# Nash E. Turley

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#### CURRENT POSITION

Postdoctoral research associate – University of Central Florida, USA.

Research project: "Plant-Pollinator Citizen Science Network"

Advisors: Dr. Barbara J. Sharanowski

#### Previous Position

2014-2017 – Postdoctoral research associate – Michigan State University, USA.

Research project: "Impacts of agricultural land-use legacies and restoration on biodiversity in longleaf pine savannas"

Advisors: Dr. Lars A. Brudvig and Dr. John L. Orrock

# **EDUCATION**

2014 – Ph.D. Department of Ecology and Evolutionary Biology, University of Toronto, Canada.

Thesis: "Ecological and evolutionary consequences of herbivory on plant communities"

Advisor: Dr. Marc T. J. Johnson

2008 – Bachelor of Science. University of Washington, USA.

Major: Biology (environment & conservation)

Research project: "Effects of habitat fragmentation on plant-herbivore interactions"

Research advisor: Dr. Joshua J. Tewksbury

#### TEACHING

2017 – Instructor. Ecology (ZOL 355). Kellogg Biological Station, Michigan State University.

2016 – Teaching certificate. Pathways to Scientific Teaching, Department of Plant Biology,

Michigan State University, course taught by Dr. Diane Ebert-May

2016 – Guest lecturer. Evolution section of introductory biology course

2014 - Teaching assistant. Functional morphology of animals

2013 – Guest lecturer. Natural history and ecology of parasites and predators

2013 – Teaching assistant. Introduction to ecology

2012 – Guest lecturer. Ecological and evolutionary effects of herbivory and competition on plant communities at Silwood Park, England

2011 – NC State University Outstanding Teaching Assistant Award

2011 – Guest lecturer. Evolutionary ecology of plant-herbivore interactions

2010 – Teaching assistant. Introduction to ecology

2009 – Teaching assistant. Introduction to ecology

### Undergraduate Mentoring

2015-present – Mary Linabury

2014-present – Carrie Barker

2013-2014 – James Santangelo

2012-2013 – Teresa Didiano

2009-2010 - Walter Odell

# <u>Publications</u> \* = Undergraduate mentees

In press—<u>Turley NE</u>, Orrock JL, Ledvina JA, Brudvig LA. Dispersal and establishment limitation slows plant community recovery on post-agricultural longleaf pine savannas. **Journal of Applied Ecology**.

In press–Brudvig LA, Barak RS, Bauer JT, Caughlin TT, Laughlin DC, Larios L, Matthews JW, Stuble KL, <u>Turley NE</u>, Zirbel CR. Interpreting variation to advance predictive restoration science. **Journal of Applied Ecology**.

- 2016 <u>Turley NE</u>, Brudvig LA. Agricultural land-use history causes persistent loss of plant phylogenetic diversity. **Ecology**. (97) 2240–2247.
- 2015 Palkovacs EP, Fryxell DC, <u>Turley NE</u>, Post DM. Ecological effects of intraspecific consumer biodiversity for aquatic communities and ecosystems. In *Aquatic Functional Biodiversity*. Belgrano A, Woodward G (editors). Academic Press.
- 2015 Turcotte MM, Lochab AK, <u>Turley NE</u>, Johnson MTJ. Plant domestication slows pest evolution. **Ecology Letters**. (18) 907-915.
- 2015 Santangelo J\*, <u>Turley NE</u>, Johnson MTJ. Fungal endophytes of *Festuca rubra* increase in frequency following long-term exclusion of rabbits. **Botany**. (93) 233-241.
- 2015 <u>Turley NE</u>, Johnson MTJ. Ecological effects of aphid abundance, genotypic variation, and contemporary evolution on plants. **Oecologia**. (178) 747-759.
- 2014 Turcotte MM, <u>Turley NE</u>, and Johnson MTJ. The impact of domestication on resistance to two generalist herbivores across 29 independent domestication events. **New Phytologist**. (204) 671–681
- 2014 Didiano TJ\*, <u>Turley NE</u>, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ. Experimental test of plant defense evolution in four species using long-term rabbit exclosures. **Journal of Ecology**. (102) 584–594.
- 2013 Evans DM, <u>Turley NE</u>, Tewksbury JJ. Habitat edge effects alter ant-guard protection against herbivory. **Landscape Ecology**. (28) 1743-1754.
- 2013 Turley NE, Odell WC\*, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ.

Contemporary evolution of plant growth rate following experimental removal of herbivores. **American Naturalist**. (181) S21–S34.

- 2013 <u>Turley NE</u>, Godfrey RM, Johnson MTJ. Evolution of mixed strategies of plant defense against herbivores. **New Phytologist**. (197) 359–361.
- 2012 Evans DM, <u>Turley NE</u>, Levey DJ, Tewksbury JJ. Habitat patch shape, not corridors, determines herbivory and fitness of a model plant species. **Ecology**. (93) 1016-1025.
- 2012 Woods EC, Hastings AP, <u>Turley NE</u>, Heard SB, Agrawal AA. Adaptive geographical clines in the growth and defense of a native plant. **Ecological Monographs**. (82) 149-168.
- 2011 Hersch-Green EI, <u>Turley NE</u>, Johnson MTJ. Community genetics: what have we accomplished and where should we be going? **Philosophical Transactions of the Royal Society B**. (366) 1453-1460.

#### PAPERS IN PREPARATION

Breland S, Gibbs J, Isaacs R, <u>Turley NE</u>, Brudvig LA. Restoration increases bee abundance and richness but not pollination in remnant and post-agricultural longleaf pine woodlands.

Barker CA\*, <u>Turley NE</u>, Orrock JL, Ledvina JA, Brudvig LA. Post-agricultural soils do not limit plant establishment and growth.

des Roches S, Post DM, <u>Turley NE</u>, Bailey JK, Hendry AP, Kinnison MT, Schweitzer JA, Palkovacs EP. Ecological effects of variation within species.

<u>Turley NE</u>, Davies TJ, Schaefer H, Crawley MJ. Long-term herbivore exclusion and nutrient addition interact to shape plant species richness and phylogenetic diversity.

#### GRANTS

- 2013 Sigma Xi Grant In Aid of Research. \$1000
- 2010 National Science Foundation Graduate Research Fellowship. \$91,000
- 2010 Arthur B. Moss Travel Award. \$500
- 2009 North Carolina State University Provost Fellowship. \$4000
- 2008 NSF Travel Award. \$1000
- 2008 Frye Hotson Rig Endowment. \$300
- 2007 Mary Gates Scholar. \$6000
- 2007 Frye Hotson Rig Endowment. \$2000

# **PRESENTATIONS**

- 2017 Southern Section of the American Society for Plant Biologists, Orlando, FL, USA.
- 2016 Ecological Society of America. Fort Lauderdale, FL, USA. \*Invited talk.
- 2015 Ecological Society of America. Baltimore, MA, USA.
- 2015 Ecology and Evolutionary Biology Symposium. Michigan State University, MI, USA.
- 2014 Ecological Society of America. Sacramento, CA, USA.

- 2014 Canadian Society of Ecology and Evolution. Montreal, QC, Canada.
- 2013 Canadian Society of Plant Biologist. Mississauga, ON, Canada.
- 2013 Ecological Society of America. Minneapolis, MN, USA.
- 2013 Ontario Ecology, Ethology, and Evolution Colloquium. London, Ontario, Canada.
- 2013 Gordon Conference on Plant-Herbivore Interactions. Ventura, CA, USA.
- 2012 Joint congress on Evolutionary Biology. Ottawa, Ontario, Canada.
- 2011 Symposium on Insect Plant Interactions. Wageningen, The Netherlands.
- 2011 Ecological Society of America. Austin, TX, USA.
- 2010 Sigma Xi Research Conference. Raleigh, NC, USA.
- 2009 Ecological Society of America. Albuquerque, NM, USA.
- 2008 Ecological Society of America. Milwaukee, WI, USA.

#### OUTREACH

- 2017 K-12 STEM day at University of Central Florida.
- 2012 Two field courses for 6-8<sup>th</sup> grade students at the Peel Summer Academy on Natural History and Ecology
- 2011 NC Natural History Museum, poster presentation on "How humans benefit from the evolution of plant dispersal mechanisms"
- 2011 JY Joyner Elementary Science-Go-Round, four second grade presentations on plant diversity
- 2010 Apex Elementary Science Spectacular, four fifth grade presentations on ecology of plant life cycles
- 2010 River Oaks Middle School for At-risk Students, Intro to ecology and evolution and a career in science
- 2010 Fred Olds Elementary School, plant ecology introduction and DNA extraction exercise
- 2010 Bugfest volunteer, North Carolina Museum of Natural Sciences
- 2009 Entomology Graduate Student Association, NCSU. Four presentations to K-12 youth on entomology
- 2009 Bugfest volunteer, North Carolina Museum of Natural Sciences
- 2009 Northern Mariana Islands, Saipan Southern High School, presentation on ecology of bird loss

#### Previous Research Positions

- 2009 Research assistant, Ecology of Bird Loss Project, Mariana Islands. Supervisors: Dr. Joshua J. Tewksbury, Dr. Janneke HilleRisLambers, Dr. Ross Miller, Dr. Haldre Rogers
- 2008 Research associate, Corridor Project, Savannah River Site, SC. Supervisors: Dr. Joshua J. Tewksbury, Dr. Lars A. Brudvig
- 2007 REU researcher, Corridor Project, Savannah River Site, SC. Supervisors: Dr. Joshua J. Tewksbury, Dr. Lars A. Brudvig
- 2006-2007 Field assistant, University of Washington. Supervisor: Dr. Michael Beecher, Dr. Chris Templeton

# REVIEWER FOR

- 2016 Ecology, Ecology Letters (2), Journal of Applied Ecology, National Science Foundation
- 2015 PNAS, Oecologia (2), PeerJ, Oikos, Functional Ecology, Torrey Botanical Society

2014 – Functional Ecology

2013 – Ecological Entomology

2012 – Botany

2011 - Oecologia, Oikos, Trends in Plant Science

2010 - Ecology Letters, Functional Ecology, Oecologia

2009 – Ecology, Entomologia Experimentalis et Applicata, Oikos

# Society Memberships

Ecological Society of America\*, The Xerces Society for Invertebrate Conservation, Union of Concerned Scientist, The Stewardship Network

\*Social media coordinator for the Natural History Section.

## ADDITIONAL SKILLS AND ACTIVITIES

 $\label{lem:photography-I} Photography-I\ specialize\ in\ macro\ photography\ of\ plants\ and\ arthropods.$  www.nashturley.org/photos/

Natural History – I am an avid naturalist and spend much of my free time bird watching and seeking out, identifying, and photographing plants and arthropods.

Blogging – I actively blog about natural history at my website: www.nashturley.org and post natural history inspired art at www.naturalhistorysketches.tumblr.com. I have also written about the importance of understanding and addressing mental health in academia (http://www.nashturley.org/2013/09/02/acknowledging-and-addressing-mental-health-issues-am ong-graduate-students/), which lead to me being interviewed for a *Science Careers* article (http://www.sciencemag.org/careers/2014/02/paying-graduate-schools-mental-toll)