

Heather M. Marshall
Research Scientist, Field Lab Consulting

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Education

PhD	University of Massachusetts Dartmouth Biomedical Engineering and Biotechnology Program	2015 GPA: 3.89
MSc	University of Massachusetts Dartmouth Marine Biology Program	2009 GPA: 3.96
BA	Smith College Major: Biology Minor: Marine Science	2005 GPA: 3.53

Research Disciplines

Physiology, marine biology and ecology, biological oceanography, electronic tag analysis, biochemistry, ichthyology, anatomy and physiology, molecular and phylogenetic research, fisheries impacts, climate change.

Professional Experience

Field Lab Consulting		2018-present
	Co-Founder/Research Scientist. End-to-end collaborative support services for marine research.	
Atlantic White Shark Conservancy		2016-present
	Contracted Research Scientist. Collaborator on shark research, outreach, and education.	
Mote Marine Laboratory		2016-present
	Adjunct Scientist. Collaborator on shark research, outreach, and education.	
Southeast Data, Assessment, and Review		2016-present
	SEDAR Pool. Member of the Highly Migratory Species Advisory Panel for the National Marine Fisheries Service.	
Cape Eleuthera Institute		2016
	Research Associate. Director of research conducted by the Shark Research and Conservation Program on coastal and pelagic sharks in The Bahamas.	
Mote Marine Laboratory		2014-2016
	Postdoctoral Research Fellow. Shark physiology and fisheries-related research in the Behavioral Ecology and Physiology Program.	
OCEARCH		2012-2016
	Science Team member. Shark research scientist and coordinator for seven expeditions.	
School of Marine Science and Technology		2013
	Digitizer. Sea Scallop Research Program.	
Massachusetts Division of Marine Fisheries		2008-2009
	Administrative Assistant. Environmental Review Project.	

Teaching Experience

State College of Florida	2019-present
Adjunct Faculty. <i>Introduction to Biology, Fundamentals of Biology</i>	
Shoals Marine Laboratory	2018-present
Adjunct Faculty. <i>Shark Biology and Conservation</i>	
The Island School	2016
Research Instructor. <i>Coastal Shark Ecology</i>	
University of South Florida Sarasota-Manatee	2015-2016
Courtesy Faculty.	
Bristol Community College	2013-2014
Adjunct Faculty. <i>General Biology, Survey of Human Anatomy and Physiology, Fundamentals of Biological Science I</i>	
University of Massachusetts Dartmouth	2006-2014
Course manager, proctor, and grader. <i>General Biology for Non-majors, Topics in Biology</i>	
Teaching Assistant. <i>Anatomy and Physiology</i>	
Guest Lecturer. <i>Animal Physiology, Biological Oceanography</i>	
Academic Resource Center Tutor. <i>Biology, Marine Biology</i>	
Smith College	2005
Laboratory teaching assistant. <i>Marine Ecology</i>	

Grants and Awards

Bycatch Reduction and Engineering Program grant, NOAA (Co-PI w/ N. Whitney)	2016
Improving cost-efficiency and monitoring duration in the study of post-release mortality in highly migratory species.	
Cooperative Research Program grant, NOAA (Co-PI w/ N. Whitney and R. Hueter)	2016
Bringing large sample sizes to the study of post-release mortality in highly migratory species.	
Christiane Howey Rising Scholar Award, Microwave Telemetry, Inc.	2016
The post-release mortality and stress physiology of salmon sharks (<i>Lamna ditropis</i>) in Alaska.	
Doctoral Fellowship, University of Massachusetts Dartmouth	2013
Investigations in the stress physiology and survival of elasmobranch fishes, with applications to fisheries management.	
Wildlife Computers Scholarship, Tuna Conference	2011
Habitat utilization and movement patterns of juvenile porbeagle sharks (<i>Lamna nasus</i>) in the northwest Atlantic.	
Travel Grant, National Science Foundation/Woods Hole Oceanographic Institute	2010
Haematological stress parameters in longline captured pelagic sharks.	
Biology Publication Award, University of Massachusetts Dartmouth	2008
Comparative metabolic biochemistry of shark myocardial tissue.	
Student Poster award , 3rd Annual Biology New England South	2008
Comparative metabolic biochemistry of shark myocardial tissue.	
Travel Grant, American Elasmobranch Society	2008
Comparative metabolic biochemistry of shark myocardial tissue.	
Best Poster Runner-up, Northeast Biological Graduate Student Conference	2007
Habitat utilization and movement patterns of juvenile porbeagle sharks (<i>Lamna nasus</i>) in the northwest Atlantic.	
Scholarship, National Marine Fisheries Service/Virginia Tech	2006
Marine Resources Population Dynamics Workshop.	

Publications and Technical Reports

- Queiroz, N., Humphries, N.E., Couto, A., Vedor, M., da Costa, I., Sequeira, A.M., ... and D.W. Sims. (*in review*). Global spatial risk assessment of sharks under the footprint of fisheries. *Nature*.
- Lynch, S.D., Marcek, B.J., Marshall, H.M., Bushnell, P.G., Bernal, D., and R.W. Brill. 2017. The effects of pop-up satellite archival tags (PSATs) on the metabolic rate and swimming kinematics of juvenile sandbar shark *Carcharhinus plumbeus*. *Fisheries Research*, 186: 205-215.
- Marshall, H., Ross, P.G., Skomal, G., and D. Bernal. 2015. Correlation of hook-time with post-release mortality and fishing-induced stress response in sandbar (*Carcharhinus plumbeus*) and dusky (*Carcharhinus obscurus*) sharks. *Fisheries Research*, 172: 373-384.
- Lucey, S.M., Duffy, W.J., Adams, E.K., Marshall, H., Nichols, O., and K. Thompson. 2013. A Review of “Scientific Communication for Natural Resource Professionals.” *Transactions of the American Fisheries Society*, 142: 1154-1155.
- Marshall, H., Field, L., Afiadata, A., Sepulveda, C., Skomal, G., and D. Bernal. 2012. Hematological indicators of stress in longline-captured sharks. *Comparative Biochemistry and Physiology A*, 162: 121-129.
- Skomal, G., Marshall, H., Chisholm, J., Natanson, L., and D. Bernal. 2009. Habitat utilization and movement patterns of porbeagle sharks (*Lamna nasus*) in the western North Atlantic. ICCAT/SCRS/2009/094.

Conference Presentations

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| Joint Meeting of Ichthyologists and Herpetologists/
American Elasmobranch Society | 2016 |
| The Society for Integrative and Comparative Biology | 2016 |
| Joint Meeting of Ichthyologists and Herpetologists/
American Elasmobranch Society | 2015 |
| The Tuna Conference | 2015 |
| Florida Marine Science Educators Association | 2015 |
| The Tuna Conference | 2013 |
| The Society for Integrative and Comparative Biology | 2013 |
| 10 th International Congress on the Biology of Fish | 2012 |
| The Tuna Conference | 2011 |
| The Society for Integrative and Comparative Biology | 2011 |
| 5 th Annual Biology New England South | 2010 |
| International Council for the Exploration of the Sea | 2010 |
| Joint Meeting of Ichthyologists and Herpetologists/
American Elasmobranch Society | 2010 |
| The Society for Integrative and Comparative Biology | 2009 |
| 3 rd Annual Biology New England South | 2008 |
| Joint Meeting of Ichthyologists and Herpetologists/
American Elasmobranch Society | 2008 |
| Northeast Biological Graduate Student Conference | 2008 |

Public Outreach and Volunteer Experience

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| American Elasmobranch Society | 2018-present |
| Grant Fund Committee. Review grant applications and symposia proposals from members of the society, culminating in award selection and funding designation. | |

The Gills Club **2014-present**
Co-Founder and Science Team Coordinator. Club development and scientist recruiter to inspire, support, and inform girls of all ages who are interested in sharks and ocean conservation.

Public Talks **2014-present**
“Sharks, Tales and Ales”. Mote Marine Laboratory
“Women Scientists *Making Waves* in Shark Research”. Eastward Ho! Country Club
“Shark Research Confessions”. New England Aquarium
“Sharks, OCEARCH, and Gills Club!”. The Ocean Explorium

OCEARCH **2012-2016**
Science Team member. Public/online outreach events, school presentations.

Seminar Speaker **2009-present**
The Harte Research Institute for Gulf of Mexico Studies
University of North Florida
University of Massachusetts Dartmouth

Mote Marine Laboratory **2005**
Intern. Supervisor: Dr. Colin Simpfendorfer

Massachusetts Division of Marine Fisheries **2004**
Intern. Supervisor: Dr. Gregory Skomal

Journal Reviewer

Conservation Physiology, Scientific Reports, Fish and Fisheries, Journal of Coastal Research, Physiological and biochemical Zoology, Ocean and Coastal Management

Memberships

Divers Alert Network **2016-2017**
Society of Integrative and Comparative Biology **2009-present**
Sigma Xi **2006-present**
American Fisheries Society Southern New England Chapter **2006-present**
American Elasmobranch Society **2005-present**

News and Media

Featured, interviewed, and/or quoted: The New Yorker, NPR, New England Cable News, The New York Times, FOX, The Cape Codder, Outside Magazine, Longboat Key News, Patch.com.