Notification of Catfish Biocontrol Research in Te Arawa Lakes

AUGUST 2020

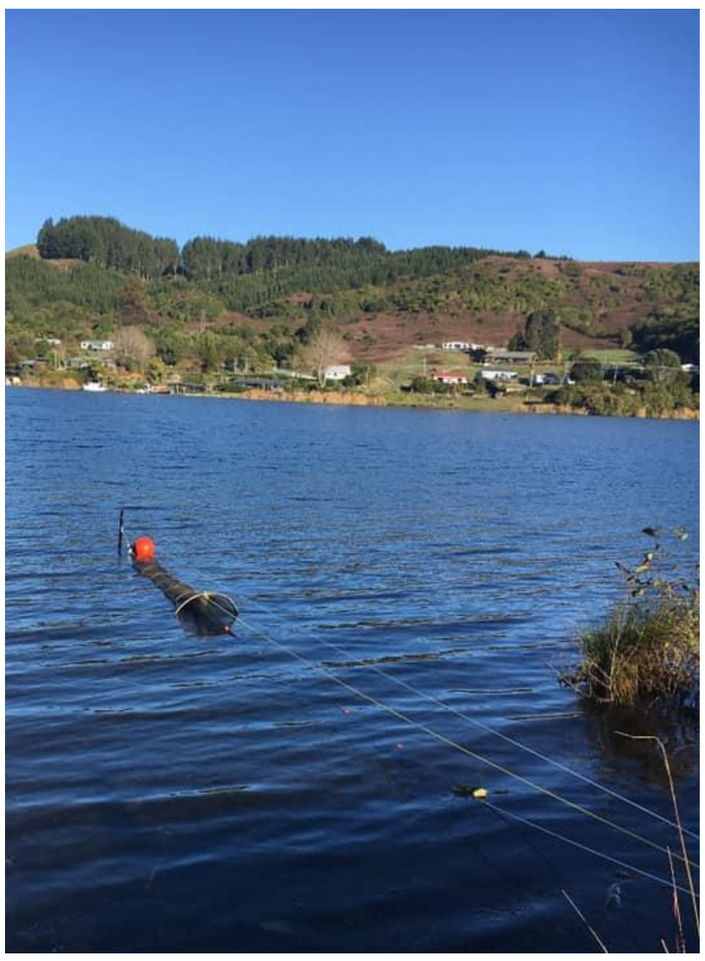
TE ARAWA LAKES TRUST

BAY OF PLENTY REGIONAL COUNCIL TOI MOANA

We would like to let you know that we are investigating the use of alternative methods to control catfish in Lake Rotoiti and Lake Rotorua. This is so we can protect and care for our taonga species and the health of our lakes.

Catfish were first discovered in Lake Rotoiti in March 2016 then in Lake Rotorua two and a half years later. Despite massive netting efforts by our contractors and volunteers, the catfish population is now an estimated 186,000 in Lake Rotoiti (as of March 2020).

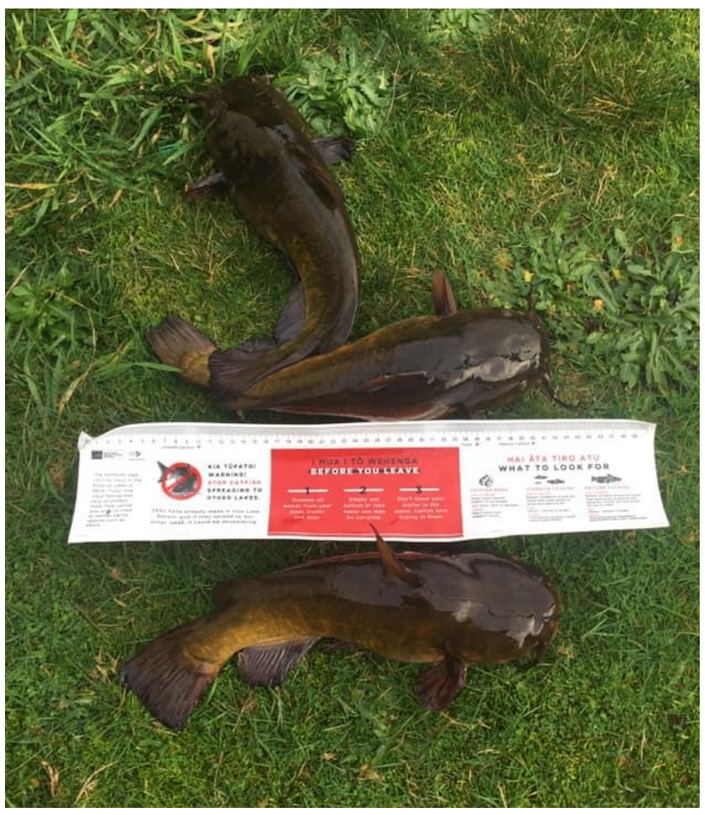
We know that catfish are devastating our kōura populations. We also know that catfish eradication is not feasible with the current tools available. For this reason, we are working with the Bay of Plenty Regional Council and NIWA on a research project to assess whether biocontrol, using sterile male catfish, would be an effective tool for Lake Rotoiti and Lake Rotorua.



These are catfish which are unable to successfully breed with other catfish. As a result, they disrupt the breeding success rate of wild catfish.

Over the next 12 months, we will be facilitating engagement hui to listen to your concerns and thoughts about this research project. We will also be:

- Identifying mātauranga māori-based research projects to both support the research requirements while also supporting post-graduate students of Te Arawa descent.
- Working with Ministry for Primary Industries and Department of Conservation to understand their respective permitting processes.
- Working with NIWA regarding research requirements e.g. catfish population dynamics.



We will be discussing this kaupapa at an engagement hui in September 2020. In the meantime, if you require any further information or clarification, please contact William Anaru on william@tearawa.iwi.nz or visit our website www.tearawa.iwi.nz.

We look forward to your feedback to ensure that we can engage in this programme together for the protection and care of our waters.

Ngā mihi mahana

Karen Vercoe
CEO - Te Arawa Lakes Trust

FREQUENTLY ASKED QUESTIONS

Will it work?

Initial modelling indicates that, if annual stocking was undertaken at 7,500 juveniles, substantial suppression would take 20 years, while eradication would be achieved within 60 years. The period could be reduced further with continued contractor and volunteer netting efforts. Likewise, for increasing the amount of sterile fish released to Lake Rotoiti and Lake Rotorua.

What does this mean for our taonga species?

The proposed option involves increasing the catfish population to Lake Rotoiti and Lake Rotorua. In the short term, this may mean increased impacts to taonga fish species. In the long term, however, taonga species would recover as catfish numbers decrease.

The proposed method of producing sterile males would only affect catfish. It would not pass on or transfer to other taonga species.

Can the short term impacts be managed?

The short term impacts can be managed through:
• increasing the amount of netting undertaken by our contractors and expanding the volunteer program.
• investigating the option of 'koura sanctuary areas' within the two lakes and/or koura restocking.

Are there cultural implications to this method?

Some Māori oppose methods involving genetic modification (GM) as it contravenes tikanga, including whakapapa, mauri and kaitiakitanga. The Environmental Protection Agency confirms that the method of producing sterile males (called triploidy) is not genetic modification as it does not involve manipulation of individual chromosomes.

How does this align with our strategies and plans?

In relation to the Mahere Whakahaere (TALT Fisheries Management Plan):

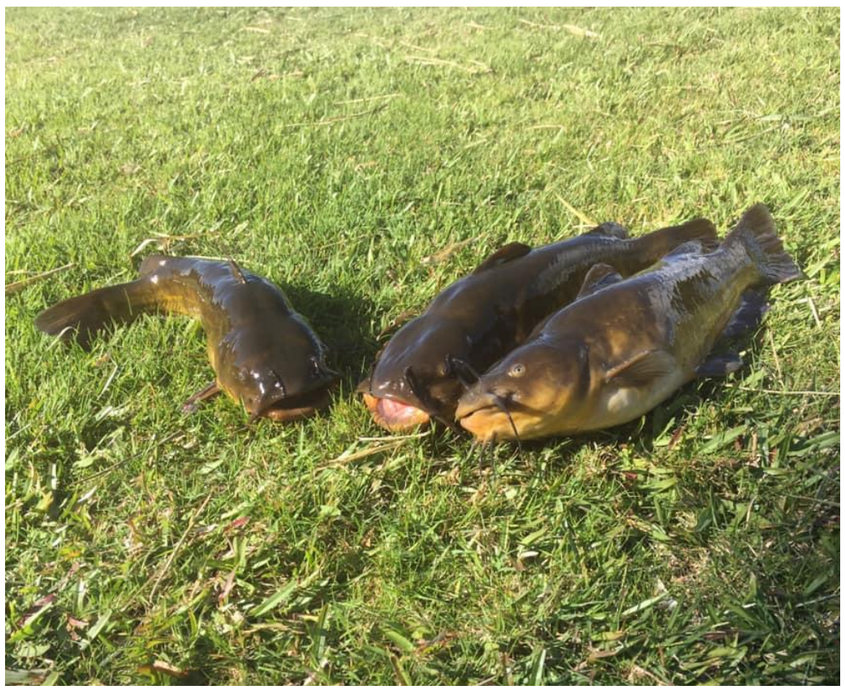
- Objective 4 seeks to prevent the degradation and support the restoration of fisheries habitats in the Te Arawa lakes. The method of particular relevance is "support initiatives to prevent the introduction and spread of aquatic pest species (plants and animals) that pose a threat to customary fisheries."
- Objective 1 seeks to ensure the sustainability of the customary fisheries in the Te Arawa lakes. Relevant methods include protecting at-risk customary fisheries species, breeding female kōura and undersize kōura.

The biocontrol option is contrary to the above method to achieve Objective 4 as it specifically involves the introduction and spread of catfish which is a significant threat to kōura. However, the long term benefit of the biocontrol option will contribute to Objectives 1 & 4 of the Mahere Whakahaere.

In relation to He Mahere Taiao (TALT Environmental Plan):

- Objective 5.3 seeks to reduce the risks and impacts of biological threats (e.g. disease and pests) on our Lakes, native flora and native fauna, through surveillance monitoring; increased public awareness, particularly water users; continued management of existing threats; and, rapid response to new threats.
- Objective 5.2A seeks to restore and enhance the health and diversity of ecosystems and habitats in and around Te Arawa Lakes. This includes enhancing kai roto stocks.

The biocontrol option contributes to Objectives 5.3 and 5.2A of the Mahere Taiao.



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