

Gollum galaxias

Galaxias gollumoides

THREAT RANKING

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.

Gollum galaxias are named after the character Gollum from Tolkien's *The Hobbit* and *The Lord of the Rings*, due to their unusual appearance and the fact they were first discovered in a swamp!

Gollum galaxias are one of New Zealand's non-migratory galaxiid species, meaning they do not migrate to the sea and are not part of the whitebait catch. They are small, stocky fish with large eyes and a blunt, rounded snout. The largest individuals on Stewart Island reach around 75 mm, while Southland populations can grow up to 150 mm in length.

Adult Gollum galaxias can be difficult to distinguish from other galaxiid species that occur in the same or nearby catchments. One of the easiest ways to tell them apart is by counting fin rays, as Gollum galaxias have six pelvic fin rays, whereas most other galaxiids have seven.



Figure 1: Gollum galaxias.

Lifecycle of the Gollum galaxias

Gollum galaxias are non-diadromous, meaning they complete their entire lifecycle in freshwater and do not migrate to the sea. Populations remain within the same freshwater systems throughout their lives, which limits their ability to disperse compared to migratory species.

Little is currently known about the lifecycle of Gollum galaxias, but it is likely similar to other non-migratory galaxiids. Spawning is thought to

occur in spring, with eggs laid in sheltered habitats close to where adults live.

Eggs are laid in protected areas such as small gaps beneath boulders in streams or among vegetation in slower-flowing habitats like wetlands.



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Where do Gollum galaxias live?

Gollum galaxias are endemic to New Zealand and occur in the lower South Island and Stewart Island (Figure 2). They occupy a wide range of habitats, from lowland wetlands to headwater streams in tussockland, sometimes reaching elevations of up to 1100 m above sea level. Gollum galaxias are commonly found in smaller streams rather than main river channels.

Incredibly, populations on Stewart Island are thought to have been established during the Pleistocene ice age, when a land bridge connected it to the mainland.

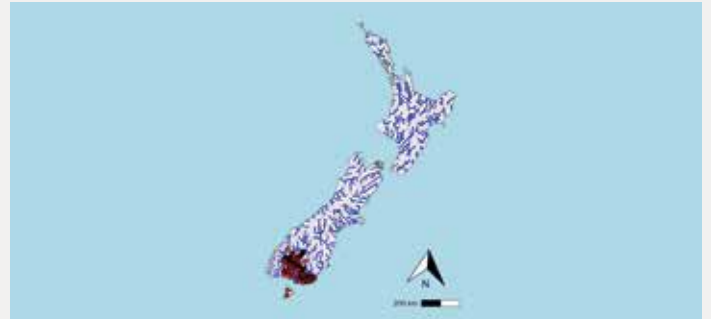


Figure 2: National distribution of the Gollum galaxias. Data represent records held in the New Zealand Freshwater Fish Database (NZFFDB) April 2026.

What Gollum galaxias need in streams

Gollum galaxias can live in a wide range of freshwater habitats but are most often found in small, slow-flowing streams, as well as ponds, ditches, and remnant wetlands. They can persist in very small waterways, sometimes only a few hand spans wide and ankle deep, allowing them to survive in highly modified landscapes.

They rely on habitats with abundant instream cover and are commonly found among moss, woody debris, and vegetated banks, which provide

shelter from predators and environmental extremes.

Gollum galaxias show flexibility in how they use different habitats, particularly between streams and wetlands. This includes differences in spawning behaviour, helping them persist in environments where water levels and conditions vary.

Gollum galaxias feed mainly on small aquatic insects and crustaceans.



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» Actions you can take to make your local stream a better place for Gollum 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 refuge and spawning habitat for Gollum galaxias.
- 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 Gollum galaxias movements.

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