Glenn Woerndle, MS Biology

Glenn Elizabeth Woerndle
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Research Interests

My current research interests include spatial and temporal variation in methane cycling, as well as the sources, transformations, and fate of pollutants in aquatic ecosystems.

Educational Background

2016 MS Biology: Ecotoxicology, Program in the Biology Department, University of North Carolina at Greensboro

2013 BS Biology major with a concentration in Environmental Studies, University of North Carolina at Greensboro
Magna cum laude

2009 Diploma, Lumberton Senior High School, Lumberton, NC

Professional Experience

2016-Present **Research Associate,** Chapman University, Schmid College of Science & Technology, Ecosystems Ecology Lab
Jason Keller (714) 289 – 2072 jkeller@chapman.edu
Cassandra Medvedeff (714) 289 – 2038 medvedef@chapman.edu

2014-2016 **Teaching Assistant**, University of North Carolina at Greensboro Biology Department
Dr. Matina Kalcounis-Rueppell (336) 256-2590 mckalcou@uncg.edu
- Instruction and mentorship of undergraduate students
- Instruction introductory biology laboratory classes
- Critique of students laboratory practice, writing & analysis

2013 **Research Assistant**, University of North Carolina at Greensboro Ecotoxicology Lab
Dr. Tsz-Ki Tsui (336) 256-0087 tmtsui@uncg.edu
- Development and optimization of laboratory standard practices
- Analyzing environmental samples THg and MeHg concentration
- Cold vapor atomic fluorescence spectroscopy (CVAFS)
- Processing/Analyzing mercury stable isotopes
- Publication in *Environmental Science and Technology*

Balogh, S., Tsui, M.T., Blum, J., Matsuyama, A., **Woerndle, G**., Yano, S., Tada, A. 2015. Tracking the fate of mercury in the fish and bottom sediments of Minamata Bay, Japan, using mercury stable isotopes.

2011 **Undergraduate Researcher,** University of North Carolina Aquatic Ecology Lab Greensboro, NC
Dr. Anne Hershey (336) 256-2473 anne_hershey@uncg.edu
- Drafting a proposal for an undergraduate studies project

•Investigate methane production in the hyporheic zone of the South Fork Flathead River, Montana
•Field collection/keying aqautic invertebrates in collaboration with Dr. Jack Stanford-Flathead Lake Biological Station, University of Montana
•Processing ^{13}C & ^{15}N stable isotopes invertebrates
•Analysis of methane production in microcosms
•Measurement of methane production-gas chromatography in collaboration Dr. Steve Whalen, University of North Carolina, Chapel Hill

Awarded: The Bruce McClain Eberhart Award
Presented: 7th Annual Carolyn & Norwood Thomas Undergraduate research

2012-2014 **Outdoor leader**, Outdoor Adventures Campus Recreation Greensboro, NC
Michael Ackerman (336) 334-5924 maacker2@uncg.edu

2013 **Facilitator**, TeamQuest Experiential Education Campus Greensboro, NC
Paul Harmelin (336) 334- 4855 pgharmel@uncg.edu

2010 **Teaching assistant**, Greensboro Montessori School, Greensboro, NC
Dr. Charles Headington
•Assist grades 1-8 in environmental lesson planning

2009-2011 **Field assistant**, Applefield Organic Farm Stow, Ma
Kirsten Mong (978) 407-4772

Field Experience

2016-present Seal Beach Naval Weapons Reserve, Seal Beach, CA
In progress: Gas flux monitoring during wetland restoration efforts

2014-Present Marcell Experimental Forest, Grand Rapids, Minnesota
In Progress: SPRUCE site: S1 Bog
Master Thesis research site: S2 peatland-upland watershed
•Coring upland and peat soil
•Collection of porewater & grab water samples & aquatic invertebrates

2014-2015 Angelo Reserve, Branscomb, California
Field assistant: Collection of invertebrates and environmental matrices for mercury and methylmercury analysis
Project status: In progress
Dr. Rebecka Brasso Southeast Missouri State University
•Collection of invertebrates
•Collection of sediment for microbial population analysis qtPCR from tributaries South Fork Eel River

2014 Coweeta Hydrological reserve, Otto, North Carolina
Field assistant: Collection of invertebrates and environmental matrices for mercury and methylmercury analysis
Project status: In progress
Dr. Rebecka Brasso Southeast Missouri State University

2010 Flathead Lake Biological Station, Polson, Montana
Undergraduate research site: Nyack floodplain
•Collection of invertebrates for ^{13}C & ^{15}N isotope analysis
•Mapping abundance and distribution patterns of invertebrate communities

2010 Local Piedmont streams, Greensboro, North Carolina
Undergraduate assistant: Bullard, A. E. and Hershey, A. E. 2013. Impact of *Corbicula fluminea* (Asian clam) on seston in an urban stream receiving wastewater effluent. Freshwater Science 32:976-990

Trainings & Workshops

Best Management Practices-Stormwater NC State University
Constructing a wetland workshop- Dr. Thomas Biebighauser
Broke Rand Total mercury and methylmercury analysis (CVAFS)
Triad Mass Spectrometry
Geographic information systems Arc-GIS
Gas chromatography
Laboratory safety
American Red Cross CPR, First Aid, AED, wilderness first aid
Statistical software Sigmaplot, Excel, R (in progress)
Word processing

Conference & Presentations

2015 Guest Lecture Guilford Community College
Dr. Megan White Professor of Ecology
Evaluating ecological processes using stable isotopes ^{13}C ^{15}N & Hg

2015 GSA: Geological Society of America: Mercury biogeochemistry: Sizing up element 80 in the Earth's system
Poster Presentation: Using stable mercury isotopes to examine mercury cycling in a peatland-upland watershed in northern Minnesota (U.S.A.)

2015 Carolinas SETAC: The society of Environmental Toxicology and Chemistry
Poster presentation: Using mercury stable isotopes to trace sources of mercury in a peatland-upland ecosystem

2014 Creativity Expo: Graduate student symposium UNCG
Poster Presentation: Seasonal variation in mercury sources: A land management perspective

2013 7^{th} Annual Carolyn & Norwood Thomas Undergraduate Research Expo
Poster Presentation: Determining the of methane production in the hyporheic zone of the South fork of Flathead River, Montana

Funding & Awards

2015 Biology Departmental research funding
2014 Graduate student travel award

2014	Graduate studies professional development fund
2014	Biology Department Travel Funding
2011	Undergraduate research funding
2010	The Bruce McClain Eberhart Award

References

Dr. Jason Keller
Relationship: Employer Chapman University
Associate Professor: Environmental Science, Chapman University
(714) 289 – 2072
jkeller@chapman.edu

Dr. Cassandra Medvedeff
Relationship: Employer Chapman University
Assistant Professor: Environmental Science, Chapman University
(714) 289 – 2038
medvedef@chapman.edu

Dr. Tsz-Ki Tsui
Relationship: Master thesis advisor
Ecotoxicology Professor, UNCG
(336) 256-0087
tmtsui@uncg.edu

Dr. Anne Hershey
Relationship: Master thesis committee member & undergraduate mentor
Professor of Biology, UNCG
(336) 256-2473
anne_hershey@uncg.edu

Dr. Rebecka Brasso
Relationship: post-doctoral fellow in the Tsui Lab
Assistant professor of Biology, Southeast Missouri State University
(573) 651-2358
rbrasso@semo.edu

Stephen Sebestyen
Relationship: Collaborator master thesis project
USDA forest service & Marcell Experimental Forest Employee- research hydrologist
(218) 362-7108
ssebestyen@fs.fed.us

Dr. Parke Rublee
Relationship: These committee member and wetland committee member
Professor of Biology, UNCG
(336) 256-0067
parublee@uncg.edu

Student Activities

2015	Wetlands Committee A collaborative project between the University of North Carolina at Greensboro and the city of Greensboro to plan and implement a wetland ecosystem on the University of North Carolina at Greensboro's campus as an educational experimental ecosystem for use by high school, undergraduate, and graduate students across disciplines.
2015-present	Founder & vice president-UNCG Rock Climbing Club
2015	Science Olympiad Judge
2014	Guilford County Science Fair Judge
2011	Study Abroad - University of Sydney, Australia
2010-2011	Secretary -UNCG Women's Ultimate Frisbee Team
2008	PADI- Open water dive certified