

NEIL A. GILBERT

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Appointments

Assistant Professor of Ecology Oklahoma State University, Department of Biology	2024– Stillwater, OK
Postdoctoral Research Fellow Michigan State University, Department of Integrative Biology	2022–2024 East Lansing, MI

Education

PhD Wildlife Ecology University of Wisconsin–Madison	2022 Madison, WI
MS Biological Sciences University of Alabama	2018 Tuscaloosa, AL
BS Biology, BA Spanish Calvin College	2014 Grand Rapids, MI

Publications

* = shared first authorship; Underline = Gilbert Lab member

In review or revision

37. **Gilbert, N.A.**, R.C. Lonsinger, S.R. Loss, K.C. Gurin, et al. [96 authors total]. In review. Synergistic effects of cats and urbanization on wildlife. *Science*.
36. V.R. Gunasekara, B.P. McLaughlin, S.N. Miller, **N.A. Gilbert**. In review. Abundant-center patterns change over time. *Ecology Letters*.
35. Torres, K.M., V. R. Gunasekera, K.M. Godfrey, I.T. Grosner, B.P. McLaughlin, L.R. Benedict, L.J. Cheeley, K.W. Capossere, H. Holiman, K.C. Gurin, C.A. Witthuhn, C. Sweet, B.S. Pease, **N.A. Gilbert**. In review. Clouds modulate light-pollution effects on avian behavior. *Science of The Total Environment*.
34. Pease, B.S., **N.A. Gilbert**. In review. birdweather: An R package for accessing and analyzing BirdWeather acoustic and environmental data. *Journal of Open Source Software*.
33. Hessler, G., S. Ma, **N.A. Gilbert**, D. DeAngelis, L. Zhai, B. Zhang. In review. Climate warming patterns predict potential residency shifts. *Diversity and Distributions*.
32. Shaw, K.M., **N.A. Gilbert**, P.F.B. Ferguson. In revision. Are Evening Point Counts Useful? Differences in Availability and Detection Probability Contribute to Differences in Occupancy Estimates between Morning and Evening Point Count Surveys. *Wilson Journal of Ornithology*.
31. Linley, G.D., **N.A. Gilbert**, D.G. Nimmo, C.J. Jolly, M.S. Luskin, C.L. McAuley, E.I.F. Wooster. In review. Fire reshapes the spatiotemporal niche. *Fire Ecology*.

Published

30. **Gilbert, N.A.**, P.J. Williams, D.J. Carlson, R.M. Dunlap, M. Worland, C.S. Jennelle, E.F. Zipkin. 2026. Limited capacity of habitat features to buffer grassland bird declines. *Ecological Applications* 36(5):e70298.

29. **Gilbert, N.A.**, M.A. Beatty, H.D. Bridgewater. 2026. Limited evidence that interspecific nest-site competition and facilitation drive range limits. *Global Ecology and Biogeography* 35(7):e70288.
28. **Gilbert, N.A.***, B.S. Pease*, M. Severino, H. Winter III. 2026. Photic niche explains behavioral responses to solar eclipses. *Ecology and Evolution* 16(2):e73090.
27. **Gilbert, N.A.**, N. Queally, J.C. Cooper, H.N. Eyster, P.J. Williams. 2026. Heterogeneity, productivity, and migration drive continental evenness patterns of bird assemblages. *Global Ecology and Biogeography* 35(2):e70205.
26. Gerber, B.D., **N.A. Gilbert**. 2026. Individual-based monitoring is critical for small populations. *Biodiversity and Conservation* 35:53.
25. B.S. Pease*, **Gilbert, N.A.***. 2025. Light pollution prolongs avian activity. *Science* 389(6762):818–821. **Press coverage:** Top 5% of all research outputs scored by Altmetric, including appearances in NPR, *Washington Post*, *The Hindu*, and many others.
24. Gurney, S., S. Christensen, M. Nichols, C. Stewart, D. Williams, S. Mayhew, **N.A. Gilbert**, D. Etter. 2025. Harvest restrictions fail to influence population abundance. *Ecosphere* 16(8):e70358.
23. **Gilbert, N.A.**, R.C. Bell, A. Catenazzi, R.A. Martins, S. Buttner, W.J. Neely, C. Lambertini, V. Saenz Calderon, C.F.B. Haddad, C.G. Becker, G.V. DiRenzo. 2025. Reproductive habitat mismatch influences chytrid infection dynamics in a tropical amphibian community. *Global Ecology and Conservation* 60(2025):e03599.
22. **Gilbert, N.A.**, D.M. Dominoni. 2025. Robust analysis of diel activity patterns. *Journal of Animal Ecology* 94(2):172–174.
21. Ayebare, S., **N.A. Gilbert**, A.J. Plumptre, S. Nampindo, E.F. Zipkin. 2025. Improving population analysis using indirect count data: a case study of chimpanzees and elephants in western Uganda. *Ecosphere* 16(2):e70150.
20. **Gilbert, N.A.**, G.V. DiRenzo, E.F. Zipkin. 2025. Idiosyncratic spatial scaling of biodiversity–disease relationships. *Ecography* 2025(5):e07541. **Editor's Choice.**
19. **Gilbert, N.A.**, S.R. Kolbe, H.N. Eyster, A.R. Grinde. 2024. Can internal range structure predict range shifts? *Journal of Animal Ecology* 93(10):1556–1566.
18. **Gilbert, N.A.**, C.M. Blommel, M.T. Farr, D.S. Green, K.E. Holekamp, E.F. Zipkin. 2024. A multispecies hierarchical model to integrate count and distance sampling data. *Ecology* 105(7):e4326.
17. **Gilbert, N.A.**, B.R. Amaral, O.M. Smith, P.J. Williams, S. Ceyzyk, S. Ayebare, K.L. Davis, W. Leuenberger, J.W. Doser, E.F. Zipkin. 2024. A century of statistical *Ecology*. *Ecology* 105(6):e4283.
16. Pease, B.S., **N.A. Gilbert**, W.R. Casola, K. Akamani. 2023. The Steller's Sea-Eagle in North America: an economic assessment of birdwatchers traveling to see a vagrant raptor. *People and Nature* 5(6):1937–1947. **Press coverage:** *Hakai*
15. **Gilbert, N.A.**, H.N. Eyster, E.F. Zipkin. 2023. Propagating uncertainty in ecological models to understand causation. *Frontiers in Ecology and the Environment* 21(3):114–115.
14. **Gilbert, N.A.**, K.A. McGinn, L.A. Nunes, A.A. Shipley, J. Bernath-Plaisted, J.D.J. Clare, P.W. Murphy, S.R. Keyser, K.L. Thompson, S.B. Maresh Nelson, J.M. Cohen, I.V. Widick, S.L. Bartel, J.L. Orrock, B. Zuckerberg. 2023. Daily activity timing in the Anthropocene. *Trends in Ecology and Evolution* 38(4):324–336.
13. **Gilbert, N.A.**, J.L. Stenglein, J.N. Pauli, B. Zuckerberg. 2022. Human disturbance compresses the spatiotemporal niche. *PNAS* 119(52):e22-6339119. **Press coverage:** *New York Times*

12. **Gilbert, N.A.**, N.M. Anich, M. Worland, B. Zuckerberg. 2022. Microclimate complexities at the trailing edge of the boreal forest. *Forest Ecology and Management* 524:120533.
11. Zuckerberg, B., J.D. McCabe, **N.A. Gilbert**. 2022. Antipredator behaviors in urban settings: Ecological experimentation powered by citizen science. *Ecology and Evolution* 12(9):e9269.
10. **Gilbert, N.A.**, J.L. Stenglein, T.R. Van Deelen, P.A. Townsend, B. Zuckerberg. 2022. Behavioral flexibility facilitates use of spatial and temporal refugia during extreme winter weather. *Behavioral Ecology* 33(2): 446–454.
9. Townsend, P.A., J.D.J. Clare, N. Liu, J.L. Stenglein, C.M. Anhalt-Depies, T.R. Van Deelen, **N.A. Gilbert**, A. Singh, K.J. Martin, B. Zuckerberg. 2021. Snapshot Wisconsin: networking community scientists and remote sensing to improve ecological monitoring and management. *Ecological Applications* 31(8):e02436.
8. **Gilbert, N.A.**, B.S. Pease, C.M. Anhalt-Depies, J.D.J. Clare, J.L. Stenglein, P.A. Townsend, T.R. Van Deelen, B. Zuckerberg. 2021. Integrating harvest and camera trap data in species distribution models. *Biological Conservation* 258:109147.
7. **Gilbert, N.A.**, J.D.J. Clare, J.L. Stenglein, B. Zuckerberg. 2021. Abundance estimation of unmarked animals based on camera-trap data. *Conservation Biology* 35(1):88–100.
6. Zuckerberg, B., J.M. Cohen, L.A. Nunes, J. Bernath-Plaisted, J.D.J. Clare, **N.A. Gilbert**, S.S. Kozidis, S.B. Maresh Nelson, A.A. Shipley, K.L. Thompson, A. Desrochers. 2020. A review of overlapping landscapes: pseudoreplication or a red herring in landscape ecology? *Current Landscape Ecology Reports* 5:140–148.
5. **Gilbert, N.A.** and P.F.B. Ferguson. 2019. Landscape patterns associated with occupancy of disturbance-dependent birds in the Blackland Prairie Ecoregion of Alabama and Mississippi. *Southeastern Naturalist* 18(3):381–404.
4. **Gilbert, N.A.** and P.F.B. Ferguson. 2019. Disturbance, but not the right kind: exurban development does not create habitat for shrubland birds. *Wilson Journal of Ornithology* 131(2):243–259.
3. **Gilbert, N.A.**, H.E. Horne, J.A. Trent. 2019. The Painted Bunting (*Passerina ciris*) breeds in central Alabama and eastern Mississippi. *Wilson Journal of Ornithology* 131(1):147–152.
2. **Gilbert, N.A.**, M.R.A. Eshleman, A.E. Janik, K.L. Kauffman, J.B. LaPergola. 2018. A rare observation of White-collared Swift (*Streptoprocne zonaris*) breeding activity on Hispaniola. *Journal of Caribbean Ornithology* 31:12–16.
1. Pope, W.C., ...**N.A. Gilbert**,...G.F. Hatfull (2,863 authors total). 2015. Whole genome comparison of a large collection of mycobacteriophages reveals a continuum of phage genetic diversity. *eLife* 2015:4e06416.

Funding and Awards (amounts in USD)

Research Grants

Pending

\$350,000	N.A. Gilbert (PI) , R.C. Lonsinger (co-PI). Status of the black-tailed prairie dog in Oklahoma: integrated approach. Oklahoma Department of Wildlife Conservation. <i>To be submitted in December 2026</i>	In prep
\$1,033,680	N.A. Gilbert (PI) , B.S. Pease (co-PI). Macrobehavior: a neo-synthesis of behavioral ecology and macroecology. National Science Foundation. <i>To be submitted in October 2026 (second submission)</i>	In prep

\$110,000	S.R. Loss (PI), N.A. Gilbert (co-PI), T.J. O'Connell (co-PI), L. Zhai (co-PI). Red-cockaded Woodpecker Cluster Assessment on the Ouachita National Forest and McCurtain County Wilderness Area. Oklahoma Department of Wildlife Conservation. <i>In review, submitted June 2026</i>	In review
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Awarded

\$ 275,000	Gilbert, N.A. (PI), S.R. Loss (co-PI), T.J. O'Connell (co-PI), B. Bachelote (co-PI), Torre J. Hovick (co-PI), Justin R. Clark (co-PI). Monitoring Bird Communities at Parks in the Northern Great Plains. National Park Service.	2026
\$ 129,384	Gilbert, N.A. (PI), S.R. Loss (co-PI), T.J. O'Connell (co-PI), D.W. Londe (co-PI). Survey of Wading Bird Nesting Colonies in Oklahoma with Little Blue Heron and Snowy Egret as Target Species of Greatest Conservation Need. Oklahoma Department of Wildlife Conservation.	2026
\$ 120,512	Gilbert, N.A. (PI), S.R. Loss (co-PI), T.J. O'Connell (co-PI). Mountain Plovers in Oklahoma: Assessment of Distribution, Population Size, and Reproductive Success. Oklahoma Department of Wildlife Conservation.	2025
\$ 1,000	Animal Behavior Society	2020
\$ 600	Sea and Sage Audubon Society	2017
\$ 1,500	Pasadena Audubon Society	2017
\$ 1,165	Birmingham Audubon Society	2017

Fellowships, Scholarships, Travel Awards

\$ 138,000	NSF Postdoctoral Research Fellowship in Biology	2022–2024
\$ 28,000	Thomsen Wisconsin Distinguished Graduate Fellowship	2021–2022
\$ 1,000	McCabe-Keith Award, University of Wisconsin-Madison	2021
\$ 2,000	New Student Scholarship, University of Wisconsin-Madison	2018
\$ 2,500	Inge and Ilouise Hill Research Fellowship	2017
\$ 2,000	Hazel Holtrop Natural Resources Scholarship	2012–2013
\$ 10,000	Calvin College Presidential Scholarship	2010–2014
\$ 2,500	Calvin College Heart and Mind Scholarship	2010–2012
\$ 1,000	Los Angeles Society for Coatings Technology Scholarship	2010–2014
\$ 4,190	Cumulative sum of 10 travel awards from 9 organizations	2008–2023

Honors

<i>Hargis Fellowship Residency</i> , Doel Reed Center for the Arts	2025
<i>Best Dissertation Award</i> , UW–Madison Department of Forest and Wildlife Ecology	2023
<i>Rising Star Award</i> , <i>Conservation Biology</i>	2021
<i>Best Graduate Student Talk</i> , Wisconsin Chapter of The Wildlife Society	2020
<i>Outstanding Teaching by a Graduate Student</i> , University of Alabama	2018

Prior Research Experience

Seasonal Research Technician

Cornell University	Dominican Republic (woodpeckers)	2016
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Calvin College	Grand Rapids, MI (watershed restoration)	2015
Kansas State University	Meade, KS (grassland birds)	2013, 2015
Calvin College	Greenville, MI (botanical surveys)	2012
Calvin College	Grand Rapids, MI (land stewardship)	2011–2014

Teaching

Instructor of Record

<u>Institution</u>	<u>Class</u>	<u>Times Taught</u>
Oklahoma State University	General Ecology (120 students) <i>Student Survey of Instruction rating: 4.6 (out of 5)</i>	1
Oklahoma State University	Animal Biology (120 students) <i>Student Survey of Instruction rating: 4.7 (out of 5)</i>	3
Oklahoma State University	Ecology Book Club (11 students) <i>Honors add-on section to Animal Biology</i>	1
Oklahoma State University	Biodiversity Appreciation (9 students) <i>Interdisciplinary, field-based course developed and taught in Taos, NM (9 students). [Video]</i>	1
Oklahoma State University	Macroecology Graduate Seminar (12 students)	1

Guest Lecturer

<u>Institution</u>	<u>Class</u>	<u>Year</u>
UNC Wilmington	Global Environmental Issues (1 lecture)	2024
Michigan State University	Statistical Models in Ecology (2 lectures)	2023
Colorado State University	Landscape Ecology (1 lecture)	2023
UW–Madison	Species Distribution Modeling (1 lecture)	2021
UW–Madison	Animal Population Dynamics (1 lecture)	2019
University of Alabama	Ecological Modeling (1 lecture)	2018
University of Alabama	Natural Resource Conservation (2 lectures)	2017

Teaching Assistant

<u>Institution</u>	<u>Class</u>	<u>Times Taught</u>
University of Alabama	Introductory Biology Lab (35 students)	3
University of Alabama	Human Anatomy Lab (30 students)	1

Environmental Educator

Cincinnati Nature Center	Cincinnati, OH	2015
Au Sable Institute	Mancelona, MI	2014
Calvin College Preserve	Grand Rapids, MI	2013–2014

Mentoring

Stevie Stencil	Undergraduate, Oklahoma State University	2026–
Kaidan Capossere	M.S. student, Oklahoma State University	2026–
Arianna Kantsberger	Undergraduate, Oklahoma State University	2025–2026
Trenton Wiler	Undergraduate, Oklahoma State University	2025–2026
Claire Witthuhn	Undergraduate, Oklahoma State University	2025–
Baily McLaughlin	Postdoc, Oklahoma State University	2025–2026

Vimukthi Gunasekera	PhD student, Oklahoma State University	2025–
Kit Gurin	M.S. student, Oklahoma State University	2025–
Sarah Smith	Undergraduate, Oklahoma State University	2024–2025
Chloe Sweet	Undergraduate, Oklahoma State University	2024–2025
Ethan Moran	Undergraduate, Oklahoma State University	2024–2025
Dallas Cox	Undergraduate, Oklahoma State University	2024
Samuel Ayebare	PhD student, Michigan State University	2023–2024
Sydney Ceyzek	Undergraduate, Michigan State University	2023–2024
Ayodele O'Uhuru	PhD student, University of Massachusetts Amherst	2023
Steven Gurney	M.S. student, Michigan State University	2022–2024
Alyssa English	Undergraduate, University of Wisconsin–Milwaukee	2021
Colton Blankenship	Undergraduate, University of Alabama	2018
Caroline Beshears	Undergraduate, University of Alabama	2018
Melanie Florkowski	Undergraduate, University of Michigan	2017

Invited Seminars

Department of Statistics, Oklahoma State University	2026
Department of Ecology and Evolutionary Biology, University of Michigan	2026
Department of Biological Sciences, University of Pittsburgh	2026
Illinois Natural History Survey, University of Illinois	2025
Department of Plant Biology, Ecology, and Evolution, Oklahoma State University	2025
School of Biological Sciences, University of Oklahoma	2024
Department of Natural Resource Ecology and Management, Oklahoma State University	2024
Department of Environmental Sciences, University of North Carolina Wilmington	2024
Department of Integrative Biology, Oklahoma State University	2024
Department of Ecology and Evolutionary Biology, University of Toronto	2024
Department of Biology, Williams College	2023
Ecological Forecasting Initiative, Virtual [Recording]	2023
Lincoln Park Zoo, Chicago, IL	2022
Alabama Ornithological Society, Dauphin Island, AL	2022

Selected Presentations (52 total) *underline = undergraduate or mentee coauthor*

- V. Gunasekera, B.P. McLaughlin, S.N. Miller, **N.A. Gilbert**. 2026. Temporal dynamics of abundant-center patterns. Ecological Society of America.
- B.P. McLaughlin, K. Torres, B.S. Pease, **N.A. Gilbert**. 2026. Stronger effects of clouds on bird behavior at high latitudes. Ecological Society of America.
- Gurin, K.C., **N.A. Gilbert**. 2025. Shedding light on diel activity: how artificial light at night shapes timescapes in urban-adapted mammals. The Wildlife Society, Edmonton, Canada.
- Gilbert, N.A.**, B.S. Pease. 2025. Light pollution prolongs avian activity. American Ornithological Society, St. Louis, MO.
- Gilbert, N.A.**, G.V. DiRenzo, E.F. Zipkin. 2024. A multispecies capture–recapture model to estimate biodiversity metrics from coordinated monitoring programs. International Statistical Ecology Conference. Swansea, UK
- Gilbert, N.A.**, C.M. Blommel, M.T. Farr, D.S. Green, K.E. Holekamp, E.F. Zipkin. 2023. A multispecies hierarchical model to integrate count and distance sampling data. International Mammal Congress, Anchorage, AK.
- Gurney, S., M. Nichols, S. Mayhew, D. Etter, **N.A. Gilbert**, D. Williams, S. Christensen. 2022. Sampling strategies affect the precision of abundance estimates for an unmarked deer population. The Wildlife Society, Spokane, WA.
- Gilbert, N.A.**, J.L. Stenglein, J.N. Pauli, B. Zuckerberg. 2022. Human disturbance compresses the spatiotemporal niche. Ecological Society of America, Montréal, Canada.

English, A., **N.A. Gilbert**, B. Zuckerberg. 2021. Could northern forests serve as refugia for boreal species during an era of rapid climate change? WISCIENCE symposium, Madison, WI.

Blankenship, C.D., **N.A. Gilbert**, P.F.B. Ferguson, W.D. Gulsby. 2018. Factors associated with occupancy of different age/sex classes of White-tailed Deer in the Black Belt Ecoregion. Alabama Chapter of the Wildlife Society, Milbrook, AL.

Florkowski, M.R., **N.A. Gilbert**, P.F.B. Ferguson. 2017. A comparison of morning and evening point counts. American Ornithological Society, East Lansing, MI.

Gilbert, N.A., P.F.B. Ferguson. 2017. Disturbance associated with exurban development does not create habitat for shrubland birds. American Ornithological Society, East Lansing, MI.

Gilbert, N.A., D. Warners. 2012. Floral Inventory and Phenology at Flat Iron Lake Preserve. West Michigan Undergraduate Science Research Conference, Grand Rapids, MI.

Selected Service

Subject-Matter Editor, <i>Ecology</i>	Handled manuscripts (assigning reviewers, performing ad hoc reviews, making decisions)	2025–
Seminar Committee	Department of Biology, Oklahoma State University	2024–
Graduate Committee	Gabriel Hessler (PhD Biology, OSU) Nguvan Agaigbe (PhD Biology, OSU) Emily Burkholder (PhD Natural Resources, OSU) Andrew Hughes (MS Biology, OSU) Matthew Broadway (PhD Natural Resources, OSU) Holly Todaro (PhD Natural Resources, OSU) Jean-Pierre Sanza (PhD Chemistry, OSU) Claire Scobie (PhD Biology, OSU) Kristine Branch (MS Biology, OSU) Nicolle Butler (PhD Natural Resources, OSU)	2024– 2024– 2024– 2024– 2024–2026 2024–2026 2025– 2026– 2026– 2026–
Mentor	Mentored a high-schooler through the Mentor North program	2023–2024
Proposal Review	Reviewed grant proposals for National Science Foundation (1 <i>ad hoc</i> , 1 panel), Marsden Fund (1), and Science Philanthropy Alliance (1)	2023–2025
Peer Review	Reviewed 47 manuscripts for 35 journals including <i>Conservation Biology</i> , <i>Ecology</i> , <i>PNAS</i> , and <i>Journal of Animal Ecology</i>	2020–
ECR Committee	Planned social events and research symposia for the Twin Ports Early Career Researchers organization	2022–2024
Bird Surveys	Conducted 1–3 survey routes per season for the USGS North American Breeding Bird Survey	2017–
Data Reviewer	Reviewed unusual data records for eBird	2010–2014
Bird Banding	Extracted and processed birds at five banding stations	2006–2018