

## 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 Canterbury galaxias.*

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

## Help Canterbury 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](http://www.doc.govt.nz)

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

Cover: Dobson River  
Photo: Geoff Rogers  
Inset: Canterbury galaxias  
Photo: [rodmorris.co.nz](http://rodmorris.co.nz)

Published by:  
Department of Conservation  
Ōtepoti/Dunedin Office  
PO Box 5244, Dunedin  
New Zealand  
October, 2013

Editing and design:  
Publishing Team, DOC National Office  
[newzealand.govt.nz](http://newzealand.govt.nz)

# Galaxiids – Otago's unique freshwater fish



## Canterbury 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

## Canterbury galaxias *Galaxias vulgaris*

The most common of our non-migratory galaxiid species, their distributions overlap into northern coastal Otago right down to Trotters Gorge near Moeraki. In Canterbury, they can be found in streams and rivers that drain the eastern side of the mighty Southern Alps with a northern limit of the Clarence River.

They're often excluded from the main stem of rivers due to trout but can be found in the side-brads and tributaries.

### Features

- Body colourings can range from differing shades of grey to brown or olive
- They have mottled markings all over, and of NZ's non-migratory galaxiids, they have the least amount of metallic 'galaxy' dusting over their bodies
- Their eyes appear quite large when viewed from above as they are slightly angled towards each other
- 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 tiny 2 mm eggs in saucer-shaped depressions beneath large cobbles or boulders in fast-flowing riffles



Canterbury galaxias Photo: rodmorris.co.nz



Canterbury galaxias eggs Photo: DOC

### Threats

Their main threats are habitat loss from land development and predation by trout and eels (although some larger river habitats have enough space for galaxiids and trout to co-exist). Other threats include changes in land use, such as stock access to streams, reduction of native vegetation, and forest harvesting. These changes in land use impact on the streams in which galaxiids live, increasing sedimentation, changing natural flows through water abstraction, and reducing habitat available for spawning.



Hopkins and Dobson rivers Photo: Geoff Rogers



Locations of Canterbury galaxias