

AARON JOHN WIRSING

School of Environmental and Forest Sciences
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EDUCATION

- 2005 Ph.D. Biological Sciences, Simon Fraser University
2001 M.S. Wildlife Resources, University of Idaho
1996 A.B. Biology, Bowdoin College

PROFESSIONAL APPOINTMENTS

- 2008-Present Assistant Professor, School of Environmental and Forest Sciences (SEFS),
University of Washington
2006-2008 Post-doctoral Research Associate, Department of Biological Sciences, Florida
International University

REFEREED PUBLICATIONS

In press

Wirsing, A. J., J. R. Phillips, M. E. Obbard, and D. L. Murray. Incidental nest predation in freshwater turtles: inter- and intra-specific differences in vulnerability are explained by relative crypsis. *Oecologia*.

2011

Ripple, W. J., **A. J. Wirsing**, R. L. Beschta, and S. W. Buskirk. 2011. Can restoring wolves aid in lynx recovery? *Wildlife Society Bulletin* 35: 514-518.

Wirsing, A. J., and W. J. Ripple. 2011. A comparison of shark and wolf research reveals similar behavioral responses by prey. *Frontiers in Ecology and the Environment* 9: 335-341.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. 2011. Predator-induced modifications to diving behavior vary with foraging mode. *Oikos* 120: 1005-1012.

2010

Dunphy-Daly, M. M., M. R. Heithaus, **A. J. Wirsing**, J. S. F. Mardon, and D. A. Burkholder. 2010. Predation risk influences the diving behavior of a marine mesopredator. *The Open Ecology Journal* 3: 8-15.

Wirsing, A. J., K. E. Cameron, and M. R. Heithaus. 2010. Spatial responses to predators vary with prey escape mode. *Animal Behaviour* 79: 531-537.

2009

Wirsing, A. J., and M. R. Heithaus. 2009. Olive-headed sea snakes (*Disteria major*) shift seagrass microhabitats to avoid predators. *Marine Ecology Progress Series* 387: 287-293.

Heithaus, M. R., B. K. Delius, **A. J. Wirsing**, and M. M. Dunphy-Daly. 2009. Physical factors influencing the distribution of a top predator in a subtropical oligotrophic estuary. *Limnology and Oceanography* 54: 472-482.

Heithaus, M. R., **A. J. Wirsing**, D. Burkholder, J. Thomson, and L. M. Dill. 2009. Towards a predictive framework for predator risk effects: the interaction of landscape features and prey escape tactics. *Journal of Animal Ecology* 78: 556-562.

2008

Wirsing, A. J., R. Abernethy, and M. R. Heithaus. 2008. Speed and maneuverability of adult loggerhead sea turtles (*Caretta caretta*) under simulated predatory attack: do the sexes differ? *Journal of Herpetology* 42: 411-413.

Kerford, M. R., **A. J. Wirsing**, M. R. Heithaus, and L. M. Dill. 2008. Danger on the rise: tidal state mediates an exchange of food for safety by the bar-bellied sea snake *Hydrophis elegans*. *Marine Ecology Progress Series* 358: 289-294.

Heithaus, M. R., A. Frid, **A. J. Wirsing**, and B. Worm. 2008. Predicting ecological consequences of marine top predator declines. *Trends in Ecology and Evolution* 23: 202-210.

Heithaus, M. R., **A. J. Wirsing**, J. A. Thomson, and D. A. Burkholder. 2008. A review of lethal and non-lethal effects of predators on adult marine turtles. *Journal of Experimental Marine Biology and Ecology* 356: 43-51.

Wirsing, A. J., M. R. Heithaus, A. Frid, and L. M. Dill. 2008. Seascapes of fear: evaluating sublethal predator effects experienced and generated by marine mammals. *Marine Mammal Science* 24: 1-15.

2007

Heithaus, M. R., **A. J. Wirsing**, A. Frid, and L. M. Dill. 2007. Behavioral indicators in marine conservation: lessons from a pristine ecosystem. *Israel Journal of Ecology and Evolution* 53: 355-370.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. 2007. Can you dig it? Use of excavation, a risky foraging tactic, by dugongs is sensitive to predation danger. *Animal Behaviour* 74: 1085-1091.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. 2007. Fear factor: do dugongs (*Dugong dugon*) trade food for safety from tiger sharks (*Galeocerdo cuvier*)? *Oecologia* 153: 1031-1040.

Heithaus, M. R., A. Frid, **A. J. Wirsing**, L. M. Dill, J. W. Fourqurean, D. Burkholder, J. Thomson, and L. Bejder. 2007. State-dependent risk-taking by green sea turtles mediates top-down effects of tiger shark intimidation in a marine ecosystem. *Journal of Animal Ecology* 76: 837-844.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. 2007. Can measures of prey availability improve our ability to predict the abundance of large marine predators? *Oecologia* 153: 563-568.

Wirsing, A. J., and D. L. Murray. 2007. Food supplementation experiments revisited: verifying that supplemental food is used by its intended recipients. *Canadian Journal of Zoology* 85: 679-685.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. 2007. Living on the edge: dugongs prefer to forage in microhabitats allowing for escape from rather than avoidance of predators. *Animal Behaviour* 74: 93-101.

Wirsing, A. J., F. C. C. Azevedo, S. Larivière, and D. L. Murray. 2007. Patterns of gastrointestinal parasitism among five sympatric prairie carnivores: are males reservoirs? *Journal of Parasitology* 93: 504-510.

Heithaus, M. R., **A. J. Wirsing**, L. M. Dill, and L. I. Heithaus. 2007. Long-term movements of tiger sharks satellite-tagged in Shark Bay, Western Australia. *Marine Biology* 151: 1455-1461.

Ireland, D. H., **A. J. Wirsing**, and D. L. Murray. 2007. Phenotypically plastic responses of green frog embryos to conflicting predation risk. *Oecologia* 152: 162-168.

Sargeant, B. L., **A. J. Wirsing**, M. R. Heithaus, and J. Mann. 2007. Can environmental heterogeneity explain individual foraging variation in wild bottlenose dolphins (*Tursiops* sp.)? *Behavioral Ecology and Sociobiology* 61: 679-688.

2006

Monello, R. J., J. J. Dennehy, D. L. Murray, and **A. J. Wirsing**. 2006. Growth and behavioral responses of two native frogs to an exotic competitor, *Rana catesbeiana*. *Journal of Herpetology* 40: 403-407.

Heithaus, M. R., I. M., Hamilton, **A. J. Wirsing**, and L. M. Dill. 2006. Validation of a randomization procedure to assess animal habitat preferences: microhabitat use of tiger sharks in a seagrass ecosystem. *Journal of Animal Ecology* 75: 666-676.

Azevedo, F. C. C., V. Lester, W. Gorsuch, S. Larivière, **A. J. Wirsing**, and D. L. Murray. 2006. Spring dietary breadth and overlap among five sympatric prairie carnivores. *Journal of Zoology* 269: 127-135.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. 2006. Tiger shark (*Galeocerdo cuvier*) abundance and growth in a subtropical embayment: evidence from seven years of standardized fishing effort. *Marine Biology* 149: 961-968.

2005

Wirsing, A. J., J. D. Roth, and D. L. Murray. 2005. Can prey use dietary cues to distinguish predators? A test involving three terrestrial amphibians. *Herpetologica* 61: 104-110.

Heithaus, M. R., A. Frid, **A. J. Wirsing**, L. Bejder, and L. M. Dill. 2005. Biology of sea turtles under risk from tiger sharks at a foraging ground. *Marine Ecology Progress Series* 288: 285-294.

2004

Murray, D. L., J. D. Roth, and **A. J. Wirsing**. 2004. Predation risk avoidance by terrestrial amphibians: The role of prey experience and vulnerability to native and exotic predators. *Ethology* 110: 635-647.

2003

Wirsing, A. J. 2003. Predation-mediated selection on prey morphology: a test using snowshoe hares. *Evolutionary Ecology Research* 5: 315-327.

2002

Wirsing, A. J., T. D. Steury, and D. L. Murray. 2002. Noninvasive estimation of body composition in small mammals: a comparison of conductive and morphometric techniques. *Physiological and Biochemical Zoology* 75: 489-497.

Wirsing, A. J., and D. L. Murray. 2002. Patterns of browse consumption by snowshoe hares in the northwestern United States. *Ecoscience* 9: 440-449.

Wirsing, A. J., T. D. Steury, and D. L. Murray. 2002. Relationship between body condition and vulnerability to predation in red squirrels and snowshoe hares. *Journal of Mammalogy* 83: 707-715.

Steury, T. D., **A. J. Wirsing**, and D. L. Murray. 2002. Using multiple treatment levels as a means of improving inference in wildlife research. *Journal of Wildlife Management* 66: 292-299.

Murray, D. L., J. D. Roth, E. Ellsworth, **A. J. Wirsing**, and T. D. Steury. 2002. Estimating low-density snowshoe hare populations using fecal pellet counts. *Canadian Journal of Zoology* 80: 771-781.

Wirsing, A. J., T. D. Steury, and D. L. Murray. 2002. A demographic analysis of a southern snowshoe hare population in a fragmented habitat: evaluating the refugium model. *Canadian Journal of Zoology* 80: 169-177.

BOOKS AND BOOK CHAPTERS

Heithaus, M. R., A. Frid, J. J. Vaudo, B. Worm, and **A. J. Wirsing**. 2010. Unraveling the ecological importance of elasmobranchs. Pages 611-637 *in* *Sharks and Their Relatives II: Biodiversity, Adaptive Physiology, and Conservation* (J. C. Carrier, M. R. Heithaus, and J. Musick, eds.), CRC Press, Boca Raton, Florida.

OTHER PUBLICATIONS

Wirsing, A. J. 2005. Predation-sensitive foraging behaviour of dugongs (*Dugong dugon*). Ph.D. Dissertation, Simon Fraser University.

Wirsing, A. J. 2003. Tiger sharks: important players in Shark Bay's seagrass ecosystem. *Monkey Mia News* 8: Spring 2003.

Wirsing, A. J. 2001. Demographic and nutritional analyses of a southern snowshoe hare population. M.S. Thesis, University of Idaho.

RESEARCH GRANTS AND CONTRACTS

2011

United States Forest Service Cost Reimbursable Agreement (non-competitive grant) titled, “Patterns of predation on snowshoe hares in north-central Washington”, University of Washington (**\$10,000** over 16 months)

McIntire-Stennis Equipment Grant titled, “Does anti-predator behavior modify indirect effects of top predators?”, University of Washington (**\$10,468** over 1 year)

2010

McIntire-Stennis Cooperative Forestry Research Grant titled, “Fine-scale resource use by snowshoe hares in the boreal forests of north-central Washington”, University of Washington (**\$13,000** over 1 year)

McIntire-Stennis Cooperative Forestry Research Grant titled, “Assessing the role of harvest intensity in improving forest health and providing biodiversity as an ecosystem service: A comparison of western and eastern Cascade forests”, University of Washington (**\$10,110** over 1 year)

2009

Royalty Research Fund (RRF) Grant titled, “Using snowshoe hare responses to forest stand structure and fragmentation to guide lynx recovery in Washington”, University of Washington (**\$39,073** over 1 year)

2007

National Geographic Society Committee for Research and Exploration (CRE) Grant titled, “Does habitat structure affect depth preferences and indirect effects of tiger sharks in a seagrass community?”, Florida International University (**\$24,000** over 3 years)

2006

National Science Foundation grant (OCE-526065, Division of Biological Oceanography; \$547,000 US) titled, “Behaviorally mediated indirect species interactions in a subtropical seagrass community”, Florida International University (**\$547,000** over 4 years)

2003

National Geographic Society Expeditions Council Grant titled, “Foraging ecology of dugongs in a pristine seagrass ecosystem”, Simon Fraser University (\$22,500 over 1 year)

CONFERENCE PRESENTATIONS

2011

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. Anti-predator responses of diving dugongs depend on foraging mode. 19th Biennial Conference on the Biology of Marine Mammals.

Santos, L. O., A. N. Zerbini, J. L. Laake, K. J. Raedeke, and **A. J. Wirsing**. Estimating abundance of harbor porpoises in Puget Sound, WA: A correction for observer bias. 19th Biennial Conference on the Biology of Marine Mammals.

Wirsing, A. J., W. J. Ripple, R. L. Beschta, and S. W. Buskirk. Can restoring wolves help lynx recovery? Special Session titled, “Predator interactions on both sides of the Pacific”, 91st Annual Meeting of the American Society of Mammalogists.

2009

Wirsing, A. J., and W. J. Ripple. The scope of fear: large predators trigger similar indirect risk effects in marine and terrestrial systems. Special Session titled, “Surf and Turf: Establishing New Paradigms by Integrating Theory and Forging Partnerships Between Marine and Terrestrial Ecology”, 94th Annual Meeting of the Ecological Society of America.

Heithaus, M., C. Layman, P. Matich, B. Delius, **A. Wirsing**, and M. Dunphy-Daly. Stable isotopic analysis reveals individual variation in feeding behavior of juvenile bull sharks. 25th Annual Meeting of the American Elasmobranch Society.

Burkholder, D., M. Heithaus, J. Thomson, and **A. Wirsing**. Does tiger shark (*Galeocerdo cuvier*) predation risk influence habitat use of green sea turtles (*Chelonia mydas*) at multiple spatial scales? 25th Annual Meeting of the American Elasmobranch Society.

Wirsing, A. J., M. R. Heithaus, C. A. Layman, B. K. Delius, and M. M. Dunphy-Daly. No bull: juvenile bull sharks may play diverse functional roles in coastal food webs. 19th Annual Review of Research, The Water Center, University of Washington.

2006

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. Living on the edge: dugongs prefer foraging microhabitats allowing for escape when predators are abundant. 91st Annual Meeting of the Ecological Society of America.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. “Living on the edge: dugongs prefer foraging microhabitats allowing for escape when predators are abundant”. 8th Annual Biology Research Symposium, Florida International University.

2005

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. Predation-sensitive foraging by dugongs in a subtropical Australian embayment. 42nd annual Animal Behavior Society Conference.

Heithaus, M. R., **A. J. Wirsing**, L. M. Dill, and I. M. Hamilton. Microhabitat use of tiger sharks in Shark Bay, Western Australia: predator-prey interactions at multiple spatial scales. 21st Annual Meeting of the American Elasmobranch Society.

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. Predation-sensitive foraging by dugongs in a subtropical Australian embayment. 26th annual Pacific Ecology and Evolution Conference.

2004

Murray, D. L., E. Ellsworth, S. Field, S. Johnson, T. Steury, and **A. J. Wirsing**. Do southern snowshoe hare populations cycle, or simply fluctuate irregularly? 2nd International Lagomorph Conference.

2003

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. Habitat use and foraging decisions of dugongs in response to varying tiger shark predation risk. 11th Annual BC Marine Mammal Symposium.

2001

Wirsing, A. J., and D. L. Murray. Do food quantity and quality influence the dynamics of southern snowshoe hare populations? 81st Annual Meeting of the American Society of Mammalogists.

2000

Wirsing, A. J., T. D. Steury, and D. L. Murray. Population dynamics of snowshoe hares and lynx conservation in Idaho. 14th Annual Meeting of the Society for Conservation Biology.

Wirsing, A. J., T. D. Steury, and D. L. Murray. Population dynamics of snowshoe hares in Idaho. Annual meeting of the Idaho Chapter of the Wildlife Society.

1999

Steury, T. D., and **A. J. Wirsing**. Population Regulation Theory: Emancipation from the Quest for Density Dependence. 84th Annual Meeting of the Ecological Society of America.

Murray, D. L., T. D. Steury, and **A. J. Wirsing**. Snowshoe Hare and Red Squirrel Ecology in the Bitterroot Mountains of Idaho. Western Forest Carnivore Meeting.

INVITED TALKS

2009

Wirsing, A. J., and W. J. Ripple. The scope of fear: large predators trigger similar indirect risk effects in marine and terrestrial systems. Department of Biology Autumn Seminar Series, University of Washington, Seattle

Wirsing, A. J., and W. J. Ripple. The scope of fear: large predators trigger similar indirect risk effects in marine and terrestrial systems. Brown Bag Seminar Series, Washington Department of Fish and Wildlife, Olympia.

Wirsing, A. J. Using tiger sharks to protect and restore seagrass meadows. Aquatic and Fishery Sciences Spring Departmental Seminar Series, University of Washington, Seattle.

Wirsing, A. J. Carnivore conservation in the Pacific Northwest. "Sustaining Our Northwest World" Winter Lecture Series, College of Forest Resources, University of Washington, Seattle.

Heithaus, M. R., C. A. Layman, B. K. Delius, **A. J. Wirsing**, and M. M. Dunphy-Daly. Among-individual niche variation of a marine top predator species, the bull shark (*Carcharhinus leucas*), suggests diverse functional roles within coastal food webs. Winter Water Center Seminars, University of Washington, Seattle.

Heithaus, M. R., C. A. Layman, B. K. Delius, **A. J. Wirsing**, and M. M. Dunphy-Daly. Among-individual diet variation of a marine top predator, the bull shark. Winter Wildlife Science Seminar Series, College of Forest Resources, University of Washington, Seattle.

2008

Wirsing, A. J. Using behavior to predict the consequences of large predator loss. Autumn Wildlife Science Seminar Series, College of Forest Resources, University of Washington, Seattle.

Wirsing, A. J. Predicting predation risk effects in communities. Public seminar, College of Forest Resources, University of Washington, Seattle.

2007

Wirsing, A. J. Towards a predictive framework for sublethal top predator effects in marine communities. Public seminar, University of Sydney, Sydney, New South Wales.

Wirsing, A. J. Danger on the rise: does tidal state mediate an exchange of food for safety by the sea snake *Hydrophis elegans*? Marine Biology Seminar Series, Florida International University, North Miami.

2006

Wirsing, A. J. Living in shark infested waters: predation-sensitive foraging by dugongs in a subtropical Australian embayment. Public seminar, Murdoch University Centre for Fish and Fisheries Research, Perth, Western Australia.

2004

Wirsing, A. J., M. R. Heithaus, and L. M. Dill. Do large, marine herbivores trade-off between food and safety? A case study using the dugong. Marine Science and Engineering Seminar Series, University of Western Australia, Crawley.

2002

Wirsing, A. J. So why don't southern snowshoe hare populations cycle? *Les Ecologistes* Seminar Series, Simon Fraser University, Burnaby, British Columbia.

CONFERENCE POSTERS

2001

Wirsing, A. J., T. D. Steury, and D. L. Murray. The relationship between body condition and vulnerability to predation in two small mammals. Annual SFU/UBC/UVIC graduate student retreat.

TEACHING EXPERIENCE

Courses

2011

“CFR 590 B: Current Topics in Behavioral Ecology”, Autumn Quarter, University of Washington

“CFR 590 D: Uses of Animal Behavior in Conservation”, Spring Quarter, University of Washington

“ESRM 459: Wildlife Conservation in Northwest Ecosystems”, Spring Quarter, University of Washington

“ESRM 450: Wildlife Ecology and Conservation”, Winter Quarter, University of Washington

2010

“CFR 590 B: Current Topics in Behavioral Ecology”, Autumn Quarter, University of Washington

“CFR 590 D: Uses of Animal Behavior in Conservation”, Spring Quarter, University of Washington

“ESRM 459: Wildlife Conservation in Northwest Ecosystems”, Spring Quarter, University of Washington

“ESRM 450: Wildlife Ecology and Conservation”, Winter Quarter, University of Washington

2009

“CFR 590 B: Current Topics in Behavioral Ecology”, Autumn Quarter, University of Washington

“CFR 590 D: Uses of Animal Behavior in Conservation”, Spring Quarter, University of Washington

“ESRM 450: Wildlife Ecology and Conservation”, Winter Quarter, University of Washington

2007

“PCB 3043: Ecology”, Florida International University

2000

“WILDLIFE 314: Wildlife Ecology I”, University of Idaho

“WILDLIFE 315: Wildlife Ecology I Lab”, University of Idaho

Teaching Assistantships

2005

“Evolution”, Simon Fraser University

2000

“Human Dimensions of Wildlife Management”, University of Idaho

Guest Lectures

2011

“GENERAL STUDIES 197G – Freshmen Seminar: Exploring Environmental Majors at the UW”, lecture titled, “The scope of fear: large predators trigger similar indirect risk effects in marine and terrestrial systems”, University of Washington

“GENERAL STUDIES 197K – Wolves: Natural History, Behavior, and Society”, lecture titled, “The wolf-elk relationship: elk anti-predator behavior and its ecosystem consequences”, University of Washington

“ESRM 150 – Wildlife in the Modern World”, lecture titled, “Prey responses to predators depend on escape behavior: a cross-ecosystem comparison”, University of Washington

“FOR/FW 547 – Trophic Cascades”, lecture titled, “Responses to predators depend on prey escape behavior: implications for trophic cascades”, Oregon State University

“BIOL/CFR/FISH 567 – Topics in Advance Ecology”, two-part lecture titled, “Contingency in risk effects of predators”, University of Washington

“ENVIR 100 – Environmental Studies: Interdisciplinary Foundations”, lecture titled, “Using tiger sharks to restore seagrass meadows”, University of Washington

“FISH 497 – Conservation of Sharks: History and Future”, lecture titled, “The behavior and ecological effects of tiger sharks”, University of Washington

2010

“ESRM 150 – Wildlife in the Modern World”, lecture titled, “Prey responses to predators depend on escape behavior: a cross-ecosystem comparison”, University of Washington

“GENERAL STUDIES 197G – Freshmen Seminar: Exploring Environmental Majors at the UW”, lecture titled, “The scope of fear: large predators trigger similar indirect risk effects in marine and terrestrial systems”, University of Washington

“ENVIR 100 – Environmental Studies: Interdisciplinary Foundations”, lecture titled, “Using tiger sharks to restore seagrass meadows”, University of Washington

2009

“FISH 522 – Hot Topics in Fisheries Science and Aquaculture”, lecture titled, “The multiple roles of top of the food chain predators in aquatic ecosystems”, University of Washington

“ENVIR 100 – Environmental Studies: Interdisciplinary Foundations”, lecture titled, “Using tiger sharks to restore seagrass meadows”, University of Washington

“HONORS 100B: Knowledge Across the Disciplines”, lecture titled, “The scope of fear: large predators trigger similar indirect risk effects in marine and terrestrial systems”, University of Washington

“GENERAL STUDIES 197G – Freshmen Seminar: Exploring Environmental Majors at the UW”, lecture titled, “The scope of fear: large predators trigger similar indirect risk effects in marine and terrestrial systems”, University of Washington

“ESRM 150 – Wildlife in the Modern World”, lecture titled, “Beyond mortality: predator risk effects in different ecosystems”, University of Washington

“FISH 475 – Marine Mammalogy”, lecture titled, “Do marine mammals fear their predators? Evidence and community consequences”, University of Washington

“FISH/ENVIR 439 – Attaining a Sustainable Society”, lecture titled, “Attitudes toward sharks and the sustainability of the world’s fisheries”, University of Washington

“LANDSCAPE ARCHITECTURE 363 – Ecological Design and Planning”, lecture titled, “Landscape geometry and the outcome of predator-prey interactions”, University of Washington

“FOR/FW 547 – Trophic Cascades”, lecture titled, “The scope of fear: predators trigger similar indirect risk effects in marine and terrestrial systems”, Oregon State University

“ENVIR 100 – Environmental Studies: Interdisciplinary Foundations”, lecture titled, “Using tiger sharks to restore seagrass meadows”, University of Washington

“BIOL/CFR/FISH 567 – Topics in Advance Ecology”, two-part lecture titled, “Contingency in predator risk effects”, University of Washington

2008

“GENERAL STUDIES 197 – Freshmen Seminar”, lecture titled, “Using behavior to predict the consequences of large predator loss”, University of Washington

“OCB 3043: Marine Biology and Oceanography”, lecture titled, “Marine Mammal Ecology”, Florida International University

2007

“BSC 4934: Coastal Marine Conservation”, lecture titled, “Towards a predictive framework for marine conservation”, Florida International University

2002

“BISC 304: Animal Ecology”, lecture titled, “Predators and prey: games, higher-order interactions, and lessons from a place called Shark Bay”, Simon Fraser University

2001

“BISC 304: Animal Ecology”, lecture titled, “So why don’t southern snowshoe hare populations cycle?”, Simon Fraser University

2000

“WILDLIFE 448: Multi-species Interactions”, lecture titled, “Costs and benefits of alarm response behavior”, University of Idaho

“WILDLIFE 448: Multi-species interactions”, lecture titled “Functional, numerical, and total responses”, University of Idaho

“WILDLIFE 316: Wildlife Ecology II”, lecture titled, “Population ecology of snowshoe hares”, University of Idaho

MENTORING EXPERIENCE

Graduate Students (active)

- 2011-Present MSc Committee Chair, Jeff Harris, SEFS, University of Washington
- 2011-Present MSc Committee Chair, Kristen Rishardson, SEFS, University of Washington
- 2010-Present MSc Committee Chair, Jessica Bolis, SEFS, University of Washington
- 2010-Present PhD Committee Chair, Jeffrey Smith, SEFS, University of Washington
- 2010-Present PhD Committee Chair, Linda Uyeda, SEFS, University of Washington
- 2009-Present MSc Committee Chair, Laurel Peelle, SEFS, University of Washington

Graduate Committees (active)

- 2011-Present Master of Science in Biology Teaching (MBST) Program Committee Member, Emily Owens, University of Washington
- 2010-Present PhD Committee Member, Chris Gast, Quantitative Ecology and Resource Management (QERM), University of Washington
- 2010-Present MSc Committee Member, Christie Galitski, SEFS, University of Washington
- 2010-Present PhD Committee Member, Morgan Bond, School of Aquatic and Fishery Sciences, University of Washington

Graduate Committees (completed)

- 2008-2011 MSc Committee Member, Erica Olson, School of Resource and Environmental Management, Simon Fraser University
- 2009-2011 MSc Committee Member, Luciana Santos, School of Forest Resources, University of Washington
- 2009-2011 PhD Committee Member, Neala Kendall, School of Aquatic and Fishery Sciences, University of Washington

- 2011 PhD Committee Member, Jonathan Reum, School of Aquatic and Fishery Sciences, University of Washington (*Late replacement as GSR)
- 2010-2011 MSc Committee Member, Kristine Mazur, School of Forest Resources, University of Washington
- 2009-2011 MSc Committee Member, Carrie Schloss, School of Forest Resources, University of Washington
- 2009-2011 MSc Committee Member, Laura Farwell, School of Forest Resources, University of Washington
- 2009-2011 MSc Committee Member, Lauren Seckel, School of Forest Resources, University of Washington
- 2009-2011 MSc Committee Member, John Burk, School of Forest Resources, University of Washington
- 2009-2011 PhD Committee Member, Amanda Bradford, School of Aquatic and Fishery Sciences, University of Washington
- 2008 Master of Science in Biology Teaching (MBST) Program Committee Member, Linda Uyeda, University of Washington

Undergraduate Mentoring

- 2012-Present Thesis (Capstone) Advisor, Andrea Nichols
- 2011-Present Thesis (Capstone) Advisor, Lyndsay Gordon
- 2011-Present Thesis (Capstone) Advisor, Jessica Gray
- 2011-Present Thesis (Capstone) Advisor, Russell Pharr
- 2011 Thesis (Capstone) Advisor, Sara Meicho
- 2011 Thesis (Capstone) Advisor, Marlana Staton
- 2011 Thesis (Capstone) Advisor, Ashley Kees
- 2011 Thesis (Capstone) Advisor, Randy Bacon
- 2010-2011 Thesis (Capstone) Faculty Advisor, Program on the Environment, Cara Appel
- 2010 Thesis (Capstone) Faculty Advisor, Program on the Environment, Tyson Wine

- 2009-2010 Thesis (Capstone) Advisor, Lindsey Kirschman
- 2009-2010 Thesis (Capstone) Advisor, J. Kimiko LaHaela
- 2009 Thesis (Capstone) Advisor, Mathew E. Weintraub
- 2006 Student Mentor, Strategies for Ecology Education, Development, and Sustainability (SEEDS), 91st Annual Meeting of the Ecological Society of America

SCHOLARSHIPS

2005

- Graduate Research Fellowship (\$6,000 CDN), Simon Fraser University
- NSERC Graduate Travel Award (\$700 CDN), Simon Fraser University
- President's PhD Research Stipend (\$6,000 CDN), Simon Fraser University

2004

- Graduate Research Fellowship (\$6,000 CDN), Simon Fraser University

2003

- Graduate Research Fellowship (\$6,000 CDN), Simon Fraser University
- Glen Geen Graduate Scholarship in Marine Biology (\$880 CDN)

2002

- William and Ida Isabelle Steel Memorial Graduate Scholarship (\$17,000 CDN), Simon Fraser University
- Canadian Fishing Company Graduate Scholarship (\$1,500 CDN), Simon Fraser University

2001

- Graduate Research Fellowship (\$5,200 CDN), Simon Fraser University

ACADEMIC DISTINCTIONS AND AWARDS

2011

Winter Quarter Faculty Teaching Award, School of Forest Resources, University of Washington

2010

Winter Quarter Faculty Teaching Award, School of Forest Resources, University of Washington

2001

Outstanding Instructor Award, nominated by a student with a disability, University of Idaho

Outstanding Graduate Student Award, Department of Fish and Wildlife Resources, University of Idaho

2000

Ted Trueblood Communications Award, Best graduate student presentation, Annual meeting of the Idaho Chapter of the Wildlife Society

ACADEMIC SERVICE

- | | |
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| 2011 | Faculty Portfolio Committee, tasked with identifying future needs in teaching, research, and outreach, SEFS |
| 2011 | Faculty panel member, Graduate student orientation, School of Forest Resources |
| 2011 | Expert commentator, <i>USA Today</i> article titled, "Loss of predators in the food chain can alter the ecosystem" (article published on July 15) |
| 2011 | Expert commentator, <i>ScienceNOW</i> article titled, "Why penguins are afraid of the dark" (article published on-line in June) |
| 2011 | Advisor, Dead Elk Society, spring and autumn quarters |
| 2011 | Faculty Advisor, ESRM 490 H ("Indirect linkages in Ecology"), spring quarter |

- 2011 Peer reviewer, book titled, “Behavioural Responses to a changing world: Mechanisms and Consequences”
- 2010-Present Member, Lynx Research Science Advisory Committee, Convened to evaluate ongoing lynx research effort headed by the Washington Department of Fish and Wildlife
- 2010 Peer reviewer, manuscript titled, “Cougar prey use in a wildland-urban environment in western Washington” to be submitted to the *Journal of Mammalogy*, Washington Cooperative Fish and Wildlife Research Unit, University of Washington
- 2010 Peer reviewer, report titled, “Climate change and wildlife habitat management at Olympic National Forest and Olympic National Park”, prepared by participants of the Wildlife Adaptation Workshop representing Olympic National Park, Olympic National Forest, United States Geological Survey, Forest Service, and University of Washington
- 2010 Faculty panel member, Graduate student orientation, School of Forest Resources
- 2009-Present Member, Washington State Lynx Working Group, Partnership involving the Bureau of Land Management, Conservation Northwest, United States Department of Agriculture Forest Service, United States Fish and Wildlife Service, University of Washington, Washington Department of Fish and Wildlife, and Washington Department of Natural Resources that meets biennially with the goal of facilitating lynx research and recovery in the Pacific Northwest.
- 2009 Participant, CFR Centennial Grove maintenance, Union Bay Natural Area, University of Washington Botanic Gardens, April 4 (9am – 12pm)
- 2008-Present Student Chapter Advisor, The Wildlife Society, University of Washington
- 2004 Coordinator, joint venture involving researchers from Simon Fraser University, the Western Australian Department of Conservation and Land Management (CALM), and the Yadgalah Aboriginal Corporation to fit loggerhead turtles with satellite tags (5 deployments)
- 2003 Coordinator, joint venture involving researchers from Simon Fraser University, the Western Australian Department of Conservation and Land Management (CALM), and the Yadgalah Aboriginal Corporation to fit dugongs with underwater video and data recording systems (Critttercam; 3 deployments)

- 2002-Present Peer reviewer for *Acta Theriologica*, *Animal Behaviour*, *Animal Conservation*, *Australian Journal of Zoology*, *Behavioral Ecology*, *Behavioral Ecology and Sociobiology*, *Biological Conservation*, *Conservation Biology*, *Ecological Research*, *Ecology*, *Ecoscience*, *Ethology*, *Integrative and Comparative Biology*, *Journal of Animal Ecology*, *Journal of Experimental Marine Biology and Ecology*, *Journal of Mammalogy*, *Journal of Wildlife Management*, *Mammalian Biology*, *Marine Biology*, *Marine Ecology Progress Series*, *Marine and Freshwater Research*, *Marine Mammal Science*, *Oecologia*, *Oikos*, *Physiological and Biochemical Zoology*, *Polar Biology*, *Wildlife Biology*, *Wildlife Research*
- 2002-Present Grant reviewer for National Geographic Society Committee for Research and Exploration (CRE), National Science Foundation (Biological Oceanography, Population and Community Ecology Cluster)
- 2001 Participant, Burnaby Mountain Biodiversity Challenge, Simon Fraser University
- 2000 Graduate student representative, 5th Year Review Committee for Dr. Kerry Reese, University of Idaho

PUBLIC EDUCATION AND OUTREACH

- 2011 Featured author, “Beyond the Frontier”, monthly podcast produced by the Ecological Society of America in which authors whose articles will appear in the upcoming issue of *Frontiers in Ecology and the Environment* are interviewed (podcast aired in August)
- 2011 Guest Speaker, Educational talk titled, “Lynx, snowshoe hares, and the future of Washington’s boreal forests”, Streamkeeper Academy, Adopt A Stream Foundation (AASF), Everett, WA
- 2010 Guest Speaker, Educational talk titled, “Lynx, snowshoe hares, and the future of Washington’s boreal forests”, Streamkeeper Academy, Adopt A Stream Foundation (AASF), Everett, WA
- 2009 Featured speaker, University of Washington Television program titled, “Carnivore Conservation in the Pacific Northwest”
- 2007 Featured biologist, on-line *Discovery News* article titled, “Tiger Sharks Keep Seagrass Tidy”
- 2007 Featured biologist, Network Ten Australia wildlife documentary titled, “Dugongs in Shark Bay” (part of the *Totally Wild* series)

- 2006 Featured biologist, book titled *Gone to Shark Bay*, University of Western Australia Press
- 2006 Guest biologist, Network Ten Australia wildlife documentary titled, “Mysteries of Shark Bay” (part of the *Totally Wild* series)
- 2004 Guest biologist, Australian Broadcasting Channel (ABC) wildlife documentary titled, “Shark Bay”
- 2004 Featured biologist, National Geographic Television wildlife documentary titled, “Dugongs”, episode 11 of the *Crittercam* series
- 2004 Guest biologist, National Geographic Television wildlife documentary titled, “Turtles”, episode 13 of the *Crittercam* series
- 2002-2007 Weekly research seminar speaker, talk titled, “Shark Bay: realm of the tiger shark”, given to visitors to the Monkey Mia Dolphin Resort, Western Australia