

FAUNA OF INDIA CHECKLIST

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ARTHROPODA: DIPLURA

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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 class Diplura includes soft bodied wingless minute arthropodans. They are sometimes called "two-pronged bristletails." Diplurans are mostly between 2 mm and 5 mm long, although some species of *Japyx* may reach 50 mm. They have no eyes and, apart from the darkened cerci in some species, they are unpigmented. They have long antennae with ten or more bead-like segments projecting forward from the head, and a pair of cerci projecting backwards from the last of the eleven abdominal somites. These cerci may be long and filamentous or short and pincer-like, sometimes leading to occasional confusion with earwigs. These cerci give the group its name, from the Greek words diplo ("two") and uros ("tail"). The species of this fauna show high agility, however, their collection and preservation for identification becomes more difficult due to their fragile nature. Silvestri (1931, 1933) Rani and Mitra (1977) are pioneer workers on dipluran fauna from India. A checklist that has been prepared by Mandal reflect 18 species in 9 genera under 4 families of Indian Diplura .

Global Diversity: The global diversity of the class Diplura comprises 976 species (Condé and Pagés, 1991).

Diversity in India: The first Indian species of Diplura was raised up to the global scientific community by the work of Silvestri (1913, 1930, 1931, 1933), later he described several species of Diplura from India. Rani & Mitra (1977) described a subspecies of Campodeid Diplura from India. The Indian fauna is represented by 18 species in 09 genera under 04 families (Mandal, 2011).

Table-1: Diversity of Diplura in the various states of India

Sl. No.	State/UT	No. of Species	No. of Endemic Species
	INDIA TOTAL	18	10
1	Andhra Pradesh	0	0
2	Arunachal Pradesh	0	0
3	Assam	0	0
4	Bihar	1	1
5	Chhattisgarh	0	0
6	Gujarat	0	0
7	Goa	0	0
8	Haryana	0	0
9	Himachal Pradesh	1	1
10	Jharkhand	5	2
11	Karnataka	0	0
12	Kerala	0	0

Sl. No.	State/UT	No. of Species	No. of Endemic Species
13	Madhya Pradesh	0	0
14	Maharashtra	4	3
15	Manipur	0	0
16	Meghalaya	0	0
17	Mizoram	0	0
18	Nagaland	0	0
19	Odisha	2	2
20	Punjab	0	0
21	Rajasthan	3	2
22	Sikkim	0	0
23	Tamil Nadu	1	1
24	Telangana	0	0
25	Tripura	0	0
26	Uttar Pradesh	1	0
27	Uttarakhand	0	0
28	West Bengal	4	3
29	Andaman & Nicobar	1	1
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	0	0
37	State Unknown	0	0

Endemism: 10 species are endemic to India with 07 species from Japygidae, 02 from Campodeidae and 01 from Projapygidae families respectively.

Habitat: They can be found under stones, leaf litter, forest floor, mountain ecosystem, agricultural fields and any suitable substratum where a little moisture is available.

Ecological Significance: Diplurans play a great role in the terrestrial ecosystem. They feed on soil micro and meso-arthropods, soil mites, fungi etc. They also feed on detritus and even diplurans also.

Human Significance: They play a very important role in maintaining soil fertility through decomposition and humification of organic matters.

Threatened species as per IUCN: There is no such species as threatened under IUCN under this taxa.

Protected species as per WPA (2022): There is no such species as protected species as per WPA (2022) in this class.

Species under CITES: There is no such species under CITES.

Invasive alien species: There is no such species as Invasive alien species (IAS) under this class.

Gap areas: Presently, fauna of this group are very less studied due to their presence being limited to the littered soil along-with scarce scattered literature to support its study. Out of 28 states and 08 UTs diplurans have been reported only from the states of Bihar, Himachal Pradesh, Jharkhand, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttarakhand, West Bengal, Andaman and Nicobar. So a lot more studies are to be done on this group from India.

Systematic list of Diplura of India (Endemic species marked with*)

Class Diplura Börner, 1904

Family Anajapygidae Bagnall, 1918

1. *Anajapyx carli* Pagés, 1997

Family Japygidae Haliday, 1864

2. *Japyx meridionalis* Silvestri, 1948
3. *Mesjapyx immsi* (Silvestri, 1931) Paclt 1985*
4. *Indjapyx annandalei* Silvestri, 1931*
5. *Indjapyx graveleyi* Silvestri, 1931*
6. *Indjapyx harrisoni* Silvestri, 1936
7. *Indjapyx indicus* (Oudemans, 1891)
8. *Indjapyx petrunkevitchi* Silvestri, 1936
9. *Indjapyx heteronotus* Silvestri, 1931*
10. *Indjapyx pruthii* Silvestri, 1931*
11. *Indjapyx seymourii* Silvestri, 1931*
12. *Grassjapyx indica* (Silvestri, 1913) *

Family Projapygidae Cook, 1896

13. *Symphylurinus indicus* Silvestri, 1937
14. *Simlacampa clayae* Conde, 1957*

Family Campodeidae Lubbock, 1873

15. *Lepidocampa (Lepidocampa) juradil bengalensis* Satya Rani & Mitra, 1977*
16. *Lepidocampa juradoi* Silvestri, 1931

Family Protentomidae Mills, 1932

17. *Lepidocampa weberi* Oudemans, 1890

Family Eosentomidae Berlese, 1909

18. *Paracampa graveleyi* (Silvestri, 1933) *

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