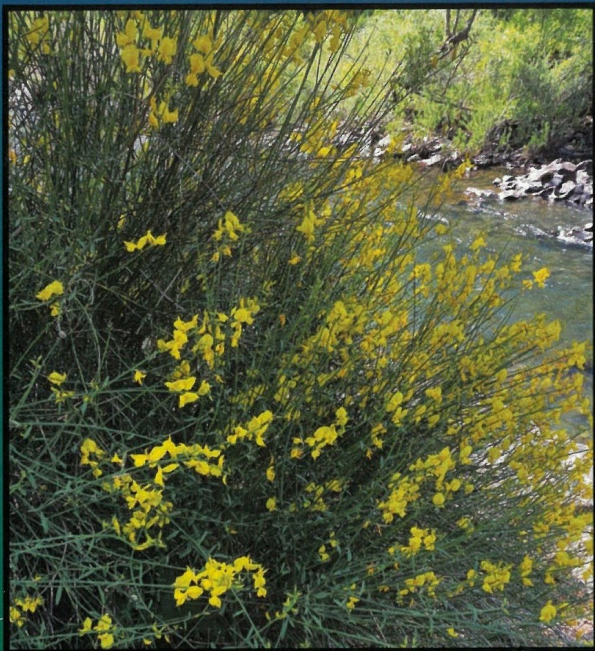


INVASIVE WEEDS OF NEVADA COUNTY



A Comparison Guide to
Non-native Invasive Weeds & Common Look-alikes



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Non-native Invasive Weeds & Common Look-alikes

Graphic Design
Annaliese Miller

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Photography courtesy of:

James Andre, Gerald Carr, Acconley, Jim Belsher-Howe,
Robin Breckenridge, Beth Brenneman, Karen Callahan,
Joe DiTomaso, Susan Donaldson, Laura Ann Eliassen,
Tim Hanson, Japhia Huhndorf, Lawrence Janeway,
Dominicus Bergsma, Patti Kiehl, Ed King,
Gary McDonald, Steve Matson, Annaliese Miller,
Keir Morse, Stephen Sharnoff, Udo Schmidt,
Kathy VanZuuk, Kathy Welch, Melanie Williams

Cover Photo

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Text

Nevada County Resource Conservation District

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Special thanks to the following individuals for their time, expertise, and assistance throughout all aspects of this publication: Chris de Nijs, Darlene Moberg, Linda Miller, Patti Kiehl, Anne Solik, and Sabrina Nicholson.

WHAT ARE NON-NATIVE INVASIVE WEEDS

Non-native invasive plants are aggressive plants that have been introduced into an environment outside of their natural range and threaten native species. Not all non-native weeds are invasive, but some have been designated as noxious by the State of California, thereby requiring weed control efforts by property owners. We use the terms “weed” and “non-native invasive weed” interchangeably throughout this booklet.

Background: Non-native, invasive weeds grow rapidly and reproduce profusely. They readily establish and compete with our native plants for water, light, and nutrients, and prosper in a variety of settings (especially where lands have been disturbed). This is due in great part to a lack of natural enemies that normally help control them in their native lands. When they displace our native plants they change the biodiversity of an environment. Weeds also crowd-out endangered plant species, reduce forage value, inhibit recreational activities, and create monocultures.




These changes in biodiversity reduce the quantity and quality of wildlife and their habitat. For example, in Nevada County, weeds that have coarse or shallow root systems, such as perennial pepperweed and Dalmatian toadflax, increase soil erosion.

If you find a non-native invasive weed, please report the infestation to the appropriate weed management authority on page 86 or go online to **NCRCD.org** and complete the reporting form.

HOW TO USE THE GUIDEBOOK

The guidebook will help you identify some non-native, invasive weeds threatening Nevada County. Common “look-alikes” are also included to help you differentiate between desirable native plants and invasive weeds.

Look for these face icons at the top of the page:

-  = Non-native invasive weeds [Report \(pg. 5\)](#)
-  = Desirable look-alikes (native and non-invasive)
-  = Plants that could potentially become invasive.
(You may choose to avoid planting species that may become invasive on your property.)

Each plant profile includes management information.

Some invasive weeds may be controlled effectively by homeowners, while others require professional assistance.

California designates particularly troublesome non-native invasive weeds as noxious weeds. California uses a rating system based on distribution and relative tenacity to assist in prioritizing noxious weed control and eradication efforts. The ratings below are provided for each species.

A-rated: found in limited distribution throughout the state and considered top priority for eradication and control before they become widespread.

B-rated: may be established in scattered populations in the state; treatment priority is determined on a case-by-case basis depending on the value of resources being compromised, local distribution and available resources.

C-rated: generally established and widespread.

Relative abundance of each species is also provided.

Widespread: found at numerous locations.

Moderate: found at several locations; large populations may occur at a few locations.

Infrequent: only at one or a few locations; no large populations.

PREVENTING THE SPREAD OF WEEDS

Prevention is the least expensive and most effective way to halt the spread of non-native invasive weeds.

This requires:

- Educating workers and the public about the importance of managing weeds on an ongoing basis
- Properly identifying weed species
- Treating existing weed populations
- Preventing weed seeds or other plant parts from establishing new or bigger populations

Steps you can take:

1. Use this book to identify invasive weeds in your area.
2. Inspect your work, home and recreation areas. Identify any invasive weeds; map the location of the weeds.
3. Prior to entering an area clean vehicles, shovels and other soil-disturbing equipment to avoid introducing weeds.
4. After driving in weedy areas, pressure-wash vehicles and equipment to prevent weedy plants from spreading to new areas.
5. Establish a decontamination area such as a tarp for cleaning clothing and equipment.
6. Don't introduce weed-contaminated soil, manure, straw or other materials to new areas. Use certified weed-free products.
7. Check shoes, clothing, bicycles and vehicles regularly for weed seeds or other plant parts. Carefully remove and dispose of weedy materials.
8. Don't walk, ride or drive through infestations. When operating vehicles, stay on established roads or trails.
9. If dogs accompany you, check their paws and coats for weed seeds and other plant parts and remove them.
10. Don't plant invasive species in your garden or landscape.
11. Don't buy invasive species from nurseries.

REPORT A WEED

Your help is needed! Regular reporting of possible invasive weeds helps determine which species are present; what management methods are appropriate; and whether management has been a success. Agencies and organizations that want your report can be found on page 86.

When reporting a possible invasive weed, please include the following:

- Your name, e-mail address, and contact phone number
- Date found
- Name of suspected weed
- Location found (latitude/longitude or physical address)
- Thorough description of area
- Approximate size of infestation or number of plants
- Photos (if possible); close-up and far-away
- Any other observations worth noting

Please do not take any management actions or remove plants until they have been positively identified. Get advice from your local Resource Conservation District to treat and/or eradicate invasive weeds on your property.

Funded by:

Nevada County Agricultural Commissioner's Office and the Nevada County Resource Conservation District



THISTLES AND LOOK-ALIKES

☹ Invasive		
BULL THISTLE	<i>Cirsium vulgare</i>	12-13
CANADA THISTLE	<i>Cirsium arvense</i>	14-15
ITALIAN THISTLE	<i>Carduus pycnocephalus</i>	16-17
MUSK THISTLE	<i>Carduus nutans</i>	18-19
SCOTCH THISTLE	<i>Onopordum acanthium</i>	20-21
😊 Look-alike		
ANDERSON'S THISTLE	<i>Cirsium andersonii</i>	22-23

KNAPWEEDS AND LOOK-ALIKES

☹ Invasive		
DIFFUSE KNAPWEED	<i>Centaurea diffusa</i>	24-25
RUSSIAN KNAPWEED	<i>Acroptilon repens</i>	26-27
SPOTTED KNAPWEED	<i>Centaurea stoebe ssp. micranthos</i>	28-29
😊 Look-alike		
AMERICAN-ASTER	<i>Symphotrichum spp.</i>	30-31

YELLOW ASTERS AND LOOK-ALIKES

☹ Invasive		
YELLOW STARHISTLE	<i>Centaurea solstitialis</i>	32-33
RUSH SKELETONWEED	<i>Chondrilla juncea</i>	34-35
STINKWORT	<i>Dittrichia graveolens</i>	36-37
😊 Look-alike		
TARWEED	<i>Madia spp.</i>	38-39

MUSTARDS AND LOOK-ALIKES













☹ Invasive		
DYER'S WOAD	<i>Isatis tinctoria</i>	40-41
HOARY CRESS	<i>Lepidium draba</i>	42-43
PERENNIAL PEPPERWEED	<i>Lepidium latifolium</i>	44-45
😊 Look-alike		
YARROW	<i>Achillea millefolium</i>	46-47

PEAS AND LOOK-ALIKES

☹ Invasive		
EVERLASTING PEA	<i>Lathyrus latifolius</i>	48-49
😊 Look-alike		
SIERRA NEVADA PEA	<i>Lathyrus nevadensis ssp. nevadensis</i>	50-51

INDEX	COMMON NAME	<i>Scientific Name</i>	PAGE
TOADFLAX			
☹	Invasive	<i>Linaria dalmatica</i>	
	DALMATIAN TOADFLAX	<i>ssp. dalmatica</i>	52-53
DAISIES AND LOOK-ALIKES			
☹	Invasive		
	OXEYE DAISY	<i>Leucanthemum vulgare</i>	54-55
😊	Look-alike		
	SHASTA DAISY	<i>Leucanthemum maximum</i>	56-57
BROOMS			
☹	Invasive		
	FRENCH BROOM	<i>Genista monspessulana</i>	58-59
	SCOTCH BROOM	<i>Cytisus scoparius</i>	60-61
	SPANISH BROOM	<i>Spartium junceum</i>	62-63
BLACKBERRIES AND LOOK-ALIKES			
☹	Invasive		
	HIMALAYAN BLACKBERRY	<i>Rubus armeniacus</i>	64-65
😊	Look-alike		
	CALIFORNIA BLACKBERRY	<i>Rubus ursinus</i>	66-67
GRASSES AND LOOK-ALIKES			
☹	Invasive		
	BARBED GOATGRASS	<i>Aegilops triuncialis</i>	68-69
	MEDUSA HEAD	<i>Elymus caput-medusae</i>	70-71
😊	Look-alike		
	BOTTLEBRUSH SQUIRREL TAIL	<i>Elymus elymoides</i>	72-73
OTHERS			
☹	Invasive		
	KLAMATHWEED	<i>Hypericum perforatum</i>	74-75
😊	Look-alike		
	SCOULER'S ST. JOHNSWORT	<i>Hypericum scouleri</i>	76-77
☹	Invasive		
	OBLONG SPURGE	<i>Euphorbia oblongata</i>	78-79
	RUSSIAN THISTLE	<i>Salsola tragus</i>	80-81
	TREE OF HEAVEN	<i>Ailanthus altissima</i>	82-83

QUICK REFERENCE ID

THISTLES	Flower Head	Leaves
Bull Thistle	 vase	 rough, prominent veins
Canada Thistle	 drop	 lobed, spiny
Italian Thistle <i>similar to Canada thistle, bracts with spines</i>	 elliptical	 lobed, spiny hairy underneath
Musk Thistle	 disk	 midrib, hairless
Scotch Thistle	 oval	 cobweb hairy
<hr/>		
Look-alike		
Anderson's Thistle	 cylinder	 small flat hairs

QUICK REFERENCE ID

KNAPWEEDS

Bracts

Lower Leaves

Diffuse
Knapweed



spiny combs



deeply
lobed

Russian
Knapweed



papery



lobed

Spotted
Knapweed



spots



deeply
lobed

Look-alike

Aster spp.



no spines,
yellow disk



narrow,
entire

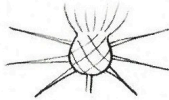
QUICK REFERENCE ID

YELLOW ASTERS

Bracts

Stems

Yellow Starthistle



long, stout spines
straw colored



lateral
spines
at base



winged
stem

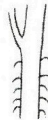
Flowers/Plant

Stems

Rush Skeletonweed



mostly smooth,
hairless



bottom
of stem
with stiff
downward
pointing
hairs

Stinkwort



sticky-glandular,
smells of camphor



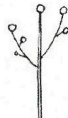
densely
branched

Look-alike

Tarweed



sticky-glandular



open,
less dense
branches

QUICK REFERENCE ID

BROOMS

Seed Pods

Leaves

Stems

French
Broom



hairy



3 leaflets,
evergreen



round
8-10 ridged

Scotch
Broom



only
margins
hairy



3 leaflets,
sometimes
simple



sharply
5 angled

Spanish
Broom



hairy

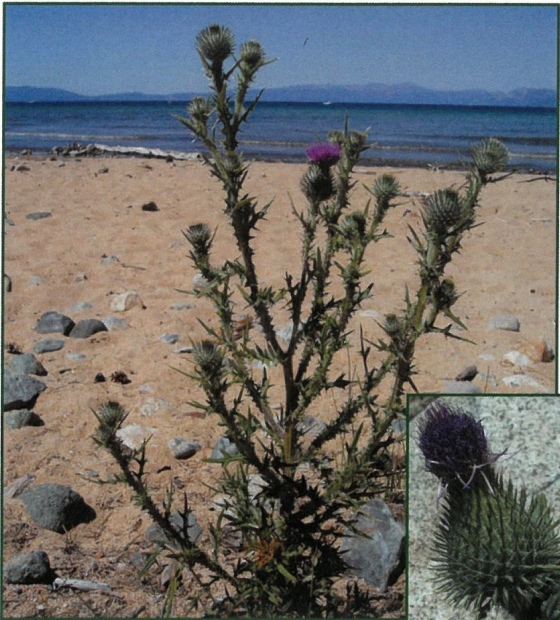


simple



round
finely ribbed

BULL THISTLE *Cirsium vulgare*

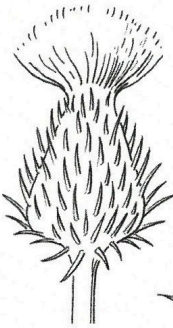


Plant, Brennerman UNCE; Flower, Donaldson UNCE

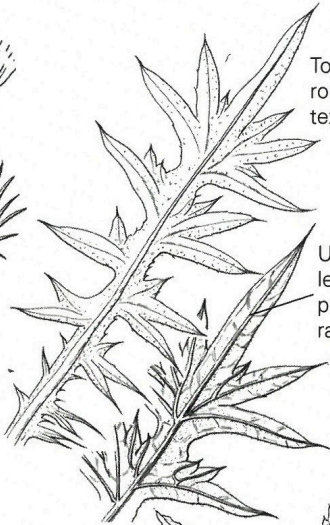


Also Known As	Common thistle, spear thistle
Habitat	Meadows, roadsides, disturbed areas
Life Cycle	Biennial
Flowering Time	June - September
Relative Abundance	Widespread
Management	Dig, removing top 2 inches of root; mow or hand cut shortly before plants flower; susceptible to biological and herbicide control
Noxious Weed List	C-rated

Non-native and Invasive



1 - 1.5 in
Flower head
vase-shaped



Tops of leaves
rough, sandpaper
texture

Underside of
leaf cottony,
prominently
raised main vein



Rosette leaves
rough, prominent veins



- Height: 1 - 6 ft, commonly 2 - 3 ft
- Stems: spiny and winged
- Leaves: sandpaper texture, prominent veins
- Flowers: in clusters at ends of branches
- Flower color: pink to purple

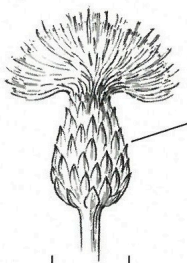
CANADA THISTLE *Cirsium arvense*



Donaldson UNCE



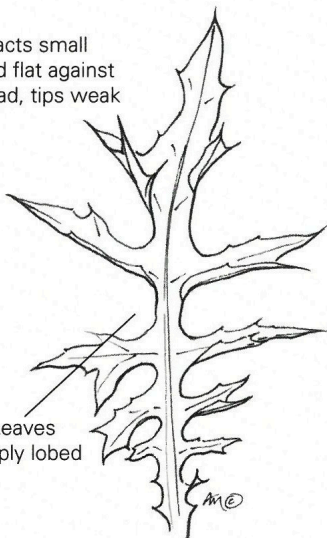
Also Known As	Field thistle
Habitat	Roadsides, rangelands, forests, lawns, gardens, moist and disturbed areas
Life Cycle	Perennial; reproduces from creeping roots and seeds
Flowering Time	June - September
Relative Abundance	Moderate
Management	Do not dig or pull mature plants; mow every 3 to 4 weeks over several growing seasons; herbicide required
Noxious Weed List	B-rated



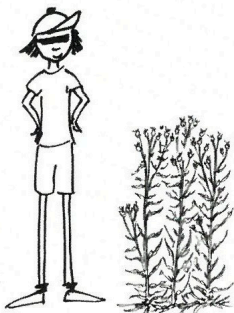
0.5 in

Flower head
drop-shaped

Bracts small
and flat against
head, tips weak



Leaves
deeply lobed



- Height: 1.5 - 4 ft, commonly 2 - 3 ft
- Stems: smooth and ridged with no spines
- Leaves: smooth and sessile
- Flowers: multiple small flower heads in clusters on each stem
- Flower color: light purple to white

ITALIAN THISTLE *Carduus pycnocephalus*

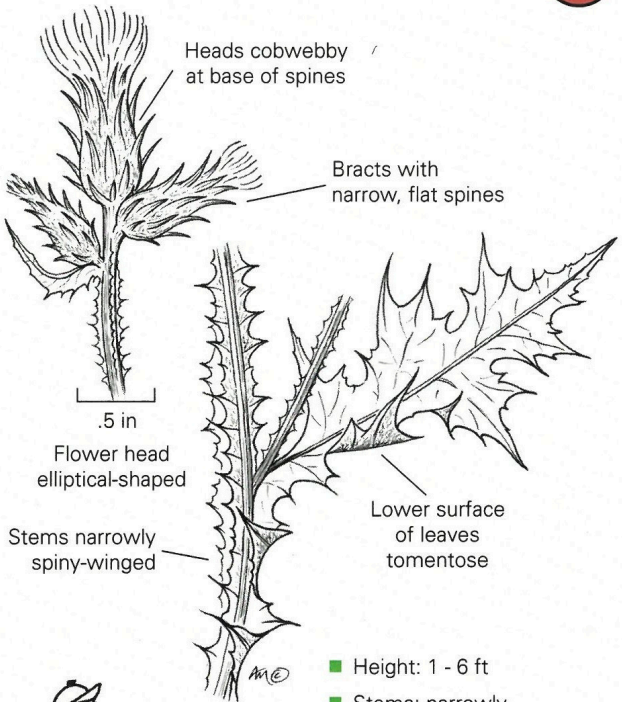


Hanson USFS



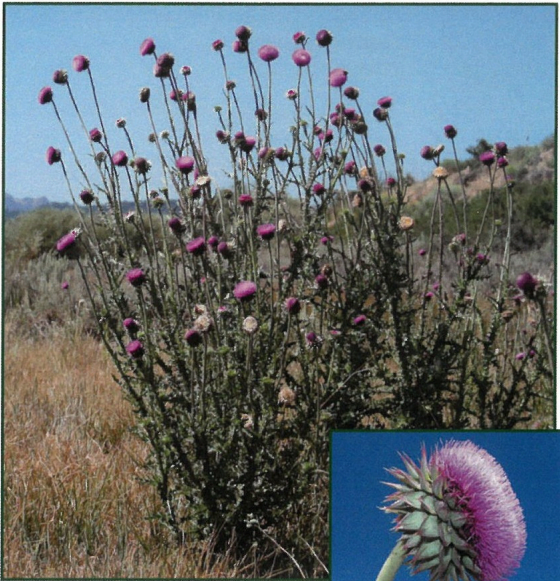
Also Known As	Italian plumeless thistle
Habitat	Meadows, pastures and ranges, road sides, and disturbed wildland areas
Life Cycle	Annual
Flowering Time	February - July
Relative Abundance	Widespread
Management	Pull before seed set; sever root 4 inches below surface; susceptible to biological, cultural, & herbicide control
Noxious Weed List	B-rated

Non-native and Invasive



- Height: 1 - 6 ft
- Stems: narrowly spiny-winged
- Leaves: deeply lobed, spine-tipped; upper leaves hairless, lower leaves tomentose/flatly hairy
- Flowers: 2 - 5 flower heads per stem
- Flower color: pink to purple

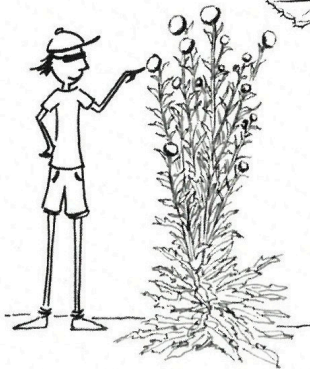
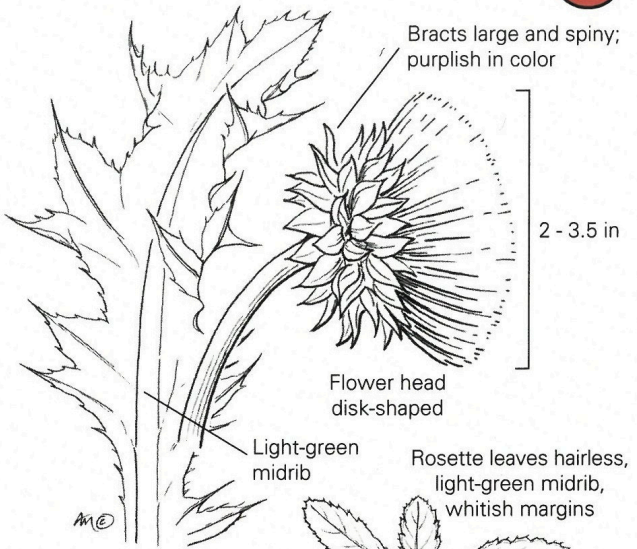
MUSK THISTLE *Carduus nutans*



Plant, Miller; Flower, Donaldson UNCE

Also Known As	Nodding plumeless thistle
Habitat	Pastures, forest, rangelands, roadsides, waste areas, ditches
Life Cycle	Biennial
Flowering Time	June - July
Relative Abundance	Moderate
Management	Dig, removing top 2 inches of root; pull or mow when small; cut at top of root crown; susceptible to biological, cultural, and herbicide control
Noxious Weed List	A-rated

Non-native and Invasive



- Height: 1 - 6 ft, commonly 3 - 4 ft
- Stems: spiny and winged
- Leaves: hairless, prominent light-green midrib
- Flowers: single, very large flower at end of bent, naked stem
- Flower color: deep pink to purple

SCOTCH THISTLE *Onopordum acanthium*

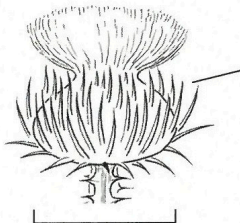


Donaldson UNCE



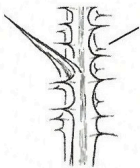
Also Known As	Cotton thistle
Habitat	Waste areas, roadsides, disturbed soils
Life Cycle	Biennial
Flowering Time	May - August
Relative Abundance	Infrequent
Management	Sever root below surface; mow before flowering; graze with sheep/goats/horses; susceptible to herbicide control
Noxious Weed List	A-rated

Non-native and Invasive



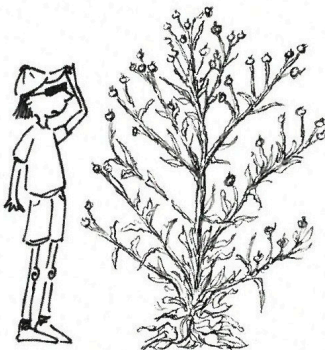
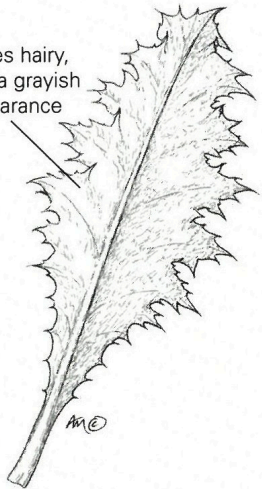
Many spiny,
needle-like bracts

1-2 in
Flower head
flattened globe



Stems spiny
and winged

Leaves hairy,
giving a grayish
appearance



- Height: up to 10 ft, commonly 5+ ft (the tallest of the thistles)
- Stems: spiny, prominently winged
- Leaves: hairy and sessile
- Flowers: in groups of 2 or 3 on branched tips
- Flower color: purple

ANDERSON'S THISTLE *Cirsium andersonii*

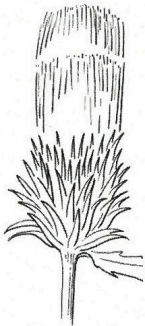


Breneman, UNCE



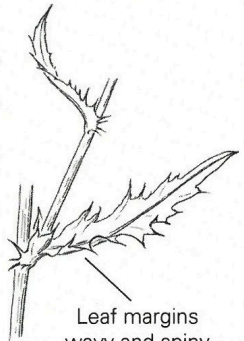
Also Known As	Rose thistle
Habitat	Open places, woodlands, forests
Life Cycle	Perennial herb
Flowering Time	July - September
Relative Abundance	Infrequent
General Information	Desirable native plant; supports numerous bee, bird, butterfly, and moth species

Native Look-alike



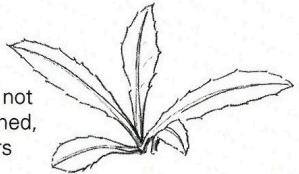
0.75 - 1.5 in

Flower head
cylinder-shaped



Leaf margins
wavy and spiny

Rosette leaves not
prominently veined,
small flat hairs



- Height: 2 - 4 ft
- Stems: purplish and thornless
- Leaves: divided and wavy with spiny margin
- Flowers: single flower at end of stem
- Flower color: rose red to reddish purple

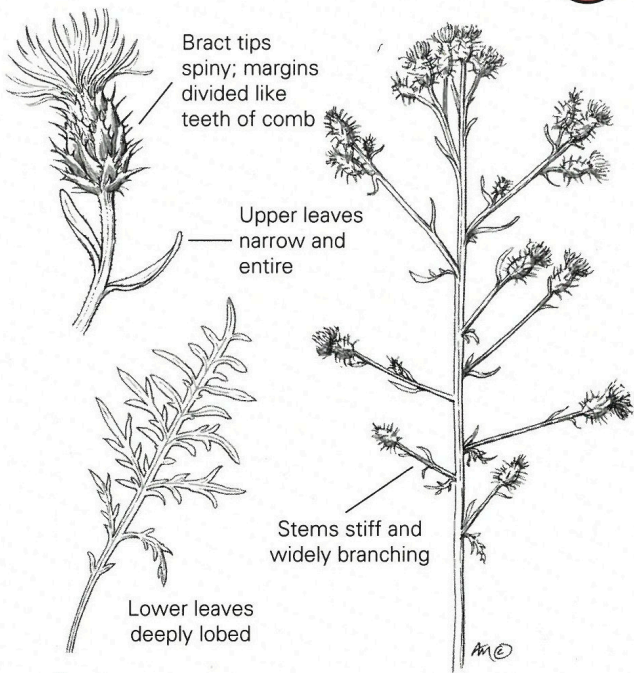
DIFFUSE KNAPWEED *Centaurea diffusa*



Donaldson UNCE

Also Known As	Tumble knapweed
Habitat	Roadsides, waste areas, dry rangelands, forested benchlands; rugged terrain
Life Cycle	Annual to short-lived perennial
Flowering Time	June - September
Relative Abundance	Infrequent
Management	Pull or dig plants several times per year, monitor for several years; susceptible to prescribed fire and herbicide control
Noxious Weed List	A-rated

Non-native and Invasive



- Height: 1 - 2.5 ft
- Stems: rough to touch
- Leaves: upper, entire; lower, deeply lobed
- Growth form: maintains bush shape; after frost, can break off and tumble
- Flower color: white to pale pink

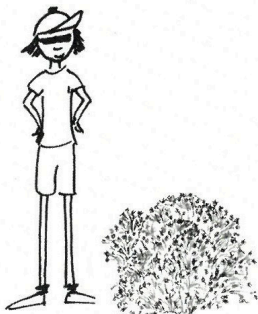
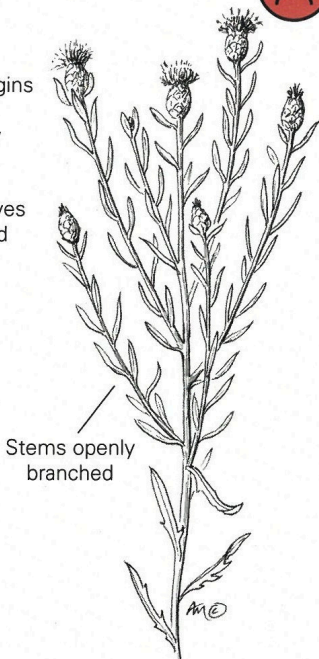
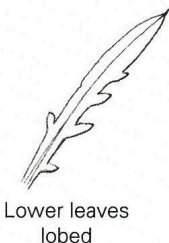
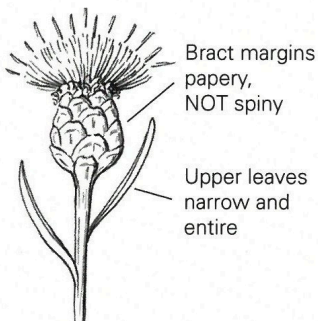
RUSSIAN KNAPWEED *Acroptilon repens*



Donaldson UNICE

Also Known As	Creeping knapweed
Habitat	Roadsides, riverbanks, ditches, pastures, waste places
Life Cycle	Perennial; reproduces from creeping roots
Flowering Time	May - September
Relative Abundance	Moderate
Management	Dig or pull seedlings; cut or mow at least 3 times a summer followed by herbicide application in mid-fall; reseed the area with perennial grass late-fall; susceptible to biological control
Noxious Weed List	B-rated

Non-native and Invasive



- Height: 1 - 3 ft, generally 2 - 3 ft
- Stems: erect, cobwebby
- Leaves: upper, entire; lower and rosette, lobed
- Growth form: thick rounded clumps with drooping branches
- Root: black below crown
- Flower color: pink to purple

SPOTTED KNAPWEED

Centaurea stoebe
ssp. micranthos

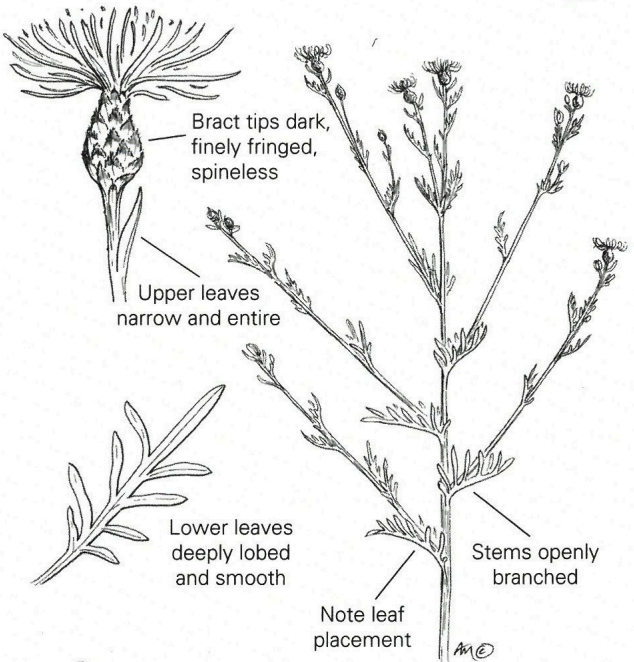


Plant, Breckenridge CDFA; Flower, Donaldson UNCE



Also Known As	<i>Centaurea maculosa</i>
Habitat	Disturbed soil, rangelands, pastures, roadsides, areas with summer rainfall
Life Cycle	Perennial
Flowering Time	June - October
Relative Abundance	Moderate
Management	Hand-pull in spring, summer, and late summer for up to 5 years; susceptible to herbicide control
Noxious Weed List	A-rated

Non-native and Invasive



- Height: 1 - 5 ft, generally closer to 3 ft
- Stems: erect and rough
- Leaves: upper, linear; lower, divided
- Growth form: tall with open branching
- Flower color: pink to purple

AMERICAN-ASTER *Symphotrichum* spp.



Donaldson UNCE

Also Known As There are 15 subspecies in Nevada County

Habitat Meadows, gardens

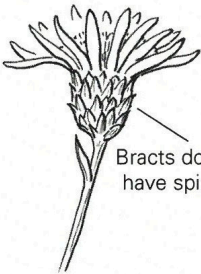
Life Cycle Annual or perennial

Flowering Time July - August

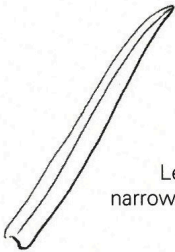
Relative Abundance Widespread

General Information Desirable native plant; supports native bees, Northern Checkerspot butterfly, and Field and Pearl Crescent moth species

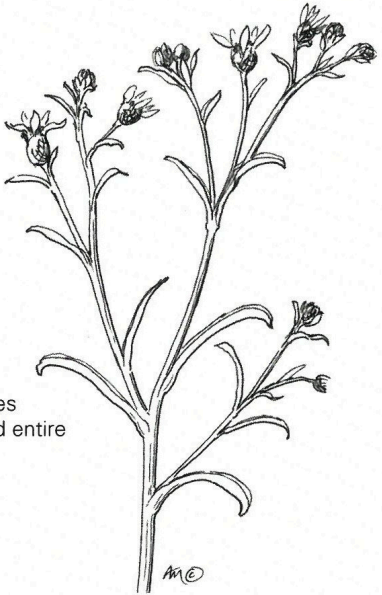
Native Look-alike



Bracts do not have spines



Leaves narrow and entire



- Height: variable, often 1 - 2 ft
- Stems: smooth to hairy
- Leaves: upper and lower leaves narrow and entire
- Growth form: ranges from short to tall
- Flower color: variable, often pink to purple with yellow center

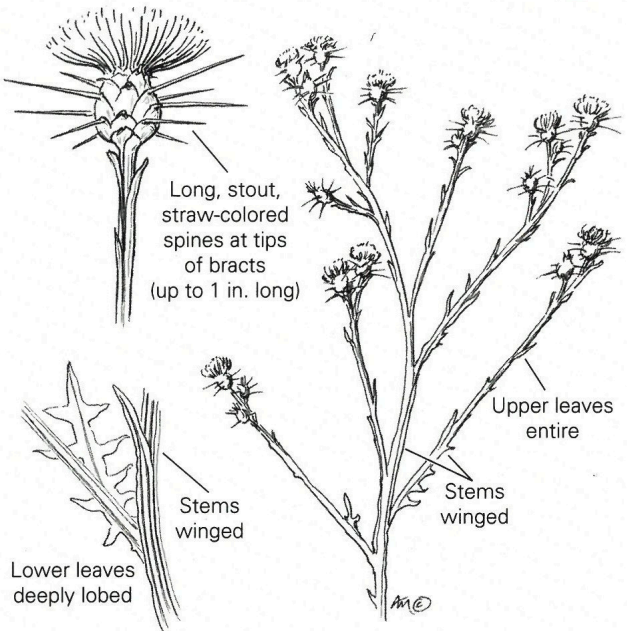
YELLOW STARHISTLE *Centaurea solstitialis*



Donaldson UNCE

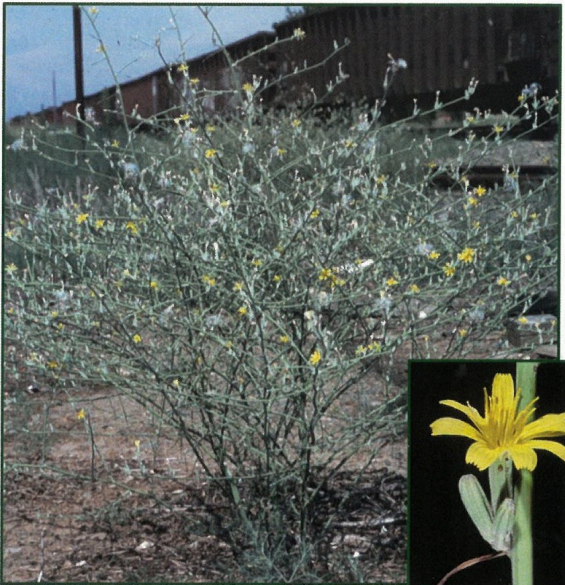
Also Known As	Starthistle
Habitat	Rangelands, roadsides, disturbed areas
Life Cycle	Annual
Flowering Time	June - September
Relative Abundance	Widespread
Management	Hand pull removing root or mow over 3-year period; susceptible to biological, cultural, and herbicide control
Noxious Weed List	C-rated

Non-native and Invasive



- Height: 0.5 - 5 ft, commonly 2 ft
- Stems: winged
- Leaves: gray and hairy; upper, entire; lower, deeply lobed
- Growth form: stiffly branching
- Flower color: yellow

RUSH SKELETONWEED *Chondrilla juncea*



© D.Tomaso UC Davis

Also Known As Skeleton weed, hogbite

Habitat Roadsides, rangelands, pastures, disturbed soils

Life Cycle Perennial

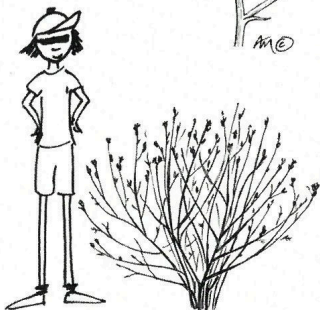
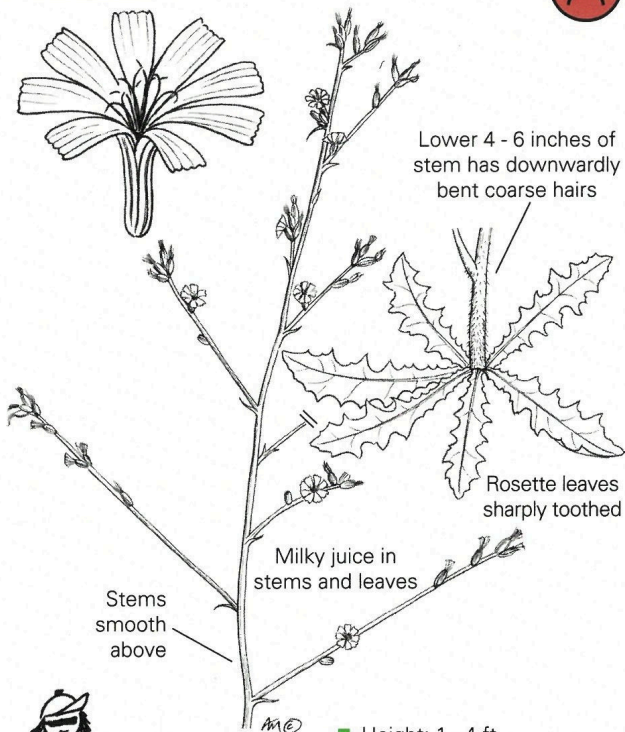
Flowering Time July - October

Relative Abundance Moderate

Management Do not dig or pull; frequent mowing may exhaust root storage; susceptible to herbicide control

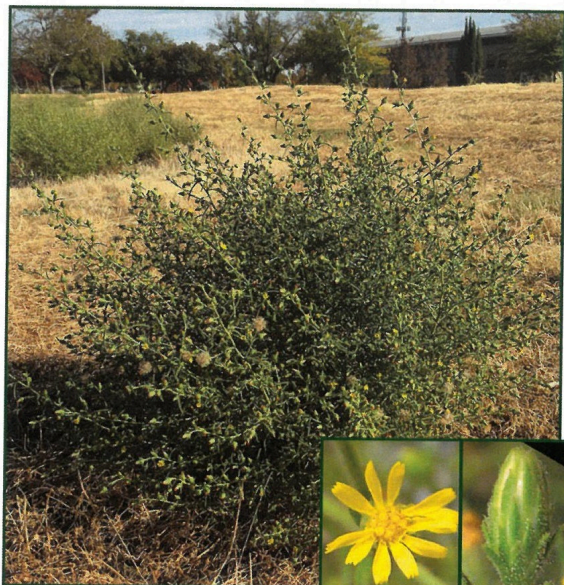
Noxious Weed List A-rated

Non-native and Invasive



- Height: 1 - 4 ft
- Stems: rigid and wiry; highly branched; cut surfaces exude milky sap
- Leaves: upper, narrow and entire, inconspicuous; stems often lack leaves
- Growth form: bushy
- Flower color: yellow

STINKWORT *Dittrichia graveolens*



Plant, King Placer Co. Ag.; Flower, Williams USFS

Also Known As	Stinkweed, Khaki weed
Habitat	Disturbed roadsides and gravel areas, wastelands, riparian woodlands
Life Cycle	Annual
Flowering Time	September - November
Relative Abundance	Moderate
Management	Dig or hand pull (wear protective clothing to avoid contact with skin); susceptible to herbicide control
Noxious Weed List	B-rated

Non-native and Invasive

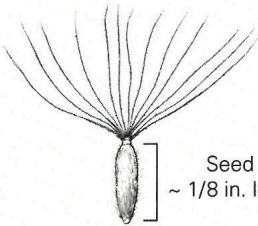


Bracts in several overlapping rows

Single flower heads grow at ends of branches; and in leaf axils

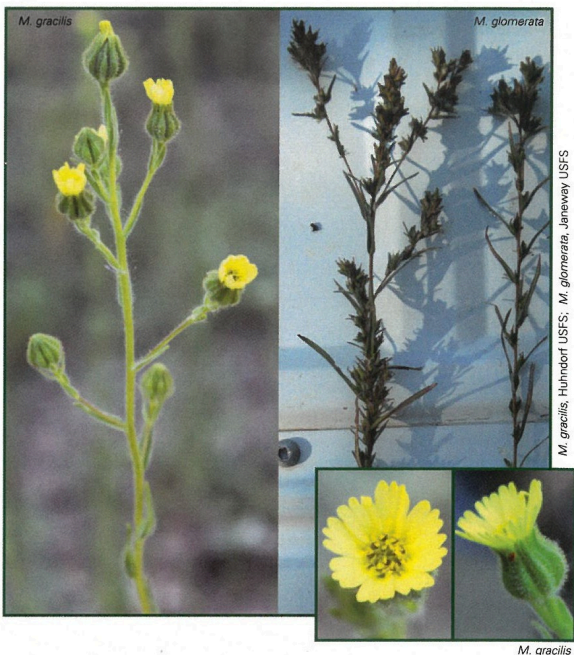
Plant sticky-glandular; smells strongly of camphor

(Can cause allergic contact dermatitis; recommend gloves if handling!)



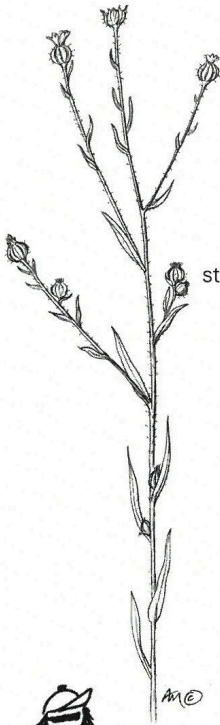
- Height: 0.5 - 3 ft
- Stems: many-branched, sticky-glandular
- Leaves: narrow, alternate, reduced upwards, and sticky-glandular
- Flower heads: single flower heads grow at ends of branches; and in leaf axils
- Flower color: yellow

TARWEED *Madia* spp.



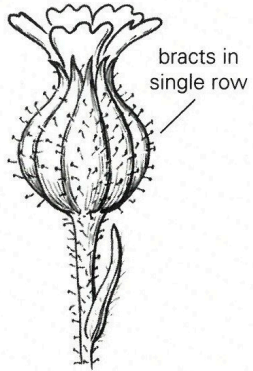
Also Known As	There are 12 subspecies in Nevada County
Habitat	Meadows, open and disturbed places
Life Cycle	Annual
Flowering Time	Varies by species; April - December
Relative Abundance	Moderate
General Information	Desirable native plant; supports assassin bugs, stilt bugs, green lynx spiders, and crab spiders

Native Look-alike



Flowers small, spaced widely or in tight clusters, depending on species

Plant
sticky-glandular



Seed



Madia gracilis



- Height:
M. gracilis: 0.2 - 3 ft
M. glomerata: 0.2 - 4 ft
- Stems: lower/inner stems hairy; upper/outer stems sticky glandular (both spp.)
- Leaves: narrow to linear, sticky-glandular
- Flower heads:
M. gracilis: in open clusters,
M. glomerata: tightly clustered
- Flower color: yellow

DYER'S WOAD *Isatis tinctoria*



Plant, Welch; Flower, Belscher-Howe USFS

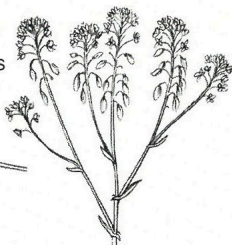
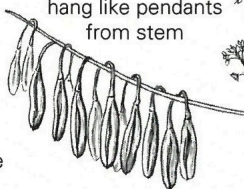
Also Known As	Marlahan mustard
Habitat	Roadsides, fields, pastures, forest, and rangeland
Life Cycle	Biennial to short lived perennial
Flowering Time	April - July
Relative Abundance	Infrequent
Management	Hand pull the crown before seed set; observe area yearly for re-sprouts; susceptible to biological/herbicide control
Noxious Weed List	B-rated

Non-native and Invasive

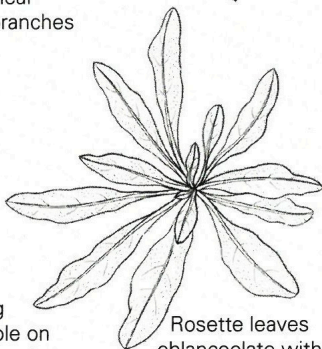


Tiny 4-petaled flowers in dense clusters near ends of branches

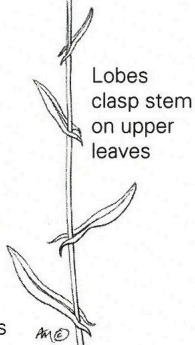
Fruits black to dark purple; hang like pendants from stem



Long petiole on rosette leaves



Rosette leaves oblanceolate with weakly rounded tips



Lobes clasp stem on upper leaves

AM(E)



- Height: up to 4 ft
- Stems: single stem gives rise to multiple branches with multiple flower clusters
- Leaves: blue-green foliage with cream-colored midrib; upper leaves clasp stem, arrowhead-shaped; lower leaves petiolate
- Flower color: yellow

HOARY CRESS *Lepidium draba*



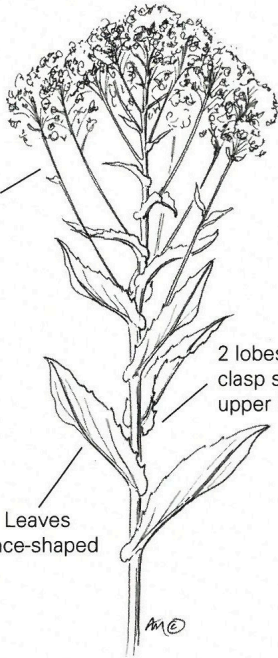
Also Known As	Whitetop, short whitetop
Habitat	Meadows, fields, roadsides, ditches, streambanks, rangelands
Life Cycle	Perennial; spreads & reproduces by rhizomes
Flowering Time	May - August
Relative Abundance	Moderate
Management	Do not dig or pull mature plants; susceptible to flooding and herbicide control
Noxious Weed List	B-rated

Non-native and Invasive



Single stem

Tiny 4-petaled
flowers in dense
clusters near
ends of branches



2 lobes
clasp stem on
upper leaves

Leaves
lance-shaped



- Height: up to 2 ft, commonly 1 ft
- Stems: single stem gives rise to one flower cluster
- Leaves: blue-green foliage; upper leaves clasp stem; lower leaves petiolate
- Flower color: white

PERENNIAL PEPPERWEED *Lepidium latifolium*



Also Known As Tall Whitetop

Habitat Riparian areas, floodplains, meadows, seasonally wet areas, roadsides

Life Cycle Perennial

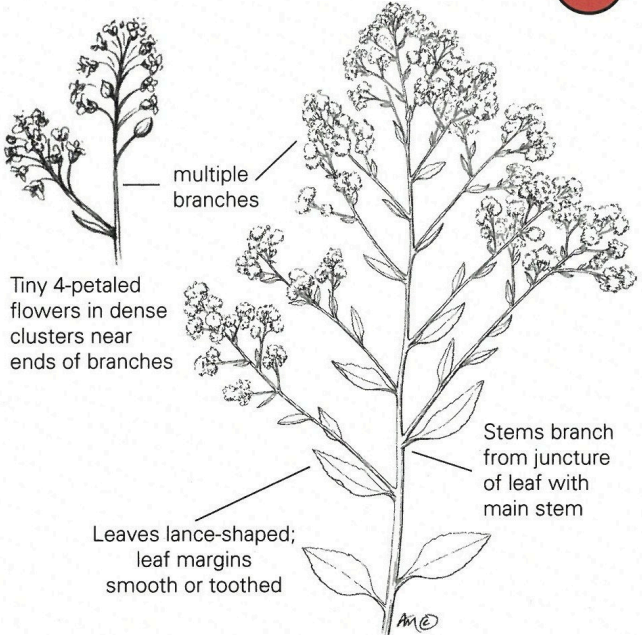
Flowering Time May - July

Relative Abundance Moderate

Management Do not mow; small patches can be hand pulled if process is repeated often for several years; susceptible to cultural and herbicide control

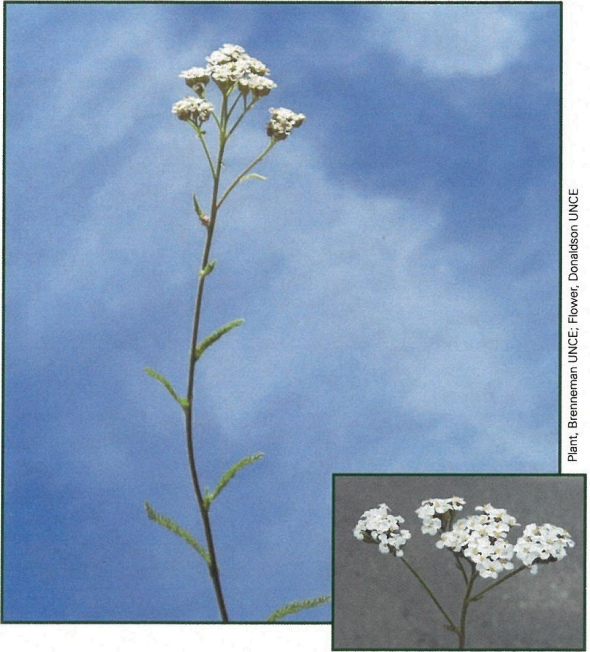
Noxious Weed List B-rated

Non-native and Invasive



- Height: 1 - 6 ft, commonly 3+ ft
- Stems: multiple branches grow from each stem
- Leaves: upper leaves, sessile; lower leaves, petiolate; basal leaves, much larger than upper leaves
- Flower color: white

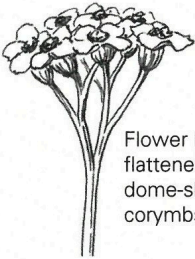
YARROW *Achillea millefolium*



Plant, Brenneman UNCE; Flower, Donaldson UNCE

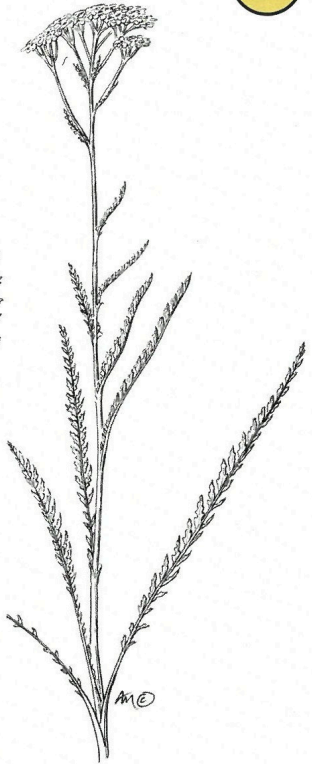
Also Known As	Common yarrow, milfoil
Habitat	Gardens, meadows, grasslands, forests
Life Cycle	Perennial
Flowering Time	April - August
Relative Abundance	Widespread
Management	Dig, removing as much root as possible; forms dense mat if mowed; susceptible to herbicide control

Native Look-alike



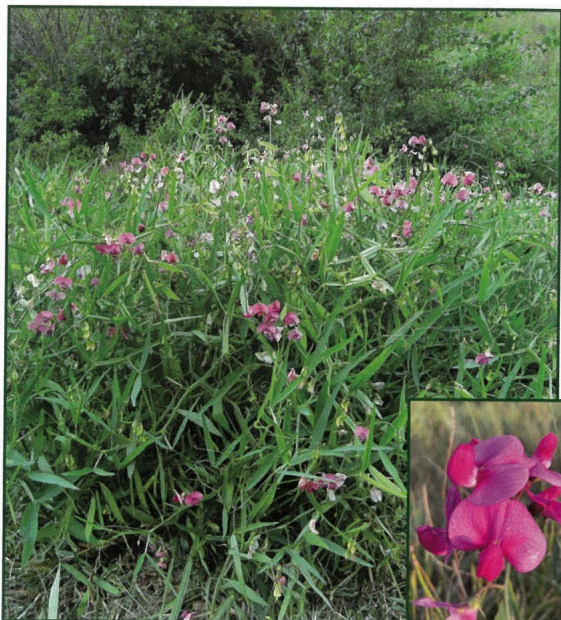
Flower heads flattened, dome-shaped corymbs

Leaves hairy and very finely pinnately divided, appearing feather-like



- Height: 2 - 3 ft
- Stems: hairy-wooly
- Leaves: feather-like; evenly distributed along stem; lower leaves larger
- Flower color: white or pink

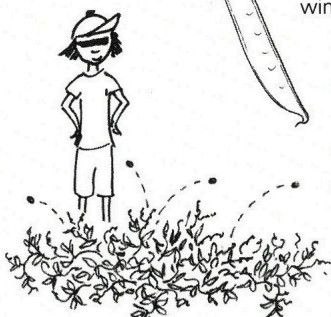
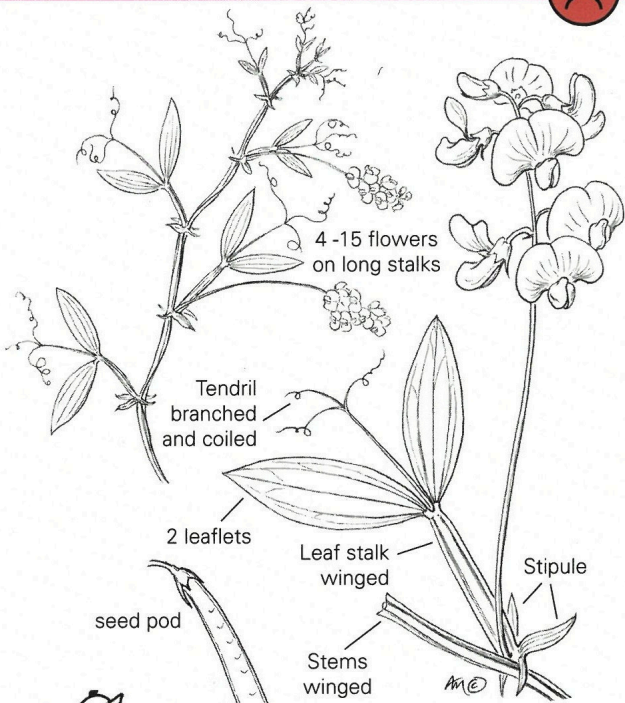
EVERLASTING PEA *Lathyrus latifolius*



Plant, © Schmidt 2012 (CC BY-SA 2.0);
Flower, © accornley 2020 (CC BY-NC 4.0)

Also Known As	Sweet pea, perennial sweet pea
Habitat	Roadsides, riparian areas, orchards, vineyards, disturbed areas
Life Cycle	Perennial
Flowering Time	May - September
Relative Abundance	Moderate
Management	Cultivate, pull, or dig plants early before flowering; susceptible to herbicide control
Noxious Weed List	B-rated

Non-native and Invasive



- Height: at least 6 ft when climbing
- Stem: winged
- Leaves: leaflets 2, lanceolate to ovate; tendril branched, coiled
- Flower color: pink, pink-purple, or red

SIERRA NEVADA PEA

Lathyrus nevadensis
ssp. nevadensis



Plant, © Gerald D. Carr 2006; Flower, © Sharnoff 2006

Also Known As Sierra pea

Habitat Conifer, mixed forest; shade tolerant

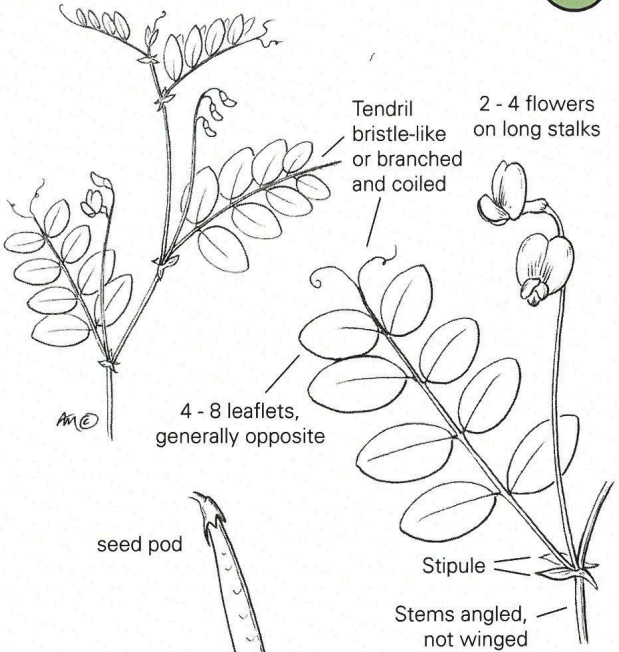
Life Cycle Perennial

Flowering Time March - June

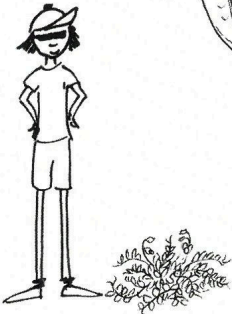
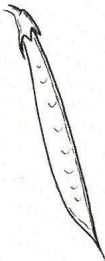
Relative Abundance Infrequent

General Information Desirable native plant; do not disturb

Native Look-alike



seed pod



- Height: small forest floor plant
- Stem: angled or flanged, not winged
- Leaves: leaflets 4 - 8, generally opposite, elliptic or widely ovate; tendrils branched, coiled
- Flower color: blue, pink, violet, white

DALMATIAN TOADFLAX

Linaria dalmatica
ssp. dalmatica



Donaldson UNCE



Also Known As Wild snapdragon

Habitat Roadsides, pastures, rangelands, cultivated fields

Life Cycle Perennial; spreads by rhizomes

Flowering Time April - September

Relative Abundance Infrequent

Management Do not mow; hand pull seedlings, removing as much root as possible; reseed area with annual/perennial grasses; susceptible to biological and herbicide control

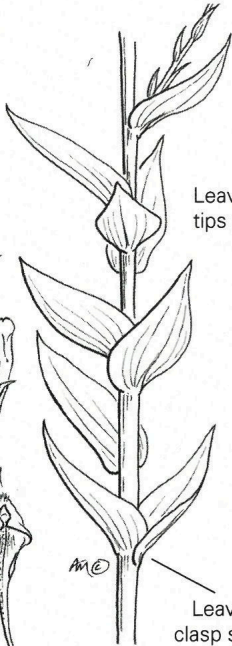
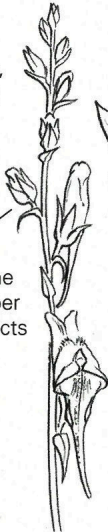
Noxious Weed List A-rated

Non-native and Invasive



Spurs long, somewhat curved or straight

Flowers borne in axils of upper leaves and bracts



Leaves ovate, tips pointed

Leaves clasp stem



- Height: up to 3 ft
- Stems: erect and branched
- Leaves: ovate, alternate and entire; succulent and waxy
- Growth form: more scattered than yellow toadflax
- Flower color: yellow, with orange, bearded throat

OXEYE DAISY *Leucanthemum vulgare*



Donaldson UNCE

Also Known As Ox-eye daisy, Oxe eye daisy

Habitat Meadows, roadsides, disturbed
disturbed areas and gardens

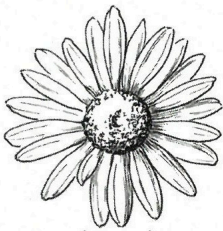
Life Cycle Perennial

Flowering Time June - August

Relative Abundance Moderate

Management Dig, pull, and mow before bloom;
repeated cultivation down 6" in
summer; susceptible to herbicide
control

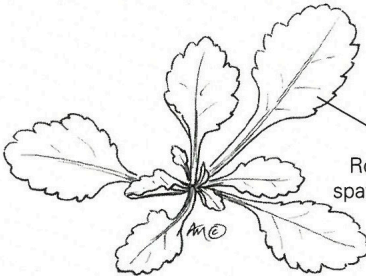
Noxious Weed List Not-rated, species of concern



Approximate disk flower
to ray flower ratio

Leaves
spoon-shaped

Upper leaves
toothed, sessile;
smaller towards
top of stem



Lower leaves
lobed or toothed

Rosette leaves
spatulate; margins
crenulate

- Height: 0.8 - 2 ft
- Stems: smooth to slightly hairy
- Leaves: upper, toothed and sessile; lower, pinnately lobed or toothed
- Flowers: single flower heads 1 - 2 in, grow at ends of branches; bracts are lined in black
- Flower color: white with yellow center



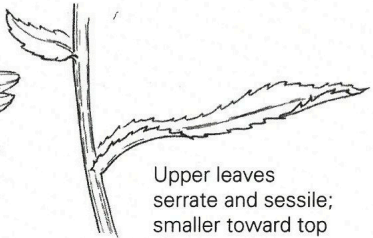
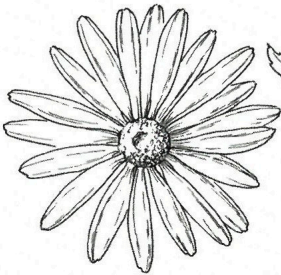
SHASTA DAISY *Leucanthemum maximum*



Plant, Brennerman UNCE; Flower, Donaldson UNCE

Also Known As	Max chrysanthemum
Habitat	Disturbed areas, forest, streambanks
Life Cycle	Perennial
Flowering Time	June - August
Relative Abundance	Sold in nurseries
General Information	Recommended alternative garden flower for Oxeye daisy

Non-native Look-alike

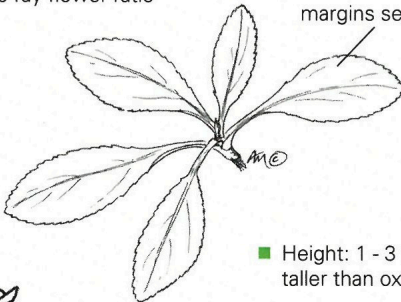


Upper leaves
serrate and sessile;
smaller toward top
of stem



Approximate disk flower
to ray flower ratio

Rosette leaves oval;
margins serrate



- Height: 1 - 3 ft,
taller than oxeye daisy
- Stems: stiff,
more-or-less smooth
- Leaves: upper, serrate and
sessile; lower, petiolate
- Flowers: single flower
heads 2 - 4 in, grow at
ends of branches; heads
larger than oxeye daisy
- Flower color: white
with yellow center

FRENCH BROOM *Genista monspessulana*



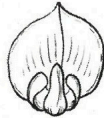
Plant, Huhndorf USFS; Flower, Beisler-Howe USFS

Also Known As	Soft broom, canary broom, Montpellier broom
Habitat	Roadsides, forests, pastures, and logged or burned areas
Life Cycle	Evergreen perennial
Flowering Time	March - May
Relative Abundance	Infrequent
Management	Use heavy-duty weed wrench to remove as much root as possible or cut below crown before seed production; susceptible to herbicides
Noxious Weed List	C-rated

Non-native and Invasive



Flowers 4 -10
in clusters at ends
of short branchlets



Small pea flowers



Seed pods
slightly flattened,
densely covered
with long hairs



3 leaflets,
hairy

Upper lip 2-lobed
to near middle



Calyx
2-lipped,
hairy



Lower lip shallow,
1 - 3 lobed



- Height: woody shrub, up to 8 ft
- Stems: 8 - 10 ridges; round cross-section
- Branches: dark green, twigs silvery-silky-hairy
- Reproduces by seed
- Flower color: yellow; slight fragrance

SCOTCH BROOM *Cytisus scoparius*

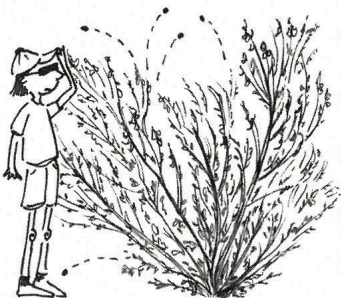
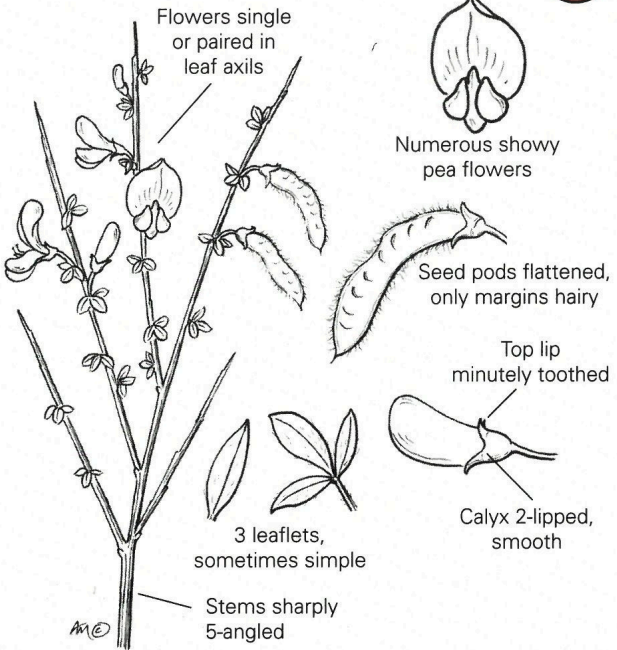


Plant, VanZuuk USFS;
Flower, © 2008 Keir Morse (CC BY-NC-SA 3.0)



Also Known As	Common broom, English broom
Habitat	Mountain regions, pastures, forests, and disturbed areas
Life Cycle	Evergreen perennial
Flowering Time	May - July
Relative Abundance	Widespread
Management	Use heavy-duty weed wrench to remove as much root as possible or cut below crown before seed production; susceptible to herbicides
Noxious Weed List	C-rated

Non-native and Invasive



- Height: woody shrub up to 8 ft
- Stems: 5-angled; star-shaped cross-section
- Branches: dark green; more-or-less erect
- Reproduces by seed
- Flower color: deep yellow; slight to no fragrance

SPANISH BROOM *Spartium junceum*

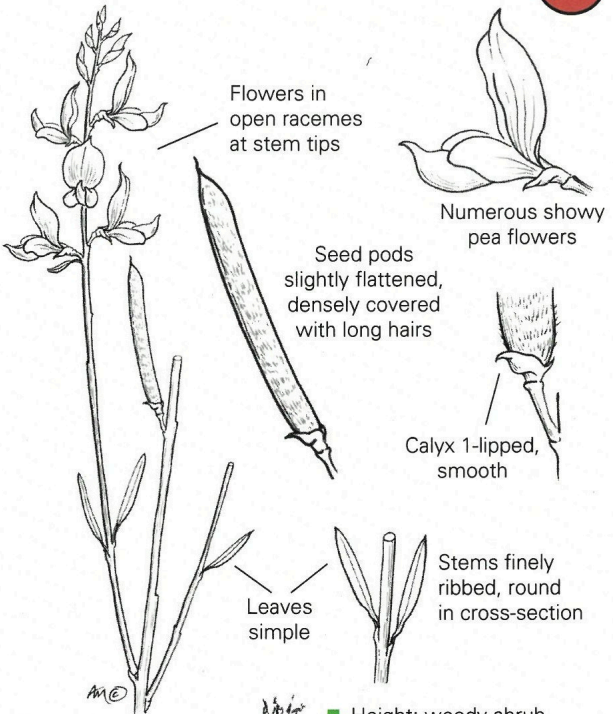


Donaldson UNCE



Also Known As	Weaver's broom
Habitat	Eroding slopes, river banks, road cuts, disturbed sites
Life Cycle	Evergreen perennial
Flowering Time	May - July
Relative Abundance	Moderate
Management	Use heavy-duty weed wrench to remove as much root as possible or cut below crown before seed production; susceptible to herbicides
Noxious Weed List	C-rated

Non-native and Invasive



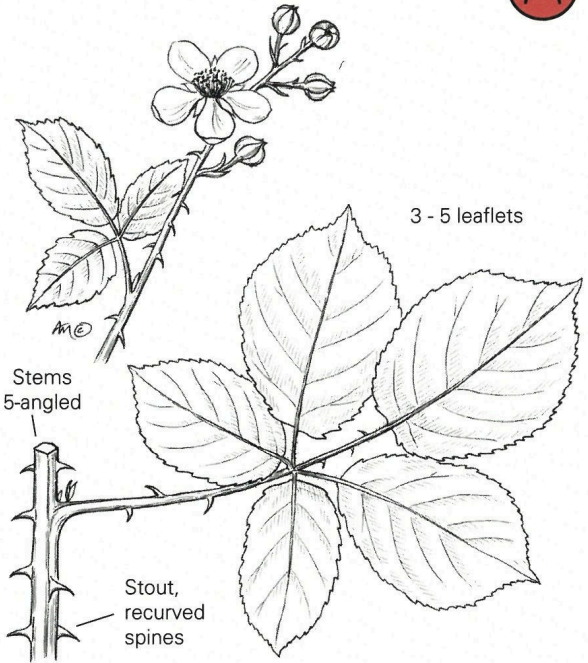
- Height: woody shrub up to 8 ft
- Stems: smooth or finely ribbed; round cross-section
- Branches: dark green; more-or-less erect
- Reproduces by seed
- Flower color: yellow; strong fragrance

HIMALAYAN BLACKBERRY *Rubus armeniacus*



Huhndorf USFS

Also Known As	Armenian blackberry, <i>Rubus discolor</i>
Habitat	Roadsides, riparian areas, disturbed areas
Life Cycle	Perennial; spreads by roots, layering and seeds
Flowering Time	April - August
Relative Abundance	Widespread
Management	Manual removal including roots; continual cutting and burning, herbicide application most effective treatment
Noxious Weed List	B-rated



3 - 5 leaflets

Stems
5-angled

Stout,
recurved
spines



- Height: up to 8 ft, especially when mounded on old canes
- Stems: 5-angled, with stout, recurved spines
- Leaves: 3 - 5 leaflets, white underneath
- Flowers: large clusters at the end of branches
- Flower color: pink

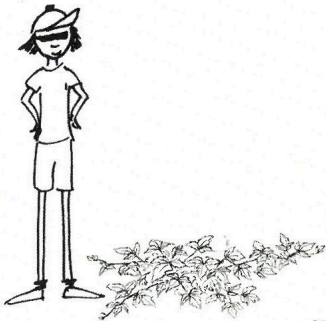
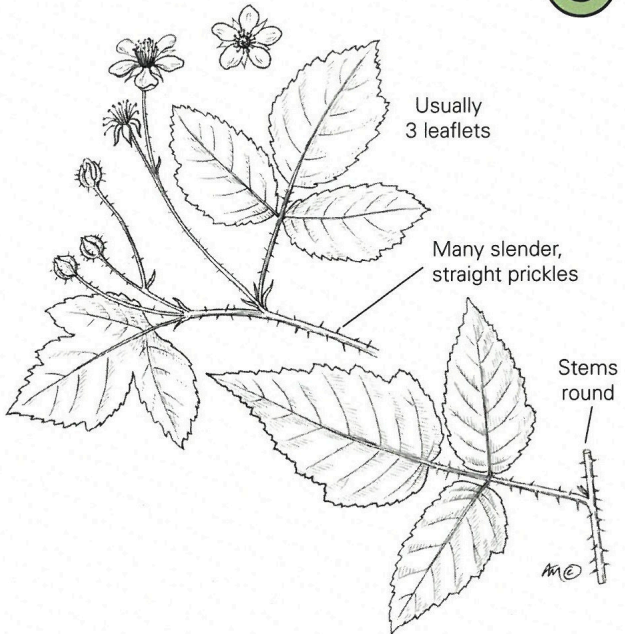
CALIFORNIA BLACKBERRY *Rubus ursinus*



Plant, Huhndorf USFS; Flower, © Callahan; Leaf, Huhndorf USFS

Also Known As	Pacific blackberry
Habitat	Forests, openings, disturbed areas
Life Cycle	Perennial plant with biennial canes
Flowering Time	February - May
Relative Abundance	Infrequent
Management	Desirable native plant; do not disturb

Native Look-alike



- Height: generally up to 1 ft; stems longer but low-growing
- Stems: round, with many slender, straight prickles
- Leaves: Usually 3 leaflets, green underneath
- Flowers: 1 - 5 flowers per cluster
- Flower color: white

BARBED GOATGRASS *Aegilops triuncialis*

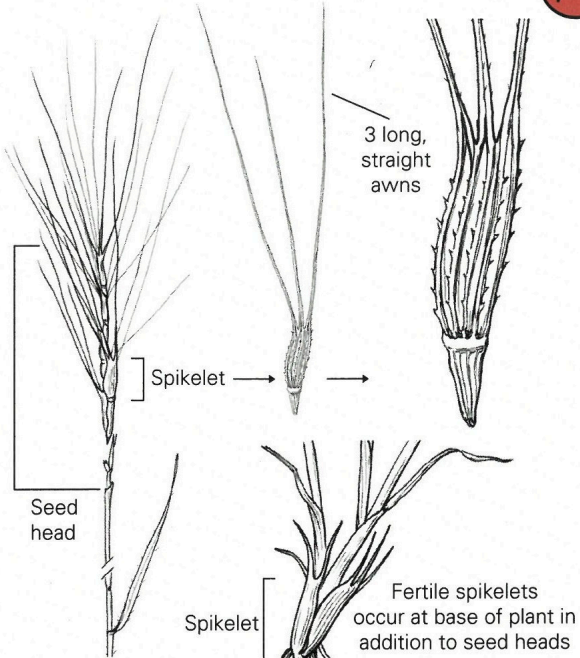


Huhndorf USFS



Also Known As	Barb goatgrass
Habitat	Disturbed/undisturbed grasslands, oak woodlands, fields, rangelands, pastures, and roadsides
Life Cycle	Annual
Flowering Time	May - July
Relative Abundance	Widespread
Management	Hand-pull roots and air-dry; mow after flowering but before seeds reach soft boot stage; susceptible to biological, cultural, and herbicide control
Noxious Weed List	B-rated

Non-native and Invasive



- Height: 1 - 2 ft
- Seed head: spikelets fall from plant intact, not leaving a central axis
- Awns: each spikelet has 3 long straight awns
- Growth form: ranges from a single stem to a bunch with many stems

MEDUSA HEAD *Elymus caput-medusae*

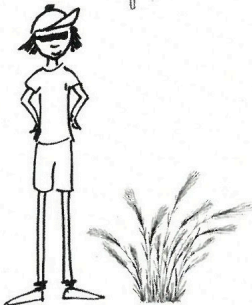
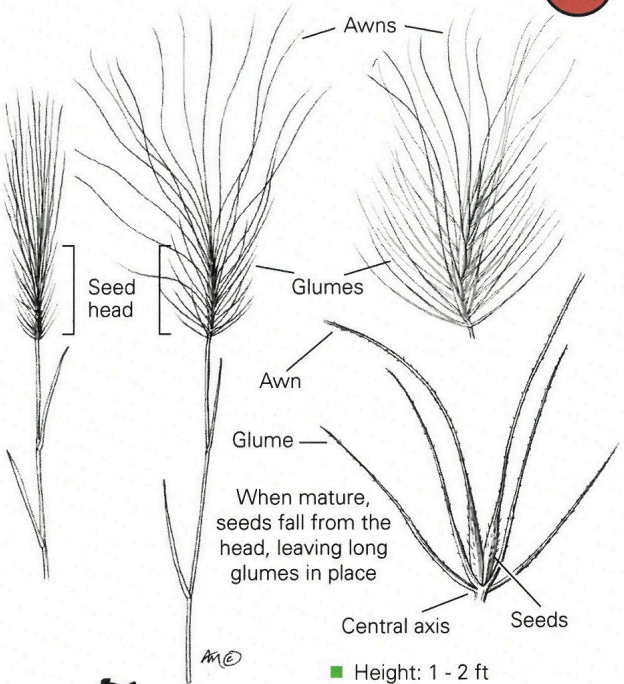


Huhndorf USFS



Also Known As	<i>Taeniatherum caput-medusae</i>
Habitat	Rangelands, roadsides, disturbed areas
Life Cycle	Annual
Flowering Time	April - July
Relative Abundance	Widespread
Management	Till before seed set to bury seeds and break-up deep thatch layers; susceptible to biological, cultural, and herbicide control
Noxious Weed List	C-rated

Non-native and Invasive



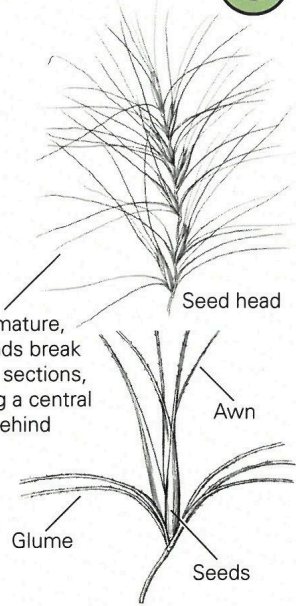
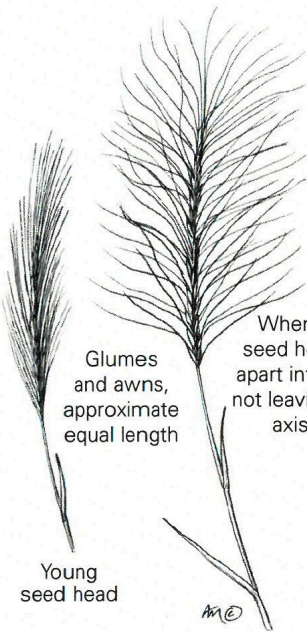
- Height: 1 - 2 ft
- Seed head: central axis with glumes persist into winter
- Upper awns long and wavy, 1.12 - 4 in; lower glumes shorter, 0.2 - 3.14 in
- Growth form: ranges from a single stem to a bunch with many stems
- Key feature: very long, upward-pointing, wavy awns

BOTTLEBRUSH SQUIRREL TAIL *Elymus elymoides*



Huhndorf USFS

Also Known As	Bottlebrush, squirrel tail grass
Habitat	Forests, grasslands, most plant communities
Life Cycle	Perennial
Flowering Time	April - May
Relative Abundance	Widespread
General Information	Supports butterflies and moths; good forage for sheep in winter when small and green



Glumes and awns, approximate equal length

When mature, seed heads break apart into sections, not leaving a central axis behind

Seed head

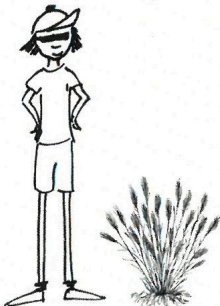
Awn

Glume

Seeds

Young seed head

- Height: 1 - 2 ft
- Seed head: spikelets fall from plant intact, not leaving a central axis
- Glumes and awns: approx. equal length, 0.6 - 4.7 in; often reddish when young, straw-colored when mature
- Growth form: generally in bunches with several to many stems
- Key feature: glumes and awns bent to nearly horizontal when mature



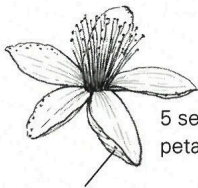
KLAMATHWEED *Hypericum perforatum*



Brenneman UNCE

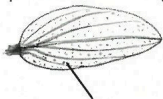
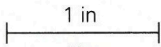
Also Known As	St. John's Wort, Common St. Johnswort, goatweed
Habitat	Pastures, meadows, roadsides, disturbed areas
Life Cycle	Perennial
Flowering Time	May - September
Relative Abundance	Moderate
Management	Pull or dig repeatedly; susceptible to biological and herbicide control
Noxious Weed List	C-rated

Non-native and Invasive

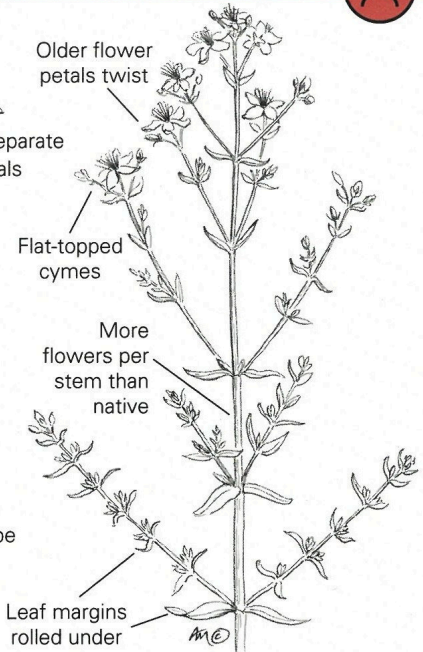


5 separate petals

Occasional tiny black dots at edges of petals



Transparent dots on leaves; leaf shape narrow/oblong

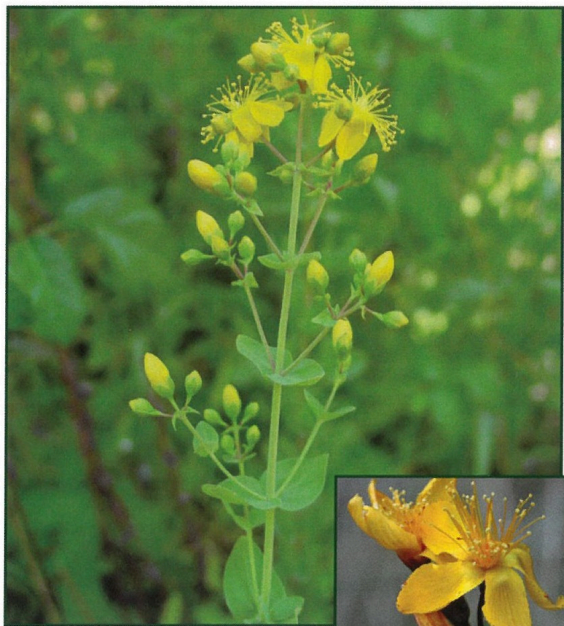


Leaf margins rolled under



- Height: 1 - 3+ ft
- Stems: erect with numerous rust-colored branches
- Leaves: narrowly oblong, entire, opposite, sessile; not over 1 in long
- Branches: somewhat 2-ridged and woody at the base
- Flower color: yellow

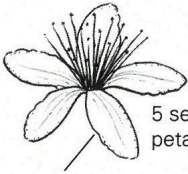
SCOULER'S ST. JOHNSWORT *Hypericum scouleri*



Plant, © 2004 Laura Ann Eliassen Calphotos ;
Flower, © 2003 Steve Matson Calphotos (CC BY-NC 3.0)

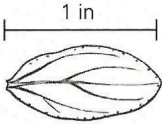
Also Known As	<i>Hypericum formosum</i> var. <i>scouleri</i>
Habitat	Streambanks, meadows
Life Cycle	Perennial
Flowering Time	June - September
Relative Abundance	Infrequent
Management	Desirable native plant; do not disturb
General Information	Supports bees and 8 specific butterfly/ moth species

Native Look-alike



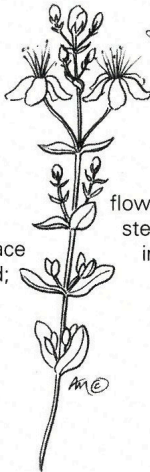
5 separate petals

Tiny black dots at edges of petals

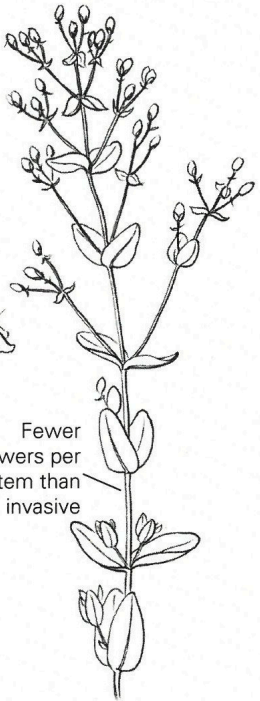


Leaf margins

black-dotted, lower surface inconspicuously dotted; leaf shape rounder than Klamathweed



Fewer flowers per stem than invasive



- Height: 0.5 - 2.5 ft
- Stems: slender; extend from base
- Leaves: ovate/elliptic flat, more or less clasping
- Flower color: yellow

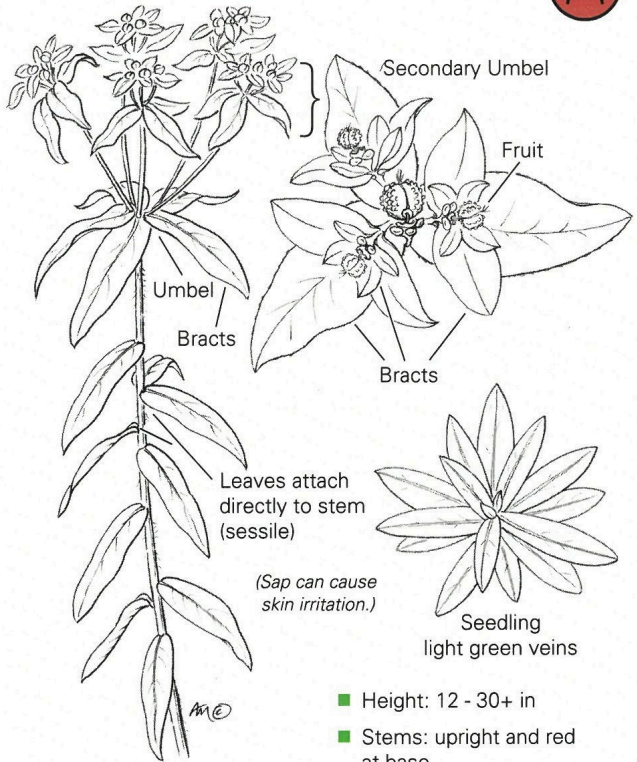
OBLONG SPURGE *Euphorbia oblongata*



Plant, © Gary McDonald 2017;
Flower, © Dominicus J. Bergsma 2013 (CC BY-SA 3.0)

Also Known As	Eggleaf spurge
Habitat	Disturbed areas, roadsides, grasslands, forests
Life Cycle	Perennial
Flowering Time	May - August
Relative Abundance	Widespread
Management	Dig before seed production; susceptible to biological and herbicide control
Noxious Weed List	B-rated

Non-native and Invasive



- Height: 12 - 30+ in
- Stems: upright and red at base
- Leaves: alternate along finely hairy stem; 2 - 3 in long
- Bracts: opposite or proximal whorled, sessile, ovate
- Flower color: yellow



RUSSIAN THISTLE *Salsola tragus*

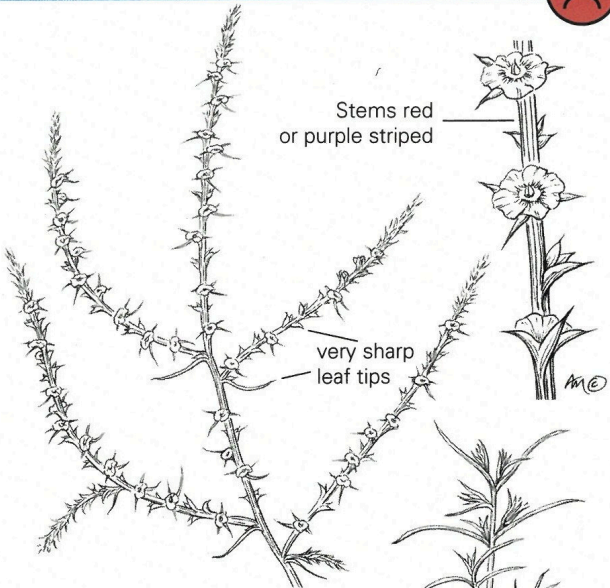


Plant, Kiehl; Flower, © James M. Andre 2004

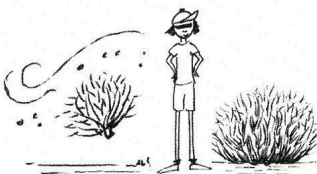


Also Known As	Prickly Russian thistle, tumbleweed
Habitat	Disturbed areas, roadsides, fields with loose sandy soils
Life Cycle	Annual
Flowering Time	July - October
Relative Abundance	Moderate
Management	Mow, pull, or dig before seed set; susceptible to cultural, biological, and herbicide control
Noxious Weed List	C-rated

Non-native and Invasive



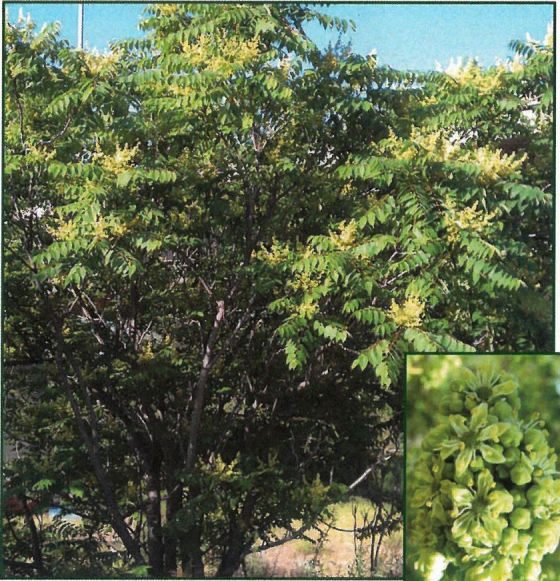
Young plant, weak tips, bright green



Mature plant breaks off at base and tumbles, scattering seeds

- Height: 3+ ft
- Stems: longitudinally ribbed, generally red-striped
- Leaves: alternate, semi-succulent to succulent, long, thick, and end in a sharp spine
- Flower color: greenish to pinkish white

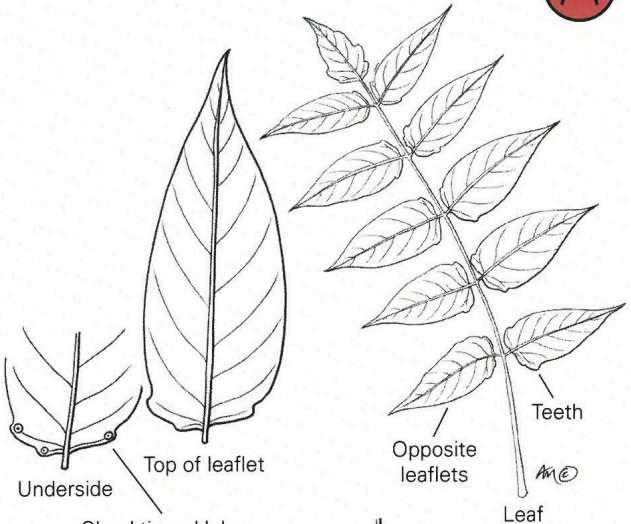
TREE OF HEAVEN *Ailanthus altissima*



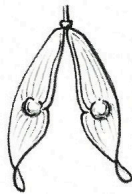
Plant, Williams USFS; Flower, Hanson USFS

Also Known As	Stink tree, varnish tree, ailanthus
Habitat	Disturbed areas, riparian areas, often near roadsides, historical dwellings
Life Cycle	Deciduous tree
Flowering Time	May - June
Relative Abundance	Moderate
Management	Hand pull seedlings; weed wrench saplings, must extract entire root; susceptible to cultural and herbicide control
Noxious Weed List	C-rated

Non-native and Invasive



Gland-tipped lobes at the base of each leaflet distinguish from sumac, which looks similar when young



Fruit with seed near middle, clusters of 1 - 5

Sapling



- Height: tree up to 60 ft
- Bark: smooth and pale gray
- Leaves: up to 3 ft long, with 11 - 25 leaflets; foul-smelling when crushed
- Flower color: greenish
- Fruits: clusters of reddish-brown winged fruits in September

GLOSSARY

Alternate: Borne singly at each node, such as leaves.

Annual: Lives one growing season.

Awn: A thin, bristle-like extension, often part of a grass seed head.

Axil: The point formed between the stem and any part, such as a leaf, attached to it.

Biennial: Lives two years, flowers in 2nd year.

Boot stage: Occurs when the seed head is starting to come out of the leaf sheath.

Bract: A modified leaf at the base of a flower.

Corymb: Flat-topped or round-topped arrangement of flowers where the lower flower stalks are longer than the upper stalks.

Crenulate: Having very small, rounded teeth on the leaf margin.

Cyme: A flat-topped or round-topped arrangement of flowers in which the terminal flower blooms first.

Disk flower: The tiny, tubular flower of the Asteraceae that forms the center disk of the flowerhead.

Divided: Deeply lobed leaf in which lobes are indented to the base or the midrib.

Elliptic: Shaped like an ellipse or a narrow oval, broadest in the middle.

Entire: The margins are smooth, without teeth or lobes.

Glume: Sterile bract or bracts at the base of a grass spikelet.

Inflorescence: A flower cluster.

Linear: Narrow and flat with sides or edges parallel, as in a leaf.

Lobed: Bearing lobes cut less than halfway to base or midvein.

Margin: The outer edge of the leaf, which may be smooth, serrated, lobed, etc.

Midrib: The middle vein of a leaf.

Oblanceolate: leaf shape in which the length is at least 3x longer than wide, but broadest above middle.

GLOSSARY

Oblong: Leaf shape in which the leaf is two to four times longer than it is wide, with nearly parallel sides.

Opposite: Leaves or other structures borne across from each other at the same node.

Ovate Leaf: Egg-shaped leaf that is attached at the broad end.

Petiole: The stalk of a leaf.

Perennial: Lives more than two years.

Pinnate: A compound leaf with leaflets arranged on opposite sides of the axis.

Raceme: A simple, elongated arrangement of flowers.

Ray flower: The long, narrow flower that radiates outward from the disk flower. Each ray flower resembles a single petal.

Rhizomatous: Having rhizomes, or horizontal underground stems that produce shoots above and roots at distinct nodes.

Rosette: A dense, basal cluster of leaves arranged in a circular fashion around one point, usually at ground level.

Serrate: With sharp teeth directed forward along leaf edge.

Sessile: Leaf directly attached to a stem. No stalk.

Spatulate: Shaped like a spatula, with a rounded blade that tapers to the base.

Spike: An unbranched, long flower stalk where flowers attach directly to the stem and mature from the bottom upwards.

Spikelet: In grasses, the basic unit of the seed head.

Stipule: Appendage at base of leaf stalk.

Tomentose: Covered with dense, generally flattened and matted hairs.

Toothed: Having sharp points or lobes along a leaf margin.

Umbel: A flat-topped flower arrangement.

Winged stem: Thin, flat margins protruding along the length of the stem.

MANAGEMENT CONTROL TERMS

Biological control: The use of natural enemies (i.e., insects, pathogens, or parasites) to limit or block weed reproduction.

Cultural control: The use of competition, managed grazing, or prescribed fire to limit or block weed reproduction.

Herbicide control: The use or application of herbicides to weeds or soil to limit or block weed reproduction.

Mechanical control: The use of hand cutting, digging, pulling, or mowing to limit or block weed reproduction.

REPORTING & CONTACT INFORMATION

Nevada County Agricultural Commissioner's Office
950 Maidu Avenue, Suite 170, Nevada City, CA 95959
(530) 470-2690 agdept@co.nevada.ca.us
mynevadacounty.com/982/Agricultural-Commissioner

Nevada County Resource Conservation District (NCRCD)
113 Presley Way, Suite 1, Grass Valley, CA 95945
(520) 272-3417 ncrcd.org

Calflora Database (Calflora)
Berkeley, CA 94709 (510) 883-3148 calflora.org

California Department of Food & Agriculture (CDFA)
cdfa.ca.gov/plant/reportapestcdfa.ca.gov/invasives/
cdfa.ca.gov/plant/ipc/encycloweedia/weedinfo/winfo_tablesciname

California Invasive Plant Council (Cal IPC)
Berkeley, CA 94709 and Richmond, CA 94804
(510) 843-3902
cal-ipc.org/plants calweedmapper.cal-ipc.org

**National Geographic
California Academy of Sciences (iNaturalist)**
inaturalist.org/home

**University of Georgia
Center for Invasive Species and Ecosystem Health**
Athens, GA 30602
bugwood.org eddmaps.org/west (EDDmapS)

ADDITIONAL INFORMATION

Center for Invasive Species and Ecosystem Health

invasive.org/species.cfm

Natural Resources Conservation Service (NRCS)

California State List of Introduced, Invasive, and Noxious Plants

plants.usda.gov/java/noxious?rptType=State&statefips=06

NatureServe Explorer

explorer.natureserve.org

PlantID.net

plantid.net/Home.aspx

Smithsonian National Museum of Natural History

Encyclopedia of Life eol.org

Weed Science Society of America (WSSA)

Westminster, CO 80234

(720) 977-7940

wssa.net/wssa/weed/weed-identification

U.S. Department of Agriculture (USDA)

plants.sc.egov.usda.gov/java

plants.usda.gov/java/noxious

plants.sc.egov.usda.gov/gallery.html

University of California Agriculture & Natural Resources

Statewide Integrated Pest Management Program (UC IPM)

Davis, CA 95618

(530) 750-1370 ipm.ucanr.edu

www2.ipm.ucanr.edu/Invasive-and-Exotic-Pests

University of California, Berkeley, Jepson Herbaria (Jepson)

Berkeley, CA 94720

(510) 642-2465 (510) 643-7008

ucjeps.berkeley.edu

University of California Cooperative Extension

Agricultural Experiment Station

Weed Research & Information Center (WRIC)

Davis, CA 95616

(530) 752-1748 wric.ucdavis.edu

University of California Cooperative Extension

UC Master Gardeners of Nevada County

255 S. Auburn Street, Grass Valley, CA 95945

(530) 273-0919 ncmg.ucanr.org

