#### WEED GUIDE SAN GABRIEL VALLEY

Common Weeds in the San Gabriel Valley

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#### To use this guide online

- This is an interactive PDF.
- Browse the pages with Page Up and Page Down buttons.
- Or click on a plant name in an index (common name or botanical name on the next pages).
- □ To return to the prior page, press alt-left arrow (cmd-left arrow on a Mac). This acts like the Back button of an internet browser.
- To print for field use, we recommend printing two slides per page, either one-sided or two-sided.

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#### What are "Weeds"?

- Generally: any plants growing where you don't want them to grow.
- □ For this project: introduced plants that have become invasive and pose a threat to the native vegetation.

 Native vegetation provides food and shelter to native fauna. Introduced plants often do not.



#### **CAL-IPC List Categories**

#### \* Severe:

\*\*

Most invasive wildland pest plants; documented as aggressive invaders that displace natives and disrupt natural habitats.

#### **Moderate:**

Wildland plants of lesser invasiveness; plants that spread less rapidly and cause a lesser degree of habitat disruption.

#### \*\*\* Limited:

Wildland plants of limited invasiveness; plants that have a limited distribution and impact on natural habitats, or species for which there is not adequate information to describe its threat to wildlands.

#### What is a Red Alert?

- Plants with potential to spread explosively, infestations currently localized or small. Species not yet established but considered to be of high risk.
- □ Example (personal choice):

Bladder Senna in Santa Anita Canyon (Colutea arborescens)

current focus weeds



#### How to identify plants

- Look for flowers and fruits as main characteristics.
- Consider where the plant is in its <u>life cycle</u>:
  - □ Very young foliage often looks quite different from when the plant is mature, in flower, or in fruit.
  - □ Plants looks different when they are stressed or have gone to fruit lack of leaves, smaller leaves, brown.
  - Plants looks different depending on the environment, e.g. the same species may have different size and color leaves depending whether the specimen is growing in the sun or in shade, has lots of or little water.
- Observe size, smell, feel, hairiness, and life form.
- Compare to handouts, references, read descriptions.

### Weeds in the Pea Family



#### Family Characteristics:

- 5-petaled flower: one large "banner" petal,
  2 "wings" that partially hide the "keel" made of
  2 fused petals. Inside the keel are usually the
  reproductive parts of the flower, pistil and stamens.
- □ Fruit is usually a pod.
- Family is also called legume family.
- Caution: Fruits are often poisonous.
- Leaves are generally compound.

### \*

#### Spanish Broom (Spartium junceum)

Pea Family (Fabaceae)

Map

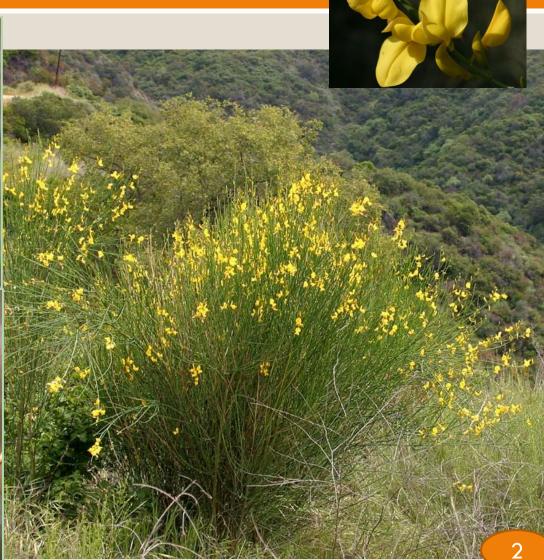
 Medium to large shrub, with leafless green stems when in flower or fruit.

Introduced from the Mediterranean.

 Flowering from February to June, flowers are very aromatic.











#### French Broom (Geni Pea Family (Fabaceae)

- Shrub, up to 8' tall, in disturbed places.
- Introduced from the Mediterranean.
- Yellow flowers, smaller than Spanish broom.
- Tri-lobed leaves, shape similar to Deerweed, but larger.
- Silky-hairy twigs.
- Flowering in March and ?







#### \*\* Black Locust (Robinia pseudoacacia)

Pea Family (Fabaceae)

- Deciduous tree, up to 100' tall, here generally 20'.
- Native to easternU.S.
- Sturdy spines, white flowers in hanging clusters, and long, compound leaves identify this tree.
- Toxic to humans and livestock.





# Bladder Senna (Colutea arborescens)

Pea Family (Fabaceae)

A shrub, up to 10' tall, with bright yellow flowers and reddish, inflated fruits. It is native to southern Europe and northern

It flowers from March through June.

Africa.





Not in ANF list





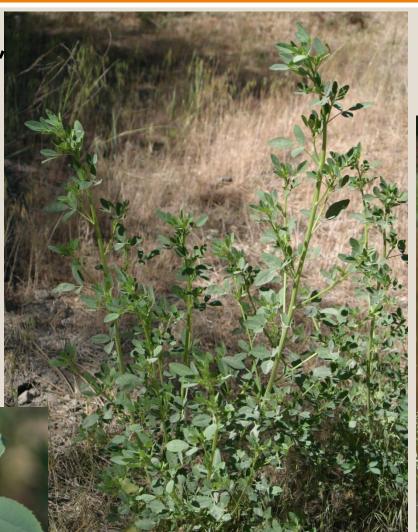
#### \*\* Sweetclover (Melilotus officinalis) Pea Family (Fabaceae)

Note

Annual or biennial, 2 to 5' tall, in open disturbed places.

- White or yellow flowers.
- AKA: M. albus, M. alba, M. arvensis, M. leucanthus, M. lutea.

Native to Eurasia.









### Weeds in the Mustard Family

#### Family Characteristics:

- Four petals, white, yellow, or pinkish
- Six stamens, four long, two short
- Fruit is a pod, silique (long or rounded)
- Often basal leaves, hairy



# \*\*

## Shortpod Mustard (Hirschfeldia incana)

Mustard Family (Brassicaceae)

**SFD** 

#### Note

- Biennual or perennial,
   up to 4' tall, flowers
   from February to July.
- Introduced from the Mediterranean.
- Fruit pods stay hug the stem.
- Similar to Black
   Mustard which is taller,
   up to 8'.
- AKA Mediterranean Mustard







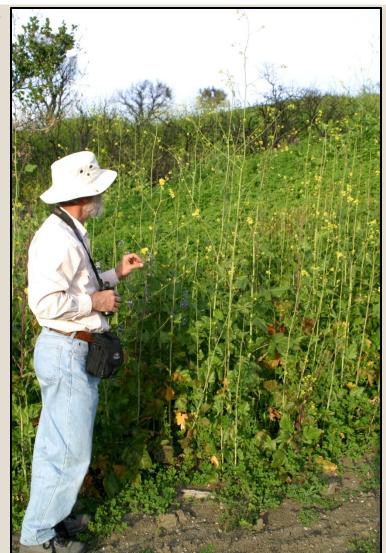


# Black Mustard (Brassica nigra)

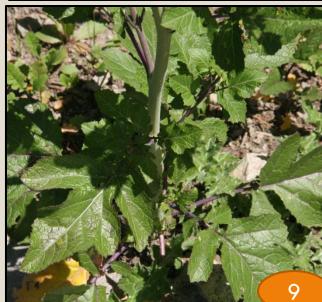
#### Mustard Family (Brassicaceae)

#### Note

- Annual, up to 7 feet tall, branched.
- Yellow flowers,basal leavesand on stem.
- □ Fruits are short (<1") siliques on short stalks, appressed to stem.
- Native to Europe
- Flowers in March and April.







#### Sahara Mustard (Brassica tournefortii)

\* Mustard Family (Brassicaceae)

Мар

•Winter annual, less than 3' tall.

•Large basal leaves, up to 2 feet.

•Tiny flowers, less than 1/4".

•Grows in deserts and coastal scrub.

•Also called African Mustard.

•Relatively new introduction.



Herb Sophia (Descurainia sophia)

Mustard Family (Brassicaceae)

Annual or biennial, 2 ½' tall, in disturbed areas, canyon bottoms.

- Introduced from Eurasia.
- Flowering May to August.





#### Oriental Mustard (Sisymbrium orientale)

Mustard Family (Brassicaceae)

#### Note

- Annual, up to3' tall.
- Native to Europe.
- Different basal and cauline leaves, pods angled up.
- Tiny paleyellow flowers,from April toJuly.









# \*\*\* Wild Radish (Raphanus sativus)

Mustard Family (Brassicaceae)

- Annual or biennial, 2 to 3' tall, in disturbed areas.
- Introduced from Mediterranean Europe.
- Flowers from January to June.

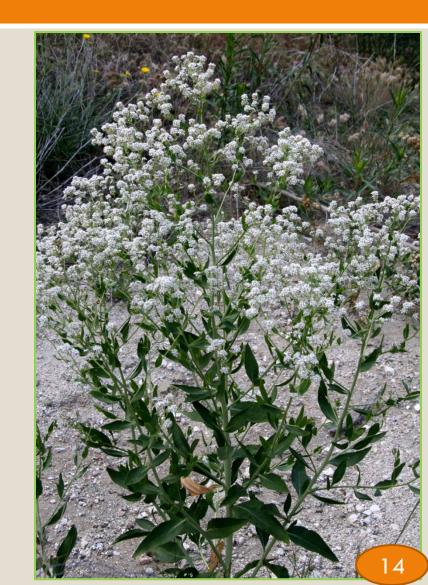








- Perennial, 2 to 4' feet tall, in sandy or saline soil, wetland-riparian. Also called Tall Whitetop.
- Larger basal leaves,
   smaller cauline leaves.
- White flowers in May and ?
- Native to Eurasia.
- Spreads by seed and roots and root fragments.
- State-listed noxious weed in California and other western states.



SFD

## Sweet Alyssum (Lobularia maritima)

Mustard Family (Brassicaceae)

Mar

- Perennial herb, introduced from Europe.
- Low growing,one plant maycover an areaof up to 3square feet.





# Moonwort (Lunaria annua)

#### Mustard Family (Brassicaceae)

Note

- Annual or biennial, about 3' tall, in disturbed areas (shady woodlands).
- Native to Europe.
- Huge, heartshaped leaves (8" long), dollarsized fruits.
- White flowers in April and May







### Weeds in the Sunflower Family



#### Family Characteristics:

- Many tiny flowers are held together in a flower head that appears like one flower at a glance; examples: daisy, dandelion.
- Sunflowers may have disk and ray flowers (daisy), or only disk flowers (thistle), or only ray flowers (dandelion).
- Sunflowers have seeds that disburse easily in the wind (dandelion), or hard seeds, like the sunflower seeds we buy in the store as a snack.



#### **Bull Thistle**

### \*\* (Cirsium vulgare)

Sunflower Family (Asteraceae)

#### Мар

- Biennial weed, 2 to 6' tall.
- Leaves, stems, and flower heads have prickles.
- Purple flowers are showy, smaller than the native Western Thistle, and rounder and larger than the Italian Thistle.





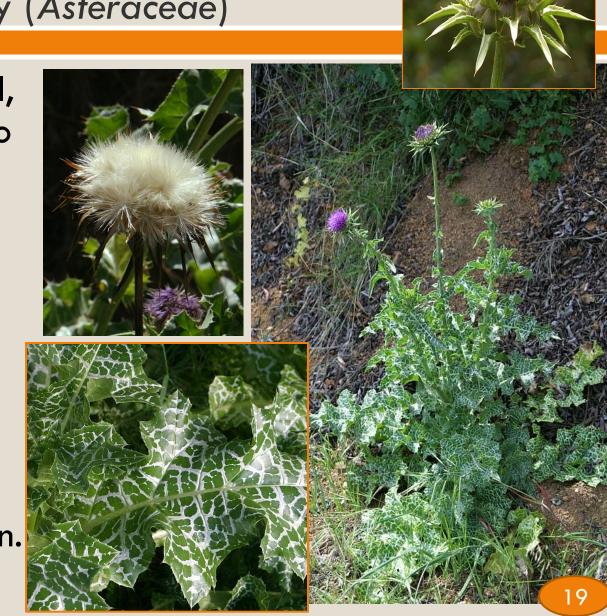


#### Milk Thistle (Silybum marianum)

Sunflower Family (Asteraceae)

Map

- Annual or biennial,3 to 8' tall, pink topurple flowers.
- Flowers from March to June.
- Large (>1 foot)
   glossy leaves with
   prominent white
   veins.
- Introduced from the Mediterranean.



# Italian Thistle (Carduus pycnocephalus) Sunflower Family (Asteraceae)

- The leaves have lightly colored veins, like the Milk Thistle.
- Italian Thistle is an introduced annual or biennial.
- It has prickly leaves, prickles along the stem, and prickly, elongated flower heads.
- The light purple flowers are smaller and less showy than other thistles.
- It looks straggly, is about 6' tall and skinny, with few leaves along the stem. It flowers from March through June.



#### Maltese Star Thistle; Tocalote (Centaurea melitensis)

Sunflower Family (Asteraceae)

SFD

#### Map

- Annual weed, between 1 and 3' tall.
- Introduced from southern Europe.
- The yellow flowers and its short, but sharp, spine-tipped phyllaries on the flower head help identify this pest.
- It flowers from April through June.
- Young growth looks vastly different from mature plant.













# Sow Thistle (Sonchus oleraceus; S. asper) Sunflower Family (Asteraceae) SFD

- Annual in disturbed places, and moist places
- Dandelion-like flower
- 2 to 4 feet tall, branched
- Clasping leaves, with or without spine-tipped leaves at base and on stems
- Introduced from Europe





#### Prickly Lettuce (Lactuca serriola)

SFD

Sunflower Family (Asteraceae)

#### Note

- Annual, up to5' tall.
- Prickly stem and leaves.
- Milky sap.
- Widely branched inflorescent.
- 14-20 pale yellow flowers, fluffy fruit.
- Native toEurope.



# Eupatory (Ageratina adenophora) Sunflower Family (Asteraceae)

Eupatory is a dark green perennial herb, usually 3 to 5 feet tall, that grows near water, often in dense stands. It is native to Mexico. Eupatory flowers during most months.





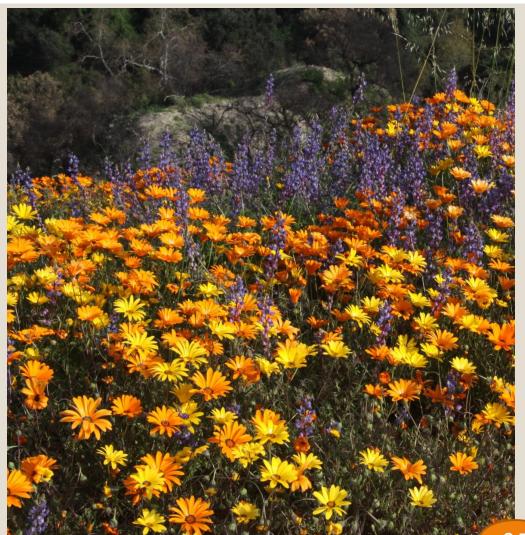




# African Daisy (Dimorphotheca sinuata) Sunflower Family (Asteraceae)

- •Annual, up to one foot tall.
- •Grows in disturbed places, or where seeded.
- •Introduced from South Africa.





#### Cape Ivy; German Ivy (Delairea odorata)

Sunflower Family (Asteraceae)

Map

\*

- A perennial vine from South Africa that grows over everything, eliminating the light that other plants need to survive.
- Its foliage is toxic.
- It spreads by above-ground and below-ground horizontal stems, called stolons.
- Distinguish from native cucumber by yellow flowers, from December through March, and lack of tendrils.
- Evergreen.







# Weedy Grasses (Poaceae)

### **Family Characteristics:**

- Monocots, long, linear leaves, round stems
- Inconspicuous flowers, sometime so many that inflorescent is quite showy
- Most introduced grasses are not bunch grasses but their roots form a shallow mat, not useful for erosion control.
- Introduced grasses are mostly annuals that provide fast burning fuel in summer after it has completed its life cycle.
- Grass invasion is one of the major threats to native habitat.

## Giant Reed (Arundo donax)

Grass Family (Poaceae)

Map

\*

- Arundo or Giant Reed is an extremely invasive perennial grass, up to 30 feet high. Arundo grows near water. It was introduced from the Mediterranean area but comes originally from India.
- Arundo is considered one of the most invasive pest plants of California wildlands. Stands of Arundo may become so dense that they are impenetrable.
- Can spread from broken stem pieces.
- It has been confused with bamboo and our native giant rye.



The leaf blades of Arundo are wider, shorter, and stiffer than Giant Rye.
Giant Rye leaves fold over, Arundo leaves do not.



Pampas Grass (Cortaderia jubata; C. selloana

Grass Family (Poaceae)

 Ornamental grass that naturalized.
 Was also planted for erosion control.

- Each plume has 100,000 seeds.
   Seeds can sprout without being fertilized.
- Grows in coastal areas but also inland.







Wild Oat; Slender Wild Oat

\*
(Avena fatua; A. barbata) Grass Family (Poaceae)

Wild Oat (Avena) fatua) and the smaller Slender Wild Oat (A. barbata) are annuals in the Grass family that look very similar.

They are easy to recognize by the few, large flower spikelets with long, hair-like bristles, called awns, hanging from slender arching stems.

Up to 4' tall, flowering April through June.



# Red Brome; Foxtail Chess (Bromus madritensis)

Grass Family (Poaceae)

**SFD** 

Note

\*

- Red Brome is an annual grass that was introduced from Europe.
- It has short, dense flower spikelets that turn maroon when ripe.
- It is about 1 1/2 feet tall and flowers from March to June.



## Ripgut Brome (Bromus diandrus)

SFD

## Grass Family (Poaceae)

#### Note

- Annual grass that was introduced from Europe.
   It has long spikelets with very long, stiff bristles.
- The fruit the dry florets with the seeds inside – easily catch on boots and socks and poke the skin.
- The tips of the florets have fine, stiff hairs that point backward. The best way to remove them is to push them through the fabric.
- Up to 32" tall, flowering April through June.



## Fountain Grass (Cenchrus setaceus)



Grass Family (Poaceae)

Mar

\*\*

- Grows in dense bunches, about 2' tall.
- Ornamental grass that escaped from gardens.
- Flowers from July to October.







# \*\*\* Smilo Grass (Stipa miliacea) Grass Family (Poaceae)

### Мар

- Perennial grass in disturbed areas, 2 to 5' tall.
- Branches and whorled, flowers hanging down, 5-16".
- Introduced from Eurasia.
- Quite similar to native rare P. micranthum which is smaller and branches are not whorled.
- Do not pull unless you are an expert in grass identification.



# Weeds in the Spurge Family

### Family Characteristics

- Inconspicuous flowers, often difficult to identify individual flower parts, no petals, but often with bracts.
- Milky sap, containing latex
- From tiny annuals to large trees

## Castor Bean (Ricinus communis)

Spurge Family (Euphorbiaceae)

Мар

- Big shrub or tree-like, up to 10' tall.
- Introduced from the Mediterranean region.
- □ Large leaves, 1 1/2' across, fruit is prickly and has toxic seeds.
- Female red flowers,
   beige male flowers,
   during most of the
   year.



# \*

## Tree Spurge (Euphorbia dendroides)

Spurge Family (Euphorbiaceae)

- Small tree or shrub, up to 7' tall, with yellow green bracts that appear like flowers.
   The actual flowers are tiny and yellow.
- Introduced from Mediterranean.
- Flowers from March to April.



## Weeds in Other Families



# English Ivy (Hedera helix)

Ginseng Family (Araliaceae)

- Woody vine, introduced from Europe.
- □ It can spread by roots on the stem, stem fragments, and by seed.
- Non-flowering stems can be up to 100 feet long.
- □ It flowers in fall.
- Evergreen.





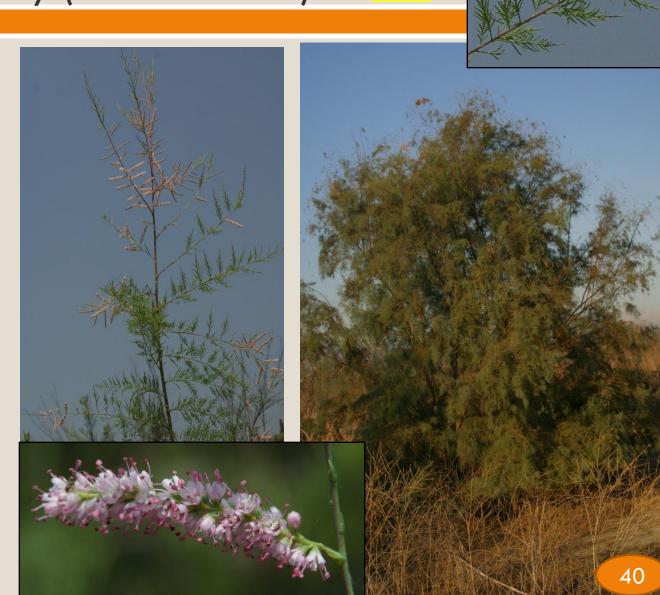
# Saltcedar (Tamarix ramosissima)

Tamarisk Family (Tamaricaceae)

SFD

- Tree or shrub, up to 25' tall, deciduous.
- Grows near water, in the desert in creek beds, and keeps native species from flourishing as it uses the water.

  Branches are green, leaves are tiny, 1/4" long.
- 5 species of Tamarisk, all introduced.
   Saltcedar is native to eastern Asia.
- Introduction of tamarisk
   beetles has been used
   to help control
   population.



## Himalayan Blackberry (Rubus armeniacus)

## Rose Family (Rosaceae)

### Map

\*

- Prickly perennial grows along streams.
- Introduced from Eurasia.
- Compound leaves with <u>5 leaflets</u> and white undersides, 5angled stem with fewer but stronger prickles, distinguish it from the native blackberry (Native blackberry has thinner, bluish stems, leaves with 3-5 leaflets, and green undersides).













## Periwinkle (Vinca major)

## Dogbane Family (Apocynaceae)

Мар

- Groundcover, up to 2' tall, introduced from Europe.
- Grows in many areas, particularly in woodland.
- Broken stems can start new colonies.
- Flowers from March to July.







\*\*

- Rangy tree or shrub, 7 to 20' tall, with long, tubular flowers.
- Introduced from South America.
- □ Toxic leaves.
- Young leaves can be extremely large.
- □ Flowers from April to September.



# Tree of Heaven (Ailanthus altissima) Quassia Family (Simaroubaceae)

- Tree, up to 60 feet
- Compound leaves, with 13 to 25 leaflets, similar to native walnut (Walnut has generally smaller leaves with fewer leaflets, 11 to 19).
- Crushed leaves smell like rancid peanut butter. (Walnut smells like citrus).
- Reddish, winged fruit (Walnut has nuts)
- Smooth bark, branched high (Walnut has rough bark and branches low)
- Native to east Asia Spreads by seed and invasive roots





## Peruvian Peppertree (Schinus molle) SFD

Sumac Family (Anacardiaceae)

- Fast growing tree, up to 50' tall, evergreen.
- Upper branches tend to droop, long compound leaves, pink to red fruit, sold as "pink peppercorns".
- Flowers in March.
- Native to northern South America and Peru; invasive around the world.

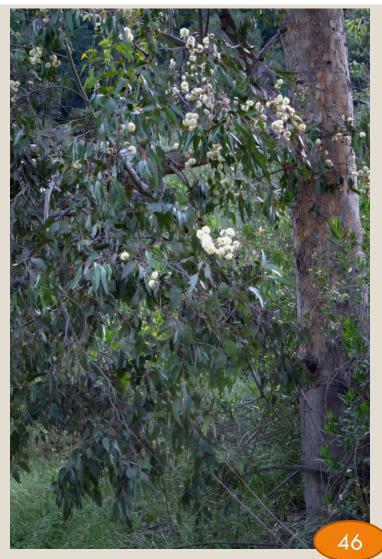


# Gum Tree (Eucalyptus sp.) \*\* Myrtle Family (Myrtaceae)

**SFD** 

- Variety of species, shrubs and trees, up to 135 feet tall.
- Introduced from Australia for railroad ties.
- Fast growing tree, soft wood, therefore not good for railroad ties.
- Widely planted by cities and developers.
- Blue-green leaves with distinct fragrance.
- New growth may be bright green.
- Different species have different flowers.
- Fruit is a woody, flat capsule.





# Edible Fig (Ficus carica) \*\* Mulberry Family (Moraceae)

- Shrub or tree, up to 25 feet tall.
- □ Palmate, deeply lobed leaves.
- □ Grows in moist places.
- □ Native to Mediterranean







## Hairy Rockrose(Cistus incanus

Rockrose Family (Cistaceae)

Mar

- An evergreen shrub, up to 4 feet high, with large, showy, pink flowers.
- It is introduced from southern Europe.
- It flowers
   between March
   and May, but
   each flower lasts
   for only one day.
- The opposite leaves are sticky, and wrinkly looking.
- AKA PinkRockrose, was C.creticus





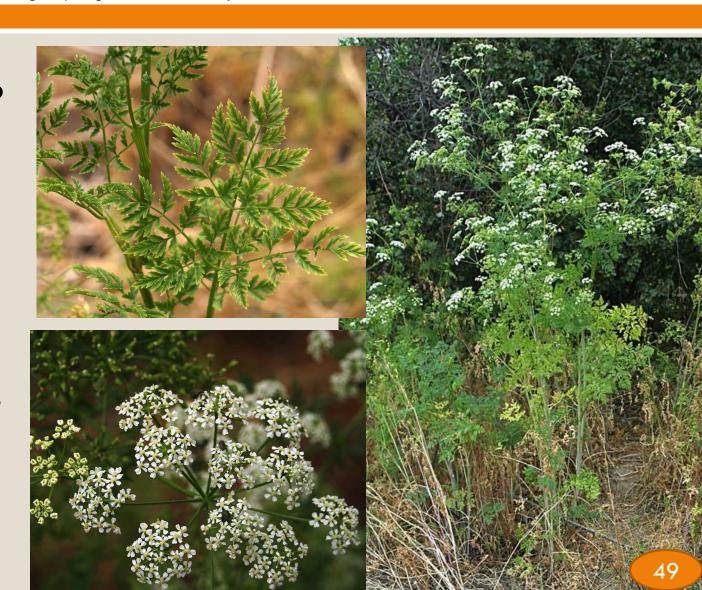




# Poison Hemlock (Conium maculatum)

\*\* Carrot Family (Apiaceae)

- Biennial or perennial, 2 to 10' tall.
- Extremely poisonous, can be fatal.
- Finely divided leaves, purple blotched or streaked stem.
- Grows in moist and disturbed areas.



## Fennel (Foeniculum vulgare)

Carrot Family (Apiaceae)

- Licorice-scented perennial, up to 7 feet tall.
- Thread-like leaves
- Many tiny yellow flowers in double umbels
- Grows at roadsides and in waste places
- Native to southern Europe
- Young growth is bright green, older plant is yellowish or gray green but keeps distinctive fragrance (like anise or licorice).



# Mexican Fan Palm (Washingtonia robusta)

\*\*\* Palm Family (Arecaceae)

SFD

- Common street tree, now naturalized.
- Taller and skinnier trunk than native palm, with broader base.
- Shiny,palmateleaves.
- Native to Mexico







Woolly Mullein (Verbascum thapsus)
\*Figwort Family (Scrophulariaceae)

Note

□ Biennial, 1<sup>st</sup>
 year leafy
 rosette, 2<sup>nd</sup> year
 flower stalk, up
 to 6' tall.

- Native toEurasia.
- Disturbed and moist areas.
- Flowers in summer.



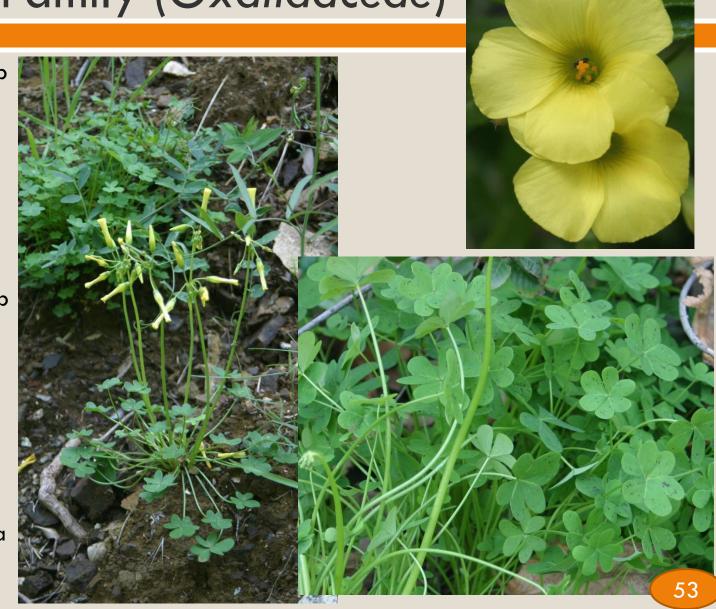
## Bermuda Buttercup (Oxalis pes-caprae)

Oxalis Family (Oxalidaceae)

#### Note

\*\*

- Perennial, with bulb and whitish underground stem.
- Basal, clover-like leaves on 8"long petioles, with or without spots.
- Yellow trumpet shaped flowers, in loose clusters, on up to 1-foot long flower stalk (generally 8").
- Spreads by rhizomes.
- Native to south Africa.
- Similar to native species which has a woody taproot instead of a bulb.



# \*\*\* Horehound (Marrubium vulgare)



Mint Family (Lamiaceae)

- 2-foot high perennial
- □ Thick, wrinkly leaves, loose string of flower clusters
- Introduced from Europe
- Little fragrance
- Dried fruits cling to clothing.









## Redstem Filaree; Stork's Bill (Erodium cicutarium)

\*\*\*\*Geranium Family (Geraniaceae)

Note

- Annual, 4 to 18" tall. Grows in basal rosette and then spreads out.
- Introduced from Eurasia.
- Pink to lavender flowers from January to May.
- Feathery leaves, upright, beak-like fruit.
- Similar to other introducedfilarees.





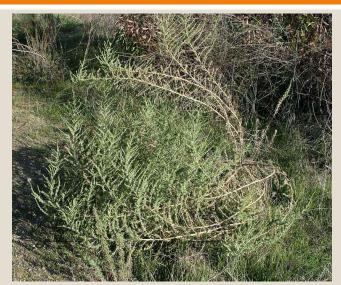




## Russian Thistle; Tumbleweed (Salsola tragus)

Goosefoot Family (Chenopodiaceae)

- Annual, 3 to 6' tall, round, with spinetipped leaves.
- Introduce from Eurasia in South Dakota, in 1873.
- It flowers from July to October, inconspicuous flowers without petals; bracts and fruits are spine-tipped too.
- Not a true thistle thistles are in the sunflower family.
- Also called S. iberica
   and S. pestifer, now in
   the Amaranth family.













# Puncture Vine (Tribulus terrestris) Caltrop Family (Zygophyllaceae)



- Annual, prostrate weed, up to 3 feet across.
- Evenly pinnateleaves with 6 to 12leaflets.
- □ Small 1/4" yellow flower.
- Small flat fruit with stout spines that can puncture a bicycle tire.
- Stems have bristly hairs.
- Introduced from the Mediterranean.

