

Curriculum Vita

Professor Mark Joseph Butler IV

**Department of Biological Sciences
Old Dominion University
Norfolk, VA 23529-0266 USA**

**Email: mbutler@odu.edu
Telephone: (757) 683-3609
Fax: (757) 683-5283**

November 2006

EDUCATION

- Ph.D. Biological Science, 1988 - Florida State University, Tallahassee, FL
M.S. Zoology, 1983 - Ohio State University, Columbus, OH
B.A. Biology (Geology minor), 1980 - Wittenberg University, Springfield, OH

PROFESSIONAL EMPLOYMENT

- 2000-present Professor, Department of Biological Sciences,
Old Dominion University
- 2002-2004 Assistant Chairman, Department of Biological Sciences,
Old Dominion University
- 1996-2000 Graduate Program Director, Master's Program in Biology,
Old Dominion University
- 1994 Associate Professor, Department of Biological Sciences,
Old Dominion University
- 1989-1994 Assistant Professor, Department of Biological Sciences,
Old Dominion University
- 1988-1989 Guyer Postdoctoral Fellow, Center for Limnology and Department of
Zoology, University of Wisconsin
- Visiting Lecturer in Oceanography, Department of Geology and
Oceanography, University of Wisconsin
- 1988 Postdoctoral Research Associate, Department of Biological Science,
Florida State University

ADJUNCT FACULTY APPOINTMENTS

- 1999-present Florida State University, Department of Biological Sciences
1998-present Old Dominion University, Department of Ocean, Earth & Atmospheric
Sciences

PUBLICATIONS

Peer-reviewed Articles:

- Dolan, Thomas W. III and **M. J. Butler IV**. 2006. Modeling ontological changes in the social behavior of juvenile Caribbean spiny lobster, *Panulirus argus*. *Journal of Crustacean Biology* 26: 565 – 578.
- Behringer, D.C. Jr., **M.J. Butler IV**, and Jeffery Shields. 2006. Avoidance of disease in social lobsters. *Nature* 441: 421
- Behringer, D.C. Jr and **M.J. Butler IV**. 2006. Trophic structure in a tropical hard-bottom community: a stable-isotope analysis. *Oecologia*
- Behringer, D.C. Jr, and **M. J. Butler IV**. . 2006. The impact of artificially enhanced density on juvenile spiny lobster condition, residency, and disease in wild populations. *Journal of Experimental Marine Biology and Ecology* 334: 84-95
- Butler, M. J. IV**. 2005. Benthic Fisheries Ecology in a Changing Environment: Unraveling Process to Achieve Prediction. *Aquatic Living Resources* 18: 301-311
- Butler, M.J. IV**, T. Dolan, J. H. Hunt, W. F. Herrnkind, and K. Rose. 2005. Recruitment in degraded marine habitats: a spatially-explicit, individual-based model for spiny lobster. *Ecological Applications* 15: 902-918
- Castaneda-Fernandez, V., **M. Butler**, S. Hernandez-Vazquez, S. Guzman del Proo, and E. Serviere-Vasquez. 2005. Determination of preferred habitats of early benthic juvenile California spiny lobster, *Panulirus interruptus*, on the Pacific coast of Baja California Sur, Mexico. *Marine and Freshwater Research* 56: 1 – 9.
- Pease, M., R.K. Rose, and **M.J. Butler IV**. 2005. Effects of human disturbance on the behavior of wintering ducks. *Wildlife Society Bulletin* 33: 103-112
- Castañeda-Fernández-de-Lara V., E. Serviere-Zaragoza, S. Hernández-Vázquez, and **M. J. Butler IV**. 2005. Feeding ecology of juvenile spiny lobster *Panulirus interruptus* on the Pacific coast of Baja California Sur, Mexico. *New Zealand Journal Marine and Freshwater Research* 39: 425-435
- Butler, M.J. IV**. 2003. Incorporating ecological process and environmental change into spiny lobster population models using a spatially-explicit, individual-based approach. *Fisheries Research* 65: 63-79
- Robertson, D.N. and **M. J. Butler IV**. 2003. Growth and size at maturity of the spotted spiny lobster, *Panulirus guttatus*. *Journal of Crustacean Biology* 23: 265-272
- Butler, Mark J. IV**, Thomas Dolan, William Herrnkind, and John Hunt. 2001. Modeling the effect of spatial variation in postlarval supply and habitat structure on recruitment of Caribbean spiny lobster. *Marine and Freshwater Research* 52: 1243 - 1253
- Butler, Mark J. IV**. 2001. Lobster biology and management: an introduction. *Marine and Freshwater Research* 52: 1033 - 1036
- Berger, Dianne K. and **Mark J. Butler IV**. 2001. Do octopuses influence den selection by juvenile Caribbean spiny lobster? *Marine and Freshwater Research* 52: 1049- 1054
- Reznick, D., **M.J. Butler IV**, and H. Rodd. 2001. Life history evolution in guppies 7: the comparative ecology of high and low predation environments. *American Naturalist* 157: 126-140
- Robertson, D.N., **M. J. Butler**, and F.C. Dobbs. 2000. An evaluation of lipid- and morphometric-based indices of nutritional condition for early benthic stage spiny lobsters, *Panulirus argus*. *Marine and Freshwater Behavior and Physiology* 33: 161-171

Peer-reviewed Articles: (continued)

- Sharp, W.C., W.A. Lellis, **M.J. Butler**, W.F. Herrnkind, J.H. Hunt, M. Pardee-Woodring, and T.R. Matthews. 2000. The use of coded microwire tags for mark-recapture studies of juvenile Caribbean spiny lobster, *Panulirus argus*. *Journal of Crustacean Biology* 20: 510-521
- Butler, M.J. IV**, A.B. MacDiarmid, and J.D. Booth. 1999. Ontogenetic changes in social aggregation and its adaptive value for spiny lobsters in New Zealand. *Marine Ecology Progress Series* 188: 179-191
- MacDiarmid, A.B. and **M. J. Butler IV**. 1999. Sperm economy and limitation in spiny lobsters. *Behavioral Ecology and Sociobiology*. 46: 14-24
- Acosta, C.A. and **M.J. Butler IV**. 1999. Adaptive strategies that reduce predation on spiny lobster postlarvae during onshore transport. *Limnology and Oceanography* 44:494-501
- Acosta, C.A. and **M. J. Butler IV**. 1997. The role of mangrove habitat as nursery for juvenile spiny lobster, *Panulirus argus*, in Belize. *Marine and Freshwater Research* 48:721-728
- Herrnkind, W.H., **M.J. Butler IV**, J.H. Hunt, and M. Childress. 1997. The role of physical refugia: implications from a mass sponge die-off in a lobster nursery. *Marine and Freshwater Research* 48: 759-770
- Butler, M.J. IV**. 1997. Benthic processes in lobster ecology: report from a workshop. *Marine and Freshwater Research* 48: 659-662
- Butler, M.J. IV**, W.F. Herrnkind, and J. H. Hunt. 1997. Factors affecting the recruitment of juvenile Caribbean spiny lobsters dwelling in macroalgae. *Bulletin of Marine Science* 61: 3-19
- Acosta, C.A., T.R. Matthews, and **M. J. Butler IV**. 1997. Temporal patterns and transport processes in recruitment of spiny lobster, *Panulirus argus*, postlarvae to south Florida. *Marine Biology* 129: 79-85
- Butler, M.J. IV** and W.F. Herrnkind. 1997. A test of recruitment limitation and the potential or artificial enhancement of spiny lobster populations in Florida. *Canadian Journal of Fisheries and Aquatic Sciences* 54: 452-463
- Herrnkind, W.F., **M.J. Butler IV**, and J.H. Hunt. 1997. Can artificial habitats that mimic natural structures enhance recruitment of Caribbean spiny lobster? *Fisheries* 22: 24-27
- Heffner, R.A., **M.J. Butler IV**, and C.K. Reilly. 1996. Pseudoreplication revisited. *Ecology* 77: 2558-2562
- Reznick, D.A., **M.J. Butler IV**, H. Rodd, and P. Ross. 1996. Life history evolution in guppies (*Poecilia reticulata*) 6. differential mortality as a mechanism for natural selection. *Evolution* 50: 1651-1660
- Butler, M.J. IV**, J.H. Hunt, W.F. Herrnkind, T. Matthews, M. Childress, R. Bertelsen, W. Sharp, J.M. Field, and H. Marshall. 1995. Cascading disturbances in Florida Bay, USA: cyanobacteria blooms, sponge mortality, and implications for juvenile spiny lobster *Panulirus argus*. *Marine Ecology Progress Series* 129: 119-125
- Field, J.M. and **M.J. Butler IV**. 1994. The influence of temperature, salinity, and larval transport on the distribution of juvenile spiny lobsters, *Panulirus argus*, in Florida Bay. *Crustaceana* 67: 26-45
- Herrnkind, W.F. and **M.J. Butler IV**. 1994. Settlement of spiny lobsters, *Panulirus argus* in Florida: pattern without predictability. *Crustaceana* 67: 46-64

Forcucci, D.M., **M.J. Butler IV**, and J.H. Hunt. 1994. Growth and population dynamics of juvenile Caribbean spiny lobster, *Panulirus argus*, in Florida Bay, FL (USA). *Bulletin of Marine Science* 54: 805-818

Peer-reviewed Articles: (continued)

Mattingly, H.T. and **M.J. Butler IV**. 1994. Laboratory predation on the Trinidadian guppy: implications for the size-selective predation hypothesis and guppy life history evolution. *Oikos* 69: 54-64

Butler, M.J., IV and W.F. Herrnkind. 1991. Effect of benthic microhabitat cues on the metamorphosis of postlarvae of the spiny lobster *Panulirus argus*. *Journal of Crustacean Biology* 11:23-28.

Butler, M.J., IV. 1989. Community responses to variable predation: field experiments with sunfish and freshwater macroinvertebrates. *Ecological Monographs* 59: 311-328.

Butler, M.J., IV. 1988. In situ observations of bluegill (*Lepomis macrochirus*) foraging behavior: the effects of habitat complexity, school size, and predators. *Copeia* 1988: 941-946.

Butler, M.J., IV. 1988. An evaluation of reproductively-mediated character displacement in the crayfishes *Orconectes rusticus* and *O. sanborni*. *Ohio Journal of Science* 88: 87-91.

Herrnkind, W.F., **M.J. Butler IV**, and R.A. Tankersley. 1988. The effects of siltation on the recruitment of spiny lobsters (*Panulirus argus*) in south Florida. *Fisheries Bulletin* 86: 331-338.

Herrnkind, W.F. and **M.J. Butler IV**. 1986. Factors regulating settlement and microhabitat use by juvenile spiny lobsters, *Panulirus argus*. *Marine Ecology Progress Series* 34: 23-30.

Butler, M.J., IV and R.A. Stein. 1985. Range expansion in crayfish: an analysis of the replacement mechanisms. *Oecologia* 66: 168-177.

Butler, M.J., IV and H.H. Hobbs III. 1982. Drift and upstream movement of invertebrates in a springbrook community ecosystem. *Hydrobiologia* 89: 153-159.

Hobbs, H.H., III and **M.J. Butler IV**. 1981. A sampler for simultaneously measuring drift and upstream movement of aquatic macroinvertebrates in lotic environments. *Journal of Crustacean Biology* 1: 140-146.

Book Chapters:

Butler, M.J. IV, R.S. Steneck, and W.F. Herrnkind. 2006. Juvenile and adult ecology. Pp. 263 – 309 in *Lobsters: Biology and Management*, B.F. Phillips (ed.). Blackwell Scientific Press, Oxford.

Butler, M.J. IV and W.F. Herrnkind. 2001. Puerulus and juvenile ecology, pp. 276 - 301 in *Spiny Lobsters: Fisheries and Culture*, 2nd ed., B.F. Phillips and J. Kittaka (eds.). Blackwell Scientific Press, Oxford.

Herrnkind, W.F., **M.J. Butler IV**, and J. H. Hunt. 1999. A case for shelter replacement in a disturbed spiny lobster nursery in Florida: why basic research had to come first. In *Fish Habitat: Essential Fish Habitat and Rehabilitation*, American Fisheries Society.

Herrnkind, W.F., P. Jernakoff, and **M.J. Butler IV**. 1994. Puerulus and post-puerulus ecology, pp. 213-229 in *Spiny Lobster Management*, B. Phillips, S. Cobb, and J. Kittaka (eds.), Blackwell Press, Oxford.

Other Published Articles and Abstracts:

Butler, M.J. IV, D.C. Behringer, and J. Shields. In press. Resource conditions: lobster disease and sponge fishery impacts. In Keller, B.D., and F.C. Wilmot, eds. 2006. Connectivity: science, people and policy in the Florida Keys National Marine Sanctuary. Colloquium proceedings. Florida Keys National Marine Sanctuary, Marathon, FL.

Other Published Articles and Abstracts: (continued)

Robles, M.D., C.J. Madden, M.R. Lara, D.L. Jones, and **M.J. Butler**. 2005. Condition of the Natural Resources of Florida Bay, Everglades National Park. State of the Parks Technical Report, NatureServe, Arlington, Virginia, 102p.

Robles, M.D., T. Armentano, D. DiResta, M.R. Lara, D.L. Jones, and **M.J. Butler**. 2005. Condition of the Natural Resources of Biscayne National Park. A State of the Parks Technical Report.. NatureServe, Arlington, Virginia.

Lear, J. and **M. J. Butler**. 2004. Strong interactions between juvenile spiny lobster and octopuses in the Florida Keys. *The Lobster Newsletter* 17: 5 – 7.

Behringer, D., **M. Butler**, and J. Shields. 2001. The first viral disease reported in lobster. *The Lobster Newsletter* 14: 1 - 3

Butler, M.J. IV. 2000. An ecological model for the Florida Spiny Lobster, pp. 85-90 in *US/Canadian Lobster Summit III – Lobster Stock Assessment: towards greater understanding, collaboration, and improvement*. P.M. Farrey, M.L. Mooney-Seus, and H.C. Tausig (eds.), New England Aquarium Publ., Boston, MA. 153p.

MacDiarmid, A.B. and **M.J. Butler**. 1999. Sperm limitation in exploited spiny lobsters. *The Lobster Newsletter* 12(1): 2-3.

MacDiarmid, A.B., **M.J. Butler**, and R. Stewart. 1998. Is big always better? The effect of mate size on female fecundity in spiny lobsters. *Seafood New Zealand* 6 (6): 53-54

Butler, M.J. and A.B. MacDiarmid. 1998. Sperm limitation in exploited populations of spiny lobsters. *Bulletin of the Ecological Society of America* 79 (3)

Butler, M.J., W.F. Herrnkind, J.H. Hunt, and J.F. Field. 1996 Factors limiting spiny lobster distribution and abundance in Florida Bay: a preliminary report. *Proceedings of the Gulf and Caribbean Fisheries Institute* Vol. 44: 594.

MacDiarmid, A.M., **M.J. Butler**, and R. Stewart. 1995. Spiny lobster sex: is bigger always better? *The Lobster Newsletter* 8: 9

Herrnkind, W.F. and **M.J. Butler**. 1994. Impact of sponge-shelter loss on juvenile spiny lobster, *Panulirus argus*, in Florida Bay: an update. *The Lobster Newsletter* 7:2-3

Herrnkind, W.F., **M.J. Butler IV**, and D. Forcucci. 1994 The duration of the inshore postlarval stage of the spiny lobster *Panulirus argus*: implications to recruitment. *Proceedings of the Gulf and Caribbean Fisheries Institute* Vol. 43: 647

Butler, M.J., W.F. Herrnkind, and J.H. Hunt. 1994. Sponge mass mortality and Hurricane Andrew: catastrophe for juvenile spiny lobsters in south Florida? *Bulletin of Marine Science* 54: 1073

Field, J.F. and **M.J. Butler IV**. 1994. The influence of temperature, salinity, and larval transport on the distribution of juvenile spiny lobsters, *Panulirus argus*, in Florida Bay. *Bulletin of Marine Science* 54: 1074

Butler, M.J., IV and W.F. Herrnkind. 1992. Spiny lobster recruitment in south Florida: field experiments and management implications. *Proceedings of the Gulf and Caribbean Fisheries Institute* 41: 508-515.

Butler, M.J., IV and W.F. Herrnkind. 1992. Are artificial "Witham" surface collectors adequate indicators of Caribbean spiny lobster recruitment? *Proceedings of the Gulf and Caribbean Fisheries Institute* 42: 135-136.

Other Published Articles and Abstracts: (continued)

- Swanson, R.J., M.C. Mahony, **M.J. Butler**, A.A. Acosta, and S. Oehninger. 1992. Semen analysis comparison of fresh versus test yolk buffer-extended (TYB) samples. *American Society of Andrology*, Jan./Feb. Suppl., p. 28.
- Cavanaugh, V.J., R.E. Ratzlaff, and **M.J. Butler**. 1990. Evidence of a neurogenic component during IgE-induced inflammation. *The FASEB Journal* 4: A1940.
- Butler, M.J., IV** and W.F. Herrnkind. 1990. Does settlement or juvenile habitat availability regulate juvenile spiny lobster abundance? *Bulletin of the Ecological Society of America* 71: 110.
- Butler, M.J., IV** and W.F. Herrnkind. 1989. Spiny lobster recruitment in South Florida. *The Lobster Newsletter* 2:6.
- Butler, M.J., IV**. 1989. Fish predation or macroinvertebrate colonization: which structures lake-bottom communities? *Bulletin North American Benthological Society* 6: 99.
- Butler, M.J., IV**. 1988. Community responses to variation in predation: field experiments with bluegill sunfish and lentic macroinvertebrates. *Bulletin of the North American Benthological Society* 5: 84.
- Butler, M.J., IV**. 1988. Variable predation and prey community dynamics: sunfish - macroinvertebrate interactions. *Bulletin of the Ecological Society of America* 69: 89.
- Butler, M.J., IV**. 1987. Effects of variation in predation and prey recruitment on prey community structure: field experiments with bluegill sunfish and macroinvertebrate prey in a North Florida lake. *Bulletin of the Ecological Society of America* 68: 274-275.
- Butler, M.J., IV**. 1986. Effects of temporal and spatial variation in fish predation and invertebrate recruitment on freshwater littoral zone communities. *Bulletin of the Ecological Society of America* 67: 35.
- Butler, M.J., IV**. 1986. The rusty crayfish: tyrant or prude? *Natural History* 95:4.
- Butler, M.J., IV**. 1985. On the nature of NABS: a comment. *Bulletin of the North American Benthological Society* 2: 63-66.
- Butler, M.J., IV** and W.F. Herrnkind. 1985. Habitat selection and predation in juvenile spiny lobsters: the importance of the red algae *Laurencia*. *Bulletin of the Ecological Society of America* 66: 149.
- Tankersley, R.A., W.F. Herrnkind, and **M.J. Butler**. 1985. Factors influencing habitat selection of young juvenile spiny lobsters, *Panulirus argus*. *American Zoologist* 25: 122.
- Butler, M.J., IV**. 1984. Character displacement in crayfish: a case of rapid, non-competitive evolution? *Bulletin of the Ecological Society of America* 65: 74.
- Butler, M.J., IV** and R.A. Stein. 1982. Interspecific displacement of crayfish: an analysis of the competitive mechanisms. *Bulletin of the Ecological Society of America* 63: 113.
- Cotner, J. and **M.J. Butler**. 1981. Community structure, drift, and upstream migration of the crustaceans *Synurella dentata* Hubricht and *Lirceus fontinalis* Raf. in a temperate spring. *Ohio Journal of Science* 81: 101.
- Butler, M.J., IV**. 1980. A study of the chemical and physical parameters of a

temperate hardwater spring in John Bryan State Park, Green County, Ohio. *Ohio Journal of Science* 80: 93.

Manuscripts in Review:

- Lear, J.A. and **M.J. Butler IV**. Competition and predation between juvenile Caribbean spiny lobster (*Panulirus argus*) and Caribbean reef octopus (*Octopus briareus*) in the Florida Keys. Submitted to *Oecologia*
- Robertson, D.R. and **M.J. Butler IV**. Variable reproductive success in isolated populations of lobster. Submitted to *Marine Ecology Progress Series*.

SCIENTIFIC PRESENTATIONS

Invited Presentations at Scientific Meetings:

- Butler, Mark, Robert Cowen, Hirokazu Matsuda, Jason Goldstein, and Claire Paris. 2006. Connectivity in Caribbean Spiny Lobster: the tail of the dispersal kernel? Gulf and Caribbean Fisheries Institute Meeting, Connectivity in the Caribbean Symposium, Belize City, Belize.
- Butler, Mark J. IV, B. Danilowicz, K. Lindeman, P. Sale, and R. Steneck. 2006. A recruitment monitoring program for spiny lobster in Mesoamerica. Connectivity of Mesoamerican Reefs Symposium, Miami, Florida.
- Butler, Mark J. IV, R. Cowen, J. Goldstein, H. Matsuda, and C. Paris. 2006. Why we need connectivity information for lobster in Mesoamerica. Connectivity of Mesoamerican Reefs Symposium, Miami, Florida.
- Butler, Mark J. IV, Donald Behringer, and A. Kathryn Kauffman. 2005. Hard-bottom community ecology in the Florida Keys with an Emphasis on Sponges. Florida Bay Science Conference, Duck Key, FL.
- Butler, Mark J. IV. 2005. Conference Plenary Presentation: Recent advances in research on the behavior and ecology of spiny lobster. Rhode Island Sea Grant Symposium on Lobsters. Providence, RI.
- Butler, Mark J. IV, MacDiarmid A.B, Robertson D.R. 2005. Investigations of sperm limitation in spiny lobster in Florida (USA). Part I: exploited vs. unexploited species. Symposium: Human effects on Decapod Mating Systems, International Crustacean Congress. Glasgow, Scotland.
- Butler, Mark J. IV, Dolan T., Goodrich, M. 2005. Investigations of sperm limitation in spiny lobster in Florida (USA). Part II: a spatially-explicit individual-based model. Symposium: Human effects on Decapod Mating Systems, International Crustacean Congress. Glasgow, Scotland.
- Butler, Mark. J. IV M.J., Shields J.D., Behringer D.C., Ratzlaff R.. 2005. A Pathogenic Viral Disease in Spiny Lobster: Disease Dynamics, Transmission, and Ecological Relevancy Symposium: Diseases in Crustacea, International Crustacean Congress. Glasgow, Scotland.
- Butler, Mark J. IV. 2004. Conference Plenary Presentation: Benthic Fisheries Ecology in a Changing Environment: Unraveling Process to Achieve Prediction. Australian Society for Fish Biology, Adelaide, Australia
- Butler, Mark J. IV. 2004. Symposium Plenary Presentation: The Ecological Consequences of Catching the Big Ones. Australian Society for Fish Biology, Adelaide, Australia.
- Butler, Mark J. IV. 2004. Status of spiny lobster and sponge research in the Florida Keys. Florida Keys National Marine Sanctuary "Connectivity" Conference, Key West, FL
- Butler, Mark J. IV and T.W. Dolan. 2003. From individuals to ecosystems using spatially-explicit individual-based modeling. American Society of Limnology & Oceanography, Salt Lake City, UT.

- Butler, Mark J. IV. 2001. Life history, individual variability, and environmental structure: incorporating ecological process into spiny lobster population models. European Decapod Fisheries Assessment and Management Meeting, La Coruna, Spain.
- Butler, Mark J. IV, Alison B. MacDiarmid, and Jamie Heisig. 2000. Sperm depletion and fertilization success of Caribbean spiny lobster in marine reserves and fished areas. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- Butler, M.J. IV. 1999. Salinity changes and model predictions: will spiny lobster tolerate our environmental monkey-business? Florida Bay Conference, Key Largo, FL.
- Butler, M.J. IV. 1999. Ecological models in the Florida Spiny Lobster Fishery. U.S./Canadian Lobster Summit III, Rockport, ME.

Invited Presentations at Scientific Meetings: (continued)

- Butler, M.J. IV. 1999. Recruitment of Caribbean spiny lobster in Florida I., Australian Rock Lobster Workshop, Hobart, Tasmania.
- Butler, M.J. IV. 1999. Recruitment of Caribbean spiny lobster in Florida II., Australian Rock Lobster Workshop, Adelaide, South Australia.
- Butler, M.J. 1998. Modeling higher trophic levels in Florida Bay: predictions from a spatially-explicit, individual-based model for spiny lobsters. Florida Bay Science Conference, Miami, FL.
- Butler, M.J. and W.F. Herrnkind. 1997. Nursery habitat structure impacts the recruitment of Caribbean spiny lobsters: predictions from a spatially-explicit individual-based model. International Lobster Conference, Queenstown, New Zealand
- Butler, M.J. IV and W.F. Herrnkind. 1995. Factors affecting the distribution and survival of juvenile Caribbean spiny lobsters in macroalgae. Nemuro Conference on Oceans and Fisheries 1995: Spiny and Clawed Lobsters, Nemuro, Hokkaido, JAPAN
- Butler, M.J., W.F. Herrnkind, and J.H. Hunt. 1994. Spiny lobster recruitment in a changing south Florida ecosystem. Coastal Wetland Ecology & Management Symposium, Key Largo, FL.
- Butler, M.J., W.F. Herrnkind, J.H. Hunt, and J.M. Field. 1993. Recruitment of spiny lobsters in Florida: lessons from the Caribbean spiny lobster, *Panulirus argus*. International Lobster Conference, Sanriku, Japan.

Contributed Presentations:

I have authored or co-authored over 100 scientific presentations, including these as first author:

- Butler, Mark, Alison MacDiarmid, Thomas Dolan and Michael Goodrich. 2006. Mating behavior, sperm limitation, and fishing: empiricism and modeling of spiny lobsters in Florida and New Zealand. Mote Fisheries Ecology Symposium, Sarasota, FL.
- Butler, Mark J. IV., Alison McDiarmid, Thomas Dolan, and Michael Goodrich. 2006. Modeling sperm limitation in spiny lobsters in MPAs & fished areas in Florida and New Zealand. Marine Benthic Ecology Meeting, Quebec, CANADA.
- Butler, Mark J. IV, Donald Behringer, and Jeffery Shields. 2005. A Pathogenic viral disease infecting juvenile spiny lobster in the Florida Keys. Florida Bay Science Conference, Duck Key, FL.
- Butler, Mark J. IV. 2005. The ecology of sponges subject to fishing and ecosystem change. Benthic Ecology Meeting, Williamsburg, VA.

- Butler, M.J. IV, William F. Herrnkind, Donald Behringer, Denice Robertson, and John Hunt. 2004. A Region-scale Test of Recruitment Limitation of Spiny Lobster in the Florida Keys. 33rd Annual Benthic Ecology Meeting, Mobile, AL.
- Butler, M.J., S. Donahue, and T. Dolan. 2004. Everglades restoration and the consequent effects of altered salinity on nursery habitat structure and spiny lobster recruitment. 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Butler, M.J., W. F. Herrnkind, D. C. Behringer, D. Robertson, and J. Hunt. 2004. A region-scale test of recruitment Limitation of Spiny Lobster in the Florida Keys. 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Butler, M.J. and J. H. Hunt. 2003. Regional Assessment of Hard-bottom Communities in the Florida Keys with an Emphasis on Lobster and Sponge Dynamics. Everglades and Florida Bay Joint Science Meeting, Tarpon Springs, FL.
- Butler, Mark J. IV, Scott Donahue, and Tom Dolan. 2002. Everglades restoration and the effects of changing salinity on hard-bottom communities in Florida Bay. 31st Annual Benthic Ecology Meeting, Orlando, FL.

Contributed Presentations: (continued)

- Butler, Mark J. IV and Scott Donahue. 2001. The potential effects of changing salinity on hard-bottom habitat and spiny lobster recruitment in Florida Bay. Florida Bay Conference, Key Largo, FL.
- Butler, Mark J. IV, Alison MacDiarmid, and Jamie Heisig. 2001. Sperm depletion and fertilization success of Caribbean spiny lobster in marine reserves and fished areas. 30th Annual Benthic Ecology Meeting, Durham, NH.
- Butler, Mark J. IV, Thomas Dolan, William Herrnkind, and John Hunt. 2000. Variable postlarval supply and salinity change in the nursery: can Caribbean spiny lobster cope? 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- Butler, M.J. and A.B. MacDiarmid. 1999. Sperm limitation in exploited spiny lobster populations and in marine reserves. Gulf and Caribbean Fisheries Institute Meeting, Key West, FL
- Butler, M.J. IV and A.B. MacDiarmid. 1998. Sperm limitation in exploited populations of spiny lobsters. Ecological Society of America Meeting, Baltimore, MD.
- Butler, M.J. IV and A.B. MacDiarmid. 1998. Sperm ain't cheap for spiny lobsters! Marine Benthic Ecology Meeting, Melbourne, FL.
- Butler, M.J. IV, J. H. Hunt, and W.F. Herrnkind. 1997. Recruitment of Caribbean spiny lobster in a dynamic nursery: predictions from a spatially-explicit individual-based model. International Council for the Exploration of the Sea, Baltimore, MD.
- Butler, M.J. IV, A.B. MacDiarmid, and J.D. Booth. 1997. Ontogenetic changes in aggregation and its adaptive value for New Zealand spiny lobsters. Marine Benthic Ecology Meeting, Portland, ME.
- Butler, M.J. IV, W.F. Herrnkind, J.H. Hunt, and R. Bertelsen. 1996. Recruitment of Caribbean Spiny Lobsters in a Dynamic Nursery.. Marine Benthic Ecology Meeting, Columbia, SC.
- Butler, M.J., W.F. Herrnkind, and J.H. Hunt. 1994. Cascading disturbances in an ailing marine ecosystem impact the spiny lobster nursery of south Florida. Ecological Society of America, Knoxville, TN.
- Butler, M.J., W.F. Herrnkind, and J.H. Hunt. 1993. Spiny lobster research in an ailing marine ecosystem. Marine Benthic Ecology Meeting, Mobile, AL
- Butler, M.J., W.F. Herrnkind, and J.H. Hunt. 1992. Factors limiting spiny lobster

distribution and abundance in Florida Bay: a preliminary report. Gulf and Caribbean Fisheries Institute, Nassau, Bahamas.

- Butler, M.J. IV and W.F. Herrnkind. 1991. Settlement of spiny lobster postlarvae: patterns and predictability. Marine Benthic Ecology Meeting, Williamsburg, VA
- Butler, M.J. IV and W.F. Herrnkind. 1990. Studies of spiny lobster recruitment in South Florida: a status report. Blue Crab Recruitment Workshop, Dauphin Island, AL
- Butler, M.J. IV and W.F. Herrnkind. 1990. Spiny lobster recruitment in South Florida: a status report. Spiny Lobster Workshop, Long Key, FL
- Butler, M.J. IV and W.F. Herrnkind. 1990. Does settlement or juvenile habitat availability regulate juvenile spiny lobster abundance? Ecological Society of America, Snowbird, UT
- Butler, M.J. IV and W.F. Herrnkind. 1990. Does settlement or habitat availability regulate Caribbean spiny lobster abundance? Marine Benthic Ecology Meeting, Mobile, AL
- Butler, M.J. IV and W.F. Herrnkind. 1990. Are artificial "Witham" surface collectors adequate indicators of Caribbean spiny lobster, *Panulirus argus* recruitment? Gulf and Caribbean Fishery Institute, Ocho Rios, Jamaica

Contributed Presentations: (continued)

- Butler, M.J. 1989. Fish predation or macroinvertebrate colonization: which structures lake-bottom communities? North American Benthological Society, Guelph, Ontario
- Butler, M.J. 1988. Community responses to variation in predation: field experiments with bluegill sunfish and lentic macroinvertebrates. North American Benthological Society, Tuscaloosa, AL
- Butler, M.J. 1988. Variable predation and prey community dynamics: sunfish-macroinvertebrate interactions. Ecological Society of America, Davis, CA
- Butler, M.J. and W.F. Herrnkind. 1988. Spiny lobster recruitment in south Florida: field experiments and management implications. Gulf and Caribbean Fishery Institute, St. Thomas, USVI
- Butler, M.J. 1987. Effects of variation in predation and prey recruitment on prey community structure: field experiments with bluegill sunfish and macroinvertebrate prey in a north Florida lake. Ecological Society of America, Columbus, OH
- Butler, M.J., W.F. Herrnkind, and R.A. Tankersley. 1986. Habitat selection, predation, and emigration in juvenile spiny lobsters. Marine Benthic Ecology Meeting, Boston, MA
- Butler, M.J. 1986. Effects of temporal and spatial variation in fish predation and prey recruitment on freshwater littoral zone communities. Ecological Society of America - International Congress of Ecology Meeting, Syracuse, NY
- Butler, M.J. and W.F. Herrnkind. 1985. Habitat selection and predation in juvenile spiny lobsters: the importance of the red algae *Laurencia*. Ecological Society of America, Minneapolis, MN
- Butler, M.J. and R.A. Stein. 1984. Mechanisms controlling crayfish replacements and rates of replacement in Ohio streams. Ohio Fish and Wildlife Conference, Columbus, OH
- Butler, M.J. 1984. Character displacement in crayfish: a case of rapid, non-competitive evolution? Ecological Society of America, Ft. Collins, CO
- Butler, M.J. 1982. Interspecific displacement of crayfish: an analysis of the competitive mechanism. Ecological Society of America, State College, PA

- Butler, M.J. and R.A. Stein. 1982. Competition among crayfish: mechanisms and distribution effects. American Society of Zoologists Meeting, Louisville, KY
- Butler, M.J. 1980. A study of the chemical and physical parameters of a temperate hardwater spring in John Bryan State Park, Greene County, Ohio. Ohio Academy of Science, Toledo, OH
- Butler, M.J. and H.H. Hobbs. 1980. Community structure, drift, and upstream movement in a temperate hardwater spring. American Society of Limnology and Oceanography, Knoxville, TN

Co-authored Presentations:

In addition to the first-author presentations list above, I have co-authored over 70 presentations at international, national, and regional scientific meetings.

- Herrnkind, William F, **M. J. Butler IV**, and John H. Hunt. 2006. From Life History Research To A Nursery-wide Test of Recruitment Limitation of Spiny Lobster in the Florida Keys. Mote Fisheries Ecology Symposium, Sarasota, FL.
- R. Cowen, **M. J. Butler IV**, and C. Paris. 2006. Modeling the dispersal of Caribbean Spiny Lobster larvae. Connectivity of Mesoamerican Reefs Symposium, Miami, Florida.
- J. Goldstein, H. Matsuda, T. Takenouchi, **M. J. Butler IV**, R. Cowen, and C. Paris. 2006. Behavior of larval and postlarval Caribbean Spiny Lobster with implications for pan-Caribbean Connectivity. 7th Larval Biology Meeting, Coos Bay, Oregon.
- Behringer, D.C., **M.J. Butler IV** and Jeffery Shields. 2006. The pathogenic virus PaV1 in Caribbean spiny lobster: transmission, alternative hosts, and ecological impacts. Marine Benthic Ecology Meeting, Quebec, CANADA
- Kauffman, Anne Kathryn, **M. J. Butler IV**, and Andrew S. Gordon. 2005. Sponge feeding selectivity across seasons and species in Florida Bay. Florida Bay Science Conference, Duck Key, FL.
- Shields, J.D., R. Ratzlaff, D. Behringer, and **M.J. Butler**. 2005. Pathology of PaV1 virus in Caribbean spiny lobster, *Panulirus argus*. International Crustacean Congress, Glasgow, Scotland.
- Behringer, D.C., **M.J. Butler**, and J.D. Shields. 2005. A Pathogenic Viral Disease in Spiny Lobster: Disease Dynamics, Transmission, and Ecological Relevancy. Benthic Ecology Meeting, Williamsburg, VA.
- Kauffman, A.K.M, **M. J. Butler IV**, A.S. Gordon. 2005. Florida Bay through the osculum: sponge filtration efficiency and selectivity. Benthic Ecology Meeting, Williamsburg, VA.

- Behringer, D.C., **M.J. Butler IV**, J. D. Shields, and R. Ratzlaff. 2004. A Pathogenic Viral Disease in Spiny Lobster: Disease Dynamics, Transmission, and Ecological Relevancy. Benthic Ecology Meeting, Mobile, AL
- Lear, J. A., **M. J. Butler IV** and J. Schratwieser. 2004. The impacts of grouper and octopus predators on population structure, shelter use, and behavior of juvenile Caribbean spiny lobster. Benthic Ecology Meeting, Mobile, AL
- Dolan, T.W., III. and **M. J. Butler IV**. 2004. Humans as vectors in the epizootiology of a highly virulent disease of Caribbean spiny lobster, *Panulirus argus*. Benthic Ecology Meeting, Mobile, AL
- Goldstein, J. and **M. Butler**. 2004. Postlarval detection of coastal chemical cues and their effect on metamorphosis in Caribbean spiny lobster, *Panulirus argus*. 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Herrnkind, W., **M. Butler**, and J. Hunt. 2004. Habitat remediation and enhancement: providing shelter for spiny lobster at the critical life stage. 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Castaneda, V., E. Serveire-Zaragoza, **M. Butler**, and S. Hernandez-Vazquez. 2004. Feeding ecology of juvenile *Panulirus interruptus* off the Pacific coast of Baja California Sur, Mexico. 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Lear, J. and **M. Butler**. 2004. Strong interactions between juvenile Caribbean spiny lobster, *Panulirus argus*, and Caribbean reef octopus, *Octopus briarius*. 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Shields, J., D. Behringer, and **M. Butler**. 2004. Pathology of herpes-like viral infections in *Panulirus argus*. 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Linares, A., **M. J. Butler**, and A. S. Gordon. 2004. Impact of sponge filtration on water column bacterial and viral abundance. Biomedical Research Conference for Minority Students, Dallas Texas.

Co-authored Presentations: (continued)

- Behringer, D.C., **M.J. Butler IV**, J.D. Shields, and R. Ratzlaff. 2004. Behavioral alterations in response to a viral pathogen in the Caribbean spiny lobster. 7th International Lobster Conference and Workshop, Hobart, Tasmania.
- Behringer, D.C. and **M.J. Butler IV**. 2004. The impact of artificially enhanced density on juvenile *Panulirus argus* in Florida (USA.) 7th International Lobster Conference and Workshop, Hobart, Tasmania
- Behringer, D.C., **M.J. Butler IV**, and J.D. Shields. 2003. The Pathological and Ecological Effects of a Herpes-like virus in the Caribbean Spiny Lobster, *Panulirus argus*, from Florida. Everglades and Florida Bay Joint Science Meeting, Tarpon Springs, FL
- Behringer Jr., D.C., **M.J. Butler IV**, J.D. Shields and R. Ratzlaff. 2003. A lethal viral disease infecting juvenile Caribbean spiny lobster in the Florida Keys. Florida Keys Lobster Workshop, Key West, FL.
- Lear, J.A. and **M. J. Butler IV**. 2003. Interactions between juvenile Caribbean spiny lobster and Caribbean reef octopuses in the Florida Keys. Benthic Ecology Meeting, Mystic, CT.
- Herrnkind, W.F. and **M. J. Butler IV**. 2003. The Biscayne Bay (FL) spiny lobster nursery habitat ten years after Hurricane Andrew. Benthic Ecology Meeting, Mystic, CT.
- Goldstein, J.S. and **M. J. Butler IV**. 2003. Orientation, selection, and metamorphosis of Caribbean spiny lobster pueruli in response to odor plumes. Benthic Ecology Meeting, Mystic, CT.

- Behringer Jr., D.C., **M.J. Butler IV**, and J.D. Shields. 2002. Ecological ramifications of disease in the Caribbean spiny lobster, *Panulirus argus*. National Shellfisheries Association 94th Annual Meeting, Mystic, CT.
- Behringer, D. C. Jr., **M. J. Butler IV**, and J. D. Shields. 2002. Quarantined! Ecological ramifications of disease in the Caribbean spiny lobster, *Panulirus argus*. 31st Annual Benthic Ecology Meeting, Orlando, FL.
- Donahue, Scott and **M. J. Butler IV**. 2002. Sponge dynamics in nearshore hard-bottom communities of the Florida Keys. 31st Annual Benthic Ecology Meeting, Orlando, FL.
- Behringer, D. C. Jr., **M. J. Butler IV**, and Jeffery D. Shields. 2001. Ecological ramifications of disease in the Caribbean spiny lobster, *Panulirus argus*. European Decapod Fisheries Assessment and Management Meeting, La Coruna, Spain.
- Shields, J.D., D. Behringer, and **M. Butler**. 2001. Preliminary report on a pathogenic virus from the spiny lobster, *Panulirus argus*. 26th Annual Eastern Fish Health Workshop
- Behringer, D. C. Jr., **M. J. Butler IV**, and Jeffery D. Shields. 2001. Ecological ramifications of disease in the Caribbean spiny lobster, *Panulirus argus*. 30th Annual Benthic Ecology Meeting, Durham, NH.
- MacDiarmid, A.B., **M. J. Butler IV**, and Rodney D. Bertelsen. 2000. Mate choice and competition in spiny lobsters. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- MacDiarmid, A.B., T. Kendrick, J.S. Heisig, and **M. J. Butler IV**. 2000. Effects of female size on egg and larval size and quality in the spiny lobsters, *Jasus edwardsii* and *Panulirus argus*. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL

Co-authored Presentations: (continued)

- Berger, Dianne K. and **M. J. Butler IV**. 2000. Do octopuses influence den selection by juvenile Caribbean spiny lobster? 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- Robertson, Denice and **M. J. Butler IV**. 2000. The target-area hypothesis and the Spotted spiny lobster, *Panulirus guttatus*. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- Dolan, Thomas III and **M. J. Butler IV**. 2000. Modeling ontological changes in the social behavior of juvenile Caribbean spiny lobster, *Panulirus argus*. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- Schratwieser, Jason and **M. J. Butler IV**. 2000. The impact of resident and transient predators on the population dynamics of juvenile Caribbean spiny lobster. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- Behringer, Donald C. Jr and **M. J. Butler, IV**. 2000. The Ecological Impacts of Density and Disease on Wild Juvenile Caribbean Spiny Lobster Populations: A Work in Progress. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL
- Heisig, J.S. and **M. J. Butler IV**. 2000. Male reproductive dynamics in the Caribbean spiny lobster, *Panulirus argus*. 6th International Conference and Workshop on Lobster Biology & Management, Key West, FL

- Behringer, D.C. Jr., **M.J. Butler IV**, and S.C. Wainright. 1999. Trophic structure in a tropical hard-bottom community: a stable isotope analysis. Florida Bay Conference, Key Largo, FL.
- Behringer, D.C. Jr., **M.J. Butler IV**, and S.C. Wainright. 1999. Trophic structure in a tropical hard-bottom community: a stable isotope analysis. Marine Benthic Ecology Meeting, Baton Rouge, LA.
- Mauger, J., A.B. MacDiarmid, and **M. J. Butler**. 1998. Sperm discharge and regeneration in male spiny lobsters, *Jasus edwardsii*. New Zealand Marine Sciences Meeting, Auckland, NZ.
- Robertson, D.N. and **M.J. Butler IV**. 1998. The effect of isolation on the life history dynamics of the spotted spiny lobster, *Panulirus guttatus*. Marine Benthic Ecology Meeting, Melbourne, FL.
- Hansen, D. K. and **M. J. Butler IV**. 1998. Do octopuses influence den selection by juvenile Caribbean spiny lobster? Marine Benthic Ecology Meeting, Melbourne, FL.
- Sharp, W.C., W.A. Lellis, M. Pardee-Woodring, **M.J. Butler**, W.F. Herrnkind, J.H. Hunt, and T.R. Matthews. The use of coded microwire tags for mark-recapture studies of juvenile Caribbean spiny lobster, *Panulirus argus*. Marine Benthic Ecology Meeting, Melbourne, FL.
- Ramsdell, R. and **M.J. Butler IV**. 1996. The effect of structure on emigration and mortality of Caribbean spiny lobsters, Marine Benthic Ecology Meeting, Columbia, SC.
- Acosta, C.A. and **M.J. Butler IV**. 1996. Use of mangrove habitat by juvenile Caribbean spiny lobster, Marine Benthic Ecology Meeting, Columbia, SC.
- MacDiarmid, A.B. and **M. J. Butler**. 1996. Effects of mate size on reproduction in spiny lobsters, Marine Benthic Ecology Meeting, Columbia, SC.
- Robertson, D. and **M. J. Butler**. 1996. Evaluation of potential indices of nutritional condition of the Caribbean spiny lobster, Marine Benthic Ecology Meeting, Columbia, SC.
- Acosta, C. and **M.J. Butler IV**. 1995. Effect of wind stress on recruitment of Caribbean spiny lobster postlarvae. Larval Biology Meeting, Ft. Pierce, FL.

Co-authored Presentations: (continued)

- Herrnkind, W.F., **M.J. Butler IV**, and J.H. Hunt. 1995. Artificial shelters for early juvenile spiny lobsters, *Panulirus argus*: underlying ecological processes and population effects. 1995 American Fisheries Society Meeting
- MacDiarmid, A., R. Stewart, and **M.J. Butler IV**. 1995. Effects of mate size on reproduction in the red rock lobster, *Jasus edwardsii*. New Zealand Marine Sciences Conference, Wellington, New Zealand.
- Herrnkind, W.F., **M.J. Butler**, and J.H. Hunt. 1995. Artificial dens for early juvenile spiny lobsters: ecological processes, population effects, and modeling. American Fisheries Society, Orlando, FL.
- Hunt, J. H., **M. J. Butler**, and W.F. Herrnkind. 1995. Cascading disturbances in Florida Bay. American Fisheries Society, Orlando, FL.
- Herrnkind, W.F. and **M.J. Butler**. 1995. The Future of juvenile spiny lobster in Florida Bay: evidence from field surveys and modeling. Florida Bay Science Conference, Gainesville, FL.
- Herrnkind, W.F., **M.J. Butler**, and J.H. Hunt. 1994. Impact of mass sponge mortality on Florida Bay spiny lobsters: there goes the neighborhood. Marine Benthic Ecology Meeting, Mystic, CT.
- Field, J.F. and **M.J. Butler IV**. 1993. The influence of temperature, salinity, and postlarval transport on the distribution of juvenile spiny lobsters in Florida Bay. Marine Benthic Ecology Meeting, Mobile, AL.

- Herrnkind, W.F., **M.J. Butler IV**, and J.H. Hunt. 1993. Impact at ground zero: Biscayne Bay spiny lobsters vs. Hurricane Andrew. Marine Benthic Ecology Meeting, Mobile, AL.
- Field, J.F. and **M.J. Butler IV**. 1992. The influence of temperature, salinity, and larval transport on the distribution of juvenile spiny lobsters, *Panulirus argus*, in Florida Bay. Florida Keys Regional Ecosystem Symposium, Miami, FL.
- Forcucci, D.F., **M.J. Butler IV**, and J.H. Hunt. 1992. Growth and population dynamics of juvenile spiny lobsters, *Panulirus argus*, in Florida Bay. Florida Keys Regional Ecosystem Symposium, Miami, FL.
- Herrnkind, W.F., **M.J. Butler**, and J.H. Hunt. 1992. Testing spiny lobster recruitment bottlenecks: a progress report. Marine Benthic Ecology Meeting, Newport, RI
- Swanson, R.J., M.C. Mahony, **M.J. Butler**, A.A. Acosta, and S. Oehninger. 1992. Semen analysis comparison of fresh versus test yolk buffer-extended (TYB) samples. American Society of Andrology, Bethesda, MD.
- Herrnkind, W.F., **M.J. Butler IV**, and D. Forcucci. 1990. The duration of the inshore postlarval stage of the spiny lobster *Panulirus argus*: implications to recruitment. Gulf and Caribbean Fishery Institute, Miami, FL
- Herrnkind, W.F. and **M.J. Butler**. 1990. Spiny lobster recruitment: settlement patterns and support capacity. Marine Benthic Ecology Meeting, Mobile, AL.
- Cavanaugh, V.J., R.E. Ratzlaff, and **M.J. Butler**. 1990. Evidence of a neurogenic component during IgE-induced inflammation. ASBMB/AAI Annual Meeting, New Orleans, LA.
- Herrnkind, W.F., **M.J. Butler**, and K.N. Smith. 1989. Spiny lobster postlarval recruits: where do they go and what happens to them? Marine Benthic Ecology Meeting, Solomons, MD.
- Herrnkind, W.F., **M.J. Butler**, and K.N. Smith. 1989. Predation on juvenile spiny lobsters: who's been eating our lunch? American Fisheries Society Workshop, Live Oak, FL.

Co-authored Presentations: (continued)

- Herrnkind, W.F. and **M.J. Butler**. 1987. Spiny lobster recruitment: effects of siltation, food, and predators. Marine Benthic Ecology Meeting, Raleigh, NC
- Herrnkind, W.F. and **M.J. Butler**. 1987. Artificial structures for spiny lobster recruitment: identifying the problems to overcome. International Artificial Reef Conference, Miami, FL.
- Herrnkind, W.F., **M.J. Butler**, and R.A. Tankersley. 1986. Habitat selection, predation, and emigration in juvenile spiny lobsters. Marine Benthic Ecology Meeting, Boston, MA.
- Tankersley, R.A., W.F. Herrnkind, and **M.J. Butler**. 1985. Factors influencing habitat selection of young juvenile spiny lobsters, *Panulirus argus*. American Society of Zoologists/Crustacean Society, Baltimore, MD.
- Cotner, J. and **M.J. Butler**. 1981. Community structure, drift, and upstream migration of the crustaceans *Synurella dentata* Hubricht and *Lirceus fontinalis* Raf. in a temperate spring. Ohio Academy of Science, Kent, OH.

Invited Presentations at Universities or Research Institutions:

- 2007 University of North Carolina
- 2006 Colby College, Maine
- 2005 Universidad del Valle de Guatemala, Guatemala

- FUNDARY Marine Park, Guatemala
 Bay Islands Conservation Association, Utila, Honduras
 Department of Biology, Wittenberg University
- 2004 Department of Biology, Tennessee Tech University
- 2001 Department of Oceanography, University of Barcelona
 Centro de Investigaciones Biologicas del Noroeste, Baha Mexico
- 2000 Department of Fisheries, Virginia Institute of Marine Science
- 1999 Department of Zoology, Ohio State University
 South Australian Research & Development Institute, Adelaide, SA
 Center for Coastal Physical Oceanography, Old Dominion University
- 1998 Department of Fisheries & Aquatic Sciences, University of Florida
 Department of Biological Science, Florida State University
- 1997 Department of Biology, Colby College, Waterville, ME
 Department of Biology, University of Maryland-Baltimore
- 1996 Department of Zoology, University of Rhode Island
- 1995 National Institute of Water and Atmospheric Research, Wellington, New Zealand
- 1994 Department of Oceanography, University of Southampton, England
 Department of Maritime Studies, University of Haifa, Israel
- 1993 Department of Oceanography, Old Dominion University
- 1992 Department of Biology, College of William and Mary
 Department of Biological Sciences, Old Dominion University
- 1991 Department of Oceanography, Old Dominion University
 Department of Biological Sciences, Old Dominion University
 Agency for International Development, Presidents Training Initiative for the
 Island Caribbean
- 1990 Blue Crab Recruitment Workshop, Dauphin Island, AL

Invited Presentations at Universities or Research Institutions: (continued)

- 1989 Virginia Institute of Marine Sciences, Gloucester Pt, VA
- 1988 Los Angeles County Museum of Natural History, Los Angeles, CA
 Department of Zoology, Miami University, Oxford, OH
 Department of Biological Sciences, Florida Atlantic University, Boca Raton, FL
 Department of Fisheries and Wildlife, Utah State University, Logan, UT
- 1983 Department of Biology, Wittenberg University, Springfield, OH

GRANTS AND CONTRACTS

Current Grants and Contracts:

- Butler, M.J. IV**, J. Sheilds, R. Ratzlaff, and R. Cooper. 2005 – 2008. Disease dynamics in degraded nurseries: a viral disease in spiny lobster. National Science Foundation.
- Butler, M.J. IV** and R. Cowen. 2005-2010. “Connectivity of lobster populations in Mesoamerica”. Global Environment Fund, World Bank

Matthews, T., J. Hunt, and **Butler, M.J. IV**. 2005-2007. Hard-bottom monitoring program for the Florida Keys. Florida Fish & Wildlife Conservation Commission
Butler, M.J. IV and Calina Zepeda. Phase I bioassessment of spiny lobster resources in Utila, Honduras. USAID
McManus, John et al (**M. Butler – Co-PI**). 2007 – 2012. Antiqua and Barbuda Coastal and Marine Ecosystem Management Program. RA Stanford Foundation.

Completed Grants and Contracts:

Butler, M. J. IV and A. Gordon. 2004 - 2006. “Hard-bottom dynamics in the Florida Keys: monitoring & targeted research”, NOAA Coastal Ocean Program
Sale, P., E. Arias, **M. Butler**, B. Danilowicz, K. Lindeman, R. Steneck, and P. Usseglio. 2005-2006. Monitoring recruitment in protected areas in Mesoamerica. National Fish & Wildlife Foundation, Coral Reef Conservation Fund
Butler, M.J. IV, J. Sheilds, R. Ratzlaff. 2002 – 2004. “The behavioral and ecological effects of viral disease in Caribbean Spiny Lobster”, National Science Foundation
M.J. Butler. 2004. “Metadata analysis of lobster recruitment in Florida”. Florida Fish and Wildlife Conservation Commission
Butler, M.J. IV. 2001 – 2003. “Regional Assessment of Sponge Dynamics & Sponge Fishery Impacts”, NOAA Coastal Ocean Program
Sheilds, J., **M.J. Butler IV**, and R. Ratzlaff. 2002 – 2003. “Epidemiological studies on spiny lobsters, *Panulirus argus*, infected with a pathogenic herpes-like virus”, NOAA/National Marine Fisheries: Saltonstall-Kennedy Program
Butler, M.J. IV. 2000-2002. “Changing salinity effects on spiny lobster and hard bottom habitat”, National Marine Fisheries Service
Butler, M.J. IV. 2001 – 2003. “Regional characterization of hard-bottom communities in the Florida Keys National Marine Sanctuary”, Florida Fish & Wildlife Conservation Commission

Completed Grants and Contracts: (continued)

Butler, M.J. IV and A.B. MacDiarmid. 1998 – 2001. “Marine reserves and spiny lobsters: effects on male size and reproductive success”, National Science Foundation
MacDiarmid, A.B. and **M.J. Butler**. 1998 – 2001. “Reproductive and recruitment limitations in exploited red rock lobsters“, New Zealand Foundation for Research, Science & Technology
Butler, M.J. IV and W.F. Herrnkind. 2000. “Sixth International Lobster Conference and Workshop”, Florida Sea Grant
Butler, M.J. IV and Susan Barco. 2000. “Teaching Virginia’s boaters to respect protected marine species”, Virginia Marine Science Museum
Herrnkind, W.F. and **M.J. Butler IV**. 2000 – 2001. “Management of spiny lobsters in south Florida based on postlarval supply and juvenile dynamics”, Florida Sea Grant
Herrnkind, W.F. and **M.J. Butler IV**. 1998 - 2000. “Establishing the importance of postlarval supply to recruitment and management of spiny lobsters in the Florida Keys”, Florida Sea Grant
Butler, M.J. IV, J.H. Hunt, W.F. Herrnkind. 1998 - 2000. “Variation in postlarval supply and its consequences for recruitment of spiny lobsters in the Florida Keys”, National Undersea Research Program

- Butler, M.J.** 1998. "Computer simulation modeling of lobster recruitment", Florida Department of Environmental Protection
- Herrnkind, W.F. and **M.J. Butler IV**. 1997. "Measuring and modeling the contribution of seagrass habitat to juvenile spiny lobster recruitment in Florida Bay", Florida Sea Grant
- Butler, M.J.** 1995-1997 "Reproduction and recruitment of spiny lobsters: a geographic and taxonomic comparison", National Science Foundation
- Herrnkind, W.F. and **M.J. Butler IV**. 1995-1997. "The future of Florida spiny lobster: developing a predictive model and putting artificial shelters to the acid test", Florida Sea Grant
- Butler, M. J.** 1996. "Lobster recruitment modeling", Florida Department of Environmental Protection
- Butler, M. J.** 1995. "Reproduction and recruitment of spiny lobsters", New Zealand National Institute for Water and Atmospheric Research Visiting Scholar Award
- Butler, M.J.** and W.F. Herrnkind. 1994-1995. Florida Department of Environmental Protection, "Nursery habitat structure and spiny lobster stocks: research services and modeling"
- Butler, M.J.** and C. A. Acosta. 1994-1995. "Recruitment and habitat utilization of Caribbean spiny lobster, *Panulirus argus*, in Belize coastal waters", Smithsonian Museum of Natural History
- Butler, M.J.** and W.F. Herrnkind. 1993. "Macroalgal abundance and spiny lobster recruitment in south Florida", Florida Department of Environmental Protection
- Butler, M.J.** and C.A. Acosta. 1992. "Recruitment and habitat utilization of Caribbean spiny lobster, *Panulirus argus*, in Belize coastal waters ", Smithsonian Museum of Natural History
- Butler, M.J.** and C.A. Acosta. 1991. "Recruitment and habitat utilization of Caribbean spiny lobster, *Panulirus argus*, in Belize coastal waters ", Smithsonian Museum of Natural History
- Butler, M.J.** and W.F. Herrnkind. 1993. "Processes regulating spiny lobster recruitment and the potential for stock enhancement II", Florida Sea Grant
- Butler, M.J.** 1992. "Characterization of spiny lobster postlarval supply and juvenile nurseries in the upper Florida Keys", NOAA Undersea Research Program

Completed Grants and Contracts: (continued)

- Butler, M.J.** and W.F. Herrnkind. 1992. "Emergency response funds: Impacts of Hurricane Andrew on epibenthic community structure in Biscayne Bay", Florida Sea Grant
- Butler, M.J.** and W.F. Herrnkind 1991-1993. "Limits to the recruitment of spiny lobster, *Panulirus argus*, in Florida: a field assessment of enhancement techniques", Florida Sea Grant
- Butler, M.J.** 1991. "Protecting Caribbean spiny lobster populations: what constitutes juvenile habitat and can it be enhanced? Old Dominion University Faculty Summer Research Award
- Butler, M.J.**, W.F. Herrnkind, and J.H. Hunt. 1991. "The impact of the Florida Keys reef tract on spiny lobster recruitment and population biology: contrasts between *Panulirus argus* and *P. guttatus*? NOAA Undersea Research Program
- Herrnkind, W.F. and **M.J. Butler**. 1990. "Life of a Key Lobster", Earthwatch Foundation
- Herrnkind, W.F. and **M.J. Butler**. 1989. "Life of a Key lobster", Earthwatch Foundation
- Reznick, D. and **M. J. Butler**. 1989-1991. "Life history evolution in Trinidadian guppies (*Poecilia reticulata*)", National Science Foundation
- Butler, M.J.** and W.F. Herrnkind 1988-1989. "Florida spiny lobster recruitment: project renewal", Florida Sea Grant

- Herrnkind, W.F. and **M. J. Butler**. 1987-1988. "Spiny lobster recruitment in Florida: settlement, mortality, and stock prediction", Florida Sea Grant
- Butler, M.** 1985-1987. "Community responses to variable predation: a field experiment with bluegill sunfish and freshwater benthic macroinvertebrates", National Science Foundation Doctoral Dissertation Improvement Grant
- Butler, M.** 1984. "Field tests of hypotheses regarding character displacement in crayfish", Sigma Xi Grant-in-Aid of Research,
- Butler, M.** 1981-1983. "Displacement of the crayfish *Orconectes sanborni* by *O. rusticus*: an analysis of the mechanisms", Ohio Department of Natural Resources
- Butler, M.** 1981. "Competitive exclusion in two species of crayfish, *Orconectes rusticus* and *O. sanborni*", Sigma Xi Grant-in-Aid of Research
- Butler, M.** and R. Stein 1981. "Competitive interactions between two species of crayfish?", Ohio State University Grant-in-Aid of Research

HONORS AND AWARDS

- 2005 Award for Outstanding Teaching, Dept. Biol. Sci., Old Dominion University
- 1995 “Best Paper in Fisheries Science”, New Zealand Marine Sciences Conference,
- 1991 “Most Inspiring Faculty Award”, College of Sciences, Old Dominion University
- 1989 “Best Oral Presentation in Basic Science”, North American Benthological Society
- 1988 Guyer Postdoctoral Fellowship, University of Wisconsin
- 1986 Marine Science Graduate Fellowship, Aylesworth Foundation
- 1986 Marine Science Fellowship, International Women's Fishing Association
- 1983 College of Sciences Fellowship, Florida State University
- 1980 Cum Laude, Mortar Board Honorary, Tri-Beta Honorary - Wittenberg University

GRADUATE STUDENT SUPERVISION

Postdoctoral Fellows:

- Jeremy Wiesz (2005-2007)
- Donald Behringer (2003 – 2004)
- Emmanuel Ricelet (1999-2000), French National, Postdoc Fellowship from French Government

Students Graduated:

- Holly Fernbach (M.S. 2004), “Social continuity of migratory bottlenose dolphin off Cape Henry, VA”
- Jennifer Lear (M.S. 2004), “Strong interactions between juvenile Caribbean spiny lobster (*Panulirus argus*) and Caribbean reef octopus (*Octopus briareus*) in the Florida Keys, FL”
- Roxanne Carter (M.S.), Non-thesis topic: “GIS analysis of Florida Keys hard-bottom communities”
- Gretchen Bath-Martin (Ph.D. 2003), Dissertation: “Experimental investigation of elemental incorporation in the otoliths of larval and juvenile fish: implications for use as environmental recorders”.
- Donald Behringer (Ph.D. 2003), Dissertation: “A stable isotope analysis of hard bottom community food webs in the Florida Keys”
- Jamie Heisig (M.S. 2003), Thesis: “Biochemical and histological analysis of sperm longevity and spermatophore structure in spiny lobsters”
- Denice Robertson (Ph.D. 2001), Dissertation: “The target-area hypothesis: the impact of patch reef size on population structure, mating, and reproductive success of the spotted spiny lobster, *Panulirus guttatus*”
- Tom Dolan (M.S., 2000), Non-thesis: “Modeling ontological changes in the social behavior of juvenile Caribbean spiny lobster, *Panulirus argus*”
- Jason Schratwieser (M.S. 1999), Thesis: “The impact of resident and transient predators on the population dynamics of juvenile Caribbean spiny lobster in Florida”
- Dianne Hansen (M.S. 1998), Non-thesis: “The effect of octopus predators on habitat choice by spiny lobsters”
- Charles Acosta (Ph.D., 1997), Dissertation: "Ecology of postlarval Caribbean spiny lobsters, *Panulirus argus*"

Students Graduated: (continued)

Cheryl Frew (M.S., 1994), Thesis: “The role of colonization, predation, and season in determining macroinvertebrate community structure in a temperate lake”

Georgi Hyde (M.S., 1993), Non-Thesis: “An evaluation of field techniques for use in studies of post-algal phase juvenile spiny lobsters, *Panulirus argus*”

Jennifer Field (M.S., 1993), Thesis: “The influence of temperature, salinity, and postlarval transport on the distribution of juvenile spiny lobsters, *Panulirus argus*, in Florida Bay”

Hayden Mattingly (M.S., 1991), Thesis: "A laboratory study of predation on the Trinidadian guppy, *Poecilia reticulata*, by two natural piscine predators: effects of predator size, prey size, and habitat complexity"

Current Students:

Thomas Dolan (Ph.D.), Dissertation topic: “The effect of recreational and commercial lobster fisheries on lobster viral disease epidemiology”

Jennifer Lear (Ph.D.), Dissertation topic: “Ecological interactions between juvenile Caribbean spiny lobster and Caribbean reef octopus”

Meredith Kintzing (Ph.D.), Dissertation topic: “Trophic cascades on coral reefs”

Scott Donahue (M.S.), Thesis topic: “The effect of sponges on local physical and biological conditions in tropical hard-bottom communities”

Jason Goldstein (M.S.), Thesis topic: “Orientation, settlement, and metamorphosis of postlarval spiny lobster in response to odor plumes”

Kathryn Kauffman (M.S.), Thesis topic: “Vertical transmission of microbial communities in tropical sponges”

COURSES TAUGHT

Department of Geology and Oceanography, University of Wisconsin:
Oceanography (105)

Department of Biological Sciences, Old Dominion University:

Biometry (706/806), Limnology (417/517), Marine Ecology (415/515), Experimental Marine Ecology (444/544), Marine Biology (232), Ecological Sciences Seminar (708/808; graduate seminars: statistical ecology, community ecology, historical ecology, null models in ecology, ecological grantsmanship, Monte Carlo methods in biology)

PROFESSIONAL SERVICE

Scientific Meeting Activities:

- 2005 Symposium organizer and Co-Chair: "Effect of Human Exploitation on Crustacean Mating Systems", 6th International Crustacean Congress, Glasgow, Scotland
Session Chair, Benthic Ecology Meeting, Williamsburg, VA
- 2004 Session Chair, 7th International Lobster Conference, Hobart, Tasmania
Workshop Instructor: Monitoring recruitment on coral reefs, World Bank Program, Akumal, Mexico
- 2003 Session Chair, European Decapod Fisheries Assessment and Management Meeting, La Coruna, Spain.
- 2000 Chair, Organizing Committee, 6th International Lobster Conference, Key West, FL
- 1997 Symposium organizer and Chair: "Benthic ecology of lobsters", 5th International Lobster Conference, Queenstown, New Zealand
- 1990-2006 Session Chair, Marine Benthic Ecology Meetings
- 1993 Session Chair, 4th International Lobster Conference, Sanriku, Japan
- 1992 Symposium organizer and co-chair: "Recruitment dynamics in marine fisheries: integrating basic and applied ecology", Ecological Society of America Meeting, Honolulu, Hawaii
- 1990 Co-Chairman - Program Committee, Marine Benthic Ecology Meeting, Williamsburg, VA
- 1990 Local Site Selection Committee, Association of Southeastern Biologists Meeting, Virginia Beach, VA
- 1987 Symposium organizer and chair: International Congress of Ecology - Ecological Society of America Meeting, Syracuse, NY

Professional Administrative and Editorial Activities:

- 1999 – present Editorial Staff, *Marine Ecology Progress Series*
- 1996 - present Editor, *The Lobster Newsletter* (international newsletter)
- 1999 Blue Crab Scientific Task Force, Appointed by VA Secretary of Natural Resources
- 1998, 2001, 2002 & 2003 Panelist, National Science Foundation
- 1995- 2003 Scientific Advisory Board, Gulf of Mexico Fishery Management Council
- 1995-1998 Panelist, National Undersea Research Program
- 1993-1995 Secretary, Aquatic Ecology Section of the Ecological Society of America
- 1991-1995 Board of Directors, Gulf and Caribbean Fisheries Institute
- 1989-1992 Senior Editor, *Proceedings of the Gulf and Caribbean Fisheries Institute*

In addition to the responsibilities listed above, I regularly review manuscripts for journals such as: *Ecology/Ecological Monographs*, *Marine Ecology Progress Series*, *Marine Biology*, *American Midland Naturalist*, *Journal of Experimental Marine Biology and Ecology*, *Bulletin of Marine Science*, *Journal of Crustacean Research*, *Transactions of the American Fisheries Society*, and *Fisheries*. I also regularly review proposals for: The National Science Foundation, Sea Grant, and The National Undersea Research Program.

Significant Departmental Service Activities:

2005 Computational Biologist Search Committee
Faculty Mentor: Dr. Lisa Horth
2002-2004 Assistant Departmental Chair
2002 Chair, Tenure & Promotion Committee
Chair, Ecological/Evolutionary Biologist Faculty Search Committee
Executive Committee
2001 Parasitology Faculty Search Committee
2000, 2002 Executive Committee
1996-2000 Graduate Program Director, Master's in Biology Program
1997-1998 Chair, Portfolio Review Committee
1997-1998 Chair, Environmental Biology Faculty Search Committee
1994-present Curriculum Committee
1996 Chair, Executive Committee
1995 Executive Committee
1989-2000 Advisor for Biology Graduate Student Organization

Significant University Service Activities:

2003-present College of Sciences Research Committee
College of Sciences Research Building Planning & Design Committee
2002- 2004 College of Sciences Tenure & Promotion Committee
1998-1999 Search Committee for Vice President, Graduate Studies & Research
1998-present *ad hoc* Committee on Marine Mammalogy program for College
1998-1999 *ad hoc* Committee for fast-track M.S. degree in Environmental Science
1997 University Intercollegiate Athletic Committee
1997 President's "Bus Tour" to recruit students
1992 - 1994 University Intercollegiate Athletic Committee
1993 College of Sciences Computing Services Committee
1992 *ad hoc* Committee on Integrity in Research
1991 *ad hoc* College of Sciences Honor Code Committee
1990-1991 Faculty Senate (1990-1991)
Committee M: Intercollegiate Athletics; chairman (1991)
1989 University Parking Services Committee