

Organizing Volunteer Invasive Plant Removal Projects

The Stones River National Battlefield Experience

Stones River National Battlefield primarily organizes volunteer cut-and-stump treatment of privet and bush honeysuckle where volunteers use loppers or hand saws to cut woody plants and park staff treat the stumps. We have also sponsored several plant pulls focusing primarily on garlic mustard, but privet and bush honeysuckle have also been pulled by volunteers using weed wrenches.

Cut-and-stump treatment is better done summer through winter. In the springtime, plants are moving nutrients up from roots to leaves which pushes herbicide out of the cut stump. Pulls can be done at anytime but should take into account species biology. This method is not effective for all species or it may be most appropriate only within the very early stages of development (seedlings) for some species (e.g. tree of heaven, mimosa).

We schedule half-day events beginning at 8:30 a.m. with lunch at noon. The city of Murfreesboro often organizes full day events with an hour break at lunch. We get a different set of volunteers for each half of the day and do registration in the morning and in the afternoon.

Preparing for the event

1. Select a date and a rain-date (or decide that if weather cancels the work day, it will not be rescheduled) for your volunteer work day appropriate to the target species. There is ample information online on species biology and life history. Event coordinators should make the effort to know the plant they are targeting before tackling it. Knowledge is the first step in effective integrated pest management (IPM).
2. Develop an informational flier or email that includes **who** (sponsoring organization), **what** (focus of the event and why it matters), **when** (date, time, rain date), **where** (where to meet), **what to bring** (wear sturdy shoes, long pants, cap, bring work gloves, sun screen, tools), **lunch** (the park usually supplies snacks and lunch, it is the least we can do for volunteers who come out early on a Saturday morning), **and who to contact if there are questions** (name, phone number, email address). Your notice should spell out the timeline for the event, e.g., “Registration from 8:30 to 9 a.m.”, “Lunch at 12 p.m.”, etc.
3. If you want students to attend, send a first notice (your flier) at least a month in advance but two months’ notice is better so teachers are aware of the event. Resend at least two weeks out. Print it out and distribute it. Email it to those who have volunteered in the past. Probably 70% of the volunteers we have at Stones River National Battlefield are students from MTSU, Motlow Community College, or local high schools.
4. Prepare a general press release and send it out 10 days in advance of the event.
5. You need experienced crew leaders to supervise smaller groups and keep everyone on track with plant ID, safety, etc. Determine the number of crew leaders you have available to you. Smaller crews are ideal for cut-and-stump treatment -- 1 crew leader (herbicide applicator) and 5-6 crew members (2-3 cutters, 2-3 dragging shrubs after they are cut). Pulls and plantings can accommodate larger groups. There are some

crew challenges. First is effective plant identification, pointing out similar native species that are to be preserved. Not everyone will be able to distinguish between similar species, therefore, the group must keep together so the crew leader can assist with the identification. Also, the crew sprayer must be able to find and keep up with cut stumps, or if plantings are involved, the leader should be close to assist with proper planting techniques.

6. Have a meeting of all crew leaders the day before the event to make sure they understand their role. A written plan distributed to all crew leaders with maps of the work site, their assigned area, and clear role descriptions is very helpful.
7. Consider all aspects of the work to provide a safe work environment. These may include poison ivy, sun exposure, herbicide (dye in herbicide indicates what has been sprayed, volunteers should know the color of the dye being used and not to walk through a sprayed area), bees and biting insects, potential injuries from tools, hidden barbed wire, snakes (do not harass the wildlife), etc. Each work site should have a first aid kit and a plan should be in place guiding crew leaders if someone should be injured and require further medical care.
8. Appropriate tools vary with event type. Cut-and-stump treatment requires loppers at the very least. Hand saws are also helpful. For pulls, digging tools are needed. There is a wide range of gardening tools like hand trowels that are helpful. For planting events, garden rakes, spades, and shovels are essential. My park usually supplies tools. We have work gloves in case they are needed, but we ask everyone to bring their own if they have them. We supply sunscreen, poison ivy block, poison ivy wash, insect repellent, and water. We also have lots of educational materials to hand out at the event.
9. Arrange the delivery of port-o-lets to strategic locations if necessary.

The day of the event

1. Work day prep: Before registration is scheduled to begin, deliver tools, supplies, water, and snacks to each work area. Make a list of tools delivered to each crew leader's site and give it to the crew leader so they can inventory before volunteers head out to lunch. Put out signs at strategic locations directing volunteers to the meeting area from entry roads.
2. Parking: Designate a parking area for volunteers. Use signage or assign someone to park volunteers as they arrive.
3. Registration: At registration, assign volunteers to crews, capture contact information to send thank you notes or emails after the event and send notices of future volunteer events, have students indicate if they are receiving extra credit for participation and include their teacher/instructor/professor's name, and have volunteers sign a "hold harmless" agreement. It is helpful if you can have one person devoted to registration (not a crew leader) with one or two people to assist them if needed (these can be crew leaders with additional responsibilities). The registrar may need to hang around after the official start of the event to register latecomers.
4. Introductory talk: At the designated time, gather volunteers together and give a brief overview of the project's purpose, work to be done and work site, including the significance and/or background of each, and an overview of the logistics of the day. Provide a thorough review of potential work hazards and safety issues, then introduce

crew leaders. Don't talk too long. The registration process can take time, and volunteers may get restless. Give each crew leader a list of their crew members. Have each crew leader read off names on the list and gather crew to him/her.

5. Crews: After crews are gathered, crew leaders and members will proceed to their work site. The crew leader will review the work to be done and divide volunteers up accordingly if appropriate. The crew leader should review work hazards and safety issues one more time.
6. Breaks: Make sure your volunteers take water breaks. The best way to do that is for the crew leader to call a break and lead their crew to the water and snacks.
7. Lunch: Give volunteers about 30 minutes notice before lunch. Have them pile tools in a central location. Inventory tools. If any are missing, comb the area with the volunteers to recover them. Give them directions to the area where lunch will be served. Make sure water and soap is available to them to wash up before lunch.

After the event

1. It is helpful for crew leaders to gather immediately after the event and debrief. This is a good time to figure out what worked and what didn't and how to improve future events.
2. Summarize the event within one or two days: number of people who participated, number of hours donated, number of plants removed or area cleared of invasives, number of plants planted, or pounds of seed planted. This is great information to include in thank you emails so volunteers know what was accomplished and how it helped improve the site. This is also vital information to bolster volunteer programs. It can be used when writing grants and should be tallied for each event.

General Considerations & Other Suggestions

Plants:

Methods of removal are species specific. Research your species to determine the best method and timing. TN-EPPC's Web site features helpful species information – www.tneppc.org. Avoid removing exotics when spring ephemerals will be trampled or seeds disturbed. Rain or temperatures in the 30's or lower will diminish the effectiveness of any herbicide application.

Bush honeysuckle, privet, & Callery pear respond to cut-and-stump treatments in the fall or cooler months as long as it is not below freezing or raining. Bush honeysuckle's persistent foliage in fall assists positive identification. Since regrowth can occur with this treatment, physical removal of smaller sized plants using a weed wrench or mattock can be successful any time of year as long as natives aren't being trampled. With some species, cut-and-stump treatment can result in root sprouts requiring further control. Other methods such as girdling and spraying (hack-and-squirt) while the leaves are still on the tree can be used. Foliar applications on smaller plants may be effective.

Avoid contact with non-target plants. Analyze potential for effectiveness vs. collateral damage. Removal may not be worthwhile if non-target species (look alikes or ephemerals) are damaged and the work doesn't result in reasonable removal/death of invasives that could simply resprout.

Advertising & Volunteers:

- Issue the press releases a month in advance with all information, including suggested safety/personal items volunteers should bring (e.g., insect repellent, gloves, water, hat, lunch), advise if restrooms are available, and note anything people with disabilities may need to know about the terrain.
- Advertise in/with newspapers, radio, Master Gardeners, scouts, park Friends groups, college organizations and classes, hiking clubs, environmental groups and their newsletters, program schedules, or Web sites.
- Request a RSVP to determine expected turnout and answer questions.
- If someone wants to bring a younger scout group or other large congregation of children, suggest a separate opportunity or emphasize the need for very close supervision supplied by the group's own leaders. Consider setting standard guidelines such as: "This activity is not suitable for children younger than ? years of age. Each child between the ages of 8? to 12? must be accompanied by an adult. Children between the ages of 12? to 15? must have one chaperone per 6 youth." As more students need service hours, this will provide guidance on what institutions/parents should expect. Since volunteers do not undergo a background check, it also prevents issues with gender ratio and children working with unknown adults.

Event:

- Have extra gloves, bags, etc., in case people forget to bring theirs.
- Weekends are best for a good turnout and a half day is good ending with a picnic lunch. Serving pizza or snacks for lunch can be a big draw. Don't start too early. 9:00 a.m. to noon or 1:00 p.m. works well depending on the group. Perhaps you can include a plant hike or workshop in the afternoon. Avoid hot days. It may be best to coordinate the event when you know certain groups are available to assist.
- Great Smoky Mountains National Park provides tools unless volunteers prefer to bring their own. Weed wrench, mattock, loppers, hand saw, and/or axe are good tools for most removal work.
- Remind staff that volunteers often want to complete tasks in ways that may be quicker but are often unsafe. There are some situations/areas where staff may work to remove exotics that may not be safe for volunteers, e.g., areas with steep banks, lots of poison ivy, etc.
- Instruct all workers to clean boots/shoes and tools to avoid spreading invasive plant seeds or roots.

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