

Nicholas M. Whitney

Anderson Cabot Center for Ocean Life • New England Aquarium
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in residence at Newport Aquarium, 1 Aquarium Way, Newport KY 41071

Dr. Whitney has over 20 years of experience working with large vertebrates with a specialty in studying the movements and behavior of marine animals in the wild. For the past several years he has been a leader in the application of accelerometry to study the activity and behavior of a variety of taxa including sharks, sea turtles, and other marine vertebrates.

Professional Preparation

Ph.D.	UNIVERSITY OF HAWAII AT MANOA, Honolulu, HI Department of Zoology	2009 GPA 3.9
M.S.	UNIVERSITY OF HAWAII AT MANOA, Honolulu, HI Department of Zoology	2007 GPA 3.9
B.A.	ALBION COLLEGE, Albion, MI Department of Biology, Summa Cum Laude Duke University Marine Laboratory	2000 GPA 3.7 Fall 1999

Appointments

ANDERSON CABOT CENTER FOR OCEAN LIFE AT NEAQ: SENIOR SCIENTIST	Chair of Fisheries Science and Emerging Technologies Program; Investigating fine-scale behavior, bioenergetics, and behavioral ecology in marine vertebrates using novel data-logging tags; in residence at Newport Aquarium, Newport, KY	2016-present
NEWPORT AQUARIUM: SENIOR RESEARCH SCIENTIST	Joint position with the Anderson Cabot Center for Ocean Life at the New England Aquarium.	2016-present
MOTE MARINE LABORATORY: STAFF SCIENTIST AND PROGRAM MANAGER	Behavioral Ecology and Physiology Program	2011-2016
MOTE MARINE LABORATORY: POSTDOCTORAL SCIENTIST	Investigating fine-scale physiology, bioenergetics, and behavioral ecology in marine vertebrates using novel data-logging tags.	2009-2011
EDUCATION PROGRAM GRADUATE ASSISTANT: HAWAII INSTITUTE OF MARINE BIOLOGY	Researching, writing, editing and testing marine science curriculum for high school students. Field testing of a remotely controlled (via internet) submersible for utilization in marine science education.	2007-2009
RESEARCH ASSISTANT: HAWAII COOPERATIVE FISHERIES RESEARCH UNIT	Boat and trailer technician, scientific diver, and laboratory assistant in the study of the distribution and life history of four parrotfish species in coastal Hawaiian waters.	2006-2007
NSF GRADUATE RESEARCH FELLOW: University of Hawaii	Movements and genetic population structure of whitetip reef sharks, <i>Triaenodon obesus</i> .	2003-2006
INSTRUCTOR OF BOAT OPERATIONS: HAWAII INSTITUTE OF MARINE BIOLOGY	Boating instructor/coordinator and technician in charge of training and certification.	2002-2003
TUTOR OF HIGH SCHOOL AND MIDDLE SCHOOL STUDENTS	Tutored students in various subjects as well as study skills, organization, and homework management. Students tutored 1-2 times per week for at least one semester include: Hae-Won Chong, Jack McMillan, Peter Kowen, Dayton Uchiyama, Ethan Fukuda, Jess Savusa, Kennison Cheong, and Reyn Yonashiro.	2001-2009
TEACHING ASSISTANT: University of Hawaii	Zoology 306 (Animal Behavior) Laboratory (under Dr. Ernst Reese) Biology 171 Laboratory (under Dr. Agnes Fok) Biology 101 Laboratory (under Dr. Jean Kenyon)	2000-2002

Scientific Publications

- Pratt HL Jr., Pratt TC, Morley D, Lowerre-Barbieri S, Collins A, Carrier JC, Hart KM, and **NM Whitney**. *Accepted*. Partial migration of the nurse shark, *Ginglymostoma cirratum*, from the Dry Tortugas Islands. *Environmental Biology of Fishes*.
- Whitney NM**, White CF, Anderson P, Hueter RE, and GB Skomal. 2017. The physiological stress response, post-release behavior, and mortality of blacktip sharks (*Carcharhinus limbatus*) caught on circle and J-hooks in the Florida recreational fishery. *U.S. Fishery Bulletin*. 115:532-543.
- Lear KO, **Whitney NM**, Brewster LR, Morris JJ, Hueter RE, and AC Gleiss. 2017. Correlations of metabolic rate and body acceleration in three species of coastal sharks under contrasting temperature regimes. *Journal of Experimental Biology*. 220: 397-407.
- Hart KM, White CF, Iverson AR, and **NM Whitney**. 2016. Trading shallow safety for deep sleep: juvenile green turtles select deeper resting sites as they grow. *Endangered Species Research*. 31:61-73.
- Whitney NM**, Taquet M, Brill R, Girard C, Schweiterman GD, Dagorn L, and KN Holland. 2016. Swimming depth of dolphinfish (*Coryphaena hippurus*) associated and unassociated with fish aggregating devices. *U.S. Fishery Bulletin*. 114 (4): 426-434.
- Whitney NM**, White CF, Gleiss AC, Schwieterman GD, Anderson P, Hueter RE, and GB Skomal. 2016. A novel method for determining post-release mortality, behavior, and recovery period using acceleration data loggers. *Fisheries Research*. 183: 210-221.
- Lear KO, and **NM Whitney**. 2016. Bringing data to the surface: Utilizing data loggers for large sample sizes from marine vertebrates. *Animal Biotelemetry*. (2016) 4:12. DOI 10.1186/s40317-016-0105-8
- Selko KA, Gaggiotti OE, Treml EA, Wren JLK, Donovan MK, Hawai'i Reef Connectivity Consortium (including **NM Whitney**), and RJ Toonen. 2016. The DNA of coral reef biodiversity: predicting and protecting genetic diversity of reef assemblages. *Proceedings of the Royal Society B*. 283: 20160354.
- Whitney NM**, Lear KO, Gaskins LC*, and AC Gleiss. 2016. The effects of temperature and swimming speed on the metabolic rate of the nurse shark (*Ginglymostoma cirratum*, Bonaterre). *Journal of Experimental Marine Biology and Ecology*. 477: 40-46.
- Whitmore B*, White CF, Gleiss AC, and **NM Whitney**. 2016. A float-release package for recovering data-loggers from wild sharks. *Journal of Experimental Marine Biology and Ecology*. 475: 49-53.
- Gardiner J, **Whitney NM**, and RE Hueter. 2015. Smells like home: The role olfactory cues in the homing behavior of blacktip sharks, *Carcharhinus limbatus*. *Integrative and Comparative Biology*.
- Whitney NM**, Papastamatiou YP, and AC Gleiss. 2012. Chapter 9 Integrative multi-sensor tagging of elasmobranchs: emerging techniques to quantify behavior, physiology, and ecology. In: *Biology of Sharks and Their Relatives Vol 2*. Ed. Carrier JC, Heithaus MR, and JA Musick. CRC Press. Boca Raton, FL. pp. 265-290.
- Whitney NM**, Robbins WD, Schultz JK, Bowen BW, and KN Holland. 2012. Phylogeography of the whitetip reef shark (*Triaenodon obesus*): oceanic dispersal in a sedentary reef predator. *Journal of Biogeography*. 39: 114-1156. (with cover)
- Whitney NM**, Pyle RL, Holland KN, and JT Barcz*. 2012. Movements, reproductive seasonality, and fisheries interactions in the whitetip reef shark (*Triaenodon obesus*) from community-contributed photographs. *Environmental Biology of Fishes* 93: 121-136.
- Fossette S, Gleiss AC, Myers AE, Bartlett PW, Doughty H, Garner S, Liebsch N, **Whitney NM**, Lutcavage ME, Wilson RP, and GC Hays. 2010. Diving strategy and buoyancy regulation in the deepest diving reptile: the leatherback turtle. *Journal of Experimental Biology* 213: 4074-83.
- Whitney NM**, Pratt HL, Pratt TC, and JC Carrier. 2010. Identifying shark mating behavior using three-dimensional acceleration loggers. *Endangered Species Research* 10: 71-82.
- Meyer CG, Clark TB, Papastamatiou YP, **Whitney NM**, and KN Holland. 2009. Long-term movement patterns of tiger sharks *Galeocerdo cuvier* in Hawaii. *Marine Ecology Progress Series* 381: 223-235.
- Whitney NM**, and PJ Motta. 2008. Cleaner host posing behavior of whitetip reef sharks (*Triaenodon obesus*) in a swarm of hyperiid amphipods. *Coral Reefs* 27: 363.

- Whitney NM**, Papastamatiou YP, Holland KN, and CG Lowe. 2007. Use of an acceleration data logger to measure diel activity patterns in captive whitetip reef sharks, *Triaenodon obesus*. *Aquatic Living Resources* 20: 299-305.
- Whitney NM**, and GC Crow. 2007. Reproductive biology of the tiger shark (*Galeocerdo cuvier*) in Hawaii. *Marine Biology* 151: 63-70.
- Whitney NM**, Pratt HL, and JC Carrier. 2004. Group courtship, mating behaviour, and siphon sac function in the whitetip reef shark, *Triaenodon obesus*. *Animal Behaviour* 68: 1435-1442.

*undergraduate co-author

Popular Literature Publications

- Whitney NM, 2011. Nurse sharks. World Book Encyclopedia Online.
- Whitney NM, 2011. Leopard sharks. World Book Encyclopedia Online.
- Goldish M, 2010. Tiger Sharks: Blue Blenders. Bearport Publishing. New York, NY 24 pp. (served as scientific consultant).
- Whitney NM, 2007. Debunking the myth of territoriality in sharks. *Hawaii Skin Diver* 33: 41-42.
- Whitney NM, 2006. A deeper shade of blue: going deep, spitting blood, and blacking out with the world's best free-diving instructors. *Hawaii Skin Diver* 29: 21-24.
- Whitney NM, 2005. Tax collectors: underwater identification of carcharhinid sharks in Hawaii. *Hawaii Skin Diver* 27: 43-45.

Grants and Awards

2009-Present, Scientist at Mote Marine Laboratory and the Anderson Cabot Center for Ocean Life

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| NOAA/NMFS Bycatch Reduction and Engineering Program (\$119K, PI, w/ Co-PI H. Marshall) | 2016 |
| NOAA/NMFS Cooperative Research Program (\$249K, PI, w/ Co-PIs H. Marshall, R. Hueter) | 2016 |
| NOAA/NMFS Cooperative Research Program (\$192K, PI, w/ Co-PI R. Hueter) | 2015 |
| USGS Award; Collaborative Research on Sea Turtles (\$40K) | 2015 |
| NOAA/NMFS Bycatch Reduction and Engineering Program (\$180K, PI, w/ Co-PI R. Hueter) | 2014 |
| Waitt Foundation Rapid Ocean Conservation Grant (\$20K) | 2013 |
| NOAA/NMFS Bycatch Reduction and Engineering Program (\$236K, PI, w/ Co-PI R. Hueter) | 2013 |
| Sea Turtle License Plate Grant, Sea Turtle Conservancy (\$28K) | 2013 |
| NOAA/NMFS Cooperative Research Program (\$235K, PI, w/ Co-PI R. Hueter) | 2013 |
| USGS Award; Collaborative Research on Sea Turtles (\$25K) | 2013 |
| OCEARCH Foundation Grant (\$20K) | 2013 |
| National Science Foundation, (\$581K, PI, w/ Co-PIs A. Gleiss, R. Hueter and S. Gruber) | 2012 |
| Sea Turtle License Plate Grant, Sea Turtle Conservancy (\$24K) | 2012 |
| NOAA/NMFS Cooperative Research Program (\$192K, PI, w/ Co-PI R. Hueter) | 2011 |
| USGS Award; Collaborative Research on Burmese Pythons (\$35K) | 2011 |
| Albion College "Top Ten in Ten" Young Alumni Award | 2010 |
| National Geographic Society CRE Grant (\$20K, PI, w/ Co-PI W. Pratt) | 2010 |
| National Science Foundation EAGER Grant (\$50K, PI, w/ Co-PIs Gleiss, Pratt, Wilson) | 2010 |