

FAUNA OF INDIA CHECKLIST

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ARTHROPODA: INSECTA: MECOPTERA

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Comments on the checklist:

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

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Introduction: The order Mecoptera (*Mecos*=long; *Ptera*=wings) are commonly called as Scorpionflies, due to enlarged and upturned male genitals in the family Panorpidae. They are small to medium sized fly like insects with long and beak like rostra and long narrow wings. They prefer damp and moist environment. Adults are scavengers feed on decaying vegetation and dead soft bodied invertebrates. Species of *Panorpa* are known to raid spider webs to feed on trapped insects and the spiders. They have elaborate courtship behaviour where males provide nuptial gift (insect prey) to the female before mating. Female lay eggs in in moist leaf litter and moss, the larvae are caterpillar like and feed on vegetable matter. Mature larvae pupate under leaf litter and dead logs and emerge during wet season.

Global diversity: Globally 684 species under 37 genera and 9 families are known.

Diversity in India: In India 23 species in two genera and two families are known.

Diversity of Mecoptera in States and Union Territories

Sl.No.	State/Union Territory	No. Species	No. Endemic species
1	Andhra Pradesh	0	0
2	Arunachal Pradesh	0	0
3	Assam	3	3
4	Bihar	0	0
5	Chhattisgarh	0	0
6	Gujarat	1	0
7	Goa	0	0
8	Haryana	0	0
9	Himachal Pradesh	2	2
10	Jharkhand	0	0
11	Karnataka	1	1
12	Kerala	3	3
13	Madhya Pradesh	0	0
14	Maharashtra	2	2
15	Manipur	0	0
16	Meghalaya	0	0
17	Mizoram	0	0
18	Nagaland	0	0
19	Odisha	0	0
20	Punjab	0	0

Sl.No.	State/Union Territory	No. Species	No. Endemic species
21	Rajasthan	0	0
22	Sikkim	4	3
23	Tamil Nadu	7	6
24	Telangana	0	0
25	Tripura	0	0
26	Uttarpradesh	0	0
27	Uttarakhand	1	1
28	West Bengal	3	3
29	Andaman & Nicobar	0	0
30	Chandigarh	0	0
31	Dadra Nagar Haveli, Daman & Diu	0	0
32	Delhi	0	0
33	Jammu & Kashmir	0	0
34	Ladakh	0	0
35	Lakshadweep	0	0
36	Puducherry	1	0
	State Unknown	1	1
	INDIA TOTAL	23	20

Endemism: Twenty species are endemic to India.

Habitat: Moist forests and thickly wooded area with damp conditions. Frequently found along streams, especially during the monsoon.

Ecological Significance: Mecopteran larvae are important component and soil and leaf litter fauna.

Human Significance: Mecoptera are used in forensic as they are first insects to colonize human corpses and remain there for one or two days.

Threatened species: No threatened species are reported from India.

Protected Species as per WPA (2022): Species reported from India are not listed under any Schedules of the Wildlife Protection Act.

Species under CITES: Species reported from India are not listed under CITES.

Invasive alien species: No invasive alien species are reported from this order.

Gap areas: Mecopterans are nor recorded from many states indicating inadequate surveys for this insect.

Checklist of Mecoptera

Family: Bittacidae Handlirsch, 1906

1. *Bittacus henryi* Kimmins, 1928
2. *Bittacus indicus* Walker, 1853
3. *Bittacus latipennis* Gerstaecker, 1885
4. *Bittacus nodosus* Rust and Byers, 1976

5. *Bittacus teraiensis* Penny, 1969

Family: Panorpidae Laterille, 1802

6. *Neopanorpa echinata* Rust and Byers, 1976
 7. *Neopanorpa fenestrata* (Needham, 1909)
 8. *Neopanorpa flava* Esben Peterson, 1915
 9. *Neopanorpa appendiculata* Westwood, 1846
 10. *Neopanorpa benaci* Navas, 1935
 11. *Neopanorpa contracta* Cheng, 1953
 12. *Neopanorpa cornuta* Esben Peterson, 1915
 13. *Neopanorpa denticulata* Rust and Byers, 1976
 14. *Neopanorpa effusa* (Navas, 1914)
 15. *Neopanorpa gibbosa* Rust and Byers, 1976
 16. *Neopanorpa hirsuta* (Crampton, 1931)
 17. *Neopanorpa indica* Rust and Byers, 1976
 18. *Neopanorpa nipalica* (Navas, 1910)
 19. *Neopanorpa ocellaris* (Navas, 1908)
 20. *Neopanorpa ochrura* Rust and Byers, 1976
 21. *Neopanorpa salai* Navas, 1929
 22. *Neopanorpa sordida* (Needham, 1909)
 23. *Neopanorpa zebrata* Esben Peterson, 1915

References:

Chandra, K. (2004). Checklist of Mecoptera from India. Rec. zool. Surv. India: 102 (Part 1-2) : 73-76.

<https://www.catalogueoflife.org/data/taxon/3J4>