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English

HORNED FROG & EDIBLE INSECTS FOUND IN ARUNACHAL

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A new species of horned frog has been discovered in the forests of Arunachal Pradesh, bringing fresh excitement to the study of India's wildlife. Named after the local Apatani Tribe the amphibian has been named as "Xenophrys apatani." It is a separate species, unique to India.

The discovery, made by a team of researchers from the Zoological Survey of India (ZSI) in Shillong and Pune, highlights the importance of meticulous research and genetic analysis in identifying species. The team was led by Bhaskar Saikia and Bikramjit Sinha from ZSI, Shillong. Researchers have also found new species of insects which are eaten by the local people of Arunachal Pradesh.

The new species bears a strong resemblance to the Maoson's horned frog, which led to its initial misidentification. However, the significant geographic distance of 1,600 kilometres between Vietnam and Arunachal Pradesh, coupled with the genetic differences between the two populations, eventually led to the correct classification. Xenophrys is a genus of amphibians in the family Megophryidae. They are found in southeastern Asia to Borneo. Their common name is strange-horned toads

The frog's discovery in the Tale Wildlife Sanctuary, a protected area in Arunachal Pradesh, suggests that the species is currently safe from immediate threats. This discovery also gives scientists new insights into where different species of Xenophrys frogs are found in India. Most of these species are concentrated in the Eastern Himalayas and the Indo-Burma regions, which are known for their rich biodiversity. North East India, in particular, has seen many new amphibian species discovered in recent years. There are likely many more species, especially smaller ones, still waiting to be found in this region.

New Edible Insects Discovered in Northeast India: A Step Towards Sustainable Nutrition Entomologists from the Ashoka Trust for Research in Ecology and the Environment (ATREE) in Bengaluru have uncovered three new species of edible insects in Northeast India. Traditionally consumed by indigenous communities, these insects are not only a source of sustenance but also hold significant cultural and ecological importance.

The research team, led by Priyadarsanan Dharma Rajan, identified the three new species of bugs as part of the Coridius Genus, belonging to the Dinidoridae family. These bugs, which range from 15 mm to 25 mm in size, primarily feed on plant sap and are found in the Afrotropical and Indo-Malayan regions. Despite being widely consumed in local markets, these species were previously undocumented, reflecting the hidden diversity within this region.

The three newly identified species - Coridius adii, Coridius esculentus, and Coridius insperatus, were discovered in Arunachal Pradesh. The researchers employed an integrative approach that combined phylogenetics, morphometric analysis, and classical taxonomy to identify these species.

The discovery is not just about new species but also about the rich tradition of entomophagy (consuming insects) in Northeast India, where these bugs are commonly eaten and valued for their medicinal properties.

Potential Side-effects However, it is imperative to remember that these bugs do contain some side effects. One of the newly discovered species, Coridius esculentus, was found to have a neurotoxic effect on some individuals, causing symptoms such as photophobia (sensitivity to light) and a desire to hide in

dark places. Another species, Coridius chinensis, was associated with reports of dizziness and nausea among some consumers. This finding shows the importance of further research into the chemical properties of these insects to ensure their safe consumption.

The names of the new species reflect their significance and the circumstances of their discovery. Coridius adii is named in honour of the Adi tribe, who inhabit the Siang Valley and have traditionally consumed this species of bug. Coridius insperatus, meaning “unexpected” in Latin, was so named due to the surprise involved in its discovery. This species is noted for its distinct antennae and copper-like dorsal coloration.

Global Food Security The study’s broader implications extend to global food security. Insects are already a staple in the diets of around two billion people worldwide, with over 2,000 species considered edible. As climate change and food insecurity pose growing challenges, insects offer a sustainable alternative to traditional livestock. They are a rich source of protein and have a significantly lower environmental impact compared to conventional meat production.

The research conducted by ATREE is part of a broader effort to document and protect the biodiversity of Northeast India. Supported by the Department of Biotechnology, the study is a vital step towards ensuring that traditional knowledge is preserved and that the region’s rich natural resources are sustainably managed. By highlighting the hidden diversity of edible insects in this region, the researchers hope to promote the idea of insects as a viable and sustainable food source for the future.

Source: Himalayan News Chronicle