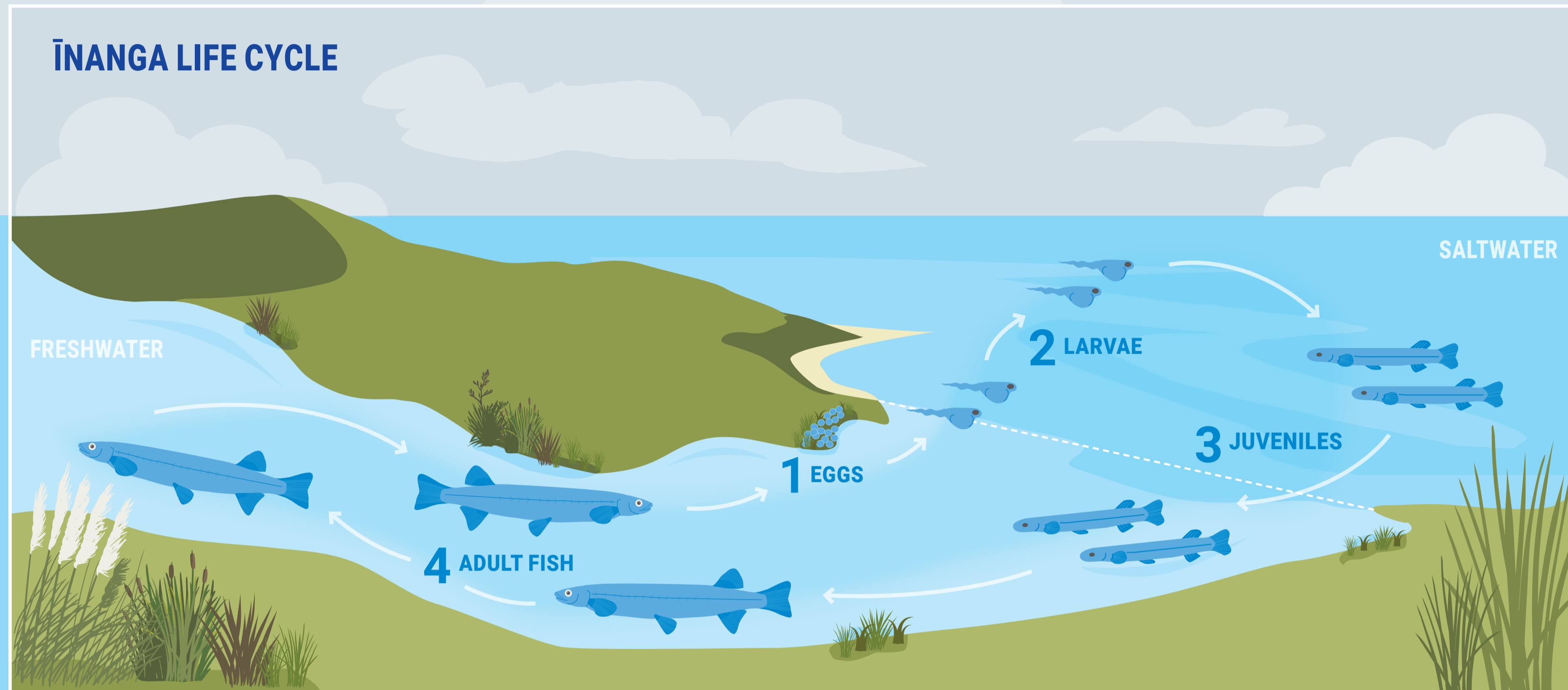


# Life cycles of Aotearoa-New Zealand's five galaxiid species

The five migratory galaxiid species (commonly known as whitebait or īnanga) have a diadromous life cycle meaning they use the marine and freshwater environment to complete their development.

## FIVE SPECIES OF WHITEBAIT



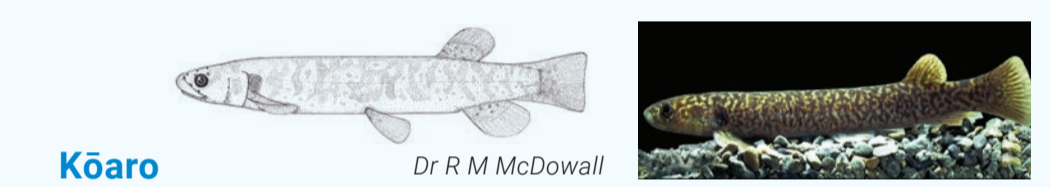
- Once Īnanga reach maturity in freshwater, they move downstream to their spawning sites. Spawning occurs on bankside grasses where the saltwater wedge penetrates fresh waters at high tides.
- The eggs are laid during high spring tides in the intertidal vegetation and develop out of water for 2-4 weeks. The vegetation protects the eggs from drying out but also protects them from predators.
- The following spring tide stimulates the eggs to hatch and larvae are carried to the sea to feed and grow.
- After about six months, Īnanga migrate back into freshwater as juveniles (whitebait). They remain in the lower parts of rivers while they adapt to their new freshwater environment and change into the adult form. They then move further upstream in search of suitable adult habitat for rearing.



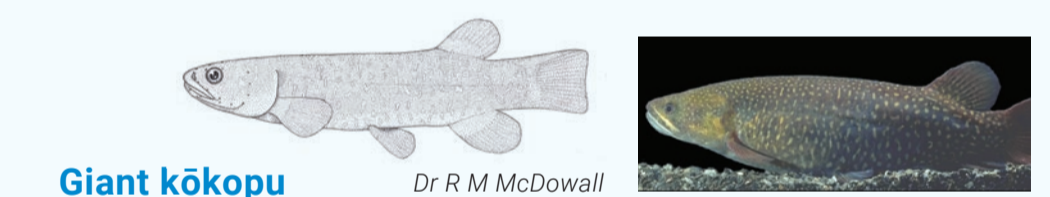
Īnanga are the most abundant whitebait species and are widely distributed in Aotearoa. Īnanga can migrate well inland in some rivers but are normally considered a coastal species. They are the smallest of all whitebait species, usually reaching 100-110 mm. Found in most rivers and streams in Aotearoa they form the bulk of the whitebait catch.



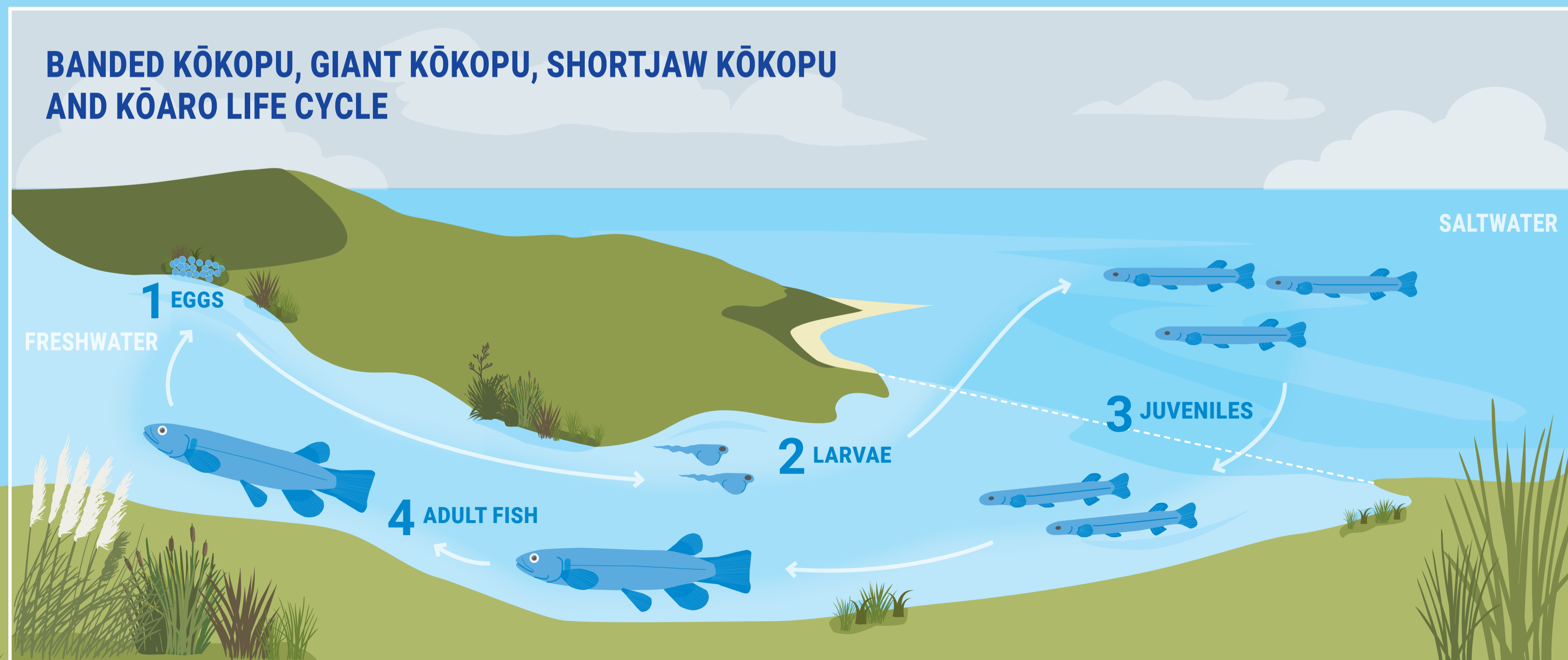
Shortjaw kōkopu are only found in Aotearoa. They are the rarest of the whitebait species and have the most restricted distribution. Shortjaw kōkopu are mostly found along the west coast of the South Island, the top of the South Island and the Taranaki region. They do not occur on Stewart or Chatham Islands.



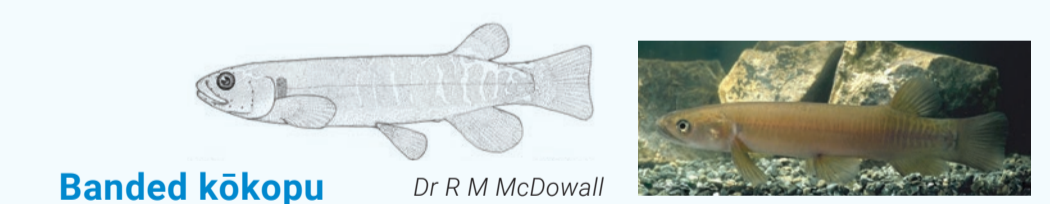
Kōaro are found in freshwaters at higher elevations in Aotearoa such as mountainous streams. They are also found on Chatham, Stewart, Campbell and Auckland Islands. Kōaro prefer clear, swiftly flowing streams of small to moderate size that flow through native forest.



Giant kōkopu are only found in Aotearoa but have a fragmented distribution. They are mostly found along the west coast of the North and South Island as well as major offshore islands. However, they are absent from Fiordland and the east coast of the South Island. Giant kōkopu prefer coastal freshwater habitats and are not usually found far inland.



- The eggs are laid in vegetation on river banks during flood flows and, like Īnanga, develop out of water. They can also lay their eggs within the gravels in streams.
- When stream levels rise, and the eggs are covered with water, they hatch and the larvae are carried out to estuaries and the marine environment.
- They then migrate back into freshwater as juveniles (whitebait) in search of habitat for growth into adulthood.



Banded kōkopu are primarily a coastal species and prefer forested streams with pools and undercut banks. They are found throughout Aotearoa especially on the west coast of the North and South Islands. However, they are rare along the east coast of both islands with only a few observations from East Cape.

For more information visit  
[niwa.co.nz/te-kuwaha/inanga](http://niwa.co.nz/te-kuwaha/inanga)

