

BOG PAPER

Awarua Wetland | December 2014

Conservation for prosperity – *Tiakina te taiao, kia puawai*



Kia ora from the Awarua-Waituna Arawai Kākāriki wetland restoration programme.

In the last issue of 2014, Julie Newell looks at an elusive tiny brown moth found only at two local sites; Olivia Burge updates us on her PhD; and we need your help to plan Arawai Kākāriki's work at Waituna for the next five years.

Solving the mystery of saving the little brown moth

Work in Invercargill is helping to solve the mystery of how to save the elusive little brown moth (*Asaphodes frivola*), which is nationally endangered. The moth is only found on Tiwai Peninsula and Three Sisters dunes near Omaui.

This elusive moth spends most of its life as a looper caterpillar, feeding on an unknown host plant under silver tussock and club rush before pupating in the soil surface. A handful of adult moths are found for a few brief weeks each year. In autumn, the adults emerge and mate.

The first little brown moth found, a single male, was discovered around 1912 “near Invercargill”. Seventy years passed before entomologist Brian Patrick rediscovered the moth at Sandy Point in Invercargill in 1981, finding both flying males and the first recorded flightless females. In subsequent years, only a handful of the moths were seen.

Determining the moth's host plant and habitat requirements is vital to its conservation. In April Brian Patrick returned to Invercargill to work on the mystery. Together with botanist Brian Rance he located a native buttercup, *Ranunculus glabrifolius*, in the moth's Tiwai Peninsula habitat, with a male moth in the surrounding vegetation.

Native buttercups are a favourite food of *Asaphodes* group of moths, all of whom are notoriously fussy eaters. Other native buttercups grow at the Three Sisters site.

Hopefully in the coming months, larvae can be found and raised in captivity to confirm whether these buttercups are indeed fodder for the growing larvae, and a vital piece in the puzzle of how to conserve this fascinating little moth will be revealed. ♡

The flightless female moth. Photo: Brian Patrick



Male moth on a native buttercup. Photo: Brian Patrick

Arawai Kākāriki

wetland restoration programme

Whangamarino • Ō Tū Wharekai • Awarua Wetland

Department of
Conservation
Te Papa Atawhai

Restoring the Awarua-Waituna wetlands

In 2007 the Awarua-Waituna wetland complex was one of three sites chosen for the newly formed Arawai Kākāriki wetland restoration programme.

Some highlights from the last eight years:

16,000 ha
of weed and
animal pest
control

Development
of 4.5 km walking
track and lookout
viewing platform



The next
5 years...

Waituna and the wider Awarua is a special place and we want to look after it for future generations.

We have made a lot of progress since the project started in 2007, but there are still big issues to tackle. We are writing a 5 Year Plan for the Awarua-Waituna wetlands to plan what needs to be done, when and how.

Our focus through Arawai Kākāriki is on public conservation land, covering the large wetlands systems Toetoes & Seaward Moss, Waituna Lagoon, Tiwai Spit and Awarua Bay.

We also work closely with the Fonterra DOC Living Water Partnership working in the Waituna Catchment.

A plan takes time to develop. It takes knowledge and skills from many people to make it practical and meaningful.

To get the ball rolling we have written down what we think the big issues are in the wetlands, lagoon and estuary, and what actions we need to take.

Are we right? Please let us know. This is your chance to put your ideas forward.

Big issues

1. Loss and degradation of wetlands
2. Deteriorating health of Waituna Lagoon and waterways
3. Exotic weeds and pests

Our targets

- **Improve** the quality of water going into our creeks and lagoon to provide a healthy environment for our native animals and us to use our waterways!
- Look after the wetlands we still have and **encourage** the creation of new ones
- Help provide **policy** and **regulatory certainty** for our farming community
- Get more people **enjoying** and **appreciating** their wetlands
- Increase **understanding** of the wetlands by **sharing information**
- Be **widely known in the community** for the work that Arawai Kākāriki is carrying out
- **Support** the Living Water Partnership in the Waituna Catchment

Subsidised fencing, riparian planting and culvert alignment through the Awarua Waituna Advisory Group

Wetland corridor created from Toetoes covenanted forest remnants to the sea

Supported the amazing work of the Waituna Landcare Group

Extension of Awarua Ramsar site from 3,500 ha to 19,500 ha

Monitoring fish, eel, fernbird, weeds, animals pests, bittern, lizard, dotterel, Ruppia, and threatened habitats

Targeted scientific research programme



• **Closely work** with the Waituna Partners and Family to look after our wetlands now and in the future

We aim to achieve this by doing the following.

Immediate actions – by June 2015

Work with locals and the Waituna Partners Group to:

- Support best practice farming, riparian planting, drain cleaning, stream rehabilitation and sediment trapping to **reduce nutrients** and **sediment** in waterways
- Advocate for **better rules** to manage nutrient loads and support **policy certainty** for farmers
- Work on the **lagoon opening consent** to balance healthy lagoon and wetlands alongside successful and sustainable farming
- **Protect** and **enhance** the wetlands on public conservation land through targeted weed and animal pest management, and **stop** the loss of wetlands off public conservation land
- Reduce the number of **fires** by working with Southern Rural Fire
- **Support** and **celebrate** what people are doing to help the wetland

Longer term actions – by June 2020

- **Create** more places to walk, play and enjoy the wetlands – Should we develop: A **walk** down Waituna Creek? **Picnic benches** at the east end of the lagoon and at Awarua Bay? A **playground** or a **mountain bike** track?
- Make sure all boundaries are securely **fenced**
- New **pest animal control** projects involving locals
- **Create** more habitat for our wildlife – Should we: **Restore** the lower Waituna Creek with planting, walkway, habitat refuges for wildlife? Create **wetland corridors** through the wetland complex? Continue to

support Waituna Landcare Group to look after the waterways and promote sustainable land management within the Waituna Catchment? Continue to **encourage** and **help** landowners with the covenanting, fencing and protection of wetlands, with the Living Water Partnership? Continue to **work with farmers** to restore wetlands on public conservation land that is farmed, such as Craws Creek?

- Support Ngāi Tahu to **reconnect** and **re-engage** with the wetlands, and achieve their goals of collecting mahinga kai and having a local nohanga site
- Work closely with Waituna Partners, Living Water Partnership and the community to **coordinate** and **enhance** our work 🌱

Hang on a second...

These are our ideas. Please let us know if you do or don't like them by **5 February 2015**:

Phone me (Sarah Thorne) for a chat or to arrange a meeting: 03 211 2488

Write down your ideas and email them to me: slthorne@doc.govt.nz

Fill in our online survey: www.surveymonkey.com/s/6ZXVXNG

To find out more about the Arawai Kākāriki Wetland restoration programme contact Sarah, or keep an eye out for our new leaflet about the Awarua-Waituna wetlands, which will be coming out later in the year.

Encouraging native forest reduces fire risk


Mānuka and bracken are widespread in the Awarua wetland and burn easily and well. Native forest that would have once existed in the drier areas of the wetland is much less flammable. However, it takes many years for bracken and mānuka to regenerate into native forest.

Olivia Burge, a PhD student at the University of Canterbury, spoke at the Waituna Landcare Group's AGM in April about her investigations into what is stopping native forest from returning to the wetland.

Olivia started her project in February 2011, and has measured:

- where existing forest regeneration is occurring and why
- the number and distribution of pests
- what is stopping new regeneration from beginning
- whether bird perches can assist with seed transfer

Her work is still in progress, but suggests the wetland could support more native forest in areas of mānuka and bracken. As well as reducing the spread of fire, this would benefit biodiversity by providing habitat for native wildlife.

Olivia is very grateful for the co-funding of her PhD by the Awarai-Kākāriki programme. 



Fire damages biodiversity.

Fire permits

Remember that all fires south of the Catlin's highway to the Mataura River – from an incinerator to a large pile of vegetation – require a fire permit (see map).



Southern Rural Fire is happy to come and talk to you about any burning and can provide free advice. You can get hold of Sally Chesterfield on 0800 77 33 63 / 027 603 1102, or check out the website www.southernruralfire.org.nz/fire-zones.



The marked area shows where open fire permits are required all year round.

Contact us

For further information on any of these articles, or if you have a story or photos or ideas you would like to share, please contact:

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A big thank you to Primary ITO crew who spent a day looking after the riparian plantings at Craws Creek and the Lagoon Boardwalk. *Photo: John Peterson*