



# PAUL E. BOURDEAU

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# ACADEMIC PREPARATION

2001-2009	Ph.D., Ecology and Evolution, Stony Brook University
1997-1999	M.S., Marine Biology, University of Massachusetts, Dartmouth
1994-1997	B.S., Biology, University of Massachusetts, Dartmouth (summa cum laude)

# POSITIONS HELD

2020-present	Associate Professor, Humboldt State University
2014-2020	Assistant Professor, Humboldt State University
2014	Lecturer, Michigan State University
2009-2014	Postdoctoral Research Associate, Michigan State University
2007-2008	Lecturer, Stony Brook University
2002-2005	Research Assistant, Stony Brook University
2001	Research Associate, Woods Hole Oceanographic Institute
1997	Research Assistant, University of Massachusetts, Dartmouth

PUBLICATIONS (\* denotes student advisees)

- 23. McIntire\* LC, Bourdeau PE (2020) World's largest chiton (*Cryptochiton stelleri*) is an inefficient thermoregulator. *Marine Ecology Progress Series* 652:63-76.
- 22. Murie\* KA, Bourdeau PE (2020) Fragmented kelp forest canopies retain their ability to alter local seawater chemistry. *Scientific Reports* 10:1-13.
- 21. Murie\* KA, Bourdeau PE (2019) Predator identity dominates non-consumptive effects in a disease impacted rocky shore food web. *Oecologia* 191:945-956.
- 20. Bourdeau PE, Padilla DK (2019) Cue specificity of predator-induced phenotype in a marine snail: is a crab just a crab? *Marine Biology* 166:84.
- Flagor\* TE, Bourdeau PE (2018) First record of the predatory snail Acanthinucella spirata (Blainville, 1832) north of its known range. Marine Biodiversity Records 11:19.
- 18. Hull\* WW, Bourdeau PE (2017) Can crabs compensate for the loss of a keystone predator? A field test of the effects of crab predation on the vertical distribution of mussels on an exposed rocky shore. *PLoS One* 12: e0183064.





- 17. Hollander J, Bourdeau PE (2016) Evidence of weaker phenotypic plasticity by prey to novel cues from non-native predators. *Ecology and Evolution* 6:5358-5365.
- 16. Bourdeau PE, Bach\* MT, Peacor SD (2016) Predator presence dramatically reduces copepod abundance through condition-mediated non-consumptive effects. *Freshwater Biology* 61:1020-1031.
- 15. Bourdeau PE, Pangle KL, Peacor SD (2015) Factors affecting the vertical distribution of the zooplankton assemblage in Lake Michigan: The role of the invasive predator Bythotrephes longimanus. Journal of Great Lakes Research 41:115-124.
- 14. Bourdeau PE, Butlin RK, Brönmark C, Edgell TC, Hoverman JT, Hollander J (2015) What can aquatic gastropods tell us about phenotypic plasticity? A review and meta-analysis. *Heredity* 115:312-321.
- 13. Miehls ALJ, McAdam AG, Bourdeau PE, Peacor SD (2013) Plastic response to a proxy cue of predation risk when direct cues are unreliable. *Ecology* 94:2237-2248.
- 12. Bourdeau PE, Pangle KL, Reed\* EM, Peacor SD (2013) Finely-tuned response of native prey to an invasive predator in a pelagic freshwater system. *Ecology* 97:1449-1455.
- 11. Bourdeau PE (2013) Morphological defense influences absolute, not relative, non-consumptive effects in marine snails. *Behavioral Ecology* 24:505-510.
- Bourdeau PE, Johansson F (2012) Predator-induced morphological defences as by-products of prey behaviour: A review and prospectus. *Oikos* 121:1175-1190.
- 9. Bourdeau PE (2012) Intraspecific trait cospecialization of constitutive and inducible morphological defenses in a marine snail from habitats with different predation risk. *Journal of Animal Ecology* 81:849-858.
- 8. Mach ME, Bourdeau PE (2011) To flee or not to flee? Risk assessment by a marine snail in multiple cue environments. *Journal of Experimental Marine Biology and Ecology* 409:166-171.
- 7. Bourdeau PE, Pangle KL, Peacor SD (2011) The invasive predator *Bythotrephes* induces changes in the vertical distribution of native copepods in Lake Michigan. *Biological Invasions* 13:2533-2545.
- 6. Bourdeau PE (2011) Constitutive and inducible defensive traits in co-occurring marine snails distributed across a vertical rocky intertidal gradient. *Functional Ecology* 25:177-185.
- 5. Bourdeau PE (2010) Cue reliability, risk sensitivity and inducible morphological defense in a marine snail. *Oecologia* 162:987-994.
- Bourdeau PE (2010) An inducible morphological defence is a passive by-product of behaviour in a marine snail. Proceedings of the Royal Society London B 277:455-462 (Recommended by Faculty of 1000 Biology; Proc R Soc B highlighted article).





- 3. Bourdeau PE (2009) Prioritized phenotypic responses to combined predators in a marine snail. *Ecology* 90:1659-1669.
- 2. Przeslawski R, Bourdeau PE, Doall MH, Pan J, Perino L, Padilla DK (2008) The effects of a harmful alga on bivalve larval lipid stores. *Harmful Algae* 7:802-807.
- 1. Bourdeau PE, O'Connor NJ (2003) Predation by the non-indigenous Asian shore crab Hemigrapsus sanguineus on macroalgae and molluscs. Northeastern Naturalist 10:319-334 (cover article).

## GRANTS, AWARDS, AND FELLOWSHIPS

- 2019 NSF MRI: Acquisition of a Micro Photonics SkyScan 1273 High-Energy Micro-CT Scanner for Research and Training in the HSU College of Natural Resources & Sciences (\$491,223)
- 2018 Humboldt State University Research Scholarly and Creative Activities Research Grant (\$3,979).
- 2018 Humboldt State University College of Natural Resources and Sciences Travel Award (\$500).
- 2018 Humboldt State University Agricultural Research Institute Grant (\$57,090).
- 2018 CSU-COAST Grant Development Funds (\$15,683).
- 2016 CSU-COAST Grant Development Funds (\$15,000).
- 2016 Humboldt State University Emeritus and Retired Faculty Award (\$1,000).
- 2016 Humboldt State University Sponsored Programs Foundation Incentives Program Grant (\$4,844).
- 2015 Humboldt State University College of Natural Resources and Sciences Travel Award (\$1,300).
- 2015 Humboldt State University Research Scholarly and Creative Activities Research Grant (\$3,035).
- 2007 Stephen and Ruth Wainwright Fellowship, Friday Harbor Laboratories (\$1,500).
- 2006 Student Research Grant, American Malacological Society (\$500).
- 2006 Stephen and Ruth Wainwright Fellowship, Friday Harbor Laboratories (\$2,500).
- 2006 Ad-Hoc Award (for brave, random, or strange presentation), Stony Brook University (Priceless).
- 2005 Constance Boone Award (best student presentation), American Malacological Society (\$500).
- 2005 Robert R. Sokal Award, Stony Brook University (\$500).
- 2004 Stephen and Ruth Wainwright Fellowship, Friday Harbor Laboratories (\$6,600).
- 2002 Graduate Student Fellowship, Friday Harbor Laboratories (\$1,500).

## TEACHING

Instructor

- 2018-present Methods of Laboratory Instruction (graduate seminar), Humboldt State University
- 2016-present Plant/Animal Interactions (graduate seminar), Humboldt State University
- 2014-present Invertebrate Zoology (undergraduate), Humboldt State University
- 2014-present Marine Biology (undergraduate), Humboldt State University
- 2014 Water and the Environment (undergraduate), Michigan State University, Co-Instructor
- 2008 Organisms to Ecosystems (undergraduate), Stony Brook University, Co-Instructor
- 2008 Biometry (graduate), Stony Brook University

## Teaching Assistant

- 2009 Marine Ecology (undergraduate), Stony Brook University
- 2007 Biometry (graduate), Stony Brook University
- 2006 General Ecology (undergraduate), Stony Brook University





2006	Aquatic Vertebrate Zoology (undergraduate), Stony Brook University
2001	Invertebrate Zoology (undergraduate), Stony Brook University
1999	General Ecology (undergraduate), University of Massachusetts, Dartmouth
1997-1998	Organismal Biology (undergraduate), University of Massachusetts, Dartmouth

Invited Lectures

2008 How do Prey Deal with Consumer Pressure in Marine Habitats? Marine Ecology Course, Stony Brook University

## ADVISING

Current Graduate Students

- 2020-present Melanie Dominguez, M.S. student
- 2017-present Johnny Roche, M.S. student

#### Past Graduate Students

- 2018-2020 Kindall Murie, M.S.
- 2018-2020 Andrea Fieber, M.S.
- 2017-2020 Wesley Hull, M.S.
- 2017-2019 Lily McIntire, M.S.
- 2016-2019 Timothy McClure, M.S.
- 2016-2019 Angela Jones, M.S.
- 2016-2018 Tharadet Man, M.S.
- 2015-2018 Tayler Tharaldson, M.S.

Graduate Student Committees

- 2018-present Shannon Hedge, M.S. committee, HSU
- 2018-present Sarah Mason, M.S. committee, HSU
- 2018-present Andres Rodriguez, M.S. committee, HSU
- 2017-present Nan He, PhD committee, Lund University
- 2017-present Kyle Orr, M.S. committee, HSU
- 2017-present David Charifson, PhD committee, Stony Brook University
- 2017-2020 Amanda Haas, M.S. committee, Cal State Long Beach
- 2016-2018 Jean-Paul Ponte, M.S. committee, HSU
- 2016-present Jason Lopiccolo, M.S. committee, HSU
- 2015-2018 Drew Bost, M.S. committee, HSU
- 2015-present Franklin Moitoza, M.S. committee, HSU
- 2014-2018 Johnathan Centoni, M.S. committee, HSU
- 2014-2019 Jana Litt, M.S. committee, HSU
- 2014-2017 Michelle Succow, M.S. committee, HSU

## INVITED SEMINARS/PRESENTATIONS

- 2019 Department of Biological Sciences, California State University-Long Beach
- 2018 Department of Biology, Virginia Commonwealth University





- 2018 Gordon Research Conference, Predator-Prey Interactions, Ventura, CA
- 2017 Bodega Marine Laboratory, University of California, Davis
- 2014 Biology Department, San Diego State University
- 2014 Department of Biological Sciences, University of Wisconsin-Parkside (declined)
- 2014 Department of Biological Sciences, Humboldt State University
- 2013 Department of Oceanography and Coastal Sciences, Louisiana State University
- 2013 Department of Biology, Louisiana State University
- 2012 International Symposium on Phenotypic Plasticity Variation, Alteration and Speciation', Lund University, Sweden
- 2012 Ecology, Evolutionary Biology, and Behavior Colloquium, Michigan State University
- 2011 Department of Biological Sciences, California State University-Long Beach
- 2010 Graduate Student Organization Seminar Series, Michigan State University
- 2009 Biology Department, Muhlenberg College
- 2006 Friday Harbor Laboratories, University of Washington

#### PRESS

- 2016 Interview for NBC News Channel 3 (KIEM), Eureka, CA 'Dungeness the Heartbreak and the Hope'. Aired 23 May. <u>http://kiem-tv.com/video/dungeness-heartbreak-and-hope-part-one</u>
- 2015 Interview for Heredity Podcast featuring my paper 'What can aquatic gastropods tell us about phenotypic plasticity? A review and meta-analysis'. Aired July 2015. (Link to podcast: <u>http://www.nature.com/multimedia/podcast/hdy/hdypodcast\_1507.mp3</u>)
- 2015 Interview for ABC News Channel 7 (KRCR), Eureka, CA. Posted 27 May. http://www.krcrtv.com/north-coast-news/eureka-news/humboldt/by-the-wind-sailor-washes-ashorenorth-coast-beaches/11268519
- 2008 Interview for Nature News story based on work I presented at the Ecological Society of America meeting in Milwaukee, Wisconsin, on 6 August. Published online on 8 Aug. (Link to Nature News article: <u>http://www.nature.com/news/2008/080808/full/news.2008.1022.html</u>)

## **CONTRIBUTED PAPERS** (\* denotes student advisees)

- 2018 McIntire\* LC, Bourdeau PE. Testing the effects of elevated temperature on gumboot chitons with the use of biomimetic models and laboratory experiments. (poster) Western Society of Naturalists, Tacoma, WA
- 2018 Hull\* WW, Man\* TD, Roche\* JS, Bourdeau PE. Do rock crabs drive patterns of California mussel growth and shell deposition on moderately wave-protected rocky shores? (poster) Western Society of Naturalists, Tacoma, WA
- 2018 Haas\* AC, Bourdeau PE, Allen BJ. Modeling effects of ocean acidification on predator-prey dynamics in the rocky intertidal zone. (poster) Western Society of Naturalists, Tacoma, WA
- 2018 McClure\* TI, Bourdeau PE. Ecological consequences of sea star wasting disease: non-consumptive effects from *Pisaster ochraceus*. (oral presentation) Western Society of Naturalists, Tacoma, WA





- 2018 Murie\* KA, Bourdeau PE. Identity-driven non-consumptive effects on the rocky shore: 'the only thing you have to fear...is *Pisaster* itself'. (oral presentation) Western Society of Naturalists, Tacoma, WA
- 2018 Jones\* AJ, Bourdeau PE. Morphological variation in aboral spines in the forcipulate sea star, *Pisaster* ochraceus, across developmental and environmental gradients. (oral presentation) Society for Integrative and Comparative Biology, San Francisco, CA.
- 2017 Gravelle\* JM, Bourdeau PE. How environmental stressors influence the lytic abilities of Anthopleura elegantissima. (poster) Western Society of Naturalists, Pasadena, CA.
- 2017 Jones\* AJ, Bourdeau PE. Morphological variation in aboral spines in the forcipulate sea star, *Pisaster ochraceus*, across environmental gradients. (oral presentation) Western Society of Naturalists, Pasadena, CA.
- 2017 Man\* TD, Bourdeau PE. The interactive effects of food availability and ocean acidification on the physiology and growth of the California mussel. (oral presentation) Western Society of Naturalists, Pasadena, CA.
- 2017 McClure\* TI, Bourdeau PE. Ecological consequences of sea star wasting disease: effects on traitmediated indirect interactions from *Pisaster ochraceus*. (poster) Western Society of Naturalists, Pasadena, CA.
- 2017 McIntire\* LC, Bourdeau PE. Crab driven shell variation in field populations of *Nucella lamellosa* in two distinct geographic regions. (poster) Western Society of Naturalists, Pasadena, CA.
- 2017 Zuelow\* AN, Aguilar\* AK, Jones\* AJ, Bourdeau PE. Tradeoffs between skeletal development and soft tissue growth in *Pisaster ochraceus* across a wave-exposure gradient. (poster) Western Society of Naturalists, Pasadena, CA.
- 2016 Hull\* WW, Bourdeau PE. Predatory crabs can influence the vertical distribution of mussels on rocky shores in the absence of a keystone predator. (poster) Western Society of Naturalists, Monterey, CA.
- 2016 Jones\* AJ, Orr\* KP, Zuelow\* AN, Bourdeau PE. Seasonal and spatial variation in aboral ossicle density
- and body shape in Pisaster ochraceus. (poster) Western Society of Naturalists, Monterey, CA.
- 2016 McIntire\* LC, Bourdeau PE. The non-lethal effects of predators on predatory whelk, *Nucella lamellosa*, shell morphology. (poster) Western Society of Naturalists, Monterey, CA.
- 2016 Shapiro\* SJ, Bourdeau PE. Gastropod calisthenics- an investigation of righting speed and tensile strength in the intertidal whelk *Nucella ostrina*. (poster) Western Society of Naturalists, Monterey, CA.
- 2016 Swanson\* KL, Taylor\* KJ, Goshorn\* GV, Bourdeau PE. Snail warfare: an invasive species' behavioral response to native crabs. (poster) Western Society of Naturalists, Monterey, CA.
- 2016 Bourdeau PE, Hull\* W, Jones\* A, Mcintire\* L, Roche\* J, Allen, B.J. Potential effects of ocean acidification and thermal stress on intertidal communities in the field. Society for Integrative and Comparative Biology, Portland, OR.
- 2016 Allen BJ, Bourdeau PE, Miller LP, Denny, MW. Predicting ecological consequences of increasing temperature variability: matching data with theory. Society for Integrative and Comparative Biology, Portland, OR.
- 2015 Litt\* JN, Tissot BN, Bourdeau PE, Schneider\* JH, Korcheck\* KM. Vertical distribution of sea star wasting disease in northern California. Western Society of Naturalists, Sacramento, CA.
- 2015 Roche\* JS, Bourdeau PE. Prey selection in eastern Pacific cancrid crabs: what influences choice when you're served a menu of mollusks? Western Society of Naturalists, Sacramento, CA.





2015 Hull\* WW, McIntire\* LC, MacRae\* KE, Mobley\* SM, Nutt\* LM, Allen BJ, Bourdeau PE. The influence of upwelling-driven ocean acidification on organismal growth and performance in a simple intertidal food

chain. (poster) Western Society of Naturalists, Sacramento, CA.

- 2015 Jones\* AJ, Orr\* KP, Bourdeau PE. Body size and morphology of the keystone predator *Pisaster* ochraceus across an upwelling gradient in the eastern pacific. (poster) Western Society of Naturalists, Sacramento, CA.
- 2015 Scaramella\* NR, Anderson\* TK, Kottenbach\* BE, Simmons\* MJ, Bourdeau PE. Variation in body size and condition of a keystone predator and its prey across an upwelling gradient in northern California. (poster) Western Society of Naturalists, Sacramento, CA.
- 2015 Taylor\* KJ, Swansón\* KL, Phan\* MÉ, Bourdeau PE. Humboldt Bay: 95 problems but a green crab ain't one. (poster) Western Society of Naturalists, Sacramento, CA.
- 2013 Bourdeau PE, Pangle KL, Reed\* EM, Peacor SD. Not-so-naïve: a native prey recognizes and responds specifically to a novel predator in a freshwater system. Ecological Society of America, Minneapolis, MN.
- 2013 Bourdeau PE, Pangle KL, Vanderploeg HA, Peacor SD. The effect of *Bythotrephes* on *Daphnia* vertical distribution in Lake Michigan. International Association for Great Lakes Research, West Lafayette, IN.
- 2012 Bourdeau PE, Pangle KL, Mason D, Peacor SD. Predicting non-consumptive predator effects on multiple prey in a complex natural system. Ecological Society of America, Portland, OR.
- 2011 Bourdeau PE, Pangle KL, Peacor SD. Non-consumptive predator effects in a pelagic food-web: Species- and developmental stage-level variation in behavioral responses to an invasive predator within a zooplankton assemblage. Ecological Society of America, Austin, TX.
- 2011 Bourdeau PÉ, Pangle KL, Peacor SD. Non-Consumptive Effects on Lesser- Preferred Prey: Does *Bythotrephes* Affect the Vertical Distribution and Migration of Native Copepods in the Great Lakes? International Association for Great Lakes Research, Duluth, MN.
- 2010 Bourdeau PE. Mechanism of an inducible morphological defense: active physiological response or behavioral by-product? Society for Integrative and Comparative Biology, Seattle, WA.
- 2009 Pangle KL, Bourdeau PE, Peacor SD. Non-consumptive effects of *Bythotrephes* in Lake Michigan. Dorset *Bythotrephes* Workshop, Dorset, Canada.
- 2009 Bourdeau PE. Stuck between a rock crab and a hard place: responses to multiple predators in a marine snail. Society for Integrative and Comparative Biology, Boston, MA.
- 2008 Bourdeau PE. Danger determines inducible defense priority in a marine snail. Ecological Society of America, Milwaukee, WI.
- 2008 Bourdeau PE. Danger determines inducible defense priority in a marine snail. Benthic Ecology Meeting, Providence, RI.
- 2007 Gray SM, Hoch JM, Bourdeau PE, Allen BJ, Bernatchez G. Variable responses of a key salt marsh facilitator to multiple invasive predators. (poster) Ecological Society of America, San Jose, CA.
- 2007 Padilla DK, Bourdeau PE, Moore B, Porter K, Klinger T. Temperature limits reproduction but not invasion by an aquaculture species. (poster) World Aquaculture Society, Seattle, WA.
- 2006 Bourdeau PE. Defensive trait integration in three sympatric, congeneric marine snails, *Nucella* spp., differentially distributed across a predation risk gradient. American Malacological Society, Seattle, WA.
- 2006 Padilla DK, Bourdeau PE, Grunbaum D. Can behavioral plasticity enhance the effects of morphological plasticity? Society for the Study of Evolution, Stony Brook, NY.





- 2006 Bourdeau PE. Species-specific and predator-dependent inducible defenses in predatory snails, *Nucella* spp. Benthic Ecology Meeting, Quebec City, Canada.
- 2005 Bourdeau PE. Behavioral and morphological defenses in predatory marine gastropods *Nucella* spp. American Malacological Society, Monterey, CA.
- 2005 Bourdeau PE. Integration of anti-predator behavior and morphology in three species of rocky intertidal gastropods. Society for Integrative and Comparative Biology, San Diego, CA.
- 2004 Bourdeau PE, Padilla DK. 'Might as well jump': Inducible dispersal in response to environmental cues in two species of Littorine snails. Society for Integrative and Comparative Biology, New Orleans, LA.
- 2002 Bourdeau PE, O'Connor NJ. Prey selection by the invasive shore crab *Hemigrapsus sanguineus* in southeastern Massachusetts. (poster) Benthic Ecology Meeting, Tallahassee, FL.
- 1999 Bourdeau PE, O'Connor NJ. Prey preferences of the recently-introduced western Pacific shore crab, *Hemigrapsus sanguineus*, feeding on molluscs and macroalgae in southeastern Massachusetts. (poster) First National Conference on Marine Bioinvasions, Cambridge, MA.

## BOOK REVIEWS AND WEB-BASED PUBLICATIONS

Bourdeau PE (2009) Mixed Effects Models and Extensions in Ecology with R. *The Quarterly Review of Biology* 84: 404.

Lachance J, Bourdeau PE (2009) Online supplements in *Evolution* by Doug Futuyma, 2nd ed. Sinauer Associates, Sunderland MA.

## SERVICE

#### Ad hoc reviews

Science, The Quarterly Review of Biology, BMC Biology, Proceedings of the Royal Society London B, Ecology, The American Naturalist, PLoS One, Functional Ecology, Limnology and Oceanography, Biology Letters, Proceedings of the Royal Society Interface, Oecologia, Oikos, Animal Behaviour, Behavioral Ecology, Marine Ecology Progress Series, Integrative and Comparative Biology, Hydrobiologia, Journal of Great Lakes Research, Marine Biology, Journal of Experimental Marine Biology and Ecology, Ecology and Evolution, Evolutionary Ecology Research, Marine Ecology, The Biological Bulletin, Journal of Molluscan Studies, Invertebrate Biology, American Malacological Bulletin

National Science Foundation (DBO, DEB), NOAA, CSU-COAST, Humboldt State University Marine and Coastal Sciences Institute

#### Other service

- 2018-present Graduate Advisory Committee, Department of Biological Sciences, Humboldt State University
- 2018-present Steering Committee, Humboldt Marine and Coastal Sciences Institute
- 2017-present Brusca Award Committee, Department of Biological Sciences, Humboldt State University
- 2016-present Biology Minor Advisor, Department of Biological Sciences, Humboldt State University
- 2016-present Executive Committee, Marine and Coastal Sciences Institute, Humboldt State University
- 2015-2018 Faculty Advisor, Biology Graduate Student Association, Humboldt State University
- 2015-2018 Coordinator, Biological Graduate Student Association Seminar Series, Humboldt State University





2015-present	College of Natural Resources and Sciences, Computer Committee, Humboldt State University
2015-2016	Judge, Student Paper Competitions, Western Society of Naturalists Annual Meeting
2015	External Advisory Committee for the Mendocino College Coastal Field Station, Point Arena, CA
2014-present	Graduate Student Research Award Committee, Humboldt State University
2014-2017	Freshmen Seminar Student Mentor, Humboldt State University
2010	Tokyo University Summer Environmental Exchange Program, Michigan State University
2008	Graduate Student Representative, Search Committee for Ecological / Evolutionary Statistics position, Stony Brook University
2007	Human Systems in the Northwest Bioregion, English Language Programs, Keio University at the University of Washington
2006-2007	Graduate Student Representative to the Faculty, Stony Brook University
2005-2007	Co-Organizer, Williams and Slobodkin Invited Lectures, Stony Brook University
2005	Graduate Student Advocate for Preliminary Exam Committee, Stony Brook University
2004	Graduate Student Mentor - Committee for Increasing Diversity in the Society for Integrative and Comparative Biology
2003-2007	Graduate Student Representative, Ilg Distinguished Lecture Committee, University of Washington, Friday Harbor Laboratories, Friday Harbor, WA,

# PROFESSIONAL SOCIETY AFFILIATIONS (past decade)

Ecological Society of America, Society for Integrative and Comparative Biology, Sigma Xi, American Malacological Society, International Association of Great Lakes Research, Western Society of Naturalists