PAIGE K. WILSON

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EDUCATION

Ph.D. Student Earth and Space Sciences (Sep 2016 - Present) *University of Washington (UW), Seattle WA*
Current PhD student advised by Professors Greg Wilson and Caroline Strömberg
Research interests in paleoecology, sedimentology, and paleoclimate
Passed preliminary exam in Fall 2017

B.A. Earth Sciences and Biological Sciences (Sep 2010 - Jun 2014) *Dartmouth College, Hanover NH*
Selected course work: sedimentology, structure and stratigraphy, mineralogy, evolution, ecology, phylogenetics, paleobiology, vertebrate zoology, osteology, computational biology
High Honors in Earth Sciences

RESEARCH SUMMARY

Graduate Research (2016 - Present) *University of Washington*
Investigation into the Cretaceous-Paleogene (K-Pg) mass extinction event; analysis of macrofloral assemblages, geochemistry, and sedimentology to understand the role of environment and record of ecosystem change through time. (funding through the APS Lewis and Clark Fund, ESS Jody Borgeois Endowed Fellowship, Colorado Scientific Society Research Grant, and QRC Grant)

Senior Honors Thesis (2013 - 2014) *Dept. of Earth Sciences, Dartmouth College*
Preparation, description, and phylogenetic interpretation of a novel species (Family Nodosauridae) from the Wayan Fm of Idaho. I prepared, investigated, and ultimately classified this specimen as a novel species, which I proposed naming Sauropelta idahoensis. (funded through the Dartmouth Dept. of Earth Sciences and the John Lindsley Fund)

Undergraduate Research and Field Work (2011 - 2013) *Dept. of Earth Sciences, Dartmouth College*
Collected >800 vertebrate microfossils from Badlands National ParkAssisted in the collection of over 2500 microfossils from Badlands National Park (SD), prepared rock samples for chemical analysis, worked at the Egg Mountain site near Chouteau, MT along with a crew of researchers from Montana State University and Dartmouth College, as well as additional research experiences. (in part funded through the John Lindsley Fund)

PUBLICATIONS AND ABSTRACTS

Wilson, Paige K., Wilson, GP, and Strömberg, CAE. "Vegetation and Environment Change Across the K-Pg Boundary in the Hell Creek of Montana" Poster session *GSA Annual Conference in Seattle, WA* (Nov 2017)

Wilson, Paige K. "Environmental Change and Plant Response Across the Cretaceous-Paleogene Boundary in North America: A Study in the Hell Creek Area of NE Montana" Poster session *ESS Departmental Gala in Seattle, WA* (Mar 2017)

***Wilson, Paige K.** and Jason R. Moore "Assessing the Control of Preservational Environment on Taphonomic and Ecological Patterns in an Oligocene Mammal Fauna from Badlands National Park, South Dakota." *PloS One 11(6)* (2016)

Wilson, Paige K. "Preparation, Identification, description, and interpretation of a new dinosaur specimen from the Cretaceous Wayan Formation of Idaho, U.S.A." Dept. of Earth Sciences Undergraduate Senior Honors Thesis, N.p., *Dartmouth College* (June 2014)

Wilson, Paige K. "Preparation, Identification, description, and interpretation of a new dinosaur specimen from the Cretaceous Wayan Formation of Idaho, U.S.A." Poster session *Dartmouth College Wetterhahn Science Symposium* (May 2014)

Wilson, Paige K. and Jason R. Moore. "Quantitative analysis of the taphonomic and ecological patterns recorded by vertebrate assemblages from the Oligocene Poleslide Member of the Brule Formation, Badlands National Park, South Dakota" Poster session *Society of Vert. Paleontology Annual Conference in Raleigh, NC* (Oct 2012)

Wilson, Paige K. and Jason R. Moore. "Broken Bones in the Badlands: Examining Preservational Biasing in Fossil Assemblages form Badlands National Park, SD." Poster session *Dartmouth College Wetterhahn Science Symposium* (May 2012)

**Denotes first author publications*

RESEARCH PROJECTS

*Macrofloral Change Across the Cretaceous-Paleogene Boundary in Montana (2016 – Present)^

Working to analyze changes in plant ecology and vegetational structure across the Cretaceous-Paleogene Boundary (KPB) and Late Cretaceous mass extinction. Collected over 2000 leaf macrofossils from KPB sections in NE Montana, which I then catalogued, prepared, and morphotyped. These specimens represent the last million years of the Cretaceous and first million years of the Paleogene across 14 localities representing diverse depositional environments. This is one of the primary projects of my PhD dissertation (work ongoing).

*Using Digital Leaf Physiognomy to Reconstruct Environment in the Hell Creek Area Montana (2016 – Present)^

I am working to use my >2000 leaf macrofossil specimens to reconstruct paleo-climate across the Cretaceous-Paleogene mass extinction event. This method exploits the known correlation between leaf physiognomy and climate based on high-resolution digital images of leaf macrofossil specimens. This is one of the primary projects of my PhD dissertation (work ongoing).

*Vegetational Study of the Cretaceous-Paleogene Mass Extinction Using Phytolith and Pollen Proxies (2016 – Present)^

I have collected sediment samples across the Cretaceous-Paleogene Boundary (KPB) in NE Montana which are being processed for phytolith and pollen content. These samples will provide additional proxies to reconstruct the vegetation across this boundary and associated mass extinction event. This is one of the primary projects of my PhD dissertation (work ongoing).

Hell Creek Area Locality Survey (2018 – Present)

Working on a series of publications including geographic, stratigraphic, and lithologic information about major localities in the Hell Creek Area of Montana. This region has been studied since the early 1900s; this work will provide a cohesive reference for information about different localities and their stratigraphic, chronologic, and taxonomic framework. This is a collaborative project in PI Greg Wilson's lab group (work ongoing).

Morphological Disparity Among Palm Phytoliths of Different Taxa (2018 – Present)

Participating in a study among PI Caroline Strömberg's lab group to study morphologies of palm phytoliths. This work aims to examine whether there are ecological or phylogenetic explanations for morphological patterns among taxa. My role is in project design, fossil palm survey, and some data collection (work ongoing).

*Investigation of a Novel Dinosaur Specimen and Associated Environment and Vertebrate Fauna (2013 – 2014)^^

*This project included the preparation of several bones from a nodosaur specimen excavated from the Late Cretaceous Wayan Fm of Idaho. My work included the preparation, description, and identification of this specimen, culminating in a systematic description of it as a novel species (*Sauropelta idahoensis*). Lastly, this project included field work and petrographic analyses to describe the depositional environment, along with description and summary of associated microfossils to determine the ecosystem and environment in which this species lived.*

*Investigating Taphonomic and Ecological Signals in Oligocene Mammal Assemblages in Badlands NP (2011 – 2016)^^

Collected >800 vertebrate fossils from four localities representing two distinct depositional environments in the Oligocene Poleslide Member of the Brule Formation out of the Palmer Creek Unit of Badlands National Park. Statistical analyses (non-multi dimentional scaling, multiple linear regression, and chi-square tests) indicate that these horizons represent distinct taphonomic conditions, but that the underlying ecological structure of these assemblages was not significantly different.

Ecological Changes Across the Eocene-Oligocene in Badlands National Park (2011 – 2013)

Assisted in the collection of >2000 vertebrate fossils from sites spanning the latest Eocene and earliest Oligocene in Badlands National Park over the summer of 2011. I also worked on the sorting and identification of these specimens over subsequent years. This work is part of an on-going project to understand the response of these mammal-dominated communities to climate change at the Eocene-Oligocene transition (PI: Jason R. Moore).

**Denotes projects which I am/was leading*
^Funding provided by the Earth and Space Sciences Dept., QRC, CSS, and APS grants
^^Funding provided by the John Lindsley Fund

FIELD EXPERIENCE

*Hell Creek Area, Montana (Jun – Aug 2017)

Led field crew including over 50 undergraduates, graduate students, professors, and community volunteers in collecting sediment for microfossil sorting, leaf macrofossils, sediment for phytolith and pollen analyses, and excavation of large dinosaur specimens

Egg Mountain, Montana (Jul 2014)

Assisted in the excavation and collection of a clutch of dinosaur eggs

*Wayan Fm, Idaho (Jul 2014)
Led field crew with two professors in logging sedimentology and stratigraphy of several outcrops to provide background geological information for my honors senior thesis project.

Various locations in western North America (Sep – Nov 2012)
Field program run through Dartmouth College Earth Sciences Dept. including fieldwork at Athabasca Glacier in Calgary National Park Canada, Glacier National Park MT, Egg Mountain MT, Yellowstone National Park WY, Sheep Mountain and Goose Egg WY, Cooke City MT, Arches National Park UT, Zion National Park UT, Lake Mead NV, Grand Canyon NM

*Palmer Creek Unit, Badlands National Park, South Dakota (Aug 2011)
Led field crew of five in collecting over 800 vertebrate microfossils from two localities as part of a taphonomic and paleoecological study of distinct Oligocene depositional environments. This trip also included working with the Oglala Sioux Tribe, administrators of this unit of the park, building a relationship between tribal and outside scientists for the first field season allowed in this unit in decades.

Badlands National Park, South Dakota (Jul – Aug 2011)
Assisted in the collection of over 2000 vertebrate fossils in surface collection along with some larger excavated specimens. Also assisted in assessing and describing stratigraphy and sedimentology for various localities.

**Denotes field work where I was leading at least part of the project*

TALKS

Brown Bag Seminar, UW ESS (Feb 2018)
DIG Field School (Nov 2017)

TEACHING AND OUTREACH

Rockin' Out Coordinator (2017 – 2018), Earth and Space Sciences UW
Organized in-class visits, campus field trips, and science nights for K-12 students. Solicited volunteers and school contacts to set up events, planned lessons, and ran logistics for the ESS department's outreach program.

Federal Way High School Science Fair Judge (Nov 2017)

DIG Field School Instructor (Summer 2017) Burke Museum, UW
4-day field camp for K-12 teachers on geology and paleontology methods, lesson plan development, etc.
Led teachers in the field to teach them about geological and paleobotanical methods

Public Events at the Burke Museum (Fall 2016 – Present) UW
I volunteer at these events speaking with adults and families to share information about fossils, research, and museum collections
Dino Days (2017 and 2018)
Members Day (2016)
Ice Age Chillout (2018)

Girls In Science (Fall 2016 – Present) Burke Museum, UW
Paleobotany and paleoclimate programs for middle and high school girls
Assisted in 2 full day sessions with middle schoolers (Nov 2017 and Nov 2016)
Co-taught weekly sessions for high school girls over 5 weeks in winter 2017

Teaching Assistant (Fall 2016 – Present) Earth and Space Sciences Dept. and Biological Sciences Dept., UW
Geobiology (ESS 313), Physical Geology (ESS 210), Physical Processes of the Earth (ESS 211), Introductory Biology (BIO 200)

UW RA/TA Conference (Fall 2016)
Attendee at this two-day professional development workshop teaching skills on teaching and research for new graduate students

Rockin' Out Volunteer (Fall 2016 – Present) Earth and Space Sciences Dept, UW
Earth science lessons for K-12 students
Five classroom visits which included teaching >100 elementary and middle school students

UG Teaching Assistant (Spring 2014) Earth Sciences Dept., Dartmouth College

Intro Earth Science (EARS 101)

MENTORING

Girls In Science (Fall 2016 – Present) Burke Museum, UW
Mentorship and teaching over 50 middle school and high school girls

Hell Creek Project (Fall 2016 – Present) UW
As part of my dissertation work I am directly mentoring four undergraduate students and one volunteer in cataloging and processing leaf macrofossil specimens, prep work (e.g. scribing and gluing) of fossil specimens), and analytical techniques in paleobiology. I also work co-mentoring the more than 30 undergraduate students in Greg Wilson and Caroline Strömberg's labs.

HONORS AND AWARDS

Quaternary Research Center Award (2017)
$4155 awarded for research

American Philosophical Society- Lewis And Clark Fellowship (2017)
$3600 awarded for research

Dr. Jody Bourgeois Endowed Fellowship in Sedimentary Geology (2017)
$2250 awarded for summer fieldwork, UW ESS Dept.

Colorado Scientific Society (2017)
$900 awarded for summer fieldwork

Adam Campbell Award, UW Earth and Space Sciences (2017)
$100 awarded for Best Poster Figure at Departmental Conference

Upham Geology Award, Dartmouth College Earth Sciences (2014)
$750 awarded for Best Honors Thesis in Earth Sciences Department

Gazzaniga Family Science Award, Dartmouth College (2014)
2nd place for honors thesis in a science discipline at Dartmouth College

Second Honor Group, Dartmouth College (2014)
awarded for GPA above the 85th percentile based on coursework at Dartmouth over 2013-14 academic year

John Lindsley Fund, Dartmouth College (2011 and 2013)
$2400 awarded for fieldwork and research expenses towards my undergraduate project in Badlands National Park
$3000 awarded for fieldwork and research on my senior honors thesis project

PROFESSIONAL ORGANIZATIONS AND MEMBERSHIPS

Northwest Paleontological Association (Fall 2017 – Present)
Paleontological Society (2017 – Present)
Geological Society of America (2014 – Present)

DEPARTMENTAL SERVICE

Graduate Lounge Chair, UW Earth and Space Sciences Dept. (2017 – 2018)
Rockin' Out Program Coordinator, UW Earth and Space Sciences Dept. (2017 – 2018)
First Year Student Feedback Coordinator, UW Earth and Space Sciences Dept. (2017 – 2018)
UW Graduate and Professional Student Senate, Earth and Space Sciences Dept. Representative (2016 – 2017)

PROFESSIONAL EXPERIENCE

The Arnold Group, Research Analyst (Jan 2016 – Sep 2016) Seattle, WA

Provided quantitative and qualitative support for a team of consultants on a variety of projects in the tech industry. Responsibilities included client relationship building, data analysis, and presentation of hypothesis-driven findings. Worked on four projects with teams at Microsoft Corporation including product research, new team creation, and corporate reorganization impacting over 15K employees.

Epic Systems Corp, Technical Recruiter (Oct 2014 – Dec 2015) Madison, WI

Managed the application, interview, and hiring process at a healthcare software company which employs nearly 8,000 workers. Personally hired over 200 software developers and technical services analysts.

OTHER SKILLS

Proficient in Microsoft Office Suite, R Statistical software, Matlab, Arcmap, ERDAS Imagine, JMP, TNT, Mesquite, BLAST, PAUP*, MacClade, Xojo, Gene Inspector, Gene Construction Kit, Matlab, Past, and photo processing programs (among others)

Field work and wet lab experience: paleontological prospecting, excavation, and prep work; microscopy, benchwork (e.g. phytolith processing); sedimentological logging, collection, and measurement