

EDUCATION

Masters in Wildlife and Fisheries Sciences (December 2016)

The Pennsylvania State University – University Park, Pennsylvania

Supported in full by Department of Ecosystem Science and Management Teaching Assistantship

Dissertation title: "Methodologies in Assessing Benthic Macroinvertebrate Communities"

Committee: Jay R. Stauffer Jr. (Chair), Gregory Hoover, Elizabeth Boyer

Bachelor of Science in Wildlife and Fisheries Sciences (May 2014)

With a Minor in International Agriculture

The Pennsylvania State University – University Park, Pennsylvania

Schreyer Honors College and The College of Agricultural Sciences

Thesis title: "Foraging Habits of *Etheostoma caeruleum* to Determine Dietary Variability"

Coursework at The Pennsylvania State University

Water Law and Policy

Wildlife and Fisheries Conservation

Wildlife and Fisheries Measurements

Wildlife Management

Field Ichthyology

Field Dendrology

Mammalogy

Environmental Law

Herbaceous Forest Plant Identification and Ecology

Freshwater Entomology

Ornithology and Ornithology Laboratory

Wildlife and Fisheries Population Dynamics

Ichthyology and Ichthyology Laboratory

Limnology

Education Abroad (February – June 2013)

Lincoln University - Lincoln, New Zealand

Coursework at Lincoln University

Environmental Planning

Insect Ecology and Diversity

Environmental Monitoring and Resource Assessment

Applied Ecology and Conservation

TEACHING EXPERIENCE

Adjunct Faculty in Wildlife Technology – The Pennsylvania State University Spring 2015 – 2017

DuBois, Pennsylvania

ELEMENTS OF PROJECT SUPERVISION IN FORESTRY

- Developed course material pertaining to wildlife policy, planning, and law
- Facilitated discussions of environmental current events
- Utilized a variety of pedagogical strategies to avoid a lecture based course
- Fostered relationships with students transitioning to University Park as support

WILDLIFE IDENTIFICATION

- Taught life history and identification of Pennsylvania amphibians, reptiles, mammals, and birds
- Facilitated field-based laboratories reinforcing lecture materials

Graduate Student Instructor – The Pennsylvania State University

Fall 2015, 2016

University Park, Pennsylvania

ICHTHYOLOGY LABORATORY

- Conducted field trips to enhance experiential learning of fish identification
- Incorporated "on the job" skills into course learning objectives

Teaching Assistant – The Pennsylvania State University

University Park, Pennsylvania

FRESHWATER ENTOMOLOGY

Fall 2015

- Supervised students during field and laboratory sessions
- Guest lectured on professional development and insect drift

WILDLIFE AND FISHERIES MEASUREMENTS

Fall 2014

- Supervised students during field and laboratory sessions
- Explained challenging biological concepts to students

EDUCATION-BASED COMMUNITY SERVICE

4H Youth Field Day – The Pennsylvania State University Extension

Spring 2012 – 2015

- Developed curriculum based activities around centralized theme for small and large group participation

Outdoor School – Shaver's Creek Environmental Center

October 2013

- Served as cabin counselor for a group of five fifth grade girls for one week
- Led games, songs and other spontaneous activities during down time
- Assisted learning group leader as necessary during educational activities

New Zealand Girl Guides

February – June 2013

- Assisted troop leader at weekly meetings by leading activities, songs, crafts, and discussions in order to aid girls in earning badges and selling biscuits

WILDLIFE AND FISHERIES RESEARCH EXPERIENCE

Fisheries Research Technician – The Pennsylvania State University *University Park, Pennsylvania*

January 2011 – Present

- Conducted independent research projects in aquatic ecology
- Obtained permits and lead field crew to collect fish and macroinvertebrates
- Collected, sorted, and identified samples of aquatic macroinvertebrates
- Electrofished and seined small to large streams
- Snorkeled to capture underwater footage of fish behaviors
- Identified fish to be cataloged and entered information into museum database
- Pinned fish fins for preservation and took fin clippings for genetic analysis
- Measured stream flow, substrate and widths to categorize microhabitats
- Analyzed water samples for chemical components of water quality
- Cleaned tanks and fed fishes as routine husbandry
- Created maps for publication using GIS software, ESRI ArcMap
- Collaborated with US Geological Survey on genomics projects

WILDLIFE AND FISHERIES WORK EXPERIENCE

Bat Technician – Pittsburgh Wildlife and Environmental *McDonald, Pennsylvania*

May 2012 – August 2012

- Utilized mist netting techniques to capture bats for endangered species surveys
- Developed bat identification skills
- Obtained rabies vaccinations

PRESENTATIONS

"Methodologies in Assessing Benthic Macroinvertebrate Communities", Oral presentation at Regional Science Consortium Colloquium at Tom Ridge Environmental Center, November 2016. First Place Award in Graduate Student Presentations.

"Foraging habits of *Etheostoma caeruleum* to determine diet variability", Honors thesis completed for degree, The Pennsylvania State University, May 2014. Oral presentation at Regional Science Consortium Colloquium at Tom Ridge Environmental Center, November 2013 & 2015. Oral presentation at The Pennsylvania Chapter of the Wildlife Society State Conference, March 2015.

"An Evaluation of drift and substrate macroinvertebrate communities in Elk Creek", Oral presentation at Regional Science Consortium Colloquium at Tom Ridge Environmental Center, November 2012.

PUBLICATIONS

Stauffer, Jay R., Sara Mueller, Joshua Wisor, and Casey Bradshaw-Wilson. (In Press). Occurrence of the Round Goby (*Neogobius melanostomus*) in LeBoeuf and French Creeks. *Journal of the Pennsylvania Academy of Science*.

Clark, Kyle and Sara Mueller. (In Press). Long-Term Monitoring of the Macroinvertebrate Community in Elk Creek, Pa. *Journal of the Pennsylvania Academy of Science*.

WORKSHOPS

Mueller, Sara and Dang Nyugen. Beyond Classroom Walls: Effectively Engaging in Experiential Learning. Teaching and Learning in Agriculture Workshop Series. College of Agricultural Sciences. The Pennsylvania State University. April 2016.

GRANTS RECEIVED

College of Agricultural Sciences Undergraduate Research Grant (\$2000.00)	Fall 2013
College of Agricultural Sciences Undergraduate Research Grant (\$3000.00)	Summer 2013
Undergraduate Summer Discovery Grant (\$3000.00)	Summer 2013

ACHIEVEMENTS AND AWARDS

Department of Ecosystem Science and Management Outstanding Senior	Spring 2014
John L. George Student Conservation Award	Spring 2013
The Pennsylvania State University Dean's List	Fall 2010 – Spring 2014

Scholarships

• Class of 1922 Memorial Scholarship	2013 – 2014
• Mark Petty Bush Memorial Scholarship in Wildlife and Fisheries Sciences	2013 – 2014
• Ferguson-Cope Forestry Award	2013 – 2014
• Settlemyer Fund for International Experiences	Spring 2013
• Schreyer Honors College Academic Excellence Scholarship	2010 – 2014
• Galen Dreibelbis Endowment For Excellence In Ag	2010 – 2014
• Gerald L. Bayles Memorial Scholarship	2010 – 2014
• Conservation Leaders for Tomorrow	February 2012
• Fisher Scholarship in Wildlife and Fisheries Sciences	2010 – 2012
• Douglas B. and Tracey J. Sieg Trustee Scholarship	2010 – 2011
• Rotary Club Of State College	2010 – 2011
• Wilbur W. Ward Memorial	2010 – 2011

UNDERGRADUATE ORGANIZATION INVOLVEMENT

State College Chapter of Delta Waterfowl

• Assisted in organization and execution youth and fundraising events	January 2014 - Present
• Served as co-chairman beginning Fall 2014	

College of Agricultural Sciences Ag Advocate

• Co-chaired event promoting agricultural literacy to campus and community	April 2011 – May 2014
• Served on media committee producing promotional materials for AgDay 2013	
• Provided tours for the College of Agricultural Sciences and campus facilities	
• Acquainted perspective and incoming students with University Park Campus and its Agriculture related programs	
• Served as a student liaison at alumni and outreach events for the college	
• Promoted the College of Agricultural Sciences as 2012 NASP tournament	

Undergraduate Student Representative for School of Forest Resources Alumni Group Board of Directors

April 2011 – May 2014

The Pennsylvania State University Wildlife Society

August 2010 – May 2014

- President for 2013-2014 academic year
- Community Service and Education Chair for 2011-2012 academic year
- Planned and hosted successful 2014 Northeast Student Conclave
- Presented educational activities in elementary school classrooms
- Organized student travel to and attended National Conference in 2012, 2013
- Co-chaired the Wild Game Dinner fundraiser in March 2011, 2012
- Co-chaired Kids Go Wild youth field day event October 2010, 2011

PSU Swing Dance Club

August 2010 – May 2014

- Vice president for 2012-2013 academic year
- Treasurer for 2011-2012 academic year
- Taught introductory Lindy Hop and Blues lessons
- Organized biannual workshops

Schreyer Honors College SHOTime Mentor

Fall 2011

- Facilitated orientation activities at SHOTime 2011
- Led icebreakers
- Assisted scholars in adjusting to college life
- Played an active role in the Finale events at SHOTime

Schreyer Honors College First-Year Testing, Consulting and Advising Program (FTCAP) Mentor

May 2011

- Shared Schreyer Honors College experiences with incoming freshmen
- Served as resource to parents and students during scheduling of classes

PROFESSIONAL MEMBERSHIPS

- American Fisheries Society 2014 – Present
- Society for Freshwater Science 2014 – Present
- Delta Waterfowl 2014 – Present
- The Wildlife Society 2010 – Present
- Girl Scouts of the USA 1997 – Present

TEACHING CERTIFICATIONS

- Penn State Graduate Teaching Certificate (In Progress) 2017
- Penn State Graduate Student Online Teaching Certificate 2016
- Penn State Teaching and Learning with Technology Certificate 2016
- PA Game Commission Hunter Education Instructor 2014 – Present
- National Association for Interpretation Certified Interpretive Guide 2014 – Present

TEACHING CONFERENCES AND WORKSHOPS

- Teaching and Learning with Technology Symposium at Penn State 2016
- National Environmental Education Curricula Workshops: Project Food, Land and People, Project Learning Tree, PA Reptile and Amphibians, Project WILD, PA Songbirds, Aquatic WILD, Explore Bowhunting PA 2014 – Present

COMMITTEE POSITIONS

- Institutional Animal Care and Use Committee Fall 2015 – Present

RESEARCH CERTIFICATIONS

Certified Animal Researcher

- Certification through Laboratory & Agricultural Animal Researcher Certification program by The Pennsylvania State University Office for Research Protections

Taxonomic Certifications by Society for Freshwater Science

- Family Level Certification (July 2014)

Other

- Center for Wilderness Safety Wilderness First Aid (July 2016)
- American Red Cross CPR/AED for Lifeguards (February 2015)
- American Red Cross Lifeguarding/First Aid (February 2015)
- PADI SCUBA (May 2012)
- Penn State Environmental Health and Safety Training (May 2011)

REFERENCES AVAILABLE UPON REQUEST