

# 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

28. **Gilbert, N.A.**, N. Queally, J.C. Cooper, H.N. Eyster, P.J. Williams. In review. Evenness of bird assemblages at continental scale. *Global Ecology and Biogeography*.
27. **Gilbert, N.A.\***, B.S. Pease\*, M. Severino, H. Winter III. In review. Avian responses to solar eclipses. *Science Advances*.
26. Gerber, B.D., **N.A. Gilbert**. In review. Individual-based monitoring is critical for small populations. *Biodiversity and Conservation*.
25. **Gilbert, N.A.\***, B.S. Pease\*. In press. Light pollution prolongs avian activity. *Science*.
24. Gurney, S., S. Christensen, M. Nichols, C. Stewart, D. Williams, S. Mayhew, **N.A. Gilbert**, D. Etter. In press. Harvest restrictions fail to influence population abundance. *Ecosphere*.
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:e70150.
20. **Gilbert, N.A.**, G.V. DiRenzo, E.F. Zipkin. 2025. Idiosyncratic spatial scaling of biodiversity–disease relationships. *Ecography* e07541.
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* 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* 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* 5:1937-1947.

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* 21:114-115.
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* 38:324-336.
13. **Gilbert, N.A.**, J.L. Stenglein, J.N. Pauli, B. Zuckerberg. 2022. Human disturbance compresses the spatiotemporal niche. *PNAS* 119(52):e22-6339119.
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: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* arab154.
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: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* 35:88-100.
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* 18:381-404.
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* 131:243-259.
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* 131:147-152.
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). 2015. Whole genome comparison of a large collection of mycobacteriophages reveals a continuum of phage genetic diversity. *eLife* 4e06416.

## Funding and Awards

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### Research Grants

\$ 120,512	<b>Gilbert, N.A.</b> (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 and Scholarships

\$ 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 Graduate 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

### Travel Awards

\$ 4,190	Cumulative sum of 10 awards from 9 organizations	2008–2023
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### Honors

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

## Prior Research Experience

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### Seasonal Research Technician

Cornell University	Dominican Republic (woodpeckers)	2016
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

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### Instructor of Record

Oklahoma State University	Animal Biology	2025
Oklahoma State University	General Ecology	2024
<i>Student Survey of Instruction rating: 4.6 (out of 5; 56 responses)</i>		

### Guest Lecturer

(Number of lectures in parentheses)

University of North Carolina Wilmington	Global Environmental Issues (1)	2024
Michigan State University	Modern Statistical Models in Ecology (2)	2023
Colorado State University	Landscape Ecology (1)	2023
University of Wisconsin-Madison	Species Distribution Modeling (1)	2021
University of Wisconsin-Madison	Animal Population Dynamics (1)	2019
University of Alabama	Ecological Modeling (1)	2018
University of Alabama	Natural Resource Conservation (2)	2017

### Teaching Assistant

University of Alabama	Introductory Biology (Lab)	2017–2018
<i>Taught two labs per semester for three semesters (35 students/section); rated as “Excellent” by 90% of students and “Above Average” by 7% of students in teaching evaluations.</i>		
University of Alabama	Human Anatomy (Lab)	2016
<i>Taught two labs (30 students/section); rated as “Excellent” by 62% of students and “Above Average” by 25% of students in teaching evaluations.</i>		

## Environmental Educator

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

## Mentoring

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Baily McLaughlin	Postdoc, Oklahoma State University	2025–
Vimukthi Gunasekera	PhD student, Oklahoma State University	2025–
Kit Gurin	M.S. student, Oklahoma State University	2025–
Sarah Smith	Undergraduate, Oklahoma State University	2024–
Chloe Sweet	Undergraduate, Oklahoma State University	2024–
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

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Department of Plant Biology, Ecology, and Evolution	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 <a href="#">[Recording]</a>	2023
Lincoln Park Zoo, Chicago, IL	2022
Alabama Ornithological Society, Dauphin Island, AL	2022

## Selected Presentations (37 total) *underline = undergraduate or mentee coauthor*

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- 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.

## Service

<b>Subject-Matter Editor, <i>Ecology</i></b>	Handled manuscripts (assigning reviewers, performing ad hoc reviews, making decisions)	2025–
<b>Seminar Committee</b>	Department of Integrative Biology, Oklahoma State University	2024–
<b>Graduate Committee</b>	Gabriel Hessler (IB, OSU) Nguvan Agaigbe (IB, OSU) Emily Burkholder (NREM, OSU) Andrew Hughes (IB, OSU) Matthew Broadway (NREM, OSU) Holly Todaro (NREM, OSU) Jean-Pierre Sanza (Chemistry, OSU)	2024– 2024– 2024– 2024– 2024– 2024– 2025–
<b>Mentor</b>	Mentored a high-schooler through the Mentor North program	2023–2024
<b>Proposal Review</b>	Reviewed grant proposals for National Science Foundation (1 ad hoc, 1 panel) and Science Philanthropy Alliance (1)	2023–2025
<b>Peer Review</b>	Reviewed 38 manuscripts for 33 journals including <i>Conservation Biology</i> , <i>Ecology</i> , <i>PNAS</i> , and <i>Journal of Animal Ecology</i>	2020–
<b>ECR Committee</b>	Planned social events and research symposia for the Twin Ports Early Career Researchers organization	2022–2024
<b>Mentor</b>	Mentored an undergrad for summer research in WISCIENCE, a program for students from underrepresented groups	2021
<b>Grad Rep</b>	Organized social events and research symposia for Wisconsin Ecology at UW-Madison	2019–2021
<b>Pen Pal</b>	Wrote letters to elementary students to demystify scientific careers through the Letters to a Pre-Scientist organization	2018–2019
<b>Science Olympiad</b>	Wrote and proctored ecology exams for regional tournament	2017–2018
<b>Bird Surveys</b>	Conducted 1–3 survey routes per season for the USGS North American Breeding Bird Survey	2017–
<b>Data Reviewer</b>	Reviewed unusual data records for eBird	2010–2014
<b>Bird Banding</b>	Extracted and processed birds at five banding stations	2006–2018