Catherine G Haase

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Current Positions

2024-	Associate Professor, Department of Biology, Austin Peay State University
2025-	Principal Investigator, Center of Excellence in Field Biology
2022-	Research Associate, Southeastern Grasslands Institute
2026-	Advisory Board, Women in Wildlife
2023-	Board of Directors, North American Society for Bat Research

Previous Positions

2019-2024	Assistant Professor, Department of Biology, Austin Peay State University
2016-2019	Postdoctoral Research Associate, Department of Microbiology, Montana State University
2018	Lecturer, School of Animal and Range Sciences, Hawassa University, Ethiopia
2016	Postdoctoral Research Associate, Department of Geography, University of Florida
2011-2012	Research Assistant, US Geological Survey Northern Rocky Mountain Science Center
2010-2011	Research Assistant, Cary Institute of Ecosystem Studies

Education

2016	**PhD in Interdisciplinary Ecology-Wildlife Ecology and Conservation**, University of Florida
2010	**MS in Conservation Biology**, SUNY College of Environmental Science and Forestry
2007	**BS in Wildlife, minor in Zoology and English**, Unity College

Teaching Experience

2019- **Austin Peay State University**
- BIOL 4630/4631 & 5630/5631 Mammalogy & Lab (cross-listed graduate-level) (4 cr)
- BIOL 4080/4081 Ecology & Lab (4 cr)
- BIOL 4100/4101 & 5100/5101 Biostatistics & Lab (cross-listed graduate-level) (4 cr)
- BIOL 4700/5700 Winter Ecology in Alaska (cross-listed graduate-level) (4 cr)
- BIOL 3000/3001 Biological Methods & Lab (4 cr)
- BIOL 5700 Topics in Biology: Biostatistics in R (4 cr)
- BIOL 5700 Topics in Biology: Hibernation Ecology (4 cr)
- HON 1045 Foundations in Interdisciplinary Thinking: Science in the Movies (3 cr)
- BIOL 3330/3331 Principles of Evolution & Lab (4 cr)

2026 **Highlands Biological Station, Western Carolina University**
- BIOL 494/593 Biology of Southern Appalachian Mammals (4 cr)

2018 **Hawassa University, Ethiopia**
- ARSc 701 Research Methods and Biostatistics in R (3 cr)

2013-2014 **University of Florida**
- EVR 2001 Introduction to Environmental Science (1 cr)

2007-2009 **SUNY College of Environmental Science and Forestry** (**as graduate assistant*)
- EFB 220* Urban Ecology (3 cr)
- EFB 484* Winter Mammalian Ecology (3 cr)
- EFB 493* Wildlife Habitats and Population Management (4 cr)
- EFB 311 Principles of Evolution (3 cr)
- NSF Undergraduate Mentoring Experience in Biology (6 cr)

Grants and Fellowships (*$2,897,941 granted*)

2025	APSU Faculty Research Support Grant - $2,800
2023	Intergovernmental Support Agreement with the Department of Defense - $2,070,232
2022	Animal Welfare Institute Christine Stevens Wildlife Award - $14,900

2022	APSU Faculty Research Support Grant - $4,170
2022	APSU Student Academic Success Initiative - $5,650
2021	APSU Faculty Research Support Grant - $4,898
2021	USFWS White-nose Syndrome Conservation Grant (*as Co-PI*) - $147,226
2021	NFWF Cumberland Plateau-Southern Appalachians Fund (*as Co-PI*) - $216,616
2021	APSU Student Academic Success Initiative (*as Co-PI*) - $3,600
2021	Robert D. Brown Ecology and Conservation Endowment - $1,400
2020	Intergovernmental Support Agreement with the Department of Defense - $388,385
2020	APSU Technology Access Fee (*as Co-PI*) - $5,264
2020	APSU Undergraduate Research Enrichment Fund (*listed as mentor*) - $6,000
2017	NSF Infectious Disease Evolution Across Scales - $3,000
2014-2016	Debra Lowe Fellowship - $6,000
2014-2016	University of Florida Travel grants - $4,500
2014-2015	Grinter Fellowship - $5,500
2010	North American Moose Conference Newcomer's Award - $1,000
2009	Sigma Xi Society Research in Need Grant - $1,000
2009	Edna B Sussman Foundation Fellowship - $5,800

Awards

2026	Austin Peay Everyday Excellence Faculty Award
2024, 2025	Austin Peay Richard Hawkins Award for Excellence in Research (*finalist*)
2022	Austin Peay Socrates Award for Excellence in Teaching
2020	Austin Peay Helping Hands Faculty Award
2011	Adirondack Research Consortium Graduate Student Award
2010	SUNY ESF Alumni Association Award
2007	Unity College Wildlife Leadership Award
2007	Unity College Peer Tutor Award
2005	Maine Campus Compact Heart and Soul Award

Peer-reviewed Publications (**indicates student*)

2026

Stuart, R*, DJ Van Parys*, LD Estes, **CG Haase**. *In press*. Multi-species occupancy and temporal partitioning in middle Tennessee. Southeastern Naturalist

Wolf, LK, **CG Haase**, P Sprouse, EP Gomex-Ruiz, TE Lacher, Jr. *In press*. White-nose syndrome steppingstones: suitability of Mexican karst regions to sustain *Pseudogymnoascus destructans* fungus. Ecosphere

Crowley, LN*, NW Fuller, S Leivers, **CG Haase** (2026) Impacts of microclimate on probability of white-nose syndrome in varying hibernaculum types. Journal of Wildlife Diseases. 62(1): 76-86

2025

Simonis, MC, S Ciarrachi, KE Dyer, M Allira, B Demory, J Zubayr, D Van Parys*, K Whitmore, MM Chumcal, **CG Haase**, JT Foster, DJ Becker (2025) A collaborative multiple stressor approach for identifying spatial heterogeneities in wildlife health and conservation priorities. Integrative and Comparative Biology. icaf123

Culley, AV*, RA Watson*, **CG Haase**, MR Thomas, SL Brandt, MA Floyd, RE Blanton (2025) Loss of forest cover leads to population isolation in an imperiled, headwater-specialist fish. Landscape Ecology. 40(147): 1-18

Olson, SH, CM Davy, CL Lausen, YA Dzal, JT Foster, WF Frick, NW Fuller, **CG Haase**, CR Hranac, HE Kretser, S Lieberman, C McCann, ML McClure, C Mormorunni, JC Ray, M Verant, C Walzer, CKR Willis, LP McGuire (2025) Facilitating evolutionary rescue from a wildlife health threat with cross-sectoral strategies: a case study on white-nose syndrome. Submitted to Ecology and Society. 30(3)

2024

Lemieux-labonte*, V, J Pathmanathan, Y Terrat, N Tromas, C Lausen, A Simard, **CG Haase**, CKR Willis, FJ Lapointe (2024) *Pseudogymnoascus destructans* infection impacts the functional metagenome of highly vulnerable *Myotis lucifugus*. Microbiology Ecology. 100(11):fiae138

Williams, SC*, SK Krueger, GA Zirkle, **CG Haase** (2024) Summer roost site selection of a declining bat species. Mammalian Biology. 105:57-68

Krueger*, S, SC Zirkle*, J O'Keefe, G Zirkle, **CG Haase** (2024) White-nose syndrome, winter duration, and pre-hibernation climate impact abundance of reproductive female bats. PLOS One 19:e0298515

Walker*, R, A Culley*, **CG Haase**, M Thomas, S Brandt, M Floyd, RE Johansen (2024) High conductivity contributes to population isolation of a small-bodied, benthic, headwater specialist fish (Percidae). Ecology of Freshwater Fishes. E12769

2023

Haase, CG, RJ Fletcher, Jr DH Slone, JP Reid, SM Butler (2023) Quality of thermal refuges influences use by the cold intolerant Florida manatee. Endangered Species Research 51:89-101

2022

McGuire, LP, NW Fuller, **CG Haase**, KA Silas, SH Olson (2022) Lean mass dynamics in hibernating bats and implications for energy and water budgets. Physiological & Biochemical Zoology 95:317-325

McClure, ML, CR Hranac*, **CG Haase**, S McGinnis, BG Dickson, DTS Hayman, LP McGuire, CL Lausen, RK Plowright, NW Fuller, SH Olson (2022) Projecting compound effects of climate change and white-nose syndrome on North American bat species. Climate Change Ecology 3:100047

2021

McGuire, LP, NW Fuller, YA Dzal, **CG Haase**, B Klug-Baerwald, KA Silas, RK Plowright, CL Lausen, CKR Willis, SH Olson (2021) Interspecific variation in evaporative water loss and temperature response, but not metabolic rate, among hibernating bats. Scientific Reports 11(1):1-9

McGuire, LP, NW Fuller, YA Dzal, **CG Haase**, KA Silas, CKR Willis, SH Olson, CL Lausen (2021) Similar physiology in hibernating bats across broad geographic ranges. Journal of Comparative Physiology B 192:171-181

Haase, CG, A Yang, K McNyset, J Blackburn (2021) GARPTools: R software for data preparation and model evaluation of GARP models. Ecography 44(12):1790-1796

Hranac, CR*, **CG Haase**, NW Fuller, ML McClure, JC Marshall, CL Lausen, LP McGuire, SH Olson, DTS Hayman (2021) What is a winter? Modelling spatial variation in bat host traits and hibernation and their implications for overwintering energetics. Ecology and Evolution 11(17):11604-11614

McClure, ML, **CG Haase**, D Crowley, LP McGuire, NW Fuller, DTS Hayman, CL Lausen, RK Plowright, BG Dickson, SH Olson (2021) A hybrid correlative-mechanistic approach for modeling and mapping winter distributions of western bat species. Journal of Biogeography 48:2429-2444

Haase, CG, NW Fuller, YA Dzal, DTS Hayman, CR Hranac, C Lausen, KA Silas, SH Olson, RK Plowright (2021) Body mass and hibernation microclimate may predict bat susceptibility to white-nose syndrome. Ecology and Evolution 11(1):506-515

2020

McClure, ML, D Crowley, **CG Haase**, LP McGuire, NW Fuller, DTS Hayman, CL Lausen, RK Plowright, BG Dickson, SH Olson (2020) Linking surface and subterranean climate conditions: implications for the study of hibernating bats and other cave dwellers. Ecosphere 11(10):1-17

Fuller, NW, LP McGuire, EL Pannkuk, T Blute, **CG Haase**, HW Mayberry, TS Risch, CKR Willis (2020) Disease recovery affected by white-nose syndrome. Experimental Biology 223(6):1-12

Haase, CG, RJ Fletcher, Jr, DH Slone, JP Reid, SM Butler (2020) Traveling to thermal refuges during stressful temperatures leads to foraging constraints in a central-place forager. Journal of Mammalogy 101(1):271-280

2019

Haase, CG, NW Fuller, CR Hranac, DTS Hayman, LP McGuire, KJO Norquay, KA Silas, CKR Willis, RK Plowright, SH Olson (2019) Incorporating evaporative water loss into bioenergetic models of hibernation to test influence of host and pathogen traits on white-nose syndrome. PLOS ONE 14(10):e022231

Fuller, NW**, CG Haase**, KA Silas, SH Olson, LP McGuire (2019) First reported case of diphallia in *Corynorhinus townsendii*. Western North American Naturalist 79(3):454-457

Haase, CG, NW Fuller, CR Hranac, DTS Hayman, SH Olson, RK Plowright, LP McGuire (2019) Bats are not squirrels: revisiting assumptions of costs of cooling in hibernating mammals. Journal of Thermal Biology 81:185-193

Yang, A, JP Gomez, **CG Haase**, KM Proffitt, JK Blackburn (2019) Effects of Brucellosis serological status on physiological conditions and behavioral mechanisms of Elk. Journal of Wildlife Diseases 55(2):304-315

Pre-2019

Haase, CG, RJ Fletcher, Jr DH Slone, JP Reid, SM Butler (2017) Landscape complementation revealed through bipartite networks: the Florida manatee. Landscape Ecology 32:1999-2014

Slone, DH, SM Butler, JP Reid, **CG Haase** (2017) Timing of warm water refuge use in Crystal River National Wildlife Refuge by manatees. US Geological Survey Open-File Report

Hayward, A, M Pajuelo, **CG Haase**, DM Anderson, JF Gillooly (2016) Common metabolic constraints on dive duration in endothermic and ectothermic vertebrates. PeerJ 4:e2569

Cross, PC, ES Almberg, **CG Haase**, PJ Hudson, S Maloney, M Metz, A Munn, P Nugent, O Putzeys, DR Stahler, AC Stewart, DW Smith (2016) Energetic costs of mange in Yellowstone wolves estimated from infrared thermography. Ecology 97(8):1938-1948

Haase, CG, AK Long, JF Gillooly (2016) Energetics of stress: Linking plasma cortisol levels to metabolic rate in mammals. Biology Letters 12(1):1-4

Haase, CG, HB Underwood (2013) Integrating thermal constraints into habitat suitability for moose in the Adirondack State Park, NY. Alces 49:49-64

Publications in Review

1. Wisnionski, A.R., **C.G. Haase**, I. Dy, K. Hudson, J.F. Gillooly. Corticosterone Varies with Metabolic Rate in Vertebrates. Submitted to Ecology and Evolution.
2. Gulley, B*, DJ Van Parys, **CG Haase**. Impact of perceived predator presence on the foraging behavior of insectivorous bats. Submitted to Behavioral Ecology. Submission ID #BEHECO-2026-0054.
3. Van Parys, DJ*, SC Zirkle, **CG Haase**. Shifts in bat communities of the southeastern united states: ecological release or land use change? Submitted to Ecology and Evolution. Submission ID #ECE-2026-02-00383.

Theses

1. Haase, Catherine G (2016) The effects of the spatial configuration of thermal and forage habitats on behavior of the Florida manatee (*Trichechus manatus latirostris*). PhD Dissertation. School of Natural Resources and the Environment, University of Florida, 110 p.
2. Haase, Catherine G (2010) Characterizing critical thermal environments for moose (*Alces alces*) in the Adirondacks. MS Thesis. Department of Environmental and Forest Biology, SUNY College of Environmental Science and Forestry, 125 p.

Invited Presentations

1. Life in the cold. January 2026. Friday Night Insights. USFS Southeast Alaska Discovery Center, Ketchikan, AK
2. Living on the edge of the range: time-use metrics of non-traditional hibernacula on the southern edge of a small hibernator. September 2025. Texas Parks and Wildlife Department, Virtual
3. Scholar, Teach, Human. September 2025. Faculty Leadership Program, Clarksville, TN
4. Scholar, Teach, Human. August 2025. First Year Faculty Conference, Clarksville, TN
5. Scholar, Teach, Human. April 2025. Center of Advancement Faculty Excellence, Clarksville, TN
6. Assessing adaptive potential and predicting potential distribution of *Pseudogymnoascus destructans* across diverse hibernaculum microclimates. November 2024. Western Bat Working Group meeting. Virtual.
7. Bats in the Balance: Ecophysiological insights on hibernation energetics, disease dynamics, and foraging behavior. April 2024. Vanderbilt University, Nashville, TN
8. Quality of thermal refuges influences use by the cold-intolerant Florida manatee. November 2023. Florida Manatee Forum, Jacksonville, FL
9. The energetic impacts of disease: a case study of white-nose syndrome in southeastern bats. December 2022. Delaware County Institute of Science, Media, PA
10. Habitat conservation and wildlife connectivity. March 2022. Sustaining Biodiversity course, Austin Peay State University, Clarksville, TN
11. The energetic costs of disease: a case study of bioenergetics of white-nose syndrome. February 2022. Fish and Wildlife Research Institute seminar series, Florida Fish and Wildlife Conservation Commission, Gainesville, FL
12. The energetic costs of disease: a case study of bioenergetics of white-nose syndrome. April 2021. Department of Biological Sciences Seminar Series, Wright State University, Dayton, OH
13. Energetic costs of disease: a case study of bioenergetics of white-nose syndrome. February 2021. School or Forestry and Wildlife Sciences Seminar Series, Auburn State University, Auburn, AL
14. Correlated, Random, Brains! What animal movement models can tell us about a zombie apocalypse. November 2019. Honors Biology course, Austin Peay State University, Clarksville, TN
15. The importance of scale: What landscape ecology can teach us about thermoregulation. September 2019. Department of Biology Seminar Series, Murray State University, Murray, KY
16. The importance of scale: What landscape ecology can teach us about thermoregulation May 2019 Department of Biological Sciences Seminar Series, Texas Tech University, Lubbock, TX
17. The energetics of disease: A case study of white-nose syndrome in western bats. March 2019. Department of Microbiology Seminar Series, Montana State University, Bozeman, MT

18. The importance of scale: What landscape ecology can teach us about thermoregulation. February 2019. Department of Biology Seminar Series, Austin Peay State University, Clarksville, TN
19. Energetics of disease. November 2017. Montana State University, Bozeman, MT
20. Some like it hot: Understanding how temperature shapes animal energetics and behavior. September 2017. Women in Science Lecture Series, St Mary's College, IN
21. Understanding manatee behavior in response to temperature. August 2016. The Institute of Learning in Retirement Science Lecture Series, Oak Hammock Retirement Center, Gainesville, FL

Presentations at Professional Conferences (**indicates student*)

1. **Haase, CG,** NW Fuller, LN Crowley*, S Leivers (2026) Living on the edge of the range: time-use metrics of non-traditional hibernacula on the southern edge of a small hibernator. Southeastern Bat Diversity Network Annual Meeting. New Orleans, LA
2. Van Parys*, D, SC Williams, GA Zirkle, **CG Haase** (2025) Changes in bat communities: impacts of land-use change or ecological release? North American Society for Bat Research Meeting, Edmonton, Canada
3. Simonis, MC, S Ciarrachi, KE Dyer, M Allira, B Demory, J Zubayr, D Van Parys*, K Whitmore, MM Chumcal, **CG Haase**, JT Foster, DJ Becker (2025) A collaborative multiple stressor approach for identifying spatial heterogeneities in wildlife health and conservation priorities. International Symposium on the Infectious Diseases of Bats. Chicago, IL
4. Fuller, NW, LN Crowley*, S Leivers, **CG Haase** (2025) Living on the edge of the range: time-use metrics of non-traditional hibernacula on the southern edge of a small hibernator. International Conference on Ecology and Transportation. Virtual.
5. Van Parys*, D, SC Williams, GA Zirkle, **CG Haase** (2025) Impacts of ecological release and land use change on southeastern bat communities. Southeastern Bat Diversity Network Annual Meeting. Lexington, KY
6. Van Parys*, D, SC Williams, GA Zirkle, **CG Haase** (2024) Impacts of ecological release and land use change on southeastern bat communities. North American Society for Bat Research Meeting, Guadalajara, Mexico
7. **Haase, CG** (2024) Skype a Scientist: Bringing your research into the digital classroom. North American Society for Bat Research Meeting, Guadalajara, Mexico
8. Crowley, LN*, **CG Haase**, S Leivers, and NW Fuller (2024) Tri-colored bat hibernation and culvert microclimate as drivers of WNS avoidance in Texas. North American Society for Bat Research Meeting, Guadalajara, Mexico
9. Simonis, MC, S Ciarrachi, KE Dyer, M Allira, RF Bernard, MM Chumcal, **CG Haase**, JT Foster, DJ Becker (2024) Extrinsic stressors impact North American bat cellular immunity during reproductive periods. Society for Integrative and Comparative Biology Meeting. Seattle, WA
10. Anderson, EJ*, DG McIllwain*, **CG Haase** (2023) Development of an automated bat box detection system to assess use in response to microclimate. ACM Mid-Southeast Conference. Gatlinburg, TN
11. Gulley, BR*, DJ Van Parys*, **CG Haase** (2023) Altered foraging behavior as a response to increased predator presence in bats. Tennessee Bat Working Group meeting. Knoxville, TN
12. Gulley, BR*, DJ Van Parys*, **CG Haase** (2023) Altered foraging behavior as a response to increased predator presence in bats. North American Society for Bat Research Annual Meeting. Winnipeg, Canada
13. Crowley, LN*, NW Fuller, **CG Haase** (2023) Fungal growth evasion by tri-colored bats in non-traditional hibernacula. National White-nose Syndrome Meeting. Palm Springs, CA
14. Krueger, SK*, SC Zirkle*, JM O'Keefe, G Zirkle, **CG Haase** (2022) Impact of white-nose syndrome and local climate on reproduction of female bats. North American Society for Bat Research Annual Meeting. Austin, TX
15. Walker, TG*, G Zirkle, **CG Haase** (2022) Effects of aquatic insect abundance and biomass on bat species diversity. North American Society for Bat Research Annual Meeting. Austin, TX
16. **Haase, CG**, NW Fuller, YA Dzal, DTS Hayman, CR Hranac*, C Lausen, KA Silas, SH Olson, RK Plowright (2022) Body mass and hibernation microclimate may predict bat susceptibility to white-nose syndrome. Northeast Bat Working Group Annual Virtual Meeting
17. **Haase, CG**, NW Fuller, YA Dzal, DTS Hayman, CR Hranac*, C Lausen, KA Silas, SH Olson, RK Plowright (2021) Body mass and hibernation microclimate may predict bat susceptibility to white-nose syndrome. American Society of Mammalogists Annual Meeting
18. Olson, SH, D Crowley*, B Dickson, YA Dzal, NW Fuller, **CG Haase**, DTS Hayman, CR Hranac*, EM Johnson, EL Kunkel*, CL Lausen, ML McClure, LP McGuire, RK Plowright, KA Silas, CKR Willis (2020) A multi-species evaluation of hibernation physiology and influence on white-nose syndrome risk factors. White-nose Syndrome National Webinar
19. **Haase, CG***, NW Fuller, YA Dzal, DTS Hayman, CR Hranac*, C Lausen, K Silas, LP McGuire, SH Olson, RK Plowright (2020) Adaptations to drier hibernacula mitigate mortality from white-nose syndrome in western bat species. American Society of Mammalogy Conference. Boulder, CO
20. Fuller, NW, **CG Haase**, K Silas, SH Olson, LP McGuire (2019) The hibernation phenotype: interspecific and regional variation of hibernation physiology. North American Society for Bat Research Annual Meeting. Kalamazoo, MI

21. McClure, ML, **CG Haase**, D Crowley, DTS Hayman, CR Hranac*, C Lausen, NW Fuller, LP McGuire, RK Plowright, SH Olson (2019) Modeling and mapping western bat hibernaculum suitability before and after *Pd* exposure. North American Society for Bat Research Annual Meeting. Kalamazoo, MI
22. Hranac, CR, **CG Haase**, NW Fuller, JC Marshall, CL Lausen, LP McGuire, SH Olson, DTS Hayman (2019) What is a winter? Addressing data deficiency in model parameters in overwintering bat models. North American Society for Bat Research Annual Meeting. Kalamazoo, MI
23. **Haase, CG**, NW Fuller, YA Dzal, DTS Hayman, CR Hranac*, C Lausen, K Silas, LP McGuire, SH Olson, RK Plowright (2019) Estimating susceptibility of western bat species to WNS with the application of bioenergetic disease modeling. Western Bat Working Group. Tulsa, OK
24. **Haase, CG**, NW Fuller, DTS Hayman, CR Hranac*, SH Olson, RK Plowright, LP McGuire (2019) Bats are not squirrels: revisiting the costs of cooling in hibernating mammals. Society for Integrative and Comparative Biology. Tampa, FL
25. **Haase, CG**, NW Fuller, CR Hranac*, SH Olson, RK Plowright, LP McGuire (2018) Bats are not squirrels: revisiting the costs of cooling in hibernating mammals. North American Society for Bat Research. Puerto Vallarta, Mexico
26. Fuller, NW, **CG Haase**, KA Silas, SH Olson, LP McGuire (2018) Implications for white-nose syndrome in western bats. North American Society for Bat Research. Puerto Vallarta, Mexico
27. **Haase, CG**, NW Fuller, DTS Hayman, CR Hranac*, LP McGuire, SH Olson, RK Plowright (2018) Modelling the influence of evaporative water loss on hibernation energetics and implications for white-nose syndrome. National White-nose Syndrome Meeting. Tacoma, WA
28. Olson, SH, **CG Haase**, NW Fuller, LP McGuire, DTS Hayman, CR Hranac*, ML McClure, D Crowley*, RK Plowright, YA Dzal, CKR Willis, EL Kunkel, C Lausen, BJ Klug-Baerwald, KA Silas (2018) A combined empirical and modeling approach to assess the impact of WNS in the West. National White-nose Syndrome Meeting. Tacoma, WA
29. McGuire, LP, NW Fuller, **CG Haase**, KA Silas, SH Olson (2018) Regional variation in hibernation phenotype: *Myotis velifer* hibernation at southern latitudes and implications for white-nose syndrome. Society for Integrative and Comparative Biology. San Francisco, CA
30. **Haase, CG**, NW Fuller, DTS Hayman, CR Hranac, LP McGuire, SH Olson, RK Plowright (2017) Modelling the influence of evaporative water loss on hibernation energetics and implications for white-nose syndrome. North American Society for Bat Research. Knoxville, TN
31. McClure, ML, **CG Haase**, DTS Hayman, CR Hranac, N Justice, B Dickson, SH Olson (2017) Western bat distributions before and after exposure to white-nose syndrome: A hybrid correlative-mechanistic modeling approach. North American Society for Bat Research. Knoxville, TN
32. Hranac, CR, **CG Haase**, YA Dzal, C Lausen, JC Marshall, SH Olson, DTS Hayman (2017) Modeling the impact of white-nose syndrome on two western bat species. Symposium on Infectious Diseases on Bats. Fort Collins, CO
33. **Haase, CG**, RF Fletcher, Jr, DH Slone, JP Reid, SM Butler (2016) Quantifying landscape complementation with bipartite networks and applications to habitat selection. International Association for Landscape Ecologists. Asheville, NC
34. **Haase, CG** and BH Underwood (2010) Integrating thermal cover into habitat models for moose. North American Moose Conference. International Falls, MN
35. **Haase, CG** and BH Underwood (2010) A habitat suitability index model incorporating thermal cover for moose in the Adirondack Park. Northeast Fish and Wildlife Conference. Boston, MA
36. **Haase, CG** and BH Underwood (2010) Characterizing critical thermal environments: applications to habitat suitability for moose. New York Chapter of the Wildlife Society. Alexandria Bay, NY

Selected Conference Posters (**indicates student*)

1. Roberts, M*, **CG Haase** (2026) Foraging habitats and temporal patterns in the endangered gray bat (*Myotis grisescens*). Southeastern Bat Diversity Network Annual Meeting. New Orleans, LA
2. Tomboc, G*, **CG Haase** (2026) Quantifying the Effects of Temperature on Capture-Induced Stress Hormone Concentrations in *Lasiurus borealis*. Southeastern Bat Diversity Network Annual Meeting. New Orleans, LA
3. Hall, P*, **CG** Haase (2025) Screaming in the moonlight: Effects of moon luminosity on bat behavior. North American Society for Bat Research Meeting, Edmonton, Canada
4. Roberts, M*, **CG Haase** (2025) Foraging habitats and temporal patterns in the endangered gray bat (*Myotis grisescens*). North American Society for Bat Research Meeting, Edmonton, Canada
5. Tomboc, G*, **CG Haase** (2025) Quantifying the Effects of Temperature on Capture-Induced Stress Hormone Concentrations in *Lasiurus borealis*. North American Society for Bat Research Meeting, Edmonton, Canada
6. Young, L*, LN Crowley, S Perry, **CG Haase** (2025) Impacts of humidity, substrate, and light on *Pseudogymnoascus destructans* growth. North American Society for Bat Research Meeting, Edmonton, Canada

7. Tomboc, G*, **CG Haase** (2025) Comparative analysis of thermal dynamics of bat bag materials. Southeastern Bat Diversity Network Annual Meeting. Lexington, KY
8. Young, L*, LN Crowley, S Perry, **CG Haase** (2025) Impacts of humidity, substrate, and light on *Pseudogymnoascus destructans* growth. Southeastern Bat Diversity Network Annual Meeting. Lexington, KY
9. Young, L*, LN Crowley, S Perry, **CG Haase** (2024) Impacts of humidity, substrate, and light on *Pseudogymnoascus destructans* growth. Tennessee Bat Working Group. Knoxville, TN
10. Tomboc, G*, **CG Haase** (2024) Comparative analysis of thermal dynamics of bat bag materials. North American Society for Bat Research Meeting, Guadalajara, Mexico
11. Young, L*, LN Crowley, S Perry, **CG Haase** (2024) Impacts of humidity, substrate, and light on *Pseudogymnoascus destructans* growth. North American Society for Bat Research Meeting, Guadalajara, Mexico
12. Anderson, EJ*, DG McIllwain*, DJ Van Parys*, **CG Haase** (2023) Development of an automated bat box detection system to assess use in response to microclimate. Association for Computing Machinery Meeting.
13. **Haase, CG**, EJ Anderson*, DG McIllwain*, DJ Van Parys* (2023) Development of an automated bat box detection system to assess use in response to microclimate. Tennessee Bat Working Group meeting.
14. Crowley, LN*, NW Fuller, **CG Haase** (2023) Fungal disease evasion in aboveground non-traditional hibernacula. Tennessee Bat Working Group meeting. Knoxville, TN
15. Crowley, LN*, NW Fuller, **CG Haase** (2023) Fungal disease evasion in aboveground non-traditional hibernacula. North American Society for Bat Research Annual Meeting. Winnipeg, Canada
16. **Haase, CG**, EJ Anderson*, DG McIllwain*, DJ Van Parys* (2023) Development of an automated bat box detection system. North American Society for Bat Research Annual Meeting. Winnipeg, Canada
17. Walker, TG*, SC Zirkle*, SK Krueger*, G Zirkle, **CG Haase** (2021) Effects of aquatic insect abundance and biomass on bat species diversity. Tennessee Bat Working Group meeting. Virtual
18. Zirkle, SC*, SK Krueger*, TG Walker*, G Zirkle, **CG Haase** (2021) Summer habitat use and roost-site selection of a recently petitioned bat species. Tennessee Bat Working Group meeting. Virtual
19. Krueger, SK*, TG Walker*, SC Zirkle*, JM O'Keefe, G Zirkle, **CG Haase** (2021) Impact of white-nose syndrome and climate on reproduction of bats in the southeast. Tennessee Bat Working Group meeting. Virtual
20. Walker, TG*, SC Zirkle*, G Zirkle, **CG Haase** (2021) Effects of aquatic insect abundance and biomass on bat species diversity. Tennessee Academy of Sciences Meeting. Cookeville, TN
21. Zirkle, SC*, SK Krueger*, G Zirkle, **CG Haase** (2021) Summer habitat use and roost-site selection of a recently petitioned bat species. Tennessee Academy of Sciences. Cookeville, TN
22. Krueger, SK *, TG Walker*, SC Zirkle*, JM O'Keefe, G Zirkle, **CG Haase** (2021) Impact of white-nose syndrome and local climate on reproduction of female bats in the southeastern United States. Tennessee Academy of Sciences. Cookeville, TN
23. Walker, TG*, SC Zirkle*, SK Krueger*, G Zirkle, **CG Haase** (2021) Effects of aquatic insect abundance and biomass on bat species diversity. The Wildlife Society Annual Meeting. Virtual
24. Zirkle, SC*, SK Krueger*, TG Walker*, G Zirkle, **CG Haase** (2021) Summer habitat use and roost-site selection of a recently petitioned bat species. The Wildlife Society Annual Meeting. Virtual
25. Krueger, SK*, TG Walker*, SC Zirkle*, JM O'Keefe, G Zirkle, **CG Haase** (2021) Impact of white-nose syndrome and climate on reproduction of bats in the southeastern United States. The Wildlife Society Annual Meeting. Virtual
26. Silas, K.A., N.W. Fuller, C.G. Haase, S.H. Olson, L.P. McGuire. 2019. Diphallia in *Corynorhinus townsendii*. North American Society for Bat Research Annual meeting in Kalamazoo, MI, October 23-26, 2019.
27. **Haase, CG**, NW Fuller, DTS Hayman, CR Hranac*, LP McGuire, SH Olson, RK Plowright (2018) Modelling the influence of evaporative water loss on hibernation energetics and implications for white-nose syndrome. National White-nose Syndrome Meeting. Tacoma, WA
28. McGuire, LP, NW Fuller, JG Boyles, **CG Haase**, KA Silas, SH Olson (2018) A conceptual framework of hibernation phenotype and interspecific variation in physiology. National White-nose Syndrome Meeting. Tacoma, WA
29. **Haase, CG**, RF Fletcher, Jr, DH Slone, JP Reid, SM Butler (2015) Influence of spatial patterns of thermal and forage resources on manatee behavior. Conference on the Biology of Marine Mammals. San Francisco, CA
30. **Haase, CG**, DH Slone, RF Fletcher, Jr, JP Reid, SM Butler (2015) Influence of the spatial distribution of water temperature on manatee behavior. Florida Chapter of the Wildlife Society. Jacksonville, FL
31. **Haase, CG**, DH Slone, JP Reid, RF Fletcher, Jr (2014) Influence of landscape and environmental variables on seasonal home range use of the Florida manatee in the Greater Everglades Region. Gordon Research Conferences: Unifying Scales Across Ecology. Biddeford, ME
32. **Haase, CG**, PC Cross, DW Smith, O Putzeys, P Nugent (2012) Are mangy wolves ENERGY STAR compliant? Energetic impacts of Sarcoptic mange (*Sarcotes scabiei*) on gray wolves (*Canis lupus*) in Yellowstone. Ecology and Evolution of Infectious Disease Workshop. Ann Arbor, MI

Popular Media (*featured*)

"UAS hosts presentations on math history and sea lions." KRBD radio. January 14, 2025
"Austin Peay receives grant to study bats on Fort Campbell." WKRN, October 30, 2023
"Haase picks up long-term IGSA contract to continue APSU's bat research." APSU News, September 20, 2023
"APSU promotes grassland restoration through live small mammal trapping." APSU News, March 31, 2023.
"Dr. Catherine G. Haase with the 2022 Christine Stevens Wildlife Award." APSU News, February 27, 2023
"Landscape-scale restoration continues at soak creek farm." TennGreen Land Conservancy, February 6, 2023
"Four bat species in one night." APSU News, August 23, 2022
"Austin Peay graduate student identifies 55,085 insects during bat research." APSU News, April 25, 2022
"Disease threatens to decimate western bats." Science Daily, January 22, 2021
"Austin Peay, Fort Campbell partner in white-nose syndrome study." APSU News, September 28, 2020
"Saving the bats, one cave at a time." The New York Times. February 18, 2019
"Plague marching west: researchers study bats to stop their demise." The Guardian, October 18, 2018
"X-Ray: Yellowstone" Discovery Channel's Curiosity Series December 2012
"Color-Coded Wolves: Infrared Reveals an Illness among Wolves." Science World, September 2012
"Infrared Imaging Helps Save Yellowstone's Wolves." Wired, May 2012

Popular Media (*as author*)

"Operation Nightwatch." The Tennessee Conservationist. July/August 2025
"Want to be a Bat Hero this Halloween? Don't Visit the Batcave." Live Science, October 29, 2018
"When a Bat Sees Its Shadow: Winter Length Affects Bat Survival." National Geographic, April 17, 2018
"Why Bats Are So Good at Gulping Down (Halloween) Prey." Live Science, October 25, 2017

Outreach Activities

2025	Bat Biology and Anatomy, Middle College, Clarksville, TN, September 18, 2025
	Sharing the Shore: Sea Lions in the Galapagos, Science on Tap, Clarksville, TN, April 1, 2025
	Sea Lions from the Tropics to Arctic, University of Alaska Southeastern, January 16, 2025
2024	Bat Biology and Anatomy, Middle College, Clarksville, TN, September 26, 2024
	Lunch and Learn, Office of Student Research and Innovation, September 24, 2024
	Leadership Clarksville, Austin Peay State University, Clarksville, TN, April 11, 2024
	Travelling Science on Tap, Austin Peay State University, Huntsville, AL, March 15, 2024
	Science on Tap, Austin Peay State University, Clarksville, TN, February 6, 2024
2023	Bat Biology and Anatomy, Carmel Elementary School, Clarksville, TN, October 6, 2023
	Skype a Scientist at Mercury Mine Elementary School, September 14, 2023
	Bat Biology and Anatomy, Middle College, Clarksville, TN, August 31, 2023
	What is Science? What's Up Wednesday, Clarksville, TN, February 8, 2023
	STEM event with Clarksville home schools, Clarksville, TN, February 27, 2023
2022	Bat week! Customs House Museum, Clarksville, TN, October 29, 2022
	Skype a Scientist at Olathe Virtual Schools, January 24, 2022
2021	Bats in Danger: the impact of WNS, Rancocas Nature Center, NJ, August 12, 2021
	Science on Tap, Austin Peay State University, Clarksville, TN, May 5, 2021
	Zoom into STEM, Austin Peay State University, Clarksville, TN, January 22, 2021
2020	Skype a Scientist at Zia Elementary School, Albuquerque, NM, May 12, 2020
	Skype a Scientist at Lincoln Roosevelt School, Roxbury, NJ, April 29, 2020
	Family STEM Night at Moore Magnet Schools, Clarksville, TN, February 27, 2020
2019	Skype a Scientist at Hilton Central Schools, Rochester, NY, November 20, 2019
	STEM Night at Bakers Mill Elementary School, Clarksville, TN, October 24, 2019
	Hibernation is cool. 500 Women Scientists Suds and Science, Bozeman, MT, June 30, 2019
Pre-2019	Careers in science. Washington Township Middle School, Boonton, NJ, December 20, 2018
	From moose to manatees. 500 Women Scientists, Bozeman, MT, July 28, 2018
	Bats at risk, Rancocas Nature Center, Westhampton Township, NJ, October 17, 2017
	Science in Yellowstone. Valleyview Middle School, Denville, NJ, December 22, 2015

Advising and Mentoring (*all Austin Peay State University students unless noted*)

Graduate (MS) students – as primary advisor

2025-	Logan Young (*non-thesis track*)
2025-	Macee Roberts
2025-	Gabrielle Tomboc
2023-2025	Dakota Van Parys
2023-2024	Ryan Stuart
2022-2024	Leah Crowley
2022-2024	Brandon Gulley
2020-2022	Trevor Walker
2020-2022	Sarah (Zirkle) Williams
2020-2022	Sarah Krueger
2020-2022	Holly Latta (*non-thesis track*)

Graduate (MS) students – as committee member

2026-	Samantha Underwood
2025-	Brandon Gulley (PhD student, Vanderbilt University)
2025-	Justin Hall (Auburn University)
2024-2026	Brianna Saylor
2024-	Sienna Solis-Stokes
2024-	Collin Stratton
2024-2026	Daniel Redwine
2023-	Allison Palmer
2023-	Anna Chess
2023-2026	Baily Crable
2023-2025	Jared Gorrell
2022-2025	Jacob Wyco
2020-2024	Nathan Selleck
2023-2024	Stella Ugobuaku
2022-2024	Patience Oni
2021-2023	Gabrielle LeFevre
2020-2023	Alexis Culley
2020-2023	Jacob Barrett
2020-2023	River Watson
2020-2023	Julie Kastanis
2020-2022	Connor Hughes
2020-2022	Jocelyn Stalker
2019-2021	Brandon Brown
2019-2020	Robert Ryan
2019-2020	Lyranda Thiem
2019-2020	Molly Richard
2019-2020	Chelsea Blumbergs

Undergraduate students – as research mentor

2026-	Manav Patel
2025-	Maranda Halstead
2024-	Julia Gambill
2024-	L. Martin
2024-	James Watts
2023-2025	Paige Hall
2024	Alexis Nefe
2024	Faith Sewell
2023-2025	Kaia Raines-Ownby
2023-2025	Kamaya Holloway
2023-2025	Macee Roberts
2023-2025	Logan Young

2023-2025	Gabrielle Tomboc
2022-2024	Casey Kleinhans
2022-2024	Erik Anderson
2022-2023	Drew McIllwain
2021-2023	Dakota Van Parys
2021-2022	Kennedy Beck
2021-2022	Matthew Scott
2021-2022	Harrison Rogers
2020-2021	Jonathan Crockarell
2020-2021	John Hansen

Professional Contributions

Service to Scientific Community

2024-	Chair, Communications Committee, North American Society for Bat Research
2023-	Chair, Sponsorship Committee, North American Society for Bat Research
2023-	Chair, Auction Committee, North American Society for Bat Research
2023-	Board of Directors, North American Society for Bat Research (NASBR)
2023-	Member, Education and Outreach Committee, North American Society for Bat Research

Reviewer

Journals: *Alces, Animal Behaviour, Animal Conservation, Biodiversity and Conservation, Canadian Journal of Zoology, Conservation Physiology, Ecography, EcoHealth, Ecology, Ecology and Evolution, Ecosphere, Fronteirs in Ecology and Evolution, Functional Ecology, Integrative and Comparative Biology, Journal of Animal Ecology, Journal of Mammalogy, Journal of the Southeastern Association of Fish and Wildlife Agencies, Journal of Thermal Biology, Journal of the Tennessee Academy of Science, Journal of Wildlife Diseases, Journal of Wildlife Management, Journal of Zoology, Mammalia, PLOS One, Proceedings of the Royal Society B, Scientific Reports, Western North American Naturalist*

Grants: National Science Foundation (Organismal Response to Climate Change), National Fish & Wildlife Foundation (Bats for the Future Fund), Morris Animal Foundation, Renewable Energy Wildlife Institute (Wind Wildlife Research Fund), Natural Sciences and Engineering Research Council of Canada (Discovery Grants)

Workshop Development

2021-2023	Wildlife Field Techniques Workshops, Austin Peay State University
2017	R Workshop for Beginners, Montana State University
2013-2016	R Workshop for Beginners, University of Florida

Professional Society Memberships

2020-	Tennessee Academy of Science (TAS)
2016-	North American Society for Bat Research (NASBR)
2007-	American Society of Mammalogists (ASM)
2003-	The Wildlife Society (TWS)

Working Groups and Society Section Memberships

2020-	Southeastern Bat Diversity Network
2020-	Tennessee Bat Working Group
2019-	Tennessee Chapter of The Wildlife Society
2019-	TWS Spatial Ecology & Telemetry Working Group
2019-	TWS College & University Wildlife Education Working Group
2019-2024	TWS Early Career Professional Working Group
2016-2019	Western Bat Working Group
2016-2019	Montana Bat Working Group
2016-2019	Montana Chapter of The Wildlife Society
2012-2016	Florida Chapter of The Wildlife Society
2007-2010	New York Chapter of The Wildlife Society
2003-2007	Maine Chapter of The Wildlife Society

Software Tools Development

GARPTools	An R package for GARP species distribution model evaluation
batwintor	An R package for computing the metabolic costs of hibernation

Service to the University Community

2025-	Chair, APSU Department of Biology Awards Committee
2025-	APSU CoSTEM Socrates Teaching Award Committee
2025	APSU University College Associate Dean Search Committee
2024	APSU Office of Student Research and Innovation Director Search Committee
2024-	Internship Coordinator, APSU Department of Biology
2024-	Department Representative, APSU CoSTEM Retention and Tenure Review Committee
2022-	APSU Department of Biology Student Learning Outcomes Assessment Committee
2020-	APSU Environmental Health and Safety Advisory University Committee
2019-	Faculty advisor, APSU Chapter of The Wildlife Society
2022-2024	Assessment Coordinator, APSU Department of Biology
2023-2024	Chair, Faculty Search Committee, APSU Department of Biology
2022	Chair, APSU Retention, Tenure, Promotion Policy Review Committee
2021-2022	Sub-committee chair, APSU College of STEM Diversity and Inclusion Committee
2020-2023	APSU College of STEM Diversity and Inclusion Committee
2019-2023	Chair, APSU Department of Biology Communications Committee