

# CLAIRE E. RUGGLES

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## EDUCATION

- Ph.D., University of Wisconsin – Madison, *Structural Geology and Geophysics* Expected Spring 2026
- Thesis: Direct and indirect observations of magma chambers
  - I am studying the emplacement and evolution of magma in the Duncan Hill pluton, WA, the Laguna del Maule volcanic field, Chile, and Kilauea, HI, using a combination of structural analyses and gravimetry – Advised by Dr. Basil Tikoff
- M.S., Iowa State University, *Structural Geology* June 2020
- Thesis: A multiple-pulse emplacement model for the Shonkin Sag laccolith, MT
  - Studied the emplacement history of the Shonkin Sag laccolith from a structural perspective, and its implications for shallow magma emplacement – Advised by Dr. Sven Morgan and Dr. Jacqueline Reber
- B.S., University of Wisconsin – Madison, *Geology and Geophysics with minors in Physics and German* May 2018
- Senior Thesis: Integrated fabric, U-Pb zircon ages, and zircon Hf data from the Hazard Creek complex, western Idaho – Advised by Dr. Basil Tikoff

## WORK EXPERIENCE

- Graduate Teaching Assistant, *University of Wisconsin – Madison* January 2021 – present
- Courses include Structural Geology, Intro to Geologic Structures, Introduction to Applied Geophysics, and Field Methods in Applied and Engineering Geophysics
- Head Teaching Assistant, *Wasatch-Uinta Field Camp* June 2021 – July 2023
- Topics include constructing geologic maps and cross-sections, rock identification, and creating interpretations of geologic field data
- Graduate Teaching Assistant, *Iowa State University* August 2018 – May 2020
- Courses include How Earth Works, Environmental Geology, and Geology for Engineers and Environmental Scientists
- USGS/NAGT Geodesy Intern, *Cascades Volcano Observatory* June – August 2018
- Aided in deploying semi-continuous GPS stations, gravity surveys, and GPS campaigns at Three Sisters, OR, Mt. St. Helens, WA, and Lassen Volcanic Field, CA, respectively
- Lab Assistant, *UW – Madison Geoscience Structure Group* February 2017 – May 2018
- Assisted in paleomagnetic studies and gravity surveys at the Laguna del Maule Volcanic Field, Chile, and preparing graphs and figures for academic journals

## PUBLICATIONS

**C. E. Ruggles**, S. Morgan, and J. E. Reber, 2021, *A multiple-pulse emplacement model for the Shonkin Sag laccolith, Montana, USA*. Journal of Structural Geology. 149.

## PRESENTATIONS

**C. E. Ruggles**, E. Watts, B. Schoene, and B. Tikoff, 2022, *An multi-method approach to determining the emplacement history of the Duncan Hill pluton, WA: An analogue to modern magma emplacement in the North Cascades Arc*. AGU Fall Meeting, Chicago, December 12-16. Poster.

**C. E. Ruggles**, S. Morgan, and J. E. Reber, 2021, *An emplacement model for low-volume intrusions based on the Shonkin Sag laccolith, Montana*. GSA Connects, Portland, October 10-13. Talk.

**C. E. Ruggles**, S. Morgan, and J. E. Reber, 2019, *Pulses, folding and faulting: What can a structural perspective on the Shonkin Sag laccolith tell us about shallow magma emplacement?* AGU Annual Meeting, San Francisco, December 9-13. Poster.

**C. E. Ruggles**, B. Tikoff, M. Patzke, K. Surpless, and J. Vervoort, 2018, *Integrated fabric, U-Pb zircon ages, and zircon Hf data from the Hazard Creek complex, western Idaho*. Joint 70<sup>th</sup> Rocky Mountain Annual Section/114<sup>th</sup> Cordilleran Annual Section Meeting, Flagstaff, May 15-17. Poster.

## RELEVANT COURSEWORK

University of Wisconsin – Madison – Graduate Coursework

- Geophysical Inverse Theory, Practical Applications of GPS Surveying, Mechanics of Earthquakes and Faulting, Advanced Structure, Geochemistry, Rock Mechanics, Statistics in Structural Geology

Iowa State University – Graduate Coursework

- GIS for Geoscientists, Quantitative Methods in Geology, Glacial and Quaternary Geology, Statistical Methods for Researchers, Mechanics of Fluids, Surficial Processes, Preparing a Publishable Thesis

University of Wisconsin – Madison – Undergraduate Coursework

- Structural Geology, Hydrogeology, Sedimentology and Stratigraphy, Wasatch-Uinta Field Camp, Structural Petrology, Intro to Applied Geophysics, Mountain Belts, Differential Equations, Introduction to Modern Physics, Mechanics, Electromagnetic Fields

## SKILLS & ABILITIES

- Proficient in R, MATLAB, Anisoft42, Heat3D, GIS, LATEX, GravMag,
- Certified in First Aid/CPR/AED

## GRANTS & AWARDS

2023	Thomas E. Berg Award for Excellence in Teaching, <i>University of Wisconsin – Madison</i>
2023	Research Travel Award, <i>University of Wisconsin – Madison</i>
2022	GSA Graduate Student Research Grant, <i>Geological Society of America</i>
2022	Thomas E. Berg Award for Excellence in Teaching, <i>University of Wisconsin – Madison</i>
2021	GSA Geophysics & Geodynamics Division Student Research Grant, <i>Geological Society of America</i>
2021	Departmental Funding, <i>University of Wisconsin – Madison Department of Geosciences</i>
2021	Jack Kleinman Grant for Volcano Research, <i>The Community Foundation for Southwest Washington</i>
2020	John Lemish Memorial Scholarship, <i>Iowa State University</i>
2019	GSA Graduate Student Research Grant, <i>Geological Society of America</i>
2019	ExxonMobil/GSA Student Geoscience Grant, <i>ExxonMobil and the Geological Society of America</i>
2019	Outstanding Mention for GSA Graduate Student Research Grant, <i>Geological Society of America</i>
2018	Georgia and Carl Vondra Fellowship, <i>Iowa State University</i>
2018	Eugene Cameron Scholarship, <i>University of Wisconsin – Madison</i>
2014 – 2018	Thermo-Fisher STEM Scholarship, <i>University of Wisconsin – Madison</i>

## COMMUNITY INVOLVEMENT

Vice President – Association for Women Geoscientists, <i>UW – Madison</i>	2023-2024
Student Ombudsman – Geoscience Graduate Student Association, <i>UW – Madison</i>	2023-2024
GeoPath Chair – Geoscience Graduate Student Association, <i>UW – Madison</i>	2022-2023
Treasurer – Association for Women Geoscientists, <i>UW – Madison</i>	2021-2023
Secretary – Geoscience Graduate Student Association, <i>UW – Madison</i>	2021-2022
Vice President – Geology Graduate Student Organization, <i>ISU</i>	2019-2020