Giant kōkopu monitoring, Awarua-Waituna

The Waituna Lagoon catchment is a 'hot spot' for giant kōkopu in Southland. Monitoring has commenced to better understand the resident population and help manage the species.

Most commonly seen as juvenile whitebait (1 of 5 whitebait species), the aptly named giant kōkopu reaches lengths of between 30 cm and 40 cm at maturity – with reports of fish up to 60 cm. Over time their glassy, transparent bodies become olive-green with galaxy-like golden patterns, inspiring the family name Galaxiidae.

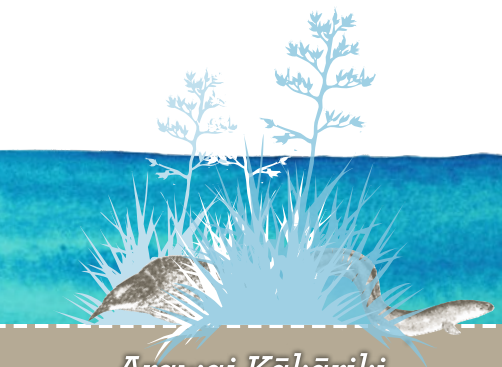
The conservation status of giant kōkopu has been assessed as 'At Risk – Declining'.[1] Giant kōkopu are threatened by habitat changes, fishing pressure, predation, and competition from introduced fish species.[2]

Waituna Lagoon adjacent to Foveaux Strait. *Photo: DOC*

A local 'hot spot'

In 2010 a DOC survey of six Southland catchments found that the Waituna Lagoon catchment had the greatest number of giant kōkopu, making it an important site for the conservation of the species.

This relative abundance of giant kōkopu is likely a product of the lagoon. The giant kōkopu life cycle typically includes a migratory phase where larvae are carried out to coastal waters to feed and grow, returning to freshwater as juveniles/whitebait. At Waituna, the lagoon offers an alternative rearing habitat for larvae meaning higher numbers of juveniles are retained to disperse within the catchment.



Catching giants

Long-term monitoring began in 2013 to better understand the distribution, abundance and recruitment of giant kōkopu within the Waituna Lagoon catchment. Initially, 17 survey sites were selected, with 3 sites added in 2016. Giant kōkopu were caught using minnow traps and fyke nets.

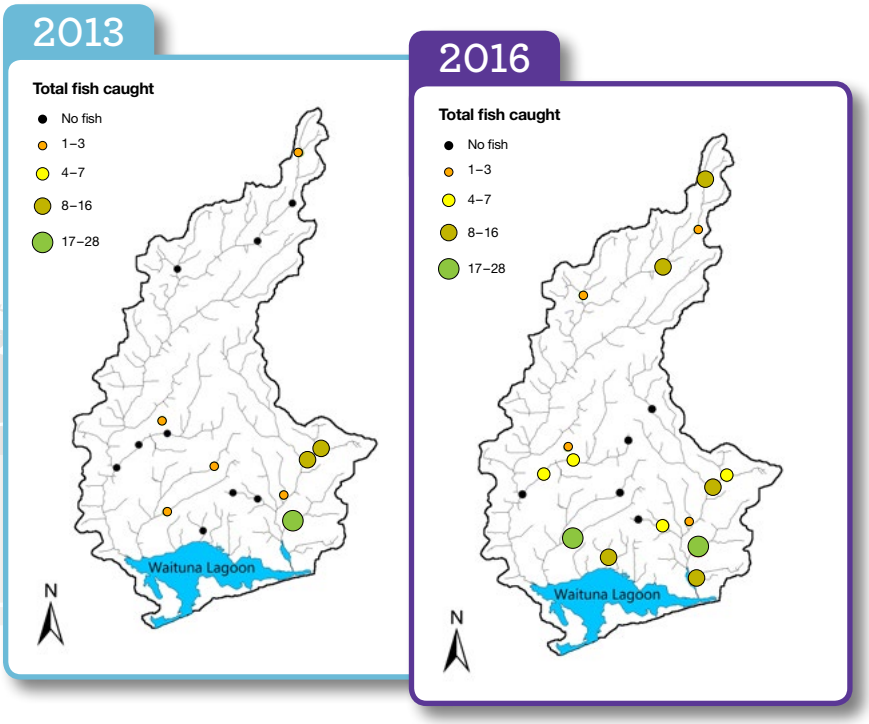
Photo: DOC

Numbers of giant kōkopu caught varied greatly between the two sampling years, with a total of 58 caught in 2013, and 177 caught in 2016. There was also a 60% increase in the number of sites where fish were caught in 2016. In each year, the highest numbers of giant kōkopu caught were at sites in Carran Creek (in the east of the catchment).

With only 2 years of data, it is too early to identify population trends at Waituna. Patterns may emerge as monitoring continues.

Monitoring will determine the abundance, distribution and stability of this regionally important giant kōkopu population, and guide management within the catchment by identifying sites for:

- in-stream and riparian habitat restoration
- mitigating water-quality issues, such as high sediment-levels
- building partnerships with landowners to reduce land-use impacts on waterways with resident giant kōkopu.



References...

[1] Goodman et al. 2014. Conservation status of New Zealand freshwater fish, 2013

[2] Allibone et al. 2010. Conservation status of New Zealand freshwater fish, 2009

NEXT ACTIONS...

Monitor...

Monitoring of giant kōkopu at survey sites will take place every 2 years to ensure the population remains stable and to identify key issues for management.

Restore...

A giant kōkopu habitat index will be developed to identify areas of poorer-quality habitat. These areas will become restoration priorities.

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