

THE 5<sup>TH</sup> PACIFIC ISLANDS UNIVERSITIES RESEARCH NETWORK CONFERENCE

4-6 JULY 2023



RAROTONGA

# *Exploring this Sea of Islands*

KIMIKIMI'ANGA MATATIO NO ROTO

I TO TATOU PA ENUA

EXPLORER 'NOTRE MER D' ÎLES'

# *Abstract Book*



## **'Ahokovi, Tau'aho 1**

1 : Christ's University in Pacific

### ***The psychological effect of the volcano eruption on the most vulnerable group of people in Tonga: how to reduce the risk perception***

The eruption of Hunga Tonga - Hunga Haʻapai volcano and subsequent tsunami that hit Tonga on the 15th January 2022 has affected 85,000 people which account to about 85 percent of the population which cost the country \$90 million, destroying more than 600 buildings, and significantly damaging crops, livestock, fisheries and leave a psychological impact on the people of Tonga. There was lots of devastating effect on several islands caused by the ash fall, tsunami and shock waves that stunned the island kingdom. The only fibre-optic cable that connects the islands with the rest of the world was severely damaged, leaving the entire country offline for more than three weeks which caused more vulnerability in the context of this event. This research mainly discusses the psychological impacts that effect on the most vulnerable group of people especially the elderly and young ones using qualitative and quantitative methodology. Results show a much needed line of educating and consultation assistance that would change the perception which led to better health and a reduced perception of risk. The author argues this can ultimately mitigate individual vulnerability and facilitate community resilience. A more common sense response includes a search for meaning through religion as a Christian traditional practice in Tonga.

## **Alexeyeff, Kalissa 1**

1 : The University of Melbourne

### ***Dancing Cook Islands values: debates on gender, sexuality and tradition***

"Our amazing talented young Mapu showcasing our Cook Islands talent to the world", reads the headline of a recent post on the PMN Cook Islands Facebook page (hosted by a Cook Islands Language program). The post included a video of a talented young female dancer performing a fast beat number ([https://fb.watch/BJ\\_UYncA3V/](https://fb.watch/BJ_UYncA3V/)). Viewed by over 2,000 people, and shared by over 200, comments flowed in praising the dancer's technique, style and enjoyment. A few papua posted comments about their concern about male audience members in the video coming up and dancing with the child. One described it as "disturbing", another said "She is beautiful but I'm not sure I'm comfortable with men putting money in her clothes" (as they put money in the waistband of her pare kiriau).

This paper explores the very different readings of this post by Cook Islanders and outsiders. It does this in order to demonstrate how indigenous knowledge and the values of performing arts are not seen in such cases. Cook Islanders gift money and dance around performers in order to express their support, pleasure and respect for particular dancers (particularly to relatives). Similarly, tourists to the Cook Islands often see dance performances as overtly sexual where locals may focus on technique, skill, performance quality (for example, joy, or tamalatoa). Non-Cook Islanders' ways of seeing are not simply a result of not understanding Cook Islands culture but rather they draw on Western knowledges that are shaped by colonial and postcolonial legacies. It shows how unpacking these legacies are still important and necessary in order to promote Cook Islands ways of knowing, being and dancing.

## **Ambelye, Imelda 1**

1 : Papua New Guinea University of Technology

### ***Impacts of COVID 19 on increased household inequality in Papua New Guinea***

The COVID-19 pandemic and the lockdown affected lives around the globe including Papua New Guinea at all levels. This study explored the impact of the pandemic on the livelihoods of ordinary people of Papua New Guinea with the Sustainable Livelihood Framework being used as a lens. This qualitative research approach was employed to explore the lived experiences and stories of common people in rural and urban Lae and Mt Hagen. Sixty participants of males and females were interviewed in focus groups.

Through thematic analysis, it was found that COVID-19 had compounding household impacts that magnified extant inequalities. The author holds that the PNG Government must address these increased inequalities to achieve inclusivity and equality resulting in sustainable human development for all.

## **Andrade, Pelika 1,2**

1 : Ng Maka Onaona

2 : University of Hawaii Manoa Sea Grant College Program

### ***Huli'ia: every place has a story... let's listen***

Ancestral knowledge systems are driven by an intimate understanding of place and the seasonal productivity of interconnected ecosystems. This knowing supported our ancestors to adjust and adapt their lives to work in sync with the world around them, constantly listening to the innuendos and inferences of nature. Today, our relationship with nature is filtered through indirect sources and our ability to listen to the world around us has weakened, and for some, has completely vanished. Huli'ia is an observational process and tool to build our capacity to listen and present an opportunity for a place to, once again, contribute to its own narrative. Take a journey with us as we explore this tool and listen in as other collaborating agencies and communities share their experiences using Huli'ia and the impact it has had on their ability to listen, engaging directly with the spaces they are tasked to manage.

## **Andrade, Pelika 1,2**

1 : Ng Maka Onaona

2 : University of Hawaii Manoa Sea Grant College Program

*Special session: Relationships, Reflections and Re-story-action from Hawaii*

### ***Pihua, indigenous literacy, and Aina momona***

This presentation will introduce participants to a philosophy and pathway of 'Aina momona: thriving and productive communities. On behalf of Ng Maka Onaona and many partnerships, Pelika will introduce 2 tools that address how relationships and the growing awareness of indigenous literacy can support our engagements and understandings of ourselves, our communities, and the world around us... to help guide, inform, and advice the decisions and contributions we collectively make to support the ability of our people, places, and akua (natural world) to thrive.

## **Aouida, Amelle 1; Angele-Halgand, Nathalie; Lux, Guiliver**

1 : Université de Nouvelle-Calédonie

### ***Imaginaries supporting a collective action in favor of well-eating***

Food is a major and complex issue for which organizations have to rethink themselves, especially in South Pacific islands. In New Caledonia, some citizen groups are opening new ways towards a collective action in favor of well-eating. This contribution focuses on original approaches proposed by two non-profit organizations truly connected to the territory. On the basis of shared imaginaries, we show how the diverse legacies specific to the territory come into consideration in the way of addressing food issues. Thus we reveal the early stages of an organizing process.

## **Apop, Anna 1**

1 : Divine Word University

### ***Women's land rights in Papua New Guinea: a critical policy perspective***

The current national land reform framework in Papua New Guinea is patriarchal and does not specifically protect the land ownership rights of women, thus exacerbating inequality, insecurity and limiting the ability of women to participate effectively on the land. This research analyses a variety of peer reviewed academic articles and research literature on land discourses using a critical feminist standpoint to argue that women's land ownership rights are indigenous, and are human rights and must be protected by the legal state. Furthermore, a gendered lens is used in deconstructing the complexities of patriarchy in presenting the claim for land rights (Hejnova, 2013). A dialogical approach to developing equitable land rights prescription for women that elevates the protection of their land ownership rights in existing policies and legislations is a legitimate, significant and urgent 'Human Rights' claim as established in the Convention on the Elimination of All Forms of Discrimination Against Women. Post-positive feminist approaches to sustainable and inclusive land dialogues can be further explored to provide a country specific policy prescription that is relevant to land and women's ownership rights in Papua New Guinea.



**Arcot, Jayashree I**  
1: University of New South Wales

*Special session: The Water, Energy, and Food Security Nexus in the Pacific*

### ***Food and nutrient security in Papua New Guinea***

A food-based approach can exploit PNG's biodiversity and address debilitating micronutrient deficiencies. A case study on cultivars of locally grown Aibika in PNG and the potential to address food and nutrient security will be discussed, towards SDG 3, Health and well-being

**Ariku, Emeida I**  
1: Divine Word University

### ***Challenges that female executives face in their managerial positions in the rural health care facilities in South Bougainville, AROB, Papua New Guinea***

"This research was carried out to identify the challenges that female executives in the rural health care facilities face in their managerial positions. The aim of this research was to identify the challenges that female executives experienced in their managerial roles within the rural health care facilities in South Bougainville, Autonomous Region of Bougainville (AROB). Also, to suggest ways to address these challenges to empower and enhance their performances and roles in their working facilities.

The philosophy underlying this study is interpretivism. Thus, qualitative data collection methods used were individual interviews and focus group discussion. The instruments involved for data collection were: semi-structured question guide and focus group discussion guide.

The research found out that female leaders are challenged a lot in their positions. These challenges include, occupational, household, patriarchal, and matrarchal challenges. Moreover, socio-cultural factors were also identified as the contributing factors towards female leadership and have greater impacts on female leaders in the rural health facilities. Patriarchal challenges were common among women leaders in patrilineal societies according to the staff supervised by female leaders. Accordingly, there are limited support services available in the province to help female frontrunners to seek assistance from. Hence, more support services such as leadership trainings must be carried out in the rural health facilities in South Bougainville, AROB.

**Atem, Florent I**  
1: Université de la Polynésie Française

### ***Musical exploration through the Pacific: from Hawaii to Tahiti, from diversity to identity***

According to ethnomusicologist Timothy Rice, only a verbal locution can accurately describe the various and complex mechanisms at work in the music-making process. While some musical styles may have become synonymous with a particular territory, a closer look at their individual constituents—such as the performance codes or instruments themselves—often reveals that the founding stones of such art forms, regarded as "tradition" or viewed as "authentic", actually originated from a totally different space and have very little to do with the location they ended up being associated with.

Such observations seem to be particularly relevant in the case of Pacific peoples, as their musical practices are often derived from—and usually reflect—their history of intercultural contacts and subsequent transformations, under the influence of external forces. Although they convey the raw and dynamic energy of French Polynesians, or what is commonly perceived as the light-hearted quality of their joyful lifestyle, Tahitian percussion ensembles and the typical sit dhum—the "ōtere" or "pate"—, the trademark polyphonic chants—or "hime"—, or even the unavoidable 'ukulele, definitely looked upon as a true staple of Polynesian musical singularity, all illustrate this point.

But the coming together of multiple parts into one cohesive whole is further evidenced in the case of "kī hō'alu", or "Hawaiian Slack Key", a unique-sounding style of acoustic guitar music specific to the Hawaiian Islands, characterized by the merging of elements of both endogenous and exogenous origins into one of the strongest forms of affirmation of indigenous identity

**Atem, Florent I; Atem, Carole I**  
1: Université de la Polynésie Française

### ***Henry Adams' voyage through the Pacific: from exploring the Sea of Islands to the memoirs of Aritaimai***

On August 23rd, 1890, American historian Henry Adams embarked on a voyage that would take him and his friend, painter John La Farge, to several islands in the Pacific. Profoundly wounded by the losses of his wife and of his elder sister, the Massachusetts scholar—the great-grandson and grandson of Presidents John Adams and John Quincy Adams—was also haunted by a sense of frustration as he failed, in the political sphere, to rise to prominence the way his two illustrious family members had.

In the wake of the nineteenth-century transcontinental dynamics that characterized the young North American republic's desire for westward expansion, Adams's journey would lead him across the vast ocean from San Francisco to the islands of Hawaii, Samoa and eventually Tahiti, where he would make the acquaintance of Aritioehau Tararoari a Tai, better known as Aritaimai, the last 'arī nui'—or "chieftess"—of the Teva lineage, by far the most powerful clan in pre-European Tahiti. Taking its roots in the long nights spent by Adams avidly listening to the venerable lady revealing the enthralling stories of ancient Polynesia, the *Memoirs of Aritaimai*, edited by the American writer, may be viewed, from a transcultural perspective, as pertaining to a long-standing memorialist tradition that harks back to the European "Ancien Régime". They also illustrate how this somewhat improbable encounter triggered a self-revelation process as the Bostonian dynast, seeking to run away from himself, actually ended up being confronted with his own image in the figure of the Tahitian aristocrat.

**Awei, Pele I**  
1: The University of Papua New Guinea

### ***Converting Port Moresby city's waste products into green energy***

This paper will describe the current project undertaken by the University of Papua New Guinea to convert Port Moresby city's waste products into green energy. First, solar energy will be harnessed and converted to thermal energy. Like the lithium battery thermal energy storage devices are already on the market. Molten volcanic rocks at 3000 °C (thermal energy storage device) will supply clean and sustainable energy to convert Port Moresby city's waste products into electricaly conducting gas (plasma). Organic materials will be converted to syngas composed of hydrogen and carbon dioxide. Inorganic materials will be converted to solid slag. The results of this project will have implications for the project to be expanded to other towns and cities in developing countries.

#### **Baker, Roseanna 1,2,3**

- 1: The University of Auckland
- 2: Ngāi Whātua me Ngāpuhi
- 3: Toke—enua no Enuamano

### ***Call of Rongo – 'Ōki 'aka 'ou. Tohu o ariā: In communication with tūpuna. An iterative indigenous philosophical approach to research***

This presentation discusses my research entitled "Tohu o ariā". As a researcher in the social sciences, I am interested in examining the potential methodological applications of tohu o ariā in my field. "Tohu" is a term that has been traditionally used to describe an observable event or sign that holds significance in a particular context and "ariā" refers to a spiritual or metaphysical dimension.

My research aims to explore the methodological potential of indigenous ways of knowing, doing, and being, specifically through the concept of tohu o ariā as a form of transcendental guidance from ancestors. I seek to expand the traditional understanding of methodology to incorporate 'extra-rational' elements that are important to indigenous epistemologies and ontologies in educational research.

In this project, I will critically engage with methodology and use examples from my personal experiences, including the teachings of my Cook Islands and Aotearoa Māori tūpuna, as well as literature. I aim to demonstrate how tūpuna guidance in the form of tohu-o-ariā can have a positive impact and significance on Indigenous educational research, and how it can enrich and inform it.

My work is philosophical in nature, and I challenge the usual limits of what counts as methodology. By doing so, I hope to contribute to a greater understanding of the methodological potential of indigenous ways of knowing, doing, and being, and to promote greater recognition and appreciation of the knowledge and guidance provided by tūpuna through tohu o ana

**Banaré, Eddy 1**

*1 : Trajectoires d'océanie*

### ***1996 - 2021 : the stakes of the re-edition of a play by Pierre Gope, Kanak playwright***

Where is the law (Où est le droit) ? is surely Pierre Gope's most popular play; it has marked generations of spectators in New Caledonia, and is still much in demand, particularly in secondary schools. The strength of this play lies in its focus on a series of crucial issues for Kanaky-New Caledonia. These include sexual violence, the status of women and the cohabitation of two legal systems, one Kanak customary and the other French. In July 1996, the play toured the North Province on an unprecedented scale. Où est le droit? is, in fact, one of the first literary works to question and criticize Kanak society with such force and acuity. The point is made all the more forcefully by the character of a young woman. The character also gives voice to the conflict between generations and, through her, young people looking for reference points and role models. In 2021, in response to strong social demand, Pierre Gope wrote a second version that echoes recent political events on his native island of Maré. The aim of this paper is to review the critical edition of both versions of the play by the University Press of New Caledonia, and the dialogue established between academic research and the public space.

**Barrball, Leana 1,2**

*1 : University of Waikato*

*2 : Ngati Kahungunu, Te Aitawa*

### ***Sea level rise: the use of mātauranga Māori to make better management decisions for inanga and their spawning sites***

Climate change is here and rising sea levels are inevitable, impacting not only our coasts but also our estuarine and freshwater systems. Taonga (important, significant, treasured) species and their essential habitats will need to adapt quickly to these changes or we will need to intervene to ensure those species do not go extinct. One taonga species for Māori in Aotearoa is the freshwater fish inanga (Galaxias maculatus). Inanga are an important traditional food source and also important through whakapapa (genealogical, kinship ties). Mātauranga Māori (Māori knowledge and its knowledge system) has evolved and been utilised by Māori to manage impacts on the tāiao (environment). Due to colonisation however, it has been degraded, misrepresented and mistreated in western knowledge systems and government policies. As part of my PhD thesis I have collated available mātauranga Māori on inanga in an attempt to utilise this to make better management decisions for inanga spawning sites. Through the use of Kaupapa Māori Theory my methodological approach was conceived and my results analysed. I will present my approach and results at this conference.

**Beck, Noemie 1**

*1 : Université de la Nouvelle Calédonie*

### ***A goddess movement in the Pacific? A case study of wāhine toa: omniscient Māori women (1984), The Whale Rider (1987) and Where We Once Belonged (1996)***

The "Goddess Movement" is a feminine, feminist, and mainly neopagan movement, which originated in the US and Europe during the subversive 1960s/70s. Religions and myths were revisited from a feminine point of view (thealogy) to achieve contemporary identity and political ends, i.e. countering patriarchal societies, male-oriented religions and environmental destruction. This movement has had significant influence in all Humanities disciplines and has engendered thousands of scientific, literary and artistic productions all around the world

The study of this movement is most generally American- or Euro-centric: the Pacific is almost never mentioned, or very little. This research – which is at its start – therefore aims at (re)positioning the Pacific in the historiography of the Goddess Movement. This paper more particularly focuses on the literary and artistic works written in English by authors of Māori or Samoan origins: Wāhine Toa (1984) by Robyn Kahukiwa and Patricia Grace, The Whale Rider (1987) by Witi Ihimaera – all three of Maori descent – and Where We Once Belonged (1996) by Samoan-American author Sia Figiel.

We will show how these three works are anchored in the Goddess Movement, since they re-activate and re-visit traditional myths from a feminine/feminist perspective to reach the dual rebirth of ancestral traditions and feminine identity. Kahukiwa and Grace indeed propose a gynocentric rewriting of the well-known myths of eight Maori goddesses, while Ihimaera and Figiel portray two teenage girls – who turn out to be the reincarnation of powerful ancient deities – in search for their identity and place, as women, in the highly patriarchal Samoan and Maori societies.

**Benjamin, Collin 1; Bugoro, Hugo 1; Love, Mark 2; Souter, Regina 2**

*1 : Solomon Islands National University*

*2 : Griffith University*

### ***Factors affecting the lifespan of community gravity-fed water systems: from the provincial rural water sanitation and hygiene (RWASH) experience and perspective in the Solomon Islands***

Gravity-fed water supply system; however, almost all communities are struggling to sustain the system for the twenty year period required by the Rural Water Sanitation and Hygiene (RWASH) policy.

This study describes the key factors reducing the lifespan of gravity-fed water systems from the experiences and perspective of Provincial RWASH officers.

As part of the Pacific Community Water Management plus (PaCWaM+) project, we conducted a tok stori initiative with Provincial environmental health departments in three Provinces in the Solomon Islands, conducting key informant interviews with RWASH field officers, as well as taking notes from group discussions, to gain insights on what they perceive as the most common challenges affecting community water system longevity.

The most common reasons for short water system life-spans were (i) financial constraints by both RWASH and community (RWASH are funded to support system installation and training only); (ii) follow-up visits and monitoring were not conducted; (iii) there is a lack of educational and motivational tools used during training; and (iv) political interference

This study elucidates that there is a clear need for increased government and donor investment in RWASH, as well as greater support from communities themselves, to meet the costs of water system operation and maintenance, including regular follow-up visits, to strengthen community water management (e.g. Water Committee Backstopping).

**Bergquist-Turori, Melodie 1**

*1 : NAII/TS, An Indigenous Learning Community*

### ***Tangata manu'iri: reconnecting to ipukareā from Turtle Island***

Pasifika communities living in diaspora on Turtle Island face narratives of invisibility and being "too small to count" in the multicultural sea of people that is the United States. Like the diverse Islands we come from, our communities refuse to be defined by smallness or a definition of "diaspora" that defines people groups by their disconnection from homeland. When relationship to (s)land and ocean is the foundation for flourishing Indigenous identities and theologies, how do we understand ourselves as people of place living away from ipukareā? From Turtle Island, we turn to our Pasifika ancestors who traveled the vast ocean while retaining a strong connection to home(s)land. This rootedness was facilitated by Oceanic conceptualizations of land as having a spiritual dimension in addition to the physical. Our ancestors carried their land spiritually and tangibly as they moved through the world. Through research and personal reflection, this paper considers the new potential for nurturing diasporic Pasifika identities when we understand land as physical and spiritual place. What avenues for reconnection to ipukareā are available in diaspora? How do complex histories of Christian missions and postcolonial migration intersect with other Indigenous communities on Turtle Island?

**Betham-Scanlan, Diana Margaret 1**

*1 : National University of Samoa*

### ***Is there resistance to learning English in schools In Samoa***

English being the world's global language today, learning English is essential to experience the advantages it provides. Samoa's Curriculum Policy explains clearly that its goal for students is to "be equally competent in Samoan and English" (MESC 2006:8). The policy further explains that this will require the use of "both languages as means of instruction" (MESC 2006:8).



If this is stated in the curriculum policy, uncertainty arises, when students within Samoa are entering university with low levels of English. This raises concern as to whether students are receiving adequate English learning. Although the curriculum policy states equal language competency, most students in Samoan primary school levels receive limited exposure to English and are taught mostly in the first language. For this reason, the paper will discuss and examine the causes inhibiting student progress in the English language. Furthermore, it will look at why students are not receiving the needed English exposure at such vital ages of cognitive learning. Is there resistance to learning English in schools in Samoa? This article analyses some of the problems and suggests changes and development in particular areas of teaching and curriculum. In order to achieve this, the problems need to be addressed. All information was gathered from online sources, journals, newspapers as well as other information collected from the Library at the National University of Samoa.

**Bissonauth-Bedford, Anu I; Sramski, Sandra 2; Leocadie, Karine 2**

- 1 : *University of Wollongong*
- 2 : *Université de la Polynésie Française*

### ***Patterns of language use and attitudes of French Polynesians in higher education***

This paper examines language use and attitudes in Tahiti, French Polynesia, where French comes in contact with Tahitian and other indigenous Polynesian languages. Preliminary results from a pilot study reveal that whilst five distinct varieties of Polynesian languages were present in the grand-parents' generations, they have been replaced by French and Tahitian in the home environment, thus suggesting a shift from other Polynesian languages towards Tahitian and French across two generations. Paradoxically, Polynesian languages are valued as a cultural heritage that needs to be maintained but young people are viewed as 'not making the effort' to sustain them. French as the dominant language is perceived as having a bright future and as part of Tahitian culture while English, although the dominant language in the Pacific region, is for most a foreign language. The relationship between French, Tahitian and other Polynesian languages is one of triglossia (Chapentier and Francois, 2015: 101), where French has the highest status followed by Tahitian then the other Polynesian languages. This paper gives an overview of the social history and language situation in Tahiti Island. It then describes the methodology and data collection. The conclusion explores implications for the future of multilingualism in French Polynesia.

**Blacka, Matt 1; Branlant, Ludovic 2; Earl, Eleanor 3; Passfield, Kelvin 4; Singh, Amit 2 5**

- 1 : *Climatic Change Cook Islands*
- 2 : *The Pacific Community*
- 3 : *University of New South Wales*
- 4 : *Tē Ipukarea Society*
- 5 : *NDC Hub*

***Special Session: Future Nature-Based Solutions Research and Practice from Source-to-Sea***

### ***Discussion forum – Sharing NBS knowledge and integrating research***

The session will provide an open forum to discuss key areas of future research, opportunities, and challenges in this exciting and rapidly emerging field for the Pacific Islands and beyond.

Some of the questions we will explore will include:

- What does successful collaboration and partnership on NBS projects from ridge to reef look like?
  - How can we better identify and prioritise NBS?
  - What are some future directions for research and practice in NBS approaches for source-to-sea issues?
- A written output will be developed based on the knowledge shared during the discussion forum

**Bouix, Caroline 1**

- 1 : *Université de la Nouvelle-Calédonie*

### ***Personal status in New Caledonia***

At a time when the question of New Caledonia's institutional future is once again being raised, it seems necessary to take a look at one of the country's special features: the coexistence of several different personal statuses. Ethnic groups with varying personal statuses coexist, and these statuses give rise to the application of legal rules based on different legal systems. Two statuses are recognized by fundamental legal texts: the civil status known as "common law" and the Kanak customary civil status.

Others exist alongside these, but their legal value is not clearly identified. On the one hand, many New Caledonian residents enjoy the special civil status of Wallis and Futuna, which is recognized in this overseas territory but not in New Caledonia. On the other hand, a civil status is under construction that does not say its name. This is the "Caledonian civil status" resulting from a Caledonian law that has been autonomous from that of mainland France since the transfer of "civil law" jurisdiction to New Caledonia on July 1, 2013. Observation of the rules governing the articulation of these statuses is instructive in terms of the place accorded to the different legal orders. Today, the system is characterized by the primacy of common law status. However, if we adopt a methodological approach based on legal pluralism, this mode of articulation seems outdated. Rethinking the relationship between personal statuses could lead to greater equality and a deeper understanding of the "common destiny" that the Nouméa Agreement has not fully achieved.

**Branlant, Ludovic 1,2; Singh, Amit 2 3**

- 1 : *Kiwa Initiative*
- 2 : *The Pacific Community*
- 3 : *NDC Hub*

***Special Session: Future Nature-Based Solutions Research and Practice from Source-to-Sea***

### ***Scaling-up NBS across PICTs - status, challenges and opportunities***

NBS are increasingly gaining momentum in addressing climate change impacts, biodiversity conservation, and sustainable development, across PICTs. Scaling up Nature-based Solutions (NBS) across the Pacific Island Countries and Territories (PICTs) requires concerted efforts and strategic actions. In this presentation we will explore current status of NBS integration in regional NDCs, explore challenges and opportunities for successful NBS integration at scale, and reflect into regional and international initiatives including the Kiwa Initiative.

**Bugoro, Hugo 1**

- 1 : *Solomon Island National University*

### ***A cross-sectional survey of Aedes mosquitoes amongst the suburban and urban high schools in Honiara, Solomon Islands, using Ovitrap***

*Aedes aegypti* and *Aedes albopictus* are known important vectors of dengue fever, with the former considered the primary one. The species composition and abundance of these two species are influenced by various environmental, ecological and socioeconomic factors. Suburban and urban disparities in environmental, ecological and socioeconomic characteristics may affect their composition and abundances and, potentially, risks of dengue infection.

We assessed the species composition and abundance of *Aedes* mosquitoes in suburban and urban high schools in Honiara, using modified Ovitrap that were placed outdoors. Data were collected during the dry period in 2022 from 11 Suburban and 39 urban recovered Ovitrap, which were either positive or negative for mosquito eggs. The egg containing substrates from the Ovitrap were flooded in water, then the hatched larvae were reared to adults, and using taxonomic keys were morphologically identified to species level.

A total of 2,064 larval mosquitoes were collected, with only 38.27% (n=790) successfully reared to adults. *Aedes albopictus* accounted for 73.67%, whilst *Aedes aegypti* recorded 13.54%; about 12.79% were culicines. The abundance of *Aedes* populations amongst the high schools was indicated by an Ovitrap Index (OI) which ranged from 16.67% - 80%. The study also noted the mean number of adult *Aedes albopictus* / Ovitrap is higher compared to *Aedes aegypti*. Both of these species were observed to have co-existed in some of the Ovitrap. There was no single infestation of *Aedes aegypti* in any of the Ovitrap.

The presence of *Aedes albopictus* and *Aedes aegypti* in the schools, and the OI of >10% provide evidence of threats should there be any dengue outbreaks in the future. This evidence meant that vector surveillance is necessary as such information will be important for awareness and to formulate any prevention measures against arboviral infections e.g. dengue fever.

**Burton, John 1; Le Meur, Pierre-Yves 2; Banks, Glenn 3; Namorong, Martyn 4**

- 1 : The University of Queensland
- 2 : Institut de Recherche pour le Développement
- 3 : Massey University
- 4 : Resource Governance Coalition

### *The Pacific Centre for Social Responsibility and Natural Resources and the 'energy-extractives nexus'*

The Pacific Islands region is currently experiencing a rush for marine and terrestrial resources in a context of climate change and energy transition: an 'energy-extractives nexus'. At stake are mineral resources – metals, development minerals, oil gas, and deep-sea minerals – and resources of the biosphere such as fisheries and forests. No current scientific observatory has the task of examining the social, economic, environmental and governance implications of past, present and future demand for these commodities.

Founded in 2015, the Pacific Centre for Social Responsibility and Natural Resources – known as PACSEN – is a collaborative network of institutions, including two PUNR universities, and scholars from Europe, Australia, New Zealand and Pacific Island countries and territories with expertise in natural resource management, extractive industries and development studies, intentionally bridging a gap between Francophone and Anglophone researchers in the Pacific.

Initially benefiting from an EU-funded PACE-Net grant, PACSEN was launched in 2015 under the wing of the GEM Division of SPC, and received further external funding from the French Institut de Recherche pour le Développement through its International Scientific Coordination Network (GDRI-Sud) in 2019.

The presentation explains the rationale behind PACSEN, sets out progress to date, and looks to future programs of research.

### **Cadousteau, Maitraed 1**

- 1 : Sociétés Traditionnelles et Contemporaines en Océanie

### *Contextualization and indigenization in the educational policies of Oceanian peoples: towards a revival of the identity struggle and cultural renewal?*

Adaptation, contextualization and indigenization in education are the subject of scientific research in many territories. For example, we find an epistemological positioning of the notion of teaching contextualization in the work carried out in the Caribbean basin (Delcroix et al. 2013). The notion of indigenization, for its part, seems to have originated within research units in the sciences of education in Canada. This communication proposes a comparative analysis of the programs, orientations and pedagogical tools through which educational policies attempt to implement contextualizations, adaptations and indigenizations, within the different territories of Oceania. In this way, it is a question of proposing a typology of the different approaches in this sphere. The reflections developed will be in line with several recent and ongoing works: those of researchers from the University of the Antilles (Anciaux, 2013; Forssier, 2019) and those proposed by Anciaux et al. (2013). We will first focus on identifying the "internal" and "external" contexts of the contextualization process, then, secondly, on understanding the "top-down" or "bottom-up" character of the adaptations observed and described.

**Caillibot, Céline 1; Le Mestre, Monika 1; Desriaux, Isabelle 1; Selmaoui-Folcher, Nazha 1; Gunkel-Grillon, Peggy 1**

- 1 : Université de la Nouvelle-Calédonie

### *Impact of mining activities on the surface water quality in New-Caledonia*

In New Caledonia, a third of the territory's surface is covered with ultramafic rocks which have weathered over millions of years into lateritic covers naturally enriched in metals such as nickel (Ni), cobalt (Co), iron (Fe), manganese (Mn) or chromium (Cr). Local authorities have expressed the need to establish freshwater quality and in particular for freshwater concerned by ultramafic substrates. The open pit mining of nickel from these lateritic covers increases the dispersion of these metals. The objective of this study is 1) to collect and analyze existing data of surface water quality in order to define reference values for the concentrations of Fe, Mn, Ni, Cr, Co, 2) to improve our knowledge of their dispersion mechanisms and 3) to assess their potential impacts on freshwater quality. A robust database was compiled for a statistical analysis. Additionally, four rivers were sampled over a year to estimate the intrinsic variability of concentrations. In order to determine whether the fine particles mobilized by the runoff water of bare surface constitute an important reservoir of soluble metals, ultramafic soils and sediments were also sampled. They were extracted by leaching experiments to determine their easily soluble metal content. These experiments revealed that Cr is in its anionic hexavalent form and is highly soluble. We conclude that the drainage of fine particles mobilized by open pit Ni mines is a source of particulate metals affecting freshwaters quality but that the main marker of mining activity is Cr and not Ni and that Cr concentrations could lead to health and environmental problems.

**Gammock, Radlatie 1; Boon, Juliet 1, Allen, Jean M Uasike 2; Keung, Sierra 1; Vaka, Stone 3; Ahio, Litungu 1;**

- 1 : Auckland University of Technology
- 2 : The University of Auckland
- 3 : University of Waikato

### *Promoting Pacific indigenous research perspectives and pedagogy within postgraduate health research course development*

Models of health currently provide physical and biological understandings of how human beings behave in terms of, and succumb to, illness or disease. Well-documented Pacific health models have extended such definitions to include holistic considerations such as spirituality, culture and social wellbeing. Within health research, similar shifts have occurred that signal a move away from traditional approaches, e.g., positivist or interpretivist descriptive designs, to approaches that are centred in Pacific worldviews and paradigms. This paper presents the experiences and perspectives of Pacific researchers in the health sector and the impact of these experiences on the delivery of a Pacific health research and design course in a tertiary institution in Aotearoa New Zealand. The paper provides a Pacific-centred health research lens through the discussion of research practices and methods undertaken in health research and the challenges and opportunities for growth. The experiences also highlight opportunities for curriculum development within health facilities in tertiary institutions that move away from traditional Eurocentric models of health to Indigenous Pacific-centric paradigms. The paper provides insight into the challenging spaces that such a move entails and its impact on the delivery of health research education and posits the researcher's positionality as the catalyst for a shift in approach. The paper focuses on the pedagogical approaches used by Pacific health lecturers and researchers within course development and delivery. These include the use of Talanoa, veiwekani 'relationship building' and faikava cultural practices within the learning vā.

### **Cayrol, Françoise 1,2**

- 1 : Trajectoires d'Océanie
- 2 : Université de Nouvelle-Calédonie

### *Hide this female Chiefso I can't see her: The invisibility of women's high status and its scientific and social consequences*

The existence of very high rank of women is attested in Oceania. These ranks and status are still bore today by "great women", "elders", "female leaders", "high initiates" who sometimes have first-class political roles. These statuses and roles have rarely been described or studied, particularly by Western researchers, who may have overlooked them, adopting the point of view of the missionaries and, more generally, of their own society's view of women's place.

Based on fieldwork (Fiji and Vanuatu in particular) and on a number of anthropological texts, this presentation will provide examples of this blindness, will discuss its origins and its scientific and social consequences. We will see that the idea, often highlighted, of a generalized and a-historic domination of men over women in Oceania deserves to be re-examined.

### **Chauchat, Mathias 1**

- 1 : Université de la Nouvelle-Calédonie

### *Towards a power-sharing agreement in New Caledonia*

New Caledonia is one of those divided island societies with a complex society, born from indigenous people and historical colonization. After three referendums on self-determination that left the country ethnically divided and without a strong majority, New Caledonia needs to rebuild an inclusive and shared mode of governance and a power-sharing agreement. These power-sharing agreements establish "the rules that, in addition to defining how decisions will be made by groups within the state, distribute decision-making rights, including access to state resources, among human communities competing for power" (Hartzell & Hoddle 2003:320), with consociativism or concordance democracy representing one of the main forms of power-sharing.

With this in mind, in 2022 the University of New Caledonia, represented by the LARJE team, won an international call for tenders from the French National Research Agency (ANR) on Inclusive Peace, whose project leader is Neophytos Loizides, University of Kent (UK), and myself, for New Caledonia. The aim of this contribution is to present the state of negotiations between the French state, the country's administering power, the pro-independence parties and the loyalist parties. The current issues raised are the question of France's unilateral revision of its Constitution to terminate the 1998 Nouméa Agreement and the constitutional guarantees it provides, the opening up of the electorate to all French newcomers, whether or not to maintain recognition of a Kanak people and a process of self-determination, and the pursuit of compromises on political and economic power-sharing. The search for a common destiny for the people of New Caledonia remains a prerequisite for civil peace.

**Chinappa, Matthew 1; Ganachaud, Alexandre 2; Singh, Avnesh 1**

1 : *The University of the South Pacific*

2 : *Institut de Recherche pour le Développement*

### *Investigating the relationship between marine heatwaves and tropical cyclones in coastal Fiji*

In a warming ocean, long term devastation to marine ecosystems are now being associated with Marine Heatwaves (MHW). MHWs are a rich source of Ocean Heat Content (OHC), Tropical Cyclones (TC) feed on OHC for intensification. A MHW coupled with the a Tropical Cyclone (TC) could lead to irreversible effects. There is much relevance to understand the impacts of this coupled natural disaster for the sake of adaptation and mitigation strategies. Areas of concern are mainly, security of home, security of livelihood and socioeconomic pathways for coastal communities. Therefore, a Heat Budget Analysis of the mixed layer is carried out to understand the mechanics underlying the MHW event and its interaction with the TC. The variability of the Heat Budget components will be investigated using a modeling approach to understand the thermal structure of the water column before, during and after a MHW.

In this study, we aim to quantify the relationship between MHWs and TCs in the Fiji region. Research is still underway and a full synthesis of the findings will be available by the end of June.

**Crowl, Linda 1**

1 : *Lone Star College*

### *Facilitating Pacific Studies*

The University of the South Pacific (USP) was established in 1967 to provide tertiary education to islands countries. Degrees, departments, institutes, and programs expanded, multiplied, and changed over time, and member countries now number twelve. Founded in 1976, the Institute of Pacific Studies (IPS) had as its mission to assist Pacific Islanders to develop their research and writing skills so as to encourage their own histories, theories, analyses, creativity, and decision-making about and for the region. For more than 25 years, IPS personnel collaboratively taught courses, ran workshops, conducted research, and published with more than 2,000 islanders – not only in USP member countries, but also in wider Oceania – in other universities, secondary schools, government, non-governmental organizations, and international agencies. IPS's students and authors were young and old, novices and experts who gave generously of their time and effort to IPS endeavours and went on in their careers to serve and to enrich their home and/or guest countries. IPS published articles and books about anthropology, botany, communication, economics, land, politics, religion, sociology, and many other topics. It also published novels, plays, poems, and short stories. The work was successful: the seeds it sowed blossomed into new institutions and programs which continue to prioritize islanders' perspectives. This essay assesses how IPS ran its programs, products of its endeavours, and lasting contributions and impacts of this seemingly small institute.

**Daniel, Martin 1**

1 : *Divine Word University*

### *Electronic government: factors that affect implementation in Papua New Guinea*

The advances in information and communication technologies have enabled governments to implement e-government initiatives. The Papua New Guinea (PNG) Government has various plans and has been striving to provide services such as business registrations online but the progress has been slow. A study was undertaken to examine the factors that affect the implementation of e-government and provide some recommendations for further development in PNG.

Interviews were conducted to collect the required data from officers from various national government agencies. The data were analysed using Nvivo software to examine the main factors and how to address them. The findings showed that there were three main factors – technological (e.g. ICT infrastructure), organizational (e.g. human resources and organizational culture) and environmental (e.g. relevant laws or regulations, and political support) – that affect e-government development in PNG. It was noted that these factors are interrelated and cannot be considered in isolation. They all need to be addressed carefully for effective development.

In order to achieve the desired results, relevant laws and policies need to be updated or developed and a national e-government strategy needed to be developed. A neutral agency is required to provide coordination and a reliable and functional e-government portal to serve as a single point for citizens to access services online.

**Dansie, Andrew 1**

1 : *University of New South Wales*

*Special session: The Water, Energy, and Food Security Nexus in the Pacific*

### *The nexus approach and the Pacific*

A water, energy, and food (WEF) nexus approach offers a coordinated effort to manage water, energy and food that is centred on active decision making across the three sectors and increases the security of each. This approach offers opportunity to strengthen SDG progress across environmental, societal and economical spheres. In the Pacific context there is emphasis on the nexus approach in supporting the leadership from Pacific Island Countries and Territories for increased action and resourcing to meet both global net zero goals and regional SDGs

**Dansie, Andrew 1; Singh, Amit 2; Arcot, Jayashree 3, 4; Bruce, Anna 3; Santogata, Edoardo 3; Ngori, Arona 5**

1 : *University of New South Wales*

2 : *The Pacific Community (SPC)*

3 : *University of New South Wales*

4 : *OceanicFoods – FAO International Network of Food Data Systems*

5 : *Cook Islands Meteorological Service, Ministry of Transport*

*Special session: The Water, Energy, and Food Security Nexus in the Pacific*

### *The water, energy, and food security nexus in the Pacific*

A water, energy, and food (WEF) nexus approach offers a coordinated effort to manage water, energy and food that is centred on active decision making across the three sectors and increases the security of each.

During this session we will hear about the specific challenges in WEF sectors as well as how a nexus approach can assist in supporting advancement in these areas. Specifically, from recent Pacific-wide book collaborations[1], surface water, rainwater, groundwater and marine waters are shown to have inverse degrees of importance across Pacific Island Country and Territory (P/CT) environments and societies. Also shown is that increasing installation of renewable energy is being matched by increased fossil fuel importation to satisfy growing demands for energy. USP[2] findings on the prevalence of food insecurity and an indicator of diet quality demonstrate that P/CT food security is greatly supported by home production and community sharing of food. PNG will be presented as an example of a P/CT that relies predominantly on domestic agricultural production in both urban and rural contexts.



A case study showing geothermal-based technologies that provide Pacific WEF nexus solutions (e.g. electricity, food drying, refrigeration, desalination) will provide evidence that cascading heat networks, integrated with nature and social systems, are an excellent means to reduce costs, investment risks associated with drilling, and wasted heat. At the conclusion, we will finish by discussing with panel and audience how WEF challenges, such as those brought by our presenters, could be further advanced by considering a nexus approach.

**Daveta, Malika 1; Vata, Teresia Siteri 3; Ratuadrada, Asenaca 4; Kunoduq, Lani 5; Lord, Lavenia 5; Bolatolu, Waisea 6; Nisha, Zoyha 6; Ratu, Kasanita 5; Raihiri, Makakesi 7**

- 1 : Food and Agriculture Organization of the UN
- 2 : University of the South Pacific
- 3 : Nabalebale Village, Vwa Island, Yasawa Group of Islands
- 4 : Soso Village, Naviti Island, Yasawa Group of Islands
- 5 : Fiji Ministry of Agriculture
- 6 : Fiji Ministry of Forestry
- 7 : Ba Provincial Office

### ***Restoration in practice: a community knowledge transfer on masi value addition in Naviti Island, Yasawa, Fiji***

The FAO GCP/INT/296/GER International Climate Initiative Forest and Landscape Restoration project recently completed its capacity needs assessment and community consultation. Using Participatory Rural Appraisal Approach along with Integrated Rural Development Framework and the Flian Vanua Research Framework, a series of consultation were conducted at communal and mataqali level in Naviti Island. The communal consultation also includes focus group discussions with women's groups in each village on training and resource needs. The focus group discussion identified 'masi value adding' as one of the priority capacity needs for the women of Naviti Island. Following this consultation, a 'Masi Value Adding Training of Trainers Program and Budget' was developed in collaboration with FAO, Ministry of Agriculture, Viraka Fiji Yasawa Trust Foundation, resource personnel from Nabalebale village, Vwa Island and training hostess from Soso village, Naviti. The training was co-financed by FAO through the Letter of Agreement with Viraka Fiji Yasawa Trust Foundation and the Ministry of Agriculture Western Regional Office. A total of sixteen representatives from the seven villages and one settlement in Naviti attended the Training of Trainers hands on workshop. Upon completion of training, each village representative were provided with masi seedlings and masi processing tools. The Community2ruthruthCommunity Knowledge Transfer on Masi value adding has build capacity of the sixteen women in Naviti to process masi, a knowledge and skill that they now have and can share with other women in their communities. The masi wildings distributed and that have been planted can now be mass produced and distributed at household level, harvested sustainably and use as an alternative source of income for the women or household as a whole. Community2Community knowledge transfer with hands on training and provision of appropriate resources is identified to be an efficient tool for building capacity while enhancing adoption and translation of these knowledge and skills to action on the ground at community level.

**De Weegh, Roxanne1; Teureere, Rerekura 1; Patai, Te-Mata-O--Te Akarua 2, Akaruru, Charlene 2; Karika, Athina 2; Short, Esther 2; Orams, Mark 1; Lück, Michael 1**

- 1 : Auckland University of Technology
- 2 : Korero o te Orua

### ***The use of photovoice to engage indigenous youth in the exploration of wellbeing amidst the global disruption of COVID-19: a case study in Karotonga, Cook Islands***

This research aimed to develop a deeper understanding of how indigenous youth in Rarotonga, Cook Islands perceive notions of wellbeing, and how their recent lived experiences during the global disruption of COVID-19 may have influenced those perceptions. Photovoice, a participatory action research method, was used to include the youth's perspectives by enabling them to record and reflect on their knowledge of wellbeing. The photos represent visual narratives that tell stories themselves, but that also empower indigenous youth to articulate issues they consider important through photography. The research team collaborated with Korero o te Orua, a local environmental NGO that aims to increase environmental conservation through the revitalization of traditional knowledge and holistic education. Four young adolescent women that partook in their youth development programs, Ati'anga ki te Tango, participated in this research.

The findings revealed insights that illustrate the importance of traditional knowledge, climate change, the land, and the sea for the wellbeing of indigenous youth. Participants also discussed changes in their social and natural surroundings during the global disruption of COVID-19, and how these changes influenced their understanding of wellbeing. The results of this study indicate the success of Korero o te Orua in increasing youths' awareness on environmental and social issues by offering programmes that allow youth to reconnect with their culture and nature. The findings of this study can be used to strengthen the local education system by including in the curriculum an emphasis on the value of traditional knowledge in environmental studies.

**Dembinsky, Melanie 1; Fulu-Aloilupote, Saunima'a Ma 2; Latifa Lima, Uifa 2; Lees, Talia 2; Aivango, Tausela 2; Boodoosingh, Ramona 2; Ekeroma, Aloha Alec 2; Hagen, Suzanne 1**

- 1 : Glasgow Caledonian University
- 2 : National University of Samoa

### ***Delivering remote training on pelvic floor dysfunction to Samoan health workers***

This presentation discusses the approach taken by a multi country team to deliver remote training on Pelvic Floor Dysfunction (PFD) to Samoa health workers in 2022. PFD includes urinary and faecal incontinence and pelvic organ prolapse (POP). Little is known about the prevalence of POP in the region, but published data estimate that the condition affects approximately 40% of women in developed countries. The prevalence of risk factors such as obesity and high parity are relatively prominent in the region. POP affects a woman's quality of life, it can lead to physical and psychological discomfort, bladder, bowel and sexual dysfunction and in advanced cases requires surgery. Unfortunately, due to socio-religious taboos, many women and girls do not have comprehensive sexual and reproductive health education in school and may feel uncomfortable bringing up the topic to a health worker. Health workers may also receive varied coverage of POP and PFD in their educational programs. These factors served as the rationale for the design of a training program on PFD for health workers in two Pacific Island Countries. Although planned for in-person delivery, travel restrictions due to COVID-19 required the design of a remote delivery methodology.

Medical practitioners, physiotherapists, and nurses with expertise in PFD based in the UK and NZ worked with local practitioners in Samoa and Fiji, to develop a course that could be delivered via Zoom, with group activities and live discussion with the facilitators. The course content covered anatomy and physiology, signs and symptoms, surgical and non-surgical treatment options and strategies to foster dialogue between the health worker and patient. The course was delivered over two half days in Samoa, and one full day in Fiji. This presentation provides further detail on the organization of the Samoa workshop.

Twenty-three health workers comprised of nurses, midwives and a physiotherapist attended the training in Samoa. The verbal feedback from participants and from local facilitators was generally positive, with many indicating the utility of the training material as practitioners and interest in attending further training opportunities.

There is scope for the expansion of delivery of remote training to upskill Pacific Island health workers on PFD.

**Dereveke, Marineth 1**

- 1 : Solomon Islands National University

### ***Factors affecting medication adherence among hypertensive patients attending NCD clinic at the national referral hospital in Solomon Island: a qualitative study***

Hypertension is a major risk factor for cardiovascular disease, which is the leading cause of death all over the world, including in the Solomon Islands. Ensuring that patients adhere to their treatment is a fundamental aspect of managing hypertension and preventing its complications. This study aims to explore factors affecting hypertension medication adherence among hypertensive patients at the National Referral Hospital in Solomon Island.

Qualitative research was carried out on 30 hypertensive patients who visited the NCD clinic at the National Referral Hospital in Solomon Island. The participants were selected using purposive sampling and interviewed face-to-face using a semi-structured, open-ended questionnaire. The interviews were recorded and transcribed word for word and then analyzed thematically. The collected data were analyzed through thematic analysis, which involved grouping them into subthemes and identifying common themes related to the subject matter.

After conducting a thematic content analysis, five major themes emerged: inadequate patient knowledge, the use of herbal medicine, negative attitudes, lack of family support, low socioeconomic status, forgetfulness, noncompliance in attending clinic appointments, excessive alcohol consumption, and medication-related issues such as taking too many medications, not experiencing symptoms and having adverse reactions to drugs.



Non-adherence to medication among hypertensive patients leads to complications and early death. The majority of the reasons for poor adherence have implications for patient management and care. Healthcare providers should increase awareness among patients in NCD clinics about the consequences of non-compliance and provide strategies for enhancing adherence, based on the factors related to non-adherence identified in this study. In the Solomon Islands, establishing professional counseling services for all NCD patients would significantly aid in improving medication adherence.

**Dijoux, Julie I; Xurna, Céphas; Fogliani, Océane; Chesnais, Léo; Thomas, Adrien; Le Floch, Alizée I;**

**Gigante, Sarah I; Medevielle, Valérie I; Gunkele-Gillon, Peggy I; Guentas, Linda I; Burtet-Sarramegna,**

**Valérie I**

*1 : Université de la Nouvelle-Calédonie*

### ***Role of New Caledonian metallophyte microbiome in metallic stress adaptation***

New Caledonia is a suitable place for metallophyte species development. Indeed, being composed of 40% of ultramafic soils, this archipelago abounds in plants which can either be metal - resistant, tolerant or hyperaccumulating. These adaptations to the serpentine stress are also observed in several soil microorganisms, which can play a beneficial role in the development and survival of plants facing biotic and abiotic stresses. Hence, the study of the microbiome of metallophytes would allow us to better understand the mechanisms underlying the various adaptive behaviours adopted by plants (resistance/tolerance/hyperaccumulation) growing on serpentine. In this study, we aim to characterize the microbial community (bacteria and fungi) associated to leaves, fruits, roots and rhizospheric soils of different New Caledonian metallophytes: *Psychotria* sp. and *Geissos* sp. Two approaches were chosen: culture independent and culture dependent methods. With the first approach (namely metabarcoding), we aim to identify and compare all microorganisms present in plants displaying different adaptive behaviours. Then, with the second approach, we aim to isolate cultivable microorganisms presenting interesting characteristics (plant growth promoting effects, metal resistance...) with the goal of using them (or their bioproducts) in the elaboration of biofilters (to reduce metal/loids contaminants in water, as well as in the environment).

**Dos Santos, Lauriane I,2,3**

*1 : Maison des sciences de l'Homme du Pacifique*

*2 : Université de la Polynésie Française*

*3 : Sociétés Traditionnelles et Contemporaines en Océanie*

### ***Rethinking the institutions in a Postcolonial Context: Synthesis and Perspectives from Francophone and Anglophone Research on the Pacific Islands***

Mainly used in the Social Sciences and particularly in Literature, the term "postcolonial" has only recently entered the field of Social Sciences. This paper is based on a pioneering analysis of recent scientific productions on postcolonial contexts in the Pacific Islands in sociology and anthropology. Based on a synthesis that presents and problematizes the state of the art in French- and English-speaking science, the aim is to propose a typology of the different ways in which sociologists and anthropologists have thought about, defined and worked on the "postcolonial" in the Pacific. What types of surveys and methodologies have been mobilized? What research objects and institutions have been associated with this term? And what are the main contributions and blind spots of the existing works? The methodology used to develop this paper will be based, first, on the construction of a textual database from a systematic review of recent scientific contributions in the field, and then, on a second time, on an analysis of these texts, using lexicometric techniques. This approach will enable us to propose a paper whose analysis crosses qualitative and quantitative data.

**Dotte, Anne-Laure I**

*1 : Université de la Nouvelle-Calédonie*

**Special Session: *Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century.***

### ***Establishing linguistic norms: criteria of orthography standardization and representations (New-Caledonia)***

This talk is part of the Panel Exploring our sea of languages : challenges for Pacific linguistic diversity in the 21st century. It aims at questioning the conditions of appropriation and spread of orthographic norms for autochthonous languages recently written. From the processes of lexis orthography standardization (one of the Kanak languages of New Caledonia, Loyalty Islands, Uvea) and the critical analysis of a teachers training session

In a complementary perspective with Coraline Pradeau's paper, we propose to combine our field experiences with Kanak language teachers in Ouvéa (Loyalty Islands, New-Caledonia/NC) and institutions in charge of linguistic and educational issues in NC. In particular, we will focus on the issues surrounding the standardization of "oral tradition" languages and the resulting problems for educational stakeholders (Académie des langues kanak, 2020; Costa, 2021; Jones & Mooney, 2017; Sam, 2009; Shah, Sheena & Brenzinger, 2021; Verraudon, 2009). While the promotion of indigenous languages is more than ever a hot topic (i.e. UNESCO's International Decade of Indigenous Languages 2022-2032), what are the conditions for a consensus to establish linguistic standards? Are they recognized by the concerned speakers and stakeholders? How are they transmitted? Finally, how do speakers acquire these standards?

Our analyses are based on a critical observation of a Kanak language teacher training (laif/agauev), on questionnaires and interviews with teachers and institutional stakeholders. We intend to understand the political, institutional and social dynamics at work in the process of legitimizing minority languages in NC, and to open the discussion to other Pacific contexts.

**Dotte, Anne-Laure I,2; Pradeau, Coraline I,2**

*1 : Mobilifés, cRéation, Langues et idéologies en Océanie*

*2 : Université de la Nouvelle-Calédonie*

**Special Session: *Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century.***

### ***Exploring this sea of languages: challenges for Pacific linguistic diversity in the 21st century***

This panel aims at bringing together communications from researchers interested in linguistic issues in our Pacific contemporary societies. In 2022, UNESCO launched the International Decade of Indigenous Languages, wishing to mobilize on the urgency of promoting and preserving global glottodiversity (UNESCO, 2022). In this context, what actions are deployed in favor of the Pacific linguistic diversity, both by political spheres by academic circles and by social actors?

We would like here to combine topics, contexts and research methods. This panel is widely open to questions of description, translation, revitalization, representations and linguistic ideologies. This panel is widely open to questions of description, translation, revitalization, representations and linguistic ideologies, to studies questioning the links between languages and cultures, and to research promoting plurilingual education, focusing on the Pacific Islands.

The following questions constitute the heart of this meeting space, without being exhaustive:

- What are the challenges of tools' creation for minoritized/minority languages and for their transmission?
- What training for teachers of these languages? What innovative pedagogical postures and practices?
- What implications on the part of institutional, political, associative, educational, artistic actors and or even speakers themselves?
- How to promote the languages and cultures of the Pacific to guarantee them a sustainable future?
- What successes, what pitfalls emerge from language revitalization initiatives?
- What projects are emerging in the Pacific Islands to meet the challenge of sustainable linguistic diversity?

**Duhemel, Marie-France I**

*1 : The University of the South Pacific*

**Special Session: *Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century.***

### ***Challenges for linguistic diversity in the Pacific: the large indigenous languages of Vanuatu***

Language loss in Vanuatu has been attributed to speech communities shifting to Bislama, but the social factors that have led to the existence of large vernacular languages in the archipelago remains to be investigated. The increasing urbanisation of islanders, and access to technology, were reported to be important factors in the shift from vernacular languages to the lingua franca of Vanuatu (e.g., Vandepitte Tavo, 2011). In this paper, I discuss the need to consider the handful of Vanuatu indigenous languages who dominate the current linguistic map of Vanuatu, by size of their speech community, with a total number of speakers representing about 40% of the population of Vanuatu. In rural Vanuatu, we need to take a step back from the claim that Bislama is the language posing the main threat to Vanuatu linguistic diversity, as previously observed by Crowley (1995, 2000). To illustrate my point, I will report on the specificity of the large speech community of Raga (6,500 speakers) known to have gained speakers from at least one linguistic variety, Lokkasa, in its southern boundary.

***Shoreline monitoring and management: a participatory approach and raising awareness of climate change among Pacific Islanders***

For as long as shoreline evolution has been measured accurately, the observed trend has been retreating coastlines. According to Bird (1987), almost 70% of the world's sandy coasts are now eroding. This is verified for the low-lying atolls and islands of the Pacific region, which are more exposed to the risks of coastal erosion and marine submersion. This paper will present an ongoing research project aimed at defining coastline monitoring in order to foresee its future evolution. The aim is to set up an idea for a coastline observatory with some of PURNI's partners (University of New Caledonia, University of French Polynesia and National University of Vanuatu) during this first phase, and then eventually on a network-wide scale. We will identify, analyze and characterize the hazards and their dynamics that affect the coast to acquire knowledge of coastline monitoring in order to better measure the current changes in the management and protection of coastlines and low-lying islands. In addition to the analysis and understanding of contemporary morpho-sedimentary dynamics, this action will implement a participatory shoreline monitoring. This will involve managers, decision-makers and the local population (especially school children) to take measurements. Eventually, this monitoring data could form a genuine participatory shoreline observatory to measure shoreline evolutionary trends in response to climate change.

**Earl, Eleanor I; Johnson, Fiona I; Marshall, Lucy Z; Sanderson, David I**

1 : University of New South Wales

2 : Macquarie University

***Natural flood management in the Pacific Islands – a novel spatial prioritisation methodology***

In the past two decades, floods have been the second most frequently occurring disaster in Pacific Island Countries and Territories (PICTs), comprising almost one-fifth of all disasters in the region and affecting more than 570,000 lives (EM-DAT & CRED/UCLouvain, 2023). Nature-based solutions have been suggested as a way of helping protect communities from flooding whilst also leading to benefits in social, economic, and environmental systems. A recent comprehensive review of current approaches to Natural Flood Management (NFM) in the PICTs identified a lack of numerical methods suitable for establishing optimal NFM sites in catchments, known as spatial prioritisation (Earl et al., 2023). Meanwhile, there is generally poor availability of long-term environmental data, including hydrological records, in the PICTs (Gheuens et al., 2019; Methner et al., 2021). In response we have developed a novel approach to spatially prioritise NFM to provide the greatest flood mitigation benefits. Our research has identified key research areas to further improve decision-making. The results could enable communities to better implement and adaptively manage NFM in PICT catchments. This would complement existing decision-making approaches and help communities respond and adapt to increasing flood risk due to climate change and other anthropogenic pressures.

**Elder, Josiah I; Manueta, Sam I; Wong, Evangelene Z; Kokaua, Jesse Z**

1 : The University of Auckland

2 : Te Mārae Ora Cook Islands Ministry of Health

3 : University of Otago

***Special Session: Mental Health in the Cook Islands******The association between anxiety and alcohol use moderated by gender in the Cook Islands***

This project uses data from Te 'Akiata Mātama to describe if the relationship between anxious symptoms and harmful alcohol use differs based on gender in the Cook Islands.

A moderated regression was performed to test the interaction between reports of anxious symptoms as indexed by GAD-7 and a binary gender variable (Male, Female/Diverse), on reports of alcohol use using AUDIT.

Higher GAD-7 scores were associated with higher AUDIT scores ( $B = .59, p < .001$ ) and Female/Diverse reported lower AUDIT scores than Males ( $B = 3.48, p < .001$ ). The interaction between GAD-7 and Gender was significant. Simple slope analyses show for Female and Diverse, higher GAD-7 scores were associated with higher AUDIT scores (slope = .36,  $p < .001$ ). For males, AUDIT scores were higher overall, and higher GAD-7 scores were associated with higher AUDIT scores, which was stronger than Female and Diverse (slope = .59,  $p < .001$ ).

This analysis shows reports of anxious symptoms were associated with greater reports for alcohol consumption for both gender groups, however this association was higher and stronger for males. Future research may explore how Cook Island populations engage with alcohol in relation to their mental health, with an additional focus on men who may be experiencing anxiety. Understanding this relationship may help facilitate reductions in problematic alcohol consumption and effective coping strategies for anxiety.

**Ezeilo, Eugene I; Joy-Jarvis, Thea Z; Gorea, Henry Z; Daniel, Kirilime Z**

1 : Papua New Guinea National Research Institute

2 : ChildFund, Papua New Guinea

***Strategy for strengthening interventions to family violence using helplines in Papua New Guinea***

Services provided by helplines contribute to health and social care by directly responding to issues such as gender-based violence (GBV) and violence against children (VAC). However, the little scope for users' feedback or follow-up of impacts make assessment of the effectiveness of helplines problematic. This paper reports on several studies that focus on the accessibility of helplines to different user groups and strategy relevant to helplines for strengthening interventions to family violence. Systematic literature review was used to examine the literature on the subject from 2000 to June 2022 and was analysed using content analysis. The results show that in general, women and young people access helplines more than men for GBV support. The effectiveness of counselling can be improved by focusing on a single problem at a time, adapting to the pace of callers and creating a supportive environment that provides the caller with emotional safety. All papers that originated from Papua New Guinea (PNG) focused on response to different types of violence and none focused on helplines and very few on GBV specialist services. The findings from this study will provide more understanding to Government, and Non-Government organisations focused on providing GBV and VAC services in PNG on how to strengthen the effectiveness of response using helplines. The findings also identify the need for more research to support evidence based programming and service delivery in PNG and the Pacific.



**Easi, John I; Kereseke, Jimmy; Mauli, Seno; Wasi, Franklyn; Alinuu, Jocane**  
1 : *Solomon Islands National University*

## ***What was the deal? - challenges for conservation work in Solomon Islands conservation***

Solomon Islands is part of the East Melanesian Biodiversity Hotspot being one of the world's most geographically complex and biologically diverse groupings of oceanic islands. Additionally, the islands are blessed with rich marine and terrestrial resources which forms part of the food security for many of the rural people of Solomon Islands. However, these rich resources have over the years declined. Therefore, a need to come up with a comprehensive and inclusive plan to protect these resources is important. Between May and October 2021, we conducted a survey to develop a produc. for a GEF 7 project titled, "Safeguarding Solomon Islands endemic and globally threatened biodiversity and ecosystem services from key threats, particularly invasive alien species and unsustainable land use practices (SAFE Project)". This project covers four provincial regions in the Solomon Islands. The project identified a number of ecosystems within these regions which we held discussions with the communities on ideas to develop, i. enabling framework for safeguarding biodiversity, combating land degradation, ii. comprehensive risk management approach to address IAS threats to biodiversity and land degradation and iii. community-based integrated ecosystem management and threat reduction at landscape scale. While there is a tendency to accommodate new ideas based on inclusiveness to protect and manage their resources, there were some reservations based on past-experience. This paper discusses the challenges faced by communities in Solomon Islands to outside initiatives to protect and manage their resources and propose approaches that could be used.

**Fitoo, Billy I**

1 : *The University of the South Pacific*

## ***Identifying connectedness for nation building in the Solomon Islands***

This paper discusses issues and challenges to identify for national building in the Solomon Islands. It focuses on cultural and indigenous identity and the identity based on democratic rights under the rule of law. It captures tensions between cultural identity and the privileging of democratic identity under the citizenship education (CE) programmes in the Solomon Islands. The CE programmes in the Solomon Islands have emphasises democratic values based on legal status and other set of rights, duties and identities in an attempt to link the citizen to the nation-state. However, this as found is un-contextual and irrelevant to peoples indigenous cultures. Pacific Island academics see it as global influences only for the internalization of education and a trend to push towards civic and human rights education under the banner of citizenship education (Thaman 2004). The discussions reveal varying mismatches between the cultural or indigenous values with democratic values and its effects on nation building. It further highlights constraints of the current CE programmes and also provides recommendations on new initiatives, approaches and directions to advance nation building. The paper suggests for equal promotion of cultural and democratic values together and a re-visioning of citizenship education to include both introduced and indigenous values in order to develop citizens of the 21st century.

**Fonoti, Dionne I; Nivaluga-Schmidt, Aigausosocoumaindounouac; Melotau, Lefolafoga**

1 : *National University of Samoa*

*Special Session: Getting Digital Cultural Materials Back to their Pacific Homes*

## ***“Talofoa e, e pei o se fale pupu”: reflections on the ‘Measina Show & Tell Workshops’***

On Saturday, September 24th, 2022, members of the National University of Samoa (NUS) Centre for Samoan Studies (CSS) staff gathered for the first of six online 'Measina[1] Show & Tell Workshops', an introductory session highlighting a selection of Samoan measina from Ureare Museum Bremen's (UM) Oceanic Collection. The highly anticipated Zoom session, hosted by Ureare's Samoan curatorial staff[2], marked the official beginning on the NUS-UM collaboration. First on the agenda was a tour of one of the museum store rooms and as the facilitators guided the audience through the space, the camera pulled back revealing floor-to-ceiling shelves loaded with cultural artifacts. The audience in Apia, many of whom had never visited a museum store room, watched in stunned silence, only broken by someone[3] quietly proclaiming, "Talofoa e, e pei o se fale pupu!" in English, "Oh dear, it looks like a prison".

While the six 'Measina Show & Tell Workshops' were completed and deemed a success, meeting the project and institutional objectives of both UM and NUS, the sentiment expressed on the first day consistently pervaded each subsequent session. This paper and presentation will reflect on this instance, and other similar reactions expressed by participants over the course of the workshops.

We believe that comments such as these belie a 'local' Samoan response that accompanies the experience of seeing objects of material wealth held in the custody of foreign institutions, as if in a prison. We suggest that these seemingly innocuous comments must be considered in how museums seek to interact with indigenous communities as the trend in repatriation grows globally, particularly in the Pacific region.

**Fortin Cornejo, Moira I**  
1 : *University of Otago*

## ***Between local expectations, touristic demands and virtual communities: change and resilience at the annual cultural festival Tapati Rapa Nui***

This presentation reflects on the changes the annual cultural festival Tapati Rapa Nui has endured over the 55 consecutive years it has been organized. This festival was introduced to Rapa Nui in 1968, as an extension of the Chilean Spring Festival, which later in 1985 was transformed into a more pertinent festival regarding the Rapa Nui reality. Using a multilingual approach, participant observation and talanoa, I argue that Tapati has been an absolute success for the Rapa Nui community. One of the main functions of Tapati is associated with the tourist industry, which is the main source of income for the Rapa Nui community. However, the emphasis placed on the tourist industry has left members of the Rapa Nui community questioning whether Tapati is for locals or tourists. Above all, Tapati is a venue where the Rapa Nui community comes together to celebrate their customs through collaborative work, reinforcing familial relationships. 2021 and 2022 saw the celebration of Tapati during lockdown, due to the Covid-19 pandemic. Over the last decade Tapati has increased its digital presence which, overtime has resulted in a change in the ways the community interacts with Tapati, generating low community participation. If, historically, Tapati has been a venue for the expression of Rapa Nui culture and identity, how may Tapati look in the future??? What is the Rapa Nui identity in the twenty-first century? What forms of communication do the Rapa Nui community value today? Perhaps it would be worth revisiting the main objectives of Tapati and assess whether they are still up to date or if they need to change to suit new challenges & more modern forms of communication.

**Fotsing, Jean-Marie I; Galy, Oliver I**

1 : *Université de la Nouvelle Calédonie*

## ***Family farming lifestyle and health: mid-term activities and outlook for 2024 and 2025***

Family farming, lifestyle and health (FALAH) is a multidisciplinary project focused mainly on family farming, food in the Pacific Islands. The goal of this project is to promote and revitalise family agriculture to improve the health of Pacific populations and ensure food security in the context of rapid social and economic transformations and climate change, which effects are particularly harmful to Pacific islands. This communication proposes to present activities of FALAH project halfway through this scientific program built with the help of the PURN network. We will first present a reminder of the stages in the construction of partnerships, the content of the project and the teams. Then, we will present the progress of scientific and field activities as well as the main methodological advances and the first results through the mobilization of partners in the various research fields. Finally, the scientific events that marked these 24 months of scientific activities as well as the prospects for the coming years 2024 and 2025.

**Franklin, Erik I**  
1 : *University of Hawai'i*

## ***Sex and death in the ocean: a fish tale***

Fisheries are the lifeblood of Pacific Island cultures and livelihoods. The availability of fresh, local seafood is a critical element of food security and conveys a strong sense of identity for fishers through the capture, sharing, and consumption of fish. Before being caught, each fish lives a secret, elusive life that we contemplate but don't fully know. Through a series of short vignettes, the talk will highlight recent and ongoing scientific projects throughout the tropical Pacific that examine the reproduction of fishes and connectivity of island fish populations, how these approaches can be used to inform the sustainable practices for fishers, and an effort to develop a regional network of food innovation to enhance local food production and minimize the reliance of food imports. These examples will demonstrate that a successful transformation in fisheries sustainability rests in the synthesis of indigenous innovation, active community management, and practical scientific technologies to ensure abundant seafood for all.

## **Futter-Puati, Debili**

1 : *The University of the South Pacific*

### ***Pito'enua: a Cook Islands model of health and wellbeing***

The use of medical and scientific models has customarily been the lens through which health research has been undertaken in the Pacific. This paper discusses a project that took place in the Cook Islands to develop a culturally appropriate model of health rather than use models developed for other countries. Consultation was undertaken across the country with findings used to understand Cook Islands indigenous views related to health and wellbeing. The findings offer Cook Islands understandings of health and wellbeing which culminated in the design of a model and metaphor to represent these understandings known as Pito'enua. The process used to develop Pito'enua facilitated a conduit to gather multiple understandings of the realities Cook Islanders experience in terms of their health and wellbeing and the model facilitates an opportunity for culturally appropriate ways to plan and develop health related intervention

## **Geneix-Rabault, Stéphanie 1,2**

1 : *Université de la Nouvelle Calédonie*

2 : *Mobilités, création, Langues et Idéologies en Océanie*

*Special Session: Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century*

### ***Whātikī: plurilingual podcast to accept and promote Oceanian knowledge (New Caledonia)***

My communication proposes to come back to a training experience carried out in 2022 within the Department of Letters, Languages, Human and Social Sciences (LLSH) at the University of New Caledonia (UNO). This is part of a course called Research & Mediation which concerns 3rd year students who are mainly speakers of Oceanian language(s). To validate their training, the students had to produce plurilingual radio chronicles on Pacific Island literacies knowledge (Colombel-Teuira & al. 2016), in particular on community fishing techniques and practices: Throughout the semester, this training was coupled with support from professionals and regular meetings with various social actors to support them in the production of their work. My purpose will be to present the approach (objectives, methods of organization and validation, productions). It will also aim to discuss the lines of force and the limits of this collective and collaborative formative experience in favor of the linguistic and cultural diversities of/in New Caledonia (UNESCO, 2022).

## **Gibbs, Philip 1**

1 : *Divine Word University*

### ***Social perspectives compared in four Papua New Guinea communities***

A research team from Divine Word University, over the past two years, carried out pilot studies on social perspectives in four Papua New Guinea (PNG) communities. The communities were geographically dissimilar. One community was a very isolated community (Ambulua) in Jiwaka Province in the Highlands.

A second highlands community (Sinsisba) had good road access nearer the town of Mount Hagen. A third community (Dimir) was a coastal community in the hills of the Madang Province. A fourth was an Island community (Manam) off the north coast of Madang Province.

Four broad themes structured the objectives of research: i. Marginalization and exclusion, ii. Influence of modernization on culture and traditions, iii. Violence in the community and families, iv. Intergenerational conflict. The same research methods (semi-structured interviews, focus group discussions, children's activities, questionnaires and close-ended questionnaires) were used in all four communities. Funding came from a children's fund (DKA) in Austria, so there was a particular interest in the experience of children and young people.

This paper will compare the similarities and differences in the findings for the four themes mentioned above across the four communities. The objective is to bring to light perspectives on common social issues in contemporary PNG.

## **Glasgow, All 1**

1 : *Victoria University of Wellington*

### ***Ko toku reo ko toku ia māmā: my language is my identity: education for the people of the Pacific***

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Kia orana, Ko All Glasgow taku ingoa. I am a trained registered teacher, first generation Aotearoa born Cook Islander. Currently I am a senior lecturer at Te Herenga Waka Victoria University of Wellington, in Aotearoa. During the mid-2000's I worked in the Cook Islands Ministry of Education Curriculum Advisory Unit working with a team of teachers to develop Te Aoti Tamariki Pōitiki - The Cook Islands Early Childhood Education Curriculum, to inform culturally located teaching practice. My on-going research examines Pacific Education with an awareness that Western Education has been used as a colonising process; in the Cook Islands and across Pacific Nations.

In this seminar I draw from my research conducted with Pacific language nest communities on educational practices that enhance language, and culture, to support strong identity formation for Pacific learners. Findings reveal the key importance of language and cultural learning in the early years. In addition I refer to my recent research and discuss the ways in which Pacific values are integral to Pacific teachers practice and demonstrate culturally located and rich practice underpinned by a strong value base. Ultimately, my research reveals that Pacific language, culture and values are key to education of Pacific learners, whilst also provide a compelling counter narrative to historically Eurocentric education models that hitherto have pervaded education in the Pacific.

Kia riro te mekameka o to tatou reo e te au peu Tupuna ei tamepa tūrama no te uki ou e tu mai nei.

Let our beautiful language and culture be beacons guiding our children.

## **Glaus, Kerstin 1; Savoy, Rusla 1; Brunnschweiler, Juerg 2**

1 : *The University of the South Pacific*

2 : *Independent Researcher*

### ***The stingray is Plan B: characteristics of Fiji's small-scale ray fishery and its relevance to food security***

Elasmobranchs, including rays and sharks, are a vital component of Fiji's small-scale fishery (SSF). However, data on their catch is skewed towards sharks, leaving rays less understood. While market surveys provide valuable insights into species-specific catch numbers, sex, and age-classes, in-depth interviews with various actors are needed to characterize the fishery and to capture the relevance of rays to food security. Here, Fiji's primary fish market Suva was surveyed year-round, and 84 fishers and market vendors were interviewed in 30 coastal communities and fish markets. Among the 192 individual rays recorded in Suva, five species were identified: coral sea maskray (Neotrygon trigonoides), spotted eagle ray (Aetobatus ocellatus), pink whipray (Pateobatis fai), oceania fanrail ray (Traenimura lessona), and porcupine ray (Urogymnus asperimus). The highest catch levels were observed for the coral sea maskray and the spotted eagle ray, with the latter being classified as Vulnerable by the International Union for the Conservation of Nature. Visual identification of these species was confirmed via DNA barcoding of the Cytochrome Oxidase 1 (CO1) gene. Recorded data indicated that November and January exhibited the highest number of traded rays in Suva. Additionally, among the most frequently traded ray species, no evidence of sexual segregation was detected. Of the interviewees, 70.42 % caught rays mainly through spearing in reefs and coastal sandflats. Rays were considered a moderately important resource, yet particularly relevant to food security in a substitute for finfishes. Overall, these findings provided valuable baseline information for monitoring future changes in Fiji's small-scale ray fishery.

## **Gonschor, Lorenz 1,2**

1 : *Sociétés Traditionnelles et Contemporaines en Océanie*

2 : *The University of the South Pacific*

### ***Re-minding the “Sea of Islands” in the age of empire: The documentation of late 19th century Hawaiian and Tahitian resistance in the Rarotongan newspaper Te Toreā***

Critiquing earlier single-axis narratives of anti-colonial resistance in Oceania, Tracey Banivanua Mar has recently demonstrated the profound interconnections of decolonial movements from their very beginning. An important element in creating mutual awareness between Islanders resisting imperialism was the work of early native journalists. One such newspaperman with a particularly strong regional focus in his reporting was Henry Nicholas (Ngāti Hauā & Pākehā, 1843-1901) who settled in Rarotonga in the 1860s and edited the bilingual newspaper Te Toreā from 1895 to 1899. Particularly fascinating among the paper's content is its meticulous documentation of the anti-imperial resistance in Hawaii against the USA's local proxies (1895-1897) and on the islands of Rāiātea and Tahāa against the French (1895-1898). Yet the editor's own position was complex: Personally connected with Māori anticolonial resistance during the 1860s, Nicholas' later considered it inevitable for all of Oceania to fall under some sort of colonial override. Hence, while initially admiring the spirit of resistance of Rāiateans and Hawaiians, he ultimately recommended them to make a deal with their inevitably stronger invaders. This paper will provide a short overview of the newspaper and its editor, and then analyze its coverage of the struggles in Hawaii and Rāiātea, highlighting its role as a pioneer of indigenous regional journalism.



**Gosselin, Jim I**  
i: Cook Islands Government

### *The Cook Islands – a voyage to statehood*

The evolution of the Cook Islands' international status over the years may be likened to a lengthy voyage from a dependent territory of New Zealand to the status of statehood it currently enjoys. Since 1965, The Cook Islands has been steadily more active on the global stage, increasingly expanding its bilateral, regional and international relations. Those actions have been consistent with and reflect the fundamental political and legal tenets inherent in the free association relationship with New Zealand that the Cook Islands enjoys today. Key elements of that voyage will be highlighted, including selected seminal documents crystallising over time basic principles governing that relationship. Observations will also be offered on possible future course changes to the voyage.

**Havard, Léa I**

i: Université de la Nouvelle Calédonie

### *The 12th December 2021 self-determination referendum in New Caledonia: a missed opportunity*

The aim of this presentation is to analyze the 3rd referendum on self-determination held in New Caledonia on December 12th, 2021. This crucial electoral event was supposed to be the culmination of the decolonization process begun in 1998 with the signing of the Nouméa Agreement (l'Accord de Nouméa). So, did this election bring the decolonization of New Caledonia to a close? We will examine the conditions under which the election was organized and conducted, in order to rule on its legality. However, we will not be looking only at the law, as we will also be asking the question of the legitimacy of the outcome of this referendum. We will highlight that the results are nuanced. From a strictly legal point of view, New Caledonia has completed the decolonization process set in motion by the Nouméa Agreement, since the entire process appears to be legal. However, the December 12th, 2021 referendum lacks legitimacy, given the numerous challenges it has been the subject of, and the high abstention rate among the Kanak population, who were the first to be affected by the election's results. So, not only did the referendum of December 12th, 2021 fail to bring the decolonization issue to a close, it also revealed the existence of a society that is still very much divided.

**Hinge, Kevin Smith I**

i: National University of Vanuatu

### *Producing a knowledge-based economy through the space industry: a case of Vanuatu*

This study attempts to investigate the relationship between the space industry and the knowledge economy in Vanuatu. The objectives were to investigate how the space industry could produce the knowledge-based economy for Vanuatu. It also aimed to inform the wider Vanuatu community about the geopolitical and international opportunities and challenges of the industry.

The following themes emerged from the literature review: space awareness, space education, the new space age and the space industry and the knowledge economy in Vanuatu. These themes were used to articulate the relationship between the space industry and the knowledge economy in Vanuatu. Using a transformative paradigm, a qualitative research design was employed. Document analysis was used as the data collection instrument due to the Covid-19 pandemic restrictions. The study concluded that there is a relationship between the space industry and the knowledge economy. This industry demands very highly specialized professionals who could process information, knowledge, skills and expertise for production. The intellectual capital is the catalyst of this industry. Given the geographical realities of Vanuatu, the space industry could be leveraged for economic benefits and future employment opportunities.

As a pilot case, the findings inform recommendations for further research. The findings could also be used for dialogues between the state and commercial companies towards cultivating an entrepreneurial ecosystem to boost space-related startups in Vanuatu.

**Ho omanawenui, Ku'ulohoa I**

i: University of Hawai'i

### *Ho'opūpū, kilo, and kuleana: (re)discovering traditional Ōiwi Knowledge in mo'olelo*

The ocean is a key presence in Ōiwi (Native Hawaiian) and other Pacific literatures. More than just a backdrop for human interaction, it is a connecting pathway, a source of sustenance, a site of adventure and pleasure, an ancestor. How our people have conceptualized and composed stories and songs across millennia about our ocean is unique, encapsulating traditional ecological knowledge woven together with the beauty and elegance of our native poetics and aesthetics.

Utilizing Indigenous, decolonial methodologies, such as close examination of me'wi (culturally-based ethno-poetic rhetorical, literary, and poetic devices), in the analysis and interpretation of Hawaiian moolelo (literature), reveals a deeper, more culturally-centered understanding and appreciation of it, particularly for Ōiwi students, as it helps them see themselves represented in literature in a way they recognize or can connect to.

Hoop āp (a (intellectual contest of knowledge) is an important traditional Ōiwi practice meant to preserve and share traditional knowledge: kilo (keen observation) is a way to do so, and kuleana (responsibilities) is related to the cultural ethics of how one acts. These are key features of a traditional moolelo (narrative) of Pākāa and his son K'ūapākāa, who are part of the court who serve the ali (chief) Keawe in the 1700s. The important scenes of the moolelo occur primarily off shore on canoes, and immense oceanic environmental knowledge is required to engage in the hoop āp contests that occur. This presentation discusses the cultural perspectives the moolelo engages, and its relevant lessons for Ōiwi (and others) in our modern world.

**Hoare, Nicholas I**

i: Australian National University

### *Special Session: Archival Lives – perspectives on the collections of D S Marshall*

#### *D.S. Marshall in French Polynesia: crossing divides and dancefloors (1951–61)*

As one of the last physical anthropologists to undertake professional ethnographic research in Polynesia, Donald Stanley Marshall's career is an uncomfortable reminder of the discipline's origins in racial science. Charming, intelligent and astute in all sorts of ways, many of Marshall's insights on race, gender and sex nevertheless need cautious interpretation. As historical texts, his six unpublished Polynesian expedition journals (1951–61) are crying out for critical readings by Indigenous researchers in his main field sites of the Cook Islands and French Polynesia. While drawing attention to the value in his writing, I also wish to underline that the level of detail and candour provides an unparalleled glimpse into the life and mind of the mid-century field worker.

His large personality meant that Marshall was no mere fly-on-the-wall researcher, but an unmistakable physical presence, an event in himself – crowned at one point the 'best dancer' in Tahiti'. Hence, in this paper, instead of focusing on Marshall's observations about the physiology of Polynesians, I intend to invert the lens and examine the very physicality of Marshall himself as a researcher. How did he move about his field sites? With whom did he move about? What sort of impression did he make on his research participants? And, most importantly, how did he go about obtaining his information? I hope that such a focus on Marshall's methods might lead to discussions about the role of researchers today, particularly those outsiders like myself, who continue to study peoples or communities foreign to their own, documents provide an opportunity to apply an archival approach and reimpose some of the context that was lost.

**James, Karl I2**

i: Auckland University of Technology

i: Pacific Manuscripts Bureau; Australian National University

### *Special Session: Getting Digital Cultural Materials back to their Pacific Homes*

#### *Adapting an old model to new times on a shoestring*

The Pacific Manuscripts Bureau was established at the Australian National University in 1968 to make preservation copies of archives, manuscripts, photographs and rare printed materials, and to make those copies accessible to researchers through a network of sponsoring libraries. For more than five decades, the Bureau has travelled throughout the Pacific with portable reformating equipment - first microfilm, now digital - to copy collections in situ. Collection custodians keep the originals and a copy, and Pambu distributes copies to the sponsoring libraries.

Since its inception, Pambu has been funded by an international consortium of libraries. It operates on a tight budget with only one full-time member of staff. In the era of microfilm, the cost of joining the consortium was prohibitive for Pacific libraries. While the copying and distribution of microfilms made collection materials substantially more accessible for many researchers, access was difficult for most in the Pacific. The transition to digital delivery in 2014 made it possible to connect Pacific libraries using their existing ICT infrastructure at a fraction of the cost of delivering microfilms, resulting in three Pacific universities joining the consortium. In 2023, the Bureau has introduced further new categories of membership in an effort to expand access through more equitable fees based on organisation size, location and colonial status. This paper will discuss the opportunities of the digital turn, the benefits and quandaries of the consortium or subscription-based funding model, and the ongoing effort to balance this model with providing access to the people who need it.

## **James, Kari 1,2**

- 1: Auckland University of Technology; Pacific Manuscripts Bureau
- 2: Australian National University

Special Session: Archival Lives – perspectives on the collections of D S Marshall

### **Preservation and access: the papers of D.S. Marshall and others**

The Pacific Manuscripts Bureau (or Pambu) was established at the Australian National University in 1968 to make preservation copies of archives, manuscripts, photographs and rare printed materials, and to make those copies accessible to researchers through a network of sponsoring libraries. For more than five decades, the Bureau has been travelling to the Pacific Islands with portable reformating equipment - first microfilm, now digital - to copy collections in situ. In 2009, the Director of the University of the South Pacific Cook Islands Campus, Rod Dixon, invited the Bureau to Rarotonga to microfilm the papers of anthropologist Donald Stanley Marshall, which had recently been donated to the campus by Marshall's daughter. The result was 8,500 pages of Marshall's text and images preserved on microfilm.

Microfilming these papers made them substantially more accessible than before. From the Marshall family home in America, to a university campus in Rarotonga, to the shelves of Pambu's eleven sponsoring libraries in Australia, New Zealand, Hawaii and mainland America. These microfilms have now been digitised and Pambu is working with USP Cook Islands Campus Library to make these digitised pages accessible to students and researchers in Pambu's thirteen member libraries, including in thirteen Pacific Island countries. For Pambu, digitisation has created great opportunities, especially to improve access to collections for Pacific communities that just was not possible with microfilm, but it has also created challenges for a small, non-profit organisation seeking to adapt to rapidly changing technology and a rapidly changing world.

Using the example of the D.S. Marshall Archive, this paper will reflect on how Pambu is responding to these challenges.

## **James, Kari 1,2; Hoare, Nicolas 2; Parima, Vain-Tutai 3; Low, Andrea 4**

- 1: Pacific Manuscripts Bureau
- 2: Australian National University
- 3: The University of the South Pacific
- 4: Tāmaki Paenga Hira Auckland War Memorial Museum

Special Session: Archival Lives – perspectives on the collections of D S Marshall

### **The Archives of Donald Stanley Marshall**

Donald Stanley Marshall was an American anthropologist and photographer. He made twelve expeditions to Polynesia in the period 1951 – 2004, researching and documenting genealogies, customs, sexual behaviour and linguistics. These research expeditions generated journals, photographs, research notes and collections of objects and artefacts. The Marshall family has donated these materials to museums and universities in Hawaii, New England, Aotearoa New Zealand and Cook Islands. This panel will bring together researchers and collections professionals using Marshall's work to tell Polynesian histories and to preserve and share knowledge in ways that seek to be collaborative rather than extractive.

## **James, Kari 1; Reea, Taputukura 2; Thieberger, Nick 3; Fonoti, Dionne 4; Latofotoga, Malotau 4;**

- 1: Pacific Manuscripts Bureau, Australian National University
- 2: Digital Pasifika, National Library of New Zealand
- 3: University of Melbourne
- 4: National University of Samoa
- 5: Université de la Polynésie Française
- 6: University of Hawaii
- 7: Cook Islands National Library

Special Session: Getting Digital Cultural Materials back to their Pacific Homes

### **Panel: Getting digital cultural materials back to their Pacific homes**

Session themes:

- Finding cultural materials
- Improving catalogues and cataloguing
- Digitising materials and digital infrastructure
- Permissions and licences
- Current models

## **Jonassen, Jon 1**

- 1: Brigham Young University

### **Tikanga Māori**

In many ways, when it comes to identity, the Sea of Islands or Islands of the Sea debate falls into a typical Westernised model of analysis, where attempts at fitting within the conceptual box results in the direct loss of traditional basket perspectives and ancient Moana Nui A Kiva methodologies. Examples of which can have devastating impacts on Pacific identity as it fails to recognise the mana of the people.

In Awaiki Manawanui Māori korero or oral traditions, the sea is never spoken formally in separation from the land or the skies (heavens). Instead, they remain as one and are uttered together in ancient chants.

From a Māori traditional perspective, it is not a question of whether it is a sea of islands or islands of the sea. As it is not the sea that connects or disconnects. Nor is it the land or the skies that create such a connection. Rather, it is the genealogy that connects — it is the people that connect and the people who are at the core of identity. The sea, land, and sky are all part of that same genealogy. We are not only the ocean, but rather, we are the ocean, the land, the skies and all in between. All of which is reflected within its people. It is the genealogy that transcends all, even in death, time and space. I will make the case that placing things into boxes is a Western analytical tool that is alien to my identity. Its very use continually undermines my identity and my Tikanga Māori. The sea is an open and ever flowing reality, so is the skies, and the lands and the worlds in between. Transcending all forms of insularity will only work if my identity is not the victim.

- 1: University of Canterbury
- Jones, Kay-Lee 1; Te Rongopatahi, Kari Moana; Hohala, Jody; Cowie, Rahera; Clarke, Awhi; Hewett, Makoyia**

Special Session: Mātauranga Māori – Reclamation, Reconnection and Re-indigenisation in Teacher Education

### **Mātauranga Māori: reclamation, reconnection and re-indigenisation in teacher education**

Whaowhia te keke mātauranga, fill the basket of knowledge.

This year has seen the establishment of a new Mātauranga Māori teaching qualification at the University of Canterbury. The establishment of a Mātauranga Māori initial teacher education programme in Te Waiounamu[1] that prioritises indigenous Māori knowledges, kaupapa Māori perspectives, and Māori language and culture is necessary and overdue. Our New Zealand education system post-colonisation was founded on assimilationist policies and systemic eradication of indigenous knowledges. We are now in a transformative space, ready to shift the education system, to shift hearts and minds with empowerment, celebrating and reclaiming knowledge that stems from our lands and our waters. We have a critical need to increase the number of quality te reo Māori speaking teachers in New Zealand and to increase the number of teachers of Māori ancestry, our Mātauranga Māori programme aims to support this. Please join our Mātauranga Māori Kura Whakangungu Kaiako (initial Teacher Education) teaching team from Te Whare Wānanga o Waitaha, as we share some insights, highlights, new learnings and challenges of establishing a new Mātauranga Māori teaching qualification. A teaching programme to promote reclamation, reconnection and re-indigenisation.

## **Jones, Kaysey 1; Manuela, Sam 1; Wong, Evangeline 2; Kakaia, Jesse 3**

- 1: The University of Auckland
- 2: Te Mārae Ora Cook Islands Ministry of Health
- 3: University of Otago

Special Session: Mental Health in the Cook Islands

### **The influence of Covid-19 on mental health and wellbeing in the Cook Islands**



This analysis uses data from Te Ākiriāta Mārama to describe differences in anxiety, depression, and distress symptoms, and wellbeing on self-reports of the Covid-19 pandemic impacting on mental health.

A series of MANCOVAs were performed to test for differences in scores across measures of anxious symptoms (GAD-7), depressive symptoms (PHQ-8), general distress (K-10), and wellbeing (PWI) across those that reported that Covid-19 has a negative impact on their mental health (Yes or No). Further analyses on those that reported 'Yes' explore the self-reported extent to which Covid-19 has had an impact on their mental health and wellbeing.

The impacts of the Covid-19 pandemic have caused a range of stressors across the Cook Islands, though it is important to note that the impacts are not uniform. These findings show that on average, Cook Islands populations are observant and self-aware of the impacts that Covid-19 has had on their mental health and wellbeing. Future events that may cause significant disruption to life should follow similar approaches to supporting mental health.

**Joseph, Drollet 1; Trask, Suzanne 1; Vickers, Mark 1; Bay, Jacquie 1**

1 : *The University of Auckland*

2 : *Araura College, Ministry of Education, Cook Islands*

### *Physical Activity: Perspectives from Cook Islands adolescents*

The Cook Islands is burdened with high levels of non-communicable diseases (NCDs) associated with multi-generational nutritional and non-nutritional environmental exposures. Health-promoting behaviours established during adolescence can contribute to reduced NCD risk and incidence in current and future generations. Physical activity (PA) is one important area of focus. This study examined attitudes to, perceptions of, and participation in physical activity in students aged 10 – 15 at Araura College, Atutaki. Parents and community leaders are known to influence young people's physical activity levels; thus, their perspectives were included.

A mixed methods approach informed by the Triaxae framework was applied. Data collection from adolescent participants involved questionnaires (n=41), focus groups (n=43), accelerometry (n=40) and perspectives of the PA environment explored via application of photovoice within curriculum-linked learning. Parents and community leaders were interviewed (n=9). Stakeholder sense-making was conducted at the conclusion of the study.

Adolescents demonstrated variable knowledge of PA but consistent awareness of associations between PA and health. Barriers to PA identified by adolescents included technology, climatic factors, negative feedback, conflicting commitments, and anxiety. Enablers included peer and family support, organised sports programmes, and a sense of enjoyment. Adults additionally identified barriers associated with resourcing. All participating adolescents met and exceeded the recommended age-appropriate step-count, but none met recommended levels for moderate to vigorous PA. There were notable discrepancies between adolescents' self-reported or perceived and actual PA.

Integration of exploration of perspectives and measures of PA into classroom learning supported adolescents to examine and critique their PA environment. Non-generalisable evidence demonstrates good essential PA but a need to encourage more moderate to vigorous PA in adolescents within this community. These methods could stimulate discussion of and action towards promoting adolescent PA within and between communities in the Cook Islands.

**Katarawa, Rusina 1**

1 : *Fulton Adventist University College*

### *The pursuit of accountability in Fiji's charity sector*

Given the significance of the charitable sector, particularly in developing economies, stakeholders have an increasing demand for accountability and transparency. Much research has been carried out in developed economies. However, there is scant literature pertaining to accountability practices in South Pacific Island economies (SPIES). Based on stakeholder theory drawing on prior research and recommendations regarding accountability practices, an index was developed to assess the quality and extent of financial and non-financial disclosure within Fiji's charitable sector. Using content analysis, this paper focuses on the disclosure of financial and non-financial information after an amendment was made to the Fiji Charitable Act 1945 during the pandemic. The results indicate that Fiji charities' disclosure practices place more weight on the managerial branch rather than the ethical branch of stakeholder theory. In addition, the findings suggest that the Fiji charities are not disclosing enough regarding the manner and extent of accountability practices. This study provides insights into the discourse of accountability practices and calls for a collaborative review of the regulatory efforts aimed at improving the quality and scope of disclosures.

**Kakarere, Minetta Daniel 1**

1 : *The University of Papua New Guinea*

### *Factors that instigate intimate partner violence in the national capital district of Port Moresby, Papua New Guinea*

The implications related to Gender Based Violence (GBV) especially Intimate Partner Violence (IPV) is a serious security concern in Papua New Guinea as it is affecting a lot of women, children and also men. The study aimed to identify determinants of Intimate Partner Violence in the National Capital District (NCD) of the year 2020. The common one being extra marital affairs. Using document analysis, this study analysed IPV case registries maintained by the Police Family and sexual violence unit in Port Moresby. Most victims were young adult females between the age of 19-29 and were unemployed. Most of them experienced physical form of abuse and sustained swollen faces, bruised eyes, and severe injuries from their partners. Most perpetrators were young adult men and were employed at the time of the abuse. The study revealed that younger people tend to commit IPV than middle aged people. The study also showed that the FSVU being the first organisation that IPV victims go to for assistance, also face many challenges. However, this does not stop the police officers from assisting the victims whole heartedly. From the study, 80% of the complainants that come to the police stations are all domestic violence cases. There are however complex challenges involved when trying to address this issue, especially in a multi-cultural society like PNG that still holds on to its traditions and cultural practices of resolving an issue.

**Keke, Jaded 1**

1 : *Auckland University of Technology*

### *Te reo hoahoanga*

E rua ngā pātai e whakamātau ai au ki te timata ki te whakautu - i te utatahi, he aha ngā mātāuranga tawhito i poupoua ai i te reo Māori, ka whai akoranga pea mō te mahi hoahoanga ināianei? Mā te tātari o ngā kupu Māori, ngā kupu whakarite, ngā tauapatara, ngā karakia, ngā waiata, ngā haka, ngā pūrākau Māori, he aha ngā ako e tā ai ki te hoahoa (ki te whakatu rānei) o ngā whare o nāianei? I te tuarua, he aha ētahi ako e akohia ai mai i te whakamāori o ngā kupu o te ahumahi hoahoanga Pākehā, ā, e pānori o ēnei whakaaro me ngā huarahi mahi ki te reo Māori? Ka pēhea te whakamahi i ngā hua i te whakawhanaketanga o te whakaako o te mahi hoahoanga i te reo Māori? I tua ata i tērā, ka taea anō te whakamahi i ētahi o ēnei ako ki ētahi horopaki i Te Moananui-a-Kiwa? Kāhore te rangahau kua mutu, heoi ko te whāinga o tēnei tono, ki te timata ki te wānanga e pā ana ki te tīkanga rangahau i whakatakoto ai.

There are two questions that I will try to begin to answer - firstly, what ancestral knowledges are embedded in the Māori language that can provide lessons for the practice of architecture today? Through the analysis of Māori words, proverbs, chants, prayers, songs, haka (ceremonial chant and dance), Māori stories, what lessons can be learned in the design (or construction) of today's buildings? Secondly, what lessons can be learned from the translation of the words of the (European derived) architecture industry, and the transformation of these ideas and ways of working into the Māori language? How can these lessons be applied to the development of architectural education in te reo Māori? Furthermore, can some of these lessons be applied to other contexts in the Pacific? This research has not concluded; however, the purpose of this submission is to begin dialogue and construction conversations regarding the proposed research method.

**Kale, Timothy 1; Ohzahata, Satoshi 2; Wu, Ceilmuge 2**

1 : *Solomon Islands National University*

2 : *The University of Electro-Communications*

### *Developing smart classifier algorithms to improve accuracy of meteorological weather prediction in Solomon Islands*

In today's world, climate change is a serious real problem affecting the small reef islands countries like Solomon Islands and other small countries located in the Pacific Ocean. This is a real threat faced daily by the low-lying islands at an alarming rate and the need to develop smart sequential classifier algorithms to accurately predict the weather is important. Our research focused on meteorological weather prediction of Solomon Islands and we developed the smart machine learning models that make use of the historical data to train the models and used binary classification as a process of classifier algorithm to predict the weather whose accuracy is better than the traditional models. The evaluation of the models on the basis of accuracy shows that our models outperform the traditional models and can be used as a technique to predict the weather in a smarter way and in less time.

## *Is it all doom and gloom? Exploring the climate, gender, conflict, natural resource management nexus in Papua New Guinea*

Climate change is recognised as an aggravating factor that increases risk to conflict that weakens socioeconomic development where state fragility and high levels of gender inequality exist. Despite the recognition of inextricable linkages between gender, climate, conflict, these relationships remain complex and require further knowledge development, particularly for Papua New Guinea.

This paper presents a first assessment of the gender, climate, conflict, nexus in the Highlands Region of Papua New Guinea, prone to natural hazards, disasters, high levels of intergroup conflict, and deeply embedded cultural views and practices that exclude the participation of women.

The assessment was conducted using open ended and behavior-based interview questions, community focus-group discussions and observations within target communities in Southern Highlands and Hela Provinces.

The assessment identified that comprehension of what climate change is and the association to unprecedented impacts on natural resources is largely diminished by low literacy rates. There is limited capacity to recognise the inter relatedness of climate change as an aggravating factor to conflict. Separately, there is more concern about conflict than climate change because of the perception that conflicts have far greater impact than climate. There is also confidence in traditional resilience and adaptation practices, which diminishes the prominence of climate change as a risk.

The lack of recognition of the exacerbating nature of climate change to conflict and the confidence in reliance on traditional resource management can underestimate the damaging potential this may have on an already vulnerable population.

### **Kara, Stormy I**

1 : Pacific Ink Tattoos

## *Tatatau in the Cook Islands*

A presentation on the revival of Cook Islands Tatatau. From historical documentation to my current work as a practitioner of 18 years, where I hope to go towards the future.

- What is tradition and how far back do we go? The very real space we reside in as wearers of a practice that was once outlawed and to this day is still a very misunderstood for a lot of people. We investigate the stories of real people and some of the hurdles they had to overcome.
  - Cultural appropriation vs cultural appreciation: why or when do we allow people from outside our culture to undergo the process or wearing tatau.
  - Responsibilities as a practitioner and as a wearer: being second generation New Zealand born of Cook Islands descent, some of the barriers I've faced and not had to face.
  - Tatatau to reconnect: the use of tatau as a bridge for many people to gain access to a culture that on some levels seems to be very guarded.
- I will present my gatherings over my career and pathways for the future.

### **Karaka-Clarke, Te Hurinui I**

1 : University of Canterbury

## *Ka pari te tai; ka timu te tai: Indigenising the delivery of online synchronous learning*

Advances in technology have had a major impact on the teaching methodologies employed by the tertiary sector. The use of online technologies such as Adobe Connect, Echo 360, Skype and Zoom to provide distance education opportunities is now commonplace and allow for the online teaching of te reo Māori (Māori language).

This research proposed to discover how teachers and lecturers can create more engaging online synchronous language classes for distance students of te reo Māori. It endeavoured to find ways and methods of replicating and simulating the waiuatanga that is present in face-to-face classroom interactions, in the online environment.

This research used a qualitative research methodological design incorporating some data captured using a quantitative methodology. Qualitative data was gathered using focus group and individual face to face interviews. The quantitative data was gathered using survey. Kaupapa Māori research principles were used to guide the gathering of data.

There were three main findings that resulted from this research. 1) Identifying the challenges and benefits of embedding the Whare Tapa Whā into the online teaching and learning environment. 2) How the concept of waiuatanga relates to the Community of Inquiry model. 3) How katako and lecturers can create more engaging online synchronous language classes for distance ākonga of te reo Māori.

### **Katovai, Dawmie I**

1 : The University of the South Pacific

## *Traditionally valued tree species as predictors of ecological connectivity in coastal forests*

Traditionally valued tree species can serve as important indicators of ecological connectivity within an ecosystem. The presence of these tree species may indicate the overall health and connectivity of coastal forests. Maintaining unimpeded movement of organisms and ecological processes through landscapes (i.e. ecological connectivity) is especially crucial for the survival and persistence of many species in fragmented landscapes. This study examined the effects of land-use change on traditionally valued tree species in 120 square plots (20mX20m) across disturbed and undisturbed coastal forests within Fiji and Solomon Islands. The functional traits and diversity of the traditionally valued tree species across forests were analyzed using integrative methods adopted from the Modified-Whittaker nested vegetation sampling method. Results will indicate the impact of land use change on forest connectivity. It is expected that the higher the intensity of land use change, the less connected landscapes are thereby impeding functional connectivity across coastal forests via the distribution and diversity of traditionally valued tree species in coastal forest. Results will also ascertain traditionally valued tree species which may serve as an indicator(s) in assisting conservation practitioners and/or communities prioritize conservation efforts in crucially affected areas of coastal forests. This approach will help maintain connectivity that are critical for the survival of a wide range of species particularly here in the Pacific region.

### **Katovai, Eric J; Laurance, William Z; Edwards, Will Z**

1 : Solomon Islands National University

2 : James Cook University

## *Floristic change in logged forests of Solomon Islands and its implications on carbon sequestration*

Lowland tropical forests in Solomon Islands have suffered extensive damage due to unsustainable logging practices over the years. This study aims to examine flora recovery patterns in logged forests and explore how these patterns affect the above-ground biomass potential in these forests. We identified twelve research sites on Kolombangara, consisting of six logged and six unlogged sites. For the logged sites, we selected two sites from each of the three recovery-time categories: 10, 30, and 50 years after logging. In each of the twelve study sites, we established 12 plots of 0.1 hectares each and measured various forest attributes in each plot. The results show that even after 50 years of post-logging recovery, tree species composition in logged forests does not appear to converge with that of unlogged forests. Although late succession species showed high recruitment within the understory, logged forests remain dominated by medium-sized pioneer species that have a long lifespan. Consequently, it is necessary to undertake human intervention to rehabilitate these forests, particularly when considering carbon market opportunities in the future

### **Katovai, Rufina J; Elisha, Judy I**

1 : Pacific Adventist University

## *The use of Melanesian Tok piksa as a teaching strategy for the 21st Century ESL learners in the Pacific*

While there is enough literature on the successful acquisition of the English language by ESL learners globally and within the Asia Pacific region, there is lack of evidence on the successful utilization of indigenous cultural concepts by Pacific Islands indigenous language instructors to support ESL learners' acquisition of important English skills, concepts, and theories. By employing autoethnography and personal reflective methods, this paper presents the effective usage of the Melanesian tokpiksa to convey English skills and concepts in a faith-based institution. The authors argue that aligning indigenous concepts such as tokpiksa in teaching can create an awareness that these indigenous concepts and everyday practices can be transferred to writing and facilitate better and faster acquisition of English writing.



## **Kavora, Wayne 1; ginigini, Joape 2; Soapi, Katy 3; Viulu, Samson 4**

1 : Solomon Islands National University

2 : The University of the South Pacific

3 : South Pacific Community

4 : Solomon Islands Government

### ***Bioactivity of a marine sponge epibiont bacterium from Solomon Islands waters***

Marine microbes are known treasure troves for biochemical compounds with potential uses in the pharmaceutical, agrochemical and cosmetic industries. A marine bacterium strain S-011 was isolated from the sponge *Haliclona fasciata*, collected in the Solomon Islands sea waters. 16S rRNA gene sequencing of the epibiont strain S-011 and NCBI online BLASTN search showed that it is 99% similar to *Bacillus aquimaris*. Strain S-011 is a Gram positive bacterium and grows best in seawater media compared to deionized distilled water (DDW) media. A compound identified by NMR as 2-aminobenzoic acid was isolated from strain S-011 and active against the antibiotic resistant *Bacillus oceanisediminis* CNY-977. Crude extracts from the isolate also exhibited inhibition against CNY-977 and amphotericin resistant *Candida albicans* (ARCA). To the best of our knowledge this is the first report on the intergeneric bioactivity of strain S-011 against CNY-977, both belonging to the same genus *Bacillus*.

## **Kitoilei, Salanieta 1**

1 : The University of the South Pacific

### ***If you can name it, you can save it! Tackling island biodiversity crisis using Indigenous and local knowledge as indicators***

Indigenous and local communities in Fiji are at risk of losing their biodiversity due to man-made and natural threats. Although biodiversity is endangered, the more pressing threat is the 'hidden crisis' of ethno-biodiversity extinction because this means the loss of Indigenous and local knowledge (ILK hereafter) and its associated taxonomic expertise. In communities across Fiji, languages and dialects play a vital role, hold mana and an intricate understanding of the environment passed down through generations. The ILK which is passed through generations is threatened by many factors which includes the lack of knowledge transmission, passing of elders who hold the knowledge, lack of interest from younger generation, the knowledge is either forgotten or has become redundant. This research documents the ILK of fishers and describes the richness of the knowledge on its own and when combined with Scientific Knowledge. Moreover, the research also acknowledges that men and women of all ages use their ILK to harvest resources from both land and sea and understand the connectivity which exists between these environments. Social science methodologies including use of questionnaires and in-depth interviews were used to gather qualitative and quantitative information. The results show that although ILK is sometimes exploited, fishers are aware of the changes in the environment and the implications to their resource exploitation. Finally, knowledge of resources is stored in dialects/languages and fishers try to protect the resources which they know or are of subsistence, cultural and/or economic significance to them

## **Kleiber, Eleanor 1**

1 : University of Hawaii

### ***Special Session: Getting Digital Cultural Materials back to their Pacific Homes***

### ***Trust territory of the Pacific Islands Archives: opening an archival “too hard” basket***

This presentation will explore the implications of a recent “discovery” of 281 linear feet of material related to the archives of the Trust Territory of the Pacific Islands (TTPI). Over half of the material is records of the Land and Survey Office, which are important to determining land ownership. This material is still being assessed, so the findings are preliminary. This material brings up three main topics of investigation:

- Defining the record copy/official copy. Various parts of the TTPI Archives exists in paper, microfilm, and digital formats. The paper was destroyed or dispersed after filming, and the microfilm became the record copy. I intend to redefine the record copy depending on the available formats.

- Determining who has authority. UHM and the US National Archives and Records Administration (NARA) hold master copies of the microfilm and the governments of Micronesia hold the dispersed paper copies. Which entity should ultimately hold the record copy will be an intergovernmental negotiation.

- The tension between library and archives methodologies. When the archive was microfilmed, it was organized and described using a library approach. The paper documents provide an opportunity to apply an archival approach and reimpose some of the context that was lost.

## **Kokaua, Liam 1**

1 : The University of Auckland

*Special Session: Cook Islands Early Researchers*

### ***Te mekameka o te pā maunga***

In July 2019 Liam Kokaua (Ngāti Makea Apera, Rarotonga) initiated a research project aiming to document Indigenous Knowledge of Rarotonga's mountains. What began as an academic-style report evolved into Te Mekameka o te Pā Maunga, a 6-part docuseries (70 minutes), and a book by the same name (currently in publishing). The research has to date consisted of interviews with knowledge holders, a one-day workshop, desk-based research, and field-trips to the mountains of Rarotonga where he was joined by the film crew and the knowledge received from knowledge-holders was contextualised. The docu-series is also designed to be a language resource for second-language learners, being over 75% in the Rarotongan Māori dialect (subtitled in both Rarotongan and English). Liam will present on his experiences using these novel approaches to researching and decolonising the way we see our traditional stories.

The docu-series and book are now being considered for use as teaching resources for the upcoming Pacific Studies curriculum by Ministry of Education in Aotearoa-New Zealand. The ultimate impact of the research may not be understood until it is uploaded online (some time prior the conference). The intention is that the resources will help influence government policy to protect Rarotonga's mountain zone on both environmental and cultural grounds.

## **Kokaua, Stacey 1**

1 : University of Otago

### ***Special Session: Cook Islands Early Researchers***

### ***'Akapapa'anga and Ecocriticism: Genealogising the Māori imaginary within English Literature***

This paper discusses an indigenous approach to ecocriticism in literary studies inspired by 'akapapa'anga, the Cook Islands Māori practice of genealogising. The discussion draws on 'akapapa'anga as a way of understanding the connection between humanity and habitat in literary texts. This paper adds to current conversations happening in Indigenous, Pacific, and environmental literary studies, and signals new directions in Cook Islands scholarship.

## **Logarde, Louis 1**

1 : Université de la Nouvelle Calédonie

### ***Portraying the other : plastic and graphic forms of alterity on New Caledonian art, 1774-1900***

One of the ways to observe the history of interactions between Pacific Islanders and Westerners lies in the documentation and analysis of both their artistic productions, in particular those produced by one community about the other.

Sculpting, engraving or drawing the Other testifies for the integration of alterity, both in the way he/she/they are represented and by the choice of the type of artefact on which they are.

These works of art testify to the links, relations and transfers which once existed, from the late pre-colonial to the early colonial period, between these worlds often perceived as antagonistic and segregated ; also, they complexity and enrich our vision and understanding of the cultural shock which the first decades of Western contact indeed represented for Island communities.

From the study of these ambivalent objects, mostly Kanak-carved bamboo and Convict-carved shells many questions arise. But although they are usually set apart, because they differ by their status, their function, their trajectories, their value (ancient or modern), their heritage status... are they not in fact quite similar, as technical and aesthetic translations of a founding historical moment ?

## ***Exploring student experiences of Covid-19 home confinement: analysing the impact on Pacific students' learning and wellbeing in Aotearoa New Zealand***

As a result of the Covid-19 pandemic and government enforced restrictions, an estimated 1.6 billion students were severely affected worldwide. Lockdowns confined students to their homes and a shift to online learning occurred. In New Zealand, Pacific students have already a disadvantage in terms of equitable education and health outcomes. Pacific students have lower academic achievement and employment rates, experience poorer health outcomes, and psychological distress compared to other New Zealanders. There are limited studies to date that addresses both learning and wellbeing challenges to young Pacific students. For this reason, understanding the impact of Covid-19 on Pacific students' learning and wellbeing is crucial.

Using a Pacific methodology (Talanoa), individual, Talanoa-interview studies were carried out in 2022. In this study, Pacific students aged between 15-23 years of age were recruited. The study indicated that Pacific students' learning and wellbeing were significantly impacted. Learners faced challenges of adjusting and navigating online learning, and the ability to engage with teachers and maintain motivation. Pacific students did not have adequate internet connection, had to share devices with siblings and could not financially afford online programmes required for learning. Pacific students showed a dissatisfaction with educators due to inexperience of online teaching, poor time management skills, or excessive Covid-19 material being given and unrelated to the New Zealand curriculum. Avoidance tactics such as turning off cameras or not attending classes were identified. The lack of face-to-face interactions lead to Pacific students withdrawing from courses. Furthermore, students mental, physical and spiritual wellbeing were affected. Mediating factors included social isolation, government restrictions, catching or spreading the virus, anxiety and depressive symptoms. The impact of government restrictions on two young, expectant students saw only one person allowed in the hospital room while giving birth. The cancellations of schools, church sermons, youth group, and funerals also affected student wellbeing. Mental health and good wellbeing are important aspects of a successful learner and is associated with positive motivation, concentration, and ability to cope under stressful situations.

Future research on effective strategies for online learning and mental wellbeing when disrupted by a global pandemic is required. Professional development of teachers particularly for online teaching and learning, and training with digital services should be considered. Educators in practice should be holistic and take into consideration social and cultural factors. When working with Pacific students, they bring their own values, morals and cultural beliefs that are important to them (Ministry of Education, 2022). Developing cultural capability and cultural consciousness is fundamental. Understanding Pacific contexts is also extremely important as Pacific students balance multiple roles and responsibilities alongside their learning. By upholding Pacific values and taking a wholistic approach will enable educators and policy makers to be in a better position to understand, respond and acknowledge their challenges.

**Lewis, Nait'a 12; Gaymer, Carlos; Pihana, Hoku; Rapu, Juliamng; Imirizaidu, Mael; Andrade, Pelika**

- 1 : Big Ocean
- 2 : Sifted Logic

**Special session: Relationships, Reflections and Re-story-ation from Hawaii**

## ***Increasing durability for large scale marine managed areas: acating up community capacity in step with ocean protection and governance***

As we look for ways to reach global protection targets, such as 30 x 2030, we must better articulate the purpose and challenges and benefits of large-scale ocean protection, and we must include the local people and communities who derive their physical and spiritual sustenance from the sea. Conservation NGOs and managing agencies, must provide the global context of large-scale MPAs and the threats they seek to address locally, regionally, and internationally. Education and research initiatives must also strive to dismantle outdated and colonial models of science, research and governance while perpetuating and integrating intergenerational knowledge and cultural heritage. One approach is to create peer learning opportunities focused on very large MPAs that allow site managers and the community of practice to share lessons learned and to consider broader enabling conditions. As large-scale marine protection and management is relatively nascent, initiatives targeting large-scale MPAs and similar ocean-scale initiatives must also increase best-practice resources. Founded in 2010, Big Ocean, a network of large-scale marine managed areas, was created by managers for managers.

Since its inception, surveys, collaborative activities, exchanges, and other initiatives have shown succession planning at the agency level is vital, but the same must happen for communities. Large-scale MPAs account for < 70% of all ocean protection from more than 17 thousand sites of all sizes worldwide, thus, the role of and relationship between managing agencies and communities is essential to durable marine protection at scale that is also meaningful to humanity and consider the needs of people and communities

**Li, Xianjie 1; Barriot, Jean-Pierre 1; Hoppare, Marania 1; Lou, Yidong 2**

- 1 : Université de la Polynésie Française
- 2 : Wuhon University

## ***Latest results of the sea-level variations over French Polynesia in comparison with other countries and islands in the South Pacific***

Sea-level rising is one of the major threats to people living on Pacific low-lying islands. Based on the tide gauge measurements and collocated GPS datasets, we give an overview of the latest results of the long-term sea-level variations over French Polynesia: Tubuai Island, Austral Archipelago 5.25±0.60 mm/yr, Vaitao village, Tahiti III: 3.62±0.52 mm/yr, Rikitea, Gambler Archipelago 1.52±0.23 mm/yr. In order to have a more complete picture of the sea-level variations in the South Pacific, we make comparisons of long-term sea-level variations with other countries and islands in the South Pacific. Sea-level variations derived from other measurements, like satellite altimetry, are also compared. We infer what can be the possible scenarios for sea-level variations in the South Pacific for the next fifty years.

**Loganimoce, Epeli 1; Brown, Kelli 1; Savou, Ruslia 1; Kitolelei, Jokim 1; Tukana, Max 1; Southgate, Paul 3; Lal, Monal 2**

- 1 : The University of the South Pacific
- 2 : The University of Sunshine Coast

## ***Tales of the octopus: what we know and don't know in the south-west Pacific region***

Octopuses are central to Pacific Island Countries and Territories' (PICTs) livelihood, sustenance, and customs. However, they are a poorly-researched resource and difficult to manage because of their relatively short life span, rapid growth rates, high natural mortality and seasonal fluctuations in abundance. We conducted a review and summarised octopus species distribution, abundance, ecological attributes, utilization, importance and management within the PICTs of Fiji, Vanuatu, the Solomon Islands, New Caledonia, Tonga, Samoa and American Samoa. We found 23 species within 11 genera were recorded from these PICTs, belonging to the families Amphitretidae and Octopodidae. These species display different life history strategies and occupy a diverse range of habitats and depths, with fishers employing a variety of traditional and modern fishing techniques to capture them. Although they are central to PICTs livelihood and culture, management is largely dependent on overarching national fisheries legislation. Further, there is evidence that community-based management efforts have been an effective platform in sustaining octopus stocks. Octopuses also play an important role in the folklore and customs of many Pacific Islanders, and we provide a summary of these for the specific PICTs assessed. This review identifies areas for further research and development for the Pacific Island region and highlights the urgent need to address specific knowledge gaps on octopus taxonomy, stock assessment and fishery management.



## **Luisa, Tavenisa I**

1 : *International Union for Conservation of Nature*

*Special Session: Future Nature-Based Solutions Research and Practice from Source-to-Sea*

## ***Defining Nature-based Solutions and building capacity from source-to-sea***

Nature-based Solutions (NbS) are gaining momentum around the world and play a critical role in both climate mitigation and adaptation in the Pacific Islands. This presentation will reflect on IUCN's recent experiences developing a Global Standard and shaping knowledge, policy, and practice.

## **Manuela, Sam I; Wong, Evangelene 2; Kokaua, Jesse 3**

1 : *The University of Auckland*

2 : *Te Mārae Ora Cook Islands Ministry of Health*

3 : *University of Otago*

*Special Session: Mental Health In the Cook Islands*

## ***Te Ākiriāta Mārama - mental health in the Cook Islands***

Te Ākiriāta Mārama is the first epidemiological study of mental health in the Cook Islands. We aim to describe the prevalence of depression, depressive symptoms, anxiety, and anxiety symptoms in adult populations across Rarotonga and Aitutaki.

The entire project is guided by Tiwaeae, ensuring Cook Islands values are embedded across the entire project. A survey of mental health including specific measures GAD-7, PHQ-9, Kessler-10, AUDIT, Personal Wellbeing Index, Ethnic Identity, mental health history, and a range of demographic variables including age, gender, religiosity, income, education, and sexuality. Surveys were conducted via face-to-face interviews across households in Rarotonga and Aitutaki.

This special session will describe the methodology and provide an overview of the key descriptive findings from the survey. Three additional presentations will focus on (1) mental health for Cook Islands LGBTQIA+ community (2) associations between anxiety and alcohol use, and (3) the influence of Covid-19 on mental health.

Te Ākiriāta Mārama provides baseline information on the mental health status of Rarotonga and Aitutaki adult populations. The focused presentations provide additional insight on the relationships between key demographics and mental health. The findings will be discussed in relation to critiques of the measures used, with recommendations for further research with pa enua, qualitative research, and a follow up study to look at incidence.

## **Matelau, Tui I**

1 : *Auckland University of Technology*

## ***A dance between connection and disconnection: The construction of hybrid Pacific identities in Aotearoa***

Hybrid and fluid ethnic identities can be experienced as positive and inclusive as they combine new ideas about culture, language, tradition and the present social environment (Mcintosh 2005; Moeke-Maxwell 2005, 2008). These emerging identities also allow people to positively draw on more than one ethnic heritage (Matelau-Doherty, 2020, 2019; Matelau, 2014; Webber, 2006). My wider research draws on hybrid and fluid identity literature and utilises Multimodal (Inter)action Analysis to examine how identity is constructed with an aspiration to empower and uplift Māori and Pacific communities in Aotearoa.

Within Multimodal (Inter)action Analysis, vertical identity production is a methodological tool used to analyse the layers of discourse that shape identity construction. The central layers of discourse are constructed through the mediated actions that the social actor performs and participates in. The intermediary layers of discourse include the mediated actions produced by a social actor in connection with their social networks. Finally, the outer layers of discourse, include the rules and laws, institutions and media present within society (Norris, 2011).

For this presentation, I use vertical identity production to analyse the layers of discourse that shape the hybrid and fluid ethnic identity construction of 10 participants who identify with a Pacific ethnicity and another ethnicity, five females and five males. Drawing on interview data, I highlight themes such as inclusion and exclusion at a network and institutional level and the importance of ancestor stories.

## **Meinders, Rāhera I; Balce, Tim I**

1 : *The University of Auckland*

## ***He waka kōhūia: doctoral positionalities transcending the Sea of Islands***

Pacific peoples are spread across the vastness of Te Moana-nui-a-Kiwa – the Pacific Moana. This vastness encompasses a diversity of colonial experiences that continues to shape complex and contemporary realities. As Pacific doctoral candidates based in Aotearoa New Zealand, we foreground our Kōki Āriani and Samoan philosophies and worldviews as central to our positionalities and research praxis, transcending institutional and geographical insularities. Our presentation outlines the strengths and tensions that arise from conducting research as Tangata Pasifika and Tangata Tiriti.

## **Meyer, Jean- Yves Hiro I; Barroso, Solène Fabre 2; Di Sálvia, Lisa 3; Taureau, Florent 4**

1 : *Délegation à la Recherche, Gouvernement de la Polynésie Française*

2 : *Faao Centre, Tahiti*

3 : *Fédération des Associations de Protection de l'Environnement*

4 : *Nantes Université*

## ***What coastal ecosystem to restore in the Pacific Islands? Alien mangroves versus native submangroves in the Society Islands (French Polynesia)***

Mangroves are well known for the ecosystems services and benefits they provide. Coastal restoration using mangrove species is now becoming very popular as a « nature-based solution » for adaptation to extreme natural events and sea-level rise caused by climate change. Many projects are conducted by local communities and NGOs, promoted at the national (Pacific Islands countries and territories or PICTS) and regional (Oceania) levels, and often funded by European or international bodies. However, mangrove species are naturally absent in some PICTS such as French Polynesia and the Hawaiian Islands, but were introduced during the early 20th century. They have naturalized and spread over large areas, replacing native coastal vegetation (including « submangroves ») and impacting waterbirds, and are thus considered as invasive alien species. In French Polynesia where it was first introduced in the early 1930s, Rhizophora stylosa is now found on the six inhabited islands of the Society archipelago and covers about 41 ha. A recent comparison conducted in Tahiti shows that relicta native submangroves and swamp forests have a much higher floristic diversity and more complex structure compared to Rhizophora mangroves. Based on these results, we launched an experiment to restore a man-disturbed coastal and estuary area in Tahiti. An education and training program for schoolchildren and students, as well as natural resources managers and local authorities has been established to promote the important values of native coastal ecosystems and involve local communities in their conservation, and to mitigate habitat destruction, pollution and biological invasions.

## **Mitchell, Moana I; Mitchell, Pania I; Mitchell, Awihina I; Wikitera, Waimirirangi I; Whaanga, Mike I**

1 : *Te Korowai Aroha Whānau Services*

## ***Te hokinga mai—the return home: our own (r)evolution***

As a community-based organisation, Te Korowai Aroha Whānau Services has provided kaupapa Māori social services in Porirua, Aotearoa since 1993—a 30-year learning curve. This presentation speaks to the challenge of embedding traditionally sourced principles and practices within our mahiwork. The metaphor overarching this is te hokinga mai or our return to locate, access and engage in traditional knowledges and wisdoms. Presenting this kaupapa in Rarotonga is an ā-tiāna (physical) example of this, however, the 'return' also happens ā-whānau (relationally), ā-hinengaro (emotionally) and ā-wanua (spiritually). It is translating that knowledge into our lives, which is at the heart of this presentation. Te Hokinga is a constantly evolving phenomenon, being circular and contextual, shaped by history and modernity, and the measure of it dependent on the lessons learnt through each cyclic evolution.

As practitioners and scholars, we 'talk back' to these evolutions that are then part of our own (r)evolution in our return back to here, to our origins story. This kaupapa Māori autoethnographical approach we argue is a kawā/practice that we know instinctively, even when still embracing what it all means in relation to our identity and culture. The implications of this presentation is that we understand how traditional principles and practices are shaped by these modern times, paying homage to who we are as both survivors that are Westernised, colonised peoples and also traditional knowledge holders, which is all part of a story still unfolding through 'returns' such as the one we are on right now.

## **Macokini-Oliveira, Pukea,1,2; Andrade, Peilka 1,3**

- 1 : Nā Maka Onoona
- 2 : University of Hawaii'
- 3 : University of Hawaii Mānoa Sea Grant College Program

### ***PEWA: place-based and effective wai monitoring for adaptive management***

Communities, managers, and policymakers need to increase knowledge, include indigenous knowledge systems, and make contextually robust decisions, especially within watershed planning and the management of aquatic resources. In Hawaii, current water resource management practices alienate communities because decision-making is top-down. There is also a lack of reliable, long-term data to inform current and future stewardship of Hawaii's streams. In response to these issues, Nā Maka Onoona - a nonprofit dedicated to 'Āina Momona (thriving communities of people and place) - is developing a stream monitoring toolkit for communities across Hawaii. PEWA is meant to guide and facilitate actions focused on assessing and monitoring streams and rivers, while also growing a community's capacity to inform decision-making. PEWA will be a resource to support communities in long-term data collection within a framework that is transferable among users, managers, and policymakers. PEWA is a collaborative effort to close current knowledge gaps in Hawaii's streams and build networks of hoāhāna through field tests of a variety of tools for stream monitoring. PEWA will equip users to promptly monitor their waterway, grounded in Indigenous inquiries, and supported by contemporary institutional technologies. In the long-term, this toolkit can serve as a model for monitoring streams based on relationality frameworks globally.

## **Morshige, Kim 1,2; Andrade, Peilka 1,3**

- 1 : Nā Maka Onoona
- 2 : University of Hawaii'
- 3 : University of Hawai'i SeaGrant College Program

### ***Special Session: Relationships, Reflections and Re-story-action from Hawaii***

## ***Valuable lessons on productivity and perspective that drive research to support 'Āina Momona: a message from Hawaii's intertidal shoreline***

Over the past thirteen years, our team has been conducting intertidal monitoring along Hawaii's wave-exposed shorelines to address community concerns on sustainable harvest of opihī (Hawaiian limpets). Working with a network of schools and community organizations, we have learned valuable lessons about seasonal productivity of our shorelines and how it aligns within 'Āina Momona, abundant and productive communities of people and place. Through weaving institutional research, traditional knowledge systems, our team has developed a unique research approach through the contributions of these multiple perspectives, considerations, and relationships within the community. This journey allows us to understand a space through the multiple lenses to address the needs of our people, our environment, and a thriving relationship between the two entities. Building on recent research, our understanding of place changes by season and across multiple landscapes. We have developed a modified survey to look at the role of different habitat types, and the influence of environment on the carrying capacity of our intertidal fishery. Our latest series of questions have led us to identify management strategies that can maximize replenishment in these rocky intertidal ecosystems for generations to come. This journey encourages a more inclusive conversation to evoke management and conservation.

## **NDramel Dodi, Perilla 1**

- 1 : Pacific Adventist University

## ***Embracing student identities through Pacific History in a faith-based institution in Papua New Guinea***

Although there is increasing recognition of Pacific cultural values and ethos shaping indigenous identities in education systems across the Pacific, there is limited documentation on how teaching Pacific-related subjects in Papua New Guinean institutions helps to provide important cultural connections for students. Based on a case study observation and tok stori methods conducted at a faith-based institution in Papua New Guinea, this paper presents the findings on how teaching Pacific History enables students to embrace their identity as Melanesian Pacific Islanders. The findings indicated significant evidence that students had no prior understanding of their cultural identity and connection to the Pacific. More needs to be done to help 21st century Papua New Guinean students to fully embrace their Melanesian ethnicity and connections as Pacific Islanders.

## **Naholwea, Letiana 1,2**

- 1 : University of Hawaii'
- 2 : East-West Center Graduate Degree Fellow

### ***Indigenous navigation traditions and stories of the sea from Micronesia***

Traditional seafaring knowledge in Micronesia is held within different schools or lineages across the region, and returning navigators share voyaging stories with their community on specific and well-defined occasions and rarely outside of the canoe house. Colonization and globalization in the region have led to the study, documentation, and publication of sacred navigation traditions while simultaneously creating conditions that threaten their sustainability. This project focuses on traditional stories from Micronesia that have been captured in print publications since the mid-twentieth century and are held in the Hawaiian and Pacific Collections at Hamilton Library at the University of Hawaii' at Mānoa. This archival research examines the myths, legends, folklore, and wonder tales that relate to Micronesian traditional seafaring, and while these stories do not specifically describe the science and protocols of navigation traditions, they give insight into the values within and pathways to this knowledge. Some themes from this body of literature include undersea deities and worlds, the right to rule of chiefs, and interpersonal relationships in families. As community organizations and master navigators struggle with cultural loss that stem from regional challenges like emigration, unemployment, and climate change among others, the analysis of traditional seafaring stories can serve as a springboard for further literary preservation and protection of native seafaring technologies and arts in Micronesia today.

## **Nand, Moleen 1; Mchamara, Karen 1; Clissold, Rachel 1; Mariri, Taputu 2; Ravurua, Pio 2; Rasmussen, Apiti 2; Wichman, Vaine 2**

- 1 : The University of Queensland
- 2 : Cook Islands National Council of Women

### ***Climate-induced non-economic loss and damage in the Cook Islands***

Pacific Island communities are experiencing severe impacts and non-economic loss and damage (NELD) from anthropogenic climate change. To date, very few studies have explicitly focused on how local value systems (that is, what people value) determine the nature and experiences of NELD and what responses should be prioritised. This paper aims to explore local value systems, how climatic stressors affect these values, the ways in which people respond to impacts, and the best ways for addressing NELD now and in the future. Utilising relevant literature, a long list of Pacific values was created, and then discussed and fine-tuned down to twenty values with local researchers. These values were then used as part of over 40 in-depth interviews across four islands: Mitiaro and Mangaia in the South, and Penrhyn and Pukapuka in the North. Both quantitative and qualitative data were collected and analysed using SPSS and NVivo 12. This study highlights that local value systems are influenced by personal beliefs, everyday experiences, and practices. Some of the current responses to climatic stressors are inadequate and are having an adverse impact on what people value, resulting in significant NELD. For example, participants shared stories of the increasing unreliability of their local, Indigenous knowledge of seasons and weather, particularly rainfall patterns, behaviours of important bio-cultural fish species, and cropping techniques for local root crops. Responding to NELD requires a deep understanding of what matters most to people, what people stand to lose, and what needs to be protected.

## **Nasalo, Sclote 1**

- 1 : The University of the South Pacific

### ***Monitoring and evaluation of the Lami and Nasese human generated mangrove stand***

Mangroves are referred to as carbon sinks, implying its ability to absorb carbon dioxide from the atmosphere and utilizing organic carbon within its natural ecosystem serves as a mitigation measure to reduce impacts of climate change. There have been numerous efforts and initiatives from organizations and stakeholders and yet there is lack of management and assessments to monitor and evaluate the succession of mangrove regeneration processes by a human generated system. Human generated systems refers to mangrove systems established through mangrove planting activities and initiatives done by governmental organizations, Non-governmental organizations (NGOs), Civil Society Organizations (CSOs), and International Non-governmental organizations (INGOs). A comparative study was conducted between the Nasese Human Generated (NHG) stand and the Lami Human Generated Stand (LHG) on newly planted mangrove shoots, 6 months old mangrove shoots and 1 year old shoots.



This study will discuss how the NHS (85%) has a higher survival rate compared to that of the LHS (7-8%) survival rate during the 1 year of study. Some of the physiological factors observed to determine the success rates were the heights where LHG ranges from 62cm to 78cm and NHG ranges from 74cm to 82cm. There was a significant difference in the number of leaves (whereby NHG recorded a higher yield of 62-79 leaves; and LHG ranged from 42-88 leaves), plant diameter after one year (whereby NHG ranged from 110-115cm; and LHG ranged from 21-27cm). Mangrove family Rhizophora is found to be a more resilient species growing in both favorable and non-favorable conditions. Research findings implies to have a proper monitoring and evaluation to determine an action plan of ensuring a higher survival rate for human generated mangrove systems.

**Nicholas, Akei; Coto Solano, Rolando 2**

- 1: *The University of Auckland*
- 2: *Dartmouth College*

### ***Natural Language Processing as a vehicle for language revitalisation in Cook Islands Māori***

Cook Islands Māori is not being transmitted intergenerationally in most Cook Island families outside the Pā 'Enua -that being the Rarotonga and diaspora populations. As such we as a community are facing serious challenges to maintaining our ancestral languages. As one strand of response to this crisis our team are working on a range of computational tools, using natural language processing, which aim to support the use of Cook Islands Māori in digital spaces. We have high hopes for the application of these tools but are as yet in the early stages of the project. We will discuss what we have done, what we hope to do and how we think these tools can support language revitalising as well computer science education in the Cook Islands. We will also discuss important concerns around data sovereignty and safety as well as the accessibility of these tools to less digitally rich part of our community

**Numbasq, Georgina 1**

- 1: *The University of Papua New Guinea*

### ***Examining the migrant communities' perception to resettlement as a climate change adaptation strategy in Wewak, East Sepik Province, Papua New Guinea***

Resettlement of vulnerable communities to reduce their exposure to climate-related natural hazards to safer locations as an adaptation strategy to climate change in the region has been gaining support. However, there is also growing concern over the advantages and disadvantages of resettling vulnerable communities in unfamiliar territories. This study helps to understand this knowledge gap by examining the perceptions of the vulnerable communities that have been identified for resettlement. The study is based on field work carried out in three urban informal settlements with different tenure types in Wewak, Papua New Guinea using a mixed research method. The data were collected at random from 90 migrant settler households that involved household questionnaire surveys, focus group discussions and informal interviews. The results from the data analysis indicated a strong desire to relocate only if long term tenure security is guaranteed. In addition, a large proportion desire permanent relocation back to their homes of origin. However, their decision not to return is highly influenced by their current tenure and the physical, environmental, social, cultural and economic vulnerabilities associated with their place of origin. The findings of this study are useful to help decision makers understand and address the needs of vulnerable communities before resettlement takes place. This will help to avoid creating new vulnerabilities for the resettled communities, hence achieving the desired outcome of resettlement.

**Oklo, Jerome 1**

- 1: *Divine Word University*

### ***An investigation into factors that are affecting Grade 10 and 12 students' mathematics performance in Port Moresby, Papua New Guinea***

This study aims to examine the school, teacher and student-level factors and their interrelationships that affect Grade 10 and 12 students' mathematics results in Port Moresby, Papua New Guinea. A quantitative-dominant mixed-method approach is employed in this study, which has 729 student and 41 teacher participants. The instruments used in this study are: survey questionnaires, mathematics test, and interview questions.

The survey questionnaires and tests are validated and verified through confirmatory factor analysis and Rasch analysis. Structural Equation Modelling is used to examine the relationships between the independent and dependent variables at the teacher and student-levels. Hierarchical Linear Modelling is also employed to examine the direct effects from teacher and student-levels and cross-interaction effects between variables at these two different levels. The interview data at the teacher-level is analysed through thematic approach to capture information that might have been missed in teachers' survey questionnaires to complement the findings of quantitative (survey) data. A number of significant factors (attitude, motivation, fathers' occupation, private schools, students' gender, teachers' with mathematics major and quality of teaching) that are influencing students' mathematics results are identified by this study, with mothers' highest education level found to be the most critical factor. The study concludes that more attention should be given to the factors identified in this study, in order to improve Grade 10 and 12 students' mathematics results. Overall, this study contributes theoretical, methodological, and practical knowledge to teaching and learning in mathematics education. One of the recommendations is for the government to encourage and empower more women to undertake higher education because in the long run, it will benefit the country through the effects on their children's education.

**Pala, Mary 1**

- 1: *Solomon Islands National University*

### ***Assessing decomposition rates of mangrove litter over a terrestrial to marine gradient in Marau Sound, Eastern Guadalcanal, Solomon Islands***

Litter decomposition is an important stage in which nutrients are cycled within mangrove ecosystem. Despite its importance in the cycling and export of nutrients, studies exploring factors influencing mangrove decomposition in the Pacific Island nations, which encompass terrestrial to marine environments, is limited. Therefore, the decomposition of leaf litter of common species (Rhizophora apiculata, Ceriops tagal and Brugiera gymnorhiza) using litter-bags were assessed along a gradient of terrestrial influence, from landward to seaward sites in Marau Sound. The rate of decomposition of leaves differed among mangrove species with decomposition rates of R. apiculata being similar to C. tagal, but both R. apiculata and C. tagal decomposed more slowly than B. gymnorhiza. Decomposition rates were fastest in marine locations and slowest in terrestrial sites. The average time (days) required for 50% of tissues to decompose was  $58 \pm 11.0$ ,  $48.3 \pm 11.3$  and  $39.7 \pm 7.5$  for R. apiculata, C. tagal and B. gymnorhiza respectively in the landward sites and average days were  $43.3 \pm 3.3$ , for R. apiculata,  $66 \pm 10.5$  for C. tagal and  $26 \pm 4.1$  for B. gymnorhiza in the seaward sites. The variation in rates of decomposition was also influenced by environmental variables (water temperature, salinity, pH, dissolved oxygen, and electrical conductivity); however, rates of decomposition were more strongly influenced by species than environmental conditions.

**Pala, Mirose 1,2**

- 1: *Sociétés Traditionnelles et Contemporaines en Océanie*
- 2: *Université de la Polynésie Française*

### ***Te taru a Moana : What is the Ocean telling us***

Our aim is to participate to the reflection of environmental studies designed to measure the impact on and of the ocean in the insular context. These studies tend to overlook indigenous knowledge and practices related to the ocean. Yet a large number of works and stories, notably mythical, epic and poetic in the Polynesian language evoke the ocean and even Polynesian "Ocean's way". Despite the circumstances in which these various writings were collected and produced, from the period of contact in the 18th century onwards, this literary corpus allows us to glimpse visions of the ocean in the visible and invisible environment that we will evoke in our paper. It also enables us to discern the values and representations accorded to the ocean and the ecological issues at stake. In addition, the evocation of Polynesian "Ocean's way" must not be separated from the literary force of these writings, the rhetorical and stylistic techniques and procedures that give voice to the universe of the ocean, but also to controversial relationships with the ocean.

**Parent, Takurua 1, 2; Vernaudon, Jacques 1**

1 : *Sociétés Traditionnelles et Contemporaines en Océanie*

2 : *Université de la Polynésie Française*

Special Session: Getting Digital Cultural Materials back to their Pacific Homes

### **Anareo, a new digital tool for linguistic documentation : the case of Rapa**

This paper will present a linguistic documentation project dedicated to the Rapa language and integrated into the Anareo database.

The language of Rapa has been the subject of several previous works, including the pukā ākaero rapa, a glossary containing more than 2,000 words from six different sources (Kieviet, 2006), an initial linguistic description (Malworth, 2015) and an analysis of the changes undergone by this language in contact with the Tahitian language (Malworth, 2017).

However, the descriptive analysis of this language needs to be continued, both on the lexical and syntactic dimension, and a rich textual corpus needs to be collected to bear witness to the contemporary situation of rapa, which seems to present resistant structures to external influences and which, is proving to be at the heart of an active revitalization today.

Anareo is a digital infrastructure dedicated to the languages of French Polynesia (Vernaudon et al. 2021). Using Rapa as a specific example, the presentation will explore Anareo's various functionalities, which enable both textual and lexical data to be stored and analyzed.

**Parina, Vaine-Tukai 1**

1 : *The University of the South Pacific*

Special Session: Archival Lives – perspectives on the collections of D.S Marshall

### **The story of archiving the Ron Crocombe papers**

Emeritus Professor Ronald Crocombe was known to many simply as Papa Ron and, as a mark of respect, as the "Father of Pacific Studies". He was a Professor of Pacific Studies for 20 years at the University of the South Pacific (USP) and inspired and encouraged many Pacific Islanders to not only write but to publish their work.

Following Papa Ron's sudden passing in 2009, his lifetime collection of research, writing, published work including many books and papers from his own library were handed over to USP: Cook Islands Campus. This presentation explores the history of the Ron Crocombe papers from its earliest days when I became familiar with it, its movement and archiving progress.

- Behind the movement of the Ron Crocombe papers. How did it come about?
- Former Campus Director Rod Dixon's involvement. Who really decided it was good material to collect?
- The various places it's been stored and the good and bad things about each of them
- PAMBU and how parts of it are digitized there
- Work on describing the contents: Tukai Parina, Anau Parina and Volunteer Service Abroad
- VSA Digital Librarian Tim Jones work; digitising and uploading to Omeka and work on de-duplication.
- The death of Marjorie Crocombe in 2022 and the deposit of a further 30 boxes of material
- A second VSA digital librarian in 2023 Where is the Crocombe collection going next? Storage, management, research ideas

**Passfield, Kelvin 1**

1 : *Te Ipukarea Society*

Special Session: Future Nature-Based Solutions Research and Practice from Source-to-Sea

### **Community-based coastal adaptation to climate change – Learning by doing**

Coastal inundation and flooding from streams, causing erosion of stream banks and coasts, are becoming more widespread in the Cook Islands. While there is not much that can be done by small countries to curb the causes of these events, we are able to adapt in some ways. Nature based solutions, or hybrid solutions which incorporate Nbs, are the most appropriate for our situations, and have a greater potential to be replicated in remote locations.

**Paul, Laïsa Elisha 1**

1 : *Pacific Adventist University*

### **Exploring teachers' perception of women principals in the Solomon Islands**

The increasing efforts to promote gender equality in the education sector is slowly breaking barriers to leadership positions in the Pacific. Based on qualitative research, this paper presents results on teachers' expectations and cultural perceptions of women principals. Although the findings suggest continued gender biases towards women in leadership roles, there are significant positive perceptions toward women principals. Specific strengths and skills brought by woman principals to their leadership roles are identified and the positive influences of these women are acknowledged by teachers. This indicates that in a society that is still strongly influenced by patriarchal norms, the perceptions held by both male and female teachers of women in educational leadership can change over time.

**Perez, Emilie 1, 2; Mury, Florence 2, 3**

1 : *Université de la Polynésie Française*

2 : *Sociétés Traditionnelles et Contemporaines en Océanie*

3 : *Université de Versailles Saint-Quentin-en-Yvelines*

### **Process of heritage and cultural in the Marquesas Islands: and Te Henua Enata at the UNESCO World Heritage**

Today, the Marquesas Islands are at the heart of a vast UNESCO World Heritage project, with a dual cultural and natural dimension. Initiated in 1996 by Marquesan leader Lucien Kimitete, the project was coordinated from 2009 onwards by Motu Haka, the association behind the cultural revival of the Marquesas Islands in the late 1970s. In 2016, the project was taken over by a Tahiti-based team, including Western researchers who are following up on the project according to their specialties. It is a vision that emphasizes the threats to Marquesan heritage and the need to preserve it that has brought this dossier to fruition today, within a framework constrained by UNESCO's universalist standards: notably its conception of heritage - perceived as the witness of an inanimate past - or its division between natural and cultural, tangible and intangible heritage. Western categories and principles are therefore imposed in this process, making the existence of other relationships to heritage among Marquesan populations invisible. So, while the project assumes a break in the transmission and preservation of this heritage, the actors and actresses who today articulate culture in this archipelago nevertheless defend continuity. Based on the example of this UNESCO dossier, we would like to question the link between heritage, centralization on several scales (Tahiti, Paris, the West) and cultural enunciation.

**Powell, Emma 1**

1 : *University of Otago*

Special Session: Cook Islands Early Researchers

### **These changing years: imagining the Cook Islands**

In 1962, academic, teacher and writer, Marjorie Crocombe, published the book *Two hundred changing years: the story of New Zealand's little sisters in the Pacific*, the Cook Islands, the Tokelau Islands and Niue Island. The configuration described in the title of the book continues and yet the relationship between New Zealand and these island nations has only intermittently been engaged with by researchers and scholars since 1962.

In the spirit of Hau'ora's wider discourse on regionalism, and as a way of extending early narrations of a Cook Islands nationalism as conveyed by Crocombe and others, I will map recent scholarship that considers the impact of the New Zealand state on the lives of Cook Islands peoples and their transnational relations. I will offer thoughts on how this relationship, and its colonial and imperial history, matters to the future of the Cook Islands, with a specific focus on how it continues to impact scholarly framings of diaspora, depopulation, and development. Though I use these popular critical frameworks to highlight the impact of the Cook Islands' relationship with New Zealand on the lived realities of Cook Islands peoples, I also gesture to how Cook Islands relational practices simultaneously (and appropriately) confound those same framings. Such theoretical inversions echo Hau'ora's spatial reframing famously sketched in his *Sea of Islands* essay, and signal what I argue to be a theoretical turn in the scholarship of a current generation of Cook Islands researchers.



**Powell, Emma J; Inano Walter J; Kokaou, Stacey J**  
: *University of Otago*

**Special Session: Cook Islands Early Researchers**

### ***Kite pakari ē te ūki 'ou: Cook Islands Māori knowledge making and the next generation***

In the recent decade, there has been a significant increase in innovative research and writing from a new generation of Cook Islands Māori scholars with lived experiences in the home islands and in various locations of diaspora. New Zealand in particular. These researchers are shaped by the work of pioneering Cook Islands scholars like Marjorie Crocombe, Makuti Tongia, Jon Jonassen, Rangī Moekē'a, and Kauraka Kauraka. New researchers are also influenced by the many tāunga and meua who have informed their intellectual approach, and helped them to identify the personal stakes they have in their research work.

This panel gathers emerging early career researchers of Cook Islands Māori descent whose research and writings are directly inspired by Cook Islands Māori thinkers, artists and cultural experts and who see themselves as continuing this work of an earlier generation. Participants on this panel will describe their own articulations of their intellectual papa'anga and offer insights, comment and thoughts on the future of Cook Islands Māori research. These reflections will be based on their current projects, academic experiences and their aspirations for the future of Cook Islands knowledge generation and teaching. The panel makes room to consider current discourses in Cook Islands research, ones that are, as Hau'ofa entreated, "openly searching, inventive and welcoming".

**Pradeau, Coroline J,2**

1: *Mobilités, création, Langues et idéologies en Océanie*  
2: *Université de la Nouvelle-Calédonie*

**Special Session: Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century**

### ***Establishing linguistic norms: issues of diffusion, transmission and appropriation (New-Caledonia)***

This communication follows that of Anne-Laure Dotte. It joins our panel Exploring this sea of languages: challenges for Pacific linguistic diversity in the 21st century

We propose to combine our field experiences with Kanak language teachers in Ouvéa (Loyalty Islands, New-Caledonia) and institutions in charge of linguistic and educational issues in NC. In particular, we will focus on the issues surrounding the standardization of "oral tradition" languages and the resulting problems for educational stakeholders (Académie des langues kanak, 2020; Costa, 2021; Jones & Mooney, 2017; Sam, 2009; Shah, Sheena & Brenzinger, 2021; Vernaudon, 2009). While the promotion of indigenous languages is more than ever a hot topic (i.e. UNESCO's International Decade of Indigenous Languages 2022-2032), what are the conditions for a consensus to establish linguistic standards? Are they recognized by the concerned speakers and stakeholders? How are they transmitted? Finally, how do speakers acquire these standards? Our analyses are based on a critical observation of a Kanak language teacher training (faa/ta'agauvea), on questionnaires and interviews with teachers and institutional stakeholders. We intend to understand the political, institutional and social dynamics at work in the process of legitimizing minority languages in NC, and to open the discussion to other Pacific contexts.

My paper will deal more specifically with the educational aspect. From an institutional perspective, how do we ensure that the language standards developed by the Kanak Language Academy are actually used by teachers in the classroom? What representations of writing, norms and variations do Kanak language teachers have? What is the appropriation of writing proposals?

**Prasad, Jyoti Malia J; Waqar-Sakiti, Hilda; Iese, Viliamu**

1: *The University of the South Pacific*

### ***Ecosystem based adaptation engagement at local level based on individual experiences, beliefs, and perceptions***

In the Pacific Islands Countries and Territories (PICTs), the local level engagement plays a vital role due to: (i) dependence and cultural bond with the natural resources, (ii) Customary ownership of all resources, (iii) reliance on mostly traditional materials due to remoteness, and (iv) opportunity to support local governance and cultural structures. The objectives of this study are to: (i) effectively support an Ecosystem based Adaptation (EBA) agenda through more local-national collaboration, and (ii) identify the need for national policymakers to empower local and indigenous communities to facilitate adaptation processes that take local knowledge and practices into account. This study is based on a mixed methods approach where a household questionnaire, interviews, and focus group meetings were employed. The study found that EBA engagement at local level works best when addressing climate change risk through a people centric approach, where the communities are allowed to fully participate at provincial and national levels to influence development planning and policy and to multiply adaptation effects. The people centric approach works best when individual experiences, beliefs, and perceptions on impacts, causes, and responses to climate change are also taken into consideration to push the EBA agenda and for promotion of local level resilience towards climate change. In this study the alignment of EBA practices to national policies and strategies will also be looked at both from the local individual and stakeholder level. One of the major challenges faced in the PICTs is the mainstreaming of EBA into planning and decision-making processes from the national to the local levels through effective linkages and alignment. The effectiveness of EBA at local level, integrated with increased food security and gains of livelihood may create an enabling environment for mainstreaming EBA across multiple levels of governance, a recommendation made from the outcome of this study.

**Puniwal, Noelani J**

1: *University of Hawaii*

**Special session: Relationships, Reflections and Re-story-tion from Hawaii**

### ***Seascapes - knowing our ocean through times of change***

Conservation and restoration of healthy marine ecosystems requires the understanding of unique and complex ecological knowledge, historically considered a science discipline. Yet, what many have come to understand is that only through re-story-tion, learning the mo'olelo (stories), chants, relationships, and genealogies of our sacred spaces, can health and abundance of both landscapes and interconnected human communities be returned. Our seascapes are created and persist because of the interconnected histories of kanaka and kai. This mo'olelo will highlight the rigor that is expected and required when trying to use such intimate relationships as a methodology to restore abundance as we attempt to inject a sense of place, values, and culture in how a seascape is defined, mapped, and studied. Our mo'olelo will also reflect on the efforts at the University of Hawaii at Manoa to teach science within the Hawaiian Studies department, re-indigenizing our STEM curriculum by claiming our own science narratives.

**Py, Nicolas J**

1: *Université de Nantes*

### ***Micronesian Presences in Metropolitan France, splendor and misery***

This paper presents the relationship between the archipelagos traditionally known as "Micronesia" and mainland France, tracing the circulation and exposure of objects from these islands to France. It's undeniable that after an initial period of splendor, brought by historical circumstances and thanks to an emblematic place, a period followed, still ongoing, of relative poverty in terms of public awareness of Micronesian material productions (whether in the artistic/aesthetic or anthropological fields). Our approach is based on previous work in history (maritime and collections) and on our own research work, undertaken modestly since 2016. The latter has enabled us to rediscover some forgotten objects, to discard others and, more generally, to draw up an initial panorama, which remains to be explored in greater depth, of the presence in public collections of artifacts from the area usually referred to as Micronesia. It appears that 1) the Micronesian corpus is certainly concentrated in Paris, 2) but collections, often limited, exist in the provinces, 3) this presence outside Paris can often be explained by circumstances linked to France's maritime history, 4) not everything rests on Dumont d'Urville alone, as is often claimed. Consequently, the points raised here, based on the initial results of our current research, reveal a virtually untouched field of investigation that we hope to explore in the long term.

## **Roea, Taputukura I**

1 : *The National Library of New Zealand*

*Special Session: Getting Digital Cultural Materials back to their Pacific Homes*

### **Digital Pasifika: you can't find what you can't see – making Pacific cultural heritage visible and accessible**

Digitalpasifika.org is a website that aims to make visible and accessible the digitized cultural heritage of the people in and of the Pacific that is funded by the Department of Foreign Affairs and Trade in Australia and implemented by the National Library of New Zealand and the National Library of Australia.

This session will demonstrate the digitalpasifika website and its benefits for Pacific Scholars wanting to access, share and discover digitised Pacific resources. The digitalpasifika website is a user-friendly site that allows Pacific people to access and view Pacific digital content that are held in institutions and content created by Pacific Communities. The user contribution feature on digitalpasifika is a way Pacific audiences can share memories, knowledge, and stories of collections and allow knowledge holders to share and own the narrative of their history and culture and allow different perspectives to be shared.

## **Razafimanjimbimananja, Etienne I; Beaurune, Suzie; Wacalle, Fabrice I**

1 : *Université de la Nouvelle Calédonie*

*Special Session: Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century*

### **Oceanicity in pedagogy: creatively plurilingual practices and postures for collaborative work.**

The present communication is a collaborative cross-reflection between teacher-researchers with distinct life paths, mobility and languages, but who share the same enduring project: to produce scientific research with a social objective and to contribute creatively to the rehabilitation of Oceanic languages and the plurilingualism they embody. More specifically, our proposal to participate to PIURN 2023 is based on a two-stage objective. The first is linked to the didactics of languages in an Oceanic context, with the aim of questioning the actions (practices) and the being (postures) of the teachers themselves, themselves bearers of diverse plurilingual and Oceanic experiences. The second is based on a collaborative approach (working together), with the aim of sharing, authorizing and raising the profile of Oceanic pedagogy. By "oceanicity", we mean the ability to construct knowledge about languages in the fluidity of an archipelagic world, and to create pedagogies that are inclusive of a plurilingualism that has historically been invisibilized, minoritized and weakened. Given these contextual conditions, how, but above all with whom and for whom do we wish to make plurilingual oceanicity a space of resources and pedagogical references? To address this question, reflective analysis and the cross-fertilization of our pedagogical experiences will serve as the starting point for a broader appeal to build a collective of teacher-researchers creatively committed to making Oceanic languages and plurilingualism sustainable resources for the educational and academic success of young Oceanians. This collective will work with pupils, students, artists and regional partners to identify existing but as yet unshared educational and innovative capital. The methods of pooling will be thought out together, and could innovate in the wake of an online multimodal Oceanian platform, a pedagogical toolbox, and a digital gallery of artistic productions linked to educational and plurilingual training projects.

## **Reea, Goenda I,2**

1 : *Université de la Polynésie Française*

2 : *Sociétés Traditionnelles et Contemporaines en Océanie*

### **Tua 'ite mā'ohi ou for an indigenous research methodology in the French university context**

The question of identity, as conceived by Epeli Hau'ofa in his famous essay *Our sea of islands*, offers so many perspectives and opportunities for the peoples of this part of the world. Indeed, this "sea of islands", which translates the idea of a common network-space, also includes all fields of study, including "Research". While in the English-speaking countries of the Pacific, the question of methodologies and methods designed and developed by, for and with indigenous peoples has been studied and tested since the 1980s, it is virtually non-existent in French Polynesia. This paper therefore raises the multiple challenges involved in expressing this "oceanic" identity in research in the French academic context: what does it consist of? How can it exist or coexist with what already exists?

In the field of oral traditions, indigenous research cannot take place without protocols such as gift and counter-gift, the values of respect and patience, taboos on certain knowledge, the apprehension of the visible and the invisible... It is part of a consensual process, which adapts to changing circumstances by equipping itself with relevant tools... Conceived on a policy of openness, Tua 'ite mā'ohi would like to anchor itself in the authenticity of a people participating in enriching human diversity.

## **Benagi, Ora I; Kaluwin, Chalapan 2**

1 : *Papua New Guinea University of Technology*

2 : *University of Papua New Guinea*

### **Ocean policy guides the blue carbon storage protection of mangrove sites in Papua New Guinea**

The PNG Government has recently endorsed the National Ocean Policy 2020 – 2030 after becoming a signatory to the United Nations Convention on the Law of the Sea (UNCLOS). Protecting and conserving the marine environment has become critical to sustainability of livelihoods and hence the strict observance of policy. The focus on the study of blue carbon has recently been popularized in PNG with attention focused on quantifying carbon stocks and emission factors in mangroves, tidal salt marshes and seagrass meadows. While PNG's contribution to global carbon emission is a mere 0.02%, its government continues to support implementation of programs with a target for net zero emission by 2050. Tasmanian Environment Markets (TEM) have recently partnered with institutions in PNG to achieve carbon emission reduction goals and connect them to carbon offset projects. One such project has been conducted in Manus Island of PNG. Preliminary analysis shows a total mangroves area coverage of 5,760 hectares of which 109 hectares were lost through degradation. Of the existing mangroves sites, blue carbon storage was estimated at 9,881,424 tons. These measurements were conducted following standard approved procedures. Local communities have been educated to protect, conserve and integrate agriculture activities for sustenance of livelihoods. The project team worked with communities and develop management plans for designated mangrove protection and restoration areas. The same exercise will be held around the country where there are regions of high mangrove populations to determine the full content of blue carbon all around PNG. These data should form part of the total carbon storage to determine net zero levels which can be offset against carbon credits for PNG.

## **Ro'i, Laisa I**

1 : *Université de la Nouvelle-Calédonie*

### **The genuine saving indicator**

The "Genuine Saving Indicator" or "True Saving Indicator" developed by the World Bank is a measure of sustainability in the weak sense of development trajectories. It is calculated for most of the world's countries, including some in Oceania, taking into account investment and deterioration in three dimensions of capital: physical capital, human capital and natural capital. If degradation outweighs investment, then the value of the capital stock declines over time, implying that future generations will not have the same potential economic opportunities as the current generation.

On the contrary, if investment outweighs degradation, then the development trajectory is considered sustainable. The underlying assumption is that capital is substitutable: in particular, investments in physical capital (e.g. infrastructure construction) or human capital (e.g. education spending) can compensate for degradations in natural capital.

GSI's strengths lie in its simplicity of elaboration and understanding, as well as the possibility it offers of making international comparisons.

According to GSI, the planet's development trajectory is sustainable, as is that of most of the countries in Oceania. This very surprising result invites us to question the way in which the GSI is compiled, and to investigate the dimensions of development that it does not take into account, in order to propose improvement.

In practical terms, the GSI ignores several essential dimensions of capital, such as health and water and soil pollution.

On a theoretical level, the GSI does not take into account the existence of non-linear relationships and externalities, local specificities and the operational dimension, all of which are essential for public intervention.



**Robinson, Daniel T; Raven, Miri T; Puapui, Retire 2**  
1 : University of New South Wales  
2 : Cook Islands Ministry of Education

### *Biocultural protocols relating to traditional knowledge in the Pacific*

Our research project Indigenous Knowledge Futures has spent 3 years examining misappropriation issues relating to traditional knowledge and biological resources. We note considerable misappropriation or 'biopiracy' of plants/medicines used in the region such as 'noni', Calophyllum inophyllum (lilo/tamanu) and kava. As part of the project we have begun developing biocultural protocols with local villages, peoples and networks in Vanuatu and Cook Islands as a way of foregrounding traditional custom rules surrounding knowledge and uses of plants for medicines. These protocols might be useful for guiding external researchers, companies and tourists about appropriate processes. They may be recognized by the countries under the Nagoya Protocol to the Convention on Biological Diversity, through national 'access and benefit-sharing' processes, and under 'Traditional Knowledge' laws in both Vanuatu and Cook Islands. We have had some interruption from COVID-19 travel restrictions in the region, but we are now back developing the protocols with local collaborators. We report on some of our progress to date and invite our collaborator Mr Retire Puapui from Aitutaki to talk about the protocol and its purpose and development.

**Rochette, Lovaina 1**  
1 : Laboratoire EASTCO

### *Hono'ura, the sea switchman or How to revitalize the study of vernacular resources in a socio-cultural political context where the relationship to language remains colonial?*

This paper results from a thesis defended in 2021 on the ethical and normative issues involved in teaching and learning the Polynesian language and culture (PCL) in Tahiti and in secondary schools, and reflects on the conceptualization of PCL and its objectives in the light of theoretical tools based on the notion of empowerment. The problem concerns the state of progress of indigenous research based on available vernacular sources on the subject of Hono'ura de Taaitira, the civilizing hero who was instrumental in extending the island network to the power of the 'Ura (red feathers of the 'Ura bird) in the Society, Tuamotu and Marquesas archipelagos as far as the Hawaiian and Cook Islands in the ancient era of European pre-contract. The methodology is based, on the one hand, on the analysis of a corpus of three variants of this story (Raratea version, Paumotu version, Mangaia version), and, on the other hand, on fieldwork carried out with memory carriers from the Taaitira community in May 2021 and December 2022. Our aim is to present a compilation of Tahitian-language texts, accompanied by commented translations, to be used as teaching aids. Indeed, it seems important to transmit endogenous concepts as part of a didactic approach adapted to today's Polynesian educational and social context.

**Rogers, Felicity T; Fotsing, Jean – Marie T; Mweleui, Adeline T; Galy, Olivier 1**  
1 : Université de Nouvelle-Calédonie

### *Impact of disasters on food systems: could food security and rural livelihood be at risk in Vanuatu?*

In the aftermath of a category 5 tropical cyclone and the covid 19 lockdown, Vanuatu managed to set up a strategic supply chain to distribute food crops and cultivars from the unaffected southern provinces of the archipelago to the islands affected by the cyclone to ensure food supply. International food aid and agricultural assistance, in the form of vegetable seeds, planting material and agricultural equipment, are distributed to facilitate the replanting of crops and prevent the deterioration of the food security situation. Rebuilding rural food systems is now a priority for communities where agricultural practices require the clearing and burning of forest cover, loosening the soil, and building mounds for planting propagules. Gardening techniques also involve the removal of plant remains or debris from plots. However, labor mobility to seasonal programs in Australia and New Zealand primarily affects the working population. Therefore, women, the elderly and children of dependent vulnerable age groups have to perform these tasks for months. Here, we sought to investigate the impact of food rations and labor mobility on family farming, food consumption, and rural household diets in disaster-affected communities in Vanuatu. A multidisciplinary methodology is enhanced by integrating and combining approaches focusing on food production and ration consumption during a disaster and its nutritional values to meet household food needs. The qualification and quantification of food rations are determined to meet the nutritional needs of households. Replanting crops is a major challenge following a disaster due to the lack of seasonally mobile labor. These mobilities have major impacts on subsistence agriculture and household diets. They call into question the national strategies implemented to ensure food security in rural communities.

**Rube, Troy T; Kokaau, Jesse T; Bowden, Nicholas T; Iosua, Ella T; Richards, Rosalind 1**  
1 : University of Otago

### *Lighted and connected pathways: identifying the specific Pacific ethnicities of a Pacific birth cohort in Aotearoa New Zealand's Integrated Data Infrastructure (IDI)*

Incorporating ethnic specific Pacific analyses has been lobbied for nuanced and meaningful research in Pacific communities. A shortcoming of administrative data is the lack of consistency in determining an individual's ethnicity below level 1 of Stats NZ's ethnic classification, which can undercount Pacific children. Aotearoa's Integrated Data Infrastructure (IDI) affords an opportunity to examine a wide range of outcomes and communities. The IDI houses linked data collected from a range of government agencies, surveys (including censuses), and some non-government organisations. Most analyses draw from a single source to identify specific Pacific ethnicities.

The objective of this study is to apply a prioritised source method of ethnic classification to identify Cook Islands children. Many of whom were previously identified in the total Pacific cohort without Cook Islands affiliation.

This proposed method utilises the method by Stats NZ to create their level 1 ethnic classification for total Pacific ethnicity. Additionally, for Pacific Children identified at level 1, it searches several sources of administrative data, Census, Birth record, and health, to identify a child's specific Pacific ethnicity.

This novel method for identifying Pacific ethnicities of an Aotearoa birth cohort decreased the number of Pacific children with an unknown or unspecified ethnicity to less than 5%. The method has increased the identification of Cook Islands children previously not identified in individual data sources.

Identifying specific Pacific ethnicities in 'Big Data' projects offers a chance to improve ethnic specific analyses, in this case Cook Islands children, and provide unique ethnic specific solutions with positive impact.

**Salisbury, Kevin 1**  
1 : The University of the South Pacific

### *Exploring our Sea of Islands: toponyms reveal connections*

The grand theme, "Exploring our Sea of Islands", prompts brief mention of a project I have been working on for many years. This multi-disciplinary project is entitled "Pukapuka's Place in Oceania", and researches the linguistic and traditional connections of Pukapuka (northern Cook Islands) within most of Polynesia, including a number of Polynesian Outliers scattered westwards as far as the Solomon Islands and off the coast of Bougainville in Papua New Guinea. Links are also revealed with other Oceanic groups: the Northern Line Islands, Kiribati, Fiji and the Lau group.

My focus for this presentation is the subject of Pacific Toponyms (names of places). At least five lists of toponyms were collected by outsiders in the early contact period: at Taumako in the eastern Solomons, in Tonga, the Marquesas, Tahiti and Mangareva. 1 Other scholars have scrutinized these lists so as to identify the islands to which they refer. The publication of several articles in recent years concerning Tupiua's "Map" makes this quest of continuing relevance. Perhaps unique in Polynesia is the manuscript written by the Ratorongan taunga, Te Ariki Tara A'e in the 1860s. His "History and traditions of Ratoronga" includes a list of 85 Oceanic islands remembered from prehistory. 2 All these documents provide a window into the way that Pacific Peoples structured their geographical knowledge of the islands around them.

The traditional chant corpus of Pukapuka in the northern Cook Islands manifests a symbolic network of toponyms encompassing most of the area from Fiji and Kiribati in the west to Hawa'i in the north and down to Rapanui (Easter Island) in the southeast. Over 130 places located outside of Pukapuka have been identified, and their distribution in the chant texts reveals the way that the three groupings of lineages had exclusive jurisdiction over their reefs and the winds blowing to their lands; and by extension, all the islands in those directions fall within these three domains. This discovery has enabled inferences to be drawn on the location and identification of unknown place names.

This talk will give a broad overview, and focus on a few toponyms that show potential contact between Pukapuka and East Polynesia in prehistoric times.

**Salisbury, Mary 1**  
1 : The University of the South Pacific

### *The language of two early tere 'orometua from Aitutaki: Luka Manuae and Rau Kōpū Tāria*

In celebrating Marjorie's work documenting the life and work of early Cook Islands pastors (including T'arunga, Maretu and Ruatoka), we present two documents written in the mid 1800s by tere 'orometua from Aitutaki detailing their work in pioneering situations. Luka Manuae from Ureia went to Pukapuka in1857. Rau Tāria from Vaipae was in the first group of Cook Islanders to go to Papua in 1872. Their manuscripts give coherent narratives from an indigenous perspective, which complement and are sometimes at variance with the writings of the British missionaries. Their writing styles reflect the language of Aitutaki, and contain some words and phrases from the languages they encountered. Rau's report adds more detail into the context of the Motuan oral traditions about Ruatoka reported by Marjorie

**Samau, Bernadette 1**  
1: National University of Samoa

### ***Part of Me: Balancing multiple social identities across this sea of islands***

Culture plays an important role in the meanings that consumers attach to possessions. As an expressive medium of material culture, clothing worn by consumers holds symbolic meanings associated with the culture of a place and its people. In the field of Marketing and Consumer Behaviour, the Meaning Transfer Model (MTM) is used to understand how possession meanings are created and transferred from one location to another. This paper presents a Pacific Faʻafafine perspective on the influence of Faʻa Samoa (Samoa culture) on the meanings attached to favourite clothing. Faʻafafine are commonly referred to as transgender by Western cultures. They are biologically born as boys and at different stages of their lives choose to identify as female rather than male. Faʻafafine are largely accepted and are very much part of the community in Samoa and New Zealand. Projective Photo elicitation semi-structured interviews were conducted to capture the lived experiences of 30 Faʻafafine residing in New Zealand and Samoa. A 6 Phase Reflexive Thematic Analysis (RTA) approach was used for data analysis resulting in four key themes: Sense of Belonging, Group Boundaries, This is Me, and The Ideal Me. The results of this study suggests, culture (Faʻa Samoa) and the meanings attached to favourite clothing are all in transit, and Faʻafafine are playing a balancing act when it comes to Faʻa Samoa and the multiple social identities expressed through their favourite clothing.

**Santagata, Edoardo 1**

1: The University of New South Wales

Special session: The Water, Energy, and Food Security Nexus in the Pacific

### ***Energy and the WEF nexus in the Pacific: applications of geothermal energy in the nexus to bolster resilience in the Pacific.***

Geothermal resources are widely abundant in some select Pacific Island Countries and Territories, and their utilisation in both urban and rural contexts can deliver alternative energy, food, and water solutions. One particular case study in Tanna Island, Vanuatu, will be discussed to highlight the potential of these applications to enable access to essential services and bolster community resilience.

**Sarramegna, Valérie 1**

1: Université de la Nouvelle-Calédonie

### ***Pacific Nickelators: advancing nickel hyperaccumulator plants discovery and utilization for mining site rehabilitation across Papua New Guinea, New Caledonia and Australia***

Hyperaccumulators are unusual plants that accumulate particular metals or metalloids in their living tissues to levels that may be hundreds or thousands of times greater than is normal for most plants. Most reported hyperaccumulator plants are for nickel and occur on ultramafic soils that are naturally enriched in nickel, cobalt and manganese. Hyperaccumulators have evolved efficient mechanisms for taking up metal(loids) in their roots followed by translocation and sequestration into the aerial shoots. The hyperaccumulation phenomenon is rare (exhibited by <0.2% of angiosperms) with ~70% of the known 500 hyperaccumulator species recorded for NI. The diversity of NI hyperaccumulators plants widely distributed, both geographically and across phylogenies suggests that physiological processes of hyperaccumulation have evolved independently, and may therefore differ in their function between species. Knowledge of the uptake, biotransformation and distribution of NI in hyperaccumulators is critical in understanding the processes of metal acquisition and metal tolerance. The goal of the Pacific Nickelators project, supported by the PIFRN and the Fonds Pacific, was to gain knowledge on metal hyper-accumulating species from Papua New Guinea, New-Caledonia and Australia in order to help these 3 pacific countries to develop efficient and common revegetation strategies and valorise their exceptional biodiversity

**Schoeffel, Penelope 1; Malama Meleisea, Meleisea 1; Alexeyeff, Kalissa 2**  
1: National University of Samoa  
2: The University of Melbourne

### ***Samoa's new labour trade: mobility, morality and money***

This paper explores Pacific labour mobility in three ways. Focussing on a Samoan case-study, we first provide a focused historical context to the new labour trade by comparing earlier waves of Samoan labour emigration as well as the importation of labour from other parts of the Asia-Pacific.

Second, we provide qualitative and quantitative data on the economic push and pull factors by explaining the contemporary Samoan economy, both national and global and the contemporary geo-political scene which has seen the rise of China's influence in the region. As Samoans emigrate for work, labour shortages in Samoa have seen an increase in Chinese immigration and well as intra-regional migration from countries such as Fiji.

Third we concentrate on the the lived experience of workers. We explore in detail the motivations, aspirations and outcomes of Samoans working abroad and the impact of these experiences on their return. We ask how does contemporary labour mobility understood and experienced in terms of Samoa's moral economy, core social values and ways of being Samoan? We present this case-study and hope to use it to develop a comparative analysis with other Pacific countries in the region.

**Sellers, Warren; Sellers, Margery**

### ***Sea as rhizome - Pacific I(T)lands as plateaus***

Over recent years Gilles Deleuze and Felix Guattari have affected many scholars with their unorthodox philosophies. But how have they affected us, in this audience, here in the breadth and depth of the Pacific Ocean? A simple search with the term <Deleuze Guattari Pacific >is revealing - not only do we find local scholars drawing on this work, but we also see and appreciate the rich imaginaries that Deleuzoguattarian philosophies generate in a Pacific context. In this brief presentation we share some findings and interpretations that contextually locate D & G for exploring this sea of islands.

**Simeon, Lalen 1; Caffery, Jo 2**

1: Pacific Adventist University  
2: University of Canberra

### ***Empowering families and youth through a gender-based program embedded in church programs***

Religious leaders are known as experts in the spiritual space; however, they are also compelling in delivering gender-based training. This paper presents the findings of a three-year research study that focused on training Church leaders in a gender-based approach, Family Farm Teams: Empowering Families and Youth (EFY).

Utilising a project designed holistic participatory action research approach (WPAR), religious leaders from seven PNG mainline churches (Catholic, United, Salvation Army, Baptist, Seventh Day Adventist, Evangelical Lutheran, and Anglican) were trained in the EFY approach. These Church leaders then chose church program leaders to train in the approach and to embed into one of their existing church programs. The aim was to build gender equality amongst Church leaders, church members and communities across rural communities in Papua New Guinea whilst maintaining the church's religious practices and beliefs.

Findings show that religious leaders who embedded this gender-based approach into their church program are improving, empowering, and changing people's lives. Families who participate in the training are practicing gender equitable family practices, setting family and farm goals, achieving their dreams, and improving their living standards. This presentation discusses the impact on families and their young people who were trained by religious leaders in gender-based practices.

**Singh, Amit 1,2**

1: The Pacific Community  
2: NDC Hub

Special session: The Water, Energy, and Food Security Nexus in the Pacific

### ***Water and the WEF nexus in the Pacific***



The ever-increasing impacts of climate change have once again reignited the growing debate on natural resource scarcity in the Pacific Island Countries and Territories (PICTs). In an island setting where resources may be limited and vulnerable the issue of security requires appropriately scaled attention. This session aims to understand the applicability of the WEF nexus in the PICTs context and discusses both nexus experience in the PICTs to date and the opportunities and challenges the WEF presents in its operationalisation specifically in a PICT s context.

**Skizypak, Emilika 1; Bainton, Nick 2**

1 : *University of St Andrews*

2 : *The University of Queensland*

### *Global energy transitions and justice convergences in the Pacific*

The shift to low-carbon energy systems will require vast quantities of energy transition metals (ETMs) – such as cobalt, copper, lithium, nickel and others – for new energy technologies and infrastructure. These metals are mostly sourced from regions with high environmental, social and governance risks and vulnerabilities. The Pacific is one such region. Increased pressure to extract ETMs under conditions of climate change will amplify social and environmental burdens of extraction, exacerbating regional and global inequalities. This paper links the demand for ETMs for low-carbon energy systems with global debates about the need for a just transition and asks: can the concept of a just transition could provide a new framework for the responsible extraction of ETMs used by the renewable energy sector globally? Using evidence from Papua New Guinea, and based on the example of copper mining, we demonstrate that increased pressure to extract energy transition metals to meet global demand will amplify existing patterns of injustice across five key forms of justice: distributive, procedural, restorative, recognition, and cosmopolitanism. To achieve energy justice, we stress the need to analyse how these justice dimensions intersect dynamically and mutually shape one another over time, space and scales – what we term justice convergences.

**Solo, Madeline 1; Jino, Luke 1; Gereniu, Collin 1; Darnusaru, Jim 1; Havimana, Lindon 1; Apreku, Kofi 1**

1 : *Solomon Islands National University*

### *Tuna bottling: a food security paradigm in the Solomon Islands*

Raw-packed tuna bottling is a simple yet very efficient technology for producing fresh bottled tuna that can potentially meet demands of food security, livelihoods, and essential nutritional requirements for Solomon Islands and Pacific Island communities. Two experimental trials were conducted at the Department of Fisheries Studies' seafood processing laboratory, using the raw-packed technology. Results from the trials were consistently encouraging. Specifically, recovery rates of 45 and 47%, with corresponding F-values of 6.36 and 10.45, were recorded. Preliminary results show that the product is safe for consumption. Subsequent to the successful trials a program was initiated to roll out the technology to students and communities. The primary goal was to disseminate the technology to communities across the country, starting with students and selected community leaders, as a means to help avoid waste when fishers have surplus catch that cannot be consumed at once, improve food security and livelihoods. We find that the technology is affordable, user-friendly, and can be easily adopted in communities across the nation, and in other Pacific Island countries. It is expected that this technology will start a policy discourse about the need to identify efficient and affordable approaches, to address food security concerns across the region.

**Sovo, Pdkop 1**

1 : *Pacific Adventist University*

### *Would social media platforms (WhatsApp) be an alternative future classroom in the Pacific?*

The increasing advancement of technology, access to the internet, and high possession and usage of electronic devices, including iPads and smartphones, among students has begun providing alternative teaching and learning platforms outside of the more traditional, physical spaces in small, developing island states in the Pacific. In Papua New Guinea (PNG), this presents an opportunity to transition education interactions to online platforms such as social media. This paper presents the findings of a qualitative research undertaken in a faith-based institution in PNG to investigate students' perceptions of WhatsApp (WA), the most popular social media platform in PNG, as an alternative online learning space. Fifty-four education year-one students were interviewed, and the responses were analyzed using basic descriptive statistics such as mean, maximum, and minimum. The results indicated significant acceptance of WA to be the next most user-friendly, functional online classroom rather than in a physical learning space.

**Sumb, Allen 1**

1 : *Divine Word University*

### *The socio-economic impact of COVID-19 on tourism and hospitality in Madang Province, Papua New Guinea*

This paper provides an analysis of socio-economic impact of COVID-19 on tourism and hospitality businesses in Madang. The study used a qualitative method and employs an interpretivism research paradigm. This is typically an inductive and objective approach and used non-probability sampling which combined convenience and snowball sampling. The qualitative data were collected using semi-structured interviews. The qualitative interview data were analyzed thematically. The study found that all of the tourism and hospitality businesses in Madang were affected by COVID-19. Most experienced a lack of customers due to the travel restrictions imposed by the PNG Government. This resulted in less or no income for the businesses and some businesses took drastic measures to cut down on cost and one way is by laying off staff which in turn affected people who relied on an individual's income. Other businesses aggressively promoted and marketed domestic tourism to help them sustain the operations of their businesses. Furthermore, it was interesting to identify that the majority of the travel and tourism businesses managed to operate their businesses during the COVID-19 period without any support from the PNG Government. There was an announcement made by the PNG Government to support affected businesses but from the study findings. None of the businesses benefited from the stimulus packages announced by the government. This study's findings add to the literature by offering further insight on COVID-19 impacts on the tourism and hospitality businesses in Madang.

**Tol, Chun Chia 1**

1 : *University of California*

### *Pacific Islands in Southern California: island reggae performances and diasporic indigenety(s) in the ONE LOVE TONGA benefit concert*

From December 2021 to January 2022, a volcanic eruption destabilized life in the Kingdom of Tonga. This presentation explores how a fundraising concert called "ONE LOVE TONGA Benefit Concert" operated as a forum not only for raising funds and awareness, but for collective identity-making. I draw on my ethnographic work with Island Block Network in Anaheim, California to show how island reggae performers from Samoa, Tonga, Hawaii, and Aotearoa New Zealand created a shared island on the continent, and off-islanders' support was their canoe to connect with Tonga. Southern California is known for its strong Pacific Islander community, consisting of diverse histories and cultures of Pacific Islands. Many musicians of this community perform a reggae music genre called island reggae, derived from Hawaii, to support this pan-Pacific diasporic community. Through island reggae music, Southern Californian Islanders (re)define their indigenety(s) in diaspora and fortify trans-Pacific connections with Oceania. For off-islanders, performing island reggae establishes a safe space for sharing a communal Pacific Islander identity in the continental US, celebrating each of their genealogies from their homelands, and resisting the racial-colonial oppression in everyday lives. Drawing on Epeli Hau'ofa's (1994) theory of Oceania as sea of islands marking Islanders' mobility and the concept of "root and route," highlighting off-islanders' indigenety (Jolly 2001, Clifford 2001, Kauanui 2007), I argue that off-islanders have rearticulated Indigenous cultures and Pacific Islands in California through island reggae performances. This presentation contributes to expanding current scholarship on the transformation and adaptation of Pacific indigenety in diaspora.

**Takahashi, Mana 1**

1 : *Kanda University of International Studies*

### *Role of the Quad in the context of human security: can the Quad become a good neighbor of the Blue Pacific?*

This study considers the role of the Quadrilateral Security Dialogue (the Quad) in the context of ensuring human security for the Pacific Islands. The Quad is a strategic security dialogue among the United States, Australia, India, and Japan, which was initiated in 2007. While the Quad's agenda for security has been characterized by hard security, it is more significant geographically to focus on human and environmental security, especially for the neighboring states in the Pacific region. This study examines how the Quad, who are sharing the ocean with the Pacific islands, should strategically consider their potential approaches to the region. The principal research question to be addressed is: can the Quad become a good neighbor of the Blue Pacific?

To answer the main question, the following sub-questions are raised: 1) how the relationship with the Pacific region is significant for the Quad; 2) does the context of the human security approach fit the strategy of the Quad; and 3) what kind of initiatives can be feasible and appropriate for enhancing regional cooperation? This study draws on reviewing policy papers, past dialogues, strategies, and recent diplomatic relationships between the Quad and the Pacific region to consider the future role of the Quad in the region to ensure human security. This study aims to suggest the Quad must consider the agendas of the Pacific region from the human rights perspective and draw the policy recommendation with tangible development assistance initiatives for the Blue Pacific as a collective action of the Quad.

**Tarpo-Walter, Inemo I**

*1: University of Otago*

**Special session: early career Cook Island researchers**

***Va'ine Māori o te 'enua: A gendered reading of Aue Renga Block File 60C***

This paper discusses an indigenous and gendered approach to reading land block files in Rarotonga. This discussion seeks to understand the connection between va'ine Māori (Cook Islands women) and ancestral land, arguing that women have always played a pivotal role in land matters. This paper adds to current conversations happening in Indigenous, Pacific, Cook Islands and Kaupapa Māori theory.

**Tarurongo Wymne, Thomas I; Mataiti, Helen I; Apulu, Peter I**

*1: Otago Polytechnic*

***Ko ai ia tangata e Maori aia? Ka akapeea i reira teia ki te au ta'unga kimi mara-ma e no'o ana i va'o ake ia Aotearoa? (Who is a Maori? What does this mean for Maori researchers outside of Aotearoa?)***

Te Ara Tika states that 'all research undertaken in New Zealand is of interest to Māori' (Hudson et al. 2010, p.1). To ensure alignment with Te Tiriti o Waitangi, Māori strategic frameworks, and perspectives of mana and tangata whenua, taurua and kaimahi at Otago Polytechnic engage in a dynamic consultation process with the Kaitiaki office when planning research. For Cook Islands Maori taurua, this process presents both a challenge and an opportunity - ko ai au?

Underpinned by a vaka methodology, perspectives of a Capable New Zealand, Master of Professional Practice Aituan-Rarotongan taurua will be presented. The researcher will share insights about himself as Maori, in relation to this contextualised Māori consultation process.

Separate from ethics, the Māori consultation process contributes to the overall conceptualisation of research and ensures planning is cognisant of indigenous interests. In this case, engagement in the consultation process raised several interesting questions. What does it mean to be Māori? What does this complexity mean for tertiary organisations in Aotearoa when learners are situated across the Pacific? And do indigenous communities across the Pacific require researchers to undertake a similar consultation process?

**Tautunu, Matiu Matāvai I**

*1: National University of Samoa*

***The history and development of the Centre for Samoan Studies at the National University of Samoa since 2005 to 2023***

The establishment of the National University of Samoa in 1984 has undergone multiple phases of change to adapt to the needs and demands of the Samoan community. As the only national university in Samoa, one of the main functions bestowed upon the University is the preservation and sustenance of the Samoan language and culture through its teaching and research functions. In 1999, the Institute of Samoan Studies was reestablished as the Centre for Samoan Studies (CSS). Since the establishment, there has been a gradual buildup of programmes especially for higher degrees such as postgraduate diploma, master's degree, and PhD in Samoan studies. This paper explores the past and present of CSS in terms of challenges faced by the Centre in promoting and preserving indigenous language and culture in the quickly changing world

**Tavioni, Gina I**

*1: Te Rito o Taku Peu Tupuna*

***Vaka Tangata Maori***

The vaka is at the center of Polynesian culture. It represents self-sustenance, resilience and connection. At face value it is a form of transportation for people to move across water to travel or fish – however the metaphor of the vaka holds the mana of a people. In Cook Islands Maori we describe where we come from on our island as a vaka or a container of people, our village. We say "E no'o ana 'au ki roto i te vaka Te Ao-o-Tonga" literally translated "I sit in the vaka of Te Ao-o-Tonga" – Te Ao-o-Tonga is my village, my people. The significance of the vaka can continue to serve our people as a tool for learning about cultural heritage. Out of the construct of the vaka an entire curriculum of indigenous knowledge can be taught, practiced and applied – this is how we will preserve our traditional life skills, honour our tupuna and live more connected to our world. Many of us, particularly Cook Islanders of my generation, walk with one foot dipped in our heritage, the other groomed by manako papaa (western thinking) because of being born and raised away from our ancestral homeland. Are we worse off? I don't think so. We are only worse off if we turn away from who we are in our DNA. The opportunity to learn ourselves and then transfer knowledge to the next generation is where we can find our place, understand our journey and come to love our unique identity as a Maori and as an individual.

**Tavioni, Ta'unga Tutara Michael I**

*1: Vananga Tavioni*

***Te mana o te vaka***

Te Mana o te Vaka is a visionary project. The name of the project resonates the great importance of the vaka to our culture and history. When I designed the project I was thinking about the challenges we face in a papaa world where reliance on current fuel sources may become unsustainable. Where the issues of climate change and more recently, the covid-19 pandemics have had an impact on the entire world population. I wanted to create a project that guided the attention back to our traditional life skills and the value of how our ancestors lived so that our people remember who they are and who they come from. Even though there was covid, we were okay. We went back to our gardens. We tended the soil and planted. We were with our families. We were alright, when we remembered who we are and how blessed we are in our surroundings. Maori are powerful! We are sea farers who navigated the expanse of the greatest ocean Te Moana Nui a Kiva. The vaka is where the story of the Māori civilization begins and Te Mana o Te Vaka project was my vision of carrying on that legacy through the eyes, hearts and minds of a new generation.

**Tchekemian, Anthony I; Laleu, Patrick**

*1: Université de la Polynésie Française*

***Anthropocene materiality and relationality at Clipperton: Studying Passion Island that remains on the only French coral atoll in the northeast Pacific Ocean***

Passion Island-Clipperton, in the north-east Pacific Ocean, is currently free of human settlement, at least on a continuous and regular basis. But that doesn't mean it's a "desert island" or "without a living soul" [1], to paraphrase TOURNIER (1972) Following the month-long "Passion 2015" international scientific expedition to the Clipperton "peninsula atoll" [3], it has been possible to study all the anthropic remains (remnants and waste), i.e. their history, dispersal and dynamics, as well as their effects on the environment. Overall, the study of remains provides information on all forms of occupation, management, exchange, transformation and recovery of material elements left behind and destined to "disappear". It thus constitutes an in situ and in vivo laboratory, in continuous time. The fieldwork therefore enabled us to map geographically 118 remains, and then to produce the only current cartography. Photographs were taken for each of these remains, for a total of 255 photos collected. These data are compared with those collected during previous missions. The interest of this research is also to monitor these remains, through a dynamic approach based on their evolution, displacement (appearance of buried remains, new elements...) in order to understand and interpret their role, their history according to their presence and origin, up to their evolution, then also envisage, for certain, a management mode with a view to their process. This study looks at the history, uses and activities on and around the island (phosphate mining, fishing in a fish reserve rich in tuna), as well as leisure activities (deep-sea fishing organized in the EEZ, accompanied by visits to the island), human appropriation and even territorial claims. Undoubtedly, the processing of such data has considerable heuristic value for the human and social sciences, as well as for sister disciplines such as history, archaeology, geography, geopolitics, economics... The problem of "leftovers" is considered not only as a reverse side of production, but also as an object of research combining historical, geographical, economic, geopolitical, landscape, environmental, ecological and symbolic dimensions. In this way, the study provides an opportunity to consider and debate the effects of the current economic and environmental crises.



## **Thieberger, Nick I**

1 : The University of Melbourne

*Special Session: Getting Digital Cultural Materials back to their Pacific Homes*

### ***Digitisation for Pacific cultural materials – recent developments in the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC)***

PARADISEC has been operating for 20 years, mainly focused on records in languages that are otherwise under-represented on the web. The urgent task we are focussed on is finding and digitising analog tapes that are at risk of loss. As we built the necessary structure to hold and describe these files, we broadened the holdings to include manuscripts, photographs, film, dictionaries, text collections, and other representations of language or cultural performance. We also hold a significant number of born-digital files arising from fieldwork over the past 20 years. In 2023 we have funding to redesign our systems, taking advantage of developments in storage and in ways to create more sustainable forms of data in the collection.

We have various APIs feeding from our collection, including to the Open Archive Initiative, the National Library of Australia and Digital Pasifika. These all increase the reach of the catalog, and also allow google and other internet searches to find items in our collection.

I will show how our new systems can increase access, permitting sub-collections to be delivered to local cultural agencies containing material relevant to that country. I will outline how PARADISEC works, some highlights of its Pacific collection, and how to find material in the collections.

## **Thomssen, Patrick I; Brown – Acton Phylesha 2**

1 : The University of Auckland

2 : FINE Pasifika Aotearoa Trust

### ***The Manalagi model: designing community-embedded health and wellbeing research with Pacific Rainbow+ communities in Aotearoa-New Zealand***

Pacific Rainbow+ (LGBTQIA+ MWPFAFF+) communities in Aotearoa-New Zealand are under-served in research despite adjacent research suggesting they are likely to experience intersecting forms of marginalisation that impacts negatively their health and wellbeing. The Manalagi Project is the first health and wellbeing project to be funded by the Health Research Council of New Zealand. In this paper, as lead investigators, we detail the importance of a community-embedded approach to being able to develop culturally-sensitive and contextually-specific insights that best represent the community's aspirations. Drawing on a 11-session, nation wide community consultation process completed by the research team in 2021, we present a model of community consultative research that centres genealogy as the basis for knowledge-generation. Our model offers a departure from conventional deficit approaches to working with Pacific and Rainbow+ communities in particular, whereby focusing on the disconnections and hyper-visibility of this experience often encourages voyeuristic slippages. In highlighting genealogy as the basis for survey and qualitative research design, embedded within and powered by connection, the Manalagi model proposes a form of Rainbow+ research that does not separate our communities from their families and does not sacrifice cultural context and genealogies in this research space.

## **Tikomaimaleya, Adi Tubuna I**

1 : Pacific Adventist University

### ***Language used to read for pleasure at a multi-ethnic, faith-based University College: case study from Fiji***

There is increasing interest in reading and writing in indigenous languages in the Pacific. Yet, very few studies have explored the area of preferred language used in reading for pleasure. Based on a case study mixed method research, this paper focuses on reading for pleasure in a faith-based institution in Fiji. Although the results showed English as the most preferred language for reading for pleasure, there was a strong interest in reading in the native language as a medium of connection to cultural heritage and improvement in native language skills. These findings highlight the importance of providing access to reading materials in multiple languages to promote a culture of reading for pleasure and connection to cultural roots among college students, lecturers, and community members in the Pacific.

## **Tongia, Makiuti I; Herman, Alex I**

1 : Seabed Minerals Authority

### ***Seabed minerals and the Cook Islands people: a journey of discovery, learning and understanding***

Consultation with Cook Islands people is essential to understand issues of concern and levels of concern/support from all levels of our society. This core element of research is necessarily exhaustive and requires considerable applied resources. The approach requires fundamental respect for different perspectives including those driven by fundamental beliefs, science-based dialogue and economic concerns.

Consultations were made at every island. To island councils, traditional leaders, church groups, women, business and youth groups and elected parliamentary representatives. Presenters, as much as possible, came from the Nya Kuru Pou Toru (traditional pillars of authority). Surveys were collected at each meeting.

Responses from the surveys are overwhelmingly positive. The attendees generally left with a high degree of satisfaction that they better understood government process, of first learning about the marine environment, then considering a decision to proceed or not. Attendees were not asked if they supported further development or not, as at this stage the position is that more information is needed. Raised concerns generally included: protection of the marine environment; timing (too slow) to development; opportunities for future generations; and fair use of revenues at the time they may become available. Community consultations are an ongoing but critical part of bringing our people on the journey. While opinions are mixed and evolving, sentiments improved once information was shared. Sharing exploration updates will continue to be key. Constant improvements will help the Cook Islands keep being recognised in international fora as having one of the best community consultation efforts in operation.

## **Tuaine, Glenda**

1 : The University of the South Pacific

*Special Session: Connecting Treasures and Stories to the People of the Pacific*

### ***The time is now - digital storytelling in Moana Nui a Kiwa***

Documenting lives, experiences, environments, social impacts, and community requires a connectedness that cannot be rushed. However in a time when we are faced with the immediacy of digital footage on social media platforms coinciding with an ever changing world and climate the time for Pacific indigenous filmmakers/story tellers to rise is now. Building capacity in that space, a space that we are truly under-represented in has to be included into government funding and ministerial planning. Film preserves the stories of our past, present and our foreseeable future. The approaches must be of international standard and open us up to cross cultural collaboration and discussion of cultural universals and issues that broaden educational perspective. When presented in Film it provides access to knowledge sharing that stimulates, provokes and questions us through stories that are creatively constructed.

## **Tuari, Merita I; Williams, Bob 2; Worth, Heather I; Fiddler, Megan I; Futter-Puati, Debi I; Bates, Metukore 2; Lush, Douglas 3**

1 : The University of the South Pacific

2 : Te Mārae Ora Cook Islands Ministry of Health

3 : Te Whātu Ora Nelson Marlborough District Health Board

### ***Why did a small island state do so well? The Cook Islands Governments' response to COVID-19***

Perceived vulnerabilities of Small Island Developing States create a dialogue of smallness and susceptibility to the negative impacts of disasters such as the COVID-19 pandemic. The Cook Islands response to COVID-19 stands out as a success story of resilience against implied vulnerability. Modeling showed the Cook Islands was expected to have hundreds of hospitalisations and tens of deaths, a relatively small but potentially significant burden on the small state. To date the country has experienced 11 hospitalisations and two deaths. A combination of measures that relied on preparedness, self-reliance and collaboration enabled this small island state to beat the odds and come through the COVID-19 crisis relatively unscathed.

## **Vaha, Milia I**

1 : *The University of the South Pacific*

### ***Connecting the world: political and social significance of the ocean in the indigenous communities in the Global South and North***

The ocean is us. Epeli Hau'ofa (1997) writes in his famous essay, thereby summarising the Pacific orientation towards the ocean in four words. The ocean is the foundation of indigenous philosophemes of environmental guardianship and knowledge (Delouhney 2010). The ocean has a fundamental value to the communities not only in the South Pacific, but in all Island and coastal spaces worldwide. Instead of offering a self-standing argument, the purpose of this paper is to introduce a new research agenda: one exploring the social and political significance of the ocean at two far ends of this planet. By drawing at this stage on secondary literature, the paper lays out the agenda for data collection that wishes to produce stories of youth representatives of the Pacific islanders and the Sarni communities in Northern Europe, and to compare the conceptualisations of the ocean among Pacific islanders that at first glance seem very distant. People in both regions have, however, for centuries lived with and by the ocean; have been subjugated to the colonial rule; and struggle to maintain their traditional ways of life and knowledge under the pressures of contemporary world. The proposed project aims not only producing academic knowledge but also to elevate the voices of indigenous communities by offering a platform for traditional storytelling and connectivity beyond the global boundaries. The purpose of this paper is thus to invite conversational on the design of such research before it is conducted in the field to guarantee its sustainable and ethical execution.

## **Vandeputte, Leslie I**

1 : *National University of Vanuatu*

**Special Session:** *Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century*

### ***Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century***

Vanuatu is a pioneer in implementing an innovative educational language policy (2016), introducing around 60 local languages into the education system. This linguistic education policy has not always been well received by social actors, some of whom are opposed to the introduction of Bichelamar, a Creole language with an English lexical base, into the education system. There are also strong reservations about Creole, despite it being the national and official language. Behind this rejection lies the very definition of a language. What is a language for the Ni-Vanuatuan and who is a language? With over 140 languages spoken in the archipelago, they do not all have the same status, the same meaning for speakers, or the same power. What is the hierarchy of languages in Vanuatu, and what consequences does it have for language representations and practices? This paper proposes to question the notion of language in Vanuatu and to understand what 'language' means for the Ni-Vanuatuan. By extension, questioning language allows us to understand the power stakes involved, and to better respond to the challenge of preserving languages in the Pacific.

## **Vavia, Antony I**

1 : *Auckland University of Technology*

### ***Data-poor but knowledge-rich and the conflict in-between: a case study on a Pacific Island small-scale fishery***

The tug-of-war relationship between western science and indigenous ecological knowledge (IEK) has been an increasingly pivotal point of debate within academia over the last decade. With the Pacific experiencing rapid changes that threaten marine ecosystems, there is an unquestionable drive to future-proof the livelihoods of the thousands of coastal communities ubiquitous around the Pacific that depend on the ocean. This presentation outlines a case study conducted on Milnab, Cook Islands, describing the observed physical, cultural, and spiritual exchanges between people and the marine environment. It describes the contexts between western science and cultural anthropology, a relationship believed by the author to be critical components to dissecting Pacific Islands small-scale subsistence-based fisheries. Despite the conflicts between western and indigenous epistemologies, this presentation aims to expose difficult discussions around the advantages and disadvantages of both knowledge forms in an effort to stimulate conversation around achieving a seemingly impossible end that justifies the means.

## **Yerna, Priyanka I; Manuela, Sam I; Daniela-Wong, Evangeline 2; Kokaua, Jesse 3**

1 : *The University of Auckland*

2 : *The Māori Ora Cook Islands Ministry of Health*

3 : *University of Otago*

**Special Session:** *Mental Health in the Cook Islands*

### ***Mental health and wellbeing of Cook Islands LGBTQIA+ Akavai ne communities***

This project uses data from Te Akirata Marama to describe any differences in anxiety symptoms, depression symptoms, psychological distress, and wellbeing across gender and sexual diversity in the Cook Islands. A series of ANCOVAs were conducted to test for differences across measures of anxiety (GAD-7), depression (PHQ-9), distress (K-10), and wellbeing (PWI) across three groups: (1) Akavai ne & LGBTQIA+ (2) Heterosexual Females (3) Heterosexual Males. Covariates include age, Cook Islands ethnicity, country of birth, religiosity, and location (Rarotonga or Aitutaki).

Heterosexual females reported greater anxiety, depressive, and distress symptoms compared to heterosexual males. The same pattern of differences were found between LGBTQIA+Akavai ne and heterosexual males; however these differences were not statistically significant. Akavai ne & LGBTQIA+ reported lower wellbeing compared to both heterosexual females and males.

These findings describe differences in mental health experiences and wellbeing observed across gender and sexual diverse communities in the Cook Islands. Future research may provide evidence to explain the differences described here. Mental health support and social support tailored to the needs and experiences of LGBTQIA+, Akavai ne, women, and men may help reduce these differences.

## **Wacalle, Fabrice I; Razefimandimbimana, Eliatiana; Beerune, Suzier; Rochette, Lovelina**

1 : *Université de la Nouvelle Calédonie*

**Special Session:** *Exploring this Sea of Languages: Challenges for Pacific Linguistic Diversity in the 21st Century.*

### ***Oceanicity in Pedagogy: Creatively Plurilingual Practices and Situations for Working Together***

This paper is based on a two-stage objective. The first is linked to the didactics of languages in an Oceanic context, with the aim of questioning the actions (practices) and the being (postures) of teachers who are themselves bearers of diverse plurilingual and Oceanic experiences. The second is based on a collaborative approach (working together), with the aim of sharing, authorizing and raising the profile of Oceanic pedagogy. By "oceanicity", we mean the ability to construct knowledge about languages in the fluidity of an archipelagic world, and to create pedagogies that are inclusive of a plurilingualism that has historically been invisibilized, minoritized and weakened.

Given these contextual conditions, how, but above all with whom and for whom do we wish to make plurilingual oceanicity a space of resources and pedagogical references?

## **Walliah, Jerry I**

1 : *Papua New Guinea University of Technology*

### ***The effect of students' shared room accommodation on the students' academic performance at the Papua New Guinea University of Technology***

The need for accommodating university students on campus has been increasing to meet the current Government demand according to the Papua New Guinea Government Development Strategic Plan 2010 - 2030. However, the construction of new students' accommodations has not been ignored to address the students' intake demand as per the PNGSP 2010-2030. To address the demand, the existing students' accommodations has to be shared. This study was conducted to understand the effect of shared students' accommodations on their academic performance. Mixed method of both qualitative and quantitative was used in this study. A total of 100 participants were involved in this Survey and the results indicated that most students' academic performance was affected due to shared students' accommodation on the university campus. To conclude, shared students' accommodation has affected the academic performance of students. Therefore, it is recommended that the Papua New Guinea Government must assist to build more new students accommodation to alleviate shared rooms issue to enhance students' academic performance and will also meet the Government student intake demand according to the PNGSP 2010-2030



## **Watson, Bruce I**

1 : *University of Hawa'ii*

### ***The science of white gaze in Our Sea of Islands : european overreach the unceasing incursion of uncharismatic megafauna***

Franz Fanon once described the ability of White Gaze to create gravity for that which was once weightless. Following the incursion of displaced Europeans into "The Pacific," many Islands in Our Sea have become settler-occupied racialized space. In addition to the virus and disease brought to Our Sea by displaced Europeans, perhaps the worst and longest lasting violence imported by the foreigner has been White Gaze. The perception of +/- characteristic by White Gaze has resulted in life for some and death for way too many Others. By investigating the phenomena of contemporary efforts of displaced Europeans creating sanctuaries to save fish at the expense of Sea Islanders being made hungry and homeless, the logic of White Gaze lays bare how bare life is created and sustained in "The Pacific." This project seeks to better understand Academic White Gaze upon megafauna in "The Pacific." For those whose existence is subject to the violence of White Gaze, how we are perceived by White Gaze directly affects the survival of our form-of-life.

## **Wau, Joyson 1; Tereve, Olivia 2; Guentas, Linda 2; Medevielle, Valérie 2; Timi, David 3; Pocquet, Nicolas 4;**

### **Oelgmöller, Michael 1 5; Lebouvier, Nicolas 2**

1 : *James Cook University*

2 : *Université de la Nouvelle Calédonie*

3 : *Papua New Guinea University of Technology*

4 : *Institut Pasteur de Nouvelle-Calédonie*

5 : *Hochschule Fresenius University of Applied Science*

### ***Antibiotic activities of essential oils of Myrtaceae from Oceania***

Despite advances in synthetic chemistry, natural products still represent a rich and diverse source of novel biologically active compounds. Essential oils are especially promising renewable materials and are widely used for their fragrant, medical, or healthcare properties.

The genus *Xanthostemon* belongs to the Myrtaceae family and contains about 55 plant species that are endemic to Papua New Guinea, Australia, Indonesia, and New Caledonia. The essential oils of Australian species are known to have unique compositions, with many containing  $\beta$ -triketones. The latter compounds possess important antimicrobial activities, which makes them interesting candidates for biological activity screening. For example, the endemic species of North-east Queensland, *Xanthostemon whitei*, shows antibacterial activities against Gram positive bacteria *Bacillus cereus* and *Staphylococcus aureus*. Likewise, acylated  $\beta$ -triketones are the main antimicrobial components of mānuka (*Leptospermum scoparium*) essential oil. Although  $\beta$ -triketones represent promising candidates for novel antibacterial agents, no structure-activity relationship study has been conducted yet to correlate their biological activity and molecular structure. The chemical compositions of *Xanthostemon* species from Oceania were thus determined and several natural  $\beta$ -triketones were successfully identified. Several synthetic analogues were likewise prepared to broaden the scope of the structure-activity relationship study.

The results from this research may assist local essential oil producers to potentially diversify and add value to their product portfolios.

## **Wajlème, Noreen 1; Parravicini, Valeriano 2; Vigliola, Laurent 1; Bustamante, Paco 3; Walo, Emmanuel 4;**

1 : *UMR ENTROPÉE (UR-IRD-CNRS-IFREMER-UNC)*

2 : *Université de Perpignan Via Domitia*

3 : *La Rochelle Université*

4 : *Aix-Marseille Université*

### ***The extent of reef fish contamination in New Caledonia***

Worldwide, coral reef ecosystems are increasingly subject to natural and anthropogenic threats. Among human disturbances, chemical pollution is probably one of the most widespread. New Caledonia has a very speciose marine biodiversity, but due to intensive mining, increasing urbanisation and industrialisation, quantities of contaminants are present in the lagoon. This study aims to determine the concentration levels of metallic and organic pollutants in fish from New Caledonian coral reefs.

Concentration levels of 12 metallic trace elements, 21 pesticides and 15 polychlorinated biphenyls (PCBs) were examined in the muscles of coral reef fish collected in 13 lagoon areas differently exposed to anthropogenic disturbances. The use of widely distributed year-round organisms can provide comparative data across the lagoon. Our results showed a wide dispersion of most contaminants throughout the whole New Caledonian coral reef lagoon, with approximately 15 contaminants that biomagnify and 33 contaminants that bioaccumulate varying by site. These results therefore provide key baseline information to better interpret the impact of contaminants and also highlight an urgent need for long-term monitoring of various contaminants on large spatial and temporal scales.

## **Wess, Linda 1; Underhill, Steven 1**

1 : *University of the Sunshine Coast*

### ***Pacific university agricultural capacity building through the academic support model***

Pacific universities often experience endemic challenges maintaining and nurturing their internal innovation systems. In recent years, many Pacific universities have experienced progressive erosion of their agriculture teaching and research capacity, or an increased reliance on the global innovation landscape.

Enabling a more resilient Pacific university agricultural teaching and research innovation system is critical to a sustainable Pacific future. Pacific university agricultural teaching and research, and the future thinkers' it generates, is central to the Pacific's response capacity to climate change impacts, unsustainable production systems, and human health impacts. In 2008, Australian Centre for International Agricultural Research (ACIAR) undertook a long-term commitment to help build and retain Pacific agricultural human capital based around a capacity building partnership with agricultural-intensive universities in Fiji and Samoa.

This paper will provide a brief overview of the Pacific Agriculture Scholarships, Support and Climate Resilience (PASS-CR) program, opportunities for the future, and key learnings gleaned from the last three years. Academic support provided by the Australian Centre for Pacific Islands Research (ACPRI) at the University of the Sunshine Coast seeks to support Australian and Pacific academics, students, and their universities to enhance research capacity. Capacity building is much more than merely transferring skills and knowledge. Traditional capacity building through provision of scholarships is limited to building research capability at the individual level. Partnering through sharing best practice and providing academic support at multiple levels including training, mentoring, leadership, sharing best practice, work placements and staff exchanges between partner universities can lead to an enhanced agricultural research, education, and innovation system to address the challenges facing Pacific agriculture now and into the future.

## **Wheeler, Ben 1,2,3,4**

1 : *The University of the South Pacific*

2 : *Pacific community*

3 : *UN Office of the High Commissioner for Human Rights*

4 : *University of Bergen*

### ***Education, Empathy and Empowerment through Pacific Filmmaking, and the University of the South Pacific***

This presentation will focus on the experiences I have had in the last four years of curating film festivals and making movies in Fiji.

In 2021 and 2022 I curated the USP based Fiji Human Rights Film Festivals, which focused largely on Pacific films with Human Rights themes. In 2022 I also curated the first RARAMA Fijian Film Festival that showcased the work of Fijian filmmakers. During this time I have also made one film, *The Patience Project: Fijian Creativity in the Time of COVID*, which has had some success on the international film festival scene, and another forthcoming untitled documentary on the experiences of Pacific Island and European students on the research vessel *Statstrand* Lehnkuhl whilst in Pacific waters. These experiences have allowed me access to filmmakers, activists, advocates and audiences in the Pacific, who have excitedly reported the personal, social and cultural shifts that have occurred in the context of making, screening and viewing these movies.

With a particular focus on Nuclear Savage (2011), *Letis in Waiting* (2018), *Vai* (2019), *Kapaemahu* (2020), and my own forthcoming documentary, I will explore the power of film to cross cultural boundaries, expand awareness, increase tolerance, break down barriers and create connections within the Pacific and beyond.

**Wichman, Valery 1, 2**  
1 : Te Tāre Association  
2 : Massey University

### *Turanga memetaki no te iti tangata anuanua: wellbeing for the Rainbow community of the Cook Islands*

This research will aim to understand Turanga Memetaki (wellbeing) of the Anuanua (rainbow) community for better policy making by understanding the views and experiences within the Cook Islands Anuanua community. Historical trauma from colonisation and its legacy and epistemicide of Cook Islands Māori knowledge systems provide a backdrop and an intersection for the Anuanua community who become further stigmatised by these realities.

A Cook Islands indigenous approach to understanding Turanga memetaki includes the use of Akapapa'anga (genealogies) and Vananga (constructive dialogue). Akapapa'anga can help describe Māori knowledge (epistemology) and Māori realities (ontology) in a more effective and culturally appropriate way and as a process of narration helps in generating knowledge too (Powell, 2021, p.73). Akapapa'anga encapsulates the Cook Islands world view through our connections to the land, sea, air and all other entities. It underlies our responsibilities as mana taki (empowered custodians) and ensures that no one in the tribe is left behind. This research is currently being undertaken as part of my thesis for a Masters of International Development and is expected to be completed by the end of 2023

**Wong, Evangelene 1**  
1 : Te Mārcé Orā

### *Privates of our Oceans?*

I would like to share a piece that I am doing (on the 19th April) for the United Nations Indigenous Permanent Forum - mental health side event representing the Asia Pacific region.

It's a spoken word reflection on Cook Islands indigenous mental health spaces, and the interface between contemporary constructs/ understanding and in the light of colonization, climate change, AI AND indigenous perspectives.

**Worth, Heather 1,2**

1 : The University of the South Pacific  
2 : Te Puna Vai Marama, the Cook Islands Centre for Research

### *Foucault in the Pacific: fertility, biopower and biopolitics*

What if Foucault was an academic at UNC or UPF? What might his contribution be to a consideration of biopolitics and biopower in the Pacific.

While Foucault's History of Sexuality does not deal with colonisation, the book introduces fertility and reproduction as a "hinge" between his studies of sexuality and his studies of biopolitics. This hinge opens a series of questions that are themselves not explored in Foucault's texts: how does fertility become a problem of both bodily conduct of Pacific women and of a specifically colonial form of biopower and biopolitics? Fertility became a dense transfer point of power relations in the French, British and German Pacific territories in the nineteenth century. Growing internal sexual tensions within the colonial enterprise in the Pacific meant an increased emphasis on the domestic sphere and the governing of Pacific women's bodies.

In this paper I will trace the genealogy of reproductive biopower and biopolitics to the present day and will argue that these Foucauldian tensions are not resolved in the twentieth century by the granting of independence. In fact, they are extended by the globalisation of reproduction and the discourses of modernisation (the 'right' to reproductive health as a global norm) and responsibility (the duty of Pacific women to severely limit family size). I will argue that biopower is both inherited and resisted in the lived experience of Pacific women.

**Yali, Glen 1, sekac, Tingneyuc 1; Rengaji, Orā 1; Napitakai, Alois 1; Nickson, Runitha 1; Ifu, Cathy 1; Koloa, Cathy 1**  
1 : Papua New Guinea University of Technology

### *Planet Dove Satellite detection and monitoring of coral bleaching during an active bleaching episode in Papua New Guinea*

Coral bleaching is now an active and unpredictable series of events due to marine heatwaves from global sea temperature rise. This study was conducted during an active bleaching episode to understand and improve satellite detection and monitoring of coral bleaching in Papua New Guinea (PNG), a hotspot for the Pacific region in late 2022 according to NOAA Coral Reef Watch. The Coral Reef Alliance identified a predefined bleaching period for the southern Pacific region as January to March annually. Monitoring from this period in 2022 using Planet Dove Satellite, we identified an unpredicted bleaching episode for the Pacific region concentrated on PNG which was September to November 2022. Our satellite detection of this episode was at 3m spatial resolution. We conducted a standard Reef Check Survey to verify our satellite detection. The study targeted the bleaching hotspot region being the north-eastern coast of PNG mainland. For bleaching detection, we extracted mean marine reflectance from the Planet Dove Green and NIR bands for all available cloud-free images within a single month. Bottom surface reflectance was then extracted and treated as a spectral index to extract bright pixels that are 1 and 2 Standard Deviations from the mean pixel value. We defined a baseline two months before the bleaching episode and subtracted each monthly detection using an intersect criteria to extract precise bright pixels that indicate severe, moderate, and low coral bleaching events. The detection was more precise at 9m2 per pixel and an average of ~97.73% of the variance in pixel brightness for the entire episode was explained. It was observed that the consistency parameter of the spectral index approach is its fixed value range of 0 to 14,881 which seamlessly enabled temporal comparisons within the bleaching episode and with the baseline which we suggest is an effective bleaching detection approach.

**Zimny, Valérie 1**  
1 : Université de la Polynésie Française

### *Sharing pedagogical practices for teaching French at the University of French Polynesia: demystifying the norm to achieve excellence*

The sociolinguistic situation in French Polynesia, marked by a plural diglossia described by Jean-Michel Charpentier and Alexandre François (2015), has consequences for the academic success of students who have little access to the norm outside school. 40% of young people leave school without a diploma. For those who continue their education journey to higher education, the failure rate is considerable.

As part of the Plan "Réussite en Licence" (Pass your Bachelor's Degree) driven by the French government in 2013, the University of French Polynesia decided to create a Teaching Unit aimed at improving writing and spelling skills. Voltaire certification, orchestrated by a private organization, attests to the level achieved in spelling. For many students, marked by years of failure in this area, it represents a tedious test.

Thus, the heterogeneity of the groups, the linguistic insecurity and the extent of the shortcomings are the main challenges to be met in this area of teaching. Three elements are fundamental to achieving this: a caring atmosphere, necessary to restore confidence and generate student commitment to the activities, innovative projects to give meaning back to the written standard, and the use of ICT, essential to the memorization of content.



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