

M. ALLISON STEGNER
CURRICULUM VITAE

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EDUCATION

Ph.D., 2015, University of California, Berkeley, Department of Integrative Biology.

B.S., 2010, Stanford University, Biology Department. Honors in Ecology and Evolution.

APPOINTMENTS

02/2019-present Postdoctoral Scholar, Stanford University

11/2016-01/2019 Postdoctoral Research Associate, University of Wisconsin, Madison.

06/2017-09/2017 Paleontology Resource Assistant, Canyon Country Bureau of Land Management.

09/2016-11/2016 STEM Outreach Assistant, Canyon Country Bureau of Land Management.

09/2015-09/2016 Research Associate, University of California Museum of Paleontology.

PUBLICATIONS

1. Uglesich J, Gay RJ, **Stegner MA**, Huttenlocker AK, Irmis RB (in press) Paleontology of the Bears Ears National Monument (Utah, USA): History of exploration, study, and designation. *Geology of the Intermountain West*.
2. **Stegner MA**, Turner MG, Iglesias V, Whitlock C (2019) Post-fire vegetation and climate dynamics in low-elevation forests over the last three millennia in Yellowstone National Park. *Ecography* 41: 1-11. DOI: 10.1111/ecog.00119
3. **Stegner MA**, Ratajczak Z, Carpenter S, Williams J (2019) Inferring critical transitions in paleoecological time series with irregular sampling and variable time-averaging. *Quaternary Science Reviews* 207: 49-63 DOI: 10.1016/j.quascirev.2019.01.009
4. Ramiadantsoa T, **Stegner MA**, Williams J, Ives A (2019) The potential role of intrinsic processes in generating abrupt and synchronous tree declines during the Holocene. *Ecology* 100(2): e02579. DOI: 1002/ecy.2579
5. Ratajczak Z, Carpenter SR, Ives AR, Kucharik CJ, Ramiadantsoa T, **Stegner MA**, Williams J, Zhang J, Turner MG (2018). Abrupt changes in ecological systems: Inference and diagnosis. *Trends in Ecology and Evolution*. 33: 513-526. DOI: 10.1016/j.tree.2018.04.013
6. **Stegner MA**, Karp D, Rominger A, Hadly EA (2017). Can protected areas really maintain mammalian diversity? Insights from a nestedness analysis of the Colorado Plateau. *Biological Conservation*. 209C: 546-553. DOI: 10.1016/j.biocon.2017.03.021
7. Barnosky AD, Hadly EA, Gonzalez P, Ackerly D, Alex K, Biber E, Blois J, Brashares J, Ceballos G, Davis E, Dietl G, Dirzo R, Doremus H, Eronen J, Fortelius M, Greene H, Head J, Hellmann J, Hickler T, Jackson S, Kemp M, Koch P, Kremen C, Lawing M, Lindsey E, Looy C, Marshall C, Mendenhall C, Mulch A, Mychaljliw A, Nowak C, Polly PD, Ramakrishnan U, Schnitzler J, Das Shrestha K, Solari K, Stegner L, **Stegner MA**, Chr. Stenseth N, Wake M, Zhang Z (2017). Merging paleontology with conservation biology to guide the future of terrestrial ecosystems. *Science*. DOI: 10.1126/science.aah4787

8. **Stegner MA** (2016). Stasis and change in Holocene small mammal diversity during a period of aridification in southeastern Utah. *The Holocene* DOI: 10.1177/0959683616632894
9. **Stegner MA** (2015) Spatial and Temporal Variation in Mammalian Diversity of the Colorado Plateau (USA). University of California, Berkeley Dissertation.
10. **Stegner MA** (2015) The Mescal Cave fauna (San Bernardino County, California): Testing assumptions of habitat fidelity in the Quaternary fossil record. *Quaternary Research* 83: 582-587.
11. Barnosky AD, Holmes M, Kirchholtes R, Lindsey E, Maguire KC, Poust AW, **Stegner MA**, Sunseri J, Swartz B, Swift J, Villavicencio NA, Wogan GOU. (2014) Prelude to the Anthropocene: two newly-defined North American Land-Mammal Ages. *The Anthropocene Review* 1(3): 225-242.
12. **Stegner MA**, Holmes M. (2013) Using paleontological data to assess mammalian community structure: Potential aid in conservation planning *Palaeogeography, Palaeoclimatology, Palaeoecology* 372: 138-146.

SELECTED PROFESSIONAL MEETING PRESENTATIONS *INVITED TALKS

1. **Stegner MA**, Ratajczak Z, Carpenter SR, Williams JW (*upcoming*) Spatial and temporal indicators of resilience loss in networks of paleoecological records. International Union for Quaternary Research (INQUA) Congress, Dublin, Ireland.
2. ***Stegner MA** (*upcoming*) Legal and political mechanisms for paleontology advocacy: The battle for Grand Staircase-Escalante and Bears Ears National Monuments. North American Paleontology Convention, Riverside, CA.
3. ***Stegner MA**, Ratajczak Z, Carpenter SR, Hadly EA, Barnosky AD, Williams JW (*upcoming*) Identifying causes of abrupt change and resilience loss in paleoecological records of grassland-woodland systems. North American Paleontology Convention, Riverside, CA.
4. ***Stegner MA**, Barnosky AD, Hadly EA (2019) Searsville Reservoir sediment cores: 126 years of Anthropogenic change. Meeting of the Anthropocene Working Group, Berlin, Germany.
5. **Stegner MA**, Stidham T (2018) New and extralimital tetrapods from middle-late Holocene packrat middens on public lands in the Bears Ears region of southeastern Utah, USA. Society of Vertebrate Paleontology Annual Meeting, Albuquerque, NM.
6. ***Stegner MA**, Turner M, Iglesias V, Whitlock C (2018) Climate, fire, and trade-offs between conifers. Ecological Society of America Meeting, New Orleans, LA.
7. **Stegner MA**, Williams JW, Ratajczak Z, Carpenter S (2018) Moving from detecting past regime shifts to diagnosing critical transitions. Ecological Society of America Meeting, New Orleans, LA.
8. ***Stegner MA**, Spanbauer T (2018). Abrupt change in paleoecological records: from a systematic review to a meta-analysis. EcoRe3 workshop, Salt Lake City, UT.
9. ***Stegner MA**, Williams JW, Ratajczak Z, Carpenter S (2017). Moving from detecting past regime shifts to diagnosing critical transitions. Abrupt Change in Ecological Systems Symposium, University of Wisconsin, Madison, WI.
10. **Stegner MA** (2016). Fluctuation in small mammal community structure during the late Holocene in southeastern Utah. Society of Vertebrate Paleontology Meeting, Salt Lake City, UT. *Journal of Vertebrate Paleontology*, Program and Abstracts.
11. **Stegner MA** (2015). Stasis and change in Holocene small mammal diversity during a period of aridification in southeastern Utah. Conference of Science and Management on the Colorado Plateau and Southwest Region, Northern Arizona University, Flagstaff, AZ.

12. ***Stegner MA** (2015) Paleoeecology for Land Management. Integrating biology & paleobiology to enhance conservation of terrestrial ecosystems on a rapidly changing planet, Berkeley Initiative in Global Change Biology Symposium, Berkeley, CA.
13. ***Stegner MA** (2014) New Holocene fossil localities and Quaternary faunal change in southeastern Utah. Utah Friends of Paleontology Meeting, Moab, UT.
14. ***Stegner MA** (2014) Tracking variation in small mammal functional group abundance: impacts of Quaternary climate and land use on the Colorado Plateau. Society of Vertebrate Paleontology Meeting, Berlin, Germany. *Journal of Vertebrate Paleontology*, Program and Abstracts, 234.
15. **Stegner MA** (2013). The Mescal Cave Fauna (San Bernardino County, California): Testing assumptions of habitat fidelity in the Quaternary fossil record. Society of Vertebrate Paleontology Meeting, Los Angeles, CA. *Journal of Vertebrate Paleontology*, Program & Abstracts.
16. **Stegner MA**, Rominger A, Karp D, Macway S, Busby P, Hadly EA (2013) Species nestedness as an indicator of biodiversity conservation within Colorado Plateau protected lands. International Biogeography Society Meeting, Miami, FL, *Frontiers of Biogeography*, 4 (S1): 72.
17. **Stegner MA**, Ferrer EA (2012) Drivers of jaw shape in *Neotoma*: mandibular geometric morphometrics and implications for morphological partitioning. Society of Vertebrate Paleontology Meeting, Raleigh, NC. *Journal of Vertebrate Paleontology* 32(S2): 178.
18. **Stegner MA**, Holmes M (2012) Using paleontological databases to assess spatial and temporal conservation of mammalian community structure as an aid to conservation planning. Ecological Society of America, Portland, OR. *Bulletin of the Ecological Society of America* 94(4S): COS 167-3.
19. **Stegner MA**, Ferrer EA (2012) Holocene biogeography of *Neotoma*: mandibular geometric morphometrics and implications for climate change. Society of Integrative and Comparative Biology, Charleston, SC. *Integrative and Comparative Biology* 52(S1):e167.
20. ***Stegner MA**, Holmes M (2011) Using paleontological databases to assess spatial and temporal conservation of mammalian community structure as an aid to conservation planning. Society of Vertebrate Paleontology Meeting, Las Vegas, NV. *Journal of Vertebrate Paleontology* 31(S2): 199.
21. **Stegner MA**, Hadly EA (2010) Using the past to predict the future: blue grouse as a model for climate change. Society of Vertebrate Paleontology Meeting, Pittsburgh, PA. *Journal of Vertebrate Paleontology* 30(S2): 170A.

HONORS, AWARDS, AND FELLOWSHIPS

- 2014 University of California Museum of Paleontology Fellowship
- 2013 Paleontological Society G. Arthur Cooper Award
- 2011 Outstanding Graduate Student Instructor Award
- 2011 NSF Graduate Research Fellowship

GRANTS

- 2015 Canyonlands Natural History Association Discovery Pool Grant
- 2015 GRAC Research Funding, UC Berkeley
- 2014 GRAC Research Funding, UC Berkeley
- 2014 Integrative Biology Summer Research Fellowship
- 2014 Sigma Xi Berkeley Chapter Research Grant
- 2014 Sigma Xi National, Grant-In-Aid of Research
- 2013 Sigma Xi Berkeley Chapter Research Grant
- 2013 Integrative Biology Summer Research Fellowship
- 2013 Paleontological Society Research Grant
- 2013 Geological Society of America Research Grant

- 2012 UCMP Research Grant
- 2012 Integrative Biology Summer Research Fellowship
- 2011 Paleobiology Database Analytical Methods Workshop
- 2011 Desert Legacy Fund, Community Foundation serving Riverside & San Bernardino Counties
- 2009 Vermont Botanical and Bird Club Scholarship
- 2009 Stanford University Vice Provost for Undergraduate Education Grant

PROFESSIONAL ACTIVITIES

- 2019 Co-organizer, “Neotoma Paleocology Database: Facilitating transparent data curation in vertebrate paleontology” Workshop, Society of Vertebrate Paleontology Meeting, upcoming.
- 2019 Invited attendee, “Urban Conservation Paleobiology” Workshop, La Brea Tar Pits and Museum, Los Angeles, California
- 2019 Invited attendee, Neotoma Database All-Hands Meeting, Minneapolis, Minnesota.
- 2018 Co-organizer, “Expect the unexpected: Best practices for field and workplace safety” Workshop, Society of Vertebrate Paleontology Meeting.
- 2018 Co-organizer, Neotoma paleocology database: Facilitating transparent data curation in vertebrate paleontology Workshop, Society of Vertebrate Paleontology Meeting.
- 2018 Co-organizer, Paleontology of the Bears Ears Region Field Trip, Society of Vertebrate Paleontology Meeting.
- 2018 Co-organizer, “Understanding extreme events: Linking empirical observation to concepts and theory” Inspire Session, Ecological Society of America Meeting.
- 2018 Attendee, Earth Life Consortium, ePANDDA, and EarthRates Data Demo Derby Workshop. University of Wisconsin, Madison.
- 2018 Invited attendee, EcoRe3 - Resistance, Recovery, and Resilience in Long Term Ecological Systems. PAGES Workshop, Salt Lake City, UT.
- 2017 Invited attendee, Neotoma Database data steward training, Jefferson, South Dakota.
- 2017 Co-organizer, “Paleontology Education: Staying on the Cutting Edge in Research, Pedagogy and Outreach.” Society of Vertebrate Paleontology Meeting, Calgary, Alberta.
- 2017 Invited attendee, PACE Workshop - Linking Paleocology and Community Ecology. Acadia, Maine.
- 2017 Attendee, EcoRe3 - Resistance, Recovery, and Resilience in Long Term Ecological Systems. PAGES Workshop, Finse, Norway.
- 2015 Invited attendee, Integrating Biology and Paleobiology to Enhance Conservation of Terrestrial Ecosystems on a Rapidly Changing Planet. Berkeley Initiative in Global Change Biology Workshop, Berkeley, CA.

SERVICE AND SYNERGISTIC ACTIVITIES

- 2018- Society of Vertebrate Paleontology Government Affairs Committee member
- 2017- Neotoma Paleocology Database, data steward.
- 2017- Bureau of Land Management volunteer paleontology data preparer
- 2016-2017 Biodiversity Collections Network Next Generation Research Working Group.
- 2015-2017 Conservation Paleobiology Working Group, UC Berkeley.
- 2013- Greensboro Association Trustee (Conservation Committee Chair), Greensboro, VT
- 2013- Greensboro Land Trust Advisory Committee member, Greensboro, VT
- 2011- Barr Hill & Long Pond Preserve Stewardship Committee member, Greensboro, VT.
- 2010-2015 Associate Editor. *PaleoBios*. ISSN: 0031-0298
- 2009-2010 Associate Editor. *Stanford Undergraduate Research Journal*.

2004-2005 Board Member. Greensboro Public Library, Greensboro, VT.

TEACHING

- 2015 Morphology of the Vertebrate Skeleton. Graduate Student Instructor. UC Berkeley.
- 2011 Bio 1B: General Biology Lab. Graduate Student Instructor. UC Berkeley.
- 2010 Morphology of the Vertebrate Skeleton. Graduate Student Instructor. UC Berkeley.

OUTREACH

- 2019 “Past informs present: What fossils tell us about modern and future diversity in the context of global change,” Invited talk for Friends of Cedar Mesa annual Celebrate Cedar Mesa, Bluff, Utah.
- 2016 Fossil activity booth, Moab Festival of Science, Moab, Utah
- 2016 Fossil Craft Hour, San Juan County Libraries, Utah
- 2016 STEM career fairs, San Juan County High Schools, Utah
- 2016 Fossil talk at the Moab Multicultural Center, Moab, Utah
- 2015 Fossil booth, CalDay, UC Berkeley, California
- 2014 Exploring Mammal Teeth short course, Greensboro Library, Greensboro, Vermont.
- 2012 Cenozoic climate change booth, CalDay, UC Berkeley, California

UNDERGRADUATE RESEARCH ASSISTANTS AND MENTEES

- 2018- Jordan Schutz (UW Madison)
- 2018 Jacob Pozezinski (UW Madison)
- 2015 Emily Judd
- 2014-2015 Patrick Garcialuna (UC Berkeley, current paleontology MS student)
- 2013-2014 Prayerna Uppal (UC Berkeley)
- 2013-2014 Harman Bhullar (UC Berkeley)
- 2013-2015 Molly Hardesty-Moore (UC Berkeley, current ecology PhD student at UC Santa Barbara)
- 2012 Sarah Tulga (UC Berkeley, current paleontology PhD student at University of Chicago)
- 2007 Brandon Quinn (UC Berkeley)

PROFESSIONAL MEMBERSHIP

Ecological Society of America
Society of Vertebrate Paleontology
Geological Society of America
International Biogeography Society
American Society of Mammalogists
Sigma Xi
Vermont Botanical and Bird Club
Utah Friends of Paleontology