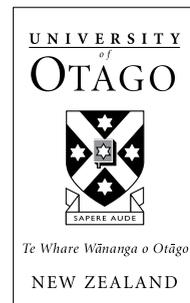
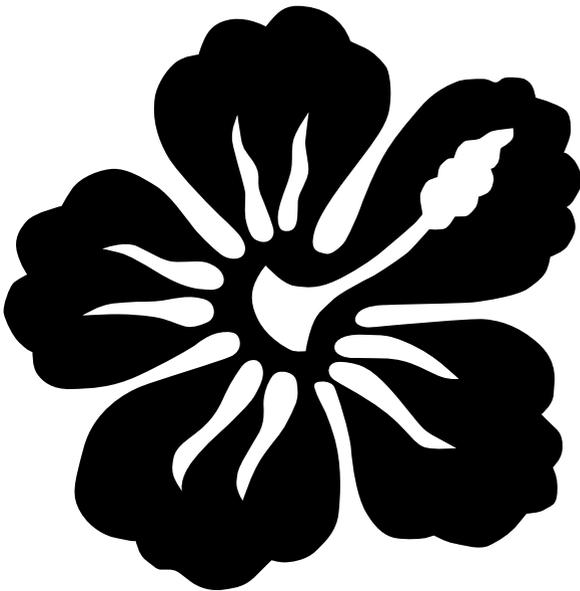

Pacific Voices VIII

PACIFIC POSTGRADUATE SYMPOSIUM

6 OCTOBER 2011



Published by the Pacific Islands Centre, University of Otago

This publication is also available on the website of the Pacific Islands Centre, University of Otago: www.otago.ac.nz/pacific

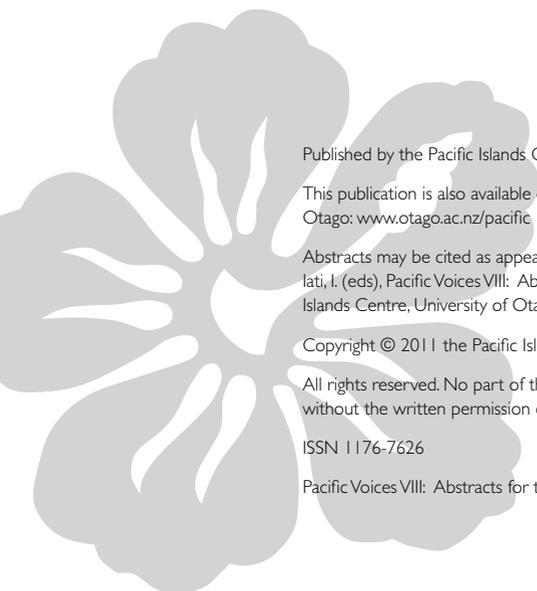
Abstracts may be cited as appearing in Matthewson, C., Taumoepeau, M., Burnett, G., and Iati, I. (eds), Pacific Voices VIII: Abstracts for the Pacific Postgraduate Symposium, Pacific Islands Centre, University of Otago (2011).

Copyright © 2011 the Pacific Islands Centre, University of Otago

All rights reserved. No part of this work may be reproduced in any form by any means without the written permission of the Manager of the Pacific Islands Centre.

ISSN 1176-7626

Pacific Voices VIII: Abstracts for the Pacific Postgraduate Symposium



FOREWORD

Welcome to Pacific Voices VIII. It is an honour to have been invited once again to write the Foreword to this splendid publication.

Pacific Voices is now well and truly entrenched in the graduate research agenda at the University of Otago. As so confidently announced by Tofilau Nina Kirifi-Alai* when *Pacific Voices* was initiated in 2004, it has indeed become a “gift to be cherished”.

I and the University are immensely proud of the important and enthusiastic contribution that Pacific students make to the research efforts of this University. To those whose work appears in the following pages and who will be presenting at the 2011 Pacific Postgraduate Symposium, please accept my sincere congratulations. Your research is impressive, inspiring and it makes a difference.

You are all part of an extremely important and valuable graduate research community. You push the boundaries of new knowledge, you bring new ideas, you are creative, energetic and enthusiastic, and you contribute hugely to Otago’s research efforts and culture. Without you, and your supervisors, this University would not be the same.

To the reader of *Pacific Voices VIII*, I feel certain that, like me, you will also be intrigued and amazed at the quality and variety of research that appears in the following pages. Enjoy your reading!

I would like to conclude by thanking all those responsible for *Pacific Voices VIII* and in particular Tofilau Nina Kirifi-Alai, Drs Greg Burnett, Claire Matthewson, Mele Taumoepeau and Nanai Iati Iati.

Dr Charles Tustin

Director, Graduate Research Services



* Nina wrote in the first edition (2004) of *Pacific Voices*: “I am sure that the beautiful aria and tenor of ‘Pacific Voices’ will resonate for many moons to come, a poem in their own right: a gift to be cherished.”

CONTENTS

Foreword: **Dr Charles Tustin**

Constructing a public theology for Samoa Mercy Ah Siu-Maliko	6
To investigate the role of <i>Pdzk1</i> genetics variants on gout risk in New Zealand Pacific Island, Māori and Caucasian people Sara Altaf	8
Spatial and temporal variation in the chemical composition of Samoan rain Patila Malua Amosa	10
Probiotics for bacterial vaginosis in pregnancy Margaret May Baekalia	12
Delivering responsive, sustainable Pacific mental health services in Aotearoa/New Zealand Nandika Currey	14
Knowledge, attitudes and practice of family planning of Fijian women in Fiji and New Zealand Radi Laite Delaibatiki	16
Assessing health from an injury study using a Pacific model Radi Laite Delaibatiki	18
Mixed Blessings: Life stories of War children born to US servicemen and Cook Islands women Marsa Dodson	20
Home-land loss in Kiribati: Cultural and national identity in the face of rising sea levels Ilka Fedor	22
Climate law in the Pacific: Interpreting the principle of common but differentiated responsibilities Jacqueline Frances Fa'amaile Lafalafa Fa'amatuaunu	24
Do monetary shocks cause regional prices to go bananas? An empirical investigation into the asymmetric effects of monetary policy shocks on regional prices within Fiji Fred Gibson	26
<i>Mai Le Tūmoa I Le Masini</i> – From <i>umu</i> to machine Seth Gorrie	28
Top-down control of <i>Acanthaster Planci</i> populations in Fiji by the predator, <i>Charonia Tritonis</i> Adam C Hesse	30

Natural hazard planning: The contribution of Cook Island Māori traditional knowledge in the Cook Islands, South Pacific Marina Millicent Hetaraka	32
Legal education and career transitions of Pacific Island graduates in New Zealand Mara Kawehiwehi Mauiola Hosoda	34
How is social justice understood within career education in New Zealand secondary schools? Barrie Irving	36
Management of maxillofacial injuries and fractures in Samoa Fuimaono Peni Junior Leavai	38
Exploring urban principals' perceptions of leadership and management training in Fiji Narsamma Lingam	40
Dietary and exercise impacts of health conscious people in Dunedin Shivanjali Lingam	42
Responding to Peak Oil and climate change in the Caribbean and Pacific: The role of renewable energy in the power sector Keron Niles	44
The Foreshore and Seabed Debate: Contrasting visions of equality and rights Abby Suszko	46
An investigation of ectomycorrhizal fungal diversity in old growth southern <i>Nothofagus</i> forests Suliana E Teasdale	48
Obesity and cardiovascular diseases amongst Palauans: Implications for public policy Maurice Patrick Termeteet	50
The <i>Aoga A Le Faifeau</i> (Pastor's School): Its place in the education system in Samoa today Faapōpō Tupolo-Tauaanae	52
Media framing of the Solomon Islands' Conflict, 1998-2000 Courtney Wilson	54
<i>Faafetai tele lava</i> Tofilau Nina Kirifi-Alai	56
APPENDIX	58
Opening address, Pacific Postgraduate Symposium, 1 October 2010 Professor Vernon Squire Deputy Vice-Chancellor (Academic and International)	



MERCY AH SIU-MALIKO

Mercy is Samoan, a wife and mother of three. Her first two degrees (BA and BTheol) were undertaken at the University of Auckland. Mercy also has a Master of Theology degree from Pacific Theological College in Suva. She is currently undertaking doctoral studies with support from a University of Otago PhD scholarship.

Academic department: Theology and Religious Studies,
University of Otago

Supervisors: Professor Andrew Bradstock (primary)
(Otago)
Dr Sailau Suaalii-Sauni (Victoria)

Email address: mercysm007@live.com



CONSTRUCTING A PUBLIC THEOLOGY FOR SAMOA

Mercy Ah Siu-Maliko

Alofa (love), *amiotonu* (justice), *tautua* (selfless service), *fa'aaloalo* (reciprocal respect) and *soalaupule* (consensual dialogue) are core values of the *fa'asamoa* (Samoan custom and culture), *aga-i-fanua* (customs of the land) and *fa'akerisiano* (Christian values). This project explores how these align with the views of a public theology¹ for Samoa.

The project examines the views of representatives of social, political and theological institutions operating in Samoan society and their underlying value systems, and identifies how these contribute to processes that define a public theology for Samoa. I obtained these views through personal interviews. These are then examined in relation to relevant theological, sociological and historical academic literature relating to public theology and Samoan society. A Pacific qualitative research methodology, the *talanoa*,² is used.

Emerging field research results suggest that the aforementioned core values underpin a Samoan theology of self and society. What is particularly interesting is the suggestion that there is an urgent need for these core values to be made 'more public'. My presentation will discuss this and other preliminary findings from my interview data and literature review.

Keywords: theology, Samoa, culture, talanoa

¹ Marty, Martin. (1981). *The Public Church*. New York: Crossroad.

² Robinson, D., & Robinson K. (2005). *Pacific ways of talk – hui and talanoa*. Wellington: Social and Civil Policy Institute.



SARA ALTAF

Sara is an international PhD student in Biochemistry. She received her MSc in Molecular Biology from the University of Punjab, Pakistan. Her PhD topic of research is *“Finding a Genetic Link between Metabolic Diseases – Gout and Type 2 Diabetes.”*

Academic department: Biochemistry, University of Otago
Supervisor: Associate Professor Tony Merriman
Email: altsa782@student.otago.ac.nz



TO INVESTIGATE THE ROLE OF *PDZK1* GENETICS VARIANTS ON GOUT RISK IN NEW ZEALAND PACIFIC ISLAND, MĀORI AND CAUCASIAN PEOPLE

Sara Altaf and Tony Merriman

Gout is caused by excess uric acid in the body. The uric acid solidifies in the joints, with gout resulting from recognition of the uric acid by the immune system. Pacific Island and Māori people have an increased predisposition to gout. Both genetic and environmental factors are involved. Gout is also associated with other metabolic conditions such as obesity, type 2 diabetes, and hypertension. The *PDZK1* gene has a role in a number of biological functions such as signal transduction, regulating ion channels and the activities of interacting proteins.¹ *PDZK1* variants are not only associated with the metabolic syndrome but are candidates for playing a role in gout because they also regulate serum urate levels.² The aim here was to test *PDZK1* for a role in gout, using the case-control approach.

Three genetic *PDZK1* variants (rs11576685, rs1284300, rs1967017) were genotyped over patients: 424 Caucasian, 316 from the Cook Islands and NZ Māori (Eastern Polynesia) and 252 from Tonga, Samoa, Niue, Tokelau (Western Polynesia). Controls were 642 Caucasians, 348 from Eastern Polynesia and 143 from Western Polynesia. All the samples were meta-analyzed together.

The rs11576685 minor variant (G) was overall found to be protective against gout ($p_{\text{meta}}=0.02$, OR=0.63). The rs1284300 minor variant (T) was also protective against gout ($p_{\text{meta}}=0.01$, OR=0.79). The rs1967017 minor allele (T) was associated with gout susceptibility ($p_{\text{meta}}=0.001$, OR=1.21).

This study provides evidence that *PDZK1* has a role in gout. As gout is also associated with other metabolic conditions and given the importance of *PDZK1* gene function in other metabolic processes further study of this gene could possibly illuminate the relationship between gout and the metabolic syndrome.

Keywords: gout, metabolic syndrome, *PDZK1* gene

¹ Kocher O, Yesilaltay A, Cirovic C, Pal R, Rigotti A, Krieger M (2003). Targeted disruption of the *PDZK1* gene in mice causes tissue-specific depletion of the high density lipoprotein receptor scavenger receptor class B type I and altered lipoprotein metabolism. *Journal of Biological Chemistry*, 278(52):52820.

² Merriman TR, Dalbeth N (2011) The genetic basis of hyperuricaemia and gout. *Joint Bone Spine*, 78(1):35-40.



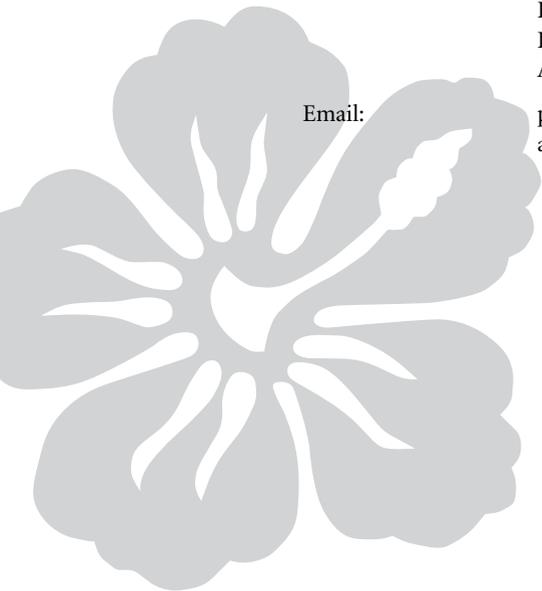
PATILA MALUA AMOSA

Patila completed her BSc/DipEd at Flinders University of South Australia. She then worked at the National University of Samoa for 12 years before coming to the University of Otago for a Postgraduate Diploma in Science (2005) and an MSc in Environmental Science (2006). Patila returned to Otago this year to start her PhD, looking at the impact of ocean acidification on calcifying organisms.

Academic department: Chemistry, University of Otago

Supervisors: Professor Keith Hunter
Dr Kim Currie
Dr Sylvia Sander
Associate Professor Abby Smith

Email: pamosa@chemistry.otago.ac.nz
amopa712@student.otago.ac.nz



SPATIAL AND TEMPORAL VARIATION IN THE CHEMICAL COMPOSITION OF SAMOAN RAIN

Patila Malua Amosa

A six-month study was conducted in 2006 to determine the chemical characteristics of rainwater collected on Upolu Island, Samoa. Samples were collected at a baseline site on an event and sub-event basis and analysed for pH and the concentrations of Na^+ , K^+ , Ca^{2+} , Mg^{2+} , Cl^- , NO_3^- , SO_4^{2-} . These baseline data were used to describe the general chemistry, temporal variability and the chemical composition of the rainwater and to determine the potential sources of ions from ten-day back trajectory modelling, tracers and correlations between concentrations of the ions. Rainwater samples were collected from three other sites on Upolu Island and analysed for the same ions to determine the spatial variation in rainwater composition.

The mean pH of 6.5 is more alkaline than the natural rainwater value of 5.6 calculated for dissolution of just CO_2 . The concentrations of ionic species (in $\mu\text{eq/l}$) followed the order $\text{Cl}^- > \text{SO}_4^{2-} > \text{NO}_3^-$ for anions and $\text{Na}^+ > \text{Mg}^{2+} > \text{Ca}^{2+} > \text{K}^+$ for cations. Rainwater collected over the 'dry' season (June - August) showed marginally higher individual ion concentrations than those of the wet season (January - March). During the progression of a rain event, the concentration of all ions decreased. For the spatial distribution of ions, rainwater from the southern coastal site (in a rain shadow area) contained a higher concentration of ions than those from the northern sites (with heavier orographic rainfall). Back trajectory calculations suggested that most of the ions originated from the ocean with smaller contributions to potassium and magnesium levels from continental matter. The Na^+ tracer indicated non sea-salt sulphate SO_4^{2-} _{nss} and a regression analysis between SO_4^{2-} _{nss} and pH indicated both anthropogenic and non-anthropogenic sources of sulphate.

Keywords: Samoan rain, rainwater chemistry, spatial variability



MARGARET MAY BAEKALIA

Margaret is from Solomon Islands. After completing a Diploma in Medical Laboratory Technology from the Fiji School of Medicine, Margaret worked as a medical technologist from 1994 to 2000. After completing a BSc in biochemistry and microbiology at Otago, she worked as a medical laboratory manager/microbiologist for Solomon Islands Medical Laboratory Services (2005 – 2008). Margaret obtained a PGDipSci in 2009 and this year successfully completed a Master of Science degree in microbiology.

Academic department: Microbiology and Immunology,
University of Otago

Supervisors: Dr Heather Brooks
Professor Margaret Baird

Email: baema617@student.otago.ac.nz
mbaekalia@gmail.com



PROBIOTICS FOR BACTERIAL VAGINOSIS IN PREGNANCY

Margaret May Baekalia

Bacterial vaginosis (BV) is one of the infections that predispose pregnant women to preterm labour and post delivery complications.^{1,2} The use of antibiotics to treat the BV is not effective with high recurrent or antibiotic resistant cases.³ The alternative approach, which led to the current study, is to use *Lactobacillus* strains as potential probiotics for prophylaxis or for treatment of BV.^{4,5}

Six *Lactobacillus* strains were explored in terms of their capacity to inhibit two BV bacterial growths and to modify immunological responses the BV strains induced in the host. The THP-1 cell line and monocyte derived dendritic cells were used in vitro in order to closely resemble the in vivo situation of host. These cultured cells were exposed to BV bacteria alone or in combination with various strains of lactobacilli. Supernatants from these cultures were assayed for pro-inflammatory and anti-inflammatory cytokine content.

Lactobacillus acidophilus was found to have the most potential as a probiotic to inhibit the BV bacteria using the bacterial interaction studies. The cytokines induced by the lactobacilli demonstrated that the different *Lactobacillus* strains affected the immune responses differently. They were found to induce both the pro-inflammatory and anti-inflammatory responses. An interesting trend towards the production of IL-10 was observed following exposure of both THP-1 and monocyte-derived dendritic cells to *L. gasseri* and *L. rhamnosus* in combination with the BV bacteria.

This promising result indicates that further research may lead to the identification of a potential probiotic to protect pregnant women who have BV.

Keywords: bacterial vaginosis (BV), probiotics, cytokines, pregnancy

-
- ¹ Wang, J. (2000). Bacterial vaginosis. Prim care update. *Ob. Gyns* 7, 181–185.
 - ² Denney, J.M., and Culhane, J.F. (2009). Bacterial vaginosis: A problematic infection from both a perinatal and neonatal perspective. *Seminars in Fetal & Neonatal Medicine* 14, 200–203.
 - ³ Bradshaw, C.S., Morton, A.N., Hocking, J., Garland, S.M., Morris, M.B., Moss, L.M., Horvath, L.B., Kuzevska, I., and Fairley, C.K. (2006). High Recurrence Rates of Bacterial Vaginosis over the Course of 12 Months after Oral Metronidazole Therapy and Factors Associated with Recurrence. *J Infect Dis* 193, 1478–1486.
 - ⁴ Mastromarino, P., Brigidi, P., Macchia, S., Maggi, L., Pirovano, F., Trinchieri, V., Conte, U., and Matteuzzi, D. (2002). Characterization and selection of vaginal *Lactobacillus* strains for the preparation of vaginal tablets. *J Applied Microbiol* 93, 884–893.
 - ⁵ McLean, N.W., and Rosenstein, I.J. (2000). Characterisation and selection of *Lactobacillus* species to re-colonise the vagina of women with bacterial vaginosis. *J Med Microbiol* 49, 543–552.



NANDIKA CURREY

Nandika Currey is a PhD candidate and Research Manager at the University of Otago, Wellington. Her PhD topic stems from a Health Research Council study to develop a toolkit for use in primary mental health care. Nandika led the Pacific component of this study.

Academic department: Social Psychiatry & Population Mental Health Research Unit, University of Otago, Wellington

Supervisors: Professor Sunny Collings
Dr Karlo Mila-Schaaf

Email: nandika.currey@otago.ac.nz



DELIVERING RESPONSIVE, SUSTAINABLE PACIFIC MENTAL HEALTH SERVICES IN AOTEAROA/ NEW ZEALAND

Nandika Currey

Pacific peoples experience mental disorders more commonly than the general population.^{1,2} This disproportionate mental health burden is met with service trends of: late presentation, high rates of emergency referral, longer stays and the highest average cost of adult inpatient and community episodes.³ To address these gaps and incorporate cultural models of care, Pacific mental health services were created.⁴ However, as Pacific mental health services have evolved, there have been greater demands placed on them to demonstrate that they are operating successfully, particularly in the areas of service responsiveness, and more recently, sustainability.^{5,6}

This project will investigate Pacific mental health service provision and identify the key elements for building successful services. A culturally-appropriate methodological framework based on two Pacific-specific and two mainstream approaches has been developed for engagement and analysis. Mental health service providers and key informants (academics and policy officials, with knowledge of, and experience in, Pacific mental health) will be interviewed. Data from three sources (interviews, documents and direct observation) will be used to achieve methodological triangulation. NVivo qualitative software will be used to analyse the data. The findings will inform the development of an evidence-based framework comprising key elements for building successful, responsive and sustainable Pacific mental health services. This knowledge will assist in improving service delivery to better meet the needs of Pacific peoples.

Keywords: Pacific, mental health services

- ¹ Foliaki, S., Kokaua, J., Schaaf, D. & Tukuitonga, C. (2006). Pacific People. In Oakley-Browne, M.A., Wells, J.E. & K.E. Scott (Eds.), *Tē Rau Hinengaro: The New Zealand Mental Health Survey* (pp. 178-208). Wellington: Ministry of Health.
- ² Suaalii-Sauni, T., Wheeler, A., Etuate, S., Robinson, G., Agnew, F., Warren, H., Erick, M. & Hingano, T. (2009). Exploration of Pacific perspectives of Pacific models of mental health service delivery in New Zealand. *Pacific Health Dialogue*, 15 (1): 18 - 27.
- ³ Mila-Schaaf, K. & Hudson, M. (2009). The interface between cultural understandings: Negotiating new spaces for Pacific mental health. *Pacific Health Dialog*, 15 (1), 113 – 119.
- ⁴ Agnew F, Pulotu-Endemann FK, Robinson G, Suaali'i-Sauni S, Warren H, Wheeler A, Erick M, Hingano T, Schmidt-Sopoaga H. (2004). *Pacific Models of Mental Health Service Delivery in New Zealand "PMMHSD" Project*. Auckland: Health Research Council of New Zealand.
- ⁵ Le Va. (2009). *Kato Fetu: Setting a Pacific mental health and addiction research agenda summary*. Auckland, New Zealand: Le Va.
- ⁶ Ministry of Health. (2010). *Lalaga: Pacific providers making a difference*. Wellington, New Zealand: Ministry of Health.



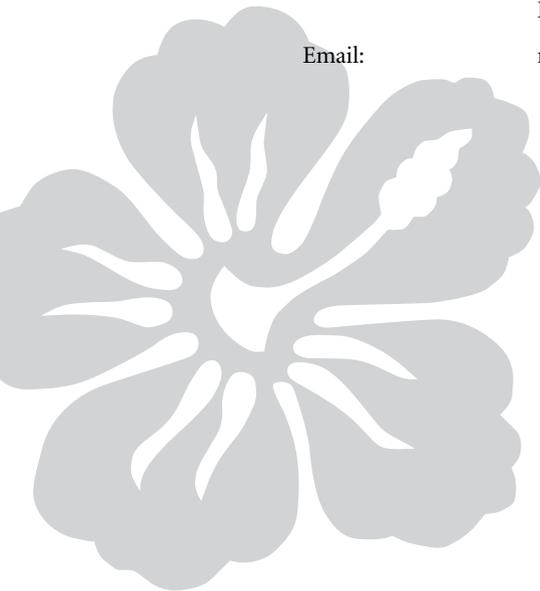
RADI LAITE DELAIBATIKI

Radi Laite is originally from Fiji. She has a BSc, majoring in Anatomy and Structural Biology, a Diploma in Public Health and a Master of Public Health with Credit from the University of Otago. Her research interests lie in the area of Pacific reproductive health and maternal health. She is now undertaking study for her PhD.

Academic department: Preventive and Social Medicine,
University of Otago

Supervisors: Dr Patricia Priest
Dr Faafetai Sopoaga

Email: radilaite.delaibatiki@otago.ac.nz



KNOWLEDGE, ATTITUDES AND PRACTICE OF FAMILY PLANNING OF FIJIAN WOMEN IN FIJI AND NEW ZEALAND

Radi Laite Delaibatiki

On average women in resource-poor countries suffer greater morbidity and mortality as a result of pregnancy.^{1,2} Family planning has been recommended by the World Health Organization as one of the main services needed to improve the health of mothers and reduce maternal deaths.³ In spite of these disparities, there is a lack of family planning literature in resource-poor countries, particularly in the Pacific.

Due to the degree of social and cultural influences on the lives and decisions of Pacific women, research into the perceptions, attitudes and practices of family planning is currently not sufficient to determine access and barriers to family planning services.⁴ This research is needed not only in Pacific Island countries but also in countries to which many Pacific women migrate and where their uptake of family planning services is low.

This study project assesses the knowledge, attitudes and practices of family planning amongst Fijian women and assesses them in two settings – Fiji and New Zealand. It aims to identify the determinants of the level of uptake of family planning services and provide information that will lead to the more effective targeting and implementation of these services.

Keywords: maternal health, family planning, Fiji

¹ WHO (2009). "Maternal Health." Retrieved 01/10/09, from http://www.who.int/topics/maternal_health/en/.

² Lewis, G. (2008). "Reviewing maternal deaths to make pregnancy safer." *Best Practice & Research Clinical Obstetrics & Gynaecology* 22(3): 447-463.

³ WHO (2004). "Maternal Mortality in 2000; estimates developed by WHO, UNICEF and UNFPA."

⁴ Jameson A, Sligo F, Comrie M. (1991). "Barriers to Pacific women's use of cervical screening services." *Aust N Z J Public Health* 23: 89-92.



ASSESSING HEALTH FROM AN INJURY STUDY USING A PACIFIC MODEL

Radi Laite Delaibatiki, Sarah Derrett and Faafetai Sopoaga

Pacific views of health are different to mainstream medical and biomedical approaches. The Fonofale model posits that culture, spirituality, family and the environment are important to consider when assessing Pacific health. We undertook a study that assessed the survey instrument used in an injury population outcomes' study to ascertain whether aspects of the Fonofale model were encompassed.

Although the survey covered all aspects of the Fonofale model, we found it lacking in questions reflecting cultural, spiritual and family well being. Our findings identified areas that could be expanded in other general population studies in order to better serve Pacific peoples.

Keywords: Fonofale model, Pacific health



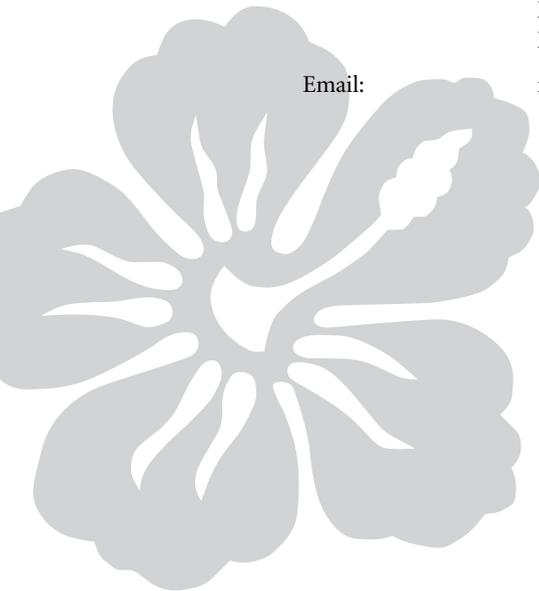
MARSA DODSON

Marsa received a BA in Law and Justice in 1992, a Master's degree in Social Work in 2001 and a PhD in 2010 in the fields of Anthropology, Social Work and Māori Studies). Her current research is in History, the first half of which was conducted under the supervision of Professor Bennett and Dr Wanhalla. The second half is under the supervision of Professor Bennett and Dr Johnson.

Academic department: History, University of Otago

Supervisors: Professor Judith Bennett
Dr Russell Johnson
Dr Angela Wanhalla

Email: marsa.dodson@otago.ac.nz



MIXED BLESSINGS: LIFE STORIES OF WAR CHILDREN BORN TO US SERVICEMEN AND COOK ISLANDS WOMEN

Marsa Dodson

After the United States entered World War II, nearly two million servicemen in total were stationed in the Pacific. As part of the defence strategy, the Americans built two support bases in the Cook Islands: one on Aitutaki and the other on Penrhyn. Additional US military personnel served in Aotearoa. In the course of their assignments in these three locales, members of the task force met and developed relationships with Cook Islands people near their posts. From these liaisons more than 60 children were born although, at the time, the US government forbade marriages between American military personnel and their Cook Island sweethearts.

My thesis explores the social influence of the US servicemen on Cook Islanders through their presence during the War. Everything about the part-American progeny represents the social influence of their fathers on the Cook Islands families. What were the long-term effects of the temporary military men on the small island populations? What happened to the progeny born to these young unmarried parents? My research answers these questions.

Now past the half-way mark in my three-year project, I have interviewed a total of 34 Cook Island children of the War. I have also found and interviewed a total of five Cook Island mothers and one father of these part-American children born during the servicemen's stay. I have transcribed all of the oral history interviews and each of the participants has their own copy to revise as they wish for me to update during the second half of my research. Presently I have begun to write my chapters. For this presentation, I will introduce and summarize some of the mixed blessings that my participants have shared in their oral histories.

Keywords: World War II, US servicemen, Cook Islands, women, Cook Islands/part-American children



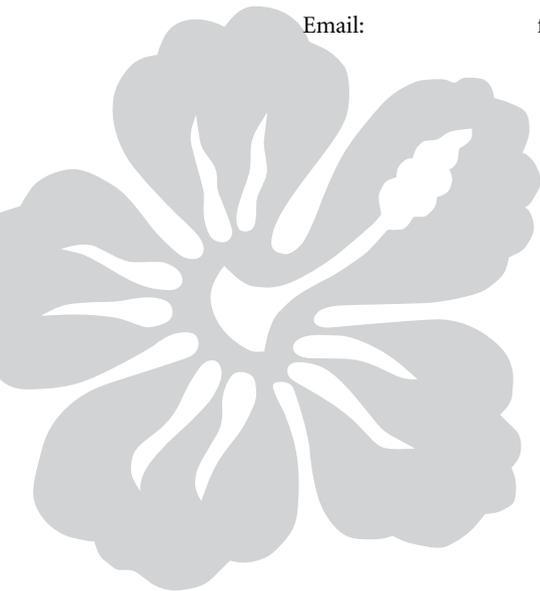
ILKA FEDOR

Originally from Ottawa, Canada, Ilka is at Otago working on a Master of Arts degree. Her previous studies include an Honours degree in International Relations and Diplomacy from the University of Canterbury and a Bachelor of Science degree in International Business Management from Boston University.

Academic department: The National Centre for Peace and Conflict Studies, University of Otago

Supervisor: Dr Karen Brouneus

Email: fedil261@student.otago.ac.nz



HOME-LAND LOSS IN KIRIBATI: CULTURAL AND NATIONAL IDENTITY IN THE FACE OF RISING SEA LEVELS

Ilka Fedor

The Intergovernmental Panel on Climate Change (IPCC) estimates that by 2050, sea level rise will seriously compromise the ability to sustain livelihoods on low-lying Pacific Islands.¹ Of the potentially affected countries, the islands of Kiribati are amongst the most environmentally vulnerable in the world. These islands are facing an unprecedented threat of complete loss of land, and migration to surrounding nations may become necessary. Given that New Zealand is already home to a significant number of I-Kiribati, it will likely be a viable choice for resettlement. This paper will explore the problems associated with the potential loss of culture and identity that may occur after migration due to land loss and how this cultural loss might be avoided.

By interviewing I-Kiribati migrants living in New Zealand, this study aims to explore what current migrants are doing to maintain their cultural identities, and what they believe can help their communities to avoid cultural loss. In-depth personal interviews will focus on participants' perceptions of cultural identity and its ties to land, their reactions to what their government is currently saying about the issue, and the feasibility of what other countries in similar positions are doing. The research will use grounded theory to discover potential key themes in interview responses.

Keywords: cultural identity, Kiribati, rising sea levels

¹ International Panel on Climate Change. (2007). *Fourth Annual Report (AR4)*: International Panel on Climate Change, Chapter 16: Small Islands.



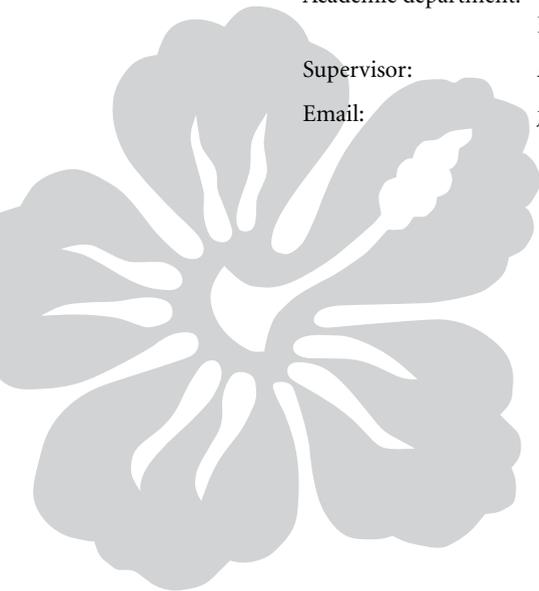
JACQUELINE FA'AMATUAINU

Jacqui was raised in Samoa. She is a graduate of the University of Auckland and past recipient of University of Auckland Summer Research Scholarships. Having studied law and management during her undergraduate years, she has narrowed her interest to the interface between resource management and sustainable development. Jacqui plans to further her studies in the areas of indigenous human rights, environmental law and development economics.

Academic department: Te Tumu – School of Māori, Pacific and Indigenous Studies, University of Otago

Supervisor: Associate Professor Jenny Bryant-Tokalau

Email: jacquif@pacific-ocean.com



CLIMATE LAW IN THE PACIFIC: INTERPRETING THE PRINCIPLE OF COMMON BUT DIFFERENTIATED RESPONSIBILITIES

Jacqueline Frances Fa'amaile Lafalafa Fa'amatuainu

Uncertainties about the scale of future climate change will have impacts that vary according to the location and economic situation of the country. The most vulnerable populations will likely be those in areas of the developing world that lack the financial resources and technology to minimise the climate change disruptions to their social, natural and economic systems.

The Small Island Developing States (SIDS) of the South Pacific region have little historical responsibility for greenhouse gas (GHG) emissions. The cost of mobilising environmental threats is one of the more challenging issues for the South Pacific as it is not merely a national issue or even merely a regional one. It is a global issue needing a global solution. With this view in mind, the United Nations Framework Convention on Climate Change (UNFCCC)¹ distinguishes among countries with dissimilar vulnerabilities to climate change. There are mixed opinions, however, on how the legal commitments to address common environmental problems should be shared among developed countries, developing countries and participating nations with economies in transition.

Central to this debate is the interpretation of the Principle of Common but Differentiated Responsibilities (PCDR). As a legal instrument, the PCDR provides a global framework for the responsibilities of developed and developing nations. Although there is less consensus over the fairest way to interpret and apply the PCDR, there is considerable agreement over the applicability of the PCDR itself. The disagreement is largely ethical in nature but reveals deeper flaws about the relevance of various principles of justice.

This normative research identifies the main issues surrounding the principles of justice used and adopts the Weijers, Eng and Das² hybrid approach as the fairest guide for sharing the responsibilities of dealing with climate change in the South Pacific.

Keywords: climate law, Pacific, differentiated responsibilities, Small Island Developing States

¹ United Nations Framework Convention on Climate Change (UNFCCC), May 9, 1992, 31 I.L.M. 849. The UNFCCC came into force on March 21, 1994.

² Weijers, Dan, Eng, David & Das, Ramon (2010). Sharing the Responsibility of Dealing with Climate Change: Interpreting the Principle of Common but Differentiated Responsibilities, in *Public Policy: Why Ethics Matters*, Edited by Jonathan Boston, Andrew Bradstock & David Eng (ANU E-Press. Australian National University, 2010).



FRED GIBSON

Fred received a Bachelor of Commerce (Hons) degree in 2009 for which he was awarded the University of Otago Pacific Peoples' Final Year Achievement Prize – Commerce. Since 2010 he has been undertaking a Master of Commerce by thesis and is currently looking into the asymmetric response of the price level in Fiji to monetary policy shocks.

Academic department: Economics, University of Otago

Supervisors: Professor David Fielding
Professor Alfred Haug

Email: fred.gibson@otago.ac.nz



DO MONETARY SHOCKS CAUSE REGIONAL PRICES TO GO BANANAS? AN EMPIRICAL INVESTIGATION INTO THE ASYMMETRIC EFFECTS OF MONETARY POLICY SHOCKS ON REGIONAL PRICES WITHIN FIJI

Fred Gibson

This research investigates the asymmetric effects of monetary policy on regional prices within Fiji. The monetary policy shocks are generated by removing any systemic response to future economic conditions from the actual policy rate that is set by the Reserve Bank of Fiji (RBF). This method of generating shocks involves utilizing the data and forecasts that the Reserve Bank of Fiji (RBF) employs when implementing monetary policy, thus ensuring that any systematic response to future economic conditions by the RBF is controlled for. Regional prices are then subjected to monetary shocks to gauge whether these regional prices respond asymmetrically to a common monetary shock.

This study has used the narrative methodology to ascertain monetary shocks, which were then applied to prices in Fiji. Single equations and the subsequent impulse response functions were used to assess the effects of monetary shocks on regional prices. Critical values on the single equation estimates and the confidence bands on the impulse response functions were simulated to gauge the precision of the estimates.

The results reveal that regional prices do respond asymmetrically within the first eighteen months after the initial monetary shock. However, the effects of the monetary shocks generally did not have any long term effects. Furthermore, the resulting regional inflation differentials, which varied in the short run, tended to dissipate within the first twelve months after the initial monetary shock. These results bode well for policy makers as the welfare consequences associated with long term regional inflation differentials are negligible.

Keywords: monetary policy shocks, inflation, Fiji



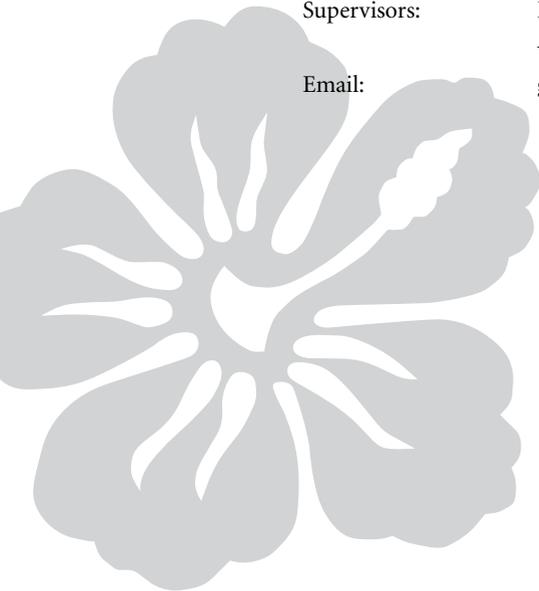
SETH GORRIE

Seth is of Samoan descent. He was born and educated in Christchurch. He was drawn to Dunedin as an inaugural recipient of the University of Otago Māori and Pacific Island Entrance Scholarship in 2006. He holds a Bachelor of Science degree in Geography from the University of Otago and is currently working towards an MSc in Geography as a recipient of a University of Otago Pacific Island Postgraduate Scholarship for 2011.

Academic department: Geography, University of Otago

Supervisors: Dr Nicolas Cullen
Associate Professor Jenny Bryant-Tokalau

Email: gorse133@student.otago.ac.nz



MAI LETUNOA I LE MASINI – FROM UMUTO MACHINE

Seth Gorrie

This research critically evaluates the “overwhelming complexity”¹ of renewable energy development in Pacific Island Countries (PICs). Attempts at initial renewable energy systems in PICs were made in the 1980s, however, these have largely failed to develop into successful alternative forms of energy generation. Activities over the past decade continue to be problematic and long-term success remains elusive today. A recent detailed case study² of renewable energy development in Vanuatu reiterates the importance of scientific and cultural parameters to renewable energy success, yet neglected to discuss and untangle this complexity in a more nuanced manner as the literature continues to do so. I assert that the evaluation of renewable energy systems is critically important and suggest that there is need to analyse such systems in order to untangle the scientific and cultural parameters that determine whether they can be defined as a success.

The aim of this research is to investigate how successfully a biomass gasification system can be redefined by attending to both scientific and cultural dimensions. As a result the research adopted a mixed-method approach to data collection and analysis. The study was carried out in the village of Patamea on the island of Savaii, Samoa. An area identified by Samoa’s Ministry of Natural Resources and Environment (MNRE) as suitable for a biomass gasification system. The presentation will detail preliminary findings from this fieldwork and explain the importance of this research in addressing current renewable energy development challenges in PICs more broadly.

Keywords: renewable energy, development, biomass

¹ Woods, J., Hemstock, S. & Burnyeat, W. (2006). Bio-energy systems at the community level in the South Pacific: Impacts and Monitoring. *Mitigation and Adaptation Strategies for Global Change*, 11(2), 469-500.

² Fischer, B. & Pigneri, A. (2011). Potential for electrification from biomass gasification in Vanuatu. *Energy*, 36(3), 1640-1651.



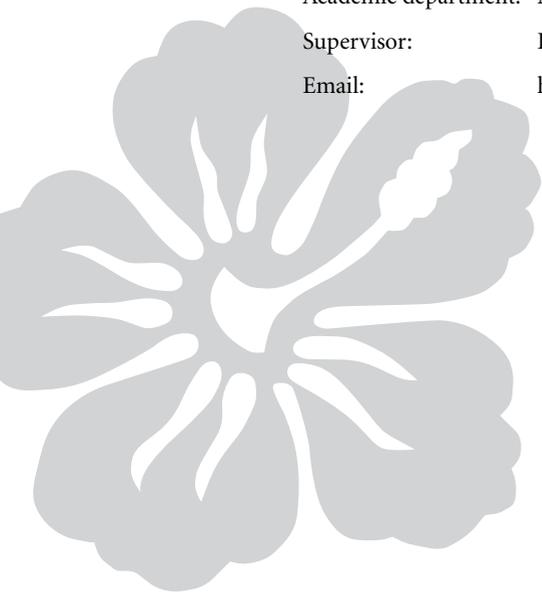
ADAM C HESSE

An admirer of the great figures produced in the ferment of the Italian renaissance, Adam is an American-born graduate of Purdue (BS in Biology, minor in organic chemistry) and Indiana Universities (BA in French Linguistics). Adam is a self-proclaimed 'jack-of-all-trades, master of none' as well as an accomplished oil painter having performed commissioned works in several European countries and throughout the United States. He is currently pursuing a Master's degree in Marine Science.

Academic department: Marine Science, University of Otago

Supervisor: Dr Candida Savage

Email: hesad913@student.otago.ac.nz



TOP-DOWN CONTROL OF *ACANTHASTER PLANCI* POPULATIONS IN FIJI BY THE PREDATOR, *CHARONIA TRITONIS*

Adam C Hesse

At aggregations of up to and exceeding 100,000 organisms, the Crown-of-Thorns (COT) sea star *Acanthaster planci* is capable of destroying over 80,000 coral colonies per day.¹ While reasons speculated for the occurrence of COT outbreaks are many and debatable, the need to understand the triggers and abatements for these events remains nevertheless. To date the most commonly implemented means of COT population regulation have been through the usage of Formalin injections directly into the ossicle of the organism, which can be toxic to the surrounding environment, and through manual removal by divers. Both of these approaches have only limited success as well as being costly and ineffective at addressing the broader scope of the phenomenon.

In considering both bottom-up (nutrient loading) and top-down (predator pressure) controls on COT populations, predator pressures have been shown to have a negative correlation to the extent of reef damage perpetrated by COTs.² However, top-down pressures are minimised as the animal grows in size, eventually reaching a 'size refuge' that is sufficient to protect it from most predators. There are, in fact, only a few organisms shown to feed upon fully mature COTs; the Hump-headed or Māori Wrasse, *Cheilinus undulatus*, and, more prominently, the Giant Triton, *Charonia tritonis*.³

Through computer modeling techniques (STELLA) we will investigate whether a given population of *C. tritonis* can be employed to control and even curtail a COT infestation, thus protecting a coral reef system through natural biological controls rather than harmful chemicals or thousands of dive-hours.

Keywords: Crown-of-Thorn outbreaks, Giant Triton, biological controls, Fiji

¹ Keesing, J.K. & Lucas, J.S., (1991) Field Measurement of Feeding and Movement Rates of the Crown-of-Thorns Starfish *Acanthaster planci*. *Journal of Experimental Marine Biology and Ecology*, 156, pp. 89-104.

² Keesing, J. & Halford, A.R., (1992) Importance of Post-settlement Processes for the Population Dynamics of *Acanthaster planci*. *Australian Journal of Marine and Freshwater Research*, 43, pp. 635-651.

³ Ormond, R.F.G., Bradbury, R., Bainbridge, S., Fabricius, K., Keesing, J., De Vantier, L., Medley, P., & Steven, A. (1991) Test of a Model of Regulation of Crown-of-Thorns starfish by Fish Predators. In Bradbury, R., (Ed). *Acanthaster and the Coral Reef: a Theoretical Perspective*. Berlin: Springer-Verlag (in press).



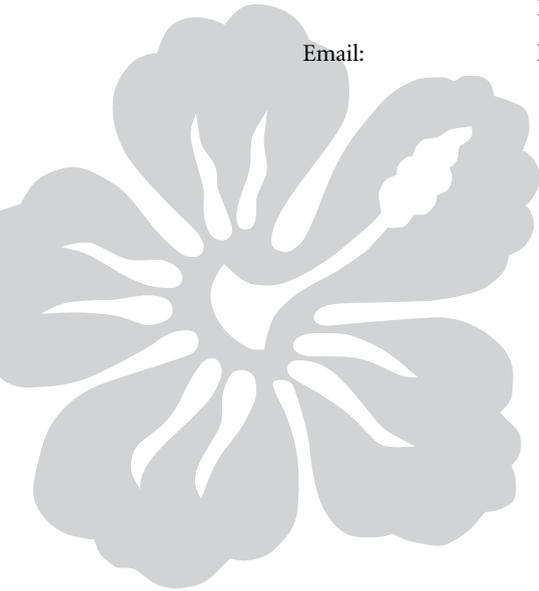
MARINA MILLICENT HETARAKA

Marina is of Māori (Ngati Whatua, Tainui) and Cook Island Māori descent. She received the University of Otago Māori and Pacific Island Entrance Scholarship and Dux Scholarship in 2006. Marina holds a BA in Geography from the University of Otago and is in her final year of a Master of Planning degree.

Academic department: Geography, University of Otago

Supervisors: Associate Professor Michelle Thompson-Fawcett
Professor Michael Reilly

Email: hetma819@student.otago.ac.nz



NATURAL HAZARD PLANNING: THE CONTRIBUTION OF COOK ISLAND MĀORI TRADITIONAL KNOWLEDGE IN THE COOK ISLANDS, SOUTH PACIFIC

Marina Millicent Hetaraka

The intimate relationship that Cook Island Māori have with their environment has contributed to their ability to forecast impending natural hazards and, arguably, aided their survival. The Cook Islands is highly vulnerable to natural hazard events, and the Intergovernmental Panel for Climate Change (IPCC) predicts that the concentration and intensity of natural hazard events will increase.¹ My research examines Cook Island Māori traditional knowledge about the weather and climate, and past methods used to cope with natural hazards. It suggests that future Natural Hazard Planning should take past approaches into account, and identifies how these can assist. The research used a mixed-method approach for data collection and analysis.

The preliminary results from my field work indicate that the Cook Islands Government has taken critical steps towards addressing the issues of natural hazards, exemplified in the “Cook Islands Disaster Risk Management and Climate Change Adaptation National Action Plan 2011-2016.”² Interviews with key informants suggest that traditional knowledge of weather and climate is highly valued and remains an integral part of Cook Island culture and society. This research will contribute to the development of traditional knowledge for natural hazard planning in the Cook Islands.

Keywords: natural hazard planning, traditional knowledge, Pacific, Cook Islands

¹ United Nations International Strategy for Disaster Reduction Secretariat (2009). The 2009 Global Assessment Report on Disaster Risk Reduction: Risk and poverty in a changing climate, invest today for a safer tomorrow.

² See Cook Islands Disaster Risk Management and Climate Change Adaptation National Action Plan 2011-2016; Goal 2, Strategy 2.



MARA KAWEHIWEHI MAULIOLA HOSODA

Mara is of Hawai‘ian-Japanese descent. She studied and worked in tertiary education at Occidental College, Los Angeles. She then worked in law as an intern criminal court clerk for the Hon. Judge Steven S Alm in the Hawai‘i State Circuit Court. Currently at Otago, Mara is in her first-year of PhD study and works for the Division of Humanities as the Pacific Islands Student Support Officer.

Academic departments: Faculty of Law, University of Otago
Centre for Pacific Studies, University
of Auckland

Supervisors: Dr Melani Anae (Auckland)
Ms Selene Mize (Otago)

Email: mara.hosoda@otago.ac.nz



LEGAL EDUCATION AND CAREER TRANSITIONS OF PACIFIC ISLAND GRADUATES IN NEW ZEALAND

Mara Kawehiwehi Mauiola Hosoda

This study will explore the transition of Pacific Island graduates from completion of a New Zealand Bachelor of Law degree (LLB) to their chosen career. The main questions that guide this research are:

- Where do Pacific Island law graduates work after completion of their law degree? How did their New Zealand legal education help or hinder their chosen career?
- How do Pacific Island graduates transition from Law School to their chosen career pathway? What factors guide their career choices? Why?

To explore these transitions, the study will gather the experiences of Pacific Island alumni from the University of Auckland and Victoria University of Wellington Schools of Law through surveys and individual interviews.

This study is important because there continues to be a shortage of Pacific Island people in high-skill professions in New Zealand. While there have been increases in the number of Pacific Island students entering tertiary education in recent years, numbers continue to lag behind the general population.¹ Most studies of education for Pacific Island people in New Zealand address issues of admission, retention and completion in tertiary education overall.² This study is unique in focusing exclusively on completion of a law degree and career transition. Outcomes of this research have potential to inform New Zealand university policy and Pacific Island Student Programmes to ensure that more students enter and complete their LLB, gain admission to the bar and enjoy successful careers.

Keywords: law school, career pathways, Pacific Island graduate

¹ Anae, Melani et al. (2002). 'Pacific Peoples and Tertiary Education: Issues of Participation', *Education Counts*.

² Airini et al. (2010). *Success for All: Improving Māori and Pasifika Student Success in Degree-level Studies* (Teaching & Learning Research Initiative).



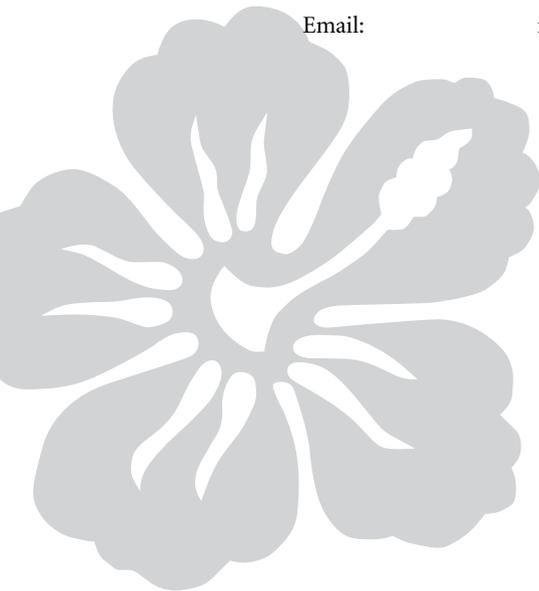
BARRIE IRVING

Barrie is a PhD candidate. His research interests include all aspects of social justice including: transformative approaches to career education and guidance; citizenship/democratic education; lifelong learning; parental/community participation; indigenous rights; and disability related issues.

Academic department: University of Otago College of Education

Supervisors: Dr Karen Nairn (primary) (Education)
Dr Bronwyn Boon (Business)

Email: irvba060@student.otago.ac.nz



HOW IS SOCIAL JUSTICE UNDERSTOOD WITHIN CAREER EDUCATION IN NEW ZEALAND SECONDARY SCHOOLS?

Barrie Irving

Career education can assist students gain a critical understanding of the multiple ways that social, political, and economic discourses position and shape concepts of 'self', career, opportunity and justice, both at an individual and collective level. My PhD study examines whether and/or how social justice concerns are positioned and understood within State policy guidelines for career education and guidance, and by career advisors. Located within a critical social theory framework, my research draws on the work of Iris Marion Young, a political philosopher whose work deals with how institutional processes and practices contribute to the domination and oppression of social groups.

Utilising a qualitative approach, I have analysed 'official' policy guidelines, and undertaken semi-structured interviews with 12 careers staff in 11 secondary schools within a provincial cosmopolitan city. I use critical discourse analysis to analyse the data because it provides for the interrogation of the workings of power by focussing on the historical, political and socially informed meanings that are embedded within talk and text. The findings, thus far, suggest that career education operates in an apolitical way, privileges labour market preparation, and positions students as 'free agents'. Moreover career advisors have few opportunities to engage in training that explores social justice, with little attention given to wider issues of social injustice. Overall the focus is on the individual in isolation of their group positioning and cultural affiliations. These issues have relevance for Pacific islanders' experiences of career education.

Keywords: career; education, social justice, oppression, domination



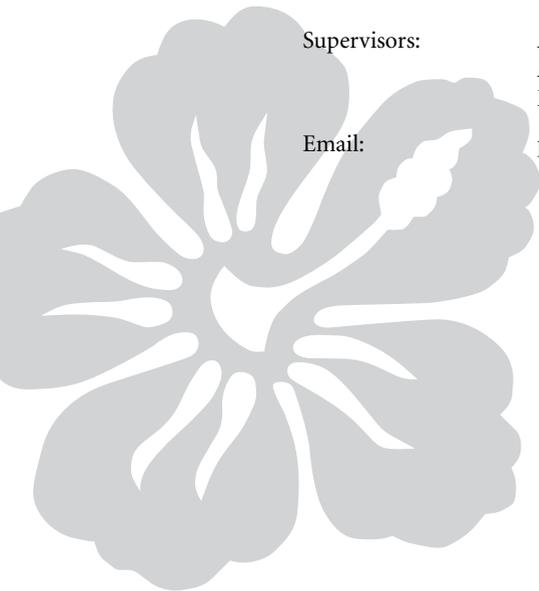
FUIMAONO PENI JUNIOR LEVAI

Peni will complete a Postgraduate Diploma in Clinical Dentistry, in Oral Surgery this year. He is from Samoa and has been working for the National Health Service in his country for 13 years, the last 10 as its only Oral Surgeon. Peni graduated from the University of Auckland with a Bachelor of Science in 1990 and continued his education at the Fiji School of Medicine graduating Bachelor of Dental Surgery in 1998.

Academic department: Oral Diagnostic and Surgical Sciences,
University of Otago

Supervisors: Associate Professor Rohana K De Silva
Associate Professor Darryl Tong
Mr Harsha De Silva

Email: pjleavai@gmail.com



MANAGEMENT OF MAXILLOFACIAL INJURIES AND FRACTURES IN SAMOA

Fuimaono Peni Junior Leavai

Facial injuries and fractures are not uncommon and have become a major problem in Samoa. This is a silent epidemic. Injuries include severe lacerations, and facial bone fractures. The management of these cases is a demanding challenge, given that facial aesthetics is a high priority and there is limited access into the oral cavity. Sophisticated equipment, material and professional personnel are essential, resources that are often lacking in Samoa.

The aim of my research is to identify new and appropriate techniques for the management of facial injuries and fractures and plan for their implementation in Samoa.

Gaining hands-on experience and education will be achieved by attending consultation clinics, assisting with and undertaking procedures in the operating theatre (both under general anaesthesia and intravenous sedation) and managing patients in a highly professional manner. Techniques will be evaluated subsequent to completion of an appraisal of the literature and a review of similar prior cases.

As a result of this research, the identification and evaluation of protocols will have established a number of options for possible introduction in Samoa, which will in turn result in the delivery of satisfactory surgical outcomes within the restraints of limited resources. Immediate benefits should be seen in an improved patient experience and a higher standard of process management. Further improvement will be seen as a result of continuous professional development of staff and acquisition of new equipment. The future may also see: the introduction of programmes to raise public awareness, and the development of preventive strategies in collaboration with the Ministry of Health and Ministry of Youth and Social Welfare.

Keywords: maxillofacial injury, fractures, professional management, standards



NARSAMMA LINGAM

Narsamma has a Bachelor of Education and Postgraduate Diploma in Psychology from the University of the South Pacific (USP). She also holds a Certificate in Guidance & Counselling and a Diploma in Education from USP. She is currently a Master of Education candidate.

Academic department: University of Otago College of Education

Supervisor: Dr Ross Notman

Email: linna843@student.otago.ac.nz



EXPLORING URBAN PRINCIPALS' PERCEPTIONS OF LEADERSHIP AND MANAGEMENT TRAINING IN FIJI

Narsamma Lingam

For a number of years, the quality of school leadership in Fiji has been questioned and debated. During this period of debate the role of school leaders has changed considerably as increased accountability has been placed on schools. Consequently, in 2004, a leadership and management training project for school leaders was undertaken for all education divisions by the Ministry of Education in Fiji.

This study explores urban principals' perceptions on the impact of leadership and management training on their professional practice and how these practices impacted on the dynamics of school operations such as setting educational goals, allocating resources, promoting professional development, creating a supportive school environment and engaging in collaborative decision-making. This study goes on to assess the effectiveness of leadership and management training and the changes (if any) in leadership practices as a result of the training. This research is set within a qualitative interpretive paradigm. It follows a case study design where data collection has been done via questionnaires, interviews and collection of relevant documents.

This study will provide a useful basis for identifying important issues and themes for policy makers and practitioners with regard to funding, selecting, supporting and developing leadership and management training programmes for school leaders in Fiji. Tentative findings from this research indicate that high quality leadership preparation programmes influence leadership practices in turn changing the ethos of schools and leading to higher student learning outcomes.

Keywords: leadership, management, training, school



SHIVANJALI LINGAM

Shivanjali completed a Bachelor of Biomedical Sciences degree in 2010 and carried out the dietary and health impacts study reported here as a Summer Research project in December 2010/January 2011. (She is currently a Postgraduate Diploma in Science candidate in the Department of Physiology).

Academic department: Preventive and Social Medicine,
University of Otago

Supervisors: Ms Sophia Leon de la Barra
Dr Faafetai Sopoaga

Email: linsh922@student.otago.ac.nz



DIETARY AND EXERCISE IMPACTS OF HEALTH CONSCIOUS PEOPLE IN DUNEDIN

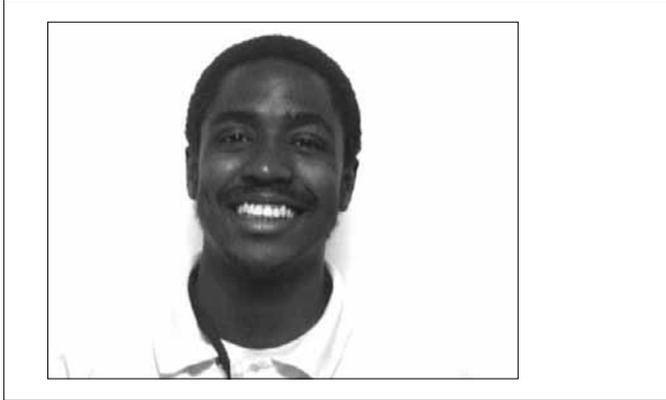
Shivanjali Lingam

The purpose of this study was to explore the relationship between nutritional habits, physical exercise and weight loss among a group of health conscious people in Dunedin. Fifty-two members of a Health Conscious Organisation (HCO) who were involved in multiple exercise classes were surveyed. Data collected from the surveys were entered into a database and analysed using the *Statistical Package for the Social Sciences* (SPSS). Basic descriptive analyses were performed to describe overall trends in the study population.

Results indicated greater dietary changes among long-term HCO participants (> 5 months) with 84% of participants making one or more changes to their eating habits since they started exercise. Long-term participants also attended more weekly HCO classes. Overall, 69.2% of participants reported being more active since beginning HCO exercise classes. Since beginning HCO exercise classes, only 5.8% reported gaining weight while 32.7% reported losing weight. Among participants who took voluntary BMI measurements, 40% of overweight participants and 50% of obese participants self-reported weight loss since beginning the HCO exercise classes. Despite these positive changes, the prevalence of overweight and obese participants indicates further measures should be taken by the HCO to encourage weight loss.

These results indicate that regular exercise alongside dietary changes have a positive impact on the health of participants in the HCO, however, further research is needed to examine other factors (such as alcohol consumption, smoking and other lifestyle factors) affecting weight loss.

Keywords: nutrition, exercise, health conscious, health promotion



KERON NILES

Keron is currently a PhD candidate in Energy Management. Originally from the Republic of Trinidad and Tobago, Keron was previously a Research Consultant at the Shridath Ramphal Centre for International Trade Law, Policy and Services at the University of the West Indies.

Academic department: Physics, University of Otago

Supervisors: Associate Professor Bob Lloyd (primary)
Dr Ceri Warnock

Email: kniles@physics.otago.ac.nz



RESPONDING TO PEAK OIL AND CLIMATE CHANGE IN THE CARIBBEAN AND PACIFIC: THE ROLE OF RENEWABLE ENERGY IN THE POWER SECTOR

Keron Niles and **Bob Lloyd**

Small Island Developing States (SIDS) have narrow resource bases and are extremely reliant on fossil fuel based energy for transport and electricity generation. These island economies are also particularly vulnerable to the impacts of peak oil and climate change which can not only hamper economic development but also adversely affect the quality of life that people are able to enjoy.

This paper suggests that in order to reduce the vulnerability of SIDS to peak oil, an urgent transition to renewable sources of energy is necessary. It also propounds that power sector reform in such nations should be viewed as an opportunity to re-orient power producers away from the proclivity to utilise conventional fuels. However, due to the low capital costs associated with fossil-fuelled electricity generation, in order for a meaningful transition to sustainable energy to occur, measures that internalise the external costs of petroleum usage, along with incentives to exploit renewable energy resources, will be required to make alternative technology use economically viable.

Keywords: renewable, electricity, policy



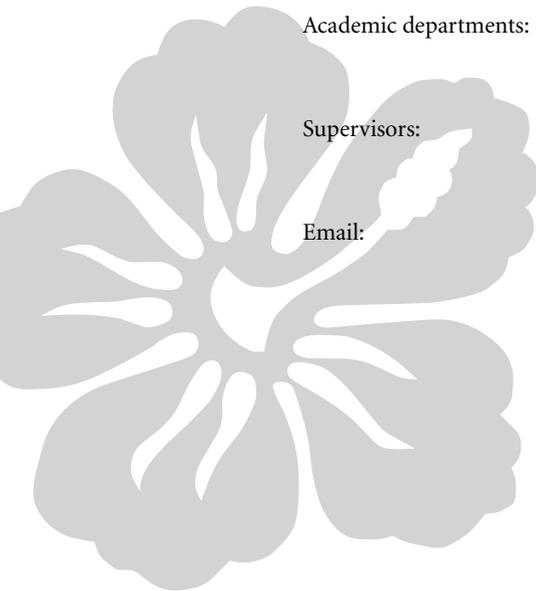
ABBY SUSZKO

Abby was born and raised in Dunedin and is of Tongan descent. She completed her LLB and BA (Hons) at the University of Otago in 2005, submitted her PhD in December 2010 and is awaiting conferral of her degree. Abby is a Barrister and Solicitor of the High Court of New Zealand. Last year Abby was a BRCSS II Doctoral Completion Award recipient. Since 2007 she has received a number of scholarships, including a Freemasons Postgraduate Scholarship and the University of Otago Pacific Islands Postgraduate Scholarship. In 2007 she won the Treaty of Waitangi Student Writing Competition Prize.

Academic departments: Faculty of Law and Te Tumu – School of Māori, Pacific and Indigenous Studies, University of Otago

Supervisors: Professor John Dawson (Law)
Ms Jacinta Ruru (Law)
Dr Jim Williams (Te Tumu)

Email: abby.suszko@gmail.com



THE FORESHORE AND SEABED DEBATE: CONTRASTING VISIONS OF EQUALITY AND RIGHTS

Abby Suszko

I maintain that during the Foreshore and Seabed Debate people made different equality and rights claims, but used very similar terminology. This resulted in people talking past each other and greater misunderstanding. My thesis proved that contention to be true. It uncovered these different equality and rights claims and highlighted their theoretical underpinnings. It also examined whether they upheld the notion of separate Māori rights to the foreshore and seabed, and their sources.

My method was to uplift the equality and rights claims embedded in four key documents. Together these represented the broad spectrum of views on equality and rights exhibited during the Debate. Additional empirical evidence was then collected and analysed to highlight that these claims represented the majority of claims made.

On analysis completion, my thesis identified a shared conceptual foundation for a resolution of the Debate. It showed that once the different theories of equality and rights used were identified, an area of shared consensus emerged within which solutions could be found. This consensus was then employed as a framework critically to assess the National-led Coalition Government's 2010 solution to the Debate: the Marine and Coastal Area (Takutai Moana) Bill 2010.¹ My thesis concluded that while the Bill incorporated some aspects of the central core of consensus, and might have enough political consensus to be enacted and calm the Debate for the time being, it failed to incorporate several key aspects necessary for an enduring resolution. The Debate will continue.

Keywords: Foreshore and Seabed Debate, equality, rights, Marine and Coastal Area (Takutai Moana) Bill 2010

¹ This Bill was subsequently enacted on 1 April 2011: The Marine and Coastal Area (Takutai Moana) Act 2011.



SULIANA E TEASDALE

Suli is half Tongan, born and raised in New Zealand. She is a postgraduate student currently completing the research year of a Master of Science degree. She is supported this year by a University of Otago Pacific Island Master's Scholarship, for which she is very grateful.

Academic department: Botany, University of Otago

Supervisor: Dr David Orlovich

Email: suli.teasdale@botany.otago.ac.nz



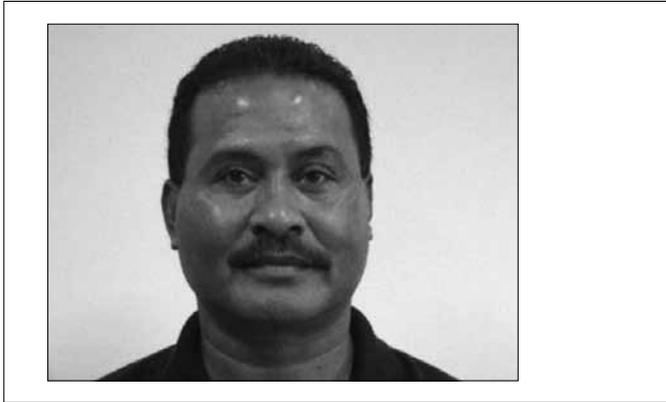
AN INVESTIGATION OF ECTOMYCORRHIZAL FUNGAL DIVERSITY IN OLD GROWTH SOUTHERN NOTHOFAGUS FORESTS

Suliana E Teasdale

An ectomycorrhiza is a symbiosis between ectomycorrhizal fungi that grow in association with the roots of an ectomycorrhizal host plant. Many ectomycorrhizal fungi form a mushroom-like fruit-body above the ground, with spores that are predominantly wind-dispersed. However, some produce truffle-like fruit-bodies that are dispersed by birds and other animals. In New Zealand, southern beech forests are a dominant ectomycorrhizal host plant and are different from other host plants in that they form a very close association with their ectomycorrhizal fungi for successful establishment and growth. Large beech trees are known to form canopy soils, a phenomenon initiated by epiphytes growing on the trees. These soils promote growth of other non-epiphytic plants as well as adventitious roots or 'canopy roots' from the host beech tree. These canopy roots are presumed to host a range of ectomycorrhizal fungi, much like their terrestrial counterparts.

The aim of this research is to assess the presence of ectomycorrhizal fungi in association with canopy roots of southern *Nothofagus* trees and compare their diversity with that of terrestrial soil communities. Presence of ectomycorrhizal fungi will be determined if hyphal sheaths are observed on canopy roots. Hypha in-growth bags will then be used to collect the ectomycorrhizal fungi DNA. Diversity can then be measured from the DNA using terminal restriction fragment length polymorphism (T-RFLP) analysis. T-RFLP uses enzymes that cut at specific sites along strands of DNA creating unique patterns for individual species. I hypothesise that canopy ectomycorrhizal fungal communities will have a lower diversity than that of the ground communities because canopy communities are predicted to be limited to species possessing wind-dispersal mechanisms.

Keywords: fungi, ectomycorrhizal, nothofagus, diversity



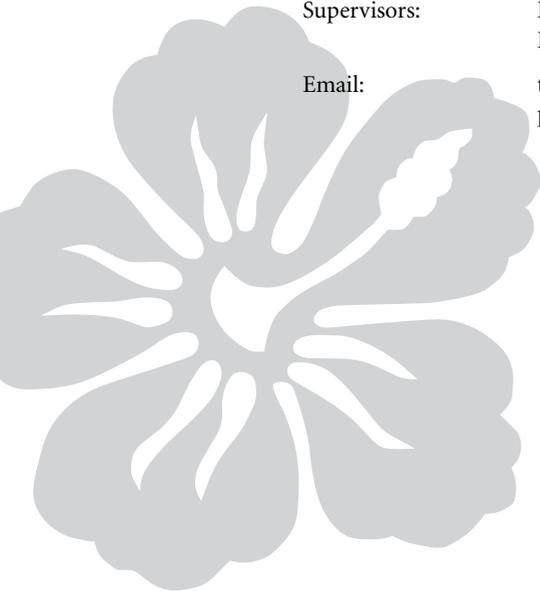
MAURICE PATRICK TERMETEET

Maurice is from the Republic of Palau, the westernmost island in Micronesia. He is a first-year PhD candidate in Public Health, supported by an Otago doctoral scholarship. Before undertaking his postgraduate study, he was employed as the Chief of Oral Health with the Palau Ministry of Health.

Academic department: Public Health, University of Otago, Wellington

Supervisors: Dr George Thomson
Dr Kristie Carter

Email: terma286@student.otago.ac.nz or
p_termeteet@yahoo.com



OBESITY AND CARDIOVASCULAR DISEASES AMONGST PALAUANS: IMPLICATIONS FOR PUBLIC POLICY

Maurice Patrick Termeteet

Obesity is now a world phenomenon and rising significantly in the Pacific Islands where close to 70% of people are obese in some islands. The Republic of Palau, the westernmost island in Micronesia, is ranked 7th of the world's fattest countries. The most serious health problem in Palau today is obesity and its associated chronic diseases, with 78% of the adult population either overweight or obese. The causes of this rapid increase in weight gain in Palau are likely to be complex. However, evidence indicates that changes in diet, physical inactivity and consumption behaviours are the main causes. Furthermore, a large body of literature asserts that trade policy has a significant role in the increased consumption of processed foods in the Pacific.

The aims of this project are to explore and identify policy solutions to the obesity epidemic in Palau. The objectives are threefold: (1) to explore and describe the context that influences policy processes in Palau; (2) to develop a framework of the impact of policy on food, nutrition and obesity and (3) to make recommendations in order to inform a culturally appropriate obesity policy for Palau

Data collection will include interviews of key informants, i.e. trade experts, health officials and community leaders; media coverage of policy factors and debates, and a documentary analysis of official and other material relating to trade and government policy on food and nutrition. Policy options will be formulated and tested against a range of criteria, including practicality, acceptability, and feasibility.

Keywords: obesity, policy, Palau



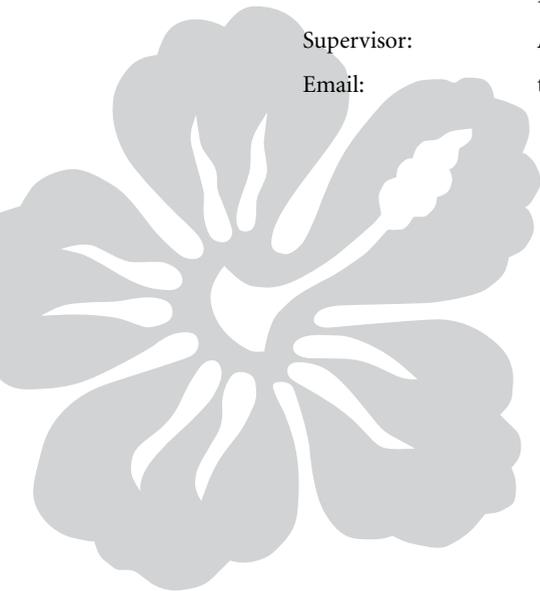
FAAPŌPŌ TUPOLO-TAUAAANAE

Faapōpō is currently studying for a Master of Indigenous Studies degree. As a teacher for ten years in Congregational Christian Church secondary schools in Samoa, she witnessed the great difference in the academic achievement of students who had attended or were attending a Pastor's School, from that of those who did not. This developed her interest in placing the Pastor's School in proper perspective.

Academic department: Te Tumu – School of Māori, Pacific and Indigenous Studies, University of Otago

Supervisor: Associate Professor Brendan Hokowhitu

Email: tupfa530@student.otago.ac.nz



THE AOGA A LE FAIFEAU (PASTOR'S SCHOOL): ITS PLACE IN THE EDUCATION SYSTEM IN SAMOA TODAY

Faapōpō Tupolo-Tauaanae

The *Aoga a le Faifeau* [School by/of the Pastor] within the Congregational Christian Church in Samoa (CCCS) is acknowledged as the founding rock of the educational system currently operating in Samoa. Still run within the Church, now many people perceive it as obsolete and insignificant alongside mainstream schools. I would argue otherwise, however. I have examined writings of the early missionaries, accounts by writers of Pacific history and critical analyses of mission work in the Pacific by academics. I have also read theses by graduates of Malua Theological College about the pastoral ministry in Samoa, the two published histories of the CCCS, as well as the only other study done on the *Aoga a le Faifeau*.¹

According to the literature, “natives” from Tahiti and Rarotonga, brought specifically to teach reading and writing, arrived in Samoa in 1830 with the highly acclaimed martyr of the Pacific mission, John Williams. However, the literature points to the schools’ being started in 1836 only after the arrival of the English missionaries. Once the higher level schools were established in the 1840s and became known as “mission schools”, the *Aoga a le Faifeau* largely disappears from the literature. A contributing factor in the marginalisation of the *Aoga a le Faifeau* might be the Church’s not allocating the Pastor School administration to either the Department of Education or the Department of Christian Education within the CCCS’s educational system.

My research will document the history of this school and highlight its continuing educational significance.

Keywords: Pastor’s School, Samoa, education, Congregational Christian Church

¹ Tanielu, Lonise Sera. (2004) O le aoaoina o le gagana, faitautusi, ma le tusitusi i le Aoga a le Faifeau, Ekalesia Faapotopotoga Kerisiano i Samoa (EFKS): Literacy education, language, reading and writing in the Pastor’s School, Congregational Christian Church in Samoa (CCCS). Thesis for Doctor of Philosophy in Education, University of Auckland.



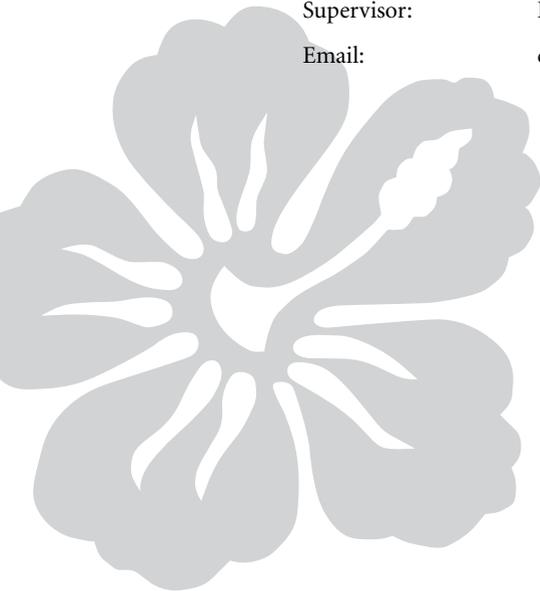
COURTNEY WILSON

Courtney holds a Bachelor of Communication Studies majoring in Journalism from Auckland University of Technology. She is currently completing a Postgraduate Diploma in Arts majoring in Peace and Conflict Studies. Courtney is interested in exploring how media affects audience perceptions of conflict, focusing on the Asia-Pacific region.

Academic department: National Centre for Peace and Conflict Studies, University of Otago

Supervisor: Dr Heather Devere

Email: courtney.wilson13@gmail.com



MEDIA FRAMING OF THE SOLOMON ISLANDS' CONFLICT, 1998-2000

Courtney Wilson

This dissertation evaluates how the *New Zealand Herald* and the *Solomon Star* framed the civil conflict in Solomon Islands from May 1998 to October 2000. Media framing is examined in the context of *peace journalism* – reporting which does not focus on violence, but the people and processes instrumental in the conflict.¹ Lee & Maslog's 13 indicators of war journalism and 13 indicators of peace journalism² have been used as the basis for analysis of how news reports are framed in the aforementioned publications. Articles covering the conflict from each paper were systematically scored and classified as peace/conflict journalism, war/violence journalism or neutral.

The *New Zealand Herald's* reporting on the ethnic tensions in Solomon Islands is reactive and indicative of Galtung and Ruge's western news values: elite people, elite nations, personalisation, and negativity.³ *The Solomon Star's* reporting is proactive with a focus on the issues creating conflict and the cultural impact of *the tensions*. The *Solomon Star* also functions as a social networking tool, similar to citizen journalism used during the recent Arab Spring. These findings may be applied to the role of media in conflict situations to report not only acts of violence but people, processes and peace. This analysis will provide an understanding of different modes of reporting in regards to framing and the different affect these approaches have on audience perception.

Keywords: peace, conflict, Solomon Islands

¹ Galtung, J. (2003). Peace journalism. *Media Asia*, 30(3), 177-180.

² Lee, S. T. & Maslog, C.C. (2005). War or peace journalism? Asian newspaper coverage of conflicts. *Journal of Communication*, 55(2), 311-329.

³ Galtung, J. & Ruge, M. H. (1965). The structure of foreign news. *Journal of peace research*, 2(1), 64-90.

FAAFETAI TELE LAVA

The Pacific Postgraduate Reference Group was established in late 2002 to support our research students via monthly seminars and meetings – to be a place where they could bring their frustrations and ideas, seek support from one another and offer support too. This concept led to the idea of an annual symposium and the birth of *Pacific Voices*. The first symposium was held in 2004.

Pacific Voices VIII (yes 8 years!!) has come together through the hard work of many people who gave their time, intellect and experience to ensure that our students' voices are heard. This group continues to grow and become a home to postgrad students going through the early stages of doing research and starting postgrad studies. There is more that needs to be done, Pacific students need to go on to higher degrees and this is one way of assisting them to get there. I am encouraged, however, by the growth of similar support being established within the departments and nationwide through the Talanoa programme.

I would like to pay tribute to our editorial team, Dr Claire Matthewson and Dr Mele Ma'ata Taumoepeau, who since the first symposium have been the cornerstone of *Pacific Voices*. And this year we have Dr Greg Burnett and Dr Nanai Iati Iati assisting. The editorial team provided leadership and guidance throughout the year as our monthly seminar chairs. Can I also acknowledge our Symposium Chairs: David Richardson, Professor Brian Moloughney, Professor Keith Hunter and Professor George Benwell and our summator Dr Lesieli Tongati'o. Special thanks also to Professor Helen Nicholson, Acting Deputy Vice-Chancellor, for her opening address.

Most of all, to the stars – our students – Thank You.

*Sing, pese
Sing Pacific loloma
Talanoa Pacific Measina
Louder
For our future generations to hear
And our parents in Pulumotu to bless
Sao faalalelei Sao le maumalo
Oh what beauty, oh what victor!*

Tofilau Nina Kirifi-Alai
Manager
Pacific Islands Centre

APPENDIX I

**Opening Address by Professor Vernon Squire
Deputy Vice-Chancellor (Academic and International)
Convener Pacific Peoples Reference Group
Pacific Voices Postgraduate Symposium
1 October 2010**

PACIFIC VOICES 2010

A special event every year that I have always enjoyed.

Today though, I cannot stay, as Friday is when I supervise my graduate students and they won't let me off. My apologies.

There is a tendency to think your lecturers and professors are something special. Well they are, but they are also just like you. They aspired to have a rewarding career, so can you, and you have taken the first steps along the way.

In this context, let me tell you about myself.

- I was born and attended school in suburban London, went to Aberystwyth and Cambridge Universities, to Antarctica and the Arctic and finally to Otago.
- My wife is Scottish, from near Glasgow. It took a while for me to understand her but we got there in the end.
- I have 2 sons, Dougal and Jonathan. Dougie is at Canterbury studying engineering, Jono is doing a PhD in the States.
- I lectured here in Maths and Stats. Then I took on a little more administration by first becoming the Head of Department and then leading the Sciences Division. Now I'm fully on the dark side in the Clocktower Building.
- I also currently convene the Pacific Peoples Reference Group, which is all about the development of links with Pacific communities and organisations locally, nationally and internationally.

Without blowing our trumpet too much, I want to remind you of a few things that you are part of ...

- Otago is currently rated number 1 in the country for the quality of its research
- Otago is rated number 1 in the country in regard to research intensity

- Otago recently out-performed the other New Zealand Universities in regards to completions of degrees and programmes, and progression
- The percentage of postgraduate students at Otago continues to rise

You are part of this, a most important part because one of our 6 strategic imperatives is to 'contribute to the national good and to international progress'. Specifically

'Otago will strengthen its links with Pacific communities both within New Zealand and in the Pacific region. It will take steps to increase the recruitment, retention and achievement of Pacific students, and to support the development of higher education in the Pacific.'

I have attended Pacific Voices since the beginning, watching it grow into something very, very special. I commend the students who are facing the challenge of presenting and all the people who have put their energies into making it work so well.

I also welcome again our guests today, Pacific leaders from all around the country who have come to learn about Otago, and our guests from Christchurch, which, incidentally, is also a very good university.

Have a fun time. Yes research is 1% inspiration and 99% perspiration, but it is also unparalleled in excitement.



