

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 Dusky galaxias.

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

Help dusky 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

Visit www.doc.govt.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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Galaxiids – Otago's unique freshwater fish



Dusky galaxias



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



Department of
Conservation
Te Papa Atawhai

Dusky galaxias

Galaxias pullus

Duskys, as they're known, are found in eastern areas of Otago in small tributaries of the Waipori River surrounding Lake Mahinerangi. A few populations have been discovered in pockets of the Clutha and Taieri rivers.

They make their home under banks and amongst the gravels of very small headwater streams small enough to step across. These streams are typically about 400–1000 m above sea level and are surrounded by vegetation such as tussock, mānuka, hebes and coprosma.

Features

- Dark- and light-brown halo markings over a light-brown body; these markings are disjoined down the back, giving them the appearance of mismatched wallpaper
- Typically grow to up to 150 mm in length
- Difficult to spot during the day
- Feed on small stream invertebrates such as mayflies and stoneflies
- Spawn in spring (October to November), laying tiny 2 mm eggs during flood flows in streamside vegetation or small 'caves' in stream banks
- Can live up to 20 years



Dusky galaxias Photo: Simon Madill

With only 25 known populations, dusky galaxias are becoming increasingly rare. Their total remaining habitat can fit in an area less than 7 hectares. Classified as 'Nationally Endangered' they share the same threat status as the rare South Island kākā.



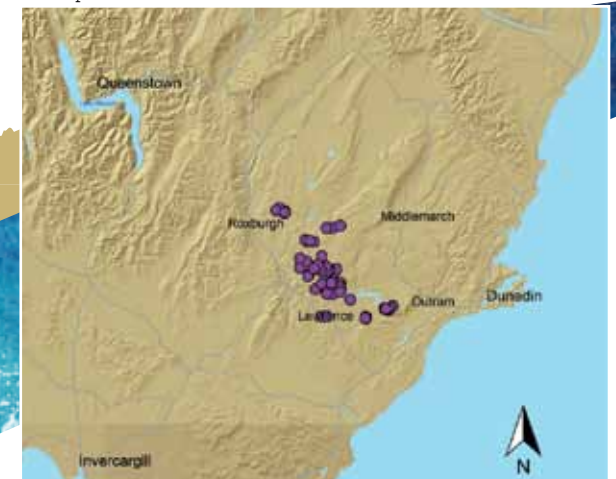
Dusky galaxias eggs Photo: DOC



Te Papanui Photo: Simon Madill

Threats

Over the last decade we have lost 25% of known dusky 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 Dusky galaxias