



# **COASTAL PEOPLE: SOUTHERN SKIES**

Centre of Research Excellence



We dedicate this first annual report to the late Professor Keith Hunter who was instrumental in the early work of Coastal People: Southern Skies.

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Cover photo: Rakiura. Photo credit: David Thomson.

 $\overset{\cdot}{\text{Rakiura}}$  is one of our community anchor sites, where communities undertake projects of their design within the kaupapa of Coastal People: Southern Skies.

## **KARAKIA**

Haea te awa,
puta i tua
puta i waho.
I te pakiaka o te rākau.
O maere nuku
o maere raki
o maere o te māra whenua
I ruka Tāne
I raro Tāne
Te raki ihi o Tāne
Pakupaku o Tāne
Nohoka o te ariki
Hoatu e Tāne ki uta.

Slash the seas,
and send me to the land far away
and beyond.

My canoe is made from the root of the tree.
(the maere refer to the separation
of the heavens)
Maere of the land of gardens
Tāne above
Tāne below
Tāne who brought light to the earth
Tāne who cleared the land
Residing in his resting place
Send me ashore.



# KO WAI MĀTOU? WHO ARE WE?

We are Coastal People: Southern Skies, a national Centre of Research Excellence funded by the Tertiary Education Commission. Our Centre brings together researchers from the tertiary sector and communities with a shared kaupapa. We provide a platform to enable inter-disciplinary connections between researchers and to facilitate the development of capability across all levels within a research programme that is relevant, world-leading and strategically focused. Our research programme is designed in a manner that enables knowledge transfer activities to occur at all levels including the education sector, government, communities, industry, and academia.

Our **vision** is flourishing wellness (mauri ora) of coastal communities.

Our **mission** is to connect, understand and restore coastal ecosystems of Aotearoa New Zealand and the South Pacific through transformative research, local action and by unlocking potential through utilising new pathways to learning.

## **COLLABORATION PARTNERS**

Coastal People: Southern Skies is hosted by the University of Otago and has nine Collaboration Partners.





















### REPORT FROM THE BOARD CHAIR



Coastal People: Southern Skies Centre of Research Excellence (CPSS) first received notice that it was one of ten Centres of Research Excellence (CoREs) funded for the 2021-2028 period in late 2020, as one of only two new CoREs in this funding round. At this time, we were still impacted significantly by Covid-19 and the enduring impact of the pandemic is seen in the delays getting the research programme off the ground.

The focus of CPSS over this initial period has been on developing the documents and processes to ensure that their systems are robust and transparent. The Board has been encouraged to see the quality of the research projects that have been co-designed through the process.

As I reflect on the first eighteen months of CPSS I want to acknowledge the significant amount of work many people put into the development of the application, including the research programme, and the governance and management structure. It has been a pleasure to watch the planning and development evolve into an ambitious programme of work that is already having an impact and is transforming the ways in which the tertiary sector can work with communities. I want to congratulate the Senior Leadership Team of CPSS for having the courage to delay the start of the programme until their processes were established and to then have each project follow the pathway to approval. This patience will be rewarded in the long term; and it has enabled a constructive establishment review to be undertaken. This is

wayfinding leadership in action!

A research programme that integrates tertiarybased researchers with community-based researchers requires diverse skills and the provision of appropriate support and advice across many different areas. The research programme that is evolving is enhanced by the connections with five anchor communities (these communities contributed to the funding application development). These connections will enrich the education experiences of the students and researchers of CPSS, and those of the communities we work alongside. As a Board, we have ensured that CPSS has intentional pipeline opportunities for Māori and Pasifika learners; the challenge, not just for CPSS but for the sector, is recognising that the traditional academic measures of excellence fail to fully capture what success is for Māori and Pasifika peoples.

As we complete the 2022 reporting period for CPSS, I am heartened to see the traditional metrics are tracking well with 87 publications that are aligned to the kaupapa of CPSS and 44 postgraduate students undertaking projects that are aligned to the kaupapa. So, I lay the wero, let us consider other ways of measuring success alongside the usual measures, this includes intergenerational transformational change. We will be rewarded with a wealth of information that will inform our future planning and ensure that other initiatives such as Te Ara Paerangi will be enduring.

I would like to acknowledge my fellow Board members Mr Hoturoa Barclay-Kerr, Professor Emeritus Khyla Russell, Dr Paula Vivili, Dr Rebecca McLeod, Professor Richard Blaikie, Dame Susan Devoy, and Professor Tracey McIntosh for their oversight and advice. I would also like to thank the Co-Directors Associate Professor Anne-Marie Jackson, Professor Chris Hepburn and Kaiurungi Programme Manager AJ Woodhouse for their work during the establishment period.

Tā Mark Solomon Chair

## REPORT FROM THE CO-DIRECTORS



Tēnā koutou katoa, talofa lava, mālō e lelei, nisa bula vinaka, kia orana E rere ana ngā mihi ki te runga rawa, nā rātou i homai te kaha me te kororia o ngā mea katoa.

As we reflect on the eighteen months since the establishment of Coastal People: Southern Skies, we wish to acknowledge those communities, kaupapa, and supporters who have contributed to our success. We also wish to acknowledge the research and relationships that provided the foundations for our programme.

Establishing a new national Centre of Research Excellence within a global pandemic has presented us with significant challenges and opportunities. Our primary kaupapa during the establishment of Coastal People: Southern Skies has been preparing the gardens. We have focused on building upon the long-standing relationships we brought into the kaupapa, fostering networks and identifying new collaborations as we set the waypoints for the next stage of our journey. We have created a clear vision and mission, in alignment with our values of mana and kaitiakitanga, with a dynamic strategy. Our strategy overlays the two pou of a national Centre of Research Excellence which are research excellence, and capability and capacity building; we also have a third pou for Coastal People: Southern Skies, sustainability. To implement our values, we have organised Coastal People: Southern Skies around Mana Atua, Mana Tangata, Mana Whenua and Mana Moana.

Mana Atua refers to our collaboration partners. our community anchor sites, our governance and advisory groups. Mana Tangata is the focus we have on our people, and the importance we place upon capability and capacity building, leadership development and enhancing the mana of our people. We have a strong focus on Pacific, Māori and rural development. Mana Whenua relates to our financial management, our tikanga and processes. In this first Annual Report, you will find our 2021 and 2022 financial statements, the tikanga and processes we have developed are available on our website (cpss. org.nz). We thank the University of Otago as our host, and the development, implementation and review work that has been led by our Kaiurungi, AJ Woodhouse, alongside Rita Przybilski in relation to our innovations in research contracting, particularly with our community partners. Mana Moana is where we undertake our work programme; this is the focus on our research programmes and capability and capacity programmes. We have built our guiding documents and pathways from the ground up, and our foundation projects, some of which you will find in this Annual Report, have been codeveloped within this operational framework.

In this Annual Report, we share the stories of some of our firsts. Our research programme includes five projects that are community-led, and you can read about the first of these to begin, Bringing to life a waka: A vehicle for connection. We showcase our first Marine and Wellbeing projects, Pāua: Restoring a cultural icon and Falafolaloa: Pacific voices. We share an example of a foundational project, the Munida Transect, which has produced an internationally recognised dataset. We also invited some of our Coastal People: Southern Skies scholarship recipients to share their stories.

Nō reira, he mihi anō ki a tātou katoa i runga i te manaakitanga o te wā,

#### Νā

Anne-Marie Jackson māua ko Chris Hepburn Foundational Directors of Coastal People : Southern Skies

# OUR KAUPAPA

The research, leadership and governance of Coastal People: Southern Skies (CPSS) is structured around the metaphor of a voyaging canoe with Te Pae Māhutonga (the Southern Cross Star Constellation) reflecting Tā (Sir) Mason Durie's model of wellbeing, and our governance and management structure.



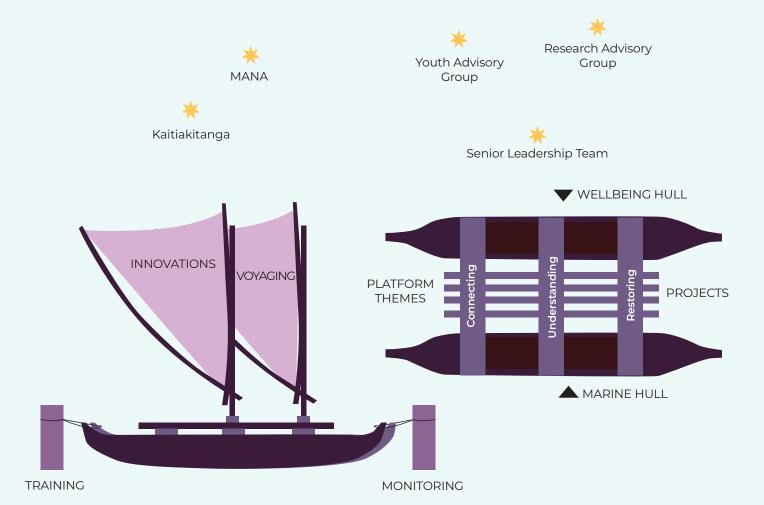
The waka has a Marine hull and a Wellbeing hull. There are two tumu (moorings): Monitoring at the bow, and Training at the stern. Connections to these moorings are threaded throughout each of the platform themes: Connecting, Understanding and Restoring. Each theme is connected and braced by a series of inter-connected projects that draw on both hulls to apply cross-disciplinary and cross-cultural approaches to research. The two sails represent Voyaging and Innovations.

Te Pae Māhutonga reflects our location, shared history, and connections as coastal people of the South Pacific facing an uncertain, yet shared future. Our leadership, governance and management approach are based on the principles of wayfinding leadership, because it meets the needs of our community partners, aligns with our research programme, and values

our researchers, students, and community partners. The four central stars represent the Centre's Strategic Advisory/ Governance Board, Research Advisory Board and Youth Advisory Group as well as the management which is the Senior Leadership Team of the Centre. The two pointer stars represent the values that underpin all that we do (Kaitiakitanga and MANA – Meaningful Authentic Natural Action).

The following pages introduce our Tumu and Platform Themes.







#### LEADERS: DR DANIEL PRITCHARD & DR KIM CURRIE

The Monitoring Tumu develops and supports observation networks across Coastal People: Southern Skies that provide a holistic view of the status of social ecological systems, wellbeing of communities and the impacts of climate change around the marine environment.

Monitoring is fundamental to our understanding of the marine environment today and what will come in the future. To prepare for and predict what will be, we must know what is. To manage and restore, we must observe and record change. In Aotearoa New Zealand, there has been significant under-investment in high quality long-term

marine monitoring, leaving coastal communities underprepared to confront the challenges of climate change.

In the metaphor of CPSS as a double-hulled waka, the Monitoring Tumu (mooring post) has a foundational and stabilising role, connecting back to fixed and permanent places. It spans the full 7.5-year term of CPSS, providing platforms and opportunities for monitoring and for the coordination, promotion, and support of high-quality data collection within CPSS.

One of our key workstreams is to establish fixed-

point, subtidal biogeochemical and environmental moorings within important habitats at anchor sites across the latitudinal gradient of Aotearoa New Zealand. The first anchor site is at Karitāne on the Otago coast. This project builds on a history of successful data collection, support for aligned research projects and community engagement and support. As well as implementing local monitoring, this first project will develop methods, approaches and resources that will be utilised within the Tumu and elsewhere within CPSS.

Monitoring strengthens our understanding of

coastal seas, of coastal people and will connect our programme across the South Pacific and beyond. Building on established models of marine monitoring aligned with CPSS, we will establish methodologies, networks and platforms to deliver essential baseline monitoring and lead the development of excellent practice in data collection and management. Alongside this, CPSS will work with partner communities to develop models and measures of wellbeing that resonate with communities.

Opposite page: Dr Daniel Pritchard (CPSS Senior Research Fellow, left) and Niall Pearson (University of Otago Dive Officer, right) position one of the new sensor platforms (pictured below) near the Huriawa Peninsula (Karitane, Otago). Photo credit: Lucy Coyle

Below: Two new sensor plaforms, with mounts for light, temperature, salinity, depth, oxygen and pH sensors, designed and deployed by the CPSS Monitoring Tumu programme. Photo credit: Daniel Pritchard





#### LEADERS: DR CHANEL PHILLIPS & DR PETER DILLINGHAM

Coastal People: Southern Skies celebrates and promotes mana enhancing leadership and world class training opportunities that reflect and celebrate diversity. Training is interwoven through all of our work.

Community and student-centred learning is at the heart of our approach. CPSS has a strong focus on growing the capability and capacity of students,

researchers and communities and is intentionally creating a 'pipeline' of capacity development.

The Training Tumu builds on successful placebased and environmentally-informed learning programmes with a focus on research pathways, practical training opportunities, wānanga for end-users, professional development for industry, and outreach.

# CONNECTING THEME

#### LEADERS: DR KAREN GREIG, DR NAOMI SIMMONDS & ASSOCIATE PROFESSOR WILL RAYMENT

The aim of the Connecting Theme is to build understanding of the diverse ways in which coastal communities form enduring connections to the marine environment, and the connections between coastal peoples and marine ecosystems across Aotearoa New Zealand and the Pacific.

The Connecting Theme includes projects that investigate the changing cultural, economic, and spiritual relationships between coastal communities and their environments, and how these connections contribute to long-term wellbeing. This work recognises the diverse cultural traditions and practices that structure how communities interact with coastal ecosystems and landscapes in Aotearoa New Zealand and across the Pacific.

Connecting people, ecosystems, and climate change-related problems at multiple levels and across space and time, draws on different knowledge systems, research disciplines, academic and practical skills, and cultural traditions. We conduct research to understand ecosystems, and how people interact with coastal ecosystems in the past, present and into the future. We trace past and present human and other migrations/ dispersal, to predict and prepare for the social and ecological consequences of generations of climate refugees. Connectivity is more than collaboration – it is the space where radically different perspectives and worldviews interact to create a place of innovation, empowerment, and resilience.





#### LEADERS: DR CHRIS CORNWALL, DR EMMA RYAN & ASSOCIATE PROFESSOR OCEAN MERCIER

The Understanding Theme allows us to apply multidisciplinary and cross-cultural approaches to build local understanding to the global change we are experiencing. It also enables capacity building and the collection and analysis of key data to support evidence-based decision making.

Within this theme we use predictions of sensitivity and responses of social-ecological systems to changing ocean climate at local and regional scales across latitudinal gradients. Aotearoa New Zealand and Pacific Island nations have a deep connection to their marine ecosystems and a shared future in a changing ocean.

Understanding the impacts of climate change on important processes in the coastal-marine environment and implications for the values, culture, and wellbeing that coastal and marine areas provide are priorities. We are determining how local stressors (that can be managed locally) interact with globally driven stressors that cannot be managed locally. Coastal communities and researchers are co-creating new knowledge and connections to enable preparation for a changed marine environment and focus management to maximise climate change resilience.

# **RESTORING THEME**

#### LEADERS: DR GAYA GNANALINGAM & ASSOCIATE PROFESSOR ROSE RICHARDS

The Restoring Theme focuses on restoration that acknowledges the past and uses knowledge of the present and future, to guide action that provides meaningful benefits today, and for generations to come. The act of restoration brings benefits for the ecosystem but also for the people who actively engage in the restoration. Restoration is both the process and the outcome of this theme restoring ecosystems to build resilience to climate change.

We are employing holistic approaches that integrate ecological / environmental restoration with the restoration and empowerment of communities. We are focusing on critical

processes, habitats, and species (e.g. ecosystem engineers, cultural keystones). The broader effects of future-focused ecosystem restoration on coastal communities (e.g. social cohesion, capacity) is being examined.

With the inevitability of change, we will identify local initiatives to strengthen social-ecological systems and support coastal people as they prepare for change. The Centre provides the opportunity to have a research programme that will allow us to assess the effectiveness of restoration programmes on coastal ecosystems through long term monitoring.





# BRINGING TO LIFE A WAKA: A VEHICLE FOR CONNECTION

Nestled between the Pacific Ocean and the road leading into the small coastal settlement of Karitāne is whenua alive with activity. Owned and cared for by local Rūnaka, Kāti Huirapa ki Puketeraki, māra kai (productive food gardens) and a native plant nursery thrive.

Near the foreshore on the far corner of the whenua sits a shed, and in that shed a waka is being brought to life. The quiet workings of tools, mentoring and laughter fills the space, and the background sound of the ocean is ever-present.

The sound of the sea with its breaking waves is one that's both soothing and unsettling. The irony that due to increasing storm events this part of the coast is actively eroding is not lost on the purpose of the community-led Ruruku project that's helping build sustainable and resilient communities facing such challenges.

As a fundamental element of collective Māori identity, the kaupapa of the Ruruku project is bringing together the wider community to wānanga around the planning and construction of a traditional sailing waka. With leadership of the Hauteruruku ki Puketeraki waka club, the waka supports the

overarching vision of Coastal People: Southern Skies for flourishing wellness and restoring mauri ora of marine environments and their communities.

Elizabeth Vanderburg, a member of the project team and Karitāne resident, explains that through bringing people together the waka acts as a catalyst for strengthening community connections. "When we talk about resilience, one of the big factors is having a healthy community and building a social capital."

Brendan Flack (Kāi Tahu, Kāti Mamoe, Kāi Te Ruahikihiki) is project leader of the communitybased Ruruku project and as Tangata Tiaki for Kāti Huirapa, he's deeply conversant with the critical role the marine environment has played for the historic and contemporary fabric of the community.

"The East Otago Taiāpure has always been an area of abundant marine resources and kai moana and is one of the reasons for tangata whenua developing such a close relationship with the area over a long period of time," Brendan says. "Karitāne has always been a fishing village, which over the years has shifted from extractive uses to others such as ecotourism."

Photo on previous page: Community members Katja Schweikert, Waiariki Parata-Taiapa and George Meikle at work on the waka.

Photo credit: Elizabeth Vanderburg



While our focus is on constructing a vessel, we've learned that we're building so much more," Brendan says. "Our confidence on the water has grown and we understand the value of waka within our community and what it means for connecting to Te Ao Māori."

Over the last ten years, the 70-member Hauteruruku ki Puketeraki waka club has built two small waka which have been actively used to engage with the local marine environment. Brendan describes the strong whanaungatanga that was evident during these first two builds which included a waka ama and double-hulled waka.

He also observed the transfer and nurturing of skills passed between generations, and the strength of bringing people together to build the waka captured through trust and sharing of stories. "While our focus is on constructing a vessel, we've learned that we're building so much more," Brendan says. "Our confidence on the water has grown and we understand the value of waka within our community and what it means for connecting to Te Ao Māori."

Bringing the first two waka to life also provided the foundation of learning and capacity-building for the current Ruruku project to add a third waka, capable of coastal voyaging, to the fleet.

Responding to a gap in documented waka knowledge, the project's design of a larger double-hulled waka is believed to emulate those used as training vessels for larger waka. The waka will be a vehicle for binding the strands of Puketeraki's kaupapa taiao aspirations for reengaging with Takaroa and reigniting voyages on ocean routes between coastal communities.

An aspirational component of the build is to weave a traditional woven sail modelled on Te Rā, the only known sail of its kind and which is currently being returned to Aotearoa from the British Museum. Jacinta Beckwith (Ngāti Kahungunu ki Heretaunga, Ngāti Porou) is a member of the weaving rōpū Whiria ka aho ki Puketeraki who are learning the skills required for its intricate and complex construction using harakeke.

The ropu is being supported in their learning by expert weavers Te Ra Ringa Raupa who reverse-

engineered the construction of Te Rā, reacquiring the ancient knowledge from within the taonga itself. "In this mahi we can reconnect with our tīpuna, and have our minds blown by the levels of expertise they demonstrated in creating taonga both beautiful and functional," Jacinta says. "I'm so thrilled to be part of this kaupapa about the celebration, restoration, and revitalization of mātauranga Māori."

With the support of a Coastal People: Southern Skies PhD Scholarship, Jacinta is concurrently undertaking research exploring a Kaupapa Māori approach of archaeological discourse and practice that prioritises the health and wellbeing of Māori coastal communities.

Through regular wānaka held on the grounds of the māra, Ruruku project participants are supported to strengthen their own weaving, carving, and carpentry skills. Ultimately the waka will be an embodiment of their experiences, as those skills will be used to embed the participants' knowledge and stories into the waka.

Based in the East Otago Taiāpure, these skills, knowledge and relationships nurtured within the community also extend to the researchers and students who undertake work there. Brendan describes the Taiāpure as "one big classroom" in which students learn, and the science that's taken place there has been critical for informing the protection of local fisheries.

"The waka already built have been used in pāua reseeding trials, and for restoration activities such as planting of native trees to help stabilise land adjacent to the coast," Brendan describes. They have also been used for water safety programmes, Science Wānanga for secondary and tertiary students and introduction to Polynesian celestial navigation traditions.

Having lived in Karitāne for over two decades, Wisconsin born Vanderburg is a strong advocate for research conducted alongside and for communities. "It's about the research but there are also so many skillsets learned when working with communities which has a real value. I have seen how it's possible to work in this space, and it's a no-brainer when it's seen in action."

Elizabeth has recently completed her own postgraduate qualification in science communication applying an Indigenous science lens and, alongside the community, is exploring ways to creatively capture the Ruruku project story.

She describes the community as having links to knowledge since the arrival of the first waka reaching back around 700 years and spanning twenty generations. "Understanding this knowledge has been passed on for so long has made us consider how to ensure what we are creating today will still be accessible 700 years from now."

The activity in action at the māra kai is nurturing this inter-generational thinking through the passing of knowledge and skills between the community and people who are coming together for a common kaupapa. The seedlings currently taking hold in the soil may also become the waka of the future. "We will ensure our story becomes part of this landscape and can be accessed by generations to come."



# THE PAUA PROJECT

OUR FIRST MARINE-FOCUSED PROJECT



## PĀUA. RESTORING A CULTURAL ICON

Twelve years ago, beside the small coastal settlement of Karitāne, a rāhui was placed on the gathering of the taonga pāua (*Haliotis iris*) around the Huriawa Peninsula. Located within the East Otago Taiāpure (EOT), the Peninsula has historically been an important local fishery and a place of significant cultural value for mana whenua.

It was the growing concern around declining stocks of pāua that triggered the process which resulted in the formal recognition of the EOT in 1999. Driven by members of Kāti Huirapa Rūnaka ki Puketeraki, the Taiāpure continues its kaupapa today to establish sustainable management practices to protect the area and its taonga for future generations.

Supporting the community's sentiment and aspirations, marine scientists from the University of Otago, with the leadership of Professor Chris Hepburn, started research in the EOT in 2008 and confirmed what the kaitiaki had been observing around declining pāua stocks. The ensuing scientific evidence informed the decision made by the East Otago Taiāpure Management Committee (EOTMC) to put in place that first rāhui in 2010 and close Huriawa Peninsula for pāua fishing.

Dr Gaya Gnanalingam first became involved in EOT research two years later for her masters research which focused on the localised management and reproduction of blackfoot pāua. She also co-led the second round of pāua surveys which supported the community's response to keep the rāhui in place.

Ten years later and Gaya is now leading the first Coastal People: Southern Skies supported marine project that's working primarily in the EOT and informed by over a decade of pāua ecology and community-led management in customary fisheries areas. With a background in science and law, Gaya is also passionate about the use of science to better inform the management of marine resources and associated fisheries regulations.

Growing on her long association with the area and the community, Gaya says she now appreciates

what it's like for a community to look after a fishery and the sacrifices made when making decisions about rāhui.

"That the local community collectively decided to close the fishery says a lot about the importance of this taonga species," Gaya explains "The current project is not just about the biology of a species but understanding all the human elements of the challenge, such as the community connection, and the ongoing management of this species which means so much to so many."

The three and a half year funded Coastal People: Southern Skies project Pāua. Restoring a cultural icon, is working with the community to regain a connection to their taonga with a focus on the restoration of pāua stocks and strategies for harvesting once again.

"For us, counting and measuring paua in the rolling surf, is a good day out but knowing that it actually helps support community aspirations makes the work all the more meaningful," Gaya says.



The current project is not just about the biology of a species but understanding all the human elements of the challenge, such as the community connection, and the ongoing management of this species which means so much to so many."

As a Fulbright Scholar and after completing her doctorate in the United States, Gaya returned to Aotearoa in 2018 and started a Vision Mātauranga Placement with Te Rūnanga o Ngāi Tahu and the University of Otago supported by MBIE's Vision Mātauranga Capability Fund. Her ongoing research is aimed at modelling strategies for harvesting pāua in Customary Protection Areas within the rohe moana of Te Rūnanga o Ngāi Tahu, the learnings from which Gaya is applying to the Coastal People: Southern Skies project in the EOT.

The project's initial aim is to monitor existing stocks and develop tools for restoring local pāua populations via stock enhancement which includes research into translocation and reseeding techniques.

The first scientific pāua translocation was completed within the EOT in 2020 by PhD student Louise Bennett-Jones, who moved over 400 pāua from the moana near Warrington to an area where abundances have sharply declined. With the support of a Coastal People: Southern Skies scholarship, ecology graduate Duncan Campbell has worked on lunar influences on pāua movement with respect to translocation in the area.

Spawning and reseeding trials have also taken place and ongoing observations are improving the understanding of the reproductive condition of pāua over the annual cycle. "Pāua in this area display unique patterns of spawning activity and are challenging to reproduce in captivity," Gaya says. "But with the work completed so far to

monitor their condition and spawning behaviour over time, we are now better informed to help achieve our goals."

While spawning trials have taken place at the Portobello Marine Laboratory to date, the project is supporting the goal of community-led species restoration through the construction of a hatchery for pāua and kōauau (bladder kelp, Macrocystis pyrifera) in conjunction with a concurrent Coastal People: Southern Skies project Māra Moana.

The modular, mobile and self-contained community hatchery will be located at Karitāne and supported by the transfer of skills and knowledge from the science teams. This transfer of scientific expertise underpins the overarching vision for the community to not only reconnect, but to take agency for future management and monitoring of the taonga species.

Informed by scientific modelling of harvesting strategies and mātauranga, wading only trial harvests are also planned for the EOT, and accompanied by observation and monitoring of the ecological response and impact on pāua stocks.

The project is also working with the New Zealand Marine Studies Centre to develop a range of educational initiatives including a science extension program for year 9 and 10 school students.

The multi-day programme includes a field trip and study to Huriawa Peninsula, follow-up lab experiments at the Portobello Marine Laboratory, and the presentation of results and findings to whānau and communities.

Other learning resources such as a pāua harvesting game for high school students are also in development. The game is akin to a fisheries model and presents ideas and scenarios regarding how populations might be impacted by different harvesting strategies. "It's all about introducing tamariki to the multi-layered nature of decision making for managing these real issues and challenges for communities," Gaya says.

Through initiatives such as these, Gaya explains students get to make a real connection with a community and its taonga, gain an understanding of the multi-layered nature of the issues involved, and are introduced to the meaningful contribution of science for addressing such challenges.

While science is supporting these community aspirations, Gaya says their research and mahi alongside the EOTMC is reciprocated with a nurturing space for rangatahi and tauira.

"I felt a connection here when I first met the community more than a decade ago, and that's a big reason why I continue to work in this space. The EOT is very much a place where students can learn in a safe, supportive community area, and then take what they have learned elsewhere."

Gaya says the aim of the pāua project is to restore the reefs so that pāua are once again abundant and resilient to environmental change, and for the community to restore their connection to this marine taonga. 66

make a real connection with a community and its taonga, gain an understanding of the multi-layered nature of the issues involved, and are introduced to the meaningful contribution of science for addressing such challenges."

"Our long term aspiration is to potentially replicate the approach taken by this project to other Customary Protection Areas around the motu, and in that way the benefits of the work can then ripple widely."



### **FALAFOLALOA: VOICES OF THE PACIFIC**

A calling and welcome to the mat captures the essence of the Samoan term Falafolaloa, an action that also embodies the central energy for a project that's providing a platform for uplifting Pacific voices.

The project's kaupapa is exploring the connection between the physical environment and wellbeing, a relationship which is highlighted in many Pacific health models explains project lead Associate Professor Rosalina Richards, Deputy Director Va'a o Tautai – Centre for Pacific Health at the University of Otago.

"However, there's still potential for incorporating our natural environment into solutions around Pacific wellbeing in Aotearoa," Rose says. "Sometimes, as a diaspora, we've overlooked that relationship in our move away from ancestral islands, as cultural practices that previously linked us closely to the environment have become more distant."

Migration between Pacific nations and Aotearoa New Zealand in search of new opportunities has a long history. This movement is anticipated to intensify due to the disproportionate impact that issues such as climate change will have on Pacific islands. Migrating communities are also expanding out from Auckland to make their homes right across Aotearoa, including to southern regions.

"The question then becomes how do we welcome our families when they arrive in places such as here in Ōtepoti Dunedin, and how do we support them to develop a sense of belonging and connection with this place," Rose says. "The Falafolaloa project is about creating the space to discuss with our community experts how we might approach this."

The critical thread weaving Coastal People:
Southern Skies with the project is the moana and leading community thinkers have shared ideas with the research team including how the moana has long been viewed as a connection point and a superhighway for the Pacific community.

"When Pacific people arrive here, we are no longer on our land, but we're still in our ocean, and going to the water is an important connection point to our ancestral homes and practices. The project places the marine environment as a point of belonging for our diaspora to embody their culture and values, and be a source of strength on their own journey."

Gathering of knowledge to inform the Falafolaloa project lies in community expertise, and the mat opens the space for sharing ancestral knowledge and wisdom of traditional Pacific concepts analogous to kaitiakitanga.

"We are blessed to have community members who are unrelenting in their aspiration, sacrifice and drive for their children and future generations. One of the things we are curious about is how to build the relationship between our young people and the ocean, as they will be our ambassadors for generations to come."

With its environmental links and cultural significance, this year's Matariki was the starting point for engaging in the research process that moves through several stages inspired by the metaphor of preparing and gifting a Kakala (flower garland) as a valued practice throughout the Pacific.

Talanoa is the primary research tool that involves the sharing of ideas, experiences and stories with a diverse range of community members, including leaders and those highly engaged in the moana.

"We seek to understand the historic connections between the marine environment and wellbeing from our leaders and elders and see how we can re-embody and reenact that in our local place and space. By surfacing these perspectives from our local Pacific community we are spreading the mats of welcome and belonging for current and future Pacific peoples living in Ōtepoti."

While science as a pedagogy often strives for generalisability and therefore away from the specificity of a local place, Rose describes that a strength of many Coastal People: Southern Skies projects is the way they are embedded in local geography. "This opportunity is a real treat for us, as it allows us to stand as researchers in this place and explore what our Pacific community in

Dunedin needs and wants to know."

By extension, the Falafolaloa project also asks of its researchers, who comprise a team of multiethnic Pacific and non-Pacific practitioners, to reflect on what they each bring to the kaupapa. Recollecting her own childhood growing up in Te Wai Pounamu, Rose says her desire was to feel strong and connected with her Samoan ancestry and its importance to her wellbeing. "We know that identity, meaning and belonging are such foundational aspects of resilience and for being okay in the storm.

"In our Pacific places we talk about the relational space between people, which is known as Va. There's also a relationship between us and the environment so what are the steps needed to rebuild and nurture the Va with our physical environment."

As Matariki draws closer, the research team are excited to see what ideas, stories, and inspirations the Pacific community brings to the mat. "The community is not only a source of inspiration, but also a place that holds transformational change," Rose says. "There are so many beautiful parts to our cultures that can be sources of strength if it's brought to life for you."

When Pacific people arrive here, we are no longer on our land, but we're still in our ocean, and going to the water is an important connection point to our ancestral homes and practices. The project places the marine environment as a point of belonging for our diaspora to embody their culture and values, and be a source of strength on their own journey."



Members of the Falafolaloa team, Dr Troy Ruhe, Talai Mapusua and Associate Professor Rose Richards.



# MUNIDA TRANSECT: A BENCHMARK CASE STUDY FOR MARINE SCIENCE RESEARCH

Every two months since 1998 NIWA marine scientist Dr Kim Currie has journeyed off the Otago coast to measure changing ocean chemistry parameters along the same 65km transect. As the transect crosses several water bodies including those fed by Antarctic currents, the scientific data gathered, and the stories it holds, have proved invaluable over time.

The longest running dataset of its kind in the southern hemisphere, the Munida Time Series transect has established itself as a foundational scientific study, and over its time has facilitated an expansive connection of people and expertise.

"You can never plan your life out," Kim reflects, adding she would never have predicted the study would still be going 25 years later. "What the Munida has made clear is the necessity of fundamental scientific data for measuring the ocean's response to increasing carbon levels, and to any action to manage those levels."

Established in 1998 by Kim and the late Keith Hunter, a professor of chemistry at the University of Otago, the Munida Time Series continues to make observations of the marine carbonate chemistry and physical parameters in the waters off the Otago coast.

Named after the research vessel used when the study started, the data collected on the Munida transect over 25 years tells a convincing story of the increasing levels of carbon in the water drawn from the atmosphere, and the resulting increase in the acidity of the water over that time.

Kim's focus is to collect accurate and useful scientific data that's comparable over time and alongside other global reference sites. She describes the collaborative nature of the global ocean science community who openly share data, such as that collected by Kim on the Munida transect. "The ocean connects us all," Kim says. "We're all in this together."

In the early 1990's when Kim was looking for a supervisor for her PhD thesis, she was drawn to Keith Hunter's scientific acumen, but also importantly, his approach to both science and people.

"Keith was forward-thinking in his awareness of carbon as a topic of increasing interest, and he helped to point me in the direction of carbon chemistry," Kim says. "People and relationships were also very important to Keith, and he naturally brought together the University of Otago, NIWA and the marine science community, which lay the foundations for the Munida programme."

With this foresight and bringing together a great team, the carbon chemistry work was part of the NIWA-Otago University Centre for Chemical and Physical Oceanography research group which was awarded the Prime Minister's Science Prize in 2011.

The prize money enabled a new stream of work that focused on ocean acidification as a rising concern for the marine environment. "As part of the work on the Munida Transect we had been measuring the right things to determine ocean acidity, and so we knew ocean acidification was happening in offshore waters. But we didn't have the data for waters close to the coasts where the effects of ocean acidification were most likely to be felt such as on shellfish as kai moana."

The establishment of the New Zealand Ocean Acidification Observing Network (NZOA-ON) began with ten sites around New Zealand, with the distribution of kits for collection of samples that were sent for analysis to the University of Otago based laboratory.

Concurrently, Kim was also on a working group contributing to developing a methodology for United Nations Sustainable Development Goal 14 including an international protocol for monitoring progress towards ocean acidification level goals.

Ten Department of Conservation Te Papa Atawhai marine reserves have since joined the NZOA-ON, and the data collected at these sites now feeds directly into the international system that's



Dr Kim Currie. Photo credit: Lana Young (Niwa)

measuring and tracking progress towards the Sustainable Development goals. "What's fantastic is that people now have agency and can make a direct correlation between collecting a bottle of water [to assess ocean acidification] and making a contribution to global goals."

Contemporary challenges including increasing ocean acidification and rising sea levels are having significant effects on the ecology of the natural world as well as the coastal communities for whom the ocean is an integral part of identity and way of living.

Simple acts such as collecting a bottle of water encapsulate the work of Coastal People: Southern Skies where local concerns and community aspirations in conjunction with scientific expertise, create outcomes which inform local decisions and make contributions at a global level.

Kim is now co-leading a Coastal People: Southern Skies project that's working closely with the East Otago Taiāpure (EOT) community's interest in the effects of ocean acidification on kai moana and the health of kelp beds. Building on her scientific expertise and learnings from the long-term Munida study, two seabed moorings placed near the Huriawa Peninsula in the EOT are gathering fundamental environmental data to inform the kaupapa.

The moorings are located inside and outside the kelp beds as evidence to date has highlighted the importance of kelp in mitigating the effects of ocean acidification. The sites are continuously measuring parameters such as pH, oxygen, temperature, and light, and supplemented with regular measurements of other factors including inorganic carbon, alkalinity and chlorophyll concentrations.

While the data collected is been used to address the primary concerns and aspirations of the community, it's also providing the base data for use by other Coastal People: Southern Skies kaupapa taking place in the EOT such as the pāua project.

Working with the community to inform a project's direction is now a critical part of the scientific process for Kim, who says one of the joys of her own journey has been the growing recognition and importance of bringing different voices and ways of thinking to the discipline.

"I used to be much more black-and-white when it came to science, but over time as I've listened to other perspectives and gained a better understanding of the context on which decisions were made, I've realised there are different ways of looking and doing things which are all valid, and that's become important to me."

Kim has been instrumental in increasing

diversity of membership through her role on various international science governance boards, explaining that positive actions can be as simple as meeting attendees introducing themselves in their native language. "If someone introduces themselves in their own language, then I see that as an important step in bringing their whole person to the table and in opening the dialogue more widely."

Coastal People: Southern Skies encourages its researchers to see and envelope these different ideas and ways of thinking in their work, which Kim says can also apply to the whakapapa of scientific data that's collected from a specific location. She has become interested the characteristics of data such as that used by the health industry which incorporates ethics and addresses concerns related to the people and purpose of data.

"Applying this to environmental data, we must consider how best to recognise data from a particular place and acknowledge the people associated with that place. There's a growing awareness around this topic and the platform of Coastal People: Southern Skies allows the development of these types of conversations."

The vision for Kim's work in the EOT that's helping support the community's concerns and aspirations, is to establish similar fixed-point environmental moorings across Aotearoa at three further locations of important marine habitats.

"By widening our network, we will be able to tease apart key drivers of change in coastal seas and establish a baseline against which to measure both future degradation and future success of mitigation strategies and actions."

# OUR SCHOLARSHIP TAUIRA

The following tauira are recipients of Coastal People : Southern Skies scholarships over 2021/2022. We have invited them to share their journey to date.



#### JACINTA BECKWITH, PHD SCHOLARSHIP



Tēnā koutou katoa
He uri ahau nō ngā iwi o Ngāti Porou me Ngāti
Kahungunu
Ko Kahurānaki te maunga
Ko Ngaruroro te awa
Ko Poukawa te waiū
Ko Tākitimu te waka
Ko Ngāi te Rangikoianake te hapū
Ko Te Hāpuku te rangatira
Ko Kahurānaki te marae
I tipu ake au i runga i te whenua o Ngāi Tahu
Kei Ōtepoti taku kāinga
Ko Jacinta Beckwith tōku ingoa
Nō reira, tēnā koutou, tēnā koutou,
tēnā koutou katoa.

Kia ora I'm Jacinta, Ōtepoti born and raised, proud member of Te Waka a Māui Southern rohe of Te Rōpū Whakahau: National association for Māori in libraries and the cultural heritage sector; of the Indigenous Matters Section Standing Committee of the International Federation of Library Associations and Institutions; of Ruruku waka building project by Hauteruruku ki Puketeraki; of weaving rōpū Ka Whiria Ahau ki Puketeraki, and of the Ōtākou branch of the Māori Women's Welfare League.

Over the last two years I have been a Research Fellow for Te Takarangi ki te Ao, a strategic partnership between Te Rōpū Whakahau and Te Takarangi national Māori books project based at the University of Otago. The project was awarded a research grant through the New Zealand

Libraries Partnership Programme from Te Puna Mātauranga o Aotearoa - National Library of New Zealand to reprint books listed in Te Takarangi 150 curation and gift them to marae, library, and Māori communities. Prior to the 2021 fellowship I was Kaitiaki Mātauranga Māori at the Hocken Collections and will return there in February 2023 as Head Curator Māori while I also complete my doctoral studies.

My PhD research visualises the whakapapa of ancestral and archaeological landscapes through narratives of the Tākitimu waka. I am privileged to have been awarded a PhD scholarship from the Coastal Peoples: Southern Skies Centre of Research Excellence which gives me the opportunity to be part of an invaluable research community and to continue my research exploring ancestral and archaeological landscapes, whenua and whakapapa.

Within the āhuru mōwai of Te Koronga in the Centre of Indigenous Science, I have a culturally safe space from which to explore research and methodologies aligned to the Māori worldview and mātauranga-ā-iwi. These methodologies sit within a research excellence kaupapa that supports the aspirations of Māori communities and is underpinned by a kaupapa Māori ethos. Engaging with landscapes and seascapes are ways of remembering our tūpuna. How our tūpuna lived within, travelled through and made use of land in the past has relevance for us today and will continue to do so for generations to come. Drawing on archaeological data, traditional narratives, archival materials, field observations and geographical information, this research contributes to mātauranga within this space for the wellbeing of coastal communities who are frontline in facing current and future impacts of climate change, while engaging the next generation of indigenous archaeologists.

Mā te rongo ka mōhio Mā te mōhio ka mārama Mā te mārama ka mātau Mā te mātau ka ora!

# LOUISE BENNETT-JONES, PHD SCHOLARSHIP



Kia ora, my name is Louise and I am a PhD student within the pāua team. I am originally from the small island of Jersey, in the Channel Islands, and have been living in Dunedin since 2019. My research focuses on pāua assessment, restoration, and management within the East Otago Taiāpure, for which I work closely with local Tangata Tiaki, Kaitiaki, and the East Otago Taiāpure Management Committee.

I began my thesis by conducting surveys throughout the Taiāpure to understand the current state of pāua populations, building upon work that has been ongoing since 2008. Following this, I investigated a possible restoration strategy, that combined local knowledge and mātauranga Māori to move pāua away from a site at which they were at risk of being buried by sediment.

I am also interested in the management of customary fisheries in New Zealand. At home in Jersey I worked as a Fisheries Officer, and one of our work streams included monitoring the ormer fishery – our species of pāua. We have some unique regulations for ormers, including wading-only fishing methods, and open / closed periods that are connected to the lunar cycle.

A key goal of the East Otago Taiāpure
Management Committee is to promote the use
of tikanga and kawa (customs, protocols) in the
management of their pāua fishery. Accordingly,
we are working together to investigate the
possibility of, and current constraints posed to,
introducing management measures such as
wading-only, and connecting fishing activity with
the maramataka (the Māori lunar calendar).

Photo credit: Lucy Coyle

# STELLA SIMPSON, POSTGRADUATE SCHOLARSHIP



I grew up in Christchurch, New Zealand and I have always had a curiosity of the natural environment and the science behind it. This led me to study oceanography and geology as an undergraduate at University of Otago. This was followed by a Postgraduate Diploma in Science, researching the effects of the Kaikōura earthquake on sperm whales.

Currently, I am studying towards a Masters degree investigating possible drivers of the decline of sperm whale abundance in Kaikōura in summer. Sperm whale abundance is thought to be driven by prey availability, therefore, factors affecting their prey are likely to be important in determining the presence and abundance of sperm whales in the area. My research will investigate habitat preferences of their main prey (including warty squid, arrow squid, ling and hāpuku) around New Zealand to determine if their preferred oceanographic conditions have changed over time at Kaikōura. I will analyse the results to assess if these oceanographic changes have decreased foraging opportunities for sperm whales at Kaikōura, and whether that is correlated with the local decline in abundance. This study is possible due to long-term research of these sperm whales since 1990 as a part of Otago's Marine Megafauna Research Group.

Sperm whales, or parāoa, are a taonga species that spend time at Kaikōura year-round. They are the focus of the whale watching tourism industry in Kaikōura, which drives the local economy. The Indigenous Ngāti Kurī people of Kaikōura, a subtribe of Ngāi Tahu, own this local industry and take on the role of Kaitaki of the natural environment. I

hope that my research will improve knowledge of sperm whales and how they are affected by changes in the marine environment. An important part of this research is giving back to the Kaikōura community. The results of this study will contribute to the community's guardianship of their taonga species and changes happening in their local environment.

# TE KAHURANGI SKELTON-PUE, POSTGRADUATE SCHOLARSHIP



(Te Ātiawa, Taranaki, Ngāti Maru, Ngāti Raukawa ki te Tonga)

Ko hea, Ko hea tērā mounga e tū mai rā Ko Taranaki pea, Nukunuku mai, nekeneke mai Ki taku tauaro kikini ai e ha!

Tēnā koutou katoa, he kākano au nō Taranaki mounga, nō ngā iwi o Te Ātiawa, Taranaki me Ngāti Maru ahau. Kei te mihi.

My whakapapa links to Te Ātiawa, Taranaki and Ngāti Maru firmly ground me as a wāhine Māori and emerging postgraduate student.

I'm proudly a student of Te Koronga and the Centre of Indigenous Science where we are guided by ancestral scholarship and Māori excellence. My research draws upon the methodological frameworks of Kaupapa Māori theory and further advocates for rangahau ā-iwi. The research explores climate change from a Taranaki perspective. Ko te kaupapa matua o tēnei rangahau: Ka tikate mouri o te taiao ka tika tonu te mouri o te tangata.

I was born and raised in Waitara, Taranaki where I was home-schooled. "My classroom was often wherever my parents were and the kaupapa they were involved in; I was a hui kid."

The scholarship, awarded by Coastal People: Southern Skies, will support my study towards a Master of Science within Te Koronga at Otago University. My whānau always encouraged university study but always insisted that we make use of that opportunity to better the outcomes for our own people. That's why it's important to continue to do this.

MANUKURA, a Ngāti Tahuriwakanui hapū-led school which fosters cultural, academic, and sporting excellence, was a real turning point for me. I came through that kaupapa knowing that I can make a difference. I left with the confidence that I can do this by being proudly Māori.

It wasn't until the last year of my Bachelor of Science that I found myself back in a kaupapa Māori context. It's a real privilege to be based within the korowai of Te Koronga. I feel really nurtured to dream that we can, that's the part that's really empowering.

I am now preparing to talk with my community about their perspective on climate change and its impact on hauora. The research is, at its core, a response to the pain inflicted on our tuakana - te taiao. I hope to gather what our whakaaro are on the changing climate and communicate that in a way that represents our collective Taranakitanga. I'm really honoured to have CPSS alongside me in the journey.

# OUR LEADERS



## ASSOCIATE PROFESSOR ANNE-MARIE JACKSON CO-DIRECTOR



(Ngāti Whātua, Ngāti Kahu o Whangaroa, Ngāpuhi, Ngātiwai)

As a Co-Director of Coastal People: Southern Skies, Anne-Marie leads the strategy of the Centre and has administrative oversight. She is Kaihautū of the Centre of Indigenous Science and Te Koronga at the University of Otago. Her mahi focuses on mauri ora (flourishing wellness), namely through the application of te ao Māori, te Tiriti o Waitangi and kaupapa Māori. She is nearing the completion of a Health Research Council funded Rangahau Hauora Māori Project Tangaroa Ara Rau: Māori water safety programme for whānau and a Marsden Fund project Te whai wawewawe ā Māuitikitikiā-Taranga: Revitalisation of Māori string figure knowledge and practice.

## PROFESSOR CHRIS HEPBURN CO-DIRECTOR



As a Co-Director of Coastal People: Southern Skies, Chris is responsible for the foundational relationships of the Centre. He is a PhD graduate from Otago who grew up in Cromwell. Chris and his team of students and collaborators work alongside coastal communities in their struggles to restore and maintain ways of life associated with productive coastal ecosystems and fisheries. Application of his research and teaching to support local action that has helped return local fisheries rights to local people has been a highlight of his work to date. He is a proud member of the East Otago Taiāpure Management Committee.

## ASSOCIATE PROFESSOR ROSALINA (ROSE) RICHARDS CO-DEPUTY DIRECTOR



Rose is the Co-Deputy Director of Coastal People: Southern Skies and a co-leader of the Restoring Platform. Rose is also Deputy Director of the Va'a o Tautai – Centre for Pacific Health in the Division of Health Sciences, where her research focuses on Pacific wellbeing across a variety of health professions and community led visions of ola manuia (living in wellbeing). From Samoan and English ancestry, she was born and raised in Te Wai Pounamu, the South Island of Aotearoa. Her academic background is in psychology, public health and Pacific health.

# DR DANIEL PRITCHARD CO-DEPUTY DIRECTOR



Daniel (Pritchy) is the Co-Deputy Director of Coastal People: Southern Skies and a co-leader of the Monitoring Tumu. He is a seaweed ecophysiologist with an interest in the wider impacts of anthropogenic modifications on coastal ecosystems. He brings expertise in data management and numerical modelling and has significant experience working alongside coastal communities in the development of research projects that support the management of the Ngāi Tahu Customary Protection Area network (he was formerly Principal Scientist Mahinga Kai at Te Rūnanga o Ngāi Tahu). In this mahi he has designed and conducted baseline fisheries and habitat monitoring surveys, and provided support to coastal communities, and Māori communities.

## MR DANNY POA KAITIAKI KAUPAPA MANAGER



(Ngāi Tuhoe, Ngāti Kahungunu)

Danny leads our kaupapa Māori development strategy and reporting in alignment with the Tertiary Education Commission's goals of the Statement of National Education and Learning Priorities. Alongside this he has responsibility for diversity and equity initiatives and the data collection and reporting associated with these areas. In line with the Centre of Research Excellence focus on capability building, Danny's skills and experiences mean that he is the ideal leader for the development of programmes that build capacity and capability for our early career researchers, students and communities.

## MR BRENDAN FLACK POU TUARĀ



(Kāi Tahu, Kāti Mamoe, Kāi Te Ruahikihiki)

Brendan works alongside our community partners to undertake their research aspirations as coastal communities. His experience as a community research leader working alongside tertiary researchers means that he is well positioned to be able to assist communities to identify the broader aspirations of their projects and how these can be supported by the researchers of Coastal People: Southern Skies. Brendan helps to provide grounding to values and broader connection to all community partners on behalf of the Senior Leadership Team. Brendan also supports the cultural mentors of the Centre's staff and students.

# OUR STRATEGY

In line with the principles of wayfinding leadership which guides the governance and management of the Centre, it is recognised that aspects of the strategy may change over time.



### **COASTAL PEOPLE: SOUTHERN SKIES STRATEGY**

### Our vision is flourishing wellness (mauri ora) of coastal communities

Our mission is to connect, understand and restore coastal ecosystems of Aotearoa New Zealand and the Pacific through transformative research, local action and by unlocking potential through new pathways to learning.

#### **GOALS**

#### Research Excellence

Research excellence that transforms the realities for coastal peoples and coastal environments

## Capability and Capacity building

A Te Tiriti led, equity based, wellbeing informed research workforce equipped to work with, alongside and behind coastal communities

#### Sustainability

Profit, people, planet, ethics, equity, culture, wellbeing, Wayfinding Leadership.

### 2021-2024 Preparing the gardens

- Deliver on all research in the annual plan in Aotearoa to a high standard
- A connected research network
- Lay the foundations for a Te Tiriti led, equity based, wellbeing informed research workforce focused on growing Māori and Pacific researcher capacity and capability
- Build a model of operating based on Wayfinding Leadership
- Operate within our budget constraints
- Build a model for carbon neutrality

### 2025-2028 Balancing the waka

- Rebalance the waka in relation to wellbeing to deliver on all research in the annual plan in Aotearoa
- A thriving research network
- Continue to build Māori and Pacific researcher capacity and capability
- Lay the foundations to build cultural competency for researchers new to working in Māori and Pacific research and communities
- Lay the foundations for rural focused capacity and capability building
- Grow co-funding for scholarships and postdocs
- Grow resarch funding opportunities for co-funding at a CPSS level

### 2028-beyond Gifting the fine mat

Rebid with a focus on a stable waka (marine and wellbeing) with reach into the Pacific

- A co-led Māori and Pacific bid, with Māori and Pacific led research teams
- Increased capability and capacity of Māori and Pacific researchers
- Increased capability for communities and other researchers working in Māori and Pacific research projects

 A sustainable funding and operational model

### 2036 Living our dream

By 2036 we will have built sustainable relationships and importantly contributed to Pacific workforce development to the level that we can support a Pacific-led bid

We are underway with preparing the gardens. The initial work was focused on developing policies, guidance documents, templates and processes that were fit for purpose. We have recently completed an establishment review and we have an implementation plan for the outcomes of this review that extends into 2023. Over the upcoming year, the strategic focus will be the mid-term review and the development of the tranche two research programme (for the 2025 to 2028 period).

## **2021 FINANCIAL REPORT**

The finances for the first partial year (1 July 2021 to 31 December 2021) are reported below. All figures are GST exclusive.

		Actual '00	Actual '000s Budget '000s			
Core funded income						
Govern	nment funding					
	CoRE funding	2,150	2,150			
	Surplus/deficit carried forward					
	Total CoRE funding	2,150	2,150			
CoRE FUNDIN	IG EXPENDITURE					
Salarie	s					
	Salaries and salary-related costs (funded by the CoRE)	331	364			
	Total salaries and salary-related costs	331	364			
Other costs						
	Indirect costs:					
	Overheads	196	315			
	Direct costs:					
	Project costs	19	847			
	Travel costs	0	0			
	Postgraduate students	14	196			
	Equipment depreciation/rental	0	0			
	Subcontractor(s)	0	0			
	Extraordinary expenditure	0	0			
	Extraordinary expenditure  Total other costs	0 <b>229</b>	0			
TOTAL CORE		-				
TOTAL CORE	Total other costs	-				
TOTAL CORE	Total other costs	229	1,358			
TOTAL CORE	Total other costs  EXPENDITURE  Total expenses	229 559	1,358			
CO-FUNDING	Total other costs  EXPENDITURE  Total expenses	229 559	1,358			
CO-FUNDING	Total other costs  EXPENDITURE  Total expenses  Net surplus/(deficit)	229 559	1,358			
CO-FUNDING Other	Total other costs  EXPENDITURE  Total expenses  Net surplus/(deficit)  government funding	229 559 1,591	1,358 1,722 428			
CO-FUNDING Other	Total other costs  EXPENDITURE  Total expenses  Net surplus/(deficit)  government funding  Total other government funding	229 559 1,591	1,358 1,722 428			

# **2022 FINANCIAL REPORT**

The finances for the 2022 year (1 January 2022 to 31 December 2022) are reported below. All figures are GST exclusive.

		Actual '000	s Budget '000s
CoRE FUNDED	NCOME	rictual 555	Judget 0003
	ment funding		
0010	CoRE funding	4,300	4,300
	Surplus/deficit carried forward	1,591	428
	Total CoRE funding	5,891	4,728
CODE ELINDIN	G EXPENDITURE	3,031	1,720
Salarie			
Salarie	Salaries and salary-related costs		
	(funded by the CoRE)	988	1,331
	Total salaries and		
	salary-related costs	988	1,331
Other	costs		
	Indirect costs:		
	Overheads	949	1,145
	Direct costs:		
	Project costs	230	1,039
	Travel costs	0	0
	Postgraduate students	128	369
	Equipment depreciation/rental	0	0
	Subcontractor(s)	0	400
	Extraordinary expenditure	0	0
	Extraordinary expenditure  Total other costs	0 1,307	o 2,953
TOTAL CORE I			
TOTAL CORE I	Total other costs		
TOTAL CORE I	Total other costs	1,307	2,953
	Total other costs  EXPENDITURE  Total expenses	1,307 2,295	2,953 4,284
CO-FUNDING	Total other costs  EXPENDITURE  Total expenses	1,307 2,295	2,953 4,284
CO-FUNDING	Total other costs  EXPENDITURE  Total expenses  Net surplus/(deficit)	1,307 2,295	2,953 4,284
CO-FUNDING Other	Total other costs  EXPENDITURE  Total expenses  Net surplus/(deficit)  government funding	1,307 2,295 3,596	2,953 4,284 444
CO-FUNDING Other	Total other costs  EXPENDITURE  Total expenses  Net surplus/(deficit)  government funding  Total other government funding	1,307 2,295 3,596	2,953 4,284 444

# STRATEGIC ADVISORY / GOVERNANCE BOARD

## TĀ MARK SOLOMON (CHAIR)



Tā Mark Solomon (Ngāi Tahu, Ngāti Kurī) is committed to the betterment of his iwi, kotahitanga for Māori and the wider wellbeing of people and the environment. He is a strong advocate for the Māori economy and was instrumental in setting up the Iwi Chairs Forum (2005). He was the elected Kaiwhakahaere (Chair) of Te Rūnanga o Ngāi Tahu from 1998 to December 2016 and represented his local Papatipu Rūnanga, Te Rūnanga o Kaikōura from 1995 to December 2016. In 2013 he was awarded Knight Companion of the New Zealand Order of Merit for services to Māori and Business. In April 2015 he received an Honorary Doctorate from Lincoln University as Doctor of Natural Resources, recognising his enduring interest and concern for our natural environment.

Tā Mark's contribution to his community has been diverse and significant, ranging from roles as a school board trustee, to a past board member of the Museum of New Zealand (Te Papa Tongarewa). Tā Mark attributes his wider whānau (family) for early guidance and it is this experience that has driven his

passion for encouraging educational opportunities for young Māori. He is a patron of He Toki Ki Te Rika, a Christchurch-based Māori pre-trade training programme, and the related He Toki Ki Te Mahi, an apprenticeship initiative both born from the Christchurch earthquake rebuild. He believes young Māori should strive for formal training to maximise their talents and to be the best they can be

Tā Mark believes a true rangatira is a servant of the people, a fact underpinned by his core philosophy of 'strength with humility'. Whilst the commercial success of Ngāi Tahu is acknowledged, Tā Mark is especially proud of the tribe's achievements in education and the development of the Iwi savings scheme Whai Rawa. Tā Mark is a committed advocate for the sanctity of whānau and takes a strong stance against whānau violence. He is passionate about his people and is determined to facilitate both iwi and wider Māori success by unlocking the potential of the Māori economy for the good of all.

### MR HOTUROA BARCLAY-KERR



Hoturoa Barclay-Kerr (Tainui) is the captain of the oceangoing waka Haunui. Hotu has been sailing around the Pacific for more than thirty-five years. He paddles waka, sails waka, teaches waka. In 2020 he was awarded Companion of the New Zealand Order of Merit for services to Māori and heritage commemoration.

Hoturoa grew up with his numerous elders who nurtured and cared for him on the many marae of Waikato. He is a native Māori speaker and spent the first six years of his life with the Tuhoe people in Rūātoki, where his parents taught at the Rūātoki District High School. Mr Barclay-Kerr lectured at Waikato University for almost 20 years and has more recently specialised in education and leadership programmes that use waka as a platform for learning and development, including working with former youth offenders to help them transform their lives through waka education. He co-authored the book 'Wayfinding Leadership: Ground-breaking Wisdom for Developing Leaders'. He was a director of 'A Waka Odyssey', the major voyaging event that opened the New Zealand Festival in 2018.

He was co-Chair of the National Coordinating Committee for 'Tuia 250 - Encounters', the national commemoration in 2019 marking the first meetings between Māori and Pākehā during the arrival of HMS Endeavour in 1769, as well as celebrating more than 1,000 years of Pacific voyaging, migration and settlement of Aotearoa. His vision, leadership and mana were critical to the success of Tuia 250 and ensuring a comprehensive national programme, amidst controversy about the framing of the commemoration. He was instrumental in ensuring the waka and tall ships of the voyaging flotilla reflected the dual heritage of the commemoration and those involved had the appropriate cultural capabilities.

Hoturoa 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 Te Toki Voyaging Trust.

# PROFESSOR RICHARD BLAIKIE FRNZ



Professor Richard Blaikie is the host representative on the Strategic Advisory / Governance Board. He is the Deputy Vice-Chancellor (Research and Enterprise) at the University of Otago and a Professor in the Department of Physics. Professor Blaikie is a former Director of the MacDiarmid Institute (2008-2011), a former member of the Marsden Fund Council, and he served for one year on the New Zealand Science Board (2011). Professor Blaikie was awarded the Hector Medal in 2013 for his fundamental and wide-ranging contributions to the field of nano-optics and the Thomson Medal in 2015 in recognition of his science leadership.

### **DAME SUSAN DEVOY**



Dame Susan Devoy is one of New Zealand's most celebrated sportswomen, as well as being a recognised volunteer and advocate. Awarded a CBE and MBE she was made a Dame in 1998 for her services to sport in New Zealand. These honours recognise her achievements as a world champion for four years, her work as chair of the Halberg Foundation for 12 years, and the leadership she showed as a patron of the Muscular Dystrophy Association when she walked the length of New Zealand in 1988 raising over \$500,000 for research and support networks.

Dame Susan was the Race Relations Commissioner for five years and throughout her tenure she was known for her empathy with people and her ability to relate to all people, respecting and learning their rituals, beliefs, challenges, and issues. This human-centred focus adds value to scientific and environmental strategies. Known for her practical and common-sense approach, Dame Susan brings an outside view, in a manner that is direct and questioning; informed by her experiences as a CEO and chairperson alongside her many other achievements.

### PROFESSOR TRACEY MCINTOSH



Tracey McIntosh (Ngāi Tūhoe) is Professor of Indigenous Studies at Wānanga o Waipapa (School of Māori Studies and Pacific Studies) at the University of Auckland. She is the Chief Science Advisor for the Ministry of Social Development and a Commissioner of Te Kāhui Tātari Ture: Criminal Cases Review Commission. She was the former Co-Director of Ngā Pae o te Māramatanga New Zealand's Māori Centre of Research Excellence.

She previously taught in the sociology and criminology programme at the University of Auckland. In 2012 Tracey served as the co-Chair of the Children's Commissioner's Expert Advisory Group on Solutions to Child Poverty. In 2018-2019 she was a member of the Welfare Expert Advisory Group (WEAG) which released the report 'Whakmana Tangata: Restoring Dignity to Social Security in New Zealand' (2019). She was also a member of Te Uepū Hapai i te Ora - The Safe and

Effective Justice Advisory Group which released the report 'He Waka Roimata: Transforming our Criminal Justice System' (2019) and 'Turuki! Turuki!' (2019). She sits on a range of advisory groups and boards for government and community organisations. She is currently contributing to the Royal Commission of Abuse in Care in an advisory capacity and is a Board member of He Whenua Taurikura.

Her recent research focused on incarceration (particularly of Māori and Indigenous peoples) and issues pertaining to poverty, inequality and social justice. She recognises the significance of working with those that have lived expertise of incarceration and marginalisation and acknowledges them as experts of their own condition. She has a strong interest in the interface between research and policy.

### DR REBECCA MCLEOD



Dr Rebecca McLeod is a marine scientist, specialising in temperate, sub-Antarctic and Antarctic marine ecosystems. She gained her PhD at the University of Otago and has since worked in academic, private and government settings. In 2011, Rebecca was appointed to the Fiordland Marine Guardians under the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, and she has chaired this board since 2015. The Guardians promote integrated management with a view to maintaining or improving the environment and fisheries for future generations.

A career highlight for Rebecca was facilitating the development of the Antarctic Science Platform during her tenure as Science Advisor at Antarctica New Zealand and the New Zealand Antarctic Research Institute. Rebecca is currently a Leader on the MBIE Endeavour programme "Natural carbon sequestration in our southern fjords – a pathway towards carbon neutrality" and oversees the transformation of science results into policy. Rebecca lives in Ōtepoti Dunedin with her young family and spends as much time in and on the water as possible.

### **DR PAULA VIVILI**



Dr Paula Vivili is the Deputy Director-General Science and Capability at the Pacific Community (SPC) – an inter-government organisation with 27 members: 22 Pacific Island countries and territories and five metropolitan members – Australia, France, New Zealand, UK, and USA. He oversees SPC's technical programmes including its Geoscience, Energy and Maritime Division. Prior to this role, he was the Director of SPC's Public Health Division for six years. Dr Vivili has an intimate knowledge of SPC, its people, and partners. He is from Tonga where he worked for 15 years before joining SPC.

Dr Vivili holds undergraduate degrees in Human Nutrition (University of Otago) and Medicine (University of the South Pacific) as well as a Masters degree in International Public Health (University of Sydney). He has undertaken a World Health Organisation Fellowship at the University of Auckland and Auckland Hospital in Ophthalmology.

# PROFESSOR EMERITUS KHYLA RUSSELL



Professor Emeritus Russell started her academic pathway as a mature student gaining her first degree, a Bachelor of Arts, through Massey University. This was followed by a PhD in Anthropology from the University of Otago in 2001, on Kāi Tahu perceptions of landscapes. She started her mahi at Otago Polytechnic in 1980 and was appointed Kaitohutohu from 2004 – 2015. Throughout this time she was responsible for overseeing the incorporation of Te Tiriti o Waitangi into day-to-day operations at Otago Polytechnic alongside adherence to Otago Polytechnic's Memorandum of Understanding with Kā Papatipu Rūnaka. Khyla was instrumental in the development of the Māori Strategic Framework that continues to guide the embedding of Te Ao Māori in all aspects of daily life within the institution and the

Māori Annual Report presented to Kā Papatipu Rūnaka. Following her retirement in 2015 Khyla has continued to serve as Kaumātua to the Kaitohutohu Office through consultancies on iwi knowledge, te reo and related aspects of tikaka and kawa and our tauira journeys by sharing her mātauranga and kōrero through her role as sponsor on noho marae.

Professor Russell is an experienced researcher working as an Assessor for Capable NZ for Māori learners, as a member of the University of Otago Ngāi Tahu Research Consultation Committee and working alongside coastal communities in the development of research projects that support marine protection.

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Jerusha Bennett	University of Otago	PhD
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Duncan Campbell*	University of Otago	Honours‡
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<sup>\*</sup>Indicates Coastal People : Southern Skies scholarship recipient. ‡ Indicates qualification completed.

## **ACKNOWLEDGEMENTS**

The Co-Directors and Kaiurungi Programme Manager would like to acknowledge our funder, the Tertiary Education Commission, for supporting the Centres of Research Excellence and allowing us the opportunity to train researchers (including community-based researchers) and students in our kaupapa which extends beyond the confines of the universities.

We would also like to thank the Host Institution, in particular Research & Enterprise, for allowing us to transform how we are contracting with communities as we undertake research that seeks to support rural coastal communities and their aspirations.

Our Research Advisory Group has been an invaluable resource of sage advice and experience. Wendy, Chellie, Ana, Richard, Catriona and Terry, thank you so so much for stepping in and providing support prior to the Board being established. Your extra mahi enabled us to ensure that we had robust procedures and policies. Your contributions to the co-design of the research projects post-budget cuts also has ensured that our research programme remains strong.

It goes without saying that our researchers – those in institutions and those in communities - are central to all that we do, and we are so excited to be on this kaupapa with you all.

Alongside our researchers, our tauira need to be acknowledged. You are awesome. You are the reason we are inspired to pursue this mahi, you are the leaders of tomorrow. The waters are not always calm, but this provides many valuable learning experiences.

Finally, our "backroom bandits" Hinerangi, Mena and Lia you have done an incredible job on the administration front. We also need to thank Bronwyn, Brett, and Gwen for finance support.

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#### **COASTAL PEOPLE: SOUTHERN SKIES**

Centre of Research Excellence

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