

Otago Natural History Trust

Annual Report 2016-17

Colin Campbell-Hunt, Chair

Conservation

Our contributions to the conservation of New Zealand's most endangered species are the foundation for everything we do at Orokonui. So it is pleasing to report a year of strong achievement. Highlights include the hatching and successful rearing of two takahe chicks by Paku and Quammen. Miraculously one of the eggs from this pair that was thought to be infertile turned out to be live, was later incubated at Te Anau Wildlife Park and is doing well. Takahe continue to be a great advocacy experience for our visitors.

We have also reared another 20 Haast Tokoeka kiwi chicks during the year. These are returned to the West Coast as they gain the size and weight to defend themselves. Haast Tokoeka kiwi are the most endangered of all kiwi (numbering less than 400) and Orokonui is one of only four kohanga populations contributing to their recovery. Cameras have been deployed in kiwi hot spots and in April three separate kiwi were recorded and one appeared to be an Orokonui-raised juvenile. If so, this is the first recorded rearing within a kohanga population. A magnificent achievement for the sanctuary.

Over and above these highlights, populations of kaka, robin, tuatara, skink and gecko continue to thrive and grow, adding to the growing cacophony of calls from tui and bell birds. It is the gradual restoration of this diverse ecology of indigenous species that will increasingly confront our visitors with the realisation of what has been lost since human arrival in these islands. The birds are increasingly flying out beyond the fence, creating a halo that has inspired the surrounding community to launch the Orokonui Halo Project and the Landscape Connections Trust, about which more later. Elton Smith has been supporting these initiatives with advice on trapping and predator control.

None of these good things happen without the bravely sustained commitment of Orokonui's conservation staff. All members of the Trust, now numbering almost 1,000, would want me to express our gratitude to Elton and his team.

The big challenge this year has been an invasion of mice, which showed up first just after last year's AGM and have since exploded to be recorded in 95% of our tracking tunnels. Such invasions are a common experience in fenced sanctuaries. Both Zealandia and Bushy Park currently have high mouse populations, and Rotokare has also suffered in the past. The response to this challenge has been truly heroic. 64km of monitoring lines have been established. Conservation staff and 20 volunteers have constructed and installed no less than 2600 takahe-proof bait stations throughout the sanctuary. These will be baited soon after this AGM.

This report must also mention the sustained efforts to improve the safety of the sanctuary in many other ways: upgrading of all culverts that surround the sanctuary; installation of new 'run-through' traps; testing of new self-setting traps. Despite these efforts, a stoat was found in a trap inside the fence in April. Thorough searching by a stoat dog failed to discover any more, so in all probability the sanctuary is again stoat free. But the reinvasion by stoat has put paid to any hopes to return tieke to the sanctuary in the immediate future. The reason for stoat invasions has yet to be found. A way has been found to quickly rid the fence hood of build up of snow and ice using the ATV and a broom, and the design of the three water gates has been reviewed by an engineer and fish biologist.

All predators are tireless in their efforts to break into the sanctuary. But so are the efforts of our conservation staff and volunteers to keep them out. Over the nearly ten years of the sanctuary's life, predator victories are extraordinary rare.

Our volunteers

Just about everything that happens at Orokonui relies on the freely-given efforts of an army of volunteers. This past year, an enormous effort has gone into the construction and installation of the 2600 bait stations that will radically reduce the number of mice in the sanctuary. But everywhere you look volunteers have made it possible for our small team of paid staff to keep the sanctuary operating at its full potential. Fence checkers, feeder-fillers, planting, weed control, trapping both inside and outside the fence, track maintenance and signage, lizard monitoring, reception and administration, education, the inaugural fun run, trustees and directors – and that list almost certainly leaves out several other indispensable contributions. Over the past year over 12,000 hours of volunteer time have been contributed to Orokonui's work programmes. At a modest \$20 per hour that represents almost a quarter of a million dollars contributed to the sanctuary's resources. But the volunteers do what they do for love. Orokonui is clear evidence of what can happen when the forces of life and love are put to work.

This AGM sees the retirement of Kelvin Lloyd who has been a trustee since the Otago Natural History Trust was first established. I also learned today that Valerie Fay, who has led volunteer teams for planting and weed control since before the fence went up is also stepping down. They will both be greatly missed, and I hope they will carry with them great pride in what they have achieved and what they have contributed to the sanctuary.

Education and Advocacy

Orokonui's most distinctive contribution to the conservation cause is to use the unique environment being created within the fence to make our visitors realise the stunning beauty of the ecologies that existed before humans came, and to motivate them to fight to restore these ecologies to the mainland. One of the most powerful ways we do this is through the sanctuary's very successful education programme led by Tahu Mackenzie and her team of helpers. In the past year over 6000, mainly primary, school students have participated in our education programmes, both in schools and at the sanctuary.

Headline programmes during the year have included: "How Safe is My Cat?" a programme for four local schools to track domestic cats using GPS and monitor their response to dummy traps. Port Chalmers kindergarten "Eco Warriors" come up to Orokonui on alternate Wednesdays to care for a plot of trees.

At the tertiary level, courses from many Otago University departments make use of the sanctuary: Zoology, Ecology, Geography, Conservation Biology, Social Work, Outdoor Education, Tourism, Wildlife Management, Botany, Science Communication. In the past year we have also hosted university student visits from the US and Hong Kong.

Also making a powerful contribution to our advocacy is the wildways series of columns in the ODT. These keep the Orokonui message fresh in the mind of our local community and have played a vital role in building understanding and community support for the sanctuary. Orokonui staff and volunteers also accept many speaking engagements to spread the Orokonui word. In the past year these have included the Science Communicators Association of New Zealand, the University of the Third Age and several talks on radio. We have also

participated in the New Zealand International Science Festival and the Wild About Dunedin festival.

Then there are the moths. In partnership with Landcare Research, Otago University and Ngai Tahu a series of four bilingual moth resource booklets have been created. A three-day hui was held at Orokonui to launch these resources. Thirteen schools from around the South Island participated, including nine te reo Maori immersion schools. Another hui was held later for the wider community. Students from Te Kura Kaupapa o Otepoti successfully fundraised to attend an indigenous science conference in Canada. The students gave an hour-long presentation sharing the work on moths that they carried out at Orokonui and at school.

A mark of Orokonui's success in promoting the restoration of indigenous biodiversity to the mainland is the increasing number of conservation projects arising outside the fence. Orokonui's education resources are actively involved in this widening of our horizons.

Orokonui is playing a leading role in a new Town Belt Initiative engaging 30 schools around the town belt with student-led restoration and monitoring projects. Trustee Marian Hobbs is chairing this new initiative. Marian has also led a study of the education needs of secondary school science teachers in the region that might be met using Orokonui's resources.

Orokonui is the Education Partner for the new Valley Urban Ecosanctuary Project. This is a new Participatory Science Project that will work with schools and the wider community in the North East Valley to create pest and bird profiles of the valley using trakka tunnels, feeders and field cameras set up in students' back yards. Guided by Otago University researchers, the project aims to use the data collected to better understand how to create a corridor for native species such as kaka as their populations grow and expand out of Orokonui over time.

Much of our education programme over the past ten years has been funded by the Ministry of Education's Learning and Education Outside the Classroom (LEOTC). Orokonui has exceeded its targets in the delivery of LEOTC programmes and we should be able to look forward to a successful renewal of that funding later this year. But whatever the outcome there, the Trust will sustain Orokonui's education programmes as one of its indispensable programmes.

Research and the Orokonui Knowledge Group

The sanctuary is increasingly being used as a base for research, with moths and skinks being actively studied during the year. Established in 2016, the Orokonui Knowledge Group is an open group of staff, citizen science, consultants and university researchers that give advice to the Trust on questions of science, conservation practice and research proposals. A number of reports have been presented to the Trust on bird counts, invertebrates, indigenous fish, and kiwi. During the year, the OKG has also given advice on the terms under which research is conducted within the sanctuary.

A particularly challenging question confronting the Trust has been the role of kiwi in the sanctuary's overall strategy. The Kohanga population of Haast Tokoeka Kiwi is unquestionably one of Orokonui's most important contributions to conservation in New Zealand. However, with the ending of DOC's financial support to the sanctuary (about which more later) there is presently no recovery of costs and no potential for this human-averse taxon to contribute to the sanctuary's advocacy mission.

A number of responses have been suggested, including a kiwi nocturnal house and night tours. Some of these have provoked strongly-held differences of opinion both within the Orokonui family and the sanctuary's key stakeholders, Kati Huirapa ki Puketeraki, West Coast DOC, and Makaawhio who have kaitiakitanga over the Haast kiwi. Thanks to the hospitality of Te Kati Huirapa Runaka ki Puketeraki, these viewpoints were shared in a hui earlier this month. This clarified that Orokonui will remain committed to the care of the Haast kiwi for the foreseeable future, and will, in the first instance, seek the support of Te Runaka ki Puketeraki, West Coast DOC, and Makaawhio for some form of advocacy experience with these birds.

The changing landscape of conservation in New Zealand

We live in interesting times. For the past decade or so large fenced sanctuaries have been seen as an outstanding success in bringing New Zealand's endangered species back to the mainland. The Orokonui vision has always been to inspire community understanding and commitment to biodiversity restoration beyond the fence. Evidence of our success in this mission is now coming thick and fast with the emergence of several groups aspiring to extend the safe range for threatened species. Several have already been mentioned: the Landscape Connections Trust, the Orokonui Halo project, the Town Belt Project, the Valley Urban Ecosanctuary Project, and Orokonui staff and volunteers are either actively involved in many of these or helping with advice.

In the past year, 20 groups in and around Dunedin have come together in the Predator Free Dunedin partnership. The PFD agreement was signed in April at a ceremony held at Orokonui and attended by the Prime Minister and Minister for Conservation. The Trust's Chair and General Manager have been closely involved in PFD's development of terms of reference for a consultant's report on a strategy to bring a targeted number of predators to very low levels. The Trust also continues to be closely involved with the national Sanctuaries of New Zealand Incorporated Society (where the Chair is Secretary) and the Fenced Sanctuaries Network.

These community-led initiatives, including sanctuaries like Orokonui, are working to define roles that will best contribute to the important new large-scale national initiatives that are promoting biodiversity restoration at landscape scale: Predator Free 2050 Ltd. and DOC's Threatened Species Strategy. So far these national initiatives are long on ambition and short on understanding of how to achieve their heroic goals. In particular, there is quite inadequate appreciation for the absolute necessity of engaging the enthusiastic involvement of community-led groups like Orokonui. As we have learned at Orokonui, nothing is achieved without it. Next month's meeting at the national SONZI workshop is devoting an entire day to improving our understanding of how to make mainland biodiversity restoration actually work.

One consequence of the new emphasis on landscape-scale restoration is a shift in priorities for national funding agencies, including DOC. The year covered by this report began with DOC's decision not to award funding to the sanctuary, which has averaged \$90,000 over the past five years. Meetings and representations to the Department at local and regional levels, and a letter to the Minister, have failed to change the Department's stance that we can no longer plan on any financial support from this source. Energetic and successful efforts to replace this very significant source of funding have been ongoing throughout the year and will continue for some time to come.

The Trust has made a case to the Otago Regional Council that it follow the example of Taranaki, Hawks Bay, and Waikato regional councils that have stepped in to fill the vacuum created by the withdrawal of financial support at national level. The ORC is considering its environment strategy over the coming year and may or may not rise to the challenge.

In the past year, I hope I have learned a lot about the conservation scene in New Zealand. The future is clearly going to see an extension of the wonderful success of our sanctuary project out beyond the fence. It is a mark of our success that this is happening at all. Looking around for a model of how this will work, I have to say that Orokonui has a lot of the answer. We offer an inspirational example of what can be achieved in restoration, in community engagement, in education and advocacy, and in mobilising and training the armies of volunteers that are indispensable to restoring biodiversity at landscape scale. Right now I do not look to national initiatives to provide sensible direction on the way forward, and I think that community-led projects like Orokonui may well have to pick up the banner.

It has been a year of challenges and I ask members here to express their thanks to our staff, volunteers, directors and trustees who have risen to the challenges and demonstrated again the resilience that has always characterised our wonderful project. Kia Kaha!