

FAUNA OF INDIA CHECKLIST

JULY, 2024

ONLINE VERSION 1.0



BRACHIOPODA

Tamal Mondal^{1,2,*} and C. Raghunathan^{1,3}

¹Zoological Survey of India, M-Block, New Alipore, Kolkata-700053

²t_genetics@yahoo.com; <http://orcid.org/0000-0003-4966-6746>

³raghuksc@rediffmail.com; <http://orcid.org/0000-0003-1417-549>

*Correspondence author email id: t_genetics@yahoo.com

DOI : <https://doi.org/10.26515/Fauna/1/2023/Brachiopoda>

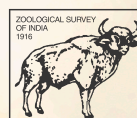
Key words: Lamp shells, Lophophore, Sedenterary

Citation: Mondal, T. and Raghunathan (2024), C.. Fauna of India Checklist: Brachiopoda. Version 1.0. Zoological Survey India. DOI: <https://doi.org/10.26515/Fauna/1/2023/Brachiopoda>

Comments on the checklist:

E-mail your comments
and suggestions to improve
the checklist to

zsifaunachecklists@gmail.com
and t_genetics@yahoo.com



ZOOLOGICAL SURVEY OF INDIA
Ministry of Environment, Forest & Climate Change

BRACHIOPODA

Tamal Mondal^{1,2,*} and C. Raghunathan^{1,3}

¹Zoological Survey of India, M-Block, New Alipore, Kolkata-700053

²t_genetics@yahoo.com; <http://orcid.org/0000-0003-4966-6746>

³raghuksc@rediffmail.com; <http://orcid.org/0000-0003-1417-5496>

*Correspondence author email id: t_genetics@yahoo.com

Introduction: Brachiopoda is one of the minor phyla. The faunal communities are commonly known as lamp shells because of their morphology. This is one of the phyla of Lophoorates because of the presence of essential organ called Lophophore. These organisms are morphologically more similar to the bivalve of Molluscs due to the two valves. But, they are differentiated with bivalve because the having anteroposterior symmetry. These animals are mostly sedentary, aquatic bottom dwelling and restricted to marine waters. The living representatives of Order Lingulida belong to two families, six genera and 26 species, while those of Craniida belong to one family, three genera and 16 species. Among all Brachiopod species the genus *Lingula* belonging to the family Lingulidae consists of seven species and considered as living fossils.

Global diversity: The phylum comprises of 431 valid species belonging to 124 genera, 32 families, 6 orders, 3 classes and 3 sub classes distributed globally.

Diversity in India: A total of seven species belonging to six genera, five families, three orders and two classes are from India.

Diversity in States: Presented in table 1.

Table 1: Brachiopoda of India, State-wise distribution

Sl. No.	State/Union Territory	No. Species
1.	Andhra Pradesh	3
2.	Gujarat	1
3.	Karnataka	1
4.	Maharashtra	2
5.	Odisha	2
6.	Tamil Nadu	1
7.	West Bengal	1
8.	Andaman & Nicobar	3
	Total number of species	7

Endemism: No endemism has been recorded from India.

Habitat: They are found in various substrates such as rock outcroppings, crevices, and caves. Also, some species may burrow into sediments in shallow waters. They can be found at any depth, shallow waters of rocky shorelines but are most commonly found on the continental shelf and in very cold waters.

Ecological Significance: They are important component for filter-feeders and reef builders and occupy other ecological niches, including swimming in the jet-propulsion style of scallops. Brachiopod fossils have been useful indicators of climate change over period of time.

Human Significance: They may use for research and education for indicator species of marine ecosystem.

Threatened species: No species of brachiopods from India is assessed for IUCN threatened categories.

Protected Species as per WPA (2022): Brachiopods are not listed under any schedules of Indian Wildlife (Protection) Act, 1972.

Species under CITES: There is no species enlisted under the CITES Appendices.

Invasive alien species: No brachiopod species is reported from India as an invasive.

Gap areas: Brachiopods are poorly documented from many coastal states. Many species are known only from east coast of India. Comprehensive studies are required to explore the faunal group from the coasts of India

Systematic list: Species list cited below (Table 2).

Table 2: Brachiopods of India

Sl. No.	Species
1.	<i>Jolonica alcocki</i> (Joubin, 1906)
2.	<i>Thaumatosis anomala</i> Cooper, 1973
3.	<i>Cryptopora curiosa</i> Cooper, 1973
4.	<i>Lingula translucida</i> Dall, 1920
5.	<i>Lingula anatina</i> Lamarck, 1801
6.	<i>Discradisca semicornea</i> (Preston, 1908)
7.	<i>Pelagodiscus atlanticus</i> (King, 1868)

References

- Emig, C.C., Bitner, M.A. and Alvarez, F., 2013. Phylum Brachiopoda. In: Zhang, Z.-Q.(Ed.) Animal Biodiversity: An Outline of Higher-level Classification and Survey of Taxonomic Richness (Addenda 2013). *Zootaxa*, **3703**(1): 75-78.
- Lüter, C., 2000. The origin of the coelom in Brachiopoda and its phylogenetic significance. *Zoomorphology*, **120**(1): 15-28.
- Raghunathan, C. and Jothinayagam, J.T., 2007. Occurrence of 'Living fossil' *Lingula translucida* Dall (Brachiopoda, Lingulidae) along Krishnapatnam coast of Bay of Bengal. *Seshaiyana*, **15**(1): 3-6.
- Raghunathan, C. and Venkataraman, K., 2015. Brachiopods of India. In: Venkataraman, K., Raghunathan, C., Tamal Mondal and Raghuraman, R. (Eds.), *Lesser known marine animals of India*: 1-550 (Published by the Director, Zool. Surv. India, Kolkata).
- WoRMS., 2023. Brachiopoda. Accessed at: <https://www.marinespecies.org/aphia.php?p=taxdetails&id=1803> on 2023-02-18.