Tyler Treakle

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Education

Arizona State University 2021 – Present

- Ph.D. Candidate in Sustainability
  - Title: *The Economics of Ecosystem Management and Degradation*
  - Job Market Paper: Job Impacts of the U.S. Endangered Species Act
  - Certificate: Environmental & Sustainability Economics
  - Committee: Joshua Abbott (co-chair), Kailin Kroetz (co-chair), Leah Gerber
  - Key coursework: ECN Ph.D. Core: Microeconomics I-II, Econometrics I-II
    ECN Ph.D. Topics: Advanced Econometrics, Environmental Economics

The College of William & Mary 2014 – 2018

- B.A. in Environmental Economics, B.S. in Biology (*Magna Cum Laude*)

Professional Experience

- *School of Sustainability, Arizona State University* 2021 – Present
  Graduate Research & Teaching Assistant
- *Resources for the Future* 2018 – 2021
  Research Assistant
- *School of Arts & Sciences, The College of William & Mary* 2017 – 2018
  Research Assistant
- *National Science Foundation & Michigan State University* 2017
  Research Experience for Undergraduates

Research

Peer-Reviewed Publications

8. Stanley, A. E., Epanchin-Niell, R., **Treakle, T.**, & Iacona, G. D. (2024). Attributes of preemptive conservation efforts for species precluded from listing under the US Endangered Species Act. *Conservation Biology*, 38(2), e14200.
7. **Treakle, T.**, Epanchin-Niell, R., & Iacona, G. D. (2023). Factors associated with preemptive conservation under the US Endangered Species Act. *Conservation Biology*, 37(5), e14104.
6. **Treakle, T.**, Abbott, J. K., & Holland, D. S. (2023). Not by fishing alone: Non-fishing employment and income for US West Coast fishers. *Ocean & Coastal Management*, 243, 106763.
5. Epanchin-Niell, R. S., Jackson-Smith, D. B., Wilson, R. S., Ashenfarb, M., Dayer, A. A., Hillis, V., ... & **Treakle, T.** (2022). Private land conservation decision-making: An integrative social science model. *Journal of Environmental Management*, 302, 113961.
4. Epanchin-Niell, R., Thompson, A. L., & **Treakle, T.** (2021). Public contributions to early detection of new invasive pests. *Conservation Science and Practice*, 3(6), e422.

3. Haines, A. M., Leu, M., Costante, D. M., **Treakle, T. C.**, Parenti, C., Miller, J. R., & Malcom, J. W. (2021). Benchmark for the ESA: having a backbone is good for recovery. *Frontiers in Conservation Science*, 2, 630490.

2. Twardochleb, L. A., **Treakle, T. C.**, & Zarnetske, P. L. (2020). Foraging strategy mediates ectotherm predator–prey responses to climate warming. *Ecology*, 101(11), e03146.

1. Leu, M., Haines, A. M., Check, C. E., Costante, D. M., Evans, J. C., Hollingsworth, M. A., ... & **Treakle, T. C.** (2019). Temporal analysis of threats causing species endangerment in the United States. *Conservation Science and Practice*, 1(8), e78.

Under Review

- Kuwayama, Y., Rayl, J., & **Treakle, T.** Does the Value of Reliability Capitalize in Water Markets?
- Kroetz, K., Leonard, B., **Treakle, T.,** Gigliotti, L., & Middleton, A. The high value of satellite data in terrestrial habitat corridor design for large migratory species.

Working Papers

- Planning Pop-up Conservation for Terrestrial Migratory Species under Uncertainty (with K. Kroetz, B. Leonard, A. Middleton)
- The Value of Shade (with D. Hernandez-Cortes, C. Miller)

Work in Progress

- Invasive Species, Insecticides, and Human Health
- Winners or Losers? Quantifying the Impacts of Wildfire and Smoke on Bird Biodiversity (with T. Mei, A. Stillman, O. Sanderfoot, C. Kling)
- Optimal Management of Natural Resources Generating Multiple Ecosystem Services (with J. Ashander, Y. Kuwayama, K. Kroetz, C. Speir)

Reports and Other Writings

- Bradford, M.A., Oldfield, E.E., Arredondo, M.G., Black, H.I.J., Forbes, E.S., ..., **Treakle, T.**, Tully, K., Kuebbing, S.E. and the Synthesizing Science Lab (2025) Agricultural soil carbon: A call for improved evidence of climate mitigation. Yale Applied Science Synthesis Program and Environmental Defense Fund white paper.
- Burnett, J.W., Donaldson, D., Wallander, S., **Treakle, T.** (2024) System of Environmental Economic Accounting: Soil Health. London Group Meeting 2024 Issue Paper.

Presentations

Invited Talks & Workshops

- Arizona State University (ASU), School of Sustainability: Research Seminar 2026
  The Economics of Ecosystem Management and Degradation
- Cornell Lab of Ornithology, Center for Avian Population Studies: Research Seminar 2026
  Winners or Losers? Quantifying the Impacts of Wildfire and Smoke on Bird Biodiversity
- London School of Economics, Department of Geography and Environment: Research Seminar 2026
  The Economics of Ecosystem Management and Degradation
- Yale University, Yale Applied Science Synthesis Program: Workshop 2024
  Developing Scientific Standards for Empirical Verification of Negative Emissions Achieved Through Soil Carbon Sequestration in Agricultural Lands
- ASU, Center for Environmental Economics and Sustainability Policy: Research Seminar 2024
  Labor Market Impacts of U.S. Endangered Species Act Regulations

Conference Presentations

- Camp Resources, Big Sky Workshop, and AAEA Summer Conference 2026
  Invasive Species, Insecticides, and Human Health
- North American Congress for Conservation and Restoration (NACCR) 2026
  Job Impacts of the U.S. Endangered Species Act
- Berkeley/Sloan Summer School in Environmental and Energy Economics 2025
- Association of Environmental & Resource Economists (AERE) Summer Conference 2025
  Labor Market Impacts of U.S. Endangered Species Act Regulations
- Northeastern Agricultural & Resource Economics Association (NAREA) Annual Conference 2025
  Labor Market Impacts of U.S. Endangered Species Act Regulations
- Agricultural & Applied Economics Association (AAEA) Summer Conference 2024
  Assessing the Heterogenous Labor Market Impacts of U.S. Endangered Species Act Regulations
- North American Congress for Conservation Biology (NACCB) Summer Conference 2022
  Factors associated with preemptive conservation under the U.S. Endangered Species Act
- Ecological Society of America (ESA) Annual Conference 2018
  Climate change, faster species, and food webs

Teaching & Mentoring

Teaching (sole instructor, $^{+}$ TA, ^{o} online, ^{g} graduate level) - Arizona State University*

- SOS 325: Economics of Sustainability^{*o} Summer 2025
- SOS 540: Statistical Modeling for Sustainability^{+g} (Dr. Joshua Abbott) Spring 2025
- SOS 325: Economics of Sustainability^{*o} Summer 2024
- SOS 325: Economics of Sustainability^{+} (Dr. Michael Hanemann) Spring 2024
- SOS 325: Economics of Sustainability^{+} (Dr. Bryan Leonard) Fall 2023

Mentoring

- Rozetta Locksa: ASU Sustainability Undergraduate Research Experience 2025-2026
  Project title: Using Large Language Models to Assess Threats to Endangered Species.
- Annabelle Stanley: Intern at Resources for the Future 2019-2020
  Project title: Attributes of preemptive conservation efforts for species precluded from listing under the US Endangered Species Act (published in *Conservation Biology*).

Awards & Fellowships

- ASU Graduate College Completion Fellowship ($26,600) Fall 2026-Spring 2027
- Property and Environment Research Center Graduate Fellowship ($9,000) 2026
- ASU Graduate and Professional Student Association Travel Grant Award 2022, 2025, 2026
- AERE Travel Scholarship, ASU Graduate College Travel Award 2025
- Agricultural Scholars Fellowship (USDA & Farm Foundation) 2024
- ASU Global Futures Teaching Fellow Award (with K. Kroetz) 2023
- NSF Research Experience for Undergraduates - Michigan State University 2017
- "Best Undergraduate Project" at the 22nd Annual Conference of the Wildlife Society 2016
- Federal Water Quality Association's Richard Barber Scholarship; MENSA Sylvia Scholarship 2014

Service & Miscellany

Service

- Referee: Scientific Reports, AERE Annual Conference Abstracts (2x)
- Community: collaboration with Central Arizona Conservation Alliance to build Rshiny application to track real time invasive species observations and prioritize management decisions (2021 - present)
- Hiring committees: Resources for the Future RA representative on hiring committee (2020)

Programming & Software

- R, Rshiny, Python, ArcGIS, Matlab, Stata, GitHub, LaTeX