Kristen Lear, PhD

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PROFESSIONAL HIGHLIGHTS

- Bat conservationist with over 15 years of experience developing impactful, equitable, and long-term solutions to • bat conservation challenges through community-based conservation, collaborative partnerships, interdisciplinary research, and public engagement and outreach.
- Demonstrated track record of establishing bat conservation projects in the U.S., Australia, and Mexico. .
- Have raised over \$4 million in funding for bat conservation since 2010 from funders such as private foundations, • non-profit organizations, government institutions, and international corporations.
- Passionate about increasing public awareness of bats and inspiring the next generation of bat scientists. Have ٠ given over 220 public presentations and educational workshops reaching over 35,000 people in person and 1.5 million people virtually; mentored 28 undergraduate and graduate students and 9 youth bat projects; and given over 30 presentations at scientific conferences.
- Media expert on bat conservation, landscape-scale restoration, and women in STEM topics for web/print media, radio, podcasts, and TV, including National Geographic, Scholastic Magazine, Popular Science, Snapchat, and CBS.

EDUCATION

PhD, Integrative Conservation and Forestry and Natural Resources

Warnell School of Forestry and Natural Resources, University of Georgia

Dissertation: "Bats, Agaves, and People: An Interdisciplinary Approach to the Conservation of Endangered Pollinating Bats in Northeast Mexico"

BA, Zoology

Department of Zoology, Ohio Wesleyan University

• Honors thesis: "The effect of bat houses on bat activity in pecan orchards AND Evening bat (Nycticeius humeralis) preference for bat house design"

CONSERVATION LEADERSHIP

Agave Restoration Program Director

Bat Conservation International (BCI)

- Lead a bi-national, large landscape-scale initiative to restore healthy ecosystems for endangered pollinating bats and rural livelihoods across the U.S. Southwest and Mexico. Have overseen the planting of over 102,000 native agaves across 9 U.S. and Mexican states and the restoration of 11,400 acres of degraded land.
- Direct strategic planning, workplan creation, and fundraising for the initiative. •
- Develop and coordinate multi-sectoral partnerships with over 65 partners including non-profits, government agencies, local communities, private landowners, special interest groups, universities, and industry across the U.S. and Mexico to achieve conservation and livelihood objectives.
- Support strategic relationships with donors, including private foundations, government agencies, and multilaterals. •
- Coordinate 3 regional agave restoration networks in the U.S. and Mexico. Have helped plan and lead 6 regional meetings to develop collaborative workplans and coordinate regional efforts.
- Spearheading the development of a novel approach for surveying for nectar-feeding bats through collection of • eDNA (environmental DNA) from food plants and hummingbird feeders and leading an eDNA citizen science program in the Southwest U.S., which has led to new state detections and range expansions for the endangered Mexican long-nosed bat (Leptonycteris nivalis).

Steering Committee

North American Pollinator Protection Campaign (NAPPC)

Provide strategic guidance for NAPPC, a collaborative body of more than 170 diverse partners including scientists, conservationists, government officials, and volunteers.

Human Dimensions of Bat Conservation Working Group Member

IUCN Species Survival Commission Bat Specialist Group

Assisted with a project to understand the drivers and barriers that influence uptake of field hygiene practices by • bat experts while working with bats in the field.

08/2014 - 06/2020

08/2007 - 05/2011

07/2020 – Present

01/2025 – Present

11/2021 – Present

Steering Committee; Co-Founder

Northeast Mexico Agave Restoration Network

• Guide strategic planning and fundraising for on-the-ground bat conservation and agave restoration actions with 60 partner organizations and local communities.

Co-Founder; Secretary

Nivalis Conservation Network

- Coordinate a network of U.S. and Mexican researchers, NGO staff, and government agencies to identify priority conservation and research activities for the endangered Mexican long-nosed bat.
- Coordinated the preparation and publication of the *L. nivalis* Species Status Assessment (2018) and Recovery Plan (2024) in collaboration with the U.S. Fish and Wildlife Service.

Strategic Advisor for Bat Conservation International's Agave Restoration Initiative

Bat Conservation International (BCI)

- Disseminated my PhD research findings to BCI and incorporated research findings into BCI's agave restoration planning for northeast Mexico.
- Connected BCI to local NGOs and researchers working on nectar-feeding bats and agave restoration.

Founder and Project Leader

Athens Bat Connection and Bulldogs for Bats; Athens, Georgia

- Spearheaded 2 local bat conservation initiatives to raise public awareness of bat conservation.
- Built and installed 22 bat houses, with 4 houses serving as regular roost sites for Big brown bats (*Eptesicus fuscus*) since their installation.
- Engaged 30 local Girl Scouts and undergraduate students through bat house building workshops.
- Mentored 8 undergraduate students to create educational materials, including a program website and Storymap.

Co-Organizer

Colloquium "Conservación de Murciélagos Polinizadores del Noreste de Mexico (Conservation of Pollinating Bats of Northeast Mexico)"; Monterrey, Nuevo León, Mexico

• Helped plan and lead a public colloquium on pollinating bats and their conservation for Protected Area managers, environmental NGOs, and communities from northeast Mexico.

Bat Conservation Intern

Especies, Sociedad y Hábitat, A.C., Monterrey, Nuevo León, Mexico

- Participated in bat conservation and monitoring activities including cave surveys and mist netting for the endangered Mexican long-nosed bat.
- Created training documents and a PowerPoint for a Protected Area manager training program on the use of mist nets and acoustic detectors for bat surveys (in Spanish).

RESEARCH EXPERIENCE

PhD Dissertation Research

University of Georgia, Athens, Georgia; Nuevo León and Coahuila, Mexico

• My research integrated ecological field research, ethnoecological analysis, and livelihoods approaches to understand synergies and trade-offs between conservation of the endangered Mexican long-nosed bat (*Leptonycteris nivalis*) and rural livelihoods in northeast Mexico.

U.S. Fulbright Scholar

Naracoorte Caves National Park, South Australia

- Developed an automated bat colony counting technique using infrared cameras and missile tracking software for the Critically Endangered Southern bent-wing bat (*Miniopterus schreibersii bassanii*). Conducted 106 nightly emergence counts, providing more accurate baseline population numbers for use in determining species recovery.
- Led an extensive winter survey of 37 known over-wintering caves in South Australia, including securing access permission from landowners, coordinating over 50 volunteers, and analyzing count data.
- Identified 2 key monitoring needs for the Southern bent-wing bat that were included as Priority Actions in the species' National Recovery Plan (2020).

10/2015 – Present

ion.

08/2017 - 07/2020

10/2019 - 07/2020

05/2015 - 07/2015

05/2018 - 07/2018

08/2011 – 11/2012

08/2014 - 06/2020

Honors Thesis Research

Ohio Wesleyan University, Delaware, Ohio; San Saba, Texas

Designed and implemented an independent project to determine species preferences in bat house design by building and installing 18 bat houses and monitoring activity with thermal imaging cameras. Identified the rocket box design as the most effective design for Evening bats (Nycticeius humeralis).

Field Research Assistant

05/2009 - 08/2009; 05/2010 - 08/2010 Project: Ecology, roosting and foraging behavior, and ecosystem services of North American bats in a pecan agroecosystem; San Saba, Texas

Assisted with nightly bat surveys; tracked bats with radio telemetry; conducted vegetation and roost surveys; and • completed an independent project monitoring foraging behavior near bat houses.

COMMUNITY ENGAGEMENT AND OUTREACH

IF/THEN® Ambassador

American Association for the Advancement of Science and Lyda Hill Philanthropies

- Selected among 125 women in STEM from across the United States to serve as role models for middle school girls to encourage interest in STEM careers.
- Received 2 IF/THEN® grants to support development of bat-focused educational programming that to date has • reached 5,750 girls.
- Featured on CBS's TV show, "Mission Unstoppable", about women in STEM.

National Geographic Explorer

- Presented my research on the National Geographic stage at the 2019 Explorers Festival in Washington, D.C.
- Have reached over 1,000 K-12 students across the U.S. and Canada through Explorer Classroom sessions and • Explorer Academy outreach events.

Bat Workshop Presenter

Have led over 220 bat educational programs for the public, including presentations, guided bat walks, bat house • building workshops, and festival activities, reaching over 35,000 people in person and 1.5 million people virtually.

Bat Project Mentor

- Provide field training, data analysis training, and publication support to undergraduate and graduate students. •
 - Mentor K-12 students and Girl Scout troops on the development of their bat projects.
- Have mentored 28 undergraduate and graduate students and 9 youth bat projects. •

K-12 and Informal Lesson Plan Developer

"Discover Bats! Discover STEM!" Project

Led the development of a bat-focused educational curriculum at BCI, including creation of 21 K-12 lesson plans aligned with Next Generation Science Standards and Texas Essential Knowledge and Skills.

"I Am A Scientist" Program

- Selected as a featured scientist from Bat Conservation International for the "I Am A Scientist" program.
- Helped create a standards-aligned STEM "Spark Kit" about my bat research for middle school classes.

Science Delivered!

Collaborated with Science Delivered! to create a standards-aligned lesson plan about bat-inspired inventions for middle school classes.

Media Expert

- Write articles and serve as a content expert and contributor for bat conservation, landscape-scale restoration, and women in STEM topics to media outlets including articles, radio shows, podcasts, and TV.
- Have written, contributed to, or appeared in over 125 pieces for international, national, and local media. •

SELECT AWARDS AND GRANTS

- 2025 IUCN Reverse the Red Accelerator Award Finalist (final selection in September 2025) 2025 U.S. Fish and Wildlife Service Recovery Champion Award for work to recover the Mexican long-nosed bat 2025 Selected as a COMPASS Pathfinders Conservation Leader 2024 Nominated for Indianapolis Prize Emerging Conservationist Award 2024 Selected for Center for Collaborative Conservation Fellows Program
- 2023 Selected for Salazar Center for North American Conservation Peregrine Accelerator for Conservation Impact
- Selected for the International Land Conservation Network Academy 2023
- 2023 Endangered Species Act at 50 Award for BCI's Agave Restoration Initiative

04/2018 – Present

06/2019 – Present

05/2009 – Present

09/2016 – Present

01/2018 – Present

06/2023 – Present

03/2020 – Present

01/2018 - 06/2018

04/2010 - Present

- 2022 AAAS IF/THEN[®] She is Changing the World Grant for women in STEM
- 2020 AAAS IF/THEN[®] Ambassador Engagement Mini-Grant for women in STEM
- 2020 Association for the Study of Animal Behaviour Public Engagement Grant
- 2020 J. Peter Brosius Integrative Conservation Research Award

2018 National Geographic Society Early Career Grant

- 2018 Rufford Foundation 2nd Small Grant
- 2018 Garden Club of America Centennial Pollinator Fellowship
- 2018 P.E.O. International Scholar Award
- 2018 Campus Sustainability Grant, University of Georgia
- 2017 Phoenix Zoo Conservation Fund Grant
- 2017 Rufford Small Grant
- 2017 Bat Conservation Trust Kate Barlow Award
- 2017 Idea Wild Equipment Grant
- 2016 Disney Conservation Fund Grant (Co-Principal Investigator)
- 2016 Explorers Club Exploration Fund Grant
- 2016 Bat Conservation International Small Grant
- 2016 Ecological Society of America Graduate Student Policy Award
- 2016 Mortar Board Ruth Weimer Mount Fellowship
- 2016 Ecological Society of America Graduate Student Policy Award
- 2016 NASA-MSU Professional Enhancement Award
- 2015 Innovative and Interdisciplinary Research Grant, University of Georgia Graduate School
- 2015 Tinker Graduate Field Research Award, University of Georgia Latin American and Caribbean Studies Institute
- 2014-19 National Science Foundation Graduate Research Fellowship
- 2014 Excellence in Graduate Recruitment Fund Top-up Award, University of Georgia
- 2014-16 Graduate School Assistantship, University of Georgia
- 2011 U.S. Fulbright Postgraduate Scholarship (Australia): Developing an Automated Counting System for Conservation of the Southern Bent-wing Bat
- 2010 Barry M. Goldwater Scholarship, Honorable Mention
- 2010 Ohio Wesleyan University Theory to Practice Grant: Species Preferences in Bat House Design: Implications for Bat Conservation and Ecosystem Services

PUBLICATIONS

- Lear, K., Burke, R., Mann, B., Riley, A., Sanchez, D., Walker, F. Mexican long-nosed bat (*Leptonycteris nivalis*) range expansion in New Mexico detected through eDNA and implications for conservation. *Western Wildlife*, (In Prep).
- Riley, A., Sanchez, D., Lear, K., Burke, R., Mann, B., Walker, F. Hummingbird feeders provide eDNA for detection of nectar-feeding bats. *Environmental DNA*, (In Review).
- Lear, K.M., Moore, C.T., King, E.G., Gómez-Ruiz, E., Flores Maldonado, J.J., Ibarra Sanchez, C., Castañeda Aguilera, A., Prebyl, T.J., & Hepinstall-Cymerman, J. (2024). Agave distribution and floral display influence foraging rates of an endangered pollinating bat and implications for conservation. *Ecology and Evolution*, 14(3): e11125.
- Frick, W.F., de Wit, L.A., Ibarra, A., Lear, K., & O'Mara, M.T. (2024). Conserving bats and their foraging habitats. In *A natural history of bat foraging* (pp. 305-325). Academic Press.
- Walker, F.M., Sanchez, D.E., Froehlich, E.M., Federman, E.L., Lyman, J.A., Owens, M., & Lear, K. (2022). Endangered Nectar-Feeding Bat Detected by Environmental DNA on Flowers. *Animals*, 12(22): 3075.
- DePuy, W., Weger, J., Foster, K., Bonanno, A.M., Kumar, S., **Lear, K.,** Basilio, R., & German, L. (2022). Environmental governance: Broadening ontological spaces for a more livable world. *Environment and Planning E: Nature and Space*, 5(2): 947-975.
- Torres, A., Brandt, J., Lear, K., & Liu, J. (2017). A looming tragedy of the sand commons. Science, 357(6355): 970–971.
- Roche, E.A., Brown, C.R., Brown, M.B., & Lear, K.M. (2013). Recapture Heterogeneity in Cliff Swallows: Increased Exposure to Mist Nets Leads to Net Avoidance. *PLoS ONE*, 8(3): e58092.

SELECT MEDIA OUTREACH

• Network for Landscape Conservation. Perspectives: Landscape Conservation in Action. <u>"Insights and reflections</u> from Bat Conservation International's Agave Restoration Initiative, a bi-national landscape-scale initiative to save biodiversity and support rural livelihoods." (2025). Author.

- Smithsonian Magazine. <u>"Scientists Confirm Endangered Bats Are Migrating in Arizona for the First Time, Using DNA</u> <u>Clues Found in the Environment.</u> (2025). Appearance.
- *Pathful*. Virtual Job Shadow Video. <u>"Bat Conservationist."</u> (2025). Appearance.
- North American Pollinator Protection Campaign. Pollinator Conservation Spotlight Series. <u>"Agave Restoration</u> Initiative of Bat Conservation International." (2024). Author.
- *SciAll.org*. SciWomen Origin Stories. <u>"A SciWomen Origin Story: Kristen Lear, The Girl Scout Turned Bat Scientist!"</u> (2024). Appearance.
- *Discovery Education*. STEM Careers Coalition. <u>"Career Profiles: Bat Conservationist."</u> (2023). Appearance.
- National Geographic Magazine. <u>"Bats and agaves make tequila possible and they're both at risk."</u> (2023). Content Expert.
- Yale e360. <u>"How Preserving Agave Could Help Save an Endangered Bat."</u> (2022). Content Expert.
- Beautiful News. <u>"This bat conservationist is signalling a new era for women in STEM."</u> (2022). Appearance.
- Popular Science. <u>"Turn your backyard into an awesome hangout for bats."</u> (2022). Content Expert.
- Snap Originals. Planet Rewild. "Episode 5: Keystone Species." (2022). Appearance and Content Expert.
- Public News Service. <u>"Mixologists Beware: NM Bat Among 10 Species Imperiled by Climate Change.</u>" (2022). Content Expert.
- Texas Highways Magazine. <u>"Hocus Pocus: The Magical Resilience and Enduring Utility of Big Bend's Prickly Plant</u> Life." (2022). Content Expert.
- Bat Conservation International. Bats Magazine. <u>"I Am A Scientist."</u> (2022). Appearance.
- National Geographic Kids. "Bat Myths Busted!" (2021). Content Expert.
- Scholastic MATH. "The Wild World of Bats." (2021). Content Expert.
- Current Conservation. <u>"Agaves give us life: Restoring agaves for bats and people."</u> (2021). Author.
- Dallas Zoo. "This is What a Scientist Looks Like" mural exhibit. (2021). Appearance.
- Scholastic. Virtual Event. <u>"Spooky or Smart? Exploring Animal Adaptations with Dr. Kristen Lear.</u>" (2021). Content Expert and Appearance.
- The Marvels of Science Podcast. <u>"New Bat Channel."</u> (2021). Appearance.
- *Mission Unstoppable*. Science 'N Stuff Twitch Series. <u>"How Can You Help Save Bats?"</u> (2021). Appearance.
- *Mission Unstoppable*. Science 'N Stuff Twitch Series. <u>"Celebrating STEM Day: Bats, Fossils, Astrophysics, Special Makeup, and More!"</u> (2021). Appearance.
- *Lifeology*. <u>A-Z STEM Careers online course.</u> (2021). Content Expert and Appearance.
- Untold Stories of Innovation Podcast. "Dispelling Myths Through Science and Storytelling." (2021). Appearance.
- *Girl Scouts of Western Ohio*. Blog. <u>"7 Ways to Help Bats This Earth Day."</u> (2021). Author.
- *Reach the World.* Women of the Explorers Club. <u>"To the Bat Cave! Exploring to Save a Species."</u> (2021). Author.
- JKX Comics. <u>"Batty About Agave."</u> (2021). Content Expert.
- Science Delivered!. <u>Women in STEM Trading Cards.</u> (2021). Appearance.
- National Geographic. Nat Geo Explores. <u>"Why Bats Aren't as Scary as You Think."</u> (2020). Appearance.
- *Wow in the World*. Scientists Who Wow! <u>"Protecting bats with Scientist Kristen Lear!</u>" (2020). Appearance.
- Solve It! For Kids Podcast. <u>"How Can Kids Help Bats?"</u> (2020). Appearance.
- National Geographic. <u>"Mezcal is more popular than ever—why that's bad news for bats."</u> (2020). Content Expert.
- Smore Magazine. <u>"Kristen Lear: Bat Conservationist."</u> (2020). Author.
- SpaceBus Podcast. <u>"Episode 23: Hanging with Bats w/ Dr. Kristen Lear."</u> (2020). Appearance.
- International Dark Sky Association. <u>"Bat Week: Shedding (Some) Light on Bats."</u> (2020). Author.
- *CBS*. Mission Unstoppable. <u>"Season 1 Episode 9: Saving a Species."</u> (2019). Appearance.
- National Geographic Society Blog. <u>"Explorers Who Are Turning Bat Perceptions Upside Down"</u>. (2019). Appearance.
- National Geographic Magazine. Women of Impact. <u>"We asked women around the world these 6 provocative questions."</u> (2019). Appearance.
- American Association for the Advancement of Science. Member Spotlight. <u>"Scientist Kristen Lear Takes Bats Under</u> <u>Her Wing."</u> (2019). Appearance.
- University of Georgia Sustainable UGA. Sustainability Spotlight. <u>"Saving a Species: Kristen Lear's Bat House Habitat</u> <u>Grant Project."</u> (2018). Appearance.
- Texas A&M University. Applied Biodiversity Science Perspectives Series. <u>"Navigating Muddy Waters: Working at</u> the Interface of Integrative Research, Conservation Practice, and Cultures." (2017). Author.
- Mini documentary. <u>"En búsqueda del murciélago magueyero (Looking for the Mexican long-nosed bat)."</u> (2017). Appearance.
- Bat Conservation International. BCI Blog. <u>"It Takes a Village."</u> (2017). Author.

- Bat Conservation International. BCI Blog. "Mentoring Tomorrow's Bat Champions." (2017). Author.
- ABC South East South Australia Radio. Mornings Series. (2012). Appearance.
- ABC South East South Australia Radio. Breakfast Series. "Kristen Lear Bat Girl." (2012). Appearance.
- ABC South East South Australia Radio. "Kristen Lear on Bat Research." (2012). Appearance.
- *Ohio Wesleyan University*. OWU Magazine. <u>"Spreading Her Wings."</u> (2011). Author.

SELECT PRESENTATIONS

- Lear, K. (2025). Insights and reflections from Bat Conservation International's Agave Restoration Initiative. *Network* for Landscape Conservation Webinar Series. (invited speaker)
- Lear, K. (2024). Conservation of an agave corridor for bats and people: Agave restoration in the American Southwest and Mexico. *Malpai Borderlands Group Science Conference*. (presentation)
- Lear, K. (2024). Building collaborative networks to expand from conservation pilots to a large landscape-scale initiative: Restoration of a climate-resilient agave corridor for bats and people. *Colorado State University Seminar Series.* (invited speaker)
- Lear, K. (2023). How to expand from community-based conservation pilots to a large-scale landscape conservation program: Conservation of an agave corridor for bats and people in northeast Mexico. *International Land Conservation Network Summer Institute*. (invited speaker)
- Lear, K. (2023). Restoring agaves for pollinating bats and people. Chihuahuan Desert Conference. (keynote speaker)
- Lear, K. & Ibarra, A. (2023). De un programa piloto de conservación basado en las comunidades a un programa de conservación a gran escala: Conservando el corredor de agaves para los murciélagos y las comunidades. XIX Simposium Taller Nacional y XII Internacional de Producción y Aprovechamiento de Nopal y Maguey. (invited speaker)
- Lear, K., Stoner, K., Davies, M. (2023). Assessing the status, distribution, movement corridors, and foraging habitat requirements of nectar bats in New Mexico through eDNA, PIT tagging, and diet analysis. *New Mexico Bat Working Group Meeting.* (presentation)
- Lear, K., Flanders, J., Pierson, K., Taylor, D., & Ibarra, A. (2022). Recognizing the importance of community livelihoods in advancing conservation measures for endangered pollinating bats. In symposium: How does Human Dimensions research advance bat conservation? *International Bat Research Conference*. (invited speaker)
- Lear, K. Bayless, M., Flanders, J., Ibarra, A., Pierson, K., & Taylor, D. (2021). Bat Conservation International's Agave Restoration Initiative: Protecting and Enhancing Critical Habitat to Protect Endangered Pollinating Bats and Community Livelihoods. In panel: "Bats." Anthropology and Conservation Conference. (invited speaker)
- Lear, K. (2020). Restoring native Texas agaves for endangered pollinating bats. *Trans-Pecos Conservation Partners Seminar*. (presentation)
- Lear, K. (2019). Questioning assumed trade-offs in agave use by bats and people in northeast Mexico, and implications for bat conservation efforts." *National Bat Conference of the Bat Conservation Trust*. (invited speaker)
- Lear, K., Hepinstall-Cymerman, J., King, E., German, L., Welch-Devine, M., Gomez-Ruiz, E., & Flores-Maldonado, J. (2018). Key ecological and social considerations for implementing agave restoration for nectar-feeding bats in northeast Mexico. *48th North American Symposium for Bat Research*. (presentation)
- Lear, K. (2018). Bats, agaves, and people: Joining bat conservation and rural livelihoods in Mexico. *National Bat Conference of the Bat Conservation Trust*. (invited speaker)
- Lear, K., German, L., Welch-Devine, M., Hepinstall-Cymerman, J., & King, E. (2018). An ethnobotanical analysis of agave harvest and management and the implications for bat conservation in northeast Mexico. *Integrative Conservation Conference*. (presentation)
- Lear, K. & Hepinstall-Cymerman, J. (2015). Landscape approaches to modeling cross-boundary ecosystem services: Introduction and proposed project with migratory bats. 9th International Association for Landscape Ecology World Congress. (presentation)

OTHER PROFESSIONAL SERVICE

Conference Organization:

- Symposium co-organizer, "Educating the Interdisciplinary Ecologist: Creating Educational Ecosystems to Help PhD Students Succeed, Get Hired, and Push Boundaries," Ecological Society of America Annual Meeting. (2015). (invited)
- Symposium principal organizer and speaker, "Landscape Approaches to Modeling Cross-boundary Ecosystem Services," International Association for Landscape Ecology World Congress. (2015).

Reviewer:

• Manuscript reviewer for Journal of Mammalogy; Human Ecology