

ELSA YOUNGSTEADT

Curriculum Vitae

North Carolina State University
Department of Applied Ecology
Campus Box 7617
Raleigh, NC 27695-7617

919-515-1661
ekyoungs@ncsu.edu
<http://youngsteadtlab.org>
ORCID ID: 0000-0003-2032-9674

EDUCATION

PhD, Entomology, North Carolina State University, Raleigh, NC 2008
MS, Biological Sciences, University of Wisconsin-Milwaukee, Milwaukee, WI 2003
BA, Biology, Truman State University, Kirksville, MO (Valedictorian) 1999

RESEARCH POSITIONS

Assistant Professor, North Carolina State University, Applied Ecology 2018 – Present
Faculty Fellow, NCSU Center for Geospatial Analytics 2023 – Present
Faculty Fellow, Southeast Climate Adaptation Science Center 2018 – Present
Associate Faculty, NCSU Department of Entomology 2020 – Present
Adjunct Graduate Faculty, Bowling Green State University 2023 – Present
Research Associate, North Carolina State University, Entomology 2013 – 2018
Postdoctoral Researcher, North Carolina State University, Entomology 2012 – 2013
PhD Graduate Research Fellow, North Carolina State University, Entomology 2003 – 2008
MS Graduate Research Fellow, University of Wisconsin-Milwaukee, Biological Sciences 2000 – 2003
Curator, Milwaukee Public Museum, Milwaukee, WI 1999 – 2002
Ecologist, The Nature Conservancy, Madison, WI 2001

SCIENCE COMMUNICATION POSITIONS

Associate Editor, *American Scientist* magazine, Research Triangle Park, NC 2011 – 2012
Programs Manager, Sigma Xi, Research Triangle Park, NC 2008 – 2011
Freelance Science Writer 2006 – 2012

- For *Science*, PRI's *The World*, National Evolutionary Synthesis Center, others

News Writing Intern, *Science* magazine, Washington, DC 2008
AAAS Mass Media Fellow, WOSU Public Media, Columbus, OH 2007

RESEARCH FUNDING

Grants

2023 NC Blueberry Council. 1 year, **\$12,127**
Promoting a holistic approach to pollinating blueberries
PIs: E. Youngsteadt, D. R. Tarpay, co-written with postdoc Hannah Levenson

2023 NSF Partnership for Applied Conservation Science and Practice. 3 years, **\$633,617** (\$429,687 to NCSU)
Connectivity for a complex life cycle: Conserving the Crystal skipper butterfly in a coastal urban landscape
PIs: E. Youngsteadt, C. S. Price, N. Hostetter, J. Jeziorska

2022 NSF Digitization TCN. 4 years, **\$75,546** to NCSU

- iDigBees Network, towards complete digitization of US bee collections to promote ecological and evolutionary research in a keystone clade
NCSU PIs: R. E. Irwin and E. Youngsteadt
- 2022 NC Consumer & Youth Horticulture Working Group. 1 year, **\$4,218**
Pollinator overwintering habitat
PIs: E. Youngsteadt and H. Levenson
- 2022 USDA AFRI Conference Grant. 1 year, **\$25,000**
Protecting Pollinators in Urban Landscapes
PI: D. Lowenstein (funds managed by Michigan State University)
Key personnel: E. Youngsteadt, K. Braman, R. Griffin, S. Foltz, and N. Walton
- 2022 NCSU Research and Innovation Seed Funding. 1 year, **\$25,000**
Electrifying Animal Feed: Leveraging Microbial Communities in Formicine Ants to Produce Single Cell Protein via Assimilation of CO₂-Derived Formic Acid
PIs: W. J. Sagues, E. Youngsteadt, D. Call, A. Grunden, S. W. Kim, and K. Zering
- 2021 NC Consumer & Youth Horticulture Working Group. 1 year, **\$3,128**
Pollinator overwintering habitat
PIs: E. Youngsteadt and H. Levenson
- 2021 FONDECYT Proyectos de Investigación Básica. 1 year, **\$/.99,181.00** (~\$36,742 with \$7,635 to NCSU personnel)
Uso de entornos urbanos para predecir los efectos del cambio climático en mutualismos en la Amazonía Peruana (Use of urban environments to predict effects of climate change on mutualisms in the Peruvian Amazon).
PIs: J. S. Garate Quispe, J. Peña Valdeiglesias, E. Youngsteadt, S. G. Prado, and T. Gonzales Ojeda.
- 2021 USDA AFRI Undergraduate Research and Extension Experiential Learning Fellowships Program. 5 years, **\$499,620**
BeeMORE – Bees and microbes in organized undergraduate research and engagement
PIs: E. Miller, D. Tarpy, A. Graves, and E. Youngsteadt
- 2020 NCSU Laboratory Research Equipment Program. 1 year, **\$1,343**
Using Malaise traps to further research and student engagement in arthropod diversity and biomass sampling
PI: E. Youngsteadt, co-written with research associate Sarah Parsons
- 2020 Smith Horticultural Trust. 1 year, **\$10,000**
An online pollinator garden planner to support insect-friendly landscaping
PI: E. Youngsteadt
- 2020 NCSU Internationalization Seed Grant. 1 year, **\$5,000**
Collaborative research in the Peruvian Amazon to assess impacts of global change on tropical forests
PI: E. Youngsteadt, co-written with research associate Sara Prado
- 2020 USDA NIFA Pollinator Health: Research and Application. 4 years, **\$429,291** (\$133,846 to NCSU)
Where is Pollination in Peril? Evaluating climate risks to wild and managed bees and pollination services across the US
PIs: K. McCluney, E. Youngsteadt, C. Penick
- 2020 USDA Southern IPM Center IPM Enhancement Grant. 1 year, **\$29,990**
Current practices and management options for the eastern carpenter bee (*Xylocopa virginica*), an urban pest and pollinator
PIs: E. Youngsteadt, M. N. Peterson, R. M. Roe
- 2019 Gore Innovation Grant. 1 year, **\$15,800**
An online pollinator garden planner to support insect-friendly landscaping
PIs: E. Youngsteadt, D. Seth Carley, S. Heckman
- 2016 NCSU Research Innovation Seed Funding. 1 year, **\$24,999**
Youngsteadt CV

- Effects of climate and atmospheric change on plant-pollinator interactions
 PIs: E. Youngsteadt, V. Aneja, D. Seth Carley, S. D. Frank, R. Irwin, T. Ruffy
- 2015 NCSU Extension, Engagement, and Economic Development Seed Grant. 1 year, **\$9,995**
 Pollinator education and outreach for county agents and Extension Master Gardeners
 PIs: E. Youngsteadt, S. D. Frank, and D. R. Tarpy
- 2013 USDA AFRI. 4 years, **\$469,000**
 Can forests take the heat? Managing pests and ecosystem services in a warming climate
 PIs: S. D. Frank and E. Youngsteadt
- 2013 NSF RAPID. 2 years, **\$157,324**
 Consequences of extreme weather events for urban arthropod communities: Effects of Hurricane Sandy on ecosystem processes and the spread of exotic species in New York City
 PIs: S. D. Frank and R. R. Dunn
- *Although I was not a PI, I was part of the team of five who wrote this proposal.

Fellowships: Total > \$180,000

- 2006 U.S. Department of Education GAANN Biotechnology Fellowship. 2 years, **~\$60,000**
 Neotropical ant-gardens: Behavioral and chemical ecology of an ant-plant mutualism
- 2005 Amazon Conservation Association Graduate Research Grant. **~\$4000**
 Behavioral and chemical ecology of Neotropical ant gardens
- 2004 North Carolina Entomological Society Travel Award. **~\$1000**
 Behavioral and chemical ecology of Neotropical ant gardens
- 2004 Sigma Xi Grant-in-Aid of Research. **\$200**
 Behavioral and chemical ecology of Neotropical ant gardens
- 2000 National Science Foundation Graduate Research Fellowship. 3 years, **~\$96,000**
 Evaluating interactions between a carnivorous butterfly caterpillar and ants
- 2000 University of Wisconsin-Milwaukee Graduate School Fellowship. 1 year, **~\$20,000**
 Evaluating interactions between a carnivorous butterfly caterpillar and ants

PUBLICATIONS

- Totals: 32** peer-reviewed publications
3 book chapters
7 extension and trade publications
>100 other publications

* indicates mentored coauthor

†Contributed equally

Peer-reviewed publications

32. Kirchner, M.*, M. Bertone, B. Blaimer, and E. Youngsteadt. *In press*. Natural history of a rare arboreal ant: First colony collection and males of *Aphaenogaster mariae* Forel 1886 (Hymenoptera, Formicidae). ***Proceedings of the Entomological Society of Washington***.
31. Youngsteadt, E., and M. Keighron*. Urban pollination ecology. *In press*. ***Annual Review of Ecology, Evolution, and Systematics***. <https://doi.org/10.1146/annurev-ecolsys-102221-044616>
30. Naumchik, M.* and E. Youngsteadt. 2023. Larger pollen loads increase risk of heat stress in foraging bumble bees. ***Biology Letters***. 10.1098/rsbl.2022.0581
 • Featured in Gizmodo, the *St. Albert Gazette* (Canada), and *Scientias* (Netherlands)
29. Youngsteadt, E., A. Terando, J. Vukomanovic, and J. Costanza. 2023. Compact or sprawling cities: Has the sparing-sharing framework yielded an ecological verdict? ***Current Landscape Ecology Reports***. <https://doi.org/10.1007/s40823-022-00081-8>

28. [Youngsteadt, E.](#), S. Prado*, K. Keleher*, and M. Kirchner*. 2023. Can behavior and physiology mitigate effects of warming on ectotherms? A test in urban ants. *Journal of Animal Ecology*. <https://doi.org/10.1111/1365-2656.13860>
- Featured in *Yahoo News*, *Eos* (a publication of the AGU), and *Canal Extremadura* (Spanish television station)
27. Briggs, E.* , C. Baranski, O. Munzer, G. Garrison, J. Collazo, and [E. Youngsteadt](#). 2022. Estimating bee abundance: Can mark-recapture methods validate common sampling protocols? *Apidologie* 53:10. <https://doi.org/10.1007/s13592-022-00919-4>
26. Moylett, H.†, [E. Youngsteadt†](#), and C. Sorenson. 2020. The impact of prescribed burning on native bee communities (Hymenoptera: Apoidea: Anthophila) in longleaf pine savannas in the North Carolina sandhills. *Environmental Entomology* 49:211–219 <https://doi.org/10.1093/ee/nvz156>.
- Winner of 2020 *Environmental Entomology* Peoples' Choice Award
25. [Youngsteadt, E.](#) and C. Sorenson. 2018. Failure of pollen transport despite high bee visitation in an endangered dioecious shrub. *Annals of the Entomological Society of America* 112:169–179 doi: 10.1093/aesa/say049.
24. Terando, A. J., S. Prado, and [E. Youngsteadt](#). 2018. Construction of a compact low-cost radiation shield for air-temperature sensors in ecological field studies. *Journal of Visualized Experiments* 141:e58273, doi:10.3791/58273.
23. Hamon, L. E.* , [E. Youngsteadt](#), R. E. Irwin, and C. E. Sorenson. 2018. Pollination ecology and morphology of Venus flytrap in sites of varying time since last fire. *Annals of the Entomological Society of America* 112:141–149. <https://doi.org/10.1093/aesa/say032>
22. Hamblin, A. L.*†, [E. Youngsteadt†](#), and S. D. Frank. 2018. Wild bee abundance declines with urban warming, regardless of floral density. *Urban Ecosystems* 21: 419-428. <https://doi.org/10.1007/s11252-018-0731-4>
21. [Youngsteadt, E.](#), R. E. Irwin, M. Kunz, D. Suiter, A. Fowler, S. J. Giacomini, M. A. Bertone, and C. E. Sorenson. 2018. Venus flytrap rarely traps its pollinators. *American Naturalist* 191:539–546. <https://doi.org/10.1086/696124>
- Featured in the *Washington Post*, *Science News*, *National Geographic*, *Popular Science*, *Inverse*, and WUNC (North Carolina public radio)
20. Savage, A. M., [E. Youngsteadt](#), A. F. Ernst, S. Anderson Powers*, R. R. Dunn, and S. D. Frank. 2018. Homogenizing an urban habitat mosaic: Arthropod diversity declines in NYC parks after Super Storm Sandy. *Ecological Applications* 28: 225–236. <https://doi.org/10.1002/eap.1643>
19. Terando, A. J., [E. Youngsteadt](#), E. K. Meineke, and S. G. Prado. 2017. Ad hoc instrumentation methods in ecological studies produce highly biased temperature measurements. *Ecology and Evolution* 7:9890-9904.
18. Hamblin, A. L.*†, [E. Youngsteadt†](#), M. M. López-Uribe, and S. D. Frank. 2017. Physiological thermal limits predict differential responses of bees to urban heat-island effects. *Biology Letters* 13: 20170125.
- Featured in the *News and Observer* and WUNC (North Carolina public radio)
17. López-Uribe, M. M., R. H. Appler, [E. Youngsteadt](#), R. R. Dunn, S. D. Frank, and D. R. Tarpay. 2017. Higher immunocompetence is associated with higher genetic diversity in feral honey bee colonies (*Apis mellifera*). *Conservation Genetics* 18:659–666.
16. [Youngsteadt, E.](#), A. F. Ernst, R. R. Dunn, and S. D. Frank. 2016. Responses of arthropod populations to warming depend on latitude: evidence from urban heat islands. *Global Change Biology* 23: 1436–1447.
15. Meineke, E. K., [E. Youngsteadt](#), R. R. Dunn, and S. D. Frank. 2016. Urban warming reduces above-ground carbon storage. *Proceedings of the Royal Society B* 283:20161574.
- Featured in *Nature* (Research Highlights, 58:143)

14. Youngsteadt, E., H. Moylett, M. M. López-Urbe, and A. Hamblin*. 2016. T. B. Mitchell: the man behind *The Bees of the Eastern United States*. ***American Entomologist*** 62:157–162.
13. Dale, A. G., E. Youngsteadt, and S. D. Frank. 2016. Forecasting the effects of heat and pests on urban trees: impervious surface thresholds and the 'Pace to Plant' technique. ***Arboriculture and Urban Forestry*** 42:181–191.
12. Reese, A., A. M. Savage, E. Youngsteadt, K. McGuire, A. Koling, O. Watkins, S. D. Frank, and R. R. Dunn. 2016. Urban stress is associated with variation in microbial species composition—but not richness—in Manhattan. ***The ISME Journal*** 10: 751–760.
11. Youngsteadt, E. †, R. H. Appler†, M. M. López-Urbe, D. R. Tarpy, and S. D. Frank. 2015. Urbanization increases pathogen pressure on feral and managed honey bees. ***PLOS ONE*** 10:e0142031.
 - Featured on WUNC (North Carolina public radio)
10. Youngsteadt, E., R. C. Henderson*, A. M. Savage, R. R. Dunn, and S. D. Frank. 2015. Habitat and species identity, not diversity, predict the extent of refuse consumption by urban arthropods. ***Global Change Biology*** 21:1103–1115.
 - Featured in *The New York Times*, *The Washington Post*, *Science Friday*, *Scientific American*, and >20 other original news articles, broadcasts, podcasts, and videos in the U.S., Europe, and South Korea
9. Savage, A. M., B. Hackett, B. Guénard, E. Youngsteadt, and R. R. Dunn. 2015. Fine-scale heterogeneity across Manhattan's urban habitat mosaic is associated with variation in ant composition and richness. ***Insect Conservation and Diversity*** 8:216–228.
 - Featured in *The New York Times*, *Scientific American*
8. Youngsteadt, E., A. G. Dale, A. J. Terando, R. R. Dunn, and S. D. Frank. 2015. Do cities simulate climate change? A comparison of herbivore response to urban and global warming. ***Global Change Biology***. 21:97–105.
 - Featured in *Newsweek*, *Greenwire*, *Entomology Today*
7. Youngsteadt, E., P. Guerra*, and C. Schal. 2010. Divergent chemical cues elicit seed collecting by ants in an obligate multi-species mutualism in lowland Amazonia. ***PLOS ONE*** 5:e15822.
6. Youngsteadt, E., J. Alvarez*, J. Osborne, and C. Schal. 2009. Species-specific seed dispersal in an obligate ant-plant mutualism. ***PLOS ONE*** 4:e4335.
 - Featured in *Miller McCune* podcast
5. Booth, W., E. Youngsteadt, C. Schal, and E. Vargo. 2009. Characterization of 8 polymorphic microsatellite loci in the Neotropical ant-garden ant, *Camponotus femoratus*. ***Conservation Genetics*** 10:1401–1403.
4. Booth, W., E. Youngsteadt, C. Schal, and E. Vargo. 2009. Polymorphic microsatellite loci for the ant-garden ant, *Crematogaster levior* (Forel). ***Conservation Genetics*** 10:639–641.
3. Youngsteadt, E., S. Nojima, C. Häberlein, S. Schulz, and C. Schal. 2008. Seed odor mediates an obligate ant-plant mutualism in Amazonian rainforest. ***PNAS*** 105: 4571–4575.
 - Featured in *BioScience*, *ScienceNOW*
2. Youngsteadt, E., Y. Fan, B. Stay, and C. Schal. 2005. Cuticular hydrocarbon synthesis and its maternal provisioning to embryos in the viviparous cockroach *Diploptera punctata*. ***Journal of Insect Physiology*** 51:803–809.
1. Youngsteadt, E., and P. J. DeVries. 2005. The effects of ants on the entomophagous butterfly caterpillar *Feniseca tarquinius* and the putative role of chemical camouflage in the *Feniseca*-ant interaction. ***Journal of Chemical Ecology*** 31:2091–2109.

Peer-reviewed book chapters

3. Meineke, E. K.†, E. Youngsteadt†, M. K. Lippey, and K. C. R. Baldock. *In press*. Urbanization shapes insect diversity. Chapter in: C. Nilon and M. Aronson, eds. *Routledge Handbook of Urban Biodiversity*, Routledge.

2. Youngsteadt, E., and A. J. Terando. 2020. Ecology of urban climates: The need for landscape biophysics in cities. Chapter 8 in: P. Barbosa, ed. *Urban Ecology: Its Nature and Challenges*. CABI. <https://doi.org/10.1079/9781789242607.0144>
1. Irwin, R. E., E. Youngsteadt, P. S. Warren, and J. L. Bronstein. 2020. The evolutionary ecology of mutualisms in urban landscapes. Chapter 7 in: M. Szulkin, J. Munshi-South, and A. Charmantier, eds. *Urban Evolutionary Biology*. Oxford University Press. DOI: 10.1093/oso/9780198836841.003.0007

Peer-reviewed extension publications

2. Youngsteadt, E., and M. Favre. 2022. How To Manage a Successful Bee Hotel (AG-915). **NC Cooperative Extension**.
1. Levenson, H. K., and E. Youngsteadt. 2020. The Bees of North Carolina: An Identification Guide (AG-858). **NC Cooperative Extension**.

Other extension and trade publications

- Frank, S. D., A. G. Dale, and E. Youngsteadt. 2016. Measuring impervious surface cover with the Pace to Plant technique. **NC Cooperative Extension Fact Sheet**.
- Frank, S. D., and E. Youngsteadt. 2015. Squash bee. **NC Cooperative Extension Insect Note**. Department of Entomology, NC State University, Raleigh, NC.
- Youngsteadt, E. 2014. Chestnut growers guide to site selection and environmental stress. *The Journal of the American Chestnut Foundation* 28:10–15.
- Youngsteadt, E., and K. Gurney. 2013. Chestnut growers guide to pests and diseases. *The Journal of the American Chestnut Foundation* 27:17–23.
- Frank, S. D., E. K. Meineke, A. G. Dale, and E. Youngsteadt. 2013. Pests in the city. **Nursery and Landscape Notes**.

Book reviews

- Youngsteadt, E. 2021. Review of T. McGlynn, *The Chicago Guide to College Science Teaching*. *American Entomologist* 67:62-63. (doi 10.1093/ae/tmab037)
- Youngsteadt, E. 2020. Review of B. N. Danforth, R. L. Minckley, and J. L. Neff, *The Solitary Bees*. *American Entomologist* 66:62. (doi 10.1093/ae/tmaa014)
- Youngsteadt, E. 2016. Review of T. R. New, 2015, *Insect Conservation and Urban Environments*. *American Entomologist* 62:E2–E3.
- Youngsteadt, E. 2012. Insect escape artists (review of G. Waldbauer, 2012, *How Not to Be Eaten: The Insects Fight Back*). *American Scientist* 100:254–255.
- Youngsteadt, E. 2011. Speaking for the data (review of N. Baron, 2010, *Escape from the Ivory Tower*, and D. Meredith, 2010, *Explaining Research*). *American Scientist* 99:86–87.
- Youngsteadt, E. 2009. Short takes on three books (review of J. McWilliams, 2008, *American Pests: The Losing War on Insects from Colonial Times to DDT*). *American Scientist* 97:348.

Selected articles and blog posts (past 5 years)

- Youngsteadt, E. 2023. Ants don't change their behavior to avoid sublethal warming. **Animal Ecology in Focus** (blog of the *Journal of Animal Ecology*), Jan 25, 2023. tinyurl.com/munbetw8
- Sorenson, C. and E. Youngsteadt. 2020. Research Brief: Prescribed fire is beneficial for native bees in longleaf savannas. **Longleaf Leader** 13:12-14.
- Youngsteadt, E. 2018. Don't bite the beetle that pollinates you. **Biosphere** 31:34-45. (On pollination ecology of Venus flytrap.)
- Sorenson, C., E. Youngsteadt, and R. Irwin. Friend or food? Why Venus flytraps don't eat their pollinators. 2018. **The Conversation** March 2, 2018. (On pollination ecology of Venus flytrap.)

TEACHING

Courses

Urban Ecology (AEC 470/570). Instructor (annually, 2019 – present). North Carolina State University. Enrollment: **19** (2022); **11** (2021); **16** (2020); **9** (2019)

Climate Change and Plant-Insect Interactions (ENT 601/801). Instructor (fall 2017, co-instructor (spring 2016). North Carolina State University. Enrollment: **12** (2017); **7** (2016)

Guest lectures

June 2023. In: **Agricultural Entomology Practicum (ENT 661/841)**. Department of Entomology & Plant Pathology, North Carolina State University.

Apr 2023. My writing journey and tips for science writers. In: **Science Writing (Writing 101)**. Thompson Writing Program, Duke University.

Feb 2023. Respect the pollinators. In: **A/V Geeks series** (credit opportunity for honors students). D. H. Hill Library, North Carolina State University.

Nov 2022. Panelist in: **Field Ecology (AEC 460)**. Department of Applied Ecology, North Carolina State University.

Feb 2022. Plant-pollinator interactions. In: **Insect Ecology (ENT 731)**. Department of Entomology & Plant Pathology, North Carolina State University.

Oct 2021. Communicating science to the public. In: **Writing Proposals in Agriculture, Biology, and Ecology (ENT 510)**. Department of Entomology & Plant Pathology, North Carolina State University.

2021. Why we need bees. In **Wicked Problems, Wolfpack Solutions 2021: Global Change (AEC 114)**. Virtual. North Carolina State University

Feb 2021. Guest reviewer. In: **Architectural Design (ARC 402)**. School of Architecture, North Carolina State University.

Oct 2020. Communicating science to the public. In: **Writing Proposals in Agriculture, Biology, and Ecology (ENT 510)**. Department of Entomology, North Carolina State University.

Apr 2020. Insect ecology in the city. In: **Insect Ecology (ENT 731)**. Department of Entomology, North Carolina State University.

Oct 2019. Ants in Manhattan! In: **Urban Wildlife Management (FW 402)**. Fisheries, Wildlife and Conservation program, North Carolina State University.

Oct 2019. Communicating science to the public. In: **Writing Proposals in Agriculture, Biology, and Ecology (ENT 510)**. Department of Entomology, North Carolina State University.

June 2019. NC Native Bees: Biology, Diversity, and Conservation. In: **Agricultural Entomology Practicum (ENT 661/841)**. Department of Entomology & Plant Pathology, North Carolina State University.

Apr 2019. Do cities simulate climate change? Using urban plants and insects to test global change predictions. In: **Plant Ecology (PB 495)**. Department of Plant Biology, North Carolina State University.

Nov 2018. Panel discussion on careers in ecology. In: **Field Ecology and Methods (AEC 460)**. Department of Applied Ecology, North Carolina State University.

Sept 2018. Ants in Manhattan! In: **Urban Wildlife Management (FW 402)**. Fisheries, Wildlife and Conservation program, North Carolina State University.

Apr 2018. Insects and climate change. In: **Insects and People (ENT 201)**. Department of Entomology & Plant Pathology, North Carolina State University.

Sept 2017. Insects in the city. In: **Urban Wildlife Management (FW 403)**. Fisheries, Wildlife and Conservation program, North Carolina State University.

Jun 2017. NC native bees: Biology, diversity, and conservation. In: **Agricultural Entomology Practicum (ENT 841)**. Department of Entomology and Plant Pathology, North Carolina State University.

Feb 2016. Urban ants and what they do for you. In: **Insects and People (ENT 201)**. Department of Entomology, North Carolina State University.

- Jan 2016. Supporting native bees in North Carolina: Diversity, nutrition, and nesting. In: **Honors Capstone Seminar (HON 496)**. North Carolina State University.
- Nov 2015. NC backyard bees: Importance, diversity, and conservation. In: **Permaculture: Sustainable Living (HS432)**. Department of Horticulture, North Carolina State University.
- Mar 2015. Urban ecosystems in the wake of a superstorm. In: **Conservation for the 21st Century (AEC495)**. Department of Applied Ecology, North Carolina State University.
- Jan 2015. Ecosystem services and beneficial insects. In: **Design-Build Studio (LAR506)**. Department of Landscape Architecture, North Carolina State University.
- Apr 2010. The sound of science: Telling science stories with audio. In: **Explaining Science to the Public (ENG498/STS490)**. Department of English, North Carolina State University.
- Sept 2005. Workshop: Extracción y fraccionamiento de compuestos activos. Laboratorio del Área de Entomología, **Universidad Nacional de San Antonio Abad del Cusco**, Perú.

Professional development in teaching and mentoring

- Adult Mental Health First Aid Certification, Wolfpack Wellness, 2022
 Core Teaching Certification, NCSU Office of Faculty Development, 2020
 UNC System course: Designing Effective Online Courses, 2020

SCIENTIFIC PRESENTATIONS

Invited presentations

33. 2023. Do hotter cities make hotter insects, and can they cope? Using urban insects to test global warming predictions. **Queens College**, Biology Department Colloquium (virtual).
32. 2022. Urban fever: Do hotter environments make hotter insects, and can they cope? **University of Colorado, Boulder**, EEB seminar series.
31. 2022. Kirchner, M.*, C. Sorenson, and E. Youngsteadt. Temperate canopy ants: Urbanization shifts diversity and nutritional ecology. **Ecological Society of America**, Montréal, Canada.
30. 2022. Urban fever: Do hotter environments make hotter insects, and can they cope? **Duke University**, ecology seminar series, Durham, NC.
29. 2021. Youngsteadt, E., and C. Sorenson. The impact of prescribed burning on native bee communities (Hymenoptera: Apoidea: Anthophila) in longleaf pine savannas in the North Carolina sandhills. **Entomological Society of America**, Denver, CO (virtual presentation).
28. 2021. Youngsteadt, E., and S. Prado*. Do behavior and physiological adaptation mitigate ectotherm responses to urban warming? **Entomological Society of America**, Denver, CO.
27. 2021. Youngsteadt, E., and C. Sorenson. The impact of prescribed burning on native bee communities (Hymenoptera: Apoidea: Anthophila) in longleaf pine savannas in the North Carolina sandhills. **2021 Natural Areas Conference: Life From the Ashes: Exploring the Impact of Prescribed & Natural Fire on Insects and Other Invertebrates** (virtual).
26. 2021. The future of insects in a warming, urbanizing world. **Clemson University**, Entomology seminar series, Clemson, SC (virtual).
25. 2020. The future of insects in a warming, urbanizing world. **NC State University**, Entomology seminar series, Raleigh, NC.
24. 2020. Do cities simulate climate change? Evidence from urban insects and the need for urban biophysical ecology. **CAP LTER symposium: Heat, food, and water: implications for physiology, ecology, and human health**. Arizona State University, Phoenix, AZ.
23. 2019. Do cities drive evolutionary change in insect mutualisms? **Entomological Society of America**, St. Louis, MO.
22. 2019. Pollinators and urban warming: A landscape physiology approach. **4th International Conference on Pollinator Biology, Health and Policy**, Davis, CA.

21. 2019. Faculty Highlights: Ecology & Evolution in a Changing Environment. **NC State University**, Ecology and Evolution seminar series, Raleigh, NC.
20. 2018. Effects of climate and atmospheric change on floral resources in two insect-pollinated plants. **Entomological Society of America**, Vancouver, Canada.
19. 2018. Pollination of Michaux's sumac in the NC Sandhills. **Rare Plant Discussion Group**, Chapel Hill, NC.
18. 2017. Pollination in Michaux's sumac, an endangered shrub in the southeastern US. **Entomological Society of America**, Denver, CO.
17. 2017. Too hot downtown? The effect of urban warming on bee communities. **Protecting Pollinators in Urban Landscapes Conference**, Traverse City, MI.
16. 2017. Do cities simulate climate change? Using urban insect communities to test global warming predictions. **Pennsylvania State University**, Department of Entomology, University Park, PA.
15. 2017. Climate change and plant-pollinator interactions. **North Carolina State University**, global change seminar series, Raleigh, NC.
14. 2016. Warming up species interactions: What can we learn from cities? **Duke University**, ecology seminar series, Durham, NC.
13. 2016. Cambio climático en el bosque: Efectos del calentamiento urbano y global en los árboles y sus plagas. **Sociedad Colombiana de Entomología**, Manizales, Colombia.
12. 2016. Efectos de los hábitats urbanos sobre la ecología de los insectos. **Bogotá Botanical Garden**, Bogotá, Colombia.
11. 2015. Insects and urban warming: Does latitude matter? **Entomological Society of America**, Minneapolis, MN.
10. 2015. Arthropod biodiversity and ecosystem services are decoupled across New York City green spaces. **Entomological Society of America**, Minneapolis, MN.
9. 2014. Climate change in the forest: Effects of urban and global warming on trees and pests. **The Nature Conservancy**, Durham, NC.
8. 2014. Urban ecosystems in the wake of a superstorm: Arthropod communities withstand extreme flooding in New York City. **European Congress of Entomology**, York, England.
7. 2012. Communicating chemical ecology to a broader audience. **Ecological Society of America**, Portland, OR.
6. 2012. *Feniseca tarquinius*, a wolf in sheep's chemistry. **Carolina Butterfly Society**, Hickory, NC.
5. 2008. Ant gardens: Species specificity and chemical communication in an obligate ant-plant mutualism. **Missouri State University**, Department of Biology, Springfield, MO.
4. 2008. Picky ants and smelly seeds: Specificity and communication in a tropical ant-plant mutualism. **Truman State University**, Department of Biology, Kirksville, MO.
3. 2006. Jardines de hormigas: Agricultura y guerra en el mundo pisado. **Centro de Investigación y Capacitación Río Los Amigos**, Madre de Dios, Perú.
2. 2006. Ecología química y de comportamiento en los jardines de hormigas. **Universidad Nacional de San Antonio Abad del Cusco**, Department of Biology, Cusco, Perú.
1. 2003. The effects of ants on the carnivorous butterfly caterpillar *Feniseca tarquinius* and the role of chemical camouflage in the *Feniseca*-ant interaction. **Milwaukee Public Museum**, Milwaukee, WI.

Contributed presentations

24. Prado, S.*, J. Peña-Valdeiglesias, J. Garate-Quispe [presenting author], T. Gonzales-Ojeda, N. Aquino-Acharte, and E. Youngsteadt. 2023. Using urban environments to predict climate change effects on mutualisms in the tropics. **International Union of Forest Research Organizations-América Latina**, Curitiba, Brasil. (October)

23. Rondon Berrio, V., W. Sagues, A. Grunden, D. Call, and E. Youngsteadt. Formatotroph discovery and evolution for CO₂ utilization. **45th Symposium on Biomaterials, Fuels and Chemicals**, Portland, OR. (May)
22. Parsons, S. E. *, P. Willadsen, and E. Youngsteadt. Opportunities to conserve insect biomass and diversity in a region of urban sprawl: A systems approach. **Association of Southeastern Biologists**, Winston-Salem, NC. (March)
21. Cox, S., J. Balint-Kurti, R. Wardell, S.E. Parsons*, E. Youngsteadt, and H. F. Nijhout. 2023. Urban legacies: Exploring how demographics, canopy cover, & land use affect ground invertebrates in the city. **Association of Southeastern Biologists**, Winston-Salem, NC. Poster (March)
20. Keighron, M. *, K. McCluney, C. Penick, and E. Youngsteadt. 2022. Hot bees in the city! Increasing air temperatures put bees at risk. **Protecting Pollinators in Urban Landscapes**, Athens, GA. Poster. (Oct 11)
19. Gorman, K. *, N. Peterson, and E. Youngsteadt. 2022. Current practices and management options for the carpenter bee (*Xylocopa virginica*), an urban pest and pollinator. **Protecting Pollinators in Urban Landscapes**, Athens, GA. Poster. (Oct 11)
18. Prado, S. *, J. Peña-Valdeiglesias, J. Garate-Quispe [presenting author], T. Gonzales-Ojeda, N. Aquino-Acharte, and E. Youngsteadt. 2022. Uso de entornos urbanos para predecir los efectos del cambio climático en mutualismos en la amazonía peruana. **IX Simposio de investigación y monitoreo biológico en áreas naturales protegidos y corredores de conservación**, Puerto Maldonado, Perú.
17. Parsons, S. E. *, and E. Youngsteadt. 2022. Opportunities to conserve insect biomass and diversity in a region of urban sprawl: A systems approach. **Ecological Society of America**, Montréal, Canada. (August)
16. Jones, L. J., E. Youngsteadt, S. Jha, R. J. Schilder, M. M. López-Urbe. 2021. Thermal tolerance depends on climate variability and sex in a widely distributed solitary bee. **British Ecological Society**, Liverpool, England. (December)
15. Briggs, E. *, and E. Youngsteadt. 2021. Counting bees: A comparison of survey methods for estimating wild bee abundance. **Association of Southeastern Biologists**, 82nd Annual Meeting (virtual). Poster.
14. Targaszewski, M. *, E. Youngsteadt, and C. Sorenson. 2021. Effects of artificial pollination on reproduction in female populations of *Rhus michauxii* Sarg. **Entomological Society of America, Southeastern Branch Meeting** (virtual). Poster.
13. Ruzi, S. A., E. Youngsteadt, J. A. Kettenbach, A. L. Hamblin, and R. E. Irwin. 2020. Urbanization shapes bee (Apoidea) biodiversity through time. **Entomological Society of America**, virtual annual meeting.
12. Hamon, L., E. Youngsteadt, C. Sorenson, and R. E. Irwin. 2019. Examining pollinators and pollen limitation throughout the range of Venus flytrap. **Entomological Society of America**, St. Louis, MO.
11. Youngsteadt, E., and C. Sorenson. 2018. Pollination and seed set in Michaux's sumac, a rare dioecious shrub in the southeastern US. **Entomological Society of America**, Vancouver, Canada. Poster.
10. Mata, M. *, E. Youngsteadt, D. Seth Carley, and T. Ruffy. 2017. Environmental effects on pollen in four insect-pollinated herbaceous annuals. **American Society for Horticultural Science**, Waikoloa, HI.
9. Youngsteadt, E., K. Backe, and S. D. Frank. 2016. Reducing urban tree pests through data-driven planting: what can we learn from municipal tree inventories? **International Congress of Entomology**, Orlando, FL.
8. Youngsteadt, E. 2015. Teaching bee diversity and habitat requirements: Tools for outreach and Extension Master Gardeners. **Protecting Pollinators in Urban Landscapes Conference**, Hendersonville, NC
7. Youngsteadt, E., R. R. Dunn, and S. D. Frank. 2014. Heat islands in the megalopolis: Effects of urban and regional climate on street-tree arthropods from Raleigh to Boston. **Entomological Society of America**, Portland, OR.

6. Youngsteadt, E., A. M. Savage, R. R. Dunn, and S. D. Frank. 2013. Weathering the storm: Hurricane Sandy effects on New York City arthropods. **Entomological Society of America**, Austin, TX.
5. Youngsteadt, E., S. D. Frank, N. Sanders, and R. R. Dunn. 2012. Canary in the coal mine: Do urban areas predict pest outbreaks in a warming climate? **Entomological Society of America**, Knoxville, TN.
4. Youngsteadt, E., S. Nojima, C. Häberlein, S. Schulz and C. Schal. 2007. Neotropical ant-gardens: Species specificity and complex chemical cues in an obligate ant-plant mutualism. **Entomological Society of America**, San Diego, CA. Poster. (Dec)
3. Youngsteadt, E., S. Nojima, C. Häberlein, S. Schulz and C. Schal (presenting author). 2007. Seed odor mediates an obligate ant-plant mutualism in Amazonian rainforest. **International Society of Chemical Ecology**, Jena, Germany. Poster. (July)
2. Youngsteadt, E., S. Nojima, and C. Schal. 2006. Divergent chemical cues elicit seed-collecting in ant-garden ants. **International Congress, International Union for the Study of Social Insects**, Washington, DC. Poster. (July)
1. Youngsteadt, E., and DeVries, P. J. 2003. The effects of ants on the carnivorous butterfly caterpillar *Feniseca tarquinius*, and the role of chemical camouflage in the *Feniseca*-ant interaction. **Ecological Society of America**, Savannah, GA. Poster. (August)

EXTENSION AND OUTREACH PRESENTATIONS

Primary focus: Pollination; diversity and conservation of native bees in urban areas

Total: 40 presentations at events attended by >130,000 people, 2013 – present

Selected presentations:

- April 2023. Creating nesting habitat for native bees. **Union County Master Gardeners** (virtual, attendance 40)
- Oct 2022. Bee Identification Workshop. **Protecting Pollinators in Urban Landscapes** conference (Athens, GA, attendance 20, sold out)
- Sept 2022. Pollinator Field Day. **NC Pollinator Conservation Alliance** (Kinston, NC, attendance at nesting table ~35)
- Sept 2022. Carpenter Bees in the South. **Southern IPM Center**, IPM Hour webinar (co-presented with PhD student Kate Gorman, attendance 25)
- June 2022. Get to know your carpenter bees. **NC Pollinator Conservation Alliance** (pollinator week webinar)
- Sept 2021. Get to know your carpenter bees. **NC Museum of Natural Sciences BugFest** (virtual attendance 25; 500+ Youtube views)
- April 2021. Bees and fire: Do they mix? **NC Pollinator Conservation Alliance** webinar series (virtual attendance 70)
- Mar 2021. Getting to know the wild bees. **Concord Wildlife Alliance & NC Wildlife Federation**, virtual meeting (Attendance 96)
- Feb 2021. **Bee hotel build along** (virtual workshop, attendance 100, kits sold out with 42 distributed)
- Aug 2020. NC native bees: Diversity, life cycles, and nesting. **Ashe County Beekeepers' Association**, virtual meeting (Attendance 10)
- Jun 2020. **Virtual pollinator field day**--co-organizer and presenter (Attendance 220, statewide).
- Mar 2020. How to operate a successful bee hotel. Webinar, NCSU Extension **Plants, Pests, and Pathogens** series. (Attendance 204) *With MS student Meredith Favre.*
- Feb 2020. Pollinators in urban habitats: Challenges and opportunities. **Burke County Master Gardeners**, Morganton, NC (Attendance 60)
- Jan 2020. Where have all the fireflies gone? A look at the facts about insect decline. Invited lecture, **Durham Garden Forum**, Durham, NC. (Attendance 60)
- Youngsteadt CV

Jan 2020. How to operate a successful bee hotel. Invited lecture, **Guilford County Beekeepers' Association**, Greensboro, NC. (Attendance 60) *With MS student Meredith Favre.*

Dec 2019. Pollinators in urban habitats: Challenges and opportunities. Invited lecture, **Wake County Beekeepers' Association**, Knightdale, NC. (Attendance 30) *With MS student Meredith Favre.*

Oct 2019. How to operate a successful bee hotel. Invited lecture, **Union County Master Gardeners**, Monroe, NC. (Attendance 20) *With MS student Meredith Favre.*

Oct 2019. Pollinators in urban habitats: Challenges and opportunities. Invited lecture, **Craven-Pamlico Beekeepers' Association**, New Bern, NC. (Attendance 30)

Oct 2019. Introduction to North Carolina's wild bees. **State Extension Conference**, Raleigh, NC. (Attendance 45) *With PhD student Carley McGrady.*

Aug 2019. Pollinators in urban habitats: Challenges and opportunities. Invited lecture, **Davie County Beekeepers' Association**, Mocksville, NC. (Attendance 12)

Aug 2019. **Pollinator field day**—co-organizer and presenter, Raleigh, NC. (Attendance 70)

Jun 2019. Introduction to bee diversity and identification. **NC Extension Master Gardener College**, Raleigh, NC. (Attendance 25, full) *With PhD student Hannah Levenson.*

May 2019. **NC native bee identification workshop**. Raleigh, NC (Attendance 19, sold out). *With PhD student Hannah Levenson.*

Oct 2018. **NC native bee identification workshop**. Raleigh, NC (Attendance 17, sold out). *With PhD student Hannah Levenson.*

Sept 2018. **Pollinator field day**—co-organizer and presenter at NC's first-ever pollinator field day, Salisbury, NC. (Attendance 150)

Mar 2018. Climate change, pests, and pollinators. Invited lecture, **Vance-Warren Master Gardener Symposium**, Henderson, NC. (Attendance 70)

Feb 2018. Wild bees and neonicotinoids. Invited lecture, **NC Extension Workshop: Plant Production, Pollinators, and Neonicotinoids**, Pittsboro, NC. (Attendance 50)

Feb 2018. NC native bees: biology, diversity, and conservation. Invited lecture, **NC Farm Bureau pollinator summit**, Raleigh, NC. (Attendance 40)

Jun 2017. Those are bees, too? Diversity and ecology of native pollinators in NC. Keynote lecture, **NC Extension Master Gardener College**, Raleigh, NC (attendance 120)

Jun 2016. NC native bees: Biology, diversity, and outreach resources. **Webinar for NC Extension Agents and Extension Master Gardener Volunteers**. (Attendance 98) *With Debbie Roos, Chatham County Extension*

Nov 2015. Assessing and managing tree risk of scale-insect infestations. **State Extension Conference**, Raleigh, NC. (Attendance 30)

Sept 2015. Gardening for pollinators. Invited workshop, **North Carolina Botanical Garden**, Chapel Hill, NC (attendance 30, sold out)

Other public presentations and events

Sept 2021. NC State Native Pollinators. Invited booth, **Bugfest**, Raleigh, NC. (Attendance 475)

Sept 2019. Native Pollinators with the North Carolina Pollinator Conservation Alliance. **Bugfest**, Raleigh, NC. (Attendance 30,000)

Jun 2019. Carpenter bees and other native bees. Invited booth, **NC Biotechnology Center Summer Social**, Research Triangle Park, NC. (Attendance 100)

Jun 2019. Native bees. Invited booth, **Lake Crabtree Pollinator Festival**, Cary, NC. (Attendance 200) *With Youngsteadt & Irwin Lab members*

Apr 2019. Pollination of Sandhills rare plants. Invited booth, Science Festival, **Sandhills Community College**, Pinehurst, NC. (Attendance 150)

Apr 2019. Climate change, pests, and pollinators. Invited lecture, **Wild West Gardening for Wildlife**, neighborhood group, Raleigh, NC. (Attendance 10)

Mar 2019. Pollination Ecology of Venus Flytrap and other Rare Plants of NC. Invited lecture, **New Hope Audubon Society**, Chapel Hill, NC. (Attendance 40)

Feb 2019. Pollination Puzzles: Reproductive Ecology of Michaux's Sumac and Venus Flytrap. Invited lecture, **Wake County Audubon Society**, Raleigh, NC. (Attendance 50)

Oct 2018. Does Venus flytrap ever eat its pollinators? Invited lecture, **NC Museum of Natural Sciences** Daily Planet Theater, Raleigh, NC. (Attendance 30)

Mar 2018. Urban bees in North Carolina. Invited lecture & booth, **Glenwood Citizens' Advisory Council** Pollinator Celebration, Raleigh, NC. (Attendance ~50)

Sept 2015. Native bees as pollinators. Bilingual outreach booth at **La Fiesta del Pueblo**, Raleigh, NC. (Attendance at booth ~300)

June 2015. Exhibit: Bee-Hold the Humble Pollinator. Contributing editor, **North Carolina Botanical Garden**, Chapel Hill, NC.

June 2014. Gardening for native bees. Booth, **Share the Buzz, Whole Foods**, Raleigh, NC. (Attendance 200)

Jul 2014. Urban ants and what they do for you. **Science Café, NC Museum of Natural Sciences**, Raleigh NC

SELECTED MEDIA INTERVIEWS

June 2023 WRAL (TV News Station, Raleigh, NC)
Topic: Pollinator Week; bees and climate change

May 2023 *The Washington Post*
Interview topic: urban beekeeping (external comment on research news)

Nov 2019 *Science Friday* video
The Complicated Sex Lives of Venus Flytraps

June 2015 *The State of Things* (North Carolina statewide public radio program)
Interview topic: Diversity and status of native bees

Dec 2014 *Science Friday* (U.S. nationwide public radio program)
Interview topic: Urban ants as clean-up crew

Dec 2014 *Take Two* (Southwestern U.S. regional public radio program)
Interview topic: Urban ants as clean-up crew

Jan 2013 *Mystery Roach* (NCSU local radio program)
Interview topic: Scale insects and urban heat islands

PROFESSIONAL SERVICE

Journals

Associate Editor, *Royal Society Open Science*, 2021 – present

Book Reviews Editor, *American Entomologist*, 2014 – 2021

Ad hoc reviewer *Agricultural and Forest Entomology, Apidologie, Basic and Applied Ecology, Behavioral Ecology and Sociobiology, Ecological Entomology, Ecological Monographs, Ecology, Ecology Letters, European Journal of Entomology, Frontiers in Ecology and Evolution, Global Change Biology, Global Ecology and Biogeography, Insect Conservation and Diversity, Insectes Sociaux, Invertebrate Biology, Journal of Animal Ecology, Journal of Chemical Ecology, Journal of Ecology, Journal of Insect Science, Journal of Urban Ecology, Journal of the Lepidopterists' Society, Journal of the North Carolina Academy of Sciences, Journal of Thermal Biology, Journal of Tropical Ecology, Myrmecological News, Oecologia, PLOS ONE, Scientific Reports, Trends in Plant Science, Urban Forestry and Urban Greening*

Guest editor (special collection: Ecology in the Sixth Mass Extinction: Detecting and Understanding Rare Biotic Interactions), *Annals of the Entomological Society of America*, 2018

Guest editor (manuscript), *Urban Naturalist*, 2017

Conferences

Conference organizer, Protecting Pollinators in Urban Landscapes (2015, 2017, 2019, 2022)

Biennial conference organized by Michigan State University, NC State University, and rotating collaborators; first held in 2015. Targets academic and industry researchers, landscape and nursery practitioners, and extension educators; three-day event includes poster session and invited speakers

Symposium organizer, “Life in the changing forest canopy: Ecology, function, and conservation.”

Organized oral session, Ecological Society of America, Montréal, Quebec, Canada, August 2022 (attendance 75)

Organized by M. Kirchner, C. E. Sorenson, and E. Youngsteadt

Judge, Ehrenfeld Award, Ecological Society of America, Urban Ecosystem Ecology Section, Montréal, Quebec, Canada, August 2022

Symposium organizer, “Ecology in the sixth mass extinction: detecting and understanding rare biotic interactions.” Plant-Insect Ecosystems Section Symposium, Entomological Society of America, Denver, CO, November 2017

Organized by E. Youngsteadt, M. M. López-Urbe, and C. E. Sorenson

Symposium organizer, “Insect ecology in the world’s most populated habitat: connecting scientists, practitioners, and the public.” Plant-Insect Ecosystems Section Symposium, Entomological Society of America, Austin, TX, November 2013

Organized by E. Youngsteadt, E. K. Meineke and A. G. Dale.

Judge and Moderator, Student Paper and Poster Competitions, International Congress of Entomology, Entomological Society of America, and Sigma Xi Student Showcase, 2014, 2015, 2016, 2017

Departmental

Search committee, member, Department Head, Applied Ecology, 2022 – present

Department Extension Leader, August 2021 - present

Biology, Ecology, and Evolution Seminar Series, faculty adviser, 2020 – present

Search committee, member, Assistant Unit Leader, Fish and Wildlife Co-op Unit, 2019 – 2020

Curriculum committee, member, 2018 – present

Campus

NCSU Insect Museum Committee, member, 2023 – present

Adult Mental Health First Aid, certified, 2022 – present

GLBT Advocate Program, advocate, 2020 – present

Bee Campus Committee, chair, 2020 – present

Undergraduate Research Fellowships, reviewer, 2020, 2021, 2023

Urban forest committee, member, 2019 – present

Other professional service

NC Biodiversity Project, Bees of the New Hope Bottomlands – Survey & report to Durham County, NC

Reviewer, Species Status Assessment for Venus Flytrap (*Dionaea muscipula*) version 1.0, US Fish and Wildlife Service, 2022

Reviewer, *Bombus terricola* range map, NatureServe Canada, Jan 2022

Member, IUCN Wild Bee Specialist Groups, Best Practice Group & North America Group, 2021 – present

Member, NC Pollinator Conservation Alliance, 2017 – present

Secretary, North Carolina Entomological Society, 2017 – 2019

Grant reviewer, Graduate Women in Science National Fellowship Program, 2019

Grant reviewer, Sigma Xi Grants-in-Aid of Research, Research Triangle Park, NC, 2 funding cycles, 2014
Youngsteadt CV

HONORS AND AWARDS

- 2021 NCSU CALS Outstanding Alumni Award
- 2020 *Environmental Entomology* People's Choice Award for most read and shared papers
- 2016 Writing Residency, PLAYA, Summer Lake, OR
- 2009 Graduate School Dissertation Award, North Carolina State University (1 award per year)
- 2009 Kenneth R. Keller Award for Excellence in Doctoral Dissertation Research (2 awards per year)
- 2008 Outstanding PhD Student Award, North Carolina Entomological Society (1 award per year)
- 2007 First-place poster in behavior and ecology, Entomological Society of America
- 1999 Truman State University President's Recognition Award for Outstanding Academic Achievement
- 1995 National Merit Scholarship
- 1995 Truman State University Pershing Scholarship (full tuition for 4 years; 12 awards per year)

COURSEWORK AND TRAINING

- 2023 Center for Wildlife Studies, Introduction to Capture-Mark-Recapture (1 credit equivalent)

PROFESSIONAL MEMBERSHIPS

Entomological Society of America, Plant-Insect Ecosystems Section
Ecological Society of America, Urban Ecosystem Ecology Section
Sigma Xi
AAAS