

# ELLIOTT SMITH

## CURRICULUM VITAE

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### Education

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| <b>University of Michigan</b> —Ann Arbor, MI             | Sep. 2019 - |
| B.S. in Ecology, Evolution, and Biodiversity (GPA: 3.80) | Apr. 2022   |
| • 5-times University Honors recipient                    |             |
| <b>Yale University</b> —New Haven, CT                    | Aug. 2018 - |
| Intended B.S. in Environmental Science (GPA: 3.65)       | May 2019    |

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### Peer-Reviewed Publications and Manuscripts in Preparation

- O’Connell E., **E. Smith**, G. Blankenship, E. Parker, M. Saxton 2023. *Phellodendron amurense* has escaped cultivation in Missouri. *Missouriensis* 41. [https://monativeplants.org/wp-content/uploads/missouriensis/missouriensis-41/MONPS\\_41\\_18-31.pdf](https://monativeplants.org/wp-content/uploads/missouriensis/missouriensis-41/MONPS_41_18-31.pdf)
- Michel J., **E. Smith**, A.K. Killion 2023. Post-Secondary Sustainability Presence in Policy-Relevant Media: A qualitative analysis of sustainability curriculum. *About Campus* 28(4). <https://doi.org/10.1177/10864822231195593>
- Eckberg J., A. Hubbard, E. Schwarz, **E. Smith**, N.J. Sanders 2023. The dominant plant species *Solidago canadensis* structures multiple trophic levels in an old-field ecosystem. *Ecosphere* 14(1):e4393. <https://doi.org/10.1002/ecs2.4393>
- Beckford C., **E. Smith**, A. Tian, L. Carrasco Tornero, M. Papeş, G. Wiggins. Influence of climate change velocity on future species distributions of buzz pollinators. *In Prep.*
- Smith E.**, A.K. Killion. Community Forestry and Animal Biodiversity in Nepal: Identifying Knowledge Gaps in Publicly-Available Occurrence Data. *In Prep.*
- Everingham S., ... **E. Smith**, et al. [122 authors] Determining the relative importance of the direct versus indirect effects of climate on herbivory and pathogen infection on a broad, multi-continental scale. *In Prep.*

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### Published Reports

- Smith, E.**, J. Zinnen, E. Janssen, P. Marcum, W. Schelsky, & D. Zaya (2025). Planning for Encounters with Special Management Areas: Characterization, Management Approaches, and Syntheses. FHWA-ICT-25-008. <https://rosap.ntl.bts.gov/view/dot/84805>

## Research Experience

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**Laboratory Assistant**—Rutgers University, New Brunswick, NJ

Apr. 2024 -

Dr. Rachael Winfree Pollinator Ecology Lab

Aug. 2024

- Contributed to USDA-funded project on the effect of forest management practices on bee community composition and floral resource use
- Established multi-year study sites using Avenza mapping software
- Collected 7,440 bees in pan traps located across 5 New England states, prepared field specimens for long-term laboratory storage
- Collected scopal pollen for molecular analysis of plant-pollinator associations
- Co-author on manuscript in preparation; conducted statistical analyses and contributed to manuscript writing

**Ecology Technician**—Tyson Research Center, Washington University, St. Louis, MO

May 2023 -

Dr. Jonathan Myers Ecology Lab

Nov. 2023

- Co-led lab research activities, including the third Tyson Research Center Forest Global Earth Observatory (ForestGEO) census and the first tree community censuses after experimental prescribed fires
- Measured tree growth and forest composition change
- Identified new recruit trees and mapped position with a laser range-finder
- Managed and mentored a team of 5 undergraduate researchers and 2 high school research interns

**Undergraduate Research Assistant**—University of Michigan, Ann Arbor, MI

Jul. 2021 -

Dr. Nate Sanders Community Ecology, Global Change Ecology & Macroecology Lab

May 2022

- Collaboratively designed and conducted a published study on the multi-trophic effects of the dominant grassland plant *Solidago canadensis*
- Developed and trained colleagues in the use of an identification guide of the trophic level and morphology of 300 arthropod families, based on a review of 35+ keys, textbooks, and articles
- Collected plant, soil, and arthropod data for the international BugNet project; co-author on first comparative study in preparation

**REU Summer Researcher (NSF-Funded)**—National Institute for Mathematical and Biological Synthesis (NIMBioS), Knoxville, TN

Jun. 2020 -

Jul. 2020

- Modeled climate-driven range shifts of 15 bee species across a patchy matrix using ecological niche models (ENMs) and ArcGIS cost-distance analysis
- Worked independently and remotely due to COVID-19 restrictions
- Presented findings at two undergraduate research conferences
- Co-author on manuscript in preparation

**Lab Technician**—University of Michigan Museum of Zoology, Ann Arbor, MI

Oct. 2019 -

Dr. Erika Tucker Hymenoptera Lab

Jun. 2021

- Point-mounted and labeled wasp and bee specimens for museum curation

- Chemically dried parasitoid wasps using toxic Hexamethyldisilazane (HMDS)

**Undergraduate Research Assistant**—University of Michigan, Ann Arbor, MI  
Dr. Neil Carter Conservation and Coexistence Lab

Oct. 2019 -  
Apr. 2021

- Led independent study on gaps in wildlife research in federally-managed versus community-managed conservation areas
- Lead author on manuscript in prep

## Grants and Funding

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<b>National Science Foundation Research Experiences for Undergraduates</b> —\$2500	2020
<b>Jacob &amp; Carrie Furtsch Scholarship</b> —\$3000	2019-20
<b>Drake Tester Memorial Scholarship</b> —\$1000	2018-19

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## Teaching and Professional Roles

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**Academic Assistant**—Illinois Natural History Survey, Champaign, IL

Nov. 2024 -  
present

- Conducts literature reviews comparing sensitive habitat management policies across departments of transportation
- Interviews external staff from departments of transportation and other parties that conduct natural resource management
- Maps existing sensitive natural areas along Illinois DOT properties
- Conducts field sampling of native forbs for phylogenetic analysis

**Entomology Intern**—Sophia M. Sachs Butterfly House, Chesterfield, MO

Jan. 2024 -  
Mar. 2024

- Fed and cared for insect populations in a USDA secure containment facility
- Tested insect frugivore dietary preferences for food inoculated with fungi

**Instructional Aide**—University of Michigan Biological Station, Pellston, MI

Jun. 2022 -  
Jul. 2022

- Assisted in the planning and instruction of an introductory ecology class
- Led instructional field outings to dune, bog, field, and forest habitats
- Rated “far above average,” “clear,” and “kind” in anonymous evaluations

**Assistant Team Lead**—SEEDS Conservation Corps, Traverse City, MI

Jun. 2019 -  
Aug. 2019

- Led conservation projects including invasive species removal, trail construction, and composting
- Managed and mentored teams of 3-8 young adults

**Solar Energy Research Intern**—Grand Traverse Regional Land Conservancy, Traverse City, MI

Jul. 2017 -  
Nov. 2018

- Researched the viability of installing a solar array on Conservancy property
- Collaborated with environmental organizations, performed cost-benefit analysis, and produced feasibility reports

## Presentations

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- General Ecology (Biology 282), University of Michigan—Pellston, MI** Jul. 2022  
Invited Guest Lecture: “From Life History to Computer Models: Using Ecology to Predict Pollinators’ Responses to Global Change”
- National Institute for Mathematical and Biological Synthesis (NIMBioS) Undergraduate Research Conference—Virtual** Oct. 2020  
Research Presentation: “Where's the Buzz? Dispersal Speed as a Limitation to Climate Migration of Bees”
- MATH REU Conference, Clemson University—Virtual** Jul. 2020  
Research Presentation: “Influence of Climate Change Velocity on Future Species Distributions of Buzz Pollinators.”
- Association for Environmental Studies and Sciences Annual Conference—Virtual** Jul. 2020  
Research Presentation: “Post-Secondary Sustainability Presence in Policy-Relevant Media”

## Skills

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Software/Analytical: R, Python, ArcGIS, QGIS, MCMC Approximation, Range Shift Modeling  
Ecology: Arthropod Sampling & Identification, Woody & Herbaceous Plant Identification, Forest Demography Censusing, Museum Specimen Preservation  
Other: Overleaf Word Processing, Adobe Illustrator, Spanish Proficiency Certification

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## Climate Change Advocacy

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- Research & Education Team Member—University of Michigan School of Literature, Science, and the Arts (LSA) Carbon Neutrality Task Force, Ann Arbor, MI** Dec. 2021 - May 2022
- Researched the climate footprint of LSA educational and research activities
  - Provided recommendations to the Dean’s office in a formal report
- Co-president—Citizens’ Climate Lobby, University of Michigan Chapter, Ann Arbor, MI** Jan. 2020 - Dec. 2021
- Directed a student chapter of a national climate advocacy group
  - Led policy lobbying meetings with U.S. elected officials and their staff
- National Conference and Lobby Day, Citizens’ Climate Lobby—Washington, D.C.** Jun. 2018  
Panelist: “Crafting Your Climate Story”
- Citizens’ Climate Lobby Grand Rapids Chapter—Grand Rapids, MI** Apr. 2018  
Panelist: “Our Children’s Future”
- Founder and Co-president—Students for Environmental Advocacy Club, Traverse City, MI** Oct. 2016 - May. 2018
- Led 17 students to directly meet members of Congress about climate risks

- Co-led CHS Solar Project, fundraising for a 20 kW solar array

## Honors and Awards

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### **Spanish Proficiency Certification**

Dec. 2019

University of Michigan Residential College

- Assessed able to communicate confidently in Spanish as a second language, and to study and travel independently in Spanish-speaking regions

### **Student Environmentalist of the Year Award**

Apr. 2017

Northern Michigan Environmental Action Council

- Recognized for leadership in addressing environmental issues at the school and community level

## Community Service

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### **Proyecto Avance: Latino Mentoring Association**

Sep. 2019 -

Tutor

Apr. 2022

- Mentored one elementary-aged Latino boy twice a week
- Assisted with homework, conversed, and played games

### **Big Brothers Big Sisters**

Sep. 2016 -

Mentor

May. 2018

- Mentored one at-risk elementary-aged boy once a week
- Assisted with homework, conversed, and played games