

Evan M. Gora

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Education

- 2018 **PhD. Biology**, University of Louisville (UofL), Advisor: Dr. Stephen Yanoviak
Dissertation: *Dead wood and Decomposition: vertical patterns, long-term processes, and the role of lightning*
- 2014 **B.S. Biology**, University of Pittsburgh, Advisor: Dr. Walter Carson
Honors in Biology, **Major** in Economics
Thesis: *Patterns of coarse woody debris volume among 18 late-successional and mature forest stands in Pennsylvania*

Publications

*Denotes mentored undergraduate author

- Gora, E.M.**, E.J. Sayer, B.L. Turner, and E.V.J. Tanner. 2018. Decomposition of coarse woody debris in a long-term litter manipulation experiment: a focus on nutrient availability. *Funct. Ecol.* 32(4): 1128-1138. doi: 10.1111/1365-2435.13047.
- Gora, E.M.**, P.M. Bitzer, J.C. Burchfield, S.A. Schnitzer, and S.P. Yanoviak. 2017. Effects of lightning on trees: a predictive model based on *in situ* electrical resistivity. *Ecol. Evol.* doi: 10.1002/ece3.3347.
- Lucas, J.M., **E.M. Gora**, and A. Alonso. 2017. A view of the global conservation job market and how to succeed in it. *Conserv. Biol.* 31(6): 1223-1231. doi: 10.1111/cobi.12949.
- Yanoviak, S.P., **E.M. Gora**, J.M. Burchfield, P.M. Bitzer, and M. Detto. 2017. Quantification and identification of lightning damage in tropical forests. *Ecol. Evol.* 7(14): 5111-5122. doi: 10.1002/ece3.3095.
- Gora, E.M.**, N. Gripshover*, and S.P. Yanoviak. 2016. Orientation at the water surface by the carpenter ant *Camponotus pennsylvanicus* (De Geer, 1773) (Hymenoptera: Formicidae). *Myrmecol. News* 23: 33-39.
- Gora, E.M.** and S.P. Yanoviak. 2015. Electrical properties of temperate forest trees: a review and quantitative comparison with vines. *Can. J. Forest Res.* 45(3): 236-245, 10.1139/cjfr-2014-0380.
- Yanoviak, S.P., **E.M. Gora**, J. Fredley*, P.M. Bitzer, R.M. Muzika, and W.P. Carson. 2015. Direct effects of lightning in temperate forests: a review and preliminary survey in a hemlock-hardwood forest of the northern United States. *Can. J. For. Res.* 45(10): 1258-1268. doi: 10.1139/cjfr-2015-0081.
- Gora, E.M.**, L.L. Battaglia, H. Schumacher, and W.P. Carson. 2014. Patterns of coarse woody debris volume among 18 late-successional and mature forest stands in Pennsylvania. *J. Torrey Bot. Soc.* 141(2): 151-160. doi: 10.3159/TORREY-D-13-00066.1.

Grants and Awards

2017-2018	Graduate Research Internship, National Science Foundation	\$5,000
2015-2018	Graduate Research Fellowship, National Science Foundation	\$138,000
2014-2018	University Graduate Fellowship, UofL (Partially Declined)	\$72,000
2015-2016	Young Explorer's Grant, National Geographic Society	\$4,750
2015-2016	Short-term Fellowship, Smithsonian Tropical Research Institute	\$8,000
2016	Carl C. Cornett Entomological Fund Award	\$2,500
2016	Research Grant, UofL Graduate Network in Arts and Sciences	\$100
2015	Beechmont Garden Club Award	\$1000
2015	Research Grant, UofL Graduate Student Council	\$280
2015	Graduate Student Publication Award	\$150
2014	Carl C. Cornett Entomological Fund Award	\$2,500
2013	Honors Degree in Biology, University of Pittsburgh	
	Total Research funding (excluding stipends):	\$60,280

Professional Presentations

- 2017 **Gora, E. M.**, P. M. Bitzer, J. C. Burchfield, and S. P. Yanoviak. Lightning is the primary cause of large tropical tree mortality. *Ecological Society of America Annual Meeting*.
- 2017 **Gora, E. M.**, P. M. Bitzer, J. C. Burchfield, and S. P. Yanoviak. 2017. Lightning on BCI: Observations and quantification of effects on trees. *Forest Ecology Working Group, Smithsonian Tropical Research Institute*.
- 2016 **Gora, E. M.**, P. M. Bitzer, J. C. Burchfield, and S. P. Yanoviak. 2016. Why does lightning only kill some trees? A model-based approach. *Ecological Society of America Annual Meeting*.
- 2016 **Gora, E. M.** 2016. Dead wood stocks, fluxes, and patterns of decomposition. *Forest Ecology Working Group, Smithsonian Tropical Research Institute*.
- 2016 **Gora, E. M.**, P. M. Bitzer, J. C. Burchfield, and S. P. Yanoviak. Lightning on Barro Colorado Island: Tree characteristics influence lightning-tree interactions. *Smithsonian Tropical Research Institute, Bambi Seminar Series*.
- 2015 **Gora, E. M.**, N. D. Gripshover and S. P. Yanoviak. Orientation at the water surface by the carpenter ant *Camponotus pennsylvanicus*. *Kentucky Academy of Science*.
- 2015 **Gora, E. M.**, and S. P. Yanoviak. Lightning's impact on forest ecology. *Society of Integrative Comparative Biology Annual Meeting*.
- 2014 **Gora, E. M.**, and S. P. Yanoviak. Lightning disturbance in forests. *Smithsonian Tropical Research Institute, Bambi Seminar Series*.

- 2014 **Gora, E. M.** and S. P. Yanoviak. Lightning ecology and electrical resistivity of trees. *Kentucky Academy of Science*.
- 2014 **Gora, E. M.** and S. P. Yanoviak. The Ecology of Lightning in a Northern Forest. *Midwest Ecology and Evolution Conference*.
- 2013 **Gora, E. M.**, S. P. Yanoviak, and M. Feil. Resistivity of trees and vines. *Kentucky Academy of Science Annual Meeting*.
- 2013 **Gora, E. M.** Patterns of coarse woody debris volume among 18 late-successional and mature forest stands in Pennsylvania. *University of Pittsburgh, Honors Research Symposium*.

Invited Seminars and Presentations

- 2018 **Gora, E. M.** and S. P. Yanoviak. Wood decomposition in a tropical forest: vertical patterns, microbial colonization, and the role of lightning. *Ecology and Evolutionary Biology Seminar Series, University of Pittsburgh*.
- 2017 **Gora, E. M.**, P. M. Bitzer, J. C. Burchfield, and S. P. Yanoviak. Real-time location and quantification of lightning in a neotropical forest. Invited presentation for the Xishuangbanna Scientific Delegation. Barro Colorado Island, Panama.
- 2016 **Gora, E. M.**, and S. P. Yanoviak. Lightning and its impact in a tropical forest. *Seminar Series, Smithsonian Center for Sustainability and Conservation*.
- 2015 **Gora, E. M.** Effects of lightning in a tropical forest. Invited presentation for Matt Larson, the Director of the Smithsonian Tropical Research Institute.

Presentations by Mentored Students

- 2018 Kneale, R., **E. M. Gora**, S. P. Yanoviak. The role of ground contact in colonization and decomposition of dead wood. *Kentucky Organization of Field Stations Meeting*.
- 2017 Gripshover, N. D., **E. M. Gora**, and S. P. Yanoviak. 2017. Swimming mechanisms of temperate forest ants (*Camponotus pennsylvanicus* and *Formica subsericea*). *Posters-at-the-Capitol, Frankfurt, Kentucky*.
- 2016 Kneale, R., **E. M. Gora**, S. P. Yanoviak. Factors influencing colonization of woody debris by saproxylic insects. *Kentucky Academy of Science*.
- 2016 Gripshover, N. D., **E. M. Gora**, and S. P. Yanoviak. Biomechanics of water surface locomotion in temperate ants. *Kentucky Academy of Science*.
- 2016 Gripshover, N. D., **E. M. Gora**, and S. P. Yanoviak. Biomechanics of water surface locomotion in temperate ants. *Summer Research Opportunity Program Symposium*.

Teaching Experience

Guest lectures (Graduate-level)

- 2017 *Disturbances and Lightning*, Organization for Tropical Studies (OTS)
- 2016 *Lightning as an agent of tree mortality*, Organization for Tropical Studies (OTS)

2015 *R programming within R Studio*, Experimental Design and Analysis

2014 *Habitat Degradation and Air Pollution*, Conservation Biology

Course Design and Tutoring

2015 *Course Consultant for R programming*, Experimental Design and Analysis

2012-13 *Group and Individual Tutor*, University of Pittsburgh Athletic Department

Teaching Assistantship

2015 *Principles of Biology Lab (BIOL 244)*, University of Louisville

Undergraduate Mentorship

2015-2018 **Riley Kneale** – Factors that regulate wood decomposition
Outcomes: Two publications in prep or review, two professional presentations

2014-2018 **Noah Gripshover** – Orientation and kinematics of swimming ants
Outcomes: Two publications, three presentations, multiple university awards

2013-2015 **Jen Fredley** – The ecological effects of lightning in temperate forests
Outcomes: One publication

Service and Society Membership

Professional Service

2018 Invited moderator, Round table on the conservation job market (Uni. Pittsburgh)

2018 Granting Committee member for graduate research and travel grants

2017 Granting Committee member for graduate research and travel grants

2016 Researcher Administrative Representative, Smithsonian Tropical Research Institute

2016 Granting Committee member for graduate research and travel grants

2016 Co-founder and co-president of the Barro Colorado Island Journal Club

2015 Researcher Administrative Representative, Smithsonian Tropical Research Institute

2015 Granting Committee member for graduate research and travel grants

2015 Departmental Liaison coordinating motor pool maintenance and repairs

2014 Biology Department representative to the Graduate Student Union

2014 Departmental Liaison coordinating motor pool maintenance and repairs

Community Outreach and Presentations

2017 *Tropical Canopy Ecology*, ACCelerate Creativity and Innovation Festival

2017 *Lightning strikes on Barro Colorado Island*, UCSB Smithsonian Scholars

2016 Judge for the Kentucky State Science Fair competition – Middle School-level

2016 *Disturbance in forests*, Guides program Smithsonian Tropical Research Institute

- 2015 Field trip organizer for insect collecting trips with the Jefferson County Public Schools
2007-14 Habitat for Humanity laborer with Snyder-Union, Pittsburgh, and Louisville chapters

Society Membership

- 2013-present Ecological Society of America
2013-present Kentucky Academy of Science
2013-2018 Biology Graduate Student Association, University of Louisville

Media Attention

- 2018 “TBD” - *Mongabay*
2017 “Tallest Tropical Trees Died Mostly from Lightning” – *EOS*
2016 “I Think, Therefore I Explore” – *The Thinker*
2015 “Determined to Discover” – *University of Louisville Alumni Magazine*
2015 “Where Will Lightning Strike Next?” – *SICB Highlights*

Professional Experience

- 2013-2014 Research Technician, University of Louisville, PI: Steve Yanoviak
Data analysis, manuscript and proposal writing, personnel management
2013 Research Technician, University of Pittsburgh, PI: Walter Carson
Field data collection and implementation of a large-scale field experiment
2012 Research Internship, University of Pittsburgh
Multivariate data analysis for ecology