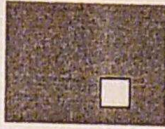


Neotype



□When a designated type of a species (holotype, syntypes, neotype or lectotype) has been previously designated, but is subsequently lost or damaged beyond recognition, a fresh specimen designated as the type is called neotype.

A systematic revision of the genus *Hylarana* in the Western Ghats-Sri Lanka biodiversity hotspot is presented.

Utilizing a combination of molecular and morphological data, Biju *et al.* (2014) describe **seven new species**, doubling the number of *Hylarana* species previously known from this region. We further demonstrate that *H. temporalis*, which was originally described from Sri Lanka, was misidentified with the Western Ghats endemic species for nearly 100 years. Conversely, *H. aurantiaca* was originally described from the Western Ghats and misidentified in Sri Lanka. This study confirms that the distribution of *H. temporalis* is restricted to Sri Lanka, while *H. aurantiaca* is endemic to the Western Ghats



Lack of distinct colour difference / striking morphological characters



Potential misidentification of amphibians



AIMS & OBJECTIVE:

Integrative taxonomic approach for uncovering hidden diversity

Recognition of undefined cryptic species using some morphological and molecular characters



▪ **Supratympanic ridge**

▪ **Mitochondrial marker** (16S, COI, Cytb)

○ 16s-component of ribosomal small unit

○ COI-Cytochrome C-oxidase

○ Cytb-protein takes part in ETC

▪ **Nuclear Rag1 gene**

This gene encodes enzyme that play important role in rearrangement and recombination of the genes of immunoglobulin and T-cell receptor during the process of VDJ recombination