

If You Don't Know, then Know Where to Go

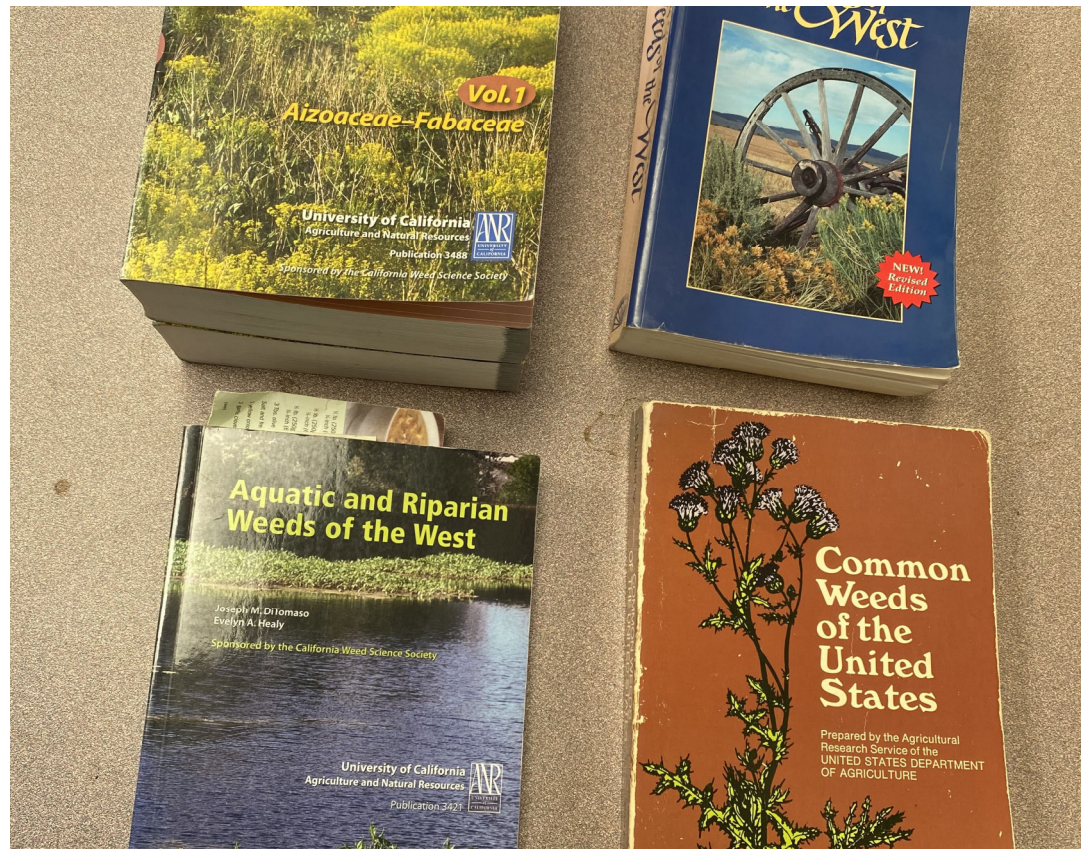
Sleuthing reveals a new population of desert knapweed (*Volutaria tubuliflora*) in San Diego County

Tracie Nelson
Wildland Habitat Specialist
California Department of Fish and Wildlife

‘Botany- Challenged’

If you don't know its
scientific family name,
how can you ID an
unfamiliar species?

* You won't find novel weed
information in dated print.





April 3, 2023

Never seen this before





Seek

Dicot?!

This is usually more helpful

Some kinda thistle.....



Took lots of photos



iNaturalist



Cal-IPC









- Hail-Mary scroll

The screenshot shows the Cal-IPC website interface. At the top right, there is a 'SUPPORT' button. Below the header is a navigation menu with items: Home, About, Plants, Resources, Solutions, and Support Cal-IPC. The main content area is titled 'Plants A to Z'. Below the title, there is a paragraph of text: 'Browse below to see all plants on the Cal-IPC Inventory, including both invasive plants and "Watch" species. Clicking on the scientific name will take you to the Plant page where you'll find links to more information on the plant.' Below this text is a grid of eight plant species, each with a scientific name, a photograph, and a common name. The species shown are: *Acacia baileyana* (cootamundra wattle), *Acacia cyclops* (cyclops Acacia), *Acacia dealbata* (silver wattle), *Acacia longifolia* (Sydney golden wattle), *Acacia melanoxylon*, *Acacia paradoxa*, *Acacia pycnantha*, and *Acacia saligna*. A horizontal bar with a gradient from orange to purple is overlaid across the bottom of the grid.

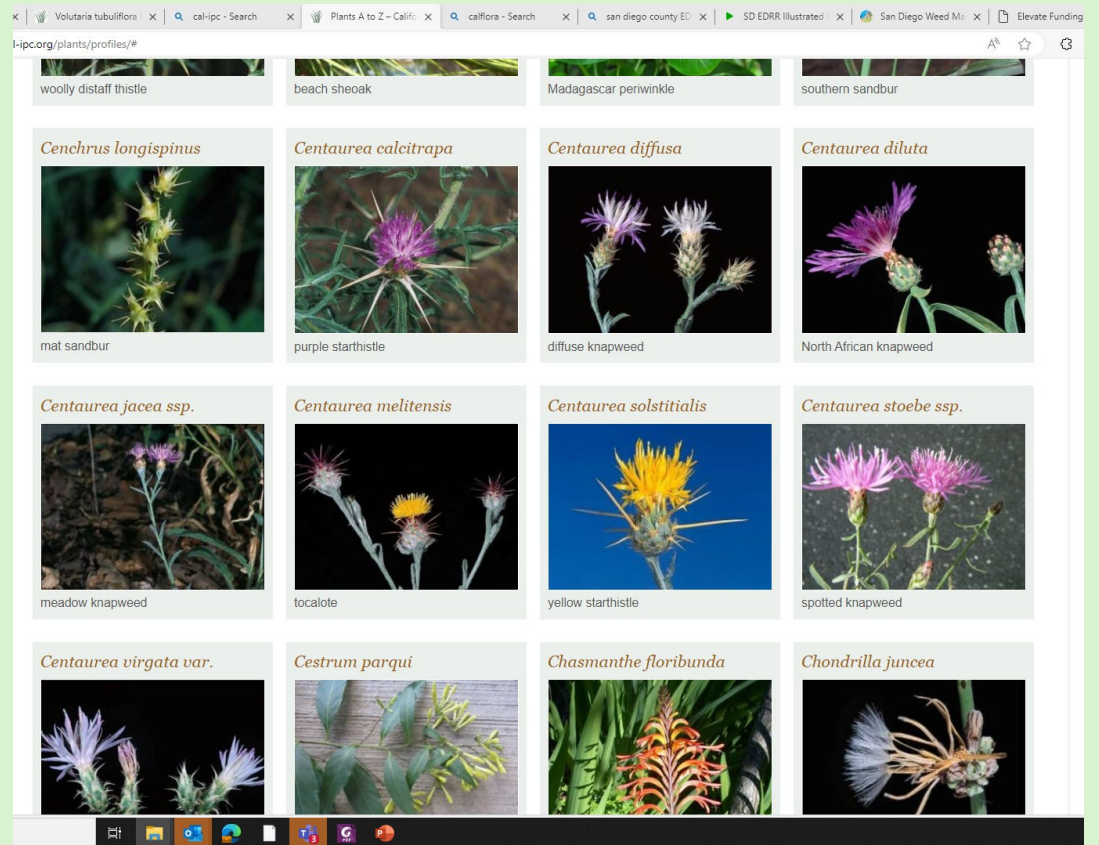
Home About ▾ Plants ▾ Resources ▾ Solutions ▾ Support Cal-IPC ▾

Plants A to Z

Browse below to see all plants on the Cal-IPC Inventory, including both invasive plants and "Watch" species. Clicking on the scientific name will take you to the Plant page where you'll find links to more information on the plant.

<i>Acacia baileyana</i>  cootamundra wattle	<i>Acacia cyclops</i>  cyclops Acacia	<i>Acacia dealbata</i>  silver wattle	<i>Acacia longifolia</i>  Sydney golden wattle
<i>Acacia melanoxylon</i> 	<i>Acacia paradoxa</i> 	<i>Acacia pycnantha</i> 	<i>Acacia saligna</i> 

It's a knapweed



SEARCH
feature
doesn't work
for common
-name
categories
on Cal-IPC

The screenshot shows the Cal-IPC website interface. At the top right, there is a button labeled "SUPPORT CAL-IPC". Below this is a navigation menu with items: Home, About, Plants, Resources, Solutions, and Support Cal-IPC. The main content area displays "Search Results for: knapweed". The results list includes:

- DPR_Non-Chemical_BMP Report_2
DPR_Non-Chemical_BMP Report_2
- 2002_symposium_proceedings2474
- Cal-IPCNews_Winter2014-6
Cal-IPCNews_Winter2014-6
- Spotted Knapweed
- NPS_2003_RockyMtn_InvasiveExoticPlantManagementPlan
- 18854
- 18854

On the right side of the search results, there is a search bar containing the text "knapweed" and a "Search" button. Above the search bar is a "Support Cal-IPC" button. The Windows taskbar is visible at the bottom of the screen.

CalFlora

- The search function on CalFlora does work for common category terms like 'knapweed'.

The screenshot shows the CalFlora website's search interface. The browser address bar displays <https://www.calflora.org/search.html>. The page header includes the CalFlora logo and the tagline "A nonprofit database providing information on wild California".

The search area is titled "Search for Plants" and contains the following elements:

- SEARCH** button, **CLEAR** button, and **HELP** link.
- plant name** input field: "scientific name" or "knapweed".
- duration** filters: Annual, Perennial, Biennial.
- native status** filters: Native to California, Not native to California, Cal-IPC invasive plants, CNPS rare plant, Affinity to serpentine.
- community** dropdown menu: any, Alkali Sink, Alpine Fell-fields, Bristle-cone Pine Forest, Chaparral, Closed-cone Pine Forest.
- result format** dropdown menu: Photos.
- county** dropdown menu: any, Alameda, Alpine, ...

A dropdown menu is open, displaying a list of search results for "knapweed":

Common Name	Scientific Name
Black knapweed	<i>Centaurea jacea</i> ssp. <i>nigra</i>
Brown knapweed	<i>Centaurea jacea</i>
Brown knapweed	<i>Centaurea jacea</i> ssp. <i>jacea</i>
Brownray knapweed	<i>Centaurea jacea</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Egyptian knapweed	<i>Volutaria tubuliflora</i>
Iberian knapweed	<i>Centaurea iberica</i>
Meadow knapweed	<i>Centaurea jacea</i> ssp. <i>pratensis</i>
Morocco knapweed	<i>Volutaria muricata</i>
North African knapweed	<i>Centaurea diluta</i>
Russian knapweed	<i>Rhaponticum repens</i>
Spotted knapweed	<i>Centaurea stoebe</i>
Spotted knapweed	<i>Centaurea stoebe</i> ssp. <i>micranthos</i>
Squarrose knapweed	<i>Centaurea virgata</i> ssp. <i>squarrosa</i>
Squarrose knapweed	<i>Centaurea virgata</i>
Sulphur knapweed	<i>Centaurea sulphurea</i>
Syrian knapweed	<i>Centaurea babylonica</i>
Tyrol knapweed	<i>Centaurea nigrescens</i>
White knapweed	<i>Centaurea diffusa</i>

At the bottom right of the page, contact information is visible: "CA 94709 • 510-883-3148 •".


Calflora Search for Plants

17 matching records

Searching for name: knapweed


Click on the **Scientific Name** to see a Taxon Report.

Russian knapweed
 invasive non-native
 Perennial herb




© 2017 Barbara Boethling © 2014 Steve Matson © 2017 Barbara Boethling

Volutaria muricata
 Morocco knapweed
 non-native
 Annual herb



© 2016 Richard Spellenberg CalPhotos (UCB) © 2016 Richard Spellenberg CalPhotos (UCB) © 2016 Richard Spellenberg CalPhotos (UCB)

Volutaria tubuliflora
 Egyptian knapweed
 invasive non-native
 Annual herb



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Suggested Citation
 Calflora: Information on California plants for education, research and conservation. [web application]. Berkeley, California: The Calflora Database [a non-profit organization]. Available: <https://www.calflora.org/> (Accessed: March 26, 2024).

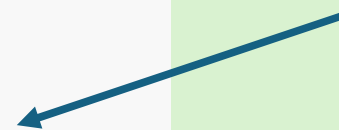
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News • About Calflora • Home

Calflora - 1700 Shattuck Avenue #198, Berkeley, CA 94709 - 510-841-2222

CalFlora

This one, I think.



Back to Cal-IPC

/www.cal-ipc.org/plants/profile/volutaria-tubuliflora-profile/

Common names: desert knapweed; Mediterranean knapweed

Volutaria tubuliflora (desert knapweed) is an annual herb (family Asteraceae) with pink-purple flowers and lobed hairy leaves found in the desert ranges and south coast ranges of California. It is native to northern Africa and the Mediterranean Basin. It favors grasslands, dunes, scrub and chaparral habitat. It propagates via multitudes of seeds. Seeds are dispersed via human traffic, machinery, water and wind.



Photo: Ron Vanderhoff

Learn more about the [Cal-IPC project to contain desert knapweed](#).

Cal-IPC Rating: Limited — Alert

CDFA Rating: A*

Assessment(s)

Plant Assessment Form - Information gathered by Cal-IPC on the impacts, rate of spread, and distribution of invasive plants in California. Does not include management information.

Weed Management Notes

No Weed RIC Management Notes are available for this species. Check for information on other species in the genus on the Weed RIC site.

Cal-IPC Newsletter Articles

- Weeds on the Move. Cal-IPC. Vol 31, Issue 2
- Wildland Weed News. Cal-IPC. Vol 25, Issue 2
- Wildland Weed News. Cal-IPC. Vol 25, Issue 1
- Partnership aims to eradicate *Volutaria tubuliflora*. Robison, Ramona; Matthews, Pa **McDonald, Chris; Harris, Frank.** Vol 25, Issue 1
- **Early detection/rapid response around the state.** Cal-IPC. Vol 23, Issue 2

Cal-IPC Symposium Presentations

Presentations are linked where available. Where a presentation is not available, find more information by reading the abstract in the Cal-IPC Symposia Archive.

- Big Canyon Habitat Restoration and Resiliency Project Phase 3: CEQA exempt through CDFW's SERP process. Arenas, Alys (2023)
- Regional EDRR with Bay Area WMAs. Johnson, Doug; Valentine, Nicole (2022)



**Invasive non-native plant Early Detection and Rapid Response (EDRR)
targets in western San Diego County**

Report new sightings of these plants to coordinator Jason Giessow, jgiessow@cox.net or
iNaturalist.org or **Calflora.org** Version 2019-6-3

Scientific name	Common name	Growth form	CDFA	Habitat	Status	Populations (eradicated)	ID Sheet
<i>Aegilops triuncialis</i>	Barbed goat grass	Annual grass	B	Grassland	Active EDRR target	1 (1)	Yes
<i>Ageratina adenophora</i>	Eupatory	Perennial forb	Q	Riparian	Active EDRR target	4	Yes
<i>Carrichtera annua</i>	Ward's weed	Annual forb	A	Uplands (shrub & grass)	Active EDRR target	5	Yes
<i>Centaurea solstitialis</i>	Yellow star thistle	Annual forb	C	Grassland	Active EDRR target	11 (11)	Yes
<i>Centaurea stoebe</i>	Spotted knapweed	Annual forb	A	Uplands	Active EDRR target	3 (3)	Yes
<i>Cytisus scoparius</i>	Scotch broom	Perennial shrub	C	Uplands (shrub & grass)	Eradicated: monitoring	(1)	
<i>Elymus caput-medusae</i>	Medusahead	Annual grass	C	Grassland	Active EDRR target	7	Yes
<i>Enchylaena tomentosa</i>	Ruby saltbush	Perennial sub-shrub	A	Uplands (shrub & grass)	Assessing	1 (1)	Yes
<i>Euphorbia terracina</i>	Carnation spurge	Annual forb	B	Uplands	Eradicated: monitoring	8 (1)	Yes
<i>Euphorbia virgata</i>	Leafy spurge	Annual forb	A	Uplands	Active EDRR target	1 (1)	Yes (See ET)
<i>Genista monosperma</i>	Bridal broom	Perennial shrub	B	Uplands (shrub & grass)	Active EDRR target	4	Yes
<i>Genista monspessulana</i>	French broom	Perennial shrub	C	Riparian or uplands	Active EDRR target	5	Yes
<i>Hypericum canariense</i>	Canary Island St. John's wort	Perennial shrub	B	Shrublands	Active EDRR target	12	Yes
<i>Iris pseudacorus</i>	Yellow flag iris	Perennial monocot	B	Wetlands (fresh)	Assessing	9+	Yes
<i>Limonium duriusculum</i>	European sea lavender	Perennial forb	-	Wetlands (salt & fresh) & uplands	Active EDRR target	8 (1)	Yes
<i>Limonium ramosissimum</i>	Algerian sea lavender	Perennial forb	-	Wetlands (salt & fresh) & uplands	Active EDRR target	13 (1)	Yes
<i>Lythrum salicaria</i>	Purple loosestrife	Perennial forb	B	Wetlands (fresh)	Active EDRR target	2	Yes
<i>Myoporum acuminatum</i>	Waterbush	Perennial shrub	-	Riparian or uplands	Assessing	2	Yes
<i>Sesbania punicea</i>	Rattlebox	Perennial shrub	B	Wetlands (fresh)	Active EDRR target	1	Yes
<i>Volutaria tubuliflora</i>	Volutaria knapweed	Annual forb	A	Uplands (shrub & grass)	Active EDRR target	1 (1) + Borrego	Yes

Weed ID Card

Missouri Botanical Garden

Invasive Non-Native:
Volutaria knapweed
(*Volutaria tubuliflora*)

Description: **Stem:** < 15 dm. **Leaf:** 1-2 pinnately lobed or divided, lobes +/- dentate, lobes angled forward. **Inflorescence:** heads solitary or in small clusters; phyllaries with wide flat flexible spine tips 1.5--2 mm, inner with membranous, spineless tips. **Flower:** corolla of sterile flower +/- 10 mm; corolla of fertile flower 5.5--6 mm, +/- white. **Fruit:** 3--3.5 mm, pale gray-brown, ascending-hairy, faces not pitted.

Ecology: Disturbed areas, non-native grassland, into coastal sage scrub

Similar to (see back): *Centaurea mellitensis* (tocalote), *Centaurea maculosa* (spotted knapweed)

Photo by Tom Chester

Photo by Ron Vanderhoff

Photo by Jason Giessow

Photo by Jason Giessow

Photos by Ron Vanderhoff

Knapweed in Proctor Valley

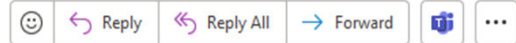


Nelson, Tracie@Wildlife

To [Chris J McDonald](#); [jgeissow@cox.net](#); [Andrew C Sanders](#)

Cc [edrssd@gmail.com](#); [Aponte, Nicholas@Wildlife](#); [Price, Jason@Wildlife](#);

[Hoffmann, Krista@Wildlife](#)



Tue 4/4/2023 10:51 AM

You forwarded this message on 4/4/2023 10:58 AM.
This message was sent with High importance.



Knapweed 04032023_TN.jpg
450 KB



4FB4A47A-9086-4BE7-9B8D-4D1E46522232-L0-001.PNG
19 MB

Hello Chris, Jason and Andrew. I'm contacting you all in the hopes one or more of you can assist with (speedy) species ID, and to report a knapweed observation in Proctor Valley. I suspect it's *Volutaria tubuliflora*, based on the EDRR ID card and the fact that I can't find a perfect match in any of my other references. I noticed this unfamiliar plant yesterday, April 3, 2023. The population is located on CDFW's Rancho Jamul Ecological Reserve (west 'island', not directly connected to main body of Reserve), in the center of Proctor Valley. Plant appears to be an annual, in flower with about <5% open bloom. I do not know if the flowers respond to temperature, but it was cold and windy. I have one collected specimen in the fridge at RJER.

Approx location 32.684065, -116.910936, along a disturbed historic dirt path that leads down to the Eucalyptus grove.

I can't send multiple pics, as they get rejected by our collective firewalls, but I did post a few on iNaturalist. User name Traen. The one photo I'm attaching has an open flower in focus – looks just like the one on the EDRR ID card. No combs or spines on the phyllaries.

Despite the non-ideal temps (~55 F at the time), I hit what I could find with 3 gallons of RoundUP Pro concentrate 1.5% + Garlon 4 0.5%. However; I ran out before reaching any certainty that I'd found the extent of the occurrence. Jason – how did you treat the population with in Rice Canyon? Any recommendations??

We may need assistance locating the extent of this infestation – if resources are available. ?

Thanks for any assistance we can get with this.

Tracie Nelson
Wildland Habitat Specialist
California Dept of Fish and Wildlife
South Coast Region, Lands Program
858 / 735-7109 cell

Recommendations:

- Survey the extent of the infestation (up to 100 yards surrounding)
- Manually remove the plants
 - Double bag!
- Use pre-emergents to suppress germination (Milestone)
- Monitor regularly

April 5: Surveyed Extent of Infestation



April 6 & 11



Since then...

- Re-treat with pre-emergent Milestone following first annual rains
- Monitored every 3-5 weeks thru the wet season and after unseasonable rain events
- Manual removal of any maturing break-through plants
- Check in with fellow local weed managers via quarterly WMA meetings

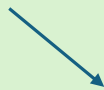
Moral of this novel weed ID story:

- Establish connections to local expertise (if you haven't already)
 - Weed Management Area group
- Use the tools available – CalIPC, CalFlora, iNaturalist, Seek
- Download your local EDRR list and ID cards and *keep them handy!*

Weed Management Areas (WMAs)

Cal-IPC

County
WMA
links



CAL IPC

Home About ▾ Plants ▾ Resources ▾ Solutions ▾ Support Cal-IPC ▾

Weed Management Areas and Regional Partnerships

County-based Weed Management Areas (WMAs) have formed in every part of the state. Follow the links below to learn more about each WMA, or see background on the WMA program. Links go to the WMA's own website if it has one or to a simple profile on our website. Help us keep these profiles up to date! Notify us of any changes by emailing info@cal-ipc.org.

Statewide WMA Meetings

- [View video recording for the 2023 Statewide WMA Meeting](#)
- [View video recording and presentations for the 2022 Statewide WMA Meeting](#)
- [View video recording and presentations for the 2021 Statewide WMA Meeting](#)
- [View presentations for the 2020 Statewide WMA Meeting](#)
- [View presentations for the 2019 Statewide WMA Meeting.](#)

Regional EDRR Priority Targets

This map and document with regional invasive plant EDRR targets was updated in October 2021, in collaboration with the California Department of Food and Agriculture, County Agricultural Commissioners, and Weed Management Areas. We encourage you to contribute observations of regional EDRR weed species!

Regional partnerships

Bay Area Region	North Central Region	South Central Coast Region
Central Coast Region	North Sierra Region	
Central Sierra Region	Northwest Region	

WMA

Alameda-Contra Costa WMA	Imperial WMA	Monterey WMA	Santa Clara WMA
Alameda WMA	Kern WMA	Napa County WMA	Santa Cruz WMA

Regions map

Weed Management Areas