Starflower Foundation
Habitat Restoration
WEED
Identification Cards
for the Pacific Northwest
For the Field Identification of
Weed Species of Concern
in the Pacific Northwest
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Developed by Heidi Bohan, et. al.

**History**

Starflower Foundation was founded in 1996 by Ann Lennartz with the mission of assisting with the creation, rehabilitation and stewardship of Pacific Northwest native plant communities by supporting citizen-driven restoration and education projects that inspire understanding, appreciation and preservation of Pacific Northwest native ecosystems, with humans as an integral part of these ecosystems. Over its 10-year history, Starflower worked on 18 urban habitat restoration projects in Seattle, Washington. A core of committed volunteers, with the vision of restoring an area of their neighborhood park or school grounds with Pacific Northwest native plant communities, was at the center of each project. As an operating foundation, Starflower supported design, implementation, and maintenance services. During all phases of the projects, the foundation pursued a restoration strategy to fast-track the successional process and strove for a high level of species diversity. Each project featured a significant educational component.

A list of the projects follows:

Seventeen public parks: Colman, Frink, Genesee, Greg Davis, Madrona Woods, Magnuson, Mee Kwa Mooks, Pritchard Beach, Roxhill and Seward.
Elementary schools: Dearborn, Dunlap, Hawthorne, Northwest Montessori, Pathfinder, Roxhill, and Sanislo
Middle schools: Environmental & Adventure School, and Washington Middle School

These Habitat Restoration Weed ID Cards for the Pacific Northwest were developed by Starflower Foundation to assist with long-term stewardship of the projects and to promote Pacific Northwest native plant landscapes and stewardship. The species list for these cards comes from our experience with Seattle urban habitat restoration projects where the goal was to create self-sustaining Pacific Northwest native plant communities. Valuable feedback from the stewardship community shaped the size, content, and layout of these cards.

The images on these cards focus on seasonal, key field identification characteristics. The card for each species may be downloaded and printed individually from the Washington Native Plant Society’s website at www.wnps.org. The files are intended for color printing, preferably using a laser printer to obtain the highest quality prints. Laminating the cards is recommended for long-term use in the field.

**Credits**

We thank Heidi Bohan for her excellent work in developing these cards. In addition, our sincere thanks go to the following Starflower staff and interns for their contributions: Chris Behrens, Sindy Fry, Griffith Gilbert, Scott Groce, Sonja Lutring, Megan MacClellan, Jeremy Valenta, Cynthia Walcker, and Anne Yen. Thanks also to Jim Kolb for his guidance and editing.

**Legal Use**

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Habitat Restoration Weed ID Cards

These cards are intended for use on native plant habitat restoration sites in the Seattle urban area to assist in identifying plants to be removed during weed management stewardship activities. This list has been compiled over 10 years of project stewardship experience at Seattle parks including Genesee Meadows, Pritchard Beach, Greg Davis, Roxhill, Colman, Magnuson, Madrona Woods, Dearborn and Seward Park. This set of cards includes the most common and important weeds, however, it is not comprehensive and other resources may be needed to identify less common weeds.

Each card includes the following information:

- **Color images:** Images of the plant in young and mature stages, its form and flowering structures, and key identifying field characteristics most useful to identify these plants. Associated text helps describe the focus of the image.
- **Management strategies:** see cover pages 2-3
- **Form:** Includes shape and configuration information. The definition of terms includes:
  - Rosette: A generally symmetrical, flat arrangement of leaves from a single starting point, like a flower. Common with biennials as first year form.
  - Basal clump: Similar to a rosette, but not symmetrical or flat, with leaves arising from a common point forming a compact mound or clump.
  - Basal clump or rosette with single or branched stalk: Flowering stalks arising from a basal clump or rosette. Often the second year form of biennials.
  - Spreading clump: Leaves and stems arise from a spreading clump, generally found in plants that spread by rhizomes or stolons (see cover page 2).
  - Single or branched stalk: Plant arises from the ground in a single or branched stem. Stalks can be nearly leafless to leafy, and generally support flowers.
- **Vine:** A plant having a flexible stem supported by climbing, twining or creeping along a surface.
- **Native or Non-native Look-alikes:** This box is an alert to be aware of plants which are commonly mistaken for the target species, particularly during weeding stewardship. For more detailed information refer to Plants of the Pacific Northwest Coast by Pojar and Mackinnon, Wild Plants of Greater Seattle by A.L. Jacobson, or other resources.

The ‘Management Strategies’ information box provides information helpful in prioritizing weeding efforts and techniques for removal. Weeds should be removed as soon as they can be accurately identified. In some cases this may not be possible until they have formed a flower or seedhead. Removal of seedheads is the primary goal so that they do not spread into uninfested regions.

**Noxious Weed Status:** Where applicable, we have included designations for plants which are on the Washington State and King County Noxious Weed lists.

- **Eradication required by law (Class A):** Non-native, invasive species whose distribution is still limited. Eradicating existing infestations and preventing new infestations are the highest priority.
- **Control required by law (Class B):** Non-native, invasive species which are abundant in portions of Washington state. Prevention and containment of these weeds is the primary goal so that they do not spread into uninfested regions.
- **Non-designated Noxious Weeds:** Non-native, invasive species whose control is recommended by King County Noxious Weed Control, but is not required.
- **Weeds of Concern:** King County recognizes these weeds as invasive and recommends control and discourages plantings.

For more information:
- Washington State Weed Control Board: www.mnch.wa.gov
- King County Noxious Weed Control: http://dnr.metrokc.gov/Weeds

**‘Always Remove’**

We have included this recommendation for plants whose invasiveness and potential for ecological damage warrants the highest priority for removal and prevention of establishment. Generally these are plants whose rhizomes, stolons or seeds are so persistent and/or aggressive that once established they will require a concentrated effort for permanent removal. If these weeds are present on a new restoration, all efforts should be made to fully eradicate prior to planting.

**‘Primary spread’**

This information helps to identify the primary ways in which this plant reproduces and spreads. This information is useful in scheduling removal and planning removal methods.

- **Seed:** This plant spreads broadly by seed. Carefully remove seedheads prior to formation of seeds. If seeds have formed, carefully contain seeds while handling during removal.
- **Stolons:** These are stems that spread horizontally and root where nodes touch the soil. The parent plant often provides nourishment until the new plant is fully established. These plants often form dense colonies. Fragments of stolons can root and form new plants.
- **Rhizomes:** These plants have stems and roots which spread underground, emerging at a distance from the parent plant to establish as new plants, which then send out new rhizomes. These plants tend to form large colonies.
- **Taproot:** These plants have thickened roots that extend down into the ground, sometimes branching into forked roots. These taproots store food and if they are not fully removed can form new plants.
- **Bulbs and Corms:** These plants have thickened stems that form rounded structures that store food and energy through the dormant season and produce new leaves and roots in the next growing season. They multiply by dividing into smaller bulbs and corms which produce new plants.

**Note:** Important information relevant to weed management.

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Weed Disposal

Thorough weed management includes proper disposal of weeds after removal. When planning weeding stewardship on public lands it is necessary to work with appropriate agencies to create a plan for the disposal of the weeds (see the Code below). Problem weeds are successful because they are highly adapted for survival, often reproducing effectively by more than one means, under adverse and varied conditions. Seeds can remain viable for many years, and many thickened roots, rhizomes and stolons can remain dormant and grow upon re-exposure to growing conditions, sometimes even after a long period of time. Proper disposal is critical.

Class A & B noxious weeds should be put into plastic trash bags and disposed of in the regular garbage (not the clean green yard waste or composted). Weeds of Concern or Non-Designated Noxious Weeds may be composted or put into clean green recycling. Composting at high heat (130 degrees or higher) will kill most weed seeds and decompose vegetative matter. Placing weeds in low piles on impervious surfaces and covering entirely with black plastic during the summer can kill and decompose most vegetation.

Washington State Code 16-752-515: No permit is required to transport plants or plant parts, as a part of a noxious weed control activity, to a sanitary landfill, to be burned, or otherwise for disposition, if such activities are conducted under the supervision of an official weed control agency or other public agency with management responsibilities for the control efforts and are conducted in such a manner that seed dispersal or dispersal of propagative materials to uninfested areas is prevented.