholaimidae, Chromodoridae were observed in high level in station I. The nematodes were nominated by *Chromadora*, *Oncholaimus*, *Paracanthonus*, *Daptonema*, *Desmodora*, *Sabatieria*, *Theristus* etc. The greater diversity of nematodes was observed at stations Pudukudi, Thondi, S.P. Pattinam and Adirampattinam. Genus *Terschellingia* and *Daptonema* are typically dominant in muddy sediments. *Sabatieria* species and *Sphaerolaimus* species are known to inhabit anoxic sediments. *Oncholaimus* and *Viscosia* were found to be dominant genera in Palk Bay. For muddy sedimentary sites Anoplostomatidae, Comesomatidae and Linhomoeidae were inhabited. Camacolaimidae, Microlaimidae, Sphaerolaimidae, Xylidae, Desmodoridae, Oncholaimidae, Oxystominidae, Chromodoridae and Linhomoeidae were encountered in sandy sediment. Some species such as *Ptycholaimus*, *Oncholaimus*, *Daptonema* were found in both sandy and muddy sediment. Out of these 28 species of nematodes were recorded for the first time from this area.

RESULTS

Table 1. List of Identified Species of Free-living marine nematodes

S. No.	Species	Stations												
		1	2	3	4	5	6	7	8	9	10	11	12	13
	Family DESMODORIDAE													
1	<i>Epsilonema pustulatum</i>	+	-	+	+	+	-	-	+	+	+	-	-	-
2	<i>Desmodora (Desmodorella) schulzi</i>	+	+	+	=	-	-	-	-	-	-	-	-	-
3	<i>Desmodora (Desmodora) communis</i>	+	-	-	-	-	-	-	-	-	-	-	-	-
4	<i>Desmodora (Desmodorella) tenuispiculum</i>	+	+	-	-	-	-	-	+	+	+	+	-	-
5	<i>Desmodora (Desmodora) scaldensis</i>	+	-	-	-	-	+	+	+	-	-	-	-	-
6	<i>Spirinia laevis</i>	-	+	+	+	-	+	-	-	-	+	=	-	=
7	<i>Spirinia parasitifera</i>	+	+	+	+	+	-	-	+	+	-	-	+	+
8	<i>Chromaspirinia multipapillata</i>	+	+	-	+	+	-	-	-	-	+	+	+	+
9	<i>Chromaspirinia parapontica</i>	-	+	+	-	-	-	+	+	+	-	-	=	+
10.	<i>Monoposthia costata</i>	-	-	-	-	-	-	+	+	-	+	-	-	-
	Family CYATHOLAIMIDAE													
11	<i>Paracanthonchus longicaudatus</i>	+	+	-	-	+	+	+	+	+	+	-	-	+
12	<i>Paracanthonchus longus</i>	-	-	-	-	+	+	+	-	-	-	-	-	-
13	<i>Paracanthonchus spectabilis</i>	-	+	+	-	-	-	-	-	-	-	+	+	+
14	<i>Paracanthonchus platti</i>	-	-	+	+	-	-	+	-	-	-	-	-	-
15	<i>Paracanthonchus heterodontus</i>	+	+	+	+	+	-	-	-	+	+	+	-	-
16	<i>Praeacanthonchus opheliae</i>	-	-	-	-	-	-	-	+	-	-	-	-	-
17	<i>Paracanthonchus caecus</i>	+	+	-	-	-	-	+	+	+	-	-	-	-
18	<i>Paracanthonchus multitubifer</i>	-	+	-	-	-	-	-	+	-	-	-	-	-
19	<i>Southernia zosterae</i>	-	-	-	-	-	+	-	+	+	-	-	+	+
20	<i>Paracyatholaimus occultus</i>	+	+	+	-	-	-	-	-	-	-	-	-	-
21	<i>Paracyatholaimus intermedius</i>	-	-	-	+	+	-	+	+	+	+	+	-	-
22	<i>Paracyatholaimus multispiralis</i>	+	+	+	+	-	-	+	+	-	-	-	-	-
23	<i>Paralongicyatholaimus minutes</i>	+	+	+	+	-	-	-	+	-	-	-	+	+
24	<i>Prochromadorella macrocellata</i>	-	-	+	-	-	-	-	-	-	-	-	-	-
25	<i>Prochromadorella ditlevseni</i>	-	-	-	-	-	-	-	-	+	-	+	-	-
26	<i>Praeacanthonchus punctatus</i>	+	+	+	+	-	-	-	-	-	-	-	+	+
27	<i>Paracomesoma dubium</i>	+	+	+	+	-	-	-	-	+	+	+	-	-
28	<i>Acantholaimus ewensis</i>	+	-	-	+	-	-	-	-	-	-	-	-	-
	Family CHROMADORIDAE													
29	<i>Chromadora macrolaimus</i>	-	+	+	-	+	+	-	+	+	-	-	-	+
30	<i>Chromadorina cervix</i>	-	-	-	-	+	+	+	-	-	-	-	-	-
31	<i>Neochromadora pocilosomoides</i>	+	-	+	-	-	-	+	-	+	+	+	+	-
32	<i>Neochromadora trichiphora</i>	-	+	+	+	+	-	-	-	+	+	+	-	-
33	<i>Neochromadora tecta</i>	+	-	-	-	+	-	-	-	-	-	-	-	-
34	<i>Prochromadora orleji</i>	+	-	-	-	+	+	-	-	-	-	-	+	+
35	<i>Dichromadora cephalata</i>	-	-	-	-	-	-	-	+	+	+	+	+	+

Table 1. contd.

71	<i>Dorylaimopsis punctatus</i>	+	+	+	-	-	+	+	-	+	-	+	+	-
	Family MONHYSTERIDAE													
72	<i>Trichotheristus mirabilis</i>	-	-	+	+	-	-	+	+	-	-	-	-	-
73	<i>Theristus ensifer</i>	-	-	-	+	-	-	+	-	+	+	-	-	+
74	<i>Theristus flevenis</i>	+	-	-	+	-	-	+	+	+	-	-	-	-
75	<i>Theristus pertenuis</i>	+	+	+	-	-	+	+	+	-	-	-	-	-
76	<i>Theristus heterospiculum</i>	-	-	+	-	+	-	-	-	-	+	+	-	-
	Family RHABTIDAE													
	Family PAPIILLIDAE													
77	<i>Pamponema multipapillata</i>	+	-	-	-	-	+	+	+	-	-	+	+	-
	Family CHONIOLAIMIDAE													
78	<i>Enoplolaimus denticulatus</i>	-	-	-	-	-	-	-	-	-	-	-	+	-
79	<i>Cricolaimus elongates</i>	-	-	-	-	-	-	-	-	-	-	-	+	-
	Family DESMOSCOLECIDAE													
80	<i>Quadricoma scanica</i>	-	-	+	-	-	-	-	-	-	-	-	-	-
81	<i>Oxystomina asetosa</i>	+	-	-	-	-	-	-	-	-	-	-	-	-
	Family ENOPLIDAE													
82	<i>Enoplus communis</i>	-	-	-	-	-	-	+	+	-	-	-	-	-
83	<i>Anoplostoma viviparum</i>	-	-	+	+	+	-	+	+	+	-	-	-	-
	Family SIPHONOLAIMIDAE													
84	<i>Siphonolaimus niger</i>	-	+	+	+	-	-	+	+	+	-	-	+	+

+ -present , -- absent

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REFERENCES

- Anbuchezhian, R., S. Ravichandran, J. Seshserebian and E.P. Nobi, 2010. Geographic information system based assessment of benthic macrofauna in Thondi coastal area, southeast coast of India. *World J. Zool.*, **5**(3): 172-182.
- Chinnadurai, G. and Olivia J. Fernando, 2006a. Meiobenthos of Cochin mangroves (southwest coast of India) with emphasis on free-living marine nematode assemblages. *Russian Journal of Nematology*, **14**(2): 127-13.
- Chinnadurai, G. and Olivia J. Fernando, 2006b. New records of free-living marine nematodes from India. *Rec. zool. Surv. India*, **106** (Part 4): 45-54.
- Chinnadurai, G. and O.J. Fernando, 2007. Impact of mangrove leaves on meiofaunal density: an experimental approach. *The ICFAI Journal of Life Sciences*, **1**(1): 62-70.
- Platt, H.M and Warwick, R.M. 1998. Free-living marine nematodes Part 111. Monhysterids. *Synopses of the British fauna*.

PLATE 1



Fig. 1. *Epsilonema pustulatum* (Gerlach, 1952)



Fig. 2. *Desmodora (Desmodorella) schulzi* Gerlach, 1950

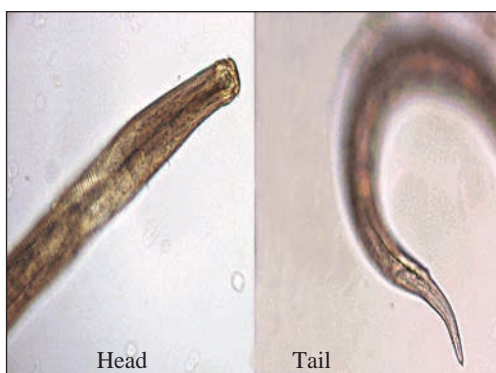


Fig. 3. *Desmodora (Desmodora) communis*, (Butschli, 1874)

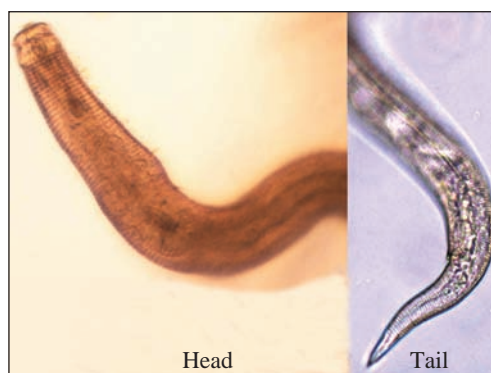


Fig. 4. *Desmodora (Desmodorella) tenuispiculum*, Allgen, 1924.

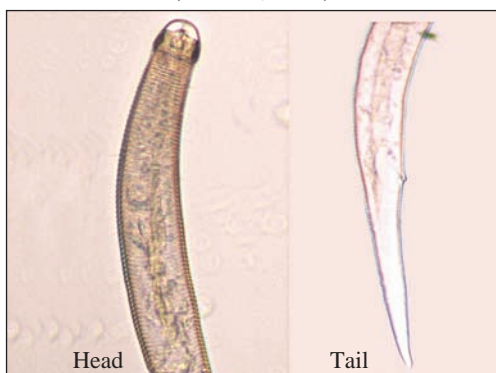


Fig. 5. *Desmodora (Desmodora) scaldensis* De Man, 1889

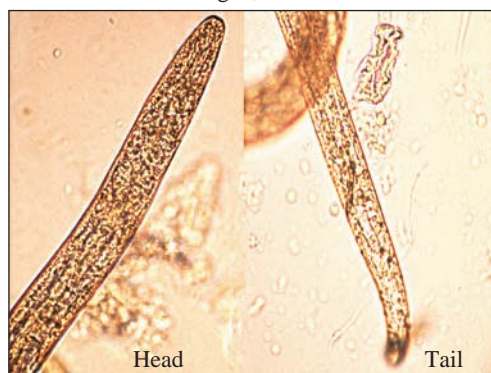


Fig. 6. *Spirinia laevis* (Bastian, 1865)

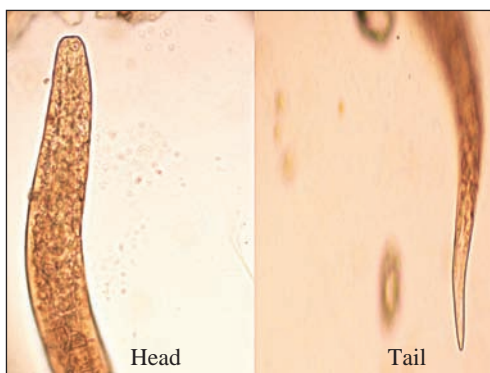


Fig. 7. *Spirinia parasitifera* (Bastian, 1865)

PLATE 2



Fig. 8. *Chromaspirinia multipapillata* Jayasree and Warwick, 1977



Fig. 9. *Chromaspirinia parapontica* Luc and De Coninck, 1959

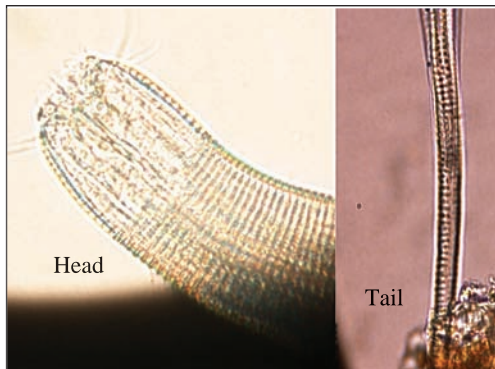


Fig. 10. *Monoposthia costata* (Bastian, 1865) de Man, 1889

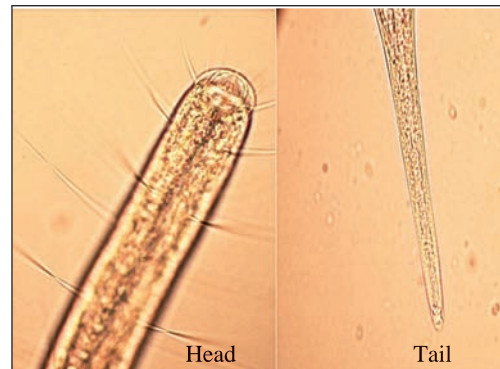


Fig. 11. *Paracanthochus longicaudatus* Warwick, 1971



Fig. 12. *Paracanthochus longus* Allgen, 1934

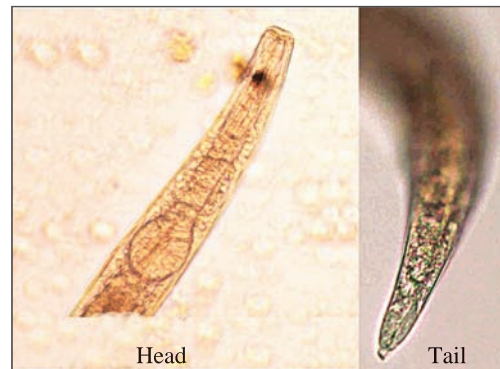


Fig. 13. *Paracanthochus spectabilis* Allgen, 1931



Fig. 14. *Paracanthochus platti* Vadhyar, 1980

PLATE 3



Fig. 15. *Paracanthonchus heterodontus* (Schulze, 1932)



Fig. 16. *Praeacanthonchus opheliae* (Warwick, 1970)



Fig. 17. *Paracanthonchus caecus* Micoletzky, 1924

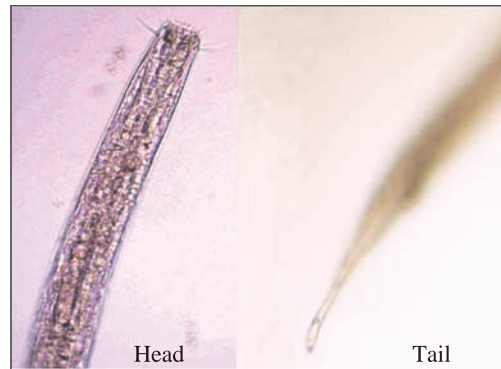


Fig. 18. *Paracanthonchus multitubifer* Timm, 1961

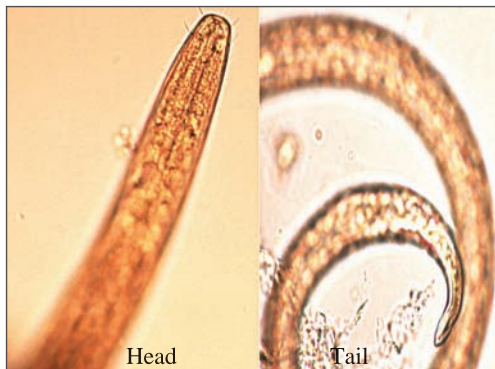


Fig. 19. *Southernia zosterae* Allgen 1929

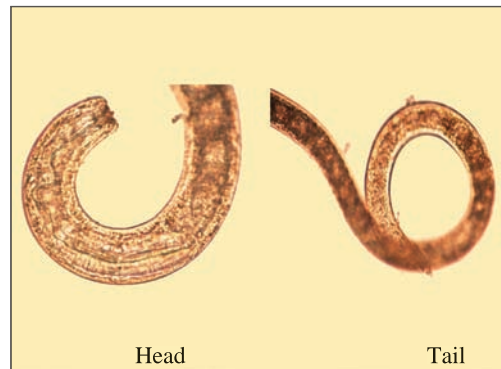


Fig. 20. *Paracyatholaimus occultus* Gerlach, 1956

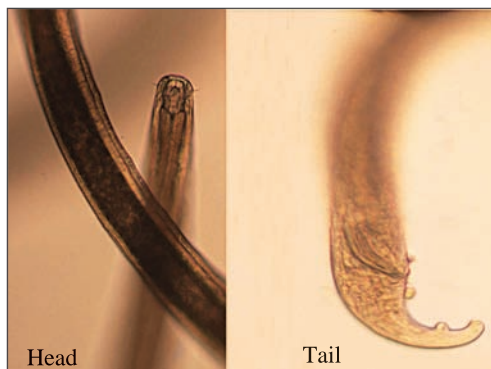


Fig. 21. *Paracyatholaimus intermedius* De Man, 1880

PLATE 4

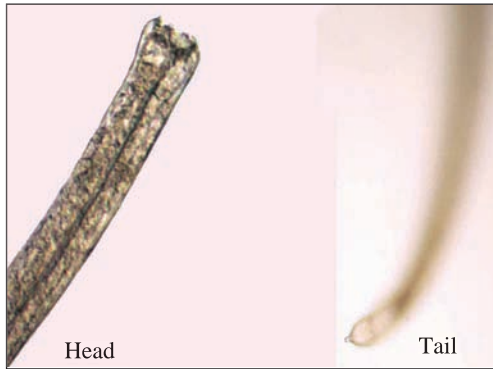


Fig. 22. *Paracyatholaimoides multispiralis*
Gerlach, 1953



Fig. 23. *Paralongicyatholaimus minutus*
Warwick, 1971



Fig. 24. *Prochromadorella macrocellata*

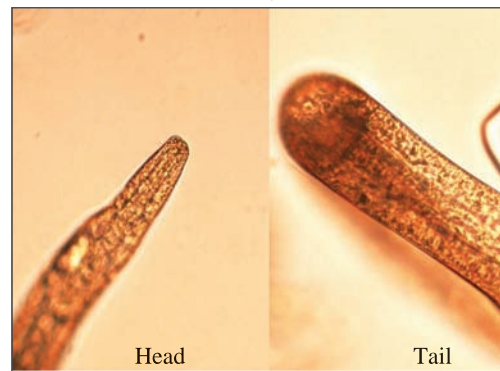


Fig. 25. *Prochromadorella ditlevseni* De Man, 1922)



Fig. 26. *Praeacanthonchus punctatus* (Bastian, 1865)

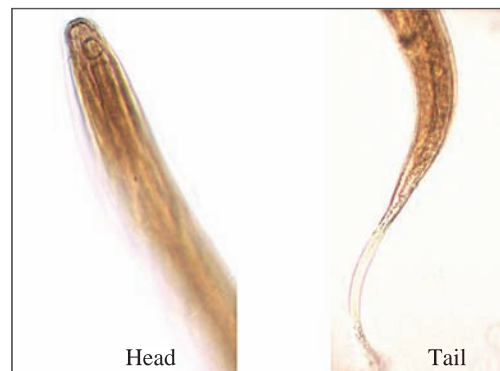


Fig. 27. *Paracomesoma dubium* Filipjev, 1918



Fig. 28. *Acantholaimus ewensis* Platt and Zhang, 1982

PLATE 5

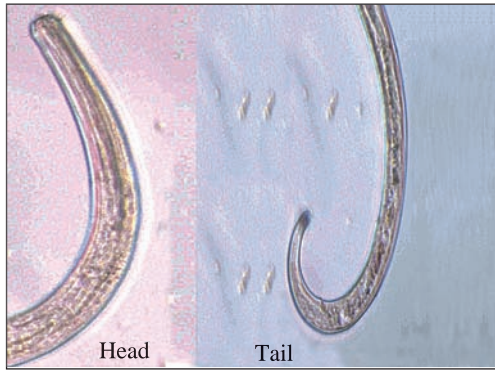


Fig. 29. *Chromadora macrolaimus* De Man, 1889



Fig. 30. *Chromadorina cervix* wieser, 1954

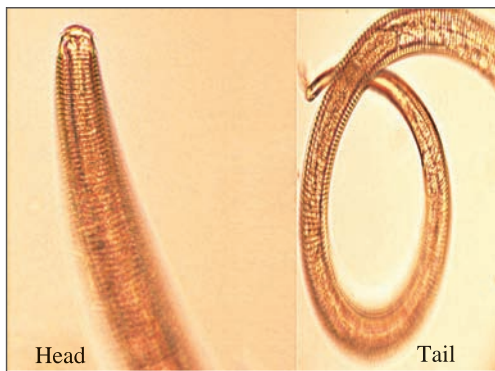


Fig. 31. *Neochromadora poecilosomoides* Filipjev, 1918

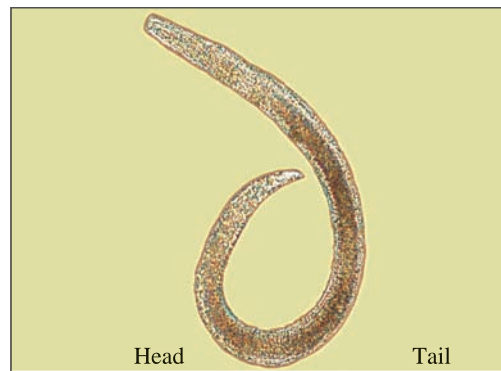


Fig. 32. *Neochromadora trichiphora* Steiner, 1921



Fig. 33. *Neochromadora tecta* Gerlach, 1951

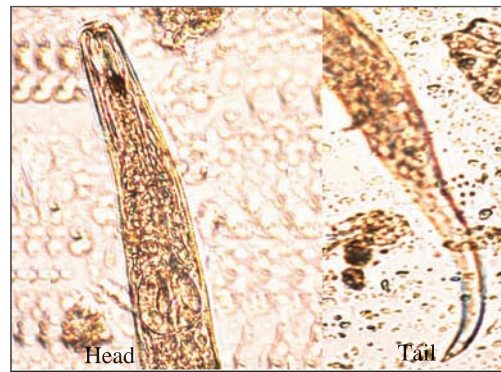


Fig. 34. *Prochromadora orleji* De Man, 1880

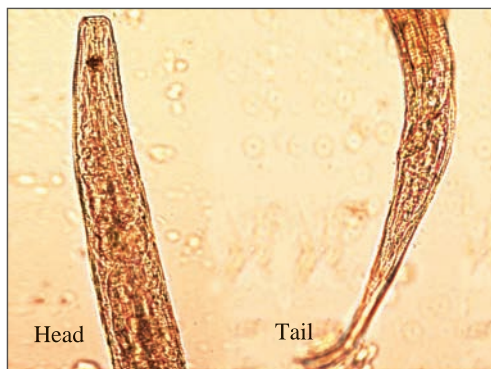


Fig. 35. *Dichromadora cephalata* (Steiner, 1916)

PLATE 6

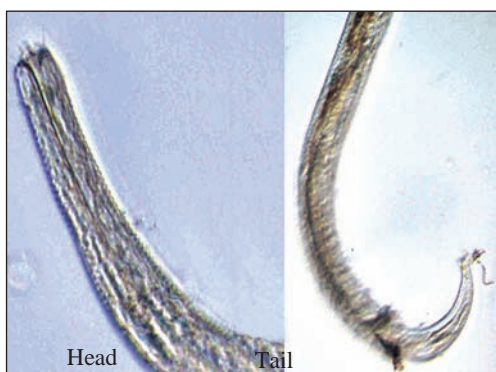


Fig. 36. *Chromadorella duopapillata* Platt, 1973

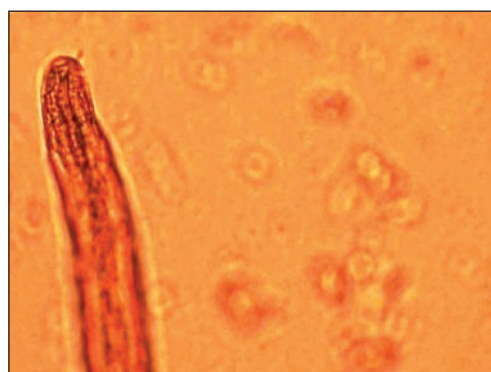


Fig. 37. *Chromadorita tendabunda* (De Man, 1890)



Fig. 38. *Chromadorina granulopigmentata* (Wieser, 1951) Wieser, 1954

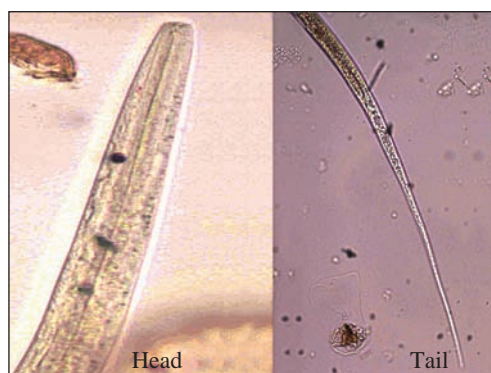


Fig. 39. *Halalaimus gracilis* De Mann, 1888

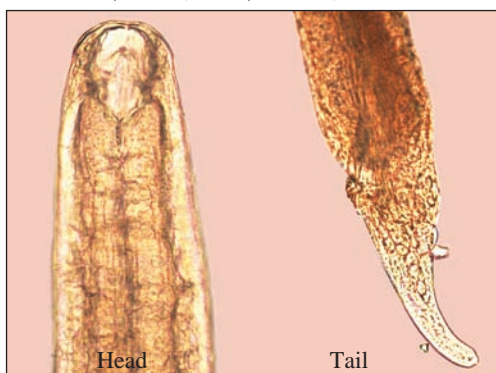


Fig. 40. *Oncholaimus campylocercoides* De Coninck and Stekhoven, 1933



Fig. 41. *Oncholaimus oxyuris* Ditlevsen, 1921



Fig. 42. *Oncholaimus skawensis* Ditlevsen, 1921

PLATE 7



Fig. 43. *Oncholaimus brachycercus* De Man, 1889



Fig. 44. *Oncholaimus dujardinii* De man, 1876

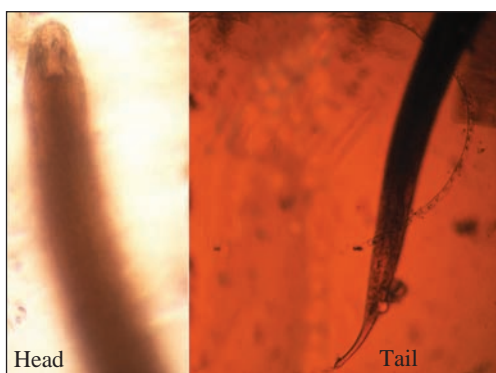


Fig. 45. *Adoncholaimus panicus* Cobb, 1930

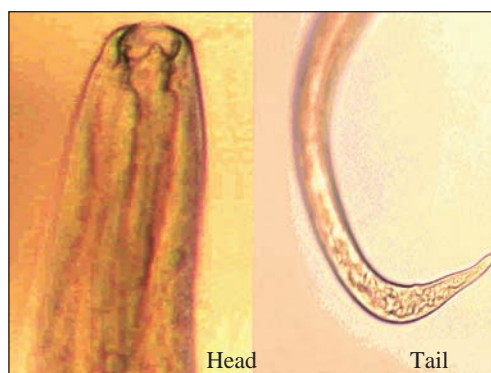


Fig. 46. *Metoncholaimus albidus* (Bastian, 1865)

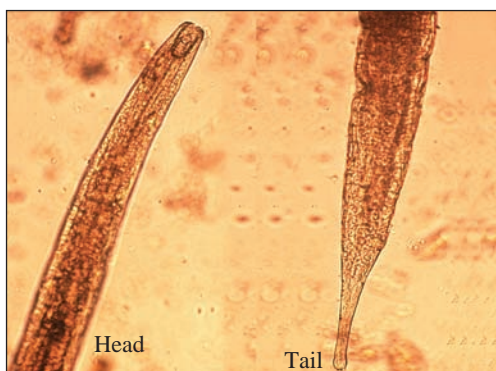


Fig. 47. *Viscosia viscosa* (Bastian 1865)

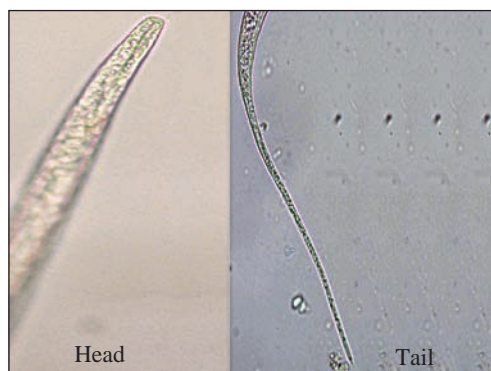


Fig. 48. *Viscosia glabra* (Bastian 1865)

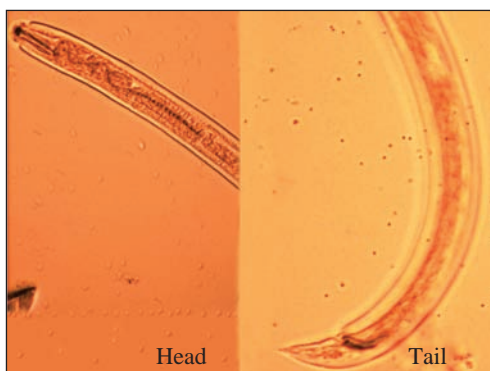


Fig. 49. *Camacolaimus barbatus* Warwick, 1970

PLATE 8



Fig. 50. *Daptonema furcatum* (Juario, 1974)



Fig. 51. *Daptonema tenuispiculum* (Ditlevsen, 1918)



Fig. 52. *Daptonema oxycerca* (De Man, 1888)



Fig. 53. *Daptonema vicinum* (Riemann, 1966)

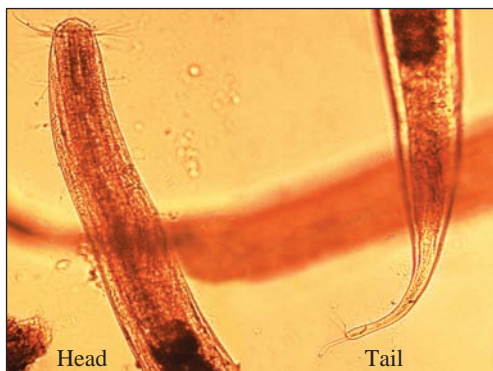


Fig. 54. *Daptonema hirsutum* (Vitiello, 1967)

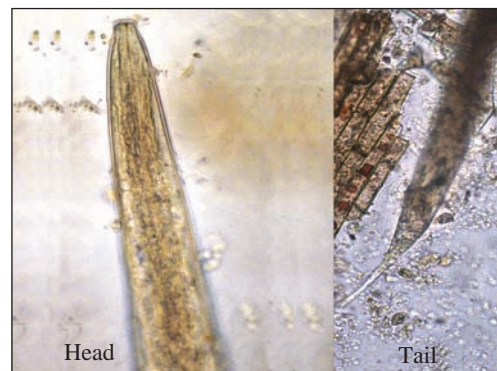


Fig. 55. *Daptonema procerum* (Gerlach, 1951)

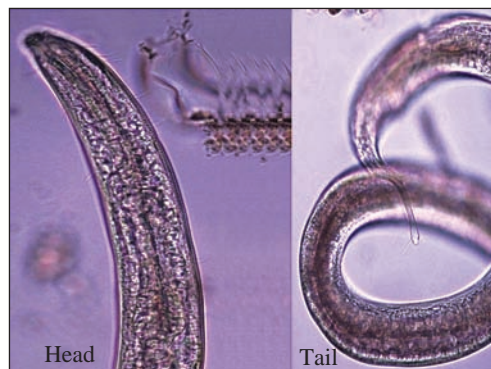


Fig. 56. *Daptonema setosum* (Butschli, 1874)

PLATE 9



Fig. 57. *Daptonema narmandicum* (De Man, 1890)

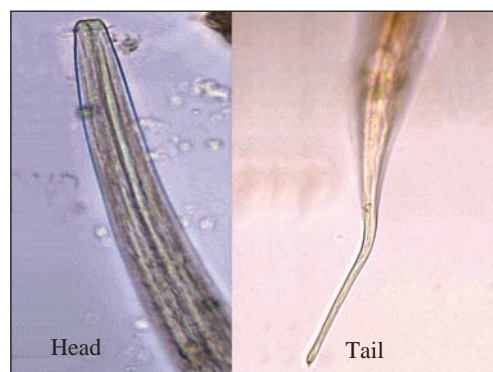


Fig. 58. *Daptonema psammoides* (Warwick, 1970)

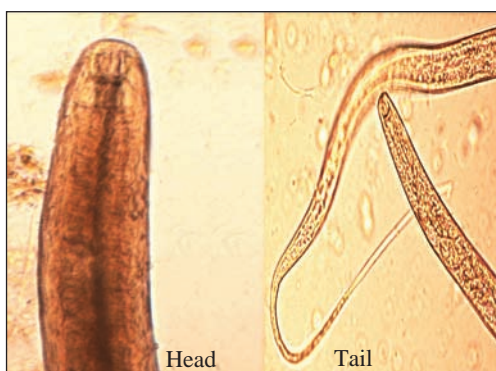


Fig. 59. *Terschellingia longicaudata* De Man, 1907

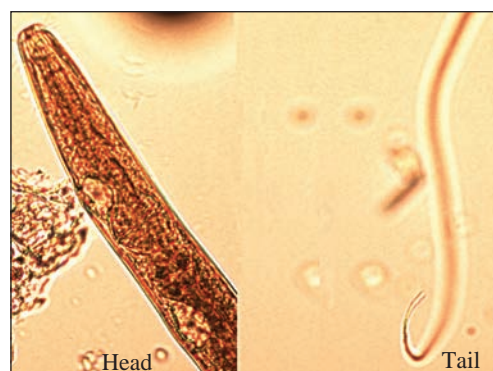


Fig. 60. *Terschellingia goubaultae* Austen, 1989



Fig. 61. *Araeolaimus paucisetosus* Wieser, 1951



Fig. 62. *Araeolaimus microphthalmus* De Man, 1893



Fig. 63. *Anticoma eberthi* Bastian, 1865

PLATE 10

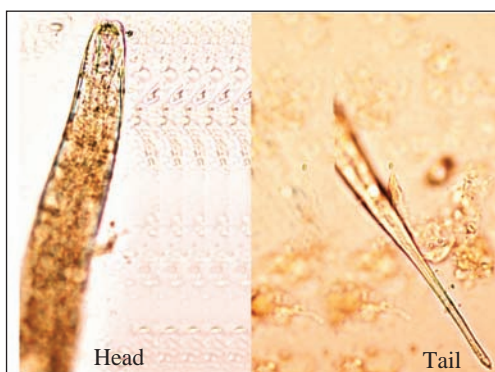


Fig. 64. *Anticoma acuminata* (Eberth, 1863)



Fig. 65. *Actinonema pachydermatum* Cobb, 1920



Fig. 66. *Laimella longicaudata* Cobb, 1920

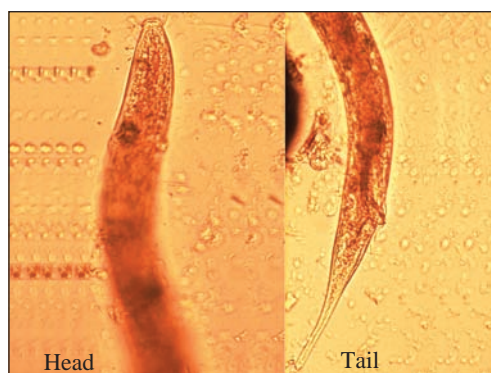


Fig. 67. *Sabatieria punctata* (Kreis, 1924)



Fig. 68. *Sabatieria celtica* Southern, 1914



Fig. 69. *Sabatieria ornata* (Ditlevsen, 1918)

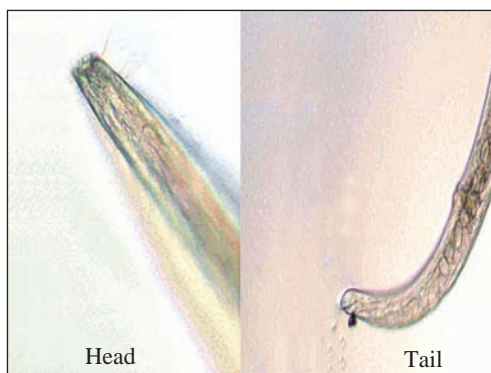


Fig. 70. *Comesa vitia* (Warwick, 1971)

PLATE 11

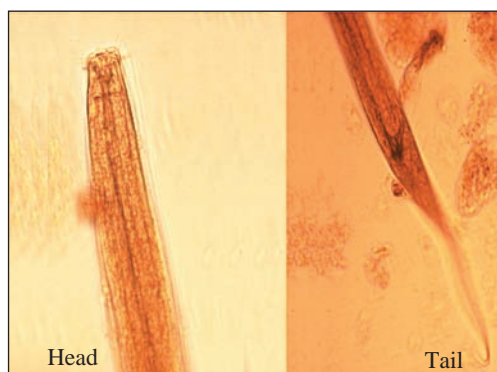


Fig. 71. *Dorylaimopsis punctata* Ditlevsen, 1918



Fig. 72. *Trichotheistus mirabilis* (Stekhoven & De Coninck, 1933)



Fig. 73. *Theristus ensifer* Gerlach, 1951



Fig. 74. *Theristus flevensis* Stekhoven, 1935



Fig. 75. *Theristus pertenuis* Bresslau & Stekhoven, 1935



Fig. 76. *Theristus heterospiculum* (Allgen, 1932)

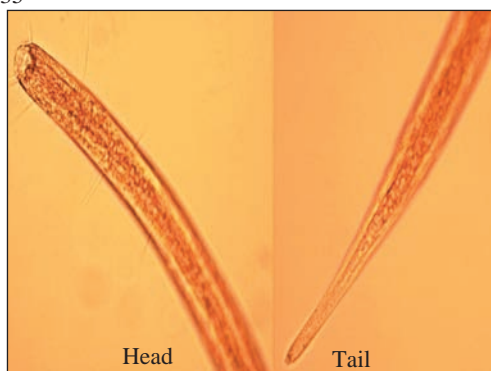


Fig. 77. *Pamponema multipapillatum* Wieser, 1954

PLATE 12

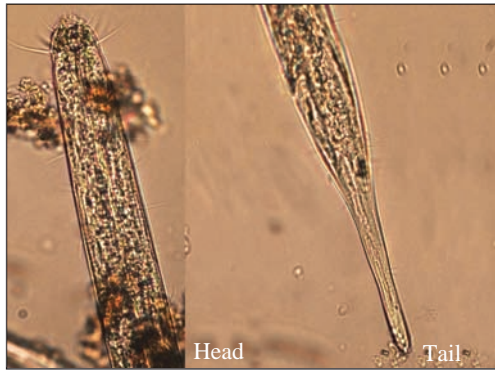


Fig. 78. *Enoplolaimus denticulatus* Warwick 1970

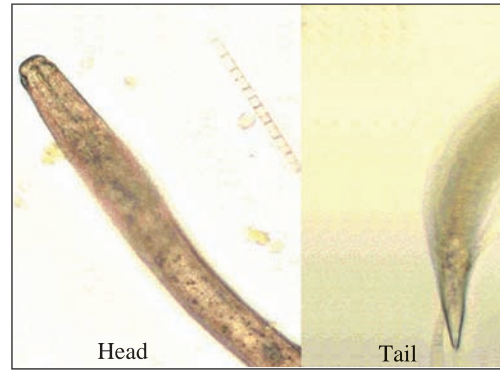


Fig. 79. *Cricolaimus elongates* Southern, 1914

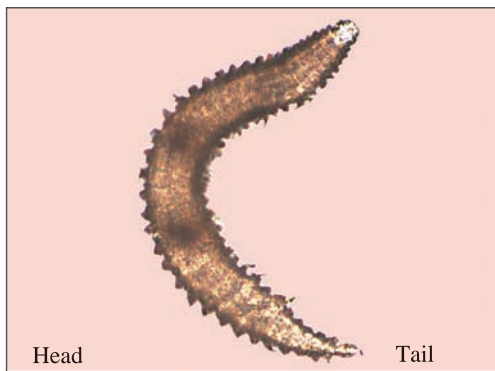


Fig. 80. *Quadricoma scanica* Allgen 1935

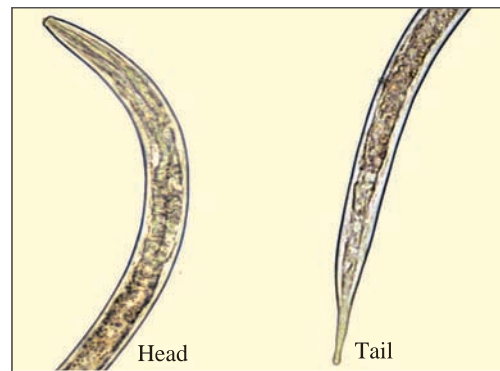


Fig. 81. *Oxystomina asetosa* (Southern, 1914)

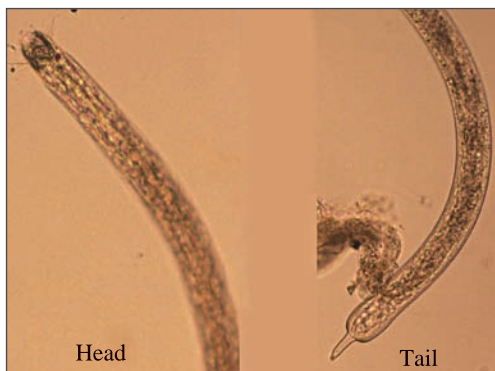


Fig. 82. *Enoplus communis* Bastian, 1865

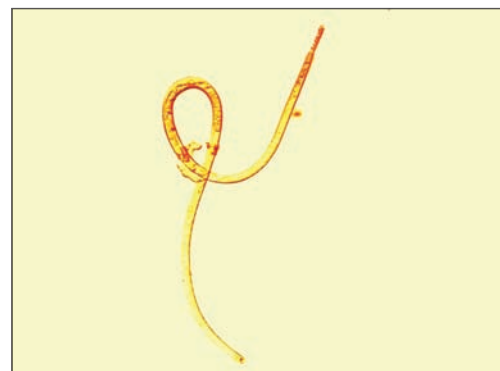


Fig. 83. *Anoplostoma viviparum* Bastian 1865

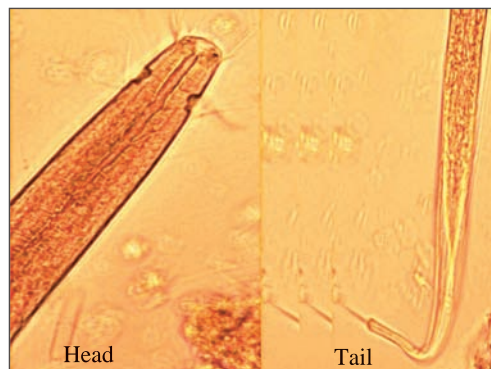


Fig. 84. *Siphonolaimus niger* de Man, 1893