Joe Roman

Curriculum vitae

CONTACT INFORMATION

Museum of Comparative Zoology
Department of Organismic and Evolutionary Biology
Harvard University
26 Oxford Street
Cambridge, MA 02138 USA
jroman@uvm.edu
www.joeroman.com

EDUCATION

Harvard University, Cambridge, MA, 2003 Ph.D., Organismic and Evolutionary Biology

University of Florida, Gainesville, FL, 1997 Master of Science, Wildlife Ecology and Conservation

Harvard College, Cambridge, MA, 1985 Bachelor of Arts, magna cum laude, Visual and Environmental Studies

PRESENT POSITIONS

Sarah and Daniel Hrdy Visiting Fellow in Conservation Biology, Harvard University

Mary Derrickson McCurdy Visiting Scholar, Duke University Marine Laboratory

Fellow, Gund Institute for Ecological Economics, University of Vermont

Research Associate, Rubenstein School for the Environment and Natural Resources, University of Vermont

SELECTED PUBLICATIONS

Refereed journal articles

Doughty, C. E., J. Roman, S. Faurby, A. Wolf, Y. Malhi, J.-C. Svenning. Global nutrient transfer in a world of giants. *Proceedings of the National Academy of Sciences*. Invited.

Morissette, L., J. Roman, and D. Beauchesne. Risk and resilience in baleen whales. *PLoS ONE*. In revision.

Roman, J., M. Dunphy-Daly, D. W. Johnston, and A. J. Read. Lifting baselines to address the consequences of conservation success. *Trends in Ecology and Evolution*. In press.

- Sanders, J. A. Beichman, J. Roman, J. Scott, D. Emerson, J. McCarthy, P. Girguis. The whale gut microbiome digests animal prey using pathways common in terrestrial herbivores. *Nature Communications*. In revision.
- Boumans, R., J. Roman, I. Altman, and L. Kaufman. 2015. The Multiscale Integrated Model of Ecosystem Services (MIMES): Simulating the interactions of coupled human and natural systems. *Ecosystem Services* 12: 30-41.
- Roman, J., J. Estes, L. Morrisette, C. Smith, D. Costa, J. McCarthy, J. B. Nation, S. Nicol, A. Pershing, and V. Smetacek. 2014. Whales as marine ecosystem engineers. *Frontiers in Ecology and the Environment* 12:377-385.
- Altman, I., R. Boumans, J. Roman, S. Gopal, and L. Kaufman. 2014. An ecosystem accounting framework for marine ecosystem-based management. *The Sea: Marine Ecosystem-Based Management* **16**: 245-276.
- Darling, J., A. Blakeslee, E.Yi-Hsin, and J. Roman. 2014. Are genes faster than crabs? Mitochondrial introgression exceeds larval dispersal during population expansion of the invasive crab *Carcinus maenas*. *Royal Society Open Science* 1: 140202.
- Thomas, T. M., M. C. Granatosky, J. R. Bourque, K. L. Krysko, P. E. Moler, T. Gamble, E. Suarez, E. Leone, and J. Roman. 2014. Taxonomic assessment of alligator snapping turtles (Chelydridae: *Macrochelys*), with the description of two new species from the southeastern United States. *Zootaxa* **3786**: 141-165.
- Roman, J., I. Altman, M. Dunphy-Daly, C. Campbell, M. Jasny, and A. Read. 2013. The Marine Mammal Protection Act at 40: Status, recovery, and future of U.S. marine mammals. *Annals of the New York Academy of Sciences* **1286**: 29-49. Roman et al. 2013 was adapted and reprinted in 2014 in the *Renewable Resources Journal* **28 (3)**: 7-15.
- Pringle, J., J. E. Byers, A. Blakeslee, and J. Roman. 2011. An upstream retention zone drives downstream diversity. *Proceedings of the National Academy of Sciences* **108**: 15288-15293.
- Jacquet, J., I. Boyd, J. T. Carlton, H. Fox, A. E. Johnson, L. Mee, J. Roman, M. Spaulding, and W. J. Sutherland. 2011. Scanning the oceans for solutions. *Solutions* **2(1)**: 46-55.
- Simberloff, D., and 140 signatories including J. Roman. 2011. Non-natives: 141 scientists object. *Nature* 475: 36.
- Roman, J. and J. J. McCarthy. 2010. The whale pump: marine mammals enhance primary productivity in a coastal basin. *PLoS ONE* **5(10)**:e13255.

- Roman, J., T. Croner, L. Forcier, W. Raap, W. Jackson. 2010. Perennial agriculture: Roots of sustainability. *Solutions* **1(3):**23-26.
- Blakeslee, A., J. E. Byers, J. Darling, J. Pringle, and J. Roman. 2010. A hitchhiker's guide to the Maritimes: anthropogenic transport facilitates long-distance dispersal of an invasive marine crab to Newfoundland. *Diversity and Distributions* **16**:879-891.
- Roman, J., P. E. Ehrlich, R. Pringle, J. A. Avise. 2010. Facing extinction: Nine steps to save biodiversity, *Solutions* **1 (1)**:32-45.
- Pongsiri, M. J.,* J. Roman,* V. O. Ezenwa, T. L. Goldberg, H. S. Koren, S. C. Newbold, R. S. Ostfeld, S. K. Pattanayak, D. J. Salkeld. 2009. Biodiversity loss affects global disease ecology. *Bioscience* **59**:945-954 (*co-lead authors).
- Echelle, A. A, J. C. Hackler, J. B. Lack, S. R. Ballard, J. Roman, S. F. Fox, D. M. Leslie, Jr., and R. A. Van Den Bussche. 2009. Conservation genetics of the alligator snapping turtle: cytonuclear evidence of range-wide bottleneck effects and unusually pronounced geographic structure. *Conservation Genetics* **11**:1375-1387.
- Darling, J. A., M. J. Bagley, J. Roman, C. K. Tepolt, J. B. Geller. 2008. Genetic patterns across multiple introductions of the globally invasive crab genus *Carcinus*. *Molecular Ecology* 17:4992–5007.
- Roman, J., and J. Darling. 2007. Paradox lost: genetic variation and the success of aquatic invasions. *Trends in Ecology and Evolution* **22**:454-464.
- Pongsiri, M., and J. Roman. 2007. Examining the links between biodiversity and human health: an interdisciplinary research initiative at the U.S. Environmental Protection Agency. *EcoHealth* **4**:82-85.
- Roman, J. 2006. Diluting the founder effect: cryptic invasions expand a marine invader's range. *Proceedings of the Royal Society: Biological Sciences* **273**:2453-2459.
- Bowen, B. W., and J. Roman. 2005. Gaia's handmaidens: The Orlog principle of conservation biology. *Conservation Biology* **19**:1037-1043.
- Rocha, L. A., D. R. Robertson, J. Roman, and B. W. Bowen. 2005. Ecological speciation in tropical reef fishes. *Proceedings of the Royal Society: Biological Sciences*, **272:**573-579.
- Palumbi, S. R., and J. Roman. 2004. Counting whales in the North Atlantic: Response to Holt and Mitchell. *Science* **303:**40.
- Roman, J., and S. R. Palumbi. 2004. A global invader at home: population structure of the green crab, *Carcinus maenas*, in Europe. *Molecular Ecology* **13:**2891-2898.

- Roman, J., and S. R. Palumbi. 2003. Whales before whaling in the North Atlantic. *Science* **301:**508-510.
- Roman, J., and B. W. Bowen. 2000. The mock turtle syndrome: genetic identification of turtle meat purchased in the southeast United States. *Animal Conservation* **3:**61-65.
- Farrell, L., J. Roman, and M. Sunquist. 2000. Dietary separation of carnivores identified by molecular analysis of scats. *Molecular Ecology* **9:**1583-1590.
- Roman, J., D. Walker, and B. W. Bowen. 1999. Genetic tools for forensic identification of snapping turtle (*Macroclemys temminckii* and *Chelydra serpentina*) products in commercial trade. *Herpetological Review* **30:**218-219.
- Roman, J., S. D. Santhuf, P. E. Moler, and B. W. Bowen. 1999. Population structure and cryptic evolutionary units in the alligator snapping turtle. *Conservation Biology* **13:**135-142.

Book chapters, reports, and encyclopedia entries

- P. Balvanera, D. S. Karp, N. Ash, E. Bennett, R. Boumans, C. Brown, K. Chan, R. Chaplin-Kramer, B. S. Halpern, J. Hony-Roses, C. Kim, W. Cramer, M. J. Martínez Harms, H. Mooney, T. Mwampamba, J. Nel, S. Polasky, S. Quijas, B. Reyers, J. Roman, W. Turner, R. J. Scholes, H. Tallis, K. Thonicke, F. Villa, M. Walpole, A. Walz. 2014. Ecosystem Services. GEO Handbook on Biodiversity Observation Networks. In press.
- Roman, J. 2013. Contributor to *A Wild Success: The Endangered Species Act at 40*, Endangered Species Coalition, Washington, DC: p. 55.
- Roman, J., B. Hartl, J. Fitzgerald, T. Croner. 2012. Comments by the Society for Conservation Biology's North America Section Regarding the Economic Analysis of the Revised Critical Habitat for the Northern Spotted Owl, submitted to the U.S. Fish and Wildlife Service, July 6.
- Costanza, R, I. Kubeszewksi, J. Roman, P. Sutton. 2011. Changes in ecosystem services in low-lying coastal areas over the next fifty years, in *Migration and Global Environmental Change*. UK Government Office for Science, London: D7 (peer reviewed).
- Roman J., J. Jacquet, J. Jackson, N. Knowlton. 2010. Editors of the special Oceans Issue of *Solutions*. 2: 3.
- Roman, J. 2009. Whales and whaling. In *The Encyclopedia of Islands*, R. Gillespie and D. Clague, editors. Berkeley, CA: University of California Press.
- Roman, J. 2008. Aquatic invasive species. M. McClary, Jr., topic editor. In *Encyclopedia of Earth*, Cutler J. Cleveland, editor. Washington, DC: Environmental

Information Coalition, National Council for Science and the Environment (peer-reviewed).

Roman, J. 2008. Whale communication and culture. K. J. Caley, topic editor. In *Encyclopedia of Earth*, Cutler J. Cleveland, editor. Washington, DC: Environmental Information Coalition, National Council for Science and the Environment (peer-reviewed).

Palumbi, S. R., and J. Roman. 2006. The history of whales read from DNA. In *Whales, Whaling, and Ocean Ecosystems*, J. A. Estes, D. P. DeMaster, D. F. Doak, T. M. Williams, and R. L. Brownell, Jr., editors. Berkeley, CA: University of California Press, 102-115 (peer-reviewed).

Slay, C. K., Swartz, S. L., Knowlton, A. R., Kenney, R. D., Martin, S. Roman, J., Martinez, A., and Tobias, J. 2000. Mitigating right whale vessel collisions: VHF-Radio tracking of a North Atlantic right whale (*Eubalaena glacialis*) female and calf in the calving ground. Miami, FL: Southeast Fisheries Science Center Reports, NMFS.

Books and monographs

Roman, J. 2011. *Listed: Dispatches from America's Endangered Species Act.* Harvard University Press.

Roman, J. 2006. *Whale*. London: Reaktion. (Spanish edition, Editorial Melusina, 2008. Arabic edition, Kalima, 2012.)

Roman, J. 2003. Tracking anthropogenic change in the North Atlantic with genetic tools. Ph.D. thesis, Harvard University.

Blanchard, P., and J. Roman. 1998. *Jamaica Bay Coastal Habitat Restoration Project*. New York: New York City Audubon Society.

Roman, J. 1997. Cryptic evolution and population structure in the alligator snapping turtle (*Macroclemys temminckii*). Masters thesis, University of Florida.

Roman, J. 1993. Octavio Paz. New York: Chelsea House.

Roman, J. 1991. Pablo Neruda. New York: Chelsea House.

Roman, J. 1990. King Philip, Wampanoag Rebel. New York: Chelsea House.

Feature Articles, Op-Eds, Blogs

Editor 'n' Chef, Eat The Invaders website, www.eattheinvaders.org, 2011-present.

"Leading Environmentalists Reflect on Senator Gaylord Nelson's Eloquent Launch of Earth Day," *EarthDesk*, April 22, 2014 (with Andrew Revkin, Carl Safina, and others).

- "Eating the Invaders," UVM Food Feed Blog, April 15, 2014.
- "Can We Save the Bluefin Tuna?" Solutions, October 2013 (with Frank Zelko).
- "Can the Plover Save New York?" Slate, August 23, 2013.
- "Fishing with Dolphins." Slate, January 31, 2013.
- "Invasive Species: If You Can't Beat 'Em, Eat 'Em." Yes! Magazine, Winter 2013.
- "The Wild American Dream." American Constitution Society Book Talk, October 20, 2011
- "Finding the Genes That Fit." Conservation Magazine, Fall 2011.
- "Why Whales?" Harvard Magazine, May 2011.
- "The Perfect Spill: Solutions for Averting the Next *Deepwater Horizon*." 2011. *Solutions* 1(5), 42-43 (by R. Costanza, D. Batker, J. W. Day, R. Feagin, M. L. Martinez, and J. Roman).
- "Sniffing for Whales." Muse, February 2009.
- "Tinkering with Our Oceans." Blue Ridge Press, July 28, 2008.
- "Of Whales and War." San Francisco Chronicle, February 14, 2008.
- "A Whooping Success." Wildlife Conservation, June 2007.
- "Deep Doo-Doo: You Can Learn a Lot about a Whale from Its Feces." *New Scientist*, December 23, 2006. Reprinted in *How to Make a Tornado* (Mick O'Hare ed., 2009), a collection of the strangest scientific endeavors, drawn from the archives of *New Scientist*.
- "Bon Appétit." Conservation in Practice, January-March 2006.
- "Sharks Help Maintain Health of the Oceans." *Wall Street Journal*, September 20, 2005.
- "We Shall Eat Them on the Beaches." New Scientist, September 10, 2005.
- "The Sweet Song of Spring: 'Ribbit.'" The New York Times, May 6, 2005.
- "The Tortugas, Last Stop U.S.A." *The New York Times*, April 1, 2005.
- "Where Bright Lights and Night Life Are Nature's Doing." The Sunday New York

Times, March 6, 2005.

"Along the Potomac, Bald Eagles Soar Once More." *The New York Times*, November 19, 2004.

"Eat the Invaders!" Audubon, September 2004.

"A Place Where All the Snowflakes Are Still Different." *The New York Times*, January 2, 2004.

"Who Needs Baseball? Birders Have Their Own Fall Classic." *The New York Times*, October 3, 2003.

"Romance of the Horseshoe Crab." The New York Times, June 13, 2003.

"The Panther's New Genes." Wildlife Conservation, January 2003.

"Stalking the Mock Turtle." *New Scientist*, September 7, 2001. With co-author Brian Bowen.

"Seeing Spots." Wildlife Conservation, June 2001.

"Is the Right Whale Going Down?" Wildlife Conservation, June 2000.

"Fishing for Evidence." Audubon, February 2000.

Book reviews

The selfless geneticist. 2007. Conservation Biology, 21:1378-1379.

GRANTS, FELLOWSHIPS, AND AWARDS

Mary Derrickson McCurdy Visiting Scholarship, Duke University Marine Laboratory, 2015 (\$35K).

Pearson, H., T. Haynes, J. Roman, J. Warren. The Role of Avian Predators in Nutrient Transport in a Glacially Fed Southeast Alaska Estuarine Ecosystem, Angus Gavin Migratory Bird Research Grant (\$10K).

Roman, J. (PI). Gund Institute for Ecological Economics, Collaborating Faculty Funds for Lifting Baselines workshop and analysis of conservation success 2014-15 (\$10K).

Sarah and Daniel Hrdy Visiting Fellow in Conservation Biology, Harvard University, 2014-15 (\$110K).

Sitka Sound Science Center, Scientist in Residence, 2014 (\$10K).

Alvez, J., J. Roman, J. Barlow, and J. Kraft. Forage diversity and cattle well-being. Sustainable Agriculture Research and Education Grant, USDA, Co-PI (\$13K)

National Science Foundation Research Experiences for Undergraduates. Interdisciplinary Research on Human Impacts in the Lake Champlain Ecosystem, one of twelve Co-PIs, 2014-17 (\$319K).

Mary Derrickson McCurdy Visiting Scholarship, Duke University Marine Laboratory, 2013-14 (\$50K).

Roman, J. (PI), and J. Erickson. Vermont Agency of Natural Resources, The Economics of Conservation (\$50K).

Roman, J. (PI), J. Barlow, J. Alvez, and J. Erickson. University of Vermont, REACH Grant, to research impacts of biodiversity on cattle wellbeing, 2013-14 (\$50K).

Kavli Fellow, National Academy of Sciences, 2012.

Rachel Carson Environment Book Award for *Listed: Dispatches from America's Endangered Species Act*, Society for Environmental Journalists, 2012. *Listed* has also been chosen as required reading for the Duke Environmental Leadership Program and the University of Florida's Levin College of Law Environmental Capstone Course.

Fulbright Award to Brazil, Federal University of Santa Catarina, 2011-12 (\$40K).

Roman, J. (PI). Natural Resources Defense Council, Endangered Oceans Project, 2011-12 (\$25K).

Roman, J. (PI). Gund Institute for Ecological Economics, Collaborating Faculty Funds for Biodiversity and Cattle Workshop, 2012 (\$10K).

Roman, J. (PI). Gund Institute for Ecological Economics, Collaborating Faculty Funds for Raising Whales Workshop, 2011 (\$10K).

Roman, J. (PI), J. McCarthy, & H. Koopman. Marine Mammal Commission. The whale pump: marine mammals and primary productivity in the Bay of Fundy. 2011-12 (\$50K).

Kaufman, L. (PI), & J. Roman (Co-PI at UVM). Massachusetts Oceans Partnership. Spatial Modeling and Decision Support for Integrated Multi-Use Ocean Management in Massachusetts. In charge of project supervision and marine modeling. 2009-12 (\$300K).

Byer, J., J. Pringle, & J. Roman. Census of Marine Life Grant. Invasive Species Trouble Spots: Tracking the Spread of European Green Crabs in the Gulf of Maine from an Upstream Retention Zone. 2007-09 (\$20K).

Fish, D (PI), Pongsiri, M., & Roman, J. Advanced Monitoring Initiative, USEPA. Integrating Earth Observation and Field Data into a Lyme Disease Model to Map and Predict Risks to Biodiversity and Human Health. 2007-09 (\$250K).

Ucross Foundation Residency, Ucross, Wyoming, 2008.

Visiting Fellow. Gund Institute for Ecological Economics, University of Vermont. 2006-08.

Science and Technology Policy Fellowship. American Association for the Advancement of Science. 2005-07.

Whiteley Center Fellow. Friday Harbor Laboratories, University of Washington. 2003.

Mia J. Tegner Memorial Research Grant in Marine Environmental History and Historical Ecology. Marine Conservation Biology Institute. 2001 (\$10K).

Notable Science and Nature Writing. *Best American Science and Nature Writing 2000*. "Fishing for Evidence" and "Is the Right Whale Going Down?"

National Science Foundation Graduate Fellowship. 1996-2001.

Bowdoin Prize for Essay in Natural Sciences. Harvard University. 2000 (\$5K).

Graduate Student of the Year. Department of Wildlife Ecology and Conservation, University of Florida. 1996-97.

Chicago Zoological Society, Conservation and research funding for alligator snapping turtle research project. 1996 (\$5K).

Mayoral Citation of Honor. New York City. For work with New York City Audubon Society and City Volunteer Corps. 1993.

New York Public Library Best Book for Teens. Pablo Neruda. 1991.

George Peabody Gardner Traveling Fellowship, 1985-86.

EXPERIENCE

Recent Positions

Sitka Sound Science Center, Scientist in Residence

Fulbright Fellow, Universidade Federal de Santa Catarina, Brazil, 2011-12.

Founding and senior editor of *Solutions Journal*, 2008 to 2011.

Research Associate, New England Aquarium, 2008 to 2011.

Science and Technology Policy Fellowship, American Association for the Advancement of Science, 2005 to 2007.

Courses

Marine Conservation Biology, Harvard University (2015).

Sitka Through the Lens of Time: A Naturalist's Writing Workshop, Sitka Fine Arts Camp (2014).

From Cows to Sea Cows: A Travel Course to Cuba, a joint class with Duke University, University of Havana, and University of Vermont (2014).

Marine Ecology and Conservation, University of Vermont (2010, 2011, 2013, 2014).

Which Fish? How Do People Make Choices About the Fish They Buy? Duke University (2013)

Biodiversity and Cattle Well-being, University of Vermont (2013).

Marine Ecosystem Tradeoffs: A Travel-Study to the Gulf of Maine, University of Vermont (2011).

Policy

Testimony: US House of Representatives, Committee on Natural Resources, on the benefits of the Endangered Species Act, December 12, 2013.

Vermont representative, National Ocean Council Regional Planning Body, appointed by governor, 2012 to present.

Reviewed all US marine mammal populations for Natural Resources Defense Council to identify potential candidates for listing under the Endangered Species Act or depleted status under the Marine Mammal Protection Act. Status reports prepared for Hawaiian populations of the melon-headed whale, pygmy killer whale, and roughtoothed dolphin.

Developed, with co-lead Montira Pongsiri, a research program on biodiversity and human health at the US Environmental Protection Agency, 2006 to 2010 (es.epa.gov/ncer/biodiversity/).

Helped draft the EPA's multiyear plan for ecosystem services at the Office of Research and Development, 2006.

Helped draft requests for proposals at the National Center for Environmental Research, including:

- 1. Ecological impacts from the interactions of climate change, land-use change, and invasive species: a joint research solicitation from EPA and USDA, 2005
- 2. Enhancing ecosystem services from agricultural lands: developing tools for quantification and decision support, 2006
- 3. Examining the links between biodiversity and human health: a multidisciplinary approach, 2007

Selected field research

Cattle foraging and microbial diversity, Choiniere Family Farm, Highgate, Vermont, 2014

Nutrient cycling in marine mammals, Grand Manan Island, New Brunswick, Canada, 2011

Humpback tagging and nitrogen cycling, Stellwagen Bank National Sanctuary, 2008, 2009, 2011

Comparative conservation approaches, South Africa and Rwanda, 2007

Post-Katrina assessment, Louisiana wetlands, 2006

Green crab invasions, New England and Canadian Maritimes, 2002, 2000

European green crab phylogeography, Britain, Netherlands, Germany, Sweden, Norway, Faeroe Islands, Spain, Portugal, 2001

Whale-meat market surveys and genetic analysis, Japan, 1999

Turtle-meat market surveys and genetic analysis, Louisiana, 1995, 1998

Puma and jaguar radio-tracking and fecal sampling, Venezuela, 1996

Alligator snapping turtle phylogeography, Florida to Louisiana, 1996

Right whale nursery, aerial surveys and radio tags, Florida, 1995-96

Right whale feeding grounds, photo-identification, Bay of Fundy, 1994-98

Teaching fellow

Biology of Marine Organisms, Harvard University, 2000.

Organismic and Evolutionary Biology, Harvard University, 1999.

Wildlife Ecology and Management, University of Florida, 1996.

Editor

Freelance line editor, copy editor, and translator for various publishers, including HarperCollins, Houghton Mifflin, Hyperion Books for Children, Random House, Facts on File, Walker and Co, 1988 to 2005.

Biological scientist

Fisheries and Aquatic Sciences, University of Florida, 1998-99.

Research assistant

North Atlantic Right Whale Research Project, New England Aquarium, 1993-98.

Coastal resources manager

New York City Audubon Society, 1992-93.

PRESENTATIONS

Invited lectures

- New England Society of American Foresters, "From Walden to Wal-Mart: Biodiversity and Economics in the Northern Forest." Fairlee, VT, March 26, 2015.
- Bates College, "Harboring Diversity: Genetic Variation, Propagule Pressure, and the Establishment and Spread of the Green Crab in North America," Lewiston, ME, March 12, 2015.
- Harvard Museum of Natural History, "Whale Conservation and the Future of the Oceans," Cambridge, MA, February 17, 2015.
- Harvard Forest Seminar Series, "Raising Whales: Cetaceans as Marine Ecosystem Engineers," Harvard Forest, Petersham, MA, December 5, 2014.
- International Wildlife Trafficking: Law and Policy, keynote address on the Endangered Species Act, Quinnipiac University, North Haven, CT, November 8, 2014.
- Loon to Lynx: Celebrating the Fortieth Anniversary of the Endangered Species Act, keynote address, "The Wild American Dream," Burlington, VT, October 24, 2014.
- Osher Lifelong Learning Institute, "Raising Whales: How Cetaceans Engineer the Oceans," St. Johnsbury, VT, October 16, 2014.
- Vermont Agency of Natural Resources Leadership Meeting, "Economics of Conservation in Vermont," Montpelier, VT, August 11, 2014.
- Rockfall Foundation, "Where the Wild Things Are!" Middletown, CT, May 13, 2014.
- Starksboro Village Meeting House, "Eat the Invaders: Fighting Invasive Species One Bite at a Time," Starksboro, VT, April 25, 2014.
- Mystic Seaport Adventure Series, "Raising Whales: How the Recovery of Cetaceans Can Help Restore the Oceans," Mystic, CT, March 20, 2014.
- Coastal Science Café, "The Wild American Dream at 40: Stopping Extinction in the United States," Atlantic Beach, NC, January 6, 2014.
- Duke University Marine Lab, "Raising Whales: Cetaceans as Marine Ecosystem Engineers," Beaufort, NC, September 4, 2013.
- International Congress for Conservation Biology, "Applying ecosystem service valuation tools to environmental policy and decision-making," symposium on valuing the environment for decision-makers and stakeholders from Maryland's Genuine Progress Indicator to nation's accounts, Baltimore, Maryland, July 25, 2013.
- Communicating Science Conference, "Writing for a Cause," Microsoft NERD Center, Cambridge, MA, June 13, 2013
- United States Society for Ecological Economics, "Marine Spatial Planning through Ecosystem-based Management," Burlington, VT, June 10, 2013.
- Queens College of the City of New York, "Harboring Diversity: Genetic Variation, Propagule Pressure, and the Establishment and Spread of Coastal Invaders," Biology Department Colloquium, Queens, NY, May 15, 2013.
- Roanoke College, "Raising Whales: How Cetaceans Can Restore the Oceans" and "A Fork in the Road: Where Science and Poetry Meet," Roanoke, VA, April 4 and 5, 2013.
- Montpelier Unitarian Church, Clark Lecture Series, Montpelier, VT, February 17, 2013.
- Mid-Atlantic Horticulture Short Course, "The Endangered Species Act: What Have We

- Learned?" and "Invasives on the Menu: Aquatic Appetizers & Weedy Greens," Newport News, VA, February 7, 2013.
- Osher Lifelong Learning Institute, "Raising Whales: How Cetaceans Engineer the Oceans," Stowe, VT, February 6, 2013.
- University of Florida Levin College of Law, Environmental Capstone Colloquium, January 31, 2013.
- Gund Institute for Ecological Economics, University of Vermont, "Raising Whales: How Cetaceans Engineer Oceans." Burlington, VT, November 16, 2012.
- National Academy of Sciences, Kavli Frontiers of Science Symposium, "Whales as marine ecosystem engineers," Irvine, CA, November 2-4, 2012 (*poster and presentation*).
- Williams College, "Eat the Invaders," Williamstown, MA, October 26, 2012 (with sustainable sushi chef Bun Lai).
- Society for Environmental Journalists, "How to Write the Book You Want," Lubbock, TX, October 20, 2012.
- Mystic Seaport, "Raising Whales: Advances in Cetacean Ecology," Mystic, CT, October 16, 2012.
- Duke Environmental Leadership Program, Environmental Leadership Series, Durham, NC, August 14, 2012.
- Center of Agricultural Sciences, Federal University of Santa Catarina, Florianópolis, Brazil, "Perda de biodiversidade e ecologia global da doença," June 27, 2012 (in Portuguese).
- Center of Biological Sciences, Federal University of Santa Catarina, Florianópolis, Brazil, "Raising Whales: New Research in Cetacean Ecology," June 18, 2012.
- Capitol Hill Ocean Week, "What's a Whale Worth? How Ocean Industry Adapts to New Economic Realities," Washington, DC, June 6, 2012.
- Conservation Remix, "Invasive Species Cuisine," Seattle, WA, June 2, 2012.
- Rockfall Foundation, Earth Day Seminar, Middletown, CT, April 24, 2012.
- Middlesex Community College, "The Wild American Dream: Stopping Extinction in the U.S." Middletown, CT April 24, 2012.
- North Carolina Center for Biodiversity, East Carolina University, Greenville, NC, April 19, 2012.
- Cary Institute of Ecosystem Studies, "Raising Whales: Cetaceans as Ocean Engineers," Millbrook, NY, January 19, 2012.
- Aquarium of the Pacific, "Raising Whales: Cetaceans as Ocean Engineers," Long Beach, CA, September 28, 2011.
- Association for Environmental Studies and Sciences, "Raising Whales: Advances in Cetacean Ecology," Burlington, VT, June 24, 2011.
- American Association for the Advancement of Science, "Listed, Delisted, Waitlisted" (with Sylvia Fallon, NRDC), Washington, DC, May 24, 2011.
- Aquatic Ecology and Watershed Science and Graduate Student Seminar, University of Vermont, Burlington, April, 21, 2011.
- International Conference on Oceans, Climate Change, and Sustainable Development, Pacem in Maribus XXIII, Beijing, China, September 3, 2010.
- International Marine Conservation Congress, Conservation science at the land-sea interface: Applying decision support tools to resource management, "Ecosystem service

- trade-offs at the land-sea interface," George Mason University, Fairfax, Virginian, May 21, 2009.
- Darwin Week, "Darwinian Perspectives on Global Climate Change," invited panelist, Carleton University, Ottawa, Ontario, Canada, February 12, 2009.
- Dunlevie Lecture for the University of Florida Honors Program. "The Sea Is History." Harn Museum of Art, Gainesville, FL, October 9, 2008.
- Ecological Society of America, special session on propagule pressure and nonnative invasion success and impacts, "Genetic Variation, Propagule Pressure, and the Establishment and Spread of Invasive Species," San Jose, CA, August 7, 2007.
- Society of Conservation Biology, Biodiversity and Health Symposium, Port Elizabeth, South Africa, July 5, 2007 (presenter and session organizer).
- Scripps Institute of Oceanography, Graduate Departmental Seminar, "The Sea Is History: Tracking Anthropogenic Change in the North Atlantic," San Diego, April 23, 2007.
- Carleton University, Biology Departmental Seminar, "Diluting the Founder Effect: Genetic Variation and the Expansion of a Marine Invader's Range in the Canadian Maritimes," Ottawa, ON, Canada, February 15, 2007.
- University of Vermont, Gund Institute for Ecological Economics, "Raising Whales: From Goods to Ecosystem Services," Burlington, VT, December 8, 2006.
- Boston University, Biology Departmental Seminar, "Raising Whales: Whaling, Genetic Diversity, and Nutrient Cycling in the North Atlantic," Boston, MA, December 6, 2006.
- American Public Health Association, 134th Annual Meeting & Exposition, Biodiversity, Ecosystems, and Human Health, Boston, MA, November 7, 2006 (*lecturer, panelist, and session organizer*).
- 31st Annual Whaling History Symposium, "Thirteen Ways of Looking at a Black Whale: From Whaling to Watching," New Bedford Whaling Museum, MA, October 15, 2006.
- 11th World Congress on Public Health, World Federation for Public Health Associations, and Brazilian Association of Collective Health, Biodiversity and Human Health Session, Rio de Janeiro, August 24, 2006 (*lecturer, panelist, and session organizer*).
- 29th Annual Whaling History Symposium, "Reading History in DNA: Genetic Diversity and Whale Abundances in the North Atlantic," New Bedford Whaling Museum, MA, October 16, 2004.
- Harvard Alumni Association, trip leader and lecturer, Exploring the Eastern Caribbean, January 2004.
- Symposium on the Status and Conservation of Florida Turtles, "From Bourbon Street to the Sushi Bar," St. Petersburg, FL, 1999.

Workshops and Review Panels

- Walmart to Walden Pond: The Economic Incentive for Conservation, Montpelier, VT, October 30, 2014 (*presenter, moderator, co-organizer*).
- Eating Invasives, Chefs Collaborative Sustainable Food Summit, Boulder, Colorado, September 29, 2014 (presenter, moderator, co-organizer).
- From Ridges to Reefs: Agroecology and Marine Conservation in Cuba, University of Havana, March 3, 2014 (*co-organizer*).

- Biodiversity and Cattle Well-being, University of Vermont, March 7-9, 2013 (*organizer*).
- Science Charette. Thirty-eighth Voyage of the *Charles W. Morgan*, Mystic Seaport, October 15, 2012.
- In the Wake of the Whalers: Thirty-eighth Voyage of the *Charles W. Morgan*. Mystic Seaport, January 12-13, 2012.
- Endangered Species Protection in the United States. Association for Environmental Studies and Sciences, round table, June 24, 2011 (*coordinator*).
- Raising Whales: Cetaceans as Ecosystem Engineers. University of Vermont, June 20-21, 2011 (*organizer*).
- Global Environmental Migration: Bangladesh, Low-Elevation Coastal Zones, and Islands Workshop. Foresight Project, UK, and Refugee and Migratory Movements Research Unit, University of Dhaka, Bangladesh, February 3-4 2011.
- Health and Ecosystems: Analysis of Linkages Proposal Design Workshop. Wildlife Conservation Society, NY, December 1-3, 2010.
- Strategic Network Grants Program, Natural Sciences and Engineering Research Council. Windsor, Ontario, June 17-18, 2010 (*site-visit committee member*).
- Biodiversity, Landscape Change, and Lyme Disease: Science and Application. U.S. EPA New England Regional Laboratory, Chelmsford, MA, September 22-23, 2009.
- Beyond the Obituaries: Success Stories in Ocean Conservation, Smithsonian National Museum of Natural History, May 19, 2009.
- Risk Assessment for European green crab (*Carcinus maenas*) and Chinese mitten crab (*Eriocheir sinensis*) in Canadian Waters, Canadian Department of Fisheries and Oceans, Montreal, February 14-15, 2008 (*external reviewer*).
- Ecosystem-Based Management Pilot Projects in the Gulf of Maine, University of New Hampshire, Durham, October 29-30, 2007.
- Biodiversity and Human Health, 7th National Conference on Science Policy and the Environment, Integrating Environment and Human Health, Washington, DC, February 1-2, 2007 (session co-chair).
- Examining the Links between Biodiversity and Human Health, interdisciplinary forum and workshop held at the Smithsonian Institution, Washington, DC, September 14-15, 2006, http://es.epa.gov/ncer/biodiversity/workshop.html (*organizer*).
- Approaches for Researching the Roles of Marine and Coastal Biodiversity in Maintaining Ecosystem Services, Census of Marine Life, Washington, DC. September 11-13, 2006.
- The Link Between Propagule Pressure and Aquatic Nonnative Invasion Success and Impacts, US Environmental Protection Agency, Washington, DC, July 24-25, 2006.
- North South Basin Summit II, Market Incentives to Improve Conservation Delivery: Reducing Nutrient Discharge from Agriculture in the Mississippi Basin; Sand County Foundation; New Orleans, LA; February 1-3, 2006.
- Environmental Credits Generated through Land-Use Changes: Challenges and Approaches; Environmental Trading Network; Baltimore, MD; March 8-9, 2006 Coordinating Research on the North Atlantic, Shoals Marine Lab, NH, August 20-23, 2002.

Selected interviews and press coverage

- "Whales as Marine Ecosystem Engineers" had worldwide coverage, with highest Altmetric rating for any article in *Frontiers in Ecology and the Environment*. In addition to a few highlights below, global coverage and interviews included Voice of America, io9, Treehugger, Canadian Broadcasting Corporation's fisheries report, Britain's *Guardian* and Wired.UK, Denmark's *Weekendavisen*, Germany's *Süddeutsche Zeitung*, Ireland's Newstalk, and France's *Terra Eco*.
- "Scientists call whales the engineers of the ocean ecosystem, with Ira Flatow, Science Friday, July 18, 2014.
- "Whales serve as ocean's ecosystem engineers," with A Martinez, Take Two, KPCC, July 9, 2014.
- "Whale poop might help fight climate change," by John Metcalfe, Citylab, *The Atlantic*, July 4, 2014.
- "Rebounding whale populations are good for ocean ecosystems," by Eli Kintisch, *Science*, July 3, 2014.
- "Carpe Carp," by Kerry Grens, The Scientist, June 1, 2014.
- "Invasive Control, Bite by Bite," by Dorothy Pellett, *Burlington Free Press*, May 11, 2014.
- "Two New Snapping Turtles Named," by Stefan Sirucek, *National Geographic*, Weird and Wild, April 28, 2014.
- "What's the Deal with Invasivorism?" by Alex Van Buren, Yahoo Food, April 2, 2014.
- "Invasive Cuisine," with Jane Lindholm, Vermont Edition, April 2, 2014.
- "The Gourmet Invasivore's Dilemma," by Rowan Jacobsen, *Outside Magazine*, April 2014.
- "Whales, Gardeners of the Ocean," by Honor Peters, Power of Nature, BBC, February 4, 2014.
- "Forty Years of the Endangered Species Act" interview with Ira Flatow, Science Friday, National Public Radio, January 3, 2014.
- "Endangered Species Act Turns 40," interview with Jared Brumbaugh, Public Radio East, North Carolina, January 3, 2014.
- "A dieta de capivara" ("The Capybara Diet"), by Natália Spinacé, *Epoca*, November 18, 2013.
- "Send in the Invasivores," by Sarah DeWeerdt, *Conservation Magazine*, September 2013.
- "Have You Ever Tried to Eat a Feral Pig?" by Nancy Matsumoto, *The Atlantic*, July 11, 2013
- "Eat the Invaders" by Chris Harrington, Smith Journal, Australian winter 2103.
- "Seals Galore: Protective Law Works," ABC News by Lee Dye, April 28, 2013.
- "The Return of the Delmarva Fox Squirrel," Baltimore Sun by Timothy B. Wheeler, April 24, 2013.
- "The Endangered Species Act," At Issue, Wisconsin Public Radio, live call-in with John Munson, March 11, 2013.
- "Eat the Invaders," Information Morning, CBC Radio, Cape Breton, January 24, 2013.
- "Edible Invaders," Mainstreet Halifax, CBC Radio, interview with Stephanie Domet, January 24, 2013.
- "Alien Entrées," Talk of the Town by Elizabeth Kolbert, *The New Yorker*, December

- 10, 2012.
- "Can Snails Stop the Pipeline?" interview with Luis Hernandez, KNPR Nevada Public Radio, October 25, 2012
- "Saluting a Year of Winning Reporting, Vanishing Resources and Species," interview with Jarre Fees, *NewsPro: The Magazine for News Professionals*, October 2012.
- "The Hidden Power of Whale Poop," interview with Bradon Kiem, *Wired*, August 9, 2012
- "Eat Them Before They Eat Everything," Eatocracy, CNN, August 7, 2012.
- "Invasivores Land 'Frankenfish' on the Menu," interview with Carolyn Beeler, WHYY, May 31, 2012.
- "Author and Conservation Biologist Explores Endangered Species Act in New Book" interview with Jennifer Szweda Jordan, Alleghany Front, various public radio stations, February 25, 2012.
- "Humans and Whales," interview with Tom Ashbrook, On Point, WBUR, February 13, 2012.
- "Please Explain: Endangered Species," interview with Leonard Lopate, The Leonard Lopate Show, WNYC, September 30, 2011.
- "Dispatches from America's Endangered Species Act," interview with Bruce Gellerman, Living on Earth, Public Radio International, June 24, 2011.
- "Has the Endangered Species Act Worked?" interview with Jane Lindholm, Vermont Edition, Vermont Public Radio, May 9, 2011.
- "Whale Poop (and Whales)," interview with Laurel Neme, The WildLife, WOMM-LP, January 24, 2011.
- "UVM Whale Researcher Making Waves," interview with Keagan Harsha, WCAX-TV, November 29, 2010.
- "Whale Feces Essential to Ocean Ecosystem," interview with Jane Lindholm, Vermont Edition, Vermont Public Radio, November 21, 2010.
- Interview with Khalil Akhtar on whale pump, On the Island, CBC Radio One Victoria, October 26, 2010.
- "What Keeps Gulf of Maine Fertile? Whale Dung," interview with Josie Huang, Maine Public Radio, October 14, 2010.
- "Whale Poo: Miracle Grow for the Ocean," MSNBC, October 14, 2010, with coverage by many others including NSF news portal, Science 360, and Discovery News.
- "Whales Help Fertilize Ocean with Floating Dung," interview with Joe Palca, National Public Radio, October 11, 2010.
- "Wenn dei Geier Fehlen," in *Sueddeutsche Zeitung*, by Daniel Lingenhöhl, March 17, 2010.
- "Globalization and Infectious Disease," interview with Jane Lindholm, Vermont Edition, Vermont Public Radio, December 14, 2009.
- "Study Links Habitat Destruction to Infectious Disease," interview with Alexey Rubenstein, WCAX-TV, December 13, 2009.
- Marine Mammals, in *Wildlife New Jersey* by David Wheeler, Rutgers University Press, forthcoming 2011.
- Interview with Emily Anthes on eating invaders, *Discover Magazine*, June 16, 2009.
- Radio interview on green crab invasion for *CBC Maritime Noon* with Costas Halavrezos, June 23, 2006.

- "Eating Invaders," news feature by Mike Walter, WUSA-TV, June 10, 2006.
- "Japanese Scientists Say They've Found New Whale Species" by Alex Dominguez, Associated Press, November 20, 2003.
- "Whales Aplenty" by Neil Shea, Harvard Magazine, November-December 2003.
- "Hunting's Impact on Whale Numbers Is Revised" by Dennis O'Brien, *Baltimore Sun*, July 25, 2003.
- "Whales May Have Been More Plentiful" by Guy Gugliotta, *Washington Post*, July 25, 2003.
- "Early Whale Population Undercounted Study Says" by Kenneth R. Weiss, *Los Angeles Times*, July 25, 2003.
- "Situação de baleias é crítica, revela DNA" by Claudio Angelo, *Folha de São Paolo*, July 25, 2003.

Radio interview for CBS Radio Network with John Hartge, July 24, 2003.

"Right Whales in the Wrong Place" by Natalie Pawelski, CNN, March 4, 1999.

Selected guest lectures

International Environmental Studies, University of Vermont, 2014, 2013, 2012, 2010.

Environmental History Seminar, University of Vermont, 2014

Biology of Marine Mammals, Duke University, 2013

Animal Sciences Career Seminar, University of Vermont, 2013

Conservation Biology, University of Vermont, 2013.

Natural Areas Conservation and Stewardship, University of Vermont, 2013.

Ecological Economics, University of Vermont, 2013.

Communities and Ecosystems, Williams College, 2012.

Ecology, University of Vermont, 2012.

Wildlife Conservation, University of Vermont, 2012, 2011.

Ecosystem Management, University of Vermont, 2011.

Environmental Journalism, University of Vermont, 2011, 2009, 2006.

Survival Ecology, University of Vermont, 2011.

Topics in Marine Biology, Harvard University, 2009, 2008, 2007, 2006, 2004, 2003.

Marine Megafaunal Ecology, Boston University, 2008.

Marine Biology, Harvard University, 2002.

Marine Reproductive Biology, Harvard University, 2002.

Marine Phylogeography, University of Florida, 1999.

Biogeography, University of Florida, 1998.

Book readings

Old Harbor Books, Sitka, AK, May 28, 2014.

Main Street Landing, Burlington, VT, with Amy Seidl and paintings by Sally Linder, November 11, 2011

Brown Dog Books, Hinesburg, VT, October 14, 2011

Northshire Bookstore, Manchester, VT, June 10, 2011.

Mount Philo Inn, Charlotte, VT, May 6, 2011.

Alachua Audubon Society, Millhopper Library, Gainesville, FL, April 26, 2011.

Cold Spring Harbor Whaling Museum, NY, March 18, 2007.

Barnes and Noble, Burlington, VT, August 15, 2006.

Chapters, Washington DC, June 28, 2006.

PROFESSIONAL ACTIVITIES AND AFFILIATIONS

Committees

Governor's Representative for Vermont, National Ocean Council Regional Planning Body, starting 2012

Society for Conservation Biology, Scientific Integrity Task Force, starting 2011 Northeast Aquatic Nuisance Species Panel, starting 2008

Member

New York Academy of Sciences Society for Conservation Biology Society for Marine Mammalogy Society of Environmental Journalists

Reviewer

For journals Animal Conservation, Biological Invasions, Canadian Journal of Zoology, Conservation Biology, Current Biology, Diversity and Distributions, Ecological Economics, Ecosystem Services, Environmental Management Review, Evolution, Journal of Heredity, Marine Biology, Marine Ecology Progress Series, Marine Mammal Science, Molecular Ecology, PLoS ONE, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, Solutions, and Systematic Biology.

For grants considered by EPA Star Graduate Fellowships, Fundação para a Ciência e a Tecnologia of Portugal, Large Pelagics Research Center at University of New Hampshire, National Research Foundation of South Africa, NSF Biological Oceanography Program, Natural Sciences and Engineering Research Council of Canada, Sea Grant, and University of Vermont REACH grant program.

For book manuscripts at Harvard University Press, Princeton University Press, University of California Press, and University of Chicago Press.