

EDUCATION

New Haven, CT
2024-2026

Yale University
MESc. - School of the Environment
• Advisor: Dr. Justin Farrell

Cambridge, MA
2011-2015

Harvard University
B.A. Organismic and Evolutionary Biology, Earth and Planetary Sciences
• High Honors, Edward W. Argy Service Award, Geosociety, Life Sciences Advisory Board, Sustainability Council

PUBLICATIONS

Wittwer, B., Abraham, H., Tovit, S., **Murphy, L.**, Elgar, M., Pierce, N., and Kocher, S. (2017) "Solitary bees reduce investment in communication compared with their social relatives." **PNAS** 114 (25):6569-6574

PROFESSIONAL EXPERIENCE

NYC, NY
Oct 2023 -present

Lower East Side Girls Club
STEM and Planetarium Instructor
• Direct and teach planetarium programming that engages the public with environmental justice and STEM workforce development.

NYC, NY
Mar 2017 - Oct 2023

BioBus, Inc
Interim Director of Community Science | Director of Sustainable Facilities | Class B CDL
• Oversaw \$1 million fundraising campaign, led expansion team in Boston, and managed a Facilities team overseeing laboratory assets worth \$2 million. Secured over \$800,000 in public sector funding for scientific equipment and R&D for new community tools.
• Engaged 25,000 students with DEIB-informed, inquiry-based science programs at 2,400 sites for K-12, across the Northeast US with standards-aligned curriculum and evaluation oversight.

NYC, NY
Jan 2022-2023

The Bee Conservancy
Project Consultant for Community Science Programs
• Created platform and strategy to reach over 250,000 members of The Bee Conservancy's network to monitor native bee biodiversity.

Death Valley, NV
Jan 2018, 20, 22

Massachusetts Institute of Technology Department of Earth, Atmospheric, and Planetary Sciences
Field Camp Manager, Advisor: Dr. Oliver Jagoutz
• Managed one-month courses focusing on remote sensing, mapping, structure, and igneous petrology for undergraduate and graduate students at remote sites in Death Valley and the Mojave National Preserve.

Death Valley, NV
Jan 2017

Harvard University Department of Earth and Planetary Sciences
Field Camp Manager, Advisor: Dr. Francis Macdonald
• Managed one-month practical field mapping course focusing on structural geology and sedimentology for undergraduate students in Death Valley National Park.

RESEARCH EXPERIENCE

Naryn, Kyrgyzstan
Aug-Sep 2019

John Hopkins University Department of Earth and Planetary Sciences
Field Assistant, Advisors: Dr. Emmy Smith, Dr. Lyle Nelson
• One-month scoping expedition in Kyrgyzstan. Assisted in mapping, rock-hauling, and general morale-boosting.

Cambridge, MA
May 2014- Aug 2015

Harvard University Museum of Comparative Zoology
Undergraduate Researcher, Advisors: Dr. Naomi Pierce, Dr. Sarah Kocher
• Independent honors thesis in chemical ecology and the evolutionary origin of social behavior in insects. Field surveys and collection, entomological specimen preservation, dissection, GCMS and DNA-barcoding techniques. Data analysis, including PGLS analysis, one-way ANOVA tests, stepwise, linear discriminant analyses and penalized LDA tests in R.

Bangkok, Thailand
Nov 2015- Apr 2016

Chulalongkorn University Department of Biology
Research Assistant, Advisor: Dr. Natapot Warrit
• Field collections of bees in Khao Yai and Doi Inthanon for database and digitization.

Bishkek, Kyrgyzstan
Jun-Aug 2013

Rural Development Fund, Bees for Development

Field Researcher

- Evaluate pollinator health and effect of transhumant beekeeping operations on pasture ecology in N. Kyrgyzstan

VOLUNTEER AND CONSULTING EXPERIENCE

NYC, NY
Aug 2023-present

Nonhuman Teachers

Advisory Board Member

- Fundraising and strategy consultant for 501(c)3 focused on ecological storytelling, the nonprofit arm of Cactus Store.

Washington, DC
Mar 2022-present

American Geophysical Union

Local Science Partner

- Leverage tools from science and policy to advance equity and influence legislation that benefits communities and the environment.

South Gobi, Mongolia
Mar 2020-present

Institute for the Study of Mongolian Dinosaurs

Project Consultant

- Collaborator on grant to establish a museum in the Flaming Cliffs. Led remote classes for South Gobi teachers and students.

Baltimore, MD
Jul 2019-present

Mobile Laboratory Coalition

Executive Board of Directors, Secretary

- Scale impacts of 40-member organizations through networking opportunities and best-practices sharing. Execute annual conferences funded by NIH SEPA grant. Review financial statements; recruit new members and sponsors.

Chiang Mai, Thailand
May-Nov 2016

Phluang Wildlife Research Station

Apiculture Consultant and Volunteer

- Fundraised and created infrastructure for apiaries to deter crop raiding by Asian elephants in northern Thailand.

Cambridge, MA
May 2012-Sep 2015

Harvard Museum of Natural History

Observation Hive Curator

- Founded Harvard University's first undergraduate apiary outreach sites; oversaw the installation and maintenance of a student-curated museum observation hive exhibit and three apiaries across campus.

GRANTS AND FELLOWSHIPS

- 2024 **NSF GRFP** Life Sciences- Conservation (\$159,000)
- 2024 **The New School** Impact Entrepreneurship Fellowship (\$10,000) - *declined*
- 2024 **Yale School of the Environment** Graduate Merit Scholarship (\$25,000)
- 2022 **NSF GRFP** Geosciences Paleontology and Paleobiology (Honorable Mention)
- 2022 **NJIT Provost** Gary Thomas Assistantship (\$59,408) - *declined*
- 2021 **NIH SEPA** Travel Stipend Mobile Laboratory Coalition Conference Presenter (\$700)
- 2015 **Michael C. Rockefeller Fellowship** Thailand Fellow (\$25,000)
- 2014 **Harvard Museum of Comparative Zoology** Grant Recipient (\$2,500)
- 2013 **Harvard University Center for the Environment** Grant Recipient (\$1,500)
- 2013 **Weissman Family Fellowship/Center for Eurasian Studies** Kyrgyzstan Fellow (\$15,000)
- 2012 **Heckscher Family Foundation Fellowship** Public Interest Careers Fellow (\$10,000)

AFFILIATIONS AND MEMBERSHIPS

- 2023 **Cornell Small Farms Program** Community Mushroom Educator
- 2023 **Harvard Alumni for Climate and the Environment** Member
- 2021 **Pear Research Institute** Dimensions of Success Certified STEM Program Evaluation Observer
- 2020 **National Geographic Society** Certified Educator
- 2018 **North American Board of Energy Practitioners** Solar Energy Installer Certification
- 2015 **Harvard College Cooperative House** President

POSTERS AND PRESENTATIONS

- 2022 **Harvard Center for Public Interest Careers Conference** "Careers in community conservation"
- 2022 **Reach the World Explorer Global Broadcast** "Tropical dry forest invertebrates of Colombia"
- 2022 **Mobile Laboratory Coalition Conference** "Pop-up urban ecology labs in NYC"
- 2015 **Harvard Senior Thesis Symposium** "The chemical ecology of a facultatively eusocial halictid bee"