Dwarf galaxias

Galaxias divergens

OTHER NAMES:

At Risk: Declining

Sharing Pastoral Streams with Native Fish

New Zealand's long isolation has created a unique freshwater fish fauna with many species found nowhere else on earth. Our freshwater fish are taonga (treasures), and some species play an important role as mahinga kai, holding significant cultural, ecological and environmental value. In our streams, native fish rely on healthy, connected habitats that extend from shaded headwaters through to lowland waterways. This is important not only for species that live within pastoral environments, but also for those that need a clear pathway between freshwater and the sea to complete their life cycles. Farm waterways are a key part of this network, providing habitat for spawning, feeding and growth, as well as the connections between these areas. Understanding which fish live in your waterways is a rewarding first step toward sharing these spaces and supporting healthy, thriving fish communities.

Dwarf galaxias can survive in tiny wetlands and drains that dry out for short periods or become disconnected from rivers.

Dwarf galaxias are one of New Zealand's non migratory galaxiid species, meaning they complete their entire lifecycle in freshwater and are not part of the whitebait catch. They are named for their small size, rarely exceeding 70 mm in length.
Adult dwarf galaxias are typically amber to olive green, with dark blotches along the back and a silver belly (Figure 1). They can be difficult to distinguish from Canterbury galaxias, although these species only overlap in the Marlborough region.

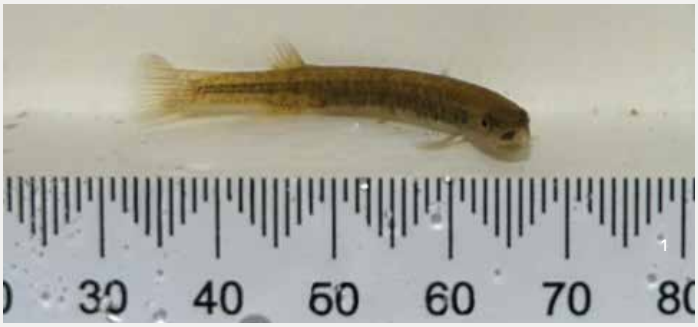

Figure 1:Dwarf galaxias colouration.

Lifecycle of the dwarf galaxias

Dwarf galaxias are non-diadromous, meaning they complete their entire lifecycle in freshwater and do not migrate to the sea. As a result, populations remain within the same river system throughout their lives, which limits their ability to disperse compared to migratory species.

Spawning is thought to occur in freshwater habitats similar to those occupied by adults, such as springs, although little is known about specific spawning sites. Juveniles remain within these habitats as they grow, and the lifecycle is relatively short, typically completed within three to four years.

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Where do dwarf galaxias live?

Dwarf galaxias are endemic to New Zealand and occur in streams across the lower North Island and the top of the South Island (Figure 2). Of the non-diadromous galaxiids, the dwarf galaxias has the widest distribution, although populations are highly fragmented.

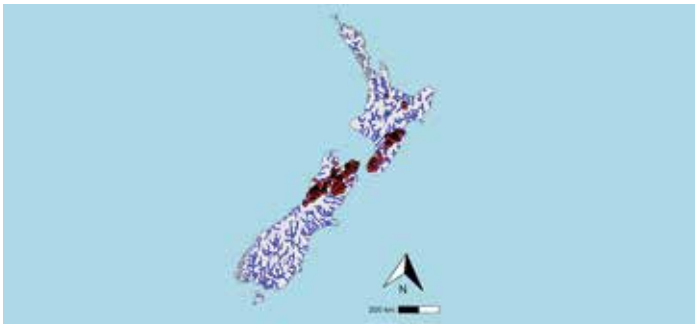

Figure 2: National distribution of the dwarf galaxias. Data represent records held in the New Zealand Freshwater Fish Database (NZFFDB) April 2026.

What dwarf galaxias need in streams

Dwarf galaxias prefer smaller foothill streams, where they live among gravel and cobble substrates. They are also found in the shallow margins of larger rivers within foothill catchments.

They rely on streambed substrates such as gravel and cobbles for habitat, living close to the bottom and using these areas for shelter. Dwarf galaxias can burrow into gravel, allowing them to take refuge from predators, avoid being washed away during floods, and survive short periods of low flow. Small shoals of larvae and juveniles are often found along stream margins.

Dwarf galaxias feed mainly on aquatic invertebrates such as mayfly and midge larvae, with juveniles feeding on smaller prey like midges and shifting to larger invertebrates as they grow. They are also likely to feed on terrestrial insects that fall or drift into the stream.

Photo credit: Peter Williams, Robert McDowall, DairyNZ

Actions you can take to make your local stream a better place for dwarf galaxias

- Fence streams to exclude stock and reduce bank erosion and damage to streambeds.
- Plant and maintain native riparian vegetation to provide shade and keep stream temperatures cool. Riparian planting also stabilises banks, adds habitat complexity (such as roots and woody debris), and supplies organic matter. Shading can also reduce nuisance weed growth and the need for mechanical channel maintenance, which can disturb benthic habitats.
- Retain logs, boulders and undercut banks as these provide important habitat for aquatic insects and refuge for fish species.
- Improve fish passage at instream structures such as culverts, weirs and floodgates. Ensure structures are correctly sized and installed so they do not create drops, barriers, excessive water velocities or scouring that restrict dwarf galaxias movements.

Refer to regional DairyNZ guidance & NZ Fish Passage Guidelines for more information

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