



Rec. zool. Surv. India, **110**(Part-4) : 83-85, 2010

Short Communication

NEW DISTRIBUTIONAL RECORD OF *LEPTOPENTACTA JAVANICUS* (SLUITER) (ECHINODERMATA : HOLOTHUROIDEA) IN THE WEST COAST OF INDIA

INTRODUCTION

Echinoderms being common and conspicuous organisms of the seashore have attracted the attention of the naturalists since very early times. Exclusively marine, echinoderms are among the most common and widely spread groups of animals in the sea (Hyman, 1955). Holothuroid, commonly known as sea cucumber, is deemed a high-diversity group of echinoderm occurring in almost every part of marine environment (Kerr & Kim 2001, Kerr *et al.* 2005). During the faunistic survey in March, 2009, conducted in Karnataka coast, the authors came across large number of small sea cucumbers in trawl catches at different areas along this coastal stretch. The Karnataka Coast (12°45' N-15°00' N and 74°00' E-75°00' E), about 267 km long, The is narrow except near around estuaries, intercepted by rivers, rivulets, creeks, rocky headlands, spectacular spits, estuaries, shallow lagoons, mudflats and few patches of mangroves. The northern coast is rocky while the southern coast has long linear sandy beaches.

Sastry (2007) reported 27 species of echinoderms from the coast of Karnataka, including 6 species of Holothuroidea. The species *Leptopentacta javanicus* Sluiter, 1881, has not been reported so far from these coastal waters, and the present account forms the first distributional record.

MATERIALS AND METHODS

Holothurian specimens from the trawl collection were hand picked and immersed in a container of seawater added with few crystals of magnesium sulfate or menthol, to expand and extend their tentacles, which also anaesthetized the animals. The specimens were then preserved in 70% alcohol.

SYSTEMATIC ACCOUNT

Phylum ECHINODERMATA
Class HOLOTHUROIDEA
Order DENDROCHIROTIDA
Family CUCUMARIIDAE

***Leptopentacta javanicus* (Sluiter, 1881)**

1881. *Oncus javanicus* Sluiter, C.P. *Tijdschr. Ned-Indie*. **40** : 9.
1971. *Leptopentacta javanicus* : Clark, A.M. and Rowe, F.W.E. *Monograph of shallow-water Indo-West Pacific echinoderms* **180**, pl. 29, fig. 5.
1985. *Leptopentacta javanicus* : James, D.B. In : James, P.S.B.R. (ed.), *Recent advances in Marine Biology*, P. 580.
1987. *Leptopentacta javanicus* : James, D.B. *J. mar. biol. Ass. India*, **26** : 112.

Material examined : 18 ex; India, Karnataka, Uttar Kanada district, Karwar off shore, 13.iii.2009, coll. M.K. Dev Roy and party; Reg. No. E 2024/1; 15 exs; India, Karnataka, Uttar Kanada district, Bhatkal fishing jetty, 17.iii.2009, coll. M.K. Dev Roy and party, Reg. No. E 2025/1; 2 exs; India, Karnataka, Uttar Kanada district, Tonka (Near Honavar), 18.iii.2009, coll. M.K. Dev Roy and party, Reg. No. E 2026/1.

Diagnosis : Body form small and slender, slightly curved, pentagonal in cross section. Pedicles in a double row along each side of the ambulacral areas ventrally. Papillae in three rows, along the dorsal ambulacral areas. Aggregations of spicules in inter-ambulacral areas make a reticulate appearance. Spicules smooth nodular buttons with four hole baskets and large lenticulate plates also present.

Habitat : Burrowing forms in soft substratum along the off shore area.

Distribution : India : East coast : Visakhapatnam (Andhra Pradesh); Gulf of Mannar (Tamil Nadu); West coast: Lakshadweep; Neendakara (Kerala); Uttar Kanada district (Karnataka).

Abroad : S.E. Arabia, Maldives.

SUMMARY

The present communication deals with the sea cucumber, *Leptopentacta javanicus* (Sluiter, 1881) from the coast of Karnataka. This species is recorded for the first time from Karnataka coast. The systematic account, habitat and their distribution of the species in Indian region is also provided.

ACKNOWLEDGEMENTS

The authors wish to express their deep felt gratitude and thanks to the Director, Zoological Survey of India, Kolkata, for providing facilities to complete this work. Special thanks to Dr. D.R.K. Sastry for his keen interest in identification of the echinoderm specimens of Karnataka coastal survey. The authors are also grateful to Dr. M.K. Dev Roy and Sri S. Kar, for their help in specimen collection and advice through out the work. All staff of General Non-Chordata section and the Publication division of Zoological Survey of India also acknowledged for their constant encouragement.



Fig. 1 : *Leptopentacta javanicus* Sluiter, 1881.

REFERENCES

- Clark, A.M. and Rowe, F.W.E., 1971. *Monograph of shallow water indo-west pacific echinoderms*, British Museum (Natural History), London. 238 pp.
- James, D.B. 1985. Zoogeography of the shallow-water echinoderms of the Indian seas. In : P.S.B.R. James(ed.) *Recent Advances in Marine Biology*. P. 569-591. Today and Tomorrows printers and publishers. New Delhi.
- James, D.B. 1987. Studies on Indian echinoderms-15. On *Psolus mannarensis* sp. nov. and other dendrochiroitids from the Indian seas. *J. mar. biol. Ass. India*, **26** : 109-112.
- Hyman, L.H. 1955. *The invertebrates 4 : Echinodermata*. McGraw-Hill Book Company, New York. 763 pp.

- Kerr, A.M., Janies, D.A., Clouse, R.M., Samyn, Y., Kuszak, J. & Kim, J. 2005. Molecular Phylogeny of Coral-Reef Sea Cucumbers (Holothuriidae : Aspidochirotida) Based on 16S Mitochondrial Ribosomal DNA Sequence. *Marine Biotechnology*, **7** : 53-60.
- Kerr, A.M. & Kim, J. 2001. Phylogeny of Holothuroidea (Echinodermata) inferred from morphology. *Zoological Journal of the Linnean Society*, **13** : 63-81.
- Sastry, D.R.K. 2007. *Echinodermata of India : An annotated list*. Rec. Zool. Surv. India. **271**, 1-387.
- Sluiter, C.P. 1881. Ueber einige neue Holothurien von der West-Keuste javas. *Natuurk.Tijdschr. Ned.-Indie* **40** : 1-26, 7 pls.

SANTANU MITRA*, **CHITRA, J.**

AND

J.G. PATTANAYAK

Zoological Survey of India,

27, J.L. Nehru Road, Kolkata-700016

**santanuzsi@gmail.com*