KC Weed News – August 2009

King County, Washington
(http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/weed-news.aspx)

TOPICS BELOW

- Weed of the Month: Parrotfeather (*Myriophyllum aquaticum*)
- Weed Tips for August
- Got Water? Got Weeds?
- Inquisitive 5th Grader and the Noxious Weed Website Save the Day!
- Buyers Beware: Plant Names Can Be Deceiving
- Boy Scouts Help Fight Knotweed on Snoqualmie River
- Taking the Hawkweed Fight to the Mountains
- Nature is Complicated: Progress and Challenges with Biocontrol

Weed of the Month: Parrotfeather (*Myriophyllum aquaticum*), Class B Noxious Weed in King County, Washington

(http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/weed-identification/parrot-feather.aspx)

If you have ever shopped online for pond plants, chances are good that one of the choices was parrotfeather, or more commonly, Parrot's Feather. This South American aquatic plant is a close relative of Eurasian watermilfoil (also a *Myriophyllum* species), but it is much more aesthetic and more likely to be used in a water garden. Under water parrotfeather has stems and leaves that look a lot like milfoil, but above water it looks very different. People have described it as looking like miniature pine trees growing on top of the water. The leaves are bright green, almost plastic-looking they are so perfect. In addition to looking nice, it is easy to take care of and will fill in areas quickly. I can certainly understand the attraction, and might be tempted myself if I didn't know that non-native aquatic plants are almost always trouble and that parrotfeather is one of the worst.

Just like many non-native invasive plants, parrotfeather is more robust and competitive than the native water plants since it is left alone by native insects, fish and waterfowl. Much like its well known cousin Eurasian watermilfoil, parrotfeather can fill in open water areas and is even more difficult to control. One consolation is that parrotfeather doesn't produce viable seeds in North America, because all the plants are female. It also doesn't produce any tubers or other propagules and doesn't "auto-fragment" like milfoil. In fact, the main ways parrotfeather spreads are intentional planting, accidental planting (when it hitchhikes on other pond plants), mechanical fragmentation (from boats or other disturbance), and being carried on boat trailers. Indeed, if people didn't help it spread, parrotfeather might not move around much on its own. Perhaps because of this, parrotfeather is not nearly as common as milfoil since it is slower to spread. It is also much more conspicuous than milfoil and other submerged plants.

This is good news, because where it has become established, parrotfeather seems nearly impossible to eradicate without entirely draining the area that's infested. There are canals in

southwest Washington where parrotfeather, mixed in with the equally noxious weeds fanwort and Ludwigia, is a permanent ongoing maintenance issue. In these waterways, eradication is just not feasible at this point.

In King County, we are fortunate not to have any large waterbodies with parrotfeather. All of our known sites are private ponds that are being actively managed and contained. In three of the ponds, the area was completely drained and the parrotfeather treated and eventually successfully eradicated. In the other cases, however, draining the ponds was not an option or it would have seriously impacted the wildlife that used the pond. In these populations, the parrotfeather has proven very tough to eradicate, even with careful application of aquatic herbicides. In one large pond, two years of treatment over three years combined with careful pulling by the landowner over several years seems to have successfully eradicated the parrotfeather. However, another pond has been treated three years in a row and still has parrotfeather growing, although less densely. In still another site, the parrotfeather had appeared to be gone, but then re-appeared several years later. One takeaway message from our experience is that careful monitoring and follow up is essential, sometimes three or more years after you think the plants have been eradicated.

What is worrisome is the chance that parrotfeather will escape into adjacent creeks or lakes. We try to watch carefully for escapees, but we could really use everyone's help in watching for this plant throughout the county. Also, if parrotfeather is growing in your own backyard pond or stream, please contact us and we can work with you on how to get rid of it.

In general, it is very important to know what you are planting in water, especially where there are connections to natural water bodies like creeks or lakes, but even in isolated ponds. A number of popular water garden plants have turned out to be aggressive invaders and, unfortunately, many of them are still available for purchase on the internet. Besides parrotfeather, other examples of water garden plants that are now prohibited in Washington State include: yellow floating-heart (*Nymphoides peltata*), water primrose species (*Ludwigia hexapetala, L. peploides*), reed sweetgrass (*Glyceria maxima*), Brazilian elodea (*Egeria densa*), and European frog-bit (*Hydrocharis morsus-rana*). Websites don't always tell you if a plant is prohibited in Washington State, so it is a good idea to cross-check with the prohibited plants list or the noxious weed list to make sure. When in doubt, it is always safest to avoid planting any non-native water plants into natural waterbodies – there is just too much of a risk that the plant will spread and become invasive like parrotfeather and the others. For more information, read below about our new Water Weeds guide or contact our aquatic weed specialist.

Weed Tips for August

Act quickly to stop tansy ragwort from spreading. The little yellow daisy-flowers are turning golden brown and soon will be spreading seeds. In mowed areas, tansy ragwort is re-growing and flowering again. Tansy ragwort seeds can last as long as 16 years and thousands are produced on each plant. If your plants still have yellow flowers, then act quickly. Cut off the flowering tops and bag them up, then pull up the plant by the roots to prevent it from re-flowering. If you have too much tansy ragwort to fit in your trash, call our program at 206-296-0290 for a free voucher to take it to the county transfer station. Tansy ragwort seeds can spread if they are aren't carefully bagged or covered and putting them in the yard waste bins is too big a risk. If your tansy ragwort is already in seed, place the bag over the top and cut the stem to keep the seeds from blowing away. If you mow where there is tansy ragwort, clean the mower before moving it to a new area – seeds move easily on mowers. Or better yet, pull the tansy ragwort before you mow.

Watch for purple and yellow along the shorelines and wetlands. Garden loosestrife and purple loosestrife might have pretty flowers, but they do serious damage to native plant and wildlife habitat along the water's edge and in wetlands. Both plants are tough to pull up and garden loosestrife is especially tenacious with its extensive, long rhizomes. At the very least, both plants need to be cut at the base to prevent seeding. Better yet, contact our aquatic weed specialist Katie Messick for advice. Purple loosestrife can sometimes be managed with special loosestrife-eating insects, especially where infestations are large. Katie can tell you if insects have been released in your area. For garden loosestrife, we have a few projects where we are assisting landowners along the Snoqualmie and Raging Rivers and elsewhere where the garden loosestrife is just starting to get established. For more information, call us at 206-296-0290 or email at noxious.weeds@kingcounty.gov.

Keep an eye out for really tall grasses growing in wet areas. Common reed (*Phragmites australis*) is uncommon in King County but we do occasionally find new patches in wetlands or along lake shores. Most patches are much smaller than the huge population by the 1st Avenue Bridge at Highway 509, but still important to control if we hope to keep this plant from damaging our wetlands. Let us know if you see any 12 foot tall grasses with large, feathery plumes and stiff, dark green leaves growing along wet ditches or shorelines. It usually grows in dense stands along shorelines or wetlands, not in big clumps like Pampas Grass or other ornamental grasses, but it can be tricky to tell apart from some of the taller grasses. If you're in doubt, email us a photo or just report it to us and we'll take a look.

Got Water? Got Weeds?

If so, you might want to check out our new booklet titled Water Weeds: Guide to Aquatic Weeds in King County. This handy little blue booklet has pictures of the common and uncommon noxious weeds that are plaguing waterways and wet places in King County, and even a couple that we don't have yet but are looking for. We hope that people will help us locate new infestations of the uncommon aquatic weeds so we can stop them before they become widespread. For the common weeds, it may not be possible to get rid of them county-wide, but it is still very beneficial to stop their spread and reduce their impact where possible. Invasive plants can do serious damage in water and wetlands. They push out valuable food sources of fish and other aquatic life, interfere with swimming and boating, and can increase flooding. And controlling weeds in aquatic areas is generally very expensive and challenging. In addition to photos and information on water weeds, the guide has information on controlling weeds in water, permits, and a list of additional resources. You can view the booklet online or contact our office for your own free copy.

Inquisitive 5th Grader and the Noxious Weed Website Save the Day!

Recently, young Owen Keith of Seattle spotted an interesting plant in the backyard of his family's home. Wanting to know more about the spiny plant with the yellow flowers, he and his father took a sample to their local nursery. Staff there were stumped but suggested looking online at the Noxious Weed website. Once home, Owen reviewed our website photos of noxious weeds and discovered they had buffalobur (*Solanum rostratum*), a Class A noxious weed in Washington State that is very uncommon in our county. Not only did Owen correctly identify this weed, he realized it needed to be removed and contacted our agency through our online infestation form. Many thanks to Owen for his curiosity, quick thinking and follow through. Buffalobur is a quick spreading, spiny weed that can be a real nuisance on a farm or in rangeland. It is a big problem for sheep farmers as the sticky burs can become embedded in wool. Although we don't have any large infestations of this plant in King County, the seeds can

be contaminants in vegetable or flower seeds or in birdseed and we do get the occasional buffalobur sprouting up under a bird feeder or in vegetable gardens. In fact, earlier this year another buffalobur plant was discovered in Enumclaw and brought to us at the King County Fair. Fortunately, this plant is pretty noticeable with its bright yellow tomato-type flowers and spiny leaves and stems and it is easy to pull up when you just have a few plants. For more information, see our website.

Buyers Beware: Plant Names Can Be Deceiving

Lemon Fluff, Globe Centaury, and Pineapple Thistle may sound non-threatening, even desirable in gardens and flower arrangements, but don't be fooled. These are alternative names for the Class A noxious weed bighead knapweed (*Centaurea macrocephala*) that has been showing up for sale at local farmers' markets this summer. Because of the name confusion, the flower growers did not know that the unusual plant was illegal to grow or sell here in Washington State. Seeds under these alias names are also occasionally advertised for sale in national catalogs and through the internet. Because plants come under many different common names, it can be challenging for gardeners and nurseries to know what they are really getting. It is always a good idea to cross-reference the Latin name of a plant you are interested in buying with the noxious weed list and prohibited plants list.

If you happen to have this showy plant in your garden or flower bouquet, you might wonder why we are so concerned about it. I'll admit that it looks pretty good in a flower arrangement with its over-sized bright yellow flower head and large leaves. Unfortunately, like the other invasive knapweed species, bighead knapweed escapes from cultivation and invades mountain meadows, fields and pastureland. It is difficult to control once it gets away from you, and it can out-compete valuable forage plants needed by wildlife and range animals. For more information see our webpage on this plant and follow the links to our new fact sheet and other resources on this plant.

Boy Scouts Help Fight Knotweed on Snoqualmie River

Eagle Scout Cameron Hilsmann and his father Karl recently brought some big smiles to the face of Camp Waskowitz director Roberta McFarland. Cameron wanted to help the environment and the community with his Eagle Scout project. When his father Karl heard about the problem of invasive knotweed along the Snoqualmie River, he contacted us to see if there was a way his son could help. We knew just the site: the banks of the South Fork Snoqualmie at Camp Waskowitz, the environmental education camp run by the Highline School District. Although our program has been systematically working our way down the South Fork, controlling knotweed along the riverbanks as we go, our crews were still quite a distance upstream and wouldn't be able to get to this knotweed for at least another year or more. And, given their tight budget and the technical challenges of controlling knotweed, the camp staff would not have been able to tackle it themselves. So, with a little training and tools from our program, the Hilsmann family worked with other scouts and parents to inject the knotweed along the riverbanks by the camp. They plan to go back in a few weeks to make sure it was effective and will continue working with the camp in the future. This is a great example of how community groups and agencies can work together to pool resources and solve problems that seem insurmountable otherwise.

Taking the Hawkweed Fight to the Mountains

In King County, we have several invasive hawkweed species growing from sea level up to the Cascade crest including orange hawkweed, yellow hawkweed, common hawkweed and the Class A European hawkweed. There are a few other hawkweed species here but those are the most abundant. All of these hawkweeds present huge challenges. Just identifying them is

difficult since they look so much like common yard and roadside weeds such as cat's ear, dandelion, and hawksbeard. And once you can identify them, getting rid of them takes a great deal of persistence and skill. In the Cascade Mountains, we face all these issues combined with low fertility mountain soils (that hawkweeds thrive in), ski vacation properties (that aren't often visited in the summer when plants are growing), multiple private and public landowners, and sensitive native plant communities. In short, it's a real headache.

Instead of simply throwing our hands up in despair, our program decided to take a more active role in managing hawkweed infestations near the Cascade Mountains. For the past five years we have offered assistance to residents in the Baring and Skykomish areas who have orange or yellow hawkweed growing on their property. Because hawkweeds are so abundant in these areas and pose such a threat to the surrounding forestland, weed specialists have worked with residents to contain and shrink the population, and it seems to be working. This year, it took ten times less herbicide to treat the 23 sites in Baring than it did the first time they were treated three years ago. Most of these sites only have a few plants instead of the extensive carpet they started with. The great support and active management from landowners in the area has really been key to this success. Sites in and around Skykomish show similar progress, and field staff treated around 75 sites here. In areas where landowners have been following the recommendations for mowing and reseeding, very little hawkweed remains. Sites that are still problematic are ones that are usually mowed too soon before or after treatment. This year, we waited longer after mowing before treating, so results in these yards should be improved next year.

Near Snoqualmie Pass, we have been offering the same assistance to the community of Alpental. For the past three years, our field staff have treated the invasive hawkweed infestations along roads, on 65 private properties (where we received landowner permission) and at the Alpental ski area. This year, the area infested by hawkweed had been reduced to about 50% of its previous extent due to the effectiveness of our treatments in 2007 and 2008. In addition, hawkweed was much less dense in the infested areas this year, with just a few plants scattered here and there rather than the dense mats we observed in previous years.

This year we extended our hawkweed control program to include the community of Edgewick near North Bend. Approximately 20 landowners participated in the program by giving us permission to treat their properties, so we are beginning to get a handle on the infestation in that area as well.

In addition, we work closely with the state and county road crews to help them identify and control hawkweed species along the mountain highways and county roads. For example, our staff assisted Washington Department of Transportation (WSDOT) crews with controlling tall hawkweed along 10 miles of Highway 2 near Skykomish, mapping common hawkweed along 8 miles of Highway 410, mapping and treating skips of several hawkweed species along 30 miles of I-90, and mapping and assisting with control on other small highways and many county roads. In addition, our staff treated a few orange and yellow hawkweed patches on US Forest Service roads near Skykomish. This work has greatly helped fight hawkweed growing on roads and in the communities near the mountains.

Unfortunately, there is another large problem – the 200 acres infested with orange and yellow hawkweed on US Forest Service land on the ski slopes at Snoqualmie Pass. This year, we started developing plans for this challenge and did initial control work in partnership with Kittitas County, Ski Acres, WSDOT, and the US Forest Service. In addition to planning the next steps, our staff joined up with Kittitas County weed control staff for a hawkweed control work party at

Snoqualmie Pass. Although it was just the tip of the iceberg, this joint effort did manage to treat about six acres along the roads and edges of the larger infestation. There are some areas that are so large and inaccessible, that planning and control will probably take years to resolve, but it does seem likely that we will be able to draw a line in the mountain meadows and keep the hawkweed contained, and gradually reduced over time.

Nature is Complicated: Progress and Challenges with Biocontrol

Thanks to the great partnership our program has with the Integrated Weed Control Project of WSU Extension (IWCP), we are able to bolster noxious weed management in King County with the natural enemies of some of the noxious weeds. When everything works well, this is a great way to reduce the impact of invasive plants that we wouldn't be able to manage otherwise, either because of the difficulty of accessing the weeds or because there is simply not enough time and money to tackle all the invasive plants. Of course, this only works for the weeds that have an approved safe biocontrol agent and it is not fast enough to stop early infestations before they get large. But where it is an option, biocontrol is super helpful.

Thus far in 2009, the IWCP and our program have released biocontrol agents at 19 sites across King County. Eight biocontrol agent species, totaling 6,060 insects, have been released to manage six weed species, Scotch broom, common St. Johnswort, purple loosestrife, spotted knapweed, Dalmatian toadflax and Canada thistle. Releases have been made in the Green River Watershed, Vashon Island, Kent, Auburn, O'Grady Park, North Bend, Snoqualmie River and Federation State Forest.

In some places, we have seen promising results. For instance, the Canada thistle gall-fly (*Urophora cardui*) has established at all sites we have released at in past years. At some sites the number of galls appears to be increasing. We are continuing to look for potential release sites for the Canada thistle gall fly which will be released either late in 2009 or early in 2010. Also, the Scotch broom seed-feeding beetle, *Bruchidius villosus*, has been found at almost every Scotch broom site we surveyed including at an elevation of 1500 feet; the beetle was not previously thought to survive above 900 feet. We were able to collect *B. villosus* and another seed-feeding weevil, *Exapion fuscirostre*, from sites in Redmond and Federal Way and distribute them to other regions of King County, western Washington and northern Idaho. Finally, the purple loosestrife foliage-feeding beetle, *Galerucella* spp., has been extremely effective in some areas of King County. For example, within four years of surveying purple loosestrife along the boardwalk trails of Marymoor Park in Redmond, the purple loosestrife population has been reduced to a handful of stems. If only we had a similar tool to use against the garden loosestrife now spreading rapidly in the same location!

However, nature is not always cooperative. For example, our releases for Dalmatian toadflax and spotted knapweed in the Green River Watershed have been only marginally successful. Establishment has been slow for the stem-mining weevil (*Mecinus janthinus*) for Dalmatian toadflax and remains unknown for the seed-feeding beetles (*Larinus minutus*, *L. obtusus*) on spotted knapweed. We plan to release large numbers of these beetles next year in an attempt to increase establishment. An additional disappointment was the fire this summer that destroyed much of the vegetation at the sensitive rocky bald native plant community on Echo Mountain (by Spring Lake/ Lake Desire). In addition to having a diverse community of uncommon native plants, this site is infested with common St. Johnswort and was being managed through the foliage-feeding beetle, *Chrysolina* spp, and also had a release of the foliage-feeding moth, *Aplocera plagiata*. At this point, the survival of the biocontrol agents is unknown and the St. Johnswort is expected to resurge aggressively as this plant species

recovers well from fire damage. Additional St. Johnswort biocontrol agents will be released in 2010, if appropriate.

The biocontrol releases in King County this year to date include:

- 5 releases of Bruchidius villosus (1100 insects)/ Scotch broom
- 1 release of Chrysolina spp. (300 insects)/ St. Johnswort
- 3 releases of Galerucella spp. (1150 insects) / purple loosestrife
- 1 release of Hylobius transversovittatus (100 insects) / purple loosestrife
- 2 releases of Larinus minutus (750 insects) / spotted knapweed
- 3 releases of Larinus obtusus (1500 insects) / spotted knapweed
- 1 release of Mecinus janthinus (200 insects) / Dalmatian toadflax
- 3 releases of Urophora cardui (960 insects) / Canada thistle

For more information about biocontrol in King County or elsewhere in Washington State, please contact Jennifer Andreas at WSU Extension – King County or contact our program.