New Damselflies from Arunachal Pradesh & Nagaland

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Why in News?

Recently, a Mumbai-based doctor and wildlife researchers discovered 7 new species with the findings published in the journal Zootaxa.

- Damselflies are an *Odonate* species *within the suborder Zygoptera.*

  Dragonflies and damselflies constitute the insect order Odonata, and are collectively known as odonates. These predatory, amphibious insects are known for their aquatic larvae and terrestrial, winged adult stages.

- **Scientific Names**
  - Calicnemia ardena (Fiery Oread)
  - Calicnemia Arunachala (Broad-striped Oread)
  - Calicnemia flavovittata (Yellow-striped Oread)
  - Calicnemia mimumkoa (Epsilon Oread)
  - Calicnemia naga (Tiger Oread)
  - Calicnemia rubromacula (Red-spotted Oread)
  - Coeliccia magna (Greater Sylvan)
- **Genus –**
  - Calicnemia
  - Coeliccia
- **Discovery –** With these discoveries, ***India now hosts 14 species of the genus Calicnemia***, making it a global hotspot for the genus.
- **Habitat –** Freshwater habitats, forest streams, and hill habitats.
- **Distribution –** Mainly discovered in the Upper Siang district, Arunachal Pradesh and Some records from Nagaland
- **Key Characteristics –** Usually slenderer, with eyes separated and wings folded together along the body at rest.

- **Key Identification**
  - Fiery Oread has orange spots on its head.
  - Broad-striped Oread has broad stripes on the thorax.
  - Yellow-striped Oread for its yellow stripes on the thorax.
  - Epsilon Oread for ‘e’-shaped genitalia
  - Tiger Oread for its yellow and black bands on its face.
  - Red-spotted Oread has a red spot on its abdomen.
  - Coeliccia magna is the largest size in Indian Sylvans.
- **Variation** – Scientists identified the species by studying the shape of a special male reproductive part called the **genital ligula**, which helps distinguish different damselfly species.
- **Unique split filaments** – Two species (*C. ardena* and *C. rubromacula*) have short, split reproductive filaments, which led researchers to create a ***new group called the “ardena group.”***
- **Diet –** Feed on insects like mosquitoes, flies, midges, moths, and butterflies, often catching them mid-air.
- **Threat –** Damselflies' life cycle depends on clean water habitats.
- **Ecological Significance –** Odonate species are known as ***ecological bioindicators*** of healthy, clean wetlands.
- Highlights the rich biodiversity of Northeast India
- Odonates helps to control populations of other insects, including mosquitoes.



References

1. Midday | New Damselfly Species Discovered in Arunachal Pradesh
2. EastMojo | New Damselfly Species Discovered

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