New Zealand's most endangered fish species

The streams and rivers that flow through Otago are home to a group of fascinating native freshwater fish found nowhere else on Earth. These fish belong to an ancient, scaleless fish family called Galaxiidae, named for the galaxy-like gold flecks and patterns adorning their backs.

Unlike whitebait, which migrate to sea, some non-migratory galaxiid species live out their entire life in the stream or river in which they hatched. Over millennia, these populations of galaxiids were isolated by geological events such as earthquakes and glacial movement. They evolved into distinct species, each with their own individual features and stories. Today, Otago is a biodiversity 'hot spot', home to 13 of New Zealand's most endangered non-migratory galaxiids.

This brochure puts the spotlight on Nevis galaxias.

See the companion brochures on Eldon's, Dusky, Teviot flathead, Lowland longjaw, Taieri flathead, Clutha flathead, Central Otago roundhead, Canterbury, Gollum, and Southern flathead galaxias.

Help Nevis galaxiids in your neighbourhood

- When repairing or replacing culverts or structures in streams, talk to someone at DOC to make sure they're compatible with protecting native fish. Barriers can help prevent galaxiids from being eaten by other fish.
- · Fence off spawning areas in spring.
- Protect breeding grounds by restoring and protecting vegetation on stream banks and wetlands. Planting alongside streams also helps create shade, which galaxiids love, and reduces nutrient run-off.
- Check, Clean and Dry to prevent the spread of aquatic pests – fish such as koi carp and aquatic weeds such as didymo can wreak havoc on our freshwater environments.

For more information

Contact your local DOC office

 $\textbf{Visit} \ \text{www.doc.govt.nz}$

Cover: Schoolhouse Creek

Photo: John Barkla

Inset: Nevis galaxias

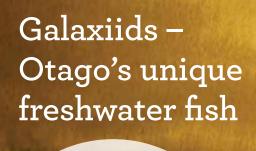
Photo: rodmorris.co.nz

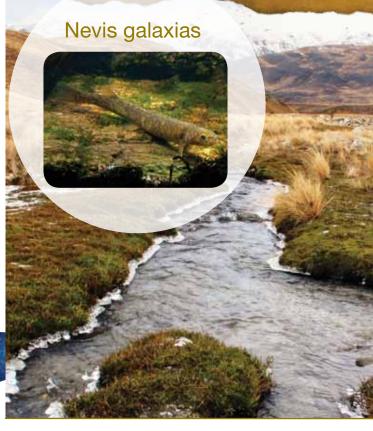
Read A photographic guide to freshwater fishes of New Zealand by McQueen and Morris (2013), New Holland Publishers (NZ) Ltd

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- Learn about these fascinating and rare creatures
- Find out how you can help save them in your neighbourhood



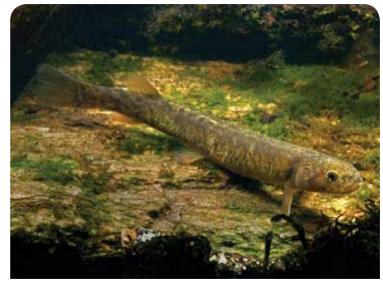
Nevis galaxias Galaxias 'nevis'

These ancient galaxias are found in tannin-stained waterways solely above the gorge on the lower Nevis River where it joins the Kawarau River, an area made famous from the 'kings gate' in the *Lord of the Rings* trilogy.

They were isolated and evolved here after a rare and fascinating geological event where the river changed direction.

Features

- Bronze to grey-brown in colour and covered in darker brown splotches and silver speckling
- Long, streamlined bodies with large fins, which help them climb
- Typically grow up to 100 mm in length but can get to 170 mm
- Feed on small stream invertebrates such as mayflies and stoneflies
- Spawn in spring (October to November) laying small 3 mm eggs in vegetation on stream banks during flood flows



Nevis galaxias Photo: rodmorris.co.nz

Classified as 'Nationally Vulnerable', they share the same threat status as Hector's dolphins. Their remaining populations are found in less than 5 hectares of habitat.



Threats

Over the last decade we have lost 25% of known galaxiid populations. This can be directly linked to the spread of sports fish (trout and brook char), which eat galaxiids; and changes in land use such as stock access to streams, reduction of native vegetation, land development and forest harvesting. These land use changes impact on the streams in which galaxiids live, increasing sedimentation, changing natural flows through water abstraction, and reducing the amount of habitat available for spawning.



Locations of Nevis galaxias