

**M. ALLISON STEGNER**  
*CURRICULUM VITAE*

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**EDUCATION**

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**Ph.D.**, 2015, University of California, Berkeley, Department of Integrative Biology.  
**B.S.**, 2010, Stanford University, Department of Biology. Honors in Ecology and Evolution.

**APPOINTMENTS**

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2022-present	Research Scientist, Stanford University, Department of Biology
2019-2022	Postdoctoral Scholar, Stanford University, Department of Biology
2017	Paleontology Resource Assistant, US Bureau of Land Management.
2016-2019	Postdoctoral Research Associate, University of Wisconsin-Madison, Department of Integrative Biology
2016	STEM Outreach Assistant, US Bureau of Land Management.

**PEER-REVIEWED PUBLICATIONS** \* Indicates authors contributed equally

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Anderson RS\*, **Stegner MA\***, La Selle SP, Sherrod B, Barnosky AD, Hadly EA (2023) Witnessing history: Comparison of a century of sedimentary and written records in a California protected area. *Regional Environmental Change* 23: 65. DOI: 10.1007/s10113-023-02056-9 \*co-first authorship

Viteri M, **Stegner MA**, Hadly EA (2023) Bothersome burrowers: tracking the impact of Botta's pocket gopher (*Thomomys bottae*) bioturbation on a late-Holocene site. *Journal of Archaeological Science Reports* 48: 103848. DOI: 10.1016/j.jasrep.2023.103848

**Stegner MA**, Hadly EA, Barnosky AD, La Selle SP, Sherrod B, Anderson RS, Redondo S, Viteri M, Weaver K, Cundy A, Gaca P, Rose N, Yang H, Roberts S, Hajdas I, Black BA, Spanbauer T (2023) The Searsville Lake Site (California, USA) as a candidate Global Boundary Stratotype Section and Point for the Anthropocene Series. *The Anthropocene Review*. DOI: 10.1177/20530196221144098

Williams M, Leinfelder R, Barnosky AD, Head MJ, McCarthy FM, Cearreta A, Himson S, Holmes R, Waters CN, Zalasiewicz J, Turner S, McGann M, Hadly EA, **Stegner MA**, Pilkington PM, Kaiser J, Berrio JC, Wilkinson IP, Zinke J, DeLong KL (2022) Planetary scale change to the biosphere signaled by global species translocations can be used to identify the Anthropocene. *Paleontology* e12618

Mychajliw AM, Ellwood ER, Alagona PS, Anderson RS, Balisi MA, Biber E, Brown JL, George J, Henty AJW, Higgins L, Hofman CA, Leger A, Ordeñana M, Pauly G, Putman BJ, Randall JM, Riley SPD, Shultz AJ, **Stegner MA**, Wake T, Lindsey EL (2022) Lessons for conservation from beneath the pavement. *Conservation Biology* e13983.

**Stegner MA**, Gilmer BB (2022) Recovery after Anterior Cruciate Ligament Reconstruction is optimal about 85% of the time. *Arthroscopy* 38(8): 2491-2492.

Viteri M, **Stegner MA**, Hadly EA (2021) Assessing the reliability of raptor pellets in

- recording local small mammal diversity. *Quaternary Research*. DOI:10.1017/qua.2021.59
- Gay RJ, Huttenlocker AK, Irmis RB, **Stegner MA**, Uglesich J (2020) Paleontology of the Bears Ears National Monument (Utah, USA): History of exploration, study, and designation. *Geology of the Intermountain West* 7: 205-241. <https://doi.org/10.31711/giw.v7.pp205-241>.
- 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
- 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
- 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
- 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
- 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
- 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
- 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
- Stegner MA** (2015) Spatial and Temporal Variation in Mammalian Diversity of the Colorado Plateau (USA). PhD Dissertartion, University of California, Berkeley.
- 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.
- 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.
- Stegner MA**, Holmes M. (2013) Using paleontological data to assess mammalian community structure: Potential aid in conservation planning *Palaeogeography, Palaeoclimatology, Palaeoecology* 372: 138-146.

#### **HONORS, AWARDS, AND FELLOWSHIPS**

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- 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**

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- 2021 Conservation Paleobiology Network Working Group Funding
- 2019 INQUA Travel Fellowship
- 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, Riverside & San Bernardino County Community Foundation
- 2009 Vermont Botanical and Bird Club Scholarship
- 2009 Stanford University Vice Provost for Undergraduate Education Grant

**SELECTED PROFESSIONAL MEETING PRESENTATIONS (SINCE 2015) \* invited talks**

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- 2022 **Stegner MA**, Hadly EA, Barnosky AD, RS Anderson, S Redondo, M Viteri. Dynamics of biotic and abiotic markers of the Anthropocene at Jasper Ridge Biological Preserve, California, USA. Geological Society of America Meeting, Denver, CO.
- 2022 **\*Stegner MA**, Barnosky AD, Hadly EA. Searsville Reservoir: Global and local signals of the Anthropocene. Anthropocene Working Group Meeting, Berlin, Germany.
- 2021 **\*Stegner MA**, Barnosky AD, Hadly EA. Searsville Reservoir: Global and local signals of the Anthropocene. Anthropocene Working Group Meeting (virtual).
- 2021 **Stegner MA**, La Selle SP, Sherrod B, Barnosky AD, Hadly EA. Dynamics of biotic and abiotic markers of the Anthropocene at Jasper Ridge Biological Preserve, California, USA. European Geophysical Union Meeting.
- 2020 **\*Stegner MA**, Spanbauer T. Abrupt vegetation changes in the Anthropocene exceed Holocene levels of abrupt change. Ecological Society of America Meeting, Salt Lake City, UT.
- 2019 **Stegner MA**, La Selle S, Sherrod B, Barnosky AD, Hadly EA. An extraordinary record of Anthropocene stratigraphy from the San Francisco Peninsula, California, USA. American Geophysical Union, San Francisco, CA.
- 2019 **\*Stegner MA**, Barnosky AD, Hadly EA. Searsville Reservoir sediment cores: 126 years of Anthropogenic change. Meeting of the Anthropocene Working Group, New Orleans.
- 2019 **Stegner MA**, Hadly EA. Late Holocene faunal dynamics in a northern Rocky Mountain forest community. Society of Vertebrate Paleontology Annual Meeting, Brisbane, Australia.
- 2019 **Stegner MA**, Ratajczak Z, Carpenter SR, Williams JW. Spatial and temporal indicators of resilience loss in networks of paleoecological records. International Union for Quaternary Research (INQUA) Congress, Dublin, Ireland.
- 2019 **\*Stegner MA**. Legal and political mechanisms for paleontology advocacy: The battle for

- Grand Staircase-Escalante and Bears Ears National Monuments. North American Paleontology Convention, Riverside, CA.
- 2019 \***Stegner MA**, Ratajczak Z, Carpenter SR, Hadly EA, Barnosky AD, Williams JW. Identifying causes of abrupt change and resilience loss in paleoecological records of grassland-woodland systems. North American Paleontology Convention, Riverside, CA.
- 2019 \***Stegner MA**, Barnosky AD, Hadly EA. Searsville Reservoir sediment cores: 126 years of Anthropogenic change. Meeting of the Anthropocene Working Group, Berlin, Germany.
- 2018 \***Stegner MA**, Turner M, Iglesias V, Whitlock C. Climate, fire, and trade-offs between conifers. Ecological Society of America Meeting, New Orleans, LA.
- 2018 **Stegner MA**, Williams JW, Ratajczak Z, Carpenter S. Moving from detecting past regime shifts to diagnosing critical transitions. Ecological Society of America Meeting, New Orleans, LA.
- 2018 \***Stegner MA**, Spanbauer T. Abrupt change in paleoecological records: from a systematic review to a meta-analysis. EcoRe3 workshop, Salt Lake City, UT.
- 2018 **Stegner MA**, Stidham T. 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.
- 2016 **Stegner MA**. Fluctuation in small mammal community structure during the late Holocene in southeastern Utah. Society of Vertebrate Paleontology Meeting, Salt Lake City, UT.
- 2015 **Stegner MA**. 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.
- 2015 \***Stegner MA**. Paleoecology 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.

#### **PROFESSIONAL & SYNERGISTIC ACTIVITIES**

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##### **Invited Working Group & Workshop Participation**

- 2022 Hominin Paleoecology Workshop, Colorado State University, Ft. Collins, CO
- 2020 Neotoma Paleoecology Database Vertebrate Data Workshop (virtual)
- 2019 Anthropocene Working Group meeting, New Orleans, Louisiana.
- 2019 Anthropocene Working Group meeting, Berlin, Germany.
- 2019 Urban Conservation Paleobiology Workshop, La Brea Tar Pits, Los Angeles, CA
- 2019 Neotoma Database All-Hands Meeting, Minneapolis, MN
- 2018 Earth Life Consortium, ePANDDA, and EarthRates Data Demo Derby Workshop, University of Wisconsin-Madison.
- 2018 EcoRe3 - Resistance, Recovery, and Resilience in Long Term Ecological Systems, PAGES Workshop
- 2017 Neotoma Database data steward training
- 2017 PACE: Linking Paleoecology and Community Ecology Workshop
- 2017 EcoRe3 - Resistance, Recovery, and Resilience in Long Term Ecological Systems. PAGES Workshop
- 2015 Integrating Biology and Paleobiology to Enhance Conservation of Terrestrial Ecosystems on a Rapidly Changing Planet, UC Berkeley Initiative in Global Change Biology Workshop

**Conference Symposia/Workshops Organized**

- 2021 Conservation Paleobiology Network “Conservation Paleobiology in Cities: Integrating Geohistorical Data into Urban Greening”
- 2020 Ecoinformatics Advances: Building Technosocial Systems for Open Data and Big Science, Organized Oral Session, Ecological Society of America Meeting.
- 2019 Neotoma Paleocology Database: Facilitating transparent data curation in vertebrate paleontology, Workshop, Society of Vertebrate Paleontology Meeting.
- 2018 Expect the unexpected: Best practices for field and workplace safety, Workshop, Society of Vertebrate Paleontology Meeting.
- 2018 Neotoma paleocology database: Facilitating transparent data curation in vertebrate paleontology, Workshop, Society of Vertebrate Paleontology Meeting.
- 2018 Paleontology of the Bears Ears Region Field Trip, Society of Vertebrate Paleontology Meeting.
- 2018 Understanding extreme events: Linking empirical observation to concepts and theory, Inspire Session, Ecological Society of America Meeting.
- 2017 Paleontology Education: Staying on the Cutting Edge in Research, Pedagogy and Outreach, Workshop, Society of Vertebrate Paleontology Meeting, Calgary, Alberta.

**Professional Service**

- 2022 WiSTEM ENVISION Research Competition judge
- 2020 Moderator, “The Shape of Practice: Negotiating Context in the Anthropocene” Sensing Seminar, Haus der Kulturen der Welt.
- 2019 Abstract reviewer for the International Biogeography Society
- 2018- Society of Vertebrate Paleontology Government Affairs Committee member (2022 present: United States Subcommittee co-chair)
- 2017- Neotoma Paleocology Database, data steward.
- 2013- Manuscript Reviewer for: *Annals of the Brazilian Academy of Sciences*; *Biology Letters*; *Biological Diversity*; *Ecography*; *Ecosphere*; *Environmental DNA*; *Freshwater Biology*; *Global Environmental Change*; *The Holocene*; *Journal of Biogeography*; *Journal of Quaternary Science*; *Plant Ecology*
- 2010-15 Associate Editor. *PaleoBios*
- 2009-10 Associate Editor. *Stanford Undergraduate Research Journal*.

**Invited Seminars & Departmental Talks**

- 2023 Vegetation and land use change at Jasper Ridge reconstructed from over a century of sedimentary and written records. Jasper Ridge Biological Preserve Evening Lecture Series
- 2023 Biotic and abiotic signals of the Anthropocene in the geologic record. Pal(a)eoPERCs Seminar Series.
- 2023 Biotic and abiotic signals of the Anthropocene in the geologic record. Middlebury College Department of Biology Seminar Series.
- 2022 Local and global signals of the Anthropocene in the geologic record. Hopkins Marine Station Seminar Series.
- 2022 Local and global signals of the Anthropocene in the geologic record. University of Texas Paleontology Seminar Series.

- 2022 Tracking abrupt ecological change in the Quaternary fossil record. PaleoEcoGen PAGES Working Group Invited Seminar.
- 2021 Tracking abrupt ecological change in the Quaternary fossil record. Department of Environmental Sciences Seminar, University of Toledo.
- 2019 Geological signals of the Anthropocene in sediment cores from Searsville Reservoir. Jasper Ridge Biological Preserve Evening Lecture Series
- 2017 Moving from detecting past regime shifts to diagnosing critical transitions. Abrupt Change in Ecological Systems Symposium, University of Wisconsin, Madison.

### **SELECTED OUTREACH ACTIVITIES**

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- 2022 “Mud, Microfossils, and the Anthropocene” Case Study, Haus der Culturen der Welt. DOI: 10.58049/n245-qe60
- 2022 “Unearthing the Present” presenter, Haus der Culturen der Welt, Berlin, Germany
- 2020 Coordinator for the Hadly Lab Stanford Bass Undergraduate Fellows
- 2019 “Past informs present: What fossils tell us about modern and future diversity in the context of global change,” Invited talk, Friends of 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

### **SERVICE**

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- 2022- Greater Bears Ears Partnership (formerly Friends of Cedar Mesa) Board Trustee, Bluff, UT
- 2022- Grand Staircase-Escalante Partners Board Trustee, Kanab, UT
- 2013- Greensboro Association Board Trustee (2013-present Conservation Committee Chair; 2020- vice president), Greensboro, VT
- 2013-2017 Greensboro Land Trust Advisory Committee member, Greensboro, VT
- 2011-2018 Barr Hill & Long Pond Preserve Stewardship Committee member, Greensboro, VT.

### **STUDENT MENTORING**

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#### ***Master’s Theses (Stegner as committee member)***

- 2022- Carson Montz (University of Toledo) (in progress)
- 2022- George Okoko (University of Toledo) (in progress)

#### ***Undergraduate mentees***

- 2021 Olivia Partamian (Stanford)
- 2020- Tanvi Gupta (Stanford) (Honors Thesis in progress)
- 2020 Zack LaGrange (Stanford)
- 2020 Ruslan AlJabari (Stanford)
- 2020 Adonis Pugh (Stanford)
- 2020 Rebecca Jia (Stanford)
- 2020-2022 Vrinda Suresh (Stanford; Honors Thesis)
- 2018-2020 Jordan Schutz (UW Madison; Honors Thesis)

2018      Jacob Pozezinski (UW Madison)  
2015      Emily Judd  
2014-2015 Patrick Garcialuna (UC Berkeley)  
2013-2014 Prayerna Uppal (UC Berkeley)  
2013-2014 Harman Bhullar (UC Berkeley)  
2013-2015 Molly Hardesty-Moore (UC Berkeley)  
2012      Sarah Tulga (UC Berkeley)  
2007      Brandon Quinn (UC Berkeley)