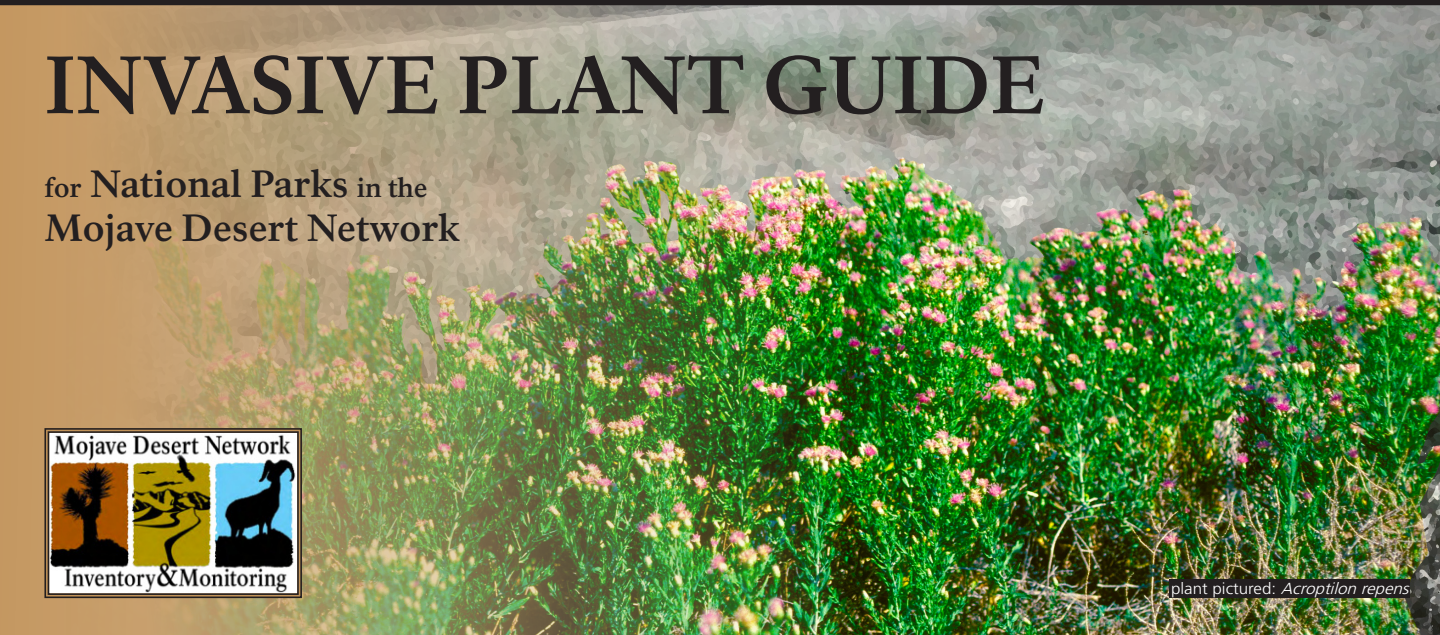
Mojave Desert Network
Inventory & Monitoring Division

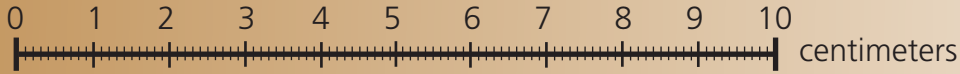
National Park Service
U.S. Department of the Interior

INVASIVE PLANT GUIDE

for National Parks in the Mojave Desert Network



plant pictured: *Acroptilon repens*



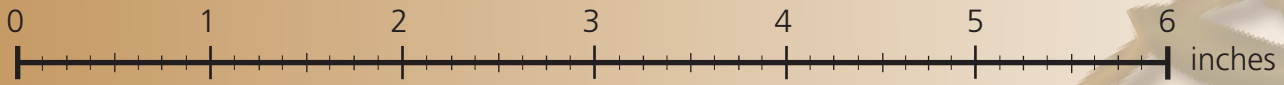
What is an invasive plant and why should we care?

Invasive plants are non-native plants that grow quickly and aggressively, spreading and displacing other plants. They are usually introduced by people, either by accident or on purpose, into a region far from their native habitat. Invasive plants pose one of the greatest threats to park resources. They establish themselves in locations where native plants would normally grow, creating dire conditions for many native species. Invasive plants can steal water and other resources from the native plants and may increase the likelihood of wildfires, often making it more difficult for native plants to survive.

This guide is intended to assist in the identification of invasive plants within the national park units of the Mojave Desert Network.

How to use this guide:

Each species, color-coded by life-form (***grass***, ***shrub***, ***tree***, *or* ***forb***), is presented on the front and back of a single card, with the scientific and common names located on the top panel. The front side of each card lists distinguishing characteristics with bolded words highlighting traits that are most visible. Corresponding photos are included to aid in identification. The front page also contains a quick reference section listing parks that the species is either known to be found ('*Known Parks*') or has the potential to be found ('*Watch For In*'), a figure showing the average height of the plant, and the best time of year to see the plant growing/flowering. The back side of each card has additional photos for further identification, and habitat information indicating where the plant is likely to be found. The '*Don't Confuse*' section contains a description and photos of look-alike native species that may be present within the park to help distinguish them from the targeted invasive plants. ***For a full list of photo credits used in this guide, please visit: http://go.nps.gov/mojn-ipg***



Cape ricegrass (*Achnatherum capense*)

Plant: Also called Mediterranean steppegrass; **erect growth** (not usually clumped)

Stems/Branches: 10-30 cm (4-12 in) long

Leaves: Can be densely hairy, 5-15 cm (2-6 in) long, <1.5 mm (<¼ in) wide

Flowers: Dense flower clusters with **long bristles**; 3-15 cm (1-6 in) long; bristles bend when mature

Fruit/Seeds: Not used for the identification of grasses within this guide



Watch For In:
JOTR

Growing Season:
Winter - Spring

Flowering Times:
February - April

Plant Height
~1½ ft
(0.5 m)



Cape ricegrass (*Achnatherum capense*)

Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, fields

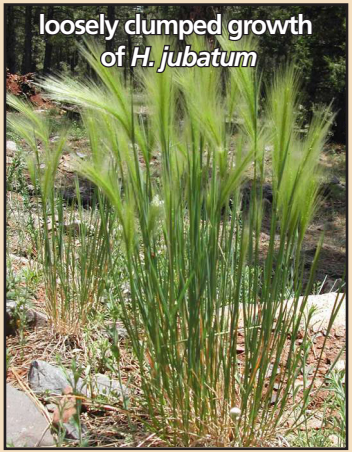




Don't Confuse With Natives:

Foxtail barley
(*Hordeum jubatum*)

Loosely clumped growth



Squirreltail
(*Elymus elymoides*)

Densely clumped growth



Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Giant Reed (*Arundo donax*)

Known Parks:
DEVA, JOTR, LAKE, MOJA

Growing Season:
Spring - Summer

Flowering Times:
April - July

Plant: Forms dense stands; **turns from green to tan as it dries in fall/winter**

Stems/Branches: Erect, smooth stems, 1-4 cm (⅓-1½ in) thick

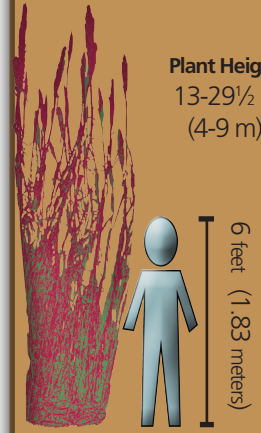
Leaves: Up to 0.5 m (1½ ft) long & 2.5-5 cm (1-2 in) wide; **distinct pale green area where leaves attach to stem**

Flowers: **Brown to tan; erect, feathery clusters** 0.3-1 m (1-3¼ ft) long of many small flowers

Fruit/Seeds: Not used for the identification of grasses within this guide


erect feathery flowers


A. donax stand



Giant Reed (*Arundo donax*)

Grass Family - Poaceae

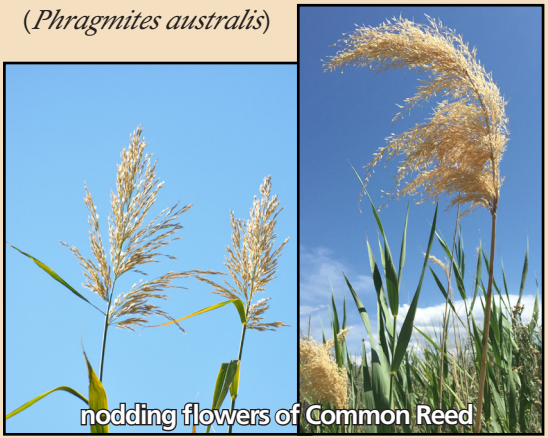
Habitat: Disturbed areas, springs, river banks





Don't Confuse With Native:

Common reed
(*Phragmites australis*)



All parts ~3 times smaller than giant reed; flowers red to tan & **drooping (not erect)**

Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Wild oat (*Avena fatua*)

Known Parks:
JOTR, LAKE, MOJA

Growing Season:
Winter - Summer

Flowering Times:
March - June

Plant Height
1-4 ft
(0.3-1.9 m)

Plant: Erect growth

Stems/Branches: Up to 1.5 m (~5 ft) long; may have sparse hairs

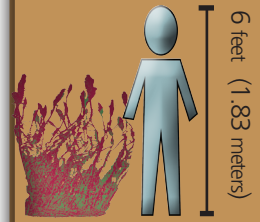
Leaves: 10-45 cm (4-17¾ in) long & 1.2 cm (½ in) wide

Flowers: 18-32 mm (⅞-1¾ in) long, **drooping**; **2-3 slender bristles**, each 25-40 mm (1-1.5 in) long

Fruit/Seeds: Not used for the identification of grasses within this guide


Wild oat field





Wild oat (*Avena fatua*)

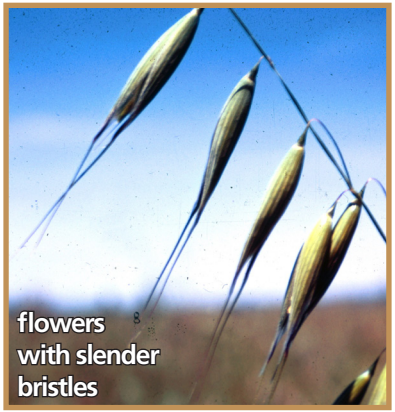
Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, fields, grassland



Don't Confuse With Native:

Native and non-native grasses are difficult to distinguish if flowers are not present.





Ripgut brome (*Bromus diandrus*)

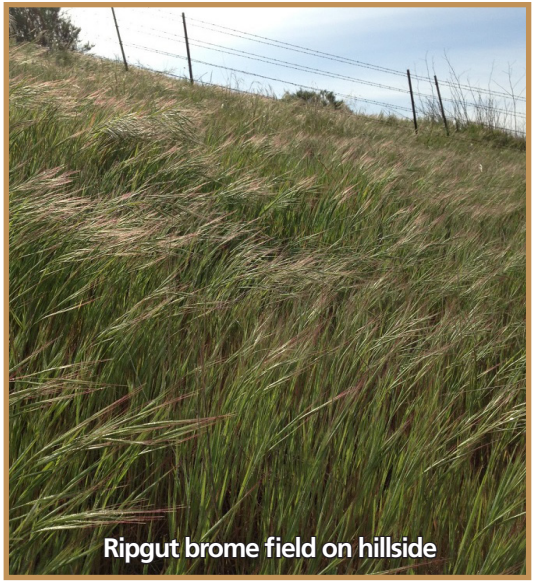
Plant: Can form dense stands

Stems/Branches: <80 cm (2½ ft) long, hairs on lower stems

Leaves: 3.5-27 cm (1⅜-10⅝ in) long & 1-9 mm (⅛-⅜ in) wide

Flowers: 13-25 cm (5-10 in) long, **drooping**; slender **bristles extending 30-55 mm (1⅛-2⅛ in) past flower**

Fruit/Seeds: Not used for the identification of grasses within this guide



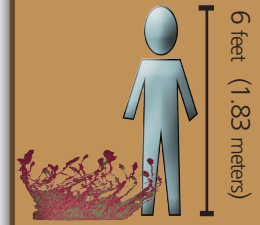
Ripgut brome field on hillside

Known Parks:
DEVA, JOTR, LAKE, MOJA, PARA

Growing Season:
Winter - Spring

Flowering Times:

Plant Height
6 in- ~3 ft
(0.2-1 m)



Ripgut brome (*Bromus diandrus*)

Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, fields, grassland



Don't Confuse With Native:

Native and non-native grasses are difficult to distinguish if flowers are not present.



Red brome (*Bromus rubens*)

Known Parks:
DEVA, JOTR, LAKE, MANZ, MOJA, PARA

Growing Season:
Winter - Spring

Flowering Times:
February - April

Plant: **Usually grows in clumps**

Stems/Branches: <50 cm (19½ in) long, fuzzy hairs on lower stems

Leaves: 4-10 cm (2-4 in) long & 1-4 mm (<⅛ in) wide

Flowers: 20-50 mm (¾-2 in) long, **arranged in dense clusters**; slender bristles extending 10-25 mm (⅓-1 in) past flower; **mature flowers turn red**


typical clumped growth of Red brome

Plant Height
4 in - 1⅔ ft
(0.1- 0.5 m)



Fruit/Seeds: Not used for the identification of grasses within this guide

Red brome (*Bromus rubens*)

Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, fields





Don't Confuse With Native:

Native and non-native grasses are difficult to distinguish if flowers are not present.



Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Cheat grass (*Bromus tectorum*)

Plant: Can form dense stands

Stems/Branches: Have short, soft hairs

Leaves: 4-16 cm (2-6 in) long & 2-4 mm (<⅛ in) wide

Flowers: 5-10 cm (2-8 in) long, **drooping**; **slender bristles extending 8-18 mm (<½ in) past flower**


Cheat grass field

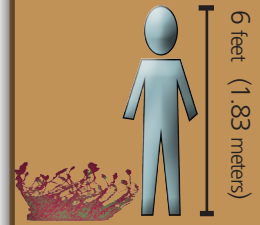
Fruit/Seeds: Not used for the identification of grasses within this guide

Known Parks:
DEVA, GRBA, JOTR, LAKE, MANZ, MOJA, PARA

Growing Season:
Spring - Fall

Flowering Times:
April - June

Plant Height
2 in - 1⅓ ft
(0.05- 0.4 m)



Cheat grass (*Bromus tectorum*)

Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, fields


Cheat grass in bloom


dried flowers


drooping flowers

Don't Confuse With Native:

Native and non-native grasses are difficult to distinguish if flowers are not present.


flowers turn red with age

Pampas grass (*Cortaderia selloana*)

Plant: **Densely clumped growth**

Stems/Branches: 20-40 cm (7-15 in) long

Leaves: <1.8 m (6 ft) long & 3-13 mm (⅛-½ in) wide, **drooping**, **have sharp edges**

Flowers: **dense, feathery flower clusters** 0.3-1.3 m (1-4 ft) long, white to tan

Fruit/Seeds: Not used for the identification of grasses within this



densely clumped growth with drooping leaves

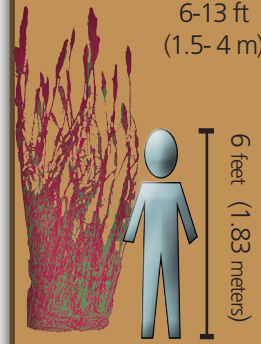
Known Parks:
DEVA

Watch For In:
LAKE

Growing Season:
Fall - Spring

Flowering Times:
September - March

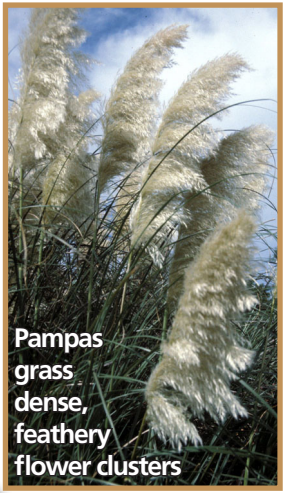
Plant Height
6-13 ft
(1.5- 4 m)



Pampas grass (*Cortaderia selloana*)

Grass Family - Poaceae

Habitat: Sandy areas, landscaped areas (commonly planted as an ornamental)





Don't Confuse With Native:

Common reed
(*Phragmites australis*)

Plant **not clumped**; all parts 5-10 times smaller than Pampas grass; **flowers loosely clustered**





Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Bermudagrass (*Cynodon dactylon*)

Known Parks:
DEVA, JOTR, LAKE, MANZ, MOJA, PARA

Growing Season:
Spring - Fall

Flowering Times:
June - September

Plant: Forms mats

Stems/Branches: **Can grow erect or creep along ground**

Leaves: <6 cm (2⅓ in) long & <6 mm (⅓ in) wide; **pointed tips**

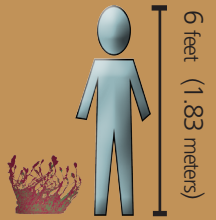
Flowers: 2.5-7.5 cm (1-3 in) long; **4-7 thin flowering stems radiating out from a single point**

Fruit/Seeds: Not used for the identification of grasses within this guide


mature Bermudagrass plant



Plant Height
~1⅓ ft
(~0.4 m)

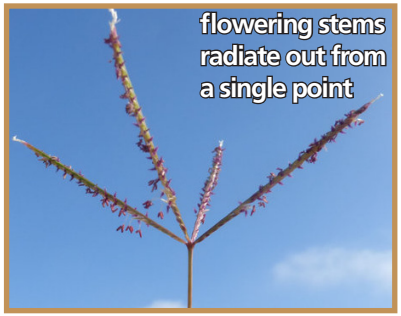


Bermudagrass (*Cynodon dactylon*)

Grass Family - Poaceae

Habitat: Disturbed areas, landscaped areas (commonly planted as an ornamental)



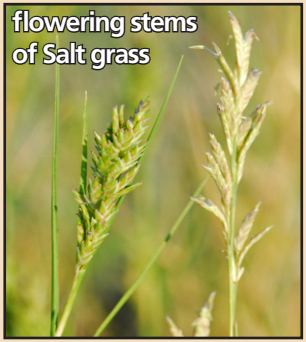




Don't Confuse With Native:

Salt grass
(*Distichlis spicata*)

Dense flower clusters; **flowering stems do not radiate from a single point**





Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Barley (*Hordeum spp.*)

Plant: **Loosely clumped**

Stems/Branches: Smooth, erect

Leaves: Sometimes covered with short hairs

Flowers: **Dense flower clusters** closely attached to stem; **have stiff bristles.** *H. marinum* and *H. murinum* flowers erect; *H. vulgare* flowers nodding.

Fruit/Seeds: Not used for the identification of grasses within this guide



erect flower & bristles of *H. marinum*



erect flower & bristles of *H. murinum*

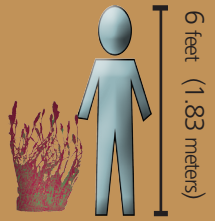
Known Parks:
DEVA, JOTR, LAKE, MANZ, MOJA, PARA

Watch For In:
GRBA

Growing Season:
Fall - Winter

Flowering Times:
January - November

Plant Height
6 in-4½ ft
(0.15-1.4 m)



Barley (*Hordeum spp.*)

Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, fields



Don't Confuse With Natives:

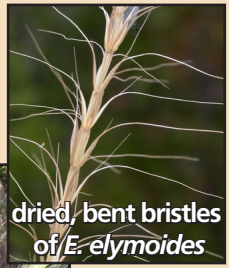
Foxtail barley
(*Hordeum jubatum*)

Bristles longer and less stiff than H. marinum & H. murinum



Squirreltail
(*Elymus elymoides*)





Slightly nodding flowers with longer bristles; dried bristles turn outward from flower cluster

Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Buffelgrass (*Pennisetum ciliare*)

Plant: **Densely clumped growth**

Stems/Branches:
Multi-branched

Leaves: 30–50 cm (11-20 in) long & 2-13 mm (⅛-½ in) wide

Flowers: 2-13 cm (¾-5 in) long, **purple**, **arranged in dense clusters**


Buffelgrass plant with densely clumped growth

Fruit/Seeds: Not used for the identification of grasses within this guide

Known Parks:
LAKE

Watch For In:
DEVA, JOTR

Growing Season:
Year Round

Flowering Times:
July - November

Plant Height
~5 ft
(<1.5 m)



Buffelgrass (*Pennisetum ciliare*)

Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, landscaped areas (commonly planted as an ornamental)





Don't Confuse With Native:

Alkali sacaton (*Sporobolus airoides*)

Flowers arranged in loose clusters







Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Fountain grass (*Pennisetum setaceum*)

Plant: **Densely clumped growth**

Stems/Branches:
Have fine hairs where leaves attach to stems

Leaves: slender, 20-65 cm (8-26 in) long & 2-3.5 mm (<⅛ in) wide; **have sharp edges**

Flowers: Arranged in dense clusters 8-30 cm (3-12 in) long, **white to purple**; each flower has **many stiff bristles**

Fruit/Seeds: Not used for the identification of grasses within this guide





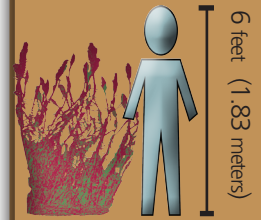
Known Parks:
JOTR, LAKE, MANZ

Watch For In:
DEVA, MOJA

Growing Season:
Year Round

Flowering Times:
January - November

Plant Height
~5 ft
(<1.5 m)



Fountain grass (*Pennisetum setaceum*)

Grass Family - Poaceae

Habitat: Disturbed areas, springs, river banks, landscaped areas (commonly planted as an ornamental)





Don't Confuse With Natives:

Alkali sacaton
(*Sporobolus airoides*)



Flowers arranged in loose clusters



California satintail
(*Imperata brevifolia*)

Flowers lack stiff bristles; spreading (not densely clumped) growth





Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Rabbitsfoot grass (*Polypogon monspeliensis*)

Known Parks:
DEVA, GRBA, JOTR, LAKE, MOJA, PARA

Growing Season:
Spring - Fall

Flowering Times:
April - October

Plant: **Typically found in small bunches**

Stems/Branches: Generally round, hollow

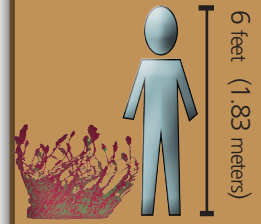
Leaves: 1-20.5 cm (⅓-8 in) long & 4-6 mm (~¼ in) wide, often rough & prickly

Flowers: Densely packed cluster <18 cm (7 in) long, **soft & downy looking**, **green to tan**; many small flowers, each <4 mm (⅛ in) long, 2 slender bristles extending from the tip <1 cm (⅓ in) long

Fruit/Seeds: Not used for the identification of grasses within this guide


Rabbitsfoot grass plants

Plant Height
2 in-2⅓ ft
(0.05- 0.7 m)

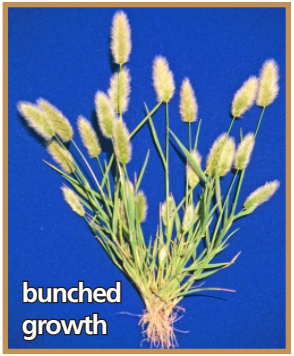


Rabbitsfoot grass (*Polypogon monspeliensis*)

Grass Family - Poaceae

Habitat: Developed areas, springs







Don't Confuse With Native:

California satintail
(*Imperata brevifolia*)

Spreading (not bunched) growth; flowers lack bristles; Perennial





Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Ravenna grass (*Saccharum ravennae*)

Plant: Robust; **forms dense clumps**

Stems/Branches: 2-4 m (6-13 ft) long

Leaves: <0.8 m (30 in) long & 2.5 cm (1 in) wide; **soft hairs where leaves attach to stem**, sometimes has **white stripe down middle of leaf**

Flowers: white to tan, erect, feathery clusters 0.6 m (24 in) long of many small flowers

Fruit/Seeds: Not used for the identification of grasses within this guide


Ravenna grass plant

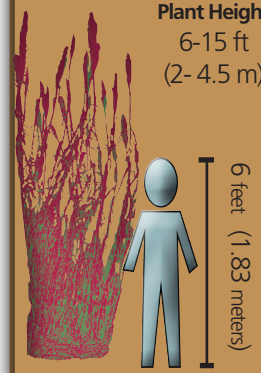
Known Parks:
DEVA

Watch For In:
LAKE, MOJA, PARA

Growing Season:
Spring - Fall

Flowering Times:
September - October

Plant Height
6-15 ft
(2- 4.5 m)



Ravenna grass (*Saccharum ravennae*)

Grass Family - Poaceae

Habitat: Springs, washes, river banks









Don't Confuse With Native:

Common reed

(*Phragmites australis*)

All parts ~3 times smaller than Ravenna grass; flowers red-tan & nodding; lacks clumped growth





Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Mediterranean grass (*Schismus spp.*)

Known Parks:
DEVA, JOTR, LAKE, MANZ, MOJA, PARA

Growing Season:
Winter - Summer

Flowering Times:
March - May

Plant Height
~8 in
(<0.20 m)

Plant: **Low growing**

Stems/Branches: Round & slender, <1 mm (<⅛ in) wide

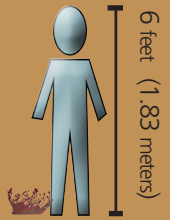
Leaves: <6 cm (2⅓ in) long & 2 mm (⅛ in) wide; sparse, fine hairs where leaves attach to stem

Flowers: Dense clusters <5 cm (¼ in) long

Fruit/Seeds: Not used for the identification of grasses within this guide


Schismus plants


single *Schismus* plant



Mediterranean grass (*Schismus spp.*)

Grass Family - Poaceae

Habitat:
Disturbed areas, sandy areas, washes





Don't Confuse With Native:

Native and non-native grasses are difficult to distinguish if flowers are not present.





Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Johnson grass (*Sorghum halepense*)

Known Parks:
LAKE

Growing Season:
Spring - Fall

Flowering Times:
May - August

Plant: **Forms dense patches**

Stems/Branches: 0.4-2 cm (¼-¾ in) wide

Leaves: 10-50 cm (4-20 in) long & 0.5-3 cm (¼-1¼ in) wide, white stripe down middle of leaf, **edges feel sharp**

Flowers: Loose flower cluster 10-50 cm (4-20 in) long, tan to purple; **often has single, bent bristle extending from tip of each flower**

Fruit/Seeds: Not used for the identification of grasses within this guide


Sorghum halepense plant

Plant Height
6½ ft
(<2 m)



Johnson grass (*Sorghum halepense*)

Grass Family - Poaceae

Habitat: Disturbed areas, roadsides, fields









Don't Confuse With Native:

Native and non-native grasses are difficult to distinguish if flowers are not present.

Grass

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Common lantana (*Lantana camara*)

Known Parks:
DEVA

Watch For In:
LAKE

Growing Season:
Spring - Summer

Flowering Times:
March - September

Plant Height
6-15 ft
(~2- 4½ m)

Plant: Sprawls along ground, can climb other plants

Stems/Branches: **Stems have thorns**

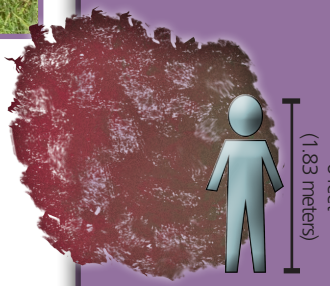
Leaves: ~15 cm (~6 in) long, dark green, **toothed edges**, **rough leaf surface**; leaves directly across from one another on stem

Flowers: **Multicolored flower clusters**, white to pink or lavender, or yellow to orange; 2.5-5 cm (1-2 in) wide

Fruit/Seeds: ~6 mm (~¼ in) wide, round, **dark blue**


sprawling growth of Common lantana


leaves & flowers



Common lantana (*Lantana camara*)

Verbena Family - Verbenaceae

Habitat: Disturbed areas, roadsides, developed/landscaped areas (commonly planted as an ornamental)





Don't Confuse With Native:

There are no similar looking *native* species for Common lantana



Shrub

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Oleander (*Nerium oleander*)

Known Parks:
DEVA, LAKE, MOJA

Watch For In:
JOTR

Growing Season:
Year Round

Flowering Times:
June - October

Plant Height
~6½-20 ft
(2-6 m)

Plant: Erect; **leaves present all year,** toxic to humans

Stems/Branches: **Grayish bark**

Leaves: 5-21 cm (~2-8¼ in) long, dark green; narrow, **thick, and leathery**

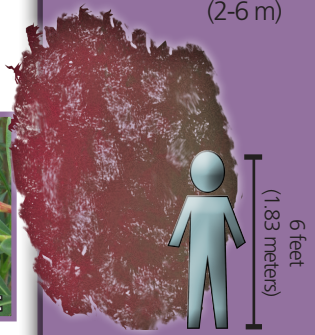
Flowers: White, pink, or red; 2.5-5 cm (~1-2 in) wide

Fruit/Seeds: **Linear fruits** 5-23 cm (~2-9 in) long; seeds light and fluffy


Oleander in bloom


fluffy seeds


linear fruit



Oleander (*Nerium oleander*)

Dogbane Family - Apocynaceae

Habitat: Disturbed areas, landscaped areas (commonly planted as an ornamental)



Don't Confuse With Native:

There are no similar looking *native* species for Oleander



Shrub

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Spanish broom (*Spartium junceum*)

Known Parks:
PARA

Watch For In:
DEVA

Growing Season:
Spring - Summer

Flowering Times:
April - June

Plant: Toxic to humans

Stems/Branches: **Smooth**, finely ridged, often leafless

Leaves: 1-3 cm (<1⅛ in) long, linear to oblong

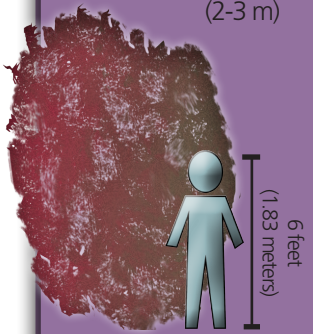
Flowers: Yellow, 2-2.5 cm (~¾-1 in) long, **fragrant**

Fruit/Seeds: Fruits 4-11 cm (1½-4½ in) long and ~0.5 cm (<¼ in) wide; **pea pod shaped**, densely covered with **silvery hairs**


Spanish broom in bloom


flowers & stem

Plant Height
6-10 ft
(2-3 m)



Spanish broom (*Spartium junceum*)

Pea Family - Fabaceae

Habitat: Disturbed areas, roadsides, fields





Don't Confuse With Native:

There are no similar looking *native* species for Spanish broom



Shrub

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Lilac chastetree (*Vitex agnus-castus*)

Known Parks:
LAKE

Watch For In:
DEVA

Growing Season:
Spring - Summer

Flowering Times:
July - August

Plant: Densely branched, shrub or small tree, **fragrant**

Stems/Branches: Smooth, woody stems

Leaves: **Gray-green to dark green on top and lighter green underneath**, 5-15 cm (2-6 in) long; **5-7 leaves extending from a central point (arranged in hand-like shape)**

Flowers: Blue to purple; arranged in clusters ~18 cm (7 in) long

Fruit/Seeds: Off-white to brownish black


Lilac chastetree in bloom







Lilac chastetree (*Vitex agnus-castus*)

Vervain Family - Verbenaceae

Habitat: Developed areas, roadsides, washes, landscaped areas (commonly planted as an ornamental)





Don't Confuse With Native:

Bigleaf lupine

(*Lupinus polyphyllus*)





Flower clusters less dense, individual flowers larger than Lilac chastetree

Shrub

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Tree-of-heaven (*Ailanthus altissima*)

Known Parks:
DEVA, MANZ, MOJA

Watch For In:
JOTR, LAKE

Growing Season:
Spring - Fall

Flowering Times:
May - July

Plant: Erect; emits strong odor when bark scraped or leaves crushed

Stems/Branches: Grayish brown with light spots that become cracked with age

Leaves: **Leaves directly across from one another on stem**; 5-17 cm (~2-6¾ in) long, **angle downward**; dark shiny green on top & lighter green underneath; smaller leaves often reddish

Flowers: Greenish yellow to white; **loose flower clusters** up to 50 cm (~19½ in) long of many small 2-3 mm (< ⅛ in) individual flowers

Fruit/Seeds: **Wing-shaped fruits** 2.5 cm (1 in) long, twisted into a loose spiral; green to straw-colored to reddish brown


A. altissima stand


spotted bark


winged fruits turning red

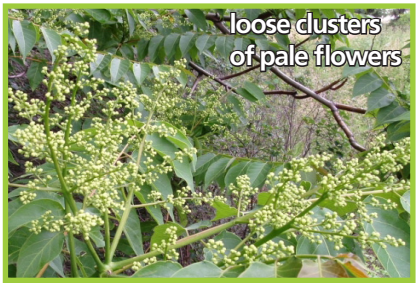


Tree-of-heaven (*Ailanthus altissima*)

Quassia Family - Simaroubaceae

Habitat: Disturbed areas, roadsides, fields







Don't Confuse With Native:

Smooth sumac
(*Rhus glabra*)

Dense clusters of yellow flowers; red berries





Tree

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Russian olive (*Elaeagnus angustifolia*)

Plant: **Silvery color**

Stems/Branches: Smooth, reddish brown, have **long thorns**

Leaves: 4-8 cm (~1½-3 in) long, not directly across from one another on stem; **green to silver**, narrow and linear

Flowers: **Yellow**, 5-10 mm (~⅛-⅜ in) long, arranged in clusters

Fruit/Seeds: Fruits **round**, light green to yellow


Russian olive tree


thorns on stems/branches


narrow linear leaves

Known Parks:
GRBA, JOTR

Watch For In:
PARA

Growing Season:
Spring - Summer

Flowering Times:
May - June

Plant Height
~ <23 ft
(<7 m)



Russian olive (*Elaeagnus angustifolia*)

Oleaster Family - Elaeagnaceae

Habitat: Disturbed areas, roadsides, fields, wetlands


round fruits


yellow flower of Russian olive

Don't Confuse With Native:

Desert willow (*Salix exigua*)

No thorns; flowers white to pink; fruits are linear


S. exigua linear fruits


S. exigua flowers


S. exigua plant

Tree

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Tree tobacco (*Nicotiana glauca*)

Known Parks:
LAKE, PARA

Watch For In:
DEVA, JOTR, MOJA

Growing Season:
Spring - Summer

Flowering Times:
March - November

Plant: Erect, toxic to humans

Stems/Branches: **Smooth gray-green bark**

Leaves: 5-21 cm (~2-8¼ in) long, not directly across from one another on stem; **oblong to egg shaped**, grayish-green

Flowers: **Tubular, yellow, 3-3.5 cm (~1⅛ in) long**

Fruit/Seeds: Fruits 7-15 mm (~2¾-6 in) long, **capsule shaped**





Plant Height
~ <23 ft
(<7 m)



Tree tobacco (*Nicotiana glauca*)

Tobacco Family - Solanaceae

Habitat: Disturbed areas, roadsides, wetlands, washes

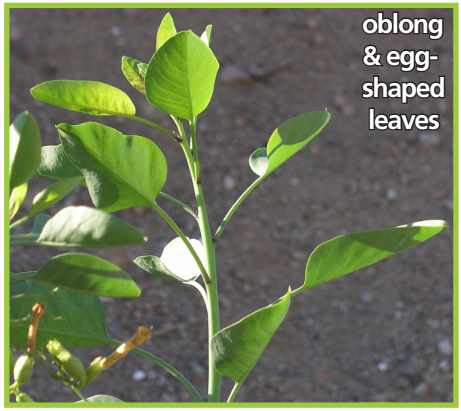






Don't Confuse With Native:

There are no similar looking *native* species for Tree tobacco



Tree

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Date palm (*Phoenix dactylifera*)

Plant: Erect

Stems/Branches: Single trunk, no branches; stems 4-6 m (~13-20 ft) long

Leaves: Palm frond 30 cm (~12 in) long, **sharp**, **pointed**, **waxy**, narrow

Flowers: Off white color, arranged in **feathery clusters**

Fruit/Seeds: Fruits green to yellow, 3-7 cm (~1-2¾ in) long, **shaped like grapes**, arranged in clusters


Date palm tree

Known Parks:
DEVA, JOTR
LAKE, PARA

Growing Season:
Spring - Summer

Flowering Times:
March - November

Plant Height
~ <100 ft
(<30 m)



Date palm (*Phoenix dactylifera*)

Palm Family - Arecaceae

Habitat: Landscaped areas (commonly planted as an ornamental), springs





Don't Confuse With Native:

There are no similar looking *native* species for Date palm



Tree

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Tamarisk/Saltcedar (*Tamarix ramosissima*)

Known Parks:
DEVA, JOTR, LAKE MANZ, MOJA, PARA

Watch For In:
GRBA

Growing Season:
Spring - Summer

Flowering Times:
March - August

Plant: Many branched shrub or small tree, leaves not present all year

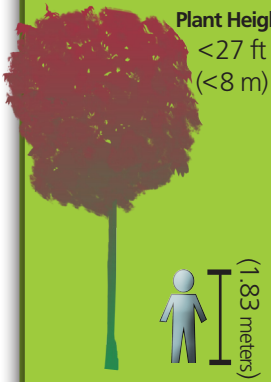
Stems/Branches: Reddish brown bark; **branches often purplish**

Leaves: 1.5-3.5 mm (<⅛ in) long, blue-green, **branching, overlapping, scale-like**

Flowers: White to pink, **arranged in tightly packed clusters** 1.7-7 cm (½-2¾ in) long


Tamarisk/Saltcedar plant

Fruit/Seeds: Fruits <5 mm (<¼ in) long



Tamarisk/Saltcedar (*Tamarix ramosissima*)

Tamarisk Family - Tamaricaceae

Habitat:
Disturbed areas, roadsides, washes, springs







Don't Confuse With Native:

There are no similar looking *native* species for Tamarisk/ Saltcedar



Tree

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Athel (*Tamarix aphylla*)

Plant: Gray-green, **leaves present all year**

Stems/Branches: Reddish brown to gray

Leaves: ~2 mm (<⅛ in) long, grayish, **tightly wrapped around stem, scale-like**

Flowers: White to pink, flowers clustered along stem tip

Fruit/Seeds: Fruits <5 mm (<¼ in) long


large Athel plant

Known Parks:
DEVA, JOTR, LAKE MOJA, PARA

Growing Season:
Spring - Summer

Flowering Times:
May - July

Plant Height
<40 ft
(<12 m)



Athel (*Tamarix aphylla*)

Tamarisk Family - Tamaricaceae

Habitat: Roadsides, washes, springs







Don't Confuse With Native:

There are no similar looking *native* species for Athel



Tree

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

California fan palm (*Washingtonia filifera*)

Plant: Erect; considered native in DEVA (when belonging to a cultural landscape); native in MOJA & JOTR

Stems/Branches: No branches, **single trunk**



Leaves: **Waxy fronds**, 0.9-1.5 m (3-5 ft) long; bunched at top of trunk

Flowers: 10 mm (~⅜ in) long, white or yellow clusters, drooping funnel shape

Fruit/Seeds: **Black to beige-white, oval shaped**, arranged in clusters, 1.2 cm (~½ in) long



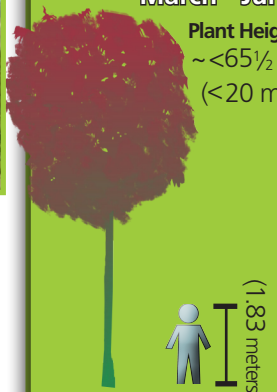


Known Parks:
DEVA, JOTR, LAKE, MOJA
Watch For In:
PARA

Growing Season:
Year Round

Flowering Times:
March - June

Plant Height
~<65½ ft (<20 m)

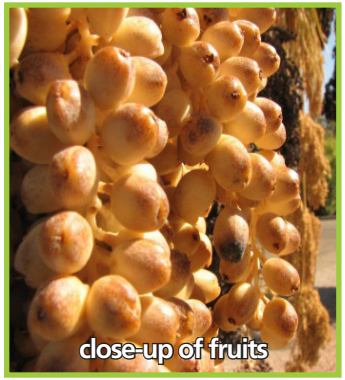


California fan palm (*Washingtonia filifera*)

Palm Family - Arecaceae

Habitat: Landscaped areas (commonly planted as an ornamental), springs







Don't Confuse With Native:

There are no similar looking ***native*** species for California fan palm

Tree

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Russian knapweed (*Acroptilon repens*)

Plant: **Erect; densely branched**

Stems/Branches: **Cobwebby hairs**

Leaves: Not directly across from one another on stem; **lobed lower leaves** 4-10 cm (1½-4 in) long, **linear upper leaves** 1-3 cm (~⅓-1 in) long

Flowers: Pink, lavender-blue, or white; ~15mm (½ in) wide; **green scales** located below colored part of flower

Fruit/Seeds: Seeds soft, white, have fine bristles



single densely branched plant

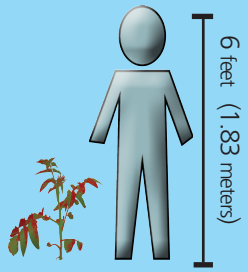
Known Parks:
DEVA, LAKE, MOJA

Watch For In:
GRBA, PARA

Growing Season:
Spring - Fall

Flowering Times:
May - September

Plant Height
<3 ft
(<1 m)



Russian knapweed (*Acroptilon repens*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, roadsides, fields









Don't Confuse With Native:

Hoary tansyaster
(*Machaeranthera canescens*)

All leaves are same shape and size
3-10 cm (1⅛-4 in) long; **flower is purple with yellow center**



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Fivehook bassia (*Bassia hyssopifolia*)

Plant: Erect, densely branched, **gray-green**

Stems/Branches: Reddish to brown stems

Leaves: Not directly across from one another on stem; **flat and coming to a point on the end**, 5-60 mm (~⅓-2⅓ in) long

Flowers: Flowers 1-2 mm (<⅛ in) long, **fuzzy**; arranged in clusters up to 5 cm (~2 in) long



Fruit/Seeds: **Star shaped fruit with** <2 mm (<⅛ in) long **hook-shaped spines**

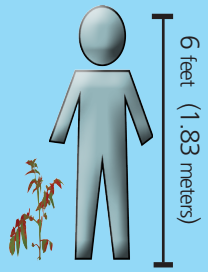
Known Parks:
DEVA, GRBA, LAKE

Watch For In:
JOTR, MOJA, PARA

Growing Season:
Summer - Fall

Flowering Times:
July - October

Plant Height
<5 ft
(<1.5 m)



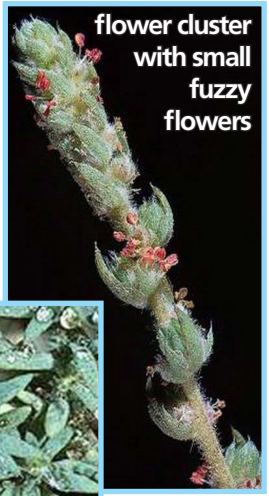
Fivehook bassia (*Bassia hyssopifolia*)

Goosefoot Family - Chenopodiaceae

Habitat: Disturbed areas, roadsides, fields, wetlands









Don't Confuse With Native:

Seepweed
(*Suaeda moquinii*)

Leaves plump & rounded (not flat & pointy)



Forb

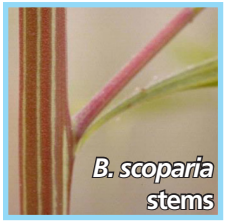
For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Burningbush (*Bassia scoparia*)

Plant: Erect, **gray-green**

Stems/Branches: Green to red, sometimes with white stripes



Leaves: 8-50 mm (⅓-2 in) long, **flat**, **linear**; not directly across from one another on stem

Flowers: Each flower <2 mm (<⅛ in) long; flowers located between leaves on stem, forming small clusters of yellow flowers

Fruit/Seeds: **Fruits <2 mm (<⅛ in), knoblike or paper thin**



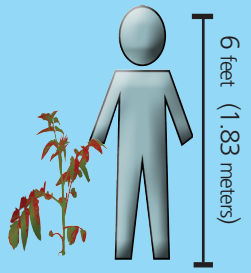
Known Parks:
DEVA, JOTR, LAKE

Watch For In:
GRBA, MANZ, PARA

Growing Season:
Summer - Fall

Flowering Times:
July - October

Plant Height
<6 ft
(<2 m)



Burningbush (*Bassia scoparia*)

Goosefoot Family - Chenopodiaceae

Habitat: Disturbed areas, roadsides, wetlands



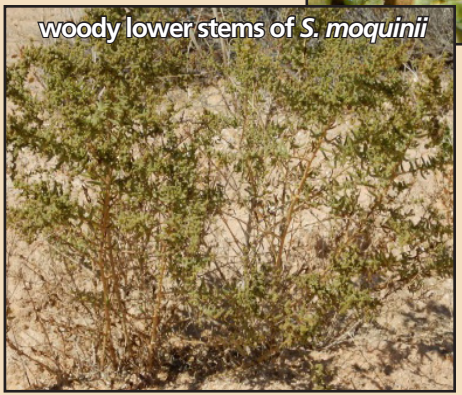




Don't Confuse With Native:

Seepweed
(*Suaeda moquinii*)





Lower stems woody; leaves plump (not flat)

Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Sahara mustard (*Brassica tournefortii*)

Known Parks:
DEVA, JOTR, LAKE, MANZ, MOJA, PARA

Growing Season:
Winter - Spring

Flowering Times:
January - April

Plant: Erect

Stems/Branches: Stiff white hairs on stems


white hairs on stems

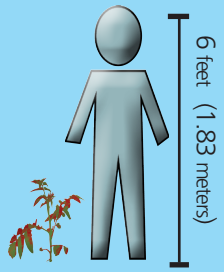
Leaves: Deeply lobed, 7-30 cm (2¾-11½ in) long, **with bumps & short prickly hairs**

Flowers: 8-14 mm (⅓-½ in) wide, **dull yellow**, 4 petals

Fruit/Seeds: Linear and cylindrical fruit, 3-7 cm (1¼-2¾ in) long, **fruits point up & away from stem**


B. tournefortii erect plant with deeply lobed lower leaves

Plant Height
<~2 ft
(<0.7 m)



Sahara mustard (*Brassica tournefortii*)

Mustard Family - Brassicaceae

Habitat: Disturbed areas, roadsides, fields, sandy areas







Don't Confuse With Native:

California mustard

(*Guillenia lasiophylla*)

White flowers; fruit point downward; leaves arrow-shaped with no bumps or hairs







Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Hoary cress (*Cardaria draba*)

Plant: Erect

Stems/Branches: <0.5 m (<2 ft) tall, covered with short hairs

Leaves: Not directly across from one another on stem; 8 cm (~3 in) long, **toothed edges**, base of **leaves wrap around stem**

Flowers: 4 white petals, ~4 mm (~⅛ in) long; flowers arranged in clusters

Fruit/Seeds: Deflated balloon-shaped fruits, ~3 mm (~⅛ in) long



single Hoary cress plant in bloom

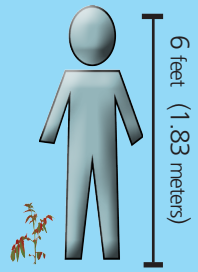
Known Parks:
GRBA, PARA

Watch For In:
DEVA

Growing Season:
Fall - Spring

Flowering Times:
March - July

Plant Height
<~1½ ft
(<0.5 m)



Hoary cress (*Cardaria draba*)

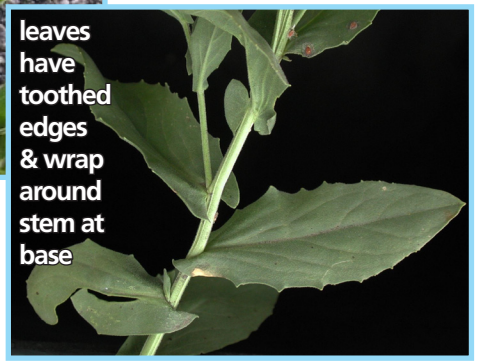
Mustard Family - Brassicaceae



Habitat:
Disturbed areas, roadsides, fields

Don't Confuse With Native:

There are no similar looking *native* species for Hoary cress





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Musk thistle (*Carduus nutans*)

Known Parks:
GRBA

Growing Season:
Fall - Summer

Flowering Times:
June - September

Plant: Erect

Stems/Branches: **Stems have spines**

Leaves: 10-40 cm (~4-15¾ in) long; not directly across from one another on stem; **deeply lobed, spined**

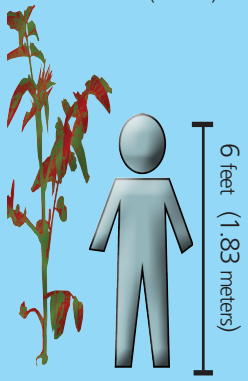
Flowers: 3-7 cm (1⅛-2¾ in) wide, pink-purple **nodding flower**

Fruit/Seeds: Seeds soft, white, have fine bristles


seeds


Musk thistle plant in bloom

Plant Height
<~9½ ft
(<3 m)



Musk thistle (*Carduus nutans*)

Sunflower Family - Asteraceae

Habitat:
Disturbed areas, roadsides, fields

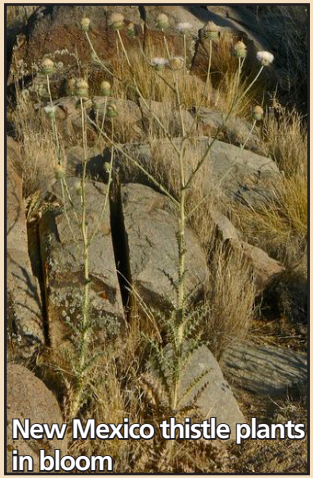


Don't Confuse With Native:

New Mexico thistle (*Cirsium neomexicanum*)

Flowers **white or pink-purple,** erect (not nodding)







Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Biennial

Malta star-thistle (*Centaurea melitensis*)

Plant: Grayish-green; evenly covered with **white, cottony hairs**

Stems/Branches: **Edges may be winged**

Leaves: 2-15 cm (~¾-6 in) long, lobed

Flowers: **Yellow**, 10-15 mm (~½-⅝ in) long; have **thick spines 19 mm (~¾ in) long**, reddish purple in color

Fruit/Seeds: Seeds soft, white, have fine bristles


Malta star-thistle with white, cottony hairs covering plant

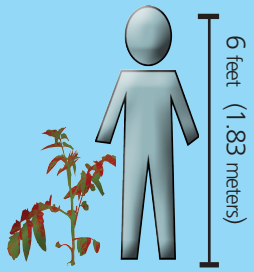
Known Parks:
DEVA, LAKE, MOJA, PARA

Watch For In:
JOTR

Growing Season:
Winter - Summer

Flowering Times:
April - September

Plant Height
<~3 ft
(<1 m)



Malta star-thistle (*Centaurea melitensis*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, roadsides, fields


close-up of stems with winged edges


flowers have sharp spines at base

Don't Confuse With Native:

There are no similar looking ***native*** species for Malta star-thistle


seedling, lobed leaves


plant has grayish-green color

Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Yellow star-thistle (*Centaurea solstitialis*)

Plant: Grayish-green; evenly covered with **white, cottony hairs**

Stems/Branches: **Edges may be winged**

Leaves: 2-15 cm (~¾-6 in) long, deeply lobed

Flowers: **Yellow**, 13-20 mm (~½-¾ in) long; have **thick spines 26 mm (~1 in) long**, yellowish to straw-colored



Yellow star-thistle plant in bloom

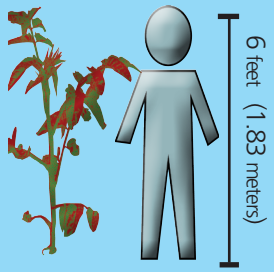
Fruit/Seeds: Seeds soft, white, have fine bristles

Known Parks:
DEVA, PARA

Growing Season:
Summer - Winter

Flowering Times:
June - December

Plant Height
<~6 ft
(<2 m)



Yellow star-thistle (*Centaurea solstitialis*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, roadsides, fields





Don't Confuse With Native:

There are no similar looking ***native*** species for Yellow star-thistle



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Spotted knapweed (*Centaurea stoebe ssp. micranthos*)

Plant: **Erect**

Stems/Branches: **Densely branched**

Leaves: Not directly across from one another on stem; **deeply lobed lower leaves** 4-10 cm (1½ -4 in) long, **linear upper leaves** 1-3 cm (~⅓-1 in) long; **cobwebby hairs on young leaves**; grayish-green in color

Flowers: Pink, lavender-blue, or white; ~15mm (½ in) wide; **green scales** located below colored part of flower **have dark tips**

Fruit/Seeds: Seeds soft, white, have fine bristles



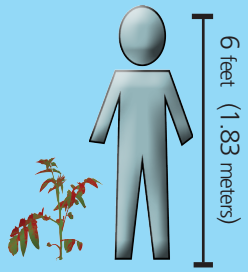
Known Parks:
GRBA

Watch For In:
PARA

Growing Season:
Spring - Fall

Flowering Times:
June - October

Plant Height
<3 ft
(<1 m)



Spotted knapweed (*Centaurea stoebe ssp. micranthos*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, roadsides, fields







Don't Confuse With Native:

Hoary tansyaster

(*Machaeranthera canescens*)

All leaves are same shape and size 3-10 cm (1⅛-4 in) long; **flower is purple with yellow center**



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Canada thistle (*Cirsium arvense*)

Plant: **Erect; densely branched**

Stems/Branches: **Smooth**

Leaves: 5-20 cm (~2-8 in) long; **irregular, wavy, and toothed with prickly edges**

Flowers: Purple-pink; **1.5-2.5 cm (~½-1 in) wide**; green scales below colored part of flower

Fruit/Seeds: Seeds soft, white, have fine bristles


soft white seeds


densely branched Canada thistle in bloom

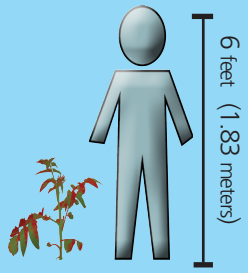
Known Parks:
GRBA

Watch For In:
PARA

Growing Season:
Spring - Fall

Flowering Times:
April - October

Plant Height
<3 ft
(<1 m)



Canada thistle (*Cirsium arvense*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, roadsides, river banks







Don't Confuse With Native:

There are no similar looking *native* species for Canada thistle



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Bull thistle (*Cirsium vulgare*)

Plant: **Erect; densely branched**

Stems/Branches: **Cobwebby hairs and spines**

Leaves: **Spined**, **lobed lower leaves** 15-25 cm (~½-1 in) long; **upper leaves more spiny & deeply lobed**

Flowers: Pink-purple; 2.5-5 cm (1-2 in) wide; have dense, short **spines 1-5 mm (<¼ in) long**

Fruit/Seeds: Seeds soft, white, have fine bristles



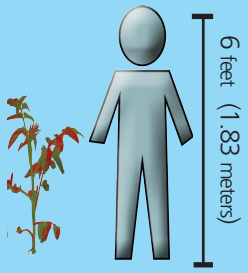
densely branched Bull thistle plant

Known Parks:
GRBA, JOTR, PARA

Growing Season:
Spring - Fall

Flowering Times:
June - October

Plant Height
~3-5 ft
(1-1.5 m)



Bull thistle (*Cirsium vulgare*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, fields





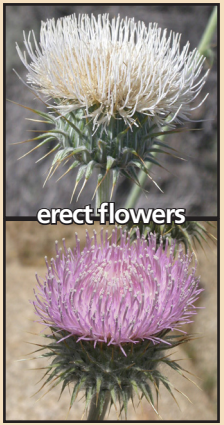


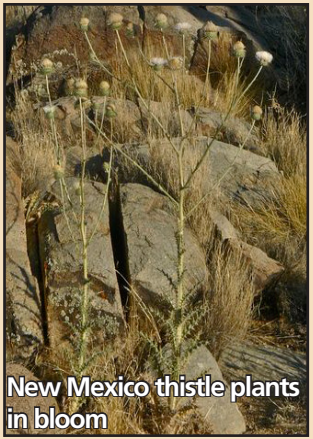


Don't Confuse With Native:

New Mexico thistle (*Cirsium neomexicanum*)

Plant height 1½-10 ft (0.5-3 m); **spines 4-15 mm (¼-⅝ in)**; **flowers white or pink-purple**





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Biennial

Field bindweed (*Convolvulus arvensis*)

Plant: **Vine;** mat-forming, can climb other plants

Stems/Branches: Stems twist and climb

Leaves: Not directly across from one another on stem, **2-3 cm (~¾-1⅛ in) long, arrowhead shaped,** dull green

Flowers: White to pink, **funnel shaped** when open, **1.5-3 cm (~½-1 in) diameter**


single field bindweed plant

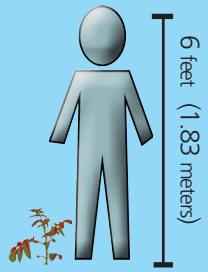
Fruit/Seeds: Tiny, tan fruit ~8mm (<⅓ in) diameter

Known Parks:
GRBA, LAKE, MANZ, MOJA, PARA

Growing Season:
Year Around

Flowering Times:
April - October

Stem Height
~1-2½ ft
(0.3-0.8 m)

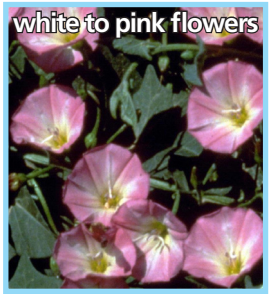


Field bindweed (*Convolvulus arvensis*)

Morningglory Family - Convolvulaceae

Habitat: Disturbed areas, roadsides, fields







Don't Confuse With Native:

Hedge bindweed
(*Calystegia sepium*)

Extremely similar; **flowers larger: 3-7 cm (~1-2¾ in) diameter; leaves longer: 5-10 cm (~2-4 in) long**





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Biennial

Redstem filaree (*Erodium cicutarium*)

Plant: Low growing

Stems/Branches: Green-reddish

Leaves: 3-10 cm (~1⅛-4 in) long, deeply lobed, **feathery**

Flowers: Pink to lavender, 3-5 mm (~⅛ in) long; 2-10 flowers per flowering stem

Fruit/Seeds: Long, pointy fruits; **long part of fruit curls into a spiral when dried out**

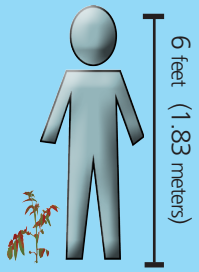

single *E. cicutarium* plant

Known Parks:
DEVA, GRBA, JOTR, LAKE, MANZ, MOJA, PARA

Growing Season:
Year Round

Flowering Times:
February - June

Plant Height
~2 ft
(<0.6 m)



Redstem filaree (*Erodium cicutarium*)

Geranium Family - Geraniaceae

Habitat: Disturbed areas, roadsides, fields, developed areas (picnic areas, viewpoints, campgrounds)







Don't Confuse With Native:

Texas filaree
(*Erodium texanum*)

Round-shaped leaves, not deeply lobed or feathery; larger flower 14-30 mm (~½-1⅛ in) wide



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Arugula (*Eruca vesicaria ssp. sativa*)

Plant: Erect

Stems/Branches: **Have fine, white hairs**

Leaves: Deeply lobed

Flowers: 2-4 cm (~¾-1½ in) wide, **white with purple veins**

Fruit/Seeds: Fruits 12-25 mm (~½-1 in) long, **linear & cylindrical with pointed tip**


single Arugula plant in bloom

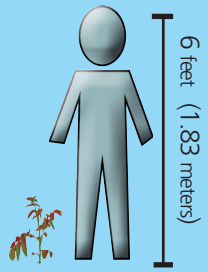
Known Parks:
MOJA

Watch For In:
JOTR

Growing Season:
Spring - Summer

Flowering Times:
May - September

Plant Height
0.5-3¼ ft
(0.2-1 m)



Arugula (*Eruca vesicaria ssp. sativa*)

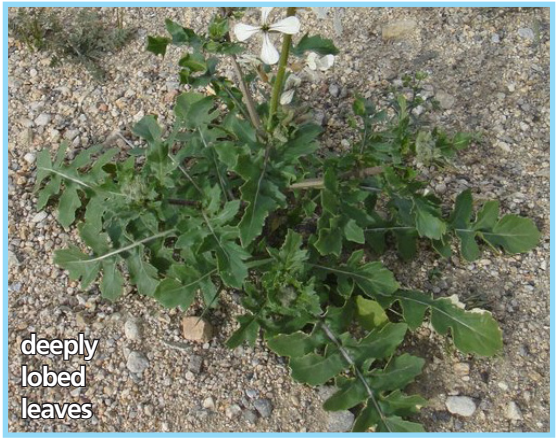
Mustard Family - Brassicaceae

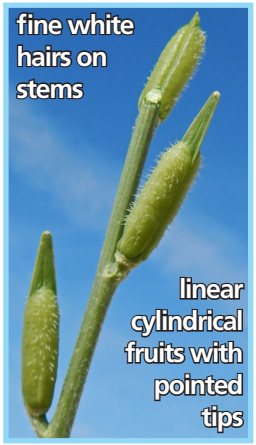


Habitat: Disturbed areas, roadsides, fields

Don't Confuse With Native:

There are no similar looking *native* species for Arugula





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Leafy spurge (*Euphorbia esula*)

Plant: All parts have a sticky **milky sap when cut**, sap toxic to humans



Stems/Branches: Yellow-green, smooth

Leaves: 2-6 cm (~¾-2⅜ in) long, not directly across from one another on stem, linear shaped, sometimes hairy

Flowers: Pale yellow to green, 1.5-2.5 mm (<⅛ in) long, arranged in clusters

Fruit/Seeds: Fruits 3-5 mm (<⅛ in) long, smooth, **pumpkin shaped with 3 lobes**

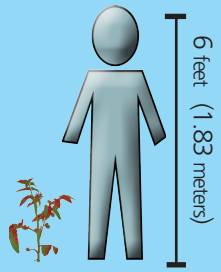


Watch For In:
GRBA

Growing Season:
Summer

Flowering Times:
June - September

Plant Height
~2½ ft
(<0.8 m)



Leafy spurge (*Euphorbia esula*)

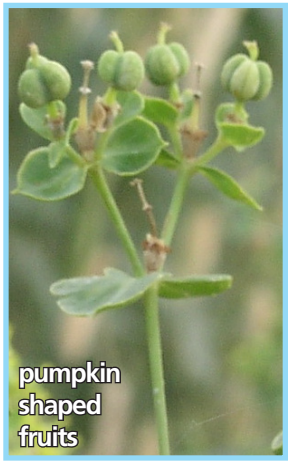
Spurge Family - Euphorbiaceae

Habitat: Disturbed areas, roadsides, wetlands



Don't Confuse With Native:

There are no similar looking *native* species for Leafy spurge





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Saltlover (*Halogeton glomeratus*)

Plant: Erect, densely branched, **green to bluish green**

Stems/Branches: **Red stems** 6-25 cm (~2-10 in) long, curved at base of plant

Leaves: Not directly across from one another on stem, 4-17 mm (⅛-⅔ in) long, plump cylindrical shape; **bristle at tip of leaf**



densely branched, bluish green Saltlover plant

Flowers: Greenish yellow to pink, 2-3.5 mm (<⅛ in) long, form dense clusters on stem; petals papery thin

Fruit/Seeds: Tan-brown paper thin fruit, 1-2 mm (<⅛ in) long

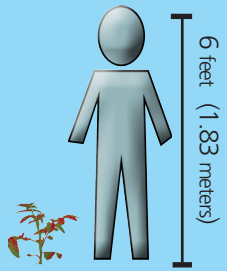
Known Parks:
DEVA, GRBA, MOJA

Watch For In:
LAKE, PARA

Growing Season:
Summer - Fall

Flowering Times:
July - September

Plant Height
<1⅓ ft
(<0.4 m)

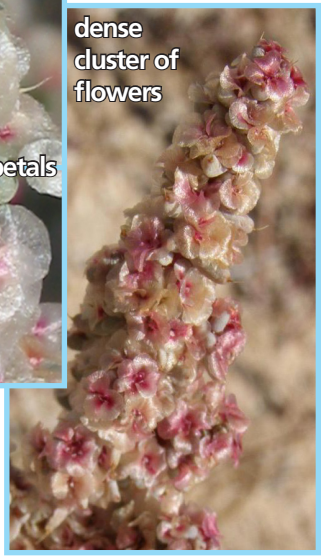


Saltlover (*Halogeton glomeratus*)

Goosefoot Family - Chenopodiaceae

Habitat: Disturbed areas, roadsides



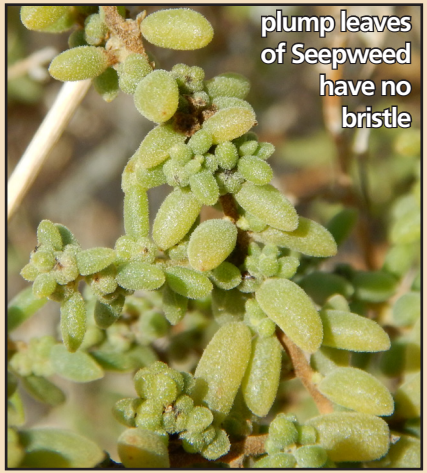




Don't Confuse With Native:

Seepweed (*Suaeda moquinii*)

Leaves lack a bristle at the tip



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Prickly lettuce (*Lactuca serriola*)

Plant: **Short, prickly hairs on stems**

Stems/Branches:
Exude milky sap



Leaves: 7-20 cm (3-8 in) long, deeply lobed; **leaves clasp around stem**; **short, prickly hairs on underside of leaf**



Flowers: Yellow, 4-6 cm (¾-1½ in) wide

Fruit/Seeds:
Brown seeds with white bristles

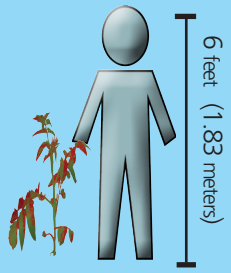


Known Parks:
DEVA, GRBA, JOTR, LAKE, MOJA, PARA

Growing Season:
Year Round

Flowering Times:
May - September

Plant Height
1-10 ft
(0.5-3 m)



Prickly lettuce (*Lactuca serriola*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, roadsides

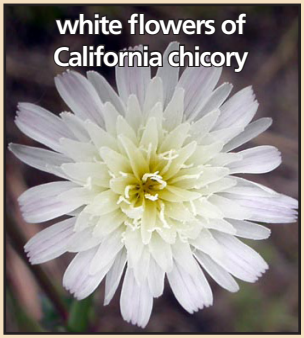




Don't Confuse With Native:

California chicory
(*Rafinesquia californica*)

Lacks prickly hairs; flowers white





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Perennial pepperweed (*Lepidium latifolium*)

Plant: Erect, green to gray-green

Stems/Branches: 35-120 cm (~13¾-47 in) long; newly **emerging plants have purple stems**

Leaves: not directly across from one another on stem; **oblong**, 3.5-15 cm (1⅜-6 in) long

Flowers: 4 white petals, 1.5 mm (<⅛ in) long; **flowers arranged in small clusters**

Fruit/Seeds: Round, flattened seed pod, ~2.5 mm (<⅛ in) diameter






Perennial pepperweed in bloom

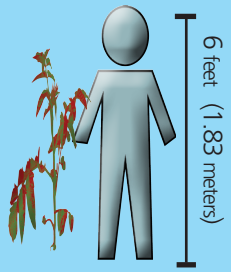
Known Parks:
LAKE, MOJA

Watch For In:
GRBA, JOTR, PARA

Growing Season:
Spring - Summer

Flowering Times:
May - September

Plant Height
<6½ ft
(<2 m)



Perennial pepperweed (*Lepidium latifolium*)

Mustard Family - Brassicaceae

Habitat:
Disturbed areas, roadsides, meadows, wetlands







Don't Confuse With Natives:

Desert pepperweed
(*Lepidium fremontii*)

Deeply lobed lower leaves, flower petals 2-4 mm (<⅛ in) long



Mountain pepperweed
(*Lepidium montanum*)

Deeply lobed lower leaves, flower petals 2-4 mm (<⅛ in) long



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Perennial

Purple loosestrife (*Lythrum salicaria*)

Plant: Erect

Stems/Branches: **Square, fuzzy stems**

Leaves: 5-14 cm (~2-5½ in) long, **narrow leaves with slightly wider base**; leaves directly across from one another on stem

Flowers: **8-14 mm (⅓-½ in) long**, pink to purple, 4-6 petals, **flowers arranged in long dense clusters at tips of stems**

Fruit/Seeds: 3-4 mm (~⅛ in) long

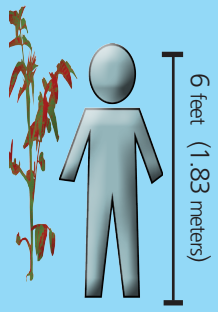

field of *L. salicaria* in bloom

Watch For In:
GRBA

Growing Season:
Summer

Flowering Times:
June - September

Plant Height
6½ - <10 ft
(2-3 m)



Purple loosestrife (*Lythrum salicaria*)

Loosestrife Family - Lythraceae

Habitat: Disturbed areas, wetlands







Don't Confuse With Native:

California loosestrife
(*Lythrum californicum*)

Flowers 4-8 mm (½-⅓) long, spread out along the stem in loose clusters





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

African mustard (*Malcolmia africana*)

Plant: **Covered in short, white hairs**

Stems/Branches: Multi-branched stems

Leaves: Not directly across from one another on stem, <6 cm (~2⅜ in) long; **toothed leaf edges, leaves have bumps**

Flowers: 6-9 mm (~¼-⅜ in) wide, **pink-purple**, 4 petals

Fruit/Seeds: Straight fruits 4-6 cm long (1½-2⅜ in); point up and away from stem

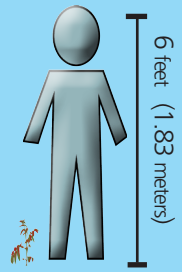

African mustard plants in bloom

Known Parks:
DEVA, GRBA, LAKE MOJA, PARA

Growing Season:
Spring - Fall

Flowering Times:
May - August

Plant Height
⅓ -1⅔ ft
(0.1-0.5 m)



African mustard (*Malcolmia africana*)

Mustard Family - Brassicaceae

Habitat: Disturbed areas, roadsides









Don't Confuse With Native:

There are no similar looking ***native*** species for African mustard



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Scotch thistle (*Onopordum acanthium*)

Plant: Erect; densely branched, spiny

Stems/Branches: **Winged stems with spines**

Leaves: 10-50 cm (4-19½ in) long; cobwebby gray hairs; spined

Flowers: White or pink-purple; <5 cm (<2 in) wide

Fruit/Seeds: Soft, white, have fine bristles



Scotch thistle in bloom



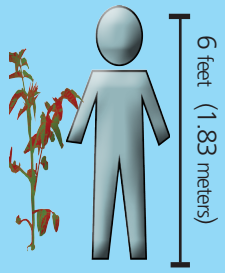
densely branched Scotch thistle plant

Known Parks:
GRBA, PARA

Growing Season:
Year Round

Flowering Times:
July - September

Plant Height
~5-10 ft
(1.5-3 m)



Scotch thistle (*Onopordum acanthium*)

Sunflower Family - Asteraceae

Habitat: Disturbed areas, roadsides, fields, grassland





Don't Confuse With Native:

New Mexico thistle (*Cirsium neomexicanum*)

Not densely branched; stems lack wings & spines





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Biennial

Russian thistle (*Salsola tragus*)

Plant: **Bluish-green**, **prickly**, erect

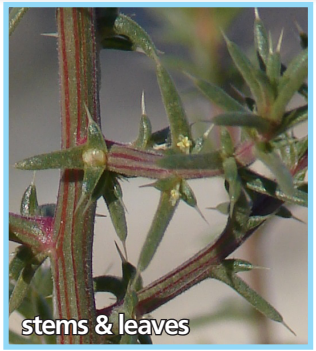
Stems/Branches: Rigid branches, densely intertwined, **purple or green striped stem**

Leaves: Not directly across from one another on stem; linear to needlelike, 8-52 mm (~¼-2 in) long with **sharp-pointed tips**

Flowers: **White-pink, paper thin,** 2.5-3.5 mm (<⅜ in) long



Fruit/Seeds: Fruits 7-9 mm (~¼-⅜ in) long



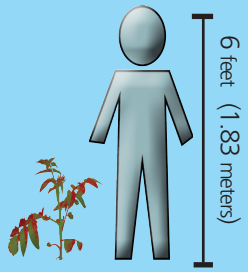


Known Parks:
DEVA, GRBA, JOTR, LAKE, MANZ, MOJA, PARA

Growing Season:
Spring - Summer

Flowering Times:
July - October

Plant Height
< 3¼ ft
(<1 m)



Russian thistle (*Salsola tragus*)

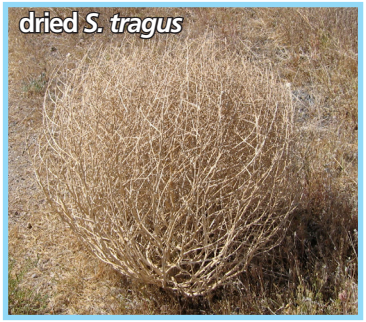
Goosefoot Family - Chenopodiaceae

Habitat: Disturbed areas, roadsides, fields



Don't Confuse With Native:

There are no similar looking ***native*** species for Russian thistle



Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Tall tumblemustard (*Sisymbrium altissimum*)

Plant: Erect growth

Stems/Branches: **White hairs on stems**

Leaves: 5-20 cm (~2-8 in) long, **deeply lobed with stiff hairs**

Flowers: 6-8 mm (~¼-⅓ in) wide, white-pale yellow, 4 petals

Fruit/Seeds: **Straight fruits** 5-10 cm (~2-4 in) long; point up and away from stem

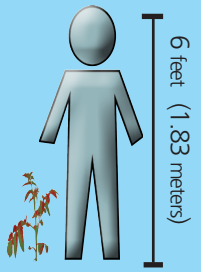

erect growth of *S. altissimum* plant

Known Parks:
DEVA, GRBA, JOTR, LAKE, MOJA, PARA

Growing Season:
Spring - Fall

Flowering Times:
April - September

Plant Height
~1½-5 ft
(0.5-1.5 m)



Tall tumblemustard (*Sisymbrium altissimum*)

Mustard Family - Brassicaceae

Habitat: Disturbed areas, roadsides, fields







Don't Confuse With Native:

Tansy mustard (*Descurainia pinnata*)

Fruits shorter: 1-2 cm (⅜-¾ in) long



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Annual

London rocket (*Sisymbrium irio*)

Plant: Erect growth

Stems/Branches: Stems mostly branched near base

Leaves: **Deeply lobed,** 15 cm (~6 in) long

Flowers: Yellow, 2.5-4 mm (1-1½ in) long, 4 petals

Fruit/Seeds: Linear **fruits 3–4 cm** (~1-1½ in) long, **curve upward**





Known Parks:
DEVA, JOTR, LAKE, MOJA, PARA

Growing Season:
Winter - Spring

Flowering Times:
January - May

Plant Height
1.5 ft
(0.5 m)



London rocket (*Sisymbrium irio*)

Mustard Family - Brassicaceae

Habitat: Disturbed areas, roadsides, fields


yellow flowers & linear fruits of *S. irio*


field of *S. irio*

Don't Confuse With Native:

Tansy mustard (*Descurainia pinnata*)

Fruits shorter: 1-2 cm (⅜-¾ in) long


fruits shorter than those of *S. irio*

Forb

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Annual

Indian hedgemustard (*Sisymbrium orientale*)

Plant: Erect growth

Stems/Branches: Stems mostly branched near base, **have sparse hairs**

Leaves: 3-12 cm (~1-4¾ in) long, very deeply lobed, **lobes often extending to center of stem**

Flowers: 7-9 mm (~¼-⅜ in) long, 4 yellow petals

Fruit/Seeds: **Linear fruits 6-10 cm (~2½-4 in) long**, pointing away from stem



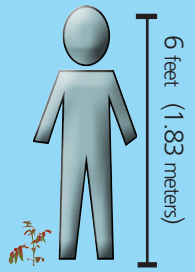
Known Parks:
DEVA, JOTR, LAKE, MOJA

Watch For In:
PARA

Growing Season:
Spring - Summer

Flowering Times:
May - June

Plant Height
⅔ -1⅓ ft
(0.2-0.7 m)



Indian hedgemustard (*Sisymbrium orientale*)

Mustard Family - Brassicaceae

Habitat: Disturbed areas, roadsides, fields







Don't Confuse With Native:

Tansy mustard (*Descurainia pinnata*)

Fruits shorter: 1-2 cm (⅜-¾ in) long



Forb

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Annual

Common sowthistle (*Sonchus oleraceus*)

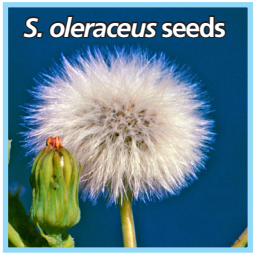
Plant: Erect; **leaves and stems exude milky sap when cut**

Stems/Branches: May be green or red

Leaves: 10-20 cm (~4-8 in) long, not directly across from one another on stem, deeply lobed, **toothed edges; leaves clasp around stem**

Flowers: **Yellow; 1.5-2.5 cm (~½-1 in) wide**

Fruit/Seeds: Seeds soft, white, have fine bristles




single common sowthistle plant

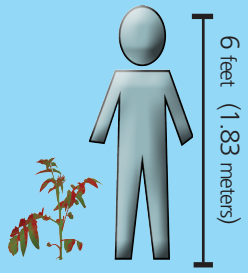
Known Parks:
DEVA, JOTR, LAKE, MOJA

Watch For In:
GRBA, PARA

Growing Season:
Winter - Summer

Flowering Times:
March - July

Plant Height
<4.5 ft
(<1.4 m)



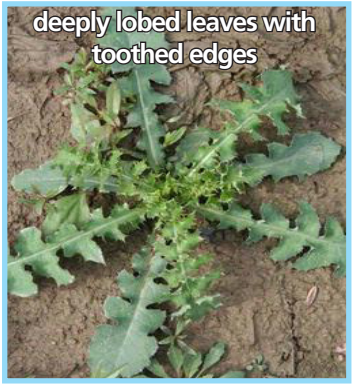
Common sowthistle (*Sonchus oleraceus*)

Sunflower Family - Asteraceae

Habitat: Roadsides, fields, washes





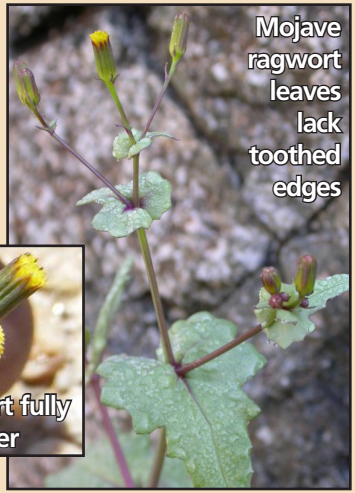




Don't Confuse With Native:

Mojave ragwort (*Senecio mohavensis*)

Leaves lack toothed edges; flower 6-7 mm (~¼ in) wide





Forb

For full list of photo credits, visit: *http://go.nps.gov/mojn-ipg*

Annual

Puncturevine (*Tribulus terrestris*)

Plant: **Low growing, mat forming**

Stems/Branches: Stems <1 m (3¼ ft) long, hairy

Leaves: 3-5 cm (1⅛-2 in) long, directly across from one another on stem, **3-7 pairs of leaves per stem**

Flowers: Yellow, 5-15 mm (~½-⅛ in) long



Puncturevine is low growing and forms mats

Fruit/Seeds: Fruits gray to yellowish tan, with hairs and **spines**

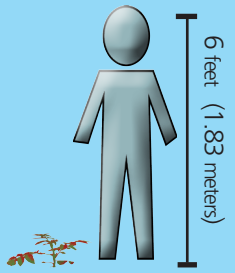
Known Parks:
DEVA, GRBA, JOTR, LAKE, MOJA, PARA

Watch For In:
MANZ

Growing Season:
Spring - Summer

Flowering Times:
March - October

Stem Height
<1 ft
(<0.3 m)



Puncturevine (*Tribulus terrestris*)

Caltrop Family - Zygophyllaceae

Habitat: Disturbed areas, roadsides, developed areas (picnic areas, viewpoints, campgrounds)







Don't Confuse With Native:

California caltrop (*Kallstroemia californica*)

Very similar stems and branches; **fruits lack spines**





Forb

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Annual

Acknowledgements

The Mojave Desert Network Inventory & Monitoring Program would like to extend its appreciation to all who assisted in the creation of this guide, granted permission for photo usage, and provided feedback throughout the process.

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Death Valley NP (DEVA)
Great Basin NP (GRBA)
Joshua Tree NP (JOTR)
Lake Mead NRA (LAKE)
Manzanar NHS (MANZ)
Mojave NPres (MOJA)
Grand Canyon-Parashant NM (PARA)
Tule Springs Fossil Beds NM (TUSK)

References

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Inventory&Monitoring

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