



Rec. zool. Surv. India : 111(Part-1) : 1-4, 2011

BASEODISCUS HEMPRICHII (EHRENBERG, 1831) (PHYLUM NEMERTEA) NEW DISTRIBUTIONAL RECORD FROM ANDAMAN AND NICOBAR ISLANDS, INDIA

S. SHRINIVAASU*, K. VENKATRAMAN AND R. MOHANRAJU**

Zoological Survey of India, M-Block, New Alipore, Kolkata-700 053

**Southern Regional Centre, Zoological Survey of India, 130 Santhome High Road, Chennai,*

***Department of ocean studies and Marine Biology, Pondicherry University, Port Blair*

INTRODUCTION

Nemertean or Ribbon worms (previously known as Rhyncocoela and Nemeteni) are soft bodied unsegmented worms. The earliest record of a nemertean worm is probably an general account by Olaus Magnus in 1555 of a long, grayish-blue marine worm. The first formal description of a species of Nemertea did not happen until Gunnerus described the same species (as *Ascaris longissima*) in 1770 (Gibson, 1995). Most of the early information was given by Coe (1901, 1904, 1905, and 1940) which can be found in Hochberg and Luniansky (1998).

A total of 1.149 species were described till today and have grouped into 250 genera (Gibson, 1995) and two classes. Gibson (1953) placed these species under orders : Archinemertea (3 genera, 28 species); Palaeonemertea (11 genera, 70 species); Heteronemertea (79 genera, 401 species); Hoplonemertea, Monostiliferous (91 genera, 500 species); Hoplonemertea, Reptantia-Polystiliferous (22 genera, 45 species); Hoplonemertea, Pelagic-Polystiliferous (40 genera, 97 species); Bdellonemertea (1 genus, 5 species); Monotypic (3 genera).

The fauna of the phylum Nemertea in India is least studied. Earlier record on the occurrence of Nemertean worm *Eupolia hemprichi* (Ehrenberg, 1831) is from coasts of India (Punnett, 1903; Gravely, 1927; Patel *et al.*, 1976). Another record was made stating a similar species of *Gorgonorhynchus repeans* was found in certain coast of India (Coe, 1917). There is also a reference of some unidentified nemertean worms from Gulf of Kutch (Desai, 2010) and Neeleswaram, Kerala

(Nandan, 1998), which, however was identified only to phylum level.

A specimen was obtained from Andaman Nicobar Islands, India during low tides in some intertidal regions, which was readily identified as a Heteronemertean *Baseodiscus hemprichii* (Ehrenberg, 1831) as this species can be easily identified on the basis of external body coloration and pattern alone (Gibson, 1979). The present paper reports the first record of *Baseodiscus hemprichii* (Ehrenberg, 1831) in Andaman and Nicobar Islands, India. A comprehensive synonym list is provided locality information in case of primary reference.

***Baseodiscus hemprichii* (Ehrenberg, 1831)**

1831. *Nemertes hemprichii*, Ehrenberg, *Berolina : Officina Academica*, 12.
1850. *Borlasia hemprichii* Diesing, *Wien*, 240.
1862. *Borlasia hemprichii* Diesing, *Wien math. Naturw. Kl.*, 249.
1890. *Eupolia brokii* Burger, *Zeitschr. wiss. Zool.*, **50** : 22.
- 1895a. *Eupolia brokii* Burger, *Zeitschr. wiss. Zool.*, **61** : 26.
1893. *Eupolia mediolineata* Burger, *Zool. Jahrb. Syst.*, **7** : 230.
- 1895b. *Eupolia mediolineata* Burger, *Fauna Stat. Neapel*, **22** : 603.
- 1895a. *Eupolia hemprichi* Burger, *Zeitschr. wiss. Zool.*, **61** : 26.
1903. *Eupolia hemprichi* Punnett, *University Press, Cambridge*, 104.
1927. *Eupolia hemprichi* Gravely, *Bull. Madras Govt. Mus. Nat. His.*, **1** : 53.
1976. *Eupolia hemprichi* Patel, *et al.*, *J. Mar. Biol. Ass. India*, **18** : 663.

PLATE-I



Whole animal



Head dorsal view



Head ventral view

1905. *Taeniosoma hemprichi* Coe, *Bull. Mus. Comp. Zool. Harvard Coll.*, **47** : 57.
1906. *Taeniosoma hemprichi* Coe, *Bull. U.S. Fish. Comm.*, **23** : 978.
1934. *Baseodiscus edmondsoni* Coe, *Occ. Pap. B.P. Bishop Mus.*, **10** : 1.
1947. *Baseodiscus edmondsoni* Coe, *Occ. Paper. B.P. Bishop Mus.*, **14** : 102.
1939. *Baseodiscus hemprichi* Yamoka, *Denk, Ann. Zool. Jap.*, **18** : 283.
1909. *Baseodiscus hemprichii* Cooper, *Trans. Linn. Soc. Lond. Ser.*, **13** : 7.
1979. *Baseodiscus hemprichii* Gibson, *Zool. J. Linn. Soc.*, **66** : 146.
2001. *Baseodiscus hemprichii* Boyko, *pacif. Sci.*, **55** : 41.
2008. *Baseodiscus hemprichii* Hiroshi Kajihara, *Phuket mar. biol. Cent.*

Materials examined : The nemertean sample was incidentally observed from the intertidal region of Kodyaghat and also from rocky shores of south point, Andaman Nicobar Islands, India, collected in intertidal regions during evening low tides were the tidal amplitude was around 0.4 m. The nemertean was found underneath dead corals and rock crevices. The specimen was collected by the author of this paper in Kodyaghat (11°32'N, 92°43'E) using forceps and brought to lab in sea water where it was examined for length, breadth, coloration patterns in live condition and preserved in 4% formalin. The specimen was deposited in the Pondyicherry University collection at Port Blair, Andaman and Nicobar Islands.

Description : In live condition the length of the nemertean was 3 m, the breadth attained maximum of 6

mm near the fore gut and tapered to 1 mm in the tail region. The head was demarcated from the body by a transverse furrow. The body is slightly laterally compressed. The body color was white. A thick brown line started below the mouth with a 'T' shaped collar and extended the whole length of the body to the posterior end and a comparatively thin line was noticed in the ventral side beginning below the mouth without any 'T' shaped collar. The Snout region was also distinguished with the same brown color patch and only in the dorsal surface.

Habitat : The worm was found inhabiting in certain rocky shores, dead coral reefs and also in some sea grass beds under some boulders and holes.

Distribution : This species have been reported from all over the world. In India, this species shows continuous distribution from Gulf of Mannar to Gulf of Kuchchh (Patel *et al.*, 1976). The present record shows the distribution of this nemertean worm in Andaman and Nicobar Islands, India.

Discussion : The Nemertea (Minor phyla) is one of the least studied groups in Indian context. India being a mega biodiversity country lot more species to be identified and reported. Undertaking research in these groups may lead to invention of bioactive compounds as well as ecosystem service they provide.

ACKNOWLEDGEMENTS

I thank the Director, Zoological Survey of India, Kolkata and the Officer-in-charge of Southern Regional Centre, Zoological Survey of India for the facilities provided.

REFERENCES

- Burger, O. 1895. Die Nemertinen des Golfes Von Neapel and der angrenzenden Meeres-Abschnitte, *Fauna Stat. Neapel*, **22** : 1-743.
- Boyoko, C.B. 2001. First record of *Baseodiscus hemprichii* (Nemertea : Baseodiscidae) on Easter Island (Rapa Nui) and a new eastern distribution boundary for the species. *Pacif. Sci.*, **55** : 41-42.
- Coe, W.R. 1947. Nemerteans of the Hawaii and Marshall Islands. *Occ. Pap. B.P. Bishop Mus.*, **14** : 101-106.
- Gibson, R. 1995. Nemertean genera and species of the world : An annotated Checklist of Original names and Description Citations, Synonyms, current Taxonomic Status, Habitat and Recorded zoogeographic distributions. *J. nat. His. Mus.*, **29(2)** : 271-561.
- Gravely, F.H. 1927. Nemertenia. *Bull. Madras Govt. Mus. Nat. Hist.*, **1** : 53-54.
- Hiroshi Kajihara and Tetsuya Kato. 2008. *Baseodiscus hemprichii* (phylum Nemertea) from Pukhet, Thailand, *Phuket mar. biol. Cent. Res. Bull.*, **69** : 1-5.

- Patel, N.M., Chhaya, N.D. and A.U. Buch. 1976. The distributional Record of Nemertine worm, *Eupolia hemprichii* (Ehrenberg, 1831) from Gujarat coast. *J. mar. biol. Ass. India*, **18** : 663-664.
- Punnett, R.C. 1900. On some south Pacific Nemerteans collected by Dr. Willey. In : A. Willey (e.d.). Zoological Results Based on Material from New Britan, New Guinea, Loyalty Islands and elsewhere, collected during the years 1895, 1896 and 1987. University Press, Cambridge, Part-5, 569-584.
- Punnett, R.C. 1903. In : J.S. Gardiner (ed.). The Fauna and Geography of the Maladive and Laccadive Archiepelagos. University press, Cambridge, 101-188.
- Punnett, R.C. and Cooper, C.F. 1908. On some Nemerteans of Eastern Indian Ocean. *Trans. Linn. Soc. Lond. Ser.*, **2**. 13 : 1-15.