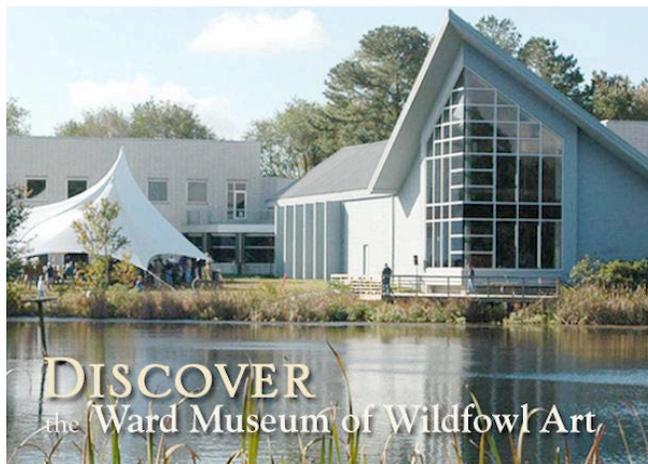


Ward Museum of Wildfowl Art



Go on a bird walk every Tuesday at the Ward Museum starting at 9am in the lobby.

Join local birders, Ward Museum staff, and SU students and faculty as they collect data on local migrating bird populations and submit that data into the Cornell Lab of Ornithology's. eBird citizen science program (www.birds.cornell.edu/). eBird provides the opportunity to collect real data for real scientific purposes. Visit the eBird website to (<http://ebird.org/content/ebird/>) find out more.

<http://www.wardmuseum.org/Education/Adults/eBirdCitizenScience/tabid/171/Default.aspx>

**Migratory Waterfowl:
A Photographic Experience with National Geographic
Photographer Bob Madden**

Blackwater Wildlife Refuge: October 21-23, 2016.
Named one of the "Last Great Places" by the Nature Conservancy, Blackwater Wildlife Refuge is the perfect location to see and photograph wildfowl on the Atlantic Flyway. October is a peak month for Snow Geese, Canada Geese and a panoply of migrating ducks. The refuge contains one-third of Maryland's tidal wetlands harboring a wealth of aquatic animals.



This Ward Museum Workshop is designed for amateur wildlife photographers. Participants are encouraged to bring their own equipment, provided they have long lenses necessary to capture waterfowl. Panasonic Inc. will supply a number of high end LUMIX cameras with longer lens so that all students can have the best tools needed to participate in the workshop. Bob will give participants photographic tips gleaned from many years as a National Geographic staff photographer.

Fee: \$350.00 for Ward Museum Members, Faculty, and Students; \$375.00 for all others. For more details use the following links and enter the program calendar.

<https://www.wardmuseum.org/ProgramCalendar/tabid/146/Default.aspx>

ANNOUNCEMENTS and OPPORTUNITIES

The Fall 2016 Biology Seminar Series:

<http://www.salisbury.edu/biology/seminars.html>



Maryland Sea Grant, located at the University of Maryland, produces a magazine called *Chesapeake Quarterly* (<http://www.chesapeakequarterly.net/V15N2/index.html>), which explores scientific, environmental, and cultural issues relevant to the Chesapeake Bay and its watershed. *Chesapeake Quarterly's* issue archive displays recent topics we have covered (<http://www.chesapeakequarterly.net/issues/>).

NCHRP Request for Proposal:

Evaluating the Suitability of Roadway Corridors for Use by Monarch Butterflies

Website: <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=4210>

The Transportation Research Board's National Cooperative Highway Research Program (NCHRP) has issued a request for proposals (RFP) to develop and validate a methodology for transportation practitioners to determine if roadway corridors are sources or sinks (beneficial or detrimental) to the monarch butterfly and how to maximize the beneficial aspects and minimize the detrimental impacts.

Society for Integrative Comparative Biology:

Grants in Aid of Research

Website: <http://www.sicb.org/>;

Program URL: <http://www.sicb.org/grants/giarinfo.php>

The Grants-in-Aid of Research (GIAR) program provides small awards to graduate students in support of their research in the fields of integrative and comparative biology. Deadline: October 25, 2016

Society for Integrative and Comparative Biology:

Fellowship for Graduate Student Travel

Website: <http://www.sicb.org/grants/fgstinfo.php>

The Fellowship of Graduate Student Travel (FGST) provides funds for travel and other expenses for students to work at distant research laboratories, museums, or field sites. Deadline October 25, 2016.

American Museum of Natural History:

Comparative Biology Ph.D. Fellowship Program

Website: <http://www.amnh.org/our-research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/doctoral-and-graduate-student-fellowships>

The AMNH PhD Program in Comparative Biology will train the next generation of biologists through an integrative approach that focuses on the history evolutionary relationships, and interactions among species. Deadline: December 15, 2016.

Welcome Our New Biology Faculty

Dr. Christina Bradley



I am really excited to be here at Salisbury University. I have been mostly a west coast resident, earning my BA in Biology from Occidental College in L.A., M.S. and Ph.D. in Oceanography from the University of Hawaii at Manoa, and doing a postdoc at the University of California Merced. I am eager to expand my research to the Chesapeake Bay and Atlantic Ocean, focusing on several of the recently and upcoming restored waterways and how these reconnections affect food webs. I have a passion for the ocean and water, which has driven my research interests in marine and aquatic organisms; I have logged over one thousand hours underwater as a SCUBA diver and Closed-Circuit Rebreather technical diver. My research focuses on community ecology, specifically trophic, or dietary, interactions, spanning from observable interactions to chemical markers to trace food from prey to consumer.

While I love research, I came to SU also because of its dedication to education. I have been teaching for most of my life, at outdoor camps in high school, on board teaching vessels in college, as a teaching assistant, science fair mentor, and outreach participant during graduate school, and doubling up teaching night classes as an adjunct instructor at a community college while working as a postdoc. I will be teaching Estuarine Biology and Ecology and hope to develop a new course in Stable Isotope Ecology in the coming years. I am eager to foster research and teaching collaborations that will strengthen an already wonderful department and university and encourage anyone interested to drop by my office or lab anytime.

Dr. Jennifer Nyland



I received my undergraduate degree from Cornell University (BA, chemistry) in 1992 and following some time working in environmental engineering, obtained my doctoral degree from State University of New York Upstate Medical University (PhD, immunology) in 2003. I completed post-doctoral training in epidemiology and immunotoxicology at Johns Hopkins Bloomberg School of Public Health in 2006. After two years of mentored research under an NIH K99/R00 grant, I moved to the University of South Carolina School of Medicine where I began independent research projects and teaching immunology to medical and graduate students. I'm very excited with this move to Salisbury University and the opportunity to focus on my love of teaching and mentoring. This semester I'll be teaching immunology (BIOL 333) and a cell biology lab.

My laboratory has had two research focus areas both related to the immunotoxic effects of metals exposures. In one area, we utilize epidemiological studies to examine the effects of mercury on biomarkers of immune modulation and *in vitro* studies to probe the mechanisms of these effects. In the second area, we have utilized *in vivo* mouse models of disease (autoimmune myocarditis, type-2 diabetes, and obesity) to explore the impacts of mercury and arsenic exposure on mechanism of disease progression and severity.

Hillevi Ets



I graduated from Salisbury University in 2009 with a BS in Biology, a BA in Philosophy, and a minor in German. Throughout college I spent my summers working in a research lab at the USDA in Beltsville, MD. The primary focus was the effect of probiotics on immune function in neonatal pigs. During the 2006-2007 academic year, I studied in Copenhagen, Denmark. Upon returning to SU I became familiar with Victor Miriel's research and eventually joined his lab.

August 2010, I moved to Philadelphia, PA and began graduate school at Drexel University College of Medicine in the Department of Pharmacology & Physiology. I spent time rotating in a prostate cancer lab and a chronic pain lab before finding my home in a smooth muscle physiology lab. My thesis research was on the intracellular mechanisms responsible for sustained vascular smooth muscle contraction in response to L-type Ca^{2+} channel activation.

My teaching experience includes lecturing in a graduate physiology class, leading pharmacology lab exercises for first year medical students, and facilitating second year medical students in a simulation center exercise about organophosphate poisoning. I'm very excited and honored to join the Biology Department here at SU. I will enjoy teaching Biology 210 alongside several of my former professors.

Krispen Laird



I graduated from Salisbury University in 2005, majoring in Biology and minoring in Chemistry. While an undergrad, I got the travel bug completing an internship on the island of Maui, Hawaii and spending my summer as a hiking guide in Denali National Park, Alaska. My love for nature and traveling transformed into my first "real" job as an outdoor education instructor at the Catalina Island Marine Institute on Catalina Island off the coast of southern California. There I taught students grades 4-12 various desert and marine science labs as well as how to snorkel and kayak. Also while in California, I had the opportunity to be involved in the Oceanography of the Southern California Bight's program through the Sea Education Association out of Woods Hole, Massachusetts. Following my stint in the kelp forests of California, I moved to the coral reefs of the Bahamas (island of Eleuthera) where I managed the outdoor education program for Wild Studies.

My migration to the Chesapeake area came when I began a teaching position with the Chesapeake Bay Foundation's island program. I lived and worked on Smith Island, Maryland and Tangier Island, Virginia. After three years of teaching school age children about the wetlands and cultures of these to bay islands, I returned to SU to get my Master's degree. I researched female mate choice of green tree frogs using a robotic tree frog model in the lab of Drs. Ryan Taylor and Kimberly Hunter. I completed my Master's in Applied Biology at Salisbury University in 2015 and in the summer of 2016 published my research with Paul Clements, Kimberly Hunter and Ryan Taylor in Behavioral Ecology and Sociobiology. I am happy to return to my alma matter to teach the Fundamentals of Biology course Biology 101 this fall.

Dr. Megan Murphy



I am coming to Salisbury University from University of Missouri where I completed my Ph.D. work studying the evolution of communication traits in katydids. I am passionate about my research, but also about teaching. At University of Missouri, I had the opportunity to teach introductory biology and invertebrate zoology; during my undergraduate work at Rockhurst University, I also taught workshops for K-12 students at the Missouri Department of Conservation. I am very excited to be joining the Department of Biological Sciences at Salisbury University where I will be teaching Biology 210 and doing research with Drs. Kim Hunter and Ryan Taylor. Outside of work, I enjoy baking all kinds of junk food, antiquing for vintage Pyrex, thrifting for unique finds, hiking and camping.

Dr. Kim Quillin



I am a Visiting Assistant Professor in the Department of Biological Sciences. Part of my job is to serve as curriculum coordinator for all sections of *Biology 210: Concepts and Methods* and teach one section. The other part of my job is to serve as the new department curriculum facilitator, helping to map the biology curriculum and to design programmatic review. I completed my B.A. in Biology at Oberlin College in 1993 and my PhD in Integrative Biology at UC Berkeley in 1999. I have worked in biology education publishing since graduate school and am now lead author of *Biological Science* by Freeman, Quillin and Allison, writing the evolution, ecology, and animal diversity chapters. To support this work, I have been active in the Biology Education Research community.

TRAVEL, CONFERENCES, and PRESENTATIONS

Andrew Baskerville (below center), SU graduate student in the MS Applied Biology program, won “Best Graduate Poster Presentation” award at the Mid-Atlantic Plant Molecular Biology Conference held in August 2016.



Mid Atlantic Plant Molecular Biology Society

Holland, MA. 2016. Putting Symbioses to Work: Developing Probiotics for Plants. Mid Atlantic Plant Molecular Biology Society. 15-16 August 2016. Laurel ,MD.

Gordon Research Conference

Bilanovic D, **Holland MA**, Armon, R. 2016. A Global Facility for the Reduction of Atmospheric Carbon. Gordon Research Conference, July 2016.

American Society for Microbiology

Elizabeth Emmert, Chris Briand, Ashley Hawkins, Gloria Seho-Ahiable, Amanda Evans, Keirsten Baker, Abigayle Mrozinski, and Sam Geleta. Microbial activity of cemetery and agricultural soils on Maryland's Eastern Shore. American Society for Microbiology, Boston, MA.

GUERRIERI UNDERGRADUATE SUMMER RESEARCH PROGRAM

Samantha Allen

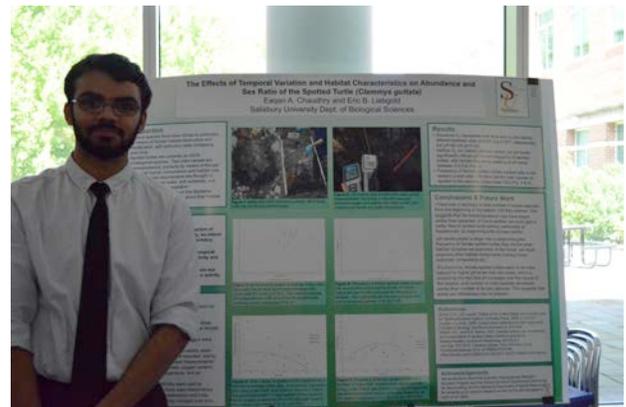
“The Effect of Induced Hyperglycemia on Motor Axons in Zebrafish.”

Faculty Advisor: Dr. Jessica Clark

Eaqan A. Chaudry

“The Effects of Temporal Variation and Habitat Characteristics on Abundance and Sex Ration of the Spotted Turtle (*Clemmys guttata*)”

Faculty Advisor: Dr. Eric Liebgold



Hannah Ennerfelt (left)

“The Effect of Induced Hyperglycemia on Sensory Neurons in the Dorsal Root Ganglia”

Faculty Advisor: Dr. Jessica Clark

Julia Howell (right)

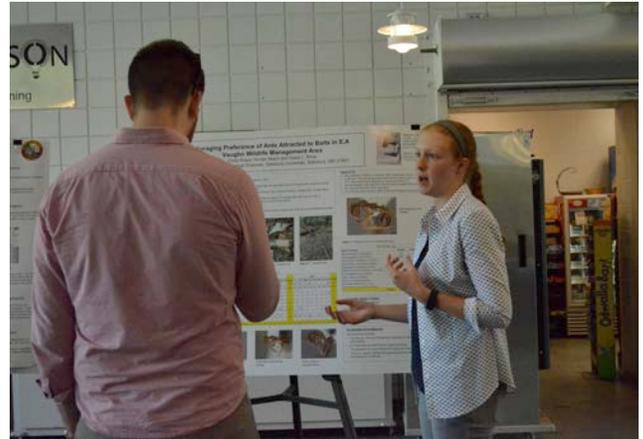
“Acute Effects of Hyperglycemia on Zebrafish Motor Axons in a Genetic-Chemical Ablation Model”

Faculty Advisor: Dr. Jessica Clark

Emily Rowe

“Foraging Preference of Ants Attracted to Baits in E.A. Vaughn Wildlife Management Area”

Faculty Advisor: Dr. Dana Price; Graduate Student Help: Hunter Mann



PUBLICATIONS

Holland, MA. 2016. Probiotics for Plants? What the PPFMs Told Us and Some Ideas about How to Use Them. *J. Washington Acad Sci.* 102(1): 31-42.

Bilanovic D, **Holland MA**, Starosvetsky J and Armon R. 2016. Mixed Cultures of Microalgae and Nitrifiers for Improved Production of Biomass and Sequestration of Carbon Dioxide. *Bioresource Technology.* (accepted 22 Aug 16)

ALUMNI

Emma Rice (2014 graduate) is attending the M.S. Graduate Program at Grand Valley State University in Michigan. She will be studying aquatic biology at the Annis Watershed Resources Institute. The Institute is primarily committed to the research of graduate students and professors.

This past summer she helped the DNR close the islands in the coastal bays for bird nesting. She also helped to survey the number of nesting royal terns and their chick survival.

Editor: Dana Price

Coeditor: Dr. Judith Stribling

If you have announcements to add or general comments regarding the Newsletter, please email dlprice@salisbury.edu.