

DPI Primefact

Kosciuszko Galaxias – *Galaxias supremus*

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Threatened Species Unit

Introduction

The Kosciuszko Galaxias (*Galaxias supremus*) is a small bodied native fish found only in a select number of streams in the Snowy Mountains of NSW.



Figure 1. *Galaxias supremus*. Photo courtesy of Rudie Kuitert.

The Kosciuszko Galaxias has only been found at a small number of sites within the upper Snowy River catchment near Mount Kosciuszko, and an unnamed drainage line on the upper slopes of Mount Kosciuszko near Rawson's Pass. All sites fall within Kosciuszko National Park, NSW.



Figure 2. Blue Lake where *Galaxias supremus* have been recorded (Photo Alison McLean).

In NSW, the Kosciuszko 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 Kosciuszko Galaxias is a small freshwater fish with an average recorded length of 80-85mm, however has been recorded up to 96mm.

The Kosciuszko Galaxias can be differentiated from other members of the *G. olidus* complex by a combination of:

- A distinctive mottled pattern that lacks black, ovoid bars along its side
- Eight (8) pelvic fin rays
- A distinctly shorter lower jaw
- Relatively shallow body depth
- Short and shallow caudal peduncle
- Long snout with small eyes
- Short dorsal and anal fins with the anal fin set well back at about 85% from the front of the dorsal fin.

Habitat and ecology

The specific habitat requirements for the Kosciuszko Galaxias are relatively unknown, however the species has been collected from permanent, cold and clear flowing creeks and from Blue Lake. Substrate in these locations includes bedrock, boulder, cobble, gravel and sand with fish generally collected within 2m of the shoreline. All sites lacked emergent or submerged vegetation and during winter are covered by snow or ice for extended periods

of time, with the species able to withstand very cold water in winter (NSW Fisheries Scientific Committee, 2023).



Figure 3. Typical habitat type of *Galaxias supremus* (Photo Alison McLean).

The biology and ecology of the Kosciuszko Galaxias are inferred based on the understanding of other species in the *Galaxias olidus* complex.

Generation length of the species is estimated at 3 or 4 years and the spawning period is not known but probably occurs from late spring to early summer.

Why is the Kosciuszko Galaxias threatened?

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

- The spread, introduction and establishment of introduced salmonids into occupied waters. Trout are not permitted to be stocked in the habitat of this species under the NSW Fisheries Management Strategy, however unauthorised stocking may present a threat to the species.
- The limited distribution and isolated, small population sizes could make them susceptible to deterioration of genetic health.
- Potential illegal harvest/collection of species

Conservation and recovery actions

- Carry out surveys to identify new populations of the species, identify suitable future translocation sites
- Undertake study into the species' ecology (reproduction, growth, longevity, habitat use, age, movement).
- Establish monitoring to track the trajectory of known populations
- Implement education initiatives to improve awareness of the status of Kosciuszko Galaxias and ways to minimise impacts on the species by preparing and distributing appropriate advisory material.
- Raise awareness of key threats including introduced fish species by engaging with recreational fishers, land care groups and broader community.
- Development of a detailed translocation plan and undertake translocations to establish additional, viable populations to spread extinction risk (reintroduction or assisted colonisation) or to bolster populations (reinforcement).
- Undertake work to identify, restore and protect known and potential Kosciuszko Galaxias habitats and address key threats such as habitat degradation and loss.
- Undertake predator (trout) removal, if present, from potential translocation sites.
- Development of a detailed captive breeding plan and undertake breeding.
- 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 Kosciuszko Galaxias (or any other threatened species in NSW) 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.

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 Kosciuszko Galaxias must be set out in the NSW DPI Priorities Action Statement.

Bibliography and further reading

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

Raadik, T.A. (2019). *Galaxias supremus*. The IUCN Red List of Threatened Species 2019: e.T122903211A123382156. <http://dx.doi.org/10.2305/IUCN.UK.2019-3.RLTS.T122903211A123382156.en>

For further information

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

Contact the NSW DPI Threatened Species Unit:

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