

# Trevor A. Carter

---

Department of Integrative Biology | University of Colorado Denver  
trevor.carter@ucdenver.edu | trevoracarter.com  
PhD Student

## Education

2025 Ph.D. | Integrative Biology | University of Colorado Denver | Advisor: Dr. Brian Buma  
2021 M.S. | Botany | University of Wyoming | Advisor: Dr. Daniel Laughlin  
2019 B.S. | Environmental Science ‡ | University of Nevada, Reno | Advisor: Dr. Elizabeth Leger  
B.S. | Forest Management & Ecology | University of Nevada, Reno

Master's Thesis Title: *Understory Plant Community Response to Widespread Spruce Mortality in a Subalpine Forest*

Undergraduate Thesis Title: *Variability in whitebark pine (*Pinus albicaulis* Engelm.) leaf traits in the Great Basin Desert*

‡ Indicates a double minor in Rangeland Ecology & Management and Ecohydrology

## Appointments

2021 **Graduate Researcher** | Buma Lab (2021-present) | University of Colorado Denver  
2019 **Graduate Researcher** | Laughlin Lab (2019-2021) | University of Wyoming  
2018 **Undergraduate Researcher** | Leger Lab (fall 2018 – spring 2019) | University of Nevada, Reno  
2017 **Research Assistant** | Leger Lab (fall 2017 – spring 2019) | University of Nevada, Reno  
**Research Assistant** | Natural History Museum, Herpetology Collection (fall) | University of Nevada, Reno  
2016 **Research Assistant** | Natural History Museum, Ichthyology Collection (spring) | University of Nevada, Reno

## Publications

### Peer reviewed publications

1. **Carter TA**, Agneray AC, Leger EA. 2020. Variability of whitebark pine (*Pinus albicaulis* Engelm.) leaf traits in the Great Basin Desert. Nevada State Undergraduate Research Journal. V6:I1 Spring-2020. DOI: [http://dx.doi.org/10.15629/6.7.8.7.5\\_6-1\\_S-2020\\_1](http://dx.doi.org/10.15629/6.7.8.7.5_6-1_S-2020_1)

### Other publications

1. Sienna A. Wessel, ..., **Trevor A. Carter**, *et al.* 2021. Exploring vegetation virtually with the Global Vegetation Project. International Associate for Vegetation Science. Bulletin.

### Publications in review

**Carter TA**, Fornwalt PJ, Dwire KA, Laughlin DC. *In Revision*. Understory Plant Community Responses to Widespread Spruce Mortality in a Subalpine Forest. Journal of Vegetation Science

Rodman KC, ..., **Carter TA**, *et al.* *In Review*. Recent Bark Beetle Outbreaks Have Altered Forest Ecosystem Trajectories in the U.S. Rocky Mountains. Journal of Ecology

## Publications in preparation

**Carter TA**, Hayes KR, Buma B. *In Prep.* A Review of Fire and Spruce Beetle Interactions in North American Subalpine Forests.

**Carter TA**, *et al.* *In Prep.* Understanding the Role of Root traits in predicting understory plant community responses to widespread spruce mortality.

**Carter TA**, Von Eggers JM, Calder WJ. *In Prep.* Using sedaDNA to Reconstruct Spruce Beetle Disturbance in Subalpine Forests.

Hayes KR, ..., **Carter TA**, *et al.* *In Prep.* Strategies for managing and leading fieldwork successfully as a graduate student.

Hayes KR, **Carter TA**, Buma B. *In Prep.* The effect of multiple short interval fires on community and functional trait-based regeneration in boreal Alaska.

## Funding & Awards | total funding \$5,337

### Small Grants

- 2020 A&S Dean's Graduate Scholars | University of Wyoming | **\$2,000**  
Aven Nelson Fellowship in Systematic Botany | University of Wyoming | **\$1,300**  
2018 Nevada Undergraduate Research Award | University of Nevada, Reno | **\$1,800**  
Mary DeDecker Botanical Grant | California Native Plant Society, Bristlecone Chapter | **\$237**

### Awards

- 2021 Outstanding Teaching Assistant Award | University of Wyoming | **\$300**  
2020 Botany Student Award | University of Wyoming | **\$100**  
2019 Outstanding Senior in Forest Management & Ecology | University of Nevada, Reno  
2017 Dean's list College of Agriculture, Biotechnology, and Natural Resources (fall 2017 – spring 2019) | University of Nevada, Reno  
2012 Eagle Scout | Boy Scouts of America

## Teaching Experience

- 2021 **Teaching Assistant** | Organisms to Ecosystems (44 students) | University of Colorado Denver  
**Teaching Assistant** | General Biology (29 students) | University of Wyoming  
2020 **Lesson Plan Creator** | Global Vegetation Project | University of Wyoming  
**Teaching Assistant** | Vegetation Ecology (39 students) | University of Wyoming  
2018 **Laboratory Teaching Assistant** | Range and Forest Plants | University of Nevada, Reno

## Mentorship

- 2020 Carl LaNore | Undergraduate Researcher | University of Wyoming  
2018 NevadaFIT Mentor | University of Nevada, Reno

## Synergistic Activities

### University Service

- 2019 CABNR recruitment promotion | University of Nevada, Reno  
2018 Natural Resources Club Coalition | University of Nevada, Reno

- 2018 Student Advisory Board | Department of Natural Resources | University of Nevada, Reno
- 2017 Student Ambassador | University of Nevada, Reno
- 2016 Arboretum Board | University of Nevada, Reno

### **Outreach and Public Engagement**

- 2021 Guest Speaker | NerdNite Denver (contributed talk)
- 2019 Guest Speaker | California Native Plant Society, Bristlecone Chapter  
Co-organizer | Earth Week | University of Nevada, Reno

### **Volunteering Service**

- 2018 American Rivers Foundation | Tree Planting & Dam Construction
- 2017 Sugar Pine Foundation | Tree Plantings
- 2017 UNR Climbing Club | Organized Climbing Area Restoration
- 2016 Keep Truckee Meadows Beautiful | River Cleanup

## **Presentations**

### **Contributed**

- 2021 **Carter TA**, Fornwalt PJ, Dwire KA, Laughlin DC. Changes in Understory Plant Communities Following Widespread Spruce Mortality in a Subalpine Forest. University of Wyoming Botany Seminar. April 15, 2021. (Thesis defense presentation)  
**Carter TA**, Fornwalt PJ, Laughlin DC. Changes in Understory Plant Communities Following Widespread Spruce Mortality in a Subalpine Forest. University of Wyoming Program in Ecology Symposium. February 19, 2021. (3MT presentation)
- 2020 **Carter TA**, Fornwalt PJ, Laughlin DC. Changes in Understory Plant Communities Following Widespread Spruce Mortality in Subalpine Forests. Ecological Society of America annual conference. August 4, 2020. (poster)  
**Carter TA**, Fornwalt PJ, Laughlin DC. Changes in Understory Plant Communities Following Widespread Spruce Mortality in Subalpine Forests. University of Wyoming Program in Ecology Symposium. February 14, 2020. (poster)
- 2019 **Carter TA**, Fornwalt PJ, Laughlin DC. Plant Responses to Spruce Beetle Armageddon. University of Wyoming Lightning Talk. October 24, 2019. (presentation)  
**Carter TA**, Fornwalt PJ, Laughlin DC. Plant community responses to widespread spruce mortality in the Snowy Range, Wyoming. Guild of Rocky Mountain Ecologists and Evolutionary Biologists. September 8, 2019. (presentation)  
**Carter TA**, Agneray AC, Leger EA. Changes in leaf morphology in whitebark pine using decades of herbarium specimens. Nevada Undergraduate Research Symposium. May 6, 2019. (poster)

## **Professional Affiliations**

- 2020 Society of American Foresters
- 2019 Ecological Society of America
- 2019 US Chapter of the International Association of Landscape Ecology