

FAUNA OF INDIA CHECKLIST

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ONLINE VERSION 1.0



KINORHYNCHA

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

KINORHYNCHA

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Introduction: The Phylum Kinorhyncha is marine microscopic invertebrate faunal group. The size of the faunal group can be up to 1.03mm. Body of Kinorhyncha is divided into three parts head, very short neck and trunk. The phylogenetic relationship of the faunal group is yet to be understood. These benthic animals cannot swim and move by extending head. Sexes are different but not distinguishable from outside.

Global diversity: World-wide a total of 341 accepted species of Kinorhyncha has been reported under two classes and five orders.

Diversity in India: Only eight species of Kinorhyncha are reported from Indian waters representing two classes, three orders and five families.

Diversity in States: Presented in table 1.

Table 1: Kinorhyncha of India, State-wise distribution

Sl. No.	State/UT	No. of Species
	INDIA TOTAL	08
1.	Andhra Pradesh	02
2.	Gujarat	01
3.	Maharashtra	01
4.	Odisha	02
5.	Tamil Nadu	01
6.	West Bengal	03
7.	Andaman and Nicobar	03
8.	Lakshadweep	02

Endemism: No endemism has been recorded from India.

Habitat: Most of the kinorhynch live in oxygenated upper muddy bottoms, sandy shores and estuarine sediments. They are found from the intertidal zone to deep sea.

Ecological Significance: The faunal group also display the association with algae and other invertebrates. As meiobenthic faunal group, these animals play an important role as prey of larger animals.

Human Significance: There is no significant impact of the particular faunal group on the human being.

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

Protected Species as per WPA: 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 kinorynch species is reported from India as an invasive alien species.

Gap areas: Research on Kinorhyncha is scanty and only taxonomic status of eight species is known from Indian coasts. Comprehensive studies are required to explore the faunal group from the coasts of India.

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

Table 2: Kinorhyncha of India

Sl. No.	Species
1.	<i>Echinoderes andamanensis</i> Higgins and Rao, 1979
2.	<i>Echinoderes ehlersi</i> Zelinka, 1913
3.	<i>Echinoderes bengalensis</i> (Timm, 1958)
4.	<i>Condyloderes paradoxus</i> Higgins, 1969
5.	<i>Sphenoderes indicus</i> Higgins, 1969
6.	<i>Cateria gerlachi</i> Higgins, 1968
7.	<i>Cateria styx</i> Gerlach, 1956
8.	<i>Neocentrophyes satyai</i> Higgins, 1969

References:

Neuhaus, B. and Higgins, R.P., 2002. Ultrastructure, biology, and phylogenetic relationships of Kinorhyncha. *Integrative and Comparative Biology*, **42**(3): 619-632.