#### **EVA OZETTE LEWIS LEGGE**

PhD Student, Department of Biology, Syracuse University 107 College Pl, Syracuse, NY, 13210, United States (512) 865-7545 elegge@syr.edu evalegge.com

#### **EDUCATION**

Syracuse University

Fall 2024-Present

PhD Student, Department of Biological Sciences. GPA: 4.00

SUNY College of Environmental Science and Forestry (SUNY ESF) 2023-2024

MS Student, Department of Sustainable Resources Management. GPA: 4.00

Dartmouth College 2018-2023

Biology Major (High Honors), Ecology Concentration. GPA: 3.75.

Biological Sciences Foreign Study Program

Dartmouth Biological Sciences tropical ecology research program, Costa Rica

Earth Sciences Foreign Study Program (the "Stretch")

Dartmouth Earth Sciences Field Study Program, Western US

Williams-Mystic Maritime Studies Program

Fall 2019

Fall 2021

Winter 2022

A semester-long academic investigation of the sea, Mystic, CT. Dean's List.

## PEER-REVIEWED JOURNAL ARTICLES

- Fitch, A., Goldsmith, S., D'Amato, T., **Legge**, E., Gannon, D., Cuprewich, S., Adamchak, A., Chabica, A., Hargrave, S., Kosiba, A., Evans, K., Hicks Pries, C. Tree mycorrhizal legacy mediates forest regeneration following timber harvesting in Northeastern forests. *In Revision, Ecological Applications*.
- **Legge, E.,** Vander Yacht, A., Fernandez, C., Triviño Silva, N., Wood, K., Brudvig, L., Koyama, A. "Plant-Soil-Fire Feedbacks: Understudied Belowground Drivers of Forest Mesophication in the Eastern United States" *In revision, Forest Ecology and Management*.
- **Legge, E.,** Fitch, A., Goldsmith, S., Hicks Pries, C. "Negative effects of belowground competition outweigh potential benefits of arbuscular mycorrhizal facilitation for seedling success in a managed temperate hardwood forest." *Canadian Journal of Forest Research*. <a href="https://doi.org/10.1139/cjfr-2024-0259">https://doi.org/10.1139/cjfr-2024-0259</a>.
- Hicks Pries, C., Lankau, R., Ingham, A., **Legge**, E., Krol, O., Forrester J., Fitch, A., Wurzburger, N. "Differences in Soil Organic Matter between EcM- and AM-Dominated Forests Depend on Tree and Fungal Identity." *Ecology*. <a href="https://doi.org/10.1002/ecy.3929">https://doi.org/10.1002/ecy.3929</a>.

#### **FUNDED GRANTS**

(\$253,478 awarded to date; see Professional Research Experience and Scientific Awards and Fellowships for additional fellowships and grants)

Facilities Integrating Collaborations for User Science (FICUS) Program, Environmental Molecular Sciences Laboratory and the Joint Genome Institute: "Investigating the Fire-Mediated Belowground Drivers of Stress Resilience in Eastern US Forests." Lead author and Co-PI with PI Andrew Vander Yacht (ESF), and Co-PI's Jennifer Goff (ESF) and Christopher Fernandez at Syracuse University (2025-2027).

**Climate and Applied Forest Research Institute (CAFRI) Grant**, SUNY ESF. "Implications of Seedling-Mycorrhizal Interactions for Climate Adaptive Silviculture." (2023-2026; **\$60,000**).

Graduate Research Award for Science and Scholarship (GRASS) Grant, Syracuse University. "Plant-Soil-Fire Feedbacks in a Managed Pitch Pine Barrens" (2024-2025; \$2000).

PRS® Probe Research Award, Western Ag. (2024; \$1728 equivalency)

**Mellon Environmental Studies Research Grant** for study in Iceland. Project title: *Ecotourism in Iceland's Outdoor Industry: An Oral History*. Funding received from the Dartmouth Environmental Studies Department (December 2019-January 2020; **\$1000**).

## SCIENTIFIC AWARDS AND FELLOWSHIPS

Trailblazing Work in Science Policy Award, Ecological Society of America Student Section. This award seeks to recognize and highlight outstanding individuals who have done commendable work in Science Policy related to Ecology (April 2025; \$300)

**Katherine S. McCarter Graduate Student Policy Award, Ecological Society of America.** Offered each year, the GSPA gives graduate students hands-on training and science policy experience including interacting with congressional decision-makers, federal agency officials and ecologists who work in the science and public policy arena (January 2025).

**Molly Beattie Visiting Scholar Award, Society of American Foresters.** The program seeks to encourage, support, and highlight research from underrepresented groups in forestry and natural resources to increase their visibility and help them thrive in the profession. (2024-2025; \$10,000 cash prize).

**Graduate Research Fellowship Program (GRFP), National Science Foundation.** The purpose of this five-year fellowship is to help ensure the quality, vitality, and diversity of the scientific and engineering workforce of the United States. (2024-2029; Total: \$159,000).

**Second Place Winner, NHC 2023 Poster Symposium,** Northern Hardwoods Conference, Frederickton, New Brunswick (August 2023)

Recipient, **Christopher G. Reed Biologist Award**, awarded to "a graduating biology major with a distinguished biological research career," Dartmouth College, (June 2023; \$1000 cash prize)

Recipient, Florence Fletcher Charles Botany Prize, awarded "for excellence and outstanding achievement of any undergraduate in Botany" (June 2023; \$1000 cash prize)

**First Place, Christopher G. Reed Science Competition**, "open to all senior honors thesis students majoring in science, math and engineering who present a poster at the Wetterhahn Science Symposium," Sigma Xi Honor Society, Dartmouth College (June 2023; \$150 cash prize)

**Recipient, William W. Eggleston 1891 Memorial Fellowship** to support student investigations in plants, Dartmouth College (June 2023; \$1,700 cash prize for research)

Nominee, Sigma Xi Scientific Honor Society, Dartmouth Chapter (June 2023).

#### **ACADEMIC HONORS**

**High Honors, Dartmouth College.** Awarded from the Department of Biological Sciences for my undergraduate honor's thesis entitled "Access to belowground networks modulates seedling success under different forest management practices" (June 2023).

Three Citations for Academic Excellence, Dartmouth College. Citations are represented by "an asterisk after a letter grade... entered by faculty members to provide an official record of information about undergraduates who have made particularly favorable impressions on members of the faculty because of their unusual talents, dependability, initiative, resourcefulness, or other meritorious characteristics" (2020).

**Third Honor Group, Dartmouth College.** Awarded to students with a GPA exactly matching or exceeding the annual average of the lowest standing of the previous year's top 35% of eligible students (2021-2022 academic year).

**Dean's List, Williams College.** Listed upon completion of the Williams-Mystic Maritime Studies Program for academic excellence during the transfer term (Fall 2019).

## SCIENCE COMMUNICATION AWARDS

<u>Honorable Mention</u>, Mecklin Prize for Creative Nonfiction, Dartmouth College (June 2021; \$600 cash prize).

Best Science Narrative, Planet Forward StoryFest (April 2021; \$500 cash prize and 50 trees planted in my name).

First Place, World Food Day Storytelling Contest, Planet Forward, United Nations FAO (Oct. 2021)

#### PROFESSIONAL RESEARCH EXPERIENCE

**Graduate Assistantship,** SUNY College of Environmental Science and Forestry (SUNY ESF); Applied Forest and Fire Ecology Lab (AFFEL). Advisor: Dr. Andrew Vander Yacht. (Fall 2023-Spring 2024).

**Honors Thesis Research,** Hicks Pries Soil Ecology Lab, Dartmouth Biological Sciences. *Thesis Title:* Access to belowground networks modulates seedling success under different forest management practices. Funding received from the Kaminsky Family Fund Award (\$5,400), the Undergraduate Research Assistantship Award (\$1200) and the Senior Honor's Thesis Grant (\$2500), (June 2022 – June 2023).

**Undergraduate Research Assistantship,** Hicks Pries Soil Ecology Lab, Dartmouth Biological Sciences. Completed lab work in preparation for my summer thesis work. Funding received from the office of Undergraduate Advising and Research (March-June 2022; **\$1000**).

**Full-Time Field and Lab Technician**, Hicks Pries Soil Ecology Lab, Dartmouth College. Tasks included aiding the lab technician in soil chemistry and isotopic analyses, as well as collecting field data on sapling growth and survival for my thesis and for PhD candidate Amelia Fitch. Funding received from the Hicks Pries Lab. (May-June 2021).

**Part-Time Remote Research Assistant**, Hicks Pries Soil Ecology Lab, Dartmouth College Biological Sciences Department. Tasks included performing literature reviews of soil nutrient ratios and leaf litter cycling (October 2020-May 2021).

**Sophomore Scholars Researcher**, Hicks Pries Soil Ecology Lab, Dartmouth College Biological Sciences Department. Tasks included analyzing respiration of Greenland soil incubations. Funding received from Undergraduate Advising and Research (January-August 2020; \$2000).

**Stefansson Arctic Studies Fellowship,** The John Sloan Dickey Center for International Understanding, Dartmouth College. Research focused on the life of pioneering arctic explorer and scientist Vilhjalmur Stefansson (Spring 2021; **\$1,500**).

**Full-Time Laboratory Assistant**, ter Hofstede Sensory Ecology Lab, Dartmouth College Biological Sciences Department. Tasks included analyzing sound recordings using Avisoft and caring for live crickets. Funding received from the ter Hofstede Lab (June-August 2019).

**Women in Science Project Intern**, Dartmouth College Earth Sciences Department. Project Title: Carbon Isotope Chemostratigraphy of the Neoproterozoic Veteranen Group in Svalbard, Norway. Funding received from the Women in Science Project (Jan.-May 2019; **\$2000**).

## **OUTREACH EXPERIENCE**

**Speaker, North Atlantic Fire Science Exchange Student Webinar Series** (April 2025). I will be giving a one-hour webinar to forest and fire managers ad ecologists with the North Atlantic Fire Science Exchange. <a href="https://www.firesciencenorthatlantic.org/student-webinar-series">https://www.firesciencenorthatlantic.org/student-webinar-series</a>

**Speaker, Central New York Society of American Foresters Chapter Event** (June 2024). 4 hour field trip to Heiberg Forest in Tully, NY, discussing the Adaptive Capacity Through Silviculture (ACTS) treatments currently being implemented, and the research occurring in the broader ACTS study (including my own).

**Co-Presenter, Webinar on Mycorrhizal Fungi in Northeastern Forests** (February 2024). 1.5 hour webinar with University of Vermont Forestry Extension for foresters that outlined the foundations of the mycorrhizal-plant symbiosis and explored how mycorrhizal fungi affect forest diversity, regeneration, and soil functions. Participants received 1.0 CEF credit through the Society of American Foresters.

**Co-Creator, Facilitator, and Organizer, "Mycorrhizal Forestry Workshop**." Half-Day, Society of American Foresters-certified workshop about how mycorrhizal research can be integrated into forest management. Burlington, VT, University of Vermont (June 2023).

**Volunteer, Dartmouth Science Day** (April 2023). Science Day is a one-day event hosted at Dartmouth for local elementary-high school students to learn about how fun research can be. I facilitated a demonstration on soil respiration called "Do you think Soil Breathes?"

**Speaker, Corinth Town Hall** Presented my local research to community-members living in Corinth in a presentation entitled "Mycorrhizal-Mediated Silviculture: How Fungi form our Forests and Inform Management" (March 6, 2023).

**Speaker, Corinth Conservation Commission Monthly Meeting,** Corinth Town Hall. Presented my research to the Corinth Conservation Commission in a presentation entitled "How does disturbance affect common mycorrhizal networks and seedling survival at the Clement Woodlot?" (December 05, 2022)

Scientific Mentor, Environmental Data Science Capstone Class at Virginia Tech (Spring 2023). Worked with senior undergraduates at Virginia tech to help them produce an app that would visualize data from my research in the Hicks Pries Laboratory in a pilot app that could be used in the future by foresters to inform management

**Volunteer, Union of Concerned Scientists Virtual Legislative Day** (July 14, 2021). Met with Maggie Hassan's office to advocate for a more robust clean energy standard.

#### TEACHING AND MENTORSHIP EXPERIENCE

**Student Coordinator for the Young Voices of Science Program (Fall 2022-present),** Hubbard Brook Research Foundation. This <u>free science communication program</u> equips undergraduate and graduate students in the environmental sciences with the resources to incorporate science communication into their scientific careers.

**Research Mentor, Headwaters Science Institute** (Fall 2023). Supervisor: Courtney Kudera. Headwaters is a science education and outreach organization in California that seeks to empower aspiring scientists. My role is to mentor students through the process of designing and executing a research project over the course of the fall semester.

**Graduate Teaching Assistant, Silviculture** (SUNY ESF, Fall 2023-present) Supervisor: Dr. Andrew Vander Yacht. Tasks include helping facilitate field labs, writing laboratory reports and providing feedback on assignments.

**Undergraduate Teaching Assistant, Soil Ecology** (Dartmouth College, Spring 2023) Supervisor: Dr. Bala Chaudhary. Tasks included helping facilitate field labs and providing feedback on assignments.

**Undergraduate Teaching Assistant, Ecology** (Dartmouth College, Spring 2022), Supervisor: Craig Layne. Professor: Dr. Matthew Ayres. Tasks included giving a presentation on scientific paper construction, helping students craft scientific figures, and facilitating field data collection.

Scientific Mentor, Environmental Data Science Capstone Class at Virginia Tech. Worked with senior undergraduates at Virginia tech to help them produce an app that would visualize data from my research in the Hicks Pries Laboratory in a pilot app that could be used in the future by foresters to inform management (Spring 2023).

#### PROFESSIONAL PRESENTATIONS

"Mycorrhizal Mediated Silviculture: Initial Results and Future Research Avenues" (oral). **Ecological Society of America (ESA) Annual Conference**, Baltimore, Maryland (August 2025)

"Mycorrhizal Mediated Silviculture: Initial Results and Future Research Avenues" (oral). **Northern Hardwoods Conference**, Syracuse, New York (August 2025)

"Plant-Soil-Fire Feedbacks: Understudied Belowground Drivers of Forest Mesophication in the Eastern United States" (poster). **NE-MW Prescribed Fire Science and Management Workshop**, Albany, New York (August 2024).

"Mycorrhizal Silviculture in the Northeast: Initial Results and Future Research Avenues" (poster). **New England Society of American Foresters (NESAF) Conference,** Burlington, Vermont (March 2024).

"Mycorrhizal-Mediated Silviculture: Initial Results and Future Research Avenues" (oral). **CNY Conference on Environmental Science and Studies Conference,** Syracuse, New York (March 2024).

"Mycorrhizal network mediation of seedling success varies by species and management" (poster). **New York Society of American Foresters (NYSAF) Conference**, Syracuse, New York (February 2024).

"Mycorrhizal network mediation of seedling success varies by species and management" (poster). **Northern Hardwoods Conference** (NHC), Frederickton, New Brunswick, Canada (August 2023).

"Access to belowground networks mediates seedling success under different forest management practices" (poster). 32nd **Annual Karen E. Wetterhahn Science Symposium**, Hanover, New Hampshire (May 2023).

"Mycorrhizal-mediated silviculture: The benefits of arbuscular mycorrhizal networks for forest regeneration" (oral). **New England Society of American Foresters (NESAF) meeting**, Nashua, NH (March 2023).

"Mycorrhizal-mediated silviculture: the benefits of mycelial networks for forest regeneration" (poster). **Society of American Foresters Conference**, Baltimore, MD (September 2022).

"Mycorrhizal-mediated silviculture: the benefits of mycelial networks for forest regeneration" (poster). **Ecological Society of America Annual Meeting**, Montreal, Quebec, Canada (August 2022).

"Carbon Isotope Chemostratigraphy of the Neoproterozoic Veteranen Group in Svalbard, Norway" (poster). **28th Annual Karen E. Wetterhahn Science Symposium**, Hanover, New Hampshire (May 2019).

#### PROFESSIONAL DEVELOPMENT

Participant, ComSciCon Flagship Workshop 2024, Boston, MA. Fully-funded science communication workshop for graduate students, by application only. Sponsored by Harvard, MIT, and AAAS, among others (July 24-27, 2024).

National Wildfire Coordinating Group Wildland Fire Fighter (Type 2) Certification, SUNY ESF. Includes a series of online, federally-accredited training programs in addition to an inperson field day (Field Day: October 10, 2023; Online Training: November 2023).

Participant, **Adaptive Silviculture for Climate Change Cooperator's Meeting**, University of Vermont, February 15-16, 2023.

Co-creator, **Mycorrhizal Forest Survey** (co-created Survey for foresters about how their interest in incorporating mycorrhizal ecology into their research). **Forest Ecosystem Monitoring Cooperative**, December 15, 2022, Burlington, VT.

Participant **Data Science for Forestry Applications** (R Workshop). Society of American Foresters Conference, September 20, 2022, Baltimore, MD.

# PUBLICATIONS IN NON-PEER REVIEWED JOURNALS

Fitch, A., Legge, E., Chabica, A., Hicks Pries, C. "Exploring the Role of Mycorrhizal Connections in Supporting Forest Regeneration and Diversity." New England Society of American Foresters News Quarterly, vol. 83, no. 3, July 2022, pp. 8–11.

Legge, Eva. 10 January 2021. Autumn Leaves. National Collegiate Journal of Science. https://sites.dartmouth.edu/dujs/2021/01/10/autumn-leaves/.

Legge, Eva. 16 November 2020. "Quercus Dominantur: How Botanists Uncovered the Story of the Oak Tree's Success." Dartmouth Undergraduate Journal of Science, News. https://sites.dartmouth.edu/dujs/2020/11/16/quercus-dominantur-how-botanists-uncovered-the-story-of-the-oak-trees-success/.

Legge, Eva. 10 November 2020. History is Lost in the Melt of Italy's 'Queen'. International Collegiate Journal of Science. https://icjs.us/history-is-lost-in-the-melt-of-italys-queen/.

Legge, Eva. Summer 2020. The Botanical Mind: How Plant Intelligence 'Changes Everything.' Dartmouth Undergraduate Journal of Science, 20X Print Issue, p. 118-126. https://issuu.com/dartmouthjournalofscience/docs/20x\_dujs\_print\_journal\_vff.

Legge, E., Chen, J., Davenport, T., Bell, J., Giglio, L., Brinks, A. Capitalism and Conservation: A Critical Analysis of Eco-Capitalist Strategies. Dartmouth Undergraduate Journal of Science, 20X Print Issue, p. 222-241.

https://issuu.com/dartmouthjournalofscience/docs/20x\_dujs\_print\_journal\_vff.

#### POPULAR SCIENCE ARTICLES

Legge, Eva, et al. "Eva O. Legge, Jude Nuru & Eric Soederberg: New Hampshire Needs a National Clean Energy Standard and More." *UnionLeader.com*, New Hampshire Union Leader, 23 Sept. 2021, https://www.unionleader.com/opinion/op-eds/eva-o-legge-jude-nuru-eric-soederberg-new-hampshire-needs-a-national-clean-energy-standard/article\_c4ef98ab-7d8f-5d49-a780-97fe5f61eb66.html.

Legge, Eva. "Latria Graham Rewrites the Narrative on Being Black in the Outdoors." *The Open Notebook*, 25 May 2021, https://www.theopennotebook.com/2021/05/25/latria-graham-rewrites-the-narrative-on-being-black-in-the-outdoors/.

Legge, Eva. "The Long-Forgotten Predecessors of Her Deepness, Sylvia Earle." *Lady Science*, Lady Science, 20 May 2021, https://www.ladyscience.com/features/the-long-forgotten-predecessors-of-her-deepness-sylvia-earle-2021.

Legge, Eva. "The Salamanders at the End of the World." *Planet Forward*, George Washington University, 2 April 2021, https://www.planetforward.org/idea/salamander-sanctuary-austin.

Legge, Eva. "Green Corn's Grand Gardeners." Planet Forward, George Washington University, 31 Mar. 2021, https://www.planetforward.org/idea/green-corns-grand-gardeners.

Legge, Eva. "She's Filming 'the Soul of Austin' to Save It." Fix, Grist, 16 March 2021, https://grist.org/fix/arts-culture/shes-filming-the-soul-of-austin-to-save-it/.

Legge, Eva. "One Tiny House Finds a Giant Home." *The Dartmouth*, 10 Mar. 2021, https://www.thedartmouth.com/article/2021/03/legge-one-tiny-house-finds-a-giant-home.

Legge, Eva. "Student Spotlight: Mike McGovern '21 Pursues Passion for Wildlife Conservation, Photography." *The Dartmouth*, 8 Mar. 2021, https://www.thedartmouth.com/article/2021/03/spotlight-mike-mcgovern.

Legge, Eva. "Q&A: Italian Professor Damiano Benvegnù on Dartmouth's Environmental Humanities Initiative." *The Dartmouth*, 10 Feb. 2021,

https://www.thedartmouth.com/article/2021/02/q-a-italian-professor-damiano-benvegn-on-dartmouths-environmental-humanities-initiative.

Legge, Eva. "The Cracks of Thingvallavatn: The Lake of the Fields of Parliament." *Planet Forward*, 4 Dec. 2020, https://www.planetforward.org/idea/cracks-thingvallavatn.

Legge, Eva. "Home-Sown: Austin's First Urban Farms and the Birth of Its Locavore Movement." *Planet Forward*, George Washington University, 27 October 2020, https://www.planetforward.org/idea/home-sown-austin%E2%80%99s-first-urban-farms-and-the-birth-of-its-locavore-movement.

Legge, Eva. "An Antidote to Plant Blindness." *The Scope*, Yale Scientific, 19 October 2020, https://medium.com/the-scope-yale-scientific-magazines-online-blog/an-antidote-to-plant-blindness-ab06fb559585.

#### SCIENCE COMMUNICATION POSITIONS

Freelance Writer (Fall 2020-present)

Publications include *Grist*, *Lady Science*, *The Open Notebook*, and the Scope (the blog for Yale Scientific), the New England Society of American Foresters Quarterly Review

**Member,** Young Voices of Science Workshop, Hubbard Brook Research Foundation (March-June 2021)

**Notetaker**, <u>UN Food Systems Summit Independent Dialogue</u>: Powering the Seaweed Revolution for

Transformational Change in our Food System (April 2021)

Student Correspondent, Planet Forward, George Washington University (Sept 2020-May 2021)

Staff Writer, *The Dartmouth* (January- April 2021)

**Social Media Manager**, The Association of Science Communicators (formerly *Science Talk* (Nov. 2020-March 2021)

**Moderator**, Convergence Symposium, Dartmouth Hopkins Center for the Arts (February 2021) Led a Zoom discussion on craft and science with artist Berdnaud Smilde

**Staff Writer**, Dartmouth Undergraduate Journal of Science (June 2020-January 2021) Writer for print journal and online news platform. Articles also re-published in the National and International Collegiate Journals of Science

#### **GRADUATE ACTIVITIES and ORGANIZATIONS:**

Member, Syracuse University Outdoors Club (Fall 2023 - present).

**Participant, Foresters under 40 Meeting**, SUNY ESF and New York Society of American Foresters (October 11, 2023).

**Research Associate,** The American Chestnut Research and Restoration Project at ESF (August 2023-present).

Member, Forest Ecology Research Group, SUNY ESF (Fall 2023 - present).

**Member, Feeding Collaboration Group**, the Engaged Humanities Network (EHN), Syracuse University. A lunch series intended for "graduate students who do and/or are interested in publicly-engaged scholarship, teaching, and creative work" (Fall 2023-present).

Union Member, SUNY ESF Graduate Student Association (GSA; Fall 2023-present).

## **COLLEGE ACTIVITIES**

Admissions Ambassador, Dartmouth College (Nov. 2022-spring 2023)

Pianist, Coast Jazz Orchestra, Dartmouth College (Sept 2018-June 2023)

Hiking Leader, Cabin and Trail, Dartmouth Outing Club (May 2019-June 2023)

Break Trip Leader, Viva Hardigg Outdoors Club, Catalina Island, CA (Dec. 2021)

Hiking Leader, Dartmouth First Year Trips (Sept. 2021)

## **SKILLS**

**Computer**: Microsoft Excel, Microsoft Access, Microsoft Word, Microsoft PowerPoint, Adobe Illustrator, Avisoft Bioacoustics

Statistics Programs: JMP, R

**Research**: Mass spectrometer sample preparation, infrared gas analyzer, Theros 12 moisture sensor, lysimeter extraction, among others.

Other: Wilderness First Aid, CPR