

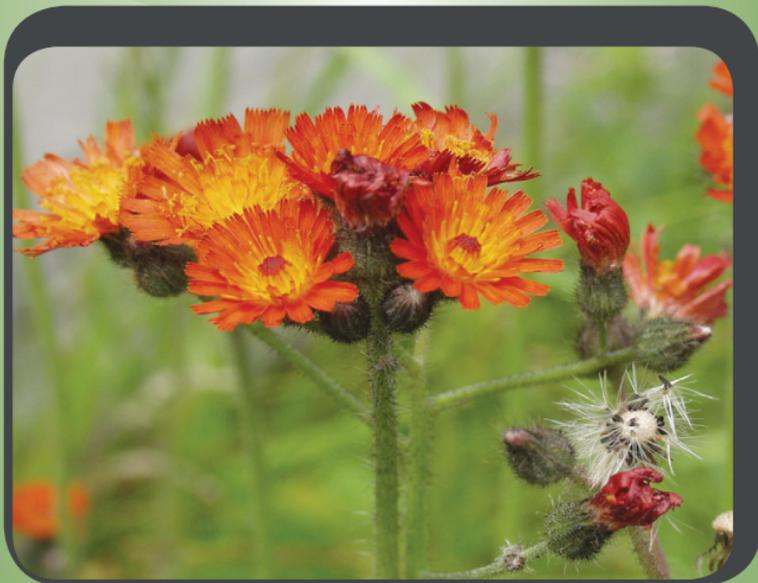
*Forest Range and Practices Act*

# **Invasive Plants Identification Field Guide**

*For use with Invasive Plants Resource  
Stewardship Monitoring Cards*

*Version 1.0*

**June 2008**



# INTRODUCTION:

The establishment and spread of invasive plants can directly affect many areas and impact many values including biodiversity, water quality, fish habitat, forage quality and quantity, recreational opportunities, soil nutrient and hydrologic cycling, forest regeneration, fire regimes. Numerous invasive plant species require disturbance for their seeds or plant propagules to germinate and grow, and most take advantage and rapidly spread in native plant communities that are under stress

from drought, over-use, trampling, compaction, etc. Forest and range practices that create disturbance, and alter or stress native plant communities can lead to invasive plants successfully establishing and expanding their range, ultimately impacting many of the eleven FRPA resource values. The Forest and Range Evaluation Program (FREP) has recognized the need to identify, report and monitor FRPA-listed invasive plants throughout BC to assist in meeting the program's stated objectives.

<b>RED</b>	<b>Priority to identify and record.</b>
<b>YELLOW</b>	<b>Identify and record isolated occurrences.</b>
<b>GREEN</b>	<b>No need to report.</b>

Depending on the forest district, incidences of the invasive plant species listed in this guide need to be reported to your regional Invasive Plant Specialist:

## SELECTED REFERENCES:

A guide to weeds in British Columbia. 2002. Province of British Columbia Weeds of Canada and the northern United States. 1999. France Royer & Richard Dickinson. Lone Pine Publishing, Vancouver.  
Weeds BC [www.weedsbc.ca](http://www.weedsbc.ca)  
Invasive Alien Plant Program [www.for.gov.bc.ca/hra/Plants/index.htm](http://www.for.gov.bc.ca/hra/Plants/index.htm)  
Invasive Plant Council of BC [www.invasiveplantcouncilbc.ca](http://www.invasiveplantcouncilbc.ca)

## CITATION:

Province of British Columbia. 2008. Forest Range and Practices Act Invasive Plants Identification Field

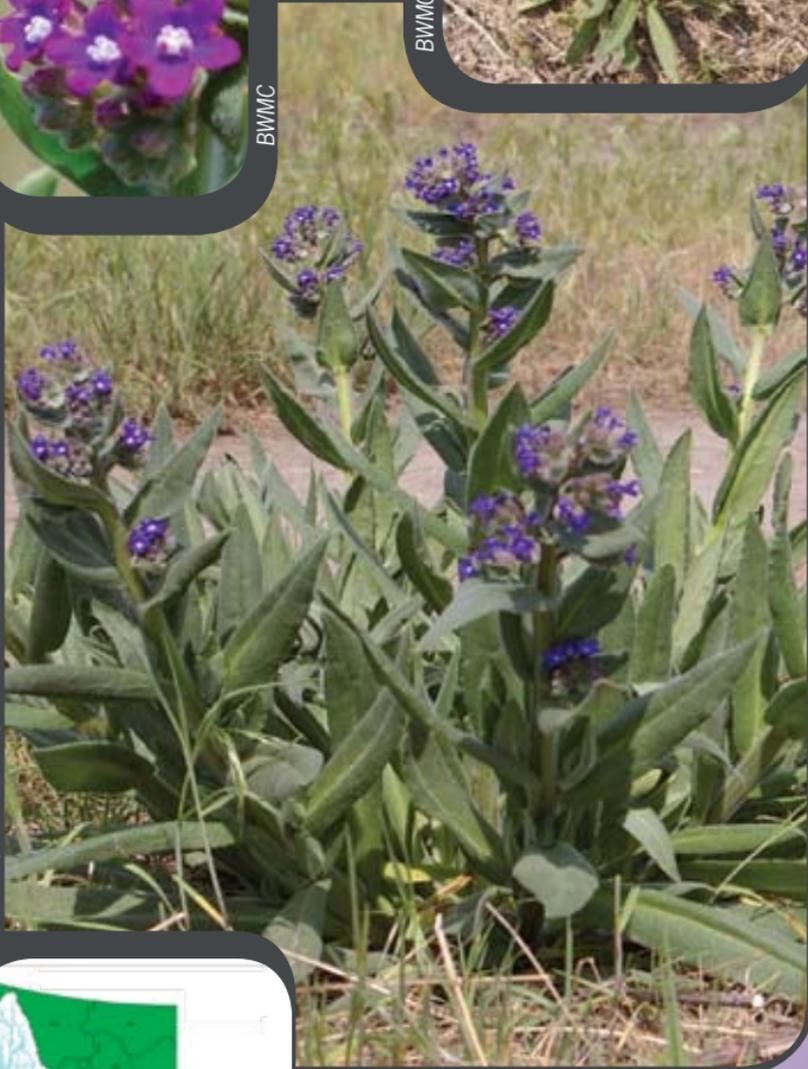
Guide for use with Invasive Plants Resource Stewardship Monitoring Cards. FRPA Resource Evaluation Program. B.C. Min. For.

## PREPARED BY

Northwest Invasive Plant Council  
[www.nwipc.org](http://www.nwipc.org)  
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For more information on Forest Practices Branch publications, visit our website at: <http://www.for.gov.bc.ca/hfp/pubs.htm>

Boundary Weed Management Committee



BWMC



BWMC

anchusa

# **Anchusa**

Other common names:  
COMMON BUGLOSS,  
COMMON ALKANET

## **FLOWER:**

Coiled terminal clusters that straighten out as flowers open. Flowers are tubular and reddish to deep blue with white centers.

## **LEAVES:**

Succulent and hairy. Basal leaves lance shaped 6 to 20 cm long, 1 to 5 cm wide, decrease in size towards the top of the plant.

## **STEMS:**

Multiple, hairy, angular stems, 0.3 to 0.8 m tall

## **ROOTS:**

Long taproot

## **HABITAT:**

Warm, acidic, well-drained, fertile soils • Invades open and disturbed sites such as roadsides, pastures and dry fields.

## **GROWTH FORM AND REPRODUCTION:**

Biennial or perennial forb  
Reproduces by seed and will resprout from root fragments

***Anchusa officinalis* L.**

IAPP Code: AO

## **LIFE CYCLE:**

	Spring	Summer	Fall
Rosette	*	*	*
Flower		**	**
Seed		**	**
* occurs in year one			
** occurs in year two			

Note: Basal rosette leaves are produced in year one, one stalk is produced in year two and multiple stalks are produced in year three.

## **IMPACTS:**

Invades rangeland and disturbed sites • If cut in hay its succulent leaves can result in moldy hay.

## **SIMILAR SPECIES:**

Hound's-tongue, flowers are not coiled, seeds are strongly barbed.





Steve Dewey Utah State U, Bugwood.org



baby's  
breath

## Baby's breath

Other common names:  
MAIDEN'S BREATH,  
PERENNIAL GYPSOPHILA

*Gypsophila paniculata* L.

IAPP Code: BY

### FLOWER:

Numerous terminal clusters of sweet-scented, small white flowers 0.3 to 0.6 mm wide  
Flowers do not develop until year three

### LEAVES:

Lance shaped, opposite leaves 3 to 10 cm long, 1 cm wide • Decrease in size towards the top of the plant • Noticeable mid vein

### STEMS:

Smooth, branched up to 1 m tall  
Covered with powdery white dust

### ROOTS:

Extensive, woody root systems up to 4 m deep

### HABITAT:

Dry, fine to coarse textured soils  
Invades open and disturbed sites such as roadsides, pastures and rangelands.

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	■	■	■
Flower		•	
Seed		•	

\* occurs in year one

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces by seed, older rootstocks will produce multiple stems

### IMPACTS:

Invades sub-marginal farm or rangeland. Out-competes and replaces native vegetation. Reduces protein content in infested hay.

### SIMILAR SPECIES:

Annual baby's breath, longer petals 0.8 to 1 cm long, shorter stems, leaf veins not obvious

Cindy Roche, forestryimages.org



ct-botanical-society.org



UGA1350054

# black knapweed

Cindy Roche, forestryimages.org

# Black knapweed

Other common names:  
LESSER KNAWEED

*Centaurea nigra* L.

IAPP Code: BL

## FLOWER:

Single, terminal flower heads with rose to purple or occasionally white flowers • Flower heads have triangular floral bracts with long black fringes

## LEAVES:

Basal leaves hairy, stalked, toothed, up to 15 cm long • Stem leaves hairy, large, stalked, lobed • Upper leaves hairy, without stalks, entire margins

## STEMS:

Erect, hairy, branched, 10 to 80 cm tall

## ROOTS:

Vertical taproots • Spreading lateral roots

## HABITAT:

Moist soils at low to mid-elevations • Invades roadsides, riverbanks, disturbed areas, pastures and cropland.

## GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces by seed, infrequently by root shoots

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	**		*
Flower		**	**
Seed			**

\* germination in fall of year one  
\*\* occurs in year two

## IMPACTS:

Invades disturbed rangeland and reduces forage production. Can form dense stands.

## SIMILAR SPECIES:

Diffuse knapweed, smaller flower heads without triangle flower bracts. • Spotted knapweed, smaller flower heads without triangle flower bracts. • Brown knapweed, flower head bracts are hairy, wider at tips with thin, papery margins



Boundary Weed Management Committee (BWMC)



BWMC



blueweed

# Blueweed

Other common names:  
VIPER'S BUGLOSS,  
BLUE DEVIL

*Echinum vulgare* L.

IAPP Code: BW

## FLOWER:

Stalked, tubular, bright blue,  
2 cm wide. • Flower buds  
reddish purple

## LEAVES:

Basal leaves stalked, hairy,  
narrow, 6 to 25 cm long • Stem  
leaves lance shaped, alternate,  
hairy, 1 to 15 cm long,  
decreasing in size up the stem

## STEMS:

Multiple, hairy, reddish stems, up  
to 0.9 m tall • Stem hairs can  
have swollen red or black base

## ROOTS:

Thick, black taproot  
Lateral roots fibrous

## HABITAT:

Low to mid elevations  
Dry, rocky soils

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	**		*
Flower		**	**
Seed			**

\* germination in fall of year one  
\*\* occurs in year two

## GROWTH FORM AND REPRODUCTION:

Biennial or forb  
Reproduces by seed

## IMPACTS:

Invades open and disturbed  
sites such as pastures and  
rangelands.

Britton and Brown 1913



UGA 135057

brown  
knapweed

# Brown knapweed

Other common names:

NONE

*Centaurea jacea* L.

IAPP Code: BK

## FLOWER:

Terminal dark brown flower heads 2 to 3 cm wide • Flowers pink to purple, occasionally white • Overlapping flower head bracts are hairy, wider at tips with broad, thin, papery margins, dark brown centers.

## LEAVES:

Basal leaves are up to 15 cm long, tapering at both ends • Stem leaves lance-shaped, shallowly-lobed, stalkless, become smaller towards the top of the plant.

## STEMS:

Erect, multiple or single, branched, 0.5 to 1.2 m tall • Ridged and occasionally purple-striped

## ROOTS:

Woody taproot

## HABITAT:

Low to mid elevations • Dry soils  
Invades open and disturbed sites such as roadsides, pastures and forest clearings.  
• Shade tolerant

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	Green	White
Flower	White	Orange	Orange
Seed	White	White	Yellow

## GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduction by high seed production

## IMPACTS:

Established patches expand quickly • Forms dense colonies that exclude native vegetation and planted forage species.

## SIMILAR SPECIES:

Black knapweed flower head bracts are triangular with long black fringes • Meadow knapweed is a hybrid of black and brown knapweeds

Michael Shephard,  
USDA Forest Service  
[www.forestryimages.org](http://www.forestryimages.org)



[www.fws.gov/rainwaterWeed\\_Control/weed\\_control.htm](http://www.fws.gov/rainwaterWeed_Control/weed_control.htm)



bull  
thistle

## Bull thistle

Other common names:  
COMMON THISTLE,  
SPEAR THISTLE

*Cirsium vulgare* (Svai) Tenore  
IAPP Code: BT

### FLOWER:

Single, terminal 4 to 5 cm wide, pinkish to purple, occasionally white • Flower bracts, slightly tapered, armed with spines

### LEAVES:

Alternate, deeply lobed, upper surface prickly, lower surface cottony • Long, prominent spines on tips and at the leaf base

### STEMS:

Erect, branched,  
0.3 to 2.0 m tall

### ROOTS:

Short, thick taproot with several primary roots

### HABITAT:

Dry to moist habitats with coarse to very fine textured soils • Invades open and disturbed sites such as roadsides, pastures, forest cutblocks and cultivated fields. • Shade intolerant

### GROWTH FORM AND REPRODUCTION:

Biennial forb • Reproduces by plumed, windblown seed

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*	*	*
Flower		**	
Seed		**	**
* occurs in year one			
** occurs after year one			

### IMPACTS:

Dense infestations can exclude livestock and wildlife from areas. Infested hay has a decreased value

### SIMILAR SPECIES:

Canada thistle, smaller flower and leaves, less prominent spines. • Scotch thistle, larger plant with distinctive gray/blue colour, prominent spines.



Forest & Kim Starr,  
U.S. Geological Survey,  
Bugwood.org

UGA5160013

Ministry of Agriculture and Lands



Northwest Invasive Plant Council



canada  
thistle

## Canada thistle

Other common names:  
CREEPING THISTLE, CALIFORNIA  
THISTLE, FIELD THISTLE

*Cirsium arvense* (L.) Scop.  
IAPP Code: CT

### FLOWER:

Terminal culture of 4 to 5 white to purple flower heads approximately 1 cm wide. • Flower bracts without spines

### LEAVES:

Alternate, oblong or lance-shaped, spiny, up to 15 cm long, stalkless, clasping the stem, wavy margin, the underside may be covered in soft hairs

### STEMS:

Erect, branched, 0.3 to 2.0 m tall, hollow

### ROOTS:

Deep creeping rhizome

### HABITAT:

Adapted to a wide range of elevations and habitats • Prefers rich loamy soils • Invades open and disturbed sites such as roadsides, forest cutblocks, wetlands, pastures and agricultural areas. • Somewhat shade intolerant

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	Green	Green
Flower	White	Orange	Orange
Seed	White	Yellow	Yellow

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Rapid reproduction through root system, some reproduction by seed • Only thistle with male and female flowers on separate plants

### IMPACTS:

Infestations reduce crop and forage production and dense infestations can exclude areas for recreation or livestock production.

### SIMILAR SPECIES:

Plumeless thistle, floral bracts have sharp spines, normally flowers are solitary



M. Harte, Bugwood.org



Ministry of Agriculture and Lands

M. Harte, Bugwood.org



UGA1358052

common  
burdock

# Common burdock

Other common names:

LESSER BURDOCK, WILD BURDOCK, HARDOCK, WILD RHUBARB

**Arctium minus** (L.)

IAPP Code: CB

## FLOWER:

Flower heads stalked, single or in clusters, at ends of branches and in axils of upper leaves, 1.5 to 3 cm wide • Disk flowers red to violet, rarely white surrounded by many hooked bracts

## LEAVES:

Basal rosette long stalks, broad leaves, up to 50 cm long, 40 cm wide • Stem leaves alternate, large, heart-shaped, hairy, undersides are white and woolly • Leaves decrease in size towards the top of the stem.

## STEMS:

Erect, thick, hollow, branched, grooved, 1 to 3 m tall

## ROOTS:

Long, thick, fleshy taproot

## HABITAT:

Low to mid elevations • Adapted to both moist fertile soils and sterile clay soils • Found in disturbed areas including farmlands, pastures, waste places, open or disturbed forests, roadsides, and stream banks.



M. Harte, Bugwood.org

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*	*	*
Flower		**	**
Seed		**	**

\* occurs in year one  
\*\* occurs in year two

## GROWTH FORM AND REPRODUCTION:

Biennial forb • Reproduction by seed that readily attaches to animals or clothing

## IMPACTS:

Can be problematic in no-till farming. Reduces the value of wool when the flower heads of the plant cling to the coats of animals. Can impart a bitter taste to milk if cows eat large quantities. Alternate host for some agricultural pests.

## SIMILAR SPECIES:

Great burdock, solid lower leaf stalks, larger flowers in flat topped clusters



Northwest Invasive Plant Council



Barb Stewart



common  
tansy

# Common tansy

Other common names:  
GARDEN TANSY

*Tanacetum vulgare* L.

IAPP Code: TC

## FLOWER:

Flat-topped clusters of numerous (20 to 200) small, yellow button-like disk flowers 5 to 10 mm wide on top of plant

## LEAVES:

Dark green, alternate, 5 to 25 cm long, 4 to 8 cm wide, fern-like divided into leaflets with serrated margins • Speckled with many small glands, strongly aromatic

## STEMS:

Erect, branched, many leaves, 0.4 to 1.8 m tall • Purplish-red towards the base • Speckled with many small glands

## ROOTS:

Rhizomatous

## HABITAT:

Full sun, low to mid elevations, well-drained, fertile soils • Invades open and disturbed sites such as roadsides, pastures and stream banks.

## LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	
Flower		Orange	Orange
Seed			Yellow

## GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces by seed and vegetatively from roots

## IMPACTS:

Prolific seed producer • Outcompetes and displaces native vegetation • Toxic to some livestock

## SIMILAR SPECIES:

Tansy ragwort has similar flowers with additional yellow ray (petal-like) flowers.





UGA145980

# dalmatian toadflax

## Dalmatian toadflax

Other common names:  
BROAD-LEAVED TOADFLAX,  
WILD SNAPDRAGON

*Linaria dalmatica* (L.) P. Mill.  
IAPP Code: DT

### FLOWER:

Long terminal clusters, large yellow, snapdragon like flowers

### LEAVES:

Alternate, large, ovate to lance-shaped, clasping the stem, waxy, 3 to 8 cm long, 1 to 2 cm wide

### STEMS:

Erect, often branched, smooth, bluish-green up to 120 cm tall

### ROOTS:

Woody taproot and rhizomes

### HABITAT:

Low to mid elevations •  
Tolerant of coarse soils and low temperatures

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduction by seed and vegetatively by roots

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	*	*	*
Flower	**	**	
Seed		**	**
* occurs in year one			
** occurs after year one			

### IMPACTS:

Can be problematic in no-till farming. Persistent, aggressive invader. Forms dense thickets that can compete with native species and reduce forage production. Toxic to livestock.

### SIMILAR SPECIES:

Yellow toadflax, leaves linear, pointed, plant is generally smaller.



Barb Stewart

Barb Stewart



diffuse  
knapweed



## Diffuse knapweed

Other common names:  
SPREADING KNAWEED,  
TUMBLE KNAWEED

*Centaurea diffusa* Lam.  
IAPP Code: DK

### FLOWER:

Flower heads, terminal, single or clusters of 2 to 3, 1.5 to 2.0 cm tall • Ray flowers primarily white or pinkish, occasionally pink to purple • Floral bracts yellowish 1.0 to 1.4 cm long with comb-like black hairy margin, 1 to 2 mm long, terminating in a spine

### LEAVES:

Blueish-green colour • Basal leaves, stalked, compound, irregular lobes • Stem leaves, alternate, stalkless, hairy, 5 to 15 cm long

### STEMS:

Erect, much branched, angled, short hairs on angles, up to 1.0 m tall

### ROOTS:

Large taproot

### HABITAT:

Low to mid elevations • Dry, open areas

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*		*
Flower		**	**
Seed			**

\* germination in spring or fall of year one  
\*\* occurs after year one

### GROWTH FORM AND REPRODUCTION:

Biennial or short-lived perennial forb • Reproduction by seed

### IMPACTS:

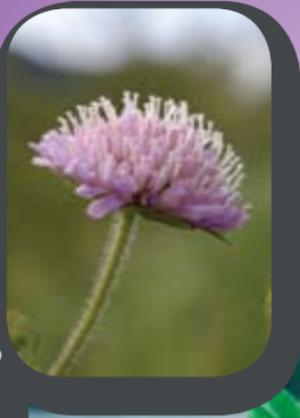
Quickly invades disturbed areas and competes with desirable forage species.

### SIMILAR SPECIES:

Distinguishable from other knapweeds by the terminal spine on the floral bract.

SDA APHIS  
PPQ Archive,  
Bugwood.org





BWMC



field  
scabious

## Field scabious

Other common names:  
SCABIOSA, BLUE BUTTONS

***Knautia arvensis*** (L.) Coulter  
IAPP Code: FS

### FLOWER:

Terminal clover-like flower heads, 1.5 to 4.0 cm wide, violet-blue, pink or purple flowers

### LEAVES:

Basal leaves coarsely toothed, covered in fine hairs • Stem leaves opposite, feather shaped, 10 to 36 cm long, decreasing in size up the stem, covered in fine hairs

### STEMS:

Erect, single, branched near the top, hairy, stem base can be purplish, 0.3 to 1.3 m tall

### ROOTS:

Long woody taproot, can be branched

### HABITAT:

Mid elevations, moderately moist to dry fertile soils • Invades open and disturbed sites such as roadsides, pastures and agricultural fields.

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	Green	White
Flower	Orange	Orange	White
Seed	White	Yellow	Yellow

### GROWTH FORM AND REPRODUCTION:

Perennial forb  
Reproduces by seed

### IMPACTS:

Invades disturbed and undisturbed areas and replaces forage species.



Northwest Invasive Plant Council

Tom Heutte, USDA Forest Service, Bugwood.org



Jeff Hallworth



giant  
knotweed

# Giant knotweed

Other common names:  
BAMBOO

## *Fallopia sachalinensis*

(F. Schmidt) Ronse Decr  
IAPP Code: GK

### FLOWER:

Small, sparse, greenish-white, plume-like axial sprays 2.5 to 3 mm long

### LEAVES:

Alternate, long stalk, hart-shaped, up to 40 cm long

### STEMS:

Erect, branched, hollow, speckled red-brown, 3 cm in diameter, up to 6 m tall • Swollen joints (nodes) give a bamboo-like appearance • Grow in dense thickets

### ROOTS:

Large, extensive rhizomatic systems

### HABITAT:

Escaped ornamental adapted to a variety of soil types, prefer open sites with high to moderate soil moisture • Invades open and disturbed sites such as riparian areas and ditches.

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Rapid vegetative reproduction through spreading rhizomes and rhizome and shoot fragments. • Seed production can be sporadic with low seed viability.

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	Green
Flower	White	Orange	Orange
Seed	White	Yellow	Yellow

### IMPACTS:

Infests and dominates suitable habitats, reducing biodiversity, access to water bodies and stream bank stability. Rhizome fragments can be transported downstream and start new colonies.

### SIMILAR SPECIES:

Himalayan knotweed, smaller lance-shaped leaves, abundant stiff hairs on leaf margin and underside leaf veins. • Japanese knotweed, smaller leaves with straight base, knobs on underside leaf veins. • Bohemian knotweed hybrid of Giant and Japanese knotweeds.



Forest & Kim Starr,  
U.S. Geological Survey,  
Bugwood.org



Forest & Kim Starr, U.S. Geological Survey, Bugwood.org



gorse

## Gorse

Other common names:  
COMMON GORSE, WHIN,  
FURZE, PRICKLY BROOM

*Ulex europaeus* L.

IAPP Code: GO

### FLOWER:

Fragrant, stalked, pea-like, yellow, 1.5 to 2 cm in length, multiple flowers per stem • Black or brown seed pods are evident post-flowering through fall

### LEAVES:

Alternate, trifoliate (clover-like) when young, mature into stiff scales or spines • Spines grooved, branched 1.5 to 2.5 cm long

### STEMS:

Erect, single, many branches, greenish, woody, five angled, some black hairs, tipped with spines, 1 to 3 m tall

### ROOTS:

Taproot, lateral fibrous roots

### HABITAT:

Low elevations, well drained, marginal and acidic soils in open and disturbed sites. Currently restricted to coastal habitats.

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	Green
Flower	Orange	White	Orange
Seed		Yellow	

### GROWTH FORM AND REPRODUCTION:

Perennial shrub • Reproduces by seed

### IMPACTS:

Invades rapidly following logging, land clearing and burning replacing native vegetation and desirable forage species. It forms dense thickets, which reduce recreation and it contains volatile oils that increase its potential as a fire hazard.

### SIMILAR SPECIES:

Scotch broom has simple leaves instead of spines.

Forest & Kim Starr,  
U.S. Geological Survey,  
Bugwood.org



Barb Stewart



Lisa Scott



hoary  
alyssum

# Hoary alyssum

Other common names:

NONE

*Berteroa incana* L.

IAPP Code: HA

## FLOWER:

Stalked, white, petals have a deep notch, 0.5 to 0.8 cm in length • Sepals hairy, short-lived

## LEAVES:

Grey, star-shaped hairs  
Basal leaves stalked, 3 to 5 cm long • Stem leaves elliptical, short or no stalks

## STEMS:

Erect, multiple or single, branched, 0.3 to 1.1 m tall  
Covered with pale, star-shaped hairs

## ROOTS:

Small taproot

## HABITAT:

Dry, coarse textured soils  
Open and disturbed sites such as roadsides, pastures and meadows.

## GROWTH FORM AND REPRODUCTION:

Biennial (rarely perennial) forb  
Reproduces by seed, larger rootstocks will produce multiple stems

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green		
Flower	Orange	Orange	Orange
Seed		Yellow	Yellow

## IMPACTS:

Invades dry, disturbed habitats such as sub-marginal farm or rangeland, roadsides and railway embankments. Reduces quality of infested hay. Can be toxic to horses.

## SIMILAR SPECIES:

Pale, desert and wall alyssum, smaller plants, desert and wall alyssum produce yellow flowers.





USDA



hoary  
cress

## Hoary cress

Other common names:  
HART-PODDED HOARY CRESS,  
WHITETOP

***Cardaria draba*** (L.) Desv.  
IAPP Code: HC

### FLOWER:

Terminal flat-topped clusters, white flowers, 0.4 to 0.6 cm wide • Four petals 0.3 to 0.4 cm long

### LEAVES:

Blue-green, alternate, lance-shaped 4 to 10 cm long, 3 cm wide • Lower leaves stalked, upper leaves clasp the stem with hart-shaped leaf bases

### STEMS:

Erect, branched, up to 50 cm tall

### ROOTS:

Deep rhizomatous roots

### HABITAT:

Dry soils, low to mid-elevations, with moderate rainfall • Invades open and disturbed areas.

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces by seed (high production) and vegetatively by roots

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green		
Flower		Orange	
Seed		Yellow	

If conditions are favourable a second crop of seed can be produced in the fall.

### IMPACTS:

Invades disturbed agricultural land and rangeland, competing with crops and reducing forage production.

### SIMILAR SPECIES:

Globe-pod hoary cress has fruit that is globe-shaped instead of hart-shaped. • Perennial pepperweed, leaves do not clasp the stem.



MAL



Mel Harte, Bugwood.org



Ministry of Agriculture and Lands



hound's-tongue

# Hound's-tongue

Other common names:

DOG BUR, BEGGAR'S LICE, COMMON BUR, GLOVEWORT, WOOLMAT

*Cynoglossum officinale* L.

IAPP Code: HT

## FLOWER:

Red to purple branched clusters, arranged in the axils of upper leaves • Fruit, four gray-brown burred nutlets

## LEAVES:

Stem leaves, alternate, rough, hairy, 10 to 30 cm long, 2 to 5 cm wide, decrease in size up the stem • Basal leaves, elliptical to oblong, tapered base

## STEMS:

Erect, single or multiple, branched, greenish, 0.3 to 1.2 m tall

## ROOTS:

Woody taproot

## HABITAT:

Low to mid elevations, well drained soils in open and disturbed sites

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*	*	*
Flower		**	**
Seed		**	**

\* occurs in year one  
\*\* occurs in year two

## GROWTH FORM AND REPRODUCTION:

Perennial forb • Rapid reproduction through abundant seed

## IMPACTS:

Prefers frequently disturbed such as roadsides, sand dunes, or open woodlands. Invades grasslands and suppress native grasses.

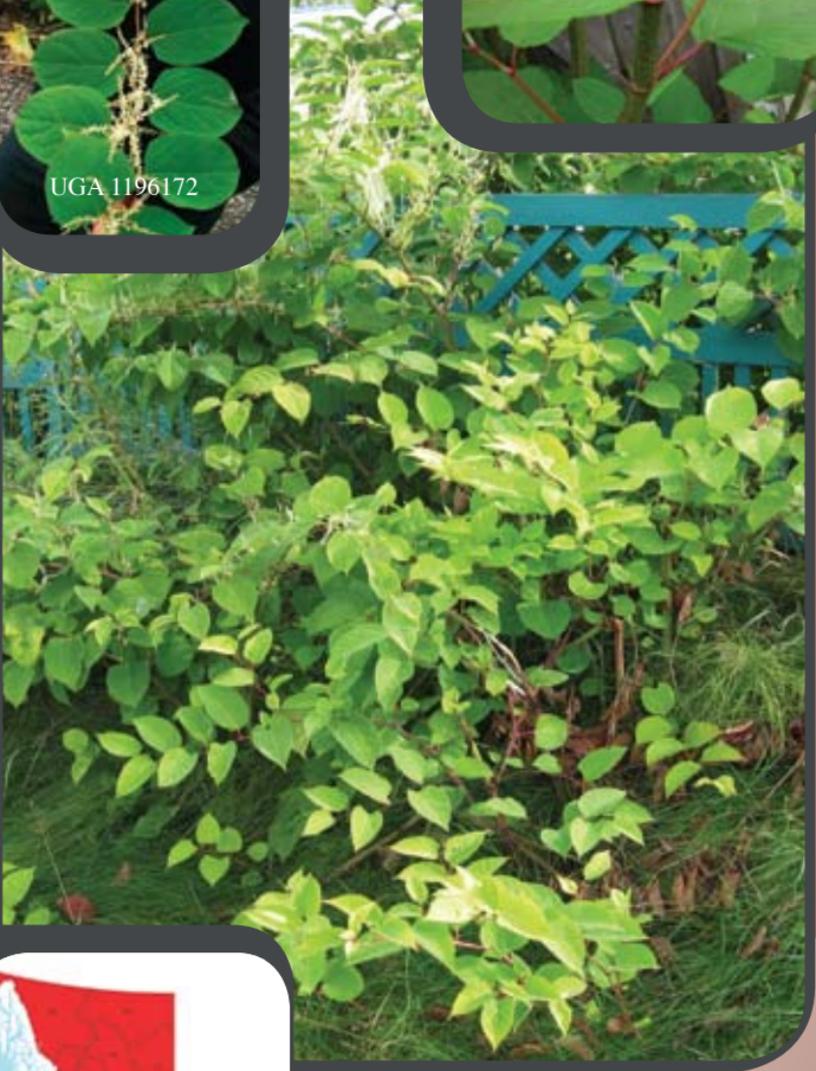


Barb Stewart

Bradley Kriekhaus, USDA Forest Service, Bugwood.org

UGA 1196172

Northwest Invasive Plant Council



japanese  
knotweed



# Japanese knotweed

Other common names:

ELEPHANT EARS, SALLY RHUBARB,  
MEXICAN BAMBOO

*Fallopia japonica*

(Houtt.) Ronse Decr.

IAPP Code: JK

## FLOWER:

Small, loose, greenish-white, plume-like axial sprays 2.5 to 3 mm long

## LEAVES:

Alternate, oval-shaped, long stalks, straight leaf base (truncate), abruptly pointed tip, up to 10 cm long, leathery texture

## STEMS:

Erect, abundantly branched, hollow, speckled purple-brown, 3 cm in diameter, up to 1.5 to 2.5 m tall • Swollen joints (nodes) give a bamboo-like appearance • Grow in dense thickets

## ROOTS:

Large, extensive rhizomatic systems

## HABITAT:

Escaped ornamental adapted to a variety of soil types, prefer open sites with high to moderate soil moisture • Invades open and disturbed sites such as riparian areas and ditches.

## GROWTH FORM AND REPRODUCTION:

Perennial forb • Rapid vegetative reproduction through spreading rhizomes and rhizome and shoot fragments. • Seed production can be sporadic with low seed viability.

## LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	Green
Flower	White	Orange	Orange
Seed	White	Yellow	Yellow

## IMPACTS:

Infests and dominates suitable habitats, reducing biodiversity, access to water bodies and stream bank stability. Rhizome fragments can be transported downstream and start new colonies.

## SIMILAR SPECIES:

Himalayan knotweed, smaller lance-shaped leaves, abundant stiff hairs on leaf margin and underside leaf veins. • Giant knotweed, larger leaves with heart-shaped base, large hairs on underside leaf veins. • Bohemian knotweed, hybrid of Giant and Japanese knotweeds.



Ministry of  
Agriculture  
and Lands



Boundary Weed Management Committee



leafy  
spurge

# Leafy spurge

Other common names:  
NONE

***Euphorbia esula* L.**

IAPP Code: LS

## **FLOWER:**

Numerous small yellow-green terminal umbrella-shaped clusters • Prominent paired bracts under the flower

## **LEAVES:**

Lance-shaped, alternate, stalkless, 2 to 6 cm long, 0.3 to 0.5 cm wide

## **STEMS:**

Erect, clustered, branched, somewhat woody, smooth, bluish-green up to 1 m tall

## **ROOTS:**

Woody taproot

## **HABITAT:**

Low to mid elevations • Prefers semi-arid areas but also found in very dry and very wet areas • Tolerates a range of soils textures, prefers coarse soils

## **LIFE CYCLE:**

	Spring	Summer	Fall
Rosette	Present	Absent	Absent
Flower	Present	Present	Absent
Seed	Absent	Absent	Present

## **GROWTH FORM AND REPRODUCTION:**

Perennial forb • Reproduction by seed and vegetatively by lateral roots (predominantly)

## **IMPACTS:**

Persistent, aggressive invader of rangeland. Toxic to most livestock. Produces allelopathic compounds that inhibit growth of neighbouring plants. All parts of the plant produce irritating milky latex that can cause blisters and swelling.

## **SIMILAR SPECIES:**

Cypress spurge, escaped ornamental, leaves are greener, slightly club-shaped and more abundant.

MAL



Ministry of Agriculture and Lands



marsh plume  
thistle

# Marsh plume thistle

Other common names:

NONE

*Cirsium palustre* Scop.

IAPP Code: MT

## FLOWER:

Compact clusters of small, terminal purple flowers

## LEAVES:

Mostly basal, spiny, deeply segmented, prominent woody veins, hairy undersides, winged bases

## STEMS:

Slender, erect, generally unbranched, 0.3 to 2.0 m tall, spiny and with spiny wings arising from winged leaf-bases

- Mature stems have distinctive purple tinge

## ROOTS:

Fibrous

## HABITAT:

Invades open and disturbed, moist to wet sites such as roadsides, cutblocks, stream and pond banks, and wet meadows

## GROWTH FORM AND REPRODUCTION:

Biennial forb • Reproduces by seed

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*		*
Flower		**	**
Seed			**

\* germination in spring or fall of year one  
\*\* occurs after year one

## IMPACTS:

Forms dense mats of rosettes which exclude native vegetation and planted forage species • Able to establish in undisturbed sites

## SIMILAR SPECIES:

The winged stems and leaf bases, and purple hue differentiates this thistle from other *Cirsium* species. No native species have these characteristics.



Cindy Roche, Bugwood.org



UGA1350053



Cindy Roche, Bugwood.org



UGA1350052

meadow  
knapweed

# Meadow knapweed

Other common names:  
NONE

***Centaurea debauxii***

Gren. & Godr.  
IAPP Code: MK

## FLOWER:

Purple-red to pink or white (rare) terminal oval flower heads, up to 2.5 cm across • Flower bracts tan to dark brown, 0.7 cm wide, bract tips range from comb-like fringe to blunt ruffled edge.

## LEAVES:

Basal rosette leaves lance-shaped, leaf margins entire, toothed, or lobed and up to 15 cm long • Lower stem leaves lance-shaped, stalked, sometimes shallowly lobed, uppermost leaves smaller, stalkless and not lobed

## STEMS:

Erect, branched, sparsely hairy, 0.4 to 1.0 m tall

## ROOTS:

Woody crowned taproot

## HABITAT:

Low to mid elevations invades open and disturbed sites, prefers moist sites, including irrigated pastures, moist meadows, streams, irrigation ditches, and open forests.

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*	*	*
Flower		**	
Seed		**	**

\* occurs in year one  
\*\* occurs after year one

## GROWTH FORM AND REPRODUCTION:

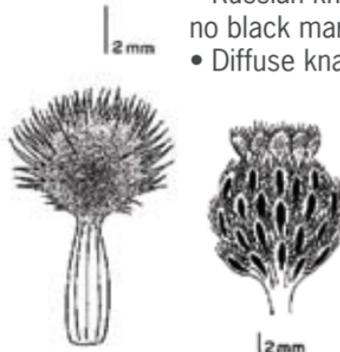
Perennial forb • Reproduces primarily by seed, can resprout from root fragments

## IMPACTS:

Outcompetes and replaces native vegetation.

## SIMILAR SPECIES:

Meadow knapweed is considered a hybrid of black and brown knapweeds. • Black knapweed, flower head bracts dark with comb-like longer black fringes • Brown knapweed, bracts without comb-like fringe, brown, papery, translucent tip • Russian knapweed smaller flowers, no black marking on flower bracts • Diffuse knapweed, flower head bracts with distinct terminal spine that are prickly to the touch • Spotted knapweed, flower bract fringe is comb-like, short and rigid, with brown triangular tip



Richard Old, XID Services,  
Inc., Bugwood.org



Richard Old, XID Services, Inc., Bugwood.org



UGA5236062

meadow  
hawkweed

# Meadow hawkweed

Other common names:

NONE

*Hieracium caespitosum*

Dumort.

IAPP Code: MH

## FLOWER:

Cluster of many (20 to 50) yellow terminal flower heads, 2 to 2.5 cm across

## LEAVES:

Basal rosette of lance, elliptical or egg-shaped leaves, tapering to the stem base • Upper surface covered in long simple hairs, underside covered with star-shaped and long, simple hairs

## STEMS:

Generally erect, single, branched near the top, leafless, 20 to 70 cm tall • Covered in dark-stiff hairs, long-simple hairs and star-shaped hairs • Releases a milky juice when broken

## ROOTS:

Fibrous with a woody stem base • Stoloniferous

## HABITAT:

Low to mid elevations • Well-drained to coarse-textured, acidic soils • Invades open and disturbed sites such as roadsides, pastures and clearings • Tolerates moderate shade

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	Green	White
Flower	White	Orange	White
Seed	White	White	Yellow

## GROWTH FORM AND REPRODUCTION:

Perennial forb • Rapid reproduction by: high seed production (apomictic) and viability, windborn seeds, adventitious root buds, rhizomes, numerous above-ground runners (stolons) and through root fragments.

## IMPACTS:

Established patches expand quickly • Forms dense mats of rosettes that exclude native vegetation and planted forage species • Able to establish in undisturbed sites and in all but densely shaded conditions.



T. Kok, Virginia Polytechnic Institute  
and State University, Bugwood.org



Ricky Layson Photography, Bugwood.org  
Boundary Weed Management Committee



nodding  
thistle

## Nodding thistle

Other common names:  
NODDING PLUMELESS THISTLE,  
MUSK THISTLE

**Carduus nutans** L.  
IAPP Code: NT

### FLOWER:

Single, terminal reddish-purple flower heads approximately 2.5 to 5.0 cm wide. • Flower bracts end in sharp spines

### LEAVES:

Dark green, alternate, deeply lobbed, spiny, often white margin  
• Leaf base extends onto the stem for a “winged” appearance

### STEMS:

Erect, single or branched, smooth, not spiny, 0.3 to 2.4 m tall

### ROOTS:

Fleshy taproot

### HABITAT:

Mid elevation, well drained soils  
Invades open and disturbed sites such as rangeland, forests and agricultural areas.

### GROWTH FORM AND REPRODUCTION:

Biennial forb • Reproduces by seed

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*		*
Flower		**	**
Seed			**

\* germination in spring or fall of year one  
\*\* occurs after year one

### IMPACTS:

Infestations reduce crop and forage production • May produce allelopathic compounds that inhibit the growth of neighbouring plants.

### SIMILAR SPECIES:

Plumeless thistle, deeply serrated leaves



Dan Tenaglia, MissouriPlants.com,  
Bugwood.org

Northwest Invasive Plant Council



Barb Stewart



orange hawkweed

## orange hawkweed

Other common names:  
DEVIL'S PAINT BRUSH

*Hieracium aurantiacum* L.

IAPP Code: OH

### FLOWER:

Cluster of orange-red terminal flower heads, 2 to 2.5 cm across

### LEAVES:

Basal rosette of lance, elliptical or egg-shaped leaves 2 to 20 cm long • Top and undersides covered with stiff hairs

### STEMS:

Generally erect, single, unbranched, leafless, 0.3 to 1.2 m tall • Covered in stiff dark hairs; if broken releases a milky juice

### ROOTS:

Fibrous with a woody stem base  
• Strongly stoloniferous

### HABITAT:

Low to mid elevations  
• Well-drained, coarse-textured, acidic soils • Invades open and disturbed sites such as roadsides, pastures and clearings • Tolerates moderate shade

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	Green	Green
Flower	White	Orange	Orange
Seed	White	White	Yellow

### GROWTH FORM & REPRODUCTION:

Perennial forb • Rapid reproduction by: high seed production (apomictic) and viability, windborn seeds, adventitious root buds, rhizomes, numerous above-ground runners (stolons) and through root fragments.

### IMPACTS:

Established patches expand quickly • Forms dense mats of rosettes which exclude native vegetation and planted forage species • Able to establish in undisturbed sites and in all but densely shaded conditions.



Boundary Weed Management Committee



Ministry of Agriculture and Lands



oxeye  
daisy

## Oxeye daisy

Other common names:  
WHITE DAISY, MARGUERITE

*Leucanthemum vulgare* Lam.  
IAPP Code: OD

### FLOWER:

Terminal solitary flower heads 2 to 6 cm wide, white ray flowers, yellow disk flowers

### LEAVES:

Basal leaves stalked, lance-shaped, 4 to 15 cm long, 5 cm wide, edges toothed to deeply lobed • Stem leaves alternate, hairless, lance-shaped, short clasping stalks, edges toothed to shallowly lobed, decreasing in size up the stem

### STEMS:

Erect, multiple stems, sparsely hairy, 20 to 80 cm tall

### ROOTS:

Shallow rhizomes

### HABITAT:

Low to mid elevations invading moist to dry, open and disturbed sites with nutrient deficient soils including roadsides, fields and open forests.

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces primarily by seed and vegetatively from creeping rhizomes

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	Green
Flower	White	Orange	White
Seed	White	Yellow	Yellow

### IMPACTS:

Unpalatable to cattle, capable of dominating pastures and rangeland it displaces native and other desirable forage species.

### SIMILAR SPECIES:

Shasta daisy, ornamental with larger flowers, 5 to 8 cm wide. Scentless chamomile, feathery fern-like leaves.



S Atherton

Leslie J. Mehrhoff, University of  
Connecticut, Bugwood.org



Ministry of Agriculture and Lands



perennial  
pepperweed

## Perennial pepperweed

Other common names:

TALL WHITETOP, GIANT WHITEWEED,  
PERENNIAL PEPPERGRASS

*Lepidium latifolium* L.

IAPP Code: PP

### FLOWER:

Dense terminal clusters of four-petaled small white flowers

### LEAVES:

Bright grey-green, waxy, alternate, lance-shaped, edges entire to toothed, distinctive white mid-veins • Basal leaves up to 30 long, 8 cm wide, stem leaves 7 to 25 cm long

### STEMS:

Erect, multiple stems, 0.5 to 2.0 m tall

### ROOTS:

Deep, creeping roots from a woody crown

### HABITAT:

Invade a wide range of habitats including riparian areas, wetlands, ditches, forests, rangeland, pastures and cropland. Thrives in seasonally wet areas in fine-textured, saline soils and disturbed areas.

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	White	White
Flower	Orange	Orange	White
Seed	White	Yellow	White

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces primarily vegetatively from roots, prolific seed producer.

### IMPACTS:

Large infestations displace native plants • Can impact alfalfa and pasture production • Reported to adversely affect food quality and nesting habitat for native birds.

### SIMILAR SPECIES:

Hoary cress, leaves clasp the stem, not waxy.



Gary L. Piper, Washington State University, Bugwood.org



UGA002603

# plumeless thistle

Todd Pfeiffer, Klamath County Weed Control, Bugwood.org

# Plumeless thistle

Other common names:  
SPINY PLUMELESS THISTLE,  
WELTED THISTLE

*Carduus acanthoides* L.

IAPP Code: PT

## FLOWER:

Single or clusters of 2 to 5 flower heads, terminal reddish-purple flower heads approximately 2.0 to 5.0 cm wide. • Flower bracts lance-shaped sharp spines

## LEAVES:

Basal rosette leaves deeply serrated, 10 to 20 cm long • Stem leaves stalkless, hairy underneath

## STEMS:

Erect, branched, spiny wings from base to flower heads, 0.3 to 1.2 m tall

## ROOTS:

Fleshy taproot

## HABITAT:

Invades open and disturbed mid elevation sites such as grasslands, roadsides, and pastures.

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	Green	Green
Flower		Orange	
Seed		Yellow	Yellow

## GROWTH FORM AND

## REPRODUCTION:

Winter annual or biennial forb • Prolific seed production

## IMPACTS:

Infestations reduce crop and forage production, unpalatable to cattle, invades undisturbed grassland communities.

## SIMILAR SPECIES:

Nodding thistle, larger flowers and stem, no hairs on leaves, white margin around leaf margins.





USDA



Lisa Scott



puncturevine

## Puncturevine

Other common names:  
BULLHEAD, CALTROP, GOATHEAD,  
TACKWEED, TEXAS SANDBUR

*Tribulus terrestris* L.  
IAPP Code: PV

### FLOWER:

Single, terminal, stalked, five petaled, yellow flowers, held in the leaf axils • Distinct sharp-spined fruits 0.2 to 0.6 cm long

### LEAVES:

Opposite, hairy, divided into four to eight pairs of oval leaflets each 5 to 15 mm long

### STEMS:

Dense mat of prostrate, much branched stem, 6 to 1.5 m tall, up to 1.0 m wide

### ROOTS:

Woody taproot

### HABITAT:

Adapted to a variety of conditions, prefers warm temperate climate and dry, light textured soils. Requires relatively high temperatures for germination and growth. Found in the southern interior in pastures, roadsides, waste places, rail yards, and agricultural areas.

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	White
Flower	White	Orange	Orange
Seed	White	Yellow	Yellow

### GROWTH FORM AND REPRODUCTION:

Annual forb • Abundant seed production

### IMPACTS:

The spines of the fruit can injure the feet animals or children or the mouth, stomach, and intestines of livestock. It can be toxic to grazing animals.



Lisa Scott

Ministry of Agriculture  
and Lands



Val Miller



purple  
loosestrife

## Purple loosestrife

Other common names:  
PURPLE LYTHRUM,  
SPIKED LOOSESTRIFE

*Lythrum salicaria* L.

IAPP Code: PL

### FLOWER:

Long flowering stalk 10 to 40 cm long, showy purple flowers, 5 to 7 petals, flowers 15 to 20 mm wide.

### LEAVES:

Opposite or whorled, lance-shaped, stalkless, 3 to 10 cm long

### STEMS:

Erect, square, branching, 0.5 to 1.5 m tall

### ROOTS:

Extensive, perennial taproot and rhizomes

### HABITAT:

Low to mid elevation wet sites including ditches, wetlands and streams. Tolerate partial shade and basic or acidic soil.

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	White	White
Flower	White	Orange	White
Seed	White	Yellow	Yellow

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces by seed, older rootstocks will produce multiple stems

### IMPACTS:

Escaped ornamental that rapidly invades wetlands, streams and ponds. Out-competes and replaces native vegetation. Dense stands reduce water flow and impede access.



MAL



Linda Wilson, Bugwood.org

Utah State University Archive, Bugwood.org



UGA1459572

rush  
skeletonweed

Richard Old, XID Services, Inc., Bugwood.org

## Rush skeletonweed

Other common names:

NONE

*Chondrilla juncea* L.

IAPP Code: RS

### FLOWER:

Terminal flower heads, single or groups of 2 to 3, each flower head holds 10 to 12 star-shaped bright yellow flowers, 2 cm wide

### LEAVES:

Basal leaves lance-shaped, deeply lobed, sharply toothed, 5 to 13 cm long, leaves wither as stem develops • Stem leaves small, narrow, margins entire

### STEMS:

Erect, much branched, 0.4 to 1.0 m tall • Upper stem smooth, lower stem with downward pointing hairs • Contains a milky latex

### ROOTS:

Deep taproot

### HABITAT:

Mid elevations, sandy or coarse, dry soils • Invades open and disturbed sites such as roadsides, cropland and rangelands.

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	White	Green
Flower	White	Orange	White
Seed	White	Yellow	Yellow

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduction predominantly by seed, also vegetatively from roots

### IMPACTS:

Forms dense colonies that exclude native vegetation and desired forage species and rarely invades healthy plant communities. The latex produced by the plant is problematic for crop harvesting machinery.

Steve Dewey,  
Utah State University,  
Bugwood.org



Steve Dewey, Utah State University, Bugwood.org



russian  
knapweed

# Russian knapweed

Other common names:

NONE

*Acroptilon repens*

IAPP Code: RK

## FLOWER:

Pink or purple, urn-shaped, terminal flower heads, 1.5 to 2.5 cm across • flower bracts green, oval-shaped with pointed, papery tips

## LEAVES:

Basal rosette leaves lance-shaped, tapering both ends • Lower stem leaves alternate, lance-shaped, deeply lobed • Upper stem leaves oblong, toothed, becoming smaller towards the top of the stem

## STEMS:

Erect, branched, 0.45 to 1.0 m tall • Covered in soft, short, gray hairs when young

## ROOTS:

Black, alternate scales

## HABITAT:

Low to mid elevations • Invades open and disturbed sites such as roadsides, riverbanks, grasslands, pastures and open forests.

## GROWTH FORM AND

## REPRODUCTION:

Perennial forb • Reproduces primarily vegetatively from roots and somewhat through seed

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	White	Green
Flower	White	Orange	Orange
Seed	White	Yellow	Yellow

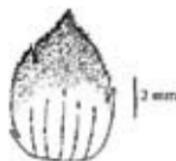
## IMPACTS:

Form dense stands that displace native vegetation, desirable forage species and reduce crop yields. Toxic to horses. Impedes the growth of surrounding vegetation with allelopathic compounds.

## SIMILAR SPECIES:

Spotted knapweed, biennial, black tipped flower bracts • Meadow knapweed, flower head bracts with tattered fringes • Diffuse knapweed, flower head bracts with distinct terminal spine that are prickly to the touch • Black knapweed, undivided leaves, flower head bracts dark with longer black fringes

Province of BC



Charles T. Bryson, USDA Agricultural Research Service, Bugwood.org



Barb Stewart



UGA2100003

# scentless chamomile

# Scentless chamomile

Other common names:  
SCENTLESS MAYWEED

*Matricaria perforata* Merat  
IAPP Code: SH

## FLOWER:

Terminal, solitary flower heads 2 to 3 cm wide, white ray flowers, yellow disk flowers

## LEAVES:

Basal leaves wither by flowering time • Stem leaves alternate, hairless, finely divided resulting in a feather-like appearance, odorless when crushed

## STEMS:

Erect, smooth, branched, 5 to 100 cm tall

## ROOTS:

Shallow rhizomes

## HABITAT:

Low to mid elevation, moist to dry soils, seasonally flooded areas • Invades open and disturbed sites including roadsides, shorelines and perennial crops.

## GROWTH FORM AND REPRODUCTION:

Annual, biennial or perennial forb  
Reproduces by seed

## LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	Green
Flower	White	Orange	Orange
Seed	White	Yellow	Yellow

## IMPACTS:

Unpalatable to livestock, capable of dominating pastures and rangeland it displaces native and other desirable forage species.

## SIMILAR SPECIES:

Wild chamomile, wild mayweed and pinappleweed all have a strong odor when crushed • Corn chamomile, stems are hairy below the flower heads • Oxeye daisy, lance-shaped leaves



Richard Old, XID Services, Inc., Bugwood.org

Barb Stewart



Becky Brown



scotch  
broom

## Scotch broom

Other common names: SCOT'S BROOM, BROOMTOP, COMMON BROOM, EUROPEAN BROOM

### FLOWER:

Pea-like, single in axils, bright yellow with or without red markings, 2,5 cm in length, multiple flowers per stem • Brown seed pods are evident post-flowering through fall

### LEAVES:

Lower leaves: dark green, alternate, stalked, trifoliate (clover-like), oval to lance shaped, 6 to 12 mm long • Upper leaves: dark green, no stalk, simple

### STEMS:

Erect, multiple, branched (top), woody, five angled, few leaves, 1 to 3 m tall

### ROOTS:

Taproot, lateral fibrous roots

### HABITAT:

Dry, well drained soils in open marginal and disturbed sites • Invades grasslands, sand dunes, cultivated fields, roadsides, dry riverbeds and waterways

### GROWTH FORM AND REPRODUCTION:

Perennial shrub • Reproduces by seed and vegetatively

*Cytisus scoparius* L.

IAPP Code: SB

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative			
Flower			
Seed			

### IMPACTS:

Invades rapidly following logging, land clearing and burning • Forms dense thickets which exclude native vegetation. Compete with planted tree seedlings

### SIMILAR SPECIES:

Gorse, has spines • Spanish broom, multiple flowers per axil, fragrant, terminal flowers instead of along the stem, round bright green stems



Becky Brown

Barb Stewart



Lisa Scott



scotch  
thistle

## Scotch thistle

Other common names:  
COTTON THISTLE

*Onopordum acanthium* L.

IAPP Code: ST

### FLOWER:

Single, terminal reddish-purple flower heads approximately 2.0 to 5.0 cm wide. • Flower bracts are spine tipped

### LEAVES:

Basal rosette leaves oval-shaped, up to 60 cm long, 30 cm wide • Stem leaves alternate, stalkless, large, irregularly lobed, toothed margins with sharp yellow spikes, both leaf surfaces covered with wooly hairs

### STEMS:

Erect, multiple stems, branched, broad spiny wings, wooly hairs, up to 3.0 m tall

### ROOTS:

Fleshy taproot

### HABITAT:

Invades open and disturbed mid elevation sites such as grasslands, roadsides, and pastures.

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	Green	Green	Green
Flower		Orange	
Seed		Yellow	Yellow

### GROWTH FORM AND REPRODUCTION:

Winter annual or biennial forb • Prolific seed production

### IMPACTS:

Infestations reduce crop and forage production, unpalatable to cattle, invades undisturbed grassland communities.

### SIMILAR SPECIES:

Nodding thistle, larger flowers and stem, no hairs on leaves, white margin around leaf margins.



Boundary Weed Management Committee



Lisa Scott



Northwest Invasive Plant Council



Lisa Scott



# spotted knapweed

# Spotted knapweed

Other common names:  
NONE

***Centaurea biebersteinii* DC.**  
(Syn, ***Centaurea maculosa* Lam.**)  
IAPP Code: SK

## FLOWER:

Light Purple to pink or white (rare) terminal flower heads, 1.5 to 2.5 cm across • Flower bracts tipped with short black hairs giving a “spotted” appearance

## LEAVES:

Basal rosette leaves deeply lobed and up to 15 cm long • Stem leaves alternate, pinnately divided, 5 to 15 cm long and become smaller towards the top of the stem

## STEMS:

Erect, multi-stemmed, branched, 0.2 to 1.8 m tall

## ROOTS:

Strong taproot

## HABITAT:

Low to mid elevations, well-drained, light to coarse-textured soils • Invades open and disturbed sites such as roadsides, grasslands and open forests.

## GROWTH FORM AND REPRODUCTION:

Short-lived perennial forb • Reproduces by seed

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	**		*
Flower	**	**	
Seed		**	

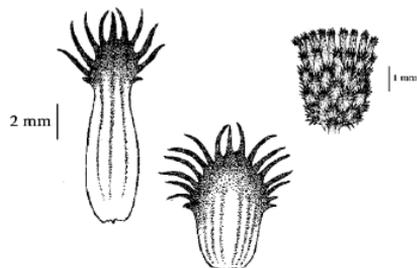
\* germination in fall of year one  
\*\* occurs in year two

## IMPACTS:

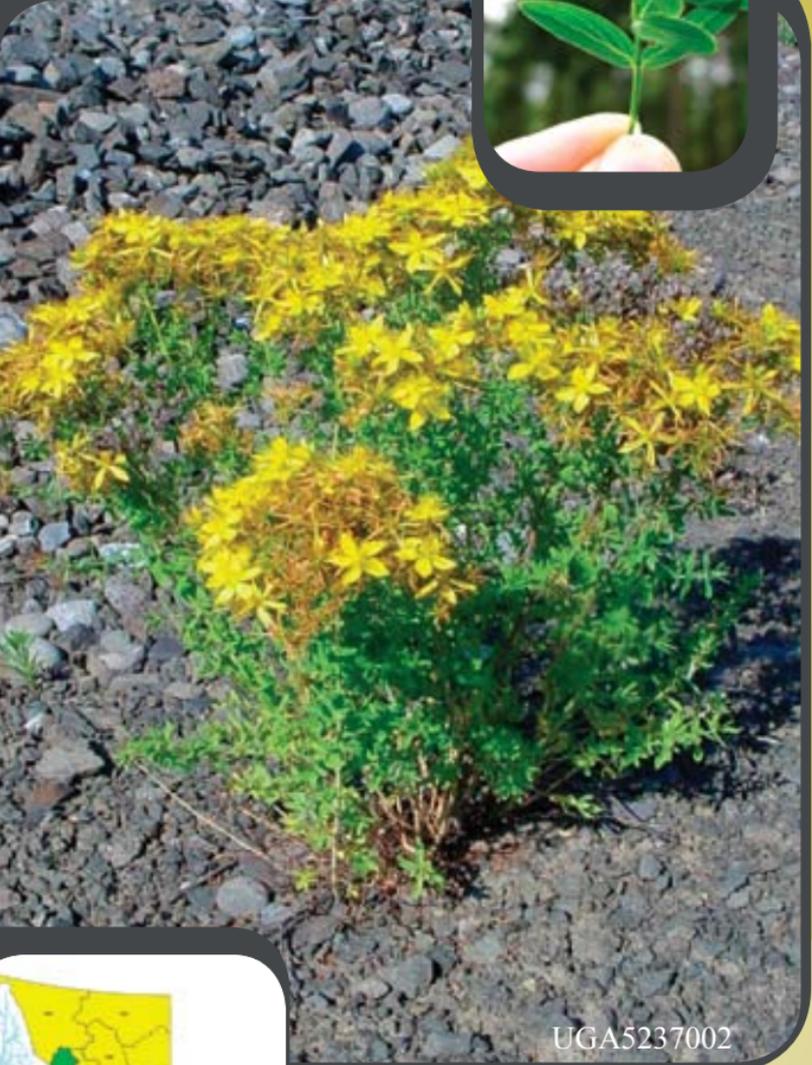
Outcompetes and replaces native vegetation • Threatens wildlife habitat • May have allelopathic properties • The sparse growth form can result in increased runoff and soil loss. • Able to establish in undisturbed sites

## SIMILAR SPECIES:

Meadow knapweed, flower head bracts with tattered fringes • Russian knapweed, smaller flowers, no black marking on flower bracts • Diffuse knapweed, flower head bracts with distinct terminal spine that are prickly to the touch • Black knapweed, undivided leaves, flower head bracts dark with longer black fringes



Richard Old, XID Services, Inc., Bugwood.org



UGA5237002

st. john's-wort

## St. John's-wort

Other common names:  
KALAMATH WEED, GOATWEED,  
COMMON ST. JOHN'S-WORT

*Hypericum perforatum* L.  
IAPP Code: SJ

### FLOWER:

Terminal clusters of five-petaled, yellow flowers, 2.0 cm wide

### LEAVES:

Opposite, oval-shaped, prominent veins and transparent glands, 1 to 3 cm long

### STEMS:

Erect, branched, two-sided, rust coloured, 0.1 to 1.0 m tall

### ROOTS:

Short rhizomes

### HABITAT:

Low to mid elevations in dry, coarse soils • Tolerates pH range of 4.3 to 7.6 • Invades coastal, grassland and open forest regions, rangelands, roadsides and other disturbed areas.

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduction by seed and vegetatively by roots

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	White	White
Flower	White	Orange	Orange
Seed	White	Yellow	Yellow

### IMPACTS:

Infestations reduce forage production, produces compounds that cause photosensitivity in livestock.



David Cappaert, Michigan State University,  
Bugwood.org

Lisa Scott



Lisa Scott



sulphur  
cinquefoil

# Sulphur cinquefoil

Other common names:  
ROUGH-FRUITED CINQUEFOIL

**Potentilla recta L.**  
IAPP Code: SC

## FLOWER:

Light yellow, five-petaled

## LEAVES:

Alternate, palmately compounded, divided into 5 to 7 toothed leaflets • Leaf stalks with parallel hairs

## STEMS:

Multiple, erect, branched, 30 to 70 cm tall

## ROOTS:

Woody taproot with lateral rhizomes

## HABITAT:

Adapted to a wide range of soils, climates and light conditions. Currently occupies grasslands and dry forests.

## GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces by seed and vegetatively from roots

## LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	White	White
Flower	Orange	Orange	White
Seed	White	Yellow	White

## IMPACTS:

Establishes quickly on disturbed sites and it can dominate both disturbed and undisturbed sites. Unpalatable to grazing animals, it reduces forage for livestock and wildlife.

## SIMILAR SPECIES:

There are 27 species of *Potentilla* in BC all with different arrangements of leaves, leaflets, type and arrangement of hairs



Lisa Scott

Ministry of Agriculture and Lands

Richard Old, XID Services, Inc., United States



UGA5245007

tansy  
ragwort

Utah State University Archive, Bugwood.org

# Tansy ragwort

Other common names:  
COMMON RAGWORT,  
STAGGERWORT

**Senecio jacobaea** L.  
IAPP Code: TR

## FLOWER:

Numerous, terminal flat-topped clusters of bright yellow daisy-like flowers • Flower head bracts black tipped, arranged in a single row

## LEAVES:

Dark green, lobbed, tips rounded  
Basal leaves stalked, 4 to 20 cm long, 2 to 6 cm wide •  
Stem leaves alternate, whitish underside, smaller and stalkless towards the top of the plant.

## STEMS:

Erect, purplish, branched near the top, 0.2 to 1.2 m tall •  
Purplish-red towards the base  
Speckled with many small glands

## ROOTS:

Taproot with fibrous lateral roots

## HABITAT:

Prefers full sun, partial shade and well-drained soils. • Found on disturbed sites including roadsides, pastures and clear-cuts.

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette			
Flower		**	**
Seed			**

\* germination in spring or fall of year one  
\*\* occurs after year one

## GROWTH FORM AND REPRODUCTION:

Biennial or short-lived perennial forb • Reproduces primarily by seed, can regenerate from root and shoot fragments

## IMPACTS:

Prolific seed producer •  
Displaces desired forage species  
• Toxic to livestock and wildlife

## SIMILAR SPECIES:

Common tansy, bright yellow flowers without ray (petal-like) flowers, has sharply toothed leaves.



Lisa Scott



BWMC



teasel

# Teasel

Other common names:  
FULLER'S TEASEL,  
COMMON TEASEL

*Dipsacus fullonum* L.

IAPP Code: TS

## FLOWER:

Numerous small, purple or white flowers in circular rows on terminal, oval-shaped flower heads, long upward curving flower head bracts • Flower heads up to 3 cm long • Flowers bloom in rows starting from the middle of the flower head

## LEAVES:

Basal leaves, oval or oblong, wrinkled, scalloped or rounded margins, older leaves hairy • Stem leaves lance-shaped, opposite, prickly hairs on lower mid-rib, up to 25 cm long, prominent veins clasp the stem forming cup-like structures

## STEMS:

Coarse, prominent vertical ribs, downward pointing small spines, upper portion branching, 0.6 to 2.1 m tall • Stem hairs can have swollen red or black base



BWMC

## LIFE CYCLE:

	Spring	Summer	Fall
Rosette	■	■	■
Flower		**	**
Seed			**

\* germination in spring or fall of year one  
\*\* occurs after year one

## ROOTS:

Thick, taproot

## HABITAT:

Biennial or perennial forb • Invades open, sunny habitats with moist to dry, fertile soil including pastures, rangeland, roadsides and disturbed areas.

## GROWTH FORM AND REPRODUCTION:

Biennial • Reproduces by seed

## IMPACTS:

Unpalatable to livestock. • Out competes desired forage species.

Lisa Scott



Lisa Scott



yellow iris

## Yellow iris

Other common names:  
YELLOW FLAG IRIS,  
PALE YELLOW IRIS,  
WATER FLAG

*Iris pseudacorus* L.  
IAPP Code: YI

### FLOWER:

Iris-like flowers, showy pale to deep yellow with brown to purple specks or veins, stalked, multiple flowers per stem, 7 to 10 cm wide

### LEAVES:

Flattened, sword-like, upper part arching, raised midrib, held in a fan formation, up to 90 cm long

### STEMS:

Erect, 0.9 to 1.2 m tall

### ROOTS:

Rhizomes and roots

### HABITAT:

Temperate fresh or brackish wetlands or along shorelines. Tolerant of high soil acidity, drought and low soil oxygen.

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduces by rhizomes and seed

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	Green	Green	White
Flower	Orange	Orange	White
Seed	White	Yellow	Yellow

### IMPACTS:

Forms very dense thickets that displace native plants and alters habitat by restricting water flows. Poisonous to livestock.

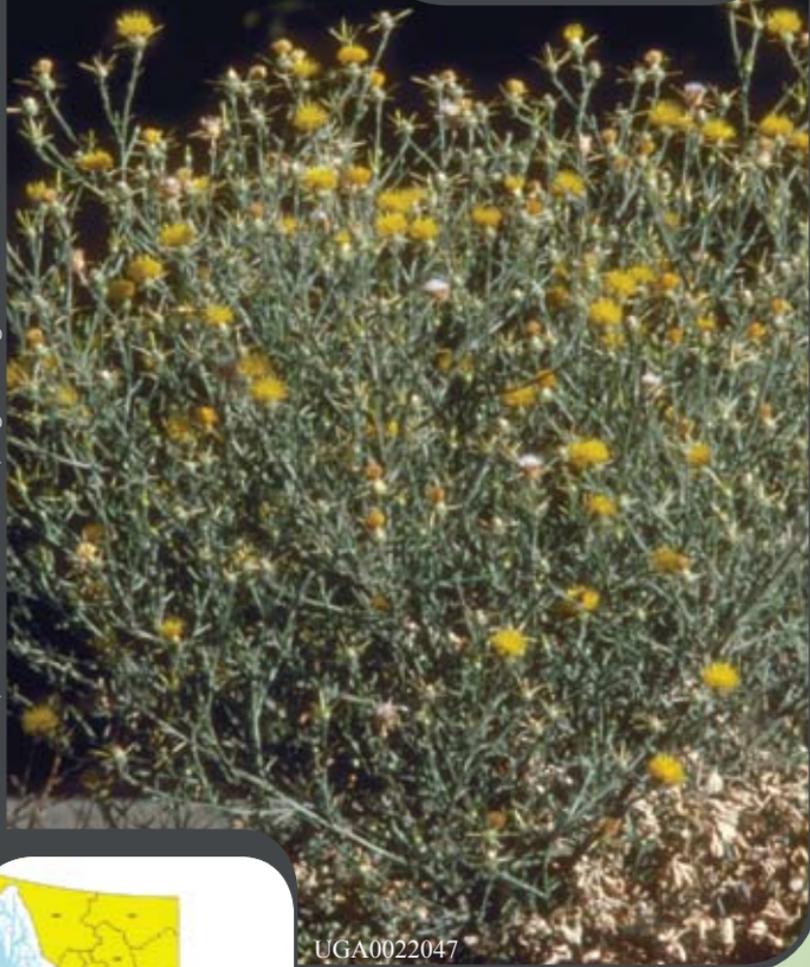
### SIMILAR SPECIES:

There are several horticultural cultivars of yellow iris.

Charles Turner, USDA Research Service, Bugwood.org



UGA0022047



UGA1459671

yellow  
starthistle

Steve Dewey, Utah State University, Bugwood.org

## Yellow starthistle

Other common names:  
GOLDEN STARHISTLE, YELLOW  
COCKSPUR, ST. BARNABY'S THISTLE

*Centaurea solstitialis* L.  
IAPP Code: YS

### FLOWER:

Single, terminal, yellow flower heads • Flower heads armed with yellow thorns up to 2 cm long

### LEAVES:

Grayish to bluish-green, oblong to lance-shaped, covered in fine cottony hairs • Basal rosette leaves deeply lobbed, up to 15 cm long, toothed to wavy margins, generally withered by flowering time • Stem leaves alternate, margins smooth, toothed or wavy, sharply pointed, leaf bases extend down the stems to give stems a winged appearance

### STEMS:

Erect, branched, covered, cottony hairs, 60 to 90 cm tall

### ROOTS:

Taproot

### HABITAT:

Prefers open grasslands with deep well-drained soils including rangeland, cropland and disturbed habitat. Intolerant of shade.

### LIFE CYCLE:

	Spring	Summer	Fall
Rosette	*		*
Flower		**	**
Seed			**

\* germination in spring or fall of year one  
\*\* occurs after year one

### GROWTH FORM AND REPRODUCTION:

Winter annual or biennial forb  
Reproduction by seed

### IMPACTS:

Form dense stands that displace desirable vegetation in rangelands, grasslands, pastures and roadsides. Causes “chewing disease” in horses.



Steve Dewey,  
Utah State University,  
Bugwood.org

Ministry of  
Agriculture and Lands



Steve Dewey, Utah State University, United States



yellow  
toadflax

## Yellow toadflax

Other common names:  
BUTTER AND EGGS,  
WILD SNAPDRAGON

*Linaria vulgaris* P. Mill.  
IAPP Code: YT

### FLOWER:

Long terminal clusters, bright yellow, snapdragon-like flowers

### LEAVES:

Alternate, lance-shaped, pale green, 2 to 10 cm long, 1 to 5 mm wide, lower leaves appear opposite due to crowding

### STEMS:

Erect, rarely branched, smooth, 10 to 80 cm tall

### ROOTS:

Woody taproot and rhizomes

### HABITAT:

Prefers open sties with coarse soils and low precipitation.

### GROWTH FORM AND REPRODUCTION:

Perennial forb • Reproduction by seed and vegetatively by roots

### LIFE CYCLE:

	Spring	Summer	Fall
Vegetative	*	*	*
Flower	**	**	
Seed		**	**
* occurs in year one			
** occurs after year one			

### IMPACTS:

Can be problematic in no-till farming. Persistent, aggressive invader. Forms dense thickets that can compete with native species and reduce forage production. Toxic to livestock.

### SIMILAR SPECIES:

Dalmatian toadflax, broader, blue-green leaves that clasp the stem.