

## Cnemaspis brahmaputra

**Prelims: Environmental ecology. Mains: Conservation,**

### Why in news?

A new species of gecko, *Cnemaspis brahmaputra*, has recently been discovered in Assam, highlighting the rich biodiversity of Northeast India.

### About *Cnemaspis brahmaputra*:

- **Named in** - Honor of the Brahmaputra River
- **Location** - Discovered near the Dirgheswari Temple on the bank of Brahmaputra River in Guwahati, Assam.
- **Published by** - *Taprobanica, the Journal of Asian Biodiversity*.
- **Genus and Family** - It belongs to the genus *Cnemaspis*, which is widely distributed across South and Southeast Asia.
  - It falls within the *podihuna* clade, a grouping predominantly found in Sri Lanka.
  - *Cnemaspis brahmaputra* is only the 2nd representative of this clade on the Indian mainland, the other being *Cnemaspis assamensis*.

**Podihuna clade**- refers to a specific evolutionary lineage within the genus *Cnemaspis*, which comprises a large group of diurnal (day-active) geckos found across South and Southeast Asia.

**Taxonomic Grouping:** It's a monophyletic group, meaning it includes a common ancestor and all of its descendants, indicating a shared evolutionary history.

- **Morphological Features** - Unlike most geckos in Northeast India which are nocturnal, *Cnemaspis brahmaputra* is **diurnal** (active during day).
- **Distinguished from its close relatives by** -
  - A larger body size (30.8–35.7 mm).
  - Fewer midbody scale rows.

- A higher number of ventral scales (enlarged scales on the underside).
- Absence of tubercles (small rounded projections) on lower flanks.
- 3 enlarged rows of thigh scales parallel to the enlarged femoral scale row.
- **Geographical Importance**- The discovery near the Brahmaputra River underscores the critical role of major rivers as:
  - **Geographic barriers** - Isolating populations and leading to speciation.
  - **Evolutionary engines** -Shaping the distribution and genetic diversity of species.
  - Its restricted range alongside the river enhances understanding of local endemism and biodiversity patterns in Assam.
- **Signifying rivers** - Environmental role as both a barrier and corridor for species evolution, and its symbolic connection to Assamese identity.
- **Cultural Importance**- Naming of the species pays tribute to the Brahmaputra River's deep importance in Assamese folklore, daily life, & regional pride.
- **Finding aims** - To boost local awareness about Assam's unique biodiversity and the urgent need for its conservation amidst ecological threats.
- **Significance** - Highlights Northeast India's status as a **biodiversity hotspot** and emphasizes the ongoing importance of scientific exploration in under-studied habitats to uncover new species and understand evolutionary processes.
- 
- **Reference**[The Hindu| Cnemaspis Brahmaputra](#)