

Project Title: Saving Green: Exploring the Efficacy of Mycelial Forest Patches as an Urban Forest Restoration Treatment

Mentor Team:

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Project Location: Denver, CO

Project Summary: The Saving Green project advances tree canopy equity and equitable access to trees through the retention, restoration, and reinvigoration of trees in otherwise tree-poor landscapes. Bringing together scientific and traditional indigenous knowledge, the project team is using mycelium “forest patches” to restore contaminated soils, beloved trees, public spaces, and essential water resources in highly industrialized and polluted urban areas. The “brain of nature”, fungal mycelium is a mutualistic element of ecosystems that fosters resilience. In particular, salt-eating mycelium help to mitigate the overabundance of inorganic salts in urban forests due to using recycled irrigation water. Adding inoculated compost and mulch to existing plantings can restore sick and dying coniferous trees, which are particularly susceptible to damage from salts.

This internship is designed to bring scientific rigor to Saving Green in an effort to confirm, reject, and/or evolve treatment methodologies so they may be taken up by local land managers as a restoration strategy. The work and skills developed will include literature review, experimental and monitoring protocol design, field data collection, data analysis, and the drawing and presenting of conclusions and recommendations. During the internship, we will cultivate connections for the student to the partners involved in Denver, the state’s Tree City USA network, Alliance for Community Trees, International Society of Arboriculture (especially the Rocky Mountain Chapter (ISARMC) and Arboricultural Research and Education Academy), Southwest Agroforestry Network, and Colorado Tree Coalition (CTC). We will provide the student a complimentary membership to the CTC and ISARMC, which will provide access to meetings, workshops, and volunteer opportunities on a variety of tree-related topics.

The intern will be working directly with CSFS and The Park People (a Denver-based nonprofit working with communities to plant trees and improve parks for a healthy, resilient future) and collaborating with Denver Parks & Recreation, Americas for Conservation + the Arts (a Latina-led nonprofit that leverages arts + culture in support of community resilience and environmental stewardship), Spirit of the Sun (an Indigenous womxn-led nonprofit working to empower Native communities through youth engagement), and the Denver Urban Field Station (part of the US Forest Service Rocky Mountain Research Station).

Why work with us? By bringing scientific rigor to the Saving Green project, answering key questions and concerns of tree care experts, and establishing a baseline for short- and long-term monitoring and study, the internship builds a bridge between the community that created Saving Green and the land managers who hold the power to support the project or not.

Compensation: In order to raise the university-provided stipend to a more livable wage and cover student expenses, the project mentors are providing an additional \$600 for a total stipend of \$4,600 for the 10-week internship.