

NERP Tropical Ecosystems Hub Project Factsheet

Targeted surveys for missing and endangered rainforest frogs in ecotonal areas, and assessment of whether populations are recovering from disease

Project leaders: Dr Robert Puschendorf & Dr Conrad Hoskin (JCU)

Project summary

This project will survey dry forest sites that border rainforest in the Wet Tropics and Eungella regions for missing and endangered frogs and other vertebrates.

This project will also:

- Determine if and how threatened frogs are recolonising upland rainforest sites where they once occurred.
- Determine if the few minute populations of Northern Tinker-Frog (*Taudactylus rheophilus*) recorded after disease outbreaks have persisted.
- Provide management recommendations and a list of critical dry forest refuges for critically endangered rainforest frogs, and areas of importance for other vertebrate species.

Why this research is needed

Outbreaks of amphibian chytrid fungus in the late 1980s and early 1990s resulted in the disappearance of ten frog species from the upland rainforests of the Wet Tropics and Eungella in central Queensland. This is a significant loss, representing 25% of the frogs endemic to the Wet Tropics and all of the Eungella endemics. The recent discovery of the presumed extinct Armoured Mist frog (*Litoria lorica*) in high elevation dry forest close to rainforest sites, and the discovery that this population is co-existing with the chytrid fungus suggests that there is a high probability that other missing frog species may well exist in dry forests bordering rainforests.

Research-user focus

This project will facilitate conservation and management by local, state and Australian Government bodies, EPBC, Wet Tropics Management Authority (WTMA), Terrain NRM, Australian Wildlife Conservancy (AWC) and others.

Research Provider



Find this project at www.nerptropical.edu.au

Theme 1: Assessing Ecosystem Condition and Trend

Program 3: Condition and trends of North Queensland rainforests

Project: 3.3



Armoured Mist frog (*Litoria lorica*)



Adeline falls, Mt. Windsor

Outcomes

This project will assist in determining:

- Whether the 'extinct' frogs of the Wet Tropics and Eungella are indeed extinct.
- Whether the dry forest/rainforest border areas of the western Wet Tropics and Eungella harbour overlooked populations of these and other critically endangered species.
- How widespread chytrid fungus is across the study regions and environments, and how frogs are currently coping with this threat.
- The value of peripheral areas for other Wet Tropics endangered vertebrates.

This project will contribute to the continuing conservation and management of Queensland's World Heritage listed rainforests.

For more information about this project, contact:

Dr Robert Puschendorf (James Cook University)

robert.puschendorf@jcu.edu.au