

FAUNA OF INDIA CHECKLIST

JULY, 2024

ONLINE VERSION 1.0



ARTHROPODA: INSECTA: PHASMIDA

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DOI : <https://doi.org/10.26515/Fauna/1/2023/Arthropoda:Insecta:Phasmida>

Key words: Phasmida, Stick insect, India, checklist, insect diversity.

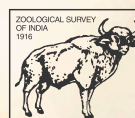
Citation: Chand, D.S., Das, S.K., Srinivasan, G., and Chakraborty, R. (2024) Checklist of Fauna of India: Arthropoda: Insecta: Phasmida. Version1.0 Zoological Survey of India. DOI: <https://doi.org/10.26515/Fauna/1/2023/Arthropoda:Insecta:Phasmida>

Comments on the checklist:

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

ARTHROPODA: INSECTA: PHASMIDA

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Introduction: Phasmida are commonly known as stick insects including the leaf insects. This group of insects are nocturnal in habit and herbivorous. They easily camouflage in nature and have little measures for self defense. The elongate stick insects typically resemble twigs, and leaf insects (Phylliidae) look like broadened, flat leaves, providing one of the best camouflages in the animal world. Phasmids are smooth, scarcely or heavily granulated, and sometimes with extensive spines and tubercles. The legs are similar to one another. Wings are present in many species, but they may be shortened or even absent. While they frequently are green or brown to better match vegetation, phasmids sometimes are brightly colored or boldly striped. Species with colorful hind wings rank among the most spectacular of all insects. They are also blessed by several peculiarities such as high fecundity, gregarious nature, polyphagy and power to regenerate lost body parts. Most species are apterous or with reduced wings particularly forewings are strongly abbreviated. Extreme sexual dimorphism is the major problem in the identification of phasmids.

Global diversity: The order Phasmida is represented by 3,464 species of 8 families globally.

Diversity in India: In India there are 139 species of Phasmids belonging to 49 genera and 4 families. 94 species are endemic to India.

Diversity in States (Table)

Sl.No.	State/Union Territory	No. Species	No. Endemic Species
1	Andhra Pradesh	0	0
2	Arunachal Pradesh	7	3
3	Assam	29	13
4	Bihar	0	0
5	Chhattisgarh	0	0
6	Gujarat	0	0
7	Goa	0	0
8	Haryana	0	0
9	Himachal Pradesh	1	0
10	Jharkhand	3	0
11	Karnataka	5	4
12	Kerala	24	15
13	Madhya Pradesh	0	0
14	Maharashtra	3	0
15	Manipur	0	0
16	Meghalaya	8	5

Sl.No.	State/Union Territory	No. Species	No. Endemic Species
17	Mizoram	0	
18	Nagaland	7	4
19	Odisha	2	1
20	Punjab	0	0
21	Rajasthan	1	1
22	Sikkim	16	12
23	Tamil Nadu	48	34
24	Telangana	0	0
25	Tripura	0	0
26	Uttar Pradesh	0	0
27	Uttarakhand	0	0
28	West Bengal	30	20
29	Andaman & Nicobar	8	5
30	Chandigarh	0	0
31	Dadra Nagar Haveli, Daman & Diu	0	0
32	Delhi	0	0
33	Jammu & Kashmir	0	0
34	Ladakh	1	1
35	Lakshadweep	0	0
36	Puducherry	0	0
37	State Unknown	11	6

Endemism: Altogether, 94 species Phasmida are endemic to India.

Habitat: Found in a variety of habitats, phasmids can be abundant in wet and dry forests and in grasslands. In some countries they are common in gardens. Although they sometimes are found resting on or near their food plants in the daytime, they often are well hidden under leaves on the forest floor or in crevices. Phasmids feed on leaves, taking large, circular bites out of the edges. A few species also eat flowers or bark. Some species have very few host plants, whereas many others accept the leaves of numerous different plants. Some species frequent treetops and hence are seen rarely. Mostly nocturnal and remaining motionless in the daytime, phasmids blend in with the background; hence procrystis (concealment from predators) is the primary defense. Some species even have the ability to change color to match their surroundings better, perhaps becoming a darker shade toward night time.

Ecological Significance: Phasmids are herbivorous, feeding mostly on the leaves of trees and shrubs. Their role in the forest ecosystem is considered important in maintaining [succession](#) and resilience in forests, however occasionally they are also injurious to forests and shade trees by defoliation. In some parts of the world it has been reported that continuous defoliation over several years often results in the death of trees on which it feeds. Since Phasmids cannot fly the infestation caused by them are limited only to a restricted area, as they eat the entire leaf blade. In western part of the world researchers have investigated the feasibility of controlling stick insects using natural enemies such as [parasitic wasps](#).

Human Significance: Indirectly Phasmids cause injury to their host plants as they feed on the entire leaf blade, some species have been known to defoliate forest trees and cause economic losses to shrubbery and shade trees.

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

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

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

Invasive alien species: No Phasmida species are reported to be invasive in India.

Gap areas: Phasmida is poorly documented throughout the country.

Systematic list:

Indian stickinsects belonging to the following major groups off our families. Order Phasmida

Suborder Euphasmatodea

1. Superfamily Aschiphasmatoidea Brunnervon Wattenwyl, 1893
 - a. Family Aschiphasmidae Brunner von Wattenwyl, 1893
2. Superfamily Phyllioidea Brunner von Wattenwyl, 1893b.
 - b. Family Phylliidae Brunner von Wattenwyl, 1893
3. Superfamily Pseudophasmatoidea Rehn, 1904
 - c. Family Diapheromeridae Kirby, 1904
 - d. Family Phasmatidae Leach, 1815

Species list

Superfamily Aschiphasmatoidea

Family Aschiphasmidae

Subfamily Aschiphasmatinae

Tribe Aschiphasmatini

1. *Abrosoma apterum* Redtenbacher, 1906
2. *Abrosoma carinulatum* Redtenbacher, 1906.
3. *Abrosoma flavoguttatum* Redtenbacher, 1906
4. *Abrosoma integer* (Redtenbacher, 1908).
5. *Abrosoma modestum* Redtenbacher, 1906.
6. *Abrosoma sericeum* Redtenbacher, 1906
7. *Abrosoma simplex* Giglio-Tos, 1910.
8. *Abrosoma singulare* Redtenbacher, 1906.
9. *Abrosoma virescence* Redtenbacher. 1906.
10. *Aschiphasma annulipes* Westwood, 1834
11. *Coloratobistus villosum* (Redtenbacher, 1908).
12. *Dinophasma nathani* Bragg, 2001.
13. *Kerabistus (Kerabistus) fulvescens* (Redtenbacher. 1906)
14. *Presbistus peleus* (Gray, 1835)

Superfamily Phyllioidea

Family Phylliidae

Subfamily Phylliinae

Tribe Phylliini

15. *Phyllium (Phyllium) westwoodii* Wood-Mason, 1875.
16. *Phyllium (Pulchriphyllium) bioculatum* Gray, 1832.

Family Diapheromeridae

Subfamily Necrosiinae

17. *Asceles annandalei* Günther, 1938.
18. *Asceles elongates* Redtenbacher, 1908.
19. *Calvisia (Conocalvisia) fuscoalata* Redtenbacher, 1908.

20. *Calvisia (Conocalvisia) hilaris* (Westwood,1848).
21. *Lopaphus bootanicus* (Westwood,1859).
22. *Lopaphus trilineatus* (Carl,1913).
23. *Marmessoideaannulata*(Fabricius.1798).
24. *Marmessoidea casignetus* (Westwood,1859).
25. *Marmessoidea flavomarginata* Redtenbacher,1908.
26. *Marmessoidea rosea* (Westwood,1859).
27. *Necroscia manicata* (Lichtenstein,1802).
28. *Paranecroscia bimaculata* (Olivier,1792).
29. *Paranecroscia marginata* (Gray,1835).
30. *Neohirasea obesus* (Brunner von Wattenwyl,1907).
31. *Orxines rugulosus* (Redtenbacher,1908).
32. *Oxyartes crespontes* (Westwood,1859).
33. *Oxyartes despectus* (Westwood,1848).
34. *Parasipyloidea fictus* (Redtenbacher,1908).
35. *Parasipyloidea montana* Redtenbacher,1908.
36. *Parasipyloidea shiva* (Westwood,1859).
37. *Parasosibia descendens* Redtenbacher,1908.
38. *Parasosibia inferior* Redtenbacher,1908.
39. *Parasosibia maculate* Redtenbacher,1908.
40. *Parasosibia parva* Redtenbacher,1908.
41. *Parasosibia villosa* Redtenbacher,1908.
42. *Pseudososibia albidotarsi* Srinivasan *etal.*2018.
43. *Maculonecroscia menaka* (Wood-Mason,1877).
44. *Sipyloidea acutipennis* (Bates,1865).
45. *Sipyloidea atricoxis* (Westwood,1859).
46. *Sipyloidea breviaalata* Redtenbacher,1908.
47. *Sipyloidea fontanesina* Giglio-Tos,1910.
48. *Sipyloidea inscia* Redtenbacher,1908.
49. *Sipyloidea nitida* Günther,1938.
50. *ipyloidea stigmata* Redtenbacher,1908.
51. *Sipyloidea sipylus* (Westwood,1859).
52. *Sosibia pholidotus* (Westwood,1859).
53. *Tagesoidea tages* (Westwood,1859).
54. *Trachythorax maculicollis* (Westwood,1848).
55. *Trachythorax planiceps* Redtenbacher,1908.
56. *Trachythorax sparaxes* (Westwood,1859).

Subfamily Pachymorphinae

Tribe Gratidiini

57. *Clonaria beroe* (Westwood,1859).
58. *Clonaria indica* (Gray,1835).
59. *Ladakhomorpha longipes* Hennemann & Conle,1999.
60. *Sceptrophasma hispidulum* (Wood-Mason,1873).
61. *Sceptrophasma humilis* (Westwood,1859).

Family Phasmatidae

Subfamily Clitumninae

Tribe Clitumnini

62. *Cuniculina cunicula* (Westwood,1859).
63. *Cuniculina insignis* (Wood-Mason,1873).
64. *Cuniculina stilpna* (Westwood,1859)

65. *Metentoria regulus* (Westwood,1859).
66. *Ramulus aboricus* (Giglio-Tos,1914).
67. *Ramulus alauna* (Westwood,1859).
68. *Ramulu salienus* (Brunner von Wattenwyl,1907).
69. *Ramulus angustior* (Brunner von Wattenwyl,1907).
70. *Ramulus anterior* (Brunner von Wattenwyl,1907).
71. *Ramulus arrogans* (Brunner von Wattenwyl,1907).
72. *Ramulus artemis* (Westwood,1859).
73. *Ramulus ceylonense* Otte & Brock,2005.
74. *Ramulus cylindriceps* (Brunner von Wattenwyl,1907).
75. *Ramulus decolyi* (Brunner von Wattenwyl,1907).
76. *Ramulus emendates* Brunner von Wattenwyl,1907.
77. *Ramulus filiformis* (Herbst,1786).
78. *Ramulus frustrans* (Brunner von Wattenwyl.1907).
79. *Ramulus hydrocephalus* (Brunner von Wattenwyl,1907).
80. *Ramulus laevigatus* (Wood–Mason,1873).
81. *Ramulus neomodestus* Otte&Brock,2005.
82. *Ramulus oberthuri* (Brunner von Wattenwyl,1907).
83. *Ramulus operculatus* (Brunner von Wattenwyl,1907).
84. *Ramulus penthesilea* (Wood–Mason,1873).
85. *Ramulusperfidus*(Giglio–Tos,1914).
86. *Ramulus rotunginus* (Giglio–Tos,1914).
87. *Ramulus russellii* (Bates,1865).
88. *Ramulus westwoodii* (Wood–Mason,1873).
89. *Rhamphophasma mallati* Brunner von Wattenwyl.1907.
90. *Rhamphophasma spinicorne* (Stål,1875).

TribeMedaurini

91. *Medaura austeni* (Wood–Mason,1875).
92. *Medaura scabriuscula* (Wood–Mason,1873).

Tribe Pharnaciini

93. *Phobaeticus ingens* (Redtenbacher,1908).
94. *Phobaeticus sinetyi* Brunner von Wattenwyl.1907.
95. *Phobaeticus annamallayanus* (Wood–Mason,1877).
96. *Phryganistria virgea* (Westwood,1848).
97. *Tirachoidea biceps* (Redtenbacher,1908).
98. *Tirachoidea westwoodii* (Wood–Mason,1875).
99. *Eupromachus alienigenus* Brunner von Wattenwyl,1907.

Subfamily Lonchodinae

Tribe Lonchodini

100. *Carausius abdominalis* (Brunner von Wattenwyl,1907).
101. *Carausius bolivari* (Brunner,1907).
102. *Carausius burri* Brunner von Wattenwyl,1907.
103. 103.*Carausius debilis* Brunner von Wattenwyl,1907.
104. *Carausius furcillatus* Pantel,1917.
105. *Carausius hilaris* Brunner von Wattenwyl,1907.
106. 106.*Carausius imbellis* Brunner von Wattenwyl,1907.
107. 107.*Carausius insolens* Brunner von Wattenwyl.1907.
108. 108.*Carausius juvenilis* Brunner von Wattenwyl,1907.
109. *Carausius lobulatipes* Pantel,1917.
110. *Carausius mancus* Brunner von Wattenwyl,1907.

111. *Carausius morosus* (Sinéty).
112. *Carausius nodosus* (Haan, 1842).
113. *Carausius patruclis* Brunner von Wattenwyl, 1907.
114. *Carausius pustulosus* Pantel, 1917.
115. *Carausius rotundatolobatus* Brunner von Wattenwyl, 1907.
116. *Carausius rudissimus* Brunner von Wattenwyl, 1907.
117. *Carausius sikkimensis* Brunner von Wattenwyl, 1907.
118. *Carausius theiseni* Cap. Baill, Fave & de Vichet, 1934.
119. *Carausius vacillans* Brunner von Wattenwyl, 1907.
120. *Lonchodes brevipes* Gray, 1835.
121. *Lonchodes decolyanus* Brunner von Wattenwyl, 1907.
122. *Lonchodes myrina* Westwood, 1859.
123. *Lonchodes normalis* Brunner von Wattenwyl, 1907.
124. *Lonchodes verrucifer* Wood-Mason, 1876.
125. *Megalophasma asperatum* (Bates, 1865).
126. *Menexenus lacertinus* (Westwood, 1848).
127. *Menexenus nudiusculus* Hausleithner, 1992.
128. *Menexenus obtusespinosus* Sinéty, 1901.
129. *Menexenus quadrilobatus* Brunner von Wattenwyl, 1907.
130. *Menexenus rotunginus* Giglio-Tos, 1914.
131. *Menexenus semiarmatus* (Westwood, 1848).
132. *Menexenus tenmalainus* Günther, 1938.
133. *Myronides baucis* (Westwood, 1859).
134. *Myronides curvithorax* Brunner von Wattenwyl, 1907.
135. *Pericentrus bicoronatus* (Westwood, 1848).
136. *Pericentrus pinnatus* Redtenbacher, 1908.
137. *Prisomera asperum* (Brunner von Wattenwyl, 1907).
138. *Pseudostheneboea minor* Carl, 1913.
139. *Pseudostheneboea segregate* Carl, 1913.

Summary: The order Phasmida is represented by 3464 species globally under 8 families, where as in India, there are 139 species belonging to 49 genera and 4 families. 94 species of Phasmida are endemic to India.

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