

Curriculum Vitae

Sean R. Connolly

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Academic Employment

- Professor, School of Marine and Tropical Biology, James Cook University, Queensland, Australia. 2010-present.
- ARC Australian Professorial Fellow, School of Marine and Tropical Biology, and ARC Centre of Excellence for Coral Reef Studies, James Cook University, Queensland, Australia. 2008-2012.
- Associate Professor of Marine Biology, School of Marine and Tropical Biology, James Cook University, Queensland, Australia. 2007-2009
- Senior Lecturer in Marine Biology, School of Marine Biology and Aquaculture, James Cook University, Queensland, Australia. 2003-2006.
- Lecturer in Marine Biology, School of Marine Biology and Aquaculture, James Cook University, Queensland, Australia. August 2000-2002.
- Research Associate, Research Training Group in the Analysis of Biological Diversification, University of Arizona, USA. 1998-2000.

Education

- Ph.D., Biological Sciences, Stanford University, Stanford, California. January 1999.
- B.A., Biology, Earlham College, Richmond, Indiana. June 1994.

Awards and Honours (including Fellowships)

1. Citation for Outstanding Contributions to Student Learning (Australian Government Office for Learning & Teaching [formerly the Carrick Institute], 2014).
2. Australia and New Zealand, first runner-up for *Scopus* Young Researcher of the Year Award, Life Sciences & Biological Sciences category, 2013.
3. *Australian Scientist: International Rising Stars* (Australian Academy of Science, 2011. ISBN 978-1-921156-59-5).
4. Fenner Medal (Australian Academy of Science, 2009).
5. Australian Professorial Fellowship (Australian Research Council, 2008-2012).
6. Carrick Citation for Outstanding Contributions to Student Learning (Carrick Institute, Australia, 2006).
7. Dean's Excellence in Research Award for Early Career Research (JCU, 2005).
8. NSF Pre-Doctoral Fellowship (National Science Foundation, 1994-1998).

Refereed Publications

(Note: For papers reporting student-led research, the student's name is italicized.)

Zamborain Mason, J., G.R. Russ, R.A. Abesamis, A.A. Bucol, and **S.R. Connolly**. *In press*. Network theory and metapopulation persistence: incorporating node self-connections. *Ecology Letters*, accepted 21 April 2017.

Everingham, Y., E. Gyuris, and **S.R. Connolly**. 2017. Enhancing student engagement to positively impact mathematics anxiety, confidence, and achievement for interdisciplinary science subjects. *International Journal of Mathematics Education in Science and Technology*. DOI: [10.1080/0020739X.2017.1305130](https://doi.org/10.1080/0020739X.2017.1305130).

M. Dornelas, Madin, J.S., A.H. Baird, and **S.R. Connolly**. 2017. Allometric growth in reef-building corals. *Proceedings of the Royal Society of London, Series B*. 284: 20170053.

Connolly, S.R., T.P. Hughes, and D.R. Bellwood. 2017. A unified model explains commonness and rarity on coral reefs. *Ecology Letters* 20: 477-486.

T.P. Hughes, J.T. Kerry, M. Álvarez Noriega, J.G. Álvarez Romero, K.D. Anderson, A.H. Baird, R.C. Babcock, M. Beger, D.R. Bellwood, R. Berkelmans, T.C. Bridge, I. Butler, M. Byrne, N.E. Cantin, S. Comeau, **S.R. Connolly**, G.S. Cumming, S.J. Dalton, G. Diaz-Pulido, C.M. Eakin, W.F. Figueira, J.P. Gilmour, H.B. Harrison, S.F. Heron, A.S. Hoey, J.-P. A. Hobbs, M.O. Hoogenboom, E.V. Kennedy, C.-Y. Kuo, J.M. Lough, R.J. Lowe, G. Liu, M.T. McCulloch, H.A. Malcolm, M.J. McWilliam, J.M. Pandolfi, R.J. Pears, M.S. Pratchett, V. Schoepf, T. Simpson, W.J. Skirving, B. Sommer, G. Torda, D.R. Wachenfeld, B.L. Willis and S.K. Wilson. 2017. Global warming and recurrent mass bleaching of corals. *Nature* 543: 373-377.

Casey, J.M., A.H. Baird, S.J. Brandl, M.O. Hoogenboom, J.R. Rizzari, A.J. Frisch, C.E. Mirbach, and **S.R. Connolly**. 2017. A test of trophic cascade theory: fish and benthic assemblages across a predator density gradient on coral reefs. *Oecologia* 183: 161. DOI: [10.1007/s00442-016-3753-8](https://doi.org/10.1007/s00442-016-3753-8).

Antao, L., S.R. Connolly, A.E. Magurran, A. Soares, and M. Dornelas. 2017. Prevalence of multimodal species abundance distributions is linked to spatial and taxonomic breadth. *Global Ecology and Biogeography* 26: 203-215.

Graham, E.M., A.H. Baird, **S.R. Connolly**, M.A. Sewell, and B.L. Willis. 2017. Uncoupling temperature-dependent mortality from lipid depletion for scleractinian coral larvae. *Coral Reefs* 36: 97-104.

Blowes, S.A., M.S. Pratchett, and **S.R. Connolly**. 2017. No change in subordinate butterflyfish diets following removal of behaviourally dominant species. *Coral Reefs* 36: 213-222.

Alvarez Noriega, M., A. H. Baird, M. Dornelas, J. S. Madin, V. R. Cumbo, and **S. R. Connolly**. 2016. Fecundity and the demographic strategies of coral morphologies. *Ecology* 97: 3485-3493.

Malerba, M.E., K. Heimann, and **S.R. Connolly**. 2016. Nutrient utilization traits vary systematically with intraspecific cell size plasticity. *Functional Ecology* 30: 1745-1755.

- Malerba, M.E., K. Heimann, and **S.R. Connolly**. 2016. Improving dynamic phytoplankton reserve-utilization models with an indirect proxy for internal nitrogen. *Journal of Theoretical Biology* 404: 1-9.
- Hopf, J.K., G.P. Jones, D.H. Williamson, and **S.R. Connolly**. 2016. Synergistic effects of marine reserves and harvest controls on the abundance and catch dynamics of a coral reef fishery. *Current Biology* 26: 1543-1548.
- Madin, J.S., M. Hoogenboom, **S.R. Connolly**, E. Darling, D. Falster, D. Huang, S. Keith, T. Mizerek, J. Pandolfi, H. Putnam, A.H. Baird. 2016. A trait-based approach to advance coral reef science. 2016. *Trends in Ecology and Evolution* 31: 419-428.
- Hopf, J.K., G.P. Jones, D.H. Williamson, and **S.R. Connolly**. 2016. Fishery consequences of marine reserves: short-term pain for longer-term gain. *Ecological Applications* 26: 818-829.
- Hughes, T.P., D.S. Cameron, A. Chin, **S.R. Connolly**, J.C. Day, G.P. Jones, L. McCook, P. McGinnity, P.J. Mumby, R.J. Pears, R.L. Pressey, G.R. Russ, J. Tanzer, A. Tobin, M.A.L. Young. 2016. A critique of claims for negative impacts of Marine Protected Areas on fisheries. *Ecological Applications* 26: 637-641.
- Malerba, M.E., **S.R. Connolly**, and K. Heimann. 2016. Standard flow cytometry as a rapid and non-destructive proxy for cell nitrogen quota. *Journal of Applied Phycology* 28: 1085-1095.
- Chan, N.C.S., D. Wangpraseurt, M. Kühl, and **S.R. Connolly**. 2016. Flow and coral morphology control coral surface pH: Implications for the effects of ocean acidification. *Frontiers in Marine Science* 3:10. DOI: 10.3389/fmars.2016.00010.
- Madin, J.S., K. Anderson, M. Andreasen, T. Bridge, S. Cairns, **S.R. Connolly**, E. Darling, M. Diaz, D. Falster, E. Franklin, R. Gates, M. Hoogenboom, D. Huang, S. Keith, M. Kosnik, C-Y. Kuo, J. Lough, C. Lovelock, O. Luiz, J. Martinelli, T. Mizerek, J. Pandolfi, X. Pochon, M.S. Pratchett, H. Putnam, E. Roberts, M. Stat, C. Wallace, E. Widman, and A.H. Baird. 2016. The Coral Trait Database, a curated database of trait information for coral species from the global oceans. *Nature Scientific Data* 3: 160017 (21 pages).
- Mokany, K., S. Ferrier, **S.R. Connolly**, P.K. Dunstan, E.A. Fulton, M.B. Harfoot, T.D. Harwood, A.J. Richardson, S.H. Roxburgh, J.P.W. Scharlemann, D.P. Tittensor, D.A. Westcott and B.A. Wintle. 2016. Integrating modelling of biodiversity composition and ecosystem function. *Oikos* 125: 10-19.
- Malerba, M.E., **S.R. Connolly**, and K. Heimann. 2015. An experimentally validated nitrate-ammonium-phytoplankton model including effects of starvation length and ammonium inhibition on nitrate. *Ecological Modelling* 317: 30-40.
- Freilich, M.A. and **S.R. Connolly**. 2015. Phylogenetic community structure when competition and environmental filtering determine abundances. *Global Ecology and Biogeography* 24:1390-1400.
- Casey, J.M., **S.R. Connolly**, and T.D. Ainsworth. 2015. Coral transplantation triggers shift in microbiome and promotion of coral disease associated potential pathogens. *Scientific Reports* 5: 11903. DOI 10.1038/srep11903.

- MacNeil, M.A. and **S.R. Connolly**. 2015. Multi-scale patterns and processes in reef fish abundance. Pages 116-124 in Mora, C., editor. Ecology of fishes on coral reefs. Cambridge University Press, Cambridge, UK.
- Casey, J.M., J.H. Choat, and **S.R. Connolly**. 2015. Coupled dynamics of territorial damselfishes and juvenile corals on the reef crest. *Coral Reefs* 34: 1-11.
- *Highlighted Report*
- Hughes, T.P., D.R. Bellwood, **S.R. Connolly**, H.V. Cornell, and R.H. Karlson. 2014. Double jeopardy and global extinction risk in corals and reef fishes. *Current Biology* 24: 1-6.
- Casey, J.M., T.D. Ainsworth, J.H. Choat, and **S.R. Connolly**. 2014. Farming behaviour of reef fishes increases the prevalence of coral disease associated microbes and the prevalence of black band disease. *Proceedings of the Royal Society of London, Series B* 281: 20141032.
- Madin, J.S., A.H. Baird, M. Dornelas, and **S.R. Connolly**. 2014. Mechanical vulnerability explains size-dependent mortality of reef corals. *Ecology Letters* 17: 1008-1015.
- Connolly, S.R.**, M.A. MacNeil, M.J. Caley, N. Knowlton, E. Cripps, M. Hisano, L.M. Thibaut, B.D. Bhattacharya, L. Benedetti-Cecchi, R. E. Brainard, A. Brandt, F. Bulleri, K.E. Ellingsen, S. Kaiser, I. Kröncke, K. Linse, E. Maggi, T. O'Hara, L. Plaisance, G.C.B. Poore, S.K. Sarkar, K.K. Satpathy, U. Schückel, A. Williams, R.S. Wilson. 2014. Commonness and rarity in the marine biosphere. *Proceedings of the National Academy of Sciences, USA* 111: 8524-8529.
- Reviewed by *Faculty of 1000*.
- Rizzari, J.R., A.J. Frisch, and **S.R. Connolly**. 2014. How robust are estimates of coral reef shark depletion? *Biological Conservation* 176: 39-47.
- Figueiredo, J., A.H. Baird, S. Harii, and **S.R. Connolly**. 2014. Increased local retention of reef coral larvae as a result of ocean warming. *Nature Climate Change* 4: 498-502.
- Keith, S.A., A.P. Kerswell, and **S.R. Connolly**. 2014. Global diversity of marine macroalgae: environmental conditions explain less variation in the tropics. *Global Ecology and Biogeography* 23: 517-529.
- Ban, S.S., N.A.J. Graham, and **S.R. Connolly**. 2014 Evidence for multiple stressor interactions and effects on coral reefs. *Global Change Biology* 20: 681-697.
- Keith, S.A., A.H. Baird, T.P. Hughes, J.S. Madin, and **S.R. Connolly**. 2013. Faunal breaks and species composition of Indo-Pacific corals: the role of plate tectonics, environment, and habitat distribution. *Proceedings of the Royal Society of London, Series B* 280: 20130818. DOI 10.1098/rspb.2013.0818.
- Graham, E.M., A.H. Baird, B.L. Willis, and **S.R. Connolly**. 2013. Effects of delayed settlement on post-settlement growth and survival of scleractinian coral larvae. *Oecologia* 173: 431-438.
- Hughes, T.P., **S.R. Connolly**, and S.A. Keith. 2013. Geographic ranges of reef corals (Cnidaria: Anthozoa: Scleractinia) in the Indo-Pacific. *Ecology (Data Paper)* 94: 1659. <http://dx.doi.org/10.1890/13-0361.1>.

- Blowes, S.A., M.S. Pratchett, and **S.R. Connolly**. 2013. Heterospecific aggression and dominance in a guild of coral-feeding fishes: the roles of dietary ecology and phylogeny. *American Naturalist* 192: 157-168.
- Connolly, S.R.** and M.A. Kosnik. 2013. Fossil record. Pages 537-544 in Levin, S.A., editor. *Encyclopedia of Biodiversity*, 2nd edition, Volume 3. Academic Press, Waltham, MA, USA.
- Keith, S.A. and **S.R. Connolly**. 2013. Effects of diversity-dependent colonization-extinction dynamics on the mid-domain effect. *Global Ecology and Biogeography* 22: 773-783. (Cover article)
- Graham, E.M., A.H. Baird, **S.R. Connolly**, B.L. Willis, M.A. Sewell. 2013. Rapid declines in metabolism explain extended coral larval longevity. *Coral Reefs* 32: 539-549.
- Winner of the 2013 “Best Paper Award” for *Coral Reefs*
- Figueiredo, J., A.H. Baird, and **S.R. Connolly**. 2013. Synthesizing larval competence dynamics and reef-scale retention reveals a high potential for self-recruitment in corals. *Ecology* 94: 650-659.
- Ban, S.S., N.A.J. Graham, and **S.R. Connolly**. 2013. Relationships between temperature, bleaching, and white syndrome on the Great Barrier Reef. *Coral Reefs* 32: 1-12.
- Thibaut, L.M.*, and **S.R. Connolly***. 2013. Understanding diversity-stability relationships: toward a unified model of portfolio effects. *Ecology Letters* 16: 140-150.
- * Contributed equally to authorship
- Chan, N.C.S. and **S.R. Connolly**. 2013. Sensitivity of coral calcification to ocean acidification: a meta-analysis. *Global Change Biology* 19: 282-290.
- Barbosa, M., **S.R. Connolly**, M. Hisano, M. Dornelas, and A.E. Magurran. 2012. Fitness consequences of female multiple mating: a direct test of indirect benefits. *BMC Evolutionary Biology* 12: 185 (11 pages).
- *Highly Accessed* article
- Connolly, S.R.**, M.A. Lopez-Yglesias, and K.R.N. Anthony. 2012. Food availability promotes rapid recovery from thermal stress in a scleractinian coral. *Coral Reefs* 31: 951-960.
- Bode, M, **S.R. Connolly**, and J.M. Pandolfi. 2012. Species differences drive non-neutral structure in Pleistocene coral communities. *American Naturalist* 180: 577-588.
- Madin, J.S., T.P. Hughes, and **S.R. Connolly**. 2012. Calcification, storm damage and population resilience of tabular corals under climate change. *PLoS ONE* 7: e46637 (10 pages).
- Malerba, M.E., **S.R. Connolly**, and K. Heimann. 2012. Nitrate-nitrite dynamics and phytoplankton growth: Formulation and experimental evaluation of a dynamic model. *Limnology and Oceanography* 57: 1555-1571.
- Figueiredo, J. and **S.R. Connolly**. 2012. Dispersal-mediated coexistence under recruitment limitation and displacement competition. *Ecological Modelling* 243: 133-142.

- Thibaut, L.M., **S.R. Connolly**, and H.P.A. Sweatman. 2012. Diversity and stability of herbivorous fishes on coral reefs. *Ecology* 93: 891-901.
- Chan, N.C.S., **S.R. Connolly**, and B.D. Mapstone. 2012. Effects of sex change on the implications of marine reserves for fisheries. *Ecological Applications* 22: 778-791.
- Madin, J.S., M.O. Hoogenboom, and **S.R. Connolly**. 2012. Integrating physiological and biomechanical drivers of population growth over environmental gradients on coral reefs. *Journal of Experimental Biology* 215: 968-976.
- Invited contribution for special issue
- Blowes, S.A. and **S.R. Connolly**. 2012. Risk-spreading, connectivity, and optimal reserve spacing. *Ecological Applications* 22: 311-321.
- Hobbs, J-P.A., G.P. Jones, P. L. Munday, S. R. Connolly, and M. Srinivasan. 2012. Biogeography and the structure of coral reef fish communities on isolated islands. *Journal of Biogeography* 39: 130-139.
- Connolly, S.R.**, and L.M. Thibaut. 2012. A comparative analysis of alternative approaches to fitting species abundance models. *Journal of Plant Ecology* 5: 32-45.
- Invited contribution for special issue
- Hisano, M., **S.R. Connolly**, and W.D. Robbins. 2011. Population growth rates of reef sharks with and without fishing on the Great Barrier Reef: robust estimation with multiple models. *PLoS ONE* 6: e25028 (10 pages).
- Hoogenboom, M.O., **S.R. Connolly**, and K.R.N. Anthony. 2011. Biotic and abiotic correlates of tissue quality for common scleractinian corals. *Marine Ecology Progress Series* 438: 119-128.
- Cetina-Heredia, P. and **S. R. Connolly**. 2011. A simple approximation for larval retention around reefs. *Coral Reefs* 30: 593-605.
- Reviewed by *Faculty of 1000*.
- Pandolfi, J.M., **S.R. Connolly**, D.J. Marshall, and A.L. Cohen. 2011. Projecting coral reef futures under global warming and ocean acidification. *Science* 333: 418-422.
- Listed as a *Highly Cited Paper* by Thompson ISI
 - Reviewed by *Faculty of 1000*.
- Karlson*, R.H., **S.R. Connolly***, and T.P. Hughes. 2011. Spatial variance in abundance and occupancy of corals across broad geographical scales. *Ecology* 92: 1282-1291.
- *Contributed equally to authorship
- Connolly, S.R.** and M. Dornelas. 2011. Fitting and empirical evaluation of models for species abundance distributions. Pages 123-140 in Magurran, A.E. and B. McGill, editors. *Biological diversity: frontiers in measurement and assessment*. Oxford University Press, Oxford, UK.
- Connolly, S.R.** and A.H. Baird. 2010. Estimating dispersal potential for marine larvae: dynamic models applied to scleractinian corals. *Ecology* 91: 3572-3583.

Penin, L., F. Michonneau, A.H. Baird, **S.R. Connolly**, M.S. Pratchett, M. Kayal, and M. Adjeroud. 2010. Early post-settlement mortality and the structure of coral assemblages. *Marine Ecology Progress Series* 408: 55-64.

Salomon, Y., **S.R. Connolly**, and L. Bode. 2010. Effects of asymmetric dispersal on the coexistence of competing species. *Ecology Letters* 13: 432–441.

- Reviewed by *Faculty of 1000*.

Connolly, S. R., M. Dornelas, D. R. Bellwood, and T. P. Hughes. 2009. Testing species-abundance models: a new bootstrap approach applied to Indo-Pacific coral reefs. *Ecology* 90: 3138-3149.

Elmhirst, T., **S.R. Connolly**, and T.P. Hughes. 2009. Connectivity, regime shifts, and the resilience of coral reefs. *Coral Reefs* 28: 949–957.

Connolly, S. R. 2009. Macroecological theory and the analysis of species richness gradients. Pages 279-309 in Witman, J. and K. Roy, editors. *Marine Macroecology*. University of Chicago Press, Chicago, USA.

Hoogenboom, M.O., **S.R. Connolly**, and K.R.N. Anthony. 2009. Effects of photo acclimation on the light niche of corals: a process-based approach. *Marine Biology* 156: 2493–2503.

Gotelli, N.J., M.J. Anderson, H.T. Arita, A. Chao, R. K. Colwell, **S. R. Connolly**, D.J. Currie, R.R. Dunn, G.R. Graves, J.L. Green, J.-A. Grytnes, Y.-H. Jiang, W. Jetz, S.K. Lyons, C.M. McCain, A.E. Magurran, C. Rahbek, T.F.L.V.B. Rangel, J. Soberón, C.O. Webb, M.R. Willig. 2009. Patterns and causes of species richness: a general simulation model for macroecology. *Ecology Letters*, 12: 873–886.

Almany, G. R., **S. R. Connolly**, D. D. Heath, J. D. Hogan, G. P. Jones, L. J. McCook, M. Mills, R. L. Pressey, D. H. Williamson. 2009. Connectivity, biodiversity conservation, and the design of marine reserve networks for coral reefs. *Coral Reefs* 28: 339-351.

- Listed as a *Highly Cited Paper* by Thompson ISI

Hoogenboom, M. O., and **S. R. Connolly**. 2009. Defining fundamental niche dimensions of corals: synergistic effects of colony size, light and flow. *Ecology* 90: 767-780.

Belmaker, J., Y. Ziv, N. Shashar, and **S. R. Connolly**. 2008. Regional variation in the hierarchical partitioning of alpha and beta diversity in coral-dwelling fishes. *Ecology* 89: 2829-2840.

Dornelas, M., and **S. R. Connolly**. 2008. Multiple modes in a coral species abundance distribution. *Ecology Letters* 11: 1008–1016.

Hoogenboom, M. O., **S. R. Connolly**, and K. R. N. Anthony. 2008. Interactions between morphological and physiological plasticity optimize energy acquisition in corals. *Ecology* 89: 1144-1154.

Madin, J. S., M. J. O'Donnell, and **S. R. Connolly**. 2008. Climate-mediated changes to post-disturbance coral assemblages. *Biology Letters*. 4, 490–493.

- Selected by the journal as a *Highlighted Article* in July 2008.
- Highlighted in *Dispatches* (Bradbury, J. 2008. *Frontiers in Ecology and the Environment* 6: 352)

- Graham, E. M., A. H. Baird, and **S. R. Connolly**. 2008. Survival dynamics of scleractinian coral larvae and implications for dispersal. *Coral Reefs* 27: 529-539.
- Selected as a finalist for the journal's *Best Paper Award*.
- Anthony, K. R. N., **S. R. Connolly**, and O. Hoegh-Guldberg. 2007. Bleaching, energetics, and coral mortality risk: Effects of temperature, light, and sediment regime. *Limnology and Oceanography* 52: 716-726.
- Madin, J. S. and **S. R. Connolly**. 2006. Ecological consequences of major hydrodynamic disturbances on coral reefs. *Nature* 444: 477-480.
- Highlighted in *Nature* Podcast, 23 November 2006.
- Dornelas, M., **S. R. Connolly**, and T. P. Hughes. 2006. Coral reef diversity refutes the neutral theory of biodiversity. *Nature* 440: 80-82.
- Highlighted in *News & Views* (Pandolfi, J. 2006. *Nature* 440: 35-36)
 - Highlighted in *Beyond Neutrality: Ecology Finds Its Niche* (Gewin, V. 2006. *PloS Biology* 4: 1306-1310)
 - Reviewed by *Faculty of 1000*. Rating: Exceptional (8.2)
 - Featured in *QANTAS* magazine, January 2007
- Robbins, W., M. Hisano, **S. R. Connolly**, and J. H. Choat. 2006. Ongoing collapse of coral reef shark populations. *Current Biology* 16: 2314-2319.
- Highlighted in *Dispatches* (Dulvy, N. 2006. *Current Biology* 16: R989-R991)
- Madin, J. S., K. P. Black, and **S. R. Connolly**. 2006. Scaling water motion on coral reefs: from regional to organismal scales. *Coral Reefs* 25: 635-644.
- Hoogenboom, M. O., K. R. N. Anthony, and **S. R. Connolly**. 2006. Energetic costs of photoinhibition in corals. *Marine Ecology Progress Series* 313: 1-12.
- Highlighted as the *Feature Article* for this journal issue.
- Connolly, S. R.**, T. P. Hughes, D. R. Bellwood, and R. H. Karlson. 2005. Community structure of corals and reef fishes at multiple scales. *Science* 309: 1363-1365.
- Highlighted in *This Week In Science* (*Science* 309: 1297)
 - Reviewed by *Faculty of 1000*. Rating: Exceptional (8.0)
- Connolly, S. R.** 2005. Process-based models of species distributions and the mid-domain effect. *American Naturalist* 166: 1-11.
- Bellwood, D.R., T.P. Hughes, **S.R. Connolly**, and J. Tanner. 2005. Environmental and geometric constraints on Indo-Pacific coral reef biodiversity. *Ecology Letters*, 8: 643-651. (*Cover article*)
- Anthony, K. R. N., M. Hoogenboom, and **S. R. Connolly**. 2005. Adaptive variation in coral geometry and the optimisation of internal colony light climates. *Functional Ecology* 19: 17-26.
- Anthony, K.R.N. and **S.R. Connolly**. 2004. Environmental limits to growth: physiological niche boundaries of corals along turbidity-light gradients. *Oecologia* 141: 373-384.
- Connolly, S. R.** and S. Muko. 2003. Space pre-emption, size-dependent competition, and the coexistence of clonal growth forms. *Ecology* 84, 2979-2988.

- Connolly, S. R.**, D. R. Bellwood, and T. P. Hughes. 2003. Indo-Pacific biodiversity of coral reefs: deviations from a mid-domain model. *Ecology* 84: 2178-2190.
- Hughes, T.P., A.H. Baird, D.R. Bellwood, M. Card, **S.R. Connolly**, C. Folke, R. Grosberg, O. Hoegh-Guldberg, J.B.C. Jackson, J. Kleypas, J.M. Lough, P. Marshall, M. Nyström, S.R. Palumbi, J.M. Pandolfi, B. Rosen, J. Roughgarden. 2003. Climate change, human impacts, and the resilience of coral reefs. *Science* 301: 929-933. (*Cover article*)
- Listed by *Essential Science Indicators* as the #3 *Hot Paper* in Ecology / Environment (September 5, 2005).
- Hughes, T. P., D. R. Bellwood, and **S. R. Connolly**. 2002. Biodiversity hotspots, centers of endemism, and the conservation of coral reefs. *Ecology Letters* 5: 775-784.
- Anthony, K. R. N., **S. R. Connolly**, and B. L. Willis. 2002. Comparative analysis of energy allocation to tissue and skeletal growth in corals. *Limnology and Oceanography* 47: 1417-1429.
- Connolly, S. R.** and A. I. Miller. 2002. Global Ordovician faunal transitions in the marine benthos: ultimate causes. *Paleobiology* 28: 26-40.
- Connolly, S. R.** and A. I. Miller. 2001. Joint estimation of sampling and turnover rates from fossil databases: capture-mark-recapture methods revisited. *Paleobiology* 27: 751-767.
- Connolly, S. R.** and A. I. Miller. 2001. Global Ordovician faunal transitions in the marine benthos: proximate causes. *Paleobiology* 27: 779-795.
- Miller, A. I. and **S. R. Connolly**. 2001. Substrate affinities of higher taxa and the Ordovician Radiation. *Paleobiology* 27: 768-778.
- Connolly, S. R.**, B. A. Menge, and J. Roughgarden. 2001. A latitudinal gradient in recruitment of intertidal invertebrates in the Northeast Pacific Ocean. *Ecology* 82: 1799-1813.
- Connolly, S. R.** 2001. Fossil record. Pages 53-62 in Levin, S. A., editor. *Encyclopedia of Biodiversity*, Volume III. Academic Press, Boston, Massachusetts.
- Connolly, S. R.** and J. Roughgarden. 1999. Theory of marine communities: competition, predation, and recruitment-dependent interaction strength. *Ecological Monographs* 66: 277-296.
- Connolly, S. R.** and J. Roughgarden. 1999. Increased recruitment of Northeast Pacific barnacles during the 1997--98 El Niño. *Limnology and Oceanography* 44: 466-469.
- Connolly, S. R.** and J. Roughgarden. 1998. A latitudinal gradient in Northeast Pacific intertidal community structure: evidence for an oceanographically-based synthesis of marine community theory. *American Naturalist* 151: 311-326.
- Connolly, S. R.** and J. Roughgarden. 1998. A range extension for the volcano barnacle, *Tetraclita rubescens*. *California Fish and Game* 84: 182-183.
- Bishop, L. and **S. R. Connolly**. 1992. Web orientation, thermoregulation, and prey-capture efficiency in a tropical forest spider. *Journal of Arachnology* 20: 173--178.

Other Publications

- Jackson, J. and 89 others including **S.R. Connolly**. 2014. Part I: Overview and synthesis for the wider Caribbean region. Pages 55-154 in Jackson, J., M.K. Donovan, K.L. Cramer, and V.V. Lam. Status and trends of Caribbean coral reefs: 1970-2012. Global Coral Reef Monitoring Network, Washington, D.C., USA.
- Keith, S., T. Webb, K. Boehning-Gaese, **S.R. Connolly**, N. Dulvy, F. Eigenbrod, K. Jones, T. Price, D. Redding, I. Owens, N. Isaac. 2012. What is macroecology? *Biology Letters* 8: 904-906.
- Pandolfi, J.M., **S.R. Connolly**, D.J. Marshall, and A.L. Cohen. 2011. The future of coral reefs: response. *Science* 334: 1495-1496.
- Pandolfi, J.M., **S.R. Connolly**, D.J. Marshall, and A.L. Cohen. 2011. Response to B. Riegl and S. Purkis's E-Letter. *Science* E-letter.
- Connolly, S. R.**, M. Hisano, J. H. Choat, and W. D. Robbins. 2008. Submission to Queensland Department of Primary Industries & Fisheries on Proposed Management Plan for the East Coast Inshore Finfish Fishery. ARC Centre of Excellence for Coral Reef Studies, Townsville, Queensland, Australia.
- Endorsed by the Australian Coral Reef Society, 28 May 2008.
- D.R. Bellwood, **S.R. Connolly**, O. Hoegh-Guldberg, Hughes, T.P., M. Pratchett, and J. Pandolfi, and 44 others. 2007. The Consensus Declaration on Coral Reef Futures. ARC Centre of Excellence for Coral Reef Studies, Australia.
- D.R. Bellwood, M. Card, **S.R. Connolly**, C. Folke, R. Grosberg, O. Hoegh-Guldberg, Hughes, T.P., J.B.C. Jackson, J. Kleypas, J.M. Lough, P. Marshall, M. Nyström, J.M. Pandolfi, B. Rosen, J. Roughgarden. 2002. The Townsville Declaration on Coral Reef Research & Management. Centre for Coral Reef Biodiversity, James Cook University, Townsville, Queensland, Australia.
- Cited by *The Australian* newspaper as a “remarkable example of an increased willingness by governments to heed scientific advice.”
- Hughes, T.P., A.H. Baird, D.R. Bellwood, M. Card, **S.R. Connolly**, C. Folke, R. Grosberg, O. Hoegh-Guldberg, J.B.C. Jackson, J. Kleypas, J.M. Lough, P. Marshall, M. Nyström, S.R. Palumbi, J.M. Pandolfi, B. Rosen, J. Roughgarden. 2003. Response to "Causes of coral reef degradation". *Science* 302: 1503.
- Connolly, S.R.** 2003. A future for the world's coral reefs? Project Syndicate (<http://www.project-syndicate.org>). [Reprinted in numerous daily newspapers worldwide, e.g., *The Miami Herald* (USA), *The Nation* (Thailand), *The Straits Times* (Singapore), *The Bahrain Tribune* (Bahrain), *Al Akbar Nouakchott* (Mauritania)].

Research Grants

1. Australian Research Council (ARC-Centre of Excellence) Grant. 2014-2021. *ARC Centre of Excellence for Integrated Coral Reef Studies*. James Cook University. A\$28,000,000.
2. Australian Research Council (ARC-Centre of Excellence) Grant. 2010-2013. *ARC Centre of Excellence for Coral Reef Studies* (3-year extension). James Cook University. A\$9,800,000.

3. Australian Research Council (ARC-Discovery) Grant. 2008-2012. *Understanding coral reef biodiversity: a modelling approach*. A\$541,000. Includes an *Australian Professorial Fellowship*.
4. Australian Research Council Environmental Futures Network, Working Group Grant. 2008-2009. Understanding the drivers of biodiversity gradients: towards a process-based approach. A\$10,000.
5. Australian Research Council (ARC-Centre of Excellence) Grant. 2006-2010. *ARC Centre of Excellence for Coral Reef Studies*. James Cook University. A\$12,000,000.
6. Australian Research Council (ARC-Discovery) Grant. 2006-2008. *The role of algal endosymbionts in acclimation and adaptation of reef corals to climate change*. James Cook University. A\$356,000.
7. Australian Research Council (ARC-Linkage) Grant. 2004-2007. *Resilience of Coral Reefs*. James Cook University. A\$1,200,000.
8. Australian Research Council (ARC-Discovery) Grant. 2002-2006. *Biodiversity of Coral Reefs*. James Cook University. A\$2,100,000.
9. Australian Research Council (ARC-Discovery) Grant. 2002. *Metapopulation dynamics of coral communities on the Great Barrier Reef*. A\$50,000.
10. Australian Research Council (ARC-Networks) Grant. 2004-2008. *Discovering the past and present to shape the future: networking environmental sciences for understanding and managing Australian biodiversity*. A\$1,500,000.
11. Australian Research Council (ARC-LIEF) Grant. 2004. *A Computational Research Grid Serving Regional and Metropolitan Queensland*. A\$400,000.
12. James Cook University Research Advancement Program. 2006-2008. Adaptive resource management: linking ecology and social sciences. A\$750,000.
13. James Cook University Merit Research Grants and Program Grants. 2001-2004. 9 grants totalling >A\$200,000 for research in biogeography, metacommunity dynamics, and physiological ecology.
14. Postdoctoral Fellowship, Research Training Group in the Analysis of Biological Diversification (1998-2000). *Macroevolutionary Dynamics of Ordovician Marine Biodiversity*. University of Arizona, Tucson, Arizona, USA.
15. National Science Foundation Predoctoral Fellowship (1994-1997). *A latitudinal gradient in the structure of rocky intertidal communities: benthic-oceanic coupling in the Northeast Pacific Ocean*. Stanford University, Stanford, California, USA.

Recent Invited Presentations (2011-)

- *Process-oriented explanation and model-fitting in macroecology: piercing the protective armour of ancillary assumptions*. Symposium: “Reinvigorating macroecology with process-based approaches”. International Association for Ecology Annual Meeting (INTECOL 2013). August 2013.
- Invited Moderator: *Meta-analysis of coral reef biodiversity: managing a global crisis through improved methods for combining disparate information types*. Maths in Industry Study Group workshop. January 2013.
- *Ecological modelling and the sustainability of biodiversity: marine protected areas*. 2012 Australian Academy of Science Frontiers of Science meeting: “Science for a green economy”. December 2012.

- *Commonness, rarity, and biodiversity in the marine biosphere*. University of St Andrews, Scotland. June 2012.
- *Commonness, rarity, and biodiversity on Indo-Pacific coral reefs*. Smithsonian Tropical Research Institute, Panama. May 2012.
- *Coping with uncertainty: population growth rates of reef sharks with and without fishing on the GBR*. Fisheries Queensland, Brisbane, Australia. April 2012.
- *Coping with uncertainty: population growth rates of reef sharks with and without fishing on the GBR*. Great Barrier Reef Marine Park Authority, Townsville, Australia. December 2011.
- *Commonness, rarity, and biodiversity on coral reefs*. International Symposium for Biodiversity and Theoretical Ecology. Sun Yat-Sen University, Guangzhou, China. May 2011.

Postdoctoral Supervision

As Program Leader for *Understanding and managing coral reef biodiversity* in the ARC Centre of Excellence for Coral Reef Studies, I provide general guidance and mentorship to junior research fellows associated with my Program. Some of these Fellows are associated closely with my research group (for instance, two recent Fellows, Joana Figueiredo and Sally Keith, worked closely with me). Some are associated with other research groups, and are mentored by their senior colleagues in those groups. Others work independently. For this third group, I typically do not provide specific research direction, but I often provide strategic career advice, and comment extensively on draft research grant proposals and job applications. Some of these independent Fellows also attend my lab meetings.

Postgraduate Supervision

(As Principal Supervisor unless otherwise noted)

Current

1. Jessica Zamborain Mason, PhD program, Marine Biology, James Cook University. Topic TBD. 2017-present
2. Mariana Alvarez Noriega, PhD program, Marine Biology, James Cook University. *Coexistence-promoting mechanisms in reef-coral communities*. 2015-present.
3. Cheng-Han Tsai, PhD program, Marine Biology, James Cook University. *Spatio-temporal dynamics of reef fish abundance and biodiversity maintenance on coral reefs*. 2014-present.
4. Katie Peterson. PhD program, ARC Centre of Excellence for Coral Reef Studies, James Cook University. *An examination of the mechanisms that drive diversity-stability relationships in community ecology*. 2014-present. (Co-Supervisor)
5. Danielle Asson. PhD program, ARC Centre of Excellence for Coral Reef Studies, James Cook University. *Biogeographic analysis to guide better marine management: a case study of the Great Barrier Reef*. 2016-present. (Co-Supervisor)

Completed

1. Jessica Hopf. Ph.D. program, Marine Biology, James Cook University. *Connecting marine reserves and metapopulations*. 2012-present.
2. Martino Malerba. Ph.D. program, Marine Biology, James Cook University. *Coexistence by nitrogen partitioning and asymmetric dispersal using microalgae cultures*. 2012-present.
3. Shane Blowes. Ph.D. program, Marine Biology, James Cook University. *Competition and coexistence in the butterflyfish community*. 2010-present.
4. Jordan Casey. Ph.D. program, Marine Biology, James Cook University. *Role of territorial grazers in coral reef trophic dynamics*. 2010-2015.
5. Neil Chan. Ph.D. program, Marine Biology, James Cook University. *Interactive effects of flow and ocean acidification on the population biology of reef corals*. 2009-2015.
6. Loic Thibaut. Ph.D. program, Marine Biology, James Cook University. Resilience in model and coral reef ecosystems. 2005-2015 (with interruptions).

7. Stephen Ban. Ph.D. program, ARC Centre of Excellence for Coral Reef Studies. *Resilience and spatial responses of coral reef ecosystems to climate change and associated stressors*. 2010-2014. (Co-supervisor)
8. Paulina Cetina Heredia. Ph.D. program, Mathematical and Physical Sciences, and Marine Biology, James Cook University. *Modelling physical and biological drivers of larval retention in reef systems*. 2007-2012.
9. Erin Graham. Ph.D. program, Marine Biology, James Cook University. *The energetics of scleractinian coral larvae and implications for dispersal*. 2008-2012. (Co-supervisor)
10. Brian Beck. Ph.D. program, Centre for Marine Studies, University of Queensland. *Effects of disturbance on Recent and fossil coral assemblages*. (External supervisor).
11. Mia Hoogenboom. Ph.D. program, Marine Biology, James Cook University. *Physiological models of performance for scleractinian corals*. 2004-2008.
12. Ailsa Kerswell. Ph.D. program, Marine Biology, James Cook University. *The biogeography of marine macroalgae*. 2003-2006.
13. Maria Dornelas. Ph.D., Marine Biology, James Cook University. *Coral assemblages and neutral theory*. 2002-2006. Thesis awarded *cum laude*.
14. Joshua Madin. Ph.D., Marine Biology, James Cook University. *The structural integrity of coral colonies*. 2001-2004. (Co-supervisor)
15. Ameer Abdulla. Ph.D., Tropical Environmental Studies, James Cook University. *Predator-prey interactions in coral reef fish: the implications of predation risk on the behavior and growth of prey*. 2000-2006. (Co-supervisor)
16. Joanne Moneghetti, Honours program, Marine Biology, James Cook University. *Dispersal kernels, uncertainty, and projected metapopulation impacts in reef corals*. 2016.
17. Mariana Alvarez Noriega. Honours program, Marine Biology, James Cook University. *Competition and biodiversity maintenance in reef coral assemblages*. 2014.
18. Theophilus Zhi En Teo. Honours program, Marine Biology, James Cook University. *Macroecology of Indo-Pacific reef fishes and corals*. 2014.
19. Martino Malerba. Honours program, Marine Biology, James Cook University. *Modelling the effects of cell size on demography and nutrient dynamics in algal cultures*. 2010-2011. (Co-supervisor)
20. Shane Blowes. Honours program, Marine Biology, James Cook University. *Optimal spacing of marine reserves*. 2008-2009.
21. Neil Chan. Honours program, Marine Biology, James Cook University. *Effects of marine reserves on the sustainable yields of structured populations*. 2007.
22. Erin Graham. Honours, Marine Biology, James Cook University. *Settlement competence and survival in azooxanthellate scleractinian coral larvae*. 2006-2007.
23. Yacov Salomon. Honours, Mathematics, James Cook University. *Dispersal and coexistence in competition communities*. 2006. (Co-supervisor)
24. Mizue Hisano. Honours, Marine Biology, James Cook University. *Extinction risk assessment of grey reef sharks and whitetip reef sharks on the Great Barrier Reef*. 2004.
25. Alejandra Lopez. Honours, Marine Biology, James Cook University. *The effect of coral nutrition on bleaching susceptibility and recovery*. 2004-2005. (Co-supervisor)

26. Mia Hoogenboom. Honours, Marine Biology, James Cook University. *Energetic implications of phenotypic plasticity in corals*. 2002-2003.
27. Abbi MacDonald. Honours, Marine Biology, James Cook University. *Cross-shelf assemblage structure of adult and juvenile corals in the central Great Barrier Reef: the importance of disturbance history*. 2002-2003. (Co-supervisor)
28. Kevin Go, MSc program, Marine Biology, James Cook University. *Using phylogenetic linear mixed models to infer community assembly processes from species abundance data*. 2016.
29. Jessica Zamborain Mason. MSc program, Marine Biology, James Cook University. *Metapopulation persistence from a network approach: It's time to let the fish return home*. 2016.
30. Rucha Karkarey. M.App.Sci. program, Marine Biology, James Cook University. *Using Northern and Southern Great Barrier Reef Green turtle (*Chelonia mydas*) nesting data as a proxy to estimate abundance of the remote Coral Sea nesting population*. 2009.
31. Giles Winstanley. M.App.Sci. program, Marine Biology, James Cook University. *Spatial competition and coexistence in reef corals*. 2007-2008.
32. John Martin Elin. M.App.Sci., Marine Biology, James Cook University. *Effects of exploiting a nonlinear food web model: can a linear model predict them?* 2007.
33. Andrea Downing. M.App.Sci., Marine Biology, James Cook University. *Assessment of bleaching condition on coral reefs*. 2006.
34. Brian Kesner. M.App.Sci., Marine Biology, James Cook University. *Effects of population regulation on the efficacy of No-Take Zones in fisheries management*. 2004.

Teaching

Degree Programs

Designer and Coordinator, *Bachelor of Advanced Science*. This degree offers the same majors as the *Bachelor of Science*, but has an Advanced Science core consisting of:

- A higher level of training in mathematics in first year
- An introduction to modelling in science, including an introduction to programming in **R**.
- A statistics subject in year 2, which employs calculus, matrix algebra, and computer programming to learn important concepts such as probability distributions, likelihood and maximum likelihood estimation, Bayesian vs Frequentist conceptions of probability, and computationally-intensive statistics such as bootstrapping and Monte-Carlo simulation.
- A research project in year 3
- A postgraduate subject, taken during third year, that employs advanced quantitative techniques in the student's field of expertise, such as ecological modelling, bioinformatics, etc.

Subjects Taught & Coordinated

1. Ecological Dynamics: An Introduction to Modelling. Combined third-year undergraduate and Masters subject, James Cook University. 2002-present.
 - An introduction to theoretical ecology, focusing on population and community dynamics
2. Ecological Dynamics: Modelling With Data. Postgraduate-level intensive course. James Cook University. 2006-present.
 - An introduction to contemporary statistical modelling for ecologists (e.g., likelihood, resampling/Monte Carlo methods, information theory, Bayesian parameter estimation and model selection)
3. Modelling Marine Populations. Postgraduate-level intensive course. James Cook University. 2001-2005.

Subject Segments Taught

1. Understanding Fishery Collapse. Three-week segment, Modelling Natural Systems, 1st year subject, James Cook University. 2010-present.
 - An introduction to the use of mathematics as a tool for theoretical and statistical analysis. Required for all 1st-year Science majors. This segment introduces the use of graphical and mathematical representation of assumptions about population growth, and analysis of those representations to identify principles of sustainable fishing.
2. Ecological Modelling in Marine Conservation. Two-week segment (with practical & tutorial), Marine Ecology and Environmental Assessment, 2nd year subject, James Cook University. 2001-present.
 - Second-year ecology subject focusing on experimental design and impact assessment. This segment introduces students to population modelling, with a focus on population viability analysis, including a practical and a tutorial.
3. Coral Reef Biodiversity. 2-week segment, Coral Reef Ecology, 3rd year subject, James Cook University. 2003-2010.
 - Upper-level undergraduate subject on the ecology of coral reefs. Two lectures introduce mechanisms of species coexistence (niche partitioning, intransitive loops, competition-colonization tradeoffs, and fluctuation-mediated coexistence) using coral assemblages as a case study, and two lectures introduce the analysis of species richness gradients, using biodiversity gradients on Indo-Pacific coral reefs as a case study.

Guest Lectures

Introductory Marine Science, Biology of Reef Corals, Fisheries Biology, Evolution and Biogeography, Marine Conservation Biology, Operations Research & Modelling, Mathematical Techniques.

Service

Professional

- ARC Centre of Excellence for Coral Reef Studies:
 - Program Leader, *Understanding and Managing Coral Reef Biodiversity*
 - Scientific Management Committee

- Chair, search committees:
 - Research Fellow, Modelling Resilience of Coupled Social-Ecological Systems (2007)
 - Research Fellow, Coral Reef Biodiversity (2010)
 - Research Fellow, Modelling Coral Reef Biodiversity (2010)
- ARC Environmental Futures Network: Management Committee
- Editorial Boards:
 - *American Naturalist*. 2013-present.
 - 2012 Impact Factor: 4.55
 - *Frontiers in Ecology & the Environment*. 2007-2015.
 - 2012 Impact Factor: 7.62
 - *Global Ecology and Biogeography*. 2008-2015.
 - 2012 Impact Factor: 7.22
 - Proceedings of the International Coral Reef Symposium (ICRS 2012).
 - Proceedings of the International Congress on Modelling and Simulation (MODSIM 2003).
 - Guest editor, *Ecological Applications*. 2008.
- Manuscript Reviewing: *Science, Nature, Trends in Ecology & Evolution, Ecology Letters, PNAS, Nature Communications, Ecology, American Naturalist, Global Change Biology, Global Ecology & Biogeography, Oikos, Limnology and Oceanography, Paleobiology, Journal of Geology, Journal of Geophysical Research, Oecologia, PLoS ONE, Marine Ecology Progress Series, Theoretical Population Biology, Ecological Applications, Ecography, Journal of Biogeography, Ecosystems, Ecology & Society, Coral Reefs, Ecological Modelling, Marine Biology, Estuarine and Coastal Shelf Science, Austral Ecology, Hydrobiologia*.
- Grant Reviewing: National Science Foundation (USA), Australian Research Council (Australia), Binational Science Foundation (USA-Israel), National Environment Research Council (UK), Royal Society Fellowships (UK), Qatar National Research Foundation.

University

- Coordinator, *Bachelor of Advanced Science*. 2017-present
- JCU Academic Board. 2014-present.
- Chair, Steering Committee for JCU university contract with Department of Environment and Conservation, Western Australia. *Decision support system for prioritising and implementing biosecurity on Western Australia's islands*. 2013-present.
- Co-ordinator and enrolment counsellor. Degree program for BSc in Marine Biology-Advanced. 2005-2008, 2013-present.
- Chair and co-ordinator, Marine and Tropical Biology Honours Program, 2004-2007.
- Biological Sciences panel, Merit Research Grant program. 2003.
- Deputy Chair, Marine Biology & Aquaculture Honours Program, 2002-2004.
- Member, *ad hoc* Faculty committee to develop an Advanced BSc degree. 2007.
- Member, *ad hoc* Faculty committee to develop first-year modelling subject. 2009.

Public Outreach

- Interviewed in *Shark Girl*, an award-winning documentary film about shark fishing on the Great Barrier Reef.
- Public Lecture: *Are coral reefs under threat: What the science shows – and doesn't show*. James Cook University Professorial Inaugural Lecture series.
- Presentation on reef shark population collapse to Her Excellency Ms Penelope Wensley, Governor of Queensland. ARC Centre of Excellence for Coral Reef Studies, October, 2008.
- Public Lecture: *The ongoing collapse of coral reef shark populations*. ARC Centre of Excellence for Coral Reef Studies, 18 October 2007, Canberra, ACT, Australia. Broadcast on the *The Science Show*, ABC Radio National, Australia, 2008.
- Syndicated column: *A future for the world's coral reefs?* Project Syndicate (see *Other Publications*, above).
- Co-author/signatory, *Consensus Declaration on Coral Reef Futures* (see *Other Publications*, above).
- Co-author/signatory, *Townsville Declaration on Coral Reef Research and Management* (see *Other Publications*, above).
- Public forum speaker: *Sharks: role & status*. ARC Centre of Excellence for Coral Reef Studies, 21 October 2006, Townsville, Queensland, Australia.
- Panel speaker: Coral Reefs Under Threat, *The Science Show*, ABC Radio National, Australia, October 2002.
- Dissemination of research findings through news media. For example, in 2006, my research findings were reported by the *New York Times*, the *New Scientist*, *Australasian Science*, *The Weather Channel*, *ABC News (QLD)*, *WIN News*, and at least 26 newspaper stories and 11 radio programs throughout Australia.
- Guest speaker, Year 10 Maths Camp, Queensland Association of Mathematics Teachers (2004). Townsville, Queensland, Australia.
- Project Supervisor, CSIRO Student Research Scheme for outstanding Year 11 students (2003, 2004, 2006), Townsville, Queensland, Australia.