Department of Primary Industries
Department of Regional NSW

DPI Primefact

Short-tail Galaxias – *Galaxias brevissimus*

July 2023, Primefact INT23/73582 First edition
Threatened Species Unit

Introduction

The Short-tail Galaxias (*Galaxias brevissimus*) is part of the Galaxiidae family and is morphologically very similar to other species of the *Galaxias olidus* complex.

Figure 1. *Galaxias brevissimus.* Photo courtesy of Tarmo A. Raadik.

The Short-tail Galaxias is found at four (4) patchily distributed sites in the upper reaches of the Tuross River system in southern coastal NSW.

In NSW, the Short-tail Galaxias is listed as a **Critically Endangered species.** There are heavy penalties for harming, possessing, buying or selling them, or for harming their habitat (see 'Legal Implications').

Description

The Short-tail Galaxias is a small freshwater fish with an average length of 70-75mm, however has been recorded up to 97mm. Some distinguishing features include:

- Predominately brown on the back and upper sides of the body.
- Small to moderately large, irregularly shaped, dark brown to black abundant blotches and spots over body

Habitat and ecology

Short-tail Galaxias have been recorded in two (2) different stream types.

- Jibolaro, Guinea and Lantooley Creeks are narrow, gentle flowing streams with moderate turbidity that have a predominantly clay substrate overlain by fine and coarse sand and sediment. Habitat at these creeks has been highly modified by clearing for grazing and agriculture with riparian vegetation consisting of pasture and tussock grass.
- Bumberry Creek is a narrow stream with moderate velocity that flows through a steep gradient with fringing Eucalypt forest. The stream substrate is predominately bedrock, boulder and cobble with fine and coarse sand in shallow pools.

Figure 2. Representative habitat for Galaxias brevissimus © Copyright, Mark Lintermans.

Why is the Short-tail Galaxias threatened?

Short-tail Galaxias faces similar threats to other taxa in the *G. olidus* complex including:

- Increase in the frequency and severity of extreme weather events e.g. increased temperatures, drought and bushfires. This could lead to decreased water quality and highly variable water availability including high flows, increased sedimentation and erosion.
- Incursions and establishment of introduced fish species into occupied waters.
- The limited distribution and isolated, small population sizes could make them susceptible to deteriorations in genetic health.
- Land clearing could result in the removal and degradation of instream and riparian habitat and vegetation, as well as increased stream erosion and sedimentation.

Conservation and recovery actions

- Undertake surveys to potentially identify new populations, suitable refuge and future translocation sites
- Establish monitoring to track the trajectory of known populations.
- Undertake research on aspects of this species' ecology including reproduction, growth, longevity, habitat use, age, movement.
- Develop a detailed conservation stocking plan and undertake translocations to establish additional, viable populations to spread extinction risk and/or to bolster existing populations.
- Develop a detailed captive breeding plan and undertake breeding.
- Extract a portion of each remaining population into *ex situ* captive management as an insurance against the extinction of the species in the wild.
- Report any sightings of the species via the NSW DPI online form: www.dpi.nsw.gov.au/fisheries/species protection/report-it

Legal Implications

It is illegal to catch and keep, buy, sell, possess or harm Short-tail galaxias without a specific permit, licence or other appropriate approval, and significant penalties apply. For Critically Endangered species, these penalties can include fines of up to $220,000 and up to two years in prison.

There can also be significant penalties for causing damage to the habitat of a threatened species without approval, through actions such as dredging river or creek beds, removing large woody habitat and constructing barriers that block the free passage of fish.

Clearing that constitutes a routine agricultural management activity, and certain routine farming practice activities (other than clearing) are permitted, provided the activities are to the minimum extent reasonably necessary and all other relevant statutory approvals or authorities have been obtained.

The impacts of developments or activities that require consent or approval in accordance with the *Environmental Planning and Assessment Act* 1979 must be assessed and considered by consent or determining authorities. Where such actions are likely to result in significant impact on a threatened species or its habitat, a detailed species impact statement must be prepared.

Strategies to be adopted for promoting the recovery of the Short-tail Galaxias must be set out in the NSW DPI Priorities Action Statement.

Bibliography and further reading

Fisheries Scientific Committee (2023) Final Determination *Galaxias brevissimus* available online at https://www.dpi.nsw.gov.au/fishing/species-protection/fsc/final

Lintermans M & Raadik T (2019). Galaxias brevissimus. The IUCN Red List of Threatened Species 2019:

For further information

See the NSW DPI website: www.dpi.nsw.gov.au

Contact the NSW DPI Threatened Species Unit:

Locked Bag 1, Nelson Bay, NSW, 2315

Email: fisheries.threatenedspecies@dpi.nsw.gov.au