Efficiency of Removal Methods of Himalayan Blackberry (*Rubus armeniacus)* at Dash Point, Washington

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INTRODUCTION

- Himalayan blackberries (*Rubus armeniacus*) are an invasive species.
- Rapid growth, reproduction, and drought tolerance has caused many issues for native habitats.
- Dead blackberry canes create fire hazards, unsuitable habitats for wildlife and does not allow native plants to thrive
- They can also destroy nesting habitats for native birds.

In search of a solution for Himalayan blackberry removal, collaborations with Dash Point State Park were made to determine if there are significant differences in growth rate when using different removal methods. Method 1, hand clipping blackberry canes vs. method 2, hand clipping blackberry canes as well as artificial, zero light scenario (weed barrier method).

METHODS (PART 1)

Coordination with Park Rangers at Dash Point State Park were made to plan volunteer work parties in order to conduct Himalayan blackberry cane removal.

- clipped back canes to ground level in a 480 m^2 section
- regrowth was recorded every other week for a 10-week period using a systematic random sampling method.

Figure 1. 1400 m^2 blackberry thicket roped off for removal.

Figure 2. Example of where Himalayan blackberry canes were cut

Figure 3. plies of clipped Himalayan blackberry canes on tarps during the volunteer event

METHODS (PART 2/FUTURE PLAN)

- Clip canes back to ground level after all regrowth data has been collected for methods part 1
- second volunteer work party will lay down weed barriers and 3 inches of mulch.
- The barrier will be left till the end of the following summer and removed before the first rain in the fall
- Results will be recorded the same as part 1.

These steps will be to test a zero-light scenario in hopes of suffocating any new growth beneath the weed barrier. Results will allow us to compare average growth between hand pulling and weed barriers methods.

RESULTS (PART 1)

Figure 4. Example of the size of growth 2 weeks after the volunteer event

Figure 5. Growth covering the removal plot at week 10

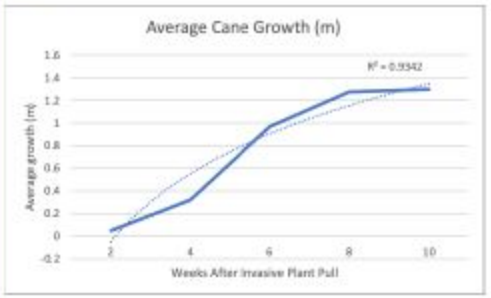

Figure 6. The average growth of Himalayan blackberry canes over a 10-week period.

DISCUSSION

Removal of canes by hand pulling alone was an unsuccessful method for the eradication of Himalayan blackberries. 93% of the variations in Part 1 growth results can be explained by independent variables such as climate and weather conditions.

Due to the constraints of time, availability to collect data, and small volunteer turnout, only 34% of the 1400 square meter blackberry thicket was able to be clipped back, and Part 2 of the methods has been postponed till further notice. Results may have been affected due to availability to collect data and some data points were not recorded exactly 2 weeks apart.

Future work on this project will be to complete part 2 of the methods section and comparisons between the data collected will be made. Part 1 may be repeated before conducting the experimentation of part 2.

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References