

BRENDAN SHEA

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EDUCATION

Virginia Tech, Blacksburg, VA August 2020 – Present
PhD Student, Department of Fish and Wildlife Conservation
Advisor: Dr. Francesco Ferretti

Northeastern University, Boston, MA September 2017 – December 2018
Master of Science, Marine Biology – Northeastern Three Seas Program *GPA=3.93*
Thesis Advisor: Dr. Austin Gallagher, *Beneath the Waves*

- Thesis: *Swimming scared: Exposure to white sharks affects the behavior of mobile fish species along a dynamic coastal landscape.*

Colorado College, Colorado Springs, CO September 2007 – May 2011
Bachelor of Arts, Environmental Science *GPA=3.15*

- Thesis: *Influence of temperature on radial growth of Picea engelmannii at tree line*

La Universidad Técnica Federico Santa María, Valparaíso, Chile Fall 2009
Study Abroad / Homestay *GPA=3.53*

PEER-REVIEWED PUBLICATIONS

Gallagher, A.J., Shipley, O.N., van Zinnicq Bergmann, M.P.M., Brownscombe, J.W., Dahlgren, C.P., Frisk, M.G., Griffin, L.P., Hammerschlag, N., Kattan, S., Papastamatiou, Y.P., **Shea, B.D.**, Kessel, S.T., and Duarte, C.M. (*In press*). “Spatial connectivity and drivers of large shark habitat use within a large marine protected area in the Caribbean.” *Frontiers in Marine Science*.

Shea, B.D., Benson, C.W., de Silva, C., Donovan, D., Romeiro, J., Bond, M.E., Creel, S. and Gallagher, A.J. (2020). “Effects of exposure to large sharks on the abundance and behavior of mobile prey fishes along a temperate coastal gradient.” *PLoS ONE*, 15(3): e0230308.

Benson, C.W., **Shea, B.D.**, de Silva, C., Donovan, D., Holder, P.E., Cooke, S.J., and Gallagher, A.J. (2019). “Physiological consequences of varying white shark exposure on Striped Bass (*Morone saxatilis*).” *Canadian Journal of Zoology*, 97(12):1195-202.

PROFESSIONAL EXPERIENCE

Research Manager / Research Associate June 2018 – Present
Beneath the Waves, *Cape Cod, MA*

- Joined organization as intern to complete thesis research for MSc; full-time employee during 2019 field season (Research Manager); volunteer/contract employee since 2020.
- Participated in five scientific expeditions to the Bahamas to date, including serving as the science lead on 15-day research expedition aboard a 137-foot research vessel; have led more than 60 days of on-water research in New England to date.
- Organized and led all field activities for four graduate students conducting their thesis research with the organization during 2019 Cape Cod research season

Project Engineer / Environmental Health & Safety Specialist January 2012 – August 2017
The Vertex Companies, Inc., *Weymouth, MA*

PROFESSIONAL AFFILIATIONS

- Fellow, Institute for Global Change Interdisciplinary Graduate Education Program, *Virginia Tech*
- Member, American Fisheries Society at Virginia Tech (since Fall 2020)

SERVICE

- Referee for Endangered Species Research (2 manuscripts in 2020)

PRESENTATIONS

Shea, B.D., Harding, L., Kattan, S., Shipley, O.N., Hammerschlag, N., Payne, N.L., Gallagher, A.J.
“Deep Water Habitat Use of Tiger Sharks in the Bahamas.” Bahamas Natural History Conference, August 19, 2020.

Shea, B.D. “Swimming scared: Exposure to white sharks affects the behavior of mobile fish species along a dynamic coastal landscape.” Thesis defense in partial fulfillment of the requirements of the degree of Master of Science, Marine Biology, presented to the Northeastern University Marine Science Center on December 7, 2018.

Shea, B.D. “Influence of temperature on radial growth of *Picea engelmannii* at tree line.” Thesis presented to the Faculty of the Environmental Program at The Colorado College in partial fulfillment of the requirements of the degree of Bachelor of Arts, May 2011.

TEACHING EXPERIENCE

Teaching Assistant, *Department of Fish and Wildlife Conservation, Virginia Tech*

Mammalogy

Fisheries Management

Fall 2020

Spring 2021

OUTREACH

- Guest contributor, Discovery.com, “Deep Diving Tiger Sharks of the Bahamas” (August 2020)
- “Sharks Rule!”, presentation to children aged 8-10 on behalf of the Mansfield Public Library, Mansfield, MA (August 12, 2020).
- Featured expert on Answered by Vox, available on Quibi (August 10, 2020)
- “Risk Effects of Large Sharks”, webinar presented via Beneath the Waves’ “Shark Talks” on Facebook Live during the COVID-19 pandemic (April 10, 2020).
- Camp Instructor at Camp Thayer’s “Shark Camp” for two weeks in Summer 2019.

FUNDRAISING/GRANTS

- Charles Engelhard Foundation (\$10,000 to Beneath the Waves) – November 2020

RELEVANT SKILLS

- **Field:** PADI certified Open Water Diver; significant research diving experience (>100 dives); significant experience with all aspects of fishing for, restraining and tagging large sharks (>100 sharks), including acoustic and satellite telemetry, mark-recapture tagging, and biological sample collection (blood, muscle, tissue) and analysis (including in-field analysis for blood glucose, lactate, and pH); BRUV deployment; acoustic telemetry array installation and maintenance.
- **Computer:** Significant programming experience in R statistical software, including ANOVA, GLM, GLMM, GLS, linear and non-linear regression, fish population dynamics modeling, spatial analysis techniques, environmental synthesis/big data approaches, PERMANOVA and non-multidimensional scaling; moderate experience in PostgreSQL, Google BigQuery, ArcGIS/QGIS. Proficient in Microsoft Office Suite, significant experience with BRUV annotation and analysis.
- **Laboratory:** Dissolved ion and gas chromatography; fish dissections; titrations; incubations; PCR and Western Blot; isolation of blood plasma; and dendrochronological measurements.
- **Language:** Strong command of Spanish (written and verbal; near fluent, including significant experience using the language professionally).