

Internship Title: Adaptive Silviculture for Climate Change Internship

Mentor Team:

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Work Regions:

Jackson County, CO; Larimer County, CO; Gunnison County, CO (if possible)

Internship Goals, Scope and Objectives:

Climate change necessitates collaboration and an understanding of how foresters can begin to adapt management to meet the needs of a climatically-altered future. The [Adaptive Silviculture for Climate Change \(ASCC\) Network](#) seeks to understand what climate adaptive management looks like in different forest types by bringing local experts, scientists and land managers together to develop experimental forest management approaches for specific forests, and then continues to assess the outcomes of these different treatments. The ASCC framework develops three experimental treatments centered on resistance, resilience and transition, with goals, objectives, and evaluation criteria developed as part of a collaborative workshop process. In December 2020, the Colorado State Forest Service worked with the ASCC Network Leads (Nagel and Peterson at CSU) to develop a set of experimental treatments for the Colorado State Forest near Cameron Peak, CO. In Summer 2022, ASCC leads will be partnering with managers and scientists from the Grand Mesa, Uncompahgre and Gunnison National Forests (GMUG) to develop a new ASCC site in lodgepole pine forest ecosystems.

While partner engagement is high within individual projects, engaging broader audiences surrounding climate adaptation in forest management is more difficult. This internship position will help produce an outreach and engagement plan, which includes easily disseminated outreach materials that summarize ASCC forest management treatments, with special attention to differentiating resistance, resilience and transition adaptation approaches and climate-adaptive forest management actions. Our student intern will work closely with mentors, ASCC Network personnel, members of the [Northern Institute of Applied Climate Science](#), and the Colorado State Forest Service (CSFS) Science and Data, Communications and Communities, and Forestry Services divisions to produce engaging communication and education tools for the ASCC projects in Colorado. Outreach materials will highlight climate change challenges and opportunities, treatment development and design, and the specific adaptation actions chosen for the Colorado forest sites. Outreach products will be used by partners to increase awareness and understanding of climate adaptive forest management for different forest ecosystem types within the state of Colorado and aid in maintaining transparency and communication surrounding the ASCC process for stakeholders and funding providers.

Student Learning Outcomes:

Through participation in this internship position, the selected student will:

- Gain considerable understanding in the world of climate adaptive silviculture, from the use of silvicultural and ecological terminology, to an understanding of how climate change will impact different Colorado forest-types;
- Receive first-hand experience in working collaboratively across multiple organizations to meet common goals of the ASCC Network;
- Gain experience with assessing and summarizing applied research related to climate change in Colorado;
- Gain experience in effective communication, especially of scientific insight, to provide a bridge between scientists/practitioners/land managers and diverse audiences; and
- Have an opportunity to collect project data, take photos, and experience first-hand the project sites at the Colorado State Forest and GMUG. Professional development opportunities overlap with other CSFS/WCNR intern workshops and training programs currently planned for the 2022 field season.

Desired Student Intern Qualifications:

- Demonstrated career interest in forestry or related natural resource fields
- Good academic standing within CSU
- Good written and oral communications
- Ability to use platforms like MS Word, Excel and PowerPoint
- Ability and willingness to travel to Colorado State Forest and Gunnison, CO for 1-3 days to week-long trips, potentially including camping

Mentor Style:

We are excited to see what new ideas, insights, and skills this intern will bring to the ASCC Network. We will provide some models, guidance, and counselling of project ideas during weekly check-in meetings, but will encourage the intern to meet their personal goals for career development through experimentation and innovation. We will also provide connections to other professional forest managers and scientists in the field of climate adaptive silviculture, establishing networking opportunities for this intern. We will not micromanage, but instead provide support and encouragement to the intern as they work to achieve project and career goals through this position.

Housing:

We will be requesting travel and housing funds for this intern so that they can travel to and stay at the Colorado State Forest and Gunnison, CO for the ASCC workshop and potential field data collection.