

Report your Plant-out-of-place sighting!



Plant-out-of-place Periwinkle



Plant-out-of-place Spanish Broom



These plant-out-of-place cards were designed to help with the identification of the new invaders of Golden Gate National Recreation Area.

*If you see any of these plants in the park—
LET US KNOW! Send us a picture and
description of where you found the plant.*

If you see these plants—or other unusual plants—growing in the open space lands of the Bay Area, contact the landowner, your county agriculture department or cooperative extension agent, or the CDFA biologist listed on the other side of this card.

Working together we can protect the unique natural resources of our area.

Bay Area Weed Watchers

SFAN I&M, Fort Cronkhite Bldg 1063
Sausalito, CA 94965



(415) 331-0639



(415) 331-5530



www.weedwatcher.org
www.sfnps.org/invasive_plants
www.parksconservancy.org/volunteer



EXOTIC SHRUB Spanish Broom

(*Spartium junceum*)

Description

- Erect plant 10-15 ft tall
- Golden yellow pea-like flowers 1 in long, clustered at branch tips
- Rounded braches have 5 green ridges
- Seed pods 2-4 in long, dark brown

Habitat

- Grasslands, agricultural, riparian, and coastal areas
- Can grow in all but waterlogged soils

Don't confuse with...

French Broom

(*Genista monspessulana*) which has:

- Persistent, fuzzy leaves
- Smaller pods (1 in long)

or Scotch Broom

(*Cytisus scoparius*) which has:

- Sharply angled branches
- Smaller pods (1-2 in long)
- All brooms are plants-out-of-place



Spanish Broom has round, needle-like branches



Scotch Broom has angled branches

Image credits: Front top: Kurt Stueber; Front middle/Back: MPF; Front bottom: © John M. Randall, The Nature Conservancy

EXOTIC HERB Periwinkle

(*Vinca major*)

Description

- Mat-forming perennial evergreen vine
- Purple flowers, March to July
- Leaves oval, shiny, dark green, arranged oppositely, 1-3 in long
- Stems contain a milky latex sap

Habitat

- Disturbed areas, roadside, garden waste dump sites, tree-covered drainages, and creeks
- Reproduces from small broken pieces of the stem

Don't confuse with...

Creeping St. Johnswort

(Aaron's beard, *Hypericum calycinum*) which has:

- Yellow flowers
- Waxy leaves like periwinkle, but clear sap
- Also a plant-out-of-place



Periwinkle in flower



Creeping St. Johnswort in flower

Image credits: Front top: Forest & Kim Starr, USGS; Front middle: James H. Miller, USDA Forest Service, www.forestryimages.org; Front bottom, back left: Kurt Stueber; Back right: Mercewiki

Bay Area Early Detection Network



Bay Area Early Detection Network (BAEDN)

is a partnership between regional land managers and invasive species experts to coordinate the early detection of, and rapid response to, infestations of invasive plant species that are still limited in distribution. A reporting tool will be available soon.

www.baedn.org

California Department of Food & Agriculture's Plant Health and Pest Prevention Division

has district biologists charged with "Protecting California's agricultural and natural resources against damage caused by exotic plant pests and diseases." They are most concerned with regulated noxious weeds.

For more information visit

www.cdфа.ca.gov/phpaps/ipc/encycloweedie/encycloweedie_hp.htm

To report a noxious weed sighting, contact

Robin Breckenridge

CDFA Biologist

916-718-4432

RBrecken@cdfa.ca.gov

California Invasive Plant Council

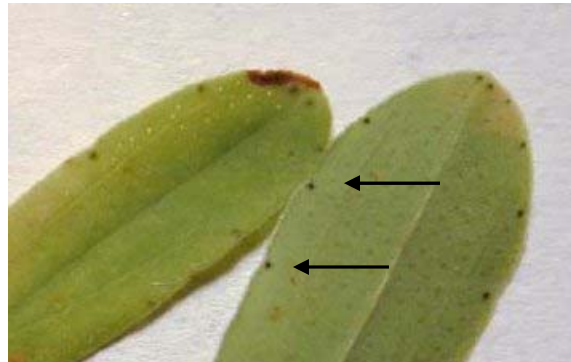
"[Protects] California's wildlands through research, restoration, and education." For additional information on invasive plant species, see their website.

www.cal-ipc.org

Plant-out-of-place Stinkweed



Plant-out-of-place Klamathweed



Plant-out-of-place Pennyroyal



EXOTIC HERB Pennyroyal

(*Mentha pulegium*)

Description

- Perennial mint, low-growing and spreading to upright
- Pink, blue, or violet flowers in dense clusters in a circle around the stem
- Flowers June – November
- Leaves opposite, round to oval, grey-green, covered in short hairs
- 4 angled stem
- Powerful mint odor

Habitat

- Disturbed areas, seeps, streamsides, vernal pools, marshes, and ditches
- Can reproduce from seeds or small root pieces

Don't confuse with...

Coyote Mint

(*Monardella villosa*) which has:

- Larger purple flowers at end of stalk



Pennyroyal flowers



Coyote Mint flower

Image credits: Front top: Medical botany by William Woodville. London, James Phillips, 1793, 1. ed., vol. 3 (pl. 171); Front bottom/ Back left: © Mandy Tu, The Nature Conservancy; Back right: Gary A. Monroe @ USDA-NRCS PLANTS Database

EXOTIC HERB Klamathweed

(*Hypericum perforatum*)

Description

- Erect perennial 1-3 ft tall
- Plant woody at base with branches on upper half of stem
- Leaves light green, long and narrow, 3/5-1 in long
- Leaves with "perforations:" clear dots visible when held to the light
- Bright yellow flowers with black dots at the margins

Habitat

- Disturbed areas, roadsides, meadows, pastures, rangelands, and waste places
- Reproduces by seeds and rhizomes

Don't confuse with...

Hyssop loosestrife

(*Lythrum hyssopifolia*) which has:

- Sprawling growth form
- Small pink flowers



Klamathweed



Hyssop Loosestrife

Image credits: Front top: © John M. Randall, The Nature Conservancy; Front middle: Forest & Kim Starr, USGS; Front bottom: © Jackie Miles and Max Campbell; Back left: Eric Coombs, Oregon Department of Agriculture, Bugwood.org; Back right: USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. Illustrated flora of the northern states and Canada. Vol. 2: 580

EXOTIC HERB Stinkweed

(*Dittrichia graveolens*)

Description

- Evergreen plant to 3 ft tall
- Branched from base of plant, "Christmas-tree" growth form
- Small, yellow daisy-like flowers, 1/3-2/3 in across
- Leaves grey-green and elliptical with serrated edges, 1-4 in long
- Leaves partially clasp the stalk
- Entire plant is sticky and smells of camphor

Habitat

- Roadsides, pastures, riparian areas

Don't confuse with...

Coast Tarweed

(*Madia sativa*) which has:

- Leaves opposite below, alternate above
- More open growth form
- Tarry smell



Stinkweed



Coast Tarweed

Image credits: Andrea Williams, NPS

Plant-out-of-place
Silverleaf Cotoneaster



Plant-out-of-place
Perennial Veldt Grass



Plant-out-of-place
Panic Veldt Grass



EXOTIC GRASS

Panic Veldt Grass

(*Ehrharta erecta*)

Description

- Sprawling grass with crabgrass-like growth form
- Grows 11-20 in tall
- Flat, green to reddish-purple tinged leaves, 2-6 in long
- Leaves often wrinkled along blade margin
- Auricle (small projection where leaf meets stem) has long, sparse “eyelash” hairs

Habitat

- Along trails, in urban areas, riparian, coastal habitats, forests

Don't confuse with...

Torrey's Melic Grass

(*Melica torreyana*) which has:

- More compact inflorescence, often with hints of purple
- No “eyelash” hairs where leaf meets stem



Panic Veldt Grass
open inflorescence



Torrey's Melic Grass
compact inflorescences

Image credits: Front, top and bottom, Back left: © Jackie Miles and Max Campbell; Front middle: © Joe DiTomaso; Back right: David Amme

EXOTIC GRASS

Perennial Veldt Grass

(*Ehrharta calycina*)

Description

- Tussock-forming grass
- Flat, green to reddish-purple-tinged leaves, 3-8 in long
- Leaves wrinkled along blade margin
- Inflorescence (flowers) 4-6 in long

Habitat

- Prefers sandy soils

Don't confuse with...

Panic Veldt Grass

(*Ehrharta erecta*) which has:

- Shorter leaves (usually 2-6 in long)
- Sprawling, crabgrass-like growth form
- Also a plant-out-of-place



Tussock growth form
of perennial veldt grass

Image credits: © Jackie Miles and Max Campbell

EXOTIC SHRUB

Silverleaf Cotoneaster

(*Cotoneaster pannosa*)

Description

- Evergreen shrub with arching branches, up to 6 ½ ft tall
- ¾-1-in-long leaves, dull gray-green above and felty white beneath
- Small white rose-like flowers with fully opened petals in clusters in the spring
- Small deep red berries with 2 stones produced in fall and winter

Habitat

- Coastal areas, woodlands, shrublands, grasslands
- Escapes garden cultivation via bird-dispersed seeds

Don't confuse with...

Orange Cotoneaster

(*Cotoneaster franchetii*) which has:

- Pink- or rose-colored flowers
- Orange-red berries with 3 stones

Milkflower Cotoneaster

(*Cotoneaster lacteus*) which has:

- Larger (1-3-in long) leaves
- All are plants-out-of-place



Milkflower Cotoneaster
(top) with many berries
and large leaves; and

Orange Cotoneaster
(bottom) with orange-
red berries

Image credits: Front: Forest and Kim Starr, USGS; Back: Andrea Williams, NPS

Plant-out-of-place Purple Foxglove



Plant-out-of-place Woolly Distaff Thistle



Plant-out-of-place Portuguese Broom



EXOTIC SHRUB Portuguese Broom

(*Cytisus striatus*)

Description

- Long-lived shrub 6-9 ft tall
- Slender 8- to 10-angled stems
- Pale yellow pea-like flowers borne singularly or in pairs
- Small leaves of 1-3 leaflets
- Mature seed pods fat, densely hairy
- Branches green when young, turning brown with age

Habitat

- Coastal prairie, coastal scrub, oak savannah, and open-canopy woodlands

Don't confuse with...

Scotch Broom

(*Cytisus scoparius*) which has:

- Many dark yellow flowers
- Fewer angles on stems
- Seed pods thin, only hairy around edges
- Also a plant-out-of-place



Portuguese Broom
flower and seedpod



Scotch Broom
flower and seedpod

Image credits: Front middle: Franz Xaver; Front bottom: Maria Alvarez, NPS; All other images public domain

EXOTIC HERB Woolly Distaff Thistle

(*Carthamus lanatus*)



Description

- Erect annual plant to 3 ft tall
- Yellow flower heads with red veins $\frac{3}{4}$ in wide, surrounded by spiny modified leaves up to 2 in
- Leaves with deep lobes and spines
- Stems single on the bottom half and branched on the top
- No stem wings
- Young plants form a rosette (circular cluster of leaves)

Habitat

- Disturbed areas, seeds are moved by animals and machinery

Don't confuse with...

Yellow Starthistle

(*Centaurea solstitialis*) which has:

- Unlobed upper leaves
- A grey appearance
- Thin spines around flower



Yellow Starthistle flower

Image credits: Front top/bottom: Bogdan; Front middle, Back top: NPS; Back bottom: © Barry A. Rice, The Nature Conservancy

EXOTIC HERB Foxglove

(*Digitalis purpurea*)

Description

- Erect perennial plant that grows to 5 ft
- Showy pinkish purple or white bell-shaped flowers with spots on the inside lower portion
- Young plants form a rosette (circular cluster of leaves)
- 2nd-year plants produce tall stalks of flowers

Habitat

- Moist meadows and roadsides
- Found in wildflower seed mixes—do not “dump” these seeds or garden cuttings near wild areas!



Image credits: Front top, Back: public domain; Front bottom: BerndH

Plant-out-of-place Orange Cotoneaster



Plant-out-of-place Pampas Grass



Plant-out-of-place Jubata grass



EXOTIC GRASS

Jubata Grass

(*Cortaderia jubata*)

Description

- Bunching grass 3-5 ft tall
- Tall, feathery flower plume 2-4 ft above leaf clump, made of thousands of tiny, pink-purple maturing to gold-white flowers
- Narrow deep green leaves are sharply toothed and can cut when rubbed the wrong way
- Sprawling, horizontal growth form

Habitat

- Bare and disturbed ground, roadsides, cut banks, coastal bluffs, rock outcrops, dunes, landslides
- Produces millions of seeds that can blow many miles in the wind

Don't confuse with...

Pampas Grass

(*Cortaderia selloana*) which has:

- More erect, fountain-like, 6-13 ft tall
- Narrower, coiled bluish-green leaves
- Also a plant-out-of-place



Jubata Grass



Pampas Grass

Image credits: Front: © John M. Randall, The Nature Conservancy; Back left: © John M. Randall, The Nature Conservancy; Back right: Kurt Stueber

EXOTIC GRASS

Pampas Grass

(*Cortaderia selloana*)

Description

- Bunching grass 6-13 ft tall
- Tall, feathery plume barely above leaf clump, made of thousands of tiny, cream-colored flowers
- Narrow bluish-green leaves are sharply toothed and can cut when rubbed the wrong way
- Erect fountain-like form

Habitat

- Bare and disturbed ground, roadsides, cut banks, coastal bluffs, rock outcrops, dunes, landslides
- Produces millions of seeds that can blow many miles in the wind

Don't confuse with...

Jubata Grass

(*Cortaderia jubata*) which has:

- Horizontally spreading shape
- Wide, bright green leaves, not coiled
- Darker pink to tan flowers
- Also a plant-out-of-place



Pampas Grass



Jubata Grass

Image credits: Front top: Kurt Stueber; Front middle: Forest and Kim Starr, USGS; Front bottom: (c)Mandy Tu/The Nature Conservancy Back left: Kurt Stueber; Back right: © John M. Randall, The Nature Conservancy

EXOTIC SHRUB

Orange Cotoneaster

(*Cotoneaster franchetii*)

Description

- Evergreen shrub up to 9 ft tall
- Fountain-shaped growth form with zig-zag branches
- Leaves $\frac{3}{4}$ -1 in long, dull grey-green above, covered with felty hair below
- Leaves appear silver or white from a distance
- Pink tinged rose-like flowers (5-11 per cluster)
- Orange-red fruits with 3 stones

Habitat

- Agricultural, grasslands, roadsides, disturbed areas, coastal scrubland and forest areas

Don't confuse with...

Silverleaf Cotoneaster

(*Cotoneaster pannosa*) which has:

- Deep red fruits with 2 stones
- Larger leaves ($\frac{3}{4}$ -2 in long)
- Also a plant-out-of-place



Orange Cotoneaster



Silverleaf Cotoneaster

Image credits: Front top, middle: NPS; Front bottom, Back left: Pat Breen, Oregon State University; Back right: Forest and Kim Starr, USGS

Plant-out-of-place Canada Thistle



Plant-out-of-place Yellow Starthistle



Plant-out-of-place Purple Starthistle



EXOTIC HERB Purple Starthistle

(*Centaurea calcitrapa*)

Description

- Annual plant ½-4 ft tall
- Numerous small (¼ in wide) purple, white, or pink flower heads surrounded by long, sharp spines
- Mature flowers WITHOUT a pappus (tiny tufts of hair on each seed for dispersal– like a dandelion)
- Young leaves deeply lobed, grey, with cobweb-like hairs and light midrib
- Mature leaves 4-8 in long, without hairs
- Stems without “winged” ridges

Habitat

- Agricultural, grasslands, roadsides, disturbed areas

Don't confuse with...

Iberian Starthistle

(*Centaurea iberica*) which has:

- Purple flowers with spines, wider (½ in) than PST (¼ in)
- Has a pappus (bristle on seed)



Purple Starthistle seed (left)
Iberian Starthistle seed (right)

Image credits: Front top: NPS; Front middle/bottom: © Barry Rice, The Nature Conservancy; Back: © 2001 CDFA

EXOTIC HERB Yellow Starthistle

(*Centaurea solstitialis*)

Description

- Annual plant ½-6 ft tall
- Numerous small bright yellow flower heads surrounded by long, sharp yellow spines (½-1 in long)
- Mature leaves grey-green, covered with fine cottony hairs, giving the plant a grey-silver appearance from a distance
- Stems are “winged”
- Young plants form a rosette (circular cluster of leaves)

Habitat

- Agricultural, grasslands, roadsides, disturbed areas

Don't confuse with...

Tocalote or Napa Thistle

(*Centaurea melitensis*) which has:

- Yellow flower heads with ½-in-long spines, shorter than YST
- Grows to 3 ft tall, shorter than YST
- Also a plant-out-of-place



Yellow Starthistle

Image credits: Front top/middle, Back left: © Barry Rice, The Nature Conservancy; Front bottom: © Mandy Tu, The Nature Conservancy; Back right: © John M. Randall, The Nature Conservancy



Tocalote

EXOTIC HERB Canada Thistle

(*Cirsium arvense*)



Description

- Erect perennial plant 1-3 ft tall
- Purplish-lavender or white flower heads ½-1 in across, numerous, almost without spines
- Variably lobed lance-shaped leaves with yellowish spines along the margins; leaves “clasp” stem
- Smooth to slightly hairy stems with no “wings”
- Young plants form a rosette (circular cluster of leaves)

Habitat

- Can grow in all but waterlogged soils

Don't confuse with...

Musk Thistle

(*Carduus nutans*) which has:

- Larger flower heads (2-3 in) with broad spines
- Hairy leaves

Image credits: Front top: Mary Ellen (Mel) Harte, Bugwood.org; Front middle, Back top: NPS; Front bottom: © John M. Randall, The Nature Conservancy

Plant-out-of-place Capeweed



Plant-out-of-place Giant Reed



Plant-out-of-place Himalayan Blackberry



EXOTIC SHRUB

Himalayan Blackberry

(*Rubus discolor*)

Description

- Prickly, perennial bramble that can form impenetrable thickets 9 ft tall
- Leaves of 5 leaflets (sometimes 3) with white undersides
- 5-angled stem with stout, curved thorns
- Produces numerous black berries ½ in long; birds and animals disperse seeds over long distances

Habitat

- Disturbed, moist areas

Don't confuse with...

California Blackberry

(*Rubus ursinus*) which has:

- Round, often whitish stem
- 3 leaflets per leaf, green underneath
- Many thin straight thorns



Himalayan Blackberry stem is 5-angled with stout thorns



California Blackberry stem is round and whitish with many slender thorns

Image credits: Front top: © Michael Charters; all other images: NPS

EXOTIC GRASS

Giant Reed

(*Arundo donax*)

Description

- Large, clump-forming grass 9-30 ft tall
- Hollow stems divided by partitions like bamboo
- Pale green to blue-green leaves that "clasp" stem
- Leaves 1-2 in wide and 1 ft long; look like corn leaves from a distance
- Plume-shaped creamy brown flower, 1-2 ft long; flowers in late summer

Habitat

- Moist places such as ditches, streams, riverbanks, estuaries

Don't confuse with...

Common Reed

(*Phragmites australis*) which has:

- Generally smaller (6-13 ft tall) stature
- Shorter (½-2 ft long) and narrower leaves
- Flowers that are less compact and lean to one side
- Also a plant-out-of-place



Giant Reed flowers



Common Reed flowers

Image credits: Front top: Larry Allain, USDA-NRCS PLANTS Database; Front bottom: Steven Perkins, USDA-NRCS PLANTS Database; Back left: Amy Ferriter, South Florida Water Management District, Bugwood.org; Back right: Darkone, Creative Commons

EXOTIC HERB

Capeweed

(*Arctotheca calendula*)



Description

- Low-growing evergreen herb with rosette of heavily lobed leaves
- Leaves with cobwebby hairs on top, densely wooly underneath, appearing silvery from a distance
- Forms dense, mat-like groundcovers which choke out other plants
- Yellow daisy-like flowers, 2 in across; flowers late spring early summer
- Black-centered flowers are fertile and even more problematic

Habitat

- Coastal grasslands, riparian areas, disturbed areas
- Can tolerate a wide range of environments
- Used extensively in landscaping and easily spreads to natural areas from small stem or root pieces

Don't confuse with...

Dandelion-like plants which have:

- Rosettes of lobed leaves which lack white underside, or unlobed leaves with white undersides
- Also plants-out-of-place

Image credits: Front top: © Jean Tosti; Front middle: © 2003 Steven J. Baskauf; Front bottom: TNEPPC; Back: © John M. Randall, The Nature Conservancy

Plant-out-of-place Common Gorse



Plant-out-of-place Plumeless Thistle



Plant-out-of-place Tree of Heaven



EXOTIC TREE

Tree of Heaven

(*Ailanthus altissima*)

Description

- Fast-growing deciduous tree, can grow to 80+ ft
- Smooth grey bark with light chestnut-brown twigs
- Large compound leaves, 1-4 ft long, made of 11-25 smaller leaflets
- Distinctive gland at base of leaf
- Winged papery seeds
- All parts have an offensive smell

Habitat

- Tolerant of a wide range of habitats, most common in disturbed areas
- Spreads by seed and root suckers

Don't confuse with...

Walnut Tree

(*Juglans* sp.) which:

- Produces nuts
- Has rough, furrowed brown bark
- Does not have gland at base of leaf



Tree of Heaven leaf gland

Image credits: Front top/middle: © 2002 Steven J. Baskauf; Front bottom: TNEPPC; Back © 2003 Steven J. Baskauf

EXOTIC HERB

Plumeless Thistle

(*Carduus acanthoides*)



Description

- Erect annual plant 1–8 ft tall
- Small 1-in-long purple flowers surrounded by long stout spines
- Conspicuous wings on stem
- Deeply lobed dark green leaves; waxy coating and white hairs underneath

Habitat

- Rangelands, pastures, grasslands, roadsides, disturbed areas

Don't confuse with...

Bull Thistle

(*Cirsium vulgare*), a widespread nonnative thistle which has:

- Stout, 2-in-wide purple flower heads
- Dark green leaves, rough like sandpaper, covered in bumps



Don't confuse with Bull Thistle leaf

Image credits: Front top/bottom: WI DNR; Front middle: Steve Dewey, USU, www.forestryimages.org; Back top: Gary L. Piper, WSU, Bugwood.org; Back bottom: Dan Tengel, Missouriplants.com

EXOTIC SHRUB

Common Gorse

(*Ulex europaea*)

Description

- Woody, evergreen shrub, 3½-6 ft tall
- Simple spiny leaves, 1/5-3/5 in long
- Yellow pea-like flowers March-May
- Brown, hairy pod fruits, ½-1 in long
- ½-in long spines at base of leaves
- Branches green when young, turning brown with age

Habitat

- Disturbed coastal areas
- Tolerates poor soils, including serpentine

Don't confuse with...

Scotch Broom

(*Cytisus scoparius*) which does not have:

- Thorny stems
- Also a plant-out-of-place



Common Gorse stem



Scotch Broom stem

Image credits: Front top/middle: © John M. Randall, The Nature Conservancy; Front bottom: Forest & Kim Starr, USGS; Back left: Don Gardner, USGS; Back right: © Barry A. Rice, The Nature Conservancy