

D. NICK WEBER, JR.

Current Ph.D. Student in Marine Biology and Teaching Assistant
(859) 445-2160 • dweber@islander.tamucc.edu

EDUCATION

- Ph.D.** **Marine Biology**, Expected Spring 2024
Texas A&M University Corpus Christi, Corpus Christi, Texas
Research Advisor: Dr. David Portnoy
- M.S.** **Marine Biology**, Awarded Spring 2019, GPA: 3.94
College of Charleston, Charleston, SC
Research Advisors: Dr. Gorka Sancho and Bryan Frazier
- B.S.** **Biological Sciences**, Awarded Spring 2016, GPA: 3.54
University of Notre Dame, Notre Dame, IN
Research Advisor: Dr. Dominic Chaloner

Workshop on Molecular Evolution (MBL, Woods Hole, Massachusetts)

Summer 2017

The School for Field Studies (South Caicos, Turks and Caicos Islands)

Spring 2015

RESEARCH INTERESTS

Combining molecular and field-based approaches to gain insights into the biology and ecology of fish species. Molecular ecology, marine ecology, fisheries management, conservation.

RESEARCH EXPERIENCE

Graduate Researcher

Fall 2019 – Present

Texas A&M University – Corpus Christi (Corpus Christi, TX)

- Using next-generation sequencing of double digest restriction-site associated DNA (ddRAD) to assess the genetic population structure and connectivity of three exploited grouper species (red grouper, yellowedge grouper, and speckled hind).
- Using multivariate statistics to assess for correlations between genetic variation and intraspecific differences in life history characteristics (e.g. growth rate, size-at-age) for each of the three grouper species.

Graduate Researcher

Fall 2016 – Spring 2019

College of Charleston (Charleston, South Carolina)

- Used both satellite and acoustic telemetry to assess mortality rates of blacktip sharks captured and released in shore-based and charter boat-based recreational fisheries.
- Quantified physiological disturbances associated with recreational capture through blood chemistry analyses.
- Investigated use of a heat shock protein (Hsp70) as potential indicator of stress response at molecular level.

Undergraduate Researcher

Fall 2013 – Spring 2016

University of Notre Dame (Notre Dame, Indiana)

- Mesocosm study: reared brook trout and brown trout for 7-weeks; tracked growth rates of experimental fish; conducted stable isotope analysis and mercury analysis.
- Bioenergetics-bioaccumulation model: assisted in development of individual-based model to predict brook trout growth & mercury accumulation in response to consumption of various prey items.

Undergraduate Researcher

Spring 2015

The School for Field Studies (South Caicos, Turks and Caicos Islands)

- Used combined drumline and baited remote underwater video approach to assess correlation between habitat type and relative abundance of elasmobranchs.

Research Volunteer

Summer 2013

Earthwatch Institute (Glover's Reef, Belize)

- Aided in collection of tissue samples from elasmobranchs and reef fish; deployed baited remote underwater video cameras and assessed footage for presence of elasmobranchs.

PUBLICATIONS

D.N. Weber, M. Janech, L. Burnett, and B. Frazier. Effects of recreational capture and handling on the blood biochemistry of the blacktip shark (*Carcharhinus limbatus*). *Comp. Biochem. Phys. A.* (in prep)

D.N. Weber, B. Frazier, N. Whitney, J. Gelsleichter, and G. Sancho. 2019. Stress response and post-release mortality of blacktip sharks (*Carcharhinus limbatus*) captured in shore-based and charter boat-based recreational fisheries. *Fish. Res.* (in review)

B. Gerig*, **D.N. Weber***, D. Chaloner, L. McGill, and G. Lamberti. 2018. Interactive effects of introduced Pacific salmon and brown trout on native brook trout: an experimental and modeling approach. *Can. J. Fish. Aquat. Sci.* 75(4): 538-548. (* co-primary authors)

GRANTS AND FELLOWSHIPS

American Elasmobranch Society Student Travel Award (\$500) **Summer 2019**

American Elasmobranch Society Student Research Award (\$1,000) **Summer 2018**

Graduate Student Research Grant (\$450) **Summer 2017**
College of Charleston (Charleston, SC)

Slocum-Lunz Foundation Research Grant (\$510) **Spring 2017**

Marine Genomics Fellowship (\$22,000/year) **Fall 2016**
College of Charleston (Charleston, SC)

Center for Undergraduate Scholarly Engagement Research Grant (\$1,400) **Spring 2016**
University of Notre Dame (Notre Dame, IN)

Environmental Change Initiative Research Fellowship (\$1,000) **Spring 2016**
University of Notre Dame (Notre Dame, IN)

College of Science Travel Grant (\$1,600) **Spring 2016 and Fall 2015**
University of Notre Dame (Notre Dame, IN)

College of Science Summer Undergraduate Research Fellowship (\$4,500) **Spring 2014**
University of Notre Dame (Notre Dame, IN)

RELEVANT WORK EXPERIENCE

Teaching Assistant (Texas A&M University – Corpus Christi) **Fall 2019**

- *Genetics*: Principles of genetic transmission and molecular basis of heredity and variation; Lead two weekly recitation sections involving problem-solving activities and team assignments.

South Carolina Department of Natural Resources (Charleston, SC) **2017 – 2019**
Natural Resource Technician II in Inshore Fisheries Dept. at Marine Resources Research Institute

- Red drum post-release mortality: deployed pop-off satellite archival tags (PSATs; n = 50) on red drum caught via rod-and-reel
- Red drum post-release swimming behavior: deployed acceleration data loggers (ADLs; n = 54) to assess post-release swimming behavior, in collaboration with Dr. Nick Whitney and Connor White (New England Aquarium)
- Deployed weekly gill nets and longlines as part of the Cooperative Atlantic States Shark Popping and Nursery (COASTSPAN) survey.

United States Department of Agriculture (Lexington, KY) 2013 – 2016

- Followed detailed monitoring protocol that required the placement and retrieval of traps for the invasive Gypsy Moth. Recorded and collated data regarding the presence of the Gypsy Moth

CONFERENCE PRESENTATIONS

Society for Integrative & Comparative Biology Annual Meeting (Austin, Texas) January 2020
C. White*, N. Whitney, D.N. Weber, B. Frazier. "Survival and Swimming Behavior of Red Drum (*Sciaenops ocellatus*) Following Recreational Capture" (Oral)

Joint Meeting of Ichthyologists and Herpetologists (Snowbird, Utah) July 2019
D.N. Weber*, B. Frazier, N. Whitney, J. Gelsleichter, G. Sancho. "Stress Response and Post-Release Mortality of Blacktip Sharks Captured in Recreational Fisheries" (Oral)

SC-AFS/SCFWA Joint Annual Meeting (Clemson, South Carolina) March 2019
D.N. Weber*, B. Frazier, M. Janech, L. Burnett, G. Sancho. "Stress Response and Post-Release Survival of Blacktip Sharks Captured in Recreational Fisheries" (Oral)

SCDNR Marine Resources Division Conference (Charleston, South Carolina) March 2018
D.N. Weber*, B. Frazier, M. Janech, L. Burnett, G. Sancho. "Stress Response and Post-Release Survival of Blacktip Sharks Captured in Recreational Fisheries" (Oral)

SC-AFS/SCFWA Joint Annual Meeting (Beaufort, South Carolina) March 2018
D.N. Weber*, B. Frazier, M. Janech, L. Burnett, G. Sancho. "Stress Response and Post-Release Survival of Blacktip Sharks Captured in Recreational Fisheries" (Poster)
- Won *Best Poster Award*

Ecological Society of America Meeting (Fort Lauderdale, Florida) August 2016
D.N. Weber*, B. Gerig, D. Chaloner, L. McGill, G. Lamberti. "Ecological Effects of Non-native Pacific Salmon and Brown Trout on Native Brook Trout in Great Lakes Tributaries" (Poster)

Midwest Fish and Wildlife Conference (Grand Rapids, Michigan) January 2016
D.N. Weber*, B. Gerig, D. Chaloner, L. McGill, G. Lamberti. "Ecological Effects of Non-native Pacific Salmon and Brown Trout on Native Brook Trout in Great Lakes Tributaries" (Poster)

GRADUATE COURSEWORK

Applied Quantitative Methods; Biometry; Contemporary Applications of Comparative Genomics to Problems in Population Biology; Ecology of Marine Organisms; Genomics; Genomics, Proteomics, & Bioinformatics; Ichthyology; Intro to Bayesian Statistics; Marine Organisms & Processes; Physical Oceanography; Physiology & Cell Biology of Marine Organisms