

## Elsa Youngsteadt

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## APPOINTMENTS

Assistant Professor, North Carolina state University, Applied Ecology	2018 – Present
Research Associate, North Carolina State University, Entomology	2013 – 2018
Postdoctoral Researcher, North Carolina State University, Entomology	2012 – 2013
Associate Editor, <i>American Scientist</i> magazine, Research Triangle Park, NC	2011 – 2012
Programs Manager, Sigma Xi, Research Triangle Park, NC	2008 – 2011

## 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

## BOOK CHAPTERS

Youngsteadt, E., and A.J. Terando. In press. Ecology of urban climates: The need for landscape biophysics in cities. Chapter 8 in: Barbosa, P., ed. *The Nature and Challenges of Urban Ecology*. CABI.

Irwin, R. E., E. Youngsteadt, P. S. Warren, and J. L. Bronstein. In press. 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.

## PEER-REVIEWED PUBLICATIONS

†contributed equally \*supervisee/mentee

### Five most relevant

1. Hamblin, A. L.†, E. Youngsteadt†, M.M. López-Urbe, and S.D. Frank. 2017. Physiological thermal limits predict differential responses of bees to urban heat-island effects. *Biology Letters* 13: 20170125.
2. 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.
3. 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.
4. 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.
5. 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.

### Five additional

6. 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.
7. 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*.

8. 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* 00:1–15.
9. 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.
10. Youngsteadt, E., J. Alvarez\*, J. Osborne, and C. Schal. 2009. Species-specific seed dispersal in an obligate ant-plant mutualism. *PLOS ONE* 4:e4335.

## SELECTED GRANTS

USDA AFRI. 2020 – 2024 (recommended for funding) **\$499,221** “Where is pollination in peril? Evaluating climatic risks to wild and managed bees and pollination services across the US” PIs: K. McCluney, E. Youngsteadt, C. Penick

NCSU Gore Innovation Grant. 2019 – 2020. **\$15,800** “An online pollinator garden planner to support insect-friendly landscaping” PIs: E. Youngsteadt, D. Seth Carley, S. Heckman

USDA AFRI. 2013 – 2017 **\$469,000** “Can forests take the heat? Managing pests and ecosystem services in a warming climate” PIs: S. D. Frank and E. Youngsteadt

NCSU Research Innovation Seed Funding. 2016, **\$24,999** “Effects of climate and atmospheric change on plant-pollinator interactions” PIs: E. Youngsteadt, V. Aneja, D. Seth Carley, S. D. Frank, R. Irwin, T. Rufty

## TEACHING

Urban Ecology AEC 495/592. Instructor (fall 2019). North Carolina State University.

Climate Change and Plant-Insect Interactions ENT 601/801. Co-instructor (spring 2016), instructor (fall 2017). North Carolina State University.

## EXTENSION AND OUTREACH

**Presentations and workshops** (37 total, at events attended by >70,000 people since 2013)

- May 2019 **One-day workshop:** NC Native Bee Identification. Raleigh, NC (attendance 19, sold out)
- Feb 2018 **Invited lecture:** Wild bees and neonicotinoids. NC Cooperative Extension Workshop: Plant Production, Pollinators, and Neonicotinoids, Pittsboro, NC (attendance ~50)
- June 2017 **Keynote lecture:** Those are bees, too? Diversity and ecology of native pollinators in NC. NC Extension Master Gardener College, Raleigh, NC (attendance ~120)
- June 2016 **Webinar:** NC native bees: Biology, diversity, and outreach resources. For NC Extension Agents and Master Gardener Volunteers (attendance 98)

**Selected Extension and Trade Publications** (9 total)

- Levenson, H., and E. Youngsteadt. 2019. *The Bees of North Carolina: An Identification Guide*. (AG-858). **NC Cooperative Extension.**
- 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., A. G. Dale, and E. Youngsteadt. 2016. Impervious Surface Thresholds for Sustainable Urban Tree Planting and Landscape Design. **NC Cooperative Extension Fact Sheet.**

## SYNERGISTIC ACTIVITIES

**Co-organizer**, Protecting Pollinators in Urban Landscapes Conference (biennial), 2015 – Present

**Book reviews editor**, *American Entomologist*, Entomological Society of America, 2014 – Present