Hannah J. Veldhuizen

4065 NHB, 1301 W Green St. Urbana, IL 61801
812-870-4169 hjv3@illinois.edu

EDUCATION

University of Illinois, Urbana, IL — May 2022 - Present
PhD in Geology
Advisor: Thomas Johnson

University of Illinois, Urbana, IL — August 2020 – May 2022
M.S. in Geology
Thesis title: Kinetic Fractionation of Antimony Isotopes During Reduction by Sulfide
Advisor: Thomas Johnson
GPA 4.00/4.00

Indiana State University, Terre Haute, IN — August 2016 - May 2020
B.S. in Geology
GPA 3.80/4.00

- Minors in Chemistry and Geochemistry

Illinois State University, Normal, IL — Summer 2019
Geology Field Camp
GPA 4.00/4.00

EXPERIENCE

Graduate Research Assistant
University of Illinois, Urbana, IL — August 2020 – Present

- Designed laboratory experiments for the Sb isotope fractionation associated with the reduction of antimony in batch reactors
- Conducted isotope analysis of solid and liquid phases of Sb with Nu Plasma HR multi-collector inductively couple plasma mass spectrometer coupled to a continuous-flow hydride generation system (HG-MC-ICP-MS) and monitored aqueous concentrations with an iCAP Q ICP-M

Graduate Teaching Assistant
University of Illinois, Urbana, IL — August 2021 – May 2022

- Led discussion sections of ~25 freshman to senior undergraduates
- Gave lectures and lead class activities covering a wide variety of physical geology topics

Organic Chemistry Laboratory Assistant — August 2019 - May 2020
Indiana State University, Terre Haute, IN

- Assisted professor with maintaining organic lab equipment
- Provided advice and answers to student questions during lab experiments

Aquarium Educational Outreach Assistant — January 2018 - May 2020
Indiana State University, Terre Haute, IN

- Organized community outreach activities and maintained health of saltwater aquarium and terrarium

Biogeochemistry Research Assistant September 2017 - May 2020
Indiana State University, Terre Haute, IN

- Organized and evaluated data for multiple projects
- Conducted microwave digestion of plant tissue and soil for ICP preparation
- Wrote grant application to fund project through a Geological Society of America North-Central Section Undergraduate Student Research Grant

Summer Undergraduate Research Experience Intern May 2019 - August 2019
Indiana State University, Terre Haute, IN

- Analyzed fish digestive system samples for microplastics using optical identification and imaged microplastics on a scanning electron microscope
- Operated Fourier Transform Infrared spectrometer to identify plastic polymers
- Presented results to members of Congress at Posters on the Hill and biologists from the DNR

Mineralogy and Petrology Teaching Assistant August 2018 - May 2019
Indiana State University, Terre Haute, IN

- Assisted in preparation and oversight of mineralogy/petrology labs and led student help sessions

Summer Undergraduate Research Experience Intern May 2018 - August 2018
Indiana State University, Terre Haute, IN

- Monitored water quality of the Otter Creek watershed in Indiana under a 319-Watershed Improvement Grant
- Performed direct in-situ measurements with a YSI meter and flow meter to assess nitrate, ammonia, pH, dissolved oxygen, and water velocity
- Characterized samples using XRF for bulk sediment composition, ICP-OES for elemental aqueous concentrations, and UV-VIS spectrophotometry for phosphorous aqueous concentrations
- Utilized ArcGIS to map metal and *E. coli* contamination in waterways

AWARDS AND SCHOLARSHIPS

NSF Graduate Research Fellow June 2022 - Present
University of Illinois Urbana-Champaign

- Provided support for three years of graduate study

Evergreen Endowed Fellowship August 2020 – May 2021
University of Illinois Urbana-Champaign

- Awarded to students who have an interest in developing an interdisciplinary background and think about how geoscience knowledge can be used to address problems facing society
- Provided support for one year of graduate study

May Family Fellowship August 2020 – May 2021
University of Illinois Urbana-Champaign

- Awarded to students studying aspects of geochemistry
- Provided support for one year of graduate study

College of Arts and Sciences Outstanding Senior May 2020
Indiana State University

- Awarded to a graduating senior with a dedication and commitment to their undergraduate studies

NAGT/USGS Cooperative Summer Field Training Program Nominee May 2020

- Students nominated by field camp director are invited to apply and students are then matched with selected USGS projects

Indiana Space Grant Consortium Undergraduate Scholarship August 2019

- Awarded to undergraduate students attending INSGC affiliate institutions with at least a 2.5 GPA and are pursuing a STEM major

AAPG Foundation's L. Austin Weeks Undergraduate Grant May 2019

- Awarded to undergraduate students studying a field of geoscience full-time at a four-year accredited college or university

Blackwell Scholars – Geology May 2019

Indiana State University

- Awarded to geoscience students who have demonstrated leadership skills and quality of character

Donald G. Brown Endowed Scholarship May 2019

Indiana State University

- Awarded to students pursuing a major in Geology who have applied themselves academically and are sincere in their academic endeavors

Geology Field Camp Scholarship May 2019

Indiana State University

- Awarded to a student to support geology field camp costs

Outstanding Undergraduate Research May 2019

Indiana State University

- Given to an active participant in research with a record of sustained commitment to developing research skills and knowledge under the supervision of a faculty mentor

Richard E. Kirk Memorial Scholarship May 2018

Indiana State University

- Awarded to a deserving junior in Geology with a minimum of a 3.0 GPA

Undergraduate Student Involvement Award May 2018

Indiana State University

- Given to a student who engages directly with those in the department while assisting with many activities

RESEARCH GRANTS

Phytoremediation of metal-contaminated soil by *sorghastrum nutans* and arbuscular mycorrhizal fungi, H. Veldhuizen (Lead-PI), J.C. Latimer (Co-PI), Geological Society of America North-Central Section Undergraduate Student Research Grant, $350, (2019).

CONFERENCE PRESENTATIONS

Veldhuizen, H., Latimer, J.C., Stone, J., 2020. Microplastics ingested by planktivores in the Wabash River from 1963 to 2010, Posters on the Hill, Washington, D.C.

Steorts, E. B., Smith, B., Toth, R., **Veldhuizen, H.,** Brown, K., Latimer, J.C., 2019. Foundry waste: a profile of heavy metal contamination in Reedsville, WV. Geological Society of America Annual Meeting, Phoenix, AZ.

Veldhuizen, H., Latimer, J.C, 2019. Phytoremediation of metal-contaminated soil by *sorghastrum nutans* and arbuscular mycorrhizal fungi. Geological Society of America Annual Meeting, Phoenix, AZ.

Veldhuizen, H., Maupin, A., Johnson, H., Latimer, J.C., Stone, J., 2019. Microplastics ingested by freshwater planktivores in the Wabash River from 1965-2010, Wabash Symposium, Terre Haute, IN.

Lower, B., Latimer, J.C., **Veldhuizen, H.,** 2019. Soil lead bioavailability in an urban community severely impacted by legacy pollution. Indiana Academy of Sciences Annual Meeting, Indianapolis, IN

Veldhuizen, H., Maupin, A., Johnson, H., Stone, J., Latimer, J.C., 2019. Introduction and abundance of microplastics ingested by freshwater fish in the Wabash River from 1960-2010, National Conference on Undergraduate Research, Kennesaw, GA.

Latimer, J.C., Pigg, J., Meunier, C., **Veldhuizen, H.J.,** Lower, B.S., Foxx, H., 2018. Lead bioavailability of urban soils estimated using a simulated gastric solution: Examples from Terre Haute, Indianapolis, and East Chicago, Geological Society of America Annual Meeting, Indianapolis, IN.

Matthews, B., **Veldhuizen, H.J.,** Latimer, J.C., Speer, J.H., 2018. Sediment and water quality determination of the Otter Creek Watershed, Geological Society of America Annual Meeting, Indianapolis, IN.

Rex, N., Brown, K., **Veldhuizen, H.,** Latimer, J.C., 2018. Tracking heavy metal contaminants along the Monongahela River, Morgantown, West Virginia, Geological Society of America Annual Meeting, Indianapolis, IN. Best Student Poster Presentation Award - Environmental and Engineering Geology Division.

Schmitt, R., Brown, K., **Veldhuizen, H.,** Latimer, J.C., 2018. The distribution and concentration of heavy metal contaminants among public playgrounds in Morgantown, WV, Geological Society of America Annual Meeting, Indianapolis, IN.

SKILLS

- Technical and Field Skills: ICP-OES, MC-ICP-MS, XRF, UV-Vis Spectrophotometer, SEM, microwave digestion, YSI Meter, flow meter, water and sediment sample collection, geologic mapping
- Computer Skills: Matlab, CrunchFlow, Geochemist's Workbench, ArcGIS, Microsoft Office

ORGANIZATIONS AND CLUBS

- University of Illinois Department of Geology Grad Committee, President 2022 - Present
- University of Illinois Engineering Open House Committee, Member 2021 - Present
- University of Illinois Department of Geology DEI Committee, Member 2021 - Present
- University of Illinois Department of Geology Grad Committee, Merch Czar 2021 - 2022
- Indiana State University State Environmental Science Club, President 2019 - 2020

COMMUNITY INVOLVEMENT

- Library Family Learning Day for Wabashiki Turtle Rescue, Coordinator 2019
- Green the Festival Recycling Event at Blues at the Crossroads, Coordinator 2019
- Adopt-a-Highway Clean Up, Volunteer 2019
- Hoosier Riverwatch, Volunteer 2018-2019
- Ouabache Land Conservancy, Volunteer 2018-2019
- NAACP Indiana's “Our Community Scientists” initiative, Volunteer 2017