

Guide to Noxious and Invasive Weeds

in King County, Washington



King County

Department of
Natural Resources and Parks
Water and Land Resources Division
Noxious Weed Control Program



This guide covers some noxious weeds found in King County and some other common invasive plants. The species in this book are not native to Washington.

For a complete list, and to report noxious weed locations, visit kingcounty.gov/weeds.

Cover photo: tansy ragwort, see p.48

Inside cover photo: bittersweet nightshade, see p.4

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Bold indicates control required in King County
(see p.2 for explanation)

Noxious Weeds

Noxious weeds are non-native plants that are highly competitive and difficult to control or eliminate. They have been introduced accidentally or spread from gardens. Some are poisonous to people and livestock and most grow rapidly and overwhelm desirable vegetation. They can reduce crop yields, destroy beneficial native habitat, damage recreational opportunities, clog waterways, and diminish land values.

Impacts of Noxious Weeds

Each year, these plants cost King County millions of dollars in lost agricultural production, environmental degradation, maintenance and control costs. Once invasive plants become established, it is very expensive and time consuming to remove them. Noxious weeds are one of the major threats to King County's natural environment because they reduce biodiversity and change the balance of ecological communities. These invasive species crowd out the native plants on which fish and wildlife depend.

Washington State Noxious Weed Law (RCW 17.10)

The State Noxious Weed Law establishes property owner responsibilities for preventing and controlling the spread of noxious weeds. Each year, the State Noxious Weed Control Board adopts, by rule WAC 16-750, the State Noxious Weed List. County noxious weed lists are created from the state list. Weeds are ranked according to how widespread they are. Class A weeds are the least common in Washington and all property owners are required to eradicate these species in order to prevent them from spreading in the state. Class B and C weeds are more common and requirements for control vary by county depending on where they occur and their impacts in different parts of the state. On the King County Weed List, weeds that property owners are required to control are called Regulated Noxious Weeds.

King County Noxious Weed Control Program

The Noxious Weed Control Program protects the natural and economic resources of county residents by tracking and achieving control of regulated noxious weeds in King County.

The program provides:

- Technical assistance with identification and control.
- Free workshops and information booths at events.
- Brochures, fact sheets and weed guides.
- Control assistance for high priority noxious weeds.
- Disposal vouchers for regulated noxious weeds.
- Weed pullers and knotweed injectors for loan.

You can help prevent and control invasive noxious weeds

- Be careful what you plant. Many noxious weeds are escapees from gardens. Ask before you buy.
- Clean your boots and gear to avoid spreading weeds. Seeds catch rides on wheels, footwear, clothes and pets.
- Clean your boat thoroughly between trips. Aquatic invaders are spread by even the smallest plant fragments.
- Do your part to control invasive plants on your property. If you need help or advice, contact the Noxious Weed Control Program.
- Volunteer at restoration projects. Many parks departments and organizations sponsor these events.
- Help us stop new infestations by reporting them to us as soon as you can.

Weed Control Strategy

The Noxious Weed Control Program recommends an Integrated Pest Management (IPM) approach to controlling invasive weeds. IPM uses the most efficient and effective methods that will keep weeds below the level of significant impact, while also creating the least harm to people and the environment. This includes preventing new noxious weed problems and using a combination of strategies that may include biological, cultural, mechanical, and chemical control methods. Always consider human health, ecological impact, feasibility, and cost-effectiveness in your plan. **Follow label directions when using chemical control.**

Please refer to kingcounty.gov/weeds for detailed control recommendations and best management practices for controlling specific weeds. Report noxious weeds online or with your phone through **King County Connect**.

Bittersweet Nightshade

Solanum dulcamara

DESCRIPTION

Perennial vine or semi-woody shrub. Leaves are dark green, somewhat purplish and have an unpleasant smell when crushed. Flowers are star-shaped, purple, with a central yellow cone. Unripe berries are green and ripen to orange and then bright red. Reproduces by abundant seed production and vegetatively from stem and root fragments. **Toxic to people, pets and livestock.**

CONTROL

Bittersweet nightshade is difficult to control once it is established. A combination of treatments and revegetation may be needed. Hand pull small plants and dig up roots of larger plants, taking care not to break them apart. Even a small root or stem fragment left behind may resprout. It is advised to always wear gloves when handling bittersweet nightshade. Herbicides are also an effective control method but make sure to use caution and obtain required permits for using herbicide near water.



CORNELL UNIVERSITY



DIMITAR NAYDENOV



Butterfly Bush

Buddleja davidii

DESCRIPTION

Deciduous shrub, growing up to 15 feet tall with arching branches. Tiny purple flowers are densely packed in long, drooping flower spikes. Long narrow leaves are arranged oppositely on the branches. Reproduces mainly by tiny seeds that disperse in the wind and can remain viable in soil for 3 to 5 years. A single flower spike can produce 40,000 seeds. Highly invasive and spreads profusely by seed into disturbed and natural areas. While it does attract butterflies, it is not a host plant for butterfly larvae and outcompetes native plants that are more beneficial to local butterflies.



CONTROL

Don't let butterfly bush go to seed. Consider using other species in your landscape. Seedlings can be easily pulled and larger bushes can be dug out. A key principle to butterfly bush control is preventing seed production. Dispose of seeds in garbage and branches in city provided yard waste bins if available. Cut-stump herbicide applications are an effective control method. Once controlled, plant desirable species to discourage weeds.



TIM MILLER

Canada Thistle and Bull Thistle

Cirsium arvense and Cirsium vulgare

DESCRIPTION

Canada Thistle: Herbaceous perennial with creeping roots. Usually grows 2 to 5 feet tall. Narrow, spiny, bright green leaves are alternately arranged on stem. Flower heads purple to pink in clusters at tips of branched stems. Spreads by horizontal roots, which may extend 15 feet. Also spreads by seed. Plants are either all male or all female.

Bull Thistle: Biennial, reaching 2 to 6 feet tall. Rosettes form in first year, flowering stem the next. Leaves are deeply lobed, hairy, and have long sharp spines. Flowers are pink to magenta in color. Reproduces by seed only, and can produce 4,000 seeds from a single plant.

Canada and Bull Thistle both out compete native plants, and desirable forage plants. They can invade any disturbed habitat and form dense stands.

CONTROL

Canada Thistle: Difficult to control once it is established because it spreads by creeping rhizomes. Although seedlings are easily removed, digging established plants is not practical because their roots are deep and far reaching. Cut plants when they have the least root reserves and have formed tight green buds (usually by June). Then cut the regrowth each time buds appear again, weakening the roots over time. For new infestations, carefully dig up young plants before they become established. There are also herbicides that are effective. Use a broadleaf selective herbicide to maintain grass cover.

Bull Thistle: A key principle to bull thistle control is preventing seed production. Pull or dig up plants before seeds form. Plants can be cut with a sharp shovel at 1 to 2 inches below the soil surface before flowering. Bull thistle can be controlled by cultivation and tilling prior to seeding. Herbicide is also an effective control method, especially on rosettes.

Canada Thistle

JENNIFER ANDREAS



JENNIFER ANDREAS



Bull Thistle

JENNIFER ANDREAS



JENNIFER ANDREAS

Common Catsear

Hypochaeris radicata

DESCRIPTION

Widespread dandelion-like perennial with deep roots and tough, wiry stems. Basal leaves are rough and hairy with lobed margins. Upright stems have a milky sap when broken. A single, dandelion-like flower head is produced at the end of each stem branch. Often confused with dandelion, catsear has branched flower stems and coarse yellowish leaf hairs that are rough to the touch. Also, the stems are tough and wiry, not hollow and tender like a true dandelion. Common catsear reproduces by seed and vegetatively. Unlike dandelions, catsear is bitter and somewhat toxic to horses and other livestock.



STEVENS COUNTY NOXIOUS WEED CONTROL BOARD

CONTROL

Scattered plants in lawns can be dug up or removed with a dandelion puller as soon as leaves appear. Heavily infested fields should be plowed and cultivated 1 to 2 years before reseeding. A key principle to common catsear control is preventing seed production. Overseed grass in disturbed areas. Selective herbicides are an effective control method. Often an indicator of compacted soil or low

nutrient conditions. Aerating, fertilizing, and improving soil will help reduce reinfestation. Healthy grass cover and good soil conditions are the best defenses against this weed in turf and pastures.



STEVENS COUNTY NOXIOUS WEED CONTROL BOARD

Common St. Johnswort and Common Tansy

Hypericum perforatum and Tanacetum vulgare

DESCRIPTION

Perennials with clusters of yellow flowers on tops of upright stems that spread by seed and creeping roots. Both plants are toxic to livestock. Usually found in open, sunny areas. These plants may be confused with tansy ragwort (see page 48).

Common St. Johnswort: Star-like flowers with five yellow petals. Leaves are simple, small, oval and have tiny dots that resemble perforations when lifted to the light. A single St. Johnswort plant can produce 100,000 seeds per year that are viable for 10 to 30 years.

Common tansy: Flowers look like clusters of yellow buttons (only have disc flowers, no rays). Leaves are fern-like and have a strong odor like menthol. Stems are sturdy and very tough to break. Plant grows in dense stands that crowd out other vegetation.

CONTROL

St. Johnswort and common tansy are difficult to control once established. For small patches, dig out the whole plant. For larger patches, herbicides can be an effective control method. Maintain healthy grass cover or other vegetation to reduce weed seed germination.



Common St. Johnswort



Common Tansy

Common St. Johnswort



Common Tansy



KRISTIAN PETERS

Creeping Buttercup

Ranunculus repens

DESCRIPTION

Low growing perennial with short stems and creeping stolons. Can grow up to one foot tall, but is usually shorter in mowed areas. Leaves are dark green, often with light spotting, and are divided into three toothed leaflets. Flowers have five bright yellow petals. Reproduces by seed and by long branching stolons that root at the nodes, forming new plants. Aggressively crowds out other plants, especially in wet or poorly drained soils. Toxic to grazing animals.

CONTROL

Creeping buttercup is challenging to control once it is established. A combination of treatments and revegetation may be needed to eliminate populations. In lawns and pastures, promote healthy grass by overseeding and fertilizing as needed after removing weeds. Avoid overgrazing. Improve soil drainage and reduce compaction. Buttercup thrives in soil with poor drainage, heavy compaction, low fertility, and low pH (acidic). Adding lime can improve grass health and keep buttercup

from reestablishing.

Dig out individual plants, removing all of the runners, roots and growing points. Digging is most effective in winter and early spring before roots regrow. Selective herbicides are also an effective control method.





FRANK VINCENTZ



FRANK VINCENTZ

English Holly

Ilex aquifolium

DESCRIPTION

Large evergreen tree or shrub, growing up to 50 feet tall. Leaves are glossy, dark green with sharp spines along wavy edges. Red berries grow in bunches and are poisonous to people when consumed. Flowers are small, white and inconspicuous. English holly berries are eaten by birds and excreted in forests where the plant can form dense thickets that dominate the tall shrub layer, suppressing germination and growth of native tree and shrub species.



SASHA SHAW

CONTROL

Small plants can be pulled or dug up. Cut holly will resprout. Try to remove as much root as possible and watch for regrowth. Applying herbicide with the cut stump, frilling, or injection methods are most effective. Foliar herbicide treatment is not as effective due to the thick, waxy leaves. Monitor for new seedlings after controlling an area.



English Ivy

Hedera helix, Hedera hibernica

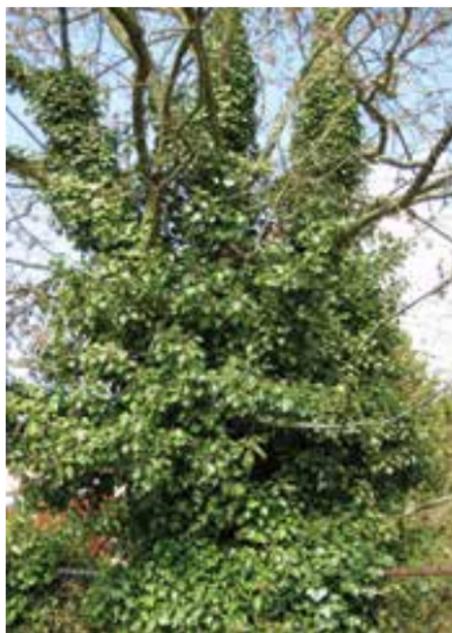
DESCRIPTION

Woody evergreen vine that grows on the ground and climbs up trees, fences, walls, and hillsides. Leaves are thick, dark green, often with pale veins. Leaf shape and size varies from deeply to shallowly lobed, and from small, narrow leaves to large, broadly shaped leaves. Produces umbrella-like groups of small greenish flowers in the fall, followed by dark purple-black berries in the late winter or early spring. Spreads vegetatively from stem and root fragments and by seed found in berry-like fruits. Fruits are poisonous to people but edible to birds. Ivy harms trees and creates dense undergrowth that crowds out other plants and harbors rats.

CONTROL

Pull out vines and roots by hand or with tools. For ivy on trees, cut the vines and pull them off the bottom of the tree trunk. This will kill the upper vines. Then pull rooted portions from the ground around base of tree out about 6 feet. Dispose of plant material in yard waste bins or ball it up and leave it to dry out on a hard surface. Always wear gloves and long sleeves to protect your skin. Herbicides can be an effective control method when sprayed on actively growing plants. Plant desirable species to discourage weeds from reestablishing. On slopes, use erosion cloth and plant appropriate vegetation to prevent erosion. Monitor for new plants.





Garlic Mustard

Alliaria petiolata

Class A Noxious Weed – Eradication Required

DESCRIPTION

Biennial or winter annual typically reaching 2 to 3 feet tall. Seedlings develop into basal rosettes by midsummer; then overwinter and bolt the following spring, flowering from April to June. Flower stalk is topped by clusters of small white flowers with four petals. In spring the roots and new leaves smell like garlic. Lower leaves are rounded and upper leaves more triangular. Leaves are smooth not hairy. The root usually has a distinct 'S' or 'L' shape below the stem. Stands of garlic mustard can produce over 60,000 seeds per square yard that may be viable in the soil for at least 10 years.

CONTROL

Make sure to get expert identification before controlling. This plant closely resembles many native plants. For mature plants, carefully pull by hand, loosening soil and removing entire root. The plant will sprout from the root crown if it breaks off. For young plants, hand pulling is NOT recommended. Rosettes tend to snap off at the root, allowing the plant to resprout. Dig up rosettes with a trowel or use an herbicide. Bag up and discard all plant matter in garbage.

A key principle to garlic mustard control is preventing seed production. Spraying young plants with herbicide is an effective control method. **Please report all populations of this plant to the county weed program so we can prevent it from spreading further.**





Giant Hogweed

Heracleum mantegazzianum

Class A Noxious Weed – Eradication Required

DESCRIPTION

Public health hazard. Sap can cause blistering of the skin and scarring. Do not get plant sap on skin. Herbaceous plant, reaching a height of 8 to 15 feet when in flower. Hollow, ridged stems are 2 to 4 inches in diameter with dark reddish-purple bumps and stiff white hairs. Even young plants have hairy, ridged stems with purple bumps. Flower stalks are tall (up to 15 feet), topped with very large, umbrella-shaped flower clusters with numerous densely packed white flowers. Large compound leaves are deeply incised and up to 3 to 5 feet wide. Looks very similar to native cow parsnip.



CONTROL

Always avoid skin contact. Clear, watery sap in leaves and stems can cause burns, blisters and scarring.

Mature plants can be killed by digging up at least the first 4 to 6 inches of the

central root. Young plants often break off when being pulled from compacted soils, leaving the root to continue to grow. Be sure to bag flowers and seedheads and put in the trash. Wear proper clothing, shoes, and eye protection when attempting any control measures. Systemic herbicide applied to young or pre-flowering plants is another effective control method. **Please report all populations of this plant to the County Weed Program so we can prevent it from spreading further.**



Hedge Bindweed or Morning Glory

Calystegia sepium

DESCRIPTION

Deep rooted herbaceous perennial vine that can grow along the ground or climb by twining around other plants and fences. White trumpet-shaped flowers. Heart or arrowhead-shaped leaves are numerous along long twining stems. Reproduces vegetatively from roots, rhizomes, and stem fragments. Also reproduces by seed, which can lie dormant for more than 20 years.

CONTROL

Bindweed is very difficult to eliminate once it is established. A combination of treatments and revegetation may be needed to control populations depending on the site. Repeatedly dig or pull small seedlings before they mature. For larger patches, smother plants with sheet mulch, black plastic or plastic-fiber mats (geotextiles). The covering must be kept in place for several years and monitored for gaps or cracks. Systemic herbicides can be an effective control method when applied to actively growing plants. Do not dispose in backyard compost piles; bindweed can resprout from cuttings. Dispose of plant material in yard waste bins or garbage. Once controlled, plant desirable species to discourage weeds from reestablishing.



FAN WEN



OREGON STATE UNIVERSITY



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Herb-Robert

Geranium robertianum

DESCRIPTION

Widespread and common annual or biennial. Plants have a strong odor. Stems are often red and covered with white hairs. Deeply dissected green leaves. Flowers range in color from bright pink to white. Spreads entirely by seed that remains viable in the soil for six or more years. This escaped ornamental thrives in forests as the dominant ground cover, displacing native plants.

CONTROL

A key principle to herb-Robert control is preventing seed production. Pull up plants before they produce flowers and seeds. Do not discard in home compost; seeds can survive and spread. Gloves are recommended when handling large amounts of this plant as its sticky oils may cause a slight skin irritation. Herbicides are also an effective control method but take care not to injure desirable plants growing in the area being sprayed.





ENRICO BLASUTTO



MICHAEL GASPERI



Himalayan and Evergreen Blackberry

Rubus armeniacus and *Rubus laciniatus*

DESCRIPTION

Thicket forming evergreen shrubs 8 to 15 feet tall with arching, thorny canes. Both have white to pink flowers with five petals, large black berries and leaflets usually in groups of five on main branches. Himalayan blackberry has round to oblong leaflets, while evergreen blackberry has deeply lacerated or “cut” leaflets. Both species reproduce by seed and also by rooting at cane tips. Highly invasive and painful to control. May look similar to the native plant trailing blackberry *Rubus ursinus*, which is smaller, has three leaflets and grows along the ground.

CONTROL

Dig up plants removing the root ball completely. For larger stands, first cut the canes with loppers or a brushcutter, then dig up the remaining root ball. Regular, repeated cutting can suppress and weaken blackberry. Pile up canes on a dry surface to keep stems from re-rooting. Can dispose of plant material in city or county provided yard waste bins if available. Herbicides are an effective control method if applied to actively growing plants at the time of year recommended on the product label. Follow all label directions. Plant desirable species to discourage weeds from reestablishing.



Himalayan Blackberry



Himalayan Blackberry



STAN SHEBS

Evergreen Blackberry



BEN LEGLER

Knotweed

Polygonum x bohemicum, *P. cuspidatum*,
P. sachalinense

DESCRIPTION

Herbaceous perennial that grows like bamboo. Tall stems are stout, cane-like, hollow between the nodes, green to somewhat reddish-brown, and 5 to 15 feet tall. Leaves are bright green, broad and heart or triangle shaped. The flowers are small and creamy white and form in late July to August. Spreads mostly vegetatively from rhizomes, cut stems, and occasionally by seed. Knotweed clones can completely clog small waterways and displace streamside vegetation, increasing bank erosion and lowering the quality of riparian habitat for fish and wildlife. Rapid spring growth and deep, extensive roots enable knotweed to outcompete most other plants, including young trees and shrubs. New shoots can grow up through turf, rocks and even asphalt.



CONTROL

Knotweed is very difficult to control once it is established. A combination of treatments and revegetation may be needed to control populations depending on the site. In loose soil, small individual plants can be dug up if done carefully and completely. Plants can resprout from rhizomes so be sure to remove the entire root system and inspect for new growth. Cutting and covering with black plastic or geotextile fabric is somewhat effective, but covering must be left in place and monitored for at least five years or

until shoots stop emerging when cover is removed. Application of systemic, slow-acting herbicide is the most effective control method. Contact the county noxious weed program for specific suggestions for each situation. Do not compost roots or green stems – can sprout from nodes.



Old Man's Beard

Clematis vitalba

DESCRIPTION

Woody vine that both climbs and grows along the ground. Vines are highly branched and up to 100 feet long. Leaves are deciduous, compound, and usually somewhat toothed on the edges. Young stems are grooved and older stems have stringy bark. Flowers are creamy white in clusters and are found in summer. Seed heads are feathery and persistent through winter. The plant's name comes from seed head clusters that resemble a long, white beard. Vines can completely cover other vegetation, creating dense thickets and contributing to tree blowdowns. Seeds disperse by wind and rain. Can also spread by stem fragments.

CONTROL

Pull or dig out plants, removing roots and all stem pieces. Vines may form new roots if left on the ground, so collect stem pieces and discard in yard waste. To control vines climbing up trees, cut at chest height and pull lower stems off. The upper vines will die back if they aren't rooted in the ground. Herbicides can be effective when sprayed on leafy growth in late spring to early fall, but be careful to avoid spraying desirable vegetation and trees. Woody stems can also be controlled with the "cut stem" method (see weed control product label for instructions). On slopes, prevent erosion by using erosion cloth and replanting with desirable vegetation.



SASHA SHAW



Orange Hawkweed and Yellow Hawkweed

Hieracium aurantiacum and *Hieracium caespitosum*

Class B Noxious Weeds – Control Required

DESCRIPTION

Herbaceous perennials, hawkweeds resemble dandelions but have hairy flower buds as well as hairy stems and leaves. They have tightly packed flat-topped clusters of yellow or orange flowers on top of mostly leafless, hairy stems. Leaves are mostly basal, hairy and have unlobed leaf margins. They spread by seeds and vegetatively through stolons (runners). All parts of both plants contain a milky sap. They both produce dandelion-like fuzzy seed heads and have stolons allowing for aggressive vegetative reproduction, forming mats of vegetation.

They invade fields, pastures, rangeland and yards.

Hawkweeds reduce forage value of grazing lands and also displace native plants in natural areas.

CONTROL

Early detection and rapid removal is one of the best ways to control hawkweeds. Clean vehicles and equipment that have been in areas infested with hawkweed. Dig up plants in the spring or early summer when the soil is still moist and before the seeds mature. Plants can resprout from creeping stolons and rhizomes so care should be taken to completely remove the entire root system. If the plant is in flower, cut off the flower head, bag and dispose of it into the regular trash. Mowing is not recommended. For large patches, selective herbicides are an effective control method. For turf and pastures, fertilizer will increase grass health and reduce hawkweed problems if applied after hawkweed is controlled. Maintaining healthy grass helps to suppress hawkweeds. **Please report all populations of these species so we can prevent their spread.**



Poison-Hemlock

Conium maculatum

Class B Noxious Weed – Control Required

DESCRIPTION

Poisonous plant, reaching 8 to 10 feet in height. Stems have reddish-purple spots and are smooth, not hairy. This biennial plant forms a low growing carrot-like plant the first year and develops tall stems and flowers the second year. Flowering plants have numerous small umbrella-shaped clusters of tiny white flowers with five petals. Leaves are bright green and fern-like, with a strong musty smell. Root resembles a parsnip or pale carrot but is very poisonous (as is the rest of the plant). Reproduces by seed, which can be viable for up to six years. Produces up to 40,000 seeds per plant. **This plant is deadly to humans and animals when consumed.**

CONTROL

Use gloves when handling this plant to avoid being poisoned. For small sites, pull or dig up plants and remove entire root. A key principle to poison-hemlock control is preventing seed production. Do not leave flower heads on the ground as the seeds may remain viable. Composting is not recommended; instead place in a plastic trash bag and discard with your regular garbage. Wear gloves and wash your hands thoroughly after handling plant matter. Spraying actively growing plants is an effective control method. Mowing is not effective because plants regrow after being cut. Once controlled, plant desirable species on site to discourage weeds from reestablishing. Monitor for new plants from seed bank the following year. **Please report all populations of this plant to the county weed program so we can prevent it from spreading.**



Policeman's Helmet

Impatiens glandulifera

Class B Noxious Weed – Control Required

DESCRIPTION

Annual that grows three to eight feet tall. Stems are smooth, watery, hollow, and purple-tinged. Leaves are broad, saw-toothed on edges, and are oppositely arranged or whorled three to a node. The pale pink to purple flowers resemble the shape of an English policeman's helmet. This escaped garden plant invades streamsidings and wet areas where it dominates native plant communities.



CONTROL

For small sites, pull or dig up plants, making sure to get the entire root. Policeman's helmet is an annual plant with relatively shallow roots that can be pulled easily during all life stages. However, make sure to remove all of the root or it will regrow. If leaving the plants on a tarp, crush the stems by walking on them to prevent regrowth. If the plant is in seed, carefully place a plastic bag around the entire flower head cluster to prevent the seeds from escaping, then pull the roots out. Discard in trash. **Please report all**

populations of this plant to the county weed program so we can prevent it from spreading further.



Purple Loosestrife and Garden Loosestrife

Lythrum salicaria and *Lysimachia vulgaris*

Class B Noxious Weeds – Control Required

DESCRIPTION

Rhizomatous perennials usually found in moist or marshy areas. Both species are vigorous competitors and crowd out native vegetation.

Purple Loosestrife: Square stems and showy purple-magenta flower spikes. Flowers are small and numerous with 5-7 petals, growing in densely packed spikes. Leaves are opposite, lance-shaped to oblong and have smooth edges. Reproduces by seed and can form up to 2.7 million pepper-size seeds per plant.

Garden Loosestrife: Showy, bright yellow flowers grow in clusters near the top of the plant. Flowers have five petals that are joined at the base. Leaves are lance or egg-shaped and usually three in a whorl (sometimes 2 or 4). Stems are round and softly hairy.

CONTROL

Small infestations can be dug up, bagged and disposed of, taking care not to disperse seeds. A key principle to loosestrife control is preventing seed production. When removing loosestrife plants, all plant parts and root ball must be discarded in trash or transported to a landfill in plastic bags or in an enclosed or securely tarped vehicle. Due to the highly invasive nature of loosestrife, composting is not a disposal option. Remove as much of the root system as possible, broken roots may sprout new plants. Brush off boots and clothes before leaving the infested area. Herbicides are also an effective control method but only use aquatic herbicides and obtain required permits for using herbicide near water. **Please report all populations of these species to the county weed program so we can prevent them from spreading further.**

Purple Loosestrife



Garden Loosestrife



Scotch Broom

Cytisus scoparius

DESCRIPTION

Tall shrub with green, ridged and angled stems, bright yellow flowers and tiny oval leaves. Produces pea-type flowers and hard seed pods that burst open when mature. Reproduces by seed. Over 10,000 seeds can be produced per plant and seeds can remain viable in the soil for up to 60 years. Highly aggressive and forms dense, single species stands that reduce wildlife habitat and hinder reforestation of upland sites and wetland buffers. Highly flammable and can create a fire hazard.

CONTROL

Plants shorter than three feet can be hand pulled when soil is moist. Larger plants can be wrenched out with specially



designed weed tools which are available to borrow from the Noxious Weed Control Program. Cutting large plants near ground level where the stem is brown or yellow during the dry season (August-September) will kill most plants. Those that survive can be pulled or sprayed when they regrow. Take care to avoid spreading mature seed pods to uninfested areas. Selective herbicides are also an effective control method. Establish a healthy grass cover to reduce weed seed germination and continue to monitor the site.



JENNIFER ANDREAS

Spotted Knapweed

Centaurea stoebe

Class B Noxious Weed – Control Required

DESCRIPTION

Short lived perennial, deeply taprooted, and reaching up to five feet tall when in flower. Flower heads are small, oval with purple to pinkish flowers. Bracts (found under the flower head) have black triangular spots. Green-grey leaves are sparse and deeply lobed. Reproduces by seeds, which may remain viable in the soil for up to eight years. Crowds out desirable native and forage plants with its aggressive growth, threatening wildlife habitat and degrading pastures.



CONTROL

Small populations can be hand pulled or dug up, making sure to remove as much root as possible. Bag up and discard plants in flower or seed. A key principle to spotted knapweed control is preventing seed production. Selective herbicides are an effective control method. Healthy grass cover will reduce weed seed germination. **Please report all populations of this plant to the county weed program so we can prevent it from spreading further.**



BENLEGLER



Sulfur Cinquefoil

Potentilla recta

Class B Noxious Weed – Control Required

DESCRIPTION

Perennial with stout, hairy, leafy, mostly unbranched stems, reaching up to three feet tall. Pale yellow flowers with five heart-shaped petals surrounding a darker yellow center. Leaves palmately lobed with five to seven narrow leaflets, uniformly toothed along the edges. Reproduces primarily by seed but can spread by roots if moved by mechanical equipment. Deep taproot surrounded by shallow, spreading side roots that regenerate annually. Seeds can remain viable in the soil four or more years. Individual plants can live up to 20 years. Highly invasive and takes over all types of habitat, except full shade.

CONTROL

Sulfur cinquefoil is difficult to control once established. A combination of treatments and revegetation may be needed to control populations. For small patches, pull or dig up plants and remove as much root as possible. If the plant is in seed, carefully bag and cut off the seed heads before digging up the rest of the plant. Selective herbicides are also an effective control method. Healthy grass cover or other suitable vegetation will help suppress weed seed germination.

Please report populations of this plant so we can prevent it from spreading.





Tansy Ragwort

Jacobaea vulgaris

Class B Noxious Weed – Control Required

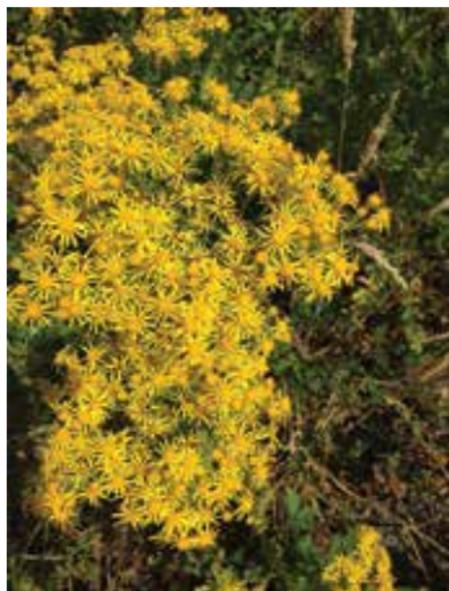
DESCRIPTION

Poisonous to cattle, horses, some goats, pets and people.

Biennial or short lived perennial. Young plants have a low growing basal rosette of ruffled leaves, often with reddish stems. Mature plants produce leafy flowering stalks, generally 2 to 4 feet tall. Flowers are daisy-like with 13 yellow petals and a yellow center. Leaves are dark green on top, whitish-green underneath, with deeply cut, blunt-toothed lobes. A single plant can produce up to 150,000 seeds. Seeds are spread by wind, water or mowing and may remain viable in soil for 10-16 years. Often confused with common tansy (*Tanacetum vulgare*), which has button-like flowers with no petals and flattened, fern-like leaves (see page 12).

CONTROL

A combination of treatments and revegetation may be needed to control populations depending on the site. A key principle to tansy ragwort control is preventing seed production. Dig up or pull the whole plant including roots. Flowers will go to seed after pulling, so bag and discard flower stalks in garbage. Do not mow tansy ragwort when it is flowering because it will form seeds and spread. Mowing is only a temporary control. Plants will reflower shorter after mowing so it is not an effective method of control. **Plants are toxic when fresh and when dry.** Selective herbicides are an effective control method. Good pasture management keeps out unwanted plants. Reseeding areas with fast growing grasses can establish competition and reduce tansy ragwort seed emergence. **Please report all populations of this plant so we can prevent it from spreading further.**



Yellow Archangel

Lamium galeobdolon

DESCRIPTION

Fast growing perennial evergreen groundcover with distinct silvery-green leaves. Can be trailing or upright. Stems have four sides. Leaves oppositely arranged, oval shaped, toothed, and hairy with typically variegated silvery-gray markings. Flowers are small, yellow, and grow in pairs on upright stems held above the leaves. Spreads by stem fragments, rooting at nodes, and by seed. When it is dumped with yard waste or escapes from plantings, it spreads quickly into forested areas and out competes native understory plants.

CONTROL

Yellow archangel is very difficult to eliminate once it is established. A combination of treatments and revegetation may be needed to control populations.

Herbicides are somewhat effective but surviving plants will need to be re-sprayed.

Complete control may take

several years. Replant forest with suitable, native or non-invasive plants. Plants can also be dug up or pulled up by the roots, but all plant material must be removed. Sift through soil carefully to find all roots and stem fragments. Cutting alone will not control this plant. Dense infestations can be controlled by sheet mulching although it is crucial to control any escaping plants and to regularly check for holes in the covering material. Because yellow archangel spreads readily by stem cuttings, it is very important to discard plant material in such a way as to prevent spreading. **Never dump clippings in parks or natural areas.**



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NOTES

PRODUCTION CREDITS

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Noxious Weeds in King County, Washington



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