

Caecilian Hotspot Status for the Northern Western Ghats

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Why in News?

Researchers have discovered a new subterranean caecilian species, named *Gegeneophis chandgadi*, reinforcing the Northern Western Ghats as a critical caecilian biodiversity hotspot and micro-endemic zone.

Gegeneophis chandgadi

- **Taxonomic Position**- Belongs to the family **Grandisoniidae** under the order **Gymnophiona** (class Amphibia).
- **Etymology** - Named *chandgadi* in honor of the ***Chandgadi dialect of Marathi*** spoken in the Chandgad region, celebrating local linguistic heritage and community-assisted taxonomy.
- **Morphology** - A subterranean, limbless, and completely silent amphibian.
- Possesses a cylindrical, pinkish-brown body adapted for burrowing in soil and leaf litter, often misidentified by locals as an earthworm or small snake.
- **Habitat** - Inhabits non-protected, mixed agricultural and residential landscapes rather than restricted primary forests.



Ecological Significance

- **Endemism in the Genus *Gegeneophis***

- India records 42 caecilian species out of 458 total amphibian species.
- Out of 12 known species in the endemic genus *Gegeneophis*, **11 are strictly endemic to the Western Ghats**, with a high concentration clustered in the transitional belt between Maharashtra, Goa, and Karnataka.

- **Mitigating "Silent Extinction"**

- Caecilians live predominantly underground, rendering conventional visual biodiversity surveys ineffective.
- Unrecorded species face **silent extinction**, disappearing due to habitat fragmentation, chemical pesticide use, soil compaction, and rural development before being scientifically documented.

- **Value of Traditional Ecological Knowledge (TEK)**

- The discovery relied heavily on the traditional environmental familiarity and assistance of local villagers.
- It highlights the vital role of citizen science and indigenous community partnership in biodiversity conservation outside Protected Areas (PAs).

Reference

[Times of India | *Gegeneophis chandgadi*](#)

