

Protecting the Kroombit tinkerfrog from feral pigs



Kroombit tinkerfrogs (*Taudactylus pleione*) are a very small, elusive, and critically endangered species of frog found solely in restricted mountain stream environments within Kroombit Tops National Park, south west of Gladstone in central Queensland.



Critically endangered Kroombit tinkerfrog Credit: Dr Ed Meyer

The Kroombit tinkerfrog is thought to be a relic species from post-Gondwana habitat.

These frogs were listed as critically endangered in 2012 in the *Environment Protection and Biodiversity Conservation Act 1999.*

Threats to the Kroombit tinkerfrog:

Feral pigs are listed as a key threatening process to these frogs primarily due to their impacts on their habitat. This includes soil disturbance which facilitates the spread of riparian weeds.

The rooting and wallowing activities of feral pigs also damage the wetland habitats by increasing silt loads in significant breeding streams. Increased silt can impact on embryos and tadpoles of these, and other frog species, by decreasing the availability of food for tadpoles and reducing fitness of individuals during metamorphosis.

Feral pigs are also potential vectors of the chytrid fungus, and play a role in the spread of this disease to different areas. Chytridiomycosis is a highly infectious disease of frogs caused by the amphibian chytrid fungus. The chytrid fungus invades the surface layers of a frog's skin. Mortality may occur through disruption of normal skin function, leading to electrolyte depletion and osmotic imbalance.

Queensland Parks and Wildlife Services (QPWS) initially constructed a feral pig exclusion fence around selected Kroombit tinkerfrog habitats to decrease feral pig impacts on the population. Expansion of this fence was funded by the Queensland Government's Community Sustainability Action Grant awarded to the Queensland Frog Society. This funding also supported a three year monitoring program of populations of three declining frog species. These were the Kroombit tinkerfrog, the critically endangered Kroombit treefrog (*Litoria kroombitensis*) and vulnerable Tusked frog (*Adelotus brevis*).



QFS volunteers constructing the pig exclusion fence Credit: QLD Frog Society

Currently, the Australian Government is funding a project in partnership with the Fitzroy Basin Association (FBA), QPWS, Currumbin Wildlife Sanctuary, and Queensland Frog Society. These groups are working with land managers and ecologists to control feral pig populations in the region and help bolster the frog population. This project is building upon the intensive efforts to save the Kroombit tinkerfrog from extinction that have been conducted over the past ten years.

The activities being conducted include:

- Aerial baiting of feral pigs across Kroombit Tops National Park
- Coordinated feral pig control by neighbouring land managers
- eDNA monitoring and surveys to identify potential release sites and verify population information
- Using acoustic recorders to help monitor populations across known Kroombit tinkerfrog areas
- Release of around 100 captive bred Kroombit tinkerfrogs by Currumbin Wildlife Sanctuary, using a founder frog population, to identified sites to support existing wild populations
- Disease testing for chytrid disease

Monitoring using the acoustic recorders, eDNA and physical searches, will continue post-release of the captive bred frogs to track the success of the translocation program.

Coordinated actions and ongoing monitoring will help to ensure populations of the Kroombit tinkerfrog will continue to grow.

For more information, see resources on the Fitzroy Basin Association's website:

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- FBA's Kroombit Tinkerfrog project snapshot
- Kroombit Tinkerfrog webpage



Website: www.feralpigs.com.au





Questions? Email us at contact@feralpigs.com.au