

Rare fish find

New populations of endangered native fish (including two whitebait species) have been recorded for the first time in parts of the Bay of Plenty during fish surveys by Regional Council's science team.

Fisheries Assessment reports recently published by Council show that koaro are living in the upper reaches of a number of Rangitāiki River tributaries, above Lake Aniwhenua. Shortjaw kokopu were discovered for the first time in the Ohineangaanga Stream which feeds into the Kaituna River, and new populations of banded kokopu were found in several waterways throughout the Kaituna River and Waitahanui Stream catchments.

The fish were caught using electric fishing machines and fyke nets and then released, as part of Council's work to assess the current health of the region's waterways. Surveys were completed at 140 locations in the Rangitāiki, Kaituna Maketū and Pongakawa–Waitahanui catchments. Full reports are available at www.boprc.govt.nz/freshwaterscience.

Council's Freshwater Ecologist Alastair Suren is excited about the fish finds.

"Loss of habitat, reductions in water quality, and the presence of in-stream barriers have taken their toll on native fish populations regionally and nationally. There's a lot of work to be done to turn the tide on that, but some interventions are having a positive effect. For example, the discovery of migratory koaro in upper Rangitāiki tributaries is a direct result of the trap and transfer work being led by the



Rochelle Carter (BOPRC) and Julian Sykes (NIWA) in action during fish surveys in the Kaituna catchment.

Kokopu Trust as part of the Matahina dam consent conditions.

Whitebait species like koaro migrate between freshwater and seawater as part of their lifecycle. Migration barriers like dams and perched culverts can interfere with their ability to breed, so any work to help fish move upstream will bolster their populations in the long term," Dr Suren said.

Dr Suren said that there are many initiatives throughout the region where Council staff are working together with iwi and landowners to remove fish barriers, improve water quality and

restore fish habitat and breeding areas.

"One method we're using is to retrofit flood gates with fish friendly devices that will allow fish to move up and downstream. Another example is in the lower reaches of the Tarawera River, where some small inanga (whitebait) rearing ponds have been created," he said.

Landowners that want to make their drains and flap gates more fish-friendly can access practical advice and funding assistance through Council's Land Management team. See www.boprc.govt.nz/fishfriendly or call 0800 884 880 for details.



Koaro. (Source: DOC.)



Banded kokopu. (Source: DOC S C Moore.)

Wealth of knowledge in your water meter

Checked your water meter lately? That little gauge on your intake pipe is an important tool in caring for this country's limited freshwater supply. By making sure it's working well, and sending your water-use data in on time, you're informing water management decisions for your region.

Bay of Plenty Regional Council Regulatory Compliance Team Leader Steve Pickles said that the region's water quality and availability is generally good, but it's under



increasing pressure and needs improvement in some locations.

"Everyone's lives and livelihoods rely on a good supply of clean freshwater, now and in the future. Council is currently developing new targets and rules to care for water; good information is a cornerstone to that. Data from water users helps us to quantify water needs and availability more accurately. Daily recording might seem onerous but it helps us to better understand seasonal changes and localised issues," said Mr Pickles.

Mr Pickles said automatic electronic (or telemetered) systems and manual entry online at www.boprc.govt.nz/watermetering are the most efficient ways for water users to submit their data.

The value of water-use data is reinforced through the 2010 National Water Metering Regulations and individual resource consent conditions. They place a legal obligation on consent holders (that take >5 litres/second) to regularly record and report on their water use using a verified water metering system.

"We've been helping consent holders to

adjust to the regulations for the past five years. Everyone should be familiar with what they need to do by now. Anyone that's unsure can contact our Regulatory Compliance team on 0800 884 880 to talk it through. We encourage them to do that so they can avoid penalties for non-compliance," Mr Pickles said.

A penalty fee of \$200 applies to Bay of Plenty consent holders who fail to provide water use records on time. Mr Pickles said that a common mistake that consent holders make is failing to update their contact details, transfer or surrender their consent, if they move, sell their property or stop taking water.

"The original consent holder remains responsible for meeting all consent conditions, until they notify us and apply for a change to their consent. Consent holders should also check their consent expiry date and get their renewal application in at last six months ahead. There's no automatic renewal process. Application forms are online at www.boprc.govt.nz/consentforms or they can call us and we'll send them out," Mr Pickles said.

IN BRIEF

COMMUNITY REFERENCE GROUPS RECONVENE

A fifth round of workshops for Freshwater Futures community groups in the Kaituna Maketū, Pongakawa Waitahanui and Rangitāiki catchments are scheduled for late May and June 2017.

The groups will be discussing what an acceptable level of water quality and quantity would look like in their local waterways. They'll be exploring what scale of recreational, economic or other water uses could sustainably be provided for. The use of computerised projections (modelling) will also be introduced, for deeper discussion at future workshops.

Each group includes 23–26 people that live and/or work in the catchment. They represent a broad range of community and industry perspectives. Their discussions will inform the development of new limits, rules and methods in the Bay of Plenty

Regional Water and Land Plan to improve water quality and quantity management at a local level. The groups were established in 2015 as part of Regional Council's work to implement the National Policy Statement for Freshwater.

Proposed plan changes will be notified for wider public feedback and submissions from 2018.

See www.boprc.govt.nz/watergroups for member details and meeting notes.

WATER QUANTITY PLAN CHANGE SUBMISSIONS ASSESSED

A summary of submissions on Proposed Plan Change 9 – Region-wide Water Quantity will be completed and a call for further submissions publicly notified on 30 May 2017. Council received a total of 78 submissions on the proposed plan change.

The change proposes new rules and policies in the Bay of Plenty Regional Water and Land

Plan that are designed to strengthen water allocation limits and management. It's an interim step while localised limits and rules are established through Council's work to implement the National Policy Statement for Freshwater.

See www.boprc.govt.nz/waterquantity for updates and details.

KOPEOPEO CANAL CLEAN UP

While boggy ground caused minor delays in containment site construction, April floods had no significant impact the Kopeopeo Canal Remediation Project.

The project is underway to restore the mauri of the Kopeopeo Canal and the Whakatane River, by safely removing and treating 40,000m³ of sediment that was contaminated as a result of historic sawmill discharges into the canal.

See www.boprc.govt.nz/kopeopeo for updates and details.



Flow rigs check for false facts

Consent holders that take more than 20 litres of water per second from Bay of Plenty waterways will soon be receiving reminders that their water metering system is due for independent verification. So what does verification involve?

Most good quality water meters come with a calibration certificate. That means the meter worked well in isolation, on the day it left the factory. To meet National Water Metering Regulations however, consent holders must have their entire metering system (including the pipe, fittings and any filters, pumps, or other connected headworks equipment) tested on-site by an approved verifier, every five years.

Verification makes sure that water users are keeping their equipment in good working order. It checks that the data supplied by water users is accurate, complete and comparable to other consented water takes.

In most situations a transportable flow rig is used for verifying on-site water meter systems. The calibrated flow rig is connected to a computer that uses specialised software to compare flow rates through the rig and the system being tested.

Truck or trailer-mounted flow rigs are brought onto site and connected into the water metering system that's being verified. Water is first pumped through the on-site system, and then through the flow rig at the consented flow rate(s). Once the flow is stable, a verification test is run for up to 15 minutes.

The verification software displays recorded flow rates through the rig and on-site system on a real-time graph, so potential set up problems or metering errors can be detected straight away. Once the test is finished, a verification report is produced and provided to both the consent holder and Regional Council.

Water metering systems must be verified as at least 95 percent accurate to meet Regulation standards. Consent holders will need to contact their water meter supplier to arrange repair or replacement if testing finds an error level of more than five percent in their system.

Five companies are currently accredited under the Irrigation New Zealand 'Blue Tick' programme and approved by Regional Council to provide water meter verification services to Bay of Plenty consent holders:

- Agfirst Engineering, Scott McKenzie
027 807 4979
Scott.mckenzie@agfirst.co.nz
- Bay Pumps & Irrigation, Mark Cook
07 578 4404 baypumps@hotmail.co.nz
- King Farm Services, Iain Watson
07 304 9640 iain.watson@kingfs.co.nz
- Steve Miller Rural Services, Tim Miller
07 578 3708 tim.smrs@xtra.co.nz
- WaterForce, Steve Smith 021 495 099
ssmith@waterforce.co.nz

See www.boprc.govt.nz/watermetering for updates and details.

IN BRIEF

NUTRIENT REDUCTION FOR ROTORUA LAKES

Continued progress is being made on a mix of regulatory, engineering and land management initiatives to improve water quality in the Rotorua lakes.

Wildlands Consultants have been commissioned to prepare a shortlist of viable engineering solutions to contribute towards removing 50 tonnes of nitrogen from Lake Rotorua. They're assessing options like weed harvesting, watercress beds, wetland and wall construction.

These will add to the reductions planned to be achieved by a nitrogen removal plant at Tikitere, and improved sewage reticulation around the catchment.

Hearings on Proposed Plan Change 10 (Lake Nutrient Management) ended on 4 May. The change proposes new rules in the Bay of Plenty Regional Water and Land Plan that will restrict land use to reduce nutrient run-off into Lake Rotorua. A decision is expected from the hearings committee in August.

Independent trials of on-farm detainment bunds to reduce phosphorous run-off into Lake Rotorua are also underway. Twenty-two farmers in the region have created temporary pooling areas on their farms where storm water run-off is stored. Efficacy of the bunds will be monitored over the next three years.

See www.rotorualakes.co.nz for more updates on work to protect and restore water quality in 12 of Rotorua's lakes.



Brian Levine, PhD student at Massey University, installing a V-notch weir to measure storm water flows at a detainment bund site in the Lake Rotorua catchment.

Maketū Estuary makeover begins

Work to improve natural water flows through Papahikahawai Creek into Te Awa o Ngatoroirangi/Maketū Estuary and create new areas of wetland in the Lower Kaituna Wildlife Management Reserve began in March. The work was temporarily paused due to cyclone impacts and duck hunting season, but is scheduled to restart in June.

Two local kaumatua held a karakia (blessing) before diggers contracted by Bay of Plenty Regional Council started their work. The diggers will be working at both Papahikahawai Island and the Kaituna wetland.

Ngāti Whakaue ki Maketū kaumatua Liam Tapsell said that his tupuna (ancestors) once valued the areas for growing flax and collecting kaimoana (seafood).

“We’re pleased to be able to play our part in restoring the mauri of Te Awa o Ngatoroirangi and the Kaituna wetland,” he said.

Wharekonehu Te Moni, representing the island owners as a Papahikahawai Island No.1 and No.2 Trustee said that the owners have reduced erosion and nutrient run-off into the estuary by removing grazing stock.

“We’ve also allowed the causeway to be replaced with a bridge so that the tide can work like it used to and flush 13 hectares of estuary that’s been pretty sick since the causeway was built in 1963,” Mr Te Moni said.

Bay of Plenty Regional Council is co-

ordinating and funding the work which is also a preparatory step toward the re-diversion of twenty percent of the Kaituna River flow back into the estuary at Maketū.

Regional Council Kaituna Catchments Manager Pim de Monchy said that the Kaituna River was cut off from Te Awa o Ngatoroirangi/Maketū Estuary in 1956, causing a decline in estuary health, water quality and wildlife habitat. Construction work for the re-diversion is scheduled to start this spring.

“It’s great to know there’s already good numbers of tuna there and we expect them to thrive with improved flushing in the upper estuary. We also hope to see other species such as inanga, mullet, flounder and kahawai recolonise the area known as Papahikahawai Lagoon.”

“In the meantime, as well as removing the causeway between the island and Maketū Spit, we’re replacing the stop banks along Papahikahawai’s southern shore with a more

natural contour and replanting it over the next couple of months. That means the wetlands can establish more quickly once the re-diversion is in place. The sand for re-contouring is coming from the nearby Lower Kaituna Wildlife Management Reserve where it’s being removed from a pasture area to create yet more wetlands there. So it’s a win for waterways and wildlife all round,” said Mr de Monchy.

Mr de Monchy said that baseline monitoring in the upper estuary reinforces the need to improve water quality and wildlife habitat there.

“During recent fish surveys we found only tuna (eels) and mosquito fish (Gambusia). Other fish species that we would expect to see weren’t there, probably because the water has very low oxygen levels. It’s great to know there’s already good numbers of tuna there and we expect them to thrive with improved flushing in the upper estuary. We also hope to see other species such as inanga, mullet, flounder and kahawai recolonise the area known as Papahikahawai Lagoon,” Mr de Monchy said.

Further information and updates about the Kaituna Re-diversion and wider work in the catchment is available at www.boprc.govt.nz/kaitunamaketu

1 Construction of Papahikahawai Bridge

Contractor: Edifice Ltd

2 Re-contouring of Papahikahawai southern shoreline and re-planting with native plants.

Contractor: Crowley Excavators LTD and Regional Council staff

3 Sand for this re-contouring is coming from the Lower Kaituna Wildlife Management Reserve where wetlands are being created.

Contractor: Crowley Excavators LTD

3 Removal of two causeways blocking Papahikahawai Creek, and allowing the tide to flush clean 13 hectares of estuary which has been stagnant for many years.

Contractor: Regional Council staff

