



**Te Runanga O Arowhenua Society Inc.**



**AORAKI**  
ENVIRONMENTAL  
CONSULTANCY LTD

**Date:** 11 February 2020

**To:** Whitebait Management Consultation  
Department of Conservation  
PO Box 10420  
WELLINGTON 6143  
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**Name of organisation making submission:**

- *Te Rūnanga o Arowhenua (Arowhenua)*

**This is a submission in opposition to the Department of Conservation's Whitebait Management in New Zealand (Te whakapai ake i te whakahaere inanga) Discussion Document January 2020.**

### ***Summary of Submission***

#### **Introduction**

Te Rūnanga o Arowhenua (**Arowhenua**) is the principal Papatipu Rūnanga of Ngāi Tahu that exercises rangatiratanga over the South Canterbury Region, which extends from the southern bank of the Rakaia River to the northern bank of the Waitaki River and from the Southern Alps to the sea.

Arowhenua **oppose** the Whitebait Management (Te whakapai ake i te whakahaere inanga) Discussion Document prepared by the Department of Conservation (**DOC**). The reasons for this view are explained in full below.

As mana whenua in our takiwā and kaitiaki, Arowhenua formally requests that DOC treats this response in a manner consistent with its obligations under the Conservation Act 1987 and Local Government Act 2002. These obligations include, but are not limited to, a requirement to take into account the principles of the Treaty of Waitangi (**Treaty**), which require the protection and respect of our relationship with and rangatiratanga over freshwater.

Arowhenua wish to acknowledge the support provided by Te Rūnanga o Ngāi Tahu (Ngāi Tahu) in the preparation of this submission.

#### **Importance of Whitebait to Arowhenua**

*Definition: Whitebait (inanga), Galaxias maculatus - a small silvery-white native fish with a slender body. Found in streams, rivers, lakes, swamps and pools throughout the coastal regions of Aotearoa/New Zealand up to 215 km inland. Forms small to large schools. Maximum size 190 mm. Adults mature at one year and migrate downstream on new or full moons to spawn when the spring tide floods marginal vegetation. Eggs are left amongst the vegetation out of the water and hatch at the next spring tide.*

Whitebait are a gastronomic icon to many New Zealanders. The inanga whitebait fishery is hugely important culturally, especially for Arowhenua. Inanga is a key mahinga kai species and taonga to Māori who traditionally harvested migrating juveniles (whitebait) as they moved upstream in spring

and fished for adult inanga as they moved downstream in shoals to spawn in Autumn (McDowall, 2011<sup>1</sup>).

Inanga provided such an excess of food over these periods that a large amount of the captured fish was preserved for times when food was scarce (McDowall, 2011). Inanga whitebait remains highly valued by Ngāi Tahu as a food resource and is served regularly on marae throughout the Canterbury region (McDowall, 2011).

#### Potential Reasons for Population Decline

The unusual life cycle of inanga has put them under pressure from multiple stressors (Hickford and Schiel 2011<sup>2</sup>), and the species is now classified as “declining” (Goodman et al. 2014<sup>3</sup>). This decline in inanga numbers within urban and rural streams are due to a multiple of reasons; however, the degradation of freshwater systems and water abstraction for irrigation purposes appear to be the most predominant causes.

Small urban streams such as those running through Timaru and Temuka are widely recognised as amongst the most degraded of freshwater systems nationally because their small size provides limited resilience to the multiplicity of impacts on their natural form, functioning and biota. Fully restoring them to a pre-impact environment is impossible because of the dense infrastructure of housing, business, industry, roading and other services that have developed beside, over, under and through them and the diverse pollutants and rubbish that are conveyed into them through stormwater and other sources.

While the lower urban reaches of rivers are subject to the greatest modifications, further up-slope, more "rural" sections and the catchment headwaters are subject to multiple land uses such as lifestyle blocks, horticulture, farming and forestry which exert additional pressures on water quality (e.g sediment, nutrients, faecal and chemical contaminants) and habitat. Water abstraction and water supply dams further reduce the amount of wetted habitat available for fish and invertebrates as well as concentrating nutrients and elevating water temperatures which further accelerate slime or bacterial (algae) growths.

Extensive reaches of urban streams are piped, culverted, straightened and channelised. Various other channel modifications include detention dams, gravel and debris traps. While the overarching concern has been the efficient control of water to provide flood protection for valuable property, land, infrastructure and human safety, New Zealand wide, the collective effect has been to constrain or prevent whitebait and other migratory fish species accessing thousands of kilometres of upstream habitat.

Diversity of native fish faunas upstream of barriers is therefore often limited to those fish which have the strongest climbing ability (e.g elvers, koaro, banded kokopu) or which do not need to migrate to and from the sea (45% of NZ freshwater fish undertake such migrations see McDowall 2001) to complete their life history such as the upland bully. Fortunately there is now general recognition that unimpeded linkage of freshwater habitat to the sea is critical to sustaining native fish populations and

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<sup>1</sup> McDowall R.M. (2011) Ikawai: freshwater fishes in Māori culture and economy. University of Canterbury, Christchurch, New Zealand

<sup>2</sup> Hickford M.J.H. & Schiel D.R. (2011) Population sinks resulting from degraded habitats of an obligate life-history pathway. *Oecologia* 166, 131–140.

<sup>3</sup> Goodman J.M., Dunn N.R., Ravenscroft P.J., Allibone R.M., Boubée J.A.T., David B.O., Griffiths, M., Ling, N., Hitchmough, R.A. & Rolfe, J.R. (2014) Conservation status of New Zealand freshwater fish, 2013. New Zealand Threat Classification Series 7. Department of Conservation, Wellington, New Zealand.

has led to the development of standards, guidelines, inventories, research and development of techniques to address fish passage needs and retrofit existing structures with fish passage devices.

Other induced changes to urban catchments affecting flow regime arise because of the high proportion of impervious surfaces such as roads and footpaths. This increases the rate at which rainwater runs off into the stormwater system and eventually into streams, causing flooding and high-water velocities. It also reduces the amount of rainwater that can infiltrate the soil to keep streams flowing between rainfall events, and therefore streams dry up more often and for longer. These changes adversely affect fish and invertebrate habitat and living conditions.

Across urban, rural and upper catchment reaches the complete removal or extensive modification of the former continuous native riparian corridor, including freshwater and estuarine wetland sequences in the lower reaches, is a feature common to urban streams. The massive scale of removal has had a profound effect on habitat for not just fish and aquatic invertebrates but the diverse community of native birds, terrestrial insects and bats which formerly populated the riparian zone of lowland forest ecosystems. Towering stands of forest and dense understory presiding over very dimly waterways choked with leaves, branches, logs and fallen trees (sources of carbon for the food chain) thriving with aquatic life, have been replaced by straightened channels often with open, grassy manicured banks, exotic weed species and an absence of the natural instream debris which provided the habitat complexity required to support diverse and dense populations of fish and invertebrates.

The loss of shading by riparian vegetation, the destruction and restriction of freshwater flows has produced one of the most damaging effects on small urban streams resulting in elevating water temperatures, which may occur over fairly short distances because of the small thermal inertia and the rapidity of water heating. This in turn has prevented inanga juveniles from penetrating as far inland or colonise as many streams as the other diadromous galaxiid species; therefore, reducing locations in which inanga can spawn, thus reducing the population numbers.

#### **Comments on Discussion Document**

Te Rūnanga o Arowhenua's overall position is to oppose the intent of DOC's Discussion Document. The Discussion Document does not acknowledge or provide for the rangatiratanga over freshwater and inaka by Ngāi Tahu and Arowhenua for the following reasons:

1. Ngāi Tahu signed a Deed of Settlement with the Crown in 1997. This Deed establishes a legal contract between the Crown and Ngāi Tahu. Section 6(7) of our Settlement Act (1998) gives the force of law to our Deed and explicitly recognises Ngāi Tahu "as the tangata whenua of, and as holding rangatiratanga within, the Takiwā of Ngāi Tahu Whānui". Ngāi Tahu's rights to mahinga kai are protected by our Treaty Settlement and Te Tiriti o Waitangi. This means that DOC and the Crown are obligated to protect our customary rights and rangatiratanga over inaka.

The Discussion Document assumes that DOC has the authority to manage inaka fisheries and ignores the partnership between Te Rūnanga o Ngāi Tahu (and Arowhenua) and the Crown. This issue must be addressed before any changes are made to the laws and policies that relate to our environment.

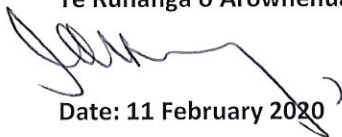
2. The overall position of Te Rūnanga o Ngāi Tahu and Arowhenua rejects DOC's Discussion Document. The Discussion Document does not acknowledge or provide for Ngāi Tahu rangatiratanga over freshwater.
3. Mahinga kai need healthy water to thrive, and Arowhenua believe the health of our mahinga kai is non-negotiable.

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4. Arowhenua is requesting to be excluded from any changes that are proposed regarding customary fisheries. DOC must legally recognise that any changes that are made do not apply to Ngāi Tahu customary fishers within the Ngāi Tahu takiwā. Ngāi Tahu and Arowhenua uphold our customary right to fish inaka as we have always done for generations.
5. As outlined above, Ngāi Tahu and Arowhenua do not accept the view that our inaka fisheries are declining simply because of white baiters. The Crown and Local Governments are continuing to put agriculture first, instead of our environment. Because of this, our waterways are drying up and deteriorating over time. The Discussion Document does not address this full picture and does not face up to what needs to be done to ensure our waterways are healthy.
6. Arowhenua are cultivating our mātauranga and investing in scientific research that is tailored to individual streams, rivers and whole catchments. Both customary and scientific understandings are suggesting that what is best for our waterways is determined by our waterways. In other words, local knowledge knows best. This means that the 'one size fits all' approach taken by this Discussion Document does not necessarily work and by working with Arowhenua, a more suitable approach can be undertaken.
7. Arowhenua support the submission prepared and submitted by Ngāi Tahu.

**Signature of person authorised to sign on behalf of person(s) making the submission.**

John Henry  
Chairperson  
Te Rūnanga o Arowhenua



Date: 11 February 2020

Name:  
Address:  
Runanga:

Date:

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