Discovery of new moth species

Prelims: *Current events of national and international importance | Conservation*

Why in News?

Scientists recently discover 2 new lichen moth species namely, Caulocera hollowayi and Asura buxa in the eastern Himalayas.

- It represents a significant addition to India's biodiversity records, particularly within the **Lepidoptera** group.
- Lepidoptera is the ***second-largest order of insects***, comprising butterflies and moths.

Species Name	Discovery Location	Key Identifiers
Caulocera hollowayi	Near Golitar, **Sikkim**	Named after the late Dr. Jeremy D. Holloway, a renowned lepidopterist. Distinguished by unique wing color patterns and microscopic reproductive structures.
Asura buxa	Panijhora, **West Bengal**	Named after the **Buxa Tiger Reserve** region where it was found. Identified through its specific wing bands and "chaetotaxy" (the arrangement of tiny body scales/bristles).

- **Ecological Importance - "Bio-indicators" -** Lichen moths are of high interest to environmental scientists because of their specific life cycle.
- **Dietary Niche -** As caterpillars, these moths feed almost exclusively on **lichens**.
- **Environmental Sensors -** Lichens are highly sensitive to air pollution.

Therefore, the health and population of these moths serve as a natural indicator of **air quality** and the overall health of fragile mountain ecosystems.

- **Ecosystem Role -** They contribute to nutrient cycling and act as a food source for other high-altitude predators.
- **Taxonomic Milestone -** Along with these two new species, they also recorded 7 other lichen moth species for the first time in India.
- **Biodiversity Hotspot -** The Eastern Himalayas (Sikkim and North Bengal) continue to be a primary focus for discovering "lesser-known" insect groups, which are vital for understanding complex ecosystem functioning.

Reference

Telangana Today | Discover of two new moth species

