

STUDIES ON INDIAN ECHINODERMS-9 *OPHIONEREIS ANDAMANENSIS*  
SP. NOV. (OPHIUROIDEA : OPHIONEREIDAE)  
FROM PORT BLAIR, ANDAMANS\*

D. B. JAMES\*\*

Central Marine Fisheries Research Institute, Cochin — 682 031

ABSTRACT

A new species of Ophiuroidea belonging to the genus *Ophionereis* Lutken, 1859 is collected from the intertidal region under coral stones at Port Blair, Andamans. It is described as a new species *O. andamanensis* after its region of collection. Notes on the colour in live condition and also habits are given in the paper.

INTRODUCTION

THE GENUS *Ophionereis* Lutken, 1859 enjoys wide distribution. In the Indo-West Pacific region ten species are known from the shallow water upto a depth of 20 m (Clark and Rowe, 1971). In the seas around India only two species viz., *O. dubia* (Muller and Troschel) and *O. porrecta* (Lyman) are known. Both the species have been collected by the author, the former from Tuticorin in the Gulf of Mannar and the latter from Port Blair, Andamans. Clark (1953) has given a review of the genus *Ophionereis*. During an intensive survey of echinoderms in Andamans, the author came across four specimens of *Ophionereis* which is described here as new species.

I am grateful to Dr. S. Jones, former Director, C.M.F.R. Institute for his guidance and encouragement. I thank Dr. E. G. Silas, Director, C.M.F.R. Institute for the facilities provided and for his kind interest. I also thank Miss A. M. Clark of British Museum (Natural History) for her critical comments.

*Ophionereis andamanensis* sp. nov. (Fig. 1)

*Material*: Port Blair (South Andamans), 4 specimens collected under stones in the

\* Formed a part of Ph. D. Thesis, Andhra University, Waltair.

\*\* Present address: 29, commander-in-chief Road, Madras 600 105.

intertidal region. Holotype ZSI Reg. No. E 1788/1 and Paratype ZSI Reg. No. E 1789/1 deposited in the Indian Museum.

*Description*: The diameter of the disc varied from 4 to 8 mm and the length of the arms varied from 47 to 58 mm. All the specimens

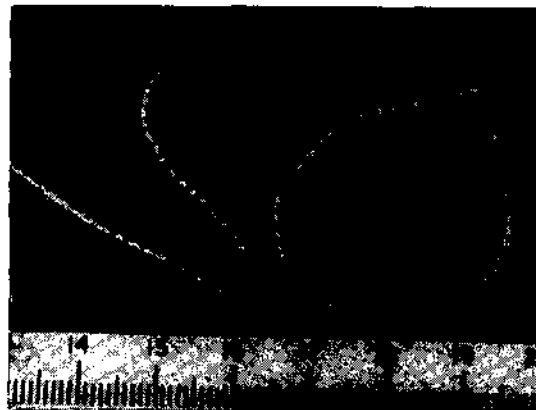


Fig. 1. *Ophionereis andamanensis* sp. nov., dorsal view.

have five arms. The disc is round and the dorsal side is covered with very fine scales which become distinct only on drying. The scales near the radial shields (Fig. 2 a) are more conspicuous than those present elsewhere. There are 12 to 16 rows of scales interradially. The genital slits have no bordering papillae.

The interbrachial areas on the ventral side are indistinct even in the dried condition. In a specimen of 8 mm disc diameter the length and breadth of one of the radial shields is 0.58 and 0.15 mm respectively.

There are four oral papillae (Fig. 2 b) on each side of the jaw. The oral shields are *c* 0.75 mm in length and *c* 0.70 mm in width. They are

The first ventral arm plate is about half the size of the following one. Both are longer than wide. The second and third plates are octagonal in shape and the remaining plates are pentagonal. The proximal edge is round and the distal edge is almost straight. After about the first few plates (four or five) the distal edges show distinct concavities. The lateral edges of the plates are concave. At the middle of the

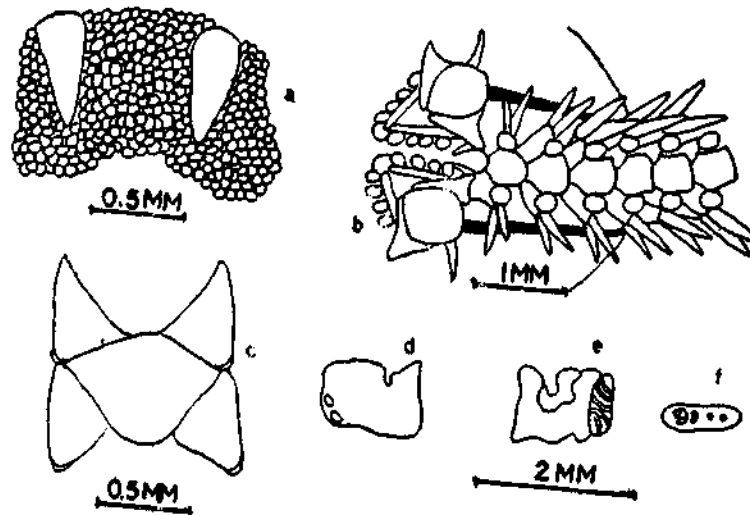


Fig. 2 a. Radial shields with disc scales, b. Two jaws and a portion of the arm, ventral view, c. Tenth dorsal arm plate with supplementary dorsal arm plates and accessory scales, d. Oral plate, adradial view, e. Oral plate, adradial view and f. Dental plate.

widest towards the proximal end. The adoral shields are small and meet inwardly. The disc scaling extends on to the base of the first four dorsal arm plates.

The dorsal arm plates are fan-shaped. Supplementary dorsal arm plates are well developed. Some accessory scales are present at the distal margins of the supplementary plates (Fig. 2 c).

arm the length of a ventral arm plate is 0.58 mm and the breadth is 0.46 mm. Each tentacle pore has a single tentacle scale which is large and oval, completely covering the corresponding pore.

The lateral arm plates bear three tapering spines throughout the arm. Proximally the ventral most spine measures *c* 0.60 mm in length while the dorsalmost spines measure *c* from 0.40 to 0.45 mm in length.

In the living condition, general colour of the disc is yellowish brown. The disc has a characteristic pattern of discontinuous violet lines. The ventral side is pale yellow. The dorsal side of each arm has three distinct colours, a very narrow shaped violet transverse band followed by a very narrow white and wider yellowish brown band.

*Remarks:* This species is closely related to *O. dubia*. One specimen of *O. dubia* (7 mm in disc diameter) collected from Tuticorin in the Gulf of Mannar is compared below with a specimen of *O. andamanensis* (8 mm in disc diameter) collected from Port Blair, Andamans. As may be seen from the following Table 1 the differences between the two species are quite marked for species of nearly equal size. It resembles *O. vivipara* Mortensen in having the disc scaling barely perceptible. It is named after its first locality of collection. The almost naked disc, small radial shields and the colour pattern are characteristic of the new species.

TABLE 1. Comparison of *O. dubia* and *O. andamanensis* sp. nov.

Character	<i>O. dubia</i> (Disc diameter 7 mm)	<i>O. andamanensis</i> (Disc diameter 8 mm)
Disc	Round covered by distinct imbricating scales. The disc becomes stiff after drying.	More or less pentagonal, scales obscure being covered by skin only a few near the radial shields becoming clear after drying.
Length of radial shield	0.99 mm.	0.58 mm.
Breadth of radial shield	0.41 mm.	0.15 mm.
Dental plate	Rather short, twice as long as broad, a little swollen at the middle and slightly tapering downwards.	Not short, about three times as broad as long, middle not tapering downwards (Fig. 2 F)
Colour in living state	A reticulate pattern of brown lines on light yellow disc. A dark brown irregular band extends from the base of each arm to the centre of the disc as a result of which an indistinct brown star-like figure is found on the disc.	Some discontinuous violet ramifying lines are present on the yellowish-brown disc.

#### REFERENCES

CLARK, A. M. 1953. A revision of the genus *Ophioreis*. *Proc. zool. Soc. Lond.*, 123 (1): 65-94.

AND F. W. E. ROWE 1971. *Monograph of shallowwater Indo-West Pacific echinoderms*. London. 238pp.

JAMES, D. B. 1969. Catalogue of echinoderms in the reference collections of the Central Marine Fisheries Research Institute. *Bull. cent. mar. Fish. Res. Inst.*, 7: 51-62.