CARROT FAMILY (APIACEAE)

Giant hogweed • Heracleum mantegazzianum

Invasiveness Rank: 81 points

General Information:

Biennial or perennial 3-4.5 m tall Typically die after flowering

Description:

Stems

- Hollow
- Reddish spots
- Bristles

Leaves

• Compound

Inflorescence

- Umbels up to 75 cm in diameter
- Flowers small and white

Fruits

• Flat, oval, dry

Habitat: damp locations, along rivers and streams, disturbed areas including waste places and roadsides **Distribution:** Pacific maritime; only one population known in Kake, which appears to have been eradicated.





Comparison to native *H. maximum:*

	Height	Umbel Width	Leaves
H. mantegazzianum	< 4.5 m	< 75 cm	Compound
H. maximum	< 1.8 m	<30 cm	Palmately lobed

Species Code: HEMA17

TOUCH-ME-NOT FAMILY (BALSAMINACEAE)

Ornamental jewelweed • Impatiens glandulifera

..... Invasiveness Rank: 82 points

General Information:

0.9-1.8 m tall Entire plant has purple or reddish tinge

Description:

Stems

• Hollow

Leaves

- Mostly opposite or whorled •
- Serrated margins •
- Petioles with large glands

Inflorescence

- White, pink, red or purple •
- With a 4-5 mm long spur

Fruits

Dehisce explosively (ripe seeds shoot out when • touched)

Habitat: riparian areas, wetlands, beach meadows; escapes from gardens

Distribution: few sites in the Pacific maritime and interior boreal regions; Kenai, Anchorage, Juneau, Skagway, Haines; in and near Fairbanks and Salcha

Touch-me-not • *Impatiens noli-tangere*

General Information:

0.2-0.8 m tall Smaller than I. glandulifera

Description:

Stems Watery to fleshy •

Leaves

- Alternate
- Margins coarsely toothed

Inflorescence

- Yellow-orange with brown spots •
- With a 6-10 mm long spur

Fruits

• Dehisce explosively

Habitat: moist forests and stream banks **Distribution:** Pacific maritime and interior boreal regions





Species Code: IMGL

OTHER FAMILIES

Key to select common, small, blue-flowered species:

1a. Alternate leaves and round stems	Boraginaceae			
2a. Annual or biennial, fruit with nutlets with hooked prickles	Lappula			
3a. 2 rows of prickles on nutlet	L. squarrosa			
3b. 1 row of prickles on nutlet				
2b. Perennial				
4a. Up to 10 cm tall, nutlets with jagged prickles on the margins	Eritrichium			
4b. Up to 40 cm tall, smooth nutlets	Myosotis			
* Calyx densely covered in hairs, which are all appressed	d in one			
direction				
* Calyx with spreading hairs	M. asiatica			
1b. Opposite leaves				
5a. 5 petals and sepals, 2 stamens, fruit is a capsule with seeds	Veronica			
	(Plantaginaceae)			
5b. 4 or 5 petals, 4 or 5 stamens, fruit is a nutlet, stem square or angledLamiaceae				



Mertensia paniculata (Boraginaceae)



Myosotis scorpioides (Boraginaceae)



Veronica spicata (Plantaginaceae)

KEY TO SOME COMMONLY FOUND SMALL, BLUE-FLOWERED SPECIES

European stickseed • Lappula squarrosa

syn. Lappula myosotis

Invasiveness Rank: 44 points Species Code: LASQ

General Information:

Annual Perennial Up to 60 cm tall

Description:

Annual or biennial; bristly herb Leaves

- Narrowly lanceolate to oblanceolate
- Hairy

Inflorescence

• 5 small, pale blue petals

Fruits

• Nutlets with 2 distinct rows of prickles



Habitat: mostly wet areas; roadsides, waste areas, cultivated fields **Distribution:** frequent throughout Pacific maritime and interior boreal regions; northernmost infestation in Circle, westernmost in Anchorage, easternmost along the Alaska Hwy east of Northway Jct. In southeast Alaska, it has only been reported from Gustavus.

Remarks: Native *Lappula occidentalis* (flatspine stickseed) has only 1 row of prickles and occurs on mesic to dry sites in alpine and subalpine meadows across Alaska.





BORAGE FAMILY (BORAGINACEAE)

True forget-me-not • *Myosotis scorpioides*

syn. Myosotis palustris, Myosotis scorpioides var. palustris

Invasiveness Rank: 54 points

General Information:

Perennial 15-60 cm tall Entire plant has inconspicuous, scattered, short, stiff, appressed hairs

Description:

Roots

Rhizomes and stolons

Stems

- Decumbent to ascending
- Mostly unbranched

Leaves

- Lower leaves with little to no stalk
- Upper leaves oblong, elliptical, or lanceshaped, with short appressed hairs or nearly smooth

Inflorescence

- Sky blue to white
- Pedicels 1-2 times as long as the calyx
- Floral tube of the corolla longer than calyxes (unlike native *M. laxa*, in which they are the same length)
- Flower 3-5 mm long, 4-10 mm wide (wider than native *M. laxa*)
- Calyx teeth equally broad and long

• Calyx has appressed hairs that are not hooked Fruits

• Smooth, 4-parted nutlet, egg-shaped

Habitat: mostly wet locations, meadows, ditches, pond edges, swamps; escapes cultivation Distribution: Pacific maritime and interior boreal, including Denali National Park and throughout Anchorage







Species Code: MYSC

BORAGE FAMILY (BORAGINACEAE)

Small-flowered forget-me-not • *Myosotis laxa*

General Information:

Short-lived perennial, sometimes annual 10-40 cm tall Hairs inconspicuous, straight, appressed

Description:

Roots

- Lacking rhizomes and stolons Stems
- Weak, slender, often decumbent Leaves
 - Oblong to lance-shaped
 - 1.5-8 cm long, 3-15 mm wide

Inflorescence

- Pedicels usually longer than calyx
- Petals blue
- Corolla tube equal in length to calyxes (in *M. scorpioides* the corolla is longer)
- Flower is 3-7 mm long, 2-5 mm wide (narrower than *M. scorpioides, or M. sylvatica*)
- Calyx with appressed hairs lacking hooks

Habitat: meadows, ditches, pond edges, swamps; moist to wet areas

Spring forget-me-not • Myosotis verna

General Information:

Annual 5-40 cm tall Hairs short, coarse, spreading to appressed, some hooked

Description:

Roots

• Lacking rhizomes and stolons

Stems

• Branched or unbranched

Leaves

- Lower leaves oblanceolate, somewhat stalked
- Upper leaves oblong to linear; 1-5 cm long, 2-10 mm wide Inflorescence
 - Pedicels often shorter than calyx
 - Petals inconspicuous, white
 - Flower 4-7 mm long, 1-2 mm wide
 - Sepal tube covered with short, hooked hairs; lobes with stiff ascending hairs
 - Flower asymmetric, with two longer lobes and three shorter lobes

Habitat: meadows, grasslands, shrub lands, forest openings; moist to dry areas





BORAGE FAMILY (BORAGINACEAE)

Asian (alpine) forget-me-not • Myosotis asiatica

General Information:

Perennial 3-50 cm tall Tufted, erect clumps Hairs spreading or appressed hairs arising from base, some hooked

Description:

Roots

Lacking rhizomes and stolons ٠

Stems

• Branched several to many times, forming erect clumps Leaves

- Lower leaves stalked, oblanceolate to elliptical; 5-13 cm ٠ long, 2-12 mm wide
- Stem leaves, without stalks, oblong to lance-shaped

Inflorescence

- Calyx teeth are longer than they are broad •
- Pedicels are equal in length to the calyx
- Corollas blue, sometimes white; yellow bulges at the throat ٠

Calyx with ascending to spreading hairs, hooked or straight • Fruits

- Black, smooth, shiny, 1-2 mm long
- With narrow margin on upper half (unlike *M. arvensis* and *M. laxa*, which have a • margin all around.

Habitat and distribution: alpine and subalpine meadows across Alaska; streambanks, rocky slopes, forest openings; mesic to dry sites; higher elevations than non-native M. sylvatica

Key to *Myosotis* species:

1.	Calyces with appressed hairs, lacking hooks
	2a. Corollas 2-5 mm wide, the tube equal to the calyces
	2b. Corollas 5-10 mm wide, the tube longer than calyces
1.	Calyces with spreading hairs, some of which are hooked
	3a. Corollas 4-10 mm wide
	Stems erect, from branching stem-base or short rhizome, forming tight, erect,
	clumps; leaves largest basally, gradually reduced upwards; common at high
	elevationsM. asiatica
	3b. Corollas 1-3 mm wide
	Calyces asymmetric, 2 lobes longer than other 3



Species Code: SYOF

Common comfrey • *Symphytum officinale*

Invasiveness Rank: 48 points

General Information:

Perennial 0.3-0.9 m tall Coarse, stiff-hairs

Description:

Roots

• Taproot

Stems

- Hairy
- Winged

Leaves

- Bases broadly winged
- Large basal leaves with stalk
- Cauline leaves becoming smaller and stalkless toward the top of the plant

Inflorescence

- Leafless, branched cluster
- 5-parted
- Blue to cream colored
- Nodding
- Tubular bell-shaped
- Tube much longer than the lobes
- Stalks have spreading hairs

Fruits

• Black, smooth, shiny nutlet

Habitat: disturbed areas, such as roadsides and abandoned gardens

Distribution: Pacific maritime; throughout southeast Alaska to Glacier Bay and on the Kenai Peninsula





BELLFLOWER FAMILY (CAMPANULACEAE)

Rampion bellflower • *Campanula rapunculoides*

Invasiveness Rank: 64 points

Species Code: CARA

General Information:

Perennial 0.4-1 m tall

Description:

Roots

• Creeping rhizomes

Stems

- Branched
- Reddish

Leaves

- Alternate
- Irregularly toothed

Inflorescence

- Bell-shaped, 2-3.5 cm
- Blue to purple
- Nodding
- One-sided with many flowers

Habitat: abandoned gardens Distribution: Pacific maritime and interior boreal regions, including Anchorage and around Juneau Remarks: Native *Campanula* species can be distinguished by smaller flowers or flowers that are borne singly, and an inflorescence that is not one-sided.



HONEYSUCKLE FAMILY (CAPRIFOLIACEAE)

Tatarian honeysuckle Lonicera tatarica

Invasiveness Rank: 66 points

Species Code: LOTA

General Information:

Shrub Up to 3 m tall

Description:

Stems

• Finely branched

Leaves

- Opposite
- Hairless
- Oval-oblong
- Entire margins
- Round bases

Inflorescence

- Pink to white
- <2.5 cm long
- Tubular
- Flowers in pairs

Fruits

- Fruit an orange-red berry (unlike *L. involucrata*)
- Seeds are yellow and flattened

Distribution: one documented location in Juneau in a botanical garden





Bearberry honeysuckle • Lonicera involucrata

General Information: Shrub

Up to 4 m tall

Description:

Stems

• Finely branched

Leaves

- Often hairy on the underside Inflorescence
 - Yellow
 - Tubular
 - Flowers in pairs
 - Large green-purple bracts

Fruits

- Fruit a purple-black berry (unlike *L. tatarica*)
- Fruit cupped by two pairs of purple maroon bracts

Habitat: moist forests, clearings, swamps, thickets, stream sides Distribution: Pacific maritime region, in Haines and southern southeast Alaska





PINK FAMILY (CARYOPHYLLACEAE) Traits of Cerastium and Stellaria Species in Alaska:

Cerastium:	Stellaria:
Petals are lobed or notched	5 petals are deeply bifid, often appearing as 10
Flowers have 5 styles	Flowers have 3 styles
Stem nodes are not swollen	Stem nodes are swollen





Big chickweed • Cerastium fontanum ssp. vulgare syn. Cerastium fontanum ssp. triviale

Invasiveness Rank: 36 points

General Information:

Biennial or perennial Prostrate stems up to 38 cm long Stems and leaves hairy

Description:

Inflorescence

- Petal tips two-lobed
- Petals equal to or slightly longer than sepals
- Sepals hairy (unlike C. glomeratum, hairs are not longer than the sepal tip

Habitat: roadsides, waste places, gardens, fields

Species Code: CEFOV2



Distribution: all three ecogeographic regions; western limit is around Bethel, and it has not been reported from the Arctic Coastal Plain

Sticky chickweed • Cerastium glomeratum

Invasiveness Rank: 36 points

Species Code: CEGL2

General Information:

Biennial or perennial Up to 45 cm tall

Description:

Stems and leaves

• With gland-tipped hairs

Inflorescence

- Glandular hairs and long white hairs on • sepals that exceed the sepal tip
- Petals equal to or slightly longer than • sepals

Habitat: similar habitat as C. fontanum **Distribution:**

- Pacific maritime: Kenai Peninsula; in the • vicinity of Haines and Prince of Wales
- Interior boreal: Anchorage, Mat-Su, and • the Sourdough Creek campground along the Gulkana River

Remarks: There are many native *Cerastium* species in Alaska. They can be distinguished from non-native species because their petals are always longer than their sepals.









Common chickweed • Stellaria media

Invasiveness Rank: 42 points

General Information:

Annual, Stems up to 40 cm long

Description:

Stems

- Vascular bundles inside the stem stay intact when the stem is damaged
- With a line of white hairs on the stem (unlike native *Stellaria* species)

Leaves

- Opposite
- Ovate
- Membranaceous
- Stalked lower leaves (unlike native *Stellaria* species, which have sessile leaves)

Habitat: cultivated and disturbed sites Distribution: widespread throughout all three ecogeographic regions; northernmost location is Arctic Village, westernmost locations are Dillingham, Manokotak and the Seward Peninsula Remarks: Native *Stellaria* species have stalkless lower leaves and lack a line of white hairs on the stem.







Species Code: STME2

.....

White cockle • *Silene latifolia*

syn. Lychnis alba x loveae, Melandrium album

Invasiveness Rank: 42 points Species Code: SILA21

General Information:

Annual to short-lived perennial <100 cm tall

Description:

Roots

Woody taproot

Stems

- Branched
- With fine hairs

Leaves

- Lanceolate to elliptic
- 3-12 cm long and 0.6-3 cm wide (narrower than *S. dioica*)
- Sparsely hairy on both sides
- Basal leaves wither by the time of flowering

Inflorescence

- Unisexual; plants with either all staminate flowers or all pistillate flowers
- Pedicels 1-5 cm long
- Several to many flowers

Fruits

- Capsules have 4-8 bifid teeth
- Slightly reflexed or spreading at maturity (*S. dioica* has teeth that roll backward)

٠

Habitat: waste lands, roadsides

Distribution: Pacific maritime (only from Skagway in the southeast) and interior boreal regions (throughout Anchorage)

Remarks: Silene dioica and Silene latifolia are closely related and often hybridize.



Red catchfly • Silene dioica

Invasiveness Rank: 42 points

General Information:

Perennial <80 cm tall

Description:

Roots

- Slender taproot
- Stems
 - Branched
 - Softly pubescent and more or less glandular

Leaves

- Ovate to elliptic, 3-13 cm long, 1-5 cm wide (S. latifolia has narrower leaves)
- Stem leaves stalkless, lower leaves have petioles
- Softer and thinner than S. latifolia

Inflorescence

- Unisexual; plants have either all staminate flowers or all pistillate flowers
- Bracts have soft hair
- Several to many flowers
- Bright pink, 2-2.5 cm diameter
- Pedicels 0.2-3 cm, usually shorter than the calyx

Fruits

- Capsules with 5 bifid teeth that curve backward at maturity
- Capsule broad, nearly spherical, thin, brittle

Habitat: woodlands, hedges, gardens, river banks, open waste places Distribution: interior boreal, only reported from Anchorage and Palmer Remarks: *Silene dioica* and *Silene latifolia* are closely related and often hybridize. *Silene dioica* can be distinguished by:

- Dense, long, soft hairs covering at least the distal portions of the plant (*S. latifolia*) is more sparsely public ent
- Capsule that is broad, nearly spherical, thin, and brittle with teeth that roll backward
- Softer, thinner, usually broader leaves
- Pink flowers



Nightflowering Silene • Silene noctiflora

syn. Melandrium noctiflorum

Invasiveness Rank: 42 points

General Information:

Annual <75 cm tall Entire plant densely hairy; outer portions may be sticky

Description:

Roots

• Slender taproot

Stems

- Erect
- Few basal braches

Leaves

- Elliptic, oblanceolate or lanceolate
- 6-14 cm long and 2-4.5 cm wide
- Hairy on both sides

Inflorescence

- Flowers bisexual
- 3 styles
- White, often tinged with pink
- Flowers 2-2.5 cm diameter
- Flowers opening at night

Fruits

• Capsules with 6 long, very narrow teeth (unlike *S. dioica* and *S. latifolia*) that are curved backward at maturity

Habitat: arable and disturbed sites

Distribution: Pacific maritime and interior boreal regions, including Kantishna, Healy, Kenai Peninsula, Anchorage, Skagway and McCarthy areas

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Species Code: SINO

Bladder campion • *Silene vulgaris*

Invasiveness Rank: 42 points

General Information:

Short-lived perennial 20-80 cm tall Glabarous to glaucous, rarely pubescent

Description:

Roots

Stout taproot

Stems

- Several to many
- Branched

Leaves

- Broadly oblong to oblanceolate or lanceolate, rounded at base
- 2-8 cm long, 0.5-3 cm wide
- Sessile, almost clasping

Inflorescence

- Some plants with bisexual flowers; others with pistillate unisexual flowers
- 3 styles
- Flowers 1.5-2 cm in diameter
- Petals are white, or tinged with pink, twice as long as the calyx
- Calyx pale green, occasionally purplish

Fruits

• Capsules with 6 straight teeth, not contracted at the base or mouth (unlike *S. noctiflora*)

Habitat: roadsides, waste ground, gravel pits, shores, arable land Distribution: Skagway; Dawson and the Yukon Territory







Species Code: SIVU

Corn spurry • *Spergula arvensis*

Invasiveness Rank: 32 points

Species Code: SPAR

General Information: Annual

10-50 cm tall

Description:

Stems

- Branched from the base with branches erect or spreading
- Yellowish-green

Leaves

- Leaves opposite but appear whorled
- 4 stipules per node (unlike *Spergularia* species, which have 2 stipules per node)

Inflorescence

- Sepals and petals are free (not fused at the base)
- White
- 5 styles and capsule valves (unlike *Spergularia* species, which have 3 styles and capsule valves)

Fruits

• Capsule with many roundish, dark seeds

Habitat: dry areas, woods, forests

Distribution: Pacific maritime and interior boreal regions; northern and easternmost location is by Chena Hot Springs, westernmost location is in Kodiak



GOOSEFOOT FAMILY (CHENOPODIACEAE)

Lambsquarters • Chenopodium album ssp. album

Invasiveness Rank: 37 points

General Information: Annual

0.1-1.0 m tall

Description:

Stems

- Often turning reddish as the plant matures Leaves
 - Triangular with irregular lobes
 - Green on top and white-mealy on the bottom
 - Taste like spinach

Inflorescence

- Clustered in panicles
- Five tiny, greenish sepals

Fruits

• Seeds black, shiny, circular, flattened, and enclosed in a thin, white, papery envelope

Habitat: disturbed soils in clearings, burns, river bars, waste places, and cultivated soil **Distribution:** all three ecogeographic regions

Distribution: all three ecogeographic regions

Species Code: CHALA

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Blite goosefoot • Chenopodium capitatum

General Information:

Annual 0.1-1.0 m tall Hairless Succulent

Description:

Leaves

• Triangular

Inflorescence

- Clustered in ball-shaped, sessile heads that form interrupted spikes
- 3-5 fleshy sepals turning red at maturity Fruits
 - Bright red
 - Seeds black and lens-shaped

Habitat: disturbed areas, roadsides, waste areas, cultivated fields Distribution: interior boreal



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ST. JOHNSWORT FAMILY (CLUSIACEAE)

Common St. Johnswort • *Hypericum perforatum*

Invasiveness Rank: 52 points

General Information:

Perennial 30-90 cm tall

Description:

Stems

- Two-sided •
- Rust colored •

Leaves

- Sessile
- Opposite
- Oval
- Prominent veins
- Transparent dots; appearing to be perforated when held up to the light
- Black, glandular perforations on the margins

Inflorescence

- 2 cm across •
- Bright yellow with purple dots • along the margins
- Forming flat-topped clusters •
- 5 petals
- Sepals with dark dots
- Many stamens with yellow and purple tips

Habitat: roadsides, gravel pits **Distribution:** southeast Alaska; also reported from Anchorage



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Species Code: HYPE

Field bindweed • Convolvulus arvensis

Invasiveness Rank: 56 points

Species Code: COAR4

General Information:

Perennial Up to 7 m long

Description:

Roots

• Rhizomes

Stems

• Trailing to twining

Leaves

- Alternate
- More or less arrowhead-shaped Inflorescence
 - Large and showy
 - Funnel-shaped
 - White-pink
 - Borne singly or in pairs

Habitat: disturbed sites, fields, roadsides

Distribution:

- Interior boreal: Fairbanks
- Pacific maritime: Skagway, Haines, Ketchikan and vicinities

Remarks: There are no native *Convolvulus* species in Alaska. However, when not in flower, this species may be confused with *Polygonum convolvulus* (black bindweed).

	Roots	Leaves	Flowers	Sheaths
<i>Fallopia convolvulus</i> (black bindweed)	Annual with thin but deep roots	arrow-shaped leaves; distinctly heart-shaped leaf base	small and reduced to white bracts, resem- bling other knot- weeds	membrane-like sheaths where the leaf stalk joins the stem, resembling other knotweeds
Convolvulus arvensis (field bindweed)perennial with rhizomesarrow-shaped leaves; straight leaf bases		large and funnel- shaped	does not have membrane-like sheaths	



GERANIUM FAMILY (GERANIACEAE)

Species Code: ERCI6

Redstem stork's bill • Erodium cicutarium

..... Invasiveness Rank: not yet ranked

General Information:

Perennial Flowering stems up to 30 cm tall

Description:

Leaves and stems

- Generally reddish •
- Swollen nodes
- Leaves pinnate and mostly basal

Inflorescence

- Umbels on long flower stalks, originating • in the leaf axils
- 5 sepals distinct, bristly, with a needle-like tip
- 5 petals red-violet, with a claw with marginal hairs
- 5 styles 2.5-5 cm long, persistent and twist spirally at maturity
- 5 carpels with sharp points at the base
- Fruits
 - Resembling a bird's beak at maturity •

Habitat and distribution: has only been

reported as a contaminant of nursery trees sold in Anchorage

Remarks: There are no native species of Erodium in Alaska. General traits of non-native Erodium species in Alaska include pinnate leaves and five sepals that twist spirally at maturity, while seeds remain attached.





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GERANIUM FAMILY (GERANIACEAE)

Robert geranium • *Geranium robertianum*

Invasiveness Rank: 67 points

General Information:

Annual 10 to 60 cm tall Distinct unpleasant odor

Description:

Roots

• Taproot

Stems

• Hairy

Leaves

- Egg-to pentagon-shaped
- Light green to reddish
- Palmate
- Lowermost leaves deeply divided into 5 segments, and each segment is pinnately divided (unlike native *Geranium* species, which have palmate leaves that are not divided to the base)

Inflorescence

- Petals pink to purple
- Sepals glandular, hairy, and distinctly bristle-tipped

Fruits

• 5-parted capsules with styles fused to form a central column

Habitat and distribution: along roadsides and in yards in southeast Alaska **Remarks:** General traits of *Geranium* species in Alaska include palmate leaves and five sepals that roll upwards at maturity and release seeds.



sInIsrael.com

Species Code: GERO

Canadian waterweed • *Elodea canadensis*

Invasiveness Rank: 79 points

General Information:

Perennial Freshwater aquatic forb Tolerates brackish conditions Dies back in the winter and regenerates from belowground parts in the spring

Description:

Leaves and Stems

- Dark green, crisp
- Whorls of 3
- 5-17 mm long, 1.8-5 mm wide
- Recurved with minutely toothed margins
- Have bud-like shoots (unlike *E. nuttallii*)

Inflorescence

- Flowering plants rare
- Solitary flowers arise from leaf axils on long, thread-like stalks
- Male and female flowers borne on different plants

Fruits

- Spindle-shaped, capsules 5-6 mm long, 2-3.2 mm wide with 5-6 mm long beaks
- Lacking short hairs at base (unlike *E. nuttallii*)

Habitat: slow-moving or standing freshwater, mostly calcareous; grown as an aquarium plant

Distribution: in the Pacific maritime ecoregion *Elodea* species have been recorded from Anchorage, the Kenai Peninsula, and Cordova and have been reported but not confirmed from Juneau; in the interior boreal ecoregion *Elodea* is present in Fairbanks





Western waterweed • Elodea nuttallii

Invasiveness Rank: not yet ranked

General Information:

Perennial

Freshwater aquatic forb Tolerates brackish conditions Overwinters as sunken prostrate shoots; in the spring it regenerates shoots which grow upward and branch upon reaching the water surface

Description:

Leaves and stems

- Pale green and flaccid
- Whorls of 3 (may appear as whorls of 6)
- 4-15 mm long, 1.7 mm wide (unlike *E. canadensis*, which are wider)
- Linear to lanceolate with pointed tips
- Often recurved with undulate margins
- Folded along the midrib
- Leaves lack bud-like shoots (unlike *E. canadensis*)

Inflorescence

- Male flower stalk separates from stem during the bud stage
- Fruits
 - Spindle-shaped, 4-4.6 mm
 - Short hairs at the base (unlike *E. canadensis*)
 - Lack an apical collar (unlike *E. canadensis*)

Habitat: lakes and rivers in still or slowing-moving water; mostly found in calcareous and/or eutrophic water

Distribution: in the Pacific maritime ecoregion *Elodea* species have been recorded from Anchorage, the Kenai Peninsula, and Cordova and have been reported but not confirmed from Juneau; in the interior boreal ecoregion *Elodea* species have been confirmed from Fairbanks

Remarks: *E. nuttallii* and *E. canadensis* have been known to form fertile hybrids in natural and laboratory environments (Cook and Urmi-Konig 1985, Ernst-Schwarzenbach 1945). Hybrids between these two species exhibit morphologically intermediate vegetative characteristics and are only distinguishable by their floral structures, which are rarely found. In the absence of floral structures, genetic techniques are often necessary to determine taxonomic identity. Both species share geographic range and are native to most of temperate North America.



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				TAPE-GRAS	ss Family (Hyd	ROCI	HARITAC	'EAE)
		Final for the second				Pinnate (Myriophyllum	spp.)	
	Leaf color/texture	 Dark green Crisp Minutely toothed Recurved 	 Pale green Flaccid Undulate margins folded along midrib Recurved 	• Reddish-brown	Purplish	Bright green	With large teeth along margin and midvein	
	Leaf width (mm)	1.75-5	Usually <1.75	Usually <1.0	Usually <1.0	2-5	2-4	
	Leaf length (cm)	0.5-1.7	0.4-1.5	2.5	Ķ	1-4	0.5-2	
	Leaf shape	Linear; blunt/rounded tips	Linear/lanceolate; pointed tips	Pinnate with >12 pairs of leaflet segments; flimsy	Pinnate with <12 pairs of leaflet segments, stiffer than Eurasian watermilfoil	Linear with acute tip	Linear with acute tip	
aquatic forbs:	Leaves per node	Whorls of 3	Whorls of 3, but may appear as 6	Whorls of 3-5, nodes 1+ cm apart	Whorls of 3-4, nodes 1+ cm apart	Whorls of 4-8, most often 4	Whorls of 3-10, most often 5	
of freshwater	Regrows from:	Belowground parts	Sunken prostrate shoots	Rhizome	<i>ab ances</i>) Short rhizome	Stem fragments	Tubers	
A comparison of freshwater ag		Elodea canadensis Canadian waterweed (not reported from AK)	Elodea nuttallii Western waterweed	<i>Myriophyllum spicatum</i> Eurasian watermilfoil (not reported from AK)	<i>Myriophyllum sibiricum</i> (şyn. <i>M. spicutum</i> ssp. <i>excalabances</i>) Short rhizome Siberian watermilfoil	Egeria densa (Brazilian waterweed)	<i>Hydrilla verticillata</i> (hydrilla)	

)

Species Code: GABI3, GATE2

Splitlip hempnettle • *Galeopsis bifida* Bristlestem hempnettle • *Galeopsis tetrahit*

Invasiveness Rank: 50 points

General Information: Annual 20 to 80 cm tall

Description:

Stems

- Square
- Swollen below nodes
- Bristly

Leaves

- Opposite, decussate
- Ovate
- Margins are broadly serrated
- Leaf base wedge-shaped

Inflorescence

- In leaf axils
- Purplish-pink or white
- Pubescent
- Middle lobe notched



Habitat: disturbed sites, roadsides, forests; moist soil

Distribution: widespread in all three ecogeographic regions; the Seward Peninsula hosts the westernmost and northernmost infestations

Remarks: Two traits are commonly used to distinguish between these species:

- Galeopsis bifida has smaller flowers than Galeopsis tetrahit
- Galeopsis bifida has a cleft in the lower petal lip (unlike G. tetrahit)

Some botanists have described additional differences between these species, but there is no consensus on their validity. In Alaska some specimens exhibit intermediate flower sizes or a moderate cleft in the lower lip, and differences in size and morphology have even been observed among flowers on a single plant.

White deadnettle • Lamium album

Invasiveness Rank: 40 points

General Information:

Perennial 0.2 - 0.8 m tall

Description:

Leaves

- Soft (not stinging, unlike similar-looking native *Urtica dioica*)
- Ovate; rounded to heart-shaped base, tapering to a point (but less heart-shaped than *Urtica dioica*)
- Coarsely and/or doubly toothed

Inflorescence

- White
- Consists of two lips with a wide-open "mouth" between them; the upper lip is hooded and hairy; the lower lip is broad and flat.

Habitat: waste places, fields, forest edges Distribution: Pacific maritime and interior boreal, including, Skagway, Glacier Bay National Park, southeast Alaska and Anchorage

Stinging nettle • *Urtica dioica* NETTLE FAMILY (URTICACEAE)

General Information:

Perennial 0.5-3.0 m tall

Description:

Causes stinging pain when touched on the leaves or stem Leaves

• Serrated (more so than similar-

- looking *Lamium album*)
- Heart-shaped to rounded base Inflorescence
 - Small, greenish, catkin-like clusters
 - Prominent stipules 5-15 mm long





Species Code: LAAL



Habitat: stream banks, thickets, meadows; disturbed areas with moist, rich soils Distribution: Pacific maritime and interior boreal

Purple loosestrife • *Lythrum salicaria*

Invasiveness Rank: 84 points

General Information:

Perennial 1.8-4.2 m tall

Description:

Leaves

- Opposite
- Inflorescence
 - Pink
 - 5-7 petals
 - Dense terminal spikes

Fruits

• Short capsules, 4 mm long

•

Habitat: moist, wetland habitats; garden escapee Distribution: planted in Anchorage; Juneau; reported but not confirmed from Fairbanks Remarks: Lythrum salicaria superficially

m long abitats; garden escapee inchorage; Juneau; from Fairbanks

resembles native *Chamerion angustifolium* (fireweed). However, the two can be distinguished on the basis of a number of traits:

	Chamerion angustifolium	Lythrum salicaria
Leaves	Alternate	Opposite
Flowers	With four petals	With five petals
Fruits	Long seed capsules, plumed seeds	Short seed capsules
Habitat	Grows in dry habitats	Grows in wet habitats

Species Code: LYSA2



BROOMRAPE FAMILY (OROBANCHACEAE)

Common eyebright • *Euphrasia nemorosa*

Invasiveness Rank: 42 points

General Information:

Annual 10-40 cm tall Hairy Partly parasitic on the roots of other plants

Description:

Stems

• Often branched from the base with 1-7 pairs Leaves

- Small
- Deep green
- Serrated, with long points or awns

Inflorescence

- Small (5 to 8 cm)
- White
- Open, trumpet-shaped
- Lower lip is divided, with purple lines

Habitat: disturbed sites, including trails and roadsides Distribution: Pacific maritime and interior boreal





Traits of native *Euphrasia* species in Alaska:

Euphrasia mollis, E. disjuncta, and E. subarctica are native to Alaska. They can be distinguished from non-native *Euphrasia nemorosa* by their corolla which are smaller, (2 to 5.5 mm), branching pattern is usually from middle of the stem, and don't have long pointed serrated teeth on the leaves.

- E. mollis: yellow corolla 4 to 5 mm, bracts dense with coarse stiff hairs
- E. subarctica: yellow corolla 3 to 4 mm, bracts sparse with coarse stiff hairs
- *E. disjuncta*: white corolla 4 to 4.5 mm,

Habitat: grassy heaths, wet meadows, moist river gravel, bogs, open woods; chalky and acidic soils

Species Code: EUNE3

Species Code: PLMA2

Common plantain • *Plantago major*

Invasiveness Rank: 44 points

General Information:

Annual, biennial or perennial Flowering stalks 15-20 cm tall

Description:

Leaves

- Ovate
- Smooth margins
- Basal rosette only
- 3-5 prominent parallel ribs; the vascular bundles of these veins stay intact when 2012 © Peter M. Dziuk leaves are damaged

Inflorescence

- Small and clustered in spikes
- Greenish-white, turning brown

Fruits

- Ovate capsule that splits around the middle
- >6 seeds per capsule

Habitat: cultivated fields, lawns, roadsides, waste areas, open woods and valleys; mid-montane locations

Distribution: widespread across all three ecogeographic regions

Remarks: Most botanists specializing in northern floras think there were, or still are, native populations of *Plantago major*







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Guide to Plantago species:

Leaves are glabrous and almost linear Found along seashores and coastal marshes Mostly found in the Pacific maritime region 1. Leaves lance-shaped to oval 2. Base of leaves distinctly heart-shaped, 6+ seeds per capsule 2. Base of leaves are not heart-shaped.......Generally native* *With the exception of non-native *P. lanceolata*, which is uncommon and can be distinguished by slender petioles, somewhat hairy leaves, a thin root and bracts with a slender appendage; grows in waste places Native Plantago macrocarpa (seashore plantain) • Stout root • Leaves glabrous or almost glabrous • Found in wet areas, beaches • South coastal Alaska Native Plantago canescens (grey pubescent plantain) • Leaves are erect and narrowly lance-shaped • Leaves are hairy to ciliate on both sides • 2-4 seeds per capsule • Found on grassy slopes, rocky outcrops, and open soil • Interior boreal and arctic-alpine regions

Butter and eggs, yellow toadflax • *Linaria vulgaris*

Invasiveness Rank: 69 points

General Information: Perennial

Up to 60 cm tall

Description:

Leaves

- Linear to narrowly lance-shaped
- Bluish-green •

Inflorescence

- Many small, zygomorphic flowers • arranged in spikes
- Light yellow with an orange throat
- Long, straight spurs, nearly as long as the corolla

Habitat: roadsides, waste places Distribution: very common in the interior boreal region and common in the Pacific maritime region; northernmost infestation is in Coldfoot, westernmost infestations are from Dillingham and near Aniak Remarks: There are no native species in Alaska with similar flowers



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Species Code: LIVU2

Purple foxglove • *Digitalis purpurea*

Invasiveness Rank: 51 points

General Information:

Biennal or perennial 0.9-1.8 m tall

Description:

Leaves

- Soft and hairy
- Lanceolate to egg-shaped
- Toothed
- Basal leaves can be up to 30 cm long

Inflorescence

- Purple with darker purple mottling inside
- Bell-shaped
- Borne on one side of a spike

Habitat: garden escapee

Distribution: Pacific maritime. primarily southeast Alaska





Species Code: DIPU

Species Code: VESES

Thymeleaf speedwell• Veronica serpyllifolia ssp. serpyllifolia

Invasiveness Rank: 36 points

General Information:

Perennial; Herb/forb Rhizomatous 10 to 30 cm tall

Description:

Leaves

- Glabrous (usually)
- Opposite
- Lower leaves: short stalks with three veins
- Upper leaves: without stalks,

Inflorescence

- Up to 40 flowers
- Raceme
- Irregularly 4-lobed; lowest lobe is smaller than the other lobes
- <u>White to pale blue</u>

Fruit

• Heart shaped and lightly hairy capsules

Habitat: moist soils with partial sunlight. Forest edges, roadsides, fill importation sites, gardens. Distribution: Pacific Maritime ecogeographic region of Alaska and Haines Junction in the boreal region of Canada





Brightblue speedwell • Veronica serpyllifolia ssp. humifusa

This subspecies is native to Alaska. This native subspecies can be differentiated from the non-native by:

- Blue flowers
- Flower pedicels are covered in long, brown hairs,
- Capsules with cuneate bases compared to a tapered base

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Species Code: COLI2

Tiny trumpet • *Collomia linearis*

Invasiveness Rank: not yet ranked

General Information:

Annual, Up to 40 cm Plant sticky due to secretions from the seeds

Description:

Stems

- Slightly hairy
- Simple or branched toward the top Leaves
 - Lance-shaped and narrow
 - Alternate

Inflorescence

- Small, 8-15 mm
- Pale purple to white
- 5 short lobes extending from a long tube
- Borne in the axils of upper leaves, forming a dense cluster

Habitat: dry, disturbed sites

Distribution: along roads in the interior boreal ecogeographic region





Distinguishing the *Ranunculus* genus (buttercups) from the *Geum* (avens) and *Potentilla* (cinquefoil) genera in Alaska:

Diagnostic traits for Ranunculus species in Alaska:

- Leaves form a sheath at the base
- Sepals look like petals; both are yellow
- Sepals are deciduous
- No to many petals
- Stipules absent
- Stamens inserted in the receptacle, free from the calyx
- Is in the Ranunculaceae, Buttercup family

Diagnostic traits for Geum and Potentilla species in Alaska:

- Yellow petals
- Leafy, green sepals often persisting at fruiting
- 5 petals
- Often with stipules
- Stamens borne on calyx or on rim of hypanthium
- Are in the Rosaceae, Rose family









Ranunculus acris Yellow petals and sepals (not native)

Creeping buttercup • *Ranunculus repens*

Invasiveness Rank: 54 points

Species Code: RARE3

General Information: Perennial **Stems up to 0.9 m long**

Description:

Stems

- Leaves all along stem, not just at the base
- Horizontal growth habit due to trailing vegetative stems (runners and stolons) that root at nodes

Leaves

- Basal leaves are <u>divided all the way to the</u> <u>petiole into three distinct leaflets (unlike all</u> other non-aquatic buttercups with leafy stems and runners)
- White reflective spots are often present at base of major tooth divisions

Inflorescence

- Few, showy
- Bright yellow
- 5-10 petals 6-10 mm in length (unlike native *R. macounii*, which has petals <6 mm)

Fruits

• Spherical fruiting head (unlike native *R*. *macounii*, which has an oval fruiting head)

Habitat: disturbed soils, gardens, croplands; semiaquatic communities, including swamps, ditches, and margins of ponds and rivers (not aquatic like some native *Ranunculus* species)

Distribution: Pacific maritime and interior boreal regions; westernmost locations are by Lake Iliamna and in Kodiak, northernmost location is in the vicinity of Healy





BUTTERCUP FAMILY (RANUNCULACEAE)

Tall buttercup Ranunculus acris

Invasiveness Rank: 54 points

Species Code: RAAC3

General Information:

Biennial to short-lived perennial 40-100 cm tall

Description:

Stems

• Erect, no runners (unlike *R. repens* and some native species, which are trailing and have runners)

Leaves

- Basal leaves are deeply lobed (unlike native tall, erect, *Ranunculus* species, which have basal leaves that are kidney-shaped, round, or 3-parted)
- Basal leaves have soft hairs on both sides (unlike native, erect *Ranunculus* species that also have deeply lobed basal leaves but no hairs on the leaves)
- Basal leaves are divided into 3-5 parts (*R. repens* leaves are divided into 3 separate leaflets)

Inflorescence

- Large, 1.5-3 cm across (many native *Ranunculus* species have small flowers, <1.5 cm across)
- Stalked
- 5 shiny yellow petals 5 sepals

Fruits

• Fruit has a short, <u>straight beak (~0.5 mm)</u>, <u>compared many native *Ranunculus* species, which have a beak that is long, slender or hooked.</u>

Habitat: grasslands, woodlands; occasionally sand dunes

Distribution: common in the Pacific maritime region; few infestations in the interior boreal region, including in the vicinity of Chena Hot Springs, Talkeetna, and the Mat-Su Valley



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Lady's mantle • Alchemilla mollis

Invasiveness Rank: 56 points

General Information:

Perennial 20-80 cm tall

Description:

Leaves

- Densely hairy on stems and leaves
- Grey-green
- Circular and palmately lobed with 9-11 lobes
- Each lobe has 15-19 inwardly curved, slightly pointed teeth
- <10 cm wide

Inflorescence

- Loose, spreading cymes at the ends of stems
- Petals absent
- Sepals yellow-green, star-shaped
- <6 mm wide

Fruits

• Hips are sparsely hairy and contain small, ovoid seeds

Habitat: disturbed sites, roadsides

Distribution: Pacific maritime - southeast Alaska only







Species Code: PRPA5

European bird cherry • Prunus padus

Invasiveness Rank: 74 points

General Information:

Tree Up 9 m tall Purple-grey bark

Description:

Leaves

- Long stalks on leaves
- Obovate
- Sharply serrated
- Two greenish glands at the top of the petiole, not always easily visible

Inflorescence

- Whitish
- Clusters of long, showy, terminal spikes
- Inside of the hypanthium is hairy
- Petals 6 to 9 mm
- Sepals 1.2 to 2 mm and are longer than they are wide

Fruits

- Black, ovoid
- Fruits are toxic; known to have killed moose calves in Anchorage

Habitat: ornamental that escapes cultivation and spreads quickly in undisturbed forests. Along riverbanks, it forms single-species stands, replacing native trees and shrubs. Spreading into subalpine areas in Anchorage. A few have been founding growing in muskeg.

Distribution:

- Pacific maritime: Juneau (Jensen Arboretum)
- Interior boreal: abundant in Anchorage, localized infestations in or near Palmer, Talkeetna, Fairbanks, Delta Junction, and Fort Yukon

Remarks: The glands at the top of the petiole are diagnostic of the *Prunus* genus and serve as extrafloral nectaries, which attract ants toward the flowers.







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Chokecherry • *Prunus virginiana*

Invasiveness Rank: 74 points

Species Code: PRVI

Traits that distinguish Prunus virginiana from Prunus padus:

- The hypanthium of *Prunus virginiana* is less hairy to completely hairless
- In late summer the foliage of *P. virginiana* turns dark red; *P. padus* stays green throughout the growing season
- Petals 2 to 5 mm
- Sepals 0.7 to 1.4 mm and are as long as wide

Habitat: ornamental that escapes cultivation; similar habitat as *P. padus* Distribution: recorded primarily in Anchorage and Palmer. But also found in Skagway.







Sweet cherry • Prunus avium

syn. Cerasus avium

Invasiveness Rank: not yet ranked

General Information:

Tree Up to 15 m tall Peeling, red-brown bark

Description:

Leaves

- Alternate
- Oval and pointed
- Finely serrated
- Green on top and somewhat downy beneath
- 2 conspicuous glands at the top of the petiole (see image under *P. padus*)

Inflorescence

• Loose cluster of 2-6 flowers Fruits

• Yellow, turning dark red

Habitat and distribution: ornamental that may escape cultivation; reported from Sitka



Key to Sorbus species in Alaska:

(excluding native S. sambucifolia, which is restricted to the outer Aleutian Islands)

 1a. leaflets 9 or 11, elliptic, rounded or short-pointed at tip, margins smooth in lowest third
3a. plant a tree
3b. plant a shrub = S. scopulina or S. sitchensis (native; see couplets 1 and 4)
3c. plant form indeterminate
4a. flower stalks and winter buds with red hairs; paired, narrow, red-
hairy deciduous stipules; winter buds red hairy.
4b. flower stalks and winter buds with white hairs
5a. leaflets pale and hairy beneath; paired, 3-angled, persistent
stipules; winter buds with white hairs, not sticky
5b. leaflets becoming hairless; paired, very narrow, hairless,
persistent stipules; winter buds sticky and more or less
white hairy S. scopulina



Sorbus aucuparia

Sorbus scopulina

Species Code: SOAU

European mountain ash • Sorbus aucuparia

Invasiveness Rank: 59 points

General Information:

Tree 7.5-12 m tall

Description:

Leaves

- Pinnately compound, with 9-17 leaflets
- Leaflets short-pointed, unequal and rounded at base, toothed nearly to base, pale and hairy beneath

• Paired, 3-angled, persistent stipules Inflorescence

- Clusters of many small, white flowers
- Flower stalks with white hairs
- Winter buds white hairy, not sticky Fruits
 - Bright, deep orange

Distribution: planted as an ornamental in south central Alaska. Pacific maritime; throughout southeast and south coastal





Alaska, including the Kenai Peninsula and west to Manokotak (near Dillingham). Interior boreal; few instances; one in Palmer and at Denali National Park and Preserve. **Remarks:** Native *Sorbus* species are shrubs; non-native *Sorbus aucuparia* is a tree.

Greene's mountain ash • Sorbus scopulina

General Information:

Shrub 1.0-6.0 m tall

Description:

Leaves

- Pinnately compound, with 11-13 leaflets
- Leaflets sharp-pointed, unequal and rounded at base, toothed nearly to base, becoming hairless
- Paired, very narrow, hairless, persistent stipules

Inflorescence

- Flower stalks with white hairs
- Winter buds sticky and more or less white hairy

Distribution: southern half of Alaska



Sitka mountain ash • Sorbus sitchensis

General Information: Shrub 4.5-6.0 m tall

Description:

Shrub

Leaves

- Pinnately compound, with 9-11 leaflets
- Leaflets rounded to short-pointed, margins smooth in lower third, pale beneath with red hairs but becoming hairless
- Paired, narrow, red-hairy deciduous stipules Inflorescence
 - Flower stalks with red hairs
 - Winter buds red hairy

Distribution: southern Alaska coast



ROSE FAMILY (ROSACEAE)

Himalayan blackberry • Rubus armeniacus

syn. Rubus discolor

Invasiveness Rank: 77 points

General Information:

Shrub Stems up to 9 m long

Description:

Stems

- Thick, up to 2 cm wide
- Clambering to erect, then trailing and rooting at the nodes
- Thorns are stout, recurved, <1 cm long (unlike native *R. idaeus*, which has smaller, prickly thorns)

Leaves

- Most often 5 leaflets, with 3 leaflets in floral shoots (unlike native *R. spectabilis*, which always has 3 leaflets)
- White-hairy underneath
- Lightly toothed (unlike native *R. spectabilis*, which has serrated margins)

Fruits

• Fruit solid on the inside, like other blackberries; not hollow like raspberries

Habitat and distribution: roadsides and disturbed areas in southeast Alaska; reported from Ketchikan and Sitka **Remarks:** This species is distinctly different from native *Rubus* species because it has much bigger leaves and is taller than native species







Species Code: RUDI2

Rugosa rose • Rosa rugosa

Invasiveness Rank: 72 points

General Information:

Shrub 1.2-1.8 m tall Forms dense thickets

Description:

Roots

• Spreads by extensive woody rhizomes Stems

- Twigs stout and covered in thick, straight, sharp thorns
- Young stems green, later turning brown

Leaves

- Alternate
- Pinnately compound with 5-9 ovate to elliptical leaflets
- Leaflets 5-13 cm long, including the petiole
- Obvious stipules at the base of the petiole
- Dark green, glabrous, and wrinkled on top; slightly waxy and pubescent underneath
- Serrated margins

Inflorescence

- 4-9 cm across
- White or pink
- Single or double flowered varieties

Fruits

• Fruit a hip that is fleshy, shiny, deep red

Habitat: In northern Europe (Denmark, Finland, Norway) this salt-tolerant species has escaped cultivation and is invading coastal habitats, where it can colonize dune environments and replace native vegetation.

Distribution: southeast Alaska; greenbelts in Anchorage







Species Code: RORU

Rose Family (Rosaceae)

Comparison of native *Rosa* species to non-native *Rosa rugosa*:

	<i>Rosa acicularis</i> (prickly rose)	<i>Rosa nutkana</i> (Nootka rose)	<i>Rosa woodsii</i> (Wood's rose)
Thorns	Thin, needle-like thorns	Few short, straight flattened prickles.	Pairs of straight prickles mostly at the base of leaves and stems
		No thorns on upper parts	
			Thorn
Leaves	Underside of leaflets sparsely hairy	Underside of leaflets have long hairs	Pedicles, both sides of leaflets are glabrous
Distribution	South central, interior, and part of arctic alpine regions	Southeast Alaska	Interior boreal region

Johnny-jumpup • Viola tricolor

Invasiveness Rank: 34 points

Species Code: VITR

General Information: Annual or biennial 10 to 30 cm tall

Description:

Stems

• Branched from the base Leaves

- Elongate
- Round-toothed

Inflorescence

- Purple and yellow; usually darker at the top
- 5-parted
- Borne singly from leaf axils

Fruits

- Capsule with 3 valves
- Dark brown seeds

Habitat: garden escapee Distribution: Pacific maritime and interior boreal regions





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Notes: