



First Record Of The Order Polycladida From Coast Of Andhra Pradesh, India

Pseudoceros galatheensis recorded for first time in the east coast of mainland India

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Abstract: *Pseudoceros galatheensis*, a member of order polycladida, was observed for the first time in Visakhapatnam coast situated in the east coast of India. This record happens to be the first record of any member of order polycladida in Andhra Pradesh and the east coast of mainland India.

Index Terms - Marine Biology, Marine Flatworm, Visakhapatnam, Intertidal ecosystem, East Coast Conservation Team

I. INTRODUCTION

Pseudoceros galatheensis belongs to the order Polycladida and first described from Great Nicobar Island (Dixit et al., 2017) of India and also found through photographic evidence in the Gulf of Mannar (P. Padmanaban & Kumar et al., 2021), Micronesia (Newman & Cannon, 2003 & 2005) and Indonesia (Newman & Cannon, 2003 & 2005). Visakhapatnam city of Andhra Pradesh lies on the east coast of India and has both rocky and sandy shores. Intertidal biodiversity of Andhra Pradesh is not well studied and hence many species went unrecorded. This record is part of a citizen science program initiated by the East Coast Conservation Team, a non-profit organisation to record intertidal biodiversity of Andhra Pradesh.

A total of 69 species of Polyclads are recorded from Indian coasts of which 44 are recorded from Andaman and Nicobar islands, 5 are recorded from Gulf of Mannar, 27 from Lakshadweep and 7 from the coast of Maharashtra .

Index Terms - Marine biology, Marine flatworms, Visakhapatnam, Intertidal ecosystem.

RESEARCH METHODOLOGY

A group of 2 people walked along the rocky shore of Rushikonda beach (17°46'31.9"N 83°22'55.6"E) of Visakhapatnam city to record data on the presence of various marine life in intertidal regions during low tide on 1st July, 2021 at 7 15 am. Photographs of identified specimens were taken and new records were handpicked and photographed with scale and approximate size and characteristics were noted.

Photographic and videographic evidence was collected for the specimen that couldn't be collected in other parts of Andhra Pradesh.

IV. RESULTS AND DISCUSSION

Apart from some common inhabitants of Rushikonda rocky shore, two specimens of *Pseudoceros galatheensis* were obtained. One of the two specimens was collected and photographed. The specimen is confirmed as *Pseudoceros galatheensis* after comparing the external characters with original description (Dixit, et.al. 2017). The specimen was light blue in colour, dark blue margin, presence of pseudo tentacles, bright yellowish-orange median line commences at the base of the cerebral eyespots and ends prior to the posterior margin (Figure 1) Pseudo Tentacles are small, formed by simple folds of the anterior margin and dark blue with eye spots on either side of each tentacle. Ventrally light blue in colour. The observed specimen is approximately 31mm in length and 12 mm in width when photographed next to a scale. This specimen is comparatively larger to previously recorded *Pseudoceros galatheensis* specimen(Dixit, et.al. 2017)(Figure 2).



Figure 1 : *Pseudoceros galatheensis* in natural habitat

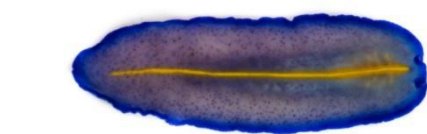
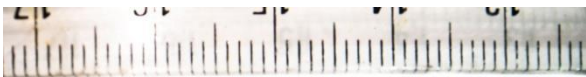


Figure 2 : *Pseudoceros galatheensis* next to scale

It is concluded that this is the first record of this species in Andhra Pradesh and the east coast of mainland India. There is no described record of any species belonging to the order polycladida in coastal waters of Andhra Pradesh and east coast of mainland India. An unidentified polyclad specimen was also videographed

in Annavaram village coast, Bheemunipatnam, Visakhapatnam, Andhra Pradesh (17°56'14.0"N 83°30'40.8"E) (Figure 3 & 4).



Figure 3: Unidentified polyclada member



Figure 4 : Unidentified Polycladida member

II. ACKNOWLEDGMENT

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REFERENCES

- [1] Dixit, S., Manjebayakath, H., & Saravanane, N. (2021). Two new Pseudoceros (Platyhelminthes: Polycladida: Pseudocerotidae) from Agatti Island, India and a species checklist from Indian waters. *Journal of the Marine Biological Association of the United Kingdom*, 101(2), 253-263. <https://doi.org/10.1017/S0025315421000151>
- [2] Dixit, Sudhanshu, Raghunathan, C. & Chandra, Kailash. (2017). Two new marine flatworms (Polycladida: Pseudocerotidae) from Andaman & Nicobar Islands, India. *Zootaxa*. <https://doi.org/10.11646/zootaxa.4221.1-5>
- [3] P., Padmanaban & Kumar, A. & Kumar, Rajendar & Surendar, Chandrasekar & J, Vanishree. (2021). On the Polyclads from the Gulf of Mannar Biosphere Reserve with New Records. *Records of the Zoological Survey of India*. 120. 445-453. 10.26515/rzsi/v120/i4/2020/148695.
- [4] Newman, L.J. & Cannon, L.R.G. (2003) *Marine Flatworms. The World of Polyclads*. CSIRO Publishing, Collingwood, 97 pp. F
- [5] Newman, L.J. & Cannon, L.R.G. (2005) *Fabulous Flatworms: a guide to marine polyclads*. Version 1. BAR & CSIRO Publishing: Canberra and Australia. CD-ROM.