

Enie Hensel

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Education

- 2013 – present North Carolina State University, Ph.D. Candidate, Major in Biology with a concentration in Ecology and Evolution, Advisors: [Dr. Rob Dunn](#) , [Dr. Craig A. Layman](#)
Dissertation – Investigating how habitat degradation and overfishing affect nearshore coral and seagrass ecosystems in subtropical and tropical regions. *Anticipated graduation Spring 2019.*
- 2007 – 2011 University of Florida, Bachelor of Science in Zoology, minor in Wildlife Ecology and Conservation

Publications

Note: 2017 name change from S. Buhler to E. Hensel

**student mentored*

Hensel, E., Wenclawski, S.* , and C. A. Layman. *In Press*. Using a small, consumer-grade drone to identify and count marine megafauna in shallow habitats. *Latin American Journal of Aquatic Research*.

Allgeier, J. A., Layman, C. A., Montana, C. G., **Hensel, E.**, Appaldo, R., and A. D. Rosemond. 2018. Anthropogenic versus fish – derived nutrient effects on seagrass community structure and function. *Ecology*

Archer, S. K., **Hensel, E.**, and Layman, C. A. 2018. Ambient nutrient availability drives the outcome of an interaction between a sponge (*Halichondria melanadocia*) and a seagrass (*Thalassia testudinum*). *Journal of Experimental Marine Biology and Ecology*. 503: 86-91.

Layman, C. A., Giery, S. T., **Buhler, S.**, Rossi, R., Penland, T., Henson, M. N., Bogdanoff, A. K., Cove, M. V., Irizarry, A. D., Schalke, C. M., and Archer, S. K. 2015. A primer on the history of food web ecology: Fundamental contributions of fourteen researchers. *Food Webs* 4:14 – 24.

Soomdat, N. N., Griffin, J. N., McCoy, M. W., Hensel, M. J. S., **Buhler, S.**, Chejanovski, Z., and B. R. Silliman. 2014. Independent and combined effects of multiple predators across ontogeny of a keystone grazer. *Oikos*. 123 (9), 1081 – 1090.

Manuscripts in advanced stages

Hensel, M. J. S., Silliman, B. R., **Hensel, E.**, Sharp, S., Crosby, S., and J. E. K. Byrnes. *In Prep*. An invasive consumer reverses positive interactions that sustain coastal ecosystem resilience

Hensel, E., Allgeier, J. A., and C. A. Layman. *In Prep*. Separate and interactive effects of structural complexity and predator presence on a coral reef fish community.

Work Experience

- 2012 – 2013 **Field Project Leader and Science Diver** under *Dr. David Kimbro, Florida State University, St. Teresa, FL*. Lead project manager for the initial progress of a long – term study monitoring the effects of drought and marine predators on a harvested oyster population in Apalachicola Bay, FL.
- 2011 – 2013 **Field Manager** under *Dr. Brian R. Silliman, University of Florida, Gainesville, FL*.
Projects Led: Predator effects on oyster aggregation and recruitment; Impacts of the BP – oil spill on salt marsh erosion and invertebrate diversity; Patch-size dependent recovery of cordgrass following salt marsh die-off.
Projects Assisted: Latitudinal and distance-from-ocean variation in periwinkle snail recruitment and grazing; Cross-kingdom consumer diversity on salt marsh multifunctionality; Investigating the role of the American alligator in US SE salt marshes; The importance of predator diversity in salt marshes; How mussels may buffer salt marshes from large-scale die-offs.
- 2009 – 2011 **Program Assistant for the International Shark Attack File** under *George Burgess, Florida Program for Shark Research, Florida Museum of Natural History, University of Florida, Gainesville, FL*.
Projects Assisted: Gulf-span survey of shark populations in Cedar Key, FL; Sawfish Conservation Program; Maintaining International Shark Attack File and analyzing spatial patterns in shark attacks; Age, growth, and development of the Oceanic Whitetip, Big-eye Thresher, and Giant Hammerhead Shark.

Field Expeditions

- 2016 **Science Diver** under *Shedd Aquarium's research excursion, The Bahamas*. Assisted Dr. Krista Sherman and Dr. Craig Dahlgren with the annual Nassau grouper spawning aggregation monitoring.
- 2015 **Science Diver** under *The Nature Conservancy: Northern Caribbean, New Providence, The Bahamas*. Assisted with the outplanting of *Acropora cervicornis* from their coral nursery to several local reefs.
- 2013 **Field Technician** under *Dr. Craig Layman at Florida International University, The Abacos, The Bahamas*. Assisted with Complex interactions comprise a sponge-seagrass commensal relationship in a sub-tropical coastal ecosystem; Separate and interactive effects of eutrophication and overfishing on seagrass communities.
- 2012 **Field Technician and Science Diver**, under *Dr. Michael Heithaus at Florida International University, Shark Bay Ecosystem Research Project, Monkey Mia, Shark Bay, WA*. Assisted with Long-term bay-wide shark population monitoring; Foraging ecology of green sea turtles in a relatively pristine sand-seagrass ecosystem; Guild-dependent impacts of marine herbivores on an intact seagrass community.
- 2011 **Field Technician** under *Dr. Samuel Gruber, Bimini Biological Field Station, South Bimini, The Bahamas*. Assisted with Effects of habitat destruction on a lemon shark nursery; PIT Tagging Program: Long-term survey of the juvenile Lemon shark population in the Bimini Sound.

Scholarships, Fellowships, and Awards

- 2018 **Southeast Climate Science Center Global Change Fellowship**
Organized and hosted two departmental seminars (*reached 200 participants combined*) and assisted with their annual Stakeholder Advisory Committee.
- 2018 **Graduate Student Association's Travel Award**
- 2018 **Southeast Climate Science Center Travel Award**
- 2016 **Student Fisheries Society Travel Award**, North Carolina State University
- 2015 **Save Our Seas Foundation Small Grant**
Project leader working alongside with a non – profit, Friends of the Environment, for three objectives: research, educational outreach, and conservation. For the research, I tested the capability of a small drone to count and identify sharks, rays, and sea turtles along nearshore ecosystems. I hosted Sharks4Kids (non – profit) for a shark education tour to five schools in The Abacos, The Bahamas. Lastly, I provided the local park management, The Bahamas National Trust, and the Northern Caribbean's Nature Conservancy with baseline marine megafauna abundances along Abaco to support their proposed land and sea parks (now established).
- 2015 **Outstanding Graduate Teaching Assistant Award**, North Carolina State University
- 2014 **Professional Development Award**, North Carolina State University
- 2014 **Adventure Watersports Team**, Johnson Outdoors Sponsorship
- 2013 – present **Teaching Assistant Fellowship**, North Carolina State University
- 2007 – 2011 **Florida's Bright Future 100% Undergraduate Scholarship**, University of Florida
- 2007 – 2008 **Kiwanis Club of Lake County Scholarship**, University of Florida
- 2007 **Lake County Gator Club Scholarship**, University of Florida

Teaching

- 2013 – present **Teaching Assistant**. Ecology (BIO360), North Carolina State University.
Coordinated and instructed a three-hour laboratory portion of the Ecology course, including creating a 30-minute lecture presentation and overseeing a two-hour field exercise each week for two lab sections. (*44 students total per semester; taught 5 semesters*)
- 2017 – 2018 **Guest lecturer**. Maximum Sustainable Yield and the Allee effect. Ecology (BIO360), North Carolina State University. (*120 students per lecture*)
- 2017 **Guest lecturer**. Biology of White Grunt – a Fish Dissection. Forest Heights Academy, Marsh Harbour, The Abacos, The Bahamas. Developed a hands-on experience for *40 students* to participate in ongoing research. Students collected morphometric data and extracted otoliths.

- 2015 – 2016 **Guest lecturer.** Predator-prey interactions, consumptive and non-consumptive effects, and the Allee effect. Applied Ecology (AEC400), North Carolina State University. (30 students)
- 2015 **Teacher.** Shark Ecology and Conservation, The Abacos, The Bahamas. Developed and taught a two-day field course for a non-profit, Friends of the Environment. (ages 15 – 18; 8 students)
- 2014 **Teacher.** Patch Reef Communities, The Abacos, The Bahamas. Developed and taught a two-day field course for a non-profit, Friends of the Environment. (ages 15 – 18; 10 students)
- 2013 **Guest lecturer.** Why the Big Dawgs Matter. Forest Heights Academy, Marsh Harbour, The Abacos, The Bahamas. (30 students)
- 2013 **Teacher Assistant.** Seahorse Key Field Course, Lake City High School, FL. (30 students).

Selected Invited Talks

- 2018 The 'path' to becoming a Marine Ecologist. [Girls in Science](#), North Carolina National History Museum. Raleigh, NC. (30 participants)
- 2018 [Power of Predators](#). Teen Science Café, North Carolina National History Museum. Raleigh, NC. (100 participants)
- 2017 The value of our Marine Resources. Keynote Speaker, [The Abaco Island Science Fair](#). The Abacos, The Bahamas. (150 participants)
- 2015 Use of artificial reefs to investigate habitat degradation and overfishing on patch reef communities. North Carolina State Student Fisheries Society. Raleigh, NC. (18 participants)
- 2014 Patch Reef Community Ecology. Marsh Harbour, The Abacos, The Bahamas. (20 participants)
- 2014 Shark Biology and Ecology. Sandy Point, The Abacos, The Bahamas. (27 participants)
- 2013 Being a Marine Ecologist. Sea Horse Key, FL. (35 participants)

Selected Presentations

** Student mentored*

Hensel, E. 2018. Complex reef structure and Nassau grouper presence maximize artificial reef fish abundance and diversity. Bahamas Natural History Conference. Nassau, New Providence, The Bahamas.

Hensel, E. and C. A. Layman. 2017. Multiple anthropogenic stressors can disrupt a positive feedback on coral reefs. Benthic Ecology Conference. Charleston, SC. AND Graduate Students Association's Research Symposium. North Carolina State University, Raleigh, NC.

Frasch, E. *, **Buhler, S.**, and C. A. Layman. 2016. White grunt density on individual-foraging behavior. Undergraduate Research Symposium. North Carolina State University, Raleigh, NC.

Wenclawski, S. *, **Buhler, S.**, and C. A. Layman. 2016. Using novel methods to determine marine megafauna distribution in areas of anthropogenic disturbance. Undergraduate Research Symposium & Applied Ecology minor defense. North Carolina State University, Raleigh, NC.

Buhler, S. and C. A. Layman. 2016. The effects of overfishing and habitat degradation of patch reef fish communities. Abaco Science Alliance Conference. Great Abaco Island, The Bahamas.

Buhler, S., J. N. Griffin, B. J. Toscano, B. D. Griffen, and B. R. Silliman. 2013. Species evenness and composition uniquely affect the functioning of a predator guild. University of Florida Marine Biology Symposium, Marineland, FL.

Buhler, S., J. N. Griffin, and B. R. Silliman. 2012. How aggregation and height of oyster beds create predation relief from the crown conch, *Melongena corona*. University of Florida Marine Biology Symposium, Marineland, FL.

Buhler, S. and R. Coelho. 2011. Techniques for the aging of the crocodile shark, *Pseudocarcharias kamoharai*. University of Florida Marine Biology Symposium, Marineland, FL.

Community Outreach, Volunteer, and Professional Service

- 2016 – present **Ambassador** of [Sharks4Kids](#). (*Reached over 600 students ages 4 – 18*)
Each year I present at a minimum of four schools in The Abacos and in North Carolina. In addition, I present to one school (national or international) each month over Skype.
- 2013 – 2017 **Contributor** to [The Abaco Scientist Blog](#).
- 2015 **Contributor** to 'Abaco Life' an island style magazine, The Abacos, The Bahamas.
- 2014 – 2016 **Contributor** to [Save Our Seas Foundation project's blog](#).
- 2015 **Science Judge** for the Blue Heron Marine Science Bowl, Chapel Hill, NC.
- 2014 – 2016 **Adventure Watersports Team**, [Johnson Outdoors blog](#).
- 2014 **Science Judge** for the Blue Heron Marine Science Bow, Raleigh, NC.
- 2013 **Research Volunteer**, FRIENDS Two – Week Summer Course Ages 10 – 13, The Abacos, The Bahamas. Assisted non – swimmer students on snorkel trips to coral reef and seagrass meadows.
- 2013 **Research Volunteer**, FRIENDS Two – Week Summer Course Ages 5 – 9, The Abacos, The Bahamas. Assisted non – swimmer students on snorkel trips to coral reef and seagrass meadows.
- 2012 – 2013 **Contributor** to [In the Grass, on the Reef Blog](#), Apalachicola, FL.
- 2012 **Presenter**, Shark Bay Ecosystem Research Project's Community Talks, Monkey Mia, Shark Bay, WA.
- 2010 **Presenter**, Shark Nights, Guy Harvey's Big Game, North Bimini, The Bahamas.
- 2010 **Volunteer Field Assistant**, Brian Silliman Lab, Sapelo Island, GA.
- 2008 **Volunteer Veterinarian technician**, Alachua Veterinary Clinic, Alachua, FL.