

Invasive Species Management in Belding Wildlife Management Area

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ABSTRACT

This project was part of the NRCA, Natural Resource Conservation Academy. All students were expected to have a project after the summer camp and to work on it throughout the year.

For my project I worked to create a proper habitat for wildlife by removing invasive plants from the area so that native plants could replace them. This is important to increase biodiversity and habitat quality for other species. Improving one part of the habitat also improves the overall habitat area.

INTRODUCTION

The Walker Reservoir was recently added as part of the Belding Wildlife Management Area. It includes the Walker Reservoir and land surrounding it. The Walker Reservoir supplies drinking water for both humans and wildlife so purchasing this land and keeping it from being developed helps to keep not only the land clean, but the water as well.

After purchasing this area the DEEP started to design a plan of how to manage the area. Jane Seymour, who is in charge of this area consulted different professionals and businesses to cultivate different input on what should be done with the land.

The area being most intensively managed right now is composed mostly of open areas with stands of white pine and many invasive plants mixed in. It also includes some other species including pitch pine, larch, and some hardwoods.

While there is no set plan for the area some ideas include establishing more pitch pine, or setting up habitat for different species of birds.

The management being done now is to remove the invasive plants that have overgrown the area. The main invasive is autumn olive, with some multi-flora rose, and bittersweet.



MATERIALS AND METHODS

In the process of removing the invasive species in this area a specific procedure was implemented. The invasive species were first mapped so that in the future the locations of past plants could be known even after they were removed. The position of the plants was recorded using a GPS device. The GPS data was then uploaded and the coordinates of the invasive species plotted on a map using the ESRI software.

The next step was to remove the invasive plants. Smaller plants were removed by hand using a weed wrench, or simply a shovel. It is very important to make sure that the root is removed or the plant will regrow. The larger plants are removed by cutting the plant up with chain saws and then painting the stump with herbicide to prevent the invasive plant from growing back. This is done by one of the supervising adults because of the use of chemicals and power equipment.



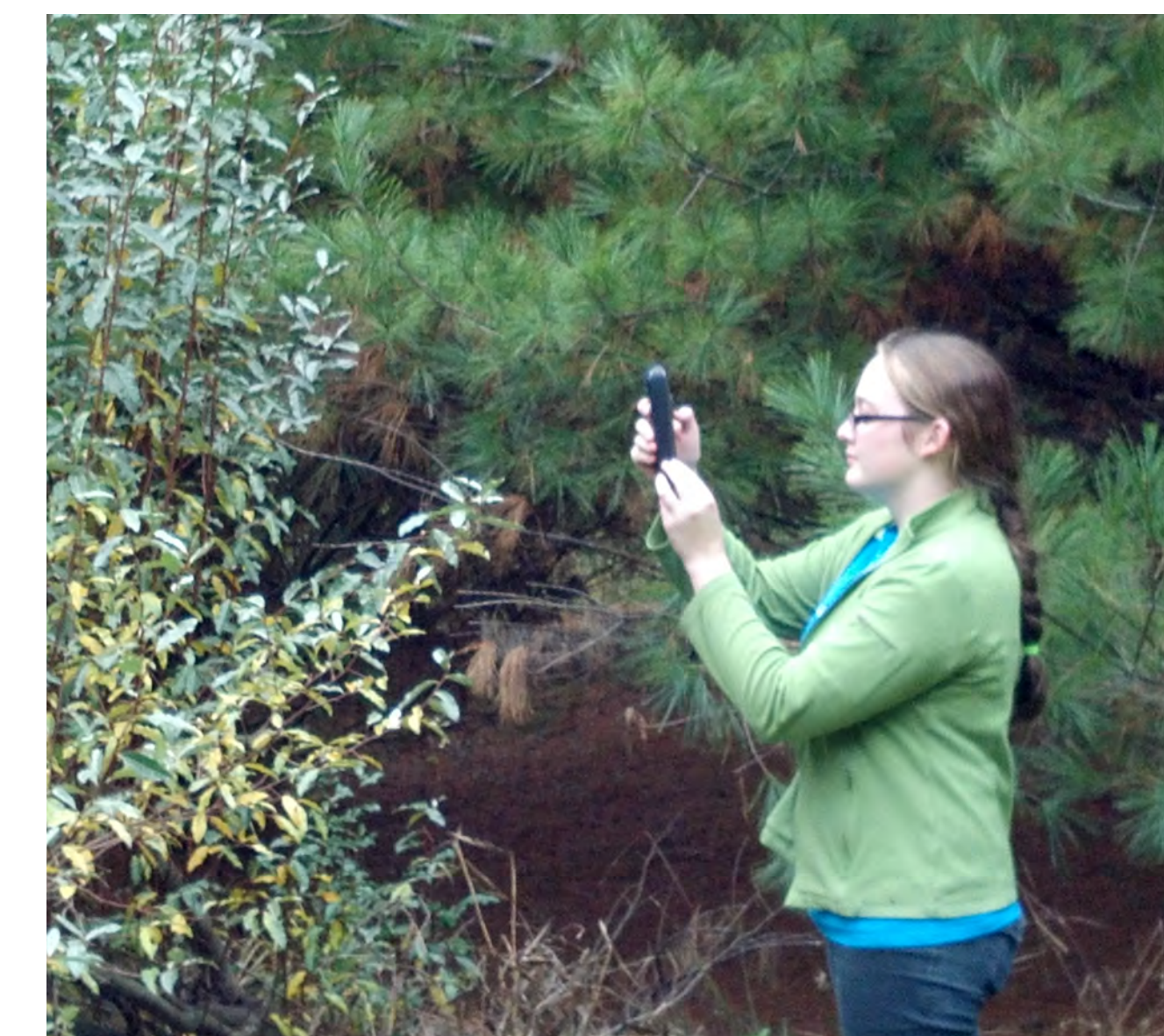
Once the plants were removed from the ground and the larger bushes cut to smaller sizes this material was then collected for use in a brush pile. The plant material was moved to the brush pile located at the forest edge. The brush pile provides cover for smaller mammals and insects.

The materials for this project include a GPS unit, and the ArcGIS software by ESRI. These were used to map the area. The other materials used include marking tape to mark the areas that have been mapped. The materials used to remove the invasive plants include a weed wrench, shovel, chain saw, herbicide, and gloves.

RESULTS

For this area I was able to identify three invasive species. These are autumn olive, bittersweet, and multi-flora rose. For these there were only a few multi-flora rose plants. There were about five bittersweet plants. The autumn olive was the most prevalent invasive in the area. I recorded the location of about five hundred of these plants.

For the removal of plants I removed about thirty plants by hand. Another twelve or so of the larger plants were removed by power tools. All the branches and plants were then gathered to make the brush pile.



CONCLUSIONS

While many of the invasive plants in this area were mapped there are still many that need to be removed. These include many of the larger plants that need to be removed from the area with power equipment and many of the smaller plants that are growing around the larger ones.

There are also still large regions of the area that have not been inventoried for the number of invasive plants they contain.

I was however, able to remove the invasive autumn olive from a small area of the land. I also created a sizable brush pile for wildlife in the area.

ACKNOWLEDGEMENTS

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