

Nathan A. Jud, PhD.

Department of Biology
 William Jewell College
 Liberty, MO 64068 USA

Education

- 2014 Doctor of Philosophy in Biological Science
 University of Maryland College Park, August 2014
 Program in Behavior Ecology Evolution and Systematics
- 2007 Bachelor of Science, Environmental and Plant Biology
 Ohio University, June 2007
 Minor, Geography; Certificate, Environmental Studies

Academic Positions

- 2018– Assistant Professor of Plant Biology, William Jewell College
- 2016–18 Postdoctoral Fellow, School of Integrative Plant Science, Cornell University
- 2014–16 Postdoctoral Fellow, Florida Museum of Natural History, University of Florida
- 2011–13 Peter Buck Predoctoral Fellow, Smithsonian Institution
- 2005–08 Undergraduate researcher, Department of Plant Biology, Ohio University
- 2006 NSF REU Program in Water Research, Colorado State University

Teaching Experience

- 2018– William Jewell College
 Introduction to Ecology and Evolution + Lab; Fall 2018-22
 Plant Biology + Lab; Fall 2019, 2021
 Life on Earth (Core Curriculum); Spr. 2020-22
 Ethnobotany (Core Curriculum); Spr. 2019
 Biological Diversity + Lab; Spr. 2019-22
 Ecology + Lab; Fall 2018, 20, 22
- 2014–16 University of Florida
 Florida Museum of Natural History
 Museum internship program coordinator
- 2008–13 University of Maryland College Park
 Teaching Assistant, Principles of Biology II Lab

Research interests and current projects

Description of fossil flowers, fruits, and woods from the Cenozoic of Panama and Argentina

Angiosperm evolution and patterns of plant diversity during the Cretaceous Period

Fossil woods from the Upper Cretaceous of Hornby Island, British Columbia

An Upper Pennsylvanian flora of the Kansas City region

Peer reviewed publications

*undergraduate mentee

- 32 Pessoa EM, Ribeiro A, and **Jud NA**. 2021. A eudicot leaf from the Lower Cretaceous (Aptian, Araripe Basin) Crato Konservat-Lagerstätte. *American Journal of Botany* 108(10): 2055–2065
DOI: 10.1002/ajb2.1751
- 31 **Jud NA** and Allen SE, Nelson* CW, Bastos CL and Chery JG. 2021. Climbing since the early Miocene: the fossil record of Paullinieae (Sapindaceae). *PLOS ONE* 16(4): e0248369.
DOI: 10.1371/journal.pone.0248369
- 30 **Jud NA** and Gandolfo MA. 2020. Fossil evidence from South America for the diversification of Cunoniaceae by the earliest Paleocene *Annals of Botany* 127(3): 305–315.
DOI: 10.1093/aob/mcaa154
- 29 Thomas BA, **Jud NA** and Seyfullah L. 2019. A comparison of Asturian lepidodendroid lycophytes from the USA and the Euramerian Variscan Front. *Geobios*
DOI: 10.1016/j.geobios.2019.07.002
- 28 Hermsen EJ, **Jud NA**, De Benedetti F and Gandolfo MA. 2019. *Azolla* sporophytes and spores from the Late Cretaceous and Paleocene of Patagonia, Argentina. *International Journal of Plant Sciences* 180(7): 737–754.
DOI: 10.1086/704377
- 27 D’Emic MD, Foreman BZ, **Jud NA**, Britt BB, Crowley J and Schmitz M. 2019. The age of the Cloverly Formation (Lower Cretaceous, western USA): Tectonic, Paleogeographic, and Paleobiological Implications. *Bulletin of the Peabody Museum of Natural History* 60(1): 3–40.
DOI: 10.3374/014.060.0101
- 26 **Jud NA**, D’Emic MD, Williams SA, Mathews JC, Tremaine KM, Bennett SC, and Bhattacharya J. 2018. A new coastal fossil assemblage offers rare insight into early Late Cretaceous ecology in western North America *Science Advances* 4: 1–6.
DOI: 10.1126/sciadv.aar8568
- 25 DeVries T and **Jud NA**. 2018. Lithofacies Patterns and Paleogeography of the Miocene Chilcatay and lower Pisco Depositional Sequences (East Pisco Basin, Peru). *Boletín de la Sociedad Geológica del Perú* 8 124–167.
- 24 **Jud NA**, Gandolfo MA, Iglesias A and Wilf P. 2018. Fossil moonseeds from the Paleogene of west Gondwana (Patagonia, Argentina). *American Journal of Botany* 105(5): 927–942.
DOI: 10.1002/ajb2.1092
- 23 **Jud NA**, Gandolfo MA, Iglesias A and Wilf P. 2018. Fossil flowers from the early Paleocene of Patagonia, Argentina with affinity to Schizomerieae (Cunoniaceae). *Annals of Botany* 121: 431–442.
DOI: 10.1093/aob/mcx173
- 22 DeVries T., Urbina M and **Jud NA**. 2017. The Eocene-Oligocene Otuma depositional sequence (East Pisco Basin, Peru): Paleogeographic and paleoecological implications of new data. *Boletín de la Sociedad Geológica del Perú* 112 14–38.
- 21 Rodriguez-Reyes O, Gasson P, Thornton* C, Falcon-Lang H and **Jud NA**. 2017. *Panasceleroticoxylon crystallosa* gen. et sp. nov.: a new Malpighiales from the Miocene of Panama. *IAWA Journal* 38(4): 437-455
DOI: 10.1163/22941932-20170178

- 20 **Jud NA**, and Dunham* J. 2017. Fossil woods from Ocu, Panama (Azuerio Peninsula) reveal an ancient Neotropical Rainforest. *IAWA Journal* 38(3):366–S2
DOI: 10.1163/22941932-20170176
- 19 **Jud NA**, Gandolfo MA, Iglesias A and Wilf P. 2017. Flowering after disaster: early Danian buckthorn (Rhamnaceae) flowers and leaves from Patagonia. *PLOS ONE* 12: e0176164.
DOI: 10.1371/journal.pone.0176164
- 18 **Jud NA**, and Nelson* CW. 2017. A liana from the lower Miocene of Panama and the fossil record of Connaraceae. *American Journal of Botany* 104: 1–9.
DOI: 10.3732/ajb.1700080
- 17 **Jud NA**, Wheeler EA, Rothwell GW and Stockey RA. 2017. Angiosperm wood from the Upper Cretaceous (Coniacian) of Vancouver Island, BC, Canada. *IAWA Journal* 38(2) 141–161.
DOI: 10.1163/22941932-20170164
- 16 Nelson* CW and **Jud NA**. 2017. Biogeographic implications of *Mammea paramericana* sp. nov. from the lower Miocene of Panama and the evolution of the Calophyllaceae. *International Journal of Plant Sciences* 178: 241–257.
DOI: 10.1086/689618
- 15 MacFadden BJ, Jones D, **Jud NA**, Moreno J, Morgan G, Portell RW, Perez V and Wood A. 2017. Integrated chronology, flora and faunas, and paleoecology of the Alajuela Formation, late Miocene of Panama. *PLOS ONE* 12: e0170300.
DOI: 10.1371/journal.pone.0170300
- 14 D’Emic MD, Foreman BZ and **Jud NA**. 2016. Anatomy, systematics, paleoenvironment, and age of the sauropod dinosaur *Sonorasaurus thompsoni* from the Cretaceous of Arizona, USA. *Journal of Paleontology* 90: 102–132.
DOI: 10.1017/jpa.2015.67
- 13 Lyons SK, Miller JH, Toth A, Amatangelo KL, Behrensmeyer AK, Bercovici A, Blois JL, Davis M, DiMichele WA, Du A, Eronen JT, Faith TJ, Graves GR, **Jud NA**, Labandeira C, Looy C, McGill B, Patterson D, Pineda-Munoz S, Potts R, Riddle B, Terry R, Ulrich W, Villasenor A, Wing SL, Anderson H, Anderson J and Gotelli NJ. 2016. "Lyons et al. reply" *Nature* 537: E5–E6.
DOI: 10.1038/nature20097
- 12 Bloch JI, Woodruff ED, Wood AR, Rincon AF, Harrington AR, Morgan GS, Foster DA, Montes C, Jaramillo CA, **Jud NA**, Jones DS and MacFadden BJ. 2016. The first Central American fossil primate and early Miocene tropical biotic interchange. *Nature* 17415: 243–246.
DOI: 10.1038/nature17415
- 11 **Jud NA** and Sohn J. 2016. Fossil evidence for an ancient association between agromyzid flies and herbaceous eudicot angiosperms. *Cretaceous Research* 63: 113–121.
DOI: 10.1016/j.cretres.2016.02.019
- 10 **Jud NA**, Nelson* CW and Herrera FH. 2016. New *Parinari* fossils from the early Miocene of Panama and the fossil record of Chrysobalanaceae. *American Journal of Botany* 103: 277–289.
DOI: 10.3732/ajb.1500425
- 9 Lyons SK, Amatangelo KL, Behrensmeyer AK, Bercovici A, Blois JL, Davis M, DiMichele WA, Du A, Eronen JT, Faith TJ, Graves GR, **Jud NA**, Labandeira C, Looy C, McGill B, Miller JH, Patterson D, Pineda-Munoz S, Potts R, Riddle B, Terry R, Toth A, Ulrich W, Villasenor A, Williams JW, Wing SL, Anderson H, Anderson J, Waller D and Gotelli. NJ. 2015. Holocene shifts in the assembly of plant and animal communities implicate human

- impacts. *Nature* 529: 80–83.
DOI: 10.1038/nature16447
- 8 **Jud NA.** 2015. Fossil evidence for an herbaceous diversification of early eudicot angiosperms during the Early Cretaceous. *Proceedings of the Royal Society B* 282: 20151045.
DOI: 10.1098/rspb.2015.1045
 - 7 **Jud NA.** 2014. Morphotype Catalog of a Zone I (Aptian-earliest Albian) flora from Fairlington, Virginia, USA. *Bulletin of the Peabody Museum of Natural History* 55: 135–152.
DOI: 10.3374/014.055.0204
 - 6 Blois J, Gotelli N, Behrensmeyer AK, Faith T.J., Lyons K, Williams J, Amatangelo K, Bercovici A, Du A, Andrew, Eronen J, Graves GR, **Jud NA**, Labandeira C, Looy C, McGill B, Patterson D, Potts R, Riddle B, Terry R, Toth A, Villasenor A and Wing SL. 2014. A framework for evaluating the influence of climate, dispersal limitation, and biotic interactions using fossil pollen species associations across the late Quaternary. *Ecography* 37(11): 1095–1108.
DOI: 10.1111/ecog.00779
 - 5 **Jud NA** and Hickey LJ. 2013. A new Early Cretaceous angiosperm from the Potomac Group and its implications for the evolution of eudicot leaf architecture. *American Journal of Botany* 100: 2437–2449.
DOI: 10.3732/ajb.1300250
 - 4 Ficke A, Myrick C and **Jud NA.** 2011. Swimming and Jumping Abilities of two Plains Fishes: Temperature Effects and Implications for Fish Passage. *Transactions of the American Fisheries Society* 140: 1521–1531.
DOI: 10.1080/00028487.2011.638579
 - 3 Falcon-Lang HJ, **Jud NA**, DiMichele WA, Chaney DS, Nelson WJ and Lucas SG. 2011. Pennsylvanian coniferopsid forests in sabkha facies reveals nature of seasonally-wet tropical biome. *Geology* 39: 371–374.
DOI: 10.1130/G31764.1
 - 2 **Jud NA**, Rothwell GW and Stockey RA. 2010. Paleoecological and phylogenetic implications of *Saxicaulis meckertii* gen. et sp. nov: a bennettitalean stem from the Upper Cretaceous of western North America. *International Journal of Plant Sciences* 171: 915–925.
DOI: 10.1086/655963
 - 1 **Jud NA**, Rothwell GW and Stockey RA. 2008. Anatomically preserved *Todea* from the Lower Cretaceous of western North America: Implications for the Phylogeny of Osmundaceae. *American Journal of Botany* 95: 330–339.
DOI: 10.3732/ajb.95.3.330

Forthcoming publications

- in review* Pessoa EM, Ribeiro AC, Christenhuz MJM, Coan AI, and **Jud NA.** Is *Santaniella* a ranunculid? Re-assessment of this enigmatic fossil angiosperm from the Lower Cretaceous (Aptian, Crato Konservat-Lagerstätte, Brazil) provides a new interpretation. *submitted*
- in prep.* Poore* C, **Jud NA** and Gandolfo MA. Fossil Icacinaceae from the early Paleocene of Patagonia.
- in prep.* **Jud NA**, Bradley KE, Zahnd B, Rothwell GW, Stockey RA, and Beard G. A liana stem with dimorphic rays from the Upper Cretaceous of Vancouver Island.
- in prep.* **Jud NA** and Wing SL. Ecology of Early Cretaceous angiosperms from the Lower Cretaceous of the Bighorn Basin, Wyoming, USA.

- in prep.* **Jud NA**, De Benedetti F, Hermesen EJ and Gandolfo MA. A time-calibrated phylogeny of living and fossil *Azolla*.
- in prep.* Miller JH, Wing S, Bercovici, A, Dunn R, Korasidis V, **Jud NA**, Looy C, Shupinski A, Soul LC, Balk MA, Behrensmeyer AK, Barr11 WA, Du A, Eronen JT, Faith JT, Danielle F, Gotelli NJ, Graves GR, Jukar AM, Pineda-Munoz S, Potts R, Tóth AB, Villasenor A, and Lyons SK. Deep-time responses of floral communities to periods of critical environmental change: Implications for conserving biodiversity in a turbulent future.

Book reviews

- 2019 **Jud NA**. A vision for historical biogeography. Book Review: Land Bridges- Ancient Environments, Plant Migrations, and New World Connections by Alan Graham" *Current Biology* 29(1)
DOI: <https://doi.org/10.1016/j.cub.2018.11.036>

Commentary

- 2019 Wing SL, and **Jud NA** 11. Commentary. *In* SK Lyons, AK Behrensmeyer, and PJ Wagner (Eds.) *Foundations of Paleocology*, (p. 151). University of California

Invited talks

- 2022 Diversification of flowering plants: view from the Bighorn Basin. Washakie Museum, Worland, Wyoming (in person)
- 2022 April 12, GEOLOGY 313 Evolution and the Fossil Record (Dr. Caroline Davies). University of Missouri Kansas City (Virtual)
- 2022 Patterns diversity, cover, and habit in Cretaceous angiosperms. National Museum of Natural History, Washington D.C. (Virtual)
- 2021 Honoring the work of the Freedmen: history of the Dutch Gap and its significance for paleobotany. Natural History Society of Maryland, Baltimore, MD. (Virtual)
- 2020 Moving the field forward: The importance of field work and museum collections. Museum für Naturkunde, Berlin, Germany (Virtual)
- 2019 Ecological aspects of the Cretaceous diversification of flowering plants in Western North America, Denver Museum of Nature and Science, Denver, CO.
- 2019 From collections to the field: using fossils to investigate plant evolution and ecology. University of Kansas, Lawrence, KS
- 2018 Fossils reveal surprising history of plant evolution. Missouri Native Plant Society- Kansas City Chapter, Kansas City, MO.
- 2017 Paleobotany in Patagonia: fossil flowers and fruits from the early Paleocene of South America. Buffalo Geological Society, Buffalo, NY.
- 2017 Fossil leaves reveal the diversification and spread of flowering plants in the Cloverly Formation (Cretaceous, Western Interior, USA). Geological Society of America
- 2017 Topical Session: The timing and causes of Jurassic-Cretaceous biological, climatic, and tectonic transitions in North America.
- 2017 Flowering after disaster: flowers from the earliest Paleocene (65 Mya) of South America. Paleontological Research Institution Summer Symposium.

- 2017 The Timing and Causes of Jurassic–Cretaceous Biological, Climatic, and Tectonic Transitions in North America. Annual Meeting of the Geological Society of America.
- 2017 Fossil woods and the evolution of angiosperm body size. Campanian-Maastrichtian floras on Laramidia: vegetation trends west of the seaway. Botany.
- 2017 South American Paleobotany: plant fossils from the early Paleocene. Cornell Latin American Studies Program Symposium.
- 2016 What do fossils reveal about the diversification of flowering plants? Department of Geoscience Seminar, Hobart and William Smith Colleges, Geneva, NY.
- 2015 Fossil trees and lianas reveal the history of tropical forests in Panama. Smithsonian Tropical Research Institute Tupper Talk.
- 2015 The origin and diversification of angiosperms. Guest Lecture in Paleobotany, University of Florida.
- 2015 The Early Cretaceous diversification of eudicot angiosperms: new data from the fossil record. Smithsonian Tropical Research Institute Tupper Talk.
- 2013 Darwin, Wallace, and the principle of Natural Selection, Guest Lecture, Principles of Biology II, University of Maryland College Park.
- 2013 Smithsonian National Museum of Natural History lightning talks.
- 2012 The rise of flowering plants in North America: new data from Wyoming fossils. Paleontological Society of Washington, Washington, DC.

Published abstracts

*undergraduate mentee

- 2022 **Jud NA**, Bradley* K, Zahnd* B, Rothwell GW, Stockey RA, and Beard G. A second species of liana from the Upper Cretaceous (Campanian) of Hornby Island, British Columbia. Botanical Society of America Meeting, Anchorage, AK (Poster)
- 2022 Allen SE, **Jud NA**, Hatch H, and Berry K. Laramidian forests: New fossil wood data from the late Maastrichtian of Colorado. Botanical Society of America Meeting, Anchorage, AK. (Poster)
- 2021 **Jud NA**, Burch C, and Serbet R. Late Pennsylvanian (Missourian) plants from the Dennis Formation in Clay County, Missouri. Botanical Society of America Meeting (Virtual Talk).
- 2021 **Jud NA**, Allen SA, Nelson CW, Bastos CL, and Chery JG. Fossil Paullinieae from the early Miocene of Panama and implications for the diversification of lianas in Sapindaceae. 38th Midcontinent Paleobotanical Colloquium (Virtual Poster)
- 2020 **Jud NA**, De Benedetto F, Hermsen EJ, and Gandolfo MA. Estimating the phylogeny of *Azolla*: a comparison between analysis of morphology and molecular dating with and without tip-dating. Botanical Society of America Meeting (Virtual Poster).
- 2020 **Jud NA**, De Benedetto F, Hermsen EJ, and Gandolfo MA. A Bayesian approach to estimating the phylogeny of *Azolla*. 37th Midcontinent Paleobotanical Colloquium (Virtual Talk).
- 2019 **Jud NA**, Rothwell GW and Stockey RA. New details on the diversity of a Late Cretaceous flora from Hornby Island, British Columbia, Canada. Botanical Society of America Meeting, Tucson, AZ. (Talk)
- 2018 Poore* C, **Jud NA** and Gandolfo MA. A silicified endocarp of Phytocreneae (Icacinaeae) from the early Paleocene of Patagonia, southern South America. Botanical Society of America Meeting, Rochester, MN. (Poster)

- 2018 **Jud NA**, De Benedetti F, Hermsen EJ, and Gandolfo MA. An organismal concept for fossil *Azolla* from the early Paleocene (Danian) Salamanca Formation, Patagonia, Argentina. Botanical Society of America Meeting, Rochester, MN. (Talk)
- 2018 **Jud NA**, Gandolfo MA, Wilf P and Iglesias A. Remarkable diversity of fossil flowers from the early Paleocene (Danian) Salamanca Formation, Chubut, Argentina. Botanical Society of America Meeting, Rochester, MN. (Talk)
- 2017 **Jud NA** and Gandolfo MA. The oldest known Menispermaceae are from Patagonia, South America. Annual Meeting of the Geological Society of America Seattle, WA. (Talk)
- 2017 Hermsen EJ, **Jud NA**, and Gandolfo MA. The significance of Cretaceous-Paleogene mosquito ferns (*Azolla*) from Chubut Province, Patagonia. Annual Meeting of the Geological Society of America Seattle, WA. (Talk)
- 2017 D'Emic, MD, Foreman BZ, **Jud NA**, Britt BB, Crowley J, and Schmitz M. Revised age of the Cloverly Formation (Lower Cretaceous, Western Interior, USA). Annual Meeting of the Geological Society of America Seattle, WA. (Talk)
- 2017 **Jud NA** Fossil leaves reveal the diversification and spread of flowering plants in the Cloverly Formation (Cretaceous, Western Interior, USA). Annual Meeting of the Geological Society of America Seattle, WA. (Talk)
- 2017 **Jud NA**, Gandolfo MA, Iglesias A and Wilf P. First fossil flowers from the Danian (earliest Paleocene) of South America reveal complex biogeographic history of Gondwanan flora. XIX International Botanical Congress, Shenzhen, China.
- 2017 **Jud NA**, Gandolfo MA, Iglesias A, and Wilf P. Early Paleocene flowers confirm a deep history for Cunoniaceae in South America. Botanical Society of America Meeting, Fort Worth, TX. (Talk)
- 2017 **Jud NA** Flowers from the Danian (earliest Paleocene) of Patagonia, Argentina provide new data on the evolution of Cunoniaceae. University of Michigan, Ann Arbor MI. (Talk)
- 2017 **Jud NA**, D'Emic MD, Williams SA, Mathews JC, Tremaine KM, Bennett SC, and Bhattacharya J. Fossil woods and the evolution of angiosperm body size. Botanical Society of America Meeting, Fort Worth, TX. (Talk)
- 2017 Bloch JI, Woodruff ED, Rincon AF, Morse PE, Harrington AR, Morgan GS, Wood A, and **Jud NA**. Forest composition and Miocene plattyrhine distributions: why are there no fossil monkeys in Florida?. 86th Annual Meeting American Association of Physical Anthropologists, New Orleans, LA. (Talk)
- 2016 Fetter* KC, **Jud NA**, Barclay RS, Bashforth AR, France C, Dunn RE, Lini A, and Wing SL. (Poster) Dual reconstruction of paleoecology and whole-plant habit using stable carbon isotopes from dispersed leaves of *Laurozamites powellii*, an Upper Triassic bennettitalean. 38th New Phytologist Symposium, Bristol, UK.
- 2016 Jud. N.A. Fossil woods from Ocu, Panama. Botanical Society of America Meeting, Savannah, GA. (Talk)
- 2016 Nelson* CW and **Jud NA**. A new species of *Mammea* (Calophyllaceae) from the lower Miocene of Panama. Botanical Society of America Meeting, Savannah, GA. (Talk)
- 2016 Tiff* WD, Portell RW, **Jud NA**, and Rowland S. (Poster) Newly discovered millipedes (Arthropoda: Diplopoda) from Neogene deposits in Panama and the southeastern USA (Florida). Geological Society of America Southeastern Section - 65th Annual Meeting, Columbia, SC.

- 2015 Guggino* A, **Jud NA**, Wang H. A morphotype catalog of the fossil leaves from the mid Eocene Dawson Pit locality (Claiborne Formation, TN) (Poster). Geological Society of America Meeting, Baltimore, MD. (Poster)
- 2015 **Jud NA** and Nelson* CW. Fossil lianas from the Miocene of Panama and their paleo-environmental implications. Geological Society of America Meeting, Baltimore, MD. (Poster)
- 2015 Williams SA, D'Emic MD, Bennett SC, Matthews JC, Tremaine KM, Bhattacharya J, and **Jud NA**. A new terrestrial vertebrate fauna from the Late Cretaceous Ferron Sandstone of North America. Society of Vertebrate Paleontology Meeting, Dallas, TX. (Talk)
- 2015 Nelson* CW and **Jud NA** Lianas from the Miocene of Panama: anatomy and implications for paleo-environment. Botanical Society of America Meeting, Edmonton, AB. (Talk)
- 2015 Nelson* CW and **Jud NA**. Lianas in the fossil record: a case study from Panama. Midcontinent Paleobotanical Colloquium, Arcata CA. (Poster)
- 2015 **Jud NA**. An herbaceous angiosperm from the Potomac Group (zone I) and its implications for the early evolution of eudicot angiosperms. Midcontinent Paleobotanical Colloquium, Arcata CA. (Talk)
- 2015 **Jud NA**. Fossil evidence for Podocarpaceae from the Eocene of Panama: implications for the biogeographical history of podocarps in the Neotropics. Midcontinent Paleobotanical Colloquium, Arcata CA. (Talk)
- 2013 **Jud NA**. Early Cretaceous plant diversity before the appearance of angiosperms in North America. Geological Society of America Meeting, Denver, CO. (Talk)
- 2013 **Jud NA** and Wing SL. Evolution of angiosperm ecological strategies. Botanical Society of America Meeting, New Orleans, LA. (Talk)
- 2011 **Jud NA**. Early evolution of flowering plants in Wyoming. Bighorn Basin Paleontology Symposium, Worland, WY. (Talk)
- 2012 **Jud NA**. New fossils and revised ages suggest a geologically brief period for early diversification of angiosperms. Botanical Society of America, Columbus, OH. (Talk)
- 2012 **Jud NA** and Hickey LJ. Primitive angiosperms from the Dutch Gap locality (Aptian, Potomac Group) show suites of eudicot and monocot leaf architectural features. Midcontinent Paleobotanical Colloquium, Yale University. New Haven, CT. (Talk)
- 2011 **Jud NA** and Hu S. Diversity of a Lower Cretaceous pre-angiosperm flora in the Cloverly Formation, WY. Geological Society of America, Minneapolis, MN. (Talk)
- 2011 **Jud NA**, Hu S, Haiar BK, Wing SL, and C.L. Hotton. The Cloverly Formation records the arrival and early evolution of angiosperms in western North America. Midcontinent Paleobotanical Colloquium, Raleigh, NC (Talk)
- 2010 **Jud NA**. Angiosperms from the Early Cretaceous of Wyoming. Geological Society of America, Denver, CO. (Talk)
- 2010 **Jud NA** and Thomas BA. Revisiting a historically important plant fossil collection: implications for the taxonomy and biogeography of *Lepidodendron* in Eastern North America. Midcontinent Paleobotanical Colloquium, Frostburg, MD. (Talk)
- 2009 **Jud NA**, Chaney D, DiMichele WA, Falcon-Lang HJ, Lucas S, and Nelson J. Pennsylvanian coniferophyte forests in growth position represent probable sabka environments in tropical western Pangea. Geological Society of America, Portland, OR. (Talk)
- 2009 **Jud NA**. The roots of *Alnus* in North America. Botanical Society of America, Snowbird, UT. (Talk)

- 2009 **Jud NA.** Paleobiogeography of *Alnus* in North America. North American Paleontology Conference, Cincinnati, OH. (Talk)
- 2009 **Jud NA.** *Alnus* paleobiogeography in North America. Midcontinent Paleobotanical Colloquium, Johnson City, TN. (Talk)
- 2009 **Jud NA.** *Alnus* Fossils from the Lower Eocene: Implications for the Evolutionary History and Biogeography of the Genus. International Biogeography Society Conference, Merida, Mexico. (Poster)
- 2009 **Jud NA.** A new Upper Cretaceous stem provides fossil evidence of herbivory and detritivory. University of Maryland College Park Bioscience Day 2008, College Park, MD. (Poster)
- 2009 **Jud NA, Rothwell GW and Stockey RA.** Anatomy of an Upper Cretaceous bennettitalean stem. Botanical Society of America University of British Columbia, Vancouver, BC. (Poster)
- 2008 **Jud NA, Rothwell GW and Stockey RA.** A new Upper Cretaceous stem provides fossil evidence of herbivory and detritivory. Ohio University Research and Creative Activities Expo, Athens, OH. (Poster)
- 2008 **Jud NA, Rothwell GW and Stockey RA.** A new bennettitalean stem with insights into plant-animal interactions. Midcontinent Paleobotanical Colloquium Mobile, AL. (Talk)
- 2008 **Jud NA, Rothwell GW and Stockey RA.** Characterizing a New Fossil Fern. Ohio University College of Arts and Sciences Board of Trustees Research Symposium, Athens, OH. (Poster)
- 2007 **Jud NA, Rothwell GW and Stockey RA.** Evolution of Osmundaceae. Botany and Plant Biology Joint Congress, Chicago, IL. (Talk)
- 2007 **Jud NA, Rothwell GW and Stockey RA.** Evolution of Osmundaceous Ferns; First Fossil Evidence for the Genus *Todea*. Midcontinent Paleobotanical Colloquium, Dallas, TX. (Talk)
- 2006 **Jud NA and A. Ficke.** Observing the Swimming and Jumping Capabilities of a Conservation Target Fish Species: *Luxilus cornutus*. Colorado State University REU Fair, Fort Collins, CO. (Poster)
- 2006 **Jud NA, Rothwell GW, and Stockey RA.** Characterizing a New Fossil Fern. Ohio University Plant Biology Undergraduate Research Symposium, Athens, OH. (Poster)
- 2006 **Jud NA, Rothwell GW, and Stockey RA.** Characterizing a New Fossil Fern. Ohio University Research and Creative Activities Fair, Athens, OH. (Poster)

Honors and awards

- 2017 Honorable Mention, I.W. Bailey Award, International Association of Wood Anatomists
- 2016 Runner up, I.W. Bailey Award, International Association of Wood Anatomists
- 2014 Behavior Ecology Evolution and Systematics Student Research Award
- 2009 Best Poster Bioscience Research Day, University of Maryland College Park
- 2008 Best Poster Bioscience Research Day, University of Maryland College Park
- 2008 Best Poster Research and Creative Act. Fair, Ohio University
- 2008 Best Poster Undergrad. Research Symposium Sigma Xi Ohio University Chapter
- 2007 Young Botanist of the Year Award, Botanical Society of America
- 2006 Edwin L. and Ruth Kennedy Distinguished Professor Scholarship

2006	Best Poster Undergraduate Research Symposium, Ohio University
2006	Best Poster Research and Creative Activities Fair, Ohio University
2006	NSF REU Program in Water Research, Colorado State University
2006	Elected Associate Member of Sigma Xi, the Scientific Research Society
2002	Greater Cincinnati Golden Galaxy Award Finalist, Technical/Vocational category

Competitive grants and fellowships

2022	Conference: Botany 2022, PUI Section: Careers and Mentorship at Primarily Undergraduate Institutions (Lead PI. NSF Award Number: 2218485; \$48,081).
2020	William Jewell College Faculty Summer Research Support (\$2000)
2019	William Jewell College Faculty Development Support (\$1200)
2016	Florida Museum of Natural History Professional Development Award (\$650)
2013	Wiley Dissertation Completion Fellowship, University of Maryland (\$10,000)
2011	Smithsonian Peter Buck Graduate Research Fellowship (\$62,000)
2011	Student Research Grant from the Evolving Earth Society (\$3,000)
2010	Sigma Xi Grant in Aid of Research (\$800)
2010	University of Maryland Graduate Student Summer Research Fellowship (\$5000)
2008	Smithsonian NMNH Graduate Research Fellowship (\$13,520)
2008	Cincinnati District of the Garden Club of Ohio Daisy Jones Scholarship (\$1000)
2007	Provost Undergraduate Research Fund from Ohio University (\$800)

Travel Awards

2017	International Botanical Congress 2017 Outstanding Student Award (\$1800, declined)
2017	Botanical Society of America award to present at International Biogeography Conference 2017 (\$2400, declined)
2013	Benson Fund Travel Grant, Department of Paleobiology, Smithsonian (\$800)
2012	Goldhaber Travel Award, University of Maryland College Park (\$600)
2012	International Organization of Paleobotany Student Travel Award, Paleobotanical Section, Botanical Society of America (\$1000, declined)
2011	Student Travel Award, Northeastern Section of the Geological Society of America
2009	Student Travel Award, Geological Society of America
2009	Student Travel Award, International Biogeography Society (\$605)
2008	Vernon I. Cheadle Student Travel Award, Botanical Society of America
2007	Student Travel Grant from the MORPH NSF Research Coordination Network

Service to William Jewell College

- 2021– Committee member, Promotion and Tenure Committee
- 2020 Judge, Region 3 Science Olympiad 2020. Hosted at William Jewell College
- 2020 Faculty subcommittee member, William Jewell College COVID-19 Staff Task Force
- 2020 Committee member, William Jewell College Strategic Financial Planning Committee (Academic grants subcommittee)
- 2019– Appraisal of the William Jewell College Herbarium
- 2019 Committee member, search for Associate Professor of Human Anatomy and Physiology
- 2019 Committee member, search for William Jewell College Golf Coach
- 2019– Faculty Advisor, Beta Beta Beta Biological Honor Society Lambda Chapter

Synergistic Activity

- 2021-2023 Co-Chair, PUI Section, Botanical Society of America.
- 2019–2022 External Grant Reviewer, Beta Beta Beta Biological Honor Society.
- 2018–2021 Committee Member, Moseley Award for best student paper in the paleobotany or developmental and structural sections
- 2021– Steward of the Library and Reprint Collection for the Paleobotany Section of the Botanical Society of America
- 2020 Extinct plants in paleoart: a compilation of paleobotanical artwork. Maintained on GitHub shared via twitter @PPaleoart
- 2020– Associate Editor for *Review of Palaeobotany and Palynology*
- 2019 Chair, Paleobotany Section, Botanical Society of America
- 2019– Faculty Advisor, Beta Beta Beta Biological Honor Society Lambda Chapter
- 2018– Associate Editor for *Journal of Paleontology*
- 2014 Organized and carried out a paleobotany activity for the "She's A Scientist: A Girl Scout Exploration" Program at the Florida Museum of Natural History.
- 2014 Quiz: Fern or Flower? <http://terp.umd.edu/imprint-on-history-fern-or-flower-quiz/>

Manuscript Reviews

- 2022 Palaeoworld, Review of Palaeobotany and Palynology (3x), American Journal of Botany, Journal of Systematics and Evolution, Botany Letters (3x), Paleo3, Acta Paleobotanica, PLOS ONE (2x), Ameghiniana, Science, Applications in Plant Sciences
- 2021 eLife, EvoDevo, Botany Letters, Frontiers in Plant Sciences, Cretaceous Research, Botany Letters, International Journal of Plant Sciences, Smithsonian Scholarly Press, American Journal of Botany, PNAS, Review of Palaeobotany and Palynology
- 2020 The Mountain Geologist, Ameghiniana, Lethaia, Journal of Systematics and Evolution (2x),
- 2019 Review of Palaeobotany and Palynology, Botany Letters, Quaternary, Scientific Reports, Mountain Geologist, Annals of the Brazilian Academy of Sciences, Acta Palaeontologica Polonica, Journal of Paleontology, Ameghiniana

- 2018 IAWA Journal, Review of Palaeobotany and Palynology, Minerals, Cretaceous Research (2x), PeerJ, Palaeontologia Electronica, Journal of Systematics and Evolution, Acta Paleobotanica
- 2017 Palaeo3, Palaeontologia Electronica, Nature Communications, IAWA Journal, Geology, Ameghiniana, Geosciences, Journal of the Botanical Research Institute of Texas
- 2016 Current Biology, PeerJ, Botany, Paleobiology, Botanical Journal of the Linnean Society, IAWA Journal (2x), Evolutionary Ecology, Ameghiniana
- 2015 Palaeontologia Electronica, Geology, Paleobiology, Review of Palaeobotany and Palynology (2x)
- 2014 Bulletin of the Peabody Museum of Natural History, American Journal of Botany, Journal of Paleontology
- 2012 International Journal of Plant Sciences, Journal of Paleontology

Field work - Cenozoic

- 2018 Eocene Laguna del Hunco in Argentina
- 2014-16 Miocene exposures along the Panama Canal
- 2014-16 Miocene of Florida, USA
- 2009-11 Paleocene-Eocene Fort Union and Willwood Formations, Wyoming, USA
- 2009 Eocene Green River Formation
- 2008 Eocene Okanagan Highlands of British Columbia, Canada
- 2008 the Eocene Appian Way locality, British Columbia, Canada
- 2008 Cenozoic Citronelle, Alabama, USA

Field work - Mesozoic

- 2008 Cretaceous Apple Bay and Eden Main localities, British Columbia, Canada
- 2010-12, 15, 17, 21-22 Cretaceous Cloverly Formation, Wyoming, USA
- 2016 Cretaceous Tourney Ranch Formation, Arizona, USA
- 2014 the Triassic Chinle Formation, New Mexico, USA
- 2011 the Triassic Newark Supergroup, North Carolina, USA

Field work - Paleozoic

- 2018-21 Pennsylvanian Dennis Formation, Missouri, USA
- 2008 Pennsylvanian Atrasado Formation, New Mexico, USA
- 2007 Pennsylvanian of North Texas, USA
- 2007 Pennsylvanian Monongahela Group, Maryland, USA

Extended education and workshops

- 2021 Challenges and successes of research at primarily undergraduate institutions: Jump starting your 2021-2022 research program. Annual Meeting of the Botanical Society of America, 2021 (Virtual).

- 2020 Evolution of Terrestrial Ecosystems Workshop on Community Assembly and Disassembly. University of Nebraska, Lincoln, NB.
- 2019 Evolution of Terrestrial Ecosystems Workshop on Community Assembly and Disassembly. University of California Berkeley, Berkeley, CA.
- 2017 Understanding how your students learn. Cornell Center for Teaching Innovation, Ithaca, NY
- 2017 Facilitating Effective Classroom Discussions. Cornell Center for Teaching Innovation, Ithaca, NY
- 2017 Designing Learning Outcomes. Cornell Center for Teaching Innovation, Ithaca, NY
- 2017 Active learning strategies to engage your students. Cornell Center for Teaching Innovation, Ithaca, NY
- 2016 Wood anatomy, identification, and other perspectives, Smithsonian Tropical Research Institute, Panama City, Panama.
- 2014 Developing a Great Teaching Statement, University of Florida, Gainesville, FL.
- 2014 Postdoc Workshop on Grant writing, University of Florida, Gainesville, FL.
- 2014 Reducing the Pain with good R tools, DATA-WRANGLERS DC, Washington, D.C.
- 2013 Examining biodiversity across scales, Dr. Nate Swenson, University of Maryland College Park, College Park, MD.
- 2013 Evolution of Terrestrial Ecosystems Workshop on Community Assembly and Disassembly. Smithsonian Institution, Washington DC.
- 2013 Organization for Tropical Studies: Tropical Ferns and Lycophytes, Costa Rica.
- 2012 Introduction to R, Dr. Gene Hunt, Smithsonian Institution, Washington DC. 2012 Leaf Summit Meeting. Yale University, New Haven CT.
- 2011 Evolution of Terrestrial Ecosystems Workshop on Community Assembly and Disassembly. Smithsonian Institution, Washington DC.
- 2009 MORPH workshop: Homology: Conceptual Integration from the Morphological to the Molecular Boulder, CO.
- 2009 Leaf Summit Meeting. Smithsonian Institution, Washington DC.

Affiliations

- 2016– Research Associate, Florida Museum of Natural History
- 2014– Research Associate, Department of Paleobiology, Smithsonian Institution

References

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