

# KC Weed News – September 2008

King County, Washington

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

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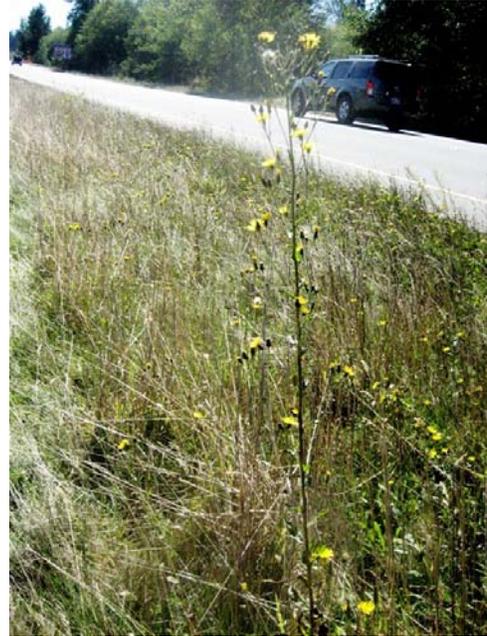
### Weed of the Month: European Hawkweed (*Hieracium sabaudum*), Class A Noxious Weed

<http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/weed-identification/european-hawkweed.aspx>

A recent addition to the [Class A state weed list](#), European hawkweed is very much on our radar this fall. Although it closely resembles many other hawkweeds and other dandelion-like roadside weeds, it waits to flower until late in the season and tends to stand out this time of year. When European hawkweed was added to the state weed list, only a few locations of this plant were known in the state. Because of this limited distribution and the potential for impact shared by all the invasive hawkweeds, the state weed board added this hawkweed to the Class A list, the highest priority for control statewide, and asked all county weed boards to find and destroy all populations of European hawkweed.

You might be wondering what this plant looks like and how you would find it. If you have tried to identify different species of hawkweed before, you will know that it often comes down to details like types of hairs and number of stem leaves. European hawkweed is no exception and for good information on how to distinguish it you can start with our [web page](#) and then also follow the links to the state's written findings and Linda Wilson's very helpful key to the hawkweeds. In general what you are looking for is a fairly tall, yellow-flowered perennial with multiple stems. It has quite a few small flowers near the upper part of the stem and they tend to form a loose, open, candelabra-shaped cluster. It also has lots of leaves along the stem, larger and denser near the bottom and smaller and less numerous up the stem. The leaves are toothed and oval-shaped, tapered and narrow near the base and at the tip. It is flowering or just starting to go to seed in September. European hawkweed is most likely to be growing on roadsides or other places with poor soil and lots of disturbance.

We knew we had some populations of European hawkweed (or Savoy hawkweed as it is sometimes called), so the past month or so our weed specialists have been searching for it, especially along the highways where it had been noticed before. As usually happens when you look more carefully for a weed, we found more populations and some of them are quite extensive. One population is near the Iron Horse Trail at a power station and all the others are



on state highways. Dennis Chambreau, our state and federal lands coordinator, has been the lead surveyor for this weed and he reports finding the following: I-90 from exit 38 to 42 (4 road miles or 80 acres), SR-522 at milepost 13.2 near the King/Snohomish county line (20,000 square feet), SR-2 at milepost 59.8 east of Deception Falls (3,000 square feet), SR 202 at milepost 19.8 west of Fall City (10,000 square feet), and off Iron Horse trail at Twin Falls Power Station (1,000 square feet). If you put all those dots on a map, it is alarming how much territory they cover and the potential for more populations in between those points. Also, given the locations along highways near county lines, there is a high probability of spread to adjacent counties and the likelihood that there are undetected populations in nearby counties.

Fortunately, Dennis reports that European hawkweed doesn't seem particularly aggressive, and is mostly found on disturbed sites such as roadsides. It typically grows mixed in with grasses and other weedy roadside plants not in a monoculture. Since it lacks rhizomes and stolons, it doesn't form dense mats like yellow or orange hawkweed and generally doesn't appear to be as competitive as those hawkweed species. Dennis has been working on controlling the populations he has found and we should know better by next year what is working and what isn't, but clearly detection of this hard to identify plant is the biggest challenge and hopefully controlling it will not be as difficult.

If you search the [herbarium records](#) of the University of Washington, you will see that there have been collections of this plant from six locations in Washington and British Columbia, the earliest being in 1990 in Whatcom County. There was a collection from the King County population on I-90 east of North Bend in 2001. Since it is likely that there had been plants there before the collections were made, it looks like this species has been in the region for awhile now. Given this fact and what we've found this year, it is likely that there are at least a few more undetected populations out there in our county and elsewhere in the western part of the state. The hard part will be finding the populations while they are still manageable.

For more information on European hawkweed, see our [website](#) or contact us by email at [noxious.weeds@kingcounty.gov](mailto:noxious.weeds@kingcounty.gov) or by phone at 206-296-0290. If you find any populations of non-native hawkweeds in King County, please [report the locations online](#) or contact us as soon as possible. If you find European hawkweed elsewhere in the state, please contact the local county weed board or the [Washington State Weed Board](#) at [noxiousweeds@agr.wa.gov](mailto:noxiousweeds@agr.wa.gov).

## Weed Tips for September and October

**Watch for re-flowering weeds.** Mowed or cut weeds often flower again later in the growing season, sometimes much shorter than the original height. This is especially true of [tansy ragwort](#), [spotted knapweed](#) and [purple loosestrife](#), but can be true of many biennial and perennial weeds. Other weeds can have a second flush of blooms, especially this year with the August rains and the lovely September sunshine we've had. For instance, I noticed this happening recently with [common hawkweed](#).

**Fall is a great time to control many noxious weeds.** In September and October, look for low growing seedlings and rosettes of [bull thistle](#), [milk thistle](#), [tansy ragwort](#), [spotted knapweed](#), [goatsrue](#), [garlic mustard](#) and [hawkweed](#). These plants and many others are actively building up their roots so they can grow and flower quickly next spring and summer and it can be a very effective time to treat them with herbicide. Please check our [Best Management Practices](#) or [contact our office](#) for more information and site-specific advice on fall management of noxious weeds. It is also a great time to pull [English ivy](#), [English holly](#), [cherry laurel](#) and other invasive plants. It's cooler now and easier to work and the soil is getting easier to work as the rains

come back. Just remember that if you are working in areas with seeding weeds, clean off your boots, tools and clothes before moving to un-infested areas to avoid spreading the plants to new areas.

**Keep an eye out for really big grasses in wet areas.** The tall, showy plumes of [common reed \(\*Phragmites australis\*\)](#) are pretty conspicuous this time of year and we are trying to find it all before the seeds mature. The largest site we know about is near Highway 509's 1<sup>st</sup> Avenue bridge but there are many other small populations out there. Please [contact us](#) if you find any of this tall wetland grass.

**Time is running out for [knotweed](#) control this season.** September is pretty much the last month to control plants with foliar spray and stem-injection, and if your plants are already turning color and the stems are hard and woody, it will probably be best to wait until next year. If cutting and covering is your plan, it's a good time to cut the knotweed down one more time and install your heavy duty fabric or plastic. We're in salmon season now, so it's best to stay away from river banks and out of the water when doing your knotweed control. If you need advice on what works and what doesn't, just check out [our website](#) or [contact our office](#) at 206-296-0290.

**Weed control with goats and sheep can be a fun fall activity for the whole family.** If you have your own goats or sheep, you probably already know that they will munch quite happily on a wide variety of weeds. They are also being used by utilities and parks departments to fight back weeds. I happened to be at the High Point Community Center in West Seattle recently and my daughter and I were entertained by the Rent-A-Ruminant goat herd munching away on [ivy](#) and [blackberry](#) across the street. This Vashon-based herd available for hire is a professionally trained group that works in carefully fenced areas that need to be freed of dense weeds. We have contact information for a few goats-for-hire businesses and we are always pleased to hear about new providers. Also, I recently received an email from Holland reporting that some varieties of sheep are very useful in controlling [giant hogweed](#). I guess they really like the taste! Some sheep are sensitive to the burns however so it is important to use the right types. This might work for an initial clearing of a large site before digging up the roots but it is more appropriate for areas that are quite large where other methods are not available. For more information on using grazing for weed control, there is a lot of information online such as the [University of Idaho Targeted Grazing](#) website or the [Livestock for Landscapes](#) website.

## Weed Education in October

The Noxious Weed Program will be teaching about weeds in several places in the next couple of months for different groups, including two workshops open to the public (see below). If your group would like a presentation or workshop on invasive and noxious weeds, please contact Sasha Shaw at 206-263-6468 or [sasha.shaw@kingcounty.gov](mailto:sasha.shaw@kingcounty.gov).

- **Fall Gardening - Natural Care & Invasive Weeds**

Instructors are Bellevue Utilities' Natural Yard Care guru Patricia Burgess and King County's noxious weed education specialist Sasha Shaw. Pre-registration is required. **Thursday, October 9, 10:00 am - 12:00 pm**, Lewis Creek Park Visitors Center, 5808 Lakemont Blvd., Bellevue, WA 98009. To register call 425-452-4195.

- **UW Botanic Gardens Professional Programs Course: Identification and Management of Invasive Plants**

Non-native weeds cause serious ecological disturbances by choking out other plant life, ultimately altering habitats and reducing biodiversity. Sasha Shaw will discuss the devastating impact of invasive non-native plants on our local ecosystems. She will also

teach identification and management of the most common problem invasives, including aquatic plants, found in our region. **Thursday, October 23**, 9:00 am-12:00 pm, [Center for Urban Horticulture, Douglas Classroom, University of Washington](#). Pre-registration required, \$35 fee. WSDA and ISA certification pending. For more information or to register, contact Jean Robins at [jrobins@u.washington.edu](mailto:jrobins@u.washington.edu) or 206-685-8033.

## **Fighting Milk Thistle in South King County**

One of our biggest challenges and highest priorities is to win the battle against [milk thistle](#) (*Silybum marianum*) in south King County. We have identified 49 parcels on the Enumclaw Plateau with known infestations of this Class A noxious weed, many of them associated with dairies. Class A status means that it is the highest priority for control and there is a statewide requirement to eradicate all populations of this plant. Milk thistle is still limited enough in the state that there is an opportunity to eradicate it, which is a good thing considering its invasiveness and negative impact on forage production and its toxicity to cattle.

Although milk thistle is fairly widespread in parts of Oregon and California, it is still fairly limited in Washington. The Enumclaw area infestations are the only sizable King County populations outside of occasional escaped ornamental plantings. It is thought that some years back milk thistle arrived on the Enumclaw Plateau as a contaminant in hay, evidently originating from out of state. Since then, it has spread to other fields and pastures, likely moved by farm equipment, livestock, birds and other means. Currently, milk thistle is infesting approximately 304,000 square feet in south King County, or about seven acres, over an area of eight square miles.

It has always been our policy to assist landowners with controlling this challenging Class A noxious weed, but in the past couple of years we have stepped up our efforts even more. Through regular and positive interactions with the landowners, we have developed strong partnerships with them and, with their cooperation and assistance, we have largely taken over much of the actual control work in order to carry out an effective and consistent eradication strategy across all the infestations. We have learned from experience that if we want to do better than simply contain the existing populations, continual monitoring combined with either manual or chemical control measures to ensure the mortality of every plant prior to seeding. Because this high standard of control is simply not possible for most busy farmers and landowners, our program staff have taken on the majority of the monitoring and control work. Trish MacLaren, noxious weed specialist for southeast King County, and Dennis Chambreau, state and federal lands coordinator, work closely together to plan and carry out the milk thistle eradication effort.

When dealing with an individual plant, milk thistle is intimidating with its sharp spines and large size, but it is fairly easy to dig up and remove. However, large infestations of this plant are very challenging to eradicate, mostly because of the extensive and long-lived seed bank and the difficulty of getting complete control of all plants. In the past, when there were too many plants to dig up, farmers resorted to mowing. Unfortunately this was counter-productive since it often spreads the plants even more and only serves to delay the flowering and make it more difficult to find the infestations because the plants are shorter. Spraying is the most effective method for large sites, although it is still not easy to obtain the 100 percent control necessary to stop the milk thistle from seeding. Through some trial and error, testing different products and timing, and research into best management methods, Trish and Dennis have developed a monitor and control program that is beginning to turn the tide on this weed.

As with any weed eradication effort, prevention of spread and early detection of new sites is essential for success. While birds are often cited by landowners as the main dispersal vector, tractors, mowers, manure spreaders, ATVs and livestock contaminated with seeds are other likely vectors of dispersal. Landowners are encouraged to clean machinery and tires after leaving an infested field and to minimize soil disturbance as much as possible. However, since some disturbance and spread is unavoidable, Trish visits each known milk thistle infestation multiple times during the weed season, meeting face to face with landowners to find out about any new sites, and carefully checking for new infestations in the surrounding areas. Experience has taught us that four visits to each site are needed to ensure detection of new plants and complete control.

Trish and Dennis' program for successful milk thistle control in the Enumclaw pastures can be summed up as follows:

1. Engage and educate landowners to encourage their participation and cooperation
2. Survey known sites from the beginning to middle of April.
3. Spray young plants with Milestone. Better results are achieved on smaller plants.
4. Survey near known sites for new populations when milk thistle is starting to bolt; ask landowners for help finding new sites.
5. Re-check treated areas when buds are present in order to find skipped plants. Dig up isolated plants or spray larger populations with a mix of Milestone and Unison or Weedone LV-4 plus surfactant. This mix works more quickly on budding plants than Milestone alone and prevents seeding.
6. Survey again in July for any plants that were missed and to find new populations (talk to landowners again to see if they know of any new sites). If any plants are found, cut and bag the seed heads and then destroy the plant (by digging them up or spraying).
7. Re-check infestations following autumn rains, and spray any germinating seedlings with Milestone. This reduces the number of plants that will need to be controlled in the spring and is an effective time to treat milk thistle seedlings.

This control program is intensive and time-consuming, but we are making progress toward exhausting the seed bank. As of this month, every known population of milk thistle has been sprayed and/or dug up and seeding was prevented. Of the 49 known parcels with milk thistle, 14 of them had no plants present this year. And, while milk thistle was still present on 35 parcels, the density of plants has been much reduced and the results next year look to be even better after the fall re-checks and treatments are complete. The cooperation of landowners is essential to achieve the goal of eradication in this long term, time intensive effort and we feel fortunate to have their support. If you have any questions about milk thistle or the work being done on the Enumclaw Plateau, please call us at 206-296-0290 or email [noxious.weeds@kingcounty.gov](mailto:noxious.weeds@kingcounty.gov). If you know of any milk thistle populations that we have missed anywhere in the county, please let us know as soon as possible by phone or online at [www.kingcounty.gov/weeds](http://www.kingcounty.gov/weeds).

### **Miller and Walker Creeks – Project Update and Future Plans**

For the past three years, our program has been working to control noxious weeds along Miller and Walker creeks in the cities of Burien and Normandy Park, largely funded through a Port of Seattle grant. These creeks are in a highly urban area but they contain surprisingly good habitat and flow directly into Puget Sound. This project has been a good illustration of how a coordinated and integrated approach greatly helps to achieve control of noxious weeds where they are scattered along a riparian corridor, crossing numerous property lines and involving many property owners and public agencies. It has allowed us to use the best control strategies

and timing for each weed and site and to make sure weeds aren't spreading between properties.

The noxious weeds we targeted on these creeks were [purple loosestrife](#) (*Lythrum salicaria*), [policeman's helmet](#) (*Impatiens glandulifera*), [giant hogweed](#) (*Heracleum mantegazzianum*), and [Bohemian knotweed](#) (*Polygonum x bohemicum*). This year we controlled 85+ knotweed populations, 30 purple loosestrife populations, 45 policeman's helmet populations and 3 giant hogweed populations along the two creeks. In addition to the Port of Seattle funding, we also received \$6,200 from King Conservation District for additional knotweed control. Program staff, primarily weed specialists Jessica McKenney and Maria Winkler, surveyed the creeks twice between June and September, contacted landowners, determined best control methods for each site and otherwise coordinated the effort. The control work was accomplished with five days of Washington Conservation Corps crew time to pull and dig purple loosestrife, policeman's helmet and giant hogweed and to stem inject knotweed and four days of contractor and staff time spraying knotweed and purple loosestrife.

After three years of work, the main reaches of Miller and Walker creeks look dramatically improved with infestations of all of the target noxious weeds greatly reduced. No surprise infestations were found this year and control of all of the known sites has been very successful. Since this is the third and final year for the Port of Seattle grant funding, control of the regulated noxious weeds (purple loosestrife, policeman's helmet and giant hogweed) will return to landowner responsibility with our continued oversight and help if needed. The populations of these weeds have been reduced to the point where landowner control should be completely possible, although we will continue to check the sites until the weeds are completely gone. Knotweed remains a bigger problem and is challenging for landowners to control, so we are searching for additional funding for continued knotweed control in Miller and Walker creeks and their tributaries. We plan to continue surveying, mapping and contacting landowners in preparation for 2009 knotweed control in the hope that funding will become available. This project has been successful in large part because of great landowner cooperation and increased awareness over the past three years, so we are very optimistic about the long term success of this project. For more information on the Miller/Walker Creek Project, please call Jessica McKenney at 206-296-0290 or email [noxious.weeds@kingcounty.gov](mailto:noxious.weeds@kingcounty.gov).

### **Fish and Wildlife Spreads Word on \$378 Fine for Weedy Boat Trailers**

A recent feature on [King 5 news](#) by Gary Chittim reminds everyone to clean weeds off boats and trailers or face a possible fine of \$378 and a criminal citation. That's a pretty hefty fine and should encourage everyone to carry out the relatively simple task of checking for and pulling off plant parts from trailers and boats. As the Fish and Wildlife inspector mentions in the King 5 report, this is the time of year that [Eurasian watermilfoil](#) and other aquatic weeds are breaking apart and are even more likely to be floating around docks and boat launches where they can get caught on motors and trailers. If these plant parts are moved to another water body, they can survive and spread to the new lake or river, creating new infestations. The [Washington State Department of Fish and Wildlife](#) website has information on what to do to prevent the spread of aquatic weeds and other invaders. Specifically, they remind us that:

It is important to remove all visible plant or animal materials from your boat, motor, trailer or other equipment, and to drain all of the water from bilges and live wells away from the water body. Transporting aquatic plants on your equipment on any state or public road, including forest roads, is a misdemeanor. [[RCW 77.15.290 \(4\) and \(5\)](#).]

And don't worry if you can't tell what species they are, just remove all plant parts and animals (like mussels, snails and other little critters). It is always better to play it safe. Even native plants and animals should be left where they are to avoid creating problems like spreading diseases. If you would like more information on aquatic weeds, check out the [Washington Department of Ecology](#) website or call our aquatic weed specialist Katie Messick at 206-296-0290.

### **Biocontrol Update for King County**

In the [June 2008](#) issue of this newsletter, I described our goals for biological control releases in the county through our cooperation with the WSU Extension Biological Control program. This is a great way for us to boost the management of invasive weeds in the county. Nearing the end of the weed season, I thought it would be interesting to report what we have been able to do this year with biological control agents. Our own Jessica McKenney has worked closely with WSU Extension's Jennifer Andreas to carry out our biological control program and between March and August they released a total of 8,500 insects in King County. One really important release was the 92 *Hylobius transversovittatus* released on purple loosestrife. This is one of only five releases statewide of this insect species and the goal is to develop a local rearing program for this species. The larvae of *Hylobius* are root crown feeders and the adults are foliage feeders and should complement and add to the control being provided by *Galerucella* beetles, of which 1,250 were released this year. Jessica and Jennifer surveyed the Sammamish River from Marymoor Park to Bothell Landing Park to assess *Galerucella* presence and impact. The purple loosestrife populations on the Sammamish River and many places in the county are being managed to some extent by *Galerucella* beetles, but additions are still needed to keep the populations at an effective level.

In addition to purple loosestrife control agents, we released insects to control the following weeds:

- **Scotch broom** - 800 scotch broom bruchids (*Bruchidius villosus*), the larvae feed on seed pods, adults eat pollen
- **Spotted knapweed** - 50 knapweed root weevils (*Cyphocleonus achates*), larvae feed on root; 250 *Larinus minutus*, larvae are flower head feeders, adults are foliage feeders, released in Green River watershed area; 500 *Larinus obtusus*, larvae feed on flower heads, adults sort of feed on foliage, released in Federation Forest area
- **Tansy ragwort** - 500 tansy ragwort flea beetle (*Longitarsus jacobaeae*), larvae are root miners in rosettes, adults are foliage feeders. This was the Swiss strain of this insect, one of only three releases of this strain statewide. This is important because Swiss strain flea beetles lay eggs in spring rather than fall (like the more common Italian biotype), and adults emerge in mid-summer and immediately begin feeding. This different life cycle should increase the success of the flea beetle in some areas.
- **Dalmatian toadflax** – 200 stem weevils (*Mecinus janthinus*), larvae mine stems, adults are foliage feeders, released in Green River watershed
- **Canada thistle** – 960 stem gall fly (*Urophora cardui*), larvae form a gall within stem causing metabolic sink, total of two release sites in early spring, potential for more releases later in the fall

If you have any questions about our biocontrol program, please call Jessica McKenney at 206-296-0290 or Jennifer Andreas at 206-205-3100 or email the noxious weed program at [noxious.weeds@kingcounty.gov](mailto:noxious.weeds@kingcounty.gov).