
DEVRA HOCK

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EDUCATION AND TRAINING

Degrees

- Ph.D. University of Nebraska-Lincoln, Earth and Atmospheric Sciences (2018 – current)
GPA 4.0
- M.S. University of Nebraska-Lincoln, Earth and Atmospheric Sciences, spec. in Geology (2016 – 2018)
GPA 3.95
- B.S. Montana State University, Earth Sciences, conc. in Paleontology (2012-2015)
Minor, Montana State University, Museum Studies
GPA 3.6 – Magna Cum Laude

Workshops/Training

- URGE (Unlearning Racism in Geoscience), NSF and Woods Hole Oceanographic Institute (2021)
- Women in Paleontology Workshop, Annual Meeting of Society of Vertebrate Paleontology (2019)
- Diversity in Paleontology Luncheon, Annual Meeting of Society of Vertebrate Paleontology (2019)
- Write Winning Grant Proposals: John Robertson of Grant Writers' Seminars and Workshops LLC, UNL Office of Research and Economic Development (2017)
- Working with the IACUC: Investigators, Staff and Students, CITI Program, UNL (2016)
- Responsible Conduct of Research: Biomedical Responsibility of Research, CITI Program, UNL (2016)
- IIPP and Emergency Preparedness Training, UNL (2016)
- Situational Awareness Training, UNL (2016)
- Scanning Electron Microscope, Imaging and Chemical Analysis Laboratory, MSU (2015)
- X-Ray Diffraction, Imaging and Chemical Analysis Laboratory, MSU (2015)

PUBLICATIONS

Papers & Essays

1. [Hock, D.](#), and Secord, R.. Loss of mammalian biodiversity in North American biomes over a century of continental landscape changes In Progress.
2. Diamond, J., Achiam, M., and [Hock, D.](#) Designing for Diversity. in Amplifying Informal Science Learning, eds. Sherman Rosenfeld and Judy Diamond. Routledge, 2023. Submitted.
3. [Hock, D.](#) 2018. A taxon-free, multi-proxy model for making paleontological interpretations of Neogene North American mammalian faunas. M.S. Thesis, Department of Earth and Atmospheric Sciences, University of Nebraska-Lincoln, Nebraska, USA.

Abstracts

1. Hock, D., D. Levering, and B. Gomez. 2022. Using a virtual construct of the Permian Karoo Supergroup to teach high schoolers field survey skills, biostratigraphy, and evidence-based problem solving. *Journal of Paleontology, Program and Abstracts 2022*. Submitted.
2. Hock, D. and R. Secord. 2019. Comparison of 'Big Data' uses in paleoecological multi-proxy models for North American mammalian paleoecological interpretations. *Journal of Paleontology, Program and Abstracts 2019*.
3. Hock, D. and R. Secord. 2018. A taxon-free, multi-proxy model for Miocene North American paleoecological interpretations. *Journal of Vertebrate Paleontology, Program and Abstracts 2018*, p.146.
4. Hock, D. and R. Secord. 2017. Vertebrate species richness change from the late Miocene to early Pliocene of Lothagam, Turkana Basin, Kenya. *Geological Society of American Abstracts with Programs*, Vol. 49, no. 6.
5. Hock, D. 2017. Vertebrate species richness change from the late Miocene to early Pliocene of Lothagam, Turkana Basin, Kenya. *Journal of Vertebrate Paleontology, Program and Abstracts 2017*, p. 129.
6. Hock, D. 2015. A comprehensive study of key paleoenvironmental changes using major faunal turnovers focusing in the Turkana Basin, Kenya. *Journal of Vertebrate Paleontology, Program and Abstracts 2015*, p. 144.
7. Hock, D. 2015. A comprehensive study of key paleoenvironmental changes using major faunal turnovers focusing in the Turkana Basin, Kenya. *Geological Society of American Abstracts with Programs*, Vol. 47, no. 7, p. 286.

INVITED SPEAKER

1. Paleontology Guest Speaker. Skype a Scientist & Nepris. October – 2021-2022.
 - Gave a short talk about what a fossil is, how fossils are made, and various aspects of paleontology to 2nd, 3rd grade classrooms and homeschooled/tutored grade students.
2. "Fossils and Paleontology." Didyasarin International Preparatory School Bangkok. December 2020.
 - Gave a short talk on what a fossil is, how fossils are made, and the importance of fossils and paleontology in today's world. Took questions students had prepared on the topics of paleontology, fossils, and geology.
3. "Mammoths, Dinosaurs & Mammoths, Oh My!" Fossil Friday Chats. Raymond M. Alf Museum of Paleontology & Western Science Center. November 2020.
 - Who knew what started as a topic for a middle school science paper would turn into a career? Join Devra as she discusses where her love for science and paleontology came from and her journey in exploring that passion, from watching documentaries to pursuing her PhD.
4. "Fossils, Evolution & Natural History Museums." University of Nebraska State Museum Science Café. April 2020.
 - Discussed the science behind experiential learning, common conceptions of evolution and the fossil record, and how natural history museums can address them.
5. "Scientific Accuracies of Jurassic World." University of Nebraska State Museum Bad Science Movie Night. March 2017.
 - Gave a short talk about the scientific accuracy of Jurassic World regarding dinosaurs and paleontology while providing the actual current scientific counterpoints. Also discussed the current state of the field of dinosaur paleontology.

PRESENTATIONS

1. Hock, D. and R. Secord. 2019. Comparison of 'Big Data' uses in paleoecological multi-proxy models for North American mammalian paleoecological interpretations. SVP Session XI. Mammalian Paleoecology and Macroevolution.
2. Hock, D. and R. Secord. 2018. A taxon-free, multi-proxy model for Miocene North American paleoecological interpretations. SVP Session IX. Ungulates and Carnivores.

3. Hock, D. and Secord, R. 2017. Vertebrate species richness change from the late Miocene to early Pliocene of Lothagam, Turkana Basin, Kenya. GSA Session T45. Miocene–Pliocene Terrestrial Ecosystem Response to the Climate System II.
4. Hock D. 2015. A comprehensive study of key paleoenvironmental changes using major faunal turnovers focusing in the Turkana Basin, Kenya. GSA Session T195. Paleoenvironmental Reconstruction of Hominin Sites: New Methods, New Data, and New Insights I.
5. Hock, D., J. Gardner, S. Scott, and H. Flora. 2014. Float 'N' Bloat: The Impact of Fluvial Processes on Transportation of Death Assemblages. Montana State University Geomorphology Poster Symposium.
6. Hock, D., C. K. Bingman, and Z. Reid. 2014. A new occurrence of dictyoolithus eggs from the cretaceous Tiantai basin, Zhejiang Province, China. Montana State University Student Research Celebration.
7. Hock, D., and C. K. Bingman. 2014. A new occurrence of dictyoolithus eggs from the cretaceous Tiantai basin, Zhejiang Province, China. Montana State University Earth Science Colloquium.

EXPERIENCE/POSITIONS

Communications Committee Member, Association for Women Geoscientist. (2020-2022)

- Help AWG's Communication Coordinator manage website content
- Manage AWG's Twitter page and coordinate social media content with other committee members
- Designed new website and lead transition from old website to new site

Graduate Teaching Assistant, Department of Earth & Atmospheric Sciences, UNL (2016-2022)

- Taught lab courses for department, including introductory geology and historical geology.
- Prepared individual labs, quizzes, and midterms.

North-Central Regional Delegate and Alternate Regional Delegate, Association for Women Geoscientists (November 2018-August 2021)

- Acted as representation and liaison between AWG Board of Directors and chapters and members in North-Central Region (IL, IN, IA, MI, MN, MO, NE, OH, and WI).
- Attended monthly and bi-annual board meetings and supported new and existing chapters.

Chapter President, Cornhusker Chapter, Association for Women Geoscientists (September 2019 – August 2020).

- Jumpstarted the chapter from inactivity/suspension to a fully active chapter
- Planned events for local geoscientists, such as weekly happy hours and mixers with guest scientists and speakers, and coordinated chapter members with outreach events
- Assisted starting the chapter in 2017 by being on the organizing committee

Camp Summergold

- Served as a counselor for a full session; aided mentors with activities. (June 2021)
- Applied Science Workshop: Held day-long workshop focusing on three areas of applied science (Music, Recycling and Consumption, Aerial Dance). Led girls through hands on activities that encouraged learning and understanding of the science behind the topics. (July 2019)
- Paleontology Class: Developed and taught 12-hour paleontological hands-on curriculum implementing casts of fossils rented from University of Nebraska State Museum, drawing techniques, and molding and casting for STEAM all-girls camp, ages 11-17. (July 2018)

Diversity & Inclusion Team Member, Department of Earth & Atmospheric Sciences, UNL (Spring 2019; 2021-2022)

- Met with other graduate students and faculty to discuss and implement ideas how to create a more inclusive and diverse environment for the department, as well as how to generate more interest in geoscience degrees

- Joined first Diversity committee to continue DEI efforts; worked on modifying graduate student application rubrics, new hire rubrics, developing a new Code of Conduct, and helped write an abstract for AGU on our DEI work during URGE

Student Success Coordinator, Students of Earth & Atmospheric Sciences, UNL (2018-2019, 2019-2020)

- Plan monthly or quarterly developmental events for students in the department with undergraduate advisors. Topics have included preparing a conference poster and talk, resume and CV building, and graduate school and job applications

Arizona Natural History Museum Collections (February – July 2016)

- Described and catalogued fossil specimens received from Northern Arizona University Quaternary Sciences Program. Fossils digitally catalogued using Proficio/ReDiscovery software.

Student Teaching Fellow/Assistant, Montana State University (August - December 2015)

Honor's College-Texts & Critics

- Attended weekly faculty meetings to discuss upcoming topics. Assisted in class activities, discussion, and grading.

Paleontology Lab Techniques

- Assisted in course planning and preparation, teaching paleontology lab techniques to students, and grading course material.

Intern/Teacher's Assistant, Project Excellence, Phoenix Country Day School (May – June 2014)

- Assisted teachers in the classroom and supervised students (4-11 grade) outside of class. Taught one class on the subject of paleontology.

Museum of the Rockies, Montana State University

- Performed independent research to present at MOR Fall Lecture series and SVP. Worked with David Swingle on technical anthropology to convert and catalogue video archives from various tape formats into digital format. (January 2015 – December 2015)
- Jack Horner Paleontology Lab. Fossil preparation of Triceratops brain case. (September 2014 – December 2015)

Zhejiang Natural History Museum (May – June 2013)

- Researched Dictyoolithus eggs from Zhejiang Natural History Museum collections as part of Montana State University's NSF IRES grant for international research. Spent four weeks in Hangzhou, Zhejiang working on collection materials, and went to local field localities to meet with different museum representatives in the surrounding areas.

Montana State University Field Crew at Egg Mountain (June – July 2013; July 2010)

- Joined field crew under Dr. David Varricchio for quarry excavation and jacket preparation.

Montana State University MSSE Field Class, Makoshika National Park (June 2010)

- Intern under Dr. Frankie Jackson for her field class for Montana science teachers enrolled in MSU's Master of Science in Science Education program. Joined the group on field work exercises, as well as assisted in any field and camp preparation needed.

Morrill Hall University of Nebraska State Museum

Dinosaurs and Disasters. (February 2019; February 2017)

- Developed new paleontological activity “Paleontology Timeline” that examines important paleontological events throughout the history of the field.
- Developed and maintained a booth “Paleo Games”, modifying existing paleontological activities.

Museum Fossil Night. (October 2019)

- Ran paleontological activities with AWG Cornhusker Chapter members. Activities consisted of GoExtinct! board game, fossil dig boxes, and Diversity in Science matching game.

University of Nebraska-Lincoln Science Connector. (August 2019)

- Discussed methods and materials for Lincoln teachers to bring paleontology into the classroom. Shared the “Paleontology Timeline” game to those interested.

Center for Science, Mathematics and Computer Education Women in Science Conference and Banquet. (March 2019)

- Discussed EAS department and AWG Cornhusker Chapter with high school female students. Engaged in further discussion with smaller group during banquet about being a female in the STEM fields.

Morrill Hall University of Nebraska State Museum Student Ambassador. (September 2017 – April 2018)

Attended public outreach events as ambassadors for the museum, supervised children activities, lead drop-in tours of museum exhibits.

- YMCA After School Program – Elliot Elementary School: Talked to students about paleontology, passed around samples from the teaching collection and supervised dig boxes.
- Kids World Lincoln – Speedway Village: Represented Morrill Hall at booth at indoor kids all-day event, supervised “Mammoth Masks” activity, promoted Morrill Hall birthday events and a raffle for a free family admission pass.
- Fossil Night – Morrill Hall: Helped run fossil diatom activity, explaining how paleontologists use micro-fossils to determine environment and climatic changes over time.
- Nature Night – Eastridge Elementary School; Sheridan Elementary School: Represented University of Nebraska State Museum at nature/science event at local elementary schools, supervised the Fossil Dig Boxes, assisted with the Dung Beetle Activity, and informed parents of museum memberships and upcoming events.
- Highlights Tour – Morrill Hall: Lead visitors on drop-in tours in Morrill Hall
- Wild Adventures – Pioneers Park Nature Center: Represented University of Nebraska State Museum at nature/science event at local nature preserve and helped run habitat matching game, and promoted a raffle for a free family admissions pass.

UNL Communicating Science Through Outreach. (September – December 2017)

- Developed after-school science club at local middle school with collaboration with Boys and Girls Club of Lincoln and the Community Learning Center of Lincoln Public Schools. Built and ran weekly inquiry-based activities all under the theme of “Evolution”, including topics such as Darwin and natural selection, fossils, morphology and homoplasy, and DNA.

GRANTS AND AWARDS

- Myerly-Martin Award, Department of Earth & Atmospheric Sciences, University of Nebraska-Lincoln (2021)
- Presidential Exchange Award, Association for Women Geoscientists (2021)
- EAS Summer Fellowship, University of Nebraska-Lincoln (2020, 2019)
- Sam Treves Travel Endowment to present at SVP, University of Nebraska Lincoln (2019, 2018, 2017)

- GSA North Central Section Student Travel Grant (2017); Rocky Mountain Section Travel Grant (2015)
- Hubbard Fellowship, University of Nebraska Lincoln (2016-2017; 2017-2018)
- Undergraduate Scholar Program Travel Grant for SVP and GSA, Montana State University (2015)
- Jackson School Travel Grant for SVP (2015)
- Dean's Honor Roll, Montana State University (Fall 2015, Fall 2014, Spring 2014, Spring 2013, Fall 2012)
- Undergraduate Scholar Program, Montana State University (2014)
- NSF International Research Experience for Students, China, MSU Department of Earth Sciences (2013)
- National Society of Collegiate Scholars at Montana State University (2013- 2015)