

CURRICULUM VITAE

WENDY E. VAN DRUNEN

Queen's University Department of Biology
116 Barrie St. Kingston, ON, K7L3N6 Canada

Email: wevd@queensu.ca
Phone: (519) 803-5936

EDUCATION

- 2018 Ph.D. Integrative Biology, University of Guelph. Advisor: B.C. Husband
- 2011 M.Sc. Environmental and Life Sciences, Trent University. Advisor: M.E. Dorken
- 2009 B.Sc. Physics and Astronomy/Biology Joint Major. Trent University.

RESEARCH & PROFESSIONAL APPOINTMENTS

- 2020 – pres. Curriculum Developer. Department of Biology, Queen's University
- 2019 – pres. NSERC Post-doctoral Fellow. Department of Biology, Queen's University
- 2019 Sessional Instructor. Department of Integrative Biology, University of Guelph
- 2012 - 2013 Research Technician. Department of Biology, Trent University
- 2012 Geochemical Laboratory Technologist. SGS Canada Lakefield Research Inc.
- 2009 Research Assistant – NSERC USRA. Department of Biology, Trent University
- 2008 Research Assistant – Herzberg Summer Research Award. Department of Physics, Trent University

FELLOWSHIPS, SCHOLARSHIPS, & AWARDS

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|-------------|----------|--|
| 2019 - 2021 | \$90,000 | NSERC Postdoctoral Fellowship (NSERC PDF). Queen's University |
| 2019 | \$500 | Best Graduate Student Paper (College of Biological Science). University of Guelph |
| 2018 | \$300 | Distinguished Graduate Student Speaker (Department of Integrative Biology). University of Guelph |
| 2016 - 2017 | \$15,000 | Ontario Graduate Scholarship (OGS). University of Guelph |

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| 2013 - 2016 | \$105,000 | NSERC Alexander Graham Bell Canadian Graduate Scholarship (CGS-D). University of Guelph |
| 2013 - 2016 | \$15,000 | Tri-council Scholarship Top-up. University of Guelph |
| 2011 | \$15,000 | Ontario Graduate Scholarship for Science and Technology (OGSST). Trent University |
| 2009 | \$4,800 | NSERC Undergraduate Summer Research Award (USRA). Trent University |
| 2008 | \$4,500 | Herzberg Summer Research Award. Trent University |
| 2005, 2007 | \$1,500 | Trent University National Scholarship. Trent University |

PEER REVIEWED PUBLICATIONS

- 2019 **Van Drunen, W.E.**, and B.C. Husband. 2019. The evolutionary association between polyploidy and clonal reproduction in the angiosperms. *New Phytologist* 224:1266-1277. DOI:10.1111/nph.15999
- 2018 **Van Drunen, W.E.**, and B.C. Husband. 2018. Whole-genome duplication decreases clonal stolon production and genet size in the wild strawberry *Fragaria vesca*. *American Journal of Botany* 105:1712-1724. DOI:10.1002/ajb2.1159
- 2018 Dorken, M.E., and **W.E. Van Drunen**. 2018. Life-history trade-offs promote the evolution of dioecy. *Journal of Evolutionary Biology* 31:1405-1412. DOI: 10.1111/jeb.13335
- 2018 **Van Drunen, W.E.**, and B.C. Husband. 2018. Immediate vs. evolutionary consequences of polyploidy on clonal reproduction in an autopolyploid plant. *Annals of Botany* 122:195-205. DOI: 10.1093/aob/mcy071
- 2015 **Van Drunen, W.E.**, M. van Kleunen, and M.E. Dorken. 2015. The consequences of clonal expansion for sexual fitness: clonal expansion enhances fitness under spatially restricted dispersal. *Proceedings of the National Academy of Sciences*. 112:8929-8936. DOI: 10.1073/pnas.1501720112
- 2015 Ahee, J.E., **W.E. Van Drunen**, and M.E. Dorken. 2015. Small pollination neighbourhoods in the broadleaf cattail (*Typha latifolia*) inferred from spatial analysis of pollen and seed production. *Botany*. 93:91-100. DOI: 10.1139/cjb-2014-0169
- 2014 **Van Drunen, W.E.**, and M.E. Dorken. 2014. Wind pollination, clonality, and the evolutionary maintenance of spatial segregation of the sexes. *Evolutionary Ecology*. 28:1121-1138. DOI: 10.1007/s10682-014-9733-8
- 2012 **Van Drunen, W.E.**, and M.E. Dorken. 2012. Trade-offs between clonal and sexual propagation in *Sagittaria latifolia* (Alismataceae) scale up to affect the fitness of entire clones. *New Phytologist*. 196:606-616. DOI: 10.1111/j.1469-8137.2012.04260.x

- 2012 **Van Drunen, W.E.**, and M.E. Dorken. 2012. Sex-ratio variation versus interplant distances in the regulation of pollen deposition and seed production in dioecious *Cirsium arvense* (Asteraceae). *Botany*. 90:565-573. DOI: 10.1139/b2012-014
- 2012 McKenzie-Gopsill, A., H. Kirk, **W. Van Drunen**, J. Freeland and M. Dorken. 2012. No evidence for niche segregation in a North American cattail (*Typha*) species complex. *Ecology and Evolution*. 2:952-961. DOI: 10.1002/ece3.225
- 2010 Dorken M.E., and **W.E. Van Drunen**. 2010. Sex allocation in clonal plants: might clonal expansion enhance fitness gains through male function? *Evolutionary Ecology – Special Issue on Clonal Plants*. 24:1463-1474. DOI: 10.1007/s10682-010-9393-2

IN PREPARATION:

Van Drunen, W.E., and M.T.J. Johnson. Polyploid evolution and ecology in urban environments. Target Journal: *Trends in Ecology & Evolution*

Van Drunen, W.E. and J. Friedman. The influence of life history strategy and clonality on autopolyploid establishment. Target Journal: *The American Naturalist*

Green, A.F., **W.E. Van Drunen**, and B.C. Husband. Phenotypic effects of whole-genome duplication are genotype dependent. Target Journal: *Annals of Botany*

INVITED TALKS

- 2021 Polyploidy Webinar
- 2020 Guest Lecture: Plants and Human Culture (BIOL315), Queen's University
- 2019 Ecology, Evolution, and Behaviour Seminar Series, Queen's University
- 2019 Department of Biology Seminar Series, Trent University
- 2018 Integrative Biology Distinguished Graduate Student Speaker, University of Guelph

CONFERENCE PRESENTATIONS

- 2018 **Van Drunen, W.E.**, and B.C. Husband. *The immediate vs. evolutionary consequences of polyploidy on clonal reproduction*. Canadian Society for Ecology and Evolution Annual Conference.
- 2015 **Van Drunen, W.E.**, and B.C. Husband. *The association between clonal reproduction and polyploidy in the angiosperms: A comparative approach*. Botanical Society of America Conference.
- 2011 **Van Drunen, W.E.**, and M.E. Dorken. *Genet-level resource trade-offs and the cost of reproduction in Sagittaria latifolia (Alismataceae)*. Canadian Society for Ecology and Evolution Annual Conference.

- 2011 **Van Drunen, W.E.**, and M.E. Dorken. *Genet-level resource trade-offs and the cost of reproduction in Sagittaria latifolia (Alismataceae)*. Ontario Ecology, Ethology, and Evolution Colloquium.

TEACHING EXPERIENCE

INSTRUCTOR:

- 2019 *Plant Diversity and Evolution*. University of Guelph

TEACHING ASSISTANT:

- 2015 - 2017 *Plant Diversity and Evolution*. University of Guelph
2013 *Evolution*. University of Guelph
2011 *Evolutionary Ecology*. Trent University
2010 *Current Issues in Biology II*. Trent University
2009 - 2011 *Current Issues in Biology I*. Trent University
2007 *Physical Science for Teacher Education*. Trent University

CURRICULUM DEVELOPMENT:

- 2020 *Evolutionary Genetics*. Queen's University

UNDERGRADUATE MENTORING & SUPERVISION

QUEEN'S UNIVERSITY:

- 2020 - 2021 Aida Mortazavi. Co-supervised Honour's Thesis

UNIVERSITY OF GUELPH:

- 2017 Hanna Peters. Integrative Biology Undergraduate Mentorship Program
* Currently an MSc student University of Guelph
2017 Rachael Keighan. Research Assistant
2016 - 2017 Alexia Abbruzzese. Research Assistant
2016 James Seery. Research Assistant
2014 - 2015 Lindsay Bennett. Research Assistant
* Completed MSc University of Ottawa

TRENT UNIVERSITY:

- 2010 Andrew McKenzie-Gopsil, Research Assistant/Honour's Thesis
* Completed PhD University of Guelph, Research Scientist at AAF Canada
2010 Jorden Ahee. Research Assistant

PROFESSIONAL SERVICE

DEPARTMENT:

- 2020 – pres. Postdoctoral Representative, Biology Graduate Student Council. Queen's University

- 2019 - 2020 Coordinator, Plant Ecology and Evolution Discussion Group. Queen's University
2018 Graduate Student Representative, Department of Integrative Biology Chair Search. University of Guelph
2008 - 2009 Executive Member, Physics Undergraduate Society (PUGS). Trent University

PEER REVIEW:

- 2020 Molecular Ecology, Annals of Botany (2), Proceedings B, Scientific Reports (2), Journal of Plant Ecology
2019 New Phytologist (2), The American Naturalist
2018 Evolutionary Ecology, American Journal of Botany, The American Naturalist, American Midland Naturalist
2016 Journal of Ecology, Botany, American Journal of Botany

SOCIETY MEMBERSHIPS:

- Botanical Society of America (BSA)
Canadian Society for Ecology and Evolution (CSEE)

WORKSHOPS & TRAINING

EQUITY, DIVERSITY, & INCLUSION:

- 2020 *Exploring Indigenous Research Ethics*. Indigenous Research Collaboration Day, Queen's University
2020 *This is Canada: Living Anti-racism*. Queen's University
2020 *Positive Space*. Queen's University
2020 *Equity, Diversity and Inclusion in Pedagogy and Practice*. Queen's University
2018 *Gender and Beyond: Identifying and Addressing Everyday Oppression*, Symposium for Women Entering Ecology & Evolution (SWEEET)
2018 *Hiring Committee Training: Implicit Bias Awareness*. University of Guelph

RESEARCH:

- 2020 *Digitized Collections-Based Data in Research: Applications for Ecology, Phylogenetics, and Biogeography*. Botanical Society of America
2016 *Spatial Ecology: Applications of the Mathematical Sciences*. Guelph Biomathematics and Biostatistics Symposium
2016 *Research Compute Workshop: Intro to Unix, Git, and Programming with Python*. SHARCNET and Software Carpentry