intellectual depth and powerful delivery of submissions from our own matanga and Tangata Tiriti was simply outstanding. We are grateful to our researchers and communities for their

ongoing commitment to upholding the mana of our nation's founding document and the

RSS 3

**KAUPAPA MATUA RÜNANGA RESEARCH REVIVES MUSSEL ECOSYSTEM** 

information.

mana of our tūpuna.

Ngā Pou Matarua | Co-Directors

Professor Tahu Kukutai

Professor Linda Waimarie Nikora

Tihei mauri ora!

Professor Kura Paul-Burke mentors the next generation of marine scientists to care for the Ohiwa Harbour. A research mission led by Te Rūnanga o Ngāti Awa has led to a significant turnaround in the

population of mussel beds in the Ohiwa Harbour over the past decade. In 2007 the runanga approached Professor Kura Paul-Burke (Ngāti Awa, Ngāti Whakahemo, Ngāti Mākino, Irish)

because they suspected the mussel population was declining and it needed more

Inspired by her nephew's crab trap built from a bicycle wheel, Kura trialled a variety of methods and eventually the team landed on one extremely potent starfish trap. The next question was what to do with the captured starfish? Kura approached colleagues from the

Cawthron Institute and Plant & Food Research who knew that starfish are very high in collagen. The idea of hand cream materialised and was put into production. "We made

With an aversion to using plastic for mussel spat lines, Kura enlisted the help of tohunga, Whaea Rokahurihia Cameron (Te Whānau-ā-Apanui, Ngati Awa) to experiment with weaving a variety of natural fibres, including harakeke, tī kōuka leaves, and pīngao into mussel spat

"We found that tī kōuka was the best and that's not surprising because historically our tīpuna used it for kai, for raincoats, fire starters, and roof materials. That's how neat our

"They are passionate, energetic, clever and funny. Being involved in the project has inspired

some of the taiohi to go on to learn te reo Māori and continue their education. Some of

"Succession is everything. I love working with passionate young people who care about their harbour and their ocean. Exploring innovative ways to prioritise mātauranga Māori into pragmatic restoration effort across generations is amazing mahi. I see my role as smoothing

See more about Kura's amazing research and why she is the 2024 Local Hero Winner Blue

RANGAHAU | RESEARCH

lines and trialing which ones lasted the longest in the water.

their harbour using mātauranga Māori techniques.

them have also taken up marine studies as a result," she says.

the pathway for the future marine leaders of tomorrow," says Kura.

Kura asked her father for advice on how to approach the research because the request came from her own iwi and she wanted to adopt a Māori-led approach, rather than use a traditional Western scientific method. "My daddy told me to start with the old people and what they knew from their experience of the harbour. So, the very first thing we did was launch our boat with our tohunga, our kaumātua and kuia on board and we asked them where they collected shellfish when they were young." From here Kura carried out GPS mapping of the historic kuku (green-lipped mussel) beds and she says that historic information was invaluable because it identified the traversing of three or four generations of knowledge in one boat trip. Kura then established an ecological baseline by diving all the mussel sites in the harbour, and this was crucial because it established a longitudinal picture that sat alongside the historical mātauranga baseline provided by kaumātua. Over the next two years, researchers witnessed the mussel beds undertake a devastating decline to such a state that only one mussel bed remained in 2009, and by 2019 it had completely disappeared. "Instead of mussels, we saw a harbour floor that was completely

covered in orange starfish. While the starfish looked pretty, they were devouring the mussels and that was telling us the harbour ecosystem was completely out of balance," says Kura. What was to follow were years of trial and error, experiments, and use of matauranga to restore mussel beds back. The first major problem to solve was how to best manage the

starfish, many of which were too tiny for divers to see, let alone capture. "We also knew we couldn't just remove all of the starfish, because they are a keystone species which the harbour actually needs, they have their own mana and mauri, so we had to be very thoughtful about them, while at the same time trying to maintain a balanced ecosystem," says Kura.

starfish hand cream which all the aunties loved. So we were able to create something positive from the starfish, and any profits could be put back into the harbour creating a circular economy," says Kura. With one problem solved, plenty more were to follow. The research team had to reinstate the mussel beds in places that would be most optimal for their thriving. After undertaking ecological mapping, Kura was not surprised to learn that the modern ecological predictor aligned perfectly with what kaumātua had already identified on that very first boat trip.

tīpuna were. They knew some stuff!" It's been nearly two decades since that first boat ride to survey the Ohiwa Harbour with her old people, and since then, most of the kaumātua on that original trip have passed away, including Kura's dad. Over a decade of research, experimentation and hard work, the mussel beds in the Ohiwa Harbour are now bouncing back with over 16 million mussels now thriving on the seafloor. No other mussel restoration project in the country has been able to achieve these exciting results. Another positive outcome has been the capacity building of young people. Today, Kura leads a team of young, determined wahine Maori PhD marine science students, all who whakapapa to Ohiwa Harbour. One PhD student is a NPM scholarship recipient, Kiri Reihana, who is trying to understand the reasons for the declining cockle population in the harbour. Kura has also been responsible for inspiring and teaching Ngāti Awa taiohi to free dive and to care for

https://www.rnz.co.nz/programmes/turning-the-tide/story/2018942671/turning-the-tideepisode-2-matauranga-led-restoration https://www.youtube.com/watch?v=ok8QcS9m3Dk MĀORI FERTILITY KEY TO OUR PEOPLE THRIVING

Marine Foundation Award:

By Cindy Simpkins-McQuade A fertility crisis is occurring over the world with over half of all countries having below replacement fertility. In 2024, the Total Fertility Rate for Aotearoa was just 1.53 births per woman, well below the replacement level of 2.1. Māori fertility, however, is still around replacement and demographer Moana Rarere's PhD research sought to understand the reasons for this. In particular, she was interested in whether cultural factors influenced Māori fertility patterns.

While Māori fertility has declined dramatically since the 1960s, it is still relatively high by comparison with Pākehā fertility levels. A youthful Māori population means there are still large cohorts moving into the childbearing ages. Māori women also have children significantly earlier than Pākehā, with age-specific fertility rates peaking in the late 20s. Many Pākehā women, by contrast, delay having their first child well into their 30s and thus end up having fewer children. "When you are in your 30s your chances of giving birth are lower than when you are in your 20's. You have got wāhine who have a smaller window in time to have their families when they leave it too late," says Moana. She says that understanding cultural attitudes is important if governments want to address very low fertility rates. "I noticed that when analysts talked about fertility, they have an economic focus, and I noticed there was a lack of Māori voice in trying to understand why Māori fertility is different from that of our Pākehā counterparts. I wondered if there is some sort of cultural difference which could explain the difference other than purely economic reasons," she says. "My research reaffirmed what we have always known generally. Fertility is not just about the number of children, or family size. It is about the continuance of whakapapa and about the survival of those lines. Whakapapa is central to our culture and ensuring it continues and endures is why we have the fertility rates we have," she says. "One interviewee emphasised that having children was natural and normal and that it was encouraged by her whānau. Participants also said that while whānau were supportive, they

were sometimes the biggest hoha because of the pressure they exerted for wahine to have babies. However, the wahine also knew they would have support from whanau to help raise the child regardless of their age or education at the time of having their babies," she says. Moana says having children young is often framed by others as a negative thing to do, especially if you are young and Māori. "For many Māori, it is seen as natural and you just do your best to support them because they are your uri." Moana says her research changes the narrative of how young wahine Maori are viewed. "The dominant narrative out there is that it will ruin your life, and you are a burden to society to be supported to be a mother, but many Māori see having children as a good thing. That's how our people survive. Our population has recovered remarkably since the early 1900s because our cultural ways have enabled wahine Maori to have babies and not be assimilated by Pākehā values. Our long-term survival depends on our being able to maintain replacement fertility." She says her research is important because policy makers need to understand the story behind the statistics. "In order for your population to survive and thrive you need to have the ability to reproduce, if you leave it too late or make it difficult for women to have children, your people will not survive," says Moana. Women are under pressure to be educated, to have careers, and then they have the pressure to have children before it's too late. This society needs to work with nature and support women to have babies younger and perhaps get their education later, she says. "Societies need to look at how they can support women of all cultures to have children when

they are young. They might do this by continuing to invest in supporting whānau, enabling women to stay home and be mothers if they choose, as well as enabling women to acquire their education or support for all mothers in the workforce." Moana's research means she is frequently approached to provide <u>insights</u> on the <u>impacts</u> of falling fertility for Aotearoa. She believes governments need to be more creative in supporting all women to be mothers if they chose, but the issue is complex. "Many governments in developed countries have implemented a range of policies to help boost fertility levels but with little success. The cost of living has been a major deterrent for young people to start a family. Also, we're seeing increases in the number of women remaining childless for various reasons including infertility issues or never finding the right partner to settle down with. It's not an easy problem to solve but having the right policy settings and support structures will help to ease some of the pressures, and assist wahine and whanau with their fertility intentions." Each month we feature one of our NPM lead researchers. This month our korero is with Professor Melinda Webber who joins NPM as a new Pou Matarua.

**KÖRERO WITH NPM RESEARCHERS** 

whānau and communities that travel in their hearts with them to school every day) know

nurturing the identities of Māori students and the things they care about, yearly subject choice advice and career planning, regular hui with whānau, and intensive support for the student transitioning from secondary school into university, apprenticeships, jobs etc. We must illuminate the school to work pathway for students and not expect them to simply

I have worked at Waipapa Taumata Rau for 25 years and I love my job. I was the first

coming to University as a 17 year old with no one who could help me enrol, apply for a

student loan, find my way around the campus etc. I want all Māori students (but

person on both sides of my whānau to attend university, so I remember how scared I was

**KANAPU** 

Tühono Rau Tangata | Mātanga talks are online kōrero with mātanga Māori from diverse RRSIT fields (rangahau, research, science, innovation and technology) sharing insights on their life and career journeys. Some sessions are in te reo Māori, others in English. All are

We have many outstanding mātanga already confirmed for both our reo Māori and general

All sessions are held on Wednesdays, 12:00 - 1:00 pm. Registration is essential. Come along

**NGĀ MANAAKITANGA | OPPORTUNITIES** 

Applications are open for the Science Media SAVVY workshops. These workshops give

valuable tips and tricks for those wanting to develop and improve their interactions with the

progress in Māori data sovereignty, positive contributions to both science and Te Ao Māori,

Please send a preliminary title, indicative author list, affiliations and a short descriptive paragraph outlining the scope of your proposed manuscript to Associate Professor Lara

**NEWS AND ANNOUNCEMENTS** 

Professor Jacinta Ruru MNZM FRSNZ, Professor Angela Wanhalla FRSNZ, and Jeanette

books are understood as taonga tuku iho – treasured items handed down through

Wikaira have launched a new book to celebrate non-fiction written books by Māori authors.

Books of Mana celebrates the rich tradition of Māori authorship in Aotearoa. It reveals the central place of over 200 years of print literacy within te ao Māori and vividly conveys how

In this beautifully illustrated collection of essays, some of Aotearoa's most renowned Māori thinkers join the editors in a wide-ranging korero about the influence and empowerment of

Hikohiko te uira | Papā te whatitiri | I kanapu ki te rangi | Haruru ana te ao

Connections | Retention | Acceleration | Reverberation

how to support the strengths, interests and aspirations of the student. These include

Lastly, can you tell us something surprising about you?

research, science and innovation spaces.

TUHONO RAU TANGATA | MATANGA TALKS

5 March 2025 - Dr. Awanui Te Huia (Reo Māori session)

Melinda and Mia soaking up the sun. Ko wai tō ingoa, nō whea koe?

Ko Melinda Webber taku ingoa. Nō Te Tai Tokerau, nō Rotorua hoki ahau. Ko Te Paatu, Ngāti Hau, Ngāti Hine, Ngāti Whakaue nōki ōku iwi. I am a daughter of Te Tai Tokerau and Te Koutu, Rotorua. What are your areas of research? I work in teacher education and research in the fields of social psychology, Mātauranga Māori, Māori student motivation and school improvement. I have been a school teacher so I have a deep commitment to the work of teachers and schools – and the ways they might better meet the needs of Māori students and their whānau. My research is strengths-based which means that I am always looking for 'what works?' and 'why?' in educational contexts. This doesn't mean that I ignore the political, historical, and contextual barriers to educational thriving – but my focus is always on the ways that Māori communities respond to, and successfully navigate, these ongoing challenges. More recently, I've been engaged in a lot of community research in Te Tai Tokerau that looks at how exceptional our tūpuna were. I also do research that evidences the ways wananga Maori exemplify excellent teaching pedagogy. This research fills my cup – because it takes me home to my mother's people in the north. What excites you about your work? Working alongside Māori communities and schools who are committed to positive social change, Te Tiriti o Waitangi, and the revitalisation, inclusion and practice of Mātauranga Māori. I am also lucky because I have been mentored and guided by more experienced Māori scholars who have been consistently generous of spirit and encouraging. I try my best to model myself on them. Our NPM vision is flourishing Māori futures. What does that mean for you? In educational spaces, flourishing Māori futures are possible when Māori students (and the

particularly those who are 'first-in-whānau' too) to see the university as a place for them. I want them to know that there are Māori here – like them – who they can seek out for pastoral support and academic advice. Funded by the Ministry of Business, Innovation and Employment (MBIE), Kanapu is a NPM initiative to support Māori talent and leadership across te ao Māori in

welcome!

sessions:

and be inspired.

19 February 2025 - Wini Geddes

4 June 2025 - Peter-Lucas Jones

https://kanapu.maori.nz/matanga-talks/

Follow Kanapu instagram, facebook or linkedin

**MEDIA SAVVY - IMPROVE YOUR SKILLS!** 

and the coming challenges of the next decade.

Greaves via lara.greaves@vuw.ac.nz by 1 March 2025.

'know' how to do it!

KANAPU TŪHONO RAU TANGATA | MASTERCLASSES These 2.5 hour classes (primarily in English) allow more time to explore important kaupapa for undertaking RRSIT-related mahi, whether that mahi is for whānau, hapū or iwi, academic studies or professional work. Here's what's in store: 30 April 2025: Where Is Your Data? with Vanessa Clark 2 July 2025: He Kura Nō Te Ao Atua with AATEA with Whare Kupenga-Keefe and Hinerangi Edwards All Masterclasses are held on Wednesdays, 12:00-2:30 pm. Registration is essential. Nau mai, haere mai! Masterclass Registration: <a href="https://kanapu.maori.nz/masterclass/">https://kanapu.maori.nz/masterclass/</a> **HUI HIHIRI** Our first in person Hui Hihiri will be hosted at The Pā, University of Waikato in Kirikiriroa. The theme is Rangakura - intergenerational approaches to mana motuhake. Registrations are now open: <a href="https://kanapu.maori.nz/huihihiri/">https://kanapu.maori.nz/huihihiri/</a> Full programme and speakers to be announced early February 2025. Where: The Pā, University of Waikato When: 20 March, 8.30-4.30pm,

When: 3-4 July Where: Tāmaki Makaurau Register now: <a href="https://www.sciencemediacentre.co.nz/media-savvy-maori/">https://www.sciencemediacentre.co.nz/media-savvy-maori/</a> **JOURNAL OF THE ROYAL SOCIETY - SPECIAL ISSUE** The Journal of the Royal Society of New Zealand (JRSNZ) is calling for Expressions of Interest (EOI) for a Special Issue planned for release in early-2026, entitled "Māori Data Sovereignty: Research, Practice, and Policy". To celebrate a decade of Te Mana Raraunga, the development of the Māori data sovereignty principles, and associated action in research and policy, this special issue seeks to document

media.

Books of Mana originated with a partnership between the Society and Ngā Pae o te Māramatanga in 2018 for Te Takarangi, a list of 150 important books by Māori authors.

generations.

Māori writing.

**BOOKS OF MANA** 

Te Takarangi curators, from left, Angela Wanhalla, Jacinta Ruru and Jeanette Wikaira welcome people to celebrate the release of Books of Mana with them at a special event at the Hocken Library on 12 February. Photo: Dean Johnston **OPEN ACCESS BOOK ON INDIGENOUS STATISTICS** NPM Pou Matarua Professor Tahu Kukutai collaborated with Indigenous scholars Professor Chris Andersen (Métis), Distinguished Professor Maggie Walter (Palawa) and Professor Chelsea Gabel (Métis) to publish *Indigenous statistics: From data deficits to data sovereignty* (Routledge).

Kāti rā ngā kōrero mō tēnei wā, www.maramatanga.ac.nz Tel: +64 9 923 4220 NGĀ PAE O TE ARAMATANGA Like us on Facebook & Twitter

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dismantles that persistent positivism with a forceful critique, then fills the void with a new paradigm for Indigenous quantitative methods using concrete examples of research projects from first world Indigenous Peoples in the United States, Australia, Aotearoa New Zealand and Canada." "Concise and accessible, it is an ideal supplementary text as well as a core component of the methodological toolkit for anyone conducting Indigenous research or using Indigenous population statistics." Indigenous statistics: From data deficits to data sovereignty is open access and can be downloaded at the link below. It is also available in hardcover. https://tinyurl.com/IndigiStats

This second edition of the groundbreaking *Indigenous Statistics* "opens up a major new approach to research across the disciplines and applied fields. While qualitative methods have been rigorously critiqued and reformulated, the population statistics relied on by

straightforward, transparent numbers. Drawing on a diverse new author team, this book

virtually all research on Indigenous Peoples continue to be taken for granted as