

NASH E. TURLEY
CURRICULUM VITAE
(Updated 23 September 2015)

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CURRENT POSITION

Postdoctoral research associate – Department of Plant Biology, Michigan State University, USA.

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.

Research advisor: Dr. Joshua J. Tewksbury

PUBLICATIONS * = Undergraduate mentees

2015 – Palkovacs EP, Fryxell DC, Turley NE, 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, Turley NE, Johnson MTJ. Plant domestication slows pest evolution. **Ecology Letters**.

2015 – Santangelo J*, Turley NE, Johnson MTJ. Fungal endophytes of *Festuca rubra* increase in frequency following long-term exclusion of rabbits. **Botany**. (93) 233-241.

2015 – Turley NE, Johnson MTJ. Ecological effects of aphid abundance, genotypic variation, and contemporary evolution on plants. **Oecologia**. (178) 747-759.

2014 – Turcotte MM, Turley NE, 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*†, Turley NE†, 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. †These authors contributed equally to this work.

2013 – Evans DM, Turley NE, 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 – Turley NE, Godfrey RM, Johnson MTJ. Evolution of mixed strategies of plant defense against herbivores. **New Phytologist**. (197) 359–361.

2012 – Evans DM, Turley NE, 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, Turley NE, 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, Turley NE, 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

In review – Post DM, Bailey JK, des Roches S, Hendry AP, Kinnison MT, Palkovacs EP, Schweitzer JA, Turley NE, Vellend M. The ecological importance of biodiversity within species.

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

Turley NE, Brudvig LA. Agricultural land-use history causes persistent loss of plant phylogenetic diversity.

AWARDS

2013 – Sigma Xi Grant In Aid of Research. \$1000

2010 – National Science Foundation Graduate Research Fellowship. \$91,000

2011 – NC State University Outstanding Teaching Assistant Award

2011 – Best student presentation at NCSU Plant Biology Graduate Research Symposium

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 (SHORT VERSION)

2015 – Ecological Society of America. Baltimore, MA, 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 – Ecological Society of America. Portland, OR, 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.

TEACHING

- 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 – **Guest lecturer.** Evolutionary ecology of plant-herbivore interactions
- 2011 – NC State University Outstanding Teaching Assistant Award
- 2010 – **Teaching assistant.** Introduction to ecology
- 2009 – **Teaching assistant.** Introduction to ecology

UNDERGRADUATE MENTORING

- 2014-2015 – Carrie Barker
- 2013-2014 – James Santangelo
- 2012-2013 – Teresa Didiano
- 2009-2010 – Walter Odell

OUTREACH

- 2012 – Two field courses for 6-8th 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, Mariana Islands. Supervisors: Dr. Joshua J. Tewksbury, Dr. Janneke HilleRisLambers, Dr. Ross Miller, 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, Chris Templeton

REVIEWER FOR

- 2015 – PNAS, Oecologia, PeerJ, Oikos
- 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

*Social media coordinator and Student Section liaison for the Natural History Section.

ADDITIONAL SKILLS AND ACTIVITIES

Blogging – I actively blog about natural history at my website: www.nashturley.org and post natural history inspired art at www.naturalhistorysketches.tumblr.com

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, indentifying, and photographing plants and arthropods.

PRESENTATIONS (LONG VERSION)

2015 – Turley NE. Dispersal limitation and ecological conditions inhibit restoration of post-agricultural plant communities. Ecological Society of America. Baltimore, MA, USA.

2014 – Turley NE, Johnson MTJ, Crawley MJ. Rabbit exclusion drives plant contemporary evolution and reduced plant phylogenetic diversity. Ecological Society of America. Sacramento, CA, USA.

2014 – Turley NE, Rowell K, Reagan KM. Natural History Section. Ecological Society of America. Sacramento, CA, USA.

2014 – Turley NE, Johnson MTJ, Crawley MJ. Rabbit exclusion drives plant contemporary evolution and reduced plant phylogenetic diversity. Canadian Society of Ecology and Evolution. Montreal, QC, Canada.

2014 – Turcotte MM, Turley NE, Lochab A, Johnson MTJ. Evolutionary history, plant traits, and community composition as drivers of aphid contemporary evolution. Canadian Society of Ecology and Evolution. Montreal, QC, Canada.

2014 – Rolshausen G, Davies TJ, Fussmann G, van der Wal E, Turley NE, Hendry AP. Different clades, different rates: Exploring trait spaces in a phylogenetic context. Canadian Society of Ecology and Evolution. Montreal, QC, Canada.

2014 – Santangelo J*, Turley NE, Johnson MTJ. Fungal endophytes of *Festuca rubra* increase in frequency over time within experimental rabbit exclosures. Talk at Ontario Biology Day, Mississauga, ON, Canada.

2013 – Turley NE, Davies TJ, Schaefer H, Crawley MJ. Grazing and nitrogen interact to shape plant species and phylogenetic diversity. Talk at Canadian Society of Plant Biologists, Mississauga, ON, Canada.

2013 – Santangelo J*, Turley NE, Johnson MTJ. Fungal endophytes of *Festuca rubra* increase in frequency over time within experimental rabbit exclosures. Poster at Canadian Society of Plant Biologists, Mississauga, ON, Canada.

2013 – Turcotte MM, Turley NE, Lochab A, Johnson MTJ. Evolution by domestication drives the ecology and evolution of plant- herbivore interactions. Talk at Canadian Society of Plant Biologists, Mississauga, ON, Canada.

2013 – Turley NE, Davies TJ, Schaefer H, Crawley MJ. Removal of rabbits causes decreases in plant phylogenetic diversity. Talk at Ecology Society of America. Talk at Ecology Society of America, Minneapolis, MN, USA.

2013 – Turley NE, Davies TJ, Schaefer H, Crawley MJ. Ecological factors affecting the phylogenetic structure of plant communities. Talk at Ontario Ecology, Ethology, and Evolution Colloquium. London, Ontario, Canada.

2013 – Turley NE, Didiano T*, Odell WC*, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ. Long-term herbivore removal drives plant defense evolution in multiple species. Poster at Gordon Conference on Plant-Herbivore Interactions. Ventura, CA, USA.

2012 – Post DM, Bailey JK, des Roches S, Hendry AP, Kinnison MT, Palkovacs EP, Schweitzer J, Turley NE, Vellend M. The ecological importance of diversity within species. Talk at Ecological Society of America. Portland, OR, USA.

2012 – Turley NE, Johnson MTJ. Experimentally testing causes and consequences of contemporary evolution in an insect herbivore. Talk at joint congress on Evolutionary Biology. Ottawa, Ontario, Canada.

2012 – Johnston MTJ, Turcotte MM, Turley NE. Eco-evolutionary dynamics from genes to ecosystems. Invited talk at joint congress on Evolutionary Biology. Ottawa, Ontario, Canada.

2011 – Turley NE, Odell WC*, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ. Rapid evolution in plant growth rate following experimental removal of herbivores. Poster at Symposium on Insect Plant Interactions. Wageningen, The Netherlands.

2011 – Turley NE, Odell WC*, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ. Rapid evolution in plant growth rate following experimental removal of herbivores. Talk at Ecological Society of America. Austin, TX, USA.

2011 – Turley NE, Odell WC*, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ. Rapid evolution in plants following experimental removal of herbivores. Poster at NCSU graduate research symposium. Raleigh, NC, USA.

2011 – Turley NE, Odell WC*, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ. Rapid evolution in plants following experimental removal of herbivores. Talk at NCSU Plant Biology Graduate Research Symposium. Raleigh, NC, USA. *Award for best talk.

2010 – Turley NE, Odell WC*, Schaefer H, Everwand G, Crawley MJ, Johnson MTJ. Rapid evolution in plants following herbivore removal. Poster at Sigma Xi Research Conference. Raleigh, NC, USA.

2010 – Agrawal AA, Woods EC, Heard SB, Turley NE. Genetic based clines in plant defense. Talk at Ecological Society of America. Pittsburgh, PA, USA.

2009 – Turley NE, Evans DM. Genetic variation across a geographic cline and induced responses shape resistance on *Solanum americanum*. Poster at Ecological Society of America. Albuquerque, NM, USA.

2009 – Evans DM, Turley NE, Tewksbury JJ. Patch shape, not corridors, determines levels of herbivory and plant fitness in an experimentally fragmented forest. Talk at Ecological Society of America. Albuquerque, NM, USA.

2008 – Turley NE, Evans DM, Tewksbury JJ. Shape of habitat fragments alters herbivory of a model plant species. Poster at Ecological Society of America. Milwaukee, WI, USA.

2008 – Turley NE, Evans DM, Tewksbury JJ. Habitat fragmentation affects herbivory of a model plant species. Poster presented at University of Washington undergraduate research symposium. Seattle, WA, USA.