

DAVID KYLE BREAUT

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EDUCATION

BS: Environmental Science-Wildlife Biology Concentration (GPA: 3.87/4.0), (Major GPA: 4.0/4.0) August 2017 - May 2021
Edinboro University of Pennsylvania

MS: Biology August 2023 - Present
University of Alabama

RESEARCH EXPERIENCE

Research Assistant

Chesapeake Scientific

October 2022 to Present, Hours: 40 paid hours per week

Supervisor: Jason Kahn, jason.kahn@noaa.gov, (703) 220-8321

- Used R for data analysis and visualization on Atlantic Sturgeon Movement for papers sent out for peer review
- Writing a white paper assessing different locations for windfarms and their association with marine life for the Bureau of Ocean and Energy Management

Independent Study: Allometry in Turtles

Edinboro University of Pennsylvania

August 2020 to May 2021, Hours: 4 unpaid hours per week

Supervisor: Dr. Peter Lindeman, plindeman@edinboro.edu, (814) 732-2247

- Cleaned, wrangled, and analyzed a dataset of turtle measurement data collected from 2004 to 2020
- Research resulted in an unpublished paper suggesting the most appropriate ways to measure turtles

Harvard University REU Intern

Department of Organismic and Evolutionary Biology

June 2020 to August 2020, Hours: 50 paid hours per week

Supervisor: Dr. Elena Kramer, ekramer@oeb.harvard.edu, (617) 496-3460

- Analyzed data on the impact of environmental factors on salamander anatomy
- Learned how to construct, develop and manage a dataset with over 500 rows and 49 columns

Avian Management Study

University of Pittsburgh, Pymatuning Lab of Ecology

July 2019 to August 2019, Hours: 40 unpaid hours per week

Supervisor: Dr Michelle Spicer, michelle.spicer@yale.edu, (610) 739-6764

- Utilized passive monitoring techniques: acoustic analysis to compare methods of measuring bird populations
- Results supported that acoustic analysis should be done differently to accurately reflect bird population size

PUBLICATIONS

Peer Review Journal

- Kahn J. Hager C., DK.Breault, C.Watterson. 2023. Arrival and departure windows of Atlantic sturgeon in the Chesapeake Bay, United States. Fishery Bulletin. [Forthcoming]

Technical and Government Reports

- Hager CH, Breault DK (Chesapeake Scientific LLC, Williamsburg, Va.). 2023. Spatiotemporal Distributions of Species Detected within the Virginia's Offshore Lease Areas, Volume 1: The Sandbridge Shoal Borrow Area. Williamsburg (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. xx p. Report No.: OCS Study BOEM 20xx-xxx. Contract No.:140MO122PO023.
- Hager CH, Breault DK (Chesapeake Scientific LLC, Williamsburg, Va.). 2023. Spatiotemporal Distributions of Species Detected within the Virginia's Offshore Lease Areas, Volume 2: The Virginia Wind Farm Lease Area A-O483. Williamsburg (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. xx p. Report No.: OCS Study BOEM 20xx-xxx. Contract No.:140MO122PO023.

PRESENTATIONS

Research Talks

- **D.K. Breault** Size Matters: Allometry and the Measurement of Turtles. Beta Beta Beta Biological Honors Society Alpha Chi Chapter. Edinboro PA. April 2021.
- **D.K. Breault**, S.P. Irwin, J. Losos, Let's get Groovy! The Evolution of Costal Grooves in Salamanders. E3MCO Joint Symposium Harvard University, Cambridge MA. July 2020.
- **D.K. Breault**, S.P. Irwin, J. Losos, Let's get Groovy! The Evolution of Costal Grooves in Salamanders. Leadership Alliance Virtual National Symposium. July 2020

Research Posters

- **D.K. Breault**, B. Skrocki, G. Karns, M. Spicer, No Need to be Alarmed: Pishing and Predatory Calls as a Measure of Bird Song Volume in Western Pennsylvania Bird Species. 15th Annual Regional Science Consortium Research Symposium. Erie PA. November 2019
- **D.K. Breault**, N.G. Armatas, D. Tshudy, Calcium Leaching in Soil Under Acidic Conditions. 14th Annual Regional Science Consortium Research Symposium. Erie PA. November 2018

Professional Talks

- **D.K. Breault**, J. Shiflet, L. Glynn, A. Dwyer, Bear Management and Nuisance Wildlife. Philmont Scout Reserve, Cimmaron NM. August 2021.
- **D.K. Breault**, J. Shiflet, L. Glynn, Invasive Species Removal, Management and Ecology. Philmont Scout Reserve, Cimmaron NM. July 2021.
- J. Shiflet, **D.K. Breault**, V. Casas, L. Glynn, Field Botany and Ecology. Philmont Scout Reserve, Cimmaron NM. July 2021.
- **D.K. Breault** Technical Writing and Self Marketing. Beta Beta Beta Biological Honors Society Alpha Chi Chapter. Edinboro PA. February 2021.
- A. Mosebarger, R. Manns, **D.K. Breault**, Getting Involved in Research Enrichment Meeting. Edinboro University of Pennsylvania Honors College, Edinboro PA. November 2019.
- **D.K. Breault**, M. Gross, Time Management, Study Techniques, and Tutoring. Edinboro University Lunch and Learn Program Baron-Forness Library. Edinboro PA. February 2020
- **D.K. Breault**, Dolphinfish, Conservation, and Florida Ecology. Beta Beta Beta Biological Honors Society Alpha Chi Chapter. Edinboro PA. March 2019.

PROFESSIONAL EXPERIENCE

Primate Field Technician

New York University

March 2023 to July 2023, Hours: 40 paid hours per week

Supervisor: Jason Kahn, jason.kahn@noaa.gov, (703) 220-8321

- Collected non-invasive data collection, primarily urine, fecal, and wound assessments for rhesus macaque for aging studies

Sturgeon Technician

Chesapeake Scientific

August 2022 to October 2022

Supervisor: Jason Kahn, jason.kahn@noaa.gov, (703) 220-8321

- Gill netted for endangered Atlantic Sturgeon following all handling protocols in accordance with the Endangered Species Act
- Collected biopsies, installed pit tags, and took measurements for sturgeon

Marine Biologist - Fisheries Observer

Lynker Technologies

March 2022 to August 2022, Hours: 100 paid hours per week (4 weeks on two weeks off)

Supervisor: Josse Vincent, jvincent@lynker.com, (808) 321-9183

- Collected biological data from fish and marine species, such as measurements, sex data, depredation, and biopsies
- Recorded protected species interactions and mitigation techniques

Wildlife Technician

Budget Pest Control

October 2021 to January 2022, Hours: 45 paid hours per week

Supervisor: Donald Wanninger, d.wanninger@budgetpestcontrolpgh.com, (412) 297-3025

- Controlled wildlife damage to property, human health, and agriculture utilizing chemicals, deterrents, and exclusions
- Made nuisance wildlife management decisions

Natural Resource Technician

Philmont Scout Ranch

May 2021 to August 2021, Hours: 50 paid hours per week

Supervisor: Casey Myers, Casey.Myers@scouting.org, (575) 447-0264

- Conducted vegetation surveying used for sustainable land use decisions
- Lead data analyst for a wildlife and habitat report for 140,171 acres of ranchland
- Conducted mammal surveys using transects and point counts in order to determine population density

Microbiology Lab Assistant

Edinboro University of Pennsylvania

August to May 2019, 2020, 2021, Hours: 10 paid hours per week

Supervisor: Dr. Dave Fulford, dfulford@edinboro.edu, (814) 732-1516

- Trained other student workers in the laboratory setting
- Created lab preparation schedule to guarantee lab work was done on an appropriate timetable

INSTRUMENTATION AND SKILLS

Familiarity With:

DNA extraction, PCR, restriction digest, DNA transformation, fyknets, basking traps, Git, vibracorer, spectroscopy, titrations, rocket nets, soil sampling, phylogenetic analysis, genomic libraries, DNA sequencing, mist netting, camera traps

Proficiency With:

Rstudio, GIS, Small mammal traps, percent coverage, forest biometrics, transects, herp sampling, insect sampling, ponar dredge, kemmerer tube, hydrolab, dichotomous keys, ID via binoculars, point counts, digital audio recorders, fish tagging, ethograms, autoclave, producing media plates, backpack herbicide sprayers, broadcast herbicide sprayers, stream restoration, Microsoft Office, Gill netting

AWARDS

- Commonwealth of Pennsylvania University Biologists Outstanding Student Award: Edinboro University
- Scholar Athlete of the Year
- Board of Governors Full Tuition Scholarship
- Jesse Brown Youth Memorial Scholarship
- Dean's list
- NASA Space Grant Consortium Scholarship
- Dr. Jeremy D. Brown Millennium Leadership Scholarship
- DAVA Scholarship
- Edinboro University Scholar Athlete Award
- Eagle Scout Award

AFFILIATIONS

Biological Honors Society

- President of Edinboro University's Biological Honors Society
- Planned events up to 100 people, schedule and procedures, and professional development activities

Edinboro Track and Field

- Ran for the Edinboro track team as a 400m dash runner and earned all conference recognition

Edinboro University Honors College

- Maintaining academic achievement and community involvement

Cooper Halls Ambassadors of Science

- Hosting school groups for museum tours, planetarium shows, and science fairs

National Eagle Scout Association

- Mission of developing leadership skills, character, citizenship, and physical fitness

TEACHING EXPERIENCE

Biology Tutor

Edinboro University of Pennsylvania

January 2019 to May 2019, August 2019 to May 2020, Hours: 10 paid hours per week

Supervisor: Dr Nina Thumser, nthumser@edinboro.edu, (814) 732-2158

- Qualified to tutor introduction to biology, zoology, botany, genetics, genomics, ornithology, entomology, animal behavior, conservation biology, ecology, biological data analysis, and systematics

REFERENCES

Dr. Jason Kahn

NOAA, jason.kahn@noaa.gov, (703) 220-8321

Dr. Elena Kramer

Harvard University, ekramer@oeb.harvard.edu, (617) 496-3460

Dr. Michelle Spicer

Yale University, michelle.spicer@yale.edu, (610) 739-6764