



Colorado Science and Engineering Fair

2024 Individual Project Abstract Form

Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.

Title of Project: Botanic Panic at Welchester Tree Grant Park

Finalist's Name: Jessie Stong

School and City: Green Mountain High School, Lakewood, CO

Sponsor's Name: Jennifer Flores

Category: Environmental Engineering (ENEV)

Division: Senior (9th - 12th grades)

Abstract (250 words or less):

Welchester Tree Grant Park is a 20 acre park located in a heavily urbanized area that has not previously had a floristic survey performed on it. This study aims to provide an initial floristic survey of Welchester Tree Grant Park and analyze how its urbanized setting has impacted its species count and type of species. This survey occurred between June 1st to August 15th, 2023 with 1-2 trips weekly. Collected plant data was documented with family name, botanical name, gps coordinates and associated collector. The study identified the presence of 99 species belonging to 35 plant families. The study additionally had its FQA (Floristic Quality Survey) analyzed showing a mean C-Value of 2.7, with 49% native species and 51% non-native species. An equation was made to evaluate the species richness per acreage based on past Colorado floristic surveys, in order to further analyze the data found at Welchester Tree Grant Park. The 99 species for the 20 acre Welchester Tree Grant Park matched well with the equation developed for past Colorado floristic surveys, showing the importance of non-native plants species in urban open space areas.

I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.

Finalist's Signature:

Jessie Stong

Date:

3/7/2024

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES of all of these forms to your Regional Fair Director with you Finalist Verification/Permission Form. A signed copy of this form must be included in your notebook.