

## CURRICULUM VITAE

### WENDY E. VAN DRUNEN

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

Email: [wevd@queensu.ca](mailto:wevd@queensu.ca)  
Phone: (519) 803-5936  
Website: [wevandrunen.github.io](https://wevandrunen.github.io)

#### 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

---

- Sept 2021      Post-doctoral Fellow. Department of Biology, University of Toronto  
Mississauga (Ecology and Evolutionary Biology, University of Toronto)
- 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

---

- |             |          |  |
|-------------|----------|--|
| 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
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

## PUBLICATIONS

---

\* - indicates undergraduate advisee author

### UNDER REVIEW:

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

### IN PREPARATION:

A. Mortazavi\*, J. Friedman, and **W.E. Van Drunen**. Polyploid vs. diploid plant species distributions in Canada's largest urban area. Target Journal: *Ecosphere*

**Van Drunen, W.E.** and J. Friedman. 2021. The influence of life history strategy and clonality on autopolyploid establishment. Target Journal: *American Naturalist*

A.F. 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*

### PEER REVIEWED:

11. **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
10. **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
9. 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
8. **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

7. **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
6. 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
5. **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
4. **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
3. **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
2. 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
1. 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

## 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

---

- 2021 **Van Drunen, W.E.** and J. Friedman. 2021. *The influence of life history strategy and clonality on autopolyploid establishment*. Botanical Society of America Annual Conference.
- 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.

- 2014 **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 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)*. 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  
\* Current 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

- 2010                      \* Completed PhD University of Guelph, Research Scientist at AAF Canada  
Jorden Ahee. Research Assistant  
                             \* Completed MSc Trent University

## PROFESSIONAL SERVICE

---

### DEPARTMENT & UNIVERSITY:

- 2021                      Inquiry@Queen's Undergraduate Conference Session Moderator. Queen's University  
2020 – 2021            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:

- 2021                      Perspectives in Plant Ecology Evolution & Systematics, Botany  
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:

VAN DRUNEN  
CURRICULUM VITAE

- 2021 *Using Deep Learning with Digitized Herbarium Specimen Images*. Botanical Society of America
- 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