

Theresa M. Laverty

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Pronouns: she/her/hers

Research Interests

I seek to answer questions rooted in applied population and community ecology using a variety of different research approaches. The theories I test with my field studies apply to a broad range of taxa, but my research to date has mainly focused on mammals and occasionally birds and reptiles. Most recently, I have studied the ecological and social dimensions of bat conservation.

Appointments

Jan 2023 – Present	Assistant Professor, Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, New Mexico.
Sept 2021 – Dec 2022	Postdoctoral Scholar, Department of Ecology and Evolution, University of Chicago, Chicago, Illinois. Supervisor: Cara Brook
May 2019 – May 2021	Postdoctoral Scholar, Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, Colorado. Supervisor: Kathryn Stoner

Education

Aug 2015 – Aug 2019	Ph.D. in Fish, Wildlife, and Conservation Biology, Colorado State University. Dissertation – <i>Bats, elephants, and their food: A conservation perspective on trophic interactions in the Namib Desert</i> Advisor: Joel Berger
Aug 2013 – Jul 2015	Ph.D. student in Wildlife Biology, University of Montana. *Transferred with advisor to Colorado State University in 2015 Advisor: Joel Berger
Sept 2006 – Jun 2010	B.A. in Ecology and Evolutionary Biology, Princeton University. Senior thesis – <i>Niche overlap in the diets of three Amazonian caiman species</i> Advisor: Andrew Dobson

Peer-Reviewed Journal Articles

2023	Nelson-Olivieri, JR*, Layden, TJ*, Antunez, E, Khalighifar, A, Lasky, M, Laverty, TM , Sanchez, KA, Shannon, G, Starr, S, Verahrami, AK, & Bombaci, SP. Inequalities in noise will affect urban wildlife. <i>Nature Ecology & Evolution</i> . doi: 10.1038/s41559-023-02257-9 (* = equal lead contributions). Wilkins, K, Carroll, SL, Davis, KP, Hauptfeld, R, Jones, MS, Larson, CL, Laverty, TM , & Pejchar, L. Sexual harassment disproportionately affects ecology and evolution graduate students with multiple marginalized identities in the United States. <i>BioScience</i> 73(5): 376–387. doi: 10.1093/biosci/biad032
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- 2022 **Lavery, TM**, & Stoner, KE. In search of bachelorettes: Observations of male *Leptonycteris yerbabuenae* with dorsal patches across its range. *Therya* 13(2): 163–170. doi: [10.12933/therya-22-1146](https://doi.org/10.12933/therya-22-1146)
- Mushabati, LM, Eiseb, SJ, Benda, P, & **Lavery, TM**. Effects of lunar phase and temperature on bat activity and species richness at varying altitudes in the Kunene Region, Namibia. *African Journal of Ecology* 60(3): 467–480. doi: [10.1111/aje.12968](https://doi.org/10.1111/aje.12968)
- Lavery, TM**, & Berger, J. Indirect effects of African megaherbivore conservation on bat diversity in the world's oldest desert. *Conservation Biology* 36(2): e13780. doi: [10.1111/cobi.13780](https://doi.org/10.1111/cobi.13780)
- 2021 **Lavery, TM**, Teel, TL, Gawusab, AA, & Berger, J. Listening to bats: Namibian pastoralists' perspectives, stories, and experiences. *Journal of Ethnobiology* 41(1): 70–86. doi: [10.2993/0278-0771-41.1.70](https://doi.org/10.2993/0278-0771-41.1.70) [Special issue on “Bat Ethnobiology”]
- Mans, BJ, Kelava, S, Pienaar, R, Featherston, J, de Castro, MH, Quetglas, J, Reeves, WK, Durden, LA, Miller, MM, **Lavery, TM**, Shao, R, Takano, A, Kawabata, H, Moustafa, MAM, Nakao, R, Matsuno, K, Greay, TL, Evasco, KL, Barker, D, & Barker, SC. Nuclear (18S-28S rRNA) and mitochondrial genome markers of *Carios (Carios) vespertilionis* (Argasidae) support *Carios* Latreille, 1796 as a lineage embedded in the Ornithodorinae: re-classification of the *Carios* sensu Klompen and Oliver (1993) clade into its respective subgenera. *Ticks and Tick-borne Diseases* 12(4): 101688. doi: [10.1016/j.ttbdis.2021.101688](https://doi.org/10.1016/j.ttbdis.2021.101688)
- Aubry, LM*, **Lavery, TM***, & Ma, Z*. Impacts of COVID-19 on ecology and evolutionary biology faculty the United States. *Ecological Applications* 31(2): e02265. doi: [10.1002/eap.2265](https://doi.org/10.1002/eap.2265) (* = equal lead contributions)
- 2020 Orlova, MV, **Lavery, TM**, Reeves, WK, Gratton, EM, Davies, ML, & Anisimov, NM. New geographical and host record of bat ectoparasite *Steatonyssus (Steatonyssus) afer* Radovsky and Yunker, 1963 (Mesostigmata: Gamasina: Macronyssidae). *Acarologia* 60(1): 951–958. doi: [10.24349/acarologia/20204411](https://doi.org/10.24349/acarologia/20204411)
- Reeves, WK, **Lavery, TM**, Gratton, EM, Mushabati, LM, & Eiseb, SJ. New national records for *Cyclopodia greeffi greeffi* (Diptera: Nycteribiidae) from the Kunene Region, Namibia, Africa. *Entomological News* 129(3): 327–329. doi: [10.3157/021.129.0311](https://doi.org/10.3157/021.129.0311)
- Reeves, WK, Mans, BJ, Durden, LA, Miller, MM, Gratton, EM, & **Lavery, TM**. *Rickettsia hoogstraalii* and a Rickettsiella from the bat tick *Argas transgaripepinus*, in Namibia. *Journal of Parasitology* 106(5): 663–669. doi: [10.1645/20-46](https://doi.org/10.1645/20-46)
- Lavery, TM**, & Berger, J. Do bats seek clean water? A perspective on biodiversity from the Namib Desert. *Biological Conservation* 248: a108686. doi: [10.1016/j.biocon.2020.108686](https://doi.org/10.1016/j.biocon.2020.108686)
- Orlova, MV, **Lavery, TM**, Reeves, WK, Gratton, EM, & Davies, ML. The first finding of parasitic mite, *Parasteatonyssus nyctinomi* (Mesostigmata: Gamasina: Macronyssidae), in Namibia. *Journal of the South African Veterinary Association* 91: a2002. doi: [10.4102/jsava.v91i0.2002](https://doi.org/10.4102/jsava.v91i0.2002)

- Orlova, MV, **Lavery, TM**, Reeves, WK, Gratton, EM, & Davies, ML. The first record of the spinturnicid mite *Spinturnix kolenatii* Oudemans, 1910 (Mesotigmata: Gamasina: Spinturnicidae) from the long-tailed serotine bat *Eptesicus hottentotus* A. Smith, 1833 (Chiroptera: Vespertilionidae) in Africa. *International Journal of Acarology* 46(3): 160–164. doi: [10.1080/01647954.2020.1731596](https://doi.org/10.1080/01647954.2020.1731596)
- 2019 Jimenez, MF*, **Lavery, TM***, Bennett, DE, Bombaci, SP, Wilkins, K, & Pejchar, L. Underrepresented faculty play a disproportionate role in advancing diversity and inclusion. *Nature Ecology & Evolution* 3(7): 1030–1033. doi: [10.1038/s41559-019-0911-5](https://doi.org/10.1038/s41559-019-0911-5) (* = equal lead contributions)
- Lavery, TM**, Teel, TL, Thomas, REW, Gawusab, AA, & Berger, J. Using pastoral ideology to understand human-wildlife coexistence in arid agricultural landscapes. *Conservation Science and Practice* 1(5): e35. doi: [10.1111/csp2.35](https://doi.org/10.1111/csp2.35)
- 2016 Moldowan, PD, **Lavery, TM**, Emmans, CJ, & Stanley, RC. Diet, gastric parasitism, and injuries of caimans (*Caiman*, *Melanosuchus*, and *Paleosuchus*) in the Peruvian Amazon. *South American Journal of Herpetology* 11(3): 176–182. doi: [10.2994/SAJH-D-16-00012.1](https://doi.org/10.2994/SAJH-D-16-00012.1)
- 2013 **Lavery, TM**, & Dobson, AP. Dietary overlap between Black Caimans and Spectacled Caimans in the Peruvian Amazon. *Herpetologica* 69(1): 91–101. doi: [10.1655/HERPETOLOGICA-D-12-00031](https://doi.org/10.1655/HERPETOLOGICA-D-12-00031)

Manuscripts Under Review

- Submitted **Lavery, TM**, Buecher, DC, Dalton, DC, Davies, ML, Gual-Suárez, F, Heady III, PA, Medellín, RA, Pérez-Harp, SS, Rivera-Villanueva, AN, Stevenson, BD, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Long-haul flights and migratory routes of a nectar-feeding bat. *Ecology*.
- Monadjem, A, Montauban, C, Webala, PW, **Lavery, TM**, Bakwo-Fils, EM, Torrent, L, Tanshi, I, Kane, A, Rutrough, AL, Waldien, D, & Taylor, PJ. African bat database: curated data of occurrences, distributions and conservation metrics for sub-Saharan bats. *Scientific Data*.
- Waag, AG, Johnson, JS, Schorr, RA, Frick, WF, **Lavery, TM**, Neubaum, DJ, Siemers, JL, Treanor, JJ, Reyes, GA, & Halstead, BJ. Using passive integrated transponder (PIT) tags to monitor and research bats: applications, benefits, and limitations. *Journal of North American Bat Research*.

Invited Book Chapters

- 2020 **Lavery, TM**. The Namib Desert and its bats. In: Goldstein, MI, & DellaSala, DA (eds.), *Encyclopedia of the world's biomes*, Vol. 2. Oxford: Elsevier, pp. 181–192. doi: [10.1016/B978-0-12-409548-9.12011-1](https://doi.org/10.1016/B978-0-12-409548-9.12011-1)

Awards & Grants

- Submitted PI, “Assessing bat population trends under the emerging compounded threats of wind energy development and white-nose syndrome,” Bureau of Land Management HQ Wildlife Program (\$340,953).

- PI, "Movement ecology of bats with Motus," Arizona Game and Fish Department (\$100,000).
- Senior personnel, "LTER: Advancing ecological understanding of drylands through integrated research at the Jornada Basin (JRN-8)," National Science Foundation Long-Term Ecological Research (~\$7,650,000).
- 2024 – 2027 PI, "BRC-BIO: The interactive effects of bats and insects on shrub encroachment dynamics in the Chihuahuan Desert," National Science Foundation Building Research Capacity in Biology (\$497,568).
- 2024 – 2025 PI, "Determining activity patterns within and seasonal movements between protected areas in the southwest borderlands for bats of greatest conservation need," National Park Service Southwest Border Resource Protection Program (\$54,884).
- 2024 – 2028 Project Director, "Current and Future Issues of Southwestern Ecosystem Structure and Function," USDA NIFA Research Capacity Project (Hatch).
- 2022 Outstanding publication award, Department of Fish, Wildlife, and Conservation Biology, Colorado State University, for the paper: Aubry, LM, Lavery, TM, & Zhao, M. 2021. Impacts of COVID-19 on ecology and evolutionary biology faculty in the United States. *Ecological Applications* 31(2): e02265.
- 2021 – 2023 Team member, "Coding for conservation: Quantitative training for the next generation of environmental leaders in Madagascar," Meridian Project Grant, National Geographic Society (\$25,000; Cara Brook, PI).
- 2020 – 2022 Co-PI, "Seasonal abundance, population structure, and diet of long-nosed bats in southwestern New Mexico in relation to contemporaneous food availability," New Mexico Department of Game and Fish Share With Wildlife (\$49,839.17; Kathryn Stoner, PI).
- 2013 – 2018 National Science Foundation Graduate Research Fellowship Program (\$132,000).
- 2017 Eugene Decker Fellowship, Colorado State University (\$5,000).
Hill Memorial Fellowship, Colorado State University (\$4,750).
Student Research Scholarship for Global Bat Conservation Priorities, Bat Conservation International (\$3,000).
- 2016 WCNR Student Success Scholarship, Colorado State University (\$1,300).
Grant-In-Aid of Research, Sigma Xi (\$1,000).
- 2015 Exploration Fund, The Explorers Club (\$1,400).
Fulbright U.S. Student Program for Namibia, Alternate.
George and Mildred Cirica Graduate Student Support Fund, University of Montana (\$5,000; declined due to university transfer).
- 2014 Young Explorers Grant, National Geographic Society (\$5,000).
Danny On Memorial Scholarship, University of Montana (\$500).
Fred H. Mass Scholarship, University of Montana (\$500).

- 2010 Departmental Honors, Ecology and Evolutionary Biology, Princeton University.
Ecology and Evolutionary Biology Senior Poster Prize for Best Field Poster, Princeton University.
- 2009 John T. Bonner Senior Thesis Fund and the Dean of the College Fund for undergraduate senior thesis research, Princeton University (\$7,800).

Invited Presentations

- 2023 **Lavery, TM.** Life in the dark: Social and ecological drivers of bat assemblages. Natural Resource Ecology and Management departmental seminar, Iowa State University, Ames, IA, USA.
Lavery, TM. Where are my bats? Long-distance movements of a migratory nectar-feeding species using passive integrated transponders. North American Bat Monitoring Program (NABat) Community of Practice call, virtual.
Lavery, TM. The ecology and conservation of desert-dwelling bats. Biology departmental seminar, New Mexico State University, Las Cruces, NM, USA.
- 2022 **Lavery, TM.** The ecology and conservation of bats (big and small). Program in Ecology, Evolution, and Conservation Biology seminar, University of Illinois at Urbana-Champaign, virtual.
Lavery, TM, Teel, TL, Gawusab, AA, & Berger, J. Bad omens or "just like chickens": Perceptions of bats among a Namibian pastoralist community. 2022 Joint Meeting of the 19th International Bat Research Conference and 50th North American Society for Bat Research, Austin, TX, USA. (Invited to present in organized session)
Lavery, TM. Population and community ecology in desert landscapes: insights from bat biodiversity. Fish, Wildlife and Conservation Ecology departmental seminar, New Mexico State University, Las Cruces, NM, USA.
- 2021 **Lavery, TM.** The ecology and conservation of desert-dwelling bats. Brown Bat Lunch seminar, Bat Conservation International, virtual.
Lavery, TM. Conservation ecology of desert bats. Graduate Program in Ecology and Evolution Seminar series, Rutgers University- New Brunswick, virtual.
Lavery, TM. Indirect effects of African megaherbivore conservation on bat diversity in the world's oldest desert. Emerging Issues in Conservation Seminar series, Society for Conservation Biology, virtual.
<https://vimeo.com/596141875>
Lavery, TM. Food, water, and appreciation: the ecology and conservation of desert bats. Biology departmental seminar, Indiana State University, virtual.
Lavery, TM. Hidden biodiversity in our deserts: Social and ecological drivers of bat assemblages. Biology Seminar series, University of Northern Colorado, virtual.

2020 Bombaci, SP, & **Lavery, TM**. Research advancing justice, equity, and inclusion in Ecology and STEM. Biological Sciences departmental seminar, Boise State University, virtual.

Lavery, TM. Unraveling desert communities: Using acoustics to study the drivers of bat biodiversity. Aquatic Ecology Group, Oak Ridge National Laboratory, virtual.

Contributed Presentations at Meetings & Conferences (* denotes presenter)

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| Planned | <p>Davies, ML*, Lavery, TM, Stoner, KE. Navigating change: movement dynamics of lesser long-nosed bats in their northern range. The Wildlife Society's 31st Annual Conference, Baltimore, MD, USA.</p> <p>Davies, ML*, Lavery, TM, Stoner, KE. Navigating change: movement dynamics of lesser long-nosed bats in their northern range. 52nd North American Society for Bat Research Annual Symposium, Guadalajara, Jalisco, Mexico.</p> <p>Lavery, TM*, Buecher, DC, Dalton, DC, Davies, ML, Gual-Suárez, F, Heady III, PA, Medellín, RA*, Pérez-Harp, SS, Rivera-Villanueva, AN, Stevenson, BD, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Long-haul flights and migratory routes of a nectar-feeding bat. 52nd North American Society for Bat Research Annual Symposium, Guadalajara, Jalisco, Mexico.</p> <p>Lavery, TM, Buecher, DC, Dalton, DC, Davies, ML, Gual-Suárez, F, Heady III, PA, Medellín, RA*, Pérez-Harp, SS, Rivera-Villanueva, AN, Stevenson, BD, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Rutas migratorias y conectividad en el murciélago tequileo, <i>Leptonycteris yerbabuena</i>. IV Congreso Latinoamericano y del Caribe de Murciélagos, Cusco, Perú.</p> <p>Zamora-Gutierrez, V*, Lavery, TM, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Heady III, PA, Medellín, RA, Pérez-Harp, SS, Rivera-Villanueva, AN, Stevenson, BD, Stoner, KE, Wolf, SA, Zavala-Norzagaray, AA, & Frick, WF. Tracking the migratory movements of the pollinating bat <i>Leptonycteris yerbabuena</i> across North America. 16th European Bat Research Symposium, Tarragona, Catalonia, Spain.</p> |
| 2024 | <p>Lavery, TM*, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Medellín, RA, Pérez-Harp, SS, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Long-distance movements of a migratory nectar-feeding bat. 8th Tri-National Sonoran Desert Symposium, Ajo, AZ, USA.</p> |
| 2023 | <p>Lavery, TM*, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Medellín, RA, Pérez-Harp, SS, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Where are my bats? Long-distance movements of a migratory nectar-feeding bat using passive integrated transponders. 3rd Chihuahuan Desert Conference, El Paso, TX, USA.</p> <p>Davies, ML*, Lavery, TM, Stoner, KE. Effects of drought on lesser long-nosed bat diet at the northern extent of its range. The Wildlife Society's 30th Annual Conference, Lexington, KY, USA.</p> <p>Lavery, TM*, Andrianiana, A, Andry, A, Ranaivoson, HC, & Brook, CE. Where are my bats? Determining roost occupancy of the Malagasy rousette</p> |

using passive integrated transponders. 14th African Small Mammal Symposium, Swakopmund, Namibia.

Laverty, TM*, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Medellín, RA, Pérez-Harp, SS, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Where are my bats? Long-distance movements of a migratory nectar-feeding bat using passive integrated transponders. New Mexico Bat Working Group meeting, virtual.

Laverty, TM*, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Medellín, RA, Pérez-Harp, SS, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Where are my bats? Long-distance movements of a migratory nectar-feeding bat using passive integrated transponders. 13th International Mammalogical Congress, Anchorage, AK, USA.

Laverty, TM*, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Medellín, RA, Pérez-Harp, SS, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Where are my bats? Long-distance movements of a migratory nectar-feeding bat using passive integrated transponders. Arizona Bat Working Group meeting, virtual.

Laverty, TM*, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Medellín, RA, Pérez-Harp, SS, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Detecting long-distance movements of a migratory nectar-feeding bat using passive integrated transponders. New Mexico State University's Research and Creativity Week, Las Cruces, NM, USA.

Laverty, TM*, Buecher, DC, Cheng, TL, Davies, ML, Gual-Suárez, F, Medellín, RA, Pérez-Harp, SS, Stoner, KE, Wolf, SA, Zamora-Gutierrez, V, Zavala-Norzagaray, AA, & Frick, WF. Detecting long-distance movements of a migratory nectar-feeding bat using passive integrated transponders. The 56th Joint Annual Meeting of the Arizona-New Mexico American Fisheries Society and The Wildlife Society, Farmington, NM, USA.

2022

Davies, ML*, **Laverty, TM**, Wells, CP, & Stoner, KE. Plasticity of the lesser long-nosed bat diet at the northern extent of its range. The Wildlife Society's 29th Annual Conference, Spokane, WA, USA.

Wilkins, K*, Carroll, SL, Davis, KP, Hauptfeld, R, Jones, MS, Larson, CL, **Laverty, TM**, & Pejchar, L. Sexual harassment disproportionately affects historically excluded graduate students in ecology and evolutionary biology. 2022 Joint Meeting of the Ecological Society of America and the Canadian Society for Ecology and Evolution, Montréal, Québec, Canada.

Davies, ML*, **Laverty, TM**, Wells, CP, & Stoner, KE. Plasticity of the lesser long-nosed bat diet at the northern extent of its range. 2022 Joint Meeting of the 19th International Bat Research Conference and 50th North American Society for Bat Research, Austin, TX, USA.

Cornelius Ruhs, E*, Sterling, SL, Ranaivoson, HC, Tso, M, Kettenburg, G, Andrianiana, A, Andry, S, Ravelomanantsoa, NAF, **Laverty, TM**, Héraud, JM, Laing, ED, & Brook, CE. Seasonal patterns in the serology and reproductive cycle of Madagascar fruit bats. 3rd International Symposium on Infectious Diseases of Bats, Fort Collins, CO, USA.

- Wilkins, K, Carroll, SL, Davis, KP, Hauptfeld, R, Jones, MS*, Larson, CL, **Laverty, TM**, & Pejchar, L. Sexual harassment disproportionately affects historically excluded graduate students. 6th North American Congress for Conservation Biology, Reno, NV, USA.
- Wilkins, K, Carroll, SL, Davis, KP, Hauptfeld, R, Jones, MS, Larson, CL, **Laverty, TM**, & Pejchar, L*. Sexual harassment disproportionately affects historically excluded graduate students. Joint Meeting of the 140th American Ornithological Society and 24th BirdsCaribbean, San Juan, Puerto Rico.
- 2021 **Laverty, TM***, & Berger, J. Conservation of megaherbivores modulates bat diversity in the world's oldest desert. 30th International Congress for Conservation Biology, virtual.
- Laverty, TM***, & Stoner, KE. In search of bachelorettes: Dorsal patches in male *Leptonycteris yerbabuenae* in the southwestern United States. Western Bat Working Group meeting, virtual.
- 2020 Davies, ML*, & **Laverty, TM***. Updates on *Leptonycteris* activity and nectar availability in southern New Mexico. New Mexico Bat Working Group meeting, virtual.
- Laverty, TM***, & Berger, J. Does conserving desert elephants conserve bats? 5th North American Congress for Conservation Biology, virtual.
- 2019 **Laverty, TM***. Updates on *Leptonycteris* in southern New Mexico. New Mexico Bat Working Group meeting, Sevilleta National Wildlife Refuge, NM, USA.
- Laverty, TM***, & Berger, J. Are bats seeking out clean water? A perspective from the Namib Desert. North American Society for Bat Research 49th Annual Symposium, Kalamazoo, MI, USA.
- 2018 **Laverty, TM***, & Berger, J. Bat diversity and water quality in the world's oldest desert. 4th North American Congress for Conservation Biology, Toronto, Canada.
- Laverty, TM***, & Berger, J. Bat diversity and water quality in the world's oldest desert. 24th Front Range Student Ecology Symposium, Fort Collins, CO, USA.
- 2017 **Laverty, TM***, & Berger, J. Bat diversity, water quality, and pastoralists in the northern Namib Desert. 28th International Congress for Conservation Biology, Cartagena, Colombia.
- 2016 **Laverty, TM***, & Berger, J. Desert water and large herbivores: What drives bat community structure? 17th International Bat Research Conference, Durban, South Africa.
- 2015 **Laverty, TM***, & Berger, J. Bats, elephants, and their food: A trophic approach to understanding bat communities. North American Society for Bat Research 45th Annual Symposium, Monterey, CA, USA. (**Session organizer**)

Contributed Posters at Meetings & Conferences (* denotes presenter)

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| Planned | Stevenson, BD*, & Laverty, TM . Thirst Strategies: The water-seeking behaviors of lesser long-nosed bats in arid ecosystems. 52 nd North American Society for Bat Research Annual Symposium, Guadalajara, Jalisco, Mexico. |
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- Whited, HA*, Stevenson, BD, & **Lavery, TM**. Diet phenology of the lesser long-nosed bat at the northern extent of its range. 52nd North American Society for Bat Research Annual Symposium, Guadalajara, Jalisco, Mexico.
- 2024 Rohan, I*, Lavery, TM, & Frey, JK. Evaluating the detection probabilities of terrestrial mammals using remotely activated cameras in central New Mexico rangelands. The 57th Joint Annual Meeting of the Arizona-New Mexico American Fisheries Society and The Wildlife Society, Flagstaff, AZ, USA.
- 2023 Rohan, I*, Lavery, TM, & Frey, JK. Evaluating the effects of wind energy development on the habitat selection of a terrestrial mammal community in central New Mexico. Annual Corona Range and Livestock Research Center Field Day, Corona, NM, USA.
- 2022 Davies, ML*, **Lavery, TM**, & Stoner, KE. Assessing long-nosed bat food availability by using remote sensing imagery to build an *Agave* classifier. 101st Annual Meeting of the American Society of Mammalogists, Tucson, AZ, USA.
- Cornelius Ruhs, E*, **Lavery, TM**, & Brook, CE. Seasonal drivers of viral shedding in bat reservoir hosts. Ecology and Evolution of Infectious Diseases 2022, Atlanta, GA, USA.
- 2020 Davies, ML*, **Lavery, TM**, & Stoner, KE. Bats and hummingbird feeders: Simulating different monitoring techniques to examine utilization of introduced alternative food sources by long-nosed bats. The Wildlife Society's 27th Annual Conference, virtual.
- 2019 Bombaci, SP, Jimenez, MF*, **Lavery, TM**, Wilkins, K, Bennett, DE, & Pejchar, L. Underrepresented faculty play a disproportionate role in advancing diversity, equity, and inclusion. 2019 Ecological Society of America & United States Society for Ecological Economics Joint Meeting, Louisville, KY, USA.
- 2017 Mushabati, LM*, Eiseb, SJ, Benda, P, & **Lavery, TM**. Changes in bat activity over an altitudinal gradient in the Kunene region, Namibia. 2017 Combined Congress of the Entomological and Zoological Societies of Southern Africa, Pretoria, South Africa.
- 2010 **Lavery, TM***. Niche overlap in the diets of three sympatric caiman species. Cannon Memorial Senior Poster Presentation and Princeton Undergraduate Research Symposium, Princeton, NJ, USA.

Prior Relevant Research Experience

- Sept 2021 – Dec 2022 Postdoctoral Scholar, University of Chicago. Madagascar. Supervisor: Cara Brook.
- Conducted fieldwork in Madagascar to understand how pathogen loads vary in frugivorous bat communities—the Madagascar flying fox, the Madagascar fruit bat, and the Madagascar rousette—in relation to reproductive (e.g., pregnancy status) and seasonal factors (e.g., food). Also modelled demographic susceptibility of population declines for bats and other animals, and used epigenetic sequencing to age individual Malagasy bats from wing punches.
- May 2019 – May 2021 Postdoctoral Scholar, Colorado State University. Hidalgo, Grant, and Luna Counties, New Mexico. Supervisor: Kathryn Stoner.

Studied pollinators (lesser and Mexican long-nosed bats) in southwestern New Mexico as a postdoctoral fellow at Colorado State University, in which I tested whether seasonal and nightly activity in the area is matched or mismatched with food (nectar of *Agave* spp.) availability and estimated local bat population sizes. This work was funded by the US Department of Interior Bureau of Land Management, New Mexico Department of Game and Fish, and Bat Conservation International.

Aug 2013 –
May 2019

PhD Student, University of Montana (2013 – 2015) and Colorado State University (2015 – 2019). Kunene Region, Namibia. Advisor: Joel Berger.

Conducted my dissertation research on factors structuring Namibian bat communities, including large herbivore distributions (i.e., elephants, black rhinoceroses, giraffes) and water quality and availability. Also interviewed local pastoralists to assess wildlife value orientations, attitudes toward wildlife, and cultural stories about bats in addition to quantifying human-wildlife conflicts and identifying areas for conservation opportunities. Fieldwork totaled ~18 months and was funded by the National Science Foundation, National Geographic Society, Bat Conservation International, The Explorers Club, Sigma Xi, Colorado State University, and the University of Montana. Collaborators included Seth Eiseb and Lina Mushabati (University of Namibia).

Apr 2013 –
Jul 2013

Research Assistant, Conserve Wildlife Foundation of New Jersey. Cape May County, New Jersey. Supervisor: Todd Pover.

Monitored threatened and endangered beach nesting birds for a summer along the New Jersey coastline and educated beachgoers on the importance of excluding human activities from the nesting area. This work was funded by the Conserve Wildlife Foundation of New Jersey in collaboration with New Jersey Division of Fish and Wildlife.

Mar 2012 –
Mar 2013

Research Assistant, Max Planck Institute for Evolutionary Anthropology. Bwindi Impenetrable National Park, Uganda. Supervisor: Martha Robbins.

Managed a long-term behavioral study on endangered mountain gorillas and a team of ~10 Ugandan field assistants for just over one year. Also oversaw conservation clubs at eight local primary schools.

Sept 2011 –
Feb 2012

Research Assistant, Princeton University. Mpala Research Centre, Kenya. Supervisors: Daniel Rubenstein & Corinna Riginos.

Assessed spatial and temporal relationships between wildlife and humans/livestock and assisted with a savanna restoration project to determine the effectiveness of different types of erosion barriers and the wildlife response to each treatment. Also oversaw the fieldwork component of a Princeton University African landscapes course of ~10 undergraduates.

Jun 2011 –
Aug 2011

Research Assistant, University of Wyoming. Yellowstone National Park, USA. Supervisor: Matthew Talluto.

Collected data as a summer field technician on a graduate project relating serotiny of lodgepole pines to red squirrel distributions and seed predation over time.

Jun 2010 –
Jun 2011

Princeton in Africa Fellow. Mpala Research Centre, Kenya. Supervisors: Margaret Kinnaird and Timothy O'Brien.

- Studied the effects of land management practices on wildlife communities with camera traps and monitored individual elephants. Also oversaw afterschool conservation clubs at five local primary schools.
- Jan 2010 – Mar 2010 Semester Abroad Participant, Princeton University. Kenya. Instructors: Paula Kahumbu (WildlifeDirect), and Corinna Riginos and Daniel Rubenstein (Princeton University).
- Designed and carried out group research projects on the topics of rangeland ecology, behavioral ecology of two zebra species (and hybrids), and local pastoralist support of a migration corridor as part of a semester in the field instructed by professors from Princeton University and a Kenya non-governmental organization WildlifeDirect.
- Jun 2009 – Apr 2010 Undergraduate Student, Princeton University. Peruvian Amazon. Advisor: Andrew Dobson.
- Conducted my undergraduate senior thesis research over a summer on the dietary overlap of three Amazonian caiman species, including the protected black caiman. Participated in crocodylian population surveys with the assistance of ~4 Peruvians and international volunteers. This work was funded by Princeton University and field supervision was led by Richard Bodmer (University of Kent) and Operation Wallacea.
- Jan 2009 – Apr 2009 Semester Abroad Participant, Princeton University. Panama. Instructors: Martin Wikelski (Max Planck Institute for Ornithology), Stephen Pacala (Princeton University), and Yves Basset and Richard Cooke (Smithsonian Tropical Research Institute).
- Designed and carried out individual and group research projects on butterflies, damselfish, and capuchin monkeys as part of a semester in the field instructed by professors from Princeton University and research scientists at the Smithsonian Tropical Research Institute.

Teaching & Mentoring Experience

Teaching

- 2024 Instructor, FWCE 330: Natural History of the Vertebrates, New Mexico State University. 36 students.
- Instructor, FWCE 431/535: Mammalogy, New Mexico State University. 19 undergraduate and 2 graduate students.
- 2018 – 2019 Teaching Assistant, NR 300: Biological Diversity, Colorado State University. ~190 students (2018) and ~200 students (2019). Instructor: Liba Pejchar.
- 2018 Teaching Assistant, FW 370: Design of Fish and Wildlife Projects, Colorado State University. ~60 students. Instructor: Lise Aubry.
- 2014 Teaching Assistant, WILD 480: The Upshot: Applied Wildlife Management, University of Montana. ~70 students. Instructor: Paul Krausman.
- 2013 Teaching Assistant, BIOO 101N: Montana Wildlife, University of Montana. ~60 students. Instructor: Joel Berger.

- 2012 Teaching Assistant, EEB 380: Ecology and Conservation of African Landscapes, Princeton University field course held at Mpala Research Centre, Kenya. ~10 students. Instructor: Corinna Riginos.

Guest Lectures/Workshops

- 2023 FWCE 330: Natural History of the Vertebrates, New Mexico State University.
Intro to GitHub workshop, Department of Fish, Wildlife and Conservation Ecology, New Mexico State University. Co-instructed with Erica Christensen.
- 2018 – 2020 NR 300: Biological Diversity, Colorado State University.
- 2020 BZ 330: Mammalogy, Colorado State University.
FW 455: Principles of Conservation Biology, Colorado State University.
- 2018 FW 370: Design of Fish and Wildlife Projects, Colorado State University.
- 2017 FW 104: Wildlife Ecology and Conservation, Colorado State University.
- 2014 – 2015 WILD 480: The Upshot: Applied Wildlife Management, University of Montana.

Graduate Students

- Aug 2024 – Present Taylor Pichler (MS student, Fish, Wildlife and Conservation Ecology, New Mexico State University): Interactive effects of bats and arthropods on shrub encroachment dynamics in the Chihuahuan Desert.
- Aug 2023 – Present Holly Whited (MS student, Fish, Wildlife and Conservation Ecology, New Mexico State University): Foraging ecology of nectar-feeding bats.
- Jan 2023 – Present Iona Rohan (MS student, Fish, Wildlife and Conservation Ecology, New Mexico State University): Influence of wind energy development on medium and large mammals. Co-advised by Jennifer Frey.
- Jan 2023 – Present Brandi Stevenson (MS student, Fish, Wildlife and Conservation Ecology, New Mexico State University): Immunology and water-seeking behaviors of desert-dwelling bats.

Graduate Student Committees

- March 2024 – Present Samuel Martinez (MS student, Fish, Wildlife and Conservation Ecology, New Mexico State University): Estimating kill rates and prey composition through cluster analysis of Mexican grey wolves and mountain lions in New Mexico and Arizona.
- Aug 2023 – Present Elizabeth Brock (MS student, Water Science and Management, New Mexico State University): Impacts of flow and water discharge variations of Rio Grande dams on macroinvertebrate community composition.
- Aug 2023 – Present Mark Peyton (PhD student, Biology, New Mexico State University): Influence of landscape-scale habitat disturbances on mountain lion habitat selection, foraging ecology, and intra-specific competition.
- Jan 2023 – Present Dylan Burruss (PhD student, Plant and Environmental Sciences, New Mexico State University): Carnivore-prey relationships along a grassland-to-shrubland gradient.

Mentorship

- 2024 – Present Matthew Becker (REU student, New Mexico State University): I am mentoring Matt with bat research conducted in Las Cruces and at the Jornada Basin

- Long-Term Ecological Research site. I am also overseeing Matt's role in leading the analysis and manuscript writing of a study focused on growth curves using a white-nosed coati data set.
- 2022 – Present Angelo Andrianiana (PhD student, University of Antananarivo): I am assisting Angelo with the analysis and manuscript writing of an extensive study on the ectoparasite communities of two of Madagascar's frugivorous bats— the Madagascar fruit bat and the Madagascar rousette.
- 2020 – Present & 2016 – 2017 Mallory L. Davies (PhD student, Colorado State University): I continue to mentor Mallory on her PhD question development and analysis. I trained and oversaw the fieldwork done by Mallory during parts of her first two field seasons (2020-2021) as a graduate student in the Stoner Lab. Mallory is relating weekly long-nosed bat population sizes with plant food availability in southwestern New Mexico. I have also helped guide her applications for additional funding. Previously, Mallory assisted with my PhD data collection in Namibia for five months after completing her undergraduate degree at the University of Montana. During that time, I supervised Mallory as she conducted the fieldwork for a project comparing the ectoparasite loads of different bat species. Mallory also contributed to several associated manuscripts written with entomologists that are currently published.
- 2019 – 2021 Jeanie Coffield (undergraduate, Colorado State University): I served as Jeanie's undergraduate honors thesis advisor. Using thermal videos, Jeanie and I (with the assistance of two other Colorado State University undergraduates) estimated the population size of long-nosed bats at an important day roost in southwestern New Mexico.
- 2018 – 2019 Elena M. Gratton (undergraduate, Colorado State University): Elena completed the laboratory portion of a bat ectoparasite study for independent study credit toward a minor in entomology. Like Mallory, Elena contributed to several associated manuscripts written with other entomologists that are currently published.
- 2016 Lina M. Mushabati (MSc student, University of Namibia): I had approached Seth Eiseb at the University of Namibia to recruit a Namibian student to join me in the field. This led to nine months of overlap between Lina and I conducting our graduate research together in northwestern Namibia. I oversaw Lina's fieldwork on the influence of elevation and temperature on echolocation behaviors of bats and am a coauthor on the associated manuscript.

Service & Outreach

Committees & Panels

- 2024 Search committee member for Chair of the Fish, Wildlife and Conservation Ecology Department, New Mexico State University.
- 2023 – Present Member of the Institutional Animal Care and Use Committee, New Mexico State University.
- 2023 – Present Co-coordinator (with Peter Taylor, University of the Free State) for southern African bat assessments for the International Union for the Conservation of Nature (IUCN) Red List.

- 2023 Participant in the Lesser Long-nosed Bat Post-Delisting Monitoring Plan Meeting, U.S. Fish and Wildlife Service.
- 2022 – Present Member of the Global Union of Bat Diversity Networks (GBatNet) Prioritizing Key Habitats and Species Conservation Working Group.
- 2021 – 2022 Member of the Diversity, Equity, and Inclusion Committee, Department of Ecology and Evolution, University of Chicago.
- 2020 – Present Member of the North American Bat Monitoring Program (NABat) Emergence/Summer Colony Count Working Group.
- 2017 – 2019 Planning committee member for the Northern Colorado & Wyoming chapter of Expanding Your Horizons—an annual STEM workshop for 6th through 8th grade girls.
- 2017 – 2018 Member of the Dr. David Otis Speaker Series Selection Committee, Colorado State University.
- 2017 Panel member for a National Science Foundation Graduate Research Fellowship Program Information Session, Colorado State University.
- 2013 – 2014 Graduate representative for the Population Ecology Search Committee, University of Montana.
- 2014 Graduate representative for the Department of Ecosystem & Conservation Sciences Student Evaluation Committee, University of Montana.

Popular Science Writing

- 2021 **Lavery, TM.** What drives desert bat activity and diversity? *Roan NEWS Magazine, Namibian Environment & Wildlife Society.*
- 2020 **Lavery, TM, Jimenez, MF, & Pejchar, L.** After the paper: Catalyzing dialogue about who should be advancing equity, diversity and inclusion on college campuses and beyond. *Nature Research Ecology & Evolution Community.* <https://natureecoevocommunity.nature.com/posts/catalyzing-dialogue-about-who-should-be-advancing-equity-diversity-and-inclusion-on-college-campuses-and-beyond>
- 2019 **Lavery, TM, Jimenez, MF, & Pejchar, L.** Behind the paper: How can we achieve diversity and inclusion in ecology? *Nature Research Ecology & Evolution Community.* <https://natureecoevocommunity.nature.com/channels/521-behind-the-paper/posts/49514-how-can-we-achieve-diversity-and-inclusion-in-ecology>
- 2018 **Lavery, TM.** Could bats guide humans to clean drinking water in places where it's scarce? *The Conversation.* <https://theconversation.com/could-bats-guide-humans-to-clean-drinking-water-in-places-where-its-scarce-90311>
- 2015 – 2016 **Lavery, TM.** Explorers Journal Blog for the National Geographic Society. <http://voices.nationalgeographic.com/author/tlavery/>

Public Talks

- 2024 **Lavery, TM, & Becker, MP.** Going batty! Asombro Institute Wildlife Wonders at the Park, Las Cruces, NM, USA.

- 2023 **Lavery, TM**, & Watson, WA. Flying creatures of the night: bats and owls in the Life on the wing: the biology of birds and bats series. Academy for Learning in Retirement, New Mexico State University, virtual.
- 2020 **Lavery, TM**. Unraveling desert communities: Studying the drivers of bat biodiversity in the Namib Desert. Bats Without Borders webinar, virtual. <https://youtu.be/p629XoaO4gE>
- 2019 **Lavery, TM**. The secret lives of bats: Adventures from the Chihuahuan Desert. Skype A Scientist sessions with classrooms in Leander, TX and Indianapolis, IN, USA.
- Lavery, TM**. The secret lives of bats: Adventures from the Chihuahuan Desert. Animas Middle and High School, Animas, NM, USA.
- 2018 **Lavery, TM**. From John Wesley Powell to African deserts – Water, bats, and biodiversity. Biodiversity Ignite Night, Fort Collins, CO, USA.
- 2016 – 2017 **Lavery, TM**. Bats of the Namib Desert. Wilderness Safaris' Hoanib Skeleton Coast Camp, Namibia.
- 2017 **Lavery, TM**. The secret lives of bats: Dark adventures from the Namib Desert. Front Range Teen Science Café, Fort Collins, CO, USA.
- 2016 **Lavery, TM**, & Curtis, A. Desert bats: Untangling the Namib's secrets. Earth Watch PSS Environmental Education Initiative, Swakopmund, Namibia.
- Lavery, TM**, & Curtis, A. Desert bats: Untangling the Namib's secrets. Namibian Environment and Wildlife Society, Windhoek, Namibia.

Public Television Features

- 2018 Could Bats Guide Humans To Water?: CSU Researcher Finds Out. *Conversation Starter, Rocky Mountain Public Broadcasting Station (PBS)*. https://www.youtube.com/watch?v=wg_Weynsgf0

Peer Review

- Grants: Bat Conservation International; National Geographic Society.
- Journals: *Acta Chiropterologica; Biological Conservation; Global Change Biology; Global Ecology and Biogeography; Herpetological Monographs; Human Dimensions of Wildlife; Journal of Bat Research and Conservation; Journal of Mammalogy; Mammal Review; PLOS ONE; Scientific Reports; Sustainability; Urban Ecosystems.*

Professional Development

- 2024 – 2025 NSF H.S.I. Institutional Transformation Project: NMSU-MÁS, Mejorando las Aulas en STEM/Improving STEM Classrooms, Las Cruces, NM, USA. Mentor: Wiebke Boeing.
- 2023 – 2024 Team Mentoring for Faculty New to NMSU, New Mexico State University Teaching Academy, Las Cruces, NM, USA. Instructors: Tara Gray & Rene Guillaume. Mentor: Ivette Guzmán.

- 2023 Red List Workshop for Old World Bats, African Small Mammal Symposium, Swakopmund, Namibia. Instructors: Dave Waldien & Ara Monadjem.
- SO Much Content–SO Little Time: Maximize Student Learning by Optimizing Your Class Time, New Mexico State University Teaching Academy, Las Cruces, NM, USA. Instructor: Kevin Yee.
- Developing and applying educational modules that link museums, biodiversity literacy, and emerging disease, International Mammalogical Congress, Anchorage, AK, USA. Instructors: Jocelyn Colella, Anna Monfils, & Alejandra Camacho.
- Using networked course-based undergraduate research experiences (CUREs) and open-access digitized collections to engage your students in mammalogy, International Mammalogical Congress, Anchorage, AK, USA. Instructors: Cecily Bronson, Practice Connors, Jennifer Duggan, Elizabeth Flaherty, Carly Jordan, Janice Krumm, Hayley Lanier, & Johanna Varner.
- 2022 Video Techniques for Tracking and Counting Bats, International Bat Research Conference, Austin, TX, USA. Instructors: Aaron Corcoran & Edward Hurme.
- Old World Bat Red List Assessment Workshop, International Bat Research Conference, Austin, TX, USA. Instructors: Dave Waldien, Justin Welbergen, & Paul Webala.
- A Crash Course in Managing Conservation Projects. North American Congress for Conservation Biology, virtual meeting. Instructor: Adam Barlow.
- 2020 Conservation Policy Crash-Course for Scientists, North American Congress for Conservation Biology, virtual meeting. Instructors: Michael Evans, Andrew Carter, & Jacob Malcom.
- 2019 Fundamentals of Structural Equation Modeling Course, Colorado State University's Graduate Degree Program in Ecology, Fort Collins, CO, USA. Instructor: James Grace.
- 2018 Introduction to Qualitative Data Collection and Analysis Workshop, North American Congress for Conservation Biology, Toronto, Canada. Instructors: Rebecca Thomas & Jessica Sparks.
- Translational Ecology Course, Southwest Climate Science Center, Tucson, AZ, USA. Instructors: Gregg Garfin, Steve Jackson, & Carolyn Enquist.
- 2017 Freshwater Health Index Applications and Implementation Workshop, International Congress for Conservation Biology, Cartagena, Colombia. Instructors: Helen Regan & Derek Vollmer.
- 2015 Communicating Science Workshop, University of Montana, Missoula, MT, USA. Instructor: Randy Olsen.
- 2014 Intro to GIS Course, Montana Chapter of the Society for Conservation Biology, Missoula, MT, USA. Instructor: Tara Chesley-Preston.
- Bayesian Population Analysis Course Using WinBUGS and JAGS, University of Montana, Missoula, MT, USA. Instructors: Marc Kéry & Michael Schaub.

Professional Affiliations & Memberships

- American Society of Mammalogists

- Society for Conservation Biology

- Association for Tropical Biology and Conservation
- Global South Bats
- North American Society for Bat Research
- The Wildlife Society
- Western Bat Working Group

Additional Skills & Certifications

- Software:** Proficient in Microsoft Office, R, GitHub, ArcGIS Pro, MARK, Kaleidoscope Pro, Sonobat.
- Field Skills:** Worked and camped extensively in remote locations and over demanding terrains. Proficient in 4WD, manual transmission, off-road driving. Able to navigate with a compass and/or GPS unit. Skilled with the use of acoustic detectors, camera traps, thermal cameras, and behavioral study methods (focal and scan sampling). Led extensive capture and handling field campaigns for bats—mist nets, harp traps, acoustic monitoring, bleeding, swabbing for disease, and PIT tagging. Participated in small and large mammal captures (bats, rodents, impala, cheetah, lion). Designed and carried out social science research (semi-structured interviews, online surveys) and plant phenology surveys.
- Languages:** Advanced understanding of Spanish. Working knowledge of Afrikaans, Malagasy, Rukiga, and Swahili.
- Certifications:** IUCN Red List Global and Regional Assessor (2023), Wilderness First Aid (2015, 2007), and PADI Open Water SCUBA Diver (2010).