

Dr. Simon Foale, Principal Research Fellow, ARC Centre of Excellence: Coral Reef Studies and Senior Lecturer, School of Arts and Social Sciences, James Cook University.

<http://www.coralcoe.org.au/research/simonfoale.html>
http://www.jcu.edu.au/sass/staff/JCUPRD_018724.html

Areas of expertise

- Management and governance of Asia-Pacific near-shore fisheries
- Coral reef fishery stock assessment and modelling
- Social and economic impact assessment of mining
- Social and economic survey design
- Melanesian customary land and sea tenure systems
- Survey and analysis of local environmental knowledge
- Design and delivery of environmental education tools
- Environmental impact assessment of infrastructure projects

Qualifications

PhD in Zoology, The University of Melbourne, 1998.
B. Sc. (Hons), University of Queensland, 1984

Relevant Professional Experience:

2006 – present

Principal Research Fellow, ARC Centre of Excellence for Coral Reef Studies, James Cook University.

(since 2009) Program Leader, Program 7: 'Policy Development, Institutions and Governance of Coral Reefs' (within the ARC CoE for Coral Reef Studies).

**2002 - 2006
Australia**

Research Fellow, Resource Management in Asia Pacific Project, Research School of Pacific and Asian Studies, Australian National University.

**1999 - 2001
Solomon Islands**

Senior Technical Advisor, WWF Solomon Islands Community Resource Conservation and Development Project (based in Gizo).

**1991 - 1993
Australia**

Scientist, Marine Research and Monitoring Group, Environment Protection Authority - Victoria (Melbourne).

Consultancies:

Feb-March 2009

Independent Evaluator of Research Proposals for the European Commission's Seventh Research Framework Programme (FP7), Theme 6: "Environment (Including Climate Change)"

Jan-Feb 2009

A Review of Ecosystem Approach to Fisheries within The Nature Conservancy's Community Engagement Processes in Melanesia (TNC).

April-June 2008

Qualitative research coordinator, 'RAMSI People's Survey', Phase 3, Solomon Islands (AusAID).

April-May 2007

Qualitative research coordinator, 'RAMSI People's Survey', Phase 2, Solomon

<i>February 2007 – October 2010</i>	<i>Islands (AusAID).</i>
<i>July 2006</i>	<i>Short-term Environment Advisor, Solomon Islands Community Sector Program (AusAID).</i>
<i>April-May 2006</i>	<i>Reviewer for the Regional Natural Heritage Program of the Australian Government's Department of Environment and Heritage.</i>
<i>September 2005</i>	<i>Socio-economic survey support, Malaita Province, Solomon Islands, for AusAID's 'RAMSI People's Survey' Pilot Study.</i>
<i>February 2005</i>	<i>Socio-economic survey design review for World Fish Centre Beche-de-mer fisheries project in Solomon Islands.</i>
<i>August – October 2004</i>	<i>Underwater Visual Census (UVC) survey around Lihir Islands, PNG, with CSIRO's Fisheries Division, Cleveland Laboratory.</i>
<i>Federated States of Micronesia</i>	<i>Socio-economic baseline analysis for the South Pacific Regional Environment Programme's International Waters Project in Yap State, FSM. The IWP aims to establish four Marine Protected Areas around the main islands of Yap State.</i>
<i>2002 – 2007</i>	<i>Environmental Education Program for Lihir (EEPL): A collaborative project in which Traditional Ecological Knowledge and science are used to improve local understandings of direct and indirect environmental impacts of mining on Lihir, PNG.</i>
<i>Papua New Guinea</i>	<i>Consultant, Social and Economic Impact Study (SEIS) of Lihir gold mine (Lihir Gold Pty), PNG.</i>
<i>2001 - 2006</i>	<i>Social and Economic Impact of mining at Lihir, PNG, 1997-98.</i>
<i>Papua New Guinea</i>	
<i>1998</i>	
<i>Papua New Guinea</i>	

Recent Grants

- ❖ Telekom Television Ltd (Solomon Islands) contributed **AUD70,000** via Eco-Media Production Group to co-fund production and distribution of the fisheries education DVD, 'Fish and People' (2011).
- ❖ Australian Research Council Discovery Project DP0987537. **AUD200,000** (2009 – 2011): "An Assessment of Social-Ecological Resilience in the Context of Marine Resource Management in Melanesia." With Assoc. Prof. M.A. Macintyre (The University of Melbourne) and Dr D. Nakashima (UNESCO, Paris).
- ❖ James Cook University Seed Funding Grant. **AUD15,000** (2008): "Marine Resource Management in Melanesia".

Current Ph.D. Students

(As primary supervisor):

Pip Cohen (pip.cohen@jcu.edu.au) (JCU-ARC CoE): The contribution of locally managed marine areas to food security of Solomon Islands.

(As co-supervisor):

Tom Brewer (tom.brewer@jcu.edu.au) (JCU-ARC CoE): A multi-scale analysis of the social causes of reef fish decline, and management response, in Solomon Islands.

Christine Pam (christine.pam@jcu.edu.au) (JCU-AAS): 'Climate change' in a small island community.

Alifereti Tawake (alifereti.tawake@jcu.edu.au) (JCU-SEES): Livelihood Benefits of Adaptive Co-Management (ACM) of Hand Collectable Fisheries in the Torres Strait and Fiji.

Vera Horigue (vera.horigue@jcu.edu.au) (JCU-ARC CoE): Coordinating coral reef conservation planning in the Philippines.

Michelle Dyer (michelle.dyer@my.jcu.edu.au) (JCU-AAS): An ethnographic study into the relationship between environmental use and social and cultural change on Kolombangara Island, Solomon Islands.

Matt Young (matt.young@jcu.edu.au) (JCU-SMTB): Cultural, historical and environmental aspects of spearfishing in Australia and the Pacific.

Teaching

I have regularly guest-lectured in, and from 2012 will be coordinating the following courses:

- AN2013/3013 – Culture, Knowledge and Environment
- AN3019/5019 – Asia Pacific Development: Globalisation and Culture

Publications (selected) (key articles marked with asterisk *)

Chapters and articles:

Fidelman P., Evans L., Foale S., Weible C., Rosen F., Elgin D. (**In Review**) Policy consensus for regional marine governance: a stakeholder analysis in the nascent Coral Triangle Initiative. *Journal of Environmental Management*.

Foale, S. J., D. Adhuri, P. Alino, E. Allison, N. Andrew, P. Cohen, L. Evans, M. Fabinyi, P. Fidelman, C. A. Gregory, N. Stacey, J. Tanzer and N. Weeratunge (**In Review**). Conserving biodiversity for food security: putting people at the centre of the Coral Triangle Initiative. *Conservation Letters*.

Mills M., Pressey R.L., Ban N.C., Foale S.J., Knight A.T., Aswani S. (**In Review**) First steps to planning with opportunity: Defining conservation opportunity in a common pool marine resource governance system. *Conservation Letters*.

Cohen P.J., Foale S.J. (2011) Fishing Taboos; Securing Fisheries for the Future? *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* **28**:3-13

*Foale, S., P. Cohen, S. Januchowski, A. Wenger and M. Macintyre (2011). Tenure and taboos: origins and implications for fisheries in the Pacific. *Fish and Fisheries* **12**(4): 357-369.

Fidelman, P., L. Evans, M. Fabinyi, S. Foale, J. Cinner, and F. Rosen (2011). Governing large-

scale marine commons: Contextual challenges in the Coral Triangle. *Marine Policy* **36**: 42-53.

Mills, M., Pressey, R.L., Weeks, R., Foale, S., Ban, N. (2010) A mismatch of scales: challenges in planning for implementation of marine protected areas in the Coral Triangle. *Conservation Letters* **3**(5): 291-303.

Gelcich, S., T. Hughes, P. Olsson, C. Folke, O. Defeo, M. Fernandez, S. Foale, L. Gunderson, C. Rodriguez-Sickert, M. Scheffer, R. Steneck and J.-C. Castilla (2010). Navigating transformations in governance of Chilean marine coastal resources. *Proceedings of the National Academy of Sciences* **107** (39): 16794-16799.

Macintyre, M. and S. Foale (2010). Mining and Cultural Loss: Assessing and Mitigating Impacts in Papua New Guinea. *Biocultural Diversity Conservation: A Global Sourcebook*. L. Maffi and E. Woodley. London, Earthscan: 68-69.

Macintyre, M. and S. Foale (2010). Countering Fish Stock Depletion Through Traditional Knowledge, Tenure and Use of Marine Resources in Papua New Guinea. *Biocultural Diversity Conservation: A Global Sourcebook*. L. Maffi and E. Woodley. London, Earthscan: 70.

Foale, S. J. (2008). A preliminary exploration of relationships among fishery management, food security, and the Millennium Development Goals in Melanesia. *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* **24**: 3-8. http://www.spc.int/coastfish/news/Trad/24/Trad24_03_Foale.pdf

Foale, S. J. (2008). Appraising the resilience of trochus and other nearshore artisanal fisheries in the Western Pacific. *SPC Trochus Information Bulletin* **14**: 12-15 http://www.spc.int/coastfish/news/Trochus/Trochus14/Trochus14_12_Foale.pdf

Foale, S. J. (2008). Conserving Melanesia's Coral Reef Heritage in the Face of Climate Change. *Historic Environment* **21** (1): 30-36

Dambacher, J. M., D. Brewer, D. M. Dennis, M. Macintyre and S. Foale (2007). Qualitative Modelling of Gold Mine Impacts on Lihir Island's Socioeconomic System and Reef-Edge Fish Community. *Environmental Science and Technology* **41** (2): 555-562.

*Macintyre, M. A. and S. J. Foale (2007). Land and Marine Tenure, Ownership and New Forms of Entitlement on Lihir: Changing notions of property in the context of a goldmining project. *Human Organization* **66** (1): 49-59.

Sabetian, A. and S. J. Foale (2006). Evolution of the Artisanal fisher; case-studies from Solomon Islands and Papua New Guinea. *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* **20**: 3-10. http://www.spc.int/coastfish/News/Trad/20/Trad20_3_Sabetian.pdf

*Foale, S. J. (2006). The intersection of scientific and indigenous ecological knowledge in coastal Melanesia: implications for contemporary marine resource management. *International Social Science Journal* **58**: 129-137.

Foale, S. J. (2006). The scale and epistemology of coral bleaching in Papua New Guinea. *Bridging Scales and Epistemologies*, Alexandria.

<http://www.millenniumassessment.org/documents/bridging/papers/foale.simon.pdf>

Foale, S. J. (2006). Is coral reef conservation possible without science education in Melanesia? Is science education possible without development? *Proceedings of the 10th International Coral Reef Symposium, Okinawa*. Session 4: 1274-1278.

McMichael, A., R. Scholes, M. Hefny, E. Pereira, C. Palm and S. Foale (2005). Linking Ecosystem Services and Human Well-being. *Ecosystems and Human Well-being: Multi-scale Assessments, Volume 4*. D. Capistrano, C. Samper K., M. J. Lee and C. Raudsepp-Hearne. Washington D.C., Island Press. 4: 43-60.

<http://www.millenniumassessment.org/en/products.global.multiscale.aspx> (Ch. 03).

Pereira, H., B. Reyers, M. Watanabe, E. Bohensky, S. Foale, C. Palm, M. V. Espaldon, D. Armenteras, M. Tapia, A. Rincon, M. J. Lee, A. Patwardhan and I. Gomes (2005). Condition and Trends of Ecosystem Services and Biodiversity. *Ecosystems and Human Well-being: Multi-scale Assessments, Volume 4*. D. Capistrano, C. Samper K., M. J. Lee and C. Raudsepp-Hearne. Washington D.C., Island Press. 4: 171-204.

<http://www.millenniumassessment.org/en/products.global.multiscale.aspx> (Ch. 08).

*Foale, S. J. and M. A. Macintyre (2005). Green Fantasies: Photographic representations of biodiversity and ecotourism in the Western Pacific. *Journal of Political Ecology* 12: 1-22. http://jpe.library.arizona.edu/volume_12/FoaleMacintyre2005.pdf

Macintyre, M., S. Foale, N. Bainton and B. Moktel (2005). Medical pluralism and the maintenance of a traditional healing technique on Lihir, Papua New Guinea. *Pimatisiwin* 1: 87-99.

*Foale, S. J. and B. Manele (2004). Social and political barriers to the use of Marine Protected Areas for conservation and fishery management in Melanesia. *Asia Pacific Viewpoint* 45 (3): 373-386.

*Macintyre, M. A. and S. J. Foale (2004). Politicised Ecology: Local Responses to Mining in Papua New Guinea. *Oceania* 74: 231-251.

*Macintyre, M. A. and S. J. Foale (2004). 'Global Imperatives and Local Desires: Competing Economic and Environmental Interests in Melanesian Communities'. In V. Lockwood (ed), *Globalization and Culture Change in the Pacific Islands*. New Jersey: Pearson Prentice Hall, pp. 149-165.

Foale, S. J. (2003). A note on the indigenous ecological knowledge and management of the river mullet, *Cestraeus goldei*, in the Vurulata River, south Choiseul Island, Solomon Islands, *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* Special Edition - March 2003: 10-12.

Macintyre, M. and S. Foale (2002). Environmental damage as a resource: claims for compensation in the context of mining developments in Papua New Guinea, *Development Bulletin* **58**: 41-45.

*Foale, S. (2001). 'Where's our development?' Landowner aspirations and environmentalist agendas in Western Solomon Islands, *The Asia Pacific Journal of Anthropology* 2(2): 44-67.

*Foale, S. J. and M. A. Macintyre (2000). Dynamic and flexible aspects of property tenure at West Nggela, Solomon Islands: implications for marine resource management, *Oceania* **71**: 30-45.

Foale, S. (2000). Social dimensions of trochus fishery management in Solomon Islands, *SPC Trochus Information Bulletin* **6**: 5-10.

Foale, S. J. (1999). Traditional ecological knowledge and biology of the land crab, *Cardisoma hirtipes* (Decapoda: Gecarcinidae), at West Nggela, Solomon Islands, *Pacific Science* **53** (1): 37-49.

Foale, S. (1998). What's in a name? An analysis of the West Nggela (Solomon Islands) fish taxonomy, *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* **9**: 2-19.

*Foale, S. J. (1998). Assessment and management of the trochus fishery at West Nggela, Solomon Islands: an interdisciplinary approach, *Ocean and Coastal Management* **40**: 187-205.

*Foale, S. J. and R. W. Day (1997). Stock assessment of trochus (*Trochus niloticus*) fisheries at West Nggela, Solomon Islands, with notes on management, *Fisheries Research* **33**: 1-16.

Foale, S. J. (1993). An evaluation of the potential of gastropod imposex as a bioindicator of tributyltin contamination in Port Phillip Bay, Victoria, *Marine Pollution Bulletin* **26** (10): 546-552.

Foale, S. and R. Day (1992). Recognizability of algae ingested by abalone, *Australian Journal of Marine and Freshwater Research* **43**, 1331-1338.

Foale, S.J. and R.C. Willan (1987). Scanning and Transmission Electron-Microscope Study of Specialized Mantle Structures in Dorid Nudibranchs (Gastropoda, Opisthobranchia, Anthobranchia), *Marine Biology* **95** (4), 547-557.

Books

Foale, S., M. Mackenzie, M. Macintyre and B. Browne (2007). Direct Environmental Effects of Mining on Lihir: Teachers Guide and EEPL Booklets 1-4, upper primary and

lower secondary. Melbourne, Solwara Research Pty Ltd.
<http://www.coralcoe.org.au/research/simonfoale.html>

Book Reviews

Foale, S. J. (2006). "Challenging Coasts: Transdisciplinary Excursions into Integrated Coastal Zone Development. L.E. Visser (ed.)" *Development* 49(3): 138-139

Foale, S. J. (2005). "The Great Barrier Reef: History, Science, Heritage. By James Bowen and Margarita Bowen." *Pacific Affairs* 78(1): 172-174.

Foale, S. J. (2002). "Nature and empire: Science and the colonial enterprise. Roy McLeod (ed.)" *Journal of Pacific History* 37(3): 329-330.

Peer Review Responsibilities

I have refereed articles for *PLOS One*, *Marine Pollution Bulletin*, *Ecological Applications*, *Ecology and Society*, *Human Ecology*, *Human Organization*, *Society and Natural Resources*, *Biological Conservation*, *Environmental Conservation*, *International Journal of the Commons*, *American Fisheries Society*, *Ecological Management and Restoration*, *Environmental Education Research*, *Caribbean Journal of Science*, *Oceania*, *Pacific Affairs*, *The Australian Journal of Anthropology*, and *Anthropological Forum*.

I am also an Assessor for the Australian Research Council.

Reports

Foale, S. J. (2009). A Review of Ecosystem Approach to Fisheries within The Nature Conservancy's Community Engagement Processes in Melanesia. TNC Pacific Island Countries Reports. Brisbane, The Nature Conservancy, Indo-Pacific Resource Centre: 29.
<http://conserveonline.org/workspaces/pacific.island.countries.publications/documents/foale-eaf-tnc-review-09>

McMurray, C., S. Foale, Roberts, B. Breen and S. Cann-Evans (2008). People's Survey 2008. Canberra, Ausaid: 134.
<http://www.ramsi.org/files/Peoples%20Survey%202008%20-%20complete.pdf>

McMurray, C., S. Foale, P. Roberts, B. Breen and S. Cann-Evans (2007). People's Survey 2007. Canberra, ANU Enterprise: 84 p.
<http://www.ramsi.org/files/Peoples%20Survey%202007%20WITH%20METHODOLOGY.pdf>

Foale, S. J. (2007). Social and economic context of marine resource depletion in Gagil and Maap, Yap State, FSM. Apia: South Pacific Regional Environment Program. 49 p.
http://www.sprep.org/att/publication/000549_IWP_PTR41.pdf

*Foale, S. J. (2005). Sharks, sea slugs and skirmishes: managing marine and agricultural resources on small, overpopulated islands in Milne Bay, PNG. Canberra, Resource Management in Asia Pacific Program, The Australian National University: 58pp.
http://rspas.anu.edu.au/papers/rmap/Wpapers/rmap_wp64.pdf

Foale, S. J. (2004). Knowledge, Practice and Management of Subsistence Fisheries on Lihir. Melbourne: Charlotte Allen and Associates: 37pp.

Foale, S. J. and M. Macintyre (2003). Maintaining Traditional Ecological Knowledge of Subsistence Farming in the Face of Rapid Social Change on Lihir: Revised and updated report. Melbourne: Charlotte Allen and Associates: 20pp.

Macintyre, M. A. and S. J. Foale (2003). Social and Economic Impact Study, Lihir 2003. Melbourne: Charlotte Allen and Associates: 100pp.

Brewer, D., D. Dennis, G. Fry, D. Milton, J. Dambacher, T. van der Velde, F. Manson, D. Heales, A. Koutsoukos, T. Skewes, T. Taranto, P. Jones, B. Venables, Y. G. Wang, M. Macintyre, S. Foale and S. Blaber (2003). Assessment of mine impacts on Lihir Island fish communities with an estimation of the potential fisheries resources. Brisbane: CSIRO. 404pp.

Foale, S. J. (2002). Commensurability of Scientific and Indigenous Ecological Knowledge in Coastal Melanesia: Implications for Contemporary Marine Resource Management Strategies. RMAP Working Paper No. 38.
<http://rspas.anu.edu.au/rmap/Pages/Publications/Publications.html>. Resource Management in Asia Pacific Program, Research School of Pacific and Asian Studies, The Australian National University. 2002.

Macintyre, M. A. and S. J. Foale (2002). Social and Economic Impact Study, Lihir 2001. Melbourne: Charlotte Allen and Associates: 192pp.

Macintyre M. and S.J. Foale. (2001). Social and Economic Impact Study, Lihir 2000. Consultancy Report to Lihir Management Company. 70pp.

Foale, S.J., Hite, S., Tuke, L., Managere, A. (2000). Project Management Report, WWF Solomon Islands Community Resource Conservation and Development Project, July 1999 – June 2000. 16pp.

Foale, S.J. (2000). Report on a tour of partner communities in Southern Marovo Lagoon, 13th to 24th November, 2000. For the WWF Solomon Islands Community Resource Conservation and Development Project.

Foale, S.J., Hite, S., Rankine, G., Tuke, L. (1999). Project Management Report, WWF Solomon Islands Community Resource Conservation and Development Project, July 1998 – June 1999. 20pp.

Foale, S.J. (October 1999 – May 2001): Quarterly and six-monthly reports for the WWF Solomon Islands Community Resource Conservation and Development Project.

Foale, S. J. (1998). A dietary survey of Dot and Malal Villages, Masahet Island, Lihir Group, January/February 1998. Londolovit: Lihir Management Company: 2pp.

Foale, S. J. (1998). Fishing Centre Development Proposal for Londolovit Harbour. Melbourne: The University of Melbourne: 4pp.

Ph.D. studies (1993-1997):

The title of my Ph.D. thesis is “The Role of Customary Marine Tenure and Local Knowledge in Fishery Management at West Nggela, Solomon Islands”. The thesis is based on 15 months of field time at Sandfly (Mbokonimbeti) Island in the West Nggela group of islands in the Solomons. Field research involved the generation of ethnographic, economic and fisheries data, and necessitated participation in most aspects of village life, especially fishing activities. The work also necessitated learning the Nggela language, and most interviews were conducted in this language, with some recourse to Solomon Pijin. The subject of this thesis is truly cross-disciplinary and required broad reading in many subject areas including coral reef ecology, larval biology, fisheries stock assessment and population modelling, history and philosophy of science, development theory, Austronesian linguistics, kinship, common property and co-management theory.

My Ph.D. work was supported by 1) a Melbourne University Postgraduate Scholarship, 2) a grant from the USAID Multilateral Treaty, administered by Forum Fisheries Agency, 3) WWF, 4) Dr Rob Day (from his consulting funds), and 5) the Ian Potter Foundation.