

Alice Stears

PHD CANDIDATE · DEPARTMENT OF BOTANY AND PROGRAM IN ECOLOGY

University of Wyoming, 1000 E University Ave, Laramie, WY 82070

✉ astears@uwyo.edu | 🏠 www.astearsresearch.com | 📷 [aestears](https://www.instagram.com/aestears) | 🐦 [@alice_stears](https://twitter.com/alice_stears)

Education

University of Wyoming

PHD, ECOLOGY (4.0/4.0)

- Advisor: Dr. Daniel Laughlin
- Dissertation: "Trait-mediated plant demographic responses to environmental change"

Laramie, WY

September 2017-Present

Williams College

BA, BIOLOGY WITH HONORS (3.6/4.0)

- Advisors: Dr. Luana Maroja and Dr. Joan Edwards
- Honors thesis: "The Effect of Local Climate Change on the Population Ecology and Genetic Landscape of the Arctic Disjunct Plant *Sagina nodosa* on Isle Royale, MI"

Williamstown, MA

September 2011-June 2015

Professional Experience

- 2021 **Data Science Intern**, Western EcoSystems Technology, Inc. and University of Wyoming EPSCoR, Laramie, WY
- 2019-2020 **Wyoming NASA Space Grant Consortium Graduate Fellow**, University of Wyoming
- 2017-2021 **Graduate Teaching Assistant**, Life Program and Department of Botany, University of Wyoming
- 2016-2017 **Biologist Guide**, Wildlife Expeditions of Teton Science Schools, Jackson, WY
- 2015-2016 **Teacher Naturalist**, Montana Audubon Center, Billings, MT
- 2015 **Field Research Assistant, Plant Evolutionary Biology**, under Anne Marie Panetta, Rocky Mountain Biological Laboratory, Gothic, CO
- 2013-2015 **Undergraduate Teaching Assistant**, Biology Department, Williams College
- 2013 **Undergraduate Research Assistant, Forest Ecology**, under Dr. Hank Art, Biology Department, Williams College

Publications: Peer-Reviewed

PUBLISHED

Wessel, Sienna A., Jesse R. Fleri, David H. Atkins, Trevor A. Carter, **Alice E. Stears**, Hailey E. Mount, Nicholas W. Case, Shannon E. Albeke Daniel C. Laughlin. 2021. Exploring vegetation virtually with the Global Vegetation Project. *International Association of Vegetation Science Bulletin* 2021/22: 21-22.

IN REVIEW

Stears, Alice E., Peter B. Adler, Dana M. Blumenthal, Julie A. Kray, Kevin E. Mueller, Troy W. Ocheltree, Kevin R. Wilcox, Daniel C. Laughlin. 2022. Abiotic context dictates how traits predict plant demographic rates. *Ecology*.

Publications: Non-Peer-Reviewed

Stears, Alice E., 2020. Population Dynamics of a Rare Plant, Colorado butterfly plant (*Oenothera coloradensis*), Castilleja: Publication of the Wyoming Native Plant Society 39(3).

Stears, Alice E., Joan Edwards, and Luana Maroja. 2015. *Sagina nodosa* on Isle Royale, MI : shifting genetic structure and demography in a changing climate. Undergraduate Honors Thesis, Williams College.

Awards, Fellowships, & Grants

- 2020 **Women in Conservation Biology, Ecology, and Education Fellowship**, University of Wyoming Botany and Zoology & Physiology Departments
- 2020 **Dennis H. Knight Graduate Student Fellowship**, University of Wyoming Botany Department
- 2019 **College of Arts and Sciences Dean's Scholar Award**, University of Wyoming
- 2019-2020 **Graduate Research Fellowship**, Wyoming NASA Space Grant Consortium
- 2019 **Wyoming Native Plant Society Markow Grant**, Wyoming Native Plant Society
- 2019 **Graduate Research Fellowship, Honorable Mention**, National Science Foundation
- 2018-2019 **Program in Ecology Teaching Assistantship**, Program in Ecology, University of Wyoming
- 2018 **Ton Damman Award, International Edition, for best student poster at the International Association of Vegetation Science Symposium**, ESA Vegetation Section.
- 2018 **Student Travel Award**, International Association for Vegetation Science
- 2018 **Travel Award**, Department of Botany, University of Wyoming
- 2018, 2019 **HT Northen Summer Fellowship**, Department of Botany, University of Wyoming
- 2018 **Aven Nelson Summer Fellowship in Systematic Botany**, Department of Botany, University of Wyoming
- 2015 **Henry A. Dwight Class of 1829 Botanical Prize for excellence in Botany**, Williams College
- 2011 **Valedictorian of Graduating Class**, Billings Senior High School, Billings MT
- 2011 **National Merit Scholar Semi-Finalist**,

Presentations

CONTRIBUTED PRESENTATIONS

- Stears, A.** 2021. Trait-mediated plant demographic responses to environmental change. Oral Presentation: University of Wyoming Program in Ecology Annual Symposium, Virtual.
- Stears, A.** 2020. Identifying plant traits that predict species-level drought tolerance in western grasslands. Oral Presentation: Ecological Society of America Annual Meeting, Virtual.
- Stears, A.** 2020. Trait-mediated plant demographic responses to environmental change. Oral Presentation: Botany Departmental Seminar, University of Wyoming, Laramie, WY.
- Stears, A.** 2019. Updating population models to improve conservation of the rare plant *Oenothera coloradensis*. Oral Presentation: Botany Departmental Seminar, University of Wyoming, Laramie, WY.
- Stears, A.** 2019. Identifying plant traits that predict species-level drought tolerance in western grasslands. Oral Presentation: Guild of Rocky Mountain Ecologists and Evolutionary Biologists, Gothic, CO.
- Stears, A.** 2019. Identifying plant traits that predict species-level drought tolerance in western grasslands. Oral Presentation: University of Wyoming Program in Ecology Annual Symposium, Laramie, WY.
- Stears, A.** 2018. Plants sit quietly and wait to be dug up!: Identifying plant traits that predict drought tolerance in Western Grasslands. Oral Presentation: Botany Departmental Seminar, University of Wyoming, Laramie, WY.
- Stears, A.**, D. Blumenthal, P. Adler, K. Wilcox, J. Kray, T. Ocheltree, and D.C. Laughlin. 2018. Leaf osmotic potential affects survival rates in response to inter-annual climatic variation in shortgrass prairie. Poster presentation: International Association of Vegetation Scientists Symposium, Bozeman, MT.
- Stears, A.** 2014. Observing the Effects of Climate Change in an Arctic Plant: The Population Ecology and Landscape Genetics of *Sagina nodosa* in Isle Royale National Park. Departmental seminar: Biology Department, Williams College, Williamstown, MA.

Teaching Experience

Spring 2021 **Computational Biology**, Teaching Assistant
Fall 2018; Fall 2020 **Vegetation Ecology**, Teaching Assistant
Spring 2018; **Animal Biology**, Teaching Assistant
Spring 2019
Fall 2017 **Plant and Fungal Biology**, Teaching Assistant
Spring and Fall 2014 **Field Botany and Plant Natural History**, Teaching Assistant
Spring 2013 **Intro Biology**, Teaching Assistant

Mentoring

2019-2020 **Yvan Somalyay**, Undergraduate Honors Student, University of Wyoming
2018 **Syndney Cannon**, Undergraduate Independent Study Student, University of Wyoming

Outreach & Professional Development

SERVICE AND OUTREACH

2018-2022 **Program in Ecology Student Organization**, Secretary (19-20; 20-21); Outreach Committee (18-19); Invited Speaker Committee (21-22) *University of Wyoming*
2021-2022 **Botany Department Diversity, Equity and Inclusion Committee**, Committee Member *University of Wyoming*

PROFESSIONAL DEVELOPMENT

Scholarly Writing Techniques Workshop Series, 2020, A 4-part workshop series through the University of Wyoming Graduate Learning Initiative.

Spatial Data Science Using R, 2019, A three-day workshop at the University of Wyoming on using R statistical software to process and analyze GPS and remotely-sensed data.

NSF Grantsmanship Workshop, 2017, A two-day workshop at the University of Wyoming with former NSF program officer Saran Twombly providing insights and skills practice for the NSF grant-writing process

PROFESSIONAL MEMBERSHIPS

Ecological Society of America · International Association for Vegetation Science · Sigma Xi

SKILLS AND CERTIFICATIONS

Proficient in R, \LaTeX , Overleaf, GitHub, Microsoft Office applications

Wilderness First Responder Certification, NOLS (2018)

American Institute for Avalanche Research and Education Level 1 and 2 Certifications (2018, 2019)