

CURRICULUM VITAE
OF
DR. MICHAEL R. HEITHAUS
DEPARTMENT OF BIOLOGICAL SCIENCES
School of Environment, Arts and Society
Florida International University
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EDUCATION

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>Dates</u>
PhD	Simon Fraser University	Biology	1997-2001
BA	Oberlin College	Biology	1991-1995

FULL-TIME ACADEMIC EXPERIENCE

<u>Institution</u>	<u>Rank</u>	<u>Field</u>	<u>Dates</u>
Florida International Univ.	Executive Director	School of Environment, Arts and Society	9/11-current
	Associate Dean	College of Arts & Sciences	9/11-current
	Founding Director	School of Environment, Arts and Society	8/09-9/11
	Director	Marine Sciences Program	1/08-8/09
	Professor	Biology	8/13-current
	Associate Professor	Biology	8/08-8/13
	Assistant Professor	Biology	8/03-8/08
Mote Marine Laboratory	Staff Scientist	Center for Shark Research	4/02-8/03
	Postdoc. Scientist	Center for Shark Research	4/01-4/02

NON-ACADEMIC EXPERIENCE

<u>Place of Employment</u>	<u>Title</u>	<u>Dates</u>
Lorain County MetroParks	Naturalist	10/95-6/96

PUBLICATIONS IN DISCIPLINE

BOOKS

5. **Heithaus, M. R.** and K. Arms. 2013. Environmental Science. Houghton Mifflin Harcourt. Orlando, FL.
4. Carrier, J. C., J. Musick, and **M. R. Heithaus** (eds). 2012. The biology of sharks and their relatives, Second Edition. CRC Press, Boca Raton.
3. Carrier, J. C., J. Musick, and **M. R. Heithaus** (eds.). 2010. Sharks and Their Relatives II: Biodiversity, adaptive physiology, and conservation. CRC Press, Boca Raton
2. DeSalle, R. and **M. R. Heithaus**. 2008. Biology. Holt, Reinhart, and Winston. Austin, TX.
1. Carrier, J. C., J. Musick, and **M. R. Heithaus** (eds). 2004. The biology of sharks and their relatives. CRC Press, Boca Raton.

PEER-REVIEWED JOURNAL ARTICLES

96. Rosenblatt, A. E., **M. R. Heithaus**, M. E. Mather, P. Matich, J. C. Nifong, W. J. Ripple, and B. R. Siliman. Coastal top predators and long-term ecological research. *Oceanography* 26: 108-119
95. Thomson, J. A., A. B. Cooper, D.A. Burkholder, **M. R. Heithaus**, and L. M. Dill. 2013. Correcting for heterogeneous availability bias in surveys of long-diving marine turtles. *Biological Conservation* 165: 154-161.
94. Matich, P. and **M. R. Heithaus**. 2013. Multi-tissue stable isotope analysis and acoustic telemetry reveal seasonal variability in the trophic interactions of juvenile bull sharks in a coastal estuary. *Journal of Animal Ecology*: in press
93. Burkholder, D. A., **M. R. Heithaus**, J. W. Fourqurean, A. Wirsing, and L. M. 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* in press. doi: 10.1111/1365-2656.12097
92. Platt, S. G., R. M. Elsey, H. Liu, T. R. Rainwater, J. C. Nifong, A. E. Rosenblatt, **M. R. Heithaus**, and F. J. Mazzotti. 2013. Frugivory and seed dispersal by crocodylians: an over-looked form of saurochory? *Journal of Zoology*: in press
91. Vaudo, J. J. and **M. R. Heithaus**. 2013. Microhabitat selection by marine mesoconsumers in a thermally heterogeneous habitat: behavioral thermoregulation or avoiding predation risk? *PLoS One* 8: e61907. Doi 10.1371/journal.pone.0061907
90. **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. 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.
89. Worm, B., B. Davis, L. Ketterner, C. A. Ward-Paige, D. Chapman, **M. R. Heithaus**, S. T. Kessel, and S. H. Gruber. 2013. Global catches, exploitation rates, and rebuilding options for sharks. *Journal of Marine Policy* 40: 194-204.
88. Lewis, J. S., D. Wartzok, and **M. R. Heithaus**. 2013. Individuals as information sources: Do followers benefit from leaders' knowledge? *Behaviour* 150: 635-657.
87. Mukherjee, S. and **M. R. Heithaus**. 2013. Dangerous prey and daring predators: a review. *Biological Reviews* 88: 50-563.
86. Lewis, J. S., D. Wartzok, **M. R. Heithaus**, and M. Krützen. 2013. Could relatedness help explain why individuals lead in bottlenose dolphin groups. *PLoS One*: 8(3): e58162. doi:10.1371/journal.pone.0058162

85. Burkholder, D. A., J. A. Fourqurean, and **M. R. Heithaus**. 2013. Spatial pattern in seagrass stoichiometry indicates both N-limited and P-limited regions of an iconic P-limited subtropical bay. *Marine Ecology Progress Series* 472: 101-115.
84. Rosenblatt, A. E. and M. R. Heithaus. 2013. Slow isotope turnover rates and low discrimination values in the American alligator: implications for interpretation of ectotherm stable isotope data. *Physiological and Biochemical Zoology* 86: 137-148.
83. Bornatowski, H. **M. R. Heithaus**, C. M. P. Batista, and R. Mascarenhas. 2012. Shark scavenging and predation on sea turtles in northeastern Brazil. *Amphibia and Reptilia* 33: 495-502.
82. Kendrick, G. A., J. W. Fourqurean, M. Fraser, **M. R. Heithaus**, G. Jackson, K. Friedman, and D. Hallac. 2012. Science behind management of Shark Bay and Florida Bay, two P-limited subtropical systems with different climatology and human pressures. *Marine and Freshwater Research* 63: 941-951.
81. Frid, A., J. Marglive, and **M. R. Heithaus**. 2012. Interspecific variation in life history relates to antipredator decisions by marine mesopredators on temperate reefs. *PLoS One* 7(6): e40083. doi:10.1371/journal.pone.0040083
80. Olson E. L., A. K. Salomon, A. J. Wirsing and **M. R. Heithaus**. 2012. Large-scale movement patterns of male loggerhead sea turtles (*Caretta caretta*) in Shark Bay, Australia. *Marine and Freshwater Research* 63: 1108-1116.
79. Wirsing, A. J. and **M. R. Heithaus**. 2012. Behavioral transition probabilities in dugongs change with habitat and predator presence: implications for sirenian conservation. *Marine and Freshwater Research* 63:1069-1076.
78. Burkholder, D. A., **M. R. Heithaus**, and J. A. Fourqurean. 2012. Feeding preferences of herbivores in a relatively pristine subtropical seagrass ecosystem. *Marine and Freshwater Research* 63: 1051-1058.
77. Belicka L. L., D. Burkholder J. W. Fourqurean, **M.R. Heithaus**, S. A. Macko and R. Jaffé. 2012. Stable isotope and fatty acid biomarkers of seagrass, epiphytic, and algal organic matter to consumers in a nearly pristine seagrass ecosystem. *Marine and Freshwater Research* 63: 1085-1097.
76. **Heithaus, M. R.**, A. J. Wirsing, and L. M. Dill. 2012. The ecological importance of intact top predator populations: a synthesis of 15 years of research in a seagrass ecosystem. *Marine and Freshwater Research*
75. Bornatowski, H. **M. R. Heithaus**, V Abilhoa, and M. F. M. Corrêa. 2012. Feeding of the Brazilian sharpnose shark *Rhizoprionodon lalandii* (Müller & Henle, 1839) from southern Brazil. *Journal of Applied Ichthyology* 28: 623-627.
74. Bornatowski, H., L. Wedekin, **M. R. Heithaus**, M. C. Marcondes, and M. R. Rossi-Santos. 2012. Shark scavenging and predation on cetaceans at Arbolhos Bank, northeastern Brazil. *Journal of the Marine Biological Association, UK* 92: 1767-1772.
73. Nifong, J. C., A. E. Rosenblatt, N. Johnson, W. Barichivich, B. R. Silliman, and **M. R. Heithaus**. 2012. American alligator digestion rate of blue crabs and its implications for stomach contents analysis. *Copeia* 2012: 419-423.
72. Vaudo, J. J. and **M. R. Heithaus**. 2012. Seasonal and diel variation in the use of nearshore sandflats by five species of rays in a near pristine ecosystem. *Marine and Freshwater Research* 63: 1077-1084.
71. Belicka, L. L., P. M. Matich, R. Jaffe, and **M. R. Heithaus**. 2012. Fatty acid and stable isotopic composition as indicators of early-life feeding ecology and potential maternal

- resource dependency of the bull shark, *Carcharhinus leucas*. Marine Ecology Progress Series 455: 245-256.
70. 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.
 69. Matich, P., and **M. R. Heithaus**. 2012. Effects of an extreme temperature event on the behavior and age structure of an estuarine top predator (*Carcharhinus leucas*). Marine Ecology Progress Series 447: 165-178.
 68. Thomson, J. A., D. A. Burkholder, A. B. Cooper, **M. R. Heithaus**, and L. M. Dill. 2012. Heterogeneous patterns of availability for detection during visual surveys: spatiotemporal variation in sea turtle dive-surfacing behaviour on a feeding ground. Methods in Ecology and Evolution 3: 378-387.
 67. Thomson, J. A., **M. R. Heithaus**, and L. M. Dill. 2011. Informing the interpretation of dive profiles using animal-borne video: a marine turtle case study. Journal of Experimental Marine Biology and Ecology 410: 12-20.
 66. Burkholder, D., **M. R. Heithaus**, J. Thomson, and J. A. Fourqurean. 2011. Diversity in trophic interactions of green sea turtles (*Chelonia mydas*) on a relatively pristine coastal foraging ground. Marine Ecology Progress Series 439:277-293.
 65. Heithaus, E.R., P. A. **Heithaus**, **M. R. Heithaus**, D. Burkholder, and C. A. Layman. 2011. Trophic dynamics in a relatively pristine subtropical fringing mangrove community. Marine Ecology Progress Series 428: 49-61.
 64. Rosenblatt, A. E. and **M. R. Heithaus**. 2011. Does variation in movement tactics and trophic interactions among American alligators create habitat linkages? Journal of Animal Ecology 80: 786-798.
 63. 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.
 62. Vaudo, J. J. and **M. R. Heithaus**. 2011. Dietary niche overlap in a nearshore elasmobranch mesopredator community. Marine Ecology Progress Series 425: 247-260
 61. Lewis, J. S., D. Wartzok, and **M. R. Heithaus**. 2011. Highly dynamic fission-fusion species can exhibit leadership when traveling. Behavioral Ecology Sociobiology 65: 1061-1069.
 60. Matich, P., **M. R. Heithaus**, and C. A. Layman. 2011. Contrasting patterns of individual specialization and trophic coupling in two marine apex predators. Journal of Animal Ecology 80: 294-305.
 59. Vaudo, J. J. P. Matich, **M. R. Heithaus**. 2010. Mother-offspring fractionation in two species of placental sharks. Journal of Fish Biology 77: 1724-1727.
 58. Hammerschlag, N, **M. R. Heithaus**, and J. E. Serafy. 2010. Influence of predation risk and food supply on nocturnal fish foraging distributions along a subtropical mangrove-seagrass ecotone. Marine Ecology Progress Series 414: 223-235.
 57. Ferretti, F., B. Worm, G. L. Britten, **M. R. Heithaus**, H. K. Lotze. 2010. Patterns and ecosystem consequences of shark declines in the ocean. Ecology Letters 13: 1055-1071.
 56. Matich, P., **M. R. Heithaus**, and C. A. Layman. 2010 Size-based inter-tissue comparisons of stable carbon and nitrogen isotope signatures of bull and tiger sharks. Canadian Journal of Fisheries and Aquatic Sciences 67: 877-885.

55. Dunphy-Daly, M. M., **M. R. Heithaus**, A. J. Wirsing, J. S. F. Maradon, D. A. Burkholder. 2010. Predation risk influences the diving behavior of a marine mesopredator. *Open Journal of Ecology* 3: 8-15
54. Wirsing, A. J., K. Cameron, and **M. R. Heithaus**. 2010. Spatial responses to predators vary with prey escape mode. *Animal Behavior* 79: 531-537.
53. Vaudo, J. J. and **M. R. Heithaus**. 2009. Spatiotemporal variability in a sandflat elasmobranch fauna in Shark Bay, Australia. *Marine Biology* 156: 2579-2590
52. 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.
51. **Heithaus, M. R.**, B. 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.
50. **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
49. Thomson, J. A., D. Burkholder, **M. R. Heithaus**, and L. M. Dill. 2009. Validation of a rapid visual-assessment technique for categorizing the body condition of green sea turtles (*Chelonia mydas*) in the field. *Copeia* 2009: 251-255.
48. Mann, J. B. L. Sargeant, J. J. Watson-Capps, Q. A. Gibson, M.R. Heithaus, R. C. Connor, and E Patterson. 2008. Why do dolphins carry sponges? *PloS One* 3: e3868. Doi:10.1371/journal.pone.0003868
47. **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
46. **Heithaus, M. R.**, A. J. Wirsing, J. Thompson, and D. 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.
45. Kerford, M., A. J. Wirsing, **M. R. Heithaus** and L. M. Dill. 2008. Danger on the rise: Habitat use by bar-bellied sea snakes in Shark Bay, Western Australia. *Marine Ecology Progress Series* 358: 289-294.
44. Wirsing, A. J., **M. R. Heithaus**, A. Frid, and L. M. Dill. 2008. Seascapes of fear: methods for evaluating sublethal predator effects experienced and generated by marine mammals. *Marine Mammal Science* 24: 1-15
43. Dunphy-Daly, M. M., **M. R. Heithaus**, and D. E. Claridge. 2008. Temporal variation in dwarf sperm whale (*Kogia sima*) habitat use and group size off Great Abaco Island, Bahamas. *Marine Mammal Science* 24: 171-182
42. Wirsing, A. J., **M. R. Heithaus**, and R. Abernathy. 2008. Speed and maneuverability of adult loggerhead turtles (*Caretta caretta*) under simulated predatory attack: Do the sexes differ? *Journal of Herpetology* 42: 411-413
41. **Heithaus, M. R.**, A. J. Wirsing, A. Frid, and L. M. Dill. 2007. Behavioral indicators in marine conservation: lessons from an undisturbed ecosystem. *Israel Journal of Ecology and Evolution* 53: 355-370
40. Marshall, G., M. Bakhtiari, M. Shepard, B. Jolliff, D. Rasch, K. Abernathy, J. Tweedy III, J. C. Carrier, and **M. R. Heithaus**. 2007. An advanced solid-state animal-borne video and environmental data-logging device ("Critttercam") for marine research. *MTS Journal* 41: 31-38.

39. **Heithaus, M. R.**, D. Burkholder, R. E. Hueter, L. I. Heithaus, H. W. Pratt Jr, and J. C. Carrier. 2007. Spatial and temporal variation in shark communities of the lower Florida Keys and evidence for historical population declines. *Canadian Journal of Fisheries and Aquatic Sciences* 64: 1302-1313.
38. 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.
37. 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.
36. **Heithaus, M. R.**, A. Fird, A. J. Wirsing, L. M. Dill, J. 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.
35. 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 Behavior* 74: 1085-1091
34. Wirsing, A. J., **M. R. Heithaus**, and L. M. Dill. 2007. Living on the edge: dugongs prefer foraging microhabitats that allow escape rather than avoidance of predators. *Animal Behaviour* 74: 93-101.
33. **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.
32. Frid, A., **M. R. Heithaus**, and L. M. Dill. 2007. Dangerous dive cycles and the proverbial ostrich. *Oikos* 116: 893-902.
31. Sargeant, B. L., A. J. Wirsing, **M. R. Heithaus**, and J. Mann. 2007. Can environmental heterogeneity explain individual foraging variation in wild dolphins (*Tursiops* sp.)? *Behavioral Ecology and Sociobiology* 61: 679-688.
30. Bejder, L., H. Whitehead, A. Samuels, J. Mann, R. Connor, N Gales, M. Heithaus, J. Watson-Capps, C. Flaherty, and M. Krutzen. 2006. Decline in relative abundance of bottlenose dolphins exposed to long-term disturbance. *Conservation Biology* 20: 1791-1798.
29. **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.
28. **Heithaus, M. R.** and L. M. Dill. 2006. Does tiger shark predation risk influence foraging habitat use by bottlenose dolphins at multiple spatial scales? *Oikos* 114:257-264.
27. Torres, L. G., **M. R. Heithaus** and B. K. Delius. 2006. Influence of teleost abundance on the distribution and abundance of sharks in Florida Bay, USA. *Hydrobiologia* 569: 449-455.
26. 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* 4: 961-968.
25. Krützen, M, J. Mann, **M. R. Heithaus**, R. C. Connor, L. Bejder, and W. B. Sherwin. 2005. Cultural transmission of tool use in bottlenose dolphins. *Proceedings of the National Academy of Sciences* 102: 8939-8943.

24. **Heithaus, M. R.** 2005. Habitat use and group size of pied cormorants (*Phalacrocorax varius*) in a seagrass ecosystem: possible effects of food abundance and predation risk. *Marine Biology* 147: 27-35.
23. **Heithaus, M. R.**, A. Frid, A. Wirsing, L. Bejder, and L. M. Dill. 2005. Biology of green and loggerhead turtles under risk from tiger sharks at a foraging ground. *Marine Ecology Progress Series* 288: 285-294.
22. Parrish, F. A., G. J. Marshall, C. L. Littnan, **M. R. Heithaus**, S. Canja, B. Becker, R. Braun, and G. A. Antonelis. 2005. Foraging of juvenile monk seals at French Frigate Shoals, Hawaii. *Marine Mammal Science* 21: 93-107.
21. **Heithaus, M. R.** 2004. Fish communities of seagrass meadows and associated habitats in Shark Bay, Western Australia. *Bulletin of Marine Science* 75: 79-99.
20. **Heithaus, M. R.** and A. Frid. 2003. Optimal diving under the risk of predation. *Journal of Theoretical Biology* 223: 79-93.
19. Dill, L. M., **M. R. Heithaus**, and C. J. Walters. 2003. Behaviorally-mediated indirect interactions in marine communities and their conservation and implications. *Ecology* 84: 1151-1157.
18. **Heithaus, M. R.** and L. M. Dill. 2002. Food availability and tiger shark predation risk influence bottlenose dolphin habitat use. *Ecology* 83: 480-491.
17. **Heithaus, M. R.**, L. M. Dill, G. J. Marshall, and B. Buhleier. 2002. Habitat use and foraging behavior of tiger sharks (*Galeocerdo cuvier*) in a seagrass ecosystem. *Marine Biology* 140: 237-248.
16. **Heithaus, M. R.**, A. Frid, and L. M. Dill. 2002. Shark-inflicted injury frequencies, escape ability, and habitat use of green and loggerhead turtles *Marine Biology* 140: 229-236.
15. **Heithaus, M. R.**, J. M. McLash, A. Frid, L. M. Dill, and G. J. Marshall. 2002. Novel insights into the behavior of sea turtles from animal-borne cameras. *Journal of the Marine Biological Association UK* 82: 1049-1050.
14. Krützen, M., L. M. Barre, L. M. Moller, **M. R. Heithaus**, C. Simms, and W. B. Sherwin. 2002. A biopsy system for small cetaceans: darting success and wound healing in *Tursiops* spp. *Marine Mammal Science* 18: 863-878.
13. **Heithaus, M. R.** 2001. Habitat selection by predators and prey in communities with asymmetrical intraguild predation. *Oikos* 92: 542-554.
12. **Heithaus, M. R.** 2001. Shark attacks on bottlenose dolphins (*Tursiops aduncus*) in Shark Bay, Western Australia: attack rate, bite scar frequencies, and attack seasonality. *Marine Mammal Science* 17: 526-539.
11. **Heithaus, M. R.** 2001. The biology of tiger sharks (*Galeocerdo cuvier*) in Shark Bay, Western Australia: sex ratio, size distribution, diet, and seasonal changes in catch rates. *Environmental Biology of Fishes* 61: 25-36.
10. **Heithaus, M. R.** 2001. Predator-prey and competitive interactions between sharks (order Selachii) and dolphins (suborder Odontoceti): a review. *Journal of Zoology (London)* 253:53-68.
9. **Heithaus, M. R.**, G. J. Marshall, B. M. Buhleier, and L. M. Dill. 2001. Employing Crittercam to study habitat use and behavior of large sharks. *Marine Ecology Progress Series* 209: 307-310.
8. Hamilton, I. M. and **M. R. Heithaus**. 2001. The effect of temporal variation in predation risk on anti-predator behaviour: an empirical test with marine snails. *Proceedings of the Royal Society of London B* 268:2585-2588.

7. Connor, R. C., **M. R. Heithaus**, and L. M. Barre. 2001. Complex social structure, alliance stability, and mating access in a bottlenose dolphin ‘super-alliance.’ *Proceedings of the Royal Society of London B* 268:263-267.
6. Connor, R. C., **M. R. Heithaus**, P. Berggren, and J. L. Miksis. 2000. “Kerplunking”: surface fluke- slaps during shallow water foraging by bottlenose dolphins. *Marine Mammal Science* 16: 646-653.
5. Mann, J., R. C. Connor, L. M. Barre, and **M. R. Heithaus**. 2000. Female reproductive success in bottlenose dolphins (*Tursiops* sp.): life history, habitat, provisioning, and group-size effects. *Behavioral Ecology* 11: 210-219.
4. Connor, R. C., **M. R. Heithaus**, and L. M. Barre. 1999. Superalliance of bottlenose dolphins. *Nature* 397: 571-572.
3. **Heithaus, M. R.** and C. Gramme. 1998. Fish communities of the Vermilion River: differentiation between tributaries and the main channel. *Ohio Journal of Science* 98: 98-102. *Finalist for paper of the year, Ohio Academy of Science*
2. **Heithaus, M. R.** and R. H. Laushman. 1997. Genetic variation and conservation of stream fishes: influence of ecology, life history, and water quality. *Canadian Journal of Fisheries and Aquatic Sciences* 54: 1822-1836.
1. Connor, R. C. and **M. R. Heithaus**. 1996. Approach by great white shark elicits flight response in bottlenose dolphins. *Marine Mammal Science* 12: 602-606.

CHAPTERS IN BOOKS

9. **Heithaus, M. R.** 2013. Predators, prey, and ecological roles of sea turtles. Pages 249-285 *in* Wyneken, J., J. K. Lohman, J. A. Musick (eds) *Biology of Sea Turtles, Volume III*. CRC Press.
8. **Heithaus, M. R.** and J. J. Vaudo. 2012. Predator-prey interactions. Pages 505-546 *in* Carrier, J. C., J. Musick, M. R Heithaus (eds.) *The Biology of Sharks and Their Relatives, Second Edition*. CRC Pres.
7. Vaudo, J. J. and **M. R. Heithaus**. 2011. High trophic level consumers: elasmobranchs. Pages 203-225 *In* Wolanski E, McLusky D (Eds), *Treatise on Estuarine and Coastal Science. Volume 6: Trophic Relationships of Coastal and Estuarine Ecosystems*. Elsevier Inc.
6. Frid, A. and **M. R. Heithaus**. 2010. Conservation and Anti-Predator Behavior. Pages 366-376 *In* Breed, M. D. and J. Moore (eds) *Encyclopedia of Animal Behavior*. Elsevier.
5. **Heithaus, M. R.**, A. Frid, J. Vaudo, B. Worm, and A. J. Wirsing. 2010. Unraveling the ecological importance of elasmobranchs. *In* Carrier, J. C., J. Musick, M. R Heithaus (eds.) *Sharks and Their Relatives II: Biodiversity, adaptive physiology, and conservation*. CRC Press pp 611-637
4. **Heithaus, M. R.** and L. M. Dill. 2009. Feeding Tactics and Strategies. *In* Perrin, W. F., B. Wursig, and H. G. M. Thewissen (eds.). *The Encyclopedia of Marine Mammals, Second Edition*. Academic Press. pp 414-423
3. **Heithaus, M. R.** 2007. Nursery areas as essential shark habitat: a theoretical perspective. *In* McCandless, C. T., N. E. Kohler, H. L. Pratt Jr. (eds.) *Shark Nursery Grounds of the Gulf of Mexico and the East Coast Waters of the United States*. American Fisheries Society Symposium 50: 3-13.
2. **Heithaus, M. R.** 2004. Predator-prey interactions. Pages 487-521 *In* Carrier, J. C., J. Musick, M. R Heithaus (eds.) *The Biology of Sharks and Their Relatives*. CRC Press.

1. **Heithaus, M. R.** and L. M. Dill. 2002. Feeding Tactics and Strategies. Pages 412-422 in Perrin, W. F., B. Würsig, and H. G. M. Thewissen (eds.). *The Encyclopedia of Marine Mammals*. Academic Press.

GOVERNMENT REPORTS

1. Baird, R. W., M. B. Hansen, E. E. Ashe, **M. R. Heithaus**, and G. J. Marshall. 2003. Studies of foraging in “southern resident” killer whales during July 2002: dive depths, bursts in speed, and the use of a “Critttercam” system for examining sub-surface behavior. Report prepared under Order Number AB 133F-02-SE-1744 for the National Marine Mammal Laboratory, National Marine Fisheries Service, Seattle, WA.

BOOK REVIEWS

1. **Heithaus, M. R.** 2007. Review of Understanding sharks. *Quarterly Review of Biology* 82: 290.

NON-PEER REVIEWED PUBLICATIONS

4. Chapman, D. D., M. J. Frisk, D. L. Abercrombie, C. Safina, S. H. Gruber, E. A. Babcock, K. A. Feldheim, E. K. Piktich, C. Ward-Paige, B. Davis, S. Kessel, **M. Heithaus**, and B. Worm. 2013. Give shark sanctuaries a chance. *Science* 339: 757.
3. Vaudo, J. J. and **M. R. Heithaus**. 2012. Many species of sharks are found in south Florida waters. Page 362 In: Kruczynski, W. L. and P. J Fletcher (eds). *Tropical connections: South Florida's marine environment*. IAN Press, University of Maryland.
2. Vaudo, J. J. and **M. R. Heithaus**. 2012. Sharks are vulnerable to overfishing. Page 362 In: Kruczynski, W. L. and P. J Fletcher (eds). *Tropical connections: South Florida's marine environment*. IAN Press, University of Maryland.
1. Rehage, J., E. Gaiser, **M. R. Heithaus**, M. Ross, and P. Ruiz. 2010. Effects of a rare cold snap on Everglades biota: what are the long-term consequences for the ecosystem? LTER Network News Spring 2010. <http://news.lternet.edu/article314.html>.

OTHER PUBLICATIONS AND WORKS

PUBLIC AND K-12 EDUCATIONAL WORKS

Blogs

Heithauslab.blogspot.com

New Articles

Heithaus, M. R. 2013. Threats to sharks threaten entire ecosystems. www.insidescience.org/content/threats-sharks-threaten-entire-ecosystems/1351 (reposted on FoxNews.com: <http://www.foxnews.com/science/2013/08/06/dwindling-shark-population-worldwide-affects-ocean-ecosystem/>)

Leveled Readers

Heithaus, M. R. 2013. Rain forest adventure. Houghton Mifflin Harcourt. Orlando, FL. 16pp

Heithaus, M. R. 2013. Exploring the Galapagos Islands. Houghton Mifflin Harcourt. Orlando, FL. 16pp

Heithaus, M. R. 2013. Predators of Shark River. Houghton Mifflin Harcourt. Orlando, FL. 16pp

Heithaus, M. R. 2013. Tiger sharks in the seagrass. Houghton Mifflin Harcourt. Orlando, FL. 16pp

K-12 Project-Based Video Programs

1. Exploration of a Seagrass Ecosystem.
 - a. Heithaus, M.R. Exploration of a seagrass ecosystem: Student Workbook. 35pp. With lesson extension activities by P. A. Heithaus. Available at www.sberp.org
 - b. Heithaus, M.R. Exploration of a seagrass ecosystem: Teacher Instructions. Available upon request.
 - c. Heithaus, M.R. and P. Greene. Exploration of a seagrass ecosystem: Project video. Available at www.sberp.org
2. Science Fusion: Project-based videos and activities for grades 3-8 (all videos created by Heithaus, M. R, and P. Greene; Student activities and teacher instructions by M. R. Heithaus)
 - a. Exploring the Galapagos Islands (Elementary)
 - b. Tent-making bats of Costa Rica (Elementary; with Dr. B. Rodriguez and PhD student A. Wendt)
 - c. Amazing alligators (Elementary; with PhD student A Rosenblatt)
 - d. Rainforest habitats (Elementary; with Dr. S. Whitfield)
 - e. Sea turtle behavior (Elementary; with MS student E. Olsen)
 - f. Animals in Motion (Middle; with MS students K. Cameron, E. Olsen)
 - g. Ecology of Shark River (Middle, with PhD student P. Matich)
 - h. Dynamic Earth (Middle)
 - i. Exploring sound (Middle; with Dr. D. McLearn)
 - j. Data from space (Middle)
 - k. Evolution in action (Middle; with Dr. B. Langrahans)

- l. Producers of Florida Bay (Middle; with Dr. J Fouquerean and PhD student J. Campbell)
 - m. Photosynthesis (Middle; with Dr. S. Oberbauer)
 - n. Invasive species of Florida (Middle; with J. Wazilouski)
 - o. Tiger sharks and dolphins (Middle; With PhD student C. Bessey)
3. That's Amazing: Project-based videos and activities for high school biology (all videos created by Heithaus, M. R, and P. Greene; Student activities and teacher instructions by M. R. Heithaus)
- a. Disappearing poison frogs (with Dr. S. Whitfield)
 - b. Ecological role of bats (with Dr. B. Rodriguez and PhD student A. Wendt)
 - c. Alligator diets and trophic level (with PhD student A Rosenblatt)
 - d. Photosynthesis and respiration (with Dr. S. Oberbauer)
 - e. Sea turtle diving physiology and behavior (with PhD student D. Burkholder)
 - f. Neanderthal tools (with Dr. B. Hardy)
 - g. Predator-prey interactions: shark vs dolphin (with PhD student C. Bessey)
 - h. Evolutionary relationships: what is a guitarfish?
 - i. Howler monkey behavior (with Dr. D. McLearn)
 - j. Surviving a snake bite: anti-venom and immunology (with Dr. M Sasa)
 - k. Parasite control of host behavior (with Dr. A. Pinto)
 - l. Ants and antibiotics (with Dr. C. Curie)
 - m. Viral diseases of corals (with Dr. R. Vega-Thurber and Dr. D. Burkepile)
 - n. Population structure and movements of tiger sharks (with Dr. M. Shivji)
 - o. Impacts of feral cats in Australia (with the Dept. Env. Cons.)
3. Go Math: Introductory math videos for Houghton Mifflin Harcourt's National Programs(all videos created by Greene, P. and M. R. Heithaus): 86 90-120 sec videos; Grades 6-9.

Public Displays, Websites, and Documentaries

1. *Predators of Shark River Kiosk @ Ft. Lauderdale Museum of Science and Discovery (2011-2012)*. The kiosk is designed to educate the public about the coastal Everglades, the importance of scientific research, and the behavior and importance of large predators in ecosystems (in this case, American alligators and bull sharks). Kiosk will also be available online in 2012 at tracking.fiu.edu). Kiosk elements include:
 - a. Heithaus, M. R. and P. Greene. Seven 1-2 minute video vignettes with background information and research methods and results.
 - b. Heithaus, M. R., A. Fritz, A. Rosenblatt, and P. Matich. Interactive animal movement visualization tool. Six modules describe and illustrate how behaviors of predators change in response to key environmental factors. One module allows visitors to investigate all tracking data on four species.
 - c. Heithaus, M. R., A. Rosenblatt, and P. Matich. Test your knowledge quiz (16 questions).
2. *Predators of Shark River* Documentary (2012). 12 min. Producer/Narrator. In collaboration with Symbio Studios, we developed this documentary for use in museums and nature centers. The film will debut at the Museum of Discovery and Science in Summer 2012 and be provided to nature centers and museums throughout South Florida and around the country.

It also will be uploaded to the website tracking.fiu.edu. In addition to field production and post-production I obtained full grant funding for project.

3. SBERP.ORG. 2008-current. A public website with species fact sheets, research results, photos, videos, and educational programs based on NSF-funded research in Shark Bay, Australia.
4. *Coastal Carnivores* Documentary. 2012. 26 min. Producer. In collaboration with WPBT2 Miami and Symbio Studios, we developed this documentary focused on FIU research on large predators in the coastal Everglades. It aired as part of PBS' *Changing Seas* series on June 27, 2012. In addition to field production and post-production I obtained partial grant funding for project.
5. Shot, edited, and narrated mini-documentaries for the National Geographic Channel Online.
 - 2008 South Africa
 - 2009 Galapagos Islands

- 2013 **Heithaus, M. R.** and P. Matich. Coastal Carnivores Ocean Life Lecture Series. Key Largo
- 2012 **Heithaus, M. R.** Predators of Shark River. Museum of Discovery and Science,
- 2012 **Heithaus, M.R.** Why (and when) sharks matter. Miami Science Museum Underwater Festival.
- 2012 **Heithaus, M. R.** The life and times of top predators. Ocean Life Lecture Series, Key Largo, FL.
- 2011 **Heithaus, M. R.** Predators of Shark River. Public lecture at Ft. Lauderdale Museum of Discovery and Science.
- 2011 **Heithaus, M. R.** Adventures in Marine Biology. Public lecture at Ocean Reef, FL
- 2011 **Heithaus, M. R.** Adventures in Marine Biology. Public lecture at Key Largo Rotary Club, FL
- 2011 **Heithaus, M. R.** Adventures in Marine Biology. Public lecture at Surf Club, Miami, FL
- 2011 **Heithaus, M. R.** Adventures in Marine Biology. Public lecture at Biscayne Yacht Club, Miami, FL
- 2011 **Heithaus, M. R.** Adventures in Marine Biology. Public lecture at LaGorce Country Club, Miami, FL
- 2011 **Heithaus, M. R.** A shark's eye view of Shark Bay, Australia. A talk at the Miami Museum of Science Underwater Film Festival.
- 2011 Adventures in Science! Public lecture for students, parents, and teachers in Kansas City, MO.
- 2010 **Heithaus, M. R.** Tigers in the grass. Science Café at Books n Books.

FUNDED RESEARCH

GRANTS AS PRINCIPLE INVESTIGATOR DURING FIU TENURE

14. Shark provisioning: an assessment of individual and community level impacts around Moorea, French Polynesia (South Pacific). National Geographic Committee for Research and Exploration. October 2013-October 2014.
13. RAPID: Ecological responses to large-scale climate disturbance: Could the interaction of overfishing and disturbance initiate phase-shifts in tropical seagrass ecosystems? National Science Foundation. March 2013-March 2013.
12. Communicating research to public audiences: Predators of Shark River, National Science Foundation. June 2010-June 2012.
11. Assessing impacts of oil exposure to deep sea ecosystems of the Gulf of Mexico using sharks and scavengers as integrative models: satellite tracking of top predators. Guy Harvey Ocean Foundation January 2011-February 2012.
10. Assessing impacts of oil exposure to deep sea ecosystems of the Gulf of Mexico using sharks and scavengers as integrative models. Florida Institute of Oceanography. October 2010-September 2012.
9. Florida Scholar Boost: A professor to lead a Marine Fisheries and Ecosystems Dynamics and Policy Center. Florida Board of Governors. 2010-2011
8. Supplement to FCE LTER II: Coastal Oligotrophic Ecosystems Research for purchase of YSI Sondes. National Science Foundation. 2009.
7. CAREER: Does predator intimidation influence a pristine seagrass community through multiple indirect pathways? National Science Foundation. May 2008-April 2013.
6. ROA Supplement to “Behaviorally mediated species interactions in a subtropical seagrass community.” National Science Foundation, 2008,
5. Deep-sea shark communities of the Bahamas, with F Jochem coPI. Florida Institute of Oceanography. May 2007.
4. Behaviorally mediated species interactions in a subtropical seagrass community, with J Fourqurean coPI. National Science Foundation. January 2006-December 2008.
3. Deep-sea shark communities of the Gulf of Mexico, with Frank Jochem coPI. Florida Institute of Oceanography. April 2005.
2. Shiptime to test advanced animal-borne video telemetry devices, with JC Carrier (Albion College) and GJ Marshall (National Geographic) coPIs. NOAA Shiptime. January 2004-June 2006.
1. Development of an advanced animal-borne video telemetry system, with JC Carrier (Albion College) and GJ Marshall (National Geographic) coPIs. SeaGrant. July 2003-July 2006.

GRANTS AS CO-PRINCIPLE INVESTIGATOR DURING FIU TENURE

5. FCE LTER III: Coastal Oligotrophic Ecosystems Research with E. Gaiser (PI), L. Ogden (coPI), R Price (coPI), **M Heithaus (coPI)**, R Jaffe (coPI). National Science Foundation.
4. Collaborative Research: Does Anti-predator Behavior Modify Indirect Effects of Top Predators? National Science Foundation October 2012-September 2017. \$785,000 with A. Wirsing (PI), **M. Heithaus (coPI)**, W. Ripple (coPI).
3. MRI R2: Acquisition of the next generation IRMS and CRDS for the SERC Stable Isotope Laboratory with W. Anderson (PI), J Fourqurean (coPI), **M Heithaus (coPI)**, R. Jaffe (coPI). National Science Foundation, February 2010-January 2011.
2. FCE LTER II: Coastal Oligotrophic Ecosystems Research with D Childers (PI), E. Gaiser (coPI), **M Heithaus (coPI)**, R Jaffe (coPI), R Price (coPI). National Science Foundation. November 2006-November 2012.
1. Movements of hammerhead sharks in the Bahamas, with HW Pratt, Jr (PI), **M Heithaus (coPI)**. National Geographic Expeditions Council. February 2006-June 2006.

GRADUATE STUDENTS AND POSTDOCTORAL SCIENTISTS

GRADUATE STUDENTS

2013	PhD	Cindy Bessey
2013	PhD	Adam Rosenblatt
2012	MS	Robin Sarabia
2012	PhD	Derek Burkholder
2011	MS	Katy Cameron
2011	PhD	Jeremy Vaudo
2008	MS	Meagan Dunphy-Daly
2007	MS	Bryan Delius

Current PhD Students

Elizabeth Whitman (PhD)
Abraham Smith (PhD)
Robert Nowicki (PhD)
Diana Churchill (PhD)
Philip Matich (PhD)
Danielle Govea (PhD)
Camila Caceres (PhD)

POSTDOCTORAL SCIENTISTS

YEAR-YEAR	Dr. Aaron Wirsing (Assistant Professor, University of Washington)
2010-2011	Dr. Shomen Mukherjee
2012-current	Dr. Jeremy Kiszka
2012-current	Dr. Jordan Thomson

PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS (While at FIU)

UNIVERSITY

- 2010 Top Scholars Recognition
- 2008 Excellence in Faculty Scholarship
- 2007 Faculty Award for Excellence in Research

OTHER

- 2008 New York Book Fair, Best High School Biology Text in Class (for Desalle and Heithaus, Holt Biology 2008).
- 2004 American Library Association *Choice* Magazine Outstanding Academic Title for “Biology of sharks and their relatives”

AWARDS TO GRADUATE STUDENTS (NON-FELLOWSHIP/SCHOLARSHIP)

- 2012 Ecological Society of America Science and Policy Fellow Award to Adam Rosenblatt (PhD student)
- 2011 British Ecological Society Elton Prize for best paper by a young investigator in *Journal of Animal Ecology* to Philip Matich (PhD student)
- 2011 American Society of Ichthyologists and Herpetologists, best student paper in physiology to Adam Rosenblatt (PhD student)

OFFICES HELD IN PROFESSIONAL SOCIETIES

- 2007-2009 Grants Committee, American Elasmobranch Society
- 2006 Chair, Nominating Committee, American Elasmobranch Society