

Kirsten M. Prior

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Biological Sciences Department
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Education

Ph.D. University of Notre Dame, Biology, 2011
B.Sc. University of Western Ontario, Biology, 1999

Professional Appointments

2016 – present Assistant Professor, Binghamton University (SUNY)
2015 – 2016 Postdoctoral Associate, Univ. of Florida, School of Forest Resources & Conservation
2013 – 2015 Postdoctoral Associate, Univ. of Florida, Department of Biology
2011 – 2013 Department Fellow, Univ. of Toronto, Dept. of Ecology & Evolutionary Biology
2011 – 2013 Ontario Ministry of Economic Development Fellow, Univ. of Toronto

Publications

¹Student co-author; ²Authors contributed equally; ³Recommended by Faculty of 1000; ⁴Press coverage

Submitted and in revision:

22. ¹Meadley Dunphy SA, **Prior KM**, Frederickson ME. Variation in seed dispersal quality between native and invasive ants alters the spatial distribution of plant communities. In Review at *Oecologia*.

Published (Google Scholar citations: 446, h-index:11)

21. ⁴DiGiacopo DG, Meindl GA, Ryan S, Jaeger J, Wersebe M, Martin A, Robinson SA, Graham G, Palmer AR, Setteducate A, Murray A, **Prior KM**, Hua J. 2019. Interaction between invasive plant leaf litter and NaCl on two model amphibians. *Biological Invasions* 21:391-403
20. ¹Gordon SC, ¹Meadley Dunphy SA, **Prior KM**, Frederickson ME. Phenological mismatch between seed-dispersing ants and myrmecochorous plants. *American Journal of Botany* 106:71-80
19. ⁴**Prior KM**, Palmer TM. 2018. Economy of scale: third partner strengthens a keystone ant-plant mutualism. *Ecology* 99:335-346.
18. ⁴**Prior KM**, Adams D, Klepzeig K, Hulcr J. 2017. When does invasive species removal lead to ecological recovery? Implications for management success. *Biological Invasions* 20:267-283 (*Elton Review*). (6 citations)
17. Hulcr J, Black A, **Prior KM**, Chen C, Hou-Feng L. 2017. Ambrosia beetle invasions are less surprising following studies in their native ranges. *Florida Entomologist* 100:257-261. (2 citations)
16. ¹Milligan P.D., **Prior KM**, Palmer TM. 2016. An invasive ant reduces diversity but does not disrupt a key ecosystem function in an African savanna. *Ecosphere* 7:e01502.
15. Pringle RM, **Prior KM**, Palmer TM, Young TP, Goheen JR. 2016. Large herbivores promote

- habitat specialization and beta diversity of African savanna trees. *Ecology* 87:2640-2657. (13 citations)
14. ¹Meadley Dunphy SA, **Prior KM**, Frederickson ME. 2016. An invasive slug exploits an ant-seed dispersal mutualism. *Oecologia* 181:149-159. (4 citations)
 13. Powell THQ, **Prior KM**. 2016. Coevolution: Parasitism and predation. The Encyclopedia of Evolutionary Biology. Elsevier.
 12. ⁴**Prior KM**, ¹Robinson JM, ¹Meadley Dunphy SA, Frederickson ME. 2015. Mutualism between co-introduced species facilitates invasion and alters plant community structure. *Proceedings of the Royal Society B*. 282:20142846. (23 citations)
 11. **Prior KM**, Powell THQ, ¹Joseph A, Hellmann JJ. 2015. Insights from community ecology into the role of enemy release in causing invasion success: the importance of native enemy effects. *Biological Invasions* 17:1283-1297. (30 citations)
 10. **Prior KM**, ¹Saxena K, Frederickson ME. 2014. Seed handling behaviors of native and invasive seed-dispersing ants differentially influence seedling emergence in an introduced plant. *Ecological Entomology* 39:66-74. (13 citations)
 9. **Prior KM**, Hellmann JJ. 2014. Does enemy release contribute to the success of invasive species? A review of the enemy release hypothesis. In R. P. Keller, M. W. Cadotte, and G. Sandiford, editors: *Invasive Species in a Globalized World: Ecological, Social, and Legal Perspectives on Policy*. University of Chicago Press. pp. 252 (*peer-reviewed book chapter*). (5 citations)
 8. **Prior KM**, Hellmann JJ. 2013. Does enemy loss cause release? A biogeographical comparison of parasitoid effects on an introduced insect. *Ecology* 94:1015-1024. (17 citations)
 7. Hellmann JJ, **Prior KM**, Pelini SL. 2012. The influence of species interactions on geographic range change under climate change. *Annals of the New York Academy of Sciences* 1249:18-28. (56 citations).
 6. **Prior KM**, Hellmann, JJ. 2010. Impact of an invasive oak gall wasp on a native butterfly: a test of plant-mediated competition. *Ecology* 91:3284-3293. (25 citations).
 5. ³Pelini SL, Dzurisin JD, **Prior KM**, Williams CM, Marsico TD, Sinclair BJ, Hellmann JJ. 2009. Translocation experiments with butterflies reveal limits to enhancement of poleward populations under climate change. *Proceedings of the National Academy of Sciences* 106:11160-11165. (113 citations)
 4. **Prior KM**, Dzurisin JD, Pelini SL, Hellmann JJ. 2009. Biology of larvae and adults of *Erynnis propertius* at the northern edge of its range. *The Canadian Entomologist* 141:161-171. (10 citations)
 3. ²Pelini SL, ²**Prior KM**, Parker DJ, Dzurisin JD, Lindroth RL, Hellmann JJ. 2009. Climate change and temporal and spatial mismatches in insect communities. In T. M. Letcher, editor: *Climate Change: Observed Impacts on Planet Earth*. Elsevier, The Netherlands. pp. 215-231 (19 citations)
 2. Hellmann JJ, Pelini SL, **Prior KM**, Dzurisin JD. 2008. The response of two butterfly species to climatic variation at the edge of their range and the implications for poleward range shifts. *Oecologia* 157:583-592. (57 citations)

Online report

1. **Prior KM**, Hulcr J. 2016. Jumping gall wasp, *Neuroterus saltatorius* Edwards (Insecta: Hymenoptera: Cynipidae). Featured Creature. University of Florida, Department of Entomology & Nematology. IFAS. EENY-663. (1 citation)

Select Press Coverage

Since coming to Binghamton University

Science Daily
Binghamton News
EurekaAlert
Canadian Broadcasting Company Quirks and Quarks (radio interview)
Toronto Star
Los Angeles Times
Globe and Mail

Grants & Fellowships

- (2019-2010) Binghamton University, Presidential Diversity Research Grant:** Uncovering the role of genetic diversity in a keystone mutualism (Lead-PI) **(\$7,178)**
- (2019-2020) National Geographic Society:** Altered interactions for species on the move: comparing host-parasitoid interactions along a species native and expanded ranges (**Lead-PI**; Collaborator: Tom Powell (Binghamton University)) **(\$23,828)**
- (2018) Cornell Cooperative Extension:** Mini-Grant for Outreach, BUGs! Outreach Program (Kirsten Prior and Tom Powell) **(\$400)**
- (2011) University of Toronto, Department of Ecology and Evolutionary Biology,** Postdoctoral Fellowship **(\$80,000)**
- (2011) Ontario Ministry of Economic Development and Innovation,** Postdoctoral Fellowship **(\$20,000)**
- (2009) Center for Environmental Sciences and Technology, University of Notre Dame,** Bayer Fellowship **(\$10,100)**
- (2008) Sigma Xi, Grants-in-Aid of Research (\$1,000)**
- (2007) The Xerces Society, Joan M. DeWind Award (\$3,750)**
- (2006) University of Notre Dame, Downes Travel Grant (\$550)**

Teaching

Fall 2018 BIOL 534 Advanced Ecology (4 credits) (Graduate, 10 students)
Spring 2018 BIOL 355 General Ecology (4 credits) (Undergraduate, 110 students)
Fall 2017: BIOL480/680 Invasion Biology (2 credits) (Undergraduate/Graduate, 20 students)
Spring 2017 BIOL 534 Advanced Ecology (4 credits) (Graduate, 10 students)
Fall 2016 BIOL 480/680 Invasion Biology (2 credits) (Undergraduate/Graduate, 11 students)

Prior to Binghamton University

Co-instructor, Ecology of East African savannas (2x) (3-week field course)
(Experimental Design and Statistics Module)
University of Florida, Mpala Research Centre
Teaching Assistant, Biostatistics (2 semesters)
University of Notre Dame
Teaching Assistant, General Ecology (3 semesters)
University of Notre Dame
Teaching Assistant, Introductory Biology (3 semesters)
University of Notre Dame

Mentoring

Graduate students

Susan Lee, Master's student (2016 - current)
Carmela Buono, PhD student (2017 – current)
Dylan Jones, PhD student (2018 - current)

Undergraduate students

Gabriella Bayshtok (BIO), 12 research credits (4 semesters)
Sabina Bayshtok (BIO), 12 research credits (4 semesters)
Megan Blance (BIO), 4 research credits (2 semesters) (Current: Research intern at the Smithsonian)
Dudley Britton (BIO), McNair Diversity Fellowship (2 months, 2 semesters)
Melina Brunelli (Nursing), volunteer (2 semesters)
Roni Friedman (BIO), 4 research credits (2 semesters)
Haley Hurst (BIO), 4 research credits (2 semesters)
Jesse Lofaso (ENVI), Work study student (2 semesters)
Sarah Martin (ENVI), 8 research credits (4 semesters)
¹Timothy Morris (ENVI), 12 research credits (4 semesters) (Current: Master's student at SUNY ESF)
 Summer Undergraduate Research Fellowship (2 months)
¹Melissa Noboa (ENVI), 4 research credits (4 semesters) (Current: NYC Civic Corps)
¹Wyatt Parker (ENVI), 8 research credits (4 semesters)
 Summer Undergraduate Research Fellowship (2 months)
 Honor's Research Project, 8 credits (2 semesters)
¹Catherine Ruis (ENVI), 8 research credits (4 semesters) (Summer Research intern at the Holden Arboretum)
Will Smisko (BIO), 2 research credits (1 semester)
Timothy Wong (ENVI), 4 research credits (3 semesters) (Current: Master's student at Fordham University)

¹received Undergraduate Research Awards

Prior to Binghamton University

University of Florida, Mpala Research Centre (Kenya)
 Jessica Gunson, Undergraduate research experience (2015)
 Patrick Milligan, Undergraduate research experience (2014)
University of Toronto, Koffler Scientific Reserve
 Shannon Meadley Dunphy, NSERC Undergraduate research award (2012)
 Lauren Moretto, Undergraduate research credit (2012)
 Gloria Cho, Undergraduate research credit (2012)
 Kriti Saxena, Undergraduate research credit (2012)
 Jennifer Robinson, NSERC Undergraduate research award (2011)
University of Notre Dame
 Ashley Joseph, NSF Undergraduate research experience (2010)
 James Nugent, Undergraduate research credit (2008)
 Rachel Hudak, Undergraduate research credit (2008)

Abstracts and Invited Presentations

only first-author presentations listed

Invited and Keynote Presentations

- 2018 Environmental Protection Agency, NC
- 2018 Stony Brook University Seminar Series, NY
- 2018 Holden Arboretum Scientist Lecture Series, OH
- 2018 Pathways Interdisciplinary Conference, Binghamton University, NY
- 2017 Ecological Society of America Annual Meeting, OR
- 2017 University of Pittsburgh Seminar Series, PA
- 2017 Biology Graduate Student Organization Symposium, Binghamton University, NY
- 2016 North American Forest Insect Working Conference, DC
- 2015 University of Florida, Department of Entomology and Nematology Seminar Series, FL
- 2014 Terrestrial Plant Invasive Species Conference, ON. Keynote presentation
- 2012 University of Toronto Ecology and Evolutionary Biology Seminar Series, ON
- 2010 Ecological Society of America Annual Meeting, PA
- 2010 Garry Oak Ecosystems Recovery Team, Research Colloquium, BC
- 2009 Environmental Science Advisory Committee, Canadian Forest Service Meeting, BC
- 2006 Garry Oak Restoration Workshop, BC
- 2005 Symposium on Invertebrate Species at Risk in BC, BC

Contributed Presentations

- 2018 Entomological Society of America Conference, BC
- 2017 Ecological Society of America Annual Meeting, OR
- 2016 USDA Research Forum on Invasive Species, MD
- 2013 Ecological Society of America Annual Meeting, MN
- 2013 University of Toronto, Attwood Colloquium, ON
- 2008 Ecological Society of America Annual Meeting, WI

Student Presentations (Since coming to Binghamton University)

Only Binghamton University student authors listed (¹graduate student, ²undergraduate student)

- 2018 ¹Buono C. Ecological Society of America Annual Meeting, LA (poster)
*** won the Simberloff award for best student presentation in invasion ecology**
- 2018 ¹Buono C. Mid-Atlantic Ecological Society of America Meeting. Rutgers, NJ (presentation)
***won 2nd place award for best graduate student presentation**
- 2018 ²Parker W. Summer Scholars Symposium at Binghamton, NY
- 2018 ²Britton D. McNair Fellow regional conference, NY
- 2018 ²Morris T, ¹Buono C. Mid-Atlantic Ecological Society of America Meeting. Rutgers, NJ (poster)
- 2018 ¹Lee S. Mid-Atlantic Ecological Society of America Conference. Rutgers, NJ (poster)
- 2018 ²Noboa M. Research Days, Binghamton University, NY (poster)
- 2018 ²Ruis C, ²Parker W, ¹Lee S. Research Days, Binghamton University, NY (poster)
- 2018 ²Morris T, ¹Buono C. Research Days, Binghamton University, NY (poster)
- 2018 ¹Lee S. BGSO Symposium, Binghamton University, NY. (poster)
- 2018 ¹Buono C. BGSO Symposium, Binghamton University, NY (presentation)
- 2017 ²Bayshtok S, ²Bayshtok G. Research Days, Binghamton University, NY (poster)
- 2017 ²Morris T, ²Blance M. Research Days, Binghamton University, NY (poster)

Service and Outreach

Department Committees

2016-current Greenhouse committee
2016-2017 Budget committee
2017-current Graduate committee
2017-current Website committee

Student Committees

2016-2017 Arielle Biro (Honor's student)
2016-current Ryan Reinhardt (PhD student, University of Dayton)
2017-current Vanessa Wuerthner (PhD student)
2017-current Kelly Vest (PhD student)
2018-current Sheila Moore (PhD student)
2018-current Pheobe Deneen (PhD student)
2018-current Aubrey Alamshah (PhD student)
2019-current Vashti Mahadeo (PhD student)
2019-current Gabriella Quartuccia (PhD student)
2019-current Grascen Shidemantle (PhD student)

Other Department and Institution Activities

Participating faculty member in Ecological Genetics Freshman Research Immersion
Co-administer Graduate student Ecology exam
Active member of the Center for Integrated Watershed Studies
Active member of the Sustainable Communities TAE
Affiliated Faculty member in Environmental Studies
Organize Recruitment day for EEB graduate students
Presented at Binghamton Career Day for High school students (2018/2019) (Careers in Biology)
Junior faculty mentor

Peer reviewer

Ecology (7 reviews), Biological Invasions (4 reviews), Journal of Biogeography (4 reviews), Global Change Biology (2 reviews), Biology Letters (2 reviews), The American Naturalist (2 reviews), Oecologia (4 reviews), Global Ecology and Biogeography (2 reviews), Journal of Plant Ecology, PLOS ONE, Arthropod-Plant Interactions, Global Ecology and Biogeography (2 reviews), Ecology Letters, Journal of Ecology, Molecular Ecology, BMC Evolution, Ecological Entomology, Botany, Ecology and Evolution, Environmental Entomology, Peer J, American Midland Naturalist, African Journal of Biotechnology

Outreach & Service

B.U.gs!: created an outreach program to educate the public about the importance of insects in society and ecosystems. Several interactive activities including holding insects and children's crafts, along with producing educational materials.
STEM and Citizen Science for Girl Scouts: created and lead local girl scout troop through several-week citizen science projects, led other STEM and outdoor activities
Invasive species round-up blog: blog involving students at the University of Binghamton in which we highlight and summarize scientific and popular press articles and circulate bi-monthly
Participant in Mentorship Day for Daraja Academy School (girl high school in rural Kenya), Mpala Research Centre, Kenya
Organized a field excursion activity for a Grade 12 Biology class; included a class lecture and

multiple days in the field with high school students
Organizer, Oral Session at 97th Ecological Society of America Meeting in Portland, Oregon, (2012)
“Novel community associations in response to biological invasions and climate change”