

# Duncan G. Martin

University of Illinois at Urbana-Champaign  
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## Education

June 2019 to present,  
expected 2024

### PhD in Plant Biology

University of Illinois Urbana-Champaign, Lisa Ainsworth Lab, GPA: 4.0

June 2019

### Honours Bachelor of Science, Specialisation in Ecology and Evolutionary Biology

Trinity College, University of Toronto, GPA: 3.9

## Research Experience

June 2019 to present

**Graduate Research**, Department of Plant Biology, University of Illinois at Urbana-Champaign, *Supervisor*: Lisa Ainsworth

- Investigating the physiological effects of the interaction of drought and ozone stress on soybean
- Conducted in an open field setting using drought canopies and ozone free-air concentration enrichment technology
- Specific traits investigated include diurnal rates of carbon assimilation and stomatal conductance, vegetative and reproductive development, leaf area index, and final yield

May 2017 to April 2019

**Undergraduate Honours Research**, Department of Ecology and Evolutionary Biology, University of Toronto, *Supervisor*: Rowan Sage

- Investigated the effects of varying light intensity on the overall contribution of the C<sub>4</sub> photosynthetic cycle in C<sub>3</sub>-C<sub>4</sub> intermediates using  $\delta^{13}\text{C}$  values obtained from leaf starch
- Plants were grown in greenhouse and growth chamber environments for both ambient daytime and controlled lighting conditions

## Publications

2022

Adachi, S., Stata, M., Martin, D.G., Cheng, S., Liu, H., Zhu, X., and Sage, R.F. (2022) The evolution of C<sub>4</sub> photosynthesis in *Flaveria* (Asteraceae): Insights from the *Flaveria linearis* complex. *Plant Physiology*. doi: 10.1093/plphys/kiac467

2022

Li, S., Moller, C.A., Mitchell, N.G., Martin, D.G., Sacks, E.J., Saikia, S., Labonte, N.R., Baldwin, B.S., Morrison, J.I., Ferguson, J.N., Leakey, A.D.B., and Ainsworth, E.A. (2022) The leaf economics spectrum of triploid and tetraploid C<sub>4</sub> grass *Miscanthus x giganteus*. *Plant, Cell & Environment*. doi: 10.1111/pce.14433

2022 **Montes, C.M., Demler, H.J., Li, S., Martin, D.G., and Ainsworth, E.A.** (2022). Approaches to investigate crop responses to ozone pollution: from O<sub>3</sub>-FACE to satellite-enabled modeling. *The Plant Journal* **109**(2): 432-446. doi: 10.1111/tpj.15501

2016 **Clark, C., Hicks, S., Assaad, K., David, A. J., Kasztenny, A., Kelly, P., Martin, D., McMurchy, E., and Wong, KM.** (2016). Seizing the Menotti Moment: Opera meets McLuhan meets Millennials. *College Music Symposium*, 56.

## Presentations

November 2022 **Martin, D.G. and Ainsworth, E.A.** (2022) "Interaction of Elevated Ozone Stress and Reduced Rainfall on Soybean Photosynthetic Capacity and Yield". Poster. *Interdrought VII*, Dakar, Senegal.

November 2022 **Martin, D.G. and Ainsworth, E.A.** (2022) "Interaction of Elevated Ozone and Reduced Rainfall on Soybean Photosynthesis and Yield". Presentation. *Crop Science Society of America Annual Meeting*, Baltimore, MD.

August 2022 **Martin, D.G. and Ainsworth, E.A.** (2022) "Interactive Effects of Drought and Ozone Stress on Soybean Physiology". Poster. *Rubisco Symposium*, Champaign, IL.

## Teaching Experience

August 2019 to December 2019 **Teaching Assistant**, IB150: Organismal Biology, University of Illinois at Urbana-Champaign

- Led discussion sessions instructing on the basics of organismal biology, with a focus on areas pertaining to fundamental evolutionary and ecological concepts
- Student evaluations led to the designation of a "TA ranked as excellent"

January 2019 to April 2019 **Teaching Assistant**, BIO251: Plant Form and Function, University of Toronto

- Led laboratory sessions teaching students introductory plant biology by employing techniques such as basic horticulture, tissue dissection, light microscopy, and gel electrophoresis

## Awards

April 2020 Sharon Gray Memorial Award

October 2019 Irvin S. Naylor Scholarship in Field Biology

November 2018 Wastenev Chancellor's Scholarship

May 2018

Centre for Global Change Science Internship

November 2017

Ashbaugh Chancellor's Scholarship

May 2017

NSERC Undergraduate Student Research Award

## **Professional Associations**

- Member, Crop Science Society of America