

**MASON J. JOHNSON**

---

Present Address:

1040 Y St. Apt#305

Lincoln, NE 68508

Telephone: (651) 283-0995

Email: [masonjohnson54@yahoo.com](mailto:masonjohnson54@yahoo.com)

**EDUCATION:**

*Master of Science in Natural Resources*, expected December 2018

University of Nebraska-Lincoln, Lincoln, NE

Specialization: Hydrological Sciences

*Bachelor of Science in Natural Resources*, December 2015

University of Wisconsin-Stevens Point, Stevens Point, WI

Major: Fisheries and Water Resources

Minor: GIS and Spatial Analysis

**Proficient in:** Adobe Suite, ArcGIS, ERDAS, Matlab, Microsoft Suite, Visual MODFLOW and Trimble GPS.

**Advanced Courses:** Water/Waste Water Analysis; Water Chemistry; Soil Chemistry & Mineralogy; Limnology; Hydrology; Advanced Hydrologic Analysis; Field Techniques in Hydrogeology; Groundwater Modeling; Soil Physics; Soil Physics II; Sedimentary Geology; Advanced GIS Techniques; GIS Applications in Fisheries and Water Resources; GIS in Water Resources and Remote Sensing I & II; Calculus I & II.

**EXPERIENCE:**

**U.S. Geological Survey**, Lincoln, NE June 2017 –Present

Student Worker Paraprofessional: Gather hydrologic data, such as quantity, quality, availability, movement and distribution of water; develop hydrologic and precipitation data for projects; collect and process data to be used in computing stream discharge, determining groundwater availability and calculating sediment, chemical and biological concentrations and physical characteristics.

**St. Paul Regional Water Services**, St. Paul, MN February 2016 –June 2016

GIS Technician: Georeferenced over 100 Land Maps that depict city acquisitions, resales, easements and permit agreements; digitized historic Land Map features; and populated a database with Land Map information. Managed water main geometric network.

**UW-Stevens Point College of Letters and Science**, Stevens Point, WI December 2014 –June 2016

Research Assistance: Analyzed GIS and LiDAR elevation data confirming extension of the Wasatch fault in Utah and Idaho.

**Minnesota Pollution Control Agency**, Rochester, MN May 2014 – August 2014

May 2015 – August 2015

Student Worker Paraprofessional: Archived historic DNR spring files and incorporated them into a GIS format. Verified field location of springs from historic data with GPS unit.

Assisted in development of framework to organize, manage and share large data set.

Assisted in watershed investigation field work: installed DTS-12 turbidity sensors;

monitored nitrate concentrations using HACH NITRATAx; deployed YSI 6920 & EXO

sondes for stream monitoring; performed calibrations on monitoring equipment;

measured stream discharge with YSI Flow Tracker and M9 River Surveyer; and collected

water quality samples for lab assessments and support of TMDL development.

**UW-Stevens Point College of Letters and Science**, Stevens Point, WI September 2014 – December 2015  
GIS Research Technician: Assisted with GIS data collection, data preparation, and data processing for state of Wisconsin fish farm site suitability model. Worked with lead investigators on suitability models with ESRI's ArcGIS software applications and prepared models for publication on public server.

**UW-Stevens Point College of Natural Resources**, Stevens Point, WI April 2014 – May 2015  
Student Worker: Provided a workflow analysis for natural resource lab comparing three forest communities in Schmeckle Reserve. Created a geodatabase for use on Trimble Juno units. Taught students and lab instructors how to use units and GIS data.

**Stevens Point Country Club**, Stevens Point, WI September 2013 – February 2014  
Waiter and Head Valet: Conducted waiter duties and managed valet process. These jobs enhanced my social skills, particularly dealing with difficult situations, and strengthened my understanding of teamwork.

**Goetz Landscaping**, Centerville, MN May 2012 – August 2013  
Landscaping Crew Member: Provided landscape support to commercial clients. This position was physically demanding requiring long field hours. Trained new employees and interface with customers.

## **RESEARCH EXPERIENCE**

**UW-Stevens Point**, Stevens Point, WI December 2014 – December 2016  
Independent Research with Dr. Kevin Hefferan  
Lineament Analysis of the Wasatch Fault's Pocatello Segment

**UW-Stevens Point**, Stevens Point, WI September 2015 – August 2016  
Independent Research with Dr. Katherine Clancy  
Classification of Altered Hydrology with Differing Land Use

**UW-Stevens Point**, Stevens Point, WI February 2015 – May 2015  
Independent Research with Dr. Katherine Clancy  
Watershed Delineation and Analysis of Internally Drained Basins in Wisconsin

**UW-Stevens Point**, Stevens Point, WI September 2014 – May 2015  
Independent Research with Dr. Chris Hartleb, Dr. Keith Rice, and Christine Koeller  
Suitability Model for Aquaculture Facilities in Wisconsin

**UW-Stevens Point**, Stevens Point, WI January 2014 – April 2014  
Internship with Caleb Slemmons  
Regional Spatial Analysis of Terrestrial Invasive Species in North Central Wisconsin

**UW-Stevens Point**, Stevens Point, WI September 2013 – April 2014  
Independent Research with Christine Koeller  
Comparison of Transect Spacing and GPS/Sonar Equipment for Fluvial Lake Mapping

## **SPECIAL PROJECTS:**

**Wasatch Fault** - Analyzed elevation data to confirm the Wasatch fault extends north 80 km from the Wasatch Range in Utah to Pocatello, Idaho. Co-author of research paper (expected January 2016).

**Central Wisconsin Environmental Station** - Mentored undergraduate research project in remapping the Central Wisconsin Environmental Station. Assisted student with GPS and GIS analysis (May 2015).

**Schmeckle Web App** - Lead a team of GIS students in creating an interactive web mapping application for Schmeckle Nature Reserve (May 2015).

**Aquaculture Modeling** - Assisted in developing first suitability model for Wisconsin aquaculture facilities. Co-author of research paper (December 2015).

**Natural Resources Lab** - Created a workflow for the ecological basis for a Natural Resource Management lab consisting of comparing three forest communities within Schmeekle Reserve. Developed a geodatabase with domains for feature classes, taught at the lab, and loaded data onto Trimble Juno units. Assisted lab instructors to teach classes how to use the geodatabase, Trimble units, and ArcPad 10.2 (May 2015).

**State DNR Archiving** - Scanned and created text searchable historic Minnesota DNR files with Adobe Acrobat XI Pro. Incorporated PDF files into a GIS format by linking stream assessments, management plans, distribution records and more into stream vector files. Georeferenced 147 historic 7.5' and 15' quadrangles and digitized over 600 new springs from historic maps. Field verified springs with Trimble GeoXT unit (August 2014).

**County Invasive Spatial Analysis** - Assembled and analyzed spatial data of terrestrial invasive species for Vilas, Oneida, and surrounding Wisconsin counties. Created functional GIS and comprehensive plant list for Wisconsin Headwaters Invasives Partnership (May 2014).

**Stevens Point Flowage Bathymetric Survey** - Participated in a comprehensive bathymetric survey of the Wisconsin River Flowage located in Stevens Point, Wisconsin. Assisted in creating first ever bathymetric map for Stevens Point Flowage using ArcGIS software and Adobe Suite. Assisted in developing web and mobile application of the bathymetric map for community use (May 2014).

**Science, Technology, Engineering, and Mathematics (STEM) Career Days** - My team of technicians developed a GIS workflow using geospatial technology to model and prepare for the "zombie apocalypse". Methods included buffer, network, and intersect analysis of zombie spread from grave sites in Stevens Point, Wisconsin. Assisted and presented in STEM career day for young men (September 2013). Assisted and presented in STEM career day for young women (February 2014).

#### **ABSTRACTS & CONFERENCE PRESENTATIONS:**

**Johnson, M.**, T. Gilmore, M. Briggs and S. Corcoran, A comparison of informed and uninformed sampling using heat as a preliminary indicator of focused groundwater discharge, Geological Society of America, Seattle, WA, October 2017.

**Johnson, M.** and T. Gilmore, Combining multiscale techniques to characterize groundwater-surface water dynamics, Oral presentation delivered at Daugherty Water for Food Student Seminar, Lincoln, NE, May 2017.

**Johnson, M.** and Hefferan, K., Lineament Analysis of the Proposed Pocatello Segment of the Wasatch Fault: Geological Society of America North Central Regional Meeting Abstracts with programs, Madison, WI. May 2015.

**Johnson, M.** and K. Hefferan. Lineament Analysis of the Proposed Pocatello Segment of the Wasatch Fault, SE Idaho. Poster presentation delivered at UW-Stevens Point College of Letters and Science Undergraduate Research Symposium, Stevens Point, WI. May 2015.

**Johnson, M.**, C. Koeller, C. Hartleb, K. Rice, and D. Miskowiak. Suitability Analysis for Pond Aquaculture in Wisconsin. Poster presentation delivered at UW-Stevens Point College of Letters and Science Undergraduate Research Symposium, Stevens Point, WI. May 2015.

**Johnson, M.**, C. Koeller, C. Hartleb, K. Rice, and D. Miskowiak. Suitability Analysis for Pond Aquaculture in Wisconsin. Poster presentation delivered at Wisconsin Aquaculture Conference, Marshfield, WI. March 2015.

**Johnson, M.** and C. Slemmons. Regional Spatial Analysis of Invasive Species in North Central Wisconsin. Poster presentation delivered at the Federation of Environmental Technologists Inc. Conference, Pewaukee, WI. October 2014.

**Johnson, M.** and C. Koeller. Comparison of Transect Spacing and GPS/Sonar Equipment for Fluvial Lake Mapping. Poster presentation delivered at the Federation of Environmental Technologists Inc. Conference, Pewaukee, WI. October 2014.

**Johnson, M.** and C. Koeller. Comparison of Transect Spacing and GPS/Sonar Equipment for Fluvial Lake Mapping. Poster presentation delivered at the Annual GIS/LIS Consortium Conference, Rochester, MN. October 2014.

**Johnson, M.** Going Digital: DNR Fisheries Files Soon Available as PDF's and Incorporated into a GIS. Oral presentation delivered at the Basin Alliance of the Lower Mississippi Meeting, Rochester, MN. August 2014.

**Johnson, M.** Going Digital: DNR Fisheries Files Soon Available as PDF's and Incorporated into a GIS. Oral presentation delivered at the Minnesota Pollution Control Agency-GIS Lateral Meeting, Rochester, MN. August 2014

**Johnson, M.** Going Digital: DNR Fisheries Files Soon Available as PDF's and Incorporated into a GIS. Oral presentation delivered at the Minnesota Pollution Control Agency-Watershed Division Section Meeting, Rochester, MN. July 2014.

**Johnson, M.** and C. Koeller. Comparison of Transect Spacing and GPS/Sonar Equipment for Fluvial Lake Mapping. Poster presentation delivered at the Wisconsin Lakes Partnership Convention, Stevens Point, WI. April 2014.

**Johnson, M.,** and C. Koeller. Comparison of Transect Spacing and GPS/Sonar Equipment for Fluvial Lake Mapping. Poster presentation delivered at the UW-Stevens Point College of Natural Resources Student Research Symposium, Stevens Point, WI. April 2014.

**Johnson, M.** and C. Slemmons. Regional Spatial Analysis of Invasive Species in North Central Wisconsin. Poster presentation delivered at the UW-Stevens Point College of Natural Resources Student Research Symposium, Stevens Point, WI. April 2014.

**Johnson, M.** and C. Koeller. Comparison of Transect Spacing and GPS/Sonar Equipment for Fluvial Lake Mapping. Poster presentation delivered at the UW-System Symposium for Undergraduate Research and Creative Activity, Milwaukee, WI. April 2014.

#### **SELECTED PUBLICATIONS:**

**Johnson, M.** and K. Clancy, 2016, Linking watershed scales through altered hydrology. *Journal of Water Resource and Protection*, 8, 885-904. <http://dx.doi.org/10.4236/jwarp.2016.810073>.

Koeller, C., C. Hartleb, K. Rice, **M. Johnson**, and A. Brandt, 2015, A predictive suitability model for pond and raceway aquaculture systems in Wisconsin.

<https://www.arcgis.com/home/item.html?id=cf7a44e1a2944544853d4f5a03c40a5c>

#### **MANUSCRIPTS IN PREPARATION:**

Gilmore, T.E., V. Zlotnik, **M. Johnson** and V. Boken, 2017, Using regional water table patterns for estimating groundwater recharge rates.

**Johnson, M.**, 2018, Combining multiscale techniques to characterize groundwater-surface water dynamics. Thesis project.