

# MARINE WOOD BORERS

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## INTRODUCTION

Timber structures put to use in marine environment undergo deterioration due to colonization by several biological agencies. Among them, wood borers cause rapid physical damage to the shore installations and marine craft thereby seriously affecting their structural integrity. Since wood is an invaluable forest commodity of great importance, such damage impacts a nation's resources as well as the exchequer very severely. However, on the positive side of it, these animals greatly help in material recycling and nutrient enrichment, especially of coastal waters thus occupying a place of pride in ecosystem dynamics.

Marine wood borers are categorized under three Families *viz.* Sphaeromatidae, Limnoriidae and Cheluridae of the Phylum Arthropoda and two Families, namely, Pholadidae and Teredinidae in the Phylum Mollusca. Several researchers around the globe have been paying lot of attention to the taxonomic aspects of the animals belonging to the said families due to the economic significance attached (Krishna Pillai, 1961; Clapp and Kenk, 1963; Turner, 1966; Jones and Eltringham, 1971; Turner and Santhakumaran, 1989 and Cookson, 1991).

Though considerable number of publications are available on the marine wood borer fauna occurring in different coastal habitats of India (Subba Rao *et al.*, 1991; Santhakumaran, 1994; Balakrishnan Nair and Salim, 1994; Mathew and Govindan, 1995; Radhakrishnan *et al.*, 1996; Kumar *et al.*, 2000; Tarakanadha, 2003; Dev Roy, 2006; Pachu *et al.*, 2008; Rao *et al.*, 2008, 2009; Malik, 2009 and Balaji *et al.*, 2009), a comprehensive list of wood boring fauna of India is presented to serve as a baseline information on the biodiversity of the country.

**SYSTEMATIC LIST**  
**Phylum: Arthropoda**  
**Class: Malacostraca**  
**Order: Isopoda**  
**Family: Sphaeromatidae**

1. *Sphaeroma annandalei* Stebbing, 1911
2. *Sphaeroma annandalei travencorensis* Pillai, 1955
3. *Sphaeroma terebrans* Bate, 1866
4. *Sphaeroma triste* Heller, 1868
5. *Sphaeroma tuberculatum* George, 1963
6. *Sphaeroma walkeri* Stebbing, 1905 [Not a true wood borer]

**Family: Limnoriidae**

7. *Limnoria andamanensis* Lakshmana Rao and Ganapati, 1969
  8. *Limnoria bombayensis* Krishna Pillai, 1961
  9. *Limnoria indica* Becker and Kampf, 1958 [in Becker and Kampf, 1958; often cited wrongly]
  10. *Limnoria insulae* Menzies, 1957
  11. *Limnoria pfefferi* Stebbing, 1904
  12. *Limnoria platycauda* Menzies, 1957
  13. *Limnoria septima* Barnard, 1936
  14. *Limnoria tripunctata* Menzies, 1951
  15. *Limnoria unicornis* Menzies, 1957
- Limnoria* sp.

**Order: Amphipoda**  
**Family: Cheluridae**

*Chelura* sp.

**Phylum: Mollusca**  
**Class: Bivalvia**  
**Order: Myoida**  
**Family: Pholadidae**  
**Subfamily: Pholadinae**

16. *Barnea birmanica* (Phillippi), 1849
17. *Barnea candida* (Linnaeus), 1758
18. *Barnea manillensis* (Phillippi), 1849
19. *Pholas chiloensis* Molina, 1782
20. *Pholas orientalis* Gmelin, 1791

Subfamily: Martesiinae

21. *Lignopholas fluminalis* (Blanford), 1867
22. *Martesia fragilis* Verrill and Bush, 1898
23. *Martesia nairi* Turner and Santhakumaran, 1989
24. *Martesia striata* (Linnaeus), 1758  
*Martesia* sp.

**Subfamily: Xylophaginae**

25. *Xylophaga indica* Smith, 1904
26. *Xylophaga globosa* Sowerby, 1835
27. *Xylophaga mexicana* Dall, 1908  
*Xylophaga* sp.

**Family: Teredinidae**  
**Subfamily: Teredininae**

28. *Bactronophorus thoracites* (Gould), 1856
29. ? *Neoteredo reynei* (Bartsch), 1920
30. *Dicyathifer manni* (Wright), 1866
31. *Teredothyra excavata* (Jeffreys), 1860
32. *Teredothyra matocotana* (Bartsch), 1927
33. *Teredothyra smithi* (Bartsch), 1927
34. *Teredora malleolus* (Turton), 1822
35. *Teredora palauensis* (Edmondson), 1959
36. *Teredora princesae* (Sivickis), 1928
37. *Uperotus clavus* (Gmelin), 1791
38. *Uperotus liberkindi* (Roch), 1931
39. *Uperotus panamensis* (Bartsch), 1922
40. *Uperotus rehderi* (Nair), 1956
41. *Psiloteredo senegalensis* (Blainville), 1828
42. *Teredo aegypos* Moll, 1941
43. *Teredo bartschi* Clapp, 1923
44. *Teredo clappi* Bartsch, 1923
45. *Teredo fulleri* Clapp, 1924
46. *Teredo furcifera* von Martens, 1894
47. *Teredo indomalaiica* Roch, 1935
48. *Teredo mindanensis* Bartsch, 1923
49. *Teredo navalis* Linnaeus, 1758
50. *Teredo parksi* Bartsch, 1921
51. *Teredo portoricensis* Clapp, 1924
52. *Teredo somersi* Clapp, 1924
53. *Teredo triangularis* Edmondson, 1924  
*Teredo* sp.
54. *Lyrodus affinis* (Deshayes), 1863
55. *Lyrodus bipartitus* (Jeffreys), 1860
56. *Lyrodus massa* (Lamy), 1923

57. *Lyrodus medilobatus* (Edmondson), 1942
58. *Lyrodus pedicellatus* (Quatrefages), 1849
59. *Lyrodus singaporeana* Roch, 1935
60. *Lyrodus triste* (Iredale), 1936

#### **Subfamily: Bankiinae**

61. *Nototerredo edax* (Hedley), 1895
62. *Nototerredo knoxi* (Bartsch), 1917
63. *Nototerredo norvagica* (Spengler), 1792  
*Nototerredo* sp.
64. *Spathoterredo obtusa* (Sivickis), 1928
65. *Nausitora dunlopei* Wright, 1864
66. *Nausitora fusticula* (Jeffreys), 1860
67. *Nausitora globosa* (Sivickis), 1928
68. *Nausitora hedleyi* Schepman, 1919
69. *Nausitora oahuensis* (Edmondson), 1942  
*Nausitora* sp.
70. *Bankia australis* (Calman), 1920
71. *Bankia bipalmulata* (Lamarck), 1801
72. *Bankia bipennata* (Turton), 1819
73. *Bankia campanellata* Moll and Roch, 1931
74. *Bankia carinata* (Gray), 1827
75. *Bankia destructa* Clench and Turner, 1946
76. *Bankia fimbriatula* Moll and Roch, 1931
77. *Bankia gracilis* Moll, 1935
78. *Bankia nordi* Moll, 1935
79. *Bankia philippinensis* Bartsch, 1927
80. *Bankia rochi* Moll, 1931  
*Bankia* sp.

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