

Curriculum Vitae

Florence I.M. Thomas

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Education

Ph.D.	University of California, Berkeley , Integrative Biology	1992
M.S.	Brown University , Ecology and Evolutionary Biology	1987
B.S.	University of Washington , Molecular Biology	1985

Professional Experience

Research Faculty, HIMB, University of Hawaii (tenured)	2006 - present
Associate Professor, University of South Florida, Tampa (tenured)	2002 - 2006
Visiting Research Fellow, Univ. of New South Wales, Sydney, Australia	2003
Assistant Professor, University of S. Florida, Tampa	1999 - 2002
Assistant Professor, Dauphin Island Sea Lab, Dauphin Island AL	1996 - 1999
Post-doctoral, University of Hawaii, Oceanography	1992 - 1995

Honors

University of Hawaii Faculty Senate, *Committee on Graduate Education and Research*, 2013-2015

University of Hawaii Emerging Leaders Program, *Presidents Leadership Program*, 2010

University of South Florida: *Presidential Research Award*, 2002.

National Academy of Sciences: *Japanese American Frontiers in Science Symposium*, Invited Participant. Tsukuba, Japan, 1999

Executive Office of the President: The White House National Science and Technology Council: *Presidential Early Career Award for Scientists and Engineers (PECASE)*, 1997

Grants Funded

Industry Partnership (Chevron Hawaii Refinery): Sea urchin fertilization to assess the impacts of effluents. 2013-2014. **PI**. \$105,000

National Science Foundation, Centers for Ocean Sciences Education Excellence (COSEE): Island Earth. 2011-2014. **Co-PI**. \$780,000

Industry Partnership (Chevron Hawaii Refinery): Sea urchin fertilization to assess the impacts of effluents. 2011 - 2013. **PI.** \$522,600

Hawaii Sea Grant: Collaborative research to develop sustainable ecosystem management: analysis of water resources and quality in the contemporary ahupua'a. 2012 - 2014. **PI.** \$104,000

Hawaii Sea Grant: Bioeroding communities and response to climate change. 2012 - 2014. **Co-PI.** \$132,000

Hawaii Coral Reef Initiative NOAA: Restoration within He'eia Ahupua'a: effects on species diversity and water quality. 2010 - 2011. **PI.** \$156,000

Hawaii Sea Grant: Assessment of microbial source tracking approaches to determine the extent of sewage pollution in Kailua Bay. 2010. **PI.** \$10,000

Hawaii Coral Reef Initiative NOAA: The invasive green macroalga *Avrainvillea amadelpha* on Oahu. 2009 - 2011. **PI.** \$99,500

National Science Foundation, Opportunities for Enhancing Diversity in the Geosciences (OEDG): Track 1: Laulima A 'Ike Pono - community collaborations in geosciences and place-based education. 2009 - 2013. **Co-PI.** \$197,471

Hawaii Sea Grant: Abiotic and biotic changes associated with shifts in canopy structure: impact of invasive species. 2009 - 2012. **PI.** \$164,510

National Science Foundation, Chemical Oceanography Collaborative: A study of wave-enhanced nutrient uptake by vegetated canopies in shallow coastal systems. 2006 - 2010. **PI.** \$368,471

National Science Foundation, Biological Oceanography Collaborative: Fertilization in free spawners: interaction of gamete properties and hydrodynamic regime. 2004 - 2007. **PI.** \$294,000

United States Geological Survey: Effects of hydrodynamics on seagrass populations in Tampa Bay. 2004 - 2005. **PI.** \$37,000

National Science Foundation, Biological Oceanography, SGER: Assessing the impact of a macro-algal outbreak in Tampa Bay, Florida. 2003 - 2004. **PI.** \$69,999

Environmental Protection Agency, Science to Achieve Results (STAR): Fellowship for a Ph.D. student (Sean Kinane). Impacts of hydrodynamics on photosystem efficiency and bleaching in corals. \$150,000

National Science Foundation, Ocean Sciences, Presidential Early Career Award for Scientists and Engineers (PECASE): Effects of water velocity and morphology on mass transfer: a partnership in research and education. 1997 - 2003. **PI.** \$500,000

National Science Foundation, Integrative Biology and Neuroscience, Ecological and Evolutionary Physiology: Physical processes in reproduction: the role of echinoid egg physical properties. 1997 - 2000. **PIB.** \$192,000

National Science Foundation, Integrative Biology and Neuroscience: Workshop to encourage minority participation in the Society for Integrative and Comparative Biology. 2000 - 2001. **PI.** \$11,000

National Science Foundation, Biological Oceanography: Planning Grant: Friction coefficients and roughness of coral reef communities. 1993 - 1994. **PI.** \$17,663

Publications

Peer Reviewed Journals (students and post-docs in *Italic*)

Fukunaga, A., K. Peyton and F.I.M. Thomas. Grazer community structure and nutrient cycling compared for invasive and native macroalgae. *Journal of Experimental Marine Biology and Ecology.* In review.

Silbiger, N.J., Ò. Guadayol, F.I.M. Thomas and M.J. Donahue. Reefs shift from net accretion to erosion with rising ocean acidity. *Marine Ecology Progress Series.* In review.

Leon Soon S.G. and F.I.M Thomas, Flow mediated establishment of microhabitats and the biological response within a benthic algal canopy – linking physical and biological processes. *Marine Ecology Progress Series* In review.

Guadayol, Ò., N. Silbiger, M.J. Donahue and F I.M. Thomas. 2014 Patterns in Temporal Variability of Temperature, Oxygen and pH along an Environmental Gradient in a Coral Reef. *PLoS ONE* 9(1): e85213. doi:10.1371/journal.pone.0085213

Thomas, F.I.M., L.T. Kregting, R.C. Grabowski, B D. Badgley, M.G. Donahue and P.O. Yund. 2013. Fertilization in free spawning invertebrates is not only a water column process: effects of water flow on fertilization near a spawning female. *Marine Ecology Progress Series*, 494:231-240.

Kregting L.T, A. Bass, Ò. Guadayol, P.O. Yund and F I. M. Thomas. 2013 Effects of oscillatory flow on fertilization in the green sea urchin *Strongylocentrotus droebachiensis*. *PLoS ONE* 8(9): e76082. doi:10.1371/journal.pone.0076082.

Jury, C., F.I.M. Thomas, M.J. Atkinson and R. Toonen. 2013. Revelle factor, ecosystem feedbacks, and seawater chemistry under global change. *Water* 2013, 5(3), 1303-1325; doi:10.3390/w5031303.

Weitzman, J.S., K. Aveni-Deforge, J.R. Koseff and F.I.M. Thomas. 2013. Uptake of dissolved inorganic nitrogen by shallow seagrass communities exposed to wave-driven unsteady flow. *Marine Ecology Progress Series* 475:65-83.

- Badgley, B.D., F.I.M. Thomas* and V.J. Harwood. 2011. Quantifying environmental reservoirs of fecal indicator bacteria associated with sediment and submerged aquatic vegetation. *Environmental Microbiology* 13:932-942.
- Badgley, B.D., F.I.M. Thomas* and V.J. Harwood. 2010. The effects of submerged aquatic vegetation on the persistence of environmental populations of *Enterococcus* Spp. *Environmental Microbiology*: 12 1271-1281.
- Cornelisen, C.D.* and **F.I.M. Thomas**. 2009. Prediction and validation of flow dependent uptake of ammonium over a seagrass-hardbottom community in Florida Bay. *Marine Ecology Progress Series* 386:71-81.
- Munish, V.I., k. Taeyong, C. Yao-Kuang, M.W. Alex, X. Xinran, W. Chia-Wei, T. Shuichi, C.M. Lastoskie, F.I.M. Thomas* and A. M. Sastry. 2007. Assessment of sperm chemokinesis with exposure to jelly coats of sea urchin eggs and resact: a microfluidic experiment and numerical study. *Journal of Experimental Biology* 210:3805-3820.
- Adhitya, A., F.I.M. Thomas* and B. B. Ward. 2007. Diversity of nitrate reductase genes from planktonic and epiphytic environments in seagrass communities. *Microbial Ecology* 54:587-597.
- Kim, T., C.W. Wang, F.I.M. Thomas* and A.M. Sastry. 2006. Fluid-structure interaction analysis of flow-induced deformation in a two-phase, neo-hookean marine egg. *Journal of Engineering Materials and Technology – transactions of the ASME* 128:519-526.
- Cornelisen, C.D.* and **F.I.M. Thomas**. 2006. Nutrient uptake in seagrass canopies: response to a changing hydrodynamic regime at the community and organism level. *Marine Ecology Progress Series* 312:1-13.
- Van Duyl, F.C., S.R. Sheffers, M.D. Driscoll* and **F.I.M. Thomas**. 2006. The effect of water exchange on bacterioplankton depletion and inorganic nutrient fluxes in coral reef cavities. *Coral Reefs* 25:23-36.
- Cornelisen, C.D.* and **F.I.M. Thomas**. 2004. Ammonium and nitrate uptake by leaves of the seagrass *Thalassia testudinum*: effects of hydrodynamic regime and epiphyte cover on uptake rates. *Journal of Marine Systems* 49 177-194.
- Thomas, F.I.M** and *C.D. Cornelisen*. 2003. Ammonium uptake by seagrass communities: effects of oscillatory versus unidirectional flow. *Marine Ecology Progress Series* 247: 51-57.
- Woodin, S.A., R.A. Mertz, F.I.M. Thomas, D.R. Edwards* and *I.L. Garcia*. 2003. Chaeta and mechanical function: tools no metazoan should be without. *Hydrobiologia* 456:253-258.

- Cornelisen, C. D.* and **F.I.M. Thomas**. 2002. Flow dependent ammonium uptake by seagrass epiphytes: use of a stable isotope tracer. *Limnology and Oceanography*. 47:1223-1229.
- Bolton, T.F.* and **F.I.M. Thomas**. 2002. Physical forces experienced by echinoid eggs in the oviduct during spawning: comparison of the geminate pair *Echinometra vanbrunti* and *Echinometra lucunter*. *Journal of Experimental Marine Biology and Ecology* 267:123-137.
- Parmigiani, J.P., A. M. Sastry* and **F.I.M. Thomas**. 2001. Fibrous reinforcement in marine invertebrates: Mechanical response of biological porous materials. The Proceedings of the American Society for Composites' 16th Annual Technical Conference, Roanoke VA.
- Thomas, F.I.M., T.F. Bolton** and *A.M. Sastry*. 2001. Echinoderm egg extracellular layers: role in the mitigation of forces experienced by eggs during spawning: *Journal of Experimental Biology* 204:815-821.
- Thomas, F.I.M., C.D. Cornelisen** and *J. Zande*. 2000. Effects of water velocity and canopy morphology on ammonium uptake by seagrass communities. *Ecology* 81:2704-2713.
- Bolton, T. F., F.I.M Thomas* and *C.N. Leonard*. 2000. Maternal energy investment in eggs and jelly coats surrounding eggs of the echinoid *Arbacia punctulata*. *Biological Bulletin* 199:1-5.
- Thomas, F.I.M.** and *T. F. Bolton*. 1999. Shear stress experienced by echinoderm eggs in the oviduct during spawning: potential role in the evolution of egg extracellular layers. *Journal of Experimental Biology* 202:3111-3119.
- Thomas, F.I.M., K. Edwards, T. F. Bolton, M. Sewell** and *J. Zande*. 1999. Mechanical resistance to shear stress: the role of echinoderm egg extracellular layers. *Biological Bulletin* 197:7-10.
- Thomas, F.I.M.** and *M.J. Atkinson*. 1997. Ammonia uptake by coral reefs: effects of water velocity and surface roughness on mass transfer. *Limnology and Oceanography* 42:81-88.
- Atkinson, M.J., F.I.M. Thomas* and *N. Larson*. 1996. Effects of pressure on oxygen sensors. *Journal of Atmospheric and Oceanic Technology* 13:1267-1274.
- Thomas, F.I.M.** and *M.J. Atkinson*. 1995. Field calibration of a potentiostatic micro-hole oxygen sensor for oceanic CTDs. *Journal of Atmospheric and Oceanic Technology* 12: 390-394.
- Thomas, F.I.M., S. A. McCarthy, J. Bower, S. Krathapalli, M.J. Atkinson** and *P. Flament*. 1995. Response characteristics of two oxygen sensors for CTD profiling. *Journal of*

Atmospheric and Oceanic Technology 12:687-690.

Atkinson, M.J., **F.I.M. Thomas**, E. Terrill, K. Morita and C.C. Liu. 1995. A micro-hole potentiostatic oxygen sensor for oceanic CTDs. *Deep Sea Research* 42:761-771.

Thomas, F.I.M. 1994a. Physical properties of gametes in three sea urchin species. *Journal of Experimental Biology* 194 263-284.

Thomas, F.I.M. 1994b. Morphology and orientation of tube extensions in aggregations of the polychaete annelid *Phragmatopoma californica*. *Marine Biology* 119:525-534.

Thomas, F.I.M. 1994c. Transport and mixing of gametes in three free-spawning polychaete annelids, *Phragmatopoma californica* (Fewkes), *Sabellaria cementarium* (Moore), *Schizobranchia insignis* (Bush). *Journal of Experimental Marine Biology and Ecology* 179:12-27.

Thomas, F.I.M. and A.J. Kohn. 1990. The trophic role of co-occurring species of *Drupa* (Gastropoda: Muricidae) at Enewetak Atoll. *Journal of Molluscan Studies* 56:57-62.

Bertocci, U., **F.I.M. Thomas** and E.N. Pugh. 1984. Stress corrosion cracking of brass in the absence of detectable anodic dissolution. *Corrosion* 40:138-139.

Outreach

Collaborator on Sea Grant funded project to help community groups grow oysters in historical fishponds. 2012-present.

Mentor for Pacific Island undergraduate students. Two per year, 2009 - present.

Planning Committee, COSEE Diversity Meeting. 2012.

Sea Grant community outreach with Native Hawaiian groups restoring taro agriculture and historical fishponds. I provide scientific data and expertise to help management decisions. 2010 - present.

Co-PI on a NSF funded internship program working with Native Hawaiian adults (70 interns). 2009 - present.

Minority recruitment with three Historically Black Universities. Work directly with the Deans of the HBCU's to identify students for research internships in marine science. 1997-2003.

Three educational television programs in Oceanography for 5th and 6th grades. 2003.

Invited Seminars & Symposia

Ocean Biophysics: Microenvironments modulating biological interactions in the ocean. Aspen Colorado, 2011.

Hydrodynamics and nutrient uptake in vegetated systems. Friday Harbor Laboratories, 2010.

Water flow and fertilization in free-spawning marine invertebrates. Friday Harbor Laboratories, 2010.

Water flow and fertilization in free-spawning invertebrates. University of California at Berkeley, 2009.

Nutrient dynamics in vegetated systems affects of hydrodynamics. Cawthron Institute, Nelson, New Zealand, 2008.

Nutrient uptake by benthic canopies, Effects of water velocity and canopy characteristics. University of New England, Biddeford, Maine, 2006.

Impacts of hydrodynamics on the ecology of shallow coastal systems. Department of Biology, Georgia Institute of Technology, Atlanta, Georgia, 2005.

Nutrient uptake by benthic canopies: Effects of water velocity and canopy characteristics. Department of Mathematics and Department of Biology, University of New South Wales, Sydney, Australia, 2004.

Effects of water flow and canopy morphology on nutrient transport in benthic communities. Department of Aquaculture, Purdue University, West Lafayette, Indiana, 2003.

Effects of water flow and canopy morphology on nutrient transport in benthic communities. Darling Marine Center, Walpole Maine, 2003.

Effects of water flow and canopy morphology on nutrient transport in benthic communities. American Society of Limnology and Oceanography, Albuquerque, New Mexico, 2001.

Linking research and education. Society for Integrative and Comparative Biology Meeting, Chicago, Illinois, 2001.

Canopy morphology and water velocity: effects on nutrient uptake by benthic communities. Departmental Seminar, University of South Carolina, Columbia, South Carolina, 2000.

Shear stress experienced by echinoderm eggs in the oviduct during spawning: potential role in the evolution of egg extracellular layers. Physiology of Echinoderm Symposium, Society for Experimental Biology, Exeter, England, 2000.

Integration of research and education: New strategies for an academic career symposium. American Society of Limnology and Oceanography, San Antonio, Texas, 2000.

The effects of water velocity and canopy morphology on nutrient uptake by benthic communities. Departmental Seminar, Environmental Sciences Department, Florida A&M University, 1999.

The role of physical processes in the ecology and evolution of marine benthic organisms and communities. Japanese American Frontiers in Science Symposium, Tsukuba, Japan, 1999.

Effects of water velocity and canopy morphology on nutrient uptake by benthic communities. Departmental Seminar, Marine Science Department, University of South Florida, Tampa, Florida, 1999.

Shear stress experienced by echinoderm eggs in the oviduct during spawning: potential role in the evolution of egg properties. Kohn Symposium, Society for Integrative and Comparative Biology Meeting, Denver, Colorado, 1999.

Ecosystem engineering: the role of morphology in nutrient transport. Tuskegee University, Tuskegee, Alabama, 1998.

Ecosystem engineering: the role of morphology in nutrient transport. Monterey Bay Aquarium Research Institute, Monterey, California, 1998.

Ecosystem engineering: morphology modulates ammonium uptake at the community scale. Departmental Seminar, Brown University, Providence, Rhode Island, 1998.

Research and the public: examples of public outreach. American Society of Limnology and Oceanography, Ocean Sciences Meeting, San Diego, California, 1998.

The effects of morphology on transport rates at the scale of whole communities. Departmental Seminar, University of Texas, Port Aransas, Texas, 1998.

Physical process in reproduction: the role of egg properties. Biology Department Seminar, Florida State University, Tallahassee, Florida, 1997.

Ecological roles of water flow: implications of mass-transfer. Department of Biology Seminar, Alabama State University, Montgomery, Alabama, 1996.

The formidable function of fluid flow: ecological implications of mass-transfer. Department of Biology Seminar, University of South Alabama, Mobile, Alabama, 1996.

Ecological roles of water flow: effects on chemical transport. Environmental Protection Agency, Gulf Breeze, Florida, 1996

Ecological roles of water flow: implications of mass-transfer. Department of Biology Seminar, University of Alabama, Tuscaloosa, Alabama, 1996.

Ammonia uptake by coral reefs: effects of water velocity and roughness on mass-transfer. International Coral Reef Conference, Panama City, Panama, 1996.

Egg provisioning in free spawning marine invertebrates: the role of physical processes. Larval Biology Meetings, Harbor Branch Institute, Fort Pierce, Florida, 1995.

Mass transfer: biological implications and experimental approaches. California State University, Northridge, California, 1995.

Morphology of benthic invertebrates: effects on mass transport. *Frontiers in Biodiversity*, University of Washington, Seattle, Washington, 1994.

Adult morphology and physical characteristics of gametes: effects on fertilization in broadcast-spawning invertebrates. Departmental Seminar, Department of Zoology, University of Hawaii, Honolulu, Hawaii, 1992.

Computerization of an electrochemical laboratory. National Bureau of Standards, Metallurgy Division Group Seminar, Gaithersburg, Maryland, 1983.

Contributed Conference Presentations

Partnerships linking education and science in community based management.

American Society of Limnology and Oceanography, New Orleans, Louisiana, 2013.

High frequency data reveal small-scale temporal and spatial variation in microhabitats across a coral reef. American Society of Limnology and Oceanography, New Orleans, Louisiana, 2013.

Water quality of Kāne'ohe Bay using indicator species *Tripneustes Gratilla*. Society for Integrative and Comparative Biology, San Francisco, California, 2013.

Naturally occurring ranges in water quality affect early development in the sea urchin *Tripneustes gratilla*: implications for distribution of invasive algae. Society for Integrative and Comparative Biology, San Francisco, California, 2013.

Investigating the effects of benthic algal canopies of varying structure on water flow and chemical exchange. Aquatic Science Meeting, Puerto Rico, 2011.

Benthic canopy structure affects patterns of current and wave attenuation. American Society of Limnology and Oceanography Meeting, Portland, Oregon, 2010.

Wavy turbulence in Florida Bay seagrass communities. American Society of Limnology and Oceanography Meeting, Portland, Oregon, 2010.

Hydrodynamic impacts on nutrient uptake and water flow across scales. Aquatic Sciences Meeting, Nice, France, 2009.

The coupling of hydrodynamics and nutrient exchange in natural seagrass canopies: Part one. Ocean Sciences Meeting, Orlando, Florida, 2008.

The coupling of hydrodynamics and nutrient exchange in natural seagrass canopies: Part two. Ocean Sciences Meeting, Orlando, Florida, 2008.

Hydrodynamic impacts on nutrient uptake in seagrass canopies. American Society of Limnology and Oceanography Meeting, Honolulu, Hawaii, 2006.

High-velocity water flow leads to reduced photodamage and diminished bleaching stress in *Porites divaricate*. Okinawa, Japan, 2004.

A macroalgae to seagrass shift in a benthic canopy: effects on turbulence, nutrient exchange, and invertebrate populations. Benthic Ecology Meeting, Mobile, Alabama, 2004.

Hydrodynamics effects on nutrient uptake by the benthos: links between small-scale processes and nutrient transport in estuarine and near-shore systems. Aquatic Sciences Meeting, Salt Lake City, Utah, 2003.

Application of isotope labels for isolating the effects of hydrodynamics regime on nutrient uptake by major components of a seagrass community. Aquatic Sciences Meeting, Salt Lake City, Utah, 2003.

Nutrient uptake by the benthos: effects of canopy characteristics and hydrodynamics. Estuarine Research Federation, Seattle, Washington, 2003.

Effects of boundary layer processes on nutrient uptake by shoals within Florida Bay. American Society of Limnology and Oceanography Meeting, Honolulu, Hawaii, 2002.

Isolating the impact of water flow on nutrient uptake by organisms situated within complex communities: an isotope labeling approach. American Society of Limnology and Oceanography Meeting, Honolulu, Hawaii, 2002.

Predicting mass transfer of nutrients to benthic communities. Estuarine Research Federation Meeting, St. Petersburg, Florida, 2002.

Isolation of flow dependent nutrient uptake by individual components within a seagrass community using ^{15}N -labeled ammonium. Estuarine Research Federation Meeting, St. Petersburg, Florida, 2002.

Use of stable isotope tracer for assessing the effects of water flow on the uptake of ammonium by seagrasses. American Society of Limnology and Oceanography. Albuquerque, New Mexico, 2001.

The role of physical processes in ecology and evolution. American Society of Limnology and Oceanography, San Antonio, Texas, 2000.

Shear stress experienced by echinoderm eggs in the oviduct during spawning: potential role in the evolution of egg extracellular layers. Society for Integrative and Comparative Biology, Atlanta, Georgia, 2000.

The energetics of eggs and egg extracellular layers: implications for early life history of marine invertebrates. Society for Integrative and Comparative Biology Meeting, Denver, Colorado, 1999.

Seagrasses as ecosystem engineers; morphology modulates ammonium uptake at the community scale. Benthic Ecology Meeting, Melbourne, Florida, 1998.

Ammonium uptake by two seagrass communities: effects of velocity and morphology on mass transfer. American Society of Limnology and Oceanography, Ocean Sciences Meeting, San Diego, California, 1998.

Catastrophic collapse of coral reefs: a biomechanical approach. Benthic Ecology Meeting, Portland, Maine, 1997.

Physical processes in invertebrate reproduction: the role of egg properties. Society for Integrative and Comparative Biology, Annual Meeting, Albuquerque, New Mexico, 1996.

Effects of water velocity and morphology on mass transfer: a partnership of research and education. Gulf of Mexico Program Symposium on Historically Black Colleges and Universities (HBCU's), Gulfport, Mississippi, 1996.

Performance consequences of aggregated settlement in the *Sabellariid* polychaete, *Phragmatopoma californica*. Benthic Ecology Meeting, Columbia, South Carolina, 1996.

Water velocity and turbulence: effects on photosynthesis of coral reef algal turfs. Benthic Ecology Meeting, New Brunswick, New Jersey, 1995.

Friction coefficients and roughness of coral reefs: estimates of mass-transfer limited uptake of ammonia. Western Society of Naturalists, National Meeting, Monterey, California, 1994.

Roughness of coral reefs and mass-transport of nutrients. National Meeting of the American Society of Zoologists, Los Angeles, California, 1993.

Adult morphology and physical characteristics of gametes: effects on fertilization in broadcast-spawning invertebrates. American Society of Zoologists National Meeting, Vancouver, British Columbia, 1992.

Flow characteristics above aggregations of *Phragmatopoma californica*. American Society of Zoologists National Meeting, San Francisco, California, 1988.

The determinants of body temperature in the northern rock barnacle *Semibalanus balanoides*. American Society of Zoologists National Meeting, New Orleans, Louisiana, 1987.

The trophic role of the carnivorous coral-reef gastropod *Drupa*. American Society of Zoologists, National Meeting, Baltimore, Maryland, 1984.

Additional Grants and Fellowships

U.C. Marine Inter-campus Exchange Program, Research Fellowship, 1990

Pauley Foundation, Grant-In-Aid, 1990

University of California, Department of Integrative Biology, Grant, 1990

National Chapter of Sigma Xi, Grant-In-Aid of Research, 1989

Lerner Gray Fund for Marine Research, Research Grant, 1989

University of California, Department of Integrative Biology, Grant, 1989

National chapter of Sigma Xi, Grant-In-Aid of Research, 1988

Berkeley chapter of Sigma Xi, Grant-In-Aid of Research, 1988

Graduate Students and Post-Doctoral Associates

Post-doctoral

- Dr. Atsuko Fukanaga. 2010 – present. Ph.D., Auckland University
Dr. Òscar Guaydol. 2010 – 2013. Ph.D., University of Barcelona
Dr. Marc Metian. 2008 – 2010. Ph.D., Université de La Rochelle, France
Dr. Kyle Aveni Deforge. 2006 – 2010. Ph.D., University of South Carolina
Dr. Louise Kregting. 2005 – 2009. Ph.D., University of Otago, New Zealand
Dr. Toby Bolton. 1998 – 2000. Ph.D., Flinders University, Australia

Ph.D.

- Florybeth LaValle. 2013 – present. Dissertation: Effects of groundwater derived nutrients on invasive macroalgae competition and growth.
Nin Gan. 2012 – present. Dissertation: Environmental impacts on recruitment and settlement of crab species.
Sherril Leon Soon. 2006 – present. Dissertation: Linking molecular and physical tools to examine the response of organisms to changing environments.
Chris Cornelisen. Graduated 2003. Dissertation: Nutrient uptake by seagrass communities: Impact of hydrodynamic regime quantified through field measurements and use of an isotope tracer.
Sean Kinane. 2001 – 2010. EPA Star Fellow, Dissertation: Impact of hydrodynamics on bleaching and photosystem function in corals.
Alison Myers. Graduated 2010. Dissertation: The role of epiphytes in a seagrass food web: impacts of hydrodynamics on nutrient dynamics.
Brian Badgely. Graduated 2010. Dissertation: Mass transfer versus enzyme control of nutrient dynamics in a shallow coastal vegetated canopy.

M.S.

- Jenny Fung. 2011- present. Thesis: Variation in fertilization success across a tropical embayment in the sea urchin *Tripneustes gratilla*.
Mark Driscoll. Graduated 2003. Thesis: Impact of hydrodynamics on photosystem function in *Caulerpa prolifera*.

Undergraduate

I have trained and supported a total of 26 undergraduate interns and students in the lab. Two completed honors theses on work within the lab. Many of these were supported through direct partnerships with Historically Minority Institutions or through an undergraduate mentoring program for minorities at the University of Hawaii.