

# Emily K. Geoghegan

University of California, Davis  
 Email: egeoghegan13@gmail.com  
 Website: www.emilygeoghegan.com

## EDUCATION

---

- 2021-  
Present      **Cornell University**  
PhD Student, Ecology and Evolutionary Biology
- 2019-2021    **University of California – Davis**  
MS, Soils & Biogeochemistry  
Advisor: Dr. Benjamin Houlton
- 2017-2019    **Villanova University**  
MS, Biology  
Advisors: Dr. Samantha Chapman, Dr. Adam Langley
- 2015          **Marine Biological Laboratory Semester in Environmental Science**  
Intensive semester of ecological study and independent research  
Advisors: Dr. Zoe Cardon, Dr. Joseph Vallino
- 2013-2017    **Bryn Mawr College**  
BA, Biology *magna cum laude*, with Departmental Honours  
Advisor: Dr. Thomas Mozdzer

## RESEARCH EXPERIENCE

---

- 2022 -  
Present      **Graduate Research Assistant**  
Cornell University
- 2019-2021    **Graduate Research Assistant**  
University of California – Davis
- 2018          **Graduate Research Assistant**  
Villanova University
- 2014-2017    **Undergraduate Research Assistant**  
Bryn Mawr College
- 2016          **Summer Research Intern**  
MBL Plum Island Field Station
- 2015          **Independent Research Project**  
Marine Biological Laboratory Semester in Environmental Science
- 2015          **REU Summer Research Intern**  
Smithsonian Environmental Research Center

2014            **Summer Science Student Researcher**  
Bryn Mawr College

## TEACHING EXPERIENCE

---

2022            **Teaching Assistant**  
BioEE 1610: Introductory Biology (1 semester)  
Cornell University

2021            **Teaching Assistant**  
BioG 1140: Introductory Biology (1 semester)  
Cornell University

2017-2019     **Teaching Assistant**  
General Biology Laboratory (3 semesters)  
Villanova University

2016            **Teaching Assistant**  
BIO 220: Ecology Laboratory (1 semester)  
Bryn Mawr College

## MANUSCRIPTS

---

Almaraz, M., Simmonds, M., Boudinot, F. G., Bingham, N. L., Khalsa, S. D. S., Ostojka, S., Scow, K., Jones, A., Holzer, I., Manaigo, E., **Geoghegan, E.**, Goertzen, Silver, W. L., *In review*. Soil carbon sequestration in global working lands as a gateway for negative emission technologies. *Global Change Biology*. <https://doi.org/10.1111/gcb.16884>.

Almaraz, M., Bingham, N. L., Holzer, I., **Geoghegan, E.**, Goertzen, H., Sohng, J., Houlton, B., 2022. Methods for determining the CO<sub>2</sub> removal capacity of enhanced weathering in agronomic settings. *Frontiers in Climate*. <https://doi.org/10.3389/fclim.2022.970429>.

Jensen, K., Duvall, E., Cyle, K. T., Da Ros, L., Frey, D., **Geoghegan, E.**, Irons, M., Kreitinger, E., Mejia, C., *In review*. Barriers to actionable environmental science: lessons for early career researchers from the COVID-19 response. *Ecosphere*.

Almaraz, M., Wong, M.Y., **Geoghegan, E.K.** and Houlton, B.Z., 2021. A review of carbon farming impacts on nitrogen cycling, retention, and loss. *Annals of the New York Academy of Sciences*. <https://doi.org/10.1111/nyas.14690>.

**Geoghegan, E.G.**, Langley, J.A., Chapman S.K. 2020. A comparison of mangrove and marsh influences on soil respiration rates: A mesocosm study. *Estuarine, Coastal and Shelf Science*. <https://doi.org/10.1016/j.ecss.2020.106877>.

**Geoghegan, E.G.**, Caplan, J.S., Leech, F.N., Weber, P.E., Bauer, C.E., & T.J. Mozdzer. 2018. Nutrient enrichment alters the carbon storage function of a New England salt marsh. *Ecosystem Health and Sustainability*. <https://doi.org/10.1080/20964129.2018.1532772>.

## PRESENTATIONS

---

**Emily Geoghegan**, J. Adam Langley, Matthew Hayes, Samantha Chapman. "Mangroves on the Move: Investigating the Effects of Mangrove Invasion on Soil Processes along the Eastern Florida Coastline." Society of Wetland Scientists, Baltimore, MD. May, 2019.

**Emily Geoghegan**, J. Adam Langley, Glenn A. Coldren, Ilka C. Feller, Samantha K. Chapman. "Warming accelerates mangrove expansion and surface elevation gain in a subtropical wetland." Society of Wetland Scientists, Denver, CO. Adapted and given in place of invited speaker Dr. Adam Langley, at his request. May, 2018.

**Emily Geoghegan**, Joshua Caplan, Francine Leech, Paige Weber, Caitlin Bauer, Thomas Mozdzer. "Nutrient enrichment alters the carbon storage function of a New England salt marsh." Society of Wetland Scientists, Denver, CO. May, 2018.

**Emily Geoghegan**. "Nutrient enrichment alters the carbon storage function of a New England salt marsh." Bryn Mawr College Biology Senior Thesis Defense, Bryn Mawr, PA. May, 2017.

**Emily Geoghegan**, Zoe Cardon, Joseph Vallino. "Decomposition and methane production in anaerobic environments: a case study in a methanogenic bioreactor." MBL Semester in Environmental Science Independent Research Symposium, Woods Hole, MA. December, 2015.

**Emily Geoghegan** & Grace Cott. "Uptake of dissolved organic nitrogen by native wetland plant seedlings in response to future climatic conditions." Smithsonian Environmental Research Center Summer Science Student Seminar, Edgewater, MD. August, 2015.

## POSTERS

---

**Geoghegan, E.**, Houlton, B. Z. "Influence of enhanced rock weathering on carbon dioxide (CO<sub>2</sub>) and nitrous oxide (N<sub>2</sub>O) emissions following soil re-wetting in a Southern California cropland." American Geophysical Union Annual Conference, Chicago, IL. December 2022.

**Emily Geoghegan**, Samantha Chapman, J. Adam Langley, Matthew Hayes. "Mangroves on the Move: Investigating the Effects of Mangrove Invasion on Soil Processes Along the Eastern Florida Coastline." 5th International Mangrove, Macrobenthos and Management Meeting, Singapore. June 2020.

**Emily Geoghegan**, Joshua Caplan, Francine Leech, Paige Weber, Caitlin Bauer, Thomas Mozdzer. "Nutrient enrichment alters the carbon storage function of a New England salt marsh." Atlantic Estuarine Research Society, Rehoboth Beach, DE. April, 2018.

**Emily Geoghegan**, Joshua Caplan, Lyntana Brougham, Rachel Hager, Thomas Mozdzer. "Carbon fixation by the invasive common reed under current and near future CO<sub>2</sub> and

nitrogen conditions.” Rutgers Mid-Atlantic Regional Climate Symposium, New Brunswick, NJ. November, 2014.

Lyntana Brougham, **Emily Geoghegan**, Joshua Caplan, Thomas Mozdzer. “Invasive *Phragmites australis*: genotype-dependent reactions to climate change.” Bryn Mawr College Summer Science Research Symposium, Bryn Mawr, PA. August, 2014.

### **OUTREACH, SERVICE & LEADERSHIP**

---

- |           |   |
|-----------|---|
| 2021-2022 | <b>Ecology and Evolutionary Biology Winter Symposium Committee</b><br>Cornell University                            |
| 2021      | <b>Ithaca Science Center</b><br>Science education outreach targeted at school-age children                          |
| 2020      | <b>Peer reviewer</b><br><i>Hydrobiologia</i>  |
| 2018-2019 | <b>Graduate Student Editor</b><br>Villanova University <i>CONCEPT</i> Journal of Interdisciplinary Graduate Studies |
| 2017-2018 | <b>Peer Reviewer</b><br>Villanova University <i>CONCEPT</i> Journal of Interdisciplinary Graduate Studies           |
| 2016-2017 | <b>Sustainability Coordinator</b><br>Bryn Mawr College Campus Facilities  |

### **FELLOWSHIPS**

---

- |           |   |
|-----------|---|
| 2019-2021 | <b>Dean’s Distinguished Graduate Fellowship</b><br>University of California – Davis<br><i>Provides 3 years of tuition and stipend coverage as a Graduate Research Assistant</i> |
| 2018      | <b>Graduate Research Fellowship</b><br>Villanova University   |
| 2017-2019 | <b>Graduate Teaching Assistantship</b><br>Villanova University  |

### **HONORS & AWARDS**

---

- |      |   |
|------|---|
| 2023 | <b>Cornell Department of Ecology and Evolutionary Biology Summer Research Support (\$1,000)</b> |
|------|---|

2023	<b>Andrew W. Mellon Student Research Grant (\$1,000)</b>
2019	<b>Society of Wetland Scientists Mid-Atlantic Chapter Student Travel Funding (\$500)</b>
2019	<b>Villanova University Graduate Studies <i>CONCEPT</i> Service Award (\$150)</b>
2019	<b>Villanova University College of Liberal Arts and Sciences Student Travel Award (\$600)</b>
2019	<b>Villanova University Biology Department Student Travel Award (\$600)</b>
2019	<b>The Wetland Foundation Graduate Student Travel Award (\$1,400)</b>
2019	<b>Singapore National Parks Board Student Registration Grant</b>
2018	<b>Villanova University Graduate Summer Funding Award (\$3,000)</b>
2018	<b>Atlantic Estuarine Research Society Student Travel Grant (\$150)</b>
2014	<b>Bryn Mawr College Dean's Office Research Funding (\$450)</b>
2013	<b>Bryn Mawr College Merit Tuition Scholarship (\$60,000)</b>

#### **LEADERSHIP EXPERIENCE**

---

2021-2023	<b>Vice-President</b> Biogeochemistry, Environmental Science, and Sustainability Graduate Student Association (BESS) Cornell University
2013-2016	<b>President (2014-2016), Member (2013-2014)</b> BMC Greens Environmental Club Bryn Mawr College

#### **REFERENCES**

---

Available upon request.