

Invasive Weeds of the Tahoe National Forest

A Comparison Guide
to Non-native Invasive Plants and Common Look-alikes



TruckeeRiverWatershedCouncil

Collaborative solutions to protect, enhance and restore the Truckee River Watershed



Truckee River
**WEED
WARRIORS**

Invasive Weeds of the Tahoe National Forest

A Comparison Guide to
Non-native Invasive Plants and Common Look-alikes

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Invasive Weeds of the Tahoe National Forest

Non-native invasive plants are aggressive plants that have been introduced into an environment outside of their native range. Sometimes referred to as alien species, these invasive weeds have been separated from the natural enemies that help control them in their homeland.

They grow rapidly, reproduce profusely, and compete with native plants for water, light and nutrients. Some of these weeds have been designated as noxious by California and Nevada law, requiring control efforts by property owners (See Page 5).

Non-native invasive plants tend to outcompete native plants, especially where lands have been disturbed. When they displace native plants and animals, they lower diversity, reduce hunting and fishing potential, change the aesthetics of a habitat, inhibit recreational activities and tourism, crowd out endangered species, and reduce forage value. Along the Truckee River, weeds that have coarse or shallow root systems, such as perennial pepperweed and Dalmatian toadflax, increase soil erosion and threaten water clarity.

The Truckee River Weed Warriors, formed by the Truckee River Watershed Council in 2010, raise awareness about local non-native invasive plants, involve volunteers in their control, and report rated noxious weeds appropriately to partners for treatment.

If you find an invasive weed, please report the infestation to "Report a Weed" on www.truckeeriverwvc.org or your local County Agricultural Department when outside the Truckee River watershed.

How to Use the Guidebook

This guidebook will help you identify the invasive plants threatening the Tahoe National Forest and surrounding areas. Compare invasive plants with common "look-alikes" to help you differentiate between desirable native plants and non-native invasive plants.

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

- ☹ = Non-native invasive plants
- 😊 = 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.)

Information on management is also included for each invasive weed, as is the noxious weed status in California. California's noxious weed rating system designation is based on distribution and relative tenacity of the weed.

"A" rated: very invasive, but have a limited distribution throughout the state and are considered top priority for control before they become widespread.

"B" rated: very invasive and more widespread. Priority of "B" rated weed treatment is decided on a case-by-case basis depending on the local value of resource being compromised, local distribution, and funds available.

"C" rated: generally spread beyond the point where the state of California can justify spending limited resources, but the private citizen may control them on their own.

Relative abundance of each species is also provided.

Widespread: Found at numerous locations in the area

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 noxious and invasive weeds.

This requires:

- Educating workers and the public about the importance of managing weeds on an ongoing basis
- Properly identifying weed species
- Avoiding or 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 or play area. Identify any invasive weeds; map the location of the weeds. *(See Page 5 for reporting weeds.)*
3. Clean vehicles, shovels and other soil-disturbing equipment prior to entering a site to avoid introducing weeds.
4. Don't introduce weed-contaminated soil, fill, or other materials to new sites. Use certified weed-free products.
5. Check shoes, clothing, bicycles and vehicles regularly for weed seeds or other plant parts. Carefully remove and dispose of weedy materials.
6. Pressure-wash vehicles and equipment after driving in weedy areas. Periodically monitor and treat areas to prevent weedy plants from establishing.
7. Establish a decontamination area such as a tarp for cleaning clothing and equipment.
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 weeds in your garden or landscape.
11. Get advice for treatment on private property from your local county agriculture department. *(See Page 77 for contact information.)*

Reporting and Controlling Weeds

"Noxious weed" is a legal term employed by the California Dept. of Food and Agriculture, and refers to an invasive plant that poses a significant threat to our environment. Noxious weeds have been assigned a priority rating of "A", "B", or "C" according to the current knowledge of state-wide distribution (see pp. 2 & 3).

Report all "A" & "B" rated noxious weeds.

See the following pages for plant descriptions and directions. Visit www.truckeeriverwvc.org to report these invasive plants. Look for the "Weed Warrior" menu tab on the Truckee River Watershed Council website.

Do not remove "A" & "B" weeds yourself.

We work with the appropriate county to ensure proper tracking, treatment and disposal of these noxious weeds.

Do not report "C" and non-rated weeds.

Treat "C" rated weeds yourself with the following exceptions. Scotch broom, yellow starthistle and yellow toadflax need to be reported when found in the Truckee area because they are recent invaders here. Please use the Bag & Bake method to treat the more prevalent invasive weeds on your own property.

Bag & Bake "C" and non-rated weeds.

- Dig plants with flowers or seeds, removing as much root as is practical. *(See "Management" specific to each weed listed in book.)*
- Double bag seeds and flower parts using strong plastic yard waste bags.
- Spray plants with dish soap/water solution.
- Tie bag and leave out in sun to decompose for at least one month.
- Dispose of in trash. Do not use "green bags" that are to be used for composting and redistribution.
- Observe site for regrowth of invasive weeds from remaining rootstock and seedlings.

INDEX	COMMON NAME	Scientific Name	CODE	Page
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THISTLES AND LOOK-ALIKES

☹ Invasive				
BULL THISTLE	Cirsium vulgare		CIVU	10-11
CANADA THISTLE	Cirsium arvense		CIAR4	12-13
MUSK THISTLE	Carduus nutans		CANU4	14-15
SCOTCH THISTLE	Onopordum acanthium		ONAC	16-17
☺ Look-alike				
ANDERSON'S THISTLE	Cirsium andersonii		CIAN	18-19
ELK THISTLE	Cirsium scariosum		CISC2	20-21
SNOWY THISTLE			CIOCC	22-23
	Cirsium occidentale var. candidissimum			

KNAPWEEDS AND LOOK-ALIKES

☹ Invasive				
DIFFUSE Knapweed	Centaurea diffusa		CEDI3	24-25
RUSSIAN Knapweed	Acroptilon repens		ACRE	26-27
SPOTTED Knapweed	Centaurea stoebe		CEST8	28-29
YELLOW STARThistle	Centaurea solstitialis		CESO3	30-31
☺ Look-alike				
ASTER	Aster spp.			32-33
☺ Look-alike				
BACHELOR'S BUTTONS	Centaurea cyanus		CECY2	34-35

MUSTARDS AND LOOK-ALIKES

☹ Invasive				
DYER'S WOAD	Isatis tinctoria		ISTI	36-37
HOARY CRESS	Lepidium draba		LEDR	38-39
PERENNIAL PEPPERWEED			LELA2	40-41
	Lepidium latifolium			
POISON HEMLOCK	Conium maculatum		COMA2	42-43
WHITE SWEETCLOVER	Melilotus albus		MEAL12	44-45
☺ Look-alike				
YARROW	Achillea millefolium		ACMI2	46-47

INDEX	COMMON NAME	Scientific Name	CODE	Page
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TOADFLAXES AND LOOK-ALIKES

☹ Invasive				
DALMATIAN TOADFLAX	Linaria dalmatica		LIDA	48-49
YELLOW TOADFLAX	Linaria vulgaris		LIVU2	50-51
☺ Look-alike				
SNAPDRAGON	Antirrhinum majus		ANMA3	52-53

DAISIES AND LOOK-ALIKES

☹ Invasive				
OXEYE DAISY	Leucanthemum vulgare		LEVU	54-55
☺ Look-alike				
SHASTA DAISY	Leucanthemum maximum		LEMA8	56-57

BROOMS

☹ Invasive				
SCOTCH BROOM	Cytisus scoparius		CYSC4	58-59
SPANISH BROOM	Spartium junceum		SPJU2	60-61















AQUATIC AND LOOK-ALIKES

☹ Invasive				
EURASIAN WATERMILFOIL			MYSP	62-63
	Myriophyllum spicatum			
☺ Look-alike				
COMMON ELODEA	Elodea canadensis		ELCA7	64-65













OTHERS AND LOOK-ALIKES

☹ Invasive				
KLAMATHWEED	Hypericum perforatum		HYPE	66-67
☺ Look-alike				
SCOULER'S ST. JOHNSWORT			HYSC5	68-69
	Hypericum scouleri			
☹ Invasive				
RUSH SKELETONWEED	Chondrilla juncea		CHJU	70-71
TEASEL	Dipsacus fullonum		DIFU2	72-73

QUICK REFERENCE ID

THISTLES	Flower Head	Leaves
Bull Thistle	 vase	 rough, veins
Canada Thistle	 drop	 lobed, spiny
Musk Thistle	 disk	 midrib, hairless
Scotch Thistle	 oval	 cobweb hairy
Anderson's Thistle (look-alike)	 cylinder	 small flat hairs
Elk Thistle (look-alike)	 no stems	 long hairs
Snowy Thistle (look-alike)	 reflexed bracts	 wooly hairs

QUICK REFERENCE ID

KNAPWEEDS	Bracts	Lower Leaves
Diffuse Knapweed	 spiny combs	 deeply lobed
Russian Knapweed	 papery	 lobed
Spotted Knapweed	 spots	 deeply lobed
Yellow Starthistle	 spines	 winged stem
Aster spp. (look-alike)	 no spines, yellow disk	 narrow, entire
Bachelor's Buttons (look-alike)	 no spots	 narrow, entire

BULL THISTLE *Cirsium vulgare* CIVU



Plant, Breneman, Flower, Donaldson

Also Known As	Common thistle
Origin	Non-native, invasive
Habitat	Meadows, roadsides, disturbed sites
Life Cycle	Biennial
Flowering Time	Mid-July to fall
Relative Abundance	Widespread
Management	Dig, removing top 2 inches of root; herbicides are available
Noxious Weed List	Nevada-NO; California C-rated

Non-native 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



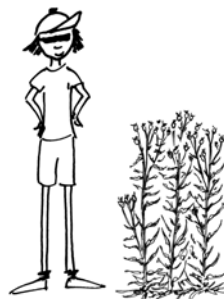
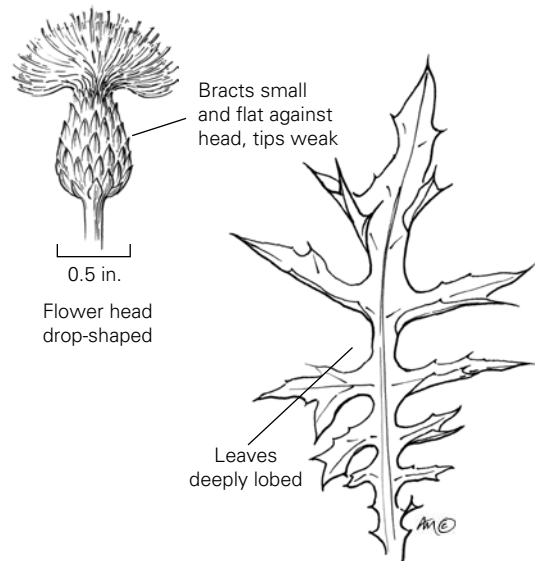
- Height: 1 - 6 ft. commonly 2 - 3 ft.
- Stems: spiny and winged
- Leaves: sandpaper texture, prominent veins
- Flowers: in clusters at ends of branches
- Flower color: pink to purple



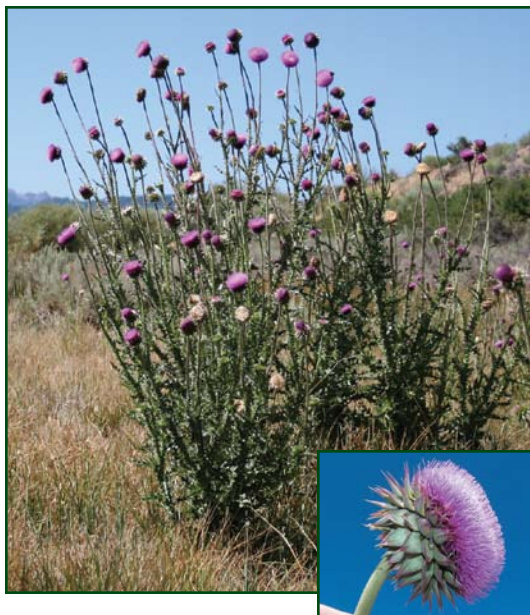
Donaldson



Also Known As	Field thistle
Origin	Non-native, invasive
Habitat	Roadsides, rangelands, forests, lawns, gardens, moist and disturbed sites
Life Cycle	Perennial
Flowering Time	Mid-July to fall
Relative Abundance	Infrequent
Management	Aggressive; pulling and burning favor root resprouting; use chemical control for several years
Noxious Weed List	Nevada C-rated; California B-rated

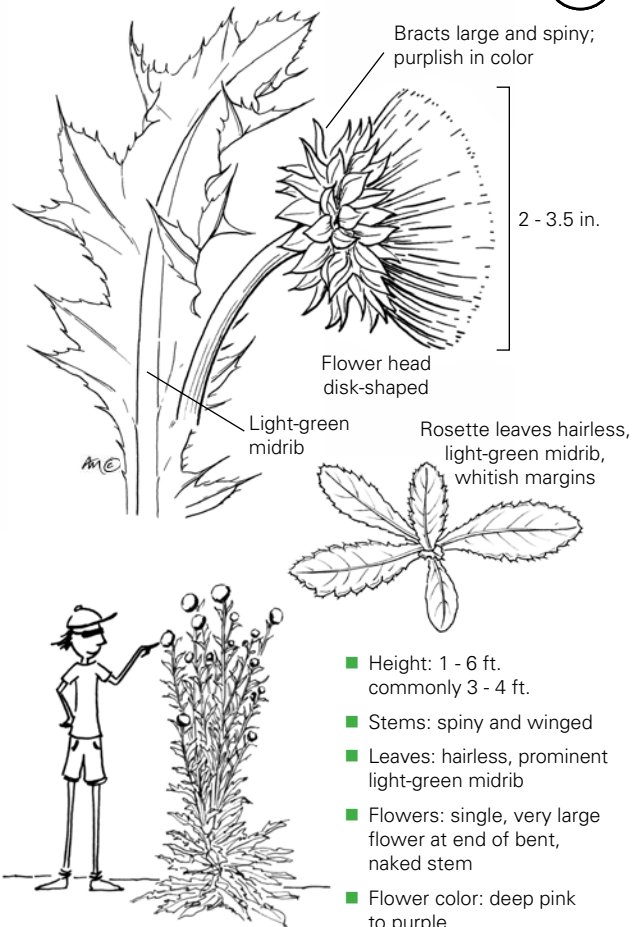


- Height: 1.5 - 4 ft. commonly 2 - 3 ft.
- Stems: smooth and ridged with no spines
- Leaves: smooth and sessile
- Flowers: multiple small flower heads in clusters on each stem
- Flower color: light purple to white



Plant: Miller, Flower, Donaldson

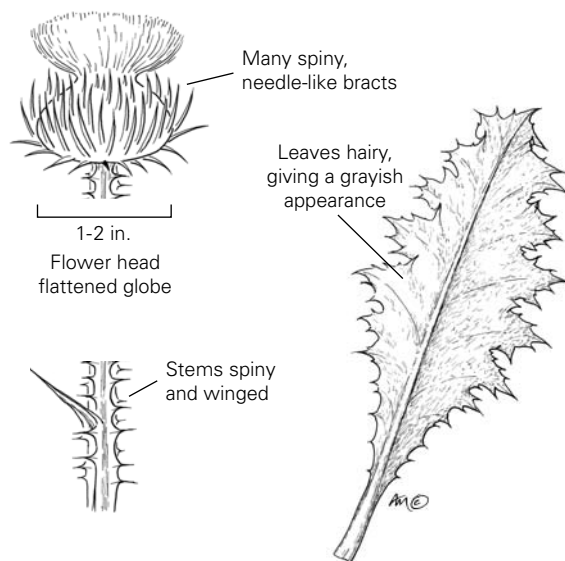
Also Known As	Nodding thistle
Origin	Non-native, invasive
Habitat	Pastures, forest, rangelands, roadsides, waste areas, ditches
Life Cycle	Biennial
Flowering Time	Mid-July to fall
Relative Abundance	Infrequent
Management	Dig, removing top 2 inches of root; herbicides are available
Noxious Weed List	Nevada B-rated; California A-rated



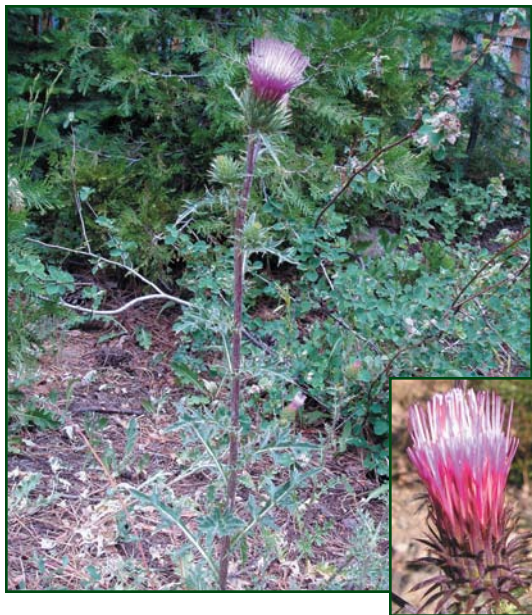


Donaldson

Also Known As	Winged thistle
Origin	Non-native, invasive
Habitat	Waste areas, roadsides, disturbed soils
Life Cycle	Biennial; rarely annual
Flowering Time	Mid-July to fall
Relative Abundance	Infrequent
Management	Dig, removing top 2 inches of root; herbicides are available
Noxious Weed List	Nevada B-rated; California A-rated



- 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

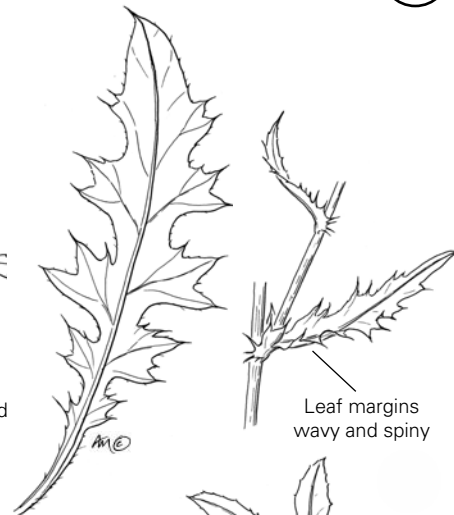


Also Known As	Rose thistle
Origin	Native
Habitat	Open places, woodlands, forests
Life Cycle	Biennial
Flowering Time	July to fall
Relative Abundance	Widespread
Management	Desirable native plant; do not disturb
Noxious Weed List	Nevada-NO; California-NO



0.75 - 1.5 in.

Flower head
cylinder-shaped



Leaf margins
wavy and spiny

Rosette leaves not
prominently veined,
small flat hairs

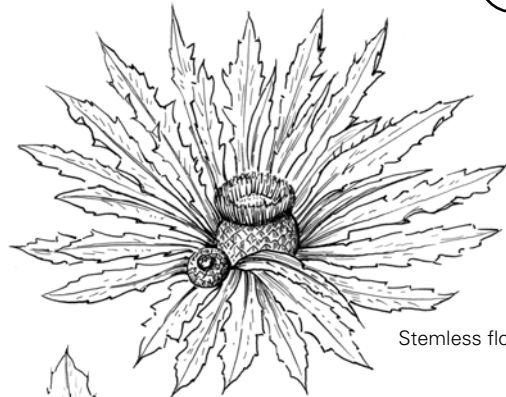


- Height: 2 - 4 ft.
- Stems: purplish and thornless
- Leaves: divided and wavy with spiny margin
- Flowers: single flower at end of stem
- Flower color: rose red to reddish purple



Blenneman

Also Known As	Drummond's thistle
Origin	Native
Habitat	Moist places at mid to high elevations
Life Cycle	Biennial
Flowering Time	June to August
Relative Abundance	Moderate
Management	Desirable native plant; do not disturb
Noxious Weed List	Nevada-NO; California-NO



Stemless flower



Rosette leaves have long golden hairs; long fine spines at leaf margins

- Height: up to 3 ft. generally less than 1 ft.
- Stems: usually no stems; forms round flat rosette
- Leaves: lobed, somewhat spiny, pale green foliage
- Flowers: extend directly from rosette
- Flower color: white to pale lavender



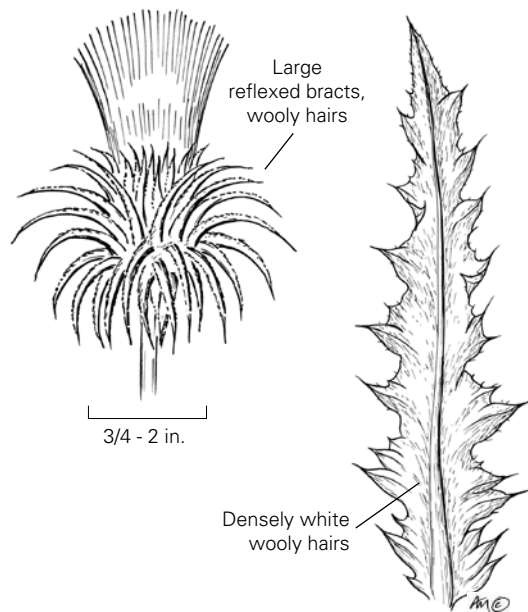
SNOWY THISTLE *Cirsium occidentale*
var. *candidissimum* CIOCC



Plant: Urie; Flower: Monroe Calphotos

Also Known As	None
Origin	Native
Habitat	Disturbed areas, shrubby areas, open woodlands
Life Cycle	Biennial
Flowering Time	July to September
Relative Abundance	Widespread in Northern California
Management	Desirable native plant; do not disturb
Noxious Weed List	Nevada-NO; California NO

Native Look-alike

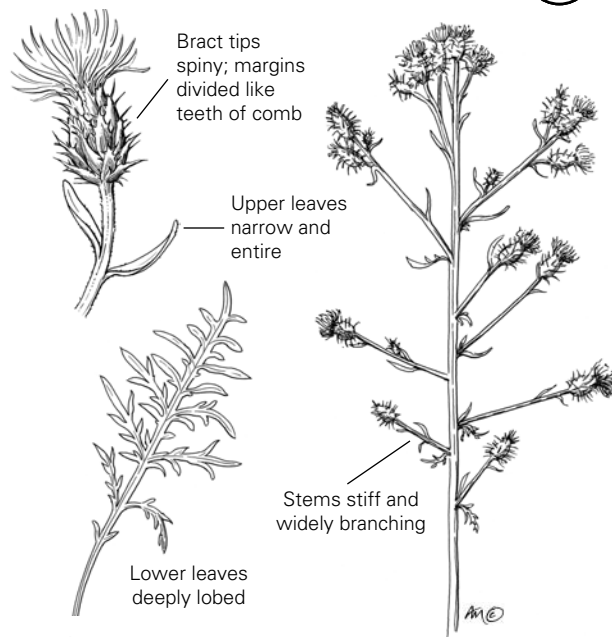


- Height: 1.5 to 6.5 ft.
- Stems: densely white wooly hairs
- Leaves: densely white wooly hairs on both surfaces
- Flowers: single or in clusters at the end of branches
- Flower color: pink to red



Donaldson

Also Known As	Tumble knapweed
Origin	Non-native, invasive
Habitat	Roadsides, waste areas, dry rangelands, disturbed sites
Life Cycle	Annual to short-lived perennial
Flowering Time	June to August
Relative Abundance	Infrequent
Management	Minimize seed production; pull or dig plants several times per year and monitor for several years; herbicides are available
Noxious Weed List	Nevada B-rated; California A-rated

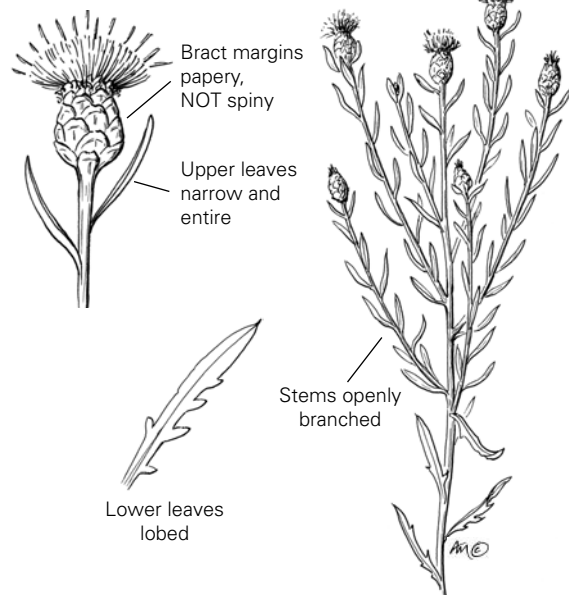


- Height: 1 - 2.5 ft.
- Stems: rough to touch
- Leaves: upper, entire; lower, deeply lobed
- Growth form: maintains bush shape; after frost, can break off and tumble
- Flower color: white to pale pink



Donaldson

Also Known As	Creeping knapweed
Origin	Non-native, invasive
Habitat	Roadsides, riverbanks, ditches, pastures, waste places
Life Cycle	Rhizomatous perennial
Flowering Time	July to fall
Relative Abundance	Infrequent
Management	Cut or mow prior to seed set to reduce current year's growth; chemical control is needed
Noxious Weed List	Nevada B-rated; California B-rated

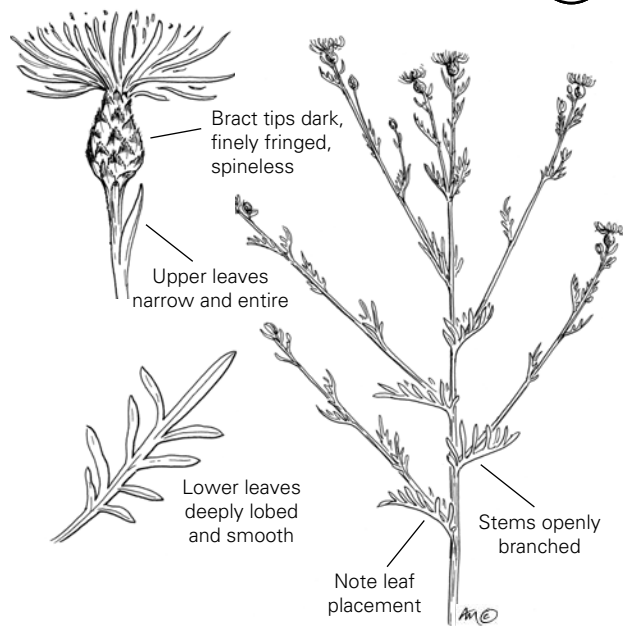


- Height: 1 - 3 ft. generally 2 - 3 ft.
- Stems: erect, cobwebby
- Leaves: upper, entire; lower and rosette, lobed
- Growth form: thick rounded clumps with drooping branches
- Root: black below crown
- Flower color: pink to purple



Plant: Breckenridge CDFA, Flower: Donaldson

Also Known As	<i>Centaurea maculosa</i>
Origin	Non-native, invasive
Habitat	Disturbed soil, rangelands, pastures, meadows, roadsides, areas with summer rainfall
Life Cycle	Perennial; sometimes biennial
Flowering Time	July to early September
Relative Abundance	Moderate
Management	Minimize seed production by cutting or mowing; dig, removing top 2 - 6 inches of root; herbicides are available
Noxious Weed List	Nevada A-rated; California A-rated

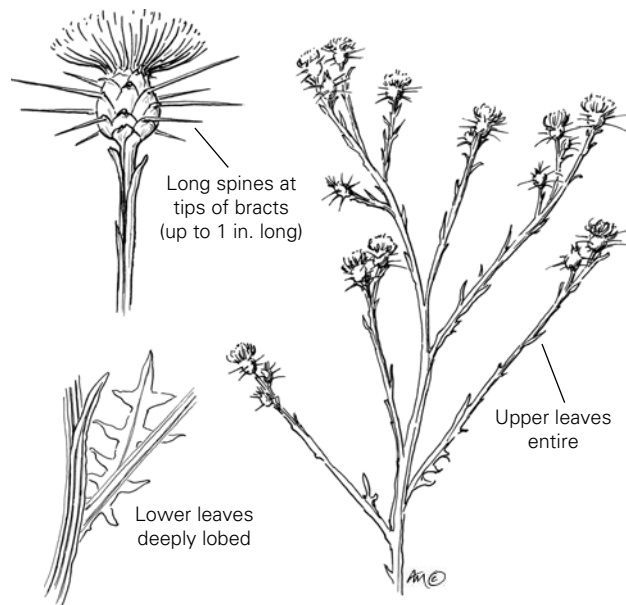


- Height: 1 - 5 ft. generally closer to 3 ft.
- Stems: erect and rough
- Leaves: upper, linear; lower, divided
- Growth form: tall with open branching
- Flower color: pink to purple



Donaldson

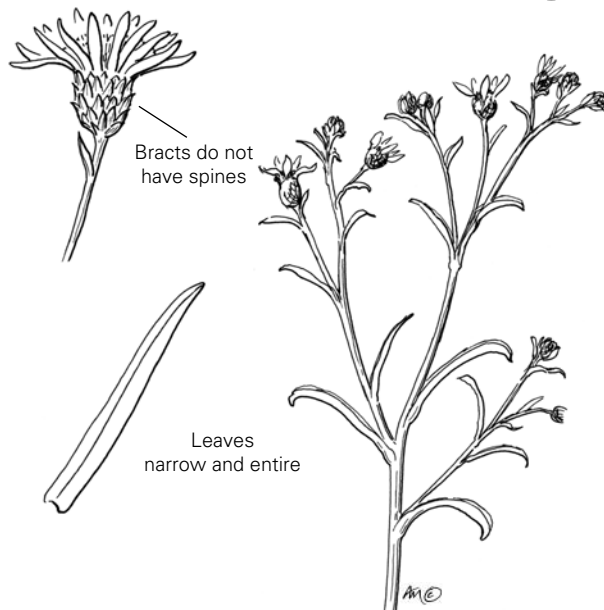
Also Known As	None
Origin	Non-native, invasive
Habitat	Roadsides, waste areas, grasslands
Life Cycle	Annual
Flowering Time	Late June to September
Relative Abundance	Widespread (infrequent in Truckee River watershed)
Management	Pull, dig or mow at first sign of yellow flowers; herbicides are available
Noxious Weed List	Nevada A-rated; California C-rated



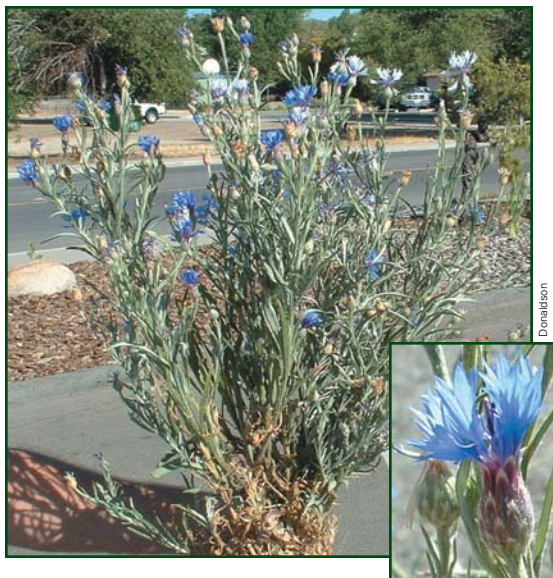
- Height: 0.5 - 5 ft. commonly 2 ft.
- Stems: winged
- Leaves: gray and hairy; upper, entire; lower, deeply lobed
- Growth form: stiffly branching
- Flower color: yellow



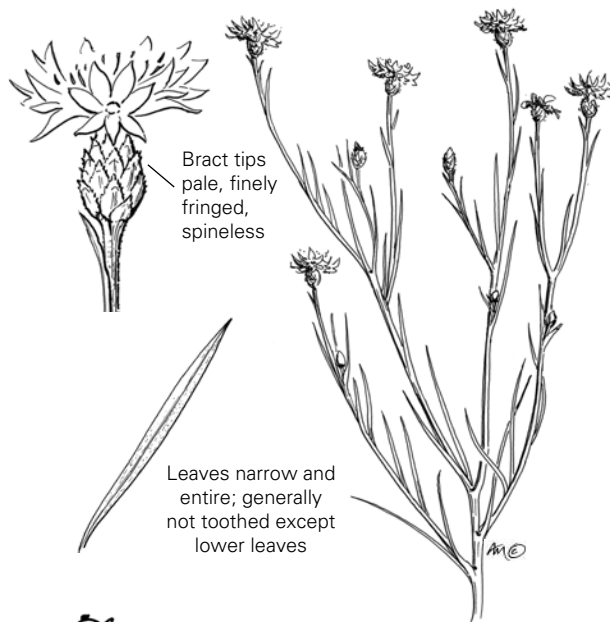
Also Known As	Variou
Origin	Native
Habitat	Meadows, gardens
Life Cycle	Annual or perennial
Flowering Time	Late July to fall
Relative Abundance	Widespread
Management	Desirable native plant; do not disturb
Noxious Weed List	Nevada-NO; California-NO



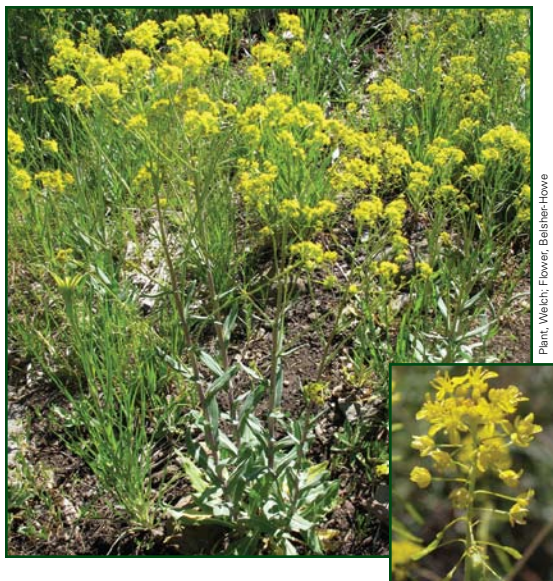
- Height: variable, often 1 - 2 ft.
- Stems: smooth to hairy
- Leaves: upper and lower leaves narrow and entire
- Growth form: ranges from short to tall
- Flower color: variable, often pink to purple with yellow center



- Also Known As** Cornflower
- Origin** Non-native, can be invasive, has escaped from cultivation
- Habitat** Disturbed grasslands, open woods, ornamental plantings
- Life Cycle** Annual
- Flowering Time** July to September
- Relative Abundance** Widespread
- Management** Mechanical controls (pull, dig, hoe); herbicides are available
- Noxious Weed List** Nevada-NO; California-NO

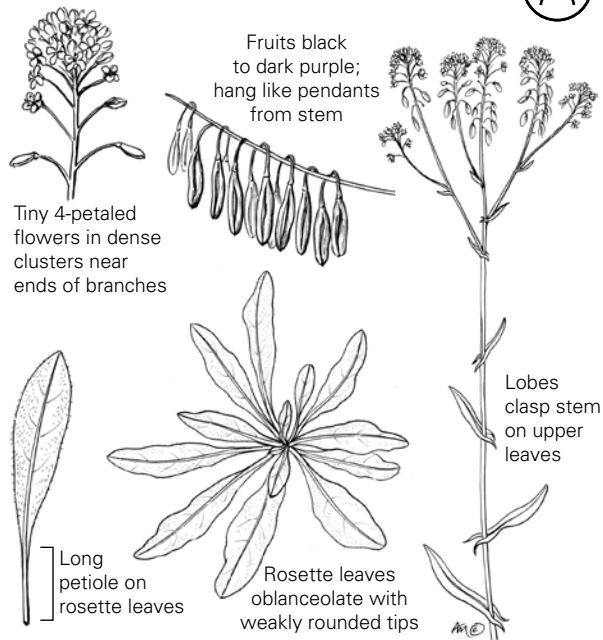


- Height: up to 3 ft.
- Stems: erect and branching
- Leaves: grayish and hairy; upper and lower leaves narrow and entire
- Growth form: tall, bushy
- Flower color: multicolored (white, blue, purple, pink, red)



Plant, Welch, Flower, Beistner-Howe

Also Known As	Marlahan mustard
Origin	Non-native, invasive
Habitat	Meadows, roadsides, streambanks, rangelands
Life Cycle	Biennial to short lived perennial
Flowering Time	June to July
Relative Abundance	Infrequent
Management	Dig, removing top 2 inches of root; observe site yearly to look for sprouting rosettes; herbicides are available
Noxious Weed List	Nevada A-rated; California B-rated



- 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



Donatelson

Also Known As Whitetop, short whitetop, *Cardaria pubescens*

Origin Non-native, invasive

Habitat Meadows, fields, roadsides, ditches, streambanks, rangelands

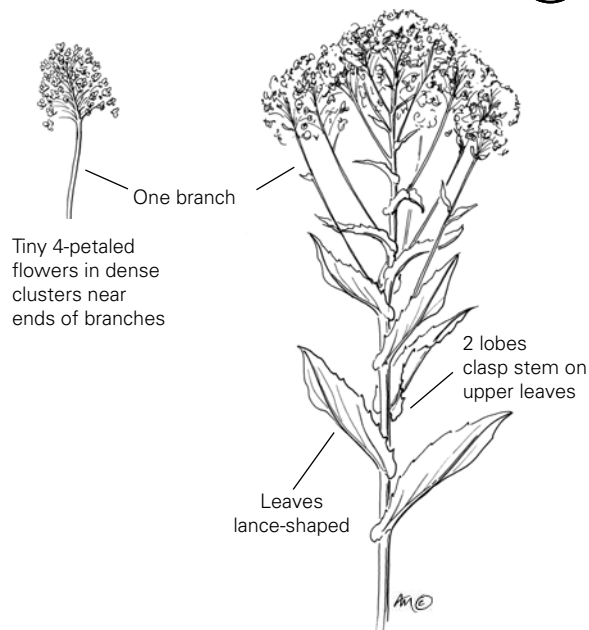
Life Cycle Rhizomatous perennial

Flowering Time May to June

Relative Abundance Infrequent

Management Mow two to three times per year at bud stage to slow spread; do not pull, as plants will grow from root fragments; chemical control is needed

Noxious Weed List Nevada C-rated; California B-rated



- Height: up to 2 ft. commonly 1 ft.
- Stems: many stems give rise to multiple branches with one flower cluster
- Leaves: blue-green foliage; upper leaves clasp stem; lower leaves petiolate
- Seed Shape: round
- Flower color: white

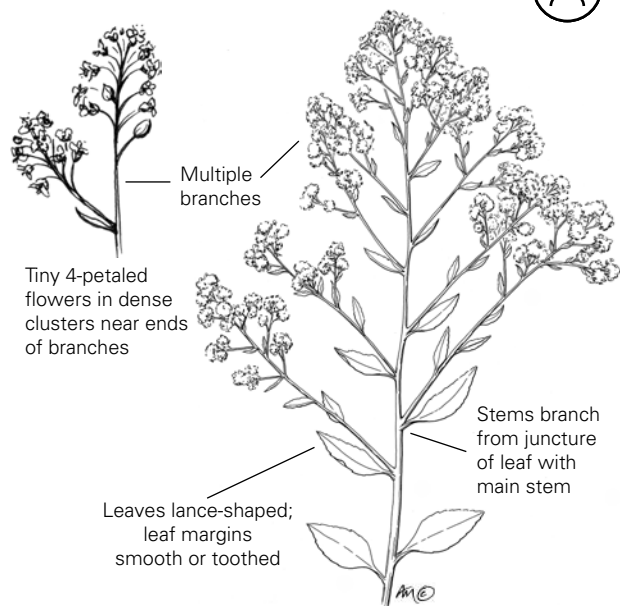
PERENNIAL PEPPERWEED *Lepidium latifolium* LELA2



Donaldson

Also Known As	Tall whitetop
Origin	Non-native, invasive
Habitat	Riparian areas, floodplains, meadows, seasonally wet areas, roadsides
Life Cycle	Rhizomatous perennial
Flowering Time	Late June to August
Relative Abundance	Moderate
Management	Do not pull, dig, or cut the roots, as this may stimulate new growth; chemical control is needed
Noxious Weed List	Nevada C-rated; California B-rated

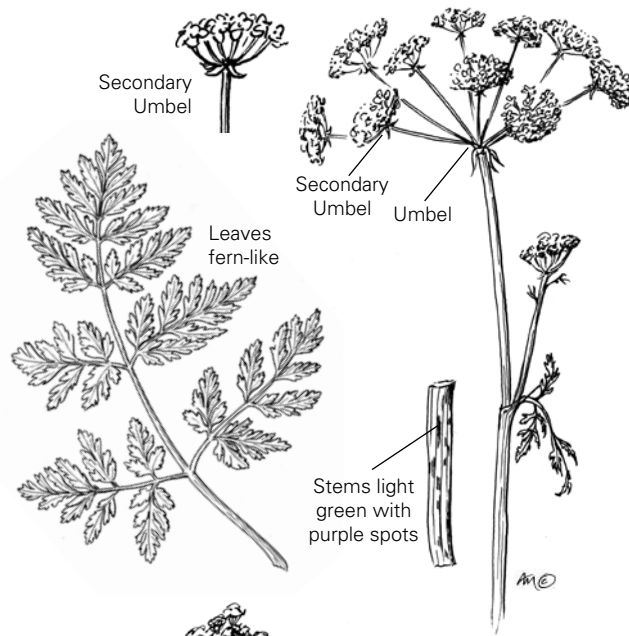
Non-native Invasive



- Height: 1 - 6 ft. commonly 3+ ft.
- Stems: each stem gives rise to multiple branches with multiple flower clusters
- Leaves: upper leaves, sessile; lower leaves, petiolate; basal leaves, much larger than upper leaves
- Seed Shape: round
- Flower color: white



- Also Known As** Poison parsley
Extremely poisonous if ingested
- Origin** Non-native, invasive
- Habitat** Wet areas in meadows, seeps, springs and floodplains
- Life Cycle** Biennial
- Flowering Time** July to Fall
- Management** Multiple mowing in bud stage or chemical control
- Noxious Weed List** Nevada C-rated; California-NO

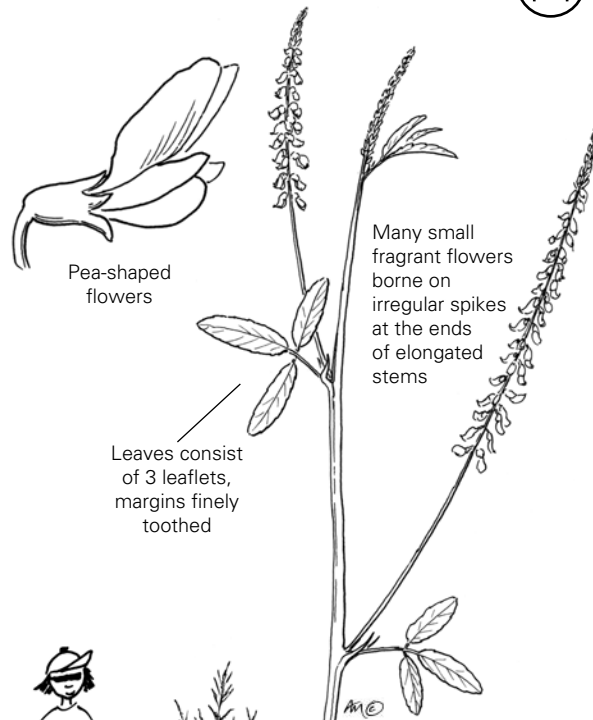


- Height: 3 - 8 ft. commonly 3+ ft.
- Stems: branched, light green with purple spots
- Leaves: compound, lacy resembling parsley, seedlings may appear fern-like
- Flower color: white



Brenneman

Also Known As	None
Origin	Non-native, used in soil stabilization mixes
Habitat	Roadsides, waste areas
Life Cycle	Annual to biennial
Flowering Time	June to August
Relative Abundance	Widespread
Management	Hand pull wearing gloves; dig or mow prior to seed set; herbicides available
Noxious Weed List	Nevada-NO; California-NO

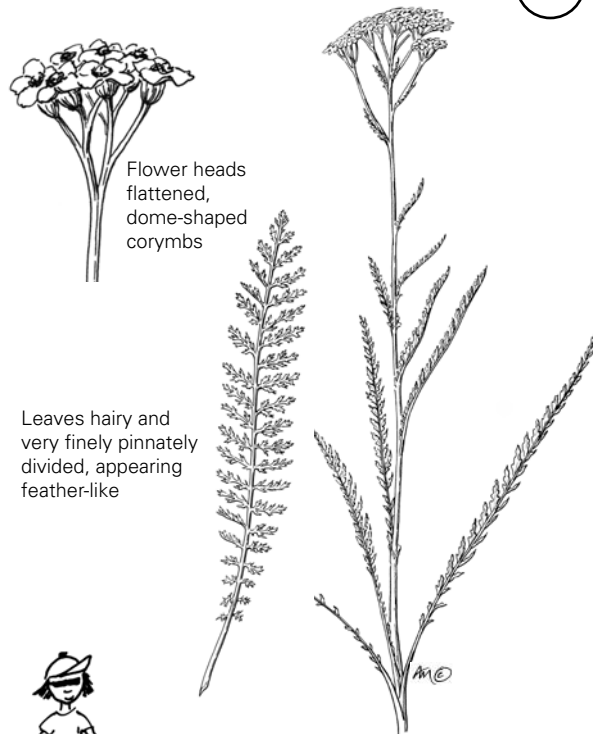


- Height: 2 - 6 ft. commonly about 3 - 5 ft.
- Stems: well-branched and coarse
- Leaves: 3 leaflets
- Flower color: white



Plant: Brenneman; Flower: Donaldson

Also Known As	Common yarrow, milfoil
Origin	Native and introduced, can be invasive
Habitat	Gardens, meadows, grasslands, forests
Life Cycle	Perennial
Flowering Time	June to September
Relative Abundance	Widespread
Management	Dig, removing as much root as possible; forms dense mat if mowed; chemical control is available
Noxious Weed List	Nevada-NO; California-NO



Flower heads flattened, dome-shaped corymbs

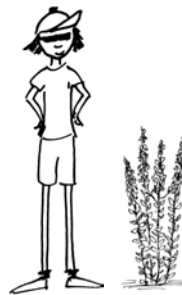
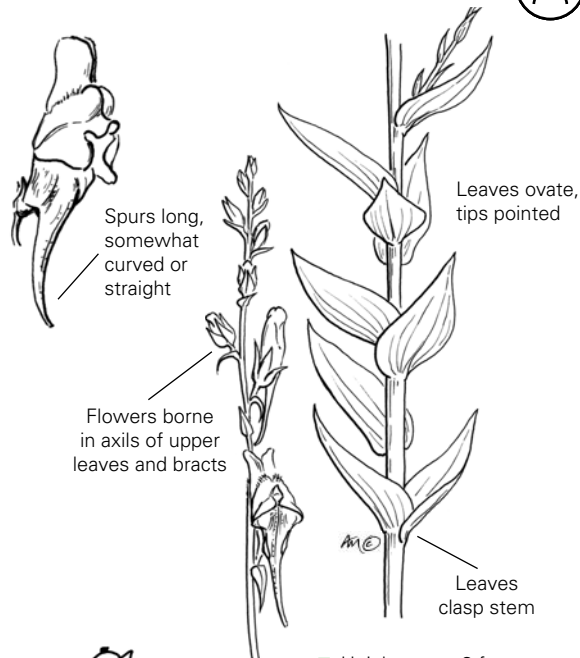
Leaves hairy and very finely pinnately divided, appearing feather-like



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



Also Known As	Wild snapdragon, <i>Linaria genistifolia</i> ssp. <i>dalmatica</i>
Origin	Non-native, invasive
Habitat	Roadsides, pastures, rangelands, cultivated fields
Life Cycle	Perennial
Flowering Time	July to fall
Relative Abundance	Moderate
Management	Pull or dig for several years, removing as much root as possible; do not mow; chemical control is available
Noxious Weed List	Nevada A-rated; California A-rated



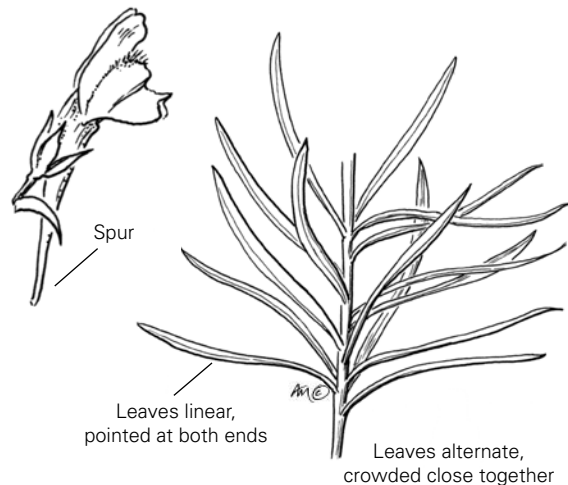
- Height: up to 3 ft.
- Stems: erect and branched
- Leaves: ovate, alternate and entire; succulent and waxy
- Growth form: more scattered than yellow toadflax
- Flower color: yellow, with orange, bearded throat

YELLOW TOADFLAX *Linaria vulgaris* LIVU2



Also Known As	Butter and eggs
Origin	Non-native, invasive
Habitat	Rangelands, roadsides, waste places, cultivated fields
Life Cycle	Perennial
Flowering Time	July to fall
Relative Abundance	Moderate (infrequent in Truckee River watershed)
Management	Pull or dig for several years, removing as much root as possible; do not mow; chemical control is available
Noxious Weed List	Nevada A-rated; California-NO

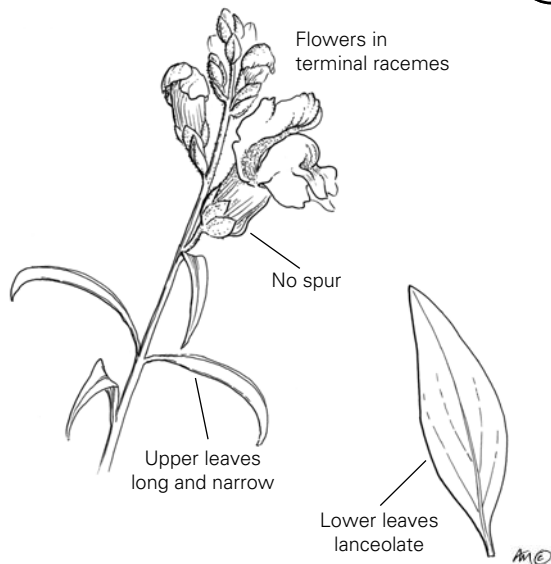
Non-native Invasive



- Height: 1 - 2 ft. shorter than dalmatian toadflax
- Leaves: linear, smooth to sparsely hairy; succulent and waxy
- Growth form: tends to grow in crowded patches
- Flower color: yellow, with orange, bearded throat



Also Known As	None
Origin	Non-native
Habitat	Ornamental gardens
Life Cycle	Annual to perennial
Flowering Time	June to fall
Relative Abundance	Widespread
Management	None; recommended garden flower
Noxious Weed List	Nevada-NO; California-NO



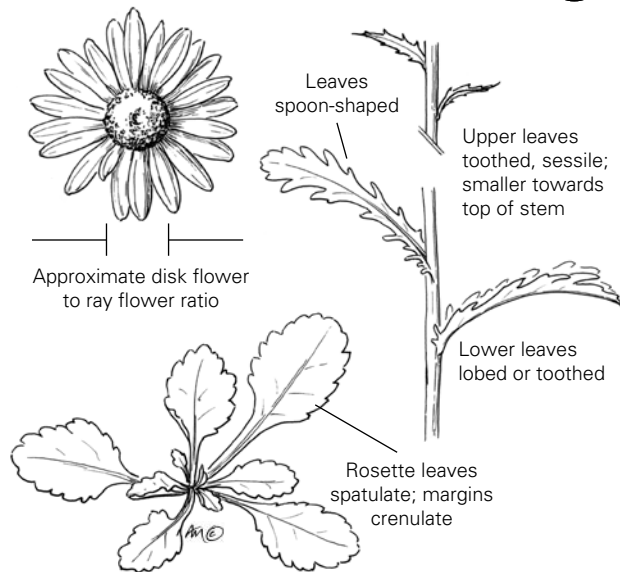
- Height: 0.5 - 3 ft.
- Leaves: upper, long and narrow; lower, lanceolate; soft, not waxy
- Flowers: fuzzy-hairy
- Flower color: yellow, but other colors are available

OXEYE DAISY *Leucanthemum vulgare* LEVU



Also Known As	White daisy
Origin	Non-native, invasive
Habitat	Meadows, roadsides, waste places, gardens
Life Cycle	Perennial
Flowering Time	June to August
Relative Abundance	Widespread
Management	Pull or dig before seed production; herbicides are available
Noxious Weed List	Nevada-NO; California-NO

Non-native Invasive



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

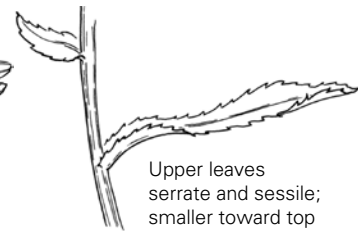


Plant: Brenneman; Flower: Donaldson

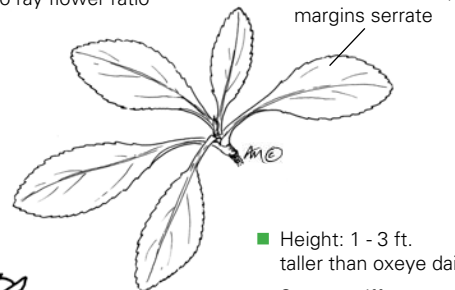
Also Known As	None
Origin	Non-native, naturalized
Habitat	Well-drained soil, full sun, ornamental gardens
Life Cycle	Perennial
Flowering Time	July to September
Relative Abundance	Widespread
Management	None; recommended garden flower
Noxious Weed List	Nevada-NO; California-NO



Approximate disk flower to ray flower ratio



Upper leaves serrate and sessile; smaller toward top of stem



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 grow at ends of branches; heads larger than oxeye daisy
- Flower color: white with yellow center

SCOTCH BROOM *Cytisus scoparius* **CYSC4**

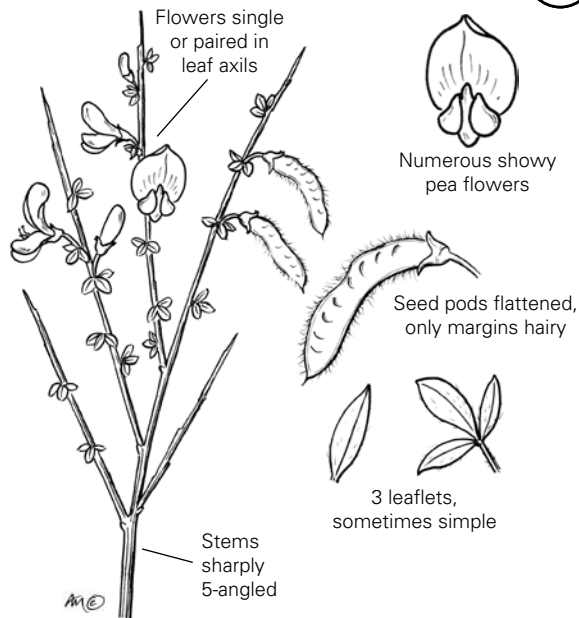


Plant: VanZuuk; Flower: Kerr Morse



Also Known As	Common broom, English broom
Origin	Non-native, invasive
Habitat	Pastures, forests, waste areas
Life Cycle	Long lived perennial
Flowering Time	May to July
Relative Abundance	Moderate (infrequent in Truckee River watershed)
Management	Pull with heavy-duty weed wrench removing as much root as possible; observe site yearly and pull seedlings; chemical control most effective treatment
Noxious Weed List	Nevada-NO; California C-rated

Non-native Invasive

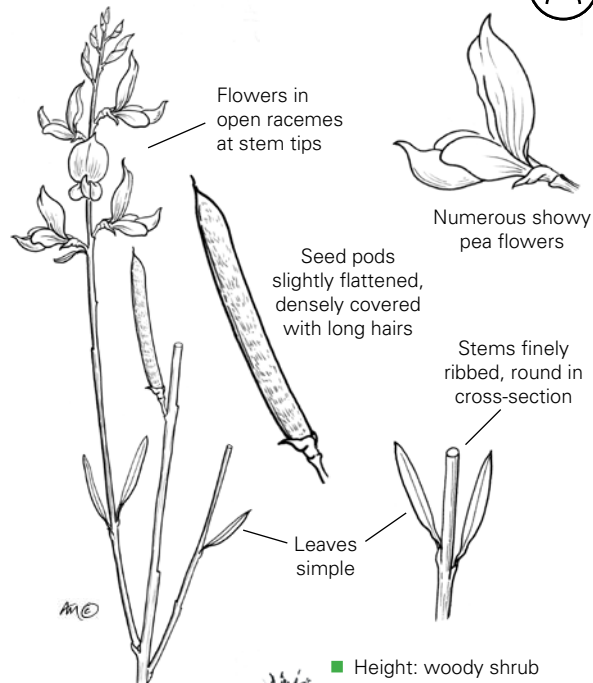


- Height: woody shrub up to 8 ft.
- Stems: 5-angled; star-shaped cross-section
- Branches: dark green; more-or-less erect
- Leaves: 3 leaflets, sometimes simple on new twigs, deciduous
- Flower color: deep yellow; slight to no fragrance



Donaldson

Also Known As	Weaver's broom
Origin	Non-native, invasive
Habitat	Roadsides, forests and rangelands
Life Cycle	Long lived perennial
Flowering Time	May to July
Relative Abundance	Moderate (infrequent in Truckee River watershed)
Management	Pull with heavy-duty weed wrench removing as much root as possible; observe site yearly and pull seedlings; chemical control most effective treatment
Noxious Weed List	Nevada-NO; California C-rated



- Height: woody shrub up to 8 ft.
- Stems: smooth or finely ribbed; round cross-section
- Branches: dark green; more-or-less erect
- Leaves: simple, entire; sparse and deciduous
- Flower color: yellow; strong fragrance



Habit, Sasakit; Close-up, D/Tomaso Calphorios

- Also Known As** Spike watermilfoil
- Origin** Non-native, invasive
- Habitat** Ponds, ditches, streams, lakes
- Life Cycle** Perennial
- Flowering Time** June through September
- Management** Hand removal, taking care to avoid releasing fragments
- Noxious Weed List** Nevada-YES; California-NO



14+ leaflet pairs per leaf
Native 5-12 leaflet pairs



Leaves collapse when out of water
Native stiffer, does not collapse



Leaves arranged in whorls of 4 around stem at each node



- Growth form: submersed aquatic; forms mats; spreads by plant fragments
- Stems: branch near water's surface; growing stems and tips are red
- Leaves: feather-like; dark green to brown
- Flowers: tiny and stand above the water surface
- Flower color: pinkish; spike inflorescence



Habit, Miller, Close-up, Landry, Calphotos

- Also Known As** American waterweed, Canadian waterweed
- Origin** Native
- Habitat** Ponds, ditches, streams, lakes, reservoirs
- Life Cycle** Perennial
- Flowering Time** Summer
- Management** Usually not a problem, remove by hand when it becomes dominant or problematic
- Noxious Weed List** Nevada-NO; California-NO



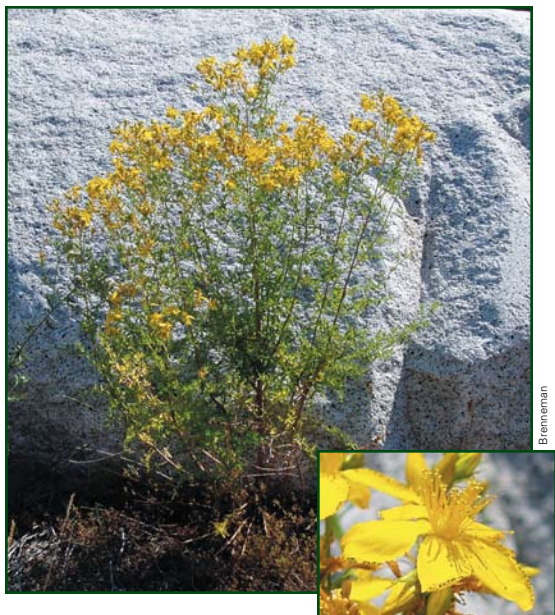
Leaves arranged in whorls of 3



Leaves do not collapse when out of water.

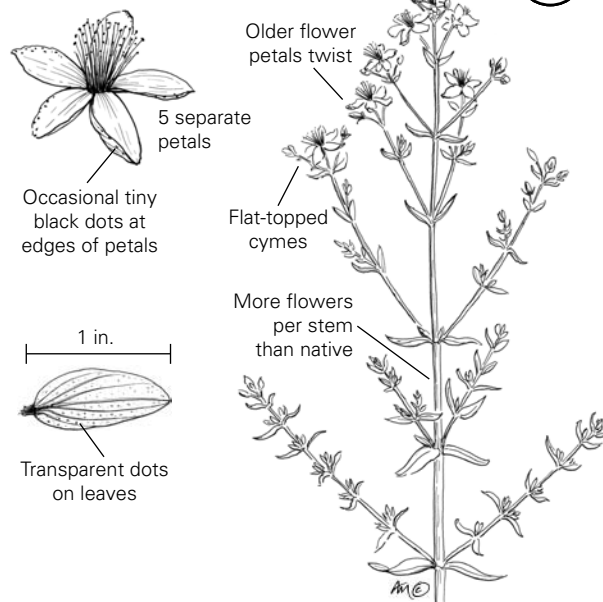


- Growth form: submersed aquatic; spreads by plant fragments and turions
- Stems: branch at nodes
- Leaves: dark green, most often in whorls of 3; lanceolate to oblong
- Flower color: white; flowers bloom at the water surface; have 3 small petals



Blenneman

Also Known As	St. John's Wort
Origin	Non-native, invasive
Habitat	Pastures, meadows, roadsides, waste areas
Life Cycle	Perennial
Flowering Time	June to late September
Relative Abundance	Moderate
Management	Pull or dig repeatedly; use biocontrol insects; chemicals are available
Noxious Weed List	Nevada A-rated; California C-rated



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

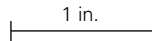


Plant: Eilassen Calphoros - Flower, Matson Calphotos

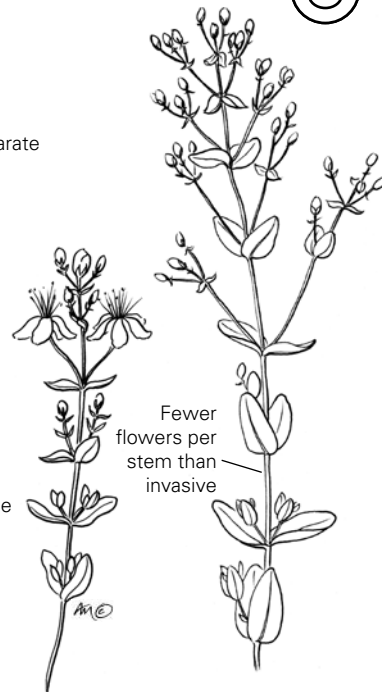
Also Known As	None
Origin	Native
Habitat	Streambanks, meadows
Life Cycle	Tap-rooted perennial
Flowering Time	Summer
Relative Abundance	Moderate
Management	Desirable native plant; do not disturb
Noxious Weed List	Nevada-NO; California-NO



Tiny black dots at edges of petals



Leaf margins black-dotted, lower surface inconspicuously dotted



- Height: 0.5 - 2.5 ft.
- Stems: slender; extend from base
- Leaves: ovate to oblong, flat, more or less clasping
- Growth form: upright and stemmy
- Flower color: yellow

RUSH SKELETONWEED *Chondrilla juncea* CHJU

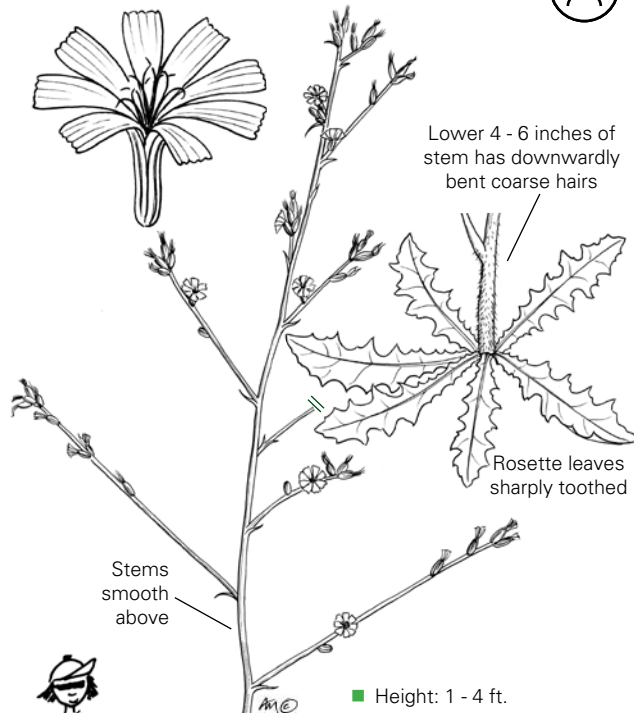


D. Tomaso



Also Known As	Skeleton weed
Origin	Non-native, invasive
Habitat	Roadsides, rangelands, pastures, disturbed soils
Life Cycle	Perennial with extensive, deep root system
Flowering Time	Mid-July through frost
Relative Abundance	Infrequent
Management	Difficult to control without herbicides due to extensive deep root system
Noxious Weed List	Nevada A-rated; California A-rated

Non-native Invasive

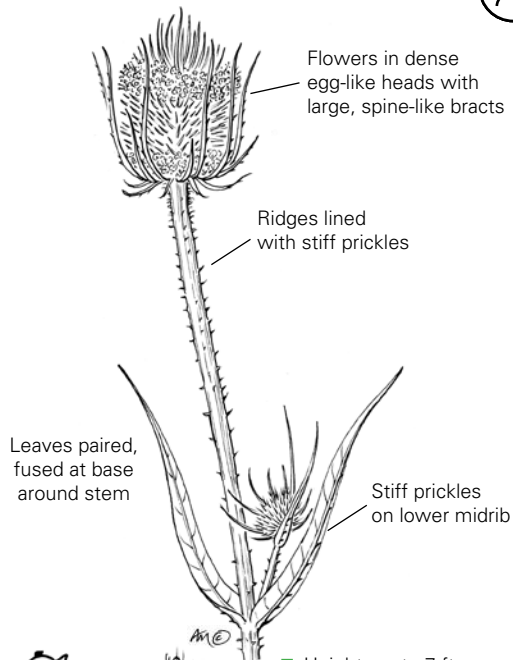


- Height: 1 - 4 ft.
- Stems: rigid and wiry; highly branched; cut surfaces exude milky sap
- Leaves: upper, narrow and entire, inconspicuous; stems often lack leaves
- Growth form: bushy
- Flower color: yellow



D.Tomaso

Also Known As	Common teasel, wild teasel
Origin	Non-native, invasive
Habitat	Irrigation ditches, canals, wetlands, riparian areas, disturbed sites
Life Cycle	Tap-rooted biennial
Flowering Time	July to fall
Relative Abundance	Infrequent
Management	Dig or hand-pull, removing as much root as possible; herbicides are available
Noxious Weed List	Nevada-NO; California-NO



- Height: up to 7 ft. commonly 3+ ft.
- Stems: branched, rough and spiny
- Leaves: conspicuously veined; stem leaves lanceolate, up to 10 in.
- Growth form: erect
- Flower color: lavender to purple, rarely white

GLOSSARY

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

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

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

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

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

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

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.

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.

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.

GLOSSARY

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

Palmate: Having three or more veins or lobes radiating from a central point, similar to the fingers on a hand.

Panicle: A branched inflorescence in which the flowers bloom from the bottom up.

Petiole: The stalk of a leaf.

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 in the Asteraceae family. Each ray flower resembles a single petal.

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

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; generally refers to leaf edges.

Sessile: Without a stalk of any kind; for example, a leaf directly attached to a stem.

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

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

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

Turion: Detached winter bud by means of which many water plants survive winter.

Umbel: A flat-topped flower arrangement.

Winged stem: A stem with one or more thin, flat margins protruding along the length of the stem.

WEED MAPPING

Your Help Is Needed For Weed Mapping!

Regular mapping and inventory helps determine which species are present, what management methods are appropriate, and whether management has been a success.

Within the Truckee River watershed, if you find potential non-native invasive plants, please refer to the website – www.truckeeriverwrc.org – “Report A Weed”. Submit “A” and “B” rated non-native invasive plants or the “C” rated Scotch broom, yellow starthistle or yellow toadflax via the website. Do not report widespread “C” rated non-native invasive plants.

Please include the following information:

- Name, e-mail and contact information
- The weed you are reporting (look at the identification flower pictures on website)
- Estimated number of weeds found within infestation
- Geographic location by using one of three available methods. You may enter the street address, GPS coordinates in NAD 83, or use the satellite map or regular map on the website to place a marker
- Size of the infestation in square feet or acres

Please do not take any management actions or remove plants until they have been positively identified. Consult the website for identification tools while reporting to the website.

Outside the Truckee River watershed on private property, contact the appropriate county Agricultural Department or see page 77 for contact information.

On-going Programs

The **Nevada Placer Weed Management Area** in conjunction with the Tahoe National Forest have been mapping weeds in the Truckee River watershed since 2001 in Sierra, Placer, and Nevada Counties. The **Plumas-Sierra Noxious Weed Management Group** has been mapping weeds in Sierra and Plumas Counties since 2000.

CONTACT INFORMATION

For weed information and mapping on the Tahoe National Forest, contact:

Tahoe National Forest, East Zone Botanist
(530) 587-3558 surie@fs.fed.us

Non-native Invasive Plant Coordinator
(530) 478-6243 kvanzuuk@fs.fed.us

For weed control information on private land contact:

Nevada County Agriculture Department
(530) 273-2648

Placer County Agriculture Department
(530) 889-7372

Plumas-Sierra County Agriculture Department
(530) 283-6365

Natural Resources Conservation Service
(530) 283-7510

Truckee River Watershed Council
(530) 550-8760 jhalderman@truckeeriverwrc.org

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Collaborative solutions to protect, enhance and restore the Truckee River Watershed