

FAUNA OF INDIA CHECKLIST

JULY, 2024

ONLINE VERSION 1.0



Wikimedia Commons
© Hans Hillewaert / CC BY-SA 4.0

ARTHROPODA: CRUSTACEA: CUMACEA

K. Valarmathi

FPS Building, Zoological Survey of India, Kolkata-16. valarkamacro@gmail.com; <https://orcid.org/0009-0004-6978-1252>

DOI : <https://doi.org/10.26515/Fauna/1/2023/Arthropoda: Crustacea: Malacostraca: Cumacea>

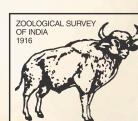
Key words: Malacostraca: Eumalacostraca: Peracarida: Cumacea, India, checklist.

Citation: K. Valarmathi (2024). Fauna of India Checklist: Arthropoda: Crustacea: Cumacea. Version 1.0. Zoological Survey India. DOI: <https://doi.org/10.26515/Fauna/1/2023/Arthropoda: Crustacea: Malacostraca: Cumacea>

Comments on the checklist:

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

zsifaunachecklists@gmail.com
and valarkamacro@gmail.com



ZOOLOGICAL SURVEY OF INDIA

Ministry of Environment, Forest & Climate Change

ARTHROPODA: CRUSTACEA: CUMACEA

K. Valarmathi

valarkamacro@gmail.com

Introduction: Cumacea is an Order of small marine Crustaceans placed under the Superorder Peracarida of the Class Malacostraca which are known as Hooded shrimp or Comma shrimp. They mostly live in soft bottom of the marine environment ranging from intertidal to 8000m depth and are also reported from brackish water. Their size ranges from 1.0 to 10mm in length. Studies on Indian cumaceans were initiated by Calman (1904) and followed by several other renowned researchers (Kemp, 1916; Kurian, 1951, 1954, 1961, 1965, 1967, 1985; Kurian and Radhadevi ,1983, 1984; Radhadevi and Kurian, 1981, 1990; Radhadevi, 1983, Haye, 2004 and Petrescu and Chatterjee, 2011).

Global diversity: Globally more than 1600 species of Cumaceans belonging to 125 genera placed under 8 families are known (Biju and Pillai, 2020).

Diversity in India: Chatterjee and Pešić (2010) listed 69 species of Cumaceans belonging to 3 families and 18 genera. Recently Biju and Pillai (2020) made a checklist on the Cumaceans of Indian Coasts and listed 71 species of Cumaceans belonging to 3 families and 18 genera. The present study reveals the occurrence of 86 species of Cumaceans belonging to 21 genera and 4 families in India including Andaman & Nicobar Island and Lakshadweep.

Diversity in States (Table)

Sl.No.	Region	No. Species	No. Endemic Species
1	Andhra Pradesh	1	
2	Arunachal Pradesh	0	
3	Assam	0	
4	Bihar	0	
5	Chhattisgarh	0	
6	Gujarat	0	
7	Goa	0	
8	Haryana	0	
9	Himachal Pradesh	0	
10	Jharkhand	0	
11	Karnataka	2	

Sl.No.	Region	No. Species	No. Endemic Species
12	Kerala	48	
13	Madhya Pradesh	0	
14	Maharashtra	0	
15	Manipur	0	
16	Meghalaya	0	
17	Mizoram	0	
18	Nagaland	0	
19	Odisha	6	
20	Punjab	0	
21	Rajasthan	0	
22	Sikkim	0	
23	Tamil Nadu	30	
24	Telangana	0	
25	Tripura	0	
26	Uttarpradesh	0	
27	Uttarakhand	0	
28	West Bengal	0	
29	Andaman & Nicobar	0	
30	Chandigarh	0	
31	Dadra Nagar Haveli, Daman & Diu	0	
32	Delhi	0	
33	Jammu & Kashmir	0	
34	Ladakh	0	
35	Lakshadweep	16	
36	Puducherry	0	
	West Coast	47	
	East Coast	40	
	Gulf of Mannar	9	

Endemism: Maximum diversity and endemic species are observed in Kerala.

Habitat: They are predominantly marine dwellers and also available in estuarine and backwaters, though there is no freshwater species there some species which are known to intrude the freshwater environment

Ecological Significance: Cumaceans feed on the microorganisms and organic material from the mud and in turn they were consumed by many fishes so they act as significant organism in marine food chain.

Human Significance: Directly they don't have any significance for human but they form an important element in the marine ecosystem and food chain.

Threatened species: Species from India are not assessed for IUCN threat categories.

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

Species under CITES: Indian Cumaceans are not listed under any appendices of CITES.

Invasive alien species: No Cumacean species are reported to be invasive in Indian waters.

Gap areas: Indian Cumaceans are very poorly explored and only few workers have concentrated on this group when compared to global diversity Indian diversity is very less, further intensive and extensive studies are essential for this under explored group of Crustacean.

Systematic list:

Phylum Arthropoda

Subphylum Crustacea

Superclass : Multicrustacea

Class : Malacostraca

Subclass Eumalacostraca

Superorder : Peracarida, Calman, 1904

Subphylum Crustaceacea;

Order CUMACEA Kroyer, 1846

Bodotriidae T. Scott, 1901

Genus *Austrocuma* Day, 1978

1. *Austrocuma kornfieldi* Haye, 2004

Genus *Bodotria* Goodsir, 1843

2. *Bodotria andamanensis* Petrescu & Chatterjee, 2011*

3. *Bodotria biocellata* Radhadevi & Kurian, 1989

4. *Bodotria choprai* Kurian, 1951

5. *Bodotria cochinensis* Radhadevi & Kurian, 1989

6. *Bodotria minuta* Kurian, 1961

7. *Bodotria platybasis* Radhadevi & Kurian, 1981

8. *Bodotria pulchella* (Sars, 1878)

9. *Bodotria pulex* (Zimmer, 1903)

10. *Bodotria setoensis* Harada, 1967

11. *Bodotria similis* Calman, 1907

12. *Bodotria siamensis* Calman, 1907

13. *Bodotria sublevis* Calman, 1907

Genus *Iphinoe* Bate, 1856

14. *Iphinoe brevipes* Hansen, 1895
15. *Iphinoe calmani* Fage, 1945
16. *Iphinoe crassipes* Hansen, 1895
17. *Iphinoe inermis* Sars, 1878
18. *Iphinoe macrobrachium* Caiman 1904
19. *Iphinoe pigmenta* Kurian, 1961
20. *Iphinoe sanguinea* Kemp, 1916
21. *Iphinoe serrata* Norman, 1867
22. *Iphinoe tenella* G.O.Sars, 1878

Genus *Cyclaspis* Sars, 1865

23. *Cyclaspis bengalensis* Kurian, 1954
24. *Cyclaspis cingulata* Calman, 1907
25. *Cyclaspis coelebs* Calman, 1917
26. *Cyclaspis costata* Calman, 1904
27. *Cyclaspis cretata* Hale, 1944
28. *Cyclaspis herdmani* Calman, 1904
29. *Cyclaspis hornelli* Calman, 1904
30. *Cyclaspis juxta* Hale, 1948
31. *Cyclaspis levis* Thomson, 1892
32. *Cyclaspis longicaudata* Sars, 1865
33. *Cyclaspis munda* Hale, 1944
34. *Cyclaspis picta* Calman, 1904
35. *Cyclaspis quadruplicata* Kurian, 1951
36. *Cyclaspis strigilis* Hale, 1944
37. *Cyclaspis strumosa* Hale, 1948
38. *Cyclaspis uniplicata* Calman, 1907
39. *Cyclaspis varians* Calman, 1912

Genus *Eocuma* Marcusen, 1894

40. *Eocuma affine* Calman, 1904
41. *Eocuma hilgendorfi* Marcusen, 1894
42. *Eocuma kempi* Kurian, 1954
43. *Eocuma latum* Calman, 1907
44. *Eocuma longicorne* Calman, 1907
45. *Eocuma sanguineum* Kurian & Radhadévi 1983
46. *Eocuma stelliferum* Calman, 1907
47. *Eocuma striatum* Kurian & Radha Devi, 1983
48. *Eocuma taprobanicum* Calman, 1904
49. *Eocuma travancoricum* Kurian, 1951

Genus *Gigacuma* Kurian, 1951

50. *Gigacuma halei* Kurian, 1951

Genus *Heterocuma* Mier, 1879

51. *Heterocuma africanum* Zimmer, 1908
52. *Heterocuma andamani* Kurian, 1954
53. *Heterocuma armatum* Kurian, 1954
54. *Heterocuma sarsi* Miers, 1879

Genus *Picrocuma* Hale, 1936

55. *Picrocuma poecilotum* Hale, 1936

Genus *Pseudosympodomma* Kurian, 1954

56. *Pseudosympodomma indicum* Kurian, 1954

Genus *Vaunthompsonia* Bate, 1858

57. *Vaunthompsonia arabica* Calman, 1907

Genus *Zygosiphon* Calman, 1907

58. *Zygosiphon mortensenii* Calman, 1907

Family DIASTYLIDAE Bate, 1856**Genus *Dimorphostylis* Bate, 1856**

59. *Dimorphostylis horai* Kurian, 1956

60. *Dimorphostylis longitelson* Kurian, 1963

Genus *Paradiastylis* Calman, 1904

61. *Paradiastylis belone* Fage, 1945

62. *Paradiastylis brachyura* Calman, 1904

63. *Paradiastylis culicoides* Kemp, 1916

64. *Paradiastylis longipes* Calman, 1905

Genus *Makrokylindrus* Stebbing, 1912

65. *Makrokylindrus (Adiastylis) fistularis* (Calman), 1911

Family GYNODIASTYLIDAE Stebbing, 1912;**Genus *Gynodiastylis* Calman, 1911**

66. *Gynodiastylis bacescui* Petrescu & Chatterjee, 2011

67. *Gynodiastylis lata* Hale, 1946

Family NANNASTACIDAE**Genus *Nannastacus* Bate, 1865**

68. *Nannastacus gibbosus* Calman, 1911

69. *Nannastacus goniatus* Gamo, 1962

70. *Nannastacus inflatus* Hale, 1945

71. *Nannastacus johnstoni* Hale, 1945

72. *Nannastacus lepturus* Caiman 1911

73. *Nannastacus stebbingi* Calman, 1904

74. *Nannastacus zimmeri* Calman, 1911

Genus *Cumella* G.O. Sars, 1865

75. *Cumella (Cumella) forficuloides* Bacescu & Muradian, 1975

76. *Cumella (Cumella) laevis* Calman, 1911

77. *Cumella (Cumella) turgidula* Hale, 1945

Genus *Campylaspis* G.O. Sars, 1865

78. *Campylaspis latidactyla* Hale, 1945
79. *Campylaspis maculata* Zimmer, 1907
80. *Campylaspis minor* Hale, 1945
81. *Campylaspis minuta* Radhadevi & Kurian, 1989
82. *Campylaspis platyuropus* Calman, 1911
83. *Campylaspis robusta* Radhadevi & Kurian, 1989*

Genus *Scherocumella* Watling, 1991

84. *Scherocumella nichollsi* (Hale, 1949)

Genus *Schizotrema* Calman, 1911

85. *Schizotrema bifrons* Calman, 1911

Genus *Gigacuma* Kurian, 1951

86. *Gigacuma halei* Kurian, 1951

References:

- Biju, A. and Honey U.K. Pillai. 2020. Arthropoda : Crustacea : Cumacea. In: *Faunal Diversity of Biogeographic Zones : Coasts of India* : 379-382. (Published by the Director, Zool. Surv. India, Kolkata)
- Calman, W.T., 1904. Report on the Cumacea collected by Professor Herdman, at Ceylon, in 1902. *Ceylon Pearl Oyster Fisheries Supplementary Reports*, **12**: 159-180.
- Chatterjee, T. and Pešić, V., 2010. A Checklist of Cumaceans (Crustacea) from India. *Cahier de Biologie Marine*, **51**: 289-299.
- Haye, P.A., 2004. *Austrocuma kornfieldi*, a new bodotriiid from India: Pleopod number in cumaceans and the placement of Coricuma. *Journal of Crustacean Biology*, **24**: 84-92.
- Kemp, S., 1916. Fauna of the Chilka Lake. *Memoires of the Indian Museum*, **5**: 395-402.
- Kurian, C.V., 1951. The Cumacea of Travancore. *Bulletin of the Central Research Institute, University of Kerala. Series C: Natural Sciences*, **2**: 77-118.
- Kurian, C.V., 1954a. Notes on Cumacea (Sympoda) in the Zoological Survey of India. *Records of the Indian Museum*, **52**: 275-312.
- Kurian, C. V. 1954b. The cumacea of Travancore. *Bull. Centr. Res. Inst. Univ. Travancore*, **2 C(1)**: 77-118, 4 pls.
- Kurian, C. V. 1954c. Contribution to the study of crustacean fauna of Travancore. *Bull. Centr. Res. Inst. Univ. Travancore*, ser. C, Nat. Hist., **3(1)**: 69-91.
- Kurian, C.V., 1961. Three species of Cumacea from the lakes of Kerala. *Bulletin of the Central Research Institute, University of Kerala. Series C: Natural Sciences*, **8**: 55-61.
- Kurian, C.V., 1965. Cumacea collected by the R.V. Conch during her cruises off the Kerala coast, India, in 1958 and 1959. *Crustaceana*, **8**: 181-189.
- Kurian, C. V. 1985. Estuarine Cumacea. Paper No. 12 (Mimeo). State of Art Report: Estuarine Biology. Workshop on Estuarine Biology, Berhampur (Orissa). Zoological Survey of India, Calcutta.
- Kurian, C.V., 1967. The Cumacea of the Indian seas. In: *Proceedings of the Symposium on Crustacea held at Ernakulam*

from January 12 to 15, 1965. Part II. Symposium Series 2. Marine Biological Association of India, pp. 630-633.

Kurian, C.V. and Radhadevi, A., 1983. A new species of Cumacea (Crustacea, Peracarida) from Vizhinjam, Kerala, India. In: *Selected Papers on Crustacea* (P.A. John ed), pp. 149-154.

Kurian, C.V. and Radhadevi, A., 1986. Distribution of Cumacea along Indian Coasts. In: *Biology of Benthic Marine Organisms: Techniques and Methods as Applied to the Indian Ocean*. (M.F. Thompson, R. Sarojini, & R. Nagabushanam eds), pp. 289-296. Balkema: Rotterdam.

Petrescu, I and Chatterjee, T. 2011. New species and new records of cumaceans (Crustacea: Peracarida: Cumacea) from the Andaman Islands, Indian Ocean. Zootaxa, **2966**(2966):51-57. DOI:[10.11646/zootaxa.2966.1.5](https://doi.org/10.11646/zootaxa.2966.1.5)

Radhadevi, A. and Kurian, C.V., 1981. *Bodotria platybasis* sp. nov. (Crustacea-Cumacea) from the Indian Seas. *Bulletin of the Department of Marine Science, University of Cochin*, **12**: 23-28.

Radhadevi, A. and Kurian, C.V., 1989. A collection of Cumacea from the south west and south east coasts of India. *Records of the Zoological Survey of India, Occasional Paper*, **121**: 1-37.

Radhadevi, A. and Kurian, C.V., 1990. Cumacea from the Visakhapatnam coast, east coast of India. *Journal of the Marine Biological Association of India*, **32**: 25-33.

Venkataraman, K. , Malay Dev Roy and Biju Kumar, A. 2016. State of Art- Crustacean Taxonomy In India. pp. 1-96. In: Training Manual on Crustacean Taxonomy, Edited by Ng, P.K.L., De Grave, S., Yeo, D.C.J., Jayachandran K.V and Biju Kumar, A.