

## PREVENTING THE INTRODUCTION OF NOXIOUS WEEDS

The transportation of contaminated hay, seeds, flower arrangements, nursery stock and other apparently harmless purchases has introduced many noxious weeds into California. Some of these noxious weeds are escaped ornamental plants that have gone wild, such as tree of heaven, arundo, and pampas grass. Most people are unaware that bringing even one plant or seed packet across state borders can create a new plant infestation. Prevention and early detection allows us to eradicate new weed outbreaks and devote our principal efforts toward management and containment of existing, large-scale infestations.

A creek, roadside, or field cleared of vegetation is more susceptible to invasion by new weeds than an intact plant community.



Puncture vine grows in bare soil and can pop bicycle tires.

Prevent new weed infestations by limiting vegetation disturbance and by quickly restoring disturbed areas with local native plants, or seeding with desirable vegetation.

## CONTROL IS AN ANNUAL TASK, NOT A ONE-YEAR MIRACLE

Successful long-term management of noxious weeds combines biological, chemical, cultural and physical methods in an integrated approach. Integrated weed management and improved land management are the answer.

### METHODS OF WEED CONTROL

- ◆ **Cultural control:** Includes, but is not limited to, mowing, burning, mulching, hand pulling, grazing and cultivation.
- ◆ **Chemical control:** Consists of applying pre-and post-emergence herbicides. There are selective and non-selective products. Always read the label directions before using any herbicide.
- ◆ **Biological control:** Involves a specific natural enemy for a specific plant. Insects are the most common control mechanism used for long-term projects. Results are not noticeable for several years.

#### Caution!

Work in wildlands may require consultation with appropriate regulatory agencies.

Contact the San Mateo County Department of Agriculture at (650) 363-4700 for more information on the safe use of herbicides.

### WEED CONTROL STEPS

- ◆ Identify the weed to be controlled.
- ◆ Write down the location and size of the infestation.
- ◆ Determine control method(s) and timing.
- ◆ Re-establish desired plant species after weed is controlled.
- ◆ Check for re-infestation.

# INVASIVE WEEDS

## A SERIOUS THREAT TO SAN MATEO COUNTY'S NATURAL RESOURCES

Noxious weeds crowd out native plants, harm animal habitats, create a fire danger and are a costly problem for farmers, ranchers, and landowners.



Photo by Doug Johnson

### Gorse Along San Mateo County Coast

Produced by the  
**San Mateo County**  
**Weed Management Area**

For More Information  
Call (650) 363-4700

[www.cdfa.ca.gov/wma/sanmateo](http://www.cdfa.ca.gov/wma/sanmateo)

# INVASIVE WEEDS: A SERIOUS THREAT TO SAN MATEO COUNTY'S NATURAL RESOURCES



## **YELLOW STARHISTLE**

*Centaurea solstitialis*

Yellow starthistle is a spiny annual plant that arrived during the Gold Rush from the Mediterranean area. Since then, it has increased its range in California to 14 million acres. Deep roots allow it to outcompete annuals for scarce water, sometimes creating an impenetrable thicket of thorned flowerheads. Toxins in the leaves and stems can be fatal to horses. Yellow starthistle invades native grasslands and pasture throughout San Mateo County. Biocontrol agents including the gall fly and several weevils have been introduced with limited success.



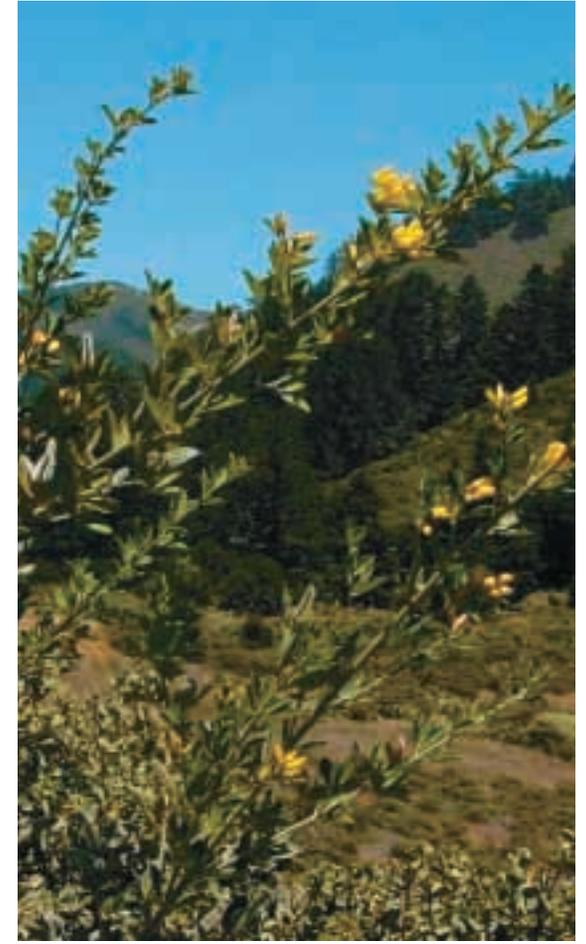
## **JUBATA GRASS**

*Cortaderia jubata*

## **PAMPAS GRASS**

*Cortaderia selloana*

These two South American grasses are known for their tall seed plumes and long leaves with sharply serrated edges. Mature plants of jubata grass (shown above) and pampas grass produce large quantities of wind-dispersed seeds. Both grasses colonize areas disturbed by landslides, fire and erosion. Infestations throughout the county threaten sand dune, rocky outcrop (including serpentine) and coastal scrub plant communities.



## **FRENCH BROOM**

*Genista monspessulana*

## **SCOTCH BROOM**

*Cytisus scoparius*

Of these two Mediterranean shrubs, French broom (shown above) is more common in California than its relative, Scotch broom. Scotch broom has fewer leaves and uses a green stem for most of its photosynthesis. Both yellow-flowering plants can rapidly colonize disturbed areas, crowding out natives and creating a fire hazard. Seeds of both plants are viable for several decades. Brooms are found in many areas of San Mateo County.

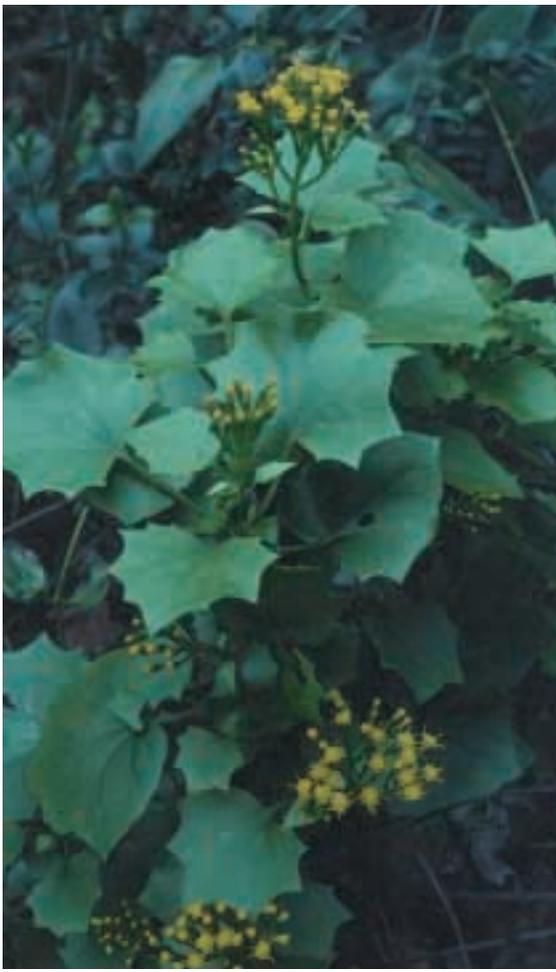


Photo by Ken Himes

### CAPE IVY

*Delaisia odorata*  
(syn. *Senecio mikanioides*)

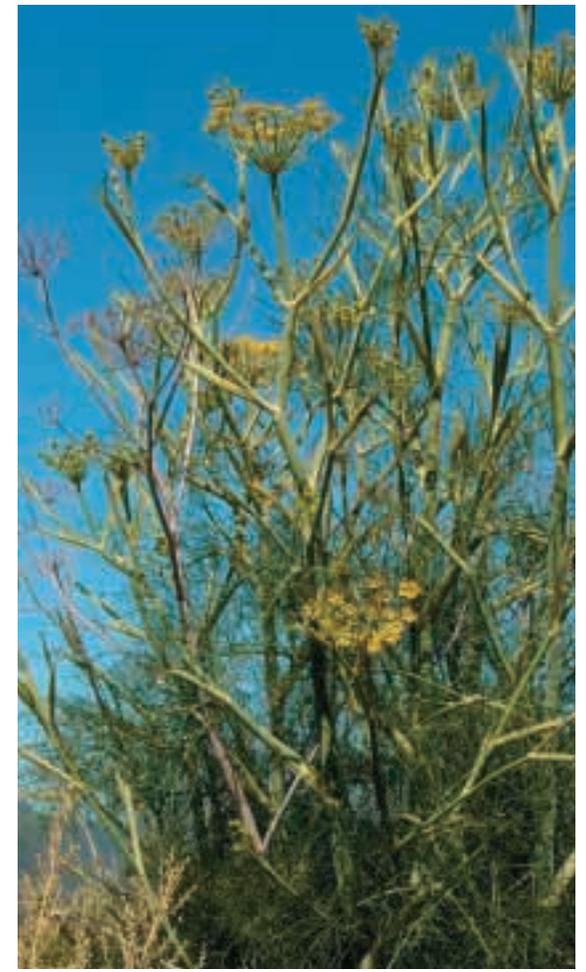
Cape ivy, or German ivy, came from South Africa and invades coastal and riparian plant communities. Cape ivy can easily spread by resprouting from small pieces of the plant. It can kill plants by enveloping them in a heavy blanket of vegetation which blocks out the light. Cape ivy is a threat to riparian corridors, where steelhead and coho salmon habitat has been degraded by the loss of native plant species diversity.



### GORSE

*Ulex europaea*

Gorse is a dense, yellow-flowering shrub that grows up to seven feet tall. This perennial plant is native to Western Europe. In Scotland, gorse was planted as a fence for cattle and sheep due to its thorny impenetrability. Gorse propagates by stump sprouting and by seeds that can lie dormant for many decades. It displaces intact plant communities and is extremely flammable. Gorse is found primarily on San Bruno Mountain, with smaller populations in other parts of the county.



### FENNEL

*Foeniculum vulgare*

Fennel, a Mediterranean perennial, smells like licorice. It has feathery leaves and an umbrella-like flowerhead on long stems. Fennel blooms from June through August, producing seeds that germinate best on bare ground with full sun. The seeds persist in the soil for several years and the plant can also reproduce from its root crown. Fennel has a deep taproot and grows in San Mateo County in disturbed areas, grasslands, and rocky areas, including serpentine.

## WHAT IS A 'NOXIOUS WEED'?

A 'noxious weed' is any species of plant that is, or is liable to be, troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species and is difficult to control, or eradicate (definition per the California Food and Agricultural Code).

A common characteristic of all noxious weeds is their aggressive, competitive behavior. Typically, they steal precious moisture, nutrients and sunlight from surrounding plants, thus impacting native plant and animal communities.

## SAN MATEO COUNTY WEED MANAGEMENT AREA

The San Mateo County Weed Management Area is a regional organization formed by state and local agencies, private landowners, the agricultural industry, and environmental organizations that are concerned about the proliferation of invasive plant species in San Mateo County.

Our mission is to promote and coordinate efforts to prevent the introduction, establishment and spread of noxious weeds in San Mateo County. One of our main goals is to educate the public on noxious and invasive weeds.

### PARTNERS

San Mateo County Agricultural Commissioner • San Mateo Co. Farm Bureau • California Native Plant Society • San Mateo Co. Parks and Recreation Division • Friends of Edgewood Natural Preserve • California State Parks • Pescadero Conservation Alliance • San Francisco Water Department • San Francisquito Watershed Council • Midpeninsula Regional Open Space District • Peninsula Open Space Trust • CALTRANS District 04 • San Mateo Co. Public Works • University of California Cooperative Extension • San Mateo Co. Resource Conservation District • California Dept. of Food and Agriculture

## For additional information and resources on the following:

- Weed Identification
- Weed Control Strategies
- Habitat Restoration Groups
- Weed Warrior Volunteer Opportunities

### Contact:

San Mateo County Department of Agriculture  
728 Heller Street, P.O. Box 999  
Redwood City, CA 94064-0999  
Phone: (650) 363-4700  
Fax: (650) 367-0130  
e-mail: [smateoag@co.sanmateo.ca.us](mailto:smateoag@co.sanmateo.ca.us)

## What can you do to help stop the spread of noxious weeds?

1. Learn to distinguish native plants from non-native noxious weeds.
2. Be cautious when moving soil, compost or equipment that may carry weed seeds. Seeds can remain viable for many years or decades.
3. Check with agricultural officials before transporting plants from other states or countries. Do not introduce weed seeds or seedlings into the state or county.
4. Join or help fund a local weed control or habitat restoration project.
5. Dispose of invasive weeds (propagating parts) in the garbage can, not in the mulch pile or with yard waste.
6. Always check your vehicle and shoes for plants or seeds when leaving an infested site.
7. Don't buy aggressive (weedy) plants, especially if the planting site is near a natural or agricultural area.

## Invasive exotic weeds are ranked second only to development in destroying native plant and animal habitats.



photo by John Wade

Cape ivy strangles native plants in a riparian corridor.



Yellow starthistle encroaches on rare species habitat at Edgewood Park and Preserve.

## Other Weeds of Concern in San Mateo County

- Arundo *Arundo donax*
- Tree of Heaven *Ailanthus altissima*
- Italian Thistle *Carduus pycnocephalus*
- Atlantic Cordgrass *Spartina alterniflora*
- English Ivy *Hedera helix*
- Bull Thistle *Cirsium vulgare*
- Harding Grass *Phalaris aquatica*
- Puncture Vine *Tribulus terrestris*
- Purple Starthistle *Centaurea calcitropa*