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# ZOOLOGICAL SURVEY OF INDIA

Ministry of Environment, Forest & Climate Change

## ARTHROPODA: ARACHNIDA: AMBLYPYGI, Thorell, 1883

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Comments on the checklist:

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# FAUNA OF INDIA CHECKLIST



# ARTHROPODA: ARACHNIDA: AMBLYPYGI, Thorell, 1883

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**Introduction:** Amblypygi, commonly known as whip spiders or tailless whip scorpions, is an order of arachnids that look fierce but are harmless to humans. They have a flat body, large spiny raptorial pedipalps for capturing prey, and extremely long, whip-like first legs used as sensory organs (Weygoldt, 2000). Unlike true spiders, they lack silk glands and venom, and they do not have a telson like scorpions (Foelix & Hebets, 2001). Amblypygids are nocturnal hunters that rely on their sensitive legs to detect vibrations in complete darkness. They move sideways like crabs and communicate using tactile signals. Some species even exhibit social behaviours, including maternal care (Rayor & Taylor, 2006). Fossil evidence suggests they have existed for over 300 million years, evolving alongside early arachnids (Garwood *et al.*, 2017). They are found in tropical and

subtropical regions worldwide, often hiding under rocks, barks, and caves.

**Global diversity:** At present, a total of 279 known species of whip spiders or tail-less whip scorpions are divided among 18 genera under 05 families namely Charinidae, Charontidae, Paracharontidae, Phrynichidae and Phrynidae. However, 13 fossil species under 08 genera have also been described. (World Amblypygi Catalog, 2022)

**Diversity in India:** So far, only 08 species belonging to 02 genera under 02 families have been described from India. However, one fossil species namely *Paracharonopsis cambayensis* Engel and Grimaldi, 2014 under Family Paracharontidae has also been reported from India.

## Diversity in States:

| Sl. No. | State/Union Territory | No. of Species | No. of Endemic Species |
|---------|-----------------------|----------------|------------------------|
|         | <b>INDIA Total</b>    | <b>09</b>      | <b>07</b>              |
| 1       | Andhra Pradesh        | 2              | 2                      |
| 2       | Arunachal Pradesh     | 0              | 0                      |
| 3       | Assam                 | 1              | 1                      |
| 4       | Bihar                 | 0              | 0                      |
| 5       | Chhattisgarh          | 0              | 0                      |
| 6       | Gujarat               | 1              | 1                      |
| 7       | Goa                   | 1              | 1                      |
| 8       | Haryana               | 0              | 0                      |
| 9       | Himachal Pradesh      | 0              | 0                      |
| 10      | Jharkhand             | 0              | 0                      |
| 11      | Karnataka             | 0              | 0                      |



| Sl. No. | State/Union Territory           | No. of Species | No. of Endemic Species |
|---------|---------------------------------|----------------|------------------------|
| 12      | Kerala                          | 3              | 3                      |
| 13      | Madhya Pradesh                  | 0              | 0                      |
| 14      | Maharashtra                     | 1              | 1                      |
| 15      | Manipur                         | 0              | 0                      |
| 16      | Meghalaya                       | 0              | 0                      |
| 17      | Mizoram                         | 0              | 0                      |
| 18      | Nagaland                        | 0              | 0                      |
| 19      | Odisha                          | 1              | 1                      |
| 20      | Punjab                          | 0              | 0                      |
| 21      | Rajasthan                       | 0              | 0                      |
| 22      | Sikkim                          | 0              | 0                      |
| 23      | Tamil Nadu                      | 3              | 2                      |
| 24      | Telangana                       | 0              | 0                      |
| 25      | Tripura                         | 0              | 0                      |
| 26      | Uttar Pradesh                   | 0              | 0                      |
| 27      | Uttarakhand                     | 0              | 0                      |
| 28      | West Bengal                     | 1              | 1                      |
| 29      | Andaman & Nicobar Islands       | 1              | 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                      | 0              | 0                      |
| 37      | State Unknown                   | 0              | 0                      |

**Endemism:** A total of 09 species (including one fossil species) of Order Amblypygi have been reported so far from India. Out of these, seven (07) species are endemic to India.

**Habitat:** Tail-less whip scorpions are most common in tropical and subtropical regions worldwide; they are mainly found in warm and humid environments and like to stay protected and hidden within leaf litter, caves, or underneath bark (Pocock, 1900).

**Ecological Significance:** Tail-less whip-scorpions are active predators, feeding upon small insects such as crickets, mealworms, and cockroaches. Sometimes, the whip spiders feed

on moths, prawns, spiders, schizomids, opiliones, millipedes, scorpions, even on vertebrates like humming bird and anoline lizard (Owen & Cokendolpher, 2006). Being predatory in nature, whip spiders help in maintenance of ecological balance by regulating the richness of its prey.

**Human Significance:** The whip spiders are now-a-days kept as pets and are in demand in the European market.

**Threatened species:** None of the species is included in the list of threatened species as per IUCN.



**Protected Species as per IWPA (2022):** None of the species is considered as protected species as per IWPA (2022).

**Species under CITES:** None of the species is considered under CITES.

**Invasive alien species:** None of the species is treated as invasive alien species.

**Gap areas:** As the whip spiders are nocturnal in habit and live in extreme environments, detailed study of this group is yet to be performed. In India, whip spiders are very poorly documented and only few scientists in India are working on this group. More study of this predatory animal is required to understand its role in the ecosystem.

### Systematic list of Amblypygi of India (*Endemic species marked with \**)

#### Order Amblypygi Thorell, 1883

##### Family Charinidae Quintero, 1986

1. *Sarax bengalensis* (Gravely, 1911) \*
2. *Sarax bispinosus* (Nair, 1934)
3. *Sarax cochinensis* (Gravely, 1915) \*
4. *Sarax cochinensis cochinensis* (Gravely, 1915) \*
5. *Sarax sarawakensis* (Thorell, 1888)

##### Family Paracharontidae Weygoldt, 1996

6. *Paracharonopsis cambayensis* Engel and Grimaldi, 2014 \*

##### Family Phrynichidae Simon, 1892

7. *Phrynichus andhraensis* Bastawade, Rao, Maqsood Javed and Krishna, 2005 \*
  8. *Phrynichus nigrimanus* (C.L. Koch, 1847) \*
- Phrynichus phipsoni* Pocock, 1894 \*

#### References:

- Foelix, R.F. and Hebets, E.A. 2001. Sensory Biology of Whip Spiders (Arachnida, Amblypygi). *Andrias*, **15**: 129–140.
- Garwood, R. J., Dunlop, J. A., Knecht, B. J., and Hegna, T. A. 2017. The phylogeny of fossil whip spiders. *BMC evolutionary biology*, **17**: 1-14.
- Owen, J. L. and Cokendolpher, J. C. 2006. Tailless whipscorpion (*Phrynus longipes*) feeds on Antillean crested hummingbird (*Orthorhyncus cristatus*). *The Wilson Journal of Ornithology*, **118**: 422–423.
- Pocock, R.I. 1900. The fauna of British India, including Ceylon and Burma. Arachnida. Taylor and Francis, London: 279 pp.
- Rayor, L. S. and Taylor, L. A. 2006. Social behavior in amblypygids, and a reassessment of arachnid social patterns. *The Journal of Arachnology*, **34**(2): 399-421.
- Weygoldt, P. 2000. Whip Spiders (Chelicerata: Amblypygi). Their Biology, Morphology and Systematics. Apollo Books, Stenstrup: 163 pp.
- World Amblypygi Catalog. 2022. *World Amblypygi Catalog*. Natural History Museum Bern, online at <http://wac.nmbe.ch> (accessed on 17th January, 2025).

