

## Three New Cascade Frog Species

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

### Why in News?

Scientists have discovered 3 new species of cascade frogs from the forests of Northeast India and documented 5 other species for the first time.



- **Documentation** - The research documented more than 300 geographic populations of cascade frogs inhabiting **fast-flowing forest streams**.
- The newly identified species are

#### **Ammachi's Cascade Frog (Amolops ammachi)**

- Discovered in the Jampui Hills of Tripura.
- A. ammachi honours the late Kerala social worker and philanthropist Padmini Varkey, affectionately known as 'Ammachi' (or mother), in recognition of her compassion and lifelong service to people in need.

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| <b>Sendenyu Cascade Frog<br/>(<i>Amolops sendenyu</i>)</b> | <ul style="list-style-type: none"> <li>• Found in Nagaland and named after Sendenyu Village.</li> </ul>                                                                                   |
| <b>Beautiful Cascade Frog<br/>(<i>Amolops bella</i>)</b>   | <ul style="list-style-type: none"> <li>• Discovered in West Bengal.</li> <li>• Named for its striking green body marked with yellowish-green or reddish-brown mosaic patterns.</li> </ul> |

- **Genus** - The study also reports 5 cascade frog species that have never before been recorded from India to expand the known diversity and distribution of the genus **Amolops** in the country.
- These are
  - Marbled Cascade Frog (*Amolops afghanus*),
  - Nepal Cascade Frog (*Amolops nepalicus*),
  - Wangyal's Cascade Frog (*Amolops wangyali*),
  - Medog Cascade Frog (*A. medogensis*),
  - Pianma Cascade Frog (*Amolops bellulus*).

### DNA-based Dating

- To reconstruct the evolutionary history of cascade frogs, the researchers employed DNA-based dating analyses.
- It indicates that the frogs underwent extensive diversification around 32 million years ago during the Eocene-Oligocene transition, a period marked by widespread biological turnover.
- The study suggests multiple waves of colonisation from east to west across Asia and identifies the early uplift of the Himalayas as a key factor shaping the present-day distribution and diversity of these amphibians.

### Reference

[The Hindu | Three new cascade frog species](#)