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Introduction from new Trust Chair

Kia ora koutou katoa to all readers of the first issue of eNews for 2025!

I am Mike Glover and I have taken over as Chair of the Sanctuary from Chris Hakes in February this year. My background is in business - I have been on the Sanctuary Board since 2019 and have chaired the Eco-Systems sub-committee most of that time.

I would like to acknowledge the work and contribution of previous Trust Chair Chris Hawkes who has stepped down from the Sanctuary Board after 6 years of service. During his time as Chair, Chris ably led of the Trust through the challenging COVID period which necessitated the Sanctuary closure; Chris' networks of contacts and sponsors, and his experience as Chair of the Kaiteriteri Recreation Reserve were all much appreciated at the Board Table. Chris' prior experience with the Kaiteriteri Campground was instrumental in enabling the Trust to take on the management of the Brook Valley Holiday Reserve. I am quite certain that Chris will continue to have a deep appreciation for the activities of the Sanctuary and will have an abiding interest in it's continued development and success, along with that of the campground.

I am delighted to announce the appointment of the new Sanctuary Chief Executive - the Trust has appointed Chris McCormack to the role, Chris starts at the end of next month, see page two for more on Chris. Chris is itching to get started with the Trust, we look forward to welcoming him and his young family to Nelson.

Whilst making announcements, I am equally excited to announce that very soon kiwi will be calling the Sanctuary home! There is a great deal of planning going on at the Sanctuary for the arrival of kiwi pukupuku (little spotted kiwi/LSK) in early May. The Trust was granted approval in February 2024 by the Department of Conservation to translocate up to 40 kiwi pukupuku to the Sanctuary, and since that time our staff and volunteers, along with our DoC, Ngāti Toa and Save the Kiwi partners have been working together on a detailed translocation plan which is about to come to fruition. The birds will come to us from Kapiti Island, our first capture team heads to the island at the beginning of April to locate birds and fix them with transmitters. This project comes with significant costs, some of which are already covered by generous support (\$30k) from the Jens Hansen Kiwi Establishment Fund, and \$47k (+GST) grant funding from the Save the Kiwi Trust, plus a number of smaller donations. However, we still expect further costs for the translocation that aren't funded, if you can help with these costs, your assistance would be gratefully received. Click here, to donate to the Jens Hansen Kiwi Establishment Fund (payments go straight into Sanctuary bank account), or contact: <u>nick.tilly@brooksanctuary.org.nz</u> Office Manager.

Enjoy this first edition of eNews for 2025, as always, your feedback and comments are most appreciated.

Ngā mihi

Mike Glover, Trust Chair



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NEW CHIEF EXECUTIVE APPOINTMENT

The Board of Trustees is delighted to introduce Chris McCormack as the incoming Chief Executive of the Brook Waimarama Sanctuary Trust; Chris will be commencing with the Sanctuary in late April just ahead of Ru Collin's departure.

Chris, his wife and their two young children will be shifting from Dunedin in order for Chris to take up his new role.

Chris is an accomplished Operations Manager with 10+ years of experience leading and scaling tourism operations. Chris has a proven track record of driving growth, community engagement, project management, and strategic planning. Committed to driving sustainable development with a strong conservation focus.

Since July last year, Chris has been the Tourism Operations Manager for OPERA (Otago Peninsula Eco Restoration Alliance). Previous employment includes operations administration with Monarch Wildlife Cruises & Tours, and as Operations Manager at the Royal Albatross Centre run by the Otago Peninsula Trust.

For over 10 years Chris has volunteered with the Department of Conservation at Taiaroa Head with Albatross chick counts, banding, weighing and supplementary feeding. Chris has also done voluntary work with Blue Penguins Pukekura and at the Orokonui Ecosanctuary.

Chris gained a Bachelor of Applied Management from the Otago Polytechnic in 2019, and also has a Diploma in Applied Travel & Tourism, and a Diploma in Outdoor Leadership & Management.

When his time off Chris enjoyed family time with his young family, sea kayaking, wildlife photography, tramping and the great outdoors.

The Board intends that initially Chris will spend a good deal of his time actually in the Sanctuary getting to know the Sanctuary itself, the work being done, along with the staff and many volunteers.



NEW TRUST CHAIR

Mike Glover was confirmed as the Trust Chair following the resignation of the previous Chair (Chris Hawkes) at the board meeting held 17 February 2025. Mike is the Managing Director of a family-owned holding company for a number of business and property interests. Mike has been a Director and Chair of a number of Nelson and national companies over the last three decades. Mike has an honours degree in law and has been a Sanctuary Trustee since 2019.



NEW VISITOR TRACK

The track team have created a new section of track linking Totara Crossing and Flagstone Crossing on the true left of the Brook Stream. This enables visitors to walk a up the Valley Track to Flagstone without having to cross Totara Crossing, which due to the large boulders can be hazardous, especially when water levels are high.

This section was considered too difficult to build when the track network was originally constructed, but with years of experience behind them the track team were willing to take on the challenge. It passes over an old slip site and through some very solid rock which had to be broken through to create the track.

During construction some rare species of plant were found by our rangers, including pygmy mistletoe and limestone kowhai which is endemic to Nelson. The track was formed around these plants to minimise the damage to these and other rare species.

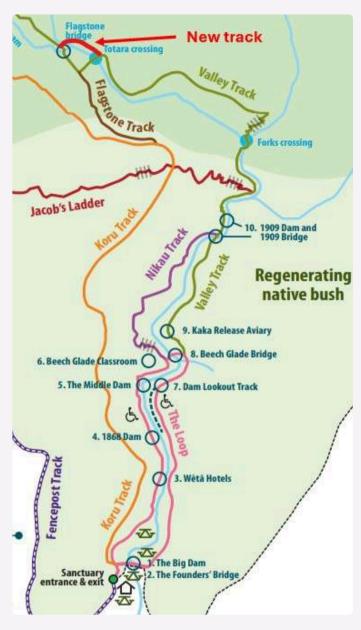
It has taken months of hard labour by the track team and is well worth a visit. From the top there are great views down onto the stream below.

The next improvement to the visitor track network is to install a bridge at the Forks Crossing so that the circuit up the Valley Track to Flagstone Crossing and back along the Koru Track can be completed with dry feet. But for the more adventurous there are still plenty of stream crossings further up the track network and the Totara Crossing will be kept open as an optional short cut to Flagstone Track.

The new track will be opened to the public in April.



Brian Patterson on new track





Track team on the new track

RARE MOTH SPECIES FOUND IN SANCTUARY

Biodiversity rangers Chelsea and Henry, along with Otago University Masters student Shaeleigh (currently studying tuatara post-translocation) recently spent a night in the Sanctuary intent on catching and identifying moths. Initially, the team was rather disappointed to discover that the area they had chosen to survey was rather poor in moth diversity. The team netted less than 10 small brown moths; not finding these moths in the field guide, they uploaded their images to the citizen science app iNaturalist. The upload to iNaturalist caused a stir with experts, click here to view the upload and ensuing discussion. It turns out that two of the moths were a rare species known as Thambotrica vates or the wonder-haired prophet moth. This moth is sparsely distributed around the North Island. The moth had not been seen on the South Island since the 1920s in north west Nelson. The moth is seen so infrequently that the host plant is still unknown.

Moth diversity is an indicator for a diverse and healthy forest as different moth species feed on different plants, and different parts of the forest will contain different species of moths. The recovery of the Sanctuary flora since the removal of pest browsers will have allowed for the invertebrates to recover in turn. At night the Sanctuary is alive with incredible critters including geckos, wētā and spiders. This night time diversity hides many undiscovered rarities, like the unassuming, but beautiful *Thambotrica vates*.



Thambotrica vates, wonder-haired prophet moth Photo credit: commoncopper on iNaturalist

Further reading, <u>click here</u> for an article originally published in the Bay of Plenty Times.

INTERESTING FUNGI Cordyceps sinclairii

Is an entomopathogenic fungus, which means it infects insects. *C. sinclairii* infects cicada nymphs underground and its fruiting bodies emerge above ground to spread its spores. The images are an example of the infected nymph, the fruiting body and the mycelium (see page 9). This one was found on the wider loop track near the start of kanuka spur.



Infected cicada nymph - photo credit: Chelsea Haley



C. sinclairii fruiting bodies - photo credit: Chelsea Haley

TUATARA: GUARDIANS OF THE FOREST

This mini-documentary celebrates the triumphant return of tuatara to the Top of the South Island, focusing on the release of 56 tuatara into the Brook Waimārama Sanctuary in November 2024.

This event marked a significant milestone for Ngāti Koata, the Sanctuary, and the Whakatū/Nelson region, as it was the first mainland translocation of these ancient reptiles in the area.

The film showcases:

- 1. The cultural significance of tuatara as taonga (treasured) species for Ngāti Koata, who are kaitiaki (guardians) for this iconic species.
- 2. The extensive preparation by the Sanctuary staff and volunteers, including the construction of a state-of-the-art mouse-proof fence and creation of suitable habitats.
- 3. The collaborative efforts between the Sanctuary, Department of Conservation, Ngāti Koata and various wildlife centres across New Zealand that provided the tuatara.
- 4. The careful translocation process, from sourcing the reptiles to their release into pre-drilled burrows within the Sanctuary.
- 5. The ongoing monitoring and conservation efforts to ensure the tuatara's successful establishment in their new home.

By highlighting the dedication of the Brook Waimārama Sanctuary volunteers, supporters, staff, and trustees, this documentary serves as a testament to the power of community-driven conservation.

To watch the video, click >>><u>HERE</u><<<

Our sincere thanks to Fraser Heal for producing the video, to Nelson City Council for supporting the project and for the many contributors who were part of recording this important milestone for the Sanctuary.



TRANSLOCATION UPDATE KIWI PUKUPUKU / LITTLE SPOTTED KIWI (LSK)

Planning and preparations for the autumn translocation of kiwi pukupuku are progressing well.

A technical working group, including all key stakeholders—iwi, the Kiwi Recovery Group, Save the Kiwi, and Brook Waimārama Sanctuary (BWS)
Technical Advisory Group members—has been established. The group held its inaugural online meeting at the end of January.

A local DOC kiwi expert has worked with the Sanctuary's ecologist to verify release locations and methods. The chosen sites have been deemed suitable, with several potential natural burrows requiring only minor modifications before the release.

A catching team, led by accredited kiwi-catching contractors and including representatives from Ngāti Toa and BWS (one volunteer and one staff member), will travel to Kāpiti Island on 31 March to capture the first 20+ birds. Each bird will be fitted with a VHF radio transmitter. A second team will then be deployed to locate and tag up to 20 additional birds, aiming for a total of at least 40 kiwi pukupuku.

If everything proceeds as planned, a kiwi-catching team will return to Kāpiti Island on 5 May to round up the tagged birds. The actual translocation and release is anticipated to occur shorty after that. The birds will be introduced into the lower Brook Stream catchment area, not far from the Visitor Centre.

Planning is also underway for mihi whakatau to mark this significant milestone event.

SANCTUARY OPENING HOURS: APRIL

The Sanctuary is still operating on on our 'summer hours' and is open:

- Tuesday Sunday, 9am 5pm
- Open throughout Easter and School Holidays

From 1 May the Sanctuary will change to 'winter hours' and will be open:

• Wednesday - Sunday, 10am - 4pm

TUATARA: POST-RELEASE MONITORING

Hi all, Shaeleigh here! As many of you know, Brook Waimārama Sanctuary released 56 tuatara in November as part of an effort to return tuatara back to the Nelson mainland. As part of my (Otago University) master's research, I've been spending time inside our mouse-free enclosure monitoring how they're settling in; with the help of several Sanctuary volunteers. You'll be pleased to learn that a number of tuatara have already been re-sighted, and - in an attempt to assess the body condition of these individuals - 11 of the 22 adults were caught a few weeks back for healthrelated checks. From this information obtained we hope to gain an understanding of how they are faring in the short-term months following the translocation. Beyond body condition assessments, I am also monitoring their dispersal from the pre-dug release burrows and investigating habitat parameters that may influence these movements. So far, we've observed several individuals establishing their own natural burrows, with one tuatara even making his way halfway up the gravel path towards the gate! Other individuals have also been spotted moving, such as our lovely 39year-old girl A07, who has relocated across the coal mine area to what was formally A18's burrow - though where A18 has ended up remains a mystery! While we have spotted juveniles further up the hill none have been caught for health checks yet, and the babies even further up the hill have been virtually left alone for risk of trampling, yet it is exciting to see the adults spreading out into what appear to be comfortable territories. Although it will take time to determine the long-term success of this reintroduction project, these early signs are promising. I look forward to sharing more updates as we continue to monitor their progress!



Tuatara in the Sanctuary - Photo credit: Shaeleigh



Tuatara in the Sanctuary - Photo credit: Shaeleigh



Tuatara in the Sanctuary - Photo credit: Shaeleigh



Shaeleigh - post release field monitoring, 25 Feb 2025

NEW SPONSOR:



We have been working on a new concept of financial support thanks to Debs Martin at Kotahitanga mō te Taiao Alliance who introduced us to Singapore-based Handprint, a digital tech company that makes it easy for businesses to fund and track regeneration and conservation projects around the world. Handprint operates a multi-sided market. They curate the most impactful social and environmental regeneration projects in the world (currently in 37 countries) and bring those onboard a digital platform for more tailored reporting and monitoring. In Q4, Brook Sanctuary was invited to join Handprint at the request of one of Handprint's corporate clients, Vinci Energies.

What makes Handprint different is that it helps companies capture value from the creation of positive impact. For instance, Handprint has a voucher redemption tool that enables companies to gift impact vouchers to their employees and customers. These stakeholders then receive a voucher code and can choose which project they want to support. The company then learns what their stakeholders care about and can access Handprint's digital data and content repository to re-engage their stakeholders, thereby capturing real value. Handprint also has API technology that can be seamlessly integrated in digital interactions. For instance, if an e-store wants to commit to support Brook Sanctuary with every sale, Handprint can enable this. In an experiment in Australia, they showed doing so increased sales by 16%.

Handprint's primary business focus however is on the banking and fintech industry. Together with a partner, they have built a loyalty program that enables bank card or wallet users to award earthpoints to their customers, as a reward for specific behaviors like saving, a minimum monthly number of transactions, taking the bus, and so on. Customers can then allocate the earthpoints to projects they like, all within their familiar banking app. Handprint is negotiating with some banks in Australia and New Zealand so hopefully by the end of the year, everyone will be able to support the work of Brook Sanctuary through these innovations. By connecting businesses directly with high-impact projects, Handprint ensures ecosystems are restored faster and local communities are supported. This creates a win-win: businesses grow by engaging in meaningful sustainability efforts, and ecosystems can recover, contributing to a healthier planet for everyone.

Our first donation (\$4,895) via Handprint was received in December 2024, and the second (\$7,733) was received in February.

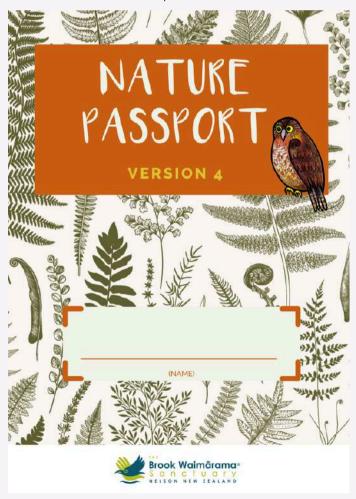
OTHER SUPPORT

The Sanctuary has recently received support from the following:

- A donation from a Sanctuary volunteer to fund the installation of security cameras on the tuatara fence
- Our thanks to everyone who purchased a ticket(s) in our Abel Tasman Vacation raffle, the raffle was a huge success raising \$3,562 for the Sanctuary congratulations to our winner Emily Wragg
- In recent days we have been advised that in August 2025 the Sanctuary will be one of three organisations to receive bequest funds from the Estate of Roy Roughan.

THANKS FOR YOUR DONATIONS

Back in December we appealed for donations to help us cover the printing costs of the Nature Passports for young visitors to the Sanctuary. As a result of this appeal, we received six donations totaling \$1,200 which enabled us to print another 2,000 copies of Nature Passports. Our thanks to all the people who made donations for this specific need.



VISIT FROM NATIONAL POISONS CENTRE

In early January, Yvette Millard from the National Poisons Centre visited the Sanctuary for a study on identifying poisonous native plants. Here is what she wrote about this study.

"The National Poisons Centre (NPC) is based in Dunedin and provides a free 24/7 telephone advisory line for poisoning exposures. Our number is 0800 POISON (0800 764 766). In 2023 the NPC received 1,432 enquiries regarding plant exposures. Kowhai, karaka, ongaonga, and tutu were the most common native plants we received calls about. 178 plant queries (12%) involved an unidentified plant. The NPC cannot identify plants over the phone; in the past we have relied on callers getting plants identified by garden centres or keen home gardeners.

There are now smartphone apps, and internal smartphone "search what you see" photo technology which can help identify plants. There are some studies overseas that have looked at the reliability of these, with varying results, but no study has looked at their reliability in New Zealand, including New Zealand

native plants. Our study compares the accuracy of two apps (Pl@ntnet and Seek by iNaturalist, which are both free to use) and internal smartphone search what you see technology (Google Lens for Android and Visual Lookup for Apple) in identifying native plants and other common plants found in New Zealand.



Tutu plant in flower. Photo Credit: Jon Sullivan on Flickr

NBS: SANCTUARY SPONSOR



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*Funds available to redraw are based on the total amount placed against your loan above the minimum repayments required and in line with the term. Two withdrawals allowed per month on redraw loans. NBS home loan rates are available for residential owner-occupied or investment property loans only. Interest rates subject to change. Terms and conditions, fees and lending criteria applies. NBS is not a registered bank.



BROOK VALLEY HOLIDAY RESERVE UPDATE

After a very successful summer season, the Brook Valley Holiday Reserve is now experiencing increasing visits from Motorhome Association (NZMCA) members staying at the camp on their travels through New Zealand.

The CampSaver rate offers a very attractive incentive to these travellers and has proved to be very popular. Many of these guests have also visited the Sanctuary.

Sanctuary staff, volunteers and contractors have been kept quite busy in the campground over the summer months working on repairs & maintenance and improvements to the campground. A long list of improvements has been tackled which includes painting works, improvements to the grounds including the removal of tree stumps and sowing new grass. cleaning of the kitchen block roof and guttering, plumbing and electrical works. A number of chattels have been replaced and further work is planned.

SANCTUARY LIVE-FEED CAMERA

We have now added a new live-feed camera in the Sanctuary watching a tuatara burrow, you can check it any time to see if the burrow inhabitant is out and about. (<u>Click here</u>, to view the live-stream camera feeds).



Camera feed image 25 March 1:00pm



RECENTLY SNAPPED IN THE SANCTUARY

If you have some great photos taken in the Sanctuary that you'd like to share, please tag us on Instagram and Facebook @brooksanctuary or email them to infor@brooksanctuary.org.nz



Fishing spider *Dolomedes donalei* Photo credit: Henry Hart



Piriwai Yellow mayfly *Ameletopsis perscitus* Photo credit: Henry Hart



Green orchid flower Cordyceps sinclairiiPhoto credit: Chelsea Haley



Ongaonga *Urtica ferox* Photo credit: Henry Hart



Ground wētā *Hemiandrus electra*Photo credit: Henry Hart



Zeopoecilus sp.Photo credit: Henry Hart



Nelson green (starred) gecko Naultinus stellatus Photo credit: Henry Hart



Kākāriki karaka | Orange-fronted parakeet Cyanoramphus malherbi Photo credit: Sean McGrath



Akatea | Climbing rātā or white rātā Photo credit: Steffi Kuenstle

ENDEMIC SPECIES FEATURE

New Zealand is home to two species of eel, the longfin eel and the shortfin eel, both commonly referred to as tuna in te reo Māori. Both species can be found in the Brook Sanctuary, though the longfin eel is more prevalent.

The longfin eel is one of New Zealand's most remarkable native species, known for its impressive size—it can grow up to 2 metres in length and live for up to 60 years, making it one of the longest-living freshwater species in the country. Easily recognised by its long, dark body and pale underside, the longfin eel differs from the shortfin eel, which is typically smaller and more vibrant in colour, with a green and yellow hue.

Both eel species spend the majority of their lives in freshwater, but after decades of growth (usually around 30-40 years), they embark on a remarkable migration to the Pacific Ocean to breed. Longfin eels are migratory, travelling downstream to the ocean, where they spawn and die. Their breeding grounds are believed to lie in the deep waters off Tonga or the Kermadec Islands, although no one has ever observed them spawning. Their offspring, known as elvers, are carried by the currents back to New Zealand to continue the cycle. Some longfin eels are known to travel up to 100 kilometres in a single journey between rivers and the sea—a truly incredible feat. Next time you see an eel, think of the long journey it has undertaken over its lifetime.

You can learn more about the eel lifecycle and the challenges they face on their journey at the information panel below the 'Big Dam' in the Sanctuary. Eels play an essential role in New Zealand's freshwater ecosystems, preying on insects, small fish, and crustaceans (like freshwater crayfish – kōura). Unfortunately, human activities present significant threats to both eel species, including pollution, damming, the introduction of exotic fish species, and habitat destruction through waterway development.

We are fortunate to have both eel species in the Brook Stream. To support the eels, we provide fish passage, ensuring they can access the habitats they need to thrive. During your visit, you may even spot young eels (elvers) climbing mussel spat ropes, which have been installed to help them reach suitable habitats above the dams.

TUNA Longfin eels Anguilla dieffenbachii

Shortfin eels Anguilla australis



Photo credit: johnb-nz on iNaturalist



Photo credit: amonne on iNaturalist

Source: Kati Doehring, Cawthron Institute