

Discovery of New Spider and Parasitic Wasp Species

Why in News?

In a remarkable development, scientists from the **Zoological Survey of India (ZSI)** have announced the discovery of a new species of **wolf spider** and four new species of **spider-egg parasitic wasps** in the state of West Bengal, India.

Key Points

- About: The findings highlight the region's rich yet largely unexplored biodiversity and have been documented in recent publications in esteemed international journals.
 - The discovery of both the *Piratula acuminata* spider and the *Idris* wasps underscores the importance of systematic taxonomy and molecular tools in unveiling India's hidden biodiversity.
- New species of wolf spider- Piratula acuminata:
 - One of the standout discoveries is the identification of Piratula acuminata, a new species
 of wolf spider. This marks the first record of the genus Piratula in India.
 - The spider was found on Sagar Island, which is part of the ecologically sensitive <u>Sundarbans delta</u>—a region that is home to diverse wildlife and complex ecosystems.
 - The newly discovered spider belongs to the *Lycosidae* family, commonly known as wolf spiders.
 - Unlike other spiders that weave webs, wolf spiders are known for their agile and nocturnal hunting skills. They are **ambush predators**, capturing prey with incredible precision and speed.
 - This medium-sized spider, measuring approximately 8 to 10 millimeters, is easily distinguished by its creamy-white body adorned with brown and chalk-white spots.
 - Its unique genital structures further set it apart as an undocumented species, signaling its novelty to the scientific community.
- Four New Species of Parasitoid Wasps- Idris:
 - In a separate study, another group of ZSI researchers, led by K. Rajmohana, described four new species of parasitoid wasps belonging to the genus *Idris* (Hymenoptera: Scelionidae).
 - These wasps, identified as *Idris bianor*, *Idris furvus*, *Idris hyllus*, and *Idris longiscapus*, were collected from agroecosystems and semi-natural habitats across West Bengal between 2021 and 2023.
 - Parasitoid wasps, especially those in the *Idris* genus, play an essential role in controlling spider populations.
 - As primary egg parasitoids of jumping spiders (Salticidae), these wasps exhibit gregarious parasitism, where multiple wasps emerge from a single spider egg sac. This unusual behaviour highlights the fascinating and complex relationships within ecosystems.

Zoological Survey of India (ZSI)

ZSI is a subordinate organization of the Ministry of Environment, Forest and Climate
 Change (MoEFCC) and was established in 1916 as a national center for the faunistic survey and

- exploration of the resources, leading to the advancement of knowledge on the exceptionally rich faunal diversity of the country.
- It has its headquarters at Kolkata and 16 regional stations located in different geographic locations of the country.

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