

Dr. Megan L. Van Etten

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Educational Background

2009 Ph.D. Plant Biology, University of Georgia, Athens, GA
2003 B.A. Ecology and Evolutionary Biology, University of Colorado, Boulder, CO

Professional Experience

2017 - Present Assistant Professor, Pennsylvania State University Scranton
2014 - 2017 Postdoctoral Fellow & Lecturer, University of Michigan
2012 - 2014 Postdoctoral Fellow, Massey University
2010 - 2012 Postdoctoral Fellow, University of Wisconsin
2004 - 2009 Teaching Assistant & Research Assistant, University of Georgia

TEACHING

Courses Taught (9 contact hours per semester)

Introductory Biology 1 (BIOL 011) – non-majors
Plants, Places and People (BIOL 120N, SC120N) – non-majors
Genetics, Ecology and Evolution (BISC 002) – non-majors
Genetics (BIOL 222) – majors
Biology: Molecules and Cells (BIOL 230W) – majors
Advanced Genetics (BIOL 422) – majors
The Uses of Plants (BIOL 424) – majors
Independent Research or Internship (BIOL 494, 495, 496) – majors

Student Advisees

Independent research (Undergraduate)

2021-2022 Mahdee Abuelhawa, Nicholas Chludzinski, Krutik Solanki, Sarah Sherpinkas
2020-2021 Heba Elrashwady, Cody Evans, Brandon Groff, Cara Manasek, Cossette Orehek,
Christian Williams
2019-2020 Keegan Ficarro, Aron Tregaskis, Jared Griffin
2018-2019 Nicholas Kremp
2017-2018 Bryan Parks

Honors projects

Julianna Aulisio, Taylor Bronson, Andrew Faist, Cheyenne Tussel

Other mentoring

Amanda Coats, Alex Fretto, Gillian Gademan, Madison Macknosky, Robert Murphy, Don Vaskie,
Brandon Winters, Maria Valencia, Kendall Olford, Melanie Florkowski, Sara Sanchez, Nick Gabry,
Melanya Yukhnevich, Carly Murphy, Ross Ziobro, Alex Kwan

Awards

2022 Advisory Board Award for Teaching – student nominated

RESEARCH

Refereed Articles (contribution in parentheses)

- Van Etten, M. L. (Co-Author, 75%), Soble, A., & Baucom, R. S. (2021). Variable inbreeding depression may explain associations between the mating system and herbicide resistance in the common morning glory. *Molecular Ecology*, 30(21), 5422-5437.
- Van Etten, M. L. (2021). Quality matters. A commentary on: Pollen limitation and xenia effects in a cultivated mass-flowering tree, *Macadamia integrifolia* (Proteaceae). *Annals of Botany*, mcab136.
- Josephs, E. B., Van Etten, M. L. (Co-Author, 30%), Harkess, A., Platts, A., & Baucom, R. S. (2021). Adaptive and maladaptive expression plasticity underlying herbicide resistance in an agricultural weed. *Evolution Letters*, 5(4), 432-440.
- Van Etten, M. L. (Co-Author, 60%), Chang, S.-m., Lee, K. M., & Baucom, R. S. (2020). Parallel and nonparallel genomic responses contribute to herbicide resistance in *Ipomoea purpurea*, a common agricultural weed. *PLOS Genetics*, 16(2), e1008593.
- Brunet, J., & Van Etten, M. L. (Co-Author, 50%) (2019). The response of floral traits associated with pollinator attraction to environmental changes expected under anthropogenic climate change in high-altitude habitats. *International Journal of Plant Sciences*, 180(9), 954-964.
- Van Etten, M. L. (Co-Author, 50%), Lehnebach, C. A., Pearson, S. M., Robertson, A. W., & Tate, J. A. (2018). Microsatellite markers for *Corybas* (Orchidaceae) species in New Zealand. *Applications in Plant Sciences*, 6(11), e1192.
- Van Etten, M. L. (Co-Author, 75%), Sukkawnmanee, P., Tate, J. A., & Robertson, A. W. (2018). Pollinator service affects quantity but not quality of offspring in a widespread New Zealand endemic tree species. *Conservation Genetics*, 19(4), 815-826.
- Alvarado-Serrano, D. F., Van Etten, M. L. (Co-Author, 15%), Chang, S.-m., & Baucom, R. S. (2018). The relative contribution of natural landscapes and human-mediated factors on the connectivity of a noxious invasive weed. *Heredity*, 122, 29-40.
- Van Etten, M. L. (Co-Author, 80%), Conner, J. K., Chang, S.-m., & Baucom, R. S. (2017). Not all weeds are created equal: a database approach uncovers differences in the sexual system of native and introduced weeds. *Ecology and Evolution*, 7, 2636-2642.
- Van Etten, M. L. (Co-Author, 90%), & Brunet, J. (2017). Using population matrix models to reduce the spread of wild carrot. *Acta Horticulturae*, 1153, 273-278.
- Van Etten, M. L. (Co-Author, 50%), Kuester, A., Chang, S.-m., & Baucom, R. (2016). Fitness costs of herbicide resistance across natural populations of the common morning glory, *Ipomoea purpurea*. *Evolution* 70, 2199-2210.
- Van Etten, M. L. (Co-Author, 60%), Tate, J. A., Anderson, S. H., Kelly, D., Ladley, J. J., Merrett, M. F., Peterson, P.G., & Robertson, A. W. (2015). The compounding effects of high pollen limitation, selfing rates and inbreeding depression leave a New Zealand tree with few viable offspring. *Annals of Botany* 116(5), 833-843.
- Van Etten, M. L. (Co-Author, 75%), & Chang, S.-m. (2014). Frequency-dependent pollinator discrimination acts against female plants in the gynodioecious *Geranium maculatum*. *Annals of Botany* 114, 1769-1778.

- Van Etten, M. L. (Co-Author, 85%), Robertson, A. W., & Tate, J. A. (2014). Microsatellite markers for the New Zealand endemic tree *Fuchsia excorticata* (Onagraceae). *Applications in Plant Sciences* 1, 1300045.
- Van Etten, M. L. (Co-Author, 60%), Deen, A. C., Hamrick, J. L., & Chang, S.-m. (2014). Mating system contributes only slightly to female maintenance in gynodioecious *Geranium maculatum* (Geraniaceae). *Heredity* 113, 464-470.
- Van Etten, M. L. (Co-Author, 50%), & Brunet, J. (2013). The impact of global warming on floral traits that affect the selfing rate in a high altitude plant. *International Journal of Plant Sciences* 174, 1099-1108.
- Van Etten, M. L. (Co-Author, 50%), Houliston, G. J., Mitchell, C. M., Heenan, P. B., Robertson, A. W., & Tate, J. A. (2013). *Sophora microphylla* (Fabaceae) microsatellite markers and their utility across the genus. *Applications in Plant Sciences* 2, 1300081.
- Van Etten, M. L. (Co-Author, 80%), & Chang, S.-m. (2009). Effects of environmental heterogeneity on the distribution of sexes within and among populations in a gynodioecious species, *Geranium maculatum*. *New Phytologist* 183, 649-660.
- Van Etten, M. L. (Co-Author, 80%), Prevost, L. B., Deen, A. C., Ortiz, B. V., Donovan, L. A., & Chang, S.-m. (2008). Gender differences in reproductive and physiological traits in a gynodioecious species, *Geranium maculatum* (Geraniaceae). *International Journal of Plant Sciences* 169, 271-279.

Presentations (since 2017)

- Gupta, S., Harkess, A., Van Etten, M. L., Leebens-Mack, J. H., & Baucom, R. (contributed talk) (2021). Inter-chromosomal linkage disequilibrium and linked fitness cost loci influence the evolution of nontarget site herbicide resistance in an agricultural weed. Evolution Meeting, Online.
- Van Etten, M. L. (poster) (2020). Using *Brassica rapa* to quickly assess pollinator quantity and quality. Botany Meeting, Online.
- Van Etten, M. L. (lightning talk) (2019). Snapshots of pollinator quantity and quality using *Brassica rapa*. Botany Meeting, Tucson, AZ.
- Van Etten, M. L., & Chang, S.-m. (invited symposium talk) (2019). The role of sexual selection in the evolution of gynodioecy. Botany Meeting, Tucson, AZ.
- Van Etten, M. L., & Baucom, R. S. (contributed talk) (2018). Genome-wide search uncovers evidence for convergent and divergent responses to selection in a weedy species. Botany Meeting, St. Paul, MN.

Grants

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| 2021 | PSU Scranton Research Development Grant (\$1750) |
| 2018 | PSU Scranton Research Development Grant (\$1250) |

Professional Memberships

Ecological Society of America
American Society of Naturalists
Council on Undergraduate Research
Botanical Society of America

SERVICE

Campus Service

Chair-elect, Faculty Senate (2022 - Present)
Organizer, Undergraduate Research Fair and Exhibition (2022)
Search committee member, Writing Center Coordinator (2022)
Organizer, Biology/Science Writing Forum (2021)
Member, Curricular Affairs Committee (2020 - Present)
Member, Undergraduate Research Sub-Committee (2020 - Present)
Member, Ally Team (2019 - Present)
Secretary, Faculty Senate (2019 - 2021)
Judge, Undergraduate Research Fair and Exhibition (2019, 2020, 2021)
Member, E-Steward Committee (2019 - 2020)
Search committee member, Science Faculty and Laboratory Technician (2018)
Member, Faculty Affairs Committee (2017 - 2020)
Design of material for Biology Department Webpage (2017)

College Service

Participant, Biology Program Assessment Committee (2022 - Present)
Judge, Regional Undergraduate Research Symposium (2021, 2022)

University Service

Leader, Biology Program Assessment (2022 - Present)
Contributor, Effective Communication Assessment (2021)
Contributor, Writing in Inter-Domain Courses Focus Group (2021)
Contributor, General Education Assessment (2018 - 2020)
Judge, Undergraduate Exhibition (2020, 2021, 2022)
Reviewer, Erickson Discovery Grant (2021, 2022)

Professional Service

Member, 4DEE Videos in Teaching Committee (2021 - Present)
Mentor, Planting Science (2018 - Present)

Peer Reviewer Activities

Journal Articles (~9 per year)

Evolution, Molecular Ecology, New Phytologist, American Naturalist, American Journal of Botany, Heredity, Annals of Botany, Oikos, Journal of Heredity, Weed Research, Evolutionary Applications, Plant Systematics and Evolution, Journal of Evolutionary Biology, G3: Genes|Genomes|Genetics, Forests, Botany Letters, Plant Species Biology, Pest Management Science

Book Chapter

Wiley & Sons Publisher