

KC Weed News – June 2013

King County, Washington

(<http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/weed-news.aspx>)

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Weed of the Month: [Fragrant Water Lily](#) (*Nymphaea odorata*), a [Class C Noxious Weed](#) in King County, Washington

Fragrant water lily has many redeeming qualities as well as causing significant problems here in Washington. This species of water lily is native to the eastern United States and is used both by people and wildlife, as well as being widely appreciated for its beautiful, sweet-smelling flowers. It was that beauty that attracted people in Washington to this plant and inspired them to use it in water gardens starting in the early 1800's. Fragrant water lily has a lovely, lotus-like flower and a sweet fragrance that attracts both people and pollinators. So it should come as no surprise that it has been very popular in our area. Over the years, it has been introduced to countless lakes and ponds in western Washington, as well as spreading to new water bodies on its own, carried by currents and water fowl.

Unfortunately, this hardy water lily thrives in our climate and in our lakes to the point where it creates extensive, dense populations that can be detrimental to people and the environment. A small amount of water lily on lakes and ponds can actually be beneficial, just like our native yellow pond lily, watershield and pondweeds. However, fragrant water lily grows much more densely and into deeper water than our native floating-leaved plants. The large, dense water lily mats can be a hazard to swimmers and boaters as well as creating stagnant, low-oxygen and high temperature areas that are harmful to fish. In the fall, when the extensive mats of leaves decay, this can increase algae problems and lower water quality, as well as being unpleasant for lake users.

Fragrant water lily has huge, interesting looking rhizomes that help this plant survive year after year. When fragments break off, they are carried by water currents and create more populations around the water body. Water lily also forms seeds that move in water currents and that are also eaten by ducks, which carry them to new water bodies.



One of the fascinating things about fragrant water lily is how it produces seeds. Each flower is open for only three days. On the first day, it is receptive to pollen and forms a liquid in the flower, which insects fall into, washing off the pollen and sometimes trapping the insect. On the second and third days, the flower produces pollen and no liquid. After the three days, the flower closes and the stem coils up, pulling the flower down into the water, where the seeds mature. Plants continue to produce flowers all summer like this, producing a steady supply of lovely blooms and numerous seeds.

In spite of the pretty flowers, lakeside property owners often regret ever planting fragrant water lily and soon work hard to get rid of them. In large lakes, this can be a huge challenge and can be cost-prohibitive to undertake for most landowners and public agencies. However, in small lakes it is not nearly as difficult. Small populations of water lily can be cleared by simply removing the top growth as it appears over several years. If this is done consistently, it can eradicate a small population in two to three years without having to dig up the massive rhizomes.

However, even this simple control method requires that you obtain the [Aquatic Plants and Fish](#) pamphlet from the Washington Department of Fish and Wildlife (publication #APF-1-98) and follow its instructions. This pamphlet is the HPA permit that is required for manual control of aquatic noxious weeds in Washington. Other methods including chemical control are also effective, but will require additional permits and licenses, and will likely involve hiring a licensed contractor to perform the work. More information can be found in King County's [Best Management Practices for Fragrant Water Lily](#), at [the Department of Ecology website on Aquatic Plants](#), the [Washington Department of Fish and Wildlife Aquatic Plant Removal website](#) and on our website, www.kingcounty.gov/weeds.

Because fragrant water lily is not regulated in King County and is very widespread, we are not tracking locations at this time. As always, please feel free to [contact us](#) if you have any questions about this plant or any other noxious weeds.

Weed tips for June

Sheet-mulch weedy grasses to save your back. Digging out tough turf in your flower beds is a real back-breaker and often fails to remove roots effectively. Save your back and improve your soil by sheet mulching instead of digging. First cut or knock down tall grasses and weeds. Then apply some compost or fertilizer to jump start the composting process, and water. Next, cover the area with a biodegradable weed barrier such as cardboard or 4-6 sheets of newspaper, overlapping edges by 6-8 inches, and water again. Then, cover weed barrier with 3 to 5 inches of organic mulch such as chipped tree trimmings or straw and leaves. Now sit back and relax while your weedy grasses die, your soil improves, and your back thanks you.

Weeds with buds mean it's time to pick up the pace. When your weeds shoot up and start to form buds, they are shifting from root-building to seed production. This is your signal that it's time to start pulling or applying herbicide. If you wait until the flowers open, your options become limited. Many flowering weeds have enough energy in their flowers to form seeds even after they are cut or sprayed. So if you pull, mow or spray them when they are flowering, you won't be stopping seed production unless you collect and remove all the flowering stems.

Last chance to stop garlic mustard from seeding. [Garlic mustard](#) seed pods don't mature overnight, so you might still have time to pull and bag garlic mustard this month, especially in shady areas. If the seeds pods are already dried out, it might be too late and extra care should be taken not to spread seeds from these plants to new sites. Never mow garlic mustard, especially when there's a chance it is in seed. If you walk through an area with seeding garlic mustard, be extra vigilant about brushing yourself off

and cleaning your footwear before leaving the area. And remember to always contact your county noxious weed program if you see garlic mustard, even if you think we know about it. We really want to stop this plant from getting worse.

Pull poison-hemlock before seeds mature. A single [poison-hemlock](#) plant can produce over 35,000 seeds in one summer, and 90 percent of those can germinate as soon as they hit the ground in the fall. That should be a strong incentive to pull poison-hemlock plants in June before the seeds mature. Remember to wear gloves to protect yourself from this toxic plant. Throw the plants in the garbage or a waste pile that you monitor, not the yard waste, because poison-hemlock remains toxic even after it dries.

Cut blackberry brambles when flowering for best results. [Blackberry](#) brambles have tough roots, so if you are trying to starve them by cutting down the top growth, make sure to do it often enough to have an impact. If you can only cut your blackberry brambles once this year, do it while the plants are flowering because that's when the roots are weakest.

Watch for many noxious weeds flowering this month. June is definitely the month of flowers, for [noxious weeds](#) as well as those lovely plants in your garden. This month, you can expect to see flowers on orange hawkweed, yellow hawkweed, wild chervil, poison-hemlock, giant hogweed, spotted knapweed, meadow knapweed, sulfur cinquefoil, tansy ragwort, milk thistle, bull thistle and Canada thistle, among others. Remember to contact the noxious weed program when you see [regulated noxious weeds](#). We can make sure that the weeds get controlled effectively and check around the area for more sites.

Be smart and safe when using weed control products. When weeds are big and time is short, there is a temptation to take short cuts when applying weed killers. This is a bad idea. Herbicides are designed to work effectively and safely only when used according to the instructions on the label. It is also against the law (as well as common sense) to use a weed killer in a way not described on the label, and that includes organic products like vinegar or clove oil. If the label says wear chemical resistant gloves and eye protection, please do that. If the label says keep the spray away from open water, be extra careful not to get it anywhere near the river or lake. If the label says dilute to 2% in water and spray actively growing plants, do that. Don't get creative and double the dose, pour it down the hollow stems, or spray the dirt after you pull the weeds – these things probably won't work and might be very unsafe. If you ever have trouble understanding how to interpret a label, contact the manufacturer or the [pesticide compliance program](#) at WSDA.

Citizen scientists needed this summer to monitor lakes and trails

We have two volunteer weed watcher programs in King County, one for lakes and one for wilderness and recreational areas in the Middle Fork/Upper Snoqualmie area. If you like to identify plants and would like to help us on lakes or trails, we need your help. Please attend one of our upcoming training classes or [contact Sasha Shaw](#) for more information or to sign up. You can also register online through the [Weed Watcher Online Reporting Site](#) (after creating a user ID).

Trail Weed Watcher Program

June 23, 9am to 4pm, [North Bend Ranger Station](#), 902 SE North Bend Way, North Bend, WA 98045, back conference hall (we will also have two hikes for additional survey practice on **June 28** and **June 30**)

Lake Weed Watcher Program

June 29, 10 am to 2pm, Lake Desire Clubhouse, 18118 172nd Ave SE Renton, WA 98058

Knotweed control classes in June and July (including stem injector training)

We will be holding four workshops on [knotweed](#) control in June and July. We want to show what's involved in effectively getting this plant controlled and how and where to use different methods. It can be frustrating to keep trying to get rid of knotweed and not have it work, year after year. Hopefully we can help you figure out what to do that will work better. These workshops will be very hands on and interactive. We will also be providing specific training on using the knotweed stem injectors effectively. Participants in this training will be eligible to borrow our stem injectors for use on their own land.

Although we have grant projects to help control knotweed on the upper reaches of some of the major rivers in the county, we don't have the resources to tackle knotweed everywhere. Our goal is to encourage and help more people fight back against knotweed in order to reduce its impact on our natural resources.

The workshops are free and open to the public. WSDA license recertification credits will be available for each class (2 credits). [Register online](#) or contact Sasha Shaw <sasha.shaw@kingcounty.gov> or Frances Lucero <frances.lucero@kingcounty.gov> for more information or call us at 206-296-0290. See our [website](#) for more details.

Knotweed Workshop Dates and Locations:

- **June 22, 10 am to 1 pm**, [Cedar Grange](#), 22531 SE 218th St., Maple Valley
- **June 25, 6:30 pm to 9:00 pm (includes special Naturescaping workshop by native plant garden expert Greg Rabourn)**, [Green River Community College](#), Lindbloom Student Center, Glacier Room, 12401 SE 320th St., Auburn
- **July 9, 6:30 pm to 8:30 pm**, [Meadowbrook Farm](#), 1711 Boalch Ave, North Bend
- **July 16, 6:30 pm to 8:30 pm**, [Kingsgate Library](#), 12315 N.E. 143rd St., Kirkland, 98034

Where to find weed information this summer

You will be able to ask weed questions in person, check out live weed specimens, and pick up fact sheets and booklets at the following locations this summer (check out our [complete schedule](#) online and if you have a community event that could use a booth on invasive and noxious weeds, please [contact us](#)):

- **June 22**, [Maple Valley Farmer's Market](#), 9am-1pm, Rock Creek Elementary School, Maple Valley
- **July 13**, [Redmond Farmers Market](#), 9am-3pm, 7730 Leary Way NE, Redmond 98052
- **July 18**, [North Bend Farmers Market](#), Si View Community Center, North Bend
- **July 20-21**, [Vashon-Maury Island Strawberry Festival](#), downtown Vashon Island
- **July 23**, [Carnation Farmers Market](#), 3-7 pm, downtown Carnation
- **July 26-28**, [Enumclaw Street Fair](#), 10-8 both days, downtown Cole St. Enumclaw
- **August 10**, [Rock the Green Clean](#), Middle Green River Coalition, Green River Community College, Auburn
- **August 17**, [Kent Farmers Market](#), 9-2, Town Square Plaza, 2nd Ave & Smith St, Kent
- **August 18**, [Auburn International Farmers Market](#), 10am-3pm, Auburn Station Plaza, Auburn

Honing in on effective garden loosestrife control

Ben Peterson, our new aquatic weed specialist, and his predecessor Katie Messick, have been trying out a range of methods to see what works to control this difficult wetland/shoreline weed. Over many years of effort, it became clear that garden loosestrife roots were more persistent than expected, with plants

surviving every year in spite of efforts to control them. Chemical control and hand digging both failed to eradicate populations effectively, although some chemicals showed partial success. Katie and Ben set up some small trial plots to test different products at different rates, as well as a few different non-chemical methods. The tests were not large enough for conclusive results, but there are some positive results to share.

First, covering a small population with a tarp showed some promise. A 40x60 foot tarp was installed over a 1,000 square foot patch of garden loosestrife mixed with reed canarygrass in September 2011. The plants were cut first and the tarp was staked at the grommets with bent rebar. The area is flat but floods in the winter. In October 2012, they found good control with no plants found alive under the intact portion of the tarp. However, plants were found growing through a tear in the tarp and around the sides of the tarp.

Second, of the various rates and types of aquatic herbicides that were tried, the best results were achieved with spraying 0.75% imazapyr plus surfactant in early July. Moderate results were achieved with the same chemical in August, but some plants were found alive the following year. The other aquatic herbicides tried (glyphosate and triclopyr) had poor results, with many plants surviving to the following year. As always, be sure to follow all rules and regulations pertaining to the use of herbicide in aquatic situations and sensitive habitats.

Where to go for info on controlling weeds in water

Summer is the time for boating and swimming and it's also when aquatic weeds really take off. If you live on a lake or creek and want to control weeds in the water or along the shoreline, it's important to do some research first. Because of the risk of impacting water quality with various weed control methods, there are rules about what you can do and what you can't do. Just about any activity that will disturb water quality or impact vegetation in or near water will require a permit of some kind.

The good news is that for most simple non-chemical methods of clearing aquatic weeds, Washington simply requires that you obtain, read and follow a free pamphlet from the Washington Department of Fish and Wildlife called Aquatic Plants and Fish. The [WFDW aquatic plant removal website](#) has more information and a link to download the pamphlet, or you can phone them at (360) 902-2534. Your city may require additional permits or have additional restrictions, even for manual removal methods, so you should contact your local permitting office as well.

If there is any chance a pesticide will enter water or a wetland in Washington, it is very likely you will need to get a permit from the Department of Ecology. The permit requirements vary based on whether there is a chance of herbicide drift into water (like when you are spraying along a shoreline) or if you are applying herbicides directly to water. To find out more and to apply for a permit, visit the [WA DOE aquatic pesticide permits website](#), especially [the useful permit chooser flowchart](#) from Ecology. In addition to the permit, anyone applying an aquatic herbicide must have a pesticide license with an aquatic endorsement from the Washington Department of Agriculture. For more information on licenses, see the [WSDA pesticide licensing program website](#).

And finally, if you just want to find out what weeds you have and how best to control them, Ecology's [aquatic plant website](#) and [Aquatic Plant Identification Manual](#) are excellent resources. Our program also has a [Water Weeds guide](#) online. We are currently revising it, so we don't have any in print at this time. For more information or help sorting all these issues out, please contact our aquatic noxious weed specialist Ben Peterson at ben.peterson@kingcounty.gov or call Ben at 206-263-6466.

Puget Sound Corps crews help protect aquatic areas from noxious weeds

This summer, work crews are chipping away at some of the worst noxious weed infestations in King County as part of the Washington State Department of Natural Resource's Puget Sound Corps Initiative. This initiative is part of the state legislature's jobs bill, which included \$100,000 of crew time allocated to the King County Noxious Weed Control Program for 17 noxious weed control projects on state owned aquatic lands across the county. The initiative aims to protect Puget Sound as well as to provide employment and training opportunities.

This is great news for the environmental health of some of our most sensitive aquatic areas in the county which are threatened by noxious weeds. These include state-owned streamside areas, wetlands and lake shores. The Puget Sound Corps crew time will allow us to control a backlog of weeds on these high value lands that have accumulated over the years. These infestations predominantly occur along the Snoqualmie, Skykomish, Green, Cedar, and Sammamish Rivers and along Issaquah and Juanita creeks.

The environmental non-profit group EarthCorps will supply the field crews for these projects from May through September of 2013. The King County Noxious Weed Control Program will direct the crews in surveying and controlling more than nine noxious weed species throughout the county. EarthCorps and the King County Noxious Weed Control Program will provide on the job training for the crews in weed control and environmental management. Problematic weeds to be controlled include invasive knotweed, garlic mustard, purple loosestrife, garden loosestrife, spotted knapweed and policeman's helmet.

Cedar River garlic mustard update – it's not all bad news

Since we first discovered garlic mustard on the Cedar River in 2008, we have found more sites every year, some of which have been quite extensive, in spite of controlling every plant we found. This is bad news because it means the river's floods are carrying seeds to many new places that are hard to get to and hard to survey thoroughly. Also, it is likely that the plant has been introduced more than once along the river and it is certainly being spread further by people and animals inadvertently moving seeds around. This year, garlic mustard has been found all the way downstream to Ron Regis Park/Maplewood Golf Course within the Renton city limits and upstream to the Dorre Don Natural Area.

This spread of garlic mustard into a natural riparian habitat like the Cedar River corridor has happened in many other places in the country and it usually ends badly. This is a very hard plant to find until it is already well-established and it spreads very easily due to its tiny seeds being carried by water and on people, animals, and vehicles. It is rare to be able to act efficiently and quickly enough to stop garlic mustard from getting established once it gets into an area like the Cedar River.

The good news is that we have been able to increase our survey and control efforts on the river every year and are starting to see the infestations decrease in size and density. We did find many new small outlier populations and several new larger sites in this year's surveys, but this is likely due to the increase in amount of surveying we have done, including a 14 mile river survey by raft. This year our program also had the benefit of 8 crew days of Puget Sound Corps time to add to our program's staff and WCC time, which greatly increased our ability to survey and control garlic mustard on the river. In addition, others working on the river now help us by flagging garlic mustard that they find, especially Forterra and their WCC crew.

County's roadside crews try new strategy for knotweed

Knotweed along the county's roads poses a significant safety and maintenance hazard as well as contributing to the impacts of knotweed on the county's rivers. However, removing knotweed from the county's roadways is an almost insurmountable task due to the expense and difficulty of controlling this species, as well as the sheer magnitude of the problem. In addition, regular roadside mowing for safety and road maintenance contributes significantly to the spread of knotweed, and can get in the way of effectively controlling it.

Over the last few years, the county's two-person roadside vegetation management team has begun implementing a new approach to roadside knotweed. First, they are working closely with the county's mow crews to minimize the mowing of knotweed stands where it can be avoided without jeopardizing safety. This reduces further spread along the road. County residents might notice the small signs posted along the roadsides that say "Knotweed, Do Not Mow". These tell the mow crews where to stop mowing so that the knotweed can be controlled in the fall by the vegetation team. Where mowing is necessary, the mow crews knock the stems down without chopping them up by turning off the mulching function of the mowers. Spraying knotweed in the spring or early summer only keeps it short and doesn't eradicate it, but in some cases this is also being conducted to assist in knotweed control, and help decrease mowing visits to specific areas.

A second important part of the strategy is to avoid spreading knotweed to roadside construction sites in contaminated fill material. The county's rock and gravel pits where materials are stockpiled and re-used for construction projects are being monitored for knotweed. Infested material will be contained and treated to avoid spreading knotweed fragments to new project sites.

And finally, knotweed infestations are being mapped along all of the roads maintained by the county so that they can be treated as resources are available. Given the limited staffing, time frame and budget available to the two-person vegetation team (who also have to control all of the regulated noxious weeds on the roadside as well as other invasive vegetation), they won't be able to treat all of the knotweed on county roads. Instead, they have begun working in the south part of the county and are working their way north as time allows. Every site that is treated will be monitored and re-treated each year as needed. Where there is knotweed on private property adjacent to the roadside, the vegetation team attempts to contact the landowner to encourage them to control it on their property or to work with the noxious weed program to get additional training and help.

The work will take time. Even when knotweed is sprayed at the most effective time, roadside infestations can take three years or more to fully eradicate. Where knotweed isn't controlled on the adjacent private property, the roadside knotweed will need to be controlled indefinitely. However, already there are fewer knotweed patches where the team worked last year, and, as the program continues, we will see considerably less knotweed along the county's roads in the future.