ANDREW LEE STEVENS

3233 Harvey Street Madison, Wisconsin 53705
Alstevens2@wisc.edu • 320-522-2203

Education

MS: Freshwater and Marine Sciences May 2016
University of Wisconsin-Madison**,** Madison, WI 53706
Thesis: Contaminants in Wisconsin Fishes: Pathological and Consumption Implications
Membership: American Fisheries Society (*active in MN and WI Chapters*)

MS: Water Resources Management May 2016
University of Wisconsin-Madison**,** Madison, WI 53706
Project: Nine Springs Creek Habitat Restoration: Adding Ecosystem Services to Impaired Waterways

BS: Environmental Science May 2013
Minnesota State University-Mankato, Mankato, MN 56001
Focus and Minors: Aquatic Ecology, Biology, and Law Enforcement
Membership: American Fisheries Society and National Biological Honor Society

High School: Diploma May 2009
Bold High School, Olivia, MN 56277
Membership: National Honor Society

Relevant Research Experience

Fish Consumption and Advisory Awareness among "At-Risk" Angler Groups in Wisconsin
Freshwater and Marine Sciences MS Thesis Chapter September 2014 – Present

- Investigated exposure risk, fish consumption and advisory awareness among local anglers
- Prepared recommendations for WDNR collaborators Candy Schrank and Meghan Williams
- Designed, coordinated and oversaw completion of 150 angler surveys on Madison area lakes
- Acted as a crew work leader while overseeing assistants' schedules and data QA/QC
- Integrated angler suggestions for advisory sources into recommendations
- Identified areas where improved messaging could benefit local "at-risk" angler groups

Mercury's Pathological and Consumption Implications for Lake Michigan's White Suckers
Freshwater and Marine Sciences MS Thesis Chapter September 2014 – Present

- Investigated mercury and tumor burdens on fish populations across Lake Michigan
- Identified fish residency patterns inconsistent with BUI AOC impairment designations
- Conducted statistical modeling and analysis of mercury loads among populations
- Analyzed HgT, and Hg, C and N stable isotopes to partition contaminant intake
- Co-coordinated multi-agency fish collection efforts
- Collected hundreds of migrating fish using a variety of sampling gears and processed tissues

Nine Springs Creek E-Way Restoration August 2013 – December 2015
Water Resources Management MS Project

- Designed plans for northern pike spawning habitat improvement in an impaired waterway
- Formed collaborative partnerships with diverse stakeholder groups and state agencies
- Conducted in-stream monitoring of water chemistry, quality, habitat and biota health
- Designed, coordinated, and executed a macroinvertebrate Index of Biotic Integrity
- Coordinated with WDNR fisheries staff to ensure our design met biological objectives

Atrazine Influences on Northern Pike Sperm Motility and Viability in Minnesota
Minnesota State University Mankato – Water Resources Center August 2012- May 2013

- Designed and conducted a joint research effort between the university and MNDNR
- Developed project proposal and secured grant for research funding
- Executed fish collection on multiple lakes across the state
- Formulated recommendations to MNDNR staff for fishery and hatchery operations

Professional Work Experience

Fish Contaminant Investigator (LTE) May 2016 – Present
Center for Limnology, 680 N. Park St. Madison, WI 53706
Supervisor: Dr. Peter McIntyre (608) 890-3416 – *may be contacted*

- Collaborating towards a multi-continental mercury food web bioaccumulation study
- Investigating mercury burdens in Lakes Mendota and Monona from a consumption context
- Performing independent collection of fishes, laboratory analysis and interpretation of results
- Preparing appropriate recommendations for dissemination to managers
- Formed collaborative partnerships with WDNR fisheries staff

Research Assistant September 2014 – May 2016
Center for Limnology, 680 N. Park St. Madison, WI 53706
Supervisor: Dr. Peter McIntyre (608) 890-3416 – *may be contacted*

- Designed, funded, coordinated, and executed novel research studies
- Developed and implemented sampling regimes for a variety of monitoring objectives
- Performed technical writing including scientific articles, reports and grants
- Managed and analyzed large datasets using SAS, R, and Microsoft Excel
- Hired, trained, and directed the operations of field assistants
- Conducted fish passage research integrated into a barrier removal optimization tool
- Formed collaborative partnerships with USGS and WDNR colleagues

Aquatic Invasive Species Outreach Assistant January 2015 – Present
UW Extension and UW Sea Grant, 432 N. Lake St. Madison, WI 53706
Supervisor: Tim Campbell (608) 267-3531 – *may be contacted*

- Frequently disseminate educational messages to public audiences and sportsman groups
- Co-coordinate event planning logistics
- Developed an ArcGIS model to target high priority aquatic invasive species prevention areas
- Provided recommendations to resource managers

Consultant – Harbison Creek Stream Restoration Project September 2014 – May 2015
Inter-Fluve, 301 S. Livingston St., Suite 200 Madison, WI 53703
Supervisor: Marty Melchior

- Conducted analysis of trout population for habitat design recommendations
- Completed historical review of property including historical photos, plat surveys and zoning
- Executed vegetation, substrate, geomorphic and bathymetric surveys

Research Assistant – Development of My Earth Mobile App January 2014 – January 2015
UW Consumer Science Department, 1300 Linden Dr. Madison, WI 53706
Supervisor: Nancy Wong (608) 265-5954 – *may be contacted*

- Designed an app to offer sustainable alternatives for users to reduce water and energy use
- Carried out app testing via subject recruiting and monitoring of user preferences

Fisheries Management Intern May 2013 – August 2013
Minnesota Department of Natural Resources, 50317 Fish Hatchery Rd Waterville, MN 56096
Supervisor: Scott Mackenthun (320) 234-2550 – *may be contacted*

- Performed fisheries surveys and IBI assessments on many southern Minnesota lakes
- Collected fish using gill, fyke and trammel nets, seins and electrofishing techniques
- Conducted surveys to identify and remove aquatic invasive species

Streams Habitat Intern May 2012 – August 2012
Minnesota Department of Natural Resources, 500 Lafayette Rd St. Paul, MN 55155
Supervisor: Ann Kuitunen (651) 259-5113 – *may be contacted*

- Performed and coordinated fish habitat assessments on lotic systems across Minnesota
- Conducted geomorphic surveys utilizing Rosgen methodologies
- Maintained database integrity in Microsoft Access using QA/QC standards
- Utilized taxonomic keys for intricate identification of many juvenile cyprinid species

Research Assistant May 2011 – May 2013
Water Resources Center, 135 Trafton Science Center South Mankato, MN 56001
Supervisor: Dr. Shannon Fisher (507) 389-5690 – *may be contacted*

- Assisted in the development of a watershed nutrient communications tool
- Published the Minnesota River Basin Weekly Update
- Provided database management for MPCA Citizen Engagement Project
- Engaged with stakeholders, landowners and members of the public

Relevant Coursework

- Fisheries Biology
- Ecology of Fishes
- Limnology
- Small Watershed Engineering
- Hydrology
- Applied Chemistry
- Advanced Field Ecology
- Advanced Biostatistics I & II
- Natural Resources GIS Applications
- Water Resources Institutions and Policy
- Technical Communications
- Environmental Pollutants and Controls
- Environmental Communication
- Environmental Regulations

Select Reports and Publications

Stevens et al. 2016. (In preparation). Variability in Mercury among Lake Michigan's White Suckers: Pathological and Consumption Implications. Environmental Sciences and Technology Letters.

Stevens et al. 2016. (In preparation). Differential Mercury Exposure among Angling Groups in Madison, Wisconsin: the intersection between consumption rates and species preferences.

Stevens et al. 2016. (In review). Nine Springs Creek Restoration: Adding Ecosystem Services to an Impaired Waterway. University of Wisconsin-Madison Nelson Institute.

Stevens, A., and Fisher, S.J. 2016. (Submitted) Variations in Northern Pike Sperm Motility and Viability Among Four Minnesota Lakes. Journal of Freshwater Ecology.

Stevens, A., Pallardy, P. and Fisher, S.J. 2012. Atrazine Influence on Northern Pike Sperm Motility and Viability in Minnesota. Journal of Undergraduate Research at Minnesota State University, Mankato, 12(1).

Professional Presentations

Stevens, A. and McIntyre, P. 2016. Differential Contaminant Exposure Risk among Anglers in Madison, WI. National American Congress on Conservation Biology. Madison, WI 07/16

Stevens, A. et al. 2016. Contaminants in Wisconsin Fishes: Pathological and Consumption Implications. Global Health Symposium. Madison, WI 03/16

Stevens, A. et al. 2016. Mercury Burden In Lake Michigan's White Suckers: Variability and Pathological Implications. American Fisheries Society WI Chapter. Lacrosse, WI 02/16

Stevens, A. et al. 2016. Mercury Burden In Lake Michigan's White Suckers: Variability and Pathological Implications. American Fisheries Society MN Chapter. Duluth, MN 02/16

Stevens, A. 2015. Spatial Variation in Mercury Contamination of White Suckers: Source Tracking and Pathological Implications. Society for Freshwater Sciences Conference. Milwaukee, WI 05/2015

Stevens, A. and Mangham, A. 2015. Wetland Rehabilitation in the Nine Springs Corridor: The Full Potential of our First E-Way. Wisconsin Wetlands Association Conference. Madison, WI 02/2015

Stevens, A. 2013. Demographic Awareness in Hennepin County to MDH Fish Consumption Advisories. MN GIS/LIS Conference. Rochester, Minnesota 10/13

Stevens, A., and Clarke, C. 2013. Bioaccumulated Toxins and their adverse impacts on Juveniles. Mustang International Academic Conference, Monte Carlo Hotel. Las Vegas, NV 02/2013

Stevens, A., and Fisher, S.J. 2013. Variations in Northern Pike Sperm Motility and Viability Among Four Minnesota Lakes. 73rd Annual Midwest Fish and Wildlife Conference. Wichita, KS 01/13

Stevens, A., Pallardy, P. and Fisher, S.J. 2012. Atrazine Influence on Northern Pike Sperm Motility and Viability in Minnesota. 2012 Undergraduate Research Symposium, Minnesota State University, Mankato. Mankato, MN 03/12

Select Grants/Awards/Scholarships

- Center for Integrated Agricultural Systems Grant Award - 2015
- Anna Grant Birge Grant Award – 2015
- Featured Environmental Mobile App: My Earth Carbon Tracker. Time Magazine – 2015
- American Fisheries Society MN Chapter Scholarship Recipient - 2013
- Best GIS Research Design, Minnesota State University, Mankato – 2013

Training

- Associate Fisheries Professional. American Fisheries Society (in review July 2016)
- Electrofishing gear training (May 2013)
- CPR/First Aid training (May 2013)
- Defensive Driving training (May 2013)

Skills

- Collecting, processing and analyzing fish tissues for total mercury using SOPs
- Working knowledge of fish consumption advisory framework and objectives
- Ability to effectively disseminate complex ideas appropriately to various audiences
- Effective writing abilities including grants, technical reports and peer-reviewed publications
- Conducting statistical analysis modeling and database management
- Developing partnerships through collaboration with diverse stakeholder groups and agencies
- Experience following standard operating procedures with quality assurance/control measures
- Time management while balancing multiple projects and working in diverse teams
- Working knowledge of environmental laws, regulations, zoning, and easement objectives
- Knowledge and experience with fish sampling gears, their biases and how to use them
- Conducting water quality monitoring using a variety of sampling equipment
- Identifying fish, macroinvertebrates and plants using taxonomic keys
- Operating, trailering, maintaining and backing boats
- Conducting geomorphic surveys using geodimeters, total stations and GPS units
- Reviewing Environmental Impact Statements in accordance with NEPA
- Software: ArcGIS 10.1, Microsoft Office, R, SAS, Hydro-Cad, FishPad, ERDAS Imagine

Volunteer Service

- Taught underprivileged children about lakes and biology at our UW Winter Limnology Event
- Gave demonstrations on ice fishing and angler surveys to students in UW GEOG 411 course
- Science Fair Poster Judge (5th-6th graders)
- Sunday school teacher
- Dumpster Diversion and Campus Kitchen program volunteer

References

Dr. Peter McIntyre, Associate professor and thesis advisor for Freshwater and Marine Science Program
University of Wisconsin, Madison Center for Limnology
680 N. Park Street, Madison, WI 53706
(608) 890-3416 pmcintyre@wisc.edu

Scott Mackenthun, Area Supervisor
Minnesota Department of Natural Resources, Hutchinson Area Fisheries Office
20596 Hwy 7. Hutchinson, MN 55350
(320) 234-2550 Scott.Mackenthun@state.mn.us

Dr. Ken Potter, Professor and Director of UW-Madison's WRM Program
Civil and Environmental Engineering, University of Wisconsin, Madison
1261C Engineering Hall, 1415 Engineering Drive. Madison, WI 53706
(608) 262-0040 kwpotter@facstaff.wisc.edu