

A Snapshot of Spread Locations of Invasive Plants in Southeast Alaska

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Photo 1. Typical roadside ecosystem of Southeast Alaska with muskeg adjacent. This is a likely site for an invasive species, such as orange hawkweed, to invade as it moves from the road corridor. Photo from Mitkof Island, Reservoir Road.

Exotic plants are those that are not native to a specific region. Many areas of the country have been infested by invasive plants (a small subset of these exotic species) over the last 100 years. Thankfully, due to relative isolation and limited transportation into the region, few of these species have established in Southeast Alaska. With increased ease of transportation, more of these species have arrived, and are now spreading throughout Southeast Alaska. The Forest Service, in cooperation with several partners, has conducted surveys over the last 4 years to understand:

- Which invasive plant species have become established within SE Alaska?
- What is the abundance and distribution of these species at a broad scale?

This document is a summary of the location and distribution of selected invasive plants in Southeast Alaska. Instead of displaying all 135 exotic species found in these surveys twenty-six species are described and displayed in this document. These species were selected because of their greater invasiveness and wider distribution.

The survey methods differed depending on the intended level of intensity of the survey. In the Ketchikan vicinity and on Prince of Wales, Kupreanof, Mitkof, and Wrangell Islands, intensive surveys were conducted on the road systems. A survey point was made every ¼ mile along roads and at all campgrounds, rock pits and other high use areas to assess all exotic plant species. (See Figure 1) This same inventory approach will be implemented in northern Southeast Alaska in 2007. These surveys were supported by USDA Forest Service, State & Private Forestry and the National Forest System. Other reconnaissance surveys have been funded by Fish and Wildlife Service, the National Park Service, State & Private Forestry, and the individual Ranger Districts of the Tongass National Forest. The Sitka Conservation Society conducted resonance surveys (funded by State & Private Forestry) in 2003-2004 within communities to document the presence or absence of 15 non-native species. In total over 33,000 survey points have been made across Southeast Alaska.

The following 26 invasive plants (organized by family) are or are very likely to become aggressive invading species in Southeast Alaska. Most of these plants have been ranked according to their threats to Alaskan ecosystems by the Alaska Natural Heritage Program (funded by State and Private Forestry), although several plants are awaiting an official rank. The ranking process takes into account documentation of each plant species, including climatic comparison of Alaska's climates to climates where the plant is known to thrive, biological characteristics and dispersal ability of the plant, the plant's distribution, and feasibility of control. Plants are then ranked on a scale of 0-100, 100 having the highest invasiveness rank. The complete interpretation of ranking and additional information about each plant can be found at <http://akweeds.uaa.alaska.edu/>. This site also offers information about additional plant species, how to identify these plants, and the complete state-wide invasive plant database for Alaska.

Table 1: Highlighted Invasive Plant Occurrence and Management Status for Southeast Alaska

This table lists name, distribution by community and a recommended action or status. This list of 26 plants was derived from the list of 135 total exotics in SE AK. These plants were chosen based on their invasiveness ranking and abundance in the region

Plant Species	Rank 0-100 (low - high)	Gustavus	Haines	Hoonah	Juneau	Kake	Ketchikan	Petersburg	POW	S. Admiralty	Sitka	Skagway	Wrangell	Yakutat
Spotted knapweed	86	○	●	○	○	●	●	○	●	○	○	○	○	○
Orange hawkweed	79	○	U	○	■	○	■	■	■	○	●	○	■	○
Meadow hawkweed	79	○	○	○	■	○	■	■	●	○	○	○	●	○
Mouseear hawkweed	*	○	○	○	○	○	○	○	●	○	○	○	○	○
Common hawkweed	*	○	●	○	○	○	○	○	○	○	○	○	■	○
Canada thistle	76	○	■	○	○	○	●	●	■	○	●	○	●	○
Tansy ragwort	63	○	○	○	○	●	■	○	■	○	○	○	●	○
Bull thistle	61	●	●	○	○	○	●	○	○	○	○	○	●	○
Ox-eye daisy	61	■	■	■	■	■	■	■	■	○	■	■	■	■
Perennial sowthistle	61	○	●	■	■	○	■	○	●	●	○	○	○	○
Common tansy	57	U	●	○	●	●	○	●	■	○	■	●	●	○
Spotted catsear	*	●	○	●	○	■	■	■	■	○	●	○	■	○
White/Yellow sweetclover	82/65	○	■	○	●	●	○	■	●	○	○	■	●	○
Scotch broom	69	○	○	●	○	○	●	●	■	○	●	○	○	○
Black medick	48	○	○	○	○	●	●	○	■	○	○	○	○	○
Garlic mustard	70	○	○	○	●	○	○	○	○	○	○	○	○	○
Sweetrocket	*	○	○	○	■	○	●	○	○	○	○	○	●	○
Japanese/Giant knotweed	87	○	○	●	■	■	■	■	●	○	■	○	■	○
Purple loosestrife	84	○	○	○	○	○	○	○	○	○	○	○	○	○
Reed canarygrass	83	■	■	■	■	■	■	■	■	●	■	○	■	■
Ornamental jewelweed	82	○	■	○	●	○	○	○	○	○	○	○	○	○
Herb-Robert	*	○	○	○	●	●	○	○	○	○	○	○	●	○
Himalayan blackberry	77	○	■	○	○	○	●	○	○	○	■	○	○	○
Yellow toadflax	69	○	○	○	●	○	○	○	○	○	○	■	○	○
St. Johnswort	52	○	○	●	○	○	●	●	■	○	■	○	○	○
Hempnettle	40	○	■	●	■	●	○	○	○	●/■	■	●	○	○

*currently not ranked

○ -Prevention (when not yet found in area)

● -Early Detection/Rapid Response (EDRR) if there are only a few small populations

■ -Control when the species is already locally abundant

U – Undersurveyed, management approach not yet determinable

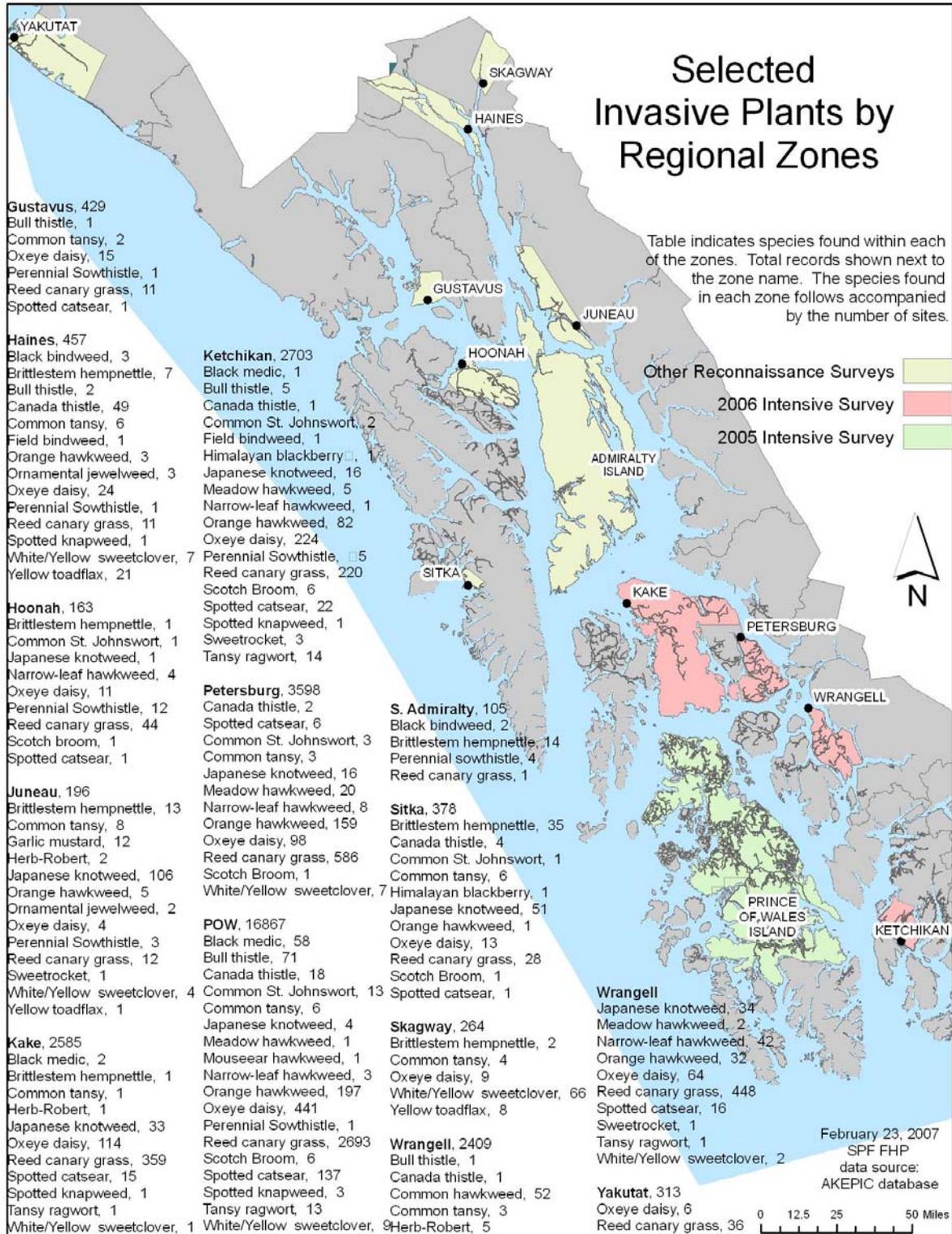


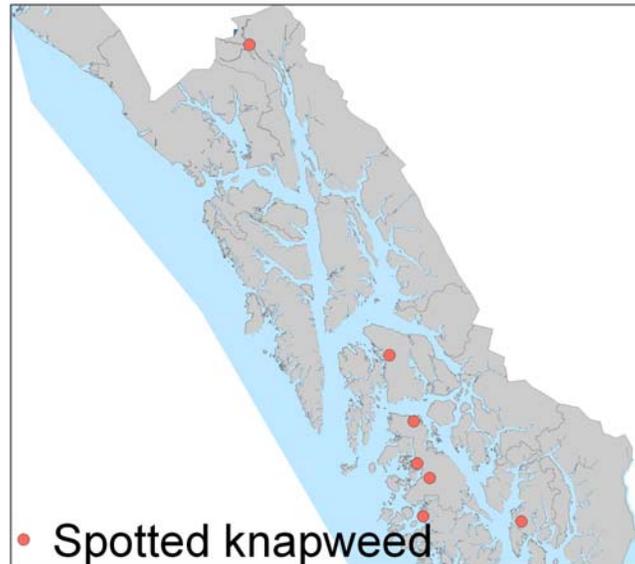
Figure 1: Invasive Plant Inventory Results for Southeast Alaska

Selected species are highlighted on the map for the communities (and road systems) indicated. The total number of records for each community and road system is displayed after the name and the number of sites for each species is listed after the plant name. The light tan shading indicates where reconnaissance level inventory has taken place. The light green and pink show where the much intensive road inventories have occurred.

Sunflower Family
Spotted knapweed

Centaurea biebersteinii

Rank 86



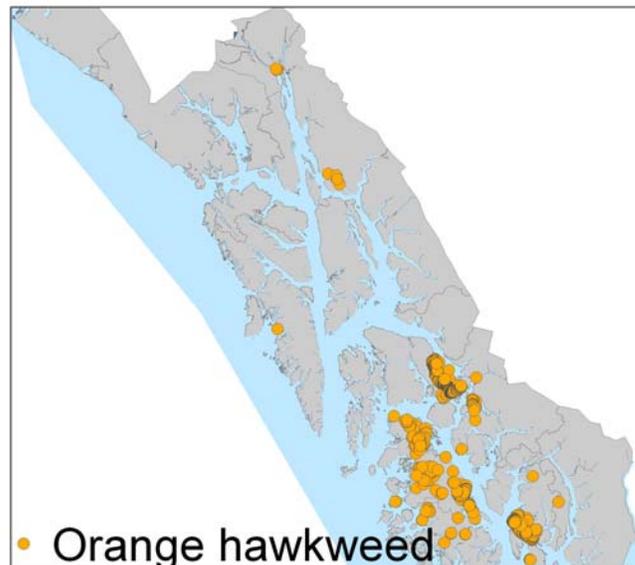
This species is currently found in Haines, Kake, Ketchikan, and Prince of Wales Island along roads.

This species is an enormous problem in the western region of the contiguous United States. It is known to invade riparian areas. Skagway residents found this species in a meadow near Dyea and eradicated it after several years of hand pulling.

Orange hawkweed

Hieracium aurantiacum

Rank 79



Orange hawkweed is spreading along the road systems of Haines, Juneau, Ketchikan, Petersburg, Prince of Wales, Sitka and Wrangell. It is capable of invading dry to wet regions along roads, beaches and rivers, it then can move into meadows where it spreads aggressively.

Non-Native Yellow-flowered Hawkweeds

Meadow hawkweed

Hieracium caespitosum

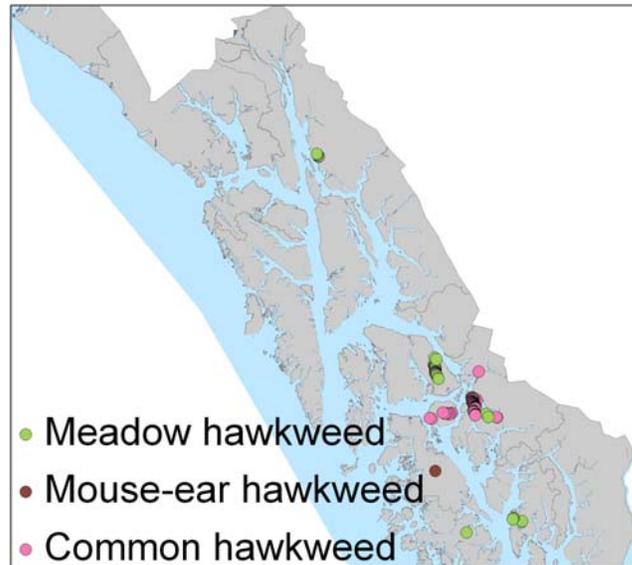
Rank 79

Mouse-ear hawkweed

H. pilosella

Common hawkweed

H. lachenalii



The aggressive meadow hawkweed is found in Juneau, Ketchikan, Petersburg, Wrangell, and on Prince of Wales Island. Mouse-ear populations are known to exist on Prince of Wales Island.

Canada thistle

Cirsium arvense



Rank 76

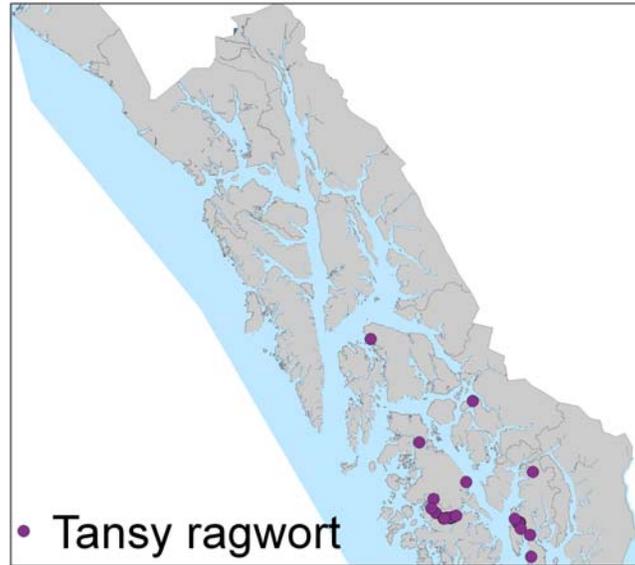
This species is extremely abundant in Haines along nearly every street in town as well as within beach meadows. Less common in the rest of Southeast Alaska, it is still moving to new locations via weed seed or within the soil of potted plants. Petersburg, Prince of

Wales Island, Ketchikan, Wrangell, and Sitka also have infestations of this invader. This species threatens Southeast Alaska's coastal meadows and riparian areas.

Tansy ragwort

Senecio jacobaea

Rank 63

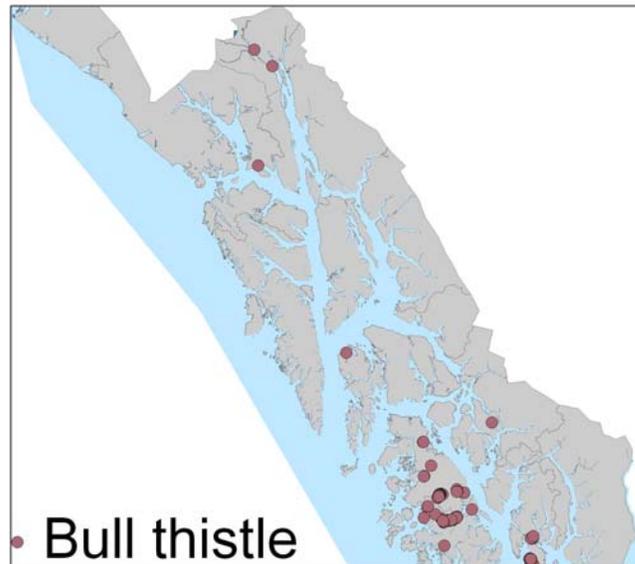


This plant is found in Ketchikan, Kake, Wrangell and on Prince of Wales Island. It is very common in the Ward Cove area of Ketchikan, and is scattered along roads in other locations. This species contains a toxic compound responsible for considerable livestock mortality and threatens invasion of coastal meadows.

Bull thistle

Cirsium vulgare

Rank 63



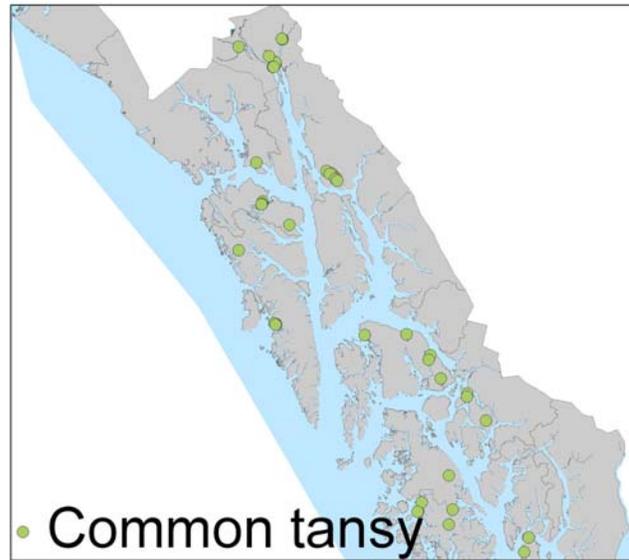
Many sites of bull thistle are known of on Prince of Wales Island, in proximity to Gustavus, Haines, Ketchikan, and Wrangell.

This plant restricts recreational land, decreases land value, and competes with native vegetation for water, space and light.

Common tansy

Tanacetum vulgare

Rank 57

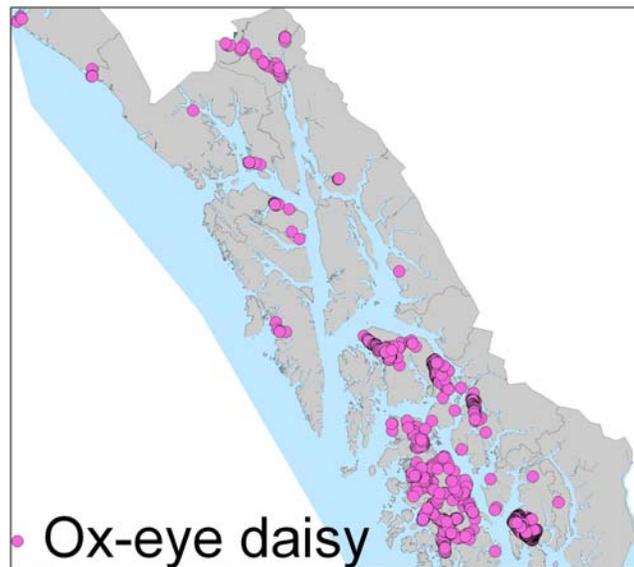


Common tansy has been found near Gustavus, Haines, Juneau, Kate, Petersburg, Sitka, Skagway, and Wrangell and on Prince of Wales Island. It is found on roadsides, river and stream banks, and beach meadows and is mildly toxic to grazing animals.

Ox-eye daisy

Leucanthemum vulgare

Rank 61

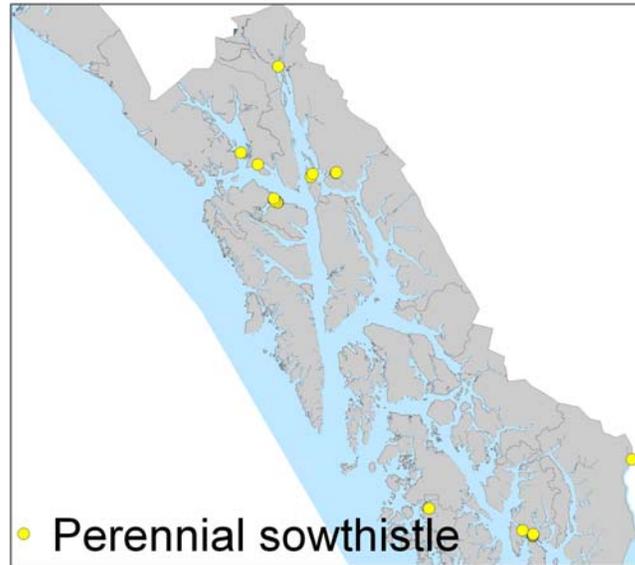


Ox-eye daisy is commonly found throughout Southeast Alaska on roadsides, disturbed areas, beach meadows, and landscaped areas. Frequently, it is a component of wildflower seed mixes. It forms dense colonies, is unpalatable to grazing animals and insects, and hosts several plant viruses. Heavy infestations can cause soil erosion.

Perennial sowthistle

Sonchus arvensis

Rank 61

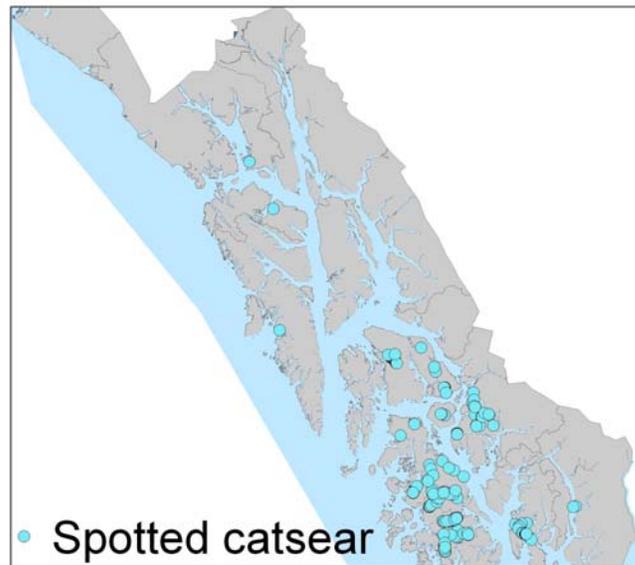


Areas with infestations of sowthistle include Gustavus, Haines, Hoonah, Ketchikan, Juneau, Admiralty and Prince of Wales Island. It is found in waste areas, meadows, woods, lawns, roadsides, beaches, ditches, and river and lake shores. In Southeast Alaska it is invading the beach grass communities above the high tide line: examples are noted on Strawberry Island in Glacier Bay National Park and near Shaman Island in Juneau. This plant is threatening our native beach grass communities.

Spotted catsear

Hypochaeris radicata

not currently ranked

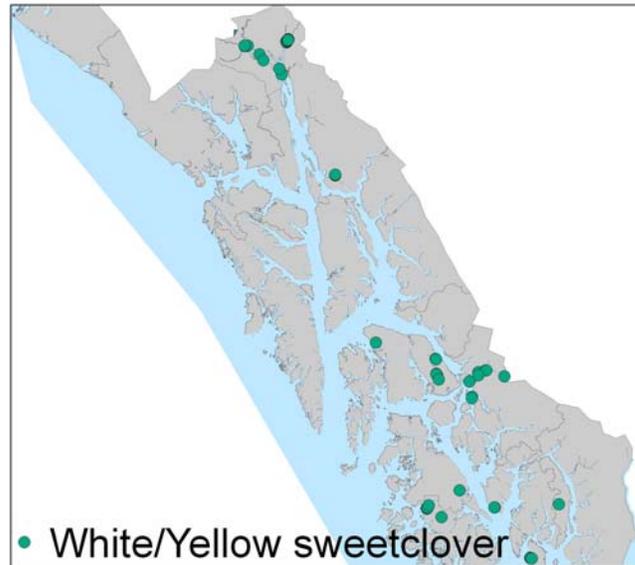


Spotted catsear is found growing in Ketchikan, Kake, Hoonah, Petersburg, Wrangell, Sitka and on Prince of Wales Island. It grows in meadows and gardens, roadsides and other disturbed areas.

Pea Family
White/Yellow sweetclover

Melilotus alba /M. officinalis

Rank 82/65

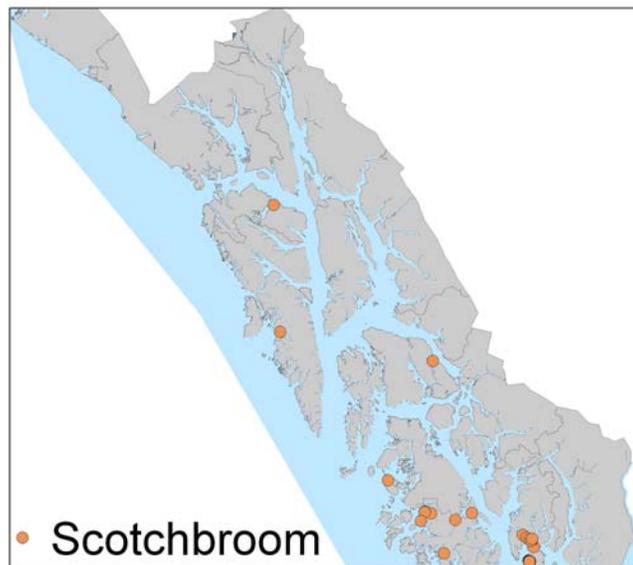


Sweetclover is found along roadsides in several locations. It has also overtaken a large section of the riverbank along the Stikine River in the Stikine-Leconte Wilderness. It forms monospecific stands and spreads quickly along riparian areas, riverbanks and roadways. This plant is an aggressive invader and can alter soil conditions and sedimentation rates.

Scotch broom

Cytisus scoparius

Rank 82/65



This plant is found in Hoonah, Ketchikan, Petersburg, and Sitka and on Prince of Wales Island. This introduced ornamental has escaped cultivation in the Pacific Northwest and colonizes forest edges, clearings and meadows forming dense impenetrable stands where it is known to prevent reforestation and eliminate forage for deer and other herbivores.

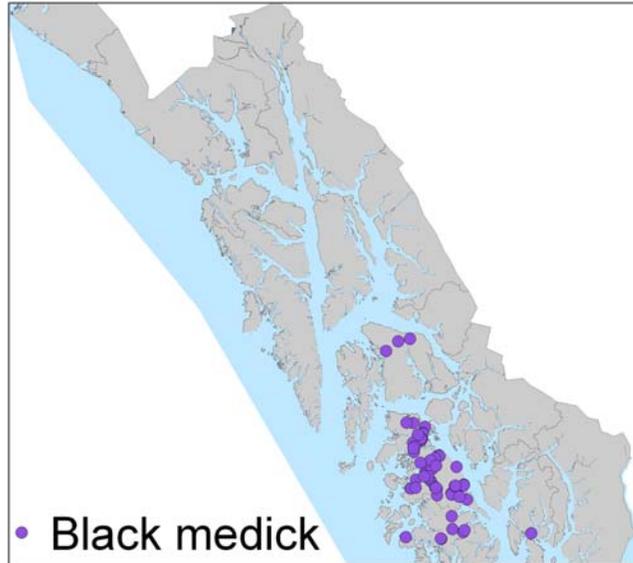
Black medick

Medicago lupulina

Rank 48



Black medick is found on Prince of Wales Island, in Kake and Ketchikan. It is a weed of roadsides and pastures and hosts a variety of plant diseases.



• Black medick

Mustard Family

Garlic mustard

Alliaria petiolata

Rank 70



Currently, there are only two known populations both in Juneau. It thrives on the moist, shaded soil of river floodplains, forests, roadsides, edges of wooded areas, along trails and in forest openings. Garlic is shade tolerant and mustard crowds out understory plants in forested areas, reducing forage for deer and other grazing wildlife.



• Garlic mustard

Sweetrocket

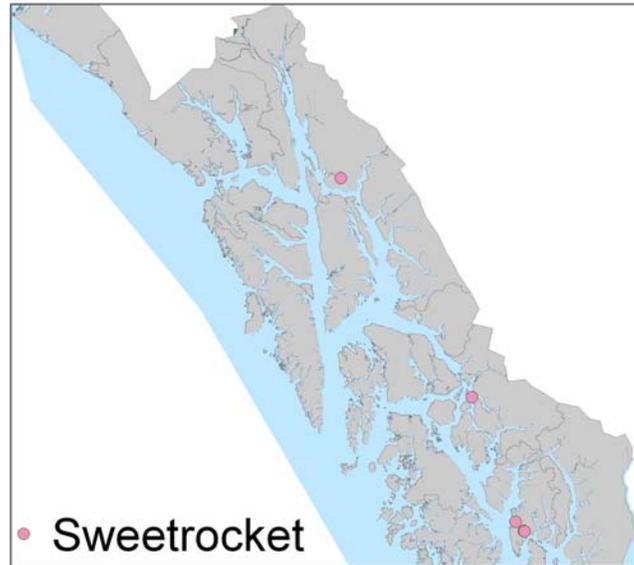
Hesperis matronalis

not currently ranked



Sweetrocket sites are known of in Ketchikan, Juneau and Wrangell.

Commonly it is found as a garden plant, it has also been added to wildflower seed mixes. It has a sweet scent and is a prolific seeder.



Other Families

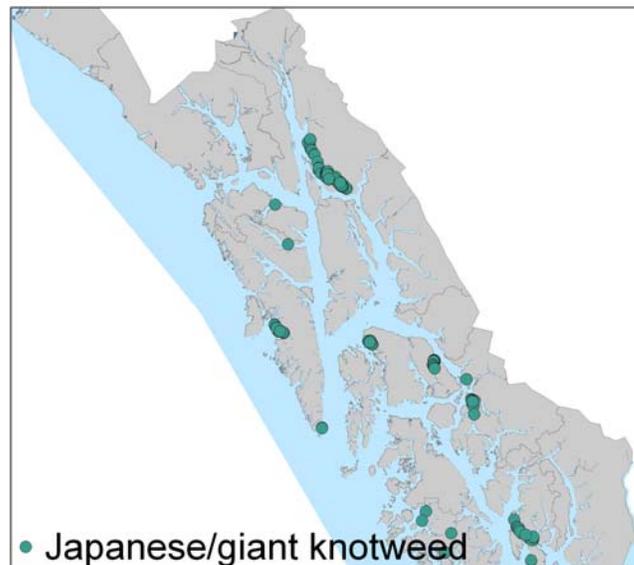
Japanese/Bohemian knotweed
Buckwheat Family

Polygonum cuspidatum/ P. x bohemicum **Rank 87**



Knotweed is found on roadsides, stream banks,

and beach meadows. The major source of spread is due to movement of plant material, seed production is minimal. It has been known to clog waterways and lowers quality of habitat for wildlife, fish and the insects on which fish depend. Residents in Juneau, Sitka, Ketchikan and Wrangell are fighting aggressive populations in the various locations.



Purple loosestrife
Loosestrife Family

Lythrum salicaria

Rank 84

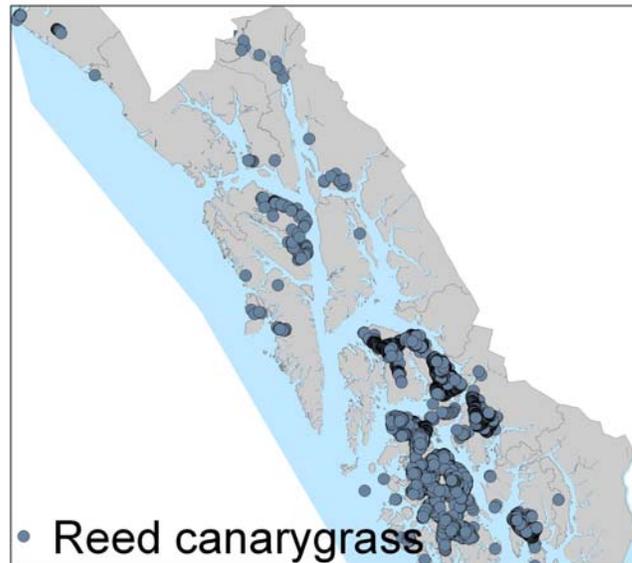


This plant is known to exist in Southeast Alaska but currently the only locations are in cultivated gardens. It invades wetlands streambanks, riverbanks, lake shores, ditches and other disturbed wet areas. Outside of Alaska, important wildlife food plants are often out-competed and shaded out because loosestrife forms a virtually monospecific stand causing native animals to avoid nesting and foraging in these areas.

Reed canarygrass
Grass Family

Phalaris arundinacea

Rank 83



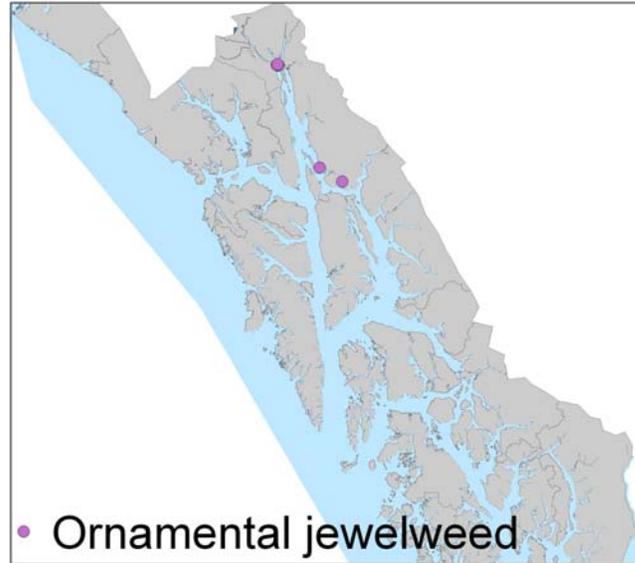
This grass was used throughout Southeast Alaska in road bank stabilization seed mixes. It

is now a recognized highly invasive grass that is invading wetlands in Juneau, Wrangell and on Prince of Wales Island. It is found along roadsides, ditches, wetlands, riparian areas and growing into the edges of lakes. Reed canarygrass forms dense, matted, single species stands and spreads within sites by creeping rhizomes, effectively excluding all other vegetation.

Ornamental jewelweed
Balsam Family

Impatiens glandulifera

Rank 82

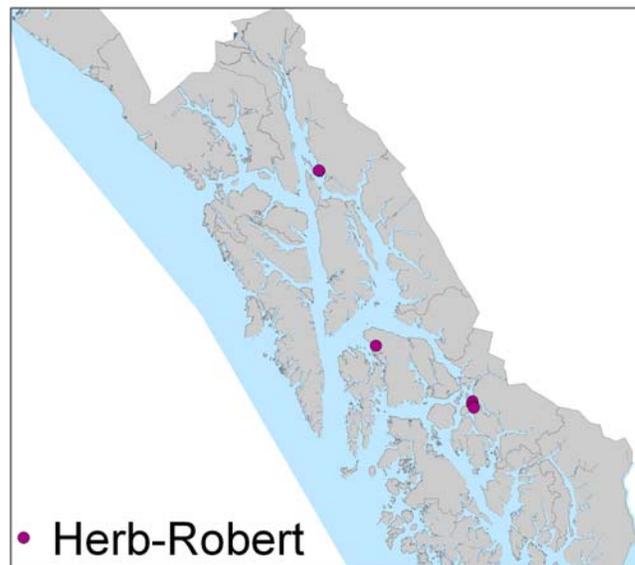


Ornamental jewelweed has been documented in Haines and Juneau. It thrives in riparian zones, and along beach fringes. This is a very attractive plant which is commonly passed around by gardeners unaware of its aggressive spreading tendencies. It is invading an undisturbed beach fringe near Haines.

Herb-Robert
Geranium Family

Geranium robertianum

not currently ranked

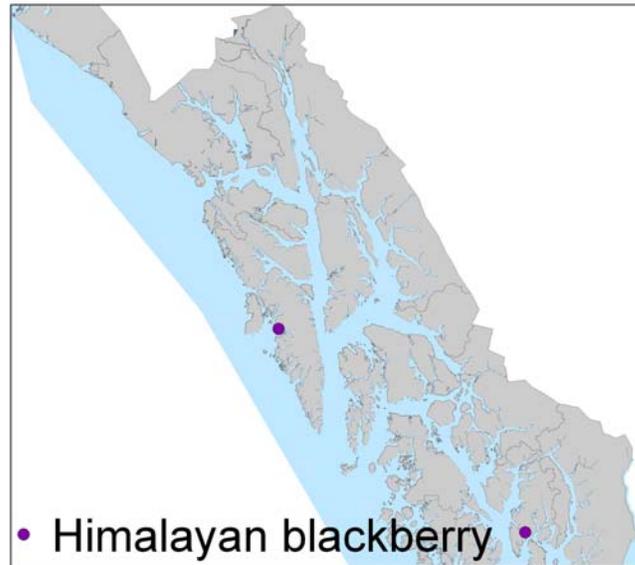
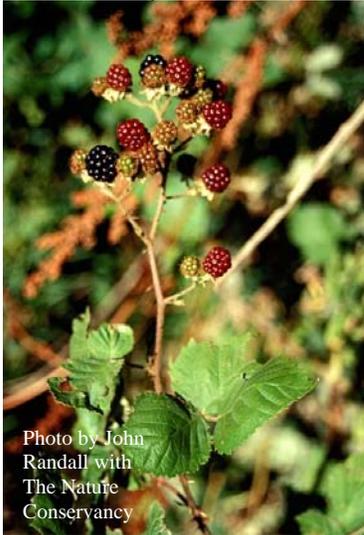


Herb-Robert is known to be spreading near Juneau, Wrangell, and Kake. It can grow in clearings, meadows, forest understory and on rock outcroppings. Due to its shade tolerance, this plant spreads and becomes dominate in the understory of the coastal forests in areas of the Pacific Northwest and is capable of thriving in the Southeast Alaska region as well.

Himalayan blackberry
Rose Family

Rubus discolor

Rank 77

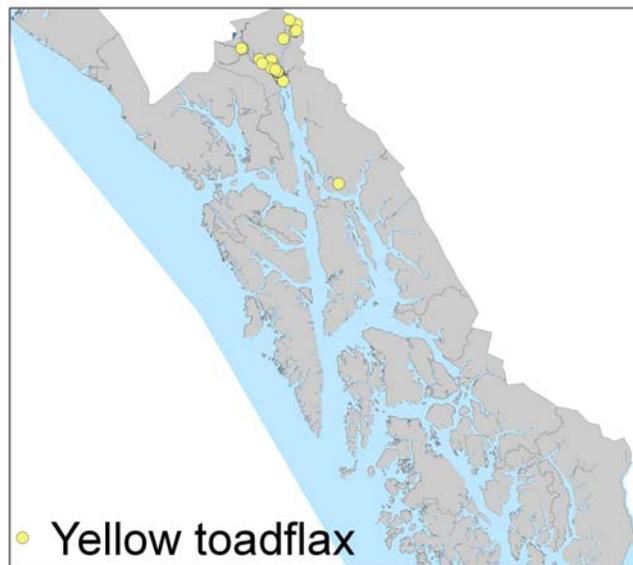


Two populations have been located in Southeast Alaska; one in Sitka and one in Ketchikan. It is found in disturbed areas. This is an Asian species widely naturalized in disturbed areas and along streambanks throughout the Pacific Northwest.

Yellow toadflax
Figwort Family

Linaria vulgaris

Rank 69

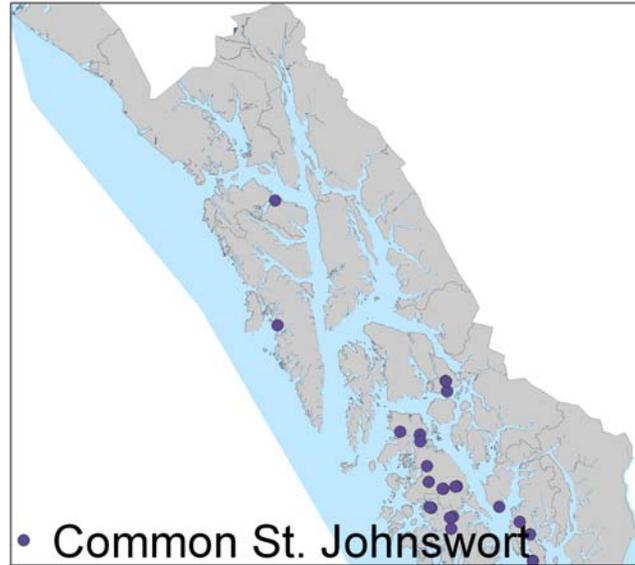


This species occurs along the roadways in Juneau, Haines, and Skagway. It is commonly found in roadsides, waste areas, lake shores, beach meadows, pastures, and edges of forests. Often mistaken by gardeners as a harmless snapdragon flower, this plant is an aggressive invader capable of forming dense colonies.

Common St. Johnswort
Mangosteen Family

Hypericum perforatum

Rank 52

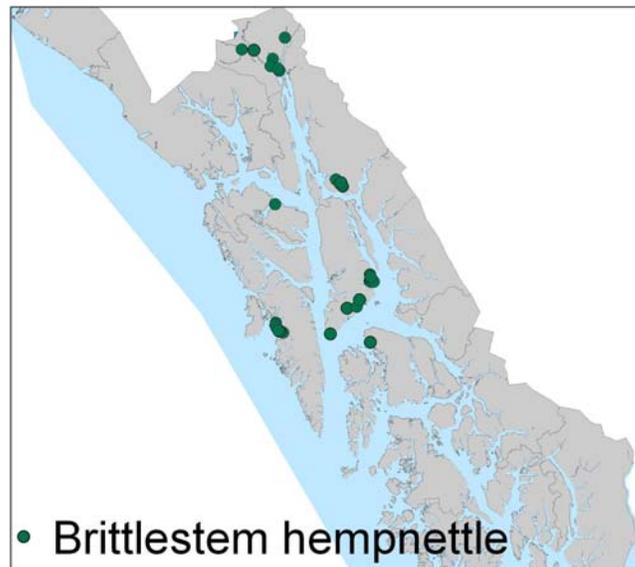


Locations of St. Johnswort in Southeast Alaska include Hoonah, Ketchikan, Petersburg, Sitka and Prince of Wales Island. It is commonly found along roadsides and in disturbed areas.

Brittlestem hempnettle
Mint Family

Galeopsis tetrahit and *G. bifida*

Rank 40



This species is found in Hoonah, Juneau, Sitka, and on the beaches of Admiralty Island. It grows on disturbed sites, riparian areas, forest edges, meadows and beaches.



Photo 2. The pappus covered seeds of Canada thistle are designed to be easily carried by the wind long distances. The above picture illustrates the dangerous amount of seed that is carried along this beach in Haines.

