

## AARON JOHN WIRSING

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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

- 2016 Visiting Professor, School of Life and Environmental Sciences, University of Sydney
- 2014-Present Associate Professor, School of Environmental and Forest Sciences (SEFS), University of Washington
- 2008-2014 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

### PEER-REVIEWED PUBLICATIONS

#### \*Denotes graduate student

73. Ripple, W. J., C. Wolf, T. M. Newsome, M. Hoffmann, **A. J. Wirsing**, and D. J. McCauley. *In press*. Extinction risk is most acute for the world's largest and smallest vertebrates. *Proceedings of the National Academy of Sciences of the United States of America*.

72. Newsome, T. C., A. C. Greenville, D. Ćirović, C. R. Dickman, C. N. Johnson, M. Krofel, M. Letnic, W. J. Ripple, E. G. Ritchie, S. Stoyanov, and **A. J. Wirsing**. 2017. Top predators constrain mesopredator distributions. *Nature Communications* 8: 15469 doi: 10.1038/ncomms15469

71. Doherty, T. S., C. R. Dickman, A. S. Glen, T. M. Newsome, D. G. Nimmo, E. G. Ritchie, A. T. Vanak, and **A. J. Wirsing**. 2017. The global impacts of domestic dogs on threatened vertebrates. *Biological Conservation* 210: 56-59.
70. Newsome, T. M., P. J. S. Fleming, C. R. Dickman, T. S. Doherty, W. J. Ripple, E. G. Ritchie, and **A. J. Wirsing**. 2017. Making a new dog? *Bioscience* 67: 374-381.
69. Ripple, W. J., G. Chapron, J. V. López-Bao, S. M. Durant, D. W. MacDonald, P. A. Lindsey, E. L. Bennett, R. L. Beschta, J. T. Bruskotter, A. Campos-Arceiz, R. T. Corlett, C. T. Darimont, A. J. Dickman, R. Dirzo, H. T. Dublin, J. A. Estes, K. T. Everatt, M. Galetti, V. R. Goswami, M. W. Hayward, S. Hedges, M. Hoffmann, L. T. B. Hunter, G. I. H. Kerley, M. Letnic, T. Levi, F. Maisels, J. C. Morrison, M. P. Nelson, T. H. Newsome, L. Painter, R. M. Pringle, C. J. Sandom, J. Terborgh, A. Treves, B. V. Valkenburgh, J. A. Vucetich, **A. J. Wirsing**, A. D. Wallach, C. Wolf, R. Woodroffe, H. Young, and L. Zhang. 2017. Conserving the world's megafauna and biodiversity: the fierce urgency of now. *Bioscience* 67: 197-200.
68. Quinn, T. P., C. J. Cunningham, and **A. J. Wirsing**. 2017. Diverse foraging opportunities drive the functional response of local and landscape-scale bear predation on Pacific salmon. *Oecologia* 183: 415-429.
67. Ripple, W. J., G. Chapron, J. V. López-Bao, S. M. Durant, D. W. MacDonald, P. A. Lindsey, E. L. Bennett, R. L. Beschta, J. T. Bruskotter, A. Campos-Arceiz, R. T. Corlett, C. T. Darimont, A. J. Dickman, R. Dirzo, H. T. Dublin, J. A. Estes, K. T. Everatt, M. Galetti, V. R. Goswami, M. W. Hayward, S. Hedges, M. Hoffmann, L. T. B. Hunter, G. I. H. Kerley, M. Letnic, T. Levi, F. Maisels, J. C. Morrison, M. P. Nelson, T. H. Newsome, L. Painter, R. M. Pringle, C. J. Sandom, J. Terborgh, A. Treves, B. V. Valkenburgh, J. A. Vucetich, **A. J. Wirsing**, A. D. Wallach, C. Wolf, R. Woodroffe, H. Young, and L. Zhang. 2016. Saving the world's terrestrial megafauna. *Bioscience* 66: 807-812.
66. Newsome, T. M., L. Boitani, G. Chapron, P. Ciucci, C. R. Dickman, J. A. Dellinger\*, J. V. López-Bao, R. O. Peterson, C. R. Shores\*, **A. J. Wirsing**, and W. J. Ripple. Food habits of the world's grey wolves. *Mammal Review* 46: 255-269.
65. Uyeda, L. T.\*, E. Iskandar, A. Purbatrapila, **A. J. Wirsing**, and R. C. Kyes. 2016. The role of traditional beliefs in conservation of the water monitor lizard *Varanus salvator* and reticulated python *Python reticulatus* in Banten, Indonesia. *Oryx* 50: 296-301.
64. Vitense, K.\*, **A. J. Wirsing**, R. C. Tyson, and J. J. Anderson. 2016. Theoretical impacts of habitat loss and generalist predation on predator-prey cycles. *Ecological Modeling* 327: 85-94.
63. Uyeda, L. T.\*, E. Iskandar, R. C. Kyes, and **A. J. Wirsing**. 2015. Encounter rates, agonistic interactions, and social hierarchy among garbage-feeding Water Monitor Lizards (*Varanus salvator bivittatus*) on Tinjil Island, Indonesia. *Herpetological Conservation and Biology* 10: 753-764.

62. Newsome, T. M., G. Ballard, M. S. Crowther, A. Glen, J. A. Dellinger\*, P. J. S. Fleming, A. C. Greenville, C. N. Johnson, M. Letnic, D. G. Nimmo, M. P. Nelson, C. R. Shores\*, W. J. Ripple, E. G. Ritchie, A. D. Wallach, **A. J. Wirsing**, and C. R. Dickman. 2015. Resolving the value of the dingo in ecological restoration: could a reintroduction experiment help? *Restoration Ecology* 23: 201-208.
61. Kiszka, J. J., M. R. Heithaus, and **A. J. Wirsing**. 2015. Behavioral drivers of the ecological roles and importance of marine mammals. *Marine Ecology Progress Series* 523: 267-281.
60. Newsome, T. M., J. Dellinger\*, C. R. Pavey, W. J. Ripple, C. Shores\*, **A. J. Wirsing**, and C. R. Dickman. 2015. The ecological effects of providing resource subsidies to predators. *Global Ecology and Biogeography* 24: 1-11.
59. Quinn, T. P., **A. J. Wirsing**, B. Smith, C. J. Cunningham, and J. Ching. 2014. Complementary use of motion-activated cameras and unbaited wire snares for DNA sampling reveals diel and seasonal patterns of brown bears foraging on adult sockeye salmon. *Canadian Journal of Zoology* 92: 893-903.
58. Sergio, F., O. J. Schmitz, C. Krebs, R. Holt, M. R. Heithaus, **A. J. Wirsing**, W. Ripple, E. Ritchie, D. G. Ainley, D. Oro, Y. Jhala, F. Hiraldo, and E. Korpimäki. 2014. Towards a cohesive, holistic view of top predation: a definition, synthesis and perspective. *Oikos* 123: 1234-1243.
57. **Wirsing, A. J.**, M. R. Heithaus, and A. Frid. 2014. Cross-fertilizing aquatic and terrestrial research to understand predator risk effects. *WIREs Water* 2014. doi: 10.1002/wat2.1039
56. Heithaus, M. R., T. Alcoverro, R. Arthur, D. A. Burkholder, K. A. Coates, M. J. A. Christianen, N. Kelkar, S. A. Manuel, **A. J. Wirsing**, W. J. Kenworthy, and J. W. Fourqurean. 2014. Seagrasses in the age of sea turtle conservation and shark overfishing. *Frontiers in Marine Science* 1. doi: 10.3389/fmars.2014.00028
55. Uyeda, L.\*, E. Iskandar, A. Purbatrapsila, J. Pamungkas, **A. Wirsing**, and R. Kyes. 2014. Water monitor lizard (*Varanus salvator*) satay: a treatment for skin ailments in Muarabinuangun and Cisiuh, Indonesia. *Biawak* 8: 35-38.
54. **Wirsing, A. J.**, and M. R. Heithaus. 2014. Accounting for individual behavioural variation in studies of habitat selection. *Journal of Animal Ecology* 83: 319-321.
53. Ripple, W. J., J. A. Estes, R. L. Beschta, C. C. Wilmers, E. G. Ritchie, M. Hebblewhite, J. Berger, B. Elmhagen, M. Letnic, M. P. Nelson, O. J. Schmitz, D. W. Smith, A. D. Wallach, and **A. J. Wirsing**. 2014. Status and ecological effects of the world's largest carnivores. *Science* 343: 1241484(2014).
52. Burkholder, D., M. Heithaus, J. Fourqurean, **A. Wirsing**, and L. Dill. 2013. Patterns of top-down control in a seagrass ecosystem: could a roving apex predator (*Galeocerdo cuvier*) induce a behavior-mediated trophic cascade? *Journal of Animal Ecology* 82: 1192-1202.

51. Ellsworth, E., **A. J. Wirsing**, L. A. Shipley, and D. L. Murray. 2013. Do measures of plant intake and digestibility from captive feeding trials align with foraging patterns of free-ranging snowshoe hares? *Wildlife Research* 40: 349-357.
50. Uyeda, L.\*, E. Iskandar, **A. Wirsing**, and R. Kyes. 2013. Nocturnal activity of *Varanus salvator* on Tinjil Island, Indonesia. *Biawak* 7: 15-20.
49. Heithaus, M. R., J. J. Vaudo, S. Kreicker, C. A. Layman, M. Krutzen, D. A. Burkholder, K. Gastrich, C. Bessey, R. Sarabia, K. Cameron, **A. J. Wirsing**, J. A. Thomson, and M. M. Dunphy-Daly. 2013. Apparent resource partitioning and trophic structure of large-bodied marine predators in a relatively pristine seagrass ecosystem. *Marine Ecology Progress Series* 481: 225-237.
48. Thornton, D. H., **A. J. Wirsing**, J. D. Roth, and D. L. Murray. 2013. Habitat quality and population density drive occupancy dynamics of snowshoe hare in variegated landscapes. *Ecography* 36: 610-621.
47. Ripple, W. J., **A. J. Wirsing**, C. C. Wilmers, and M. Letnic. 2013. Widespread mesopredator effects after wolf extirpation. *Biological Conservation* 160: 70-79.
46. Abele, S. L., **A. J. Wirsing**, and D. L. Murray. 2013. Precommercial forest thinning alters abundance but not survival of snowshoe hares. *Journal of Wildlife Management* 77: 84-92.
45. Olson, E. L., A. K. Salomon, **A. J. Wirsing**, and M. R. Heithaus. 2012. Large-scale movements of male loggerhead turtles on a relatively pristine feeding ground in Shark Bay, Australia. *Marine and Freshwater Research* 63: 1108-1116.
44. **Wirsing, A. J.**, and M. R. Heithaus. 2012. Behavioral transition probabilities in dugongs change with habitat and shark presence: implications for sirenian conservation. *Marine and Freshwater Research* 63: 1069-1076.
43. Heithaus, M. R., **A. J. Wirsing**, and L. M. Dill. 2012. The ecological importance of intact top predator populations: a synthesis of fifteen years of research in a seagrass ecosystem. *Marine and Freshwater Research* 63: 1039-1050.
42. **Wirsing, A. J.**, S. W. Buskirk, W. J. Ripple, and R. L. Beschta. 2012. Wolves and lynx: plausible ideas make for testable hypotheses. *Wildlife Society Bulletin* 36: 572-577.
41. Thornton, D. H., **A. J. Wirsing**, J. D. Roth, and D. L. Murray. 2012. Complex effects of site preparation and harvest on snowshoe hare abundance across a patchy forest landscape. *Forest Ecology and Management* 280: 132-139.
40. Thomson, J. A., M. R. Heithaus, D. A. Burkholder, J. J. Vaudo, **A. J. Wirsing**, and L. M. Dill. 2012. Site specialists, diet generalists? Isotopic variation, site fidelity, and foraging by loggerhead turtles in Shark Bay, Western Australia. *Marine Ecology Progress Series* 453: 213-226.

39. **Wirsing, A. J.**, J. R. Phillips, M. E. Obbard, and D. L. Murray. 2012. Incidental nest predation in freshwater turtles: inter- and intra-specific differences in vulnerability are explained by relative crypsis. *Oecologia* 168: 977-988.
38. 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.
37. **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.
36. **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.
35. 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.
34. **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.
33. **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.
32. 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.
31. 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.
30. **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.
29. 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.
28. 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.
27. 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.

26. **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.
25. 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.
24. **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.
23. **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.
22. 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.
21. **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.
20. **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.
19. **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.
18. **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.
17. 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.
16. 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.
15. 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.

14. 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.
13. 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.
12. 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.
11. **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.
10. **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.
9. 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.
8. 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.
7. **Wirsing, A. J.** 2003. Predation-mediated selection on prey morphology: a test using snowshoe hares. *Evolutionary Ecology Research* 5: 315-327.
6. **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.
5. **Wirsing, A. J.**, and D. L. Murray. 2002. Patterns of browse consumption by snowshoe hares in the northwestern United States. *Ecoscience* 9: 440-449.
4. **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.
3. 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.

2. 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.

1. **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

Doherty, T., A. J. Wirsing, C. Dickman, D. Nimmo, E. Ritchie, and T. Newsome. 2017. The bark side: domestic dogs threaten endangered species worldwide. *The Conversation* <http://theconversation.com/the-bark-side-domestic-dogs-threaten-endangered-species-worldwide-76782>

Uyeda, L. T., E. Iskandar, R. C. Kyes, and **A. J. Wirsing**. 2012. Proposed research on home ranges and resource use of the water monitor lizard, *Varanus salvator*. *Forestry Chronicle* 88: 542-546.

**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

### 2017

Army Corps of Engineers grant supplement titled, "John Day Survey" (co-PI), University of Washington (**\$159,870**)



Washington Department of Fish and Wildlife Aquatic Lands Enhancement Account (ALEA) Volunteer Cooperative Grant Program grant (PI) titled, “Assessing wolf-cougar interactions and impacts in Washington”, University of Washington (**\$16,200**)

Conservation, Research and Education Opportunities International (CREOi) grant (PI) titled, “Large predator competition in an urbanizing world: Cougar and black bear interactions along the wildland-urban gradient of western Washington”, University of Washington (**\$20,000**)

Washington Department of Fish and Wildlife contract (PI) titled, “Washington Predator/Prey Dynamics”, University of Washington (**\$231,911**)

National Science Foundation REU supplement (PI) to DEB-1145902 titled, “REU: Does Anti-predator Behavior Modify Indirect Effects of Top Predators?”, University of Washington (**\$6,323**)

Continuing Seeley Fund grant (PI) titled, “Investigating the ecology of reef sharks in Tetiaroa (Society Islands, French Polynesia): year three”, University of Washington (gift of **\$15,000**)

## **2016**

Army Corps of Engineers grant titled, “Evaluating flora and fauna diversity in the John Day/Willow Creek Project for special status species protection” (#W912HZ-16-SOI-0018, co-PI), University of Washington (**\$284,764**)

Continuing Seeley Fund grant (PI) titled, “Investigating the ecology of reef sharks in Tetiaroa (Society Islands, French Polynesia): year three”, University of Washington (gift of **\$18,657**)

National Institute of Food and Agriculture (NIFA) grant (PI) titled, “Modeling the effects of forest management on snowshoe hare population dynamics in Washington at the landscape scale”, University of Washington (**\$10,972**)

## **2015**

Safari Conservation International Foundation (SCIF) grant (PI) titled, “Effects of North American wolf recolonization on deer fawn survival”, University of Washington (**\$35,000**)

Washington Department of Fish and Wildlife Aquatic Lands Enhancement Account (ALEA) Volunteer Cooperative Grant Program grant (PI) titled, “Investigating how landscape characteristics shape cougar foraging ecology along the urban-to-wildland gradient of western Washington”, University of Washington (**\$9,302**)

Student technology Fee grant (PI) titled, “Wildlife ecology education and research using trail cameras”, University of Washington (**\$24,692**)

Seattle City Light grant (PI) titled, “Interactions between wolves and cougars in NE Washington”, University of Washington (**\$46,173**)

Seeley Fund grant (PI) titled, “Investigating the ecology of reef sharks in Tetiaroa (Society Islands, French Polynesia): year two”, University of Washington (gift of **\$15,000**)

Mule Deer Foundation grant (PI) titled, “Do wolves indirectly affect mule deer fawn survival”, University of Washington (**\$2,100**)

Safari Conservation International Foundation (SCIF) grant (PI) titled, “Impact of wolves on deer in Washington: seasonality and fawn survival”, University of Washington (**\$49,500**)

Seattle City Light grant (PI) titled, “Do wolves indirectly affect mule deer fawn survival by modifying coyote predation?”, University of Washington (**\$51,684**)

Safari Conservation International Foundation (SCIF) grant (PI) titled, “Impact of re-colonizing gray wolves on mule and white-tailed deer in Washington state, USA”, University of Washington (**\$45,000**)

## **2014**

National Science Foundation grant (co-PI, CNIC-1427542, Catalyzing New International Collaborations) titled, “US-Canada planning visit: building a transboundary research program to understand the influence of climate change on southern range limits”, University of Washington (**\$47,255** over 1 year; UW share = **\$8,498**)

Safari Conservation International Foundation (SCIF) grant (PI) titled, “Impact of wolves on deer in Washington: seasonality and fawn survival”, University of Washington (**\$49,500**)

Seattle City Light grant (PI) titled, “Do wolves indirectly affect mule deer fawn survival by modifying coyote predation?”, University of Washington (**\$51,684**)

## **2013**

Safari Conservation International Foundation (SCIF) grant (PI) titled, “Impact of re-colonizing gray wolves on mule and white-tailed deer in Washington state, USA”, University of Washington (**\$45,000**)

Washington Department of Fish and Wildlife Aquatic Lands Enhancement Account (ALEA) Volunteer Cooperative Grant Program grant (PI) titled, “Impact of wolves on mule and white-tailed deer”, University of Washington (**\$11,105**)

Institute of Forest Resources grant (co-PI) titled, “Feasibility of a wolf economy for Washington”, University of Washington (**\$175,000**)

Seattle City Light grant (PI) titled, “Will a warming climate affect mesocarnivore interactions in Washington’s southern boreal forests?”, University of Washington (**\$24,052**)

Royalty Research Fund (RRF) Grant (co-PI) titled, “Predation by brown bears on Pacific salmon”, University of Washington (**\$28,986**)

## **2012**

Seattle City Light grant (co-PI) titled, “Wolverine distribution and ecology in the North Cascades Ecosystem – Argos satellite telemetry”, University of Washington (**\$22,146**; UW share = **\$20,168**)

National Science Foundation grant (PI, DEB-1145902, Division of Environmental Biology) titled, “Collaborative Research: Does Anti-predator Behavior Modify Indirect Effects of Top Predators?”, University of Washington (**\$789,977**)

## **2011**

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

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

## **2010**

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

McIntire-Stennis Cooperative Forestry Research Grant (co-PI) 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**)

## **2009**

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

**2007**

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

**2003**

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

## CONFERENCE PRESENTATIONS

**\*Denotes graduate student**

**2017**

Peelle, L.\* and **A. J. Wirsing**. Predator species identification from saliva at kill sites with limited remains. Joint Meeting of the Washington Chapter of The Wildlife Society and the Washington State Society of American Foresters, Yakima, WA, USA

**2016**

**Wirsing, A. J.**, T. Quinn, C. Cunningham, J. Adams, A. Craig\*, and L. Waits. There probably is a bear around that next bend: non-invasive genetic CMR population estimates reveal a abundance of bears at Aleknagik’s salmon spawning streams. Alaska Salmon Program Science Symposium, University of Washington, Seattle, WA.

Thornton, D.H., **A. J. Wirsing**, and D.L. Murray. Peripheral transboundary species: conflicting cross-border management may threaten a large number of peripheral species. North American Congress for Conservation Biology. Madison, WI.

**2015**

**Wirsing, A. J.**, T. Quinn, C. Cunningham, J. Adams, and L. Waits. A tale of two neighborhoods: brown bears show fidelity to distinct salmon spawning stream networks. Alaska Salmon Program Science Symposium, University of Washington, Seattle, WA.

Kilfoil, J. P., J. J. Kiszka, J. Mourier, **A. J. Wirsing**, M. R. Heithaus, and Y. Zhang. Unmanned aerial drone and stationary video surveys to estimate reef shark densities in shallow nursery habitats. International Council for the Exploration of the Sea (ICES) Annual Science Conference, Copenhagen, Denmark.

## 2013

**Wirsing, A. J.**, T. Quinn, C. Cunningham, and L. Waits. Noninvasive exploration of brown Bear behavior along salmon spawning streams in the Wood River Lakes System, AK: an Update. Alaska Salmon Program Science Symposium, University of Washington, Seattle, WA.

Smith, B., T. Quinn, and **A. Wirsing**. Comparative effectiveness of non-invasive observation techniques for brown bears (*Ursus arctos*). Alaska Salmon Program Science Symposium, University of Washington, Seattle, WA.

Bolis, J.\*, K. Aubry, C. Raley, and **A. Wirsing**. Effects of variable physiography and animal behavior on Argos location error and acquisition. The Wildlife Society 20<sup>th</sup> Annual Conference, Milwaukee, WI.

Richardson, K. A.\*, W. Gaines, **A. Wirsing**, and R. Long. Patterns of black bear abundance in the North Cascades Ecosystem: Implications for the role of wilderness in large carnivore conservation. 22nd International Conference on Bear Research and Management, Provo, UT.

## 2012

Quinn, T., and **A. J. Wirsing**. Who are those guys? Snare the hair to ID the bear. Alaska Salmon Program Science Symposium (University of Washington).

Heithaus, M. R., C. Bessey, **A. J. Wirsing**, D. Burkholder, and J. Forqurean. Do tiger sharks influence seagrass ecosystems through multiple indirect pathways? 7<sup>th</sup> World Congress of Herpetology.

Burkholder, D., M. R. Heithaus, J. Fourqurean, and **A. J. Wirsing**. Top-down control in a relatively intact seagrass ecosystem. 7<sup>th</sup> World Congress of Herpetology.

**Wirsing, A. J.**, and M. R. Heithaus. Behavioral transition probabilities in dugongs change with habitat and shark presence. 97<sup>th</sup> Annual Meeting of the Ecological Society of America.

Ettl, G. J., S. Tóth, N. Konnyu, J. Comnick, K. ceder, S. Rabotyagov, **A. J. Wirsing**, and L. Rogers. ECOSEL, an online market-based tool for monetizing ecosystem services: Pack Forest, a case study. 97<sup>th</sup> Annual Meeting of the Ecological Society of America.

Uyeda, L. T.\*, E. Iskandar, R. C. Kyes, and **A. J. Wirsing**. Combining sociological and ecological research approaches to investigate the role of the water monitor lizard (*Varanus salvator*) in Indonesia. Future Forestry Leaders Graduate Student Research Symposium.

## 2011

**Wirsing, A. J.**, M. R. Heithaus, and L. M. Dill. Anti-predator responses of diving dugongs depend on foraging mode. 19<sup>th</sup> 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. 19<sup>th</sup> 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", 91<sup>st</sup> 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", 94<sup>th</sup> 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. 25<sup>th</sup> 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? 25<sup>th</sup> 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. 19<sup>th</sup> 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. 91<sup>st</sup> 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". 8<sup>th</sup> 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. 42<sup>nd</sup> 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. 21<sup>st</sup> 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. 26<sup>th</sup> 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? 2<sup>nd</sup> 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. 11<sup>th</sup> 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? 81<sup>st</sup> 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. 14<sup>th</sup> 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. 84<sup>th</sup> 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

## 2017

Dellinger, J. A.\*, **A. J. Wirsing**, M. R. Heithaus, and W. J. Ripple. All bark and no bite? Impacts of recolonizing gray wolves are primarily non-consumptive in a managed landscape of western North America. Invited symposium talk for “S24: Managing novel communities and multiple threats to achieve biodiversity outcomes”, 12<sup>th</sup> International Mammalogical Congress, Perth, Western Australia.

Wirsing, A. J., J. A. Dellinger, and A. Craig\*. Impacts of recolonizing gray wolves on sympatric mule and white-tailed deer in a managed landscape of eastern WA. Biology, Ecology, and Evolution Research (BEER) Group Invited Seminar, California State University, Northridge.

## 2016

**Wirsing, A. J.** and T. D. Newsome. A cross continent comparison of two top predators. Youth at the Zoo (YATZ) Seminar, Taronga Zoo, Sydney.

**Wirsing, A. J.** Ecological impacts of gray wolf recolonization in managed landscapes of the western USA. Centre for Integrative Ecology 2016 Seminar, Deakin University, Melbourne.

**Wirsing, A. J.**, T. P. Quinn, C. Cunningham, J. Adams, and L. P. Waits. Patterns of brown bear foraging in salmon spawning stream neighborhoods. Department of Biological Sciences Seminar, Boise State University, Boise, ID.

## 2015

**Wirsing, A. J.**, T. P. Quinn, C. Cunningham, and L. P. Waits. Patterns of brown bear foraging in salmon spawning stream neighborhoods. University of Idaho Fish and Wildlife Sciences Seminar, Graduate student invited speaker, Moscow, ID.

**Wirsing, A. J.** Exploring the ecological consequences of wolf recolonization in Washington. Washington Department of Fish and Wildlife Game and Diversity Winter Workshop. Wenatchee Convention Center, Wenatchee, WA.

## 2014

**Wirsing, A. J.** Snowshoe hare interactions with predators and population dynamics in north-central Washington. Canada Lynx Transboundary Research Workshop. Manning Park Resort, British Columbia, Canada.

**Wirsing, A. J.** Using a multidisciplinary approach to explore the consequences of wolf recolonization in Washington. Vashon Allied Arts Science Lecture Series, Vashon Island, WA



**Wirsing, A. J.** The rise of animal-borne video systems as tools for wildlife research. Plenary session titled, “The Rise of Technology in Wildlife Science: Transforming Wildlife Conservation in the 21<sup>st</sup> Century”. Annual Meeting of the Northwest Section of the Wildlife Society, Boise, ID

## **2013**

**Wirsing, A. J.** Exploring the ecological and economic consequences of wolf recovery in WA. Wolf Advisory Group Meeting, October 2013, Ellensburg, WA

**Wirsing, A. J.** Using a multidisciplinary approach to explore the consequences of wolf recolonization in Washington. Osher Lifelong Learning Institute Lunch and Learn Seminar Series, University of Washington, Seattle, WA

**Wirsing, A. J.,** T. P. Quinn, C. J. Cunningham, and L. P. Waits. Noninvasive exploration of brown bear behavior along salmon spawning streams in the Wood River Lakes System, AK. Alaska Salmon Program Spring Meetings, University of Washington, Seattle, WA

## **2012**

**Wirsing, A. J.** The importance of breadth in ecology: using a multidisciplinary approach to explore the consequences of wolf recolonization in Washington. Program on the Environment Capstone Symposium.

**Wirsing, A. J.,** S. L. Abele, and D. L. Murray. How do snowshoe hares respond to precommercial forest thinning? Autumn Wildlife Science Seminar Series, School of Environmental and Forest Sciences, University of Washington, Seattle

**Wirsing, A. J.** Surviving in shark-infested waters: for green sea turtles, it’s all about gaining weight. Nerd Nite Lecture Series, Seattle, WA

**Wirsing, A. J.** Ecology and habitat use of deer mice, pocket gophers, snowshoe hares, and western red-backed voles. Northern Spotted Owl Prey Ecology: What’s for Dinner? Forest Service/Bureau. Forest Service/Bureau of Land Management Workshop, Eugene, OR

**Wirsing, A. J.** Using prey escape behavior to predict indirect effects of predators. Departmental Seminar, Department of Fisheries and Wildlife, Oregon State University

**Wirsing, A. J.** Off the menu: how prey animals avoid becoming a predator’s lunch. 2012 College of the Environment Lunch and Learn in the Desert, Rancho Mirage, CA

## **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

**\*Denote graduate student**

**2017**

Craig, A. \*, S. Szablewski, and **A. J. Wirsing**. Do recolonizing wolves impact deer hunter success? Joint Meeting of the Washington Chapter of The Wildlife Society and the Washington State Society of American Foresters, Yakima, WA, USA

**2015**

Dellinger, J. A. \*, C. Shores\*, A. Craig\*, and **A. J. Wirsing**. Impact of re-colonizing wolves on mule and white-tailed deer in Washington, USA. 11<sup>th</sup> Biennial Western States and Provinces Deer and Elk Workshop, Canmore, Alberta, Canada

**2014**

Kachel, S. M. \*, T. M. McCarthy, and **A. J. Wirsing**. Snow Leopards, Wolves, and the Ecology of Fear in Central Asia. The Wildlife Society Annual Conference, Pittsburgh, PA.

**2013**

Dellinger, J. A.\*, W. Myers, E. Krausz, M. Marsh, B. Kertson, and **A. J. Wirsing**. Impact of recolonizing wolves on mule and white-tailed deer in Washington. International Wolf Symposium 2013, Duluth, MN

Dellinger, J.\*, **A. Wirsing**, E. Krausz, M. Marsh, W. Myers, and B. Kertson. Impact of recolonizing gray wolves on mule and white-tailed deer in Washington. 10<sup>th</sup> Biennial Western States and Provinces Deer and Elk Workshop, Missoula, MT.

## **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**

#### **2017**

“ESRM 304: Environmental and Resource Assessment” (wildlife module), Summer Quarter, University of Washington

“SEFS 590: Predator-Prey Interactions (graduate seminar)”, 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

#### **2016**

“ESRM 304: Environmental and Resource Assessment” (wildlife module), Summer Quarter, University of Washington

“ESRM 350: Wildlife Biology and Conservation”, Autumn Quarter, University of Washington

#### **2015**

“ESRM 304: Environmental and Resource Assessment” (wildlife module), Summer Quarter, University of Washington

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

“ESRM 455: Wildlife Seminar”, Winter Quarter, University of Washington

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

## **2014**

“ESRM 350: Wildlife Biology and Conservation”, Autumn Quarter, University of Washington

“ESRM 304: Environmental and Resource Assessment” (wildlife module), Summer Quarter, University of Washington

“SEFS 590 B: Behavioral Ecology”, Spring Quarter, University of Washington

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

“ESRM 455: Wildlife Seminar”, Winter Quarter, University of Washington

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

## **2013**

“ESRM 350: Wildlife Biology and Conservation”, Autumn Quarter, University of Washington

“SEFS 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

## **2012**

“ESRM 150: Wildlife in the Modern World”, 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

## **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**

## **2017**

“ESRM 323 – Practical Silviculture”, lecture titled, “Silviculture for wildlife habitat”, University of Washington

“BIOL/SEFS/FISH 567 – Topics in Advance Ecology”, two-part lecture/discussion titled, “Rebound without recovery: the conundrum of recovering depleted species in a world without large predators”, University of Washington

## **2016**

“ESRM 150 – Wildlife in the Modern World”, lecture titled, “Using tiger sharks to restore seagrass meadows”, University of Washington

“ESRM 323 – Practical Silviculture”, lecture titled, “Silviculture for wildlife habitat”, University of Washington

“BIOL 597/497 – Science and Society”, lecture titled, “Responses to predators depend on prey escape behavior: implications for trophic cascades”, Boise State University

## **2015**

“ESRM 304 – Environmental and Resource Assessment (Spring)”, lecture titled, “Censusing wildlife populations”, University of Washington

“ESRM 304 – Environmental and Resource Assessment (Spring)”, lecture titled, “The nature of wildlife populations”, University of Washington

“ESRM 201 – Sustaining Pacific Northwest Ecosystems” (just the two 3-hour labs), University of Washington

“ESRM 351 – Wildlife Research Techniques”, lecture titled, “Sampling large carnivores”, University of Washington

“ESRM 323 – Practical Silviculture”, lecture titled, “Silviculture for wildlife habitat”, University of Washington

“ESRM 201 – Sustaining Pacific Northwest Ecosystems”, lecture titled, “Wildlife in the urban-wildland gradient”, University of Washington (included two 3-hour labs)

## **2014**

“ESRM 304 – Environmental and Resource Assessment (Autumn)”, lecture titled, “Censusing wildlife populations”, University of Washington

“ESRM 304 – Environmental and Resource Assessment (Autumn)”, lecture titled, “The nature of wildlife populations”, University of Washington

“ESRM 150 – Wildlife in the Modern World”, lecture titled, “Using tiger sharks to restore seagrass meadows”, University of Washington

“GENERAL STUDIES 197G – Freshmen Seminar: Exploring Environmental Majors at the UW”, lecture titled, “The ecology of reef sharks in French Polynesia”, University of Washington

“ESRM 304 – Environmental and Resource Assessment (Spring)”, lecture titled, “Censusing wildlife populations”, University of Washington

“ESRM 304 – Environmental and Resource Assessment (Spring)”, lecture titled, “The nature of wildlife populations”, University of Washington

“ESRM 351 – Wildlife Research Techniques”, lecture titled, “Sampling Large Carnivores”, University of Washington

“ESRM 323 – Practical Silviculture”, lecture titled, “Silviculture for wildlife habitat”, University of Washington



“ESRM 201 – Sustaining Pacific Northwest Ecosystems”, lecture titled, “Wildlife in the urban-wildland gradient”, University of Washington (included two 3-hour labs)

“BIOL/SEFS/FISH 567 – Topics in Advance Ecology”, two-part lecture titled, “Responses to predators depend on prey escape behavior: implications for trophic cascades”, University of Washington

## **2013**

“ESRM 304 – Environmental and Resource Assessment (Autumn)”, lecture titled, “Censusing wildlife populations”, University of Washington

“ESRM 304 – Environmental and Resource Assessment (Autumn)”, lecture titled, “The nature of wildlife populations”, University of Washington

“GENERAL STUDIES 197G – Freshmen Seminar: Exploring Environmental Majors at the UW”, lecture titled, “How do snowshoe hares respond to precommercial forest thinning?”, University of Washington

“ESRM 304 – Environmental and Resource Assessment (Spring)”, lecture titled, “Censusing wildlife populations”, University of Washington

“ESRM 304 – Environmental and Resource Assessment (Spring)”, lecture titled, “The nature of wildlife populations”, University of Washington

“BIOL/SEFS/FISH 567 – Topics in Advance Ecology”, two-part lecture titled, “Responses to predators depend on prey escape behavior: implications for trophic cascades”, University of Washington

## **2012**

“ESRM 350 – Wildlife Biology and Conservation”, lecture titled, “Biology and conservation of marine mammals, with special reference to the Pacific Northwest”, University of Washington

“ESRM 350 – Wildlife Biology and Conservation”, lecture titled, “The nutria (*Myocastor coypus*), with notes on some close cousins”, University of Washington

“GENERAL STUDIES 197G – Freshmen Seminar: Exploring Environmental Majors at the UW”, lecture titled, “How do snowshoe hares respond to precommercial forest thinning?”, University of Washington

“ESRM 150 – Wildlife in the Modern World”, lecture titled, “Climate change and biotic interactions: will warming temperatures affect predation on snowshoe hares?”, University of Washington

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

## **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)**

2016-Present PhD Committee Chair, Lauren Satterfield, SEFS, University of Washington

2015-Present MSc Committee Chair, Michael Havrda, SEFS, University of Washington

2014-Present PhD Committee Chair, Apryle Craig, SEFS, University of Washington

2014-Present PhD Committee Chair, Shannon Kachel, SEFS, University of Washington

2013-Present PhD Committee Chair, Clint Robins, SEFS, University of Washington

2013-Present PhD Committee Chair, Carolyn Shores, SEFS, University of Washington

2012-Present PhD Committee Chair, Justin Dellinger, SEFS, University of Washington

2010-Present PhD Committee Chair, Jeffrey Smith, SEFS, University of Washington

2009-Present MSc Committee Chair, Laurel Peelle, SEFS, University of Washington

### **Graduate students (completed)**

2011-2016 Jeff Harris, MSc, SEFS, University of Washington

2010-2015 Linda Uyeda, PhD, SEFS, University of Washington

2013-2014 Kelsey Vitense, MSc, Quantitative Ecology and Resource Management (QERM),  
University of Washington

2011-2013 Kristen Richardson, MSc, SEFS, University of Washington

2010-2013 Jessica Bolis, MSc, SEFS, University of Washington

### **Graduate Committees (active)**

2017-Present MSc Committee Member, Jessica Hale, School of Aquatic and Fishery  
Sciences, University of Washington

2017-Present PhD Committee Member, Samantha Zwicker, School of Environmental and  
Forest Sciences, University of Washington

2016-Present PhD Committee Member, Saethra Fritscher, Department of Psychology,  
University of Washington

2016-Present MSc Committee Member, Alex Lincoln, School of Aquatic and Fishery  
Sciences, University of Washington

2015-Present Peace Corps International Masters (PCMI) Committee Member, Tabatha Rood,  
School of Environmental and Forest Sciences, University of Washington

2014-Present PhD Committee Member, Benjamin Dittbrenner, School of Environmental and  
Forest Sciences, University of Washington

2014-Present PhD Committee Member, Carly Loyer, Department of Psychology, University of  
Washington

2014-Present PhD Committee Member, Rochelle Kelly, Department of Biology, University of

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- 2013-Present PhD Committee Member, Lindsey Nietmann, Department of Psychology, University of Washington
- 2012-Present PhD Committee Member, Tait Bowers, School of Environmental and Forest Sciences, University of Washington
- 2012-Present PhD Committee Member, Kaeli Swift, School of Environmental and Forest Sciences, University of Washington
- 2012-Present PhD Committee Member, Carol Bogezi, School of Environmental and Forest Sciences, University of Washington

## Graduate Committees (completed)

- 2015-2017 Peace Corps International Masters (PCMI) Committee Member, Zak Williams, School of Environmental and Forest Sciences, University of Washington
- 2015-2017 Peace Corps International Masters (PCMI) Committee Member, Jordan Bunch, School of Environmental and Forest Sciences, University of Washington
- 2014-2017 PhD Committee Member, Sarah Faegre, Department of Psychology, University of Washington
- 2015-2017 MSc Committee Member, Tessia Robbins, School of Environmental and Forest Sciences, University of Washington
- 2015-2017 MSc Committee Member, Leif Hansen, School of Environmental and Forest Sciences, University of Washington
- 2017 PhD Committee Member, Alicia Kinney-Clawson, College of Education, University of Washington (\*Late replacement as GSR)
- 2013-2016 Peace Corps International Masters (PCMI) Committee Member, Alia Kroos, School of Environmental and Forest Sciences, University of Washington
- 2015-2016 MSc Committee Member, Amber Mount, School of Environmental and Forest Sciences, University of Washington
- 2012-2015 PhD Committee Member, Lauren Walker, School of Environmental and Forest Sciences, University of Washington
- 2012-2015 PhD Committee Member, Michael Clawson, School of Environmental and Forest Sciences, University of Washington

2012-2015 PhD Committee Member, Curry Cunningham, School of Aquatic and Fishery Sciences, University of Washington

2012-2014 PhD Committee Member, Chloe Bracis, Quantitative Ecology and Resource Management (QERM), University of Washington

2012-2014 PhD Committee Member, Amy Yahnke, School of Aquatic and Fishery Sciences, University of Washington

2012-2013 PhD Committee Member, Adam Hansen, School of Aquatic and Fishery

2010-2013 PhD Committee Member, Morgan Bond, School of Aquatic and Fishery Sciences, University of Washington

2012 PhD Committee Member, Jennifer Griffiths, School of Aquatic and Fishery Sciences, University of Washington (\*Late replacement as GSR)

2010-2012 MSc Committee Member, Christie Galitski, School of Environmental and Forest Sciences, University of Washington

2011-2012 Master of Science in Biology Teaching (MBST) Program Committee Member, Emily Owens, University of Washington

2010-2012 PhD Committee Member, Chris Gast, Quantitative Ecology and Resource Management (QERM), University of Washington

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**

- 2017-Present Thesis (Capstone) Advisor, Tali Hamilton
- 2017-Present Thesis (Capstone) Advisor, Caroline Sullivan
- 2017 Thesis (Capstone) Advisor, Nathan Redon
- 2017 Thesis (Capstone) Advisor, Megan Schenk
- 2017 Thesis (Capstone) Advisor, Alison Wang
- 2017 Thesis (Capstone) Advisor, John Soren Reyes
- 2017 Thesis (Capstone) Advisor, Kathryn Jesser
- 2017 Thesis (Capstone) Advisor, Erin Strand
- 2016 Thesis (Capstone) Advisor, Paris Werner
- 2016 Thesis (Capstone) Advisor, Connor Meyer
- 2015 Thesis (Capstone) Advisor, Lyndsey Smith
- 2015 Thesis (Capstone) Advisor, Christina Mebust-Boscolo
- 2015 Thesis (Capstone) Advisor, Katie Fergot
- 2015 Thesis (Capstone) Advisor, Aurielle Pfeifer
- 2015 Thesis (Capstone) Advisor, Ghee-hee Yang



2015 Thesis (Capstone) Advisor, Sarah Schooler

2015 Thesis (Capstone) Advisor, Emily Chan

2015 Thesis (Capstone) Faculty Advisor, Program on the Environment, Simon Nhan

2014 Thesis (Capstone) Advisor, Travis Fuller

2014 Thesis (Capstone) Advisor, Maria Gamman

2014 Thesis (Capstone) Advisor, Jordan Aragon

2014 Thesis (Capstone) Advisor, Brenna Dart

2014 Thesis (Capstone) Advisor, Ashley Sacco

2014 Thesis (Capstone) Advisor, Tara Wilson

2014 Thesis (Capstone) Advisor, Justin Johnson

2014 Thesis (Capstone) Advisor, Ashley Imhof

2014 Thesis (Capstone) Advisor, Julie Hower

2014 Thesis (Capstone) Advisor, Michael Havrda

2014 Thesis (Capstone) Advisor, Rebbekah Curtin

2014 Thesis (Capstone) Advisor, Emily Chudek

2013 Thesis (Capstone) Faculty Advisor, Program on the Environment, Marika Wegerbuaer

2013 Thesis (Capstone) Faculty Advisor, Program on the Environment, Connie Combs

2013 Thesis (Capstone) Advisor, Ian Riley

2013 Thesis (Capstone) Advisor, Graeme Riggins

2013 Thesis (Capstone) Advisor, Amanda Rasmussen

2013 Thesis (Capstone) Advisor, Grace Teller

2013 Thesis (Capstone) Advisor, Kyla Caddey

2013 Thesis (Capstone) Advisor, Octavia Graham

- 2012 Thesis (Capstone) Advisor, Tiffany Chan
- 2012 Thesis (Capstone) Advisor, Terence Thomas
- 2012 Thesis (Capstone) Advisor, Jazmine Kim
- 2012 Thesis (Capstone) Faculty Advisor, Program on the Environment, Samantha Zwicker
- 2012 Thesis (Capstone) Advisor, Monica White
- 2012 Thesis (Capstone) Advisor, Andrea Nichols
- 2012 Thesis (Capstone) Faculty Advisor, Program on the Environment, Tory Johnson
- 2012 Thesis (Capstone) Advisor, Jessica Gray
- 2012 Thesis (Capstone) Advisor, Russell Pharr
- 2011 Thesis (Capstone) Advisor, Sara Meicho
- 2011 Thesis (Capstone) Advisor, Marlena 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), 91<sup>st</sup> Annual Meeting of the Ecological Society of America

## ACADEMIC DISTINCTIONS AND AWARDS

**2013**

Exemplary Teaching Award, Annual Recognition Event, School of Environmental and Forest Sciences, University of Washington

**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**

2016-Present	SEFS Promotion, Merit, and Tenure (PMT) Committee
2016-Present	Faculty mentor, Doris Duke Conservation Scholars Program (DDCSP), 'Wolf recovery in the Pacific Northwest' conservation practice team project, University of Washington
2016	Faculty Panel Member, International Forestry Students' Association (IFSA) panel comparing forestry and wildlife management practices in Austria and Washington
2016	Panel Member, Ungulate Research Scientist search, Washington Department of Fish and Wildlife
2016	External peer reviewer, Wildlife Program 2015-17 Program Plan Initiative Charter 6 [a document assessing vulnerability of ungulate populations in WA to predation], Washington Department of Fish and Wildlife

2016-Present	SEFS Promotion, Merit, and Tenure (PMT) Committee
2015-Present	Faculty mentor, Doris Duke Conservation Scholars Program (DDCSP), 'Wildlife on the Coastal Margins' conservation practice team project, University of Washington
2014	Peer teaching evaluator for Professor Sharon Doty, ESRM 325 / SEFS 523 "Environmental Applications of Plants: Bioremediation and Bioenergy", University of Washington
2014	Expert commentator, <i>Oregon State University News and Research Communications</i> news release titled, "Aspen recovering as wildlife populations shift in Yellowstone national Park" (article published September 30)
2014-Present	Steering Committee, Doris Duke Conservation Scholars Program (DDCSP)
2013-2015	Elected Faculty Advisory Council (EFAC)
2012	Representative for the School of Environmental and Forest Sciences, College of the Environment "Meet a Scientist" Breakout Session, SACNAS National Meeting, University of Washington
2012	Dissertation reviewer, Ben-Gurion University of the Negev, Israel
2012	Faculty Coordinator, Qualifying Exam for Tait Bowers, Center for International Trade in Forest Products (CINTRAFOR), School of Environmental and Forest Sciences, University of Washington
2012	Referee for the National Park Service George Melendez Wright Climate Change Fellowship Program (reviewed six applications)
2012	Host for Nicholas Dulvy, guest speaker, Bevan Series on Sustainable Fisheries, School of Aquatic and Fishery Sciences, University of Washington
2012	Expert commentator, <i>Associated Press</i> article titled, "Study: Yellowstone wolves helping park trees rebound" (article published January 2)
2012	Expert commentator, <i>Jackson Hole Daily</i> article titled, "Wolves helping aspens" (article published January 2)
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, *USA Today* article titled, “Loss of predators in the food chain can alter the ecosystem” (article published on July 15)
- 2011 Expert commentator, *ScienceNOW* 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 **55** journals: *Acta Theriologica*, *American Midland Naturalist*, *Animal Behaviour*, *Animal Conservation*, *Annales Zoologici Fennici*, *Australian Journal of Zoology*, *Behavioral Ecology*, *Behavioral Ecology and Sociobiology*, *Biological Conservation*, *Biological Invasions*, *Biological Journal of the Linnean Society*, *Biotropica*, *Canadian Journal of Fisheries and Aquatic Sciences*, *Canadian Journal of Forest Research*, *Canadian Journal of Zoology*, *Chelonian Conservation Biology*, *Conservation Biology*, *Ecological Monographs*, *Ecological Research*, *Ecology*, *Ecology Letters*, *Ecoscience*, *Endangered Species Research*, *Ethology*, *Forest Ecology and Management*, *Frontiers in Ecology and the Environment*, *Herpetological Conservation and Biology*, *IBIS*, *Integrative and Comparative Biology*, *Integrative Zoology*, *Journal of Animal Ecology*, *Journal of Experimental Marine Biology and Ecology*, *Journal of Mammalogy*, *Journal of Wildlife Management*, *Knowledge and Management of Aquatic Ecosystems*, *Mammal Study*, *Mammalian Biology*, *Marine Biology*, *Marine Ecology Progress Series*, *Marine and Freshwater Research*, *Marine Mammal Science*, *Nature Ecology and Evolution*, *Naturwissenschaften*, *Oecologia*, *Oikos*, *Physiological and Biochemical Zoology*, *PLoS ONE*, *Polar Biology*, *Scientific Reports*, *Southeastern Naturalist*, *Wildlife Biology*, *Wildlife Research*, *Wildlife Society Bulletin*, *WIREs Water*
- 2002-Present Grant reviewer for National Geographic Society Committee for Research and Exploration (CRE), CRE Young Explorers program, National Marine Fisheries Service (NMFS), National Science Foundation (Biological Oceanography, Division of Environmental Biology [Long-Term Research in Environmental Biology, LTREB; Opportunities for Promoting Understanding Through Synthesis, OPUS; Population and Community Ecology Cluster), Oregon Sea Grant, University of Washington Royalty Research Fund (RRF)
- 2001 Participant, Burnaby Mountain Biodiversity Challenge, Simon Fraser University

2000 Graduate student representative, 5<sup>th</sup> Year Review Committee for Dr. Kerry Reese, University of Idaho

## PUBLIC EDUCATION AND OUTREACH

- 2017 Featured speaker for “Science and a Movie presents *Jaws*”, a collaboration between the Pacific Science Center and Central Cinema that allows moviegoers to learn how science relates to classic cinema; talk titled, “Tiger sharks keep seagrass ecosystems healthy by scaring sea turtles”,
- 2017 Featured co-author for a Spokane Public Radio broadcast titled, “Study: to mitigate problem predators, give wolves more space, tolerance”, based on paper published in *Nature Communications*
- 2017 Panelist for the College of the Environment’s Center for Creative Conservation event titled, “Earthgames on Tap”, University of Washington
- 2017 Panelist for the College of the Environment’s *Amplify* event titled, “Communicating science in a world with differing values”, University of Washington
- 2017 Featured Faculty for the College of the Environment’s *Labs Unlocked* event; exhibit titled, “Top dog: how the reemergence of gray wolves in Washington shapes our diverse landscapes”, University of Washington
- 2017 Expert contributor to BBC *CrowdScience* broadcast titled, “Why are cats loners?” (<http://www.bbc.co.uk/programmes/p04skkw1>)
- 2016 Panelist for forum on wolf conservation titled, “Crying wolf in Washington State: Unraveling out complicated relationship with wolves”, hosted by the Woodland Park Zoo
- 2016 Featured biologist for educational video titled, “Ecology of Fear: Wolf v Deer”, produced in collaboration with Symbio Studies for use at multiple grade levels as part of the Houghton Mifflin ScienceFusion Program
- 2014 Research featured in a PBS Quest documentary titled, “Wolves and the Ecology of Fear”, which was awarded a 2014 American Association for the Advancement of Science (AAAS) Kavli Science Journalism Award in the 'Spot News/Feature Reporting' category
- 2014 Wolf research profiled in article titled, “Predator feared but essential”, *Mercer Island Reporter*

- 2014 Wolf research profiled in article titled, “Washington wolves: after 80 year absence, the pack is back”, *The Daily* (of the University of Washington)
- 2014 Wolf research project featured in a blog titled, “Exclusive: collar camera records deer predation by cougar”, *American Hunter* magazine
- 2014 Host and moderator for a panel on gray wolf research and management in the Pacific Northwest co-sponsored by the Pacific Wolf Coalition, University of Washington, Seattle, WA
- 2014 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
- 2012 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
- 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 (total of roughly 96 talks)