

Matthew B. Ogburn

Ecologist
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EDUCATION:

- 6/04 – 5/08 **Duke University Marine Laboratory.** Ph.D. Environment. Nicholas School of the Environment and Earth Sciences. “Estuarine Ingress of the Blue Crab *Callinectes sapidus*.” Advisor: Dr. Richard Forward.
- 6/02 – 6/04 **The University of Georgia.** M.S. Marine Sciences. “Salt Marsh Dieback in Georgia: Field Survey and Transplant Experiments.” Advisor: Dr. Merryl Alber.
- 9/97 – 5/01 **Duke University.** B.S. Biology. Geology minor. “Global Environmental Change” Focus program.

PROFESSIONAL EXPERIENCE:

- 10/14 - *Ecologist:* Smithsonian Environmental Research Center
- 1/14 - *Affiliate Professor:* George Mason University
- 11/11 – 9/14 *Postdoctoral Fellow and Research Associate:* Smithsonian Environmental Research Center
Research advisor: Dr. Tuck Hines
- 9/08 – 3/12 *Postdoctoral Fellow:* NOAA Living Marine Resources Cooperative Science Center
Associate Graduate Professor: Savannah State University
Research advisor: Dr. Dionne Hoskins
- 6/04 – 8/08 *Doctoral Student:* Duke University Marine Laboratory
Research advisor: Dr. Richard Forward
- 9/02 – 6/04 *Master’s Student:* Department of Marine Sciences, The University of Georgia
Research advisor: Dr. Merryl Alber
- 6/00 – 8/00 *Research Assistant:* Duke University Marine Laboratory
Research advisor: Dr. Daniel Rittschof
- 6/98 – 8/98 *Research Assistant:* Department of Biology, Duke University
Research advisor: Dr. Paul Manos

RESEARCH INTERESTS:

Conservation science. Estuarine and marine ecology. Restoration ecology. Sustainable fisheries. Population and community ecology. Animal behavior and physiology. Movement ecology. Larval dispersal and recruitment. Migratory life history strategies. Ecosystem-based fisheries management. Long-term studies. Global change.

GRANTS AWARDED:

- 2017 **Ogburn MB**, Lohan KP, Hines AH. *Integrative assessment of the quality of shallow tributary forage habitats for Striped Bass in Chesapeake Bay*. NOAA Chesapeake Bay Office. 1/1/2018-1/31/2020. \$240,011
- 2017 **Ogburn MB**. *Identifying juvenile nursery habitat of the Cownose Ray*. The Curtis & Edith Munson Foundation. 2017-2018. \$14,000.
- 2017 Leimgruber P, Marra P, **Ogburn MB**. *SI MOVE*. Aramco Services Company. 2017-2018. \$500,000.
- 2017 **Ogburn MB**, Lemaitre R, Hines AH. *Barcoding the Chesapeake Invertebrates*. Smithsonian Institution Global Genome Initiative (\$7,766) and Barcode Program (\$8,761). 2017-2018. \$16,527.
- 2016 Leimgruber P, Marra P, **Ogburn MB**. *SI MOVE*. Aramco Services Company. 2016-2017. \$500,000.
- 2016 **Ogburn MB**, Hines AH. *River Herring spawning run monitoring in Chesapeake Bay – II (MD, VA)*. 2/1/2016-1/31/2019. \$490,532 (includes \$245,266 match from Smithsonian Institution).
- 2015 **Ogburn MB**, Lemaitre R, Hines AH. *Barcoding the Chesapeake Invertebrates*. Smithsonian Institution. 8/1/2015-6/1/2016. \$13,543.
- 2015 **Ogburn MB**, Weller DE, Hines AH. *Predictive habitat modeling for River Herring conservation in the Chesapeake Bay watershed*. Smithsonian Institution Competitive Grants Program for Science. 1/1/2015-12/31/2016. \$92,958.
- 2015 Leimgruber P, Marra P, **Ogburn MB**, Dove C. *SI-Move: An Earth Observatory for Movement Ecology*. Smithsonian Institution Grand Challenges. \$19,776
- 2015 Hines AH, **Ogburn MB**. *River herring spawning run monitoring in Chesapeake Bay*. National Fish and Wildlife Foundation 2/1/2015-1/31/2016. \$193,746 (includes \$96,873 match from Smithsonian Institution).
- 2015 Hines AH, **Ogburn MB**. *Application of dual-frequency imaging sonar to the study of oyster reef ecosystem services*. NOAA Chesapeake Bay Office 2/1/2015-1/31/2018. \$273,638.

- 2014 **Ogburn MB**, Gilmour CC, Johnson EG, Hines AH. *Nursery habitat contributions to the Chesapeake Bay blue crab spawning stock*. NOAA Saltonstall-Kennedy Grant Program 5/1/2014-4/30/2016. \$323,341.
- 2014 Osman R, **Ogburn MB**, Hines AH. *Sustainable Reduction in Maryland 'Ghost Pot' Fishing*. National Fish and Wildlife Foundation 4/1/2014-3/31/2015. \$48,647.
- 2014 Hines AH, **Ogburn MB**. *Biotelemetry of cownose rays in Chesapeake Bay: Habitat use, movement, and long-distance migration*. Smithsonian Institution Competitive Grants Program for Science 2/1/2014-1/31/2016. \$97,398.
- 2014 Hines AH, **Ogburn MB**, Aguilar R. *Imaging sonar run counts of river herring in Chesapeake Bay*. National Fish and Wildlife Foundation 2/1/2014-1/31/2015. \$201,506 (includes \$100,753 match from Smithsonian Institution).
- 2013 Hines AH, **Ogburn MB**, Johnson EG. *Evaluating the relative impacts of the recreational and commercial sectors of the blue crab fishery in Maryland*. 2/1/2014-1/31/2016. \$200,484 (includes \$66,828 match from Smithsonian Institution).
- 2013 Hines AH, **Ogburn MB**. *Incorporating habitat use and dispersal into the trophic dynamics of an exotic top predator*. Smithsonian Institution Competitive Grants Program for Science 2/1/2013-1/31/2015. \$46,817.
- 2012 Hines AH, **Ogburn MB**, Aguilar R. *Imaging sonar run counts of river herring in Chesapeake Bay*. National Fish and Wildlife Foundation 12/15/2012-12/15/2013. \$405,066 (includes 50% match from Smithsonian Institution).
- 2012 Hines AH, **Ogburn MB**, Johnson EG, Weigt L. *Barcoding the Chesapeake Fishes and Invertebrates: Phase II*. Smithsonian Institution 10/1/2012-9/31/2013. \$49,000.
- 2010 **Ogburn MB**, Hoskins DL, Schnabolk H. *Evaluation of restored intertidal oyster reefs using lidar*. NOAA LMRCSC, 1/1/2011-12/31/2011. \$25,400.
- 2010 Hoskins DL, **Ogburn MB**. National Ocean Sciences Bowl Regional Competition Site. \$25,000.
- 2009 Schott EJ, **Ogburn MB**, White SN. *Molecular tracking of pathogens in early life history of blue crabs *Callinectes sapidus**. NOAA LMRCSC, 12/1/2009–11/31/2010. \$53,246.
- 2009 Hoskins DL, **Ogburn MB**. National Ocean Sciences Bowl Regional Competition Site. \$14,000.

- 2007 Forward RB Jr. *Distribution and transport of blue crab megalopae*. Blue Crab Research Program. North Carolina Sea Grant. \$28,322. Graduate students not permitted as co-PI's.
- 2006 Forward RB Jr. *Blue crab post-larval immigration into an estuary*. Blue Crab Research Program, North Carolina Sea Grant. \$36,415. Graduate students not permitted as co-PI's.
- 2004-2005 Forward RB Jr. *Seasonal patterns of blue crab postlarval entry into an estuary*. Blue Crab Research Program, North Carolina Sea Grant. \$66,828. Graduate students not permitted as co-PI's.
- 2004 **Ogburn MB**. *Settlement of the blue crab (*Callinectes sapidus*) in the Duplin River, GA: patterns and habitat selection*. National Estuarine Research Reserve Graduate Research Fellowship. Funding turned down to attend Duke University.

RESEARCH PUBLICATIONS (student authors underlined):

- In Press Staaterman E, **Ogburn MB**, Altieri AH, Brandl SJ, Whippo R, Seemann J, Goodison M, Duffy JE. Bioacoustic measurements compliment visual biodiversity surveys: preliminary evidence from four shallow marine habitats. Marine Ecology Progress Series.
- 2017 **Ogburn MB**, Harrison A-L, Whoriskey FG, Cooke SJ, Mills Flemming JE, Torres LG. Addressing challenges in the application of animal movement ecology to aquatic conservation and management. *Frontiers in Marine Science* doi: 10.3389/fmars.2017.00070.
- 2017 **Ogburn MB**, Spires J, Aguilar R, Goodison MR, Heggie K, Kinnebrew E, Richie KD, Roberts PM, Hines AH. Assessment of River Herring Spawning Runs in a Chesapeake Bay Coastal Plain Stream using Imaging Sonar. *Transactions of the American Fisheries Society* 146:22-35.
- 2016 Aguilar R, **Ogburn MB**, Driskell AC, Weigt LA, Groves M, Hines AH. Gutsy Genetics: Identification of digested piscine prey items in the stomach contents of sympatric native and introduced warmwater catfishes via DNA Barcoding. *Environmental Biology of Fishes*. doi: 10.1007/s10641-016-0523-8.
- 2016 Rick T, Reeder-Myers L, Breitburg D, Lockwood R, Hofman C, Henkes G, Kellogg L, Lowery D, Luckenbach M, Mann RL, **Ogburn MB**, Southworth M, Wah J, Wesson JA, Hines AH. Millennial-Scale Sustainability of the Chesapeake Bay Native American Oyster Fishery. *Proceedings of the National Academy of Sciences* 201600019. doi: 10.1073/pnas.1600019113.

- 2015 **Ogburn MB**, Habegger LC. Reproductive status of *Callinectes sapidus* as an indicator of spawning habitat in the South Atlantic Bight, USA. *Estuaries and Coasts* 38:2059-2069. doi: 10.1007/s12237-015-9962-2.
- 2015 Rick T, **Ogburn MB**, McCanty S, Reeder-Myers L, Miller H, Kramer M, Hines AH. Archaeology, taphonomy and historical ecology of Chesapeake Bay blue crabs (*Callinectes sapidus*). *Journal of Archaeological Science* 55:42-54.
- 2014 **Ogburn MB**, Roberts PM, Richie KD, Johnson EG, Hines AH. Temporal and spatial variation in sperm stores in the blue crab *Callinectes sapidus* and potential effects on brood production in Chesapeake Bay. *Marine Ecology Progress Series* 507:249-262.
- 2014 Mathies N, **Ogburn MB**, McFall G, Fangman S. Environmental interference factors affecting detection range in acoustic telemetry studies using fixed receiver arrays. *Marine Ecology Progress Series* 495:27-38.
- 2013 **Ogburn MB**, Criales MM, Thompson RT, Browder JA. Endogenous swimming activity rhythms of postlarvae and juveniles of the penaeid shrimp *Farfantepenaeus aztecus*, *Farfantepenaeus duorarum*, and *Litopenaeus setiferus*. *Journal of Experimental Marine Biology and Ecology* 440:149-155.
- 2012 **Ogburn MB**, Forward RB Jr. Effect of sampling interval on estimates of larval supply. *Fishery Bulletin* 110:451-457.
- 2012 Chung JS, Mauer L, Bratcher M, **Ogburn MB**, Pitula JS. Cloning of aquaporin-1 of the blue crab, *Callinectes sapidus*: its expression during the larval development in hyposalinity. *Aquatic Biosystems* 8:21.
- 2012 **Ogburn MB**, Hall M, Forward RB Jr. Blue crab larval supply in North Carolina: Environmental forcing, recruit-stock relationships, and numerical modeling. *Fisheries Oceanography* 21:20-32.
- 2011 **Ogburn MB**, Stuck KC, Heard RW, Wang SY, Forward RB Jr. Seasonal variability in the morphology of blue crab *Callinectes sapidus* megalopae and early juvenile stage crabs and distinguishing characteristics among co-occurring Portunidae. *Journal of Crustacean Biology* 31:106-113.
- 2010 Rittschof D, Darnell MZ, Darnell KM, Goldman M, **Ogburn MB**, McDowell R. Estimating relative abundance of the female blue crab spawning stock in North Carolina. In: GH Kruse, GL Eckert, RJ Foy, RN Lipcius, B Sainte-Marie, DL Stram, and D Woodby (eds.). *Biology and Management of Exploited Crab Populations under Climate Change*. Alaska Sea Grant, University of Alaska Fairbanks.

- 2009 **Ogburn MB**, Diaz H, Forward RB Jr. Mechanisms of shoreward transport and estuarine ingress of blue crab *Callinectes sapidus* megalopae. *Marine Ecology Progress Series* 389:181-192.
- 2009 **Ogburn MB**, Forward RB Jr. Ingress of brachyuran crab post-larvae to the Newport River estuary. *Estuaries and Coasts* 32:309-318.
- 2008 Crowder LB, Hazen EL, Avissar N, Bjorkland R, Latanich K, **Ogburn MB**. The impacts of fisheries on marine food webs and the transition to ecosystem-based management. *Annual Review of Ecology, Evolution and Systematics* 39:259-278.
- 2008 Darnell MZ, **Ogburn MB**, Diaz H. A novel running wheel apparatus to monitor locomotor rhythms in land crabs. *Marine and Freshwater Behaviour and Physiology* 41(3):205-210.
- 2007 **Ogburn MB**, Jackson JL, Forward RB Jr. Comparison of low salinity tolerance in *Callinectes sapidus* Rathbun and *Callinectes similis* Williams postlarvae upon entry into an estuary. *Journal of Experimental Marine Biology and Ecology* 352:343-350.
- 2007 Forward RB Jr., Diaz H, **Ogburn MB**. The ontogeny of endogenous rhythm in vertical migration of the blue crab *Callinectes sapidus* at metamorphosis. *Journal of Experimental Marine Biology and Ecology* 348:154-161.
- 2006 **Ogburn MB**, Alber M. An investigation of salt marsh dieback in Georgia using field transplants. *Estuaries and Coasts* 29(1):54-62.

MANUSCRIPTS IN REVIEW:

Ogburn MB, Hasselman DJ, Schultz TF, Palkovacs EP. Genetics and juvenile abundance dynamics show congruent patterns of population structure for depleted river herring populations in the upper Chesapeake Bay. *North American Journal of Fisheries Management*.

Zhang J, Yurchenko OV, Lutaenko KA, Nekhaev IO, Aguilar R, Zhan Z, **Ogburn MB**. A tale of two soft-shell clams: validity of *Mya arenaria* and *Mya japonica* (Bivalvia:Myidae) based on molecular and spermatozoan ultramorphological data. *Zoological Journal of the Linnean Society*.

MANUSCRIPTS IN PREPARATION:

Semmler RF, **Ogburn MB**, Aguilar R, North EW, Reaka ML, Hines AH. Impacts of tagged blue crab movement on mark-recapture estimates of harvest and exploitation.

Ogburn MB, Bangley C, Aguilar R, Fisher R, Heggie K, Hines AH. Evaluation of seasonal habitat use and migration of Chesapeake Bay Cownose Rays using acoustic telemetry.

Ogburn MB, Lipcius RN, Fabrizio MC, Hines AH. Dynamics of the blue crab spawning stock and female fishery in Chesapeake Bay.

Ogburn MB, Aguilar R, Goodison MR, Steppe CN, Hines AH. Movement and habitat use of non-native Blue Catfish in a tidal tributary of Chesapeake Bay.

Seitz RD, Glaspie CN, **Ogburn MB**, Hines AH, Dungan C. Role of habitat, environmental factors, and disease on soft-shell and razor clam distribution in Chesapeake Bay.

Mohammed-Geba K, Galal-Khallaf A, Aguilar R, **Ogburn MB**, Hines AH, Khalafallah HJ, El-Kattan A, Hassa El-Nabi, SE. Genetic barcoding provides the first record for *Livoneca redmanii* in the Egyptian inland waters.

Mathies NH, **Ogburn MB**, McFall G, Fangman S. Identifying seasonal and diel movement patterns of tagged red snapper *Lutjanus campechanus*, gag *Mycteroperca microlepis*, and scamp *Mycteroperca phenax* using control data from stationary acoustic telemetry tags.

Carroll CJ, Fangman S, **Ogburn MB**, McFall G, Kendall MS, Sedberry GR, Gilligan MR, Cox TM. Temporal analysis of site fidelity for some reef fishes in Gray's Reef National Marine Sanctuary.

INVITED PRESENTATIONS:

- 2017 Applying movement ecology to aquatic conservation and management. US Animal Telemetry Network Mid-Atlantic regional workshop, Annapolis, Maryland.
- 2016 Migratory fish conservation: River Herring in Chesapeake Bay. Smithsonian Conservation Biology Institute, Washington, D.C. University of North Florida, Jacksonville, Florida.
- 2016 Cownose Rays in Chesapeake Bay. Smithsonian Environmental Research Center, Edgewater, Maryland.
- 2015 Offshore spawning of blue crabs in the southeast U.S. Atlantic States Marine Fisheries Commission annual meeting, St. Augustine, Florida.
- 2015 Setting baselines for River Herring conservation in Chesapeake Bay. Virginia Institute of Marine Science Biological Sciences Seminar, Gloucester Point, Virginia, Virginia Institute of Marine Sciences, Eastern Shore Laboratory,

Wachapreague, Virginia. Smithsonian Environmental Research Center,
Edgewater, Maryland.

- 2015 Movement ecology of Cownose Rays. Presentation at the NOAA Chesapeake Bay Office Cownose Ray Scientific Workshop, Baltimore, Maryland.
- 2015 Investigating the ecology of the non-native Blue Catfish in Chesapeake Bay. Crofton Library speaker series, Crofton, Maryland.
- 2015 Monitoring river herring spawning habitat use. Presentation at the Maryland Water Monitoring Council Board of Directors Meeting, Edgewater, Maryland.
- 2015 Sustainable reduction in ghost fishing in Maryland's blue crab industry. NOAA Marine Debris Reduction Planning Workshop: Solutions for Marine Debris Issues in Delaware, Maryland, Virginia and the District of Columbia, Edgewater, Maryland.
- 2015 What does the blue crab population look like in Chesapeake Bay. Presentation at the Waterman's Association of Anne Arundel County Blue Crab Symposium, Galesville, Maryland.
- 2015 Cownose rays in Chesapeake Bay. Phillips Wharf Environmental Center Winter Wednesday Program, Tilghman, Maryland.
- 2015 Sustainable reduction in Maryland 'Ghost Crab Pot' fishing. National Fish and Wildlife Foundation Fishing for Energy 2015 Grantee Symposium, Providence, Rhode Island.
- 2014 Blue catfish diet in Maryland. Presentation to the Chesapeake Bay Program Sustainable Fisheries Goal Implementation Team December Meeting. Edgewater, Maryland.
- 2014 Assessment of river herring spawning runs in Chesapeake Bay. Maryland DNR MANTA seminar series, Annapolis, MD and University of Maryland Center for Environmental Science Horn Point Lab seminar series, Cambridge, Maryland.
- 2014 Juvenile blue crab mortality in Chesapeake Bay. Presentation to the Chesapeake Bay Program Sustainable Fisheries Goal Implementation Team June Meeting, Gloucester Point, Virginia.
- 2014 Chesapeake catch: science supporting sustainable fisheries. Smithsonian Environmental Research Center Evening Lecture Series, Edgewater, Maryland.
- 2014 Linking river herring monitoring to restoration priorities. Presentation at the workshop Prioritizing River Herring Restoration Needs in the Chesapeake Bay, Annapolis, Maryland.

- 2014 Stalking the beautiful swimmer: Emerging issues in US fisheries for the blue crab. George Mason University, Fairfax, Virginia
- 2014 What does the blue crab population look like throughout Chesapeake Bay. Science seminar at the East Coast Commercial Fishermen's and Aquaculture Trade Exposition, Ocean City, Maryland.
- 2014 Investigating the Ecology of the Non-native Blue Catfish in Chesapeake Bay. Presentation to the Jug Bay Wetlands Sanctuary Soup and Science, Lothian, Maryland.
- 2013 Catfish Distribution, Diet, and Movement in Maryland Tributaries of Chesapeake Bay. Presentation to the Chesapeake Bay Program Sustainable Fisheries Goal Implementation Team December Meeting, Solomons, Maryland.
- 2013 Chesapeake Bay River Herring Project. Presentations at the Northeast Interagency River Herring Meeting, Hadley, MA and Chesapeake Bay Program Fish Passage Work Group, Annapolis, Maryland.
- 2013 Smithsonian River Herring Project. Presentation to the Nanticoke Watershed Alliance's Lower Shore Stewardship Institute, Salisbury, Maryland.
- 2013 Application of controls in separating behavior of temperature reef fish from environmental interference in a long-term acoustic telemetry study. University of Delaware College of Earth, Ocean, and Environment, Lewes, Delaware.
- 2012 Spawning and recruitment of blue crabs in the South Atlantic Bight. Chesapeake Biological Laboratory, Solomons, Maryland.
- 2012 Managing a coastal migrant: Why ecological data are critical for adaptive management of blue crab fisheries. University of Delaware Department of Entomology and Wildlife Ecology, Newark, Delaware.
- 2011 Towards ecosystem-based management of blue crab fisheries in the South Atlantic Bight. NOAA Living Marine Resources Cooperative Science Center, The University of Georgia, Athens, Georgia, and Smithsonian Environmental Research Center, Edgewater, Maryland.
- 2010 Missing Mommas: Development of a spawning stock index for blue crabs in the South Atlantic Bight. University of Maryland Institute of Marine and Environmental Technology, Baltimore, Maryland.
- 2010 Missing Mommas: In search of the blue crab spawning stock. Department of Biological Sciences, Clemson University; Clemson, South Carolina and Marine Sciences Program, Savannah State University, Savannah, Georgia.

- 2009 From shelf to shore: Cross-shelf transport of blue crab megalopae inferred from a 12-year settlement record. Skidaway Institute of Oceanography, Savannah, Georgia.
- 2009 Estuarine invasion: How crab and shrimp larvae ride in on currents and conquer low salinity. The Cooperative Institute for Marine and Atmospheric Studies, University of Miami, Miami, Florida.
- 2009 Next year's crab cakes and fried shrimp: How baby crustaceans recruit to estuaries. Marine Sciences Program, Savannah State University, Savannah, Georgia.
- 2009 From shelf to shore: Transport of blue crab postlarvae inferred from spatial and temporal patterns of abundance. Department of Biology, the University of North Florida, Jacksonville, Florida.

WORKSHOPS AND SYMPOSIA COORDINATED:

- 2016 Perpetual Motion: The Future of Movement Ecology in Marine Conservation. 4th International Marine Conservation Congress (with AL Harrison and F Whoriskey)
- 2015 Challenges, Opportunities and Innovation in Crustacean Fisheries, Annual Meeting of the American Fisheries Society, Portland, Oregon (with MZ Darnell).
- 2015 SI Move Workshop, Smithsonian Conservation Biology Institute, Front Royal, Virginia (with P Leimgruber, P Marra and C Dove).
- 2015 Patuxent River Conference, St. Leonard, Maryland (Co-Coordinator).
- 2014 Maryland Blue Crab Ghost Pot Workshop, Smithsonian Environmental Research Center, Edgewater, Maryland (with R Osman and AH Hines).
- 2013-2016 Chesapeake Bay River Herring Workshop, Smithsonian Environmental Research Center, Edgewater, Maryland.

CONFERENCE PRESENTATIONS:

- 2017 Female blue crab sperm storage from mating to the second spawning season. Presentation at the Benthic Ecology Meeting, Myrtle Beach, South Carolina.
- 2016 Environmental correlates of river herring spawning run timing in the Chesapeake Bay Watershed. Poster presentation at the Annual Meeting of the American Fisheries Society, Kansas City, Kansas.

- 2016 Challenges for conservation and management of coastal migratory species. Symposium presentation at the 4th International Marine Conservation Congress, St. John's, Newfoundland, Canada.
- 2016 Habitat use and site fidelity of Chesapeake Cownose Rays tracked using acoustic telemetry. Presentation at the Tidewater Chapter Meeting of the American Fisheries Society, Edgewater, Maryland.
- 2016 River Herring habitat use. Presentation at the Maryland Water Monitoring Council Roundtable, Linthicum, Maryland.
- 2015 Assessing River Herring spawning runs in tributaries of Chesapeake Bay. Presentation at the Maryland Water Monitoring Council annual conference, Linthicum, Maryland.
- 2015 Aligning life history, stock assessment and fisheries management in US blue crab fisheries. Presentation at the Annual Meeting of the American Fisheries Society, Portland, Oregon.
- 2015 Abundance, demography and environmental drivers of river herring spawning runs in Chesapeake Bay tributaries. Poster at the Annual Meeting of the American Fisheries Society, Portland, Oregon.
- 2015 Long-distance migration of estuarine fishes: Cownose rays in Chesapeake Bay. Presentation at the SI Move Workshop, Front Royal, Virginia.
- 2015 Habitat use, diet and movement of invasive blue catfish in the Patuxent River. Presentation at the Patuxent River Conference, St. Leonard, Maryland.
- 2015 Sustainable reduction in Maryland 'ghost crab pot' fishing. Presentation at the Fishing for Energy Symposium, Providence, Rhode Island.
- 2014 Monitoring spawning runs of river herring in Chesapeake Bay tributaries. Presentation at the Annual Meeting of the American Fisheries Society, Quebec City, Quebec.
- 2014 Genetic barcoding of gut contents: From partially-digested tissue to species identity. Presentation at the Annual Meeting of the American Fisheries Society, Quebec City, Quebec.
- 2014 Evaluating the roles of predation, habitat, disease, and environmental effects on the decline of softshell clams in upper Chesapeake Bay. Presentation at the National Shellfisheries Association, Jacksonville, Florida.
- 2014 Evidence for sperm limitation in the blue crab spawning stock of Chesapeake Bay. Presentation at the National Shellfisheries Association, Jacksonville, Florida.

- 2013 Chesapeake Bay river herring project. Poster presentation at the Annual Meeting of the American Fisheries Society, Little Rock, Arkansas.
- 2013 Evidence for important offshore spawning grounds of the blue crab, *Callinectes sapidus*, in the South Atlantic Bight. Presentation at the Benthic Ecology Meeting, Savannah, Georgia.
- 2011 Decline of the blue crab fishery in North Carolina: Recruitment variability, freshwater inflow, overharvesting, or multiple stressors? Presentation at the Coastal and Estuarine Research Federation meeting, Daytona Beach, Florida.
- 2011 Freshwater inflow affects recruitment success of the blue crab *Callinectes sapidus*. Presentation at the American Society of Limnology and Oceanography Aquatic Sciences Meeting, San Juan, Puerto Rico.
- 2010 Development of a spawning stock index for blue crabs in the South Atlantic Bight. Presentation at the Southeastern Estuarine Research Society fall meeting, St. Augustine, Florida.
- 2010 Linking blue crab settlement to fishery landings in North Carolina. Presentation at the Benthic Ecology Meeting, Wilmington, North Carolina.
- 2009 Design and testing of a system for digitally recording endogenous activity rhythms of postlarval and juvenile penaeid shrimp. Poster at NOAA Educational Partnership Program's 5th Education and Science Forum, Washington DC.
- 2009 Wind-forced recruitment dynamics of the blue crab *Callinectes sapidus*. Presentation at the National Shellfisheries Association meeting, Savannah, Georgia.
- 2009 Wind-forced recruitment dynamics of the blue crab *Callinectes sapidus*. Presentation at the 25th Lowell Wakefield Fisheries Science Symposium "Biology and management of exploited crab populations under climate change," Anchorage, Alaska.
- 2008 What's the forecast? Can weather data be used to predict recruitment of blue crab postlarvae to estuaries? Presentation at the Southeastern Estuarine Research Society fall meeting, Tampa, Florida.
- 2008 Linking blue crab larval supply and settlement. Presentation at the ASLO Ocean Sciences Meeting, Orlando, Florida.
- 2007 Induced salinity tolerance in crab postlarvae: A comparison between *Callinectes sapidus* and *Callinectes similis*. Presentation at the Benthic Ecology Meeting, Atlanta, Georgia.

- 2006 Does selective tidal stream transport enhance transport through estuarine inlets? Presentation at the Larval Biology Symposium, Coos Bay, Oregon.
- 2005 Effects of physical processes and behavior on the transport of blue crab postlarvae through estuarine inlets. Presentation at the Benthic Ecology Meeting, Quebec, Canada.
- 2004 Salt marsh dieback in Georgia: Field survey and transplant experiments. Presentation at the Southeastern Estuarine Research Society Spring Meeting, Harbor Branch, Florida.
- 2003 Population dynamics of two salt marsh snails in three Georgia estuaries. Poster at the Southeastern Estuarine Research Society Spring Meeting, Myrtle Beach, South Carolina.

STUDENT CONFERENCE PRESENTATIONS:

- 2016 Mark Recapture Assessment of the Recreational Blue Crab Harvest in Maryland. Robert Semmler. Poster Presentation. University of Maryland MEES Colloquium 2016.
- 2016 Spatial variation in fishing mortality of mature female blue crabs (*Callinectes sapidus*) in individual Chesapeake Bay subestuaries. Corey Corrick. Presentation at the Tidewater Chapter Meeting of the American Fisheries Society, Edgewater, Maryland.
- 2016 Seasonal and spatial variability in the impact of recreational blue crab fishing in Maryland. Robert Semmler. Presentation at the Tidewater Chapter Meeting of the American Fisheries Society, Edgewater, Maryland.
- 2015 Tracking blue catfish movement in Chesapeake Bay using acoustic telemetry. Travis Flock. Poster presentation at the Celebration of Student Research, Scholarship, and Creative Work, Wabash College, Crawfordsville, Indiana.
- 2014 Evaluation of biological and physical parameters of natural and restored oyster reefs in Georgia. Tiffany Ward. Presentation at the National Shellfisheries Association, Jacksonville, Florida
- 2014 Environmental interference factors affecting detection range in acoustic telemetry studies using fixed receiver arrays. Noelle (Hawthorne) Mathies. Poster presentation at the Association for the Sciences of Limnology and Oceanography, Honolulu, Hawaii.
- 2013 The evaluation of natural and restored intertidal oyster reefs in coastal Georgia. Tiffany Ward. Oral presentation at the Benthic Ecology Meeting, Savannah, Georgia.

- 2013 The application of controls in separating seasonal and diel behavior from temperate reef fish from environmental interference in an acoustic telemetry study. Noelle Hawthorne. Presentation at the Benthic Ecology Meeting, Savannah, Georgia.
- 2013 Abundance, mortality, and habitat use of juvenile blue crabs, *Callinectes sapidus*, in nearshore areas of Chesapeake Bay. Eric Parks. Poster at the Benthic Ecology Meeting, Savannah, Georgia.
- 2012 Near shore surveys for juvenile blue crab, *Callinectes sapidus*, in the upper Chesapeake Bay. Eric Parks. Poster at the Annual Biomedical Research Conference for Minority Students, San Jose, CA, and Peach State Louis Stokes Alliance for Minority Participation Seventh Annual Fall Symposium and Research Conference, Savannah, Georgia.
- 2011 Seasonal variation in the behavior of reef fish at Gray's Reef National Marine Sanctuary inferred from acoustic telemetry. Noelle Hawthorne. Presentation at the Coastal and Estuarine Federation meeting, Daytona Beach, Florida.
- 2011 The missing link: Do postlarval white shrimp *Litopenaeus setiferus* use pressure and salinity as cues for estuarine immigration? Courtney Pegus. Poster at the Coastal and Estuarine Federation meeting, Daytona Beach, Florida.
- 2011 Evaluation of the vertical structure of restored intertidal oyster reefs. Tiffany Ward. Presentation at the Coastal and Estuarine Federation meeting, Daytona Beach, Florida.
- 2011 Evaluation of oyster density and shell height on natural and restored intertidal reefs in Georgia. Eric Ransom. Poster at the Coastal and Estuarine Federation meeting, Daytona Beach, Florida.
- 2010, 2011 Zooplankton abundance and distribution in the Savannah River estuary and adjacent continental shelf. Amarria B. Phillips. Poster at the 2010 Southeastern Estuarine Research Society Fall Meeting, St. Augustine, Florida. Poster presentation at the 2011 Peach State Louis Stokes Alliance for Minority Participation Sixth Annual Fall Symposium and Research Conference, Savannah, Georgia.
- 2010 How do shrimp postlarvae find their way home? Endogenous activity rhythms and environmental cues used by postlarval white shrimp *Litopenaeus setiferus* to migrate from coastal to estuary waters. Courtney Pegus. Poster at the Southeastern Estuarine Research Society Fall Meeting, St. Augustine, Florida. GIS Day, Savannah, Georgia; 2nd Place.

- 2010 Using acoustic telemetry: Snapper and grouper species in particular areas of Gray's Reef National Marine Sanctuary. Catherine J. Carroll. Poster at the American Fisheries Society Meeting, Pittsburg, Pennsylvania.
- 2010 Recruitment of *Callinectes sapidus* Rathbun (blue crab) megalopae in an estuary. Megan Hall. Poster at the Benthic Ecology Meeting, Wilmington, North Carolina.

STUDENT MENTORSHIP:

- 2017 Jessie Melton, George Mason University, M.S. Committee
- 2016 Morgan Jones, Eckerd College, undergraduate intern
- 2016 Amanda Martinez, California State University Long Beach, undergraduate intern
- 2016 Michelle Hauer, DePaul University, undergraduate intern
- 2016 Gabriella Marafino, George Mason University, undergraduate intern
- 2015 Katherine Hornick, University of Maryland, graduate intern
- 2015 Jessica Beach, Clarkson University, undergraduate intern
- 2015 Lauren Mott, Cornell University, undergraduate intern
- 2015 Mary Fisher, Cornell University, undergraduate intern
- 2014-2017 Corey Corrick, M.S. committee, graduate intern
- 2014 Aaron Anthony, high school intern
- 2014 Eva Kinnebrew-Gonzales, University of Chicago, undergraduate intern
- 2014 Travis Flock, Wabash College, undergraduate intern
- 2014 Julie Sepanik, George Mason University, graduate intern
- 2014-2017 Bobby Semmler, University of Maryland, M.S. committee, graduate intern
- 2013-2014 Jason Spires, University of Maryland, M.S. committee, graduate intern
- 2013 Catherine Schlick, George Mason University, doctoral committee
- 2013 Brooke Weigel, St. Olaf College, undergraduate intern
- 2013 Mark Ruiz, Texas A&M University, undergraduate intern
- 2013 Katie Sinclair, Dartmouth College, undergraduate intern
- 2013 Angela Trenkle, University of Maryland Baltimore College, undergraduate intern
- 2012 Miranda Marvel, St. Mary's College, undergraduate intern
- 2012 Carolyn Savoldelli, Colgate University, undergraduate intern
- 2012 Maggie Luebs, Cornell University, undergraduate intern
- 2012 Sean McCanty, University of Maryland, undergraduate intern

2012	Eric Parks, Savannah State University, undergraduate intern
2011-2013	Noelle (Hawthorne) Mathies, Savannah State University, M.S. advisor
2011	Eric Ransom, Savannah State University, undergraduate intern
2011	Ana Reyes, Savannah State University, undergraduate intern
2011	Michael Knowles, Savannah State University, undergraduate intern
2010-2014	Courtney Pegus, Savannah State University, M.S. committee
2010-2011	Amarria Phillips, Savannah State University, undergraduate intern
2009-2011	Tyler Greer, Savannah State University, M.S. advisor
2009-2010	Catherine Carroll (Schlick), Savannah State University, assisted with M.S. study
2009-2014	Tiffany Ward, Savannah State University, undergraduate intern, M.S. committee
2009	Jeremy Mitchler, Savannah State University, assisted with undergraduate research
2008-2010	Megan Hall, Duke University, assisted with undergraduate research
2006	Jennifer Jackson, Duke University, undergraduate intern

STUDENT AWARDS

2016	Robert Semmler, Top 5 Poster Award, University of Maryland MEES Colloquium, College Park, Maryland.
2012	Eric Parks, Best poster in Biological Statistics, Annual Biomedical Research Conference for Minority Students, San Jose, California.
2011	Amarria Phillips, 2 nd place poster, Peach State Louis Stokes Alliance for Minority Participation Sixth Annual Fall Symposium and Research Conference, Georgia.

TEACHING INTERESTS:

Marine Conservation Biology. Ecology. Marine ecology. Marine biology. Fisheries ecology. Environmental science. Invertebrate biology. Animal behavior. Research methods. Population ecology. Larval biology.

TEACHING EXPERIENCE:

8/11 – 12/11	<i>Instructor:</i> Fisheries Population Dynamics, Savannah State University
8/10 – 12/10	<i>Instructor:</i> Research in Marine Sciences Seminar, Savannah State University
8/09 – 12/10	<i>Instructor:</i> Research Methods in Marine Ecology, Savannah State University
10/07	<i>Teaching Assistant:</i> Duke University Marine Laboratory. Experimental Tropical

Marine Ecology in Panama.

- 6/07 – 7/07 *Instructor:* Duke University Talent Identification Program. Marine Biology.
- 7/06 – 8/06 *Teaching Assistant:* Duke University Marine Laboratory. Marine Ecology.
- 5/04 – 6/05 *Teaching Assistant:* Duke University Marine Laboratory. Marine Animal Physiology.
- 9/01 – 6/02 *Naturalist:* Barrier Island Environmental Education Center, Seabrook Island, SC.

AWARDS AND FELLOWSHIPS:

- 2014 Director's Award of Appreciation: Excellence in Grant Success for a Young Scientist, Smithsonian Environmental Research Center
- 2012-2013 Postdoctoral Fellowship, Smithsonian Environmental Research Center
- 2003, 2005 Graduate Fellowship, Chi Psi Fraternity.
- 9/02 – 6/04 Graduate School Fellowship, The University of Georgia.

SYNERGISTIC ACTIVITIES:

Professional Affiliations: American Fisheries Society, Society for Conservation Biology, Coastal and Estuarine Research Federation, National Shellfisheries Association

Served as reviewer for: National Science Foundation, Methods in Ecology and Evolution, South Carolina Sea Grant, NOAA Saltonstall-Kennedy Program, Acta Zoologica, PLOS ONE, ICES Journal of Marine Science, Marine Ecology Progress Series, Journal of Experimental Marine Biology and Ecology, Bulletin of Marine Science, Wetlands Ecology and Management, Estuaries and Coasts, Estuarine, Coastal and Shelf Science, Gulf and Caribbean Research, Marine and Freshwater Research, Journal of Crustacean Biology, Marine Biology Research, Helgoland Marine Research, Lowell Wakefield Fisheries Science Symposium

- 2017- IOOS Animal Telemetry Network Steering Group
- 2015- SERC TMON/MarineGEO Core Site Co-PI
- 2014- NOAA Technical Expert Working Group for River Herring
- 2013- Chesapeake Bay Program Fish Passage Work Group
- 2013- Chesapeake Bay Program Invasive Catfish Task Force
- 2010-2011 Regional Coordinator, National Ocean Science Bowl
- 2010-2011 Georgia Blue Crab Advisory Panel
- 2010- Blog: Blue Crab Blog (<http://bluecrabblog.blogspot.com>)
- 2009-2011 NOAA LMRCSC Science Committee
- 2008-2012 Blog: From the Shore (<http://from-the-shore.blogspot.com>)
- 2008 North Carolina Blue Crab Scientific Advisory Committee
- 2006 Preparing Future Faculty Program
- 2006 Coordinator: Duke Graduate Student Symposium

2006 Graduate Representative: Duke University Marine Laboratory
2005 Seminar Coordinator, Duke University Marine Laboratory
2004 Decapod Taxonomy Workshop, Southeastern Regional Taxonomic Center
2004 President: Marine Science Graduate Student Association, UGA

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