Eliza C. Heery

Postdoctoral Research Fellow

Department of Biological Sciences, National University of Singapore

Education

University of Washington – Ph.D., Biology

1/2011-8/2017

Dissertation: Benthic subtidal assemblages and ecological processes in urbanized seascapes

Advisor: Dr. Kenneth P. Sebens

Virginia Tech – M.S., Fishery Science

8/2004-5/2007

Thesis: The impact of bias in length frequency data on an age structured fisheries stock

assessment model

Advisor: Dr. James M. Berkson

Emory University – B.S., Biology

8/2002-5/2004

Dean's List, International Scholars Program

Professional Appointments

National University of Singapore

9/2017-present

National Research Foundation Postdoctoral Research Fellow

Department of Biological Sciences

Mentor: Dr. Peter A. Todd

National Oceanic and Atmospheric Administration (NOAA)

1/2008-12/2010

Statistician / Analyst

Contractor: Pacific States Marine Fisheries Commission (PSMFC)

Northwest Fisheries Science Center (NWFSC), Seattle

Scholarship

Total number of citations: 153 | h-index: 6 | i10-index: 5

(via Google Scholar, Jan 2019)

Journal Articles

- 1. RL Morris, **EC Heery**, LHL Loke, E Lau, EMA Strain, L Airoldi, KA Alexander, MJ Bishop, RA Coleman, JR Cordell, Y Dong, LB Firth, SJ Hawkins, T Heath, M Kokora, SY Lee, JK Miller, S Perkol-Finkel, A Rella, PD Steignberg, I Takeuchi, RC Thompson, PA Todd, JD Toft, KMY Leung. Accepted. Design options, implementation issues, and evaluating success of ecologically-engineered shorelines. <u>Oceanography and Marine</u> Biology An Annual Review. *Contribution: writing, editing, conceptual development.*
- 2. **Heery, EC**, KA Dafforn, JA Smith, S Ushiama, M Pinto-Mayer. 2018. Not all artificial structures are created equal: Pilings linked to greater ecological and environmental change in sediment communities than seawalls. <u>Marine Environmental Research</u> 142: 286-294.

- 3. **Heery, EC** and KP Sebens. 2018. Artificial structures as a source of elevated detrital loads for natural sedimentary environments. <u>Bulletin of Marine Science</u> 94(4): 1429-1446
- 4. Hayes, AL, **EC Heery**, E Maroon, AK McClaskey, and CC Stawitz. 2018. The role of scientific expertise in local adaptation to projected sea level rise. <u>Environmental Science & Policy</u> 87: 55-63. <u>Contribution: data analysis, survey development, writing</u>
- 5. **Heery, EC**, BW Hoeksema, NK Browne, JD Reimer, Ang PO, Huang D, DA Friess, Chou LM, Loke LHL, P Saksena-Taylor, N Alsagoff, T Yeemin, M Sutthacheep, Vo ST, AR Bos, GS Gumanao, MAS Hussein, Z Waheed, DJW Lane, O Johan, A Kunzmann, J Jompa, Suharsono, D Taira, AG Bauman, PA Todd. 2018. Urban coral reefs: Degradation and resilience of hard coral assemblages in coastal cities of East and Southeast Asia. Marine Pollution Bulletin 135: 654-681.
- 6. **Heery, EC**. 2018. Reduced macrofauna diversity and abundance in response to red macroalgal detritus. Journal of Experimental Marine Biology and Ecology 505: 1-8.
- 7. **Heery, EC**, AY Green, BE Feist, and KP Sebens. 2018. Urbanization-related distribution patterns and habitat-use by giant Pacific octopus (*Enteroctopus dofleini*). <u>Urban</u> Ecosystems 21(4): 707-719.
- 8. Strain, EMA, C Olabarria, M Mayer-Pinto, V Cumbo, RL Morris, AB Bugnot, KA Dafforn, **EC Heery**, LB Firth, P Brooks, and MJ Bishop. 2017. Eco-engineering urban infrastructure for marine and coastal biodiversity: which interventions have the greatest ecological benefit? <u>Journal of Applied Ecology</u> 55(1): 426-441. <u>Contribution: data analysis/compilation</u>
- 9. **Heery, EC**, MJ Bishop, L Citchley, AB Bugnot, L Airoldi, M Mayer-Pinto, EV Sheehan, RA Coleman, LHL Loke, EL Johnston, V Komyakova, RL Morris, EMA Strain, LA Naylor, and KA Dafforn. 2017. Identifying the consequences of ocean sprawl for sedimentary habitats. <u>Journal of Experimental Marine Biology and Ecology</u> 492: 31-48.
- 10. **Heery, EC** and JM Cope. 2014. Co-occurrence of bycatch and target species in the groundfish demersal trawl fishery of the U.S. west coast; with special consideration of rebuilding stocks. Fishery Bulletin 112: 36-48.
- 11. Bellman, MA and **EC Heery**. 2013. Discarding and fishing mortality trends in the U.S. west coast groundfish demersal trawl fishery. <u>Fisheries Research</u> 147: 115-126. <u>Contribution: data analysis, writing</u>
- 12. **Heery, EC** and J Berkson. 2009. Systematic errors in length frequency data and their effect on age-structured stock assessment models and management. <u>Transactions of the American Fisheries Society</u> 138: 218-232.

In Review

- 1. Du, RCP, R Quek, SS Jian, AC Lee, S Schmidt-Roach, K Tun, **EC Heery**, LM Chou, PA Todd, D Huang. In review. Last species standing: loss of Pocilloporidae corals associated with coastal urbanization in a tropical city state. <u>Marine Biodiversity</u>. <u>Contribution:</u> <u>references and background material relating to marine urbanization</u>.
- 2. Loke, LHL, **EC Heery**, S Lai, TJ Bouma, PA Todd. In review. Area-independent effects of water-retaining features on intertidal biodiversity on eco-engineered seawalls in the tropics. Frontiers In Marine Science. *Contribution: writing, supported data analysis.*

3. Todd, PA, **EC Heery**, LHL Loke, RH Thurston, JD Kotze, C Swan. In review. The impacts and processes of marine urbanization. <u>Oikos</u>. <u>Contribution: writing, conceptual development</u>.

Book Chapters

- 1. **Heery, EC** and KP Sebens. In press. Chapter 10. The North-East Pacific: Interactions on subtidal hard substrata. In (*Eds*) Hawkins, S.J., L.B. Firth, K. Bohn, and G.A. Williams. *Interactions in the Marine Benthos A Regional and Habitat Perspective*. Systematics Association Special Volume Series, Cambridge University Press.
- 2. Loke, LHL, **EC Heery**, and PA Todd. 2019. Chapter 29. Shoreline Defenses. In (*Ed*) C Sheppard. *World Seas: An Environmental Evaluation*. Academic Press. pp. 491-504. <u>Contribution: writing</u>

Commentary & Technical Reports

- 1. Dafforn, KA, A Bugnot, **EC Heery**, M Mayer-Pinto. 2018. Future 'ocean cities' need green engineering above and below the waterline. <u>The Conversation</u>. Published March 26, 2018. Available online at: https://theconversation.com/future-ocean-cities-need-green-engineering-above-and-below-the-waterline-93843
- Dafforn, KA, A Bugnot, EC Heery, M Mayer-Pinto. 2018. We must respect the ocean when building artificial islands. <u>Agenda</u> (World Economic Forum). Published July 24, 2018 (Republished from The Conversation). Available online at: https://www.weforum.org/agenda/2018/07/future-ocean-cities-need-green-engineering-above-and-below-the-waterline/
- 3. **Heery, EC**. 2015. An Octopus' Garden in the Urban Underwater Environment. <u>Tide</u> <u>Bites</u> (Friday Harbor Labs), Vol. 29. Published December 31, 2015. Available online at: https://depts.washington.edu/fhl/tidebites/Vol29/index.html
- 4. Jannot, J, **EC Heery**, MA Bellman, J Majewski. 2011. Estimated bycatch of marine mammals, seabirds, and sea turtles in the U.S. west coast commercial groundfish fishery, 2002-2009. West Coast Groundfish Observer Program. National Marine Fisheries Service, NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.
- 5. Bellman, MA, **EC Heery**, J Jannot, and J Majewski. 2010. Estimated discard and total catch of selected groundfish species in the 2009 U.S. west coast fisheries. West Coast Groundfish Observer Program. National Marine Fisheries Service, NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.
- 6. Bellman, MA, **EC Heery**, and J Majewski. 2010. Observed and estimated total bycatch of green sturgeon in the 2002-2008 U.S. west coast groundfish fisheries. West Coast Groundfish Observer Program. NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.
- 7. Bellman, MA, EC Heery, and J Majewski. 2010. Observed and estimated total bycatch of salmon in the 2008 U.S. west coast groundfish fisheries. West Coast Groundfish Observer Program. NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.
- 8. **Heery, EC**, MA Bellman, and J Majewski. 2010. Estimated bycatch of marine mammals, seabirds, and sea turtles in the 2002-2008 U.S. west coast commercial groundfish fishery. West Coast Groundfish Observer Program. NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.

- Bellman, MA, EC Heery, and J Majewski. 2009. Estimated Discard and Total Catch of Selected Groundfish Species in the 2008 U.S. West Coast Fisheries. West Coast Groundfish Observer Program. National Marine Fisheries Service, NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.
- Heery, EC, and MA Bellman. 2009. Observed and Estimated Total Discard of Pacific Halibut in the 2002-2008 U.S. West Coast Groundfish Non-Nearshore Fixed Gear Fishery. National Marine Fisheries Service, NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.
- 11. **Heery, EC**, MA Bellman, and J Hastie. 2009. Observed and Estimated Total Bycatch of Salmon in the 2007 U.S. West Coast Groundfish Fisheries. National Marine Fisheries Service, NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.
- 12. Bellman, MA, **EC Heery**, and J Hastie. 2008. Estimated Discard and Total Catch of Selected Groundfish Species in the 2007 U.S. West Coast Fisheries. National Marine Fisheries Service, NWFSC, 2725 Montlake Blvd E., Seattle, WA 98112.

Grants & Awards

2018 Singapore National Research Foundation, Australia-Singapore Joint Research Grant: An eco-design portfolio for the urban marine environment (\$180,574), Co-investigator 2016 National Science Foundation, East Asia Summer Institute (\$5000), PI Australian Academy of Science, East Asia Summer Institute (\$2000), Fellow IGERT Program on Ocean Change, Research Grant (\$2500), Awardee 2014 University of Washington Biology Department, R.T. Paine Experimental and Field Ecology Award (\$2500), Awardee **IGERT Program on Ocean Change**, International Research Grant (\$2000), Awardee 2013 University of Washington Biology Department, R.T. Paine Experimental and Field Ecology Award (\$5000), Awardee 2012 National Science Foundation, IGERT Program on Ocean Change Fellowship (2 years of support), Fellow University of Washington Biology Department, Friday Harbor Labs Award (\$1250), *Awardee* 2011 National Science Foundation, GK-12: Ocean and Coastal Interdisciplinary Science (OACIS) Program (1 year of support), Fellow 2004 National Oceanic and Atmospheric Administration, NMFS-RTR Research Assistantship (3 years of support), Research Assistant 2004 National Science Foundation, GK-12: Problems & Research to Integrate Science & Mathematics (PRISM) Program (1 semester of support), Undergraduate Fellow 2003 **Emory University Institute for International and Comparative Studies**,

International Scholars Grant (\$3000), Awardee

Teaching Experience

Instructor

University of Washington

Introduction to Marine Biology (Biol/Fish/Ocean 250)

Topics in Sustainable Fisheries (Fish 478)

Marine Ecological Processes (Biol 423)

Summer 2017

Winter 2017

Fall 2016

Highline Community College

Marine Biology (BIOL 110)

Oceanography (OCEAN 101)

Summer 2015

Summer 2015

Wildlands Studies (California State University, Monterey Bay)

Pacific Northwest Field Ecology Course Fall 2009
Belize Field Ecology Course Summer 2007

Teaching Assistant

University of Washington

Marine Botany (Biol 445)	Spring 2016 & 2017
Evolution and Human Behavior (Honors 221)	Winter 2015
Foundations in Evolution and Systematics (Biol 354)	Fall 2014
Foundations in Ecology (Biol 356)	Winter 2014
Invertebrate Zoology (Biol 434)	Summer 2011
Introductory Biology I (Biol 220)	Spring 2011
Introductory Biology III (Biol 180)	Winter 2011

Mentoring

National University of Singapore

Graduate Student (1): Daisuke Taira

Undergraduate Honors Students (4): Kay Yee Lian, Dillen Ng, Rachel Oh, Jit Yee Tan

University of Washington

Capstone Students (3):

- Michealene Corlett, Topic: Intertidal communities on artificial structures in Cesenatico, Italy. (Graduation: Spring 2017)
- Michelle Louie, Topic: "Food consumption and growth rates of juvenile sea urchins, Strongylocentrotus droebachiensis, with varying food types." (Graduation: Spring 2015)
- Amy Green: "Analysis of Enteroctopus dofelini (giant Pacific octopus) midden contents from artificial reef den sites in Puget Sound." (Graduation: Fall 2014)

Undergraduate Interns (20):

 Bryson Albrecht, Jack Berrigan, Jessica Blanchette, Angeline Blattenbauer, Amy Green, Tiffany Huang, Shelley Johnson, Kim Jones, Avida Knebel, Michelle Louie, Ian McQuillen, Christopher Mowers, Jessica Nordstrom, Michael Pantalos, Rianne Peterson, Ashley Pierson, Rachel Podell-Eberhardt, Monisha Ray, Deja Sanchez, Mia Tien Sebek

Pedagogy & Teaching Training

COMPASS Science Communication Clinic (UW: ENVIR 500A)	Fall 2013
Communicating Ocean Sciences (UW: OCEAN 592)	Fall 2011
OACIS GK-12 Training Workshop (UW)	Aug 2011
PRISM Undergraduate Training in Problem Based Learning (Emory)	Spring 2004

Seminars & Conference Presentations

Invited Seminars

National University of Singapore, EMEL Lab Meeting, 2017. Talk title: "City dwellers: Urban subtidal ecosystems in Puget Sound, Washington." Singapore.

Friday Harbor Laboratories Seminar Series, 2017. Talk title: "City dwellers: Benthic subtidal assemblages in urbanized seascapes of Puget Sound." Friday Harbor, WA.

Plymouth Marine Laboratory Seminar Series, 2015. Talk title: "Benthic Communities in an Urbanized World." Plymouth, UK.

Friday Harbor Laboratories Seminar Series 2015. Talk title: "Benthic subtidal communities in an urbanized world." Friday Harbor, WA.

University of Bologna, Airoldi Lab Meeting, 2014. Talk title: "Benthic subtidal communities in an urbanized world." Centro Interdipartimentale di Ricerca per le Scienze Ambientali, Ravenna, Italy.

Invited Symposia

2nd International Workshop on Eco-Shoreline Designs for Sustainable Coastal Development, 2018. Talk title: "Designing artificial structures with an eye on detrital production and flux." Hong Kong.

1st Singapore-Hong Kong Hard Shore Ecology Workshop, 2017. Talk title: "Characterizing productivity in the tropical rocky intertidal." Hong Kong.

2nd Semiannual Seattle Aquarium Octopus Symposium, 2017. Talk title: "Urbanization-Related Distribution Patterns and Habitat Use by *Enteroctopus dofleini*." Seattle, WA.

ECSA55 Special Session: Urban sprawl in the marine environment, 2015. Talk title: "Urban infauna: The effect of material fluxes from artificial structures on soft sediment species assemblages in urban, subtidal landscapes." 55th Annual Meeting of the Estuarine Coastal Sciences Association, London, UK.

Contributed Talks

2019. Who's on top? Non-hierarchical epiphytic interaction networks among urban turf algae. 12th International Temperate Reefs Symposium, Hong Kong.

2018. Urban-related distribution patterns of the giant Pacific octopus (*Enteroctopus dofleini*) in Puget Sound, Washington, USA. 57th Annual Meeting of the Estuarine Coastal Sciences Association, Perth, Australia.

- 2018. Urban coral reefs of East and Southeast Asia: A case study approach. 5th International Marine Conservation Congress, Kuching, Malaysia.
- 2015. The effect of material fluxes from artificial structures on neighboring infaunal communities in an urban subtidal landscape. Aquatic Biodiversity and Ecosystems Conference, Liverpool, UK.
- 2014. Material fluxes from subtidal man-made structures to adjacent soft sediment habitats in the urban subtidal. 95th Annual Meeting of the Western Society of Naturalists, Tacoma, WA.
- 2007. The impact of biased length frequency data on age-structured stock assessment models. 137th Annual meeting of the American Fisheries Society, San Francisco, CA.

Poster Presentations

- 2018. A case study approach for identifying the characteristics of urban coral reefs. 57th Annual Meeting of the Estuarine Coastal Sciences Association, Perth, Australia.
- 2014. Subtidal riprap in Puget Sound: Its ecological structure and function, and its impact on adjacent soft sediment environments. 2014 Salish Sea Ecosystem Conference, Seattle, WA.
- 2006. The impact of biased length frequency data on marine population models. 91st Annual Meeting of the Ecological Society of America, Memphis, TN.

Coauthored Presentations & Posters

- Loke, LHL, **EC Heery**, PA Todd. 2019. Can niche partitioning alone explain why complex habitats host greater intertidal biodiversity at local scales? Oral Presentation at the 12th International Temperate Reefs Symposium, Hong Kong.
- Pek, YS, S Summers, LHL Loke, **EC Heery**, PA Todd, D McDougald, S Rice, WR Birch. 2019. Diversifying materials, offering greater habitat complexity to enhance biodiversity on Singapore's seawalls. Poster Presentation at the 12th International Temperate Reefs Symposium, Hong Kong.
- Taira, D, **EC Heery**, LHL Loke, AG Bauman, PA Todd. 2019. Eco-engineering coastal defence structure can increase fish diversity in an urbanized shoreline. Oral Presentation at the 12th International Temperate Reefs Symposium, Hong Kong.
- Todd, PA, LHL Loke, **EC Heery**. 2019. Marine urbanization in Singapore: pattern, processes, and predictions. Oral Presentation at the 12th International Temperate Reefs Symposium, Hong Kong.
- Taira, D, **EC Heery**, LKL Loke, AG Bauman, PA Todd. 2018. Habitat enhancement for augmenting fish interactions with seawalls along a tropical urban shoreline. Oral Presentation at the 5th International Marine Conservation Congress, Kuching, Malaysia.
- Taira, D, **EC Heery**, LKL Loke, AG Bauman, PA Todd. 2018. Response of coral reef fishes to small-scale habitat enhancement in the tropical artificial shoreline. Oral Presentation at the 4th Asia-Pacific Coral Reef Symposium, Cebu City, Philippines.

Todd, PA, **EC Heery**, N Browne, BW Hoeksema, JD Reimer, PO Ang, DA Friess, D Huang, LM Chou, AG Bauman, LHL Loke. 2018. Urban coral reefs of East and Southeast Asia. Oral Presentation at the 4th Asia-Pacific Coral Reef Symposium, Cebu City, Philippines.

Olsen, AG, **EC Heery**, BE Feist, KP Sebens. 2018. Urban-related distribution patterns of an iconic Salish Sea mesopredator, the giant Pacific octopus (*Enteroctopus dofleini*). Oral Presentation at the 2018 Salish Sea Ecosystem Conference, Seattle, WA.

Chavanich, S, V Viyakam, **EC Heery** and C Raksataub. 2003. Effect of densities of the sea cucumber, Holothuria atra, on chlorophyll concentrations in sediments. Poster Presentation at the 32nd annual Benthic Ecology Meeting, Groton, CT.

Service & Outreach

Public Talks

- **TEDx**: Beyond the Water's Edge. United World College Southeast Asia, Singapore. 2018. https://www.youtube.com/watch?v=Fs2-e_NhXJQ
- Public Defense Seminar: Benthic subtidal assemblages in urbanized seascapes of Puget Sound. University of Washington, Seattle, WA. 2017. https://www.youtube.com/watch?v=KvFDiTMZWxg
- Boeing SCUBA Club:
 - o 2017: Urbanization-related distribution patterns and habitat use by giant Pacific octopus (*Enteroctopus dofleini*). Issaquah, WA.
 - o 2014: SCUBA Research in the Urban Subtidal. Seattle, WA.
- **Seattle Aquarium**: Urbanization-Related Distribution Patterns and Habitat Use by *Enteroctopus dofleini*. Presented in the Semiannual Octopus Symposium. Seattle, WA. 2017.
- **Seattle Design Festival**: "Equity" in Urban Marine Ecosystems. Presented in the Equitable Bike Ramble (AIA Seattle Urban Design Forum). Seattle, WA. 2015.
- **Seattle Arboretum**: Urban Marine Ecosystems. Presented to Arboretum Volunteers. Seattle, WA. 2014.
- Pacific Fishery Management Council: Pacific Halibut Bycatch Estimates. Presented to the Council, Advisory Panel, and Science and Statistical Committee. Portland, OR. 2010.

Web-Based Outreach

- **TIDE BITES**: An Octopus' Garden in the Urban Underwater Environment. Online column. 2015. https://sanjuanislander.com/opinion/columnists/tide-bites/20824/tide-bites-an-octopus-garden-in-the-urban-underwater-environment
- **Green Seas in the Emerald City**. Online video. 2015. https://www.youtube.com/watch?v=gnnZ2jvg2Fk
- **Urban Marine Ecology**. Informational website. 2012-present. http://urbanmarineecology.org/

Organized Seminars & Symposia

• Conservation research in urbanized marine environments. 2018. Symposium, 5th International Marine Conservation Congress. Kuching, Malaysia.

- **MonsterJAM Seminar Series**. 2010. Quarter-long seminar series, Northwest Fisheries Science Center. Seattle, WA.
- Marine Conservation Biology Seminar. 2005. Semester-long seminar series, Department of Fisheries and Wildlife, Virginia Tech. Blacksburg, VA.
- **Symposium on Genetically Modified Organism**. 2004. Three-day symposium. Emory University, Atlanta, GA.

Peer Review

Continental Shelf Research, Marine Ecology Progress Series, Marine Pollution Bulletin, Raffles Bulletin of Zoology, Transactions of the American Fisheries Society, Urban Ecosystems

Volunteer Work

Volunteer, Our Singapore Reefs Fun Odyssea	2018
Advisor, Perkins+Will Research Group	2016
Diver, Marine Science and Technology Center "Carnival on the Dock"	2014
Diver, Bainbridge High School Underwater Robot Competition	2013
Chaperone, Garfield High School Oceanography Field School, Maui	Spring 2013 & 2014
Delegate, The Ocean Exchange	2012
Tutor, Youth Tutoring Program (Seattle)	2008
Webmaster, Virginia Tech Chapter of American Fisheries Society	2005-2006
Graduate Mentor, Marine Resource Population Dynamics Workshop	2005
Tutor, Refugee Family Services	2002-2004
Volunteer, Hands On Atlanta	2003
Volunteer, Southeast Fisheries Science Center	2001
Volunteer, Dugdale Lab, Romberg Tiburon Center	1998-2000

Honors & Professional Memberships

American Fisheries Society
Ecological Society of America
National Honors Society
Phi Kappa Phi
Society for Conservation Biology
Western Society of Naturalists

Additional Relevant Experience

Field Experience

Visiting Researcher, School of Biological, Earth and Environmental Science, University of New South Wales, Sydney, Australia. *Host*: Emma Johnston

2011-2016 Research Diver, University of Washington, Department of Biology. *PI*: Ken Sebens

Research Assistant, Pelagic Ecosystem Functioning Apprenticeship, Friday Harbor Laboratories, University of Washington, Friday Harbor, WA.

2014	Visiting Researcher , Department of Biological, Geological, and Environmental Sciences, University of Bologna, Ravenna, Italy. <i>Host</i> : Laura Airoldi
2007	Research Technician , Sebens Lab, Friday Harbor Laboratories, University of Washington, Friday Harbor, WA
2004-2007	Field Support , Various graduate freshwater fisheries research projects, Department of Fisheries and Wildlife, Virginia Tech, Blacksburg, VA
2002	Research Intern , Marine Science Department, Chulalongkorn University, Bangkok, Thailand. <i>Host</i> : Apple Chavanich
2001-2002	Research Diver , Three Seas Program, Northeastern University. Friday Harbor, WA and Discovery Bay, Jamaica.

Additional Collaborations

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2018	Participant , International Workshop on Eco-Shoreline Designs for Sustainable Coastal Development. <i>Organizer</i> : Kenneth Leung
2016	Participant , ECORES (Developing ecosystem-based solutions for resilient European harbours and coastal waterfronts). <i>Organizer</i> : Laura Airoldi
2016	Participant , World Harbour Project Working Group 2 – Meta-Analysis Project, Sydney Institute of Marine Science, Sydney, Australia. <i>Organizer</i> : Elizabeth Strain
2015	Research Consultant , Perkins+Will Global, "Research on adaptable and resilient urban forms with health and wellbeing outcomes and returns on investment." <i>Research Lead:</i> David Green

Relevant Coursework

Oceanography	Cell Biology	Fish Population Dynamics
Ocean and Coastal Processes	Conservation Genetics	Biology and Ecology of Fishes
Phycology	Introductory Chemistry	Fisheries Management
Marine Biology	Organic Chemistry	Simulation Modeling
Invertebrate Zoology	Introductory Physics	Linear Algebra
Reef Systems Through Time	Population Dynamics of	Bayesian Statistics
Biology and Ecology of Corals	Infectious Disease	Statistics in Research
Grant Writing	Ecological Modeling	Ecological Modeling
Coupled Human and Natural	Urban/Environmental	Analytical Methods for
Systems	Planning	Community Ecology

Programming & Computer Skills

R, SAS, Visual Basic, Matlab, WinBUGS, Microsoft Excel, Word, PowerPoint, Adobe Photoshop, Illustrator, and Framemaker, ImageJ, Coral Point Count, Google SketchUp.

Certifications

Washington State Boater Training (2015)

Divemaster (National Association of Underwater Instructors, 2004)

Scientific Diver (American Association of Underwater Science, 2001)
Rescue Diver (Professional Association of Diving Instructors, 2001)
Advanced Open Water Diver (Professional Association of Diving Instructors, 1999)
Open Water Diver (Professional Association of Diving Instructors, 1998)
CPR/First Aid and Oxygen Certification (Updated Regularly)

References furnished upon request