

Ryan Wilhelmi

University of Florida
Department of Geological Sciences
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EDUCATION

Ph.D., Geological Sciences. University of Florida. Gainesville, Florida. August 2020. Dissertation: *Evolution and Exposure of Precambrian Basement along the Western Margin of the Wyoming Province*
Advisor: Dr. David A. Foster

B.S., Geology University of Massachusetts. Amherst, Massachusetts. May 2015.
Senior Thesis: *Pegmatite Pods of the Cadillac Mountain Granite.*
Advisor: Dr. Sheila J. Seaman

RESEARCH EXPERIENCE

University of Florida:

Dissertation Research, August 2015-May 2020

My research focuses on the chemical and physical modification of continental crust and the role these processes play in the formation and evolution of continents. As part of this research, I have carried out the following field and laboratory work. Conducted field work (four seasons) and mapping in various high grade basement terranes in the northern U.S. Rockies. Performed trace and major element analyses on a variety of igneous and metamorphic rocks. Imaged via SEM and performed U- Pb dating and Lu-Hf analysis of zircons via LA-ICP-MS. Obtained Pb and Nd model ages on a variety of whole rock samples.

University of Grenoble Alpes:

Make Our Planet Great Again Laureate, Geo-Thermochron Laboratory Isterre October 2018-December 2018 Conducted Fission track dating and thermal modelling on apatite grains previously obtained from various uplifts in the western U.S.

Auburn University:

Visiting Researcher, Auburn Noble Isotope Mass Analysis Laboratory (A.N.I.M.A.L.)-September 2018

TEACHING EXPERIENCE

College-Level Instruction

University of Florida: Department of Geological Sciences

Lead Instructor, Introduction to Earth Science (Spring and Summer 2023)

Lead Instructor, Geology of American National Parks (various semesters)

Lead Instructor, Paleontology (Spring 2021)

Lead Instructor, Principles of Mineralogy (Fall 2021)

Lead Instructor, Age of Dinosaurs (various semesters)

Lead Instructor, Earthquakes Volcanoes, and Other Hazards (various semesters)

Florida Atlantic University: Department of Geological Sciences

Lead Instructor, Mineralogy and Crystal Chemistry (Fall 2022)

Lead Instructor, Igneous and Metamorphic Petrology (Spring 2023)

University of Florida: University Athletic Association

Content Tutor, Introduction to Earth Science 2016-2018

Field Experience

- Field Methods and Geologic Mapping (Coursework University of Massachusetts)
- Field Work in the northern Rocky Mountains (four Summers)
- Two seasons as a teaching assistant for Field Camp (University of Florida)
- Various Field Trips in the Southern Appalachians as an instructor (e.g., Structural Geology, Mineralogy)

Laboratory Experience

- U-Pb zircon dating via LA-ICP-MS
- Fission Track Dating (external detector method)
- Scanning Electron Microscopy (SEM)
- Clean Laboratory: Trace element purification, Isotope Chromatography (Pb, Nd, Sr)
- X-Ray Fluorescence (XRF)

Software Experience

- Microsoft Office Suite
- Adobe Illustrator
- HeFTy
- Matlab
- ArcGIS

ACADEMIC AWARDS AND RESEARCH GRANTS

- John Ridge Award (Outstanding Graduate Student in Academic Excellence), University of Florida, Department of Geological Sciences 2020
- Make Our Planet Great Again Laureate (Grant ~\$14,000) French Embassy, 2018
- Thompson Fellowship (Grant \$10k/year) University of Florida, 2015-2019
- Ernst Award (Outstanding Teaching Assistant), University of Florida, Department of Geological Sciences 2018
- Oriel Fund Grant (Grant \$1k) Colorado Scientific Society 2018
- Synder Fund Grant (Grant \$1k) Colorado Scientific Society 2016

PROFESSIONAL SERVICE

- Graduate Student Representative to the Faculty: University of Florida, Department of Geological Sciences, 2019-2020
- Graduate Student Representative to the Advisory Board: University of Florida, Department of Geological Sciences, 2019-2020
- Member of Wyoming Craton Synthesis Workshop, Montana State University, 2019
- AAPG Student Chapter President, University of Florida 2018

PUBLICATIONS

Dissertation

Wilhelmi, Ryan M., 2020 Evolution and Exposure of Precambrian Basement Along the Western Margin of the Wyoming Province *University of Florida*

Conference Abstracts

Wilhelmi, Ryan M., Foster, David A., Mueller, Paul 2020 Neoproterozoic Basement of Laurentia Formed Adjacent to the Mawson Continent *Geological Society of America Abstracts with Programs*

Wilhelmi, Ryan M., Foster, David A., Mueller, Paul, Vogl, James J., 2019 Grouse Creek Block: Rifted Fragment of the Wyoming Craton? Extension of Mojave? *Geological Society of America Abstracts with Programs*

Wilhelmi, Ryan M., Vogl, James J., Bennett, Matthias., Foster, David A., Min, Kyle 2019 Dynamic topography and tectonics during the development of the Snake River Plain-Boise Mountains topographic contrast: Evidence from low-T thermochronology *Geological Society of America Abstracts with Programs*

Wilhelmi, Ryan M., Foster, David A., Mueller, Paul, Vogl, James J., Mogk, David, 2019 Nothing Quiet on the Western Front: Late Archean to Neoproterozoic evolution of west-central Laurentia *Wyoming Craton Synthesis Workshop*

Wilhelmi, Ryan M., Foster, David A., Mueller, Paul, Mogk, David, 2017 A New Chapter in the Precambrian history of the northern Wyoming Province: Whole rock geochemistry combined with U-Pb and Lu-Hf isotopic analysis of zircons from basement rocks in the Blacktails mountains (Dillon, Mt) *Geological Society of America Abstracts with Programs*

Wilhelmi, Ryan M., Foster, David A., Vogl, James J., 2016 Evidence for metamorphosed Belt- Supergroup strata within the Wildhorse Gneiss Complex (Pioneer Mountains, Idaho) based on U-Pb and Lu-Hf isotopic analysis of zircons *Geological Society of America Abstracts with Programs*

INVITED TALKS

Proterozoic Evolution of Western Laurentia, University of Grenoble Alpes, Institut Des Sciences de la Terre, Grenoble, France. December 2018

SCIENCE EDUCATION AND PUBLIC OUTREACH

A Scientist in Every Florida Classroom, is an initiative to pair scientists with local teachers and their classrooms, to enhance the classroom experience through career talks and demonstrations. As part of this initiative, I visited south Florida classrooms, and talked about various subjects related to Geology, such as how we “tell time”, what field work involves, and how rocks form.

Geogators, is a local initiative (Gainesville, Florida) that brings rock, mineral, and fossil presentations to local classrooms. Geogators is an excellent opportunity to get kids excited about Earth Science.

Can You Dig It? is an annual outreach event for students and adults, at the Florida Museum of Natural History. I dress as a geologist and demonstrate how to use the “tools of the trade” (e.g. hand lens, rock hammer, compass). Every year thousands of children and parents from the local area participate.