

David Shiffman, Ph.D.

David.Shiffman@gmail.com

DavidShiffmanCV.com

I am an interdisciplinary marine conservation biologist interested in the human dimensions of the conservation and management of chondrichthyan fishes. My research uses cutting-edge interdisciplinary methods to answer policy-relevant questions about threatened species of public concern, while providing many opportunities for graduate and undergraduate student research. I have extensive experience publishing and presenting on my research at scientific conferences, working with management agencies and non-profit groups, mentoring students at the graduate and undergraduate level, obtaining funding from a variety of sources, and both university teaching and public outreach.

Education

University of Miami, Miami, FL

- 2011-2016: Ph.D. program in interdisciplinary Ecosystem Science and Policy
- Dissertation: Ecosystem role and conservation of sharks
- Adviser: Dr. Neil Hammerschlag

College of Charleston, Charleston, SC

- 2008-2011: Masters in Marine Biology
- Thesis: feeding ecology of sandbar sharks using stable isotope analysis
- Adviser: Dr. Gorke Sancho

Duke University, Durham, NC

- Class of 2007: B.S. with distinction in Biology, concentration in Marine Science

Postdoctoral Fellowships

Liber Ero Postdoctoral Research Fellowship

- 2017-Present: based at Simon Fraser University in Burnaby, BC
- Project: “an interdisciplinary assessment of the sustainability of Canadian shark fisheries”
- Supervisor: Dr. Nicholas Dulvy, Simon Fraser University

Selected Awards and Grants

- 2019: Simon Fraser University President’s Newsmaker award
- 2017: Liber Ero Postdoctoral Research Fellowship awardee
- 2016: Named one of the best environmentalists in Florida by the New Times
- 2014: John Beakley Marine Science Educator of the Year award (Florida Marine Science Education Association)
- 2014: SciFund Challenge Crowdfunding Grant Recipient (\$8,000)
- 2014: Save Our Seas Foundation small grant. (\$4,900).
- 2009: Honorable Mention: National Science Foundation Graduate Research Fellowship

Scientific Publications 602 citations, H index 13, i-10 index 15

- Shiffman, D.S., Kaufman, L., Heithaus, M., and Hammerschlag, N. (2019). Intraspecific differences in relative isotopic niche area and overlap of co-occurring sharks. *Aquatic Ecology*.
- Dey, CJ, Yurkowski, DJ, Schuster, R, **Shiffman, DS**, and Bittick, SJ. (2018). Patterns of uncertainty in life-history and extinction risk for Arctic vertebrates. *Arctic Science*
- Coristine, LE, Jacob, L, Schuster, R, Otto, SP, Baron, NE, Bennett, NJ, Bittick, SJ, Dey, C, Favaro, B, Ford, A, Nowlan, L, Orihel, D, Palen, WJ, Polfus, JL, **Shiffman, DS**, Venter, O, and Woodley, S. (2018). Informing Canada's commitment to biodiversity conservation: a science-based framework to help guide protected areas designation through Target 1 and beyond. *FACETS*
- Bangle, C., Paramore, L., **Shiffman, DS**, and Rulifson, R. (2018) Increased Abundance and Nursery Habitat Use of the Bull Shark (*Carcharhinus leucas*) in Response to a Changing Environment in a Warm-Temperate Estuary. *Scientific Reports*
- **Shiffman, DS**. (2018). Social media for fisheries science and management professionals: How to use it and why you should. *Fisheries*
- Bird, C...**Shiffman, DS**...and Trueman, C (72 total authors). (2018). A global perspective on the trophic geography of sharks. *Nature Ecology and Evolution*.
- **Shiffman, DS** and Hueter, R. (2017). A United States shark fin ban would undermine sustainable shark fisheries. *Marine Policy*
- **Shiffman, DS**, Macdonald, C, Ganz, HY, and Hammerschlag, N. (2017). Fishing practices and representations of shark conservation issues among users of a land-based shark angling online forum. *Fisheries Research*
- Smith, NS, Cote, IM, Martinez-Estevés, L, Hind-Ozan, EJ, Quiros, AL, Johnson, N, Green, SJ, Cornick, L, **Shiffman, DS**, Malpica-Cruz, L, Besch, AG, and Shiel-Rolle, N. (2017). Diversity and inclusion in conservation: a proposal for a marine diversity network. *Frontiers in Marine Science*
- Gallagher, AJ, **Shiffman, DS**, Byrnes, EE, Hammerschlag-Peyer, CM, and Hammerschlag, N. (2017). Patterns of resource use and isotopic niche overlap among three species of sharks occurring within a protected subtropical estuary. *Aquatic Ecology*
- Macdonald, C, Gallagher, AJ, Barnett, A, Brunnschweiler, J, **Shiffman, DS**, and Hammerschlag, N. (2017) Conservation potential of apex predator tourism. *Biological Conservation*
- Hammerschlag, N, Skubel, RA, Calich, H, Nelson, ER, **Shiffman, DS**, Wester, J, Macdonald, C, Cain, S, Jennings, L, Enchelmaier, A, and Gallagher, AJ. (2017). Nocturnal and crepuscular behavior in elasmobranchs: a review of movement, habitat use, foraging, and reproduction in the dark. *Bulletin of Marine Science*
- Collins, K, **Shiffman, DS**, and Rock, J. (2016) How are scientists using social media in the workplace? *PLoS ONE*
- **Shiffman, DS** and Hammerschlag, N. (2016). Preferred conservation policies of shark researchers. *Conservation Biology*

- **Shiffman, DS** and Hammerschlag, N. (2016) Shark conservation and management policy: a review and primer for non-specialists. *Animal Conservation*. (Featured on cover)
- Thaler, AD and **Shiffman, DS**. (2015). Fish tales: combatting fake science in popular media. *Ocean and Coastal Management (International Marine Conservation Congress special issue)*
- **Shiffman, DS**, Hammerschlag, N. (2014) An assessment of the scale, practices, and conservation implications of Florida's charterboat-based recreational shark fishery. *Fisheries*. (Featured on cover)
- **Shiffman, DS**, Gallagher AJ, Wester, J, Macdonald, CC, Thaler, AD, Cooke, SJ, and Hammerschlag, N. (2014). Trophy fishing for species threatened with extinction: a way forward building on a history of conservation. *Marine Policy*.
- **Shiffman, DS**, Frazier, B, Kucklick, J, and Sancho, G. (2014) "Detection of an ontogenetic shift in diet between young-of-year and juvenile sandbar sharks in South Carolina estuaries using d13C and d15N stable isotope analysis". *Marine and Coastal Fisheries*. (One of 5 most-downloaded papers of the year for MCF)
- Gallagher, AJ, Hammerschlag, N, **Shiffman, DS**, Giery, ST. (2014) Evolved for extinction: the cost and conservation implications of extreme specialization in hammerhead sharks. *BioScience* (Featured on cover)
- Ferry, L and **Shiffman, DS**. The value of taxon-focused science: 30 years of elasmobranchs in biological research and outreach. *Copeia* (Professional Society Presidential Address section)
- Parsons, ECM, **Shiffman, DS**, Darling, ES, Spillman, N, and Wright, AJ. (2014). How Twitter Literacy Can Benefit Conservation Scientists. *Conservation Biology*.
- Darling, ES, **Shiffman, DS**, Drew, J, and Cote, I. (2013). The role of twitter in the life cycle of a scientific publication. *Ideas in Ecology and Evolution*
- **Shiffman, DS**, Gallagher, AJ, Boyle, MD, Hammerschlag-Peyer, CM, and Hammerschlag, N. (2012). Stable isotope analysis as a tool for elasmobranch conservation research: a primer for non-specialists. *Marine and Freshwater Research* (Featured on cover).
- **Shiffman, DS** (2012). Twitter as a tool for conservation outreach and education: what scientific conferences can do to promote live-tweeting. *Journal of Environmental Studies and Sciences*
- Thaler, AD, Zelnio, KA Freitag, A, MacPherson, R, **Shiffman, DS**, Bik, H, Goldstein, M, and McClain, C. (2012). Digital Environmentalism: Tools and strategies for the evolving online ecosystem. In D. Gallagher (ed.) *Environmental Leadership: A Reference Handbook*. SAGE

Field Research Experience

Shark Research and Conservation Program, Miami, FL

- 2011-2016: trip leader/chief scientist for long-term shark population surveys

South Carolina Department of Natural Resources, Charleston, SC

- 2008-2011: field assistant for a long-term shark population survey

Teaching Experience

Guest lectures

- 2011-Present: I have given 16 guest lectures focusing on my research at 11 Universities throughout the United States and Canada.

College of Charleston, Charleston, SC

- 2008-2011: Teaching assistant, Biology 102 (Introduction to Ecology and Evolution).
- Responsible for 18 20-student sections over 3 years.
- Responsible for leading discussions, running laboratory activities, grading.

Duke University, Durham, NC

- 2007-2008: Teaching assistant, Biology 25 (Introduction to Biology)
- Responsible for six sections of 24 students.
- Responsible for leading discussions, running laboratory activities, grading

Selected Invited Seminars

- Dalhousie University Environmental Sustainability Series, Fall 2018
- University of British Columbia Institute of Fisheries Seminar Series- Fall 2017
- University of British Columbia BLISS Seminar Series- Fall 2017
- Simon Fraser University Les Ecologistes Seminar Series- Fall 2017
- University of Washington School of Fisheries and Aquatic Sciences Departmental Seminar Series- Fall 2017
- Florida Atlantic University Marine Seminar Series- Spring 2017
- NOAA Seminar Series- Fall 2015

Leadership and Service

OceansOnline/4th and 5th International Marine Conservation Congress

- 2016-Present: Chair. Planning and running an add-on day to the International Marine Conservation Congress based on 2013's ScienceOnline Oceans.

Society for Conservation Biology (Marine Section)

- 2017-Present: Member-at-Large of Board of Directors
- 2017-Present: Deputy Chair, Policy Committee
- 2016-Present: Interdisciplinary Committee, founding member

University of Miami Shark Research and Conservation Program

- 2012-2016: Assistant Intern Coordinator. Assisted in the professional development (field and lab skills) of more than 75 SRC undergraduate and Masters interns
- 2011-2016: Trip leader. Served as Chief Scientist, in charge of dozens of research expeditions, coordinated and trained interns and community volunteers, responsible for research equipment as well as data and sample collection.

American Elasmobranch Society

- 2015-Present: Young Professional Recruitment Fund coordinator. Managed a program designed to increase diversity in the society, resulting in 48 new society members from historically underrepresented groups
- 2012-Present: Executive Committee of the Board of Directors (Editor)

ScienceOnline Oceans (held at University of Miami)

- 2013: Conference organizer. Conceived, planned, fundraised for, and ran a conference that brought nearly 200 marine scientists, educators and conservationists to talk about how internet tools can help research and outreach.

IUCN Red List Shark Specialist Group

- 2017-Present. Certified in Red List Assessment
- 2013-Present: Cross-Cutting Committee, advising on communications strategy

Peer Review

- 2010-Present: I have served as a referee for 26 scientific journals, including *Biological Conservation*, *Conservation Biology*, *Conservation Letters*, *Journal of Fish Biology*, *Marine Ecology Progress Series*, *Environmental Biology of Fishes*, *Fisheries*, *BioScience*, *Copeia*, and *PLoS ONE*.

Selected Recent Conference Presentations and Workshops

I have attended more than 45 scientific conferences (including 13 international conferences), and have presented my research or led training workshops at 36 of them, including:

- 2018: Why don't people think sustainable shark fisheries exist? Invited conference keynote address, Sustainable Oceans Conference, Dalhousie
- 2018: Content analysis of shark conservation media coverage suggests bias contributing to public misunderstanding (Presentation, International Marine Conservation Congress)
- 2018: Shark Conservation Activist Perspectives on Science and Management: Results of a Global Survey. (Presentation, Sharks International)
- 2018: A US Shark Fin Ban would undermine sustainable shark fisheries. (Presentation: Northeast Pacific Shark Symposium)
- 2017: How to talk to non-experts about your science, and why you should. (Invited professional development workshop, University of Washington School of Fisheries and Aquatic Sciences).
- 2017: A case study of increasing diversity in a scientific society: The American Elasmobranch Society's Young Professional Recruitment Fund. (Invited symposium talk, International Congress for Conservation Biology)
- 2017: Communicating in a crowded space. (Panel, Capitol Hill Ocean Week)
- 2017: Tools and rules of online engagement. (Invited presentation to the Board of Life Sciences of the National Academies of Science, Engineering, and Medicine).
- 2016: The role of modern communication technology in marine conservation and fisheries. (Invited symposium talk, American Fisheries Society)
- 2016: The role of non-expert activists in shark conservation (Invited symposium presentation, 4th International Marine Conservation Congress)
- 2016: Intraspecific variation in the relative isotopic niche breadth and overlap of coastal sharks. (Presentation, American Elasmobranch Society/JMIH)
- 2014: Effective use of social media. (Workshop, National Sea Grant Week)
- 2014: Conservation policy preference of shark researchers (Presentation, Sharks International)

Selected popular press interviews

My connections to the science journalism community have resulted in over 200 popular press interviews about shark science conservation, including high-profile interviews about my research that I've highlighted below.

- 2017: "Shark fin bans might not help sharks, scientists say." Associated Press, picked up in newspapers nationwide.
- 2017: "Shark fin trade faces troubled waters." National Public Radio, rebroadcast nationwide.
- 2017: "Banning shark fin soup in the US is bad for shark conservation." New Scientist.
- 2017: "Angler's online boasts reveal illegal shark hunting." Nature.
- 2017: "Shark fishing forum reveals destructive practices despite good intentions." National Geographic.
- 2017: "Harvesting sharks could be the key to saving them." Scientific American.
- 2016: "Does banning all shark fishing do more harm than good?" Conservation Magazine.
- 2015: "Curbing the shark fin trade is laudable, but it's not enough to save the species." Washington Post.
- 2014: "Scientists want end to traditional trophy fishing of threatened species." Science.
- 2014: "Why sharks matter: David Shiffman '07 is on a mission to change your mind about sharks." Duke alumni magazine profile.