



Annual Conference

**Whatungarongaro te tangata,
toituu te whenua**

**As man disappears from sight,
the land remains**



**Kāwhia
20-22 March
2024**

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The Coastal Restoration Trust of New Zealand

The Coastal Restoration Trust is a nationwide organisation and was originally established as the Coastal Dune Vegetation Network in 1996. It evolved into the Dune Restoration Trust in 2007 and in 2016 became the Coastal Restoration Trust of New Zealand/Tāhuna ora, to embrace our widening focus of coastal restoration work.

Our aim is to support and encourage the development of cost effective practical methods for coastal communities and management authorities to restore natural coastal ecosystems including the natural form and function of coastal dunes.

The Coastal Restoration Trust brings together the knowledge and experience of coastal scientists, communities, iwi/hapū, management authorities, industry and science agencies to protect and restore coastal ecosystems.

Our goals are:

- Provide a network for information exchange on sustainable management of dunes and coastal ecosystems
- To facilitate research on NZ coastal and dune ecosystems
- Promote public awareness of proven methods for protection, restoration, conservation and sustainable management of coastal and dune ecosystems.

To achieve these goals we:

- Organise an annual conference and workshops to discuss issues, share information and hear the latest research
- Maintain a website where information is free and easily accessible, and which hosts community coast care web pages
- Commission research projects and offer a student scholarship
- Produce technical bulletins and articles detailing best practice methods for dune restoration.

Conference co-hosts

Onepu Charitable Trust

Onepu Charitable Trust has led efforts to protect and restore the Kāwhia coast since 2008. In the past, restoration plantings have been undertaken at Ocean Beach's foredune and backdune areas, around Maketū Marae, Takapūwāhia and Te Ārai o te Wiwini, in collaboration with the Coastcare Waikato programme involving local schools, community volunteers, Department of Corrections, Tainui Kāwhia Incorporated and Waikato Regional Council.



Te Taiao o Kāwhia Moana

Te Taiao o Kāwhia Moana was formed in 2018 in response to concerns by the community about the environmental damage caused by vehicles in the inner harbour.

This multi-stakeholder group includes representation from Oparau Station Trust, Tainui Kāwhia Inc, Maketū Marae, Onepu Trust, Waipapa marae, Kāwhia Moana Native Nursery, Te Maika Trust and passionate individuals from the community, with support from Kāwhia Community Board, Ōtorohanga District Council and Waikato Regional Council. Te Taiao o Kāwhia Moana aims to promote and protect Kāwhia Harbour's rich and diverse ecosystems through community-led initiatives.



The Coastal Restoration Trust - Our People

The Coastal Restoration Trust of New Zealand's board currently has 13 trustees from a wide range of backgrounds, organisations and locations around the country. The Trustees have long term experience in a wide range of fields, such as botany, dune morphology, raranga, governance and community restoration projects.

Trustees

Chair Laura Shaft - Senior Biodiversity Advisor – Coastal, Northland Regional Council

Treasurer Jenny Carter - Chartered Accountant, Auckland

Graeme Atkins - Restoration Specialist, East Coast

Greg Bennett - Waimakariri District Council

David Bergin - Restoration Ecologist, ERL, Rotorua

Jo Bonner - Coastlands Plant Nursery, Whakatane

Graeme La Cock - Technical Advisor, Dept. of Conservation, Wellington

Jason Maguiness - Principal ranger, Auckland Council

Lyle Mason - Sheep and beef farmer, Southland

Moniqua Nelson-Tunley - Senior Biodiversity Management Advisor,

Waikato Regional Council

Tim Park - Ecologist, Manager, Ōtari -Wilton's Bush, Wellington

Alison Waru - Dune restoration, Uawa-Tolaga Bay, East Cape

Betsy Young - Master weaver, pīngao restoration with Te Roopu Whakaoranga a Te

Taha Moana, Northland

Contractors

Robyn Smith - Administrator/Kaiwhakahaere

Grace Drysdale-Dunn - Communications Advisor

The Coastal Restoration Trust's waiata was composed by Sir Derek Lardelli and kindly donated to us at our 2016 conference in Gisborne.

Tāhuna Ora Waiata

Tāhuna Ora

Tai timu, tai pari

Tai mata tāhuna

Piri tata, piri tahi

Piri kia ora

Mō āpōpō,
mō ake, ake tonu rā

Dunes, strong and vigorous

Tides that ebb and flow

Caressing the bank's brow

Stand together and embrace as one

To ensure survival for tomorrow,
for the future, through the eons of time.

Conference Organising Committee

Moniqua Nelson-Tunley (Committee Chair) Waikato Regional Council, Coastal Restoration Trust trustee

Horahaere Daisy Scott, Onepu Charitable Trust; Te Taiao o Kāwhia Moana

Vanessa Rotohiko - Te Taiao o Kāwhia Moana; Kāwhia Moana Native Nursery

Ray & Helen Montgomery, Te Taiao o Kāwhia Moana; Kāwhia Moana Native Nursery

John Dodgson - Te Taiao o Kāwhia Moana,

David Forsythe - Aotea Coastcare

Andrew Anderson - Waikato Regional Council

Stacey Hill - Coastcare Waikato

Laura Shaft - Chair, Coastal Restoration Trust

Jenny Carter - Treasurer, Coastal Restoration Trust

Jason Maguiness - Coastal Restoration Trust trustee, Auckland Council

Graeme La Cock - Coastal Restoration Trust trustee; Dept of Conservation

Alison Waru - Coastal Restoration Trust trustee

Robyn Smith - Coastal Restoration Trust Administrator

Conference Contact Numbers

In an emergency dial 111 and let the conference organisers know about the emergency as soon as possible after calling.

For any other Health and Safety issue, contact Moniqua Nelson-Tunley on 021 528 393.

Nearest local Health Care

Provider

Kāwhia Health Centre

Kāwhia Health Centre • Healthpoint

10 Tainui Street, Kāwhia

07 871 0884

reception@kawhiahc.co.nz

Dr John Burton

Open hours vary; check website or call if needed

Nearest hospital

Waikato Hospital, approximately 1hr 8 mins/ 78km from Kāwhia town center.

Waikato Hospital

Waikato Hospital » Te Whatu Ora

Health New Zealand Waikato

(waikatodhb.health.nz)

183 Pembroke Street, Hamilton

07 839 8899 or 111

Open 24 hours

Nearest AEDs (defibrillators)

Kāwhia town:

Kāwhia Health Centre- secure cabinet.

Phone 111 for cabinet combination

from Ambulance Communications

Police Station, Tainui Street 07 871 0827

Fire/ambulance Station, Charleton

Street

07 871 0890

Aotea:

Private Address: 71 Cooper Drive

Phone: 07 871 0222 or 021 837 170

First Aid Kit locations

Maketū Marae:

During fieldtrips: with identified first aiders



The Venue

The conference venue is Maketū marae, 614 Kaora Street, Kawhia which is 87 kilometres from Hamilton.

Maketū marae is considered the heart of Waikato iwi because it is the final resting place of the Tainui waka.

The Wharenuui, Auau Ki Te Rangī, is named after Hoturoa's father. Directly behind the wharenuui overlooking the harbour is the main wharekai, Te Tini o Tainui.

On the seaward side of the wharenuui is Te Rūruhi Tuarua a smaller self-contained building (sleeping, dining, and kitchen) so named as the original building had

to be demolished and then rebuilt as it was under threat of coastal erosion. A seawall has now been built to help stop the erosion.



Marae protocol

There will be two pōwhiri.

The first pōwhiri will be on Tuesday 19 March at 3.30pm for manuhiri/visitors who are staying on the marae on Tuesday night.

Please wear smart casual clothing and gather at the waharoa/marae entrance at 3.15pm.

Manuhiri/visitors will be welcomed on with a karanga/formal welcome call. Women should be at the front as we walk onto the marae, men behind.

Seating is to the right. Men should sit at the front. Women should sit behind the men.

Whakatau:

No shoes are to be worn in the wharenuui.

No photos can be taken in the wharenuui.

If you are unsure of what to do, please follow others. The words of our Tāhuna Ora waiata are in the conference handbook on page 5. You are most welcome to sing with us.

The second pōwhiri will start at 8.00am on Wednesday 20 March and will be for those manuhiri/visitors who have arrived to stay on the marae after 3.30pm on Tuesday and for other conference attendees and speakers.

The protocols are the same for both pōwhiri.

Welcome from the Chair



Nau mai haere mai ki tenei hui a tau o Tāhuna Ora I runga I te whenua o Ngāti Mahuta ki te Hauaauru.

Welcome to the Coastal Restoration Trust yearly conference taking place upon the lands of Ngāti Mahuta of the westerly winds.

Our theme for this year's conference is a well known whakataukī:

*Whatungarongaro te tangata,
toituu te whenua
As people disappear from sight,
the land remains*

This was chosen by the Kāwhia members of the organising committee and is very relevant as we will be exploring our inter-relationship with the coast and how we can ensure this relationship is sustainable into the future.

We have a very full and varied schedule covering local and national issues, including presentations on Kāwhia moana and ocean-going waka, the northwest wave climate and sediment process and opportunities for coastal wetland adaptation and restoration and coastal blue carbon. We also have old favourites like our Regional Round-up when groups around the country get to share a snippet of their experiences and learnings from their coastal restoration projects.

Following very positive feedback on the interactive workshops and panel discussions held at our Auckland conference this year we will be bringing back these formats, with new topics.

As always, we have some great field-trips planned which will include a visit to Aotea Coastal Walkway and a coastal buffer monitoring site.

I would like to say ngā mihi nui - thank you very much to everyone who has contributed to making this conference happen. Many thanks to our co-hosts Te Taiao o Kāwhia Moana and Onepu Charitable Trust. Also, to our conference committee who have done an amazing job of organising the conference and finding sponsorship. It has been inspiring to have so much local support and involvement. And of course, a massive thank you to all our generous sponsors who have made it possible for us to hold the conference and keep the registration fees affordable. In particular to our premier sponsors Waikato Regional Council and Waikato Coastcare and Puurekireki Marae. Thanks also to all our speakers, workshop facilitators and to everyone for attending.

This the first time that the Coastal Restoration Trust will be holding our full conference on a marae and it is looking set to be one of our best attended conferences. I hope that you are looking forward to it as much as I am!

Ngā manaakitanga,

Laura Shaft

Heamana – Chair, Tāhuna Ora – Coastal Restoration Trust of New Zealand

Sponsors

The Coastal Restoration Trust of New Zealand thank the following conference sponsors and donors, without whom this conference and the on-going success of the Trust would not be possible.

Premiere Sponsors

Waikato Regional Council's purpose is to work together, to protect and restore our unique local native plants and animals, and the indigenous ecosystems in which they live. In the Coastal context, this means adopting a ki uta ki tai – mountains to sea – approach to consider coastal ecosystems as sensitive receiving environments,



Coastcare Waikato is a community partnership programme which works to protect and restore coastal areas throughout the Waikato region. This programme involves local communities, iwi and government organisations working together to care for the coast and all the species that live and grow



supporting and empowering people to reduce harmful impacts of land-based activities on coastal environments and working with communities, and iwi and hapū to carry out integrated coastal and catchment planning and restoration activities to protect and enhance coastal marine ecosystems.

here. There are currently Coastcare groups working at 27 beaches on the east and west coasts of the Waikato region. Coastcare Waikato has partnered with the Coastal Restoration Trust since 1992, delivering coastal restoration projects throughout the Waikato region.

Puurekireki Marae is 6 kilometres south of Pirongia township. Its primary hapuu is Ngaati Taramatau (with affiliations also to Ngaati Apakura) of Ngaati Hikairo, sharing links also with Waikato and Ngaati Maniapoto iwi.

Naa Tawhiao te tongikura

“Ki te hiki tooku waewae i teenei whenua ka moana i muri i au,

Puurekirekiwiiwii māna tātou hei huti ake ki uta,

Ko te atua too taatou piringa ka puta ka ora.”



Puurekireki Marae

Gold Sponsors

Waipā Networks owns and operates the electricity network for Cambridge, Te Awamutu and the surrounding Waipā region. Waipā Networks serves around 30,000 customers and has a history in the Waipā region spanning more than 100 years.



Aotea Marine Farms is a green-lipped mussel spat-catching business which has been operating in Aotea harbour since 1989. They supply the Coromandel aquaculture industry with juvenile mussels that are grown for supermarkets and export markets. Aotea Marine Farms is proud to be a locally grown business, who employ and help serve the Kāwhia and Aotea communities. They are passionate about sustainable food production and the role their local community can play in making New Zealand's future greener.



Silver Sponsors

Tainui Kāwhia Incorporation is a Māori landowner in Kāwhia who partner with Waikato Regional Council and Coastcare Waikato to restore coastal forest and dunelands on their land. We will visit their project area on one of our field trips.



Special Event Sponsors

Kāwhia Moana Native Nursery is a small not for profit community nursery in Kāwhia, that formed in 2017. They gather, sow and grow local NZ native plants, shrubs and trees, and native sand dune species. All profits go back into the nursery/koha. The nursery koha about 20% of what they grow every year. Their clients vary from Coastcare to local marae, trusts, and landowners. Kāwhia Moana Native Nursery is sponsoring our conference BBQ and will have a display of coastal plants throughout the conference.



SCG provides purpose-defined creative, content, print and delivery services for any sized project. SCG's print capabilities combines top technology with passionate experts for billboards, business cards, vehicle wrapping or brochures. SCG is sponsoring the printing of our conference handbook.



Te Toki Voyaging Trust (TTVT) is a charitable trust, revitalising waka culture in the Pacific. Delivered in partnership with Hui te Ananui a Tangaroa (NZ Maritime Museum), a sponsored programme where schools have the opportunity to come into the Museum and learn about the ancestors of this land. The aim of the programme is to connect students and their whānau, with mātauranga waka and to inspire them to walk with pride into the future as people of the Pacific and Aotearoa through showcasing the brilliance of ancestral navigation and construction methods used to create waka hourua (double hulled sailing canoes) to find new lands. TTVT is sponsoring the waka tours around Kāwhia Moana.



NZ Autotraps has developed a automatic self-setting possum and rat trap which self sets up to 100 cycles so you only need to service it every 4-6 months. NZ Autotraps is sponsoring a morning tea at the conference and will have a display throughout the conference.



Special Event Sponsors

Advance Landscape Systems are a leading supplier of products for restoration groups, landscaping, arboriculture and landscape solutions. Advance Landscape Systems is sponsoring a morning tea at the conference and will have a display throughout the conference.



Coastlands Plant Nursery, in Eastern Bay of Plenty, are New Zealand's National Coastal Sand Dune Revegetation Centre and have been growing coastal plants for 30 years. They stock foredune and back dune plant species, specialising in propagating, growing and supplying quality eco-sourced native plants for sand dune replenishment and coastal erosion. Coastlands are sponsoring gifts for our speakers.



Conference Supporters

Cross Country Rentals are family owned and operated, who have been transporting people around New Zealand since 1924. Their vision is to work with their team and communities to be the first-choice supplier of high quality, safe and reliable transport solutions throughout New Zealand. Cross Country Rentals are providing a significant discount on two vans for the duration of our conference and will also provide a discount to conference attendees who prefer to hire a vehicle for their own use.



Daltons are a nationwide supplier of potting mixes and landscape products and they have a state-of-the-art manufacturing plant and are recognised throughout New Zealand for their Quality Assurance Programme, outstanding customer service and utilisation of natural and renewable resources. Daltons have been supporting the Coastal Restoration Trust's conferences for many years.



Speakers

Roy Willison

Chair - Maketū marae

Roy Willison is a kaumatua and the Chairperson of Maketu Marae Trust and is the Rangiatea Māori ward councillor on the Ōtorohanga District Council.



Laura Shaft

Chair - Coastal Restoration Trust of New Zealand

Laura Shaft is the current Chair of the Coastal Restoration Trust and has been a trustee for over ten years. Laura is in the Biodiversity team at the Northland Regional Council - Te Kaunihera ā rohe o Te Taitokerau, and has run the CoastCare Te Taitokerau programme since 2007. In this role she has co-ordinated and provided advice on many community dune restoration and reconstruction projects. Laura has been extensively involved in education and advocacy on dune and coastal protection and restoration and is on a number of stakeholder groups focussed on beach issues including vehicles on beaches.



Sponsor speaker

Dr Bruce Clarkson

Waikato Regional Council

Dr Bruce Clarkson is Deputy Chair of the Waikato Regional Council. Dr Clarkson will be giving a presentation on behalf of Waikato Regional Council, premiere sponsor of the conference. Dr Clarkson was awarded the ONZM in 2023 for services to ecological restoration, making significant contributions to conservation through his ongoing research, education, and restoration of native plants and ecosystems projects over a more than 40-year career.

Since 2016 he has led 'People, Cities and Nature', a government funded research programme, hosted by the University of Waikato, focusing on restoring damaged or depleted indigenous ecosystems in urban environments. His research has guided biodiversity and restoration projects including the Waiwhakareke Natural Heritage Park and Hamilton's Nature in the City Programme, and he has contributed to many other North Island conservation and restoration projects.



He is Chair of the Waiwhakareke Natural Heritage Park Advisory Group, a trustee of the Rotokare (Taranaki) Sanctuary, and patron of the Aongatete Forest Restoration Trust and the Pirongia Te Aroaro o Kahu Restoration Society. He is also the elected Chair of the Australasian Chapter of the International Society of Restoration Ecology, was a member by appointment of the Minister of Conservation, of the Interim Oversight Group for the Aotearoa New Zealand Biodiversity Strategy and is currently a member of the Wildlife Act Review Strategic Oversight Group.

Sponsor Speakers

Tai Huata, Ngāti Apakura, Ngāti Hikairo

Puurekireki Marae

Tai Huata will outline the taiao initiatives that the marae is involved in including Taiea te Taiao, a project which is restoring an ecological corridor between Maungatautari and Pirongia. Puurekireki marae is also part of the Pirongia te aroaro o Kahu Restoration Society whose aim is to restore the ngahere on Pirongia maunga and is a member of NITOW - Ngā Iwi Tōpū O Waipā who are a group representing all hapū in the Waipā District and meet monthly to consider resource consent applications.



Te Ao o te Rangi Apaapa, Ngāti Ranginui, Ngāti Raukawa,

Nga Matapopore Whenua, NZ Landcare Trust

Te Ao o Te Rangi Apaapa will speak about the Taiea te Taiao ecological corridor project between Priongia and Maungatautari. This project on public and private land is to provide habitat for native birds, lizards and insects and to enhance water quality. So far, the project, with assistance from Mana Whenua, Pūrekireki Marae, Local Government, and private landowners has planted 200,000 native trees into the whenua along the Mangapiko. Mana Whenua, including Pūrekireki Marae have identified several heritage sites as stepping stones for Engagement, Planting, Pest control and protection of existing forest. Monitoring of Tuna according to the Maramataka, Pekapeka and Hūrepo data collection continues as this growing community looks towards the future.



Keynote Speakers

Hoturoa Barclay-Kerr, Tainui

Te Toki Voyaging Trust

Hoturoa Barclay -Kerr (Tainui) is an orator on his marae at Kāwhia, the home of Haunui, and the ancient landing and settlement place of his ancestral waka, Tainui and his ancestor Hoturoa. He is a trustee on a number of trust boards and is currently the chairman of Taharoa C Incorporation, which administers and oversees the mining of iron sands on tribal lands. Hoturoa is the captain of the oceangoing waka Haunui. He is the



son of Wharetoroa and Ngarungatapu Kerr, is married to Kim and has five children: Namaka, Turanga, Rangiriira, Noenoe and Hinemanu. Hotu has been sailing around the Pacific for more than thirty-five years. He paddles waka, sails waka, teaches waka.

Professor Karin Bryan

Waikato University

The northwest wave climate and sediment process: implications for dune restoration

Aotearoa west coast beach environments are shaped by very high wave energy, large sediment supply and strong winds. In turn, the high wave energy causes strong longshore and rip currents, which can cause hotspots of beach erosion. This presentation will provide an overview of the physical processes impacting on Kāwhia, Aotea and Ngarunui beaches, and an update on the latest climate change-related assessments for west coast waves and sea level rise.



Karin Bryan

Karin Bryan is professor in coastal processes in the School of Science at the University of Waikato. She researches estuarine processes, coastal morphodynamics, and climate-driven variability in waves, with a focus on Aotearoa New Zealand's many diverse coastal systems. Her main interests lie in understanding the key drivers that control the evolution of estuaries in the next 50 years, and how those drivers play out in natural systems, where complexities such as mangroves and episodic runoff make it difficult to compare to idealised modelling. Her work is at a system-wide scale and lies at the interface between modelling, data science and field measurements, and lately, how to make better and easier use of remote sensing data.

Speakers

Ben Faircloth

Ministry of Primary Industries

Sea spurge, *Euphorbia paralias*, is a serious threat to our coast - what are we doing and how do we prevent its spread.

Ben will be talking about the threat sea spurge, *Euphorbia paralias*, poses to our coasts, Biosecurity New Zealand's strategy for dealing with this threat, and the actions we need to take to make sure sea spurge doesn't become widely established in New Zealand.



Ben Faircloth

Ben Faircloth is a senior advisor in the Pest Management Group at Biosecurity New Zealand (BNZ), and has managed a number of long-term eradication programmes, including four of the National Interest Pest Responses programme species.

Since early 2021, Ben has been the lead for the sea spurge programme. This programme makes sure that any known sea spurge sites are monitored and controlled, as well as developing a national approach to sea spurge surveillance, monitoring, and control in collaboration with DOC and Regional Councils.

Recently BNZ have developed a longer term sea spurge strategy which lays out the objectives for the sea spurge programme and how they can be achieved.

Akuhata Bailey-Winiata

Te Arawa, Ngāti Tūwharetoa – PHD candidate, University of Waikato

Adaptation of pā to climate change - "Business as usual"

Adaptation in response to environmental and social changes is embedded in the fabric of Māori communities. This includes when our tūpuna navigated from Hawaiki to Aotearoa, through to the responses to Cyclone Gabrielle and will continue with the impacts of climate change. Adaptation is and will be 'business as usual' for many pā. In this kōrero, I will share a story of resilience and adaptation of my iwi Tūhourangi and whānau of Ngāti Rangitīhi following their relocation after the 1886 Tarawera eruption. The lessons learnt following this event provide lessons in adaptation to help us plan to look after our pā and people with climate change.



Akuhata Bailey-Winiata

After completing a Bachelor of Science in Earth Science at the University of Waikato, Akuhata Bailey-Winiata completed a summer scholarship using GIS (geographic information systems) to map the proximity of marae to the coast and rivers, and look at their elevation, slope and distance to the coast. Realising the impact that this research could have for his people and country, Akuhata embarked on a PhD to understand the exposure of coastal marae and urupā to a rise in sea level and to explore what the best way forward is to address this issue in the best way for Māori.

Zhanchao Shao

PHD candidate, University of Waikato

Satellite and machine learning - monitoring our coastal environments efficiently and smartly

There are more than 300 estuaries around the coastline of Aotearoa New Zealand, which provide important habitats and shelters for coastal species. Due to the strong anthropogenic and climate change related stress, a significant number of estuaries are prone to tipping points and thus the coastal ecosystems start degrading. Thanks to high-resolution satellite data and machine learning, now we are able to establish a long-term and relatively precise monitoring system for all impacted estuaries. In this presentation, I will share how to extract the estuarine health indicators from the satellite images and use these indicators as a basis to monitor and evaluate the coastal environment states.



Zhanchao Shao

Zhanchao Shao is currently doing his PhD in Marine Sciences at the University of Waikato. His study focuses on estuarine health monitoring using satellite data and machine learning to simulate the potential effects of sea level rise and climate change on New Zealand's coastal environments. Zhanchao is going to continue his study as a postdoctoral research fellow at the Environmental Research Institute after his PhD to keep contributing to coastal process modelling and estuarine restoration.

Sanne Vaassen

PHD candidate, University of Waikato

Numerical modelling of coastal vegetation dynamics for enhanced management strategies

Marine vegetation plays a significant role in coastal protection, restoration and shaping the marine environment. It has the ability to attenuate waves and storm surges and protect the shore from eroding. This presentation focuses on the scientific modelling of marine vegetation and their significant influence on coastal protection and restoration. Utilising numerical models, we explore the specific contributions of these vegetative species to sediment transport, flow velocities, and estuarine morphology. The talk aims to provide practical insights into how these models can inform effective coastal management strategies in the context of sea level rise scenarios.



Sanne Vaassen

Sanne Vaassen is a PhD student at the University of Waikato, specialising in the numerical modelling of intertidal vegetation, particularly mangroves and saltmarshes in New Zealand estuaries. Her research aims to provide a quantitative analysis of how these species impact sediment transport, flow velocities, and estuarine morphology. Thereby focusing on the two species separately, but also on the mangrove-saltmarsh ecotone and competition. Sanne's work aims to project future changes in vegetation distribution and estuarine morphology, offering valuable data for coastal management decisions.

Speakers

Tim Park

Coastal Restoration Trust trustee

Tim will run through the resources available on the Trust's website and will run a workshop on coastal plants for your project area.



Tim Park

Tim Park is the manager at Ōtari Wilton's Bush, a native botanic garden and forest reserve in Wellington. He was formerly the Environment Partnership Leader for Wellington City Council prior to his current role. Tim previously worked at Greater Wellington Regional Council

supporting the protection and restoration of coastal ecosystems, wetlands and lowland forest remnants. Tim is an avid plant ecologist dedicated to Te Taiao.

Graeme La Cock

Coastal Restoration Trust trustee

Graeme will provide an update on the Trust's projects and will facilitate Regional Roundup sessions at the conference.



Graeme La Cock

Graeme is a Technical Advisor, Ecology working for the Department of Conservation. With over 30 years experience, Graeme's work has focussed on South African dunes, research, management, botany, ecosystems, processes, impact assessments and included extensive experience with coastal flora in South Africa. Graeme is a senior coastal botanist specialising in rare and endangered plants in New Zealand for two decades and is a member of the Threatened Species Unit in DOC.

Graeme recently wrote an annotated bibliography of research on physical and ecological impacts of vehicles on beaches.

Vehicles on New Zealand beaches: an annotated bibliography of research on physical and ecological impacts.

Cate Ryan

CRT Post-graduate scholarship presentation

Aerial insights to characterise and develop indicators of coastal active dune condition

Cate's research is about indicators of active dune ecosystem condition in Aotearoa, identified from vegetation patterns, detected from aerial imagery



Cate Ryan

A plant ecologist and remote sensing scientist, Cate recently completed her PhD thesis at AUT on identifying indicators of active dune ecosystem condition from remotely sensed imagery. Cate is from Tāmaki Makaurau,

and has worked in ecology in Aotearoa and the UK, as well as on sustainability projects internationally. She is now an ecologist at Pattle Delamore Partners

Dr Marama Muru-Lanning

Waikato, Ngāti Maniapoto,
Ngāti Whātua – University of Auckland
Listening to the voices of our harbours



Dr Marama Muru-Lanning

Dr Marama Muru-Lanning is the Director of the James Henare Research Centre and Associate professor of Anthropology at the University of Auckland/Waikato Tainui Endowed College.

Dr Muru-Lanning is dedicated to transdisciplinary research with Māori communities that prioritises equity, inclusion and fairness. As an environmental anthropologist she focuses on the cultural specificity of tangata whenua groups and their unique sense of place and belonging in Aotearoa. Her professional expertise includes:

building research relationships with Māori communities, investigating knowledge production and research methods and ethics. What distinguishes Dr Muru-Lanning as a social scientist is her specialisation in four interrelated areas of research: 1. Water (Waimaori & Waitai); 2. Human-environment relationships; 3. Mātauranga Māori; 4. Transdisciplinary research methods.

Speakers

Horahaere Daisy Scott

Ngāti Mahuta, Ngāti Hikairo – Onepu Charitable Trust

Onepu Charitable Trust

Horahaere Daisy Scott is a trustee of Onepu Charitable Trust who are co-hosting the conference. Horahaere will cover the Trusts work to restore coastal ecosystems in partnership with Waikato Regional Council's Coastcare programme.



Horahaere Daisy Scott

Horahaere Daisy Scott is a kaumatua kuia for Maketū and Waipapa marae. Horahaere has been a Justice of the Peace since 2011, President of the Kāwhia Māori Women's Welfare League, administrator and trustee of Onepu Charitable Trust and is a member of the Volunteer Beach Patrol.

Hano Ormsby

Te Taiao o Kāwhia Moana

Hano will provide some background about Te Taiao o Kāwhia Moana and tell us about the various projects Te Taiao o Kāwhia Moana is associated with.



Hano Ormsby

Hano Ormsby is a member of Te Taiao o Kāwhia Moana who are co-hosting the conference. Born and bred in Kāwhia, Hano has previously served on the Kāwhia Community Board and is a member of the Ōtorohanga District Development Board and the manager of Tainui Kāwhia Iwi Forest.

Lees Seymour

Ngāti Hikairo - Tainui Kāwhia Incorporation

Tainui Kāwhia Incorporation – 60 years on. The story of the biggest environmental project in Kāwhia.



Lees Seymour

I am a descendant of Hoturoa and Rakautaura and my people have lived in Kāwhia continuously since the arrival of the Tainui Waka. I sit on the committee of management for Tainui Kāwhia Incorporation as a shareholder and as the third generation of my family to do so. It is my pleasure and honour to be with you at this conference.

Speakers

Dr Andrew Swales

NIWA, Hamilton

Future Coasts Aotearoa – informing adaption and restoration opportunities for coastal wetlands

Future Coasts Aotearoa (FCA) is a five-year research programme that aims to inform how the lowland rural communities and environments of Aotearoa New Zealand can adapt and prosper despite unavoidable sea level rise (SLR) over the coming decades. FCA is exploring the environmental, social, economic, and physical changes that lie ahead and how we can most effectively respond. Biophysical models of inundation and salinisation and coastal wetland evolution, underpinned by measurements, can inform land-use change decisions sensitive to flooding and salinisation at a national scale. Mana whenua research aspirations and world views are also interwoven into research activities through partnerships at case study sites. This presentation provides an overview of the research being undertaken to understand, and simulate, how coastal wetlands will respond under a range of possible SLR scenarios, their capacity to adapt and key environmental drivers. The insights flowing from this work will inform opportunities to restore coastal wetland



Dr Andrew Swales

Dr Andrew Swales is a Principal Scientist and Programme Leader (Catchments to Estuaries) based at NIWA's Hamilton campus. He has 30 years research and consulting experience in the areas of estuarine sedimentary processes and biogeomorphology, resilience of coastal wetlands to sea level rise, sediment-source tracing for integrated catchment-to-estuary management and the biophysical effects of land use activities on estuaries. Andrew has an M.Sc. (Hons, Physical Geography) from the University of Auckland and a Ph.D. (Marine Science) from The University of Queensland.

ecosystems that have been degraded or largely lost due to reclamation and infrastructure development on estuarine margins as well as land clearance and development of pastoral agriculture in lowland catchments over the last 170 years.

Speakers

Dr Phoebe Stewart-Sinclair

NIWA, Hamilton

Spatial opportunity for coastal blue carbon in Aotearoa New Zealand

In the face of the global climate crisis, many countries have committed to reducing greenhouse gas (GHG) emissions to meet international targets. To reduce net emissions, we will need to increase long term carbon sequestration, which is termed 'blue carbon' in marine and coastal ecosystems. Increases in blue carbon can be achieved through restoration of coastal habitats, by reinstating tidal influence to areas that are currently below high tide level. To identify where there are areas of restoration opportunity for blue carbon in Aotearoa NZ, we first identified coastal areas that

are currently below high tide elevation and are currently in agricultural land use or government owned, as we assumed that urban areas would not be suitable for blue carbon projects. We then categorised the land area under high tide into low, mid, and high tide zones, which indicate the habitat type expected to colonise inundated land. To identify areas that could become suitable for blue carbon projects under sea level rise, we repeated this methodology with elevation profiles adjusted for predicted sea level rise. Here, we present these results and discuss the potential for development of a blue carbon market in NZ and implications for our national emissions accounts.

Dr Phoebe Stewart-Sinclair

Phoebe Stewart-Sinclair is a marine ecologist and economist. Her work broadly focuses on marine conservation and climate change adaptation and mitigation through conservation of marine organisms and environments. She has worked in research in New Zealand, Australia, and the UK. Her qualifications include a Certificate in Tertiary Teaching, a BSc in Zoology and Ecology, an Honours in Zoology, a Masters in Conservation Biology, a PhD in Biology, and a PhD in Economics. At NIWA, she is a Scientist in the Marine Ecology team



Facilitators



Jason Maguiness

Coastal Restoration Trust trustee

Jason is Principal Ranger for the Northern Regional Parks of Auckland. His role leads the direction, planning and delivery of outcomes of these parks. Jason works closely with Park Rangers, volunteers and community groups that are helping to restore and protect coastal areas and the flora and fauna associated with these.

Jason has experience in developing and delivering coastal restoration projects and supporting threatened species work in coastal locations. He is keen to share this knowledge to support communities and projects around New Zealand.

Kit Jeffries

Ngāti Hikairo

Christopher (Kit) Jeffries is the Kāwhia-Tihiroa ward councillor on the Ōtorohanga District Council and has been a property owner in Kāwhia for almost 40 years. Kit's family on his mother's side are of local descent (Ngati Hikairo) - his marae is Waipapa.

Kit acts as the liaison between the Kāwhia Community Board, the Ōtorohanga District Council and Te Taiao o Kāwhia Moana and his involvement extends back to the initial inception of Te Taiao o Kāwhia Moana as a steering committee some 5-6 years ago.



Kit is delighted to be the facilitator for the panel discussion on vehicular access along our harbour and ocean beach frontages which provides a chance for locals to share their thoughts and experiences on this topic and Kit asks that you respect the input of others.

Workshops

Frances McKinnon

Waikato Regional Council

Weed control, how to prioritise and manage weed species in your project site

This workshop will cover how to ID pest plants and minimise their impact on your site. It will discuss the different control techniques that are available and the pros and cons of each option. We will also look at pest plant legislation and your responsibilities under national and regional pest management plans.



Frances McKinnon

Frances works for Waikato Regional Council as a Pest Plant Officer in the West Coast-King Country area. She has been with the pest plant team for 10 years. Her work involves managing the control of and surveillance for high threat low incidence pest plants. In this role she has been involved in the Aotea sea spurge eradication programme and ongoing alligator weed control on the Waikato's western coastline.

Moniqua Nelson-Tunley

Coastal Restoration Trust Trustee

Pest animal monitoring and control in coastal ecosystems

Many coastal ecosystems look fine at a glance, but actually have limited biodiversity and resilience to climate change due to pest animals. The animal pest control workshop will cover various animal pests and the impact they might have on coastal ecosystems. We'll then discuss how to identify if you have a pest animal problem, best practices for control and how to get the most bang for your buck (literally). It will focus on non-toxic methods of control where feasible and demonstrate a few of the



Moniqua Nelson-Tunley

Moniqua works for Waikato Regional Council as a Senior Biodiversity Management Advisor. She is a qualified ecologist with expertise in ecosystem restoration, conservation biology and herpetology (reptiles and amphibians).

traps and lures on the market. Bring your pest control questions along!

Workshops

Tim Park

Coastal Restoration Trust trustee

Coastal plants for your site - which plants go where

This workshop will cover coastal native plant identification and will help you to choose which plant to use in different zones or habitats on the coast.



Tim Park

Tim Park is the manager at Ōtari Wilton's Bush, a native botanic garden and forest reserve in Wellington. He was formerly the Environment Partnership Leader for Wellington City Council prior to his current role. Tim previously worked at Greater Wellington Regional Council supporting the protection and restoration of coastal ecosystems, wetlands and lowland forest remnants. Tim is an avid plant ecologist dedicated to Te Taiao.

Panelists

John Forbes

Waikato Tainui, Ngāti Hikairo, Nhāti Mahuta ki te Hauāuru

John Forbes is Chair of Te Taiao o Kāwhia Moana who is a co-host of the conference. TTKM is a community entity which aims to protect west coast ocean sand dunes and the harbour shorelines from erosion. John is also a board member of Tainui Kāwhia Incorporation, a shareholder of Taharoa C Block Incorporation, a trustee of several Trusts and is the Chair of the Waikato Advisory Committee for CCS

Disability. John began his working life as an owner/manager of a large hill country sheep station in the King Country with his younger brother. He has been a National Board Member for Polio New Zealand and was Chairman of the Waikato branch of Polio New Zealand for several years.



Nina Raharuhi

Ngāti Kahu, Ngāti Whātua Nui Tonu

Nina has been involved in the Kaitiaki o Tokerau Ranger programme from conception 6 years ago. The focus is on educating tourists to be responsible campers within Ngāti Kahu, monitoring vehicles on beaches and dune protection.

Nina will share her experience of living and working within her coastal Hapu (Te Whānau Moana me Te Rorohuri), koiwi (skeletal) repatriation and coastal erosion.



Panelists

Carl Morgan

Royal Forest and Bird Protection Society

Carl Morgan is Forest & Bird's Regional Conservation Manager for Tāmaki Makaurau Auckland. His time at Forest & Bird is spent on RMA processes, regional conservation advocacy and national campaigns. Relevant to the coastal space, Carl is involved in the Arohata Tikapa Moana | Love the Gulf campaign, nature-based solutions campaigning and supporting Forest & Bird branches with the vehicles on beaches project.

Carl grew up in the coastal village of Port Waikato, spending his childhood exploring the extensive sand dunes and surrounding maunga, as well as experiencing the variety of offerings from the mighty Waikato River and Tasman Sea. The appreciation and respect formed for our unique natural environment is reflected in Carl's past and present mahi and academic achievements.



Stephen Bell

Auckland Council

Stephen Bell is Regional Parks Principal Specialist for Auckland Council. Auckland Council has been working on moderating driver behaviour on Te Onoone Rangatira / Muriwai Beach (and by association Karioitahi) for many years, taking a little more proactive approach in more recent years. Stephen has established strategies on how Council manages vehicles, influencing policy,

working with Iwi and partnered organisations, organising and fronting community engagement /consultation, communicating with stakeholders and users, and gathering and analysing data, preparing reports to council and responding to media.



Fieldtrip Guide

We have a range of field trips around the Kāwhia moana to see coastal projects and hear about the history of the Kāwhia area.

Wednesday 20 March

4.00 – 5.00pm with Roy Willison, Chair of Maketū Marae.

Te Papa o Karewa is the historical pōhutukawa that the Tainui waka was tied to on its arrival to Kawhia. In 2022 Te Papa o Karewa won the inaugural Tree of the Year Aotearoa award. The tree has been under threat of collapse due to erosion damage to its root system.

Tainui Waka: Tainui is the ancestral waka Waikato and Maniapoto iwi descend from. The final resting place is at the base of Te Ahurei behind Maketu Marae.



Thursday 21 March

Option 1: Waka tour of Kawhia harbour (limited to 66 people)

Groups of 22 will leave at 8.00am/8.40am/9.20am with Navigator Caleb Te Kahu, Historical orator – Roy Willison, Projects orator – Stacey Hill



Caleb Te Kahu

Stacey Hill

Thursday 21 March

Option 2: Tour of the Kāwhia Moana Native Nursery

9am with Vanessa Rotohiko and Ray Montgomery



Ray Montgomery

Vanessa Rotohiko

The waka can take 22 people on each trip so we will be divided into 3 groups and each group will have around 30 minutes on the water.

529 Tainui Street, Kāwhia



Dave Forsythe

Friday 22 March

8.00am Meet at the marae to share transport

8.05am: Leave for Aotea Coastal Walkway
– tour by Dave Forsythe and the Aotea Coastcare group

Talk by Kelly and Ross Dockery on green-lipped mussels, the aquaculture industry and our coastal environment

Hands on monitoring training/demonstration using simple community based guidelines for assessing the state of coastal dune systems including vegetation cover and dune morphology by Michael Bergin, Moniqua Nelson-Tunley and Andrew Anderson.

A walk to Haiwaiki iti
– the gardens of Whakaotirangi by Pita Te Ngaru

1.00 pm Lunch

Move to the coastal buffer site at Tom French Grove

3.00pm Back to the marae for afternoon tea and the official conference closing



Michael Bergin



Kelly & Ross Dockery



Pita Te Ngaru

Field trips/Keeping Safe

We will visit locations outdoors in environments that require you to be responsible about ensuring your own health and safety.

Please ensure that you:

- Have appropriate clothing to deal with the very variable weather conditions that can be encountered, from water-proof and warm clothing to hats and sun-block.
- Keep within safety barriers, adhere to safety advisory signs and instructions, take care when crossing roads and keep a safe distance from hazards like steep drop-offs, fast flowing water or other areas that might present a safety risk.
- Wear footwear appropriate for walking and providing proper grip on wet slippery surfaces.
- Inform the conference coordinators before you leave of any special medical conditions or needs for which you may require assistance.
- Ensure you take with you any personal medication including anti-histamine.
- Take sufficient water for field trips of several hours. Food will be provided but take snacks if you think you will need it.

We hope you have enjoyable and safe field trips.

Measuring our progress/Tēnei tō tātou ahunga whakamua

2024 Conference Programme

Day 1: Wednesday 20 March 2024

Venue: Maketū marae

Time	Topic	Speaker/Facilitator
8:00	Pōwhiri	
10:00	Morning tea (30 mins) Maketū marae	
10:30	Welcome from the Coastal Restoration Trust - Tāhuna Ora	Laura Shaft Chair, CRT
11:00	Presentation by premiere sponsor Waikato Regional Council	Dr Bruce Clarkson, Deputy Chair, WRC
11:15	Presentation by premiere sponsor Puurekireki marae	Tai Huata, Chair, Puurekireki marae. Te Ao Apaapa, Taiea te Taiao
11:30	Keynote speaker: Kāwhia moana and navigating ocean-going waka	Hoturoa Barclay-Kerr Te Toki Voyaging Trust
12:00	Keynote speaker: The northwest wave climate and sediment process	Professor Karin Bryan Waikato University
12:30	Lunch (1 hr) Maketū marae	
13:30	Sea Spurge, Euphorbia paralias: what are we doing and how to prevent its spread	Ben Faircloth, Ministry of Primary Industries
13:50	Adaptation of pā to climate change – "Business as usual"	Akuhata Bailey Winiata PHD candidate, University of Waikato
14:10	Regional roundup First session	Facilitated by Graeme La Cock, CRT Trustee

15:00	Afternoon Tea (30 mins) Maketū marae	
15:30	Student presentations: Satellite and machine learning for monitoring our coastal environments	Zhanchao Shao, PhD candidate, University of Waikato
	Modelling coastal vegetation for enhanced management strategies	Sanne Vaasen, PhD candidate, University of Waikato
16:00	Field trip: Te Papa o Karewa, Tainui waka	Roy Willison, Chair, Maketū marae

19:00 Conference BBQ and Best Coastal Restoration Award presentation at Maketū marae

22:00 Evening ends

Day 2 Thursday 21 March 2024

Venue: Maketū marae

Time	Topic	Speaker/Facilitator
8:00	Field trips: Waka tour of Kāwhia moana - numbers are limited to 69 people (weather permitting)	Navigator - Caleb Te Kahu, Te Toki Voyaging Trust, Historical orator - Roy Willison, Maketū marae Projects orator - Stacey Hill, Coastcare Waikato ,
8:40		
9:20		
	or	
9:00	Kāwhia Moana Native Nursery tour	Vanessa Rotohiko and Ray Montgomery
10:00	Morning tea (30 minutes)	
10:30	CRT resources update	Tim Park, CRT Trustee
10:40	CRT Projects update	Graeme La Cock, CRT Trustee
10:50	CRT Post-graduate scholarship presentation	Cate Ryan, University of Auckland
11:05	Regional roundup Second session	Facilitated by Jason Maguiness, CRT Trustee

12.00	Lunch (1 hr) Maketū marae	
13.00	Listening to our harbours	Dr Marama Muru-Lanning, University of Auckland
13.15	Onepu Charitable Trust	Horahaere Daisy Scott
13.30	Te Taiao o Kāwhia Moana	Hano Ormsby
13.45	Tainui Kāwhia Incorporated -60 years on - The story of the biggest environmental project in Kāwhia	Lees Seymour
14.00	Regional roundup Third session	Facilitated by Graeme La Cock, CRT Trustee
15.00	Afternoon tea (30 minutes) Maketū marae	
15.30	Future Coasts Aotearoa - informing adaption and restoration opportunities for coastal wetlands	Dr Andrew Swales, Niwa, Hamilton
15.45	Spatial opportunity for coastal blue carbon in Aotearoa New Zealand	Dr Phoebe Stewart-Sinclair, NIWA, Hamilton
16.00	Workshops	
	Coastal Plants for your site: which plants go where	Tim Park and Jo Bonner, CRT trustees
	Weed Control: how to prioritise and manage weed species in your project site	Frances McKinnon, Biosecurity officer - pest plants, WRC
	Pest animal monitoring and control – how to monitor and control pest animals on the coast	Moniqua Nelson-Tunley, CRT Trustee, Waikato Regional Council
17:30	Day ends	
	Dinner at the Kāwhia Boating club at your own cost or make your own arrangement	
19.30	CRT short video screening	Kawhia town hall
20.15	Panel discussion on impacts of vehicles on beaches	Panelists John Forbes, Te Taiao o Kāwhia Moana Carl Morgan, Royal Forest and Bird Protection Society Stephen Bell, Auckland Council Nina Raharuhi, Kaitiaki o Tokerau Ranger

Day 3 Friday 22 March 2024 Fieldtrips to sites around Kāwhia Moana

Time	Topic	Speaker/Facilitator
8:30	Meet at marae	
8.50	Welcome and briefing at Aotea Coastal walkway carpark	
09.15	Talk by Dave Forsythe, Stacey Hill and Pita Te Ngaru	
09.40	Dune monitoring workshop	Michael Bergin Moniqua Nelson-Tunley, Waikato Regional Council, Andrew Anderson. Waikato Regional Council
11.00	Drive to mussel farm	
11.10	Talk by Kelly and Ross Dockery	
11.45	Drive to Hawaiki Iti	
12.00	Talk by Pita Te Ngaru	
12.40	Drive to Tom French Grove	
13.30	Talks and walks to the coastal buffer site - Tainui Kāwhia Inc.	
15:00	Afternoon tea at Maketu marae and official closing of the conference	

Covid 19 protocol

The government's current COVID-19 protection framework has no specific actions for this event. The CRT conference committee however requests all participants stay home if they are unwell in any way. Additionally, we encourage all conference participants to take a RAT test 24 hours prior to the conference.

There are a multitude of COVID-19 related attitudes and behaviours held by New Zealanders. We ask that you respect the individual preferences of those who wish or need to wear masks or maintain social distancing during the conference.

We will have hand sanitiser and face masks available throughout the conference.

Useful Websites

Coastal Restoration Trust:

www.coastalrestorationtrust.org.nz

Plant Calculator:

www.coastalrestorationtrust.org.nz/resources/planting-calculator

Coastal Reference Database:

<https://ref.coastalrestorationtrust.org.nz>

Handbook:

www.coastalrestorationtrust.org.nz/resources/coastal-restoration-handbook

Coastal Restoration Trust Monitoring Database:

<https://monitoring.coastalrestorationtrust.org.nz>

Post Conference Field Trip

8:00 am
- 3:00 pm
Friday
22 March

Friday 22 March

The post conference field trip to Nukuhakari Station Kāwhia is limited to 15 people and those people have been contacted.

We will depart following the close of the conference on Friday 22 March and will stop at Otorohanga and/or Te Kuiti for food supplies. The journey from Kāwhia to Nukuhakari will take approximately 3 1/4 hours.

After arriving at the Nukuhakari Station shearers quarters in the evening we will share a potluck meal. In the morning, we will be taken to see Middle/Ngararahae Bay, the site of a colossal sand dune

that the landowners, with support from Coastcare Waikato and Coastal Restoration Trust, have been working to restore. Here, we will see several years of restoration planting, including the early trials to prevent sand egress inland and the more recent marram trial, with an explanation of each from the people who have been working on these trials.

If time allows, trips to the Station's other bays will be included. After a second night at the shearers' quarters, the van will return via the coastal road, with stops at Kiritehere, Marokopa and Waitomo for short walks if time allows.



