

FAUNA OF INDIA CHECKLIST

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CHORDATA: TUNICATA: APPENDICULARIA

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

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Introduction: Appendicularia is a class under the Subphylum Tunicata and found in marine and estuarine waters. The class was previously known as Larvacea due to the resemblance of the body structure to the tadpole larva. All members of this class have tadpole larva like structure mostly from 5 to 90 millimetres in size. The body has two division head and tail, head region contains heart, respiratory system, digestive system and reproductive system. These filter-feeding planktons are carrying a house-like structure made up of mucus secretion which helps primary filtration of the food particles. All members of this class are planktonic and solitary in nature found from the surface to depth of the ocean. These animals swim by a rhythmic contraction of the striated muscle bands. Mostly these are protandrous hermaphrodite in nature and vegetative reproduction is not found.

Global diversity: Only 68 species of Appendicularia are reported as valid world-wide under a single order and three families.

Diversity in India: Indian coastal water harbours a total of 37 species of Appendicularia under two families, namely Oikopleuridae and Fritillariidae.

Table 1: Appendicularia of India, State-wise distribution

Sl. No.	State/ Union Territory	No. of Species
1.	Andhra Pradesh	17
2.	Kerala	01
3.	Odisha	03
4.	Tamil Nadu	35

Endemism: Appendicularians are hardly reported to be endemic but *Oikopleura (Vexillaria) labradoriensis* Lohmann, 1892 is reported from the Atlantic coasts only.

Habitat: Appendicularians are found in marine and estuarine waters. These planktonic animals are mostly confined in the photic zone and found from coastal to oceanic waters.

Ecological Significance: Appendicularia has significant ecological importance in marine and estuarine ecosystem by participating actively in carbon cycling. Besides grazing on the microplankton, these animals also act as prey of fishes and other planktivorous vertebrates.

Human Significance: No direct impact of Appendicularia on human has been found till date.

Threatened species: No threatened species is reported till date under this class.

Protected Species as per WPA: Appendicularians 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 appendicularian species is reported from India as invasive.

Gap areas: Appendicularia is very small faunal group with high phylogenetic and ecological importance. As less expertise is available in India all the species are not identified up to species level and mostly studied along with the meso-zooplanktons. Exclusive studies are required to be conducted on the faunal group to explore the diversity and ecological role.

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

Table 2: Appendicularians of India

Sl. No.	Species
1.	<i>Stegosoma magnum</i> (Langerhans, 1880)
2.	<i>Megalocercus huxleyi</i> (Ritter in Ritter & Byxbee, 1905)
3.	<i>Megalocercus abyssorum</i> Chun, 1887
4.	<i>Oikopleura (Vexillaria) albicans</i> (Leuckart, 1854)
5.	<i>Oikopleura (Vexillaria) cophocerca</i> (Gegenbaur, 1855)
6.	<i>Oikopleura (Vexillaria) dioica</i> Fol, 1872
7.	<i>Oikopleura (Coecaria) fusiformis</i> Fol, 1872
8.	<i>Oikopleura (Coecaria) fusiformis cornutogastra</i> Aida, 1907
9.	<i>Oikopleura (Coecaria) gracilis</i> Lohmann, 1896
10.	<i>Oikopleura (Coecaria) intermedia</i> Lohmann, 1896
11.	<i>Oikopleura (Coecaria) longicauda</i> (Vogt, 1854)
12.	<i>Oikopleura (Vexillaria) labrodoriensis</i> Lohmann, 1892
13.	<i>Oikopleura (Vexillaria) parva</i> Lohmann, 1896
14.	<i>Oikopleura (Vexillaria) rufescens</i> Fol, 1872
15.	<i>Oikopleura (Vexillaria) gaussica</i> Lohmann, 1905
16.	<i>Pelagopleura gracilis</i> (Lohmann, 1914)
17.	<i>Folia mediterranea</i> (Lohmann, 1899)
18.	<i>Appendicularia sicula</i> Fol, 1874
19.	<i>Tectillaria fertilis</i> (Lohmann, 1896)
20.	<i>Fritillaria abjorseni</i> Lohmann, 1909
21.	<i>Fritillaria aequatorialis</i> Lohmann, 1896
22.	<i>Fritillaria antarctica</i> Lohmann, 1905
23.	<i>Fritillaria borealis</i> Lohmann, 1896
24.	<i>Fritillaria borealis typica</i> Lohmann, 1896
25.	<i>Fritillaria borealis sargassi</i> Lohmann, 1896
26.	<i>Fritillaria borealis intermedia</i> Lohmann, 1905
27.	<i>Fritillaria formica tuberculata</i> Lohmann in Lohmann & Buckmann, 1926
28.	<i>Fritillaria fraudax</i> Lohmann, 1896
29.	<i>Fritillaria gracilis</i> Lohmann, 1896
30.	<i>Fritillaria haplostoma</i> Fol, 1872
31.	<i>Fritillaria megachile</i> Fol, 1872
32.	<i>Fritillaria pacifica</i> Tokioka, 1957
33.	<i>Fritillaria pellucida</i> (Busch, 1851)
34.	<i>Fritillaria pellucida omani</i> Fenaux, 1967
35.	<i>Fritillaria polaris</i> Bernslein, 1934
36.	<i>Fritillaria tenella</i> Lohmann, 1896
37.	<i>Fritillaria venusta</i> Lohmann, 1896

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