

Wilderness Weed Watchers Volunteer Guide

Updated May, 2014

Thank you for becoming a Wilderness Weed Watcher!

With your participation, we hope to survey 150 miles of trails for weeds in select wilderness areas in the Mt. Baker-Snoqualmie National Forest during the 2013 & 2014 field season.

The data and eradication efforts of Weed Watchers will help the Forest Service monitor the backcountry and prevent major infestations. Without early detection and control, weeds like yellow archangel, orange hawkweed or Himalayan blackberry can quickly crowd native species. Uncontrolled, weeds like oxeye daisy will monopolize alpine meadows, English ivy will cover forest canopies and Japanese knotweed will choke creek side vegetation.

Your efforts to identify, map and control invasive species along backcountry trails and campsites will make a difference and protect the ecological integrity and natural beauty of our wilderness areas.

The Wilderness Weed Watchers Program is a partnership between The Mountaineers, National Forest Foundation, Mt. Baker-Snoqualmie National Forest, King County's Noxious Weed Program and the Snohomish County Public Works Department. This project is made possible by a Wilderness Stewardship Grant from the National Forest Foundation.

Project Contacts

General questions about the Wilderness Weed Watchers Program, GPS loans and data entry:

Katherine Hollis, Conservation and Recreation Manager for The Mountaineers

Phone: (206) 521-6012 Email: katherineh@mountaineers.org

<https://www.mountaineers.org/conserv/citizen-science-projects#weedwatchers>

Weed identification questions:

Shauna Hee, Invasive Plant Specialist for Mt. Baker-Snoqualmie National Forest Phone: (360) 854-2635 Email:

shee@fs.fed.us

For those who want to report weeds they find outside the wilderness anywhere else on the entire Mt. Baker-Snoqualmie NF, send info to: mbsinvasiveplants@fs.fed.us

Wilderness Weed Watchers Basic Steps

1. Go on a hike in a target Wilderness area of Mt. Baker-Snoqualmie National Forest: Mt. Baker, Boulder River, Noisy Diosbud, Henry M. Jackson, Clearwater or Norse Peak (any trails west of the Cascade Crest)
2. Look for invasive species!
3. Record weed data
4. Weed eradication or flagging (optional)
5. Homework: submit your data



1. Take a hike in the Wilderness

We are focusing on trails in hike in select wilderness area of Mt. Baker-Snoqualmie National Forest: Mt. Baker, Boulder River, Noisy Diosbud, Henry M. Jackson, Clearwater or Norse Peak Wilderness Areas (any trails west of the Cascade Crest). You can complete surveys on your own time hiking with your friends and family, pair up with fellow Weed Watchers, or join a scheduled hike with The Mountaineers. There are a range of options, from short day trips to multi-day overnight trips – just be sure to pick a trail that is appropriate for your physical abilities and experience level. Wilderness Weed Watchers are asked to commit to at least two hikes during the 2013 hiking season.

- **Want to organize a hike & invite other Weed Watchers to join you?** Contact Katherine – we can create an “activity” on the Mountaineers website for other volunteers to sign up and join.
- **Want to join a hike with other Weed Watchers?** Look for organized hikes listed under Mountaineers “Conservation Activities”.
- *We will also create a google group to Wilderness Weed Watchers to organize and communicate with each other.*

A couple notes about choosing a trail:

- Some of the trail segments are very long & we do not expect everyone to hike each trail end-to-end – just hike as long as you are willing and able and take note of your starting and ending times.
- Can't find a trail that matches your abilities? Trouble deciding? Contact Katherine and we will troubleshoot!
- We will post information about which trails have been surveyed on the Wilderness Weed Watchers listserve and also online at <https://www.mountaineers.org/conserve/citizen-science-projects#weedwatchers>. It's ideal if you can choose a trail that is not already surveyed by another volunteer, but duplicate hikes can still provide valuable data – by all means, submit your observations, even if another volunteer has already hiked the trail!

Remember to keep track of the distance you travel to & from the trail head, any non-gas expenses you incur, distance you survey on the trail, and the hours you spend on the survey, travel & data entry – all of this information will be tracked and documents the valuable contributions of our volunteers!

What to bring on your hike:

Survey supplies

1. **Topo map of area** – We recommend using the corresponding Green Trails Map for your adopted trails.
2. **GPS unit with extra batteries** (preferred) – Any GPS unit should do, even if it doesn't have fancy software. Contact Katherine at The Mountaineers to arrange a GPS loan. Some smartphones with GPS capabilities can give you locations even when out of range for cell service – however, this should be tested before you go into the field. Smartphones often have limited battery life and should usually be considered a back-up.
3. **Survey data sheets** – in case of inclement weather, you can always jot notes in a waterproof notebook.
4. **Weed ID card and/or guidebook(s)**
5. **Camera** (preferred) – Digital photos of weeds (or potential weeds) and weed watchers in action are most welcome! See “Weed portrait tips” on page 4
6. **Weeding tool, garden gloves & garbage bag for eradication** (preferred) – A simple dandelion gardening tool or a hori hori can be helpful to remove weeds & roots. Be sure to review protocol for “To pull or not to pull”.

7. **Northwest Forest Pass for parking at Forest Service Trailheads** – After three surveys are eligible for a free Annual Northwest Forest Pass. Contact Katherine at The Mountaineers to receive your pass.

8. **Noxious weed flagging** – bring along some flagging (as well as a knife to cut to size) to mark infestations where control is not possible or is questionable. Be sure to mention the flagging in your trail survey report narrative.

9. **Ten Essentials** The Ten Essentials are items The Mountaineers recommends everyone carry on all trips. The Pacific Northwest is a beautiful place that can be wild and unpredictable. Being prepared for anything is essential. This is as important on short, local trips as it is on long, backcountry trips. It is easy to forget first aid kits and warm layers short trips, but a short trip can quickly turn to a long trip if you get lost or injured. The Ten Essentials started as a list of ten simple items and is now a systems approach that guides you in preparing for any trip in any season.

The two basic questions are: (1) Can you respond positively to an accident or emergency? (2) Can you safely spend a night or more out? Here is a list of The Ten Essential systems:

1. Navigation (map & compass)
2. Sun Protection (sun glasses, sun screen, lip balm)
3. Insulation (extra clothing)
4. Illumination (flashlight or headlamp, spare bulb & batteries)
5. First-Aid Supplies (gauze, tape, etc.)
6. Fire (firestarter, matches, lighter)
7. Repair Kit (knife, duct tape, tools, spare parts)
8. Nutrition (extra food)
9. Hydration (extra water, water purification)
10. Emergency Shelter (tarp, garbage bag, or ultralight bivy)

2. Look for invasive species

Get familiar with the species of concern and bring along the quick reference weed card. As you hike further into the backcountry, weeds may be uncommon if not altogether absent – however keep a close lookout at areas where “disturbance” has occurred – rockslides, trail edges, campsites, informal social trails and areas that receive stock use are particularly popular weed hangouts.

Technically, your official survey begins at the Wilderness boundary, but if you notice weeds at the trailhead and/or along the approach to the wilderness boundary, we encourage you to take notes and include the information in the narrative of your trail survey report.

Recommended guidebooks

Northwest Weeds: The Ugly and Beautiful Villains of Fields, Gardens & Roadsides by Ronald J. Taylor

Weeds of the Northern U.S. and Canada: A Guide for Identification by Royer & Dickinson (out of print)

Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia & Alaska by Jim Pojar

Plants of Southern Interior British Columbia and the Inland Northwest by Robert Parish (good for plants east of Cascade Crest)

Wildflowers of the Pacific Northwest by Turner & Gustafson

Wild Plants of Greater Seattle by Arthur Lee Jacobson

3. Record weed data

When you locate a weed infestation (or suspected infestation), take notes on the trail survey form. Follow the “Instructions for Trail Weed Survey Form” included below. GPS units are incredibly helpful for providing accurate location data, but an alternate method for recording data is to mark your topographic map with infestation locations. Maps can be mailed or delivered to The Mountaineers. Photos of weeds (and Weed Watchers in action) are helpful, but optional.

**Remember: location data should be submitted in decimal degree format. A range of free websites can help you convert degrees, minutes, seconds to decimal degrees.*

One handy converter: <http://transition.fcc.gov/mb/audio/bickel/DDMMSS-decimal.html>

If you take bearings or locations by map and compass, please be sure that you have adjusted for the appropriate magnetic declination.

Guide to Weed Watcher Trail Survey Form

1. **Weed Code** – please use weed code from checklist (if species is not on the checklist, use first three letters of genus and species)
2. **LAT/LONG** points, in decimal degrees
 - a. For example: N 47.50254, W -121.65797
 - b. If your GPS gives you some other format, there are online converters: (e.g. <http://www.rcn.montana.edu/resources/tools/coordinates.aspx>)
3. **Weed Location** – note where the weed patch is located, e.g. trailside, 100 feet from stream crossing, down hill on east side of trail, etc. If you don’t have a lat/long point, try to be specific so we can pinpoint the location on a map.
4. **Size of Infestation** –square feet
 - a. Infestations or patches are defined as stopping if there are no more of that species within approximately 100 feet of the outer most plant or based on terrain and other observations (e.g. divided by a river)
 - b. Minimum of 5 square feet.
 - c. For linear infestations, calculate from length times width, but give total
 - i. e.g. $50 \times 2 = 100$
 - ii. if on both sides, include that in notes and calculate area as length x width x number of sides, e.g. $50 \times 2 \times 2 = 200$
5. **Percent Cover** – estimate what percentage of the infested area is covered by the weed species (as seen from above); if there is only one plant, estimate percent cover of the single plant over 5 square feet (for trees you can use 10 square feet).
6. **Growth Stage** – use the most advanced stage of the population (e.g. if a few plants are in flower but most aren’t, use F)
 - a. Only foliage, no flowers or fruit = **V**
 - b. Buds forming, no flowers open = **B**
 - c. At least some flowers open, no seeds or fruit = **F**
 - d. Some seeds or fruit = **S**
 - e. Plants dying back and going dormant, leaves yellowing or brown = **D**
7. **Habitat**
 - a. Use “road” only for roads open to cars, otherwise use trail
 - b. If the habitat is distinctive, give that instead of trail
 - i. e.g. forest, wetland, rocky slope, river shore, meadow, campground, etc.

8. **Control Date** – note the date you pulled or dug up the plants or, if you know they were sprayed during the current season, note the spray date or the date you made the observation if you don't know what date they were sprayed.

9. **Method** – this is the control method (pulled, dug up, sprayed, injected, etc.)

10. **Notes** – photo taken, weed flagged, monitor visit to a known site, status of infestation being monitored – none seen, controlled for season, partially controlled, not controlled

Weed Portrait Tips

A dark background behind a plant really helps with post-survey identification for tricky species. Take pictures of different parts of the plant and at least one “full body shot”. Pay careful attention to key identifying characteristics. Use your camera's macro setting to get better close up shots!



4. Weed control or flagging

Manual control of weeds in the wilderness, when possible, helps dampen the spread of invasive species. For infestations that cannot be effectively controlled or are better controlled by chemical treatment, you may use the official “noxious weed flagging” to mark infestations of high-priority weeds (see weed check list).

Before you pull or dig a weed, consider a few elements:

“To pull or not to pull?”

1. **Positive ID** – You need to be certain that it is not a native look alike.
2. **Effective Control** – Manual control needs to be an effective control method for the species, the size of the population, and the site. For species like hawkweeds that are better controlled by chemicals, you may want to pull the weeds before they go to seed and spread – just be sure to collect enough information so that the Forest Service can put the site in their treatment schedule for next year.
3. **Practical** – You need to have the tools, ability, and time to remove the plants entirely without damaging other vegetation.
4. **Coordination** – Try to find out if a control activity is likely in the near future for the site; don't pull flowers if they are needed by someone to locate the plants for control or remove one or two plants by the trail if they are needed to locate a larger infestation; however, if no one is likely to be back to that location this year, preventing plants from seeding would be a good thing to do.

5. Homework: submit your data

Enter your data into the electronic survey form at: <http://sgiz.mobi/s3/weedwatchers> (A link is also available at <https://www.mountaineers.org/conserves/citizen-science-projects#how-do-i-get-involved->).

Can't submit data electronically? Submit trail survey sheets and maps marked with infestation locations c/o Weed Watchers, The Mountaineers, 7700 Sand Point Way NE, Seattle, WA, 98117.

Weed Watchers Photo Log

Share photos of weeds, suspected weeds or other good finds on the trail by posting to the Weed Watchers Photo Log!

<http://wildweedwatchers.wordpress.com/> We will work together to identify invasive species.

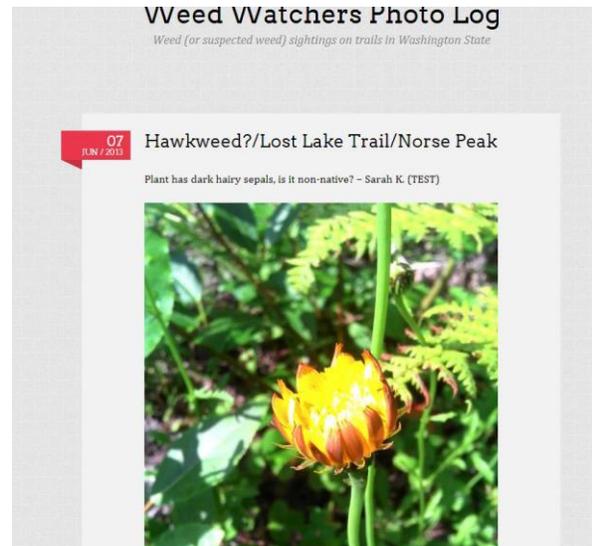
Anyone can create a blog post by sending an email to hohu704nabi@post.wordpress.com (yes, it's a wacky address – its tricky so that the uninitiated do not spam our blog!). Please use the following format:

To: hohu704nabi@post.wordpress.com

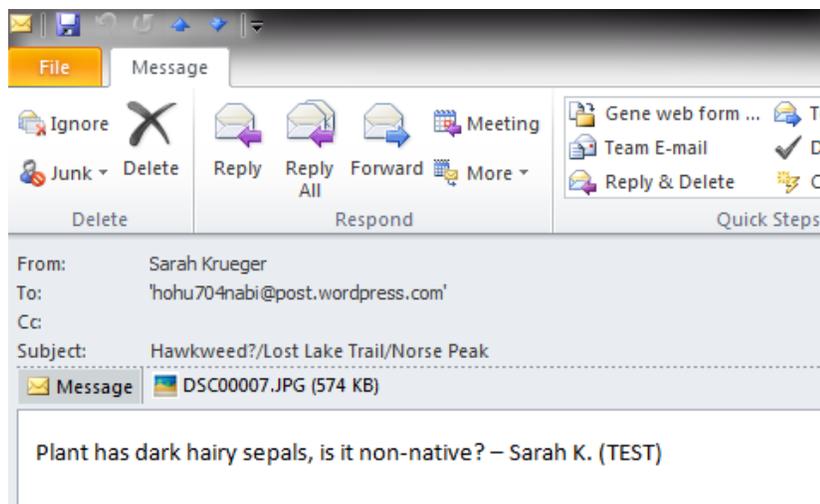
Subject: Knapweed/Summit Lake Trail/Clearwater Wilderness The subject line of your email should contain the name of the plant- guessing is fine!- or "Unknown" / the name of the trail/the area you found it

Attachments: (attach your photo(s) to the email and they will show up in the post)

Body: Any text you type will appear in the body of the post. This is where you will want to describe the plant in detail and ask any questions. Others will be able to comment on your post and help identify the plant of concern. Please sign at least your first name and remove email signatures from your message.



Example blog post email:



We are thrilled to have you involved in the 2014 season of Wilderness Weed Watchers.

Thank you for your efforts!