

First Record of *Turridrupa jubata* (Reeve, 1843) (Gastropoda: Turridae) a Carnivorous Gastropod from the West Coast of India

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ABSTRACT A marine gastropod belonging to the Turridae family, *Turridrupa jubata* (Reeve, 1843), is said to be a new record from India's west coast, namely the Mangalore-Malabar Coast. During focused molluscan surveys, specimens were gathered from sub tidal sandy substrates. Measurements, detailed morphological descriptions, and comparisons with congeners known from Indian seas are provided here. The discovery expands the known geographic range of *T. jubata* into the Indian coastal region. Previously, the species was found in Indo-Pacific locations such as the Philippines, Indonesia, Japan, New Caledonia, and Papua New Guinea.

KEYWORDS Turridae, *Turridrupa jubata*, marine mollusca, new record, West Coast India

INTRODUCTION

The Turridae, the largest known family of predatory gastropods, is incredibly diverse and can be found in marine areas worldwide (H. Adams & A. Adams, 1853; Bosch 1995; Dey 2016; Kantor *et al.*, 2024). As carnivores that affect trophic dynamics, turrids are important to the ecosystem. They exhibit significant morphological variation and live on sandy, muddy, and even coral substrates from shallow to bathyal depths. They consume dead animal debris and feed on polychaete worms and scavengers (Bosch *et al.*, 1995).

The genus *Turridrupa* (Hedley, 1922) with 36 valid nominal species that are widely distributed across the globe (Stahlschmidt. 2025, MolluscaBase eds. 2026) In India the genus *Turridrupa* represented by only two species *Turridrupa acutigemmata* (E.A. Smith, 1877) and *Turridrupa bijubata* (Reeve, 1843) and the newly recognized *Turridrupa jubata* is an addition to this list.

Turridrupa jubata is a taxonomically valid species within the genus *Turridrupa* Hedley, 1922, a group distributed across the Indo-Pacific. Prior distributional data for *T. jubata* include regions outside Indian waters. This manuscript presents the first verified occurrence of *T. jubata* from the West Coast of India, filling an important biogeographical gap and contributing to the region's gastropod diversity records.

The Ministry of Environment, Forests, and Climate Change, Government of India, assigns the Zoological Survey of India (ZSI) as part of the Annual Program of Research. In 2025, the study was carried out at Malvan, Karnataka, along the Malabar Coast. In accordance with the original description by Reeve (1843) and Powell (1967), four dead shells were found on the beach among rubbish materials gathered by local fisherman and were determined to be *Turridrupa jubata*. For future use, the identified shells were placed in the Zoological Survey of India's (NZSI) National Zoological Collection in Kolkata, India.

New Record.

Specimens were collected from subtidal terraces and benthic dredge hauls along the Mangalore–Malabar Coast (26 to 30 fathoms) during winter 2025 surveys. Standard sampling gear included dredges and hand nets deployed

at depths of 10–40 m., collected specimens were rinsed and preserved in dry for morphological analyses. (NZSI Regd. No:M40136/11) (leg.A.Mukhopadhyay, 2.01. 2025). Four dead shells (See Plate 1).

Key to the species of *Turridrupa* found in India.

Shell small (height 27-21 mm) and sinus cord finely gemmate with colour yellowish brown, anterior end white

Turridrupa jubata (Reeve, 1843)

Shell small (height 17-21 mm) sinus cord strong with laterally elliptical gemmules, sinus deep, U-shaped, color uniformly yellowish brown to reddish brown

Turridrupa acutigemmata (E. A. Smith, 1877)

Shell small (height 11-25 mm), sinus cord smooth to waved colour buff on dark brown ground.

Turridrupa bijubata (Reeve, 1843)

Measurements.

Specimen No	Shell Length (mm)	Shell Width (mm)	Aperture length (mm)	Aperture width (mm)
Sp-1	24.15	8.26	8.26	2.70
Sp-2	27.28	10.10	10.05	4.24
Sp-3	22.41	8.40	4.85	2.54
Sp-4	21.97	7.32	7.03	3.34

Comparison with Other Indian Congener Species.

Detailed morphological comparisons reveal that *T. jubata* differs in its strong central keel, granule distribution, and shell proportions, despite the fact that other turrid species are known from Indian waters (e.g., *T. bijubata*). Compared to *Turridrupa jubata*, species in the genus *Gemmula* usually have taller, narrower shells with distinct spiral threads and different aperture shape.

DISCUSSION

In his *Turridrupa* monograph, Powell (1967) claimed that the British Museum did not include the holotype. The syntype differs from Powell's specimen in that it has a broader, more solid shell, a longer siphonal canal, and larger gemmules on the sinus cord. Although both "forms" are present in the sample being examined, only specimens that match the specimen Powell depicted have been sequenced thus far.

Dey (1916) reported only two species of the genus *Turridrupa* in a survey of Indian

Gastropods. The discovery of *T. jubata* broadens our understanding of Turridae's distribution patterns in the Indian Ocean and emphasizes the value of conducting thorough malacological surveys in understudied areas like India's West Coast. This result implies that there may be more turrid variety in the area that has not been recorded. To determine species boundaries and biogeographic patterns, more sampling and molecular analysis is advised. Mollusks are important ecologically because of their roles as predators, prey, and ecosystem engineers. Comprehensive faunal inventories are essential for ecosystem assessment and conservation because gastropods, such as turrids, contribute to trophic dynamics by feeding on benthic invertebrates and recycling nutrients. Thus, the presence of *Turridrupa* in Malabar Coast is not surprising and this record extends the known distribution range of the species.

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LITERATURE CITED

- Bosch, D.T., S.P. Dance, R.G. Moolenbeek, & P.G. Oliver. 1995.** Seashells of Eastern Arabia. Motivate Publishing Dubai.
- Dey, A. 2016.** Catalogue of Marine Mollusca (Polyplacophora and Gastropoda): 1-687. Published by the Director, Zoological Survey of India, Kolkata.
- GBIF Secretariat. 2023.** GBIF Backbone Taxonomy. Checklist dataset <https://doi.org/10.15468/39omei>
- accessed via GBIF.org on 2026-02-16. Listing for: *Turridrupa jubata* (Reeve, 1843).
- Kantor, Y., P. Bouchet, A. Fedosov, N. Puillandre, & P. Zaharias. 2024.** Generic revision of the Recent Turridae (Neogastropoda: Conoidea). Journal of Molluscan Studies. *eyae032*:1-40.
- MolluscaBase eds. 2026.** MolluscaBase. *Turridrupa jubata* (Reeve, 1843). Accessed through: World Register of Marine Species at: <https://www.marinespecies.org/aphia.php?p=taxdetails&id=345702> on 2026-01-26
- Powell, A.W.B. 1967.** The family Turridae in the Indo-Pacific. Part 1a. The subfamily Turrinae concluded. Indo-Pacific Mollusca. 1:409-444. Available online, page(s): 423, pl. 301 fig. 4
- Reeve, L.A. 1843-1846.** Monograph of the genus *Pleurotoma*. In: Conchologia Iconica, or, illustrations of the shells of molluscos animals, vol. 1, pl. 1-40 and unpaginated text. L. Reeve & Co., London. [stated dates: pls 1-2, January 1843; pls 3-6, February 1843; pls 7-8, March 1843; pls 9-10, April 1843; pls 11-12, May 1843; pls 13-14, June 1843; pl. 15, July 1843; pl. 16, August 1843; pl. 17, November 1843; pl. 18, December 1843; pl. 19; January 1844; pls 20-26, October 1845; pls 26-27, November 1845; pls 28-33, December 1845; pls 34-38, January 1846; pls 39-40, April 1846]. Available online at: <http://www.biodiversitylibrary.org/page/11119161> page(s): pl. 7, sp. 52.; note: March, 1843.
- Stahlschmidt, P., Y.L. Kantor, D. Zuccon, B. Olivera, & N. Puillandre. 2025.** Revision of the genus *Turridrupa* (Gastropoda, Turridae) with description of 15 new species. *Zootaxa* 5708(1):1-66.
- Tripathy, B., P.C. Tudu, & A.K. Mukhopadhyay. 2025.** Checklist of Fauna of India: Mollusca. Version 2.0. Zoological Survey India.
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Plate. 1. *Turridrupa jubata*, approximately 27 mm in length. This is the first report of this species from the Indian main land. Beach collected on the Malvan Coast, Karnaka, India, as a part of Zoological Survey of India.