

The Weed Watchers/Busters Program
The Nature Conservancy - Maryland/D.C. Chapter

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I. Overview of the Weed Watcher/Weed Buster Program

Past, Present, and Future

Initiated in the summer of 2000, the Weed Watcher/Weed Buster program is designed to train and support volunteers to monitor, document, and aid in the management of invasive plant occurrences on The Nature Conservancy (TNC) protected land in Maryland. Eleven sites are monitored in Maryland, most of which are concentrated in Western Maryland or on the Eastern Shore. These rare, natural communities are protected from specific non-native plants, which exhibit aggressive reproduction and growth patterns in the absence of any natural predators or competitors.

The weeds that the Chapter has identified as most threatening to our preserves and protected land make up a targeted “hit list” of 13 non-native, invasive species. Each Weed Watcher volunteer monitors a specific site, and files periodic reports of “hit list” species occurrences. As our staff receives reports, the infestations are prioritized for management using a process identified by TNC’s Wildland Invasive Species Team. An invasion is targeted for action when it is 1)relatively small, 2)a species which will negatively impact the natural processes of the land, 3)found in close proximity to the most sensitive areas of a site, and 4)relatively easy to control.

Once the threatening infestations are prioritized and a management plan is developed, the Weed Busters take action. The Weed Busters are a group of volunteers who travel to targeted sites and implement appropriate weed control techniques. Our volunteers range from college students to retirees and local community citizens to remote Maryland, District of Columbia, and Virginia residents. The Weed Busters represent a diverse group of people with the one, shared goal of protecting unique natural communities.

As the Weed Watcher/Weed Buster program grows and develops, more TNC-protected land throughout Maryland and D.C. will be protected from the threat of invasive, non-native weeds. With many weeds under management in the first two field seasons of the program, the protection of rare, native plant communities from invasive, exotic plants on TNC-protected land in Maryland is promising.

II. How to get involved in the Weed Watcher/Busters Program

Become a Weed Watcher

There are two ways in which you can help TNC’s Maryland/D.C. chapter keep exotic weeds from invading our preserves. First, you can become a Weed Watcher volunteer. Currently, Weed Watcher volunteers monitor most of the sites in need of weed control programs. However, some sites still need Weed Watchers, and we may place volunteers at new sites in the future. If you are interested in becoming a volunteer Weed Watcher, we require that you spend one day with a TNC staff member for training and commit to at least three years at the site in need of monitoring. Your duties will include visiting your site at least four times a year, preferably once in the fall and three times during the spring and summer. For more information, please contact Deborah Barber at the above telephone number or email address.

Become a Weed Buster

If you are more interested in getting hands on experience with weed control, we always have a need for more Weed Buster volunteers. Beginning in April and running through mid-November of every year, we implement weed control projects at our preserves. Most of the weed species that we target are in prime condition to manage during this time span. If you are interested in pulling, cutting, and/or applying herbicides to various weed species please contact Deborah Barber. She will send you a quarterly newsletter of volunteer opportunities, which includes many outdoor Weed Buster workdays. If you would like to be included in a group of “on-call” Weed Busters who are available to join workdays that form with little notice, please send an e-mail to dbarber@tnc.org with “Weed Buster List” in the title.

III. Develop your own Weed Watchers/Busters Program

The following is an account of how the Weed Watchers/Busters Program began and continues to operate within the Maryland/D.C. Chapter of The Nature Conservancy. The purpose of this description is to serve as guidelines for those interested in initiating a similar invasive, exotic species monitoring program within an organization or agency. We hope that learning about our program will help you develop your own successful program.

Creating a “Hit List”

You may already have an idea of which invasive, exotic species are a problem in your state or, more specifically, on the land you are interested in protecting or currently manage. In the first stages of our program, Donnelle Keech, now the TNC Allegheny Forest Project Director in Maryland, created a survey based on extensive research to solicit the opinions of invasive plant experts throughout the region (see Appendix 1). She sent the survey to invasive plant management professionals from various agencies and organizations. After analyzing the results of this survey, she determined the top thirteen plant species which are most threatening to sensitive ecosystems in Maryland. These thirteen plants make up what is now known as the “Hit List.” As volunteer Weed Watchers become more adept at plant identification and as new species invade Maryland’s natural areas, we may add species to the hit list.

Volunteers--An essential resource

A key ingredient in developing a successful Weed Watchers/Busters Program for your organization is the recruitment of reliable and dedicated volunteers. Good volunteers are what make this program work. Your organization must have the ability to recruit volunteers who are committed to learning about invasive weeds and willing to visit their sites regularly. You must also be able to provide them with training, supervision, and support. Depending on the size of a site in need of monitoring, it may require the presence of two or more volunteers.

a. Training Day

The manual

Once we developed a hit list and identified a reliable group of volunteers to fuel the program, an intern, Virginia McDaniel, was hired for the summer to develop and implement a training program. With the help of our staff, she created a Weed Watchers Manual for each volunteer and sent copies to them by mail. This manual includes an introduction to the program, an explanation

of monitoring methods, fact sheets for each hit list species, general plant identification techniques, instructions for reading topographic maps and compasses, and laminated photographs of each hit list species (See Appendix 2).

The presentation

Each Weed Watcher was asked to read through their manual prior to attending a Saturday training meeting. The first half of the day was spent reviewing the contents of the Weed Watcher Manual in the format of a slide show/Microsoft Power Point presentation (see the Weed Watchers-Weed Busters Slide Show Presentation).

In the field

The second half of training day was spent hiking through the local Rock Creek Park. We carpoled to the park and walked along a predetermined path to study live specimens of weeds on the hit list. Most problematic invasive exotics are easily found in public natural areas in close proximity to developed areas. The volunteers studied characteristics of each hit list species and learned how to distinguish them from similar native species (“impostors”). They also practiced navigating through the park using a topographic map and compass. Navigational skills are essential to the success of our Weed Watchers because many TNC sites are in remote locations with few landmarks in heavily forested settings. At the end of the day, the volunteers were given a test to gauge their ability to perform as a Weed Watcher (See Appendix 3).

Orientation site visit

After each volunteer was trained, monitoring sites were assigned to each person based on their proximity to the location of interest. Each Weed Watcher visited their assigned site with a staff member over the following months to become oriented with their particular site and practice identification and navigational skills.

Once all volunteers had been trained and introduced to their site, we began to receive Weed Watcher reports until the winter months. We encouraged volunteers to make winter visits to become more familiar with their preserves, even though we did not expect to receive hit reports during the winter season.

b. The Weed Management Prioritization System

The second season of the Weed Watchers/Busters Program began in spring 2001. As plants begin to peek out of the soil all over Maryland, our Weed Watchers began monitoring their sites once again, finding hit list species, and sending us reports.

The Weed Management Prioritization table

A new summer intern, Meredith Malone, was hired to receive reports, plan, and implement management efforts for the most threatening weed occurrences identified on our preserves. With reports of numerous infestations, it was crucial to develop a system in which we could identify the most important infestations to manage first. Meredith met this challenge by developing a Weed Management Prioritization table based on guidelines described in the Weed Management Plan template, developed by TNC’s Wildland Invasive Species Team (WIST). This template is available to anyone interested in creating a comprehensive weed management plan for a

threatened area. The full text of the Weed Management Plan template can be found at <http://tncweeds.ucdavis.edu/products.html>.

The four categories from WIST

Four categories of weed management prioritization are identified in the Plan. These categories were integrated into a table that we use in the Weed Watchers/Busters Program to compare the severity of infestations found on multiple sites, and thereby determine which weeds on which preserves we want to target first.

The four categories that the Weed Management Plan template identifies as prioritization guidelines to consider are:

- I. current extent of the species on or near the site;
- II. current and potential impacts of the species;
- III. value of the habitats/areas that the species infests or may infest; and
- IV. difficulty of control.

Relative to these categories, an invasion is targeted for action when it is 1) relatively small, 2) a species which will negatively impact the natural processes of the land, 3) found in close proximity to the most sensitive areas of a site, and 4) relatively easy to control.

The numeric system

Each time a Weed Watcher submitted a “hit” report, our intern first evaluated the infestation on an individual basis. She numerically ranked each infestation according to the four categories above. The number assigned to a weed under each category represents the severity of each infestation. Once each “hit” was ranked through this numeric system, separate infestations found at the same site or on different sites were easy to compare and then prioritize for management action (See Appendix 4).

The way in which you choose to prioritize your management actions once weeds are identified on your sites will obviously depend on the goals of your organization. The Nature Conservancy is specifically dedicated to protecting rare species and natural communities on our land. If your organization is more interested in protecting entire sites without favoring specific populations and/or communities within a site, you may wish to prioritize your management actions differently.

c. Develop your own Weed Management Handbook

Once you have prioritized the management of weed infestations on your sites, you will need information on how to control them. In anticipation of this need, Donnelle Keech developed a Weed Management Handbook for the Weed Watchers/Busters Program which details control methods for all 13 hit list species. The handbook presents several different options for managing each species including manual and chemical removal. Each treatment method can only be implemented during specific times of the year, which coincide with growth patterns of the weeds. These treatment “windows” are listed beside each treatment option in our Weed Management Handbook.

Resources for weed control methods

To learn about control methods for invasive species on the land you manage, we suggest the following resources:

Websites:

The Nature Conservancy's Wildland Invasive Species Team: <http://tncweeds.ucdavis.edu>

State Natural Heritage Program: Virginia: <http://www.dcr.state.va.us/dnh/invlist.htm>

National Plants Database: <http://plants.usda.gov/>

The Department of Agriculture's <http://www.invasivespecies.gov/>

Center for Aquatic and Invasive Plants: <http://plants.ifas.ufl.edu/>

Maryland Native Plants Society (with links to other states): <http://www.mdflora.org/>

University of Montana's INVADERS Database: <http://invader.dbs.umt.edu>

Join a listserv or council:

Maryland Invasive Species Council: email Robert Tichenor at TichenRH@mda.state.md.us

Mid-Atlantic Exotic Pest Plant Council: E-mail: ma-eppc-subscribe@yahoogroups.com.

The Nature Conservancy's Invasive Species Listserv Digest: email Barry Rice with your first and last name and the state/country in which you work at bamrice@ucdavis.edu.

Herbicides

You may find that chemical control is a preferred method of management for many weed species once you begin researching. There are many factors to consider before using herbicides on the land you manage. WIST's "Guidelines for Herbicide Use" addresses many of these issues. The full text of this guide can be found at <http://tncweeds.ucdavis.edu/handbook.html>. These guidelines constitute Chapter 5 of the Weed Control Methods Handbook by Mandy Tu, Callie Hurd, & John M. Randall, which discusses everything you need to know about using herbicides including the costs and benefits of herbicide use, licensing, safety equipment, application procedures, storage, etc.

IV. Conclusion

We hope that this program description will prove helpful to your organization as you search for a plan to protect the land you manage from invasive species. Selected sections of the training manual and other resources are available electronically or in hardcopy upon request.

The Weed Watchers/Busters Program has successfully completed two field seasons and we have high hopes for those to come. However, as with any new endeavor, it is always important to learn from mistakes and achievements, share them with others, and allow for development as you learn. Good Luck!

V. Appendices

Appendix 1: a copy of the hit list survey

Appendix 2: Table of Contents of Weed Watchers Manual

Appendix 3: the WW training test

Appendix 4: an excerpt from the Weed Management Prioritization table