Ashley Blawas

Ph.D. Student in Marine Science & Conservation, (919)-880-4208, ashley.blawas@duke.edu
135 Duke University Marine Lab Road, Beaufort, NC 28516

EDUCATION

Ph.D. Student, Marine Science & Conservation 2018 – Expected 2023
Duke University Marine Laboratory, Beaufort, NC
Advisor: Dr. Douglas Nowacek
Thesis: Cardiorespiratory physiology of cetaceans

B.S.E., Biomedical Engineering 2014 – 2018
Pratt School of Engineering, Duke University, Durham, NC
Certificate: Marine Science & Conservation Leadership

HONORS & AWARDS

E. Bayard Halsted Fellowship 2020
Duke University Graduate School

NSF Graduate Research Fellowship Honorable Mention 2020
National Science Foundation

NSF Graduate Research Fellowship Honorable Mention 2018
National Science Foundation

Rachel Carson Scholar 2018
Duke University Nicholas School of the Environment

GRANT FUNDING

International Dissertation Travel Award, $2,590 2019
Duke University Graduate School

Con X Tech Prize, $3,500 2018
Conservation X Labs

Environmental Innovation and Entrepreneurship, $7,000 2017
Duke University Nicholas School of the Environment

Bass Connections Follow-on Student Research Funding, $3,000 2017
Duke University Bass Connections

RESEARCH EXPERIENCE

Fundación Oceanogràfic, Valencia, Spain 2019
Respiratory sinus arrhythmia of beluga whales, 3 days.
Research Advisor: Dr. Andreas Fahlman

Sarasota Dolphin Health Assessment, Sarasota Bay, Florida 2019
Respiratory sinus arrhythmia of Sarasota Bay bottlenose dolphins, 14 days.
Research Advisor: Dr. Andreas Fahlman

Dolphin Quest Oahu, Oahu, Hawaii 2019
Respiratory sinus arrhythmia and energetics of bottlenose dolphins, 14 days.
Research Advisor: Dr. Andreas Fahlman

Marine Mammal Passive Acoustics & Spatial Ecology Project, Beaufort, North Carolina 2019
Research Assistant; tagging and photo-identification of cetaceans on R/V Song of the Whale, 24 days.
Project Advisor: Dr. Douglas Nowacek

Cetacean Monitoring Project in Santos Basin, Santos Basin, Brazil 2018
DTAG Technician; tagging and photo-identification of cetaceans on Sea Route, 25 days.
Project Sponsor: Socioambiental

Dolphin Quest Oahu, Oahu, Hawaii 2018
Research Assistant; tagging and energetics of bottlenose dolphins, 15 days.
Research Advisor: Dr. Andreas Fahlman

Dolphin Quest Oahu, Oahu, Hawaii 2017
Research Assistant; tagging, energetics, and lung function of bottlenose dolphins, 24 days.
Research Advisor: Dr. Andreas Fahlman

Duke University Bass Connections: Ocean Energy Engineering 2016 – 2017
Ocean Energy Intern & Student
Research Advisors: Dr. Martin Brooke, Dr. Brian Mann, Dr. Douglas Nowacek

PUBLICATIONS

(2) L.H. Wyatt, A.L. Luz, X. Cao, L.L. Maurer, **A.M. Blawas**, A. Aballay, W.K.Y. Pan, J.N. Meyer. Effects of methyl and inorganic mercury exposure on genome homeostasis and mitochondrial function in Caenorhabditis elegans. *DNA Repair*, Volume 52, April 2017, Pages 31-48, ISSN 1568-7864.

(1) T.T. Schug, **A.M. Blawas**, K. Gray, J.J. Heindel, C.P. Lawler. Elucidating the Links Between Endocrine Disruptors and Neurodevelopment. *Endocrinology*, 2015, 156(6): 1941-1851.

ORAL PRESENTATIONS

Blawas, A. 2018. Lung Function Diagnostics in Bottlenose Dolphin. Rachel Carson Scholars Research Talks, Duke University.

POSTER PRESENTATIONS

Blawas, A., Allen, A., Nowacek, D., Rocho-Levine, J., Manley, M., and A. Fahlman. Dec. 2019. Respiration-coupled heart rate changes incommon bottlenose dolphins (*Tursiops truncatus*). World Marine Mammal Conference; Valencia, Spain.

Blawas, A., Allen, A., Nowacek, D., and A. Fahlman. March 2019. Evaluating Respiratory Sinus Arrhythmia in Common Bottlenose Dolphins (*Tursiops truncatus*). SEAMAMMS; Georgetown University.

Blawas, A., Coonley, K., Dalla Rosa, B., Evezich, K., Hermiller, B., Naclerio, N., Sequeira, D., Toone, T., Wang, J., Brooke, M., Mann, B. and D.P. Nowacek. April 2017. Designing an Energy Harvesting Buoy. Bass Connections Showcase; Duke University.

Blawas, A., Cox, H., Haas, D., Hoyt, C., and S. Kelly. Oct. 2017. Megafauna Motion Tag. Undergraduate Research Presentation for Significant Donors; Duke University.

Blawas, A., Glidewell, M., Jeffs, S., Laoprasert, R., Robertson, J., and P. Young. Dec. 2017. Biomechanics and Vehicle Safety Engineering: Developing a Helmet Liner to be Implemented in Low & Middle Income Countries. Biomedical Engineering Research Symposium; Duke University.

Blawas, A., Coonley, K., Dalla Rosa, B., Evezich, K., Hermiller, B., Naclerio, N., Sequeira, D., Toone, T., Wang, J., Brooke, M., Mann, B. and D.P. Nowacek. April 2017. Designing an Energy Harvesting Buoy. NC State Energy Conference; Raleigh, NC.

INVITED LECTURES

"**Ecophysiology: locomotion, thermoregulation, and diving physiology**" Jan. 2020
Marine Megafauna, Duke University, Nicholas School of the Environment

"**Ecophysiology: locomotion, thermoregulation, and diving physiology"** July 2019
Marine Mammals, Duke University Marine Lab, Nicholas School of the Environment

"**Respiratory sinus arrhythmia in bottlenose dolphin"** May 2019
Comparative Physiology of Marine Animals, Duke University, Nicholas School of the Environment

"**Ecophysiology: locomotion, thermoregulation, and diving physiology"** Jan. 2019
Marine Megafauna, Duke University, Nicholas School of the Environment

LEADERSHIP & PUBLIC OUTREACH

John P. Sutherland Memorial Seminar Coordinator Duke University Marine Lab 2019-2020

Girls Exploring Science and Technology Duke University Marine Lab, Planning Team 2019, 2020

Girls Exploring Science and Technology Duke University Marine Lab, Mentor 2018

Skype a Scientist, Marine Biology 2018 – present

COMPUTATIONAL SKILLS

Languages: MATLAB, Python, Arduino **Tools**: LaTeX, JMP, Autodesk Fusion 360, Adobe Premiere Pro, 3DPrinterOS, Image J

PROFESSIONAL AFFILIATIONS

Society for Marine Mammalogy
American Physiological Society

RELEVANT COURSEWORK

Duke University Graduate School (2018 – present)

Machine Learning Summer School (2019)
ENVIRON 886 Current Topics in Marine Conservation
ENVIRON 876A Data & Time Series Analysis in Marine Science

Duke University (2014 – 2018)

BME 590 Viscoelastic Biomechanics
BME 535 Blasts and Ballistics
BME 303 Modern Diagnostic Imaging Systems
BME 493 Projects in Biomedical Engineering: Dolphin Lung Function Testing
BME 432L Biomechanical Vehicle Safety Engineering
BME 354L Introduction to Medical Instrumentation
BME 302L Fundamentals of Biomaterials and Biomechanics
BME 260L Modelling Cellular and Molecular Systems
BME 244L Quantitative Physiology with Biostatistical Applications
ENERGY 396 History & Future of Ocean Energy
PUBPOL 280S Marine Science and Conservation Leadership
EGR 103L Computational Methods in Engineering

Duke University Marine Laboratory (2016)

ENVIRON 376A Marine Mammals
EOS 273LA Biological Oceanography
PUBPOL 281A Marine Policy