**2020 Evergreen Thesis Fair**

**Potential Projects with The Nature Conservancy**

**Assessing Climate Change Resilience on TNC lands**

Climate change resilience has been quantified at coarse scales, but comprehensive climate resiliency analysis at the resolution land managers need is lacking. What is the status of lands managed by TNC in terms of climate vulnerability? What management actions can we take to increase resilience? What ecosystem functions or services will be at risk of change in a future climate, and how will that affect their persistence and ability to support life and livelihoods? This work could focus on one or multiple ecosystems stewarded by TNC. No on-site data collection required, but there is an opportunity to conduct an Ecological Inventory Analysis using WA Dept of Natural Resources established protocol, if interest and other situations allow it.

TNC contact: Randi Shaw, Stewardship Manager (randi.shaw@tnc.org)

**Monitoring restoration effects on the next generation of trees**

In addition to protecting largest remnants of coastal old- growth, TNC’s Ellsworth Creek Preserve is the site of a forest restoration experiment. We want to understand how treatments aimed at restoring old-growth forest conditions faster (e.g., thinning) are affecting seed production and young trees. Spring field work would be beneficial, COVID situation permitting, but not required.

TNC contacts: Ailene Ettinger, Quantitative Ecologist (ailene.ettinger@tnc.org)

Michael Case, Forest Ecologist (michael.case@tnc.org)

**Soil conditions and prairie restoration on Yellow Island**

TNC is about to embark on a large prairie restoration project on the west side of Yellow Island, a nature preserve located in the San Juan Islands. Restoration project managers would like to know if there are soil conditions on the east side of the island which contribute to the success of a diverse range of grasses and forbs. If so, are there ways for us to find similar soil conditions on the west side of the island that would allow us to be more successful in our future seed planting projects and ultimately help us restore the prairie. Spring field work would be beneficial, COVID situation permitting, but not required, with transportation to the island facilitated by TNC.

TNC contacts: Matt Axling, Yellow Island Steward (matthew.axling@tnc.org)

Randi Shaw, Stewardship Manager (randi.shaw@tnc.org)

**Understanding Human Communities Surrounding TNC Preserves**

We need to better understand the human communities in which our preserves are situated to identify priority groups, relationships, and partners for advancing mutually beneficial work related to our conservation and land management. Questions we are interested include: What values, priorities, barriers, conflicting needs or disproportionate vulnerabilities are present in the ownership-adjacent communities? What are the opportunities for TNC's Lands Program to address these through our conservation work? Where is there potential for multiple benefit outcomes?

TNC contact: Randi Shaw, Stewardship Manager (randi.shaw@tnc.org)