



Welcome Back! Nau mai hoki mai!

Welcome back to the Styx Living Laboratory Trust's quarterly newsletter! Within this issue you'll learn about all the amazing things the Trust has been up to and how we plan to move forward. Happy reading! Panui koa!

2021 – A year of change for the Pūharakekenui

In the late 90's selected Christchurch City Council Planners were given the task of creating catchment plans for Christchurch. After extensive community consultation, the Christchurch City Council 'Styx Vision 2000-2040' was created and pushed forward by Christine Heremaia. This established five key visions for the Styx. It was under Vision 3 – creating a 'living laboratory' for learning and research that the Styx Living Laboratory Trust was born in 2002.

Flash forward to 2018, the Trust now had a long history of passionately advocating for the Püharakekenui with some of Christchurch's longest running citizen science programmes, an operational budget of \$20,000 per year and a passionate Board of Management running operations overseen by a Board of Trustees.

The operational budget increased over the years, but 2021 saw the most substantial changes to the Trust thus far. We dissolved the Board of Management and introduced Portfolios to focus on championing specific topics such as Health and Safety, Education, Partnerships and Science. By the end of 2021 we had planted 5000 trees, started running the Kā Pūtahi Rangatahi Mātauranga Education programme, increased our number of volunteers by 30%, had nine new staff and were preparing for an operational budget of just under \$1 million per annum. In late December, we moved into our new Field Centre at 75 Lower Styx Road which borders on the Styx River Reserve. The Field Centre is the perfect canvas to help us achieve our goals and help make the Pūharakekenui the place to be.

Our volunteers are the backbone of the Trust and I would like to thank our volunteers for their dedication over the years and we look forward to working with you in this new exciting chapter for the Trust and the Pūharakekenui.





Update from the Trust – Rex Williams

Founder Trustee John Knox always has a good phrase to summarise a topic and as the SLLT reaches a 20-year mile stone John reflects, "that I never thought that we would get so far but gee we have a long way to go".

As a volunteer group working with a wide range of other organisations to achieve a CCC long term vision there are always going to be humps and swales along the path but the last 12 or so months have seen a wonderful series of successes and set the Trust up for achievements in the next few years.

Structurally the Trust has been revamped in a legal sense and set up a simple governance

structure to provide good accountability for all involved in the wide range of activities now undertaken. Importantly it encourages Trustees to be looking out a few years and to think about succession planning.

The basic volunteer activities continue to be well led and well supported. It is very pleasing to see the professional level of science being achieved and reported.

Project KOTARE, the MfE Freshwater
Improvement Fund support for our Pūharakekenui
Catchment has moved from being a gleam in Dr.
Antony Shadbolt's eye in early lockdown of 2020
to a well-funded, well-resourced activity which
will make a steep change to the health of a
significant urban/rural waterway.

The project has very well-structured governance, management and reporting systems with strong connections into the CCC Ranger activities and outstanding support from Bethany Baker, SLLT's own Conservation Projects Coordinator.

Christine Heremaia, the driving force behind setting up the Trust 20 years ago had the foresight for the CCC to secure property along the Styx and it is fitting that the house at Lower Styx Rd which has now been set up as our base will be named in her honour when officially opened in early May.

As trustees we look forward to continuing the work that we have been passionate about for the last 20 years. We are keen to hear from anybody with an interest in the Pūharakekenui about their future exciting ideas for making it No1 waterway in NZ.



Our Team

Meet the new team dedicated to achieving some great things for the Pūharakekenui!



Bethany Baker

Conservation Projects Coordinator

Bethany is the main point of contact for the Trust and runs all Trust conservation projects (aside from the Pūharakekenui Freshwater improvement Fund Project). Bethany manages all our General Trust Staff, Volunteers, Portfolios and our Field Centre. Bethany also leads the Health & Safety Portfolio and Funding Portfolio and is the Trustees' main point of contact. Bethany has been with the Trust working in the Pūharakekenui for the past four years and comes from a conservation/environmental science background. Outside of work Bethany is a keen kayaker and surfer.



Anita Spencer

Programme Manager

Anita is in charge of the Pūharakekenui Freshwater Improvement Project. Anita is the main point of contact for the Project and also leads the Project Control Group. Anita's background is in ecology and threatened species management. Anita worked at the Department of Conservation as a Senior Biodiversity Ranger before joining our team. Anita is also on the regional committee for BirdsNZ and in her spare time contributes to the NZ Bird Atlas scheme and enjoys tramping.



Jackie Howard Community Coordinator

Jackie leads our community engagement and outreach for the Pūharakekenui Freshwater Fund Project. This includes working with landowners, businesses and managing our volunteers for the Project. Originally from the United States, her background is in biodiversity education, conservation, and outreach. In her free time she enjoys hiking and exploring the outdoors with her whanau.



Gareth Harper Field Staff Lead

Gareth manages our Field Staff Team for the Pūharakekenui Freshwater Improvement Fund Project. Gareth has extensive experience working in farming, forestry, lifestyle blocks, construction, and conservation, and has planted many of the natives throughout the Pūharakekenui and Christchurch. He can often be heard saying, "I think I was involved in the planting of this site" when driving throughout the catchment. Gareth finds revegetation projects very fulfilling and is pleased to be a member of the Styx Living Laboratory Trust team. In Gareth's free time he enjoys hunting and going for bush walks.



Hugh Oliver Field Staff Intermediate

Hugh is one of our Field Staff Intermediates (Rangers) for the Püharakekenui Freshwater Improvement Fund Project. He has a passion for the outdoors and is excited to have the opportunity to look after New Zealand's beautiful natural landscape through the Trust. Hugh is also the father of three young children and is looking forward to bringing them to the sites he's worked on to see the progress in the years to come.



Maddie Meier Field Staff Intermediate

Maddie is one of our Field Staff Intermediates (Rangers) for the Püharakekenui Freshwater Improvement Fund Project. She has a background in horticulture and landscaping. In her free time she enjoys surfing and travelling.



Hannah Watkinson

Creative Communicator Programme Facilitator

Hannah facilitates and develops the Creative Communicator Programme as part of the Pūharakekenui Freshwater Improvement Fund Project: securing, coordinating, connecting and facilitating artists. Hannah has been working with the Trust since 2020, initially as interim Project Manager to see the Püharakekenui Freshwater Improvement Fund Project come to life, passing the reins of this to Anita. She comes from a varied background with a Masters in Fine Arts, and in her mahi outside of the Styx she is a lecturer, contract project manager, does business development for both a brewery and a distillery, and sits on a number of governance boards. Outside of 'work' Hannah likes to spend time with her dog, and visit her whānau on Rakiura/Stewart Island.



Aria Huang

Creative Communicator

Aria is our communications creative. She joins us after receiving her master's degree in landscape architecture from Lincoln University. She has a passion for translating hidden rationales and scientific findings into easy-to-understand communication materials. In her spare time, she enjoys playing the violin and visiting all kinds of galleries and museums.



Aaron is an intern who helps out with our field work and advocacy projects. He studies invasive waterway plants at the University of Canterbury, and got involved with the Trust to make a practical difference for the local environment. In his free time, you can find him off lost up a hill somewhere.

What's going on at the Styx

Update from Anita

In 2021 the Trust was successful with an application to the Ministry for the Environment's Freshwater Improvement Fund, receiving over \$4.1million to carry out work in the catchment over the next five years.

This is an exciting project that should lead to a transformational change from exotic pasture and willow dominated river banks to native wetland and forest species. Over time more native birds should start to inhabit these areas as nesting sites and food sources improve. We also hope to see a difference within the waterways, with increased shading reducing exotic water weeds, and more stable banks reducing sediment washing into the stream.

To achieve this goal, we will be working with landowners, communities, and businesses within the catchment. We will be contacting landowners to discuss opportunities to work together along the waterway boundaries. We are keen to talk to local businesses about partnerships. Expect to see more opportunities to be involved with planting days and monitoring of the habitat. We will also have multiple short term **Communications Creative positions every** year. Artists using different mediums will raise the profile of the Pūharakekenui and the work that the Styx Living Laboratory Trust is doing, as well as interpreting aspects of the catchment in a creative way.

We are just at the start of this five-year journey; the first staff have been employed and we have been setting up our field base. Three more field staff positions will be advertised shortly and we are looking forward to having a full team in place in July.

Volunteer Monitoring - Water Quality

Since 2004, the Styx Living Laboratory
Trust has been collecting data on various
aspects of water quality in the Styx River:

Keen to get our hands wet, we meet every 3rd Saturday of the month at our "lab" in Northwood (all ages welcome) and head out in groups to determine a number of water parameter at 11 sites scattered along the Styx River and its tributaries. While we take our water samples, check the water temperature, clarity and conductivity, we are on occasion even greeted by eels and other curious fish! We then take note of anything unusual such as large amounts of algae, littering, or signs of recent silting - which makes the streambed appear covered in a layer of very fine sediment. In case we find an urgent problem at one of our sites we notify the field staff of Environment Canterbury, who then investigate possible causes and mitigation measures.

Since the beginning of the year, we saw an improvement of water clarity which had been yielding low values at all sites downstream from Radcliffe Road in December 2021. As typically observed during the warmer months of the year, sites with low flow such as at Smacks Creek have been showing large amounts of algae growth which we expect to reduce with less sunlight as we are heading into autumn.

As guardians of the river, we enjoy engaging with the waterway and keeping an eye on its health. The data we collect is also included in the annual Surface Water Quality Monitoring Report for Christchurch City Waterways, where they are analyzed and presented alongside the data collected by the Christchurch City Council. Keep an eye out for their report this coming spring! All ages are welcome!

Volunteer Monitoring – Birds



On the first Saturday of every month dedicated volunteers venture out to monitor water birds on the ponds at Styx Mill Conservation Reserve and the reserve at 303 Radcliffe Road – now named 'Te Waoku Kahikatea Reserve'. Our monitoring at these sites commenced back in 2014, and the ever-lengthening dataset is providing valuable information to the Christchurch City Council, including being used to help list the two sites as 'Sites of Ecological Significance' (SESs) in the District Plan.

Some of the highlights for Styx Mill over the years have included: seeing the establishment of two colonies of little pied cormorants; recording the reserve as the Canterbury stronghold for Australian coot; seeing kingfishers (the Styx Living Laboratory Trust's new logo!) going from an occasional visitor to more or less resident, and a visit from an Australasian crested grebe.

The Te Waoku Kahikatea ponds are still young, but unlike Styx Mill, they don't attract Canada geese! However they do support an equally diverse but smaller population of native water birds, including grey teal, NZ scaup, Australasian shoveler, paradise shelduck, black swan, pukeko, little pied and black cormorants, welcome swallow and Australasian harrier. We're looking forward to coot discovering this site one day too!

These monitoring programmes are the longest and most regular community bird monitoring programmes for any site in Christchurch, and we always welcome new volunteers!



Creative communicator

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Aria's work with the Trust has been focused on creating a set of interpretive panels that will be placed along the Pūharakekenui to inform visitors about the surrounding area. She has also helped with the development of other educational materials for communications with local landowners, partnering organizations, and the general community.

Keep on the lookout for our new creative communicators lead by Hannah Watkinson. These positions run on 3month terms and each communicator will present their work to the community at the end of their term. If you think you might be interested in working as a creative communicator for the Trust contact Hannah Watkinson at hannah@thestyx.nz.

Social Media Mania

The past few months we've been hard at work on updating our website and Facebook. Keep up to date with the Trust between newsletters through our Facebook, Instagram, and Twitter accounts!









Snapshots of the Styx



















What's Next?

Amongst all the wonderful projects going on, we have recently moved into our new Field Centre at 75 Lower Styx Road! We'll be hosting an opening ceremony to unveil the plans for the site and welcome you all to our new space on May 7, 2022 from 10am – 12pm. Keep an eye out on our Facebook and website for event updates and we look forward to seeing you all!

Contact Us

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