QUEENSLAND MUSEUM NETWORK

MEDIA RELEASE

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An army of new species of frogs described

Five new species of frogs, including one with camouflage that makes it look like bird droppings, have been described by Australian scientists.

Scientists from Queensland Museum, South Australian Museum and Griffith University recently described the five species of treefrogs from Papua New Guinea.

Queensland Museum scientist Dr Paul Oliver, a joint appointee with Griffith University said the new species highlight the remarkable and poorly understood diversity of New Guinea frogs.

“These small tree frogs lay their eggs out of the water, typically on leaves, quite different to your typical treefrog, which lay their eggs directly into water,” Dr Oliver said.

“Tadpoles of one new species, ***Litoria naispela*** actually live in water collected in tree hollows, a behaviour not previously documented in frogs from New Guinea.

*“**Litoria naispela*** also has juveniles that have colour and patterning that closely resembles bird droppings – we think this is a form of defensive masquerade.”

The five new species are named ***Litoria daraiensis, Litoria gracilis, Litoria haematogaster, Litoria lisae*** and ***Litoria naispela*.**

They all come from very wet mountain forest areas along the central mountain range of New Guinea.

The five frogs were collected over 30 years by lead author South Australian Museum Honorary Researcher Dr Steve Richards.

“I spent a huge amount of time waiting at night beside tree holes in rain, hail and (moon)shine, for frogs to emerge in order to find these amazing species, and to try and learn about their biology,” Richards said.

“New Guinea has more species of frogs than any other island in the world and most are found nowhere else."

”New discoveries like this show that this richness of species is also matched by a diverse set of ways to make a living as frog!”

Queensland Museum Network CEO Dr Jim Thompson said there is still much to learn about biodiversity and museums play an important role in describing and conserving our natural world heritage.

“Biodiversity is declining worldwide, but New Guinea remains a world hotspot for many groups, including frogs” Dr Thompson said.

“By studying the diversity of these regions our taxonomists can help promote awareness of these riches, and support effort to conserve it.”

The new paper was published recently in Zootaxa - https://www.biotaxa.org/Zootaxa/article/view/zootaxa.5263.2.1

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Meet the frogs:

***Litoria daraiensis*, sp. nov.**
Darai Plateau Treefrog

Etymology. The name daraiensis refers to the type and only known locality of this species, the Darai Plateau in Southern Papua New Guinea.
Distinguishing features: This frog is a pale, green-tinged ivory with green spots and flecks across its back. Its hands and feet are translucent, with dense brown spotting and small patches of green.
Where is it found: is currently known from a single location on the Darai Plateau in Gulf Province, southern Papua New Guinea.

***Litoria gracilis*, sp. nov.**
Slender Spotted Treefrog

Etymology. Gracilis is a Latin adjective meaning slender, graceful, or gracile, and refers to the slender body form of this species.
Distinguishing features: This is a pale, creamy brown frog wutg small green spots and small patches of darker brown and a bright, yellow groin.
Where is it found: is known from several sites across the southern foothills of Papua New Guinea's Central Cordillera between the upper Strickland River basin in the west and the upper Kikori River basin in the east.

***Litoria haematogaster*, sp. nov.**
Red-bellied Treefrog

Etymology. From the Greek haema 'blood', and 'gaster', belly, referring to the bright red colour of the posteroventral surfaces of this species.
Distinguishing features: a lime green frog with darker green flecks and scattered pale brown spots. It's abdomen is white and it has bright red legs on the underside.
Where is it found: is known only from a single location on the Darai Plateau in Gulf Province, southern Papua New Guinea. The Darai Plateau is an extensive area of limestone karst in the Kikori River Basin and forms part of the Great Papuan Plateau.

***Litoria lisae*, sp. nov.**
Lisa's Treefrog

Etymology. The name lisae is an honorific for the senior author's wife, Lisa Capon, in gratitude for her ongoing support of his research activities.
Distinguishing features: a lime green fog with yellow and scattered darker green spots. It has a white mid-lateral stripe that runs from midway between the front and hind limbs to the groin and a pale-brown band around the edges of the throat.
Where is it found: is known from lower montane forest on Gobe Ridge and Iagifu Ridge (including Arakubi) in the Kikori River basin of southern Papua New Guinea, where they appear to be restricted to limestone karst habitats.

***Litoria naispela*, sp. nov.**
Crater Mountain Treehole Frog

Etymology. The word naispela is from the Melanesian pidgin meaning 'pretty', 'beautiful'.
Distinguishing features: a pale lime green frog with dark-green spots and small areas of cyan white. Dark green pigment patches on dorsum form large 'Y'-shaped patch between eyes, round patch on one eyelid, and short irregular bars on hindlimbs.

Where is it found: is known only from the vicinity of Herowana Village in Eastern Highland Province, on the southern slopes of Papua New Guinea's Central Cordillera. The habitat where the species was encountered is moderately disturbed lower montane rainforest, although large areas around the village had been converted to gardens and coffee plantations.