

ENDEMIC SPECIES FEATURE

New Zealand is home to two species of eel, the longfin eel and the shortfin eel, both commonly referred to as tuna in te reo Māori. Both species can be found in the Brook Sanctuary, though the longfin eel is more prevalent.

The longfin eel is one of New Zealand's most remarkable native species, known for its impressive size—it can grow up to 2 metres in length and live for up to 60 years, making it one of the longest-living freshwater species in the country. Easily recognised by its long, dark body and pale underside, the longfin eel differs from the shortfin eel, which is typically smaller and more vibrant in colour, with a green and yellow hue.

Both eel species spend the majority of their lives in freshwater, but after decades of growth (usually around 30-40 years), they embark on a remarkable migration to the Pacific Ocean to breed. Longfin eels are migratory, travelling downstream to the ocean, where they spawn and die. Their breeding grounds are believed to lie in the deep waters off Tonga or the Kermadec Islands, although no one has ever observed them spawning. Their offspring, known as elvers, are carried by the currents back to New Zealand to continue the cycle. Some longfin eels are known to travel up to 100 kilometres in a single journey between rivers and the sea—a truly incredible feat. Next time you see an eel, think of the long journey it has undertaken over its lifetime.

You can learn more about the eel lifecycle and the challenges they face on their journey at the information panel below the 'Big Dam' in the Sanctuary. Eels play an essential role in New Zealand's freshwater ecosystems, preying on insects, small fish, and crustaceans (like freshwater crayfish – kōura). Unfortunately, human activities present significant threats to both eel species, including pollution, damming, the introduction of exotic fish species, and habitat destruction through waterway development.

We are fortunate to have both eel species in the Brook Stream. To support the eels, we provide fish passage, ensuring they can access the habitats they need to thrive. During your visit, you may even spot young eels (elvers) climbing mussel spat ropes, which have been installed to help them reach suitable habitats above the dams.

Source: Kati Doehring, Cawthron Institute

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Longfin eels

Anguilla dieffenbachii

Shortfin eels

Anguilla australis



Photo credit: johnb-nz on iNaturalist



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