

Banded kōkopu

Galaxias fasciatus

OTHER COMMON NAMES

Whitebait

THREAT RANKING

At Risk: Naturally Uncommon

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 species that constitute our whitebait 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 connectivity 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.

Juvenile banded kōkopu are great climbers and can climb up wet rock faces. They have been found above waterfalls as high as 20m!

Banded kōkopu are one of five migratory galaxiid species found in New Zealand, alongside īnanga, giant kōkopu, shortjaw kōkopu, and kōaro. Together (and with common smelt in some regions), their juveniles make up the whitebait catch.

Adult banded kōkopu are easy to recognise, with thin pale bands running along their sides and back (Figure 1 & 2). In younger fish, these

bands can appear thicker and more blotchy, which sometimes leads to confusion with juvenile giant kōkopu.

Banded kōkopu can usually be identified by a distinct bluish patch behind the gill opening (Figure 2), although this mark can vary in intensity and may be less obvious in some individuals.



Figure 1: Banded kōkopu with pale banding.



Figure 2: Banded kōkopu showing distinct banding and the characteristic blue patch behind the gill opening.

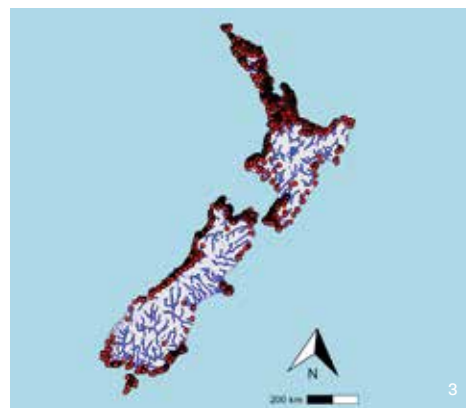


Where do banded kōkopu live?

Banded kōkopu are endemic to New Zealand and are widespread throughout the country, occurring in streams, rivers, wetlands, and lakes across both the North and South Islands, as well as Stewart Island and the Chatham Islands (Figure 3).

In pastoral catchments, banded kōkopu are most often found in small, shaded streams. They are strong climbers as juveniles, which allows them to move inland and reach habitats above natural barriers such as waterfalls. However, access to suitable habitats can easily be blocked by instream structures such as dams or perched culverts that sit above the water surface.

Figure 3: National distribution of the banded kōkopu. Data represent records held in the New Zealand Freshwater Fish Database (NZFFDB) April 2026.



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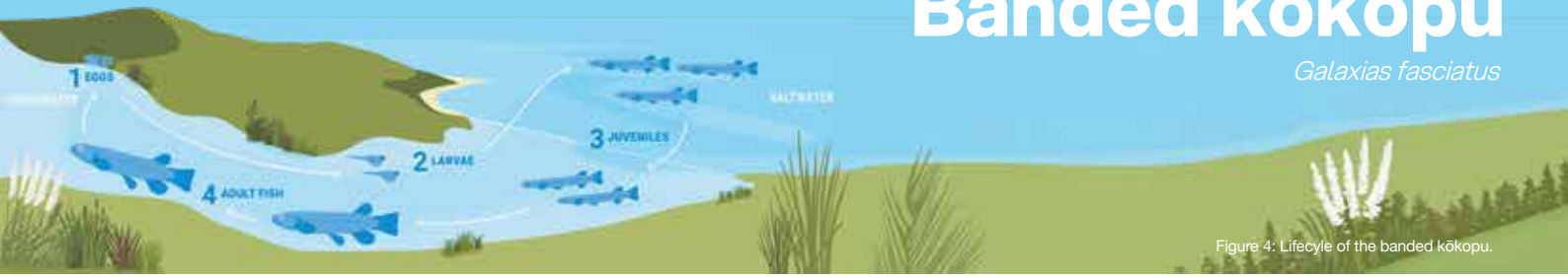


Figure 4: Lifecycle of the banded kokopu.

Lifecycle of the banded kōkopu

Banded kōkopu are amphidromous, meaning their larvae are washed out to sea soon after hatching and return to freshwater a few months later as juveniles, known as “whitebait” (Figure 4). This lifecycle is shared with giant kōkopu, shortjaw kōkopu, and kōaro. Īnanga follow a similar pattern but use different spawning habitats.

Once back in freshwater, juveniles migrate upstream to find suitable habitat where they grow to adulthood. Eggs are laid in streambank vegetation during periods of elevated flow, where they develop out of the water. Subsequent high flows are then needed to inundate the eggs and trigger hatching.

Spawning takes place wherever adults are present, from pastoral reaches in lowland streams through to inland headwater areas.

Banded kōkopu can also complete their entire lifecycle within freshwater. In these cases, larvae rear in lakes before juveniles migrate back into streams to grow to adulthood. This flexibility helps banded kōkopu persist in catchments where access to the sea has been lost or restricted.

What banded kōkopu need in streams

Banded kōkopu prefer small, shaded streams with plenty of cover. They are particularly associated with forest cover and well-vegetated waterways but are also abundant in urban and pastoral streams where riparian shade and instream habitat are intact. However, banded kōkopu are highly sensitive to suspended sediment.

They rely on instream features such as undercut banks, tree roots, overhanging vegetation, logs, debris dams and boulders to provide refuge. Pools offer important feeding habitat, while shaded margins and overhanging vegetation help keep water temperatures cool and supply a steady source of food.

Banded kōkopu are mostly active at night and hide during the day, so instream cover is essential for protection from predators and conserving energy.

Banded kōkopu feed on aquatic insects, along with terrestrial invertebrates that fall or are washed into the stream from surrounding vegetation. They locate prey using a sense we do not have, the lateral line, which detects the small ripples made by insects struggling on the water surface. This makes healthy riparian margins especially important, as overhanging plants directly support their food supply.



Photo credits: Bob McDowall, Richard Allibone, Ben Crichton, DairyNZ

» Actions you can take to make your local stream a better place for banded kōkopu

- 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 refuges for banded kōkopu.
- 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 banded kōkopu movements.

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