

A new taxonomic revision of Australasian frogs means well-known 'tree frog' names belonging to the *Litoria* genus have been changed. These frogs, also known as pelodyadids, belong to the family Pelodyadidae (formerly part of a much larger Hylidae).

In an effort led by Stephen Donnellan (South Australian Museum), Stephen Richards (South Australian Museum), Michael Mahony (University of Newcastle) and others, *Litoria*, and two other related genera—*Cyclorana* (arid and tropical burrowing frogs) and *Nyctimystes* (north-eastern Australian 'lacedids')—have been revised.

A high-powered genetic approach rigorously integrated these results with the frogs' shape, colour and sound to arrive at a much more informative taxonomy. Even tadpoles were included! The revision also included pelodyadids from Indonesia, New Guinea and neighbouring regions.

The resulting taxonomic revision that has been published in the *Zoological Journal of the Linnean Society*, describes or redescribes 33 newly recognised genera within the former *Litoria*. *Cyclorana* and *Nyctimystes* are also supported, and the latter redefined. Many of the 'new' names are resurrections of older names from the 19th century, all the way to the 1980s.

The south-west's beloved motorbike and spotted-thighed frogs receive the relatively old name of *Ranoidea* ("Rana-like", based on similar-looking frogs in Europe and North America): *Ranoidea moorei* and *R. cyclorhyncha* (although the two may actually be just one species).

The other common south-western species, the slender tree frog, becomes *Coggerdonia adelaidensis*.

The charismatic Kimberley green tree frogs will take the older name of *Pelodryas*: *P. caerulea*, *P. cavernicola* and *P. splendida*. The gracile grass frogs, with their ratchet-like calls, will be *Carichyla bicolor*, which is a brand new name. More obscure species, like the diminutive rockhole and buzzing frogs, will now



Taxonomic shock in frogs

be classified under *Mahonobatrachus*, while the laughing tree frog will have a new genus and species name: *Pengilleya ridibunda* (formerly *Litoria rothii*, newly named last year). The tropical and arid little red tree frogs will now be *Coleeneremia rubella* and *C. larisonans* (a newly described species), respectively.

The original *Litoria* are the rock and rocket frogs—a diverse group of eight species in the Kimberley. The distinctive *Cyclorana* also stays the same.

Ultimately, genus-level taxonomy aims to accurately reflect evolutionary relationships and group similar species under a single name. *Litoria*'s massive size and diversity may explain why such a comprehensive revision was so long in the making. Now, with state-of-the-art

genetics and all the available information on appearance and calls, we can benefit from having a robust, stable and informative generic classification for our amazing climbing, burrowing and leaping pelodyadid frogs for years to come.

Rather than causing 'taxonomic shock' by making changes to generic names, taxonomists aim to fine-tune the names of animals and plants so that there is a greater appreciation for the true diversity within groups. This, in turn, makes it easier for everyone to celebrate the ecological and evolutionary marvels of our wonderful native fauna and flora.

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Above Motorbike frog (*Ranoidea moorei*).
Photo – Jiri Lochman