

Don't treat the wrong plant! Noxious weeds and native look- alikes

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Presenter



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What's in a name? Information!

- Plant family, specific Latin name, common name
- Life cycle – Is it annual, perennial, biennial?
- Toxicity information – Can I touch it, what if my dog eats it? Is it allelopathic?
- Herbicide use- Is it listed on the label, is there resistance?
- Noxious weed status- Is it listed in my state or county?

What's in a name?

- Look alike weeds may require different control methods



Do you know which name belongs to each plant?

Yellow starthistle

Perennial sowthistle

Prickly lettuce

Rush skeletonweed

What's in a name?

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Yellow starthistle

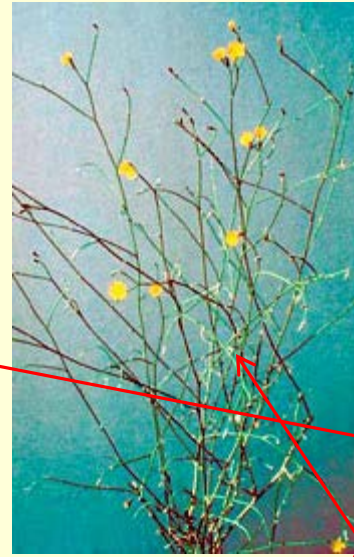
Perennial sowthistle

Prickly lettuce

Rush skeletonweed

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Yellow starthistle

Perennial sowthistle

Prickly lettuce

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The 8 Great Things to Notice About Plants

Plant Character Analysis

1. Plant Habit
2. Leaf Arrangement
3. Leaf Shape and Texture
4. Flower Arrangement
5. Flower structure
6. Fruit Type
7. Roots and underground structures
8. Other Observations

Yellow Toadflax vs. Dalmatian toadflax vs. Golden Banner vs Bird's Foot Trefoil vs Leafy Spurge



Yellow toadflax (*Linaria vulgaris*)



- Noxious weed
- Leaves strap-shaped
- Blooms mid-late summer
- Seeds in small, roundish, brown capsules
- Usually a darker orange spot in the flower
- Spur on the flower



Dalmation Toadflax

(Linaria dalmatica)



- Noxious weed
- Leaves waxy, heart-shaped or lanceolate, thick, succulent, clasp stalk
- Flowers spurred, have an orange throat
- Blooms early
- Seeds are brown capsules like YT

Golden banner (*Thermopsis spp*)



- Native
- Blooms very early
- Flowers NOT spurred
- Leaves in threes
- Seed pods long and bean-like



Birds-foot trefoil

(Lotus corniculatus)



- Not native, not noxious
- Grown as forage
- Leaves have five leaflets
- Seeds are bean-like
- Flowers have no spur



Leafy Spurge

(*Euphorbia esula*)



- Perennial
- Grows up to 3 feet tall
- Reproduces by vigorous rootstock and seed.
- Leaves are alternate and narrow
- Entire plant contains latex substance
- Seeds are oblong, grayish to purple, 3-celled capsule.

Orange hawkweed vs Orange Agoseris



Orange Hawkweed (*Hieracium aurantiacum*)



Noxious weed

- Flowers in clusters
- Very hairy
- Spreads to form mat



Orange agoseris (*Agoseris aurantiacum*)



- Native
- Flowers solitary
- Plant generally smooth or few hairs
- Grows in a clump, never a mat

Spotted /Russian knapweed vs. Native Asters



Spotted knapweed (*Centaurea maculosa*)



- Noxious weed
- Interior of flower is solid purplish- - never yellow
- Does not have dandelion-like seeds
- Dark spots on bracts
- Lobed, blue-green leaves



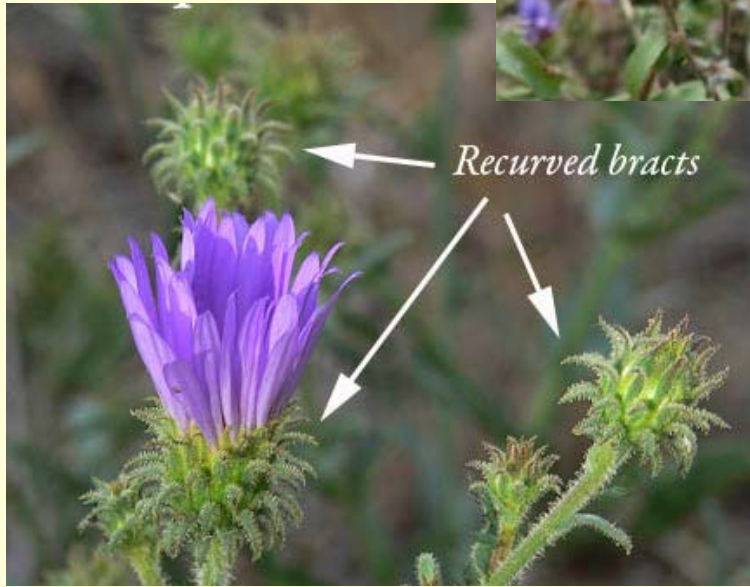
Russian knapweed (*Acroptilon repens*)



- Noxious weed
- Interior of flower solid pink with white tips
- Smooth, papery bracts lie flat



Native tansy asters



- Have yellow centers of the flowers
- Some species go to seed like a dandelion
- Leaves generally more greenish, not so grayish, often not as lobed
- Most have sticky bracts that bend outward

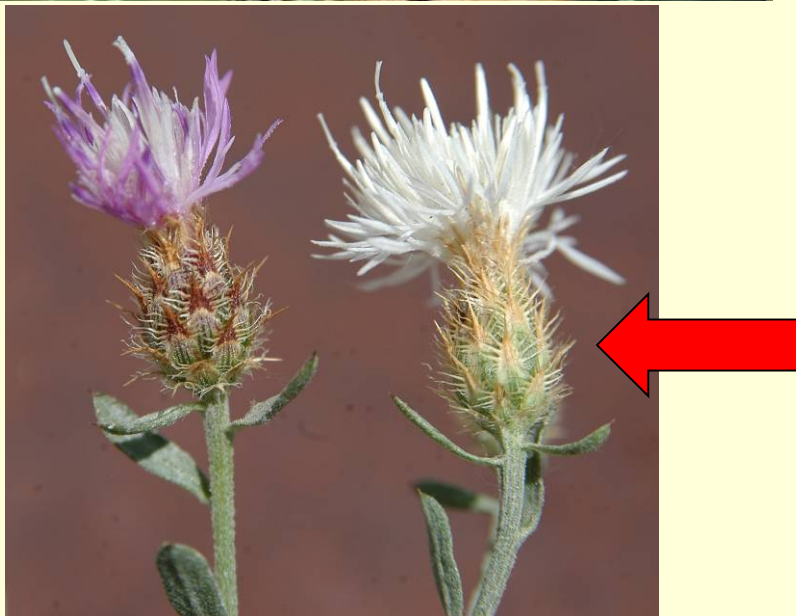
Diffuse knapweed vs. False Boneset



Diffuse knapweed



- Noxious weed
- Leaves very dissected, gray
- Flower bracts tipped by a long brown spine
- Becomes a tumbleweed



False boneset

Brickellia eupatorioides and
B. rosmarinifolia (aka *Kuhnia chlorolepis*)



- Natives
- Leaves of *B. eupatorioides* are wider, not lobed (may be dentate), those of *B. rosmarinifolia* are narrow
- Flower bracts have no spines, green
- Does not become a tumbleweed
- Goes to seed like a dandelion

Chinese clematis vs. Native clematis





- Chinese clematis (noxious) has a large, solitary yellow flower
- Native western virgin's bower has numerous small white flowers
- Rock clematis has solitary purple flowers
- Even in seed, hard to tell CC from WVB (seed heads)
- Leaf characteristics much more difficult to distinguish



Absinth wormwood vs. Native sages



Noxious



Absinth wormwood

Artemisia absinthia



- Noxious, List B
- Perennial, not woody – dies back to ground each year (*A. tridentata* is woody)
- Leaves are more finely divided than *A. tridentata* and *A. ludoviciana*, but not as much as *A. frigida*
- Leaves overall bluer than natives
- More medicinal smell
- Can grow 3-5 feet tall

A. absinthia (noxious) left



Natives L to R: *A. ludoviciana*, *A. tridentata*, *A. frigida*

Chamomiles vs. Native asters vs. ox-eye



Oxeye daisy

(Leucanthemum chrysanthemum)



- Noxious, List B
- Flowers are white, bloom in midsummer, 1 ¼- 2", have 15-35 wide white "petals"
- Leaves are usually coarsely serrated, rounded on tip
- Most leaves are basal, few on stems
- Spread laterally through rhizomes
- Roots are fibrous, shallow
- Creeping perennials



Noxious chamomiles (corn, mayweed, scentless)



- Leaves are fern-like
- No odor, except for Mayweed (disagreeable)
- Annuals
- Flowers are smaller than oxeye

Pineapple weed

Matricaria discoidea/Lepidotheca suaveolens



- Native
- Much smaller plant, finer leaves
- Never has white “petals” (just yellow center)
- When crushed, smells like pineapple

Native asters/daisies

- Harder to make generalizations
- May have smaller flowers, more numerous, or bloom later
- “Petals” (ray flowers) often more numerous, narrower
- Plants may be shorter
- Sometimes more branched than oxeye
- Leaves often not lobed, or not as lobed as oxeye



Ann Larson

Dames Rocket vs. Purple Loosestrife vs. Fireweed



Dames rocket

Hesperis matronalis



- Noxious
- 4 petals
- Fragrant, esp at night
- Blooms very early
- Seed pods (siliques) are long, filled with round, brown seeds
- Leaves are alternate

Purple loosestrife

Lythrum salicaria



- Noxious
- Stem is square
- Leaves are opposite or whorled
- 5-7 petals, long bloom time
- Seed capsules are short and brown
- Usually grows by water

Fireweed

Epilobium angustifolium (*Chamerion danielsii*)



- Native
- Flowers 4-Petalled
- Higher elevations
- Blooms midsummer-fall
- Drier habitat
- Leaves alternate
- Seed pods release white fluff

Poison hemlock vs lookalikes

Parsley family



Poison hemlock

Conium maculatum

- Noxious
- Biennial, 3-8 feet tall
- Hollow green stem, with purple spots or streaks on lower part
- Leaves finely divided, overall triangular shape, overall fernlike look
- Root is fleshy, white and often unbranched
- Crushed leaves and root smell rank, often compared to that of a mouse or parsnips.
- Wear gloves when handling!



Wild carrot (Queen Anne's lace)

(*Daucus carota*)

- Not native, not noxious
- Has characteristic hairy stem
- Smells carrotty, not rank
- Seed heads like bird's nests



Cow Parsnip

Heracleum lanatum

- Native
- Perennial
- Leaves are broad, hairy with serrated edges.
- Giant Cow Parsnip is deadly.



Other possible look alike



Native yarrow

- Smells minty
- Shorter
- Non-hollow stem



Native Water hemlock

- Grow in moist areas
- Leaves less divided
- also poisonous



Native Porter's lovage or Osha

- "spicy celery" odor
- hair-like material on root crowns
- dark chocolate-brown, wrinkled root skin

Sulfur cinquefoil vs. native cinquefoils



Sulfur cinquefoil (*Potentilla recta*)



- Noxious
- Perpendicular hairs on stem
- Leaves marijuana-like, but green *on both sides*
- Upright growth habit



Native cinquefoils



Leafy cinquefoil



Native cinquefoils

- Leaves often silver on back
- If green, are not palmately compound
- Plants often sprawling



Thistles

Native vs. non-native

- In general, non-native thistles are much more robust,
- grow in much larger clumps, and
- tend to be purplish rather than whitish



Carduus acanthoides
Plumeless thistle

Most common thistles



Canada thistle



Bull thistle



Musk thistle



Scotch thistle

Look at a combination of characters:
flowers, stems, and leaf surfaces.

Canada thistle – Rated B



- Small flowers <1", spineless bracts
- Smooth spineless stem
- Green glossy leaves, not hairy, very spiny along margins
- Rated B noxious weed

Bull thistle



- Larger flowers 1.5-2” with long spiny bracts
- Stem spiny, somewhat winged
- Leaf surface hairy
- Class C noxious weed

Musk thistle



UGA52



UGA1382013



- Flowers large 1.5-3", broad spiny bracts, "artichoke -like"
- Stems spiny somewhat winged
- Leaves green, not hairy
- Class B noxious weed

Scotch thistle



UGA1459793

Steve Dewey, Utah State University, Bugwood.org



Bonnie Million, National Park Service, Bugwood.org



5405758

- Flowers 1 -2", narrow spiny bracts
- Stem spiny, strongly winged
- Leaves gray-green, with fine woolly hair
- Rated B noxious weed



We have about 15 native species of *Cirsium* in Colorado ranging from lowest elevations to above treeline, in moist to dry habitats



Yellow Starthistle vs. Yellow Buffalo Burr vs. Yellow Western Salsify vs Safflower



www.fireflyforest.com



<http://cals.arizona.edu>



www.dereila.ca/na_nature

Yellow starthistle (*Centaurea solstitialis*)



- Noxious weed – LIST A
- Flowers solitary
- Many small strap-shaped yellow “petals”
- $\frac{3}{4}$ sharp thorns below
- Annual
- Stems are winged



Yellow buffalo-bur (*Solanum rostratum*)



Not native, not noxious
Flowers have 5 large petals, are on short stems
The entire plant except the petals has prickles (not just thorns below flower)

- Leaves large and lobed



Salsify

(*Tragopogon dubius*)



- Not native, not noxious
- Flowers solitary, “petals” strap-shaped
- The bracts underneath are not thorns – aren’t sharp
- Milky latex
- Leaves linear, strap-shaped

Safflower

Carthamus tinctorius



www.uni-marburg.de

- Not native, not noxious; annual oilseed/dye crop
- Large, broad spine-edged bracts under the flower rather than slender thorns
- More highly branched

Russian olive vs Buffaloberry

(*Eleagnus angustifolia* vs *Shepherdia argentea*)



Sheila Grother



Sheila Grother



- Buffaloberry (native) has opposite branching and leaves; Russian Olive, alternate.
- Buffaloberry has bright red or gold fruit; Russian Olives have green-brown olive-like fruit.
- Buffaloberry grows to 15 feet; Russian Olive to 50.

Tansy ragwort and lookalikes



Tansy ragwort (*Senecio jacobaeae*) – List A
invasive



Lonely ragwort (*Senecio eremophilous*)- native



Early Spring Senecio (*Senecio integerrimus*) - Native



Fendler Senecio (*Packera fendleri*)
native

Tansy ragwort

Senecio jacobaeae

- Biennial (sometimes short lived perennial) up to 6 feet tall
- Leaves are dark green and deeply lobed
- Bright yellow flowers with ray and disk flowers – 13 rays
- Large size and deeply lobed leaves distinguish this plant from other *Senecio* species



Medusahead Rye vs Squirreltail bottlebrush





- Medusahead rye
(Noxious, list A) a winter annual, flowering in early summer
 - ripens later than other annual grasses – green when they are brown
 - Long awns stay on even after seeds ripen
 - Has “twistier” awns
- Native Bottlebrush a perennial
 - Awns “shatter” when seeds are ripe

Rush skeletonweed vs native skeletonweed & wire lettuce



idahoweedawareness.net

- All have wiry stems and narrow leaves, and milky sap
- Natives (native skeletonweed and wire lettuce) have **pink** flowers
- The noxious weed has **yellow** flowers



Chicory vs native blue flax



L.L. Berry, Bugwood



Irene Shonle

Chicory has numerous,
narrow “petals”

- Flowers are sessile all along stem on stiff upright plants



Blue flax has 5 petals

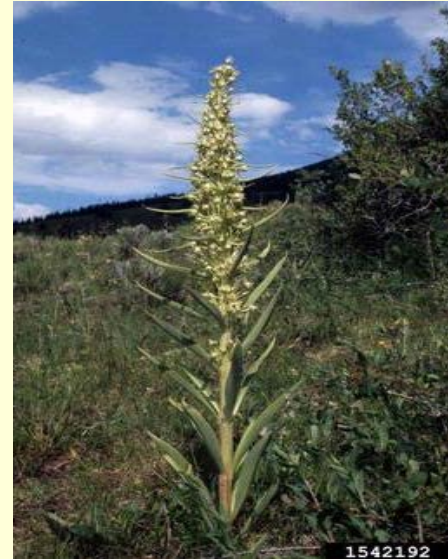
- Flowers grow on stem at tips of flexible stem



Mulleins vs lookalikes



Ted Bodner, Bugwood



Native green gentian

Joy Viola, Bugwood



John Randall, Bugwood



Native miner's candle

Camelthorn vs Swainson's Pea



Camelthorn

Alhagi pseudalhagi



- Noxious – List A
- Spines in leaf axil
- Flowers/seeds grow on the thorns
- Leaves gray green, alternate, single

Swainson's pea

Sphaerophysa salsula



- Not native, on “watch list”
- Leaves pinnately compound
- Flowers in racemes
- No thorns

Perennial pepperweed vs mountain pepperweed



Sheila Grother

Subtle differences



Sheila Grother

- The native (*Lepidium montanum*) is a short lived perennial while the non-native (*Lepidium latifolium*) is a long lived rhizomatous perennial.
- The native drops or has few stem leaves while the non native has stem leaves.
- The basal leaves are larger on the non-native and may be absent on the native- especially late in the season.

Native “infestation”
discovered by Sheila Grother

QUESTIONS?



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