

HAYLEY C. LANIER—Curriculum Vitae

Assistant Curator of Mammalogy
Sam Noble Museum
University of Oklahoma
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Assistant Professor
Department of Biology
University of Oklahoma
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EDUCATION

University of Michigan, Ann Arbor, MI (2010–2013)

Postdoctoral Research Fellow. Museum of Zoology and Department of Ecology and Evolutionary Biology. Postdoctoral supervisor: L. Lacey Knowles

University of Alaska Fairbanks, Fairbanks, AK (2004–2010)

Ph.D. in Biological Sciences. Department of Biology & Wildlife. Dissertation: *Phylogeography, ecogeographic variation, and evolutionary history of the collared pika*

Committee: Link E. Olson (major professor), P. Doak, K. McCracken, and F. Huettmann

University of Kansas, Lawrence, KS (1999–2004)

B.S., Ecology and Evolutionary Biology. Departmental and University Honors. Senior Honors Thesis: *Variation in Pleistocene and Recent North American red fox (Vulpes vulpes) mandibular morphology*. Mentored by Robert M. Timm and Larry D. Martin

RESEARCH & PROFESSIONAL EXPERIENCE

Publications (peer reviewed) [\$undergraduate co-author]

Smith, AB, EA Beever, AE Kessler, AN Johnson, C Ray, CW Epps, **HC Lanier**, R Klinger, TJ Rodhouse, J Varner, et al. 2018. Ecoregional context, genetic affinity and within-species variation in response to climate. *Nature Climate Change*. 2018. [submitted]

Hein, LW^{\$} and **HC Lanier**. Environments matter: the role of habitat and acoustic properties in shaping geographic variation in House Wren (*Troglodytes aedon*) calls. *Western North American Naturalist* [in revision]

Barry, R and **HC Lanier**. 2018. *Sylvilagus obscurus*. *The IUCN Red List of Threatened Species*. [accepted]

Litvaitis, JA and **HC Lanier**. 2018. *Sylvilagus transitionalis*. *The IUCN Red List of Threatened Species*. [accepted]

Lorenzo, C and **HC Lanier**. 2018. *Sylvilagus cunicularius*. *The IUCN Red List of Threatened Species*. [accepted]

Lorenzo, C and **HC Lanier**. 2018. *Sylvilagus graysoni*. *The IUCN Red List of Threatened Species*. [accepted]

Lorenzo, C, DE Brown, and **HC Lanier**. 2018. *Sylvilagus insonus*. *The IUCN Red List of Threatened Species*. [accepted]

Nielsen, CK and **HC Lanier**. 2018. *Sylvilagus aquaticus*. *The IUCN Red List of Threatened Species*. [accepted]

Nielsen, CK and **HC Lanier**. 2018. *Sylvilagus floridanus*. *The IUCN Red List of Threatened Species*. [accepted]

McCleery R and **HC Lanier**. 2018. *Sylvilagus palustris*. *The IUCN Red List of Threatened Species*. [accepted]

Knowles, LL, R Massatti, Q He, LE Olson, and **HC Lanier**. 2016. Quantifying the similarity between genes and geography across Alaska's alpine small mammals. *Journal of Biogeography* 43:1464-1476

Lanier, HC and D Hik. 2016. *Ochotona collaris*. *The IUCN Red List of Threatened Species* 2016: <http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T41257A45182533.en>

- Lanier, HC**, R Massatti, Q He, LE Olson, and LL Knowles. 2015. Colonization from divergent ancestors: glaciation signatures on contemporary patterns of genetic variation in collared pikas. *Molecular Ecology* 24:3688–3075
- Lanier, HC** and LL Knowles. 2015. Applying species-tree analyses to deep phylogenetic histories: Challenges and potential suggested from a survey of empirical phylogenetic studies. *Molecular Phylogenetics and Evolution* 83:191-199
- Natarajan, C, FG Hoffmann, **HC Lanier**, ZA Cheviron, ML Spangler, RE Weber, A Fago, and JF Storz. 2015. Intraspecific polymorphism, interspecific divergence, and the origins of function-altering mutations in deer mouse hemoglobin. *Molecular Biology & Evolution* doi: 10.1093/molbev/msu403
- Lanier, HC**, AM Gunderson, M Weksler, VB Fedorov, and LE Olson. 2015. Comparative phylogeography of eastern Beringian mammals highlights the double-edged sword of climate change faced by arctic- and alpine-adapted species. *PLoS ONE* 10(3): e0118396
- Lanier, HC**, H Huang, and LL Knowles. 2014. How low can you go? The effects of mutation rate on the accuracy of species-tree reconstruction. *Molecular Phylogenetics and Evolution*. 70:112-119
- Lanier, HC**, DL Edwards, and LL Knowles. 2013. Phylogenetic structure of vertebrate communities across the Australian arid zone. *Journal of Biogeography* 40:1059-1070
- Lanier, HC** and LE Olson. 2013. Deep barriers, shallow divergences: reduced phylogeographic structure in the collared pika (*Ochotona collaris*). *Journal of Biogeography* 40:466-478 [profiled in *The Wildlife Professional* & by the *American Society of Mammalogists*]
- Reese, AT^s, **HC Lanier**, and EJ Sargis. 2013. Skeletal indicators of ecological specialization in pika (Mammalia, Ochotonidae). *Journal of Morphology* 247:585-602
- Lanier, HC** and LL Knowles. 2012. Is recombination a problem for species-tree analyses? *Systematic Biology* 61:691-701
- Knowles, LL*, **HC Lanier***, PB Kilinov, and Q He. 2012. Full modeling versus summarizing gene-tree uncertainty: method choice and species-tree accuracy. *Molecular Phylogenetics and Evolution* 65:501-509. [*Authors contributed equally]
- Gunderson, AG, **HC Lanier**, and LE Olson. 2012. Limited phylogeographic structure and genetic variation in Alaska's arctic and alpine endemic, the Alaska marmot. *Journal of Mammalogy* 93:66-75
- Roberts, TE, **HC Lanier**, EJ Sargis, and LE Olson. 2011. Molecular phylogeny of treeshrews (Mammalia: Scandentia) and the timescale of diversification in Southeast Asia. *Molecular Phylogenetics and Evolution* 60:358–372
- Matson, JO, W Bulmer, RP Eckerlin, **HC Lanier**, and N Woodman. 2010. Small mammals from a cloud forest in the Montañas de Cuilco, Huehuetenango, Guatemala. *Virginia Journal of Science* 61:57-58
- Weksler, M, **HC Lanier**, and LE Olson. 2010. Eastern Beringian biogeography: Historical and spatial genetic structure of singing voles (*Microtus miurus*) in Alaska. *Journal of Biogeography* 37:1414–1431
- Lanier, HC** and LE Olson. 2009. Inferring divergence times within pikas (genus *Ochotona*) using mtDNA and relaxed molecular dating techniques. *Molecular Phylogenetics and Evolution* 53:1–12
- Olson, LE, Z Rakotomalala, KBP Hildebrandt, **HC Lanier**, CJ Raxworthy, and SM Goodman. 2009. Phylogeography of *Microgale brevicaudata* (Tenrecidae) and description of a new species from western Madagascar. *Journal of Mammalogy* 90:1095–1100

Book Chapters (peer reviewed)

- Lanier, HC.** 2018. *Ochotona collaris*. *Lagomorphs of the World*. AT Smith, ed. Johns Hopkins University Press.
- Ruadas, LA, JM Mora, and **HC Lanier**. 2018. Evolution of Lagomorpha. *Lagomorphs of the World*. AT Smith, ed. Johns Hopkins University Press.

Other Publications (not peer reviewed)

- Lanier, HC**, LM Moore, ZP Roehrs, AL Wangeline, and RS Seville. 2017. The influence of fire interval on community structure in the Greater Yellowstone Ecosystem. *University of Wyoming National Park Service Research Center Annual Report 40th Annual Report*. [in press]
- Lanier, HC**, LL Carver[§], ZP Roehrs, MA Roehrs, and RS Seville. Small mammal movements and fire history: testing the long-term effects of the 1988 Huckleberry Mountain Fire. *University of Wyoming National Park Service Research Center Annual Report 38th Annual Report*. [in press]
- Lanier, HC**, AJ Kulkowski[§], ZP Roehrs, MA Roehrs, and RS Seville. 2014. Succession effects on mammal and invertebrate communities 26 years after the 1988 Huckleberry Mountain Fire. *University of Wyoming National Park Service Research Center Annual Report* 37(8):49–57

Professional Preparation

- 2017-present: Sam Noble Oklahoma Museum of Natural History, University of Oklahoma, *Assistant Curator of Mammals*
- 2017-present: Department of Biology, University of Oklahoma, *Assistant Professor*
- 2013–2017: Department of Zoology & Physiology, University of Wyoming, *Assistant Professor*
- 2016–2017: University of Alaska Museum, University of Alaska Fairbanks, *Research Affiliate*
- 2013–2015: University of Alaska Fairbanks, *Research Associate*
- 2010–2013: University of Michigan Museum of Zoology, *Postdoctoral Research Fellow*
- 2005–2010: University of Alaska Museum, *Graduate Curatorial and Research Assistant, Mammalogy Department*
- 2003–2004: Western Aleutians Archeological and Paleobiological Project, University of Kansas Museum of Natural History, *Undergraduate Research Assistant*
- 2001–2004: University of Kansas Museum of Natural History, *Undergraduate Curatorial Assistant, Mammalogy Department*

Research and Travel Grants

- 2018: National Science Foundation. (\$299,670) “Collaborative Research: Squirreling Around for Science: Incorporating Sciurid Behavioral Research into the Undergraduate Curriculum.” PI with JM Duggan, J Varner, and EA Flaherty [under review]
- 2018: OU Research Council, The University of Oklahoma. (\$14,760) “Comparative genomics of adaptation in North American pikas.”
- 2018: Oklahoma Department of Wildlife Conservation. (\$138,398) “Survey of the distribution, habitat, and current and historical presence of white-nose syndrome in the tri-colored bat in Oklahoma.” Co-PI with BS Coyner; PI: JK Braun
- 2017: Dovetail End-of-Year Award. (\$10,000) “Development of genomic resources for the Hoary marmot.” Co-PI; PI: LE Olson
- 2017: Dovetail Research-Impact Award. (\$20,300) “Genomic resources for the American pika: shared tools for studying and monitoring mammalian sentinel species’ for climate change.” Co-PI; PI: M Russello

- 2017: UW-NPS Research Grant. (\$5000) “Are all burns created equal? The role of fire interval on community structure in the Greater Yellowstone Ecosystem.” Co-PIs: ZP Roehrs and RS Seville
- 2016: Wyoming INBRE. (\$37,417) “Genomic assessment of the role of relatedness in spatial overlap in chipmunks.” Co PI: M Ben-David
- 2016: Wyoming INBRE. (\$15,000) “Development of a fire ecology system as a flexible framework for undergraduate-directed projects in ecology, evolution, and disease transmission.”
- 2015: UW-NPS Research Grant. (\$5,000) “Small mammal movements and fire history: testing the long-term effects of the 1988 Huckleberry Mountain Fire”. Co-PIs: RS Seville, ZP Roehrs, and MA Roehrs
- 2014: UW-NPS Research Grant. (\$2,500) “Long-term community responses to the 1988 Huckleberry Mountain fire.”
- 2011–2013: NSF, Systematics and Biodiversity Sciences. (\$332,674) Identifying the utility of species-tree approaches for deep radiations. Senior personnel; PI: LL Knowles
- 2008: NSF, Systematics and Biodiversity Sciences. (\$9,314) Proposal: “Dissertation research: Thrice through Beringia? Unraveling the evolution of North American pikas.” (DEB-0808619, Phylogenetic Systematics). Co-PI with LE Olson
- 2008: Ted McHenry Biology Field Research Fund. (\$5,000) Funding to conduct fieldwork in the Copper River Basin of southcentral Alaska
- 2008: American Society of Mammalogists Grant-in-Aid of Research. (\$1,500) Proposal: “Refugial signals in the Wrangell-St. Elias region”
- 2007: Alaska EPSCoR Dissertation Enhancement Grant. (\$9,000) Proposal: “Calibrating the clock for historical demography of the collared pika (*Ochotona collaris*): Phylochronology and population delimitation in an alpine lagomorph”
- 2006: Sigma Xi Grant-in-Aid. (\$720) Proposal: “Body size clines in a changing climate? Testing hypotheses of Bergmannian trends in an alpine lagomorph (*Ochotona collaris*)”
- 2003: Undergraduate Research Award Biological Science Division, University of Kansas. (\$291) Funding to purchase supplies to conduct undergraduate honors thesis research
- 2003–2010: Competitive travel grants awarded from the University of Kansas Howieson Opportunity Fund, The University of Alaska Graduate School, The Alaska Quaternary Center, and Alaska EPSCoR (\$6200, total)
- 2002, 2003: KU Natural History Museum and Biodiversity Research Center, Panorama Society Rudkin Award for Undergraduate Research. (\$5,000) Funding to conduct fieldwork in the Aleutian Islands

Awards, Fellowships, and Honors

- 2016: Science Initiative Summer Institute for Scientific Teaching, Faculty Fellow (\$6000)
- 2011–2013: FIRST IV Postdoctoral Fellow—competitive NSF-funded fellowship to improve the quality of undergraduate education through learner-centered teaching
- 2009: Institute of Arctic Biology Summer Fellowship in Ecology and Wildlife Biology. (\$10,000) Proposal: “Persistence through hard times? Pikas and the long-term effects of climate change within northern regions”
- 2008: Alaska Quaternary Center David and Rachel Hopkins Fellowship. (\$1,500) Proposal: “Refugium or crossroads? Alpine biogeography in the Wrangell-St. Elias region”
- 2008: American Society of Mammalogists Elmer C. Birney Honorarium. (\$1,500) Award to present research in the plenary session of the 2008 ASM meeting
- 2005–2006: Alaska EPSCoR Graduate Fellowship. (\$22,000) Proposal: “Patterns of phylogeographic and phenotypic divergence in a patchily distributed arctic alpine mammal, the collared pika (*Ochotona collaris*).” Academic year 2005-2006
- 2004: NSF Graduate Research Fellowship Program. Honorable Mention

2004: Pauline Kimball Prize, Biological Sciences Division, University of Kansas. (\$300) Awarded to an Outstanding Woman Senior in Biology

Invited Presentations

2019. University of Alaska Fairbanks, Fairbanks, AK.
2018. Keynote Address, Central Plains Mammal Society, Stillwater, OK
2018. Board of Visitors, Sam Noble Oklahoma Museum of Natural History, Norman, OK
2016. Faculty Commencement Speaker, UW-Casper, Casper, WY
2014. AMK Harlow Seminar Series. AMK Ranch, Teton National Park, WY
2014. Zimmerman Lecture. Casper College, Casper, WY.
2013. University of Wyoming, Laramie, WY
2013. University of Wyoming at Casper, Casper, WY
2013. Soka University of America, Aliso Viejo, CA
2013. University of California, Merced, Merced, CA
2012. Keynote address, Women In Science Day, Washburn University, Topeka, KS
2012. Departmental Seminar, Wright State University, Dayton, OH
2012. Workshop: Estimating Species Trees. Ohio State University, Columbus, OH
2008. Plenary session, American Society of Mammalogists Annual Meeting. Brookings, SD
2002. KU Natural History Museum Board of Fall Meeting. University of Kansas, Lawrence, KS

Conference Presentations [§undergraduate student]

Lanier, HC. 2018. Choose your own adventure: Does allowing students to participate in course development increase motivation? American Society of Mammalogists, Manhattan, KS
Hanson, JD, **HC Lanier**, Duggan, JM, J Brown, PK Connors, L Dizney, LP Erb, EA Flaherty, J Varner, and CJ Yahnke. 2018. Squirreling around for science: incorporating sciurid behavioral research into the undergraduate curriculum. American Society of Mammalogists, Manhattan, KS
Duggan, JM, J Brown, PK Connors, L Dizney, LP Erb, EA Flaherty, JD Hanson, **HC Lanier**, J Varner, and CJ Yahnke. 2018. Squirreling around for science: incorporating sciurid behavioral research into the undergraduate curriculum. American Society of Mammalogists, Manhattan, KS
Baker, LD[§], Chhatre VE, and **HC Lanier**. 2017. Quantifying the impact of population size on natural selection across the genome. Undergraduate Research Day, Laramie, WY.
Diesburg, LM[§] and **HC Lanier**. 2017. Small mammal movements in previously burned habitats. Undergraduate Research Day, Laramie, WY.
Hein, LW[§] and **HC Lanier**. 2017. Even birds speak different dialects: How different are they? Undergraduate Research Day, Laramie, WY.
Tolbert, HN[§] and **HC Lanier**. 2017. Variation in raptor abundance along an urban-rural gradient. Undergraduate Research Day, Laramie, WY.
Ben-David, M and **HC Lanier**. 2017. Genomic assessment of the role of relatedness in spatial overlap among least chipmunks (*Tamias minimus*) in the Laramie Range. Wyoming INBRE Annual Conference, Laramie, WY. *Co-presented*.
Lanier, HC, ZP Roehrs, MA Roehrs, and RS Seville. 2016. Long-term effects of the 1988 fires on small mammal communities in the GYE. 13th Biennial Scientific Conference of the Greater Yellowstone Ecosystem, Jackson Lake Lodge, WY
Lanier, HC, ZP Roehrs, MA Roehrs, and RS Seville. 2016. Long-term fire succession as a framework for training undergraduate students in research. INBRE Fall Retreat, AMK Ranch, WY
Andersson, IT[§], and **HC Lanier**. 2016. Mapping the dynamic ecology of ants (Formicidae) in post-burn Yellowstone. INBRE Fall Retreat, AMK Ranch, WY

- Hein, LW[§] and **HC Lanier**. 2016. Can sleepy bats think? INBRE Fall Retreat, AMK Ranch, WY
- Tolbert, HN[§] and **HC Lanier**. 2016. Does raptor distribution differ between urban and rural habitats of Wyoming? INBRE Fall Retreat, AMK Ranch, WY
- Paiz, DJ[§], FG Schaffer[§], AL Wangeline, **HC Lanier**, and ZP Roehrs. 2016. Occupancy modeling to examine meso-mammal diversity and abundance at an urban-rural interface of Cheyenne, Wyoming. INBRE Fall Retreat, AMK Ranch, WY
- Loetscher, ME[§], ZP Roehrs, MA Roehrs, **HC Lanier**, and RS Seville. 2016. Ear and PIT tag loss rates in small mammals from the Greater Yellowstone Ecosystem. INBRE Fall Retreat, AMK Ranch, WY
- Carver, LL[§], ZP Roehrs, MA Roehrs, RS Seville, and **HC Lanier**. 2016. Red-backed vole movements through complex habitats: do downed trees act as highways? Undergraduate Research Day, Laramie, WY
- Hein, LW[§] and **HC Lanier**. 2016. Assessing the drivers of spatial variation in house wren song. Undergraduate Research Day, Laramie, WY
- Olson LE, KM Everson, AM Gunderson, KBP Hildebrandt, NJ Kerhoulas, **HC Lanier**, and CE Rubin. 2016. Alpine small mammals at the top of the world: specimen-based insights into past and ongoing responses to climate change. Arctic Science Summit Week, Fairbanks, AK
- Carver, LL[§] and **HC Lanier**. 2015. Determining the factors shaping movement patterns of red-backed voles: Does fire history matter? INBRE Fall Retreat, AMK Ranch, WY
- Lanier, HC**, ZP Roehrs, JL Marsh[§], ME Loetscher[§], AJ Kulikowski[§], LL Carver[§], SE Haller[§], KA Wilson[§], DC Schlumpf[§], MA Roehrs, and RS Seville. 2015. Tracking long-term ecological changes in response to the 1988 Yellowstone fires. INBRE Fall Retreat, AMK Ranch, WY
- Hein, LW[§] and **HC Lanier**. 2015. Geographic analysis of song diversity in Wyoming populations of House Wren. INBRE Fall Retreat, AMK Ranch, WY
- Stack, N[§] and **HC Lanier**. 2015. Molecular identification of unknown Yellowstone shrews. Undergraduate Research Day, Laramie, WY
- Campbell, AL[§] and **HC Lanier**. 2015. Deer mouse (*Peromyscus maniculatus*) home range movements 25 years post burn of the 1988 Yellowstone Fires. Undergraduate Research Day, Laramie, WY
- Hein, LW[§] and **HC Lanier**. 2015. Analyses of geographic variability in Wyoming birdsong, Undergraduate Research Day, Laramie, WY
- Kulikowski, AK[§] and **HC Lanier**. 2015. Post-fire succession in Yellowstone's springtail community. Undergraduate Research Day, Laramie, WY
- Kulikowski, AJ[§] and **HC Lanier**. 2015. Springtails, succession, and the 1988 Yellowstone Fires. Zoology & Physiology Brownbag Seminar Series, Laramie, WY
- Lanier, HC**, R Massatti, Q He, LE Olson, and LL Knowles. 2015. Colonization from divergent ancestors: glaciation signatures on contemporary patterns of genomic variation in collared pikas (*Ochotona collaris*). North American Pika Conference, Golden, CO
- Lanier, HC**, ZP Roehrs, KM Crouch-Jacobs[§], SE Haller[§], KA Wilson[§], DC Schlumpf[§], AL Campbell[§], AJ Kulikowski[§], MA Roehrs, and RS Seville. 2014. 25-years of successional change in small mammal communities since the 1988 Yellowstone fires. INBRE Fall Retreat, AMK Ranch, WY
- Kulikowski, AJ[§] and **HC Lanier**. 2014. Yellowstone's springtail community 25 years after the fires. INBRE Fall Retreat, AMK Ranch, WY
- Elliot, BL[§], **HC Lanier**, and LM Moore. 2014. Soil comparison study: Germination and growth of *Artemisia tridentata*. INBRE Fall Retreat, AMK Ranch, WY

- Kulikowski, AJ[§], JF Storz, and **HC Lanier**. 2014. Using species distribution modeling to elucidate the origin of high-altitude hemoglobin-oxygen affinity in deer mice. American Society of Mammalogists, Oklahoma City, OK [*recipient of an ASM Undergraduate Honoraria award*]
- Kulikowski, AJ[§] and **HC Lanier**. 2014. Tracing the origins of high altitude adaptation in deer mice using species distribution modeling. Undergraduate Research Day, Laramie, WY
- Lanier, HC** and LL Knowles. 2013. Candidate loci versus next-generation genomic data for phylogenetic estimation, Evolution, Snowbird, UT.
- Lanier, HC** and LL Knowles. 2012. "Using species-tree methods to resolve deep phylogenies", Evolution, Ottawa, Ontario, Canada
- Reese, AT[§], **HC Lanier**, and EJ Sargis. 2012. Skeletal indicators of ecological specialization in pika (*Ochotona*). American Society of Mammalogists, Reno, Nevada [*recipient of an ASM Undergraduate Honoraria award*]
- Lanier, HC** and LL Knowles. 2011. How accurate are species trees when model assumptions are violated? Evolution, Norman, OK
- Lanier, HC**. 2010. Effects of latitude and climate cycling on phylogeographic structuring within pikas. Evolution, Portland, OR
- Lanier, HC**. 2010. Effects of latitude and climate cycling on phylogeographic structuring within pikas. American Society of Mammalogists, Laramie, WY
- Lanier, HC**, AM Gunderson, V Fedorov, M Weksler, and LE Olson. 2009. Comparative phylogeography of alpine mammals in Eastern Beringia. American Society of Mammalogists, Fairbanks, AK
- Lanier, HC**, AM Gunderson, V Fedorov, M Weksler, and LE Olson. 2009. Historical demography, range shifts, and interglacial refugia: Comparative phylogeography of alpine mammals in Eastern Beringia. Evolution, Moscow, ID
- Lanier, HC** and LE Olson. 2008. Phylogeography and historical demography of North America's northernmost ochotonid, the collared pika (*Ochotona collaris*). 3rd World Lagomorph Conference, Morelia, Mexico
- Lanier, HC** and LE Olson. 2008. Hard rocks and soft dates: Using molecular dating to evaluate the evolutionary history of pikas in North America. American Association for the Advancement of Science, Arctic Division, Fairbanks, AK
- Lanier, HC** and LE Olson. 2007. Living on the edge? Climate change and the evolution of the collared pika. Wildlife Society, Alaskan Chapter, Juneau, AK
- Lanier, HC** and LE Olson. 2006. Pikas, peaks, and post-glacial colonization: Phylogeography of an alpine lagomorph, *Ochotona collaris*. American Society of Mammalogists. Amherst, MA
- Lanier, HC** and LE Olson. 2005. Are North American pikas monophyletic? American Society of Mammalogists, Springfield, MO

Workshop Presentations

- Lanier, HC**. 2015. Using R for Research. LCLC Seminar in Casper, WY. [*two 1.5 hr seminars given for faculty and staff at the University of Wyoming at Casper*]
- Lanier, HC**. 2015. Using peer-to-peer interactions to improve student outcomes in the life sciences. LIFE Brownbag Seminar, Laramie, WY
- Lanier, HC**. 2012. Ohio State University, Workshop: Estimating Species Trees, Columbus, OH

Poster Presentations [§]undergraduate co-author]

- Allen, AG, DC Allen, ZP Roehrs, RS Seville, and **HC Lanier**. 2018. Is postfire succession correlated with ecological shifts in the North American deermouse (*Peromyscus*

- maniculatus*)? Central Plains Mammal Society, Stillwater, OK. [Recipient of Best Graduate Student Poster Award]
- Beers, RA, AG Allen, ZP Roehrs, RS Seville, and **HC Lanier**. 2018. Fire succession as a driver of small mammal community dynamics in the Greater Yellowstone Ecosystem. Central Plains Mammal Society, Stillwater, OK. [Recipient of Best Undergraduate Student Poster Award]
- Allen, AG, DC Allen, ZP Roehrs, RS Seville, and **HC Lanier**. 2018. Investigating shifts in skull morphology and diet in North American deer mice associated with wildfire. American Society of Mammalogists, Manhattan, KS
- Varner, J, PK Connors, J Brown, L Dizney, JM Duggan, LP Erb, EA Flaherty, JD Hanson, **HC Lanier**, and CJ Yahnke. 2018. Squirreling around for science: incorporating sciurid behavioral research into the undergraduate curriculum. American Society of Mammalogists, Manhattan, KS
- Dodge, D.M.S[§] and **HC Lanier**. 2018. Crypsis and predation in post-burn populations of southern red-backed voles and deer mice. Undergraduate Research Day, Laramie, WY
- Paiz, DJ[§], FG Schaffer IV[§], AL Wangeline, **HC Lanier**, and ZP Roehrs. 2017. Survey of meso-mammal diversity in an urban-rural interface on the high plains. 2017 Western Region IDeA Conference, Jackson, WY.
- David, KL[§] and **HC Lanier**. 2017. The impacts of post-fire succession on native bee diversity within the Rocky Mountain Ecosystem. Undergraduate Research Day, Laramie, WY
- Paiz, DJ[§], FG Schaffer IV[§], AL Wangeline, **HC Lanier**, and ZP Roehrs. 2017. Survey of meso-mammal diversity in an urban-rural interface on the high plains. Undergraduate Research Day, Laramie, WY
- Andersson, IT[§] and **HC Lanier**. 2017. The relationship between colonial and foraging habits of ants and native plants in post burn areas. Wyoming INBRE Annual Conference, Laramie, WY
- Baker, LD[§], Chhatre VE, and **HC Lanier**. 2017. Using predictive simulations and genomic variation to understand selection responses. Wyoming INBRE Annual Conference, Laramie, WY
- Diesburg, LM[§] and **HC Lanier**. 2017. Short-term and long-term movement patterns among small mammals in a disturbed habitat. Wyoming INBRE Annual Conference, Laramie, WY
- Hein, LW[§] and **HC Lanier**. 2017. The geography of birdsong variation. Wyoming INBRE Annual Conference, Laramie, WY
- Paiz, DJ[§], FG Schaffer IV[§], AL Wangeline, **HC Lanier**, and ZP Roehrs. 2017. Survey of meso-mammal diversity in an urban-rural interface on the high plains. Wyoming INBRE Annual Conference, Laramie, WY
- Tolbert, HN[§] and **HC Lanier**. 2017. Variation in raptor abundance between urban and rural habitats. Wyoming INBRE Annual Conference, Laramie, WY
- Carver, LL[§], ME Loetscher[§], ZP Roehrs, MA Roehrs, RS Seville, and **HC Lanier**. 2016. The long-term effects of post-fire succession on small mammal communities in the Greater Yellowstone Area. American Society of Mammalogists, Minneapolis, MN
- Paiz, DJ[§], FG Schaffer IV[§], LL Carver[§], AL Wangeline, **HC Lanier**, and ZP Roehrs. 2016. Occupancy modeling to examine meso-mammal diversity and abundance at an urban-rural interface in Cheyenne, Wyoming. American Society of Mammalogists, Minneapolis, MN
- Ramírez, LN[§], E Economo, B Blanchard[§], **HC Lanier**, LL Knowles. 2011. The Evolutionary History of Melanesian *Pheidole* (Hymenoptera: Formicidae) inferred with mtDNA. Evolution, Norman, OK

- Matson, JO, W Bulmer, RP Eckerlin, **HC Lanier**, and N Woodman. 2010. Small mammals from a cloud forest in the Montañas de Cuilco, Huehuetenango, Guatemala. American Society of Mammalogists, Fairbanks, AK
- Lanier, HC** and LE Olson. 2006. Behavioral and morphological evolution in the genus *Ochotona*. Evo-WIBO: Evolutionary Biologists of the Pacific Northwest, Port Townsend, WA

Professional Societies

American Society of Mammalogists 2004–present
Central Plains Mammal Society 2018–present
IUCN/SSC Lagomorph Specialist Group 2009–present
Society for the Study of Systematic Biology 2004–2016.
World Lagomorph Society 2008–2016.

MUSEUM CURATION & FIELD EXPERIENCE

Exhibit Development

- 2012: Conceptualized, developed and designed content and art work for the University of Michigan Exhibit Museum special exhibit: “DNA and the Tree of Life”
- 2006: Content contributor for University of Alaska Museum special exhibit: “The Nature and Art of Collections”

Leadership & Outreach

- 2018: Presentation on bat biology, acoustic detectors, and demonstration of mist-netting for Bioblitz at Greenleaf State Park.
- 2018: Presentation on being a mammalogist and the mammal collection for the summer Sam Noble Museum ‘Ologist 2.0 Camp.
- 2016-2017: Werner Wildlife Museum (WWM) board member and Vice President. Consultation on exhibits, educational outreach plans, and assistance with public openings.
- 2016: Presentation on pikas at the Werner Wildlife Museum, Casper, WY
- 2010: Presentation on mammals, natural history, and art at Anne Wien Elementary School
- 2008: Compiled statistics and prepared slides for presentation commemorating the 100,000th and 100,001st specimens in the University of Alaska Museum’s mammal collection
- 2002–present: Public education and outreach at KU Natural History Museum, University of Alaska Museum, University of Michigan Museum of Zoology, the WWM, and the Sam Noble Museum. Activities include open houses, collections tours, preparation of exhibit content, and public demonstrations.

Field Experience

- 2014-present: Yellowstone Fire Project. Small mammal trapping (mark-recapture and specimen collecting) to examine post-fire succession with R Scott Seville, Zachary Roehrs, and Meredith Roehrs, as well as many undergraduates and three K-12 teachers
- 2009: Huehuetenango, Guatemala. Small mammal trapping and mistnetting of bats in the highlands with Jack Matson, Ralph Eckerlin, Walt Bulmer, and Neal Woodman
- 2008: Wrangell-St. Elias National Park and Preserve: Alpine mammal inventory at three remote localities focusing on pikas, marmots, ground squirrels, and voles
- 2008: La Selva Biological Research Station, Costa Rica. Small mammal trapping with Andrea Romero, University of Kansas Ph.D. Student, in the lowland rainforest
- 2005–2007: University of Alaska Museum/Alaska Department of Fish and Game project on the distribution and phylogeography of the collared pika. Pika & small mammal survey, specimen collection, and preparation in the mountains of Alaska and Canada

- 2005–2006: Kluane Alpine Ecosystems Project, University of Alberta. Kluane National Park, Yukon Territory, Canada. David Hik, University of Alberta. Collared pika survey and live trapping, vegetation identification, and grazing studies
- 2005–2006: Kenai Small Mammal Inventory, Kenai Peninsula AK. Small mammal survey, collection, and preparation
- 2005: BLM Inventory in Nulato Hills. Survey, collection, preparation, and identification of small mammals
- 2003: Ouachita Mountain Bat Blitz; David Saugey, USFS. Ouachita National Forest, AR. Mistnetting and inventorying Arkansas bats
- 2002–2003: Western Aleutians Archeological and Paleobiological Project; Dr. Dixie West, PI. Attu Island, AK. Archeological and biological collecting experience
- 2001: Nelson Environmental Studies Area, University of Kansas; Dr. Norm Slade. Participated in long-term small mammal trapping project

Curatorial Experience and Skills

Specimen collection: trapping with pitfall traps; conventional Museum Special and other snap traps; Sherman and Havahart live traps; glue traps; mistnetting; small arms and shotgun. Specimens deposited at the University of Alaska Museum, the University of Kansas Museum of Natural History, and the University of Wyoming Museum of Vertebrates, and the US National Museum of Natural History

Specimen preparation: study skins preparation; skull and skeleton preparation with dermestid beetles or maceration; preservation of fluid specimens with alcohol and formalin; methods for defleshing large and marine mammals; and endo- and ectoparasite collection and preservation; collection and preservation of tissue samples; and training, supervision, and management of students and volunteers in specimen preparation

Specimen databasing: Extensive experience with Filemaker Pro and Arctos databases, as well as familiarity with the Specify package; use of Darwin Core metadata standards and DiGIR protocol; specimen georeferencing with BioGeomancer and traditional maps; principles of data management and distribution through VertNet and GBIF

Field work: Experience with planning and leading remote field expeditions with multiple participants; coordinating travel (helicopter, boat, fixed-wing aircraft) and field support for remote expeditions; and obtaining permits for collecting on state and federal land

Collections management: Specimen cataloguing; bone numbering; selection and use of archival-quality materials; arrangement of collections following community standards; purchase and installation of cases; obtaining permits for international importation of endangered/CITES species; designing loan policies; interacting with local, state, and federal officials on specimen deposition; reviewing loan requests and preparing loans; arranging gifts and permanent specimen exchange between museum collections; dermestid colony maintenance; and conducting minimally-destructive sampling of traditional specimens for ancient and 'antique' DNA applications

Supervisory and training experience: Extensive undergraduate curatorial assistant and volunteer recruitment and training at the University of Alaska Museum.

Additional skills: Wilderness First Aid training; firearms safety and hunter education; bear safety training; expedition backpacking; rock and ice climbing; snowshoeing; mountaineering

TEACHING EXPERIENCE & AWARDS

Awards and Honors

2016: Science Initiative Summer Institute for Scientific Teaching, Faculty Fellow

2015: TS Harris Faculty Award for Teaching

2014: Top Prof Award, Cap and Gown Chapter of Mortar Board (student-nominated)

- 2011–2013: FIRST IV Postdoctoral Fellow—competitive NSF funded fellowship to improve the quality of undergraduate education through learner-centered teaching
- 2009: Outstanding Graduate Student Teaching Assistant (for Mammalogy; nominated by students and faculty. First recipient of this then-new award)

Educational Grants Received

- 2016: University of Wyoming Innovative Summer Session Course Proposal. (\$5000) “Charles Darwin and the Galapagos Islands: The Evolution of Evolution”. Co-PI: RS Seville
- 2016: EPSCoR Wyoming Women in Science and Engineering Program. (\$1,000) Travel grant to attend the American Society of Mammalogists Annual Meeting in Minneapolis, MN with 1 UW undergraduate and 3 community college students
- 2015: Life Sciences Mini-Grant. (\$1000) “Using fire research to provide tiered active learning experiences”. Co-PI: Margo Spurrier (Natrona County School District)
- 2009: UAF Office of the Provost. (\$16,230) Upgrades to and enhancement of the Department of Biology & Wildlife's mammal teaching collection. *Co-PI with LE Olson*

Instructor Experience

- 2019: University of Oklahoma, Instructor of Record—Field Mammalogy (BIOL 4023); 3 credit (including lab) undergraduate majors elective taught at the OU Biological field station
- 2019, 2018: University of Oklahoma, Instructor of Record—Independent Study (BIOL 3990); 1-3 credits
- 2019, 2018, 2017: University of Oklahoma, Instructor of Record—Independent Study (BIOL 4990); 1-3 credits
- 2018: University of Oklahoma, Instructor of Record—Seminar in Ecology and Evolutionary Biology (BIOL 5471); 1 credit graduate elective course
- 2018: University of Oklahoma, Instructor of Record—Mammalogy (BIOL 4034); 3 credit (including lab) undergraduate majors elective
- 2017: University of Wyoming, Co-Instructor—Darwin and the Galapagos (A&S 4900); 1-3 credit study abroad course in the Galapagos Islands
- 2017: University of Wyoming, Co-Instructor—Darwin, the Galapagos Islands, and the Evolution of Evolution (A&S 4900); 1 credit undergraduate majors elective
- 2017, 2016, 2015, 2014: University of Wyoming, Instructor of Record—Evolution (LIFE 3500) 3 credit undergraduate majors core course
- 2017, 2015: University of Wyoming at Casper, Instructor of Record—Mammalogy (ZOO 4370); 3 credit (including lab) undergraduate majors elective
- 2016, 2015, 2014, 2013: University of Wyoming at Casper, Instructor of Record—Scientific Communication (ZOOL 4100); 3 credit undergraduate majors core course
- 2016, 2014: University of Wyoming at Casper, Instructor of Record—Conservation Biology (BOT/ENR/ZOO 4420) 3 credit undergraduate majors elective
- 2016, 2015, 2014: University of Wyoming at Casper, Instructor of Record—Problems in Zoology (ZOO 4900); a 1-3 credit independent study for undergraduate research students
- 2016, 2014: University of Wyoming at Casper, Instructor of Record—Ornithology (ZOO 4350); 3 credit (including lab) undergraduate majors elective
- 2016, 2015: University of Wyoming at Casper, Instructor of Record—Practicum in Laboratory Instruction (ZOO 4975); 1-3 cr. independent study for undergraduate teaching assistants
- 2015: University of Wyoming, Instructor of Record—Computational Biology (A&S 4900) undergraduate majors core course. *I designed and implemented this course to fill a need we identified for more computational and quantitative skills in our undergraduate majors.*
- 2012: University of Michigan, Instructor of Record—Introductory Biology: Ecology and Evolutionary Biology (BIOL 171); undergraduate majors course

2009: University of Alaska Fairbanks, Interim Instructor—Advanced Topics in Evolution: Variation below the species level (BIOL 644); graduate-level course
2008, 2006, 2004: University of Alaska Fairbanks, Graduate Teaching Assistant and Lab Instructor—Mammalogy (BIOL 425); undergraduate majors course
2008: University of Alaska Fairbanks, Graduate Teaching Assistant and Lab Instructor—Vertebrate Paleontology (GEOS F492/BIOL F492); undergraduate elective
2004: University of Kansas, Undergraduate Teaching Assistant—Evolution (BIOL 412)

Graduate Students Mentored

2018–present: Addison Allen. Master's Student. The impacts of fire on small mammal community assembly.
2018–present: Giovanni Tolentino Ramos. PhD Student. Population genomics and gene flow in the collared pika.

Undergraduate and High School Students Mentored

2019–present: Kimberly Jones. (University of Oklahoma), First Year Research Experience (FYRE) student: Tracing the history of white-nose fungus in the tricolored bats of Oklahoma.
2019–present: Lisa M. Ratliff. (University of Oklahoma), Independent Study: Tracing the history of white-nose fungus in the tricolored bats of Oklahoma.
2019–present: Jackie Ball. (University of Oklahoma), Independent Study: The impacts of fire interval on hymenopterian communities.
2018–present: Robert Beers (University of Oklahoma), Independent Study: Small mammal community assembly during post-fire succession.
2018–present: Sean Lindley (University of Oklahoma), Undergraduate Researcher: Investigating deer mice skull morphology.
2018: Lisa M. Ratliff. (University of Oklahoma), Independent Study: Identifying reproductive patterns across heteromyid rodents.
2017–2018: Addison Allen (University of Oklahoma), Independent Study: Investigating postfire shifts in deer mice related to skull morphology and diet. Addison is now a Master's student at the University of Oklahoma.
2018: Anna Hong (University of Oklahoma), First Year Research Experience (FYRE) student; Investigating the role of fire interval in shaping beetle communities.
2017–2018: David (Shayne) Dodge (University of Wyoming at Casper), INBRE Undergraduate Research Internship: Does habitat mismatch drive species abundance? Testing whether crypsis influences post-burn predation in *Myodes gapperi* and *Peromyscus maniculatus*
2017: Jordan Janski (Casper College), undergraduate research student: small mammal ecology and mark-recapture in a field setting
2016–2017: Lucas Baker (University of Wyoming at Casper), INBRE Undergraduate Research Internship: identifying the selection signals in RADseq data and their biological correlates across alpine populations. Luke is now a PhD student at the University of South Dakota.
2016–2017: Laura Diesburg (University of Wyoming at Casper), INBRE Undergraduate Research Internship: quantifying the impact of roads as barriers to long-term gene flow in small mammals
2016–2017: Haley Tolbert (University of Wyoming at Casper), INBRE Undergraduate Research Internship: distance-sampling to understand urban-rural gradients in raptor distributions; niche modeling to predict mammal species diversity and distributions in Wyoming.
2015–2017: Isaac Andersson (University of Wyoming at Casper), INBRE Undergraduate Research Internship: bottom-up vs. top-down controls on abundance in Formicidae based on fire history

- 2014–2017: Lewis Hein (University of Wyoming at Casper), INBRE Undergraduate Research Internship: development of a bioinformatics pipeline for studying geographical differences in house wren songs. Lewis received an REU Award to study at the Smithsonian Tropical Research Institute (2016).
- 2016: Devyan Paiz and Francis Schafer (Laramie County Community College): Occupancy modeling of camera trap data of meso-mammals from Laramie County (co-advised with Zachary Roehrs, LCCC). Devyan has begun undergraduate work at UW.
- 2016: Kendra David (University of Wyoming at Casper), INBRE Undergraduate Research Internship: Community phylogenetics and in areas of post-fire succession: do burns benefit native bees?
- 2015–2016: Lorraine Carver (University of Wyoming at Casper), INBRE Undergraduate Research Internship: Red-back vole movements through a complex of downed trees. Lorraine was awarded the L. Floyd Clark Award for Research.
- 2015–2016: Michelle Sherwin (University of Wyoming at Casper), INBRE Undergraduate Research Internship: barcoding of shrews to understand community dynamics in the Yellowstone region
- 2015: Amber Whinnery (University of Wyoming at Casper), undergraduate research student: museum specimen preparation, data management, and small mammal ecology
- 2015: Stacy Faigle (University of Wyoming at Casper), undergraduate research student working on small mammal fire ecology and data analysis techniques
- 2015: Albert Napolitano (University of Wyoming at Casper), undergraduate research student: small mammal ecology and mark-recapture in a field setting
- 2014, 2015: Brittany Elliot (University of Wyoming at Casper), INBRE Undergraduate Research Internship: Sagebrush seed germination and soil type (co-advised with Lynn Moore, UWC); community dynamics in invertebrates during long-term fire succession.
- 2014-2015: Valorie Lyman (University of Wyoming at Casper) INBRE Undergraduate Research Internship: Phylogeography of deer mice across environmental and elevational gradients
- 2014-2016: Nathan Stack (University of Wyoming at Casper) undergraduate research project on molecular barcoding of shrews from the Yellowstone region
- 2014: Alicia Violin (University of Wyoming at Casper) undergraduate research student working on the molecular genetics. Alicia was accepted to Colorado State University for Veterinary School.
- 2014: Erica Caves (University of Wyoming at Casper) undergraduate research student working on molecular techniques and small mammals from Wyoming
- 2014: Kevin Crouch-Jacobs (Casper College; University of Wyoming at Casper)) INBRE Undergraduate Research Internship: the impacts of the Yellowstone fires on habitat and small mammal occurrence
- 2014: Ashkia Campbell (Casper College) INBRE Internship: fire history and the movements of deer mice in complex habitats. Ashkia is currently completing a biology degree at UW.
- 2013-2015: Andy Kulikowski (University of Wyoming at Casper) INBRE Undergraduate Research Internship: project on how functional traits mediate collembolan abundance in mid-successional forests (2015); ecological niche modeling to trace historical movements of the deer mouse (2014). Andy was awarded an ASM undergraduate honoraria, the Outstanding A&S Undergraduate in Biology, and the Maggie Murdoch Award and is now a PhD student at UC Santa Cruz.
- 2013-2014: Delina Barbosa (University of Wyoming at Casper) INBRE Transition Fellow: barcoding project to examine communities of White Sands beetles. Delina was awarded NSF GRFP in 2015 and is now a Master's student at the University of Wyoming.
- 2010–2012: Aspen Reese (Yale University; co-advised with Eric Sargis, Yale University) Senior Thesis: *Skeletal Indicators of Ecological Specialization in Pika (Mammalia, Ochotonidae)*.

Aspen was awarded the Greg Yamanaka Senior Essay Prize (Yale) and the ASM Undergraduate Student Research Award and is now a PhD student at Duke University.
2010–2012: Lizette Ramirez (University of Michigan) Honors Thesis: *The Evolutionary History of the Pacific Islands Pheidole (Hymenoptera: Formicidae) inferred with mtDNA*. Lizette recently completed a Master's degree at the University of Michigan.
2010–2011: Kandice Karll (Adrian College) molecular ecology & landscape genetics techniques
2007: Heather Bryant, Elizabeth Miller, and Sarah Moore (University of Alaska Fairbanks) in fieldwork techniques for the study of small mammals. Sarah went on to work as a Master's student at Oregon State University.
2005–2006: Ruth Ann Dohner (senior at West Valley High School, Fairbanks, AK) Molecular ecology of small mammals; project won the Alaska Statewide Science Symposium

Graduate Committee Memberships

2019–present Rita Austin (PhD). Advisor: Courtney Hofman
2018–present Elyse Ellsworth (MS). Advisor: Cam Siler
2018–present Jessica McLaughlin (PhD). Advisor: Matt Miller
2018–present Miranda Vesey (MS). Advisor: Cam Siler
2018–present Kai Wang (PhD). Advisor: Cam Siler
2018–present Matthew Worsebe (PhD). Advisor: Larry Wider
2015–present Luis Alza (PhD, Biology; University of Miami). Advisor: Kevin McCracken
2015–2016 Mance Hurley (MS, Curriculum & Instruction). Advisor: Jennifer Forrester
2015–2016 Kayla Eaton (MS, Curriculum & Instruction). Advisor: Jennifer Forrester
2014–2016 Kelly Rush (MS, Curriculum & Instruction). Advisor: Jennifer Forrester

OUTREACH AND PROFESSIONAL SERVICE

Outreach

2018: Bioblitz, Greenleaf State Park, Oklahoma
2017: Spooktacular, Sam Noble Museum, Norman, OK
2017: Curator Brownbag, Sam Noble Museum, Norman, OK
2017: Bioblitz, Black Mesa State Park, Oklahoma
2017: Science-in-Action/ID Day, Sam Noble Museum, Norman, OK
2016-2017: Board Member for the Werner Wildlife Museum, Casper, WY
2015-2017: Board Member for the Murie Audubon Society, Casper, WY
2016: Camera-trapping project with Star Lane project-based learning high school
2016: Presentation on eagle feeding ecology for gifted and talented students, Casper WY
2015: Presentation on fire ecology and small mammal successional dynamics at the Murie Audubon Society, Casper WY
2015: Casper College girls in science day workshop on wildlife genetics & forensics
2014: Go WEST girls in science day; planning committee member and presenter
2012: Keynote speaker at Women in Science Day, Washburn University, Topeka, KS. Event geared towards introducing 8th grade girls to science careers
2012: Presented on vertebrates for summer science camp at Estabrook Elementary School
2010: Science Fair Judge for University of Michigan BioBlitz poster session - a program targeting children from the Detroit school system
2008: Science Fair Judge at Wood River Elementary & Anne Wien Elementary Schools
2007: Provided the subject area expertise for article on pikas and photography published by Moose Peterson in the *BT Journal*
2007: University of Alaska Fairbanks, presentation on mammals and climate change for the Rural Alaskan Honors Institute-II (a summer program for Alaskan high school students)

Departmental Service

2018: Ecomunch Seminar Series organizer
2017–present: Graduate Scholarships Committee
2017: Winter Convocation – Faculty Marshal
2017–2018: Genomic Ichthyologist Search Committee
2015–2017: Zoology Degree Assessment Committee
2013–2017: Learning Community Leadership Committee (UWC); chair 2015–present
2011–2012: Early Career Science Symposium Committee at the University of Michigan
2008–2009: Organized the Ecology and Evolutionary Genetics Seminar Series at the University of Alaska
2006–2007: President of Biology & Wildlife Graduate Student Association
2006–2009: Organizer of University of Alaska Museum evolution journal club
2005: Organizer of Biology & Wildlife Graduate Student Seminar Series

Professional Service

2019–present: Central Plains Mammal Society, Oklahoma Representative
2018–present: Oklahoma Mammals Technical Committee
2011–present: Recording Secretary, American Society of Mammalogists (elected position)
2009–present: IUCN/SSC Lagomorph Specialist Group; co-chair 2016–2020
2009–2011: American Society of Mammalogists Board of Directors (elected position)
2008–2009: Graduate student representative on and co-chair of the Host Committee for the 89th Annual Meeting of the American Society of Mammalogists
American Society of Mammalogists committee service: *Resolutions Committee, Education and Graduate Students Committee, Grants-In-Aid Committee, President's Ad-Hoc Committee on Membership, President's Ad-Hoc Committee on Publishing*
Ad Hoc reviewer: *Alaska Species Ranking System, Arctic Science, Bioinformatics, Biological Journal of the Linnaean Society, Biotropica, BMC Evolutionary Biology, BMC Research Notes, CBE-Life Sciences Education, Conservation Genetics, Current Zoology, Diversity and Distributions, Evolution, Global Change Biology, Heredity, IUCN Red List, International Journal of Evolutionary Biology, Journal of Molecular Evolution, Journal of Biogeography, Journal of Heredity, Journal of Mammalogy, Mammalia, Molecular Ecology, Molecular Phylogenetics and Evolution, PLoS ONE, Polar Biology, Systematic Biology, Zootaxa*
Proposal reviewer: *American Society of Mammalogists Grants-in-Aid of Research, American Society of Mammalogists Fellowships, Center for Global Change Student Grant Competition, Society for Systematic Biology Mini-ARTS Awards, OU Biology Departmental Graduate Awards, WY-TWS Graduate Student Scholarships, Z&P Departmental Scholarship Fautin Award, Wyoming INBRE*