

A NEW RECORD OF *CNIDOCODON LEOPOLDI* BOUILLON
(ANTHOMEDUSAE, HYDROZOA) FROM INDIAN OCEAN
WITH A NOTE ON ITS VARIATION

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ABSTRACT

A new record of *Cnidocodon leopoldi* Bouillon belonging to the family Corymorphidae is presented. The specimens were collected from Kerala and Karnataka coasts on the west coast of India. The specimens of the present study show some variations from *C. leopoldi* Bouillon collected from the Pacific Ocean in the following details - reaches to 3/4th of the height of the manubrium, the number of tentacles usually five and rarely six, the gonad covers the entire manubrium except for the opening and occupies almost the entire subumbrellar cavity.

With this record, distribution of this species extends to Indian Ocean.

INTRODUCTION

Hydromedusae from Indian Ocean have been studied by many authors (Kramp, 1965, 1968; Vannucci and Santhakumari, 1969; Navas, 1971; Vannucci and Navas, 1973a, b and Santhakumari, 1977). While studying the hydromedusae from the shelf and slope areas of Kerala, south west coast of India (Vannucci and Santhakumari, 1969 and Santhakumari, 1977) a few specimens were left unstudied. Later, more specimens were obtained from Karnataka coast, west coast of India.

Bouillon (1978) described a species, *Cnidocodon leopoldi* as a new genus and new species under the family Corymorphidae, from Papua, New Guinea coast, Pacific Ocean. So far this species has not been recorded from Indian waters. The present specimens resembles *C. leopoldi*, but show some variations and hence a brief description of it is given here.

MATERIALS AND METHODS

Four specimens were collected from two stations off Cochin, Kerala coast. Of these, one specimen was obtained from latitude 09°48' north and longitude 75°32' east, and three specimens from latitude 09°48' north and longitude 75°58' east, at 50 m and 40 m depth respectively. Nine specimens were collected from off Karwar, latitude 14°59' north and longitude 74°04' east at a depth of 17 m and two specimens from off Ratnagiri, latitude 16°28' north and longitude 71°56' east at 300 m depth.

Specimens were preserved in 4% formaldehyde solution in sea water. Drawings were made with the aid of camera lucida.

DESCRIPTION

Anthomedusa is of small size, egg shaped, higher (1.5 mm) than wide (1.0 mm), without any special process or apical canal. Jelly is moderately

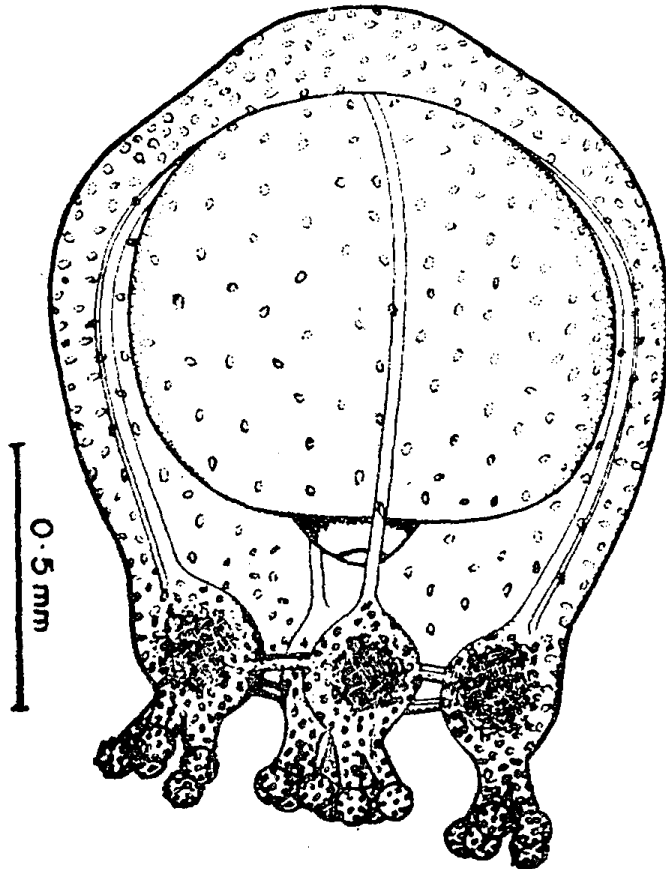


Fig. 1. *Cnidocodon leopoldi* Bouillon showing the entire structure.

thick, velum short and mesoglea thin. The medusa is opaque and brownish in colour due to the colour of the gonads.

Four simple radial canals open into the ring canal. Manubrium reaches to 3/4th of the height of the umbrella.

Gonads, coloured brown, surround the manubrium completely leaving only the opening and occupy the entire subumbrellar cavity (Fig. 1).

There are four perradial marginal, enlarged tentacular bulbs of light yellowish brown colour. Each tentacular bulb gives rise to 5 to 6 small hollow tentacles. The tentacles are arranged in two rows, 2 and 3 or 3 and 3 (Fig. 2). The tip of the tentacle is rounded. There is no sense organ. Nematocysts are present all over the medusa.

An young specimen was present in the sample (Fig. 3). The aboral region is much broader than that of the adult specimens. The manubrium is clearly visible since the gonad is not developed.

The present specimens from the Indian Ocean show variations from the Pacific Ocean specimens in the following details :

The number of tentacles are usually five and rarely six.

The manubrium extends almost up to the umbrella margin.

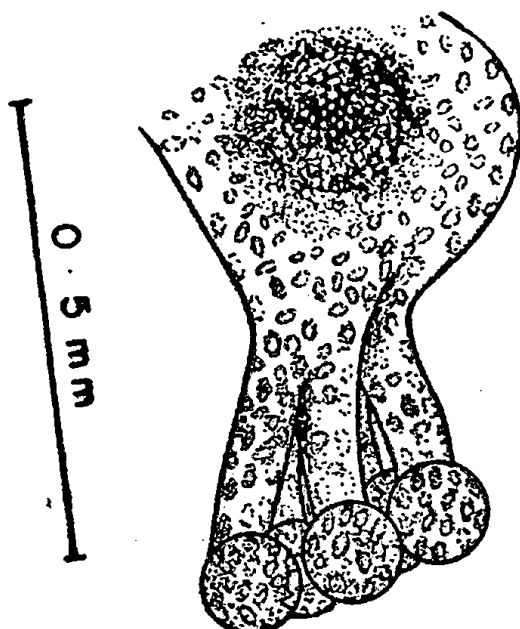


Fig. 2. *C. leopoldi* - enlarged view of the tentacular bulb and the tentacles.

The gonads cover the entire manubrium except for the opening part and occupy the subumbrellar cavity (Fig. 1).

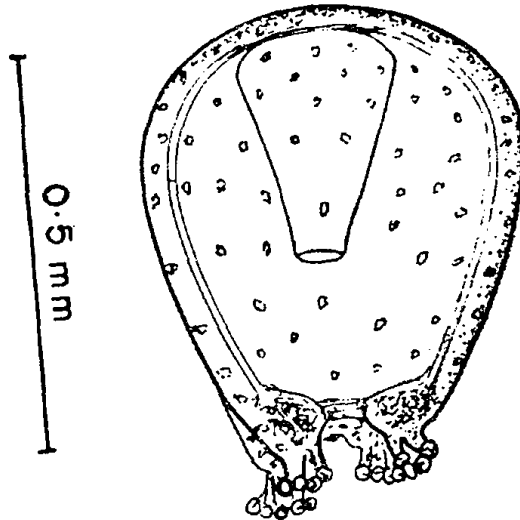


Fig. 3. A young specimen of *C. leopoldi*.

In the case of Pacific Ocean specimens the usual number of tentacles in each tentacular bulb is 3 to 4 and rarely 5. The manubrium extends $2/3$ of the height of the umbrella. The over growth of the gonad over the manubrium is not as much as that of the present.

This record has extended the distribution of *C. leopoldi* to the Indian Ocean.

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REFERENCES

- Bouillon, J. 1978 Hydromeduses de la mer de Bismarck (Papouasie Nouvelle-Guinée). 1. Anthomedusae Capitata (Hydrozoa - Cnidaria). *Cahiers de Biol. mar.*, 19: 249-297.

- Kramp, P.L. 1965 The hydromedusae of the Pacific and Indian Oceans. *Dana Rep.*, 63: 1-161.
- Kramp, P.L. 1968 The Hydromedusae of the Pacific and Indian Ocean. *Dana Rep.*, 72: 1-200.
- Navas, D. 1971 New records of hydromedusae from the Indian Ocean. *Contrcoes Inst. Oceanogr. Univ. S. Paulo, Ser. Ocean., Biol.*, 22: 1-33.
- Santhakumari, V. 1977 a Distribution of hydromedusae along the south west coast of India. *Mahasagar - Bull. Nat. Inst. Oceanogr.*, 10; 83-96.
- Santhakumari, V. 1977 b Distribution of hydromedusae in the Indian Ocean. *Proc. Symp. Warm Water Zoopl. Spl. Publ. UNES-CO/NIO*.
- Vannucci, M. and D. Navas 1973a On the ecology of the Indian Ocean hydromedusae. In: *Handbook to the International Collections*, 5: 1-54, IOBC, Nat. Inst Oceanogr., CSIR, Cochin, India.
- Vannucci, M. and D. Navas 1973 b Distribution of hydromedusae in the Indian Ocean. In: Zeitzschel, B. (Ed.), *The Biology of the Indian Ocean*. 3: 273-281. Springer-Verlag, Berlin-Heidelberg-New York.
- Vannucci, M. and Santhakumari, V. 1969. New records of hydromedusae from the shelf area off the Kerala coast. *J. mar. biol. Ass. India*, 11: 40-43.