

**San Diego Region Invasive Plant
Early Detection and Rapid Response (EDRR) Program :**

**Work Update and
a few **Plants To Be On The Look Out For****

**San Diego County, Department of Agriculture Weights & Measures (AWM)
Nature Collective**

Funded by: SANDAG Transnet Funding

Presented: March 12th 2025

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What are plants doing right now? (phenology)

- **Plants are currently at a 'January 2024' growth stage**
- **Plants will develop quickly this year, and will set seed**
- **Southern CA weather used to be variable/dynamic, now it is unpredictable, unstable, and extreme**
- **Last years annual cover is still standing, normally it would have broken down/be decomposed by now. This thatch can also affect seedling expression (as well as treatment).**
- **Woody plant seedlings are also behind/delayed. Survival may be low- depleting the seedbank.**

Invasive Non-Native:
Volutaria knapweed
(Volutaria tubuliflora)



Photos by Tom Chester



Photo by Jason Giessow

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)

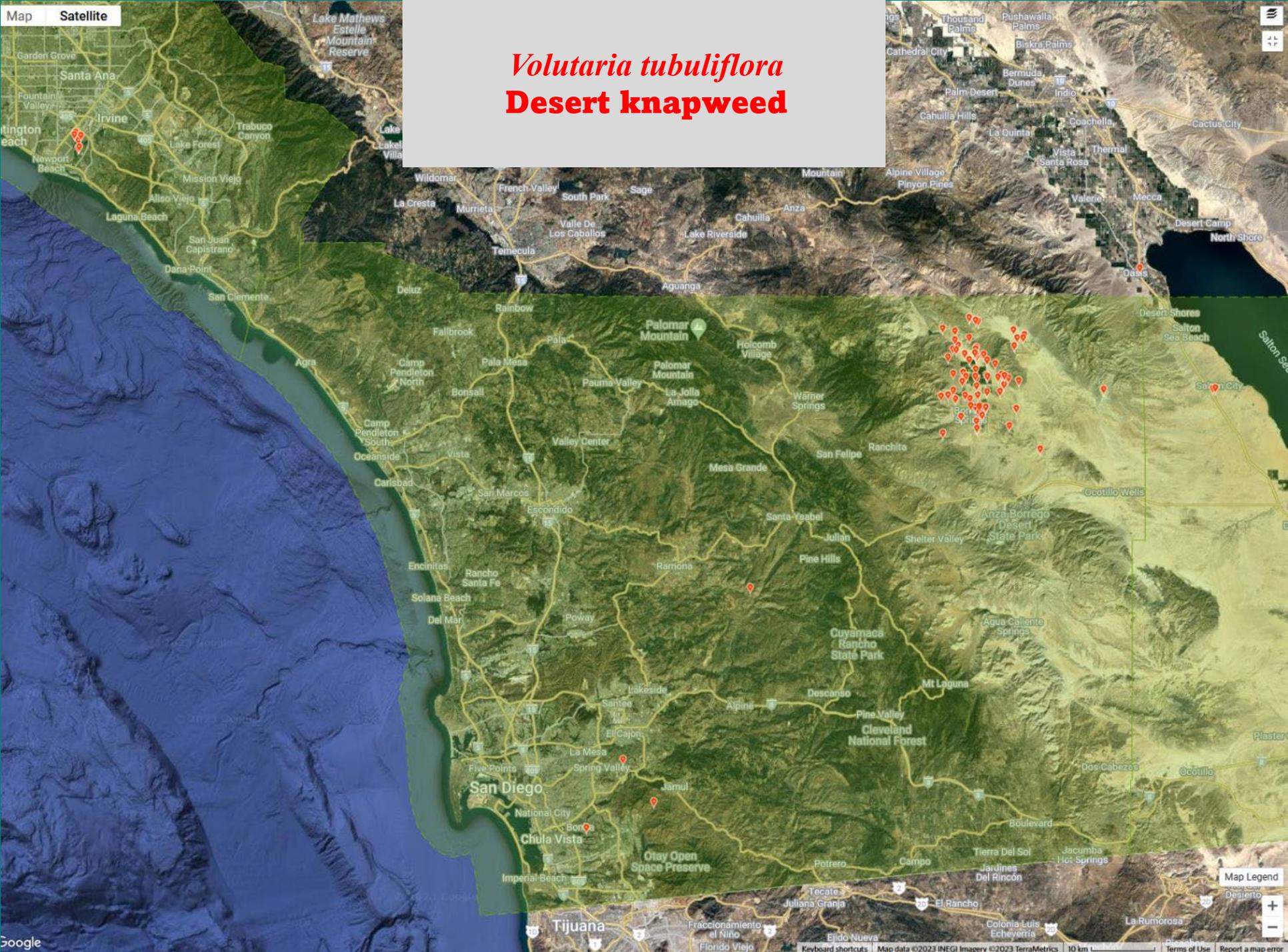
Photo by Ron Vanderhoff



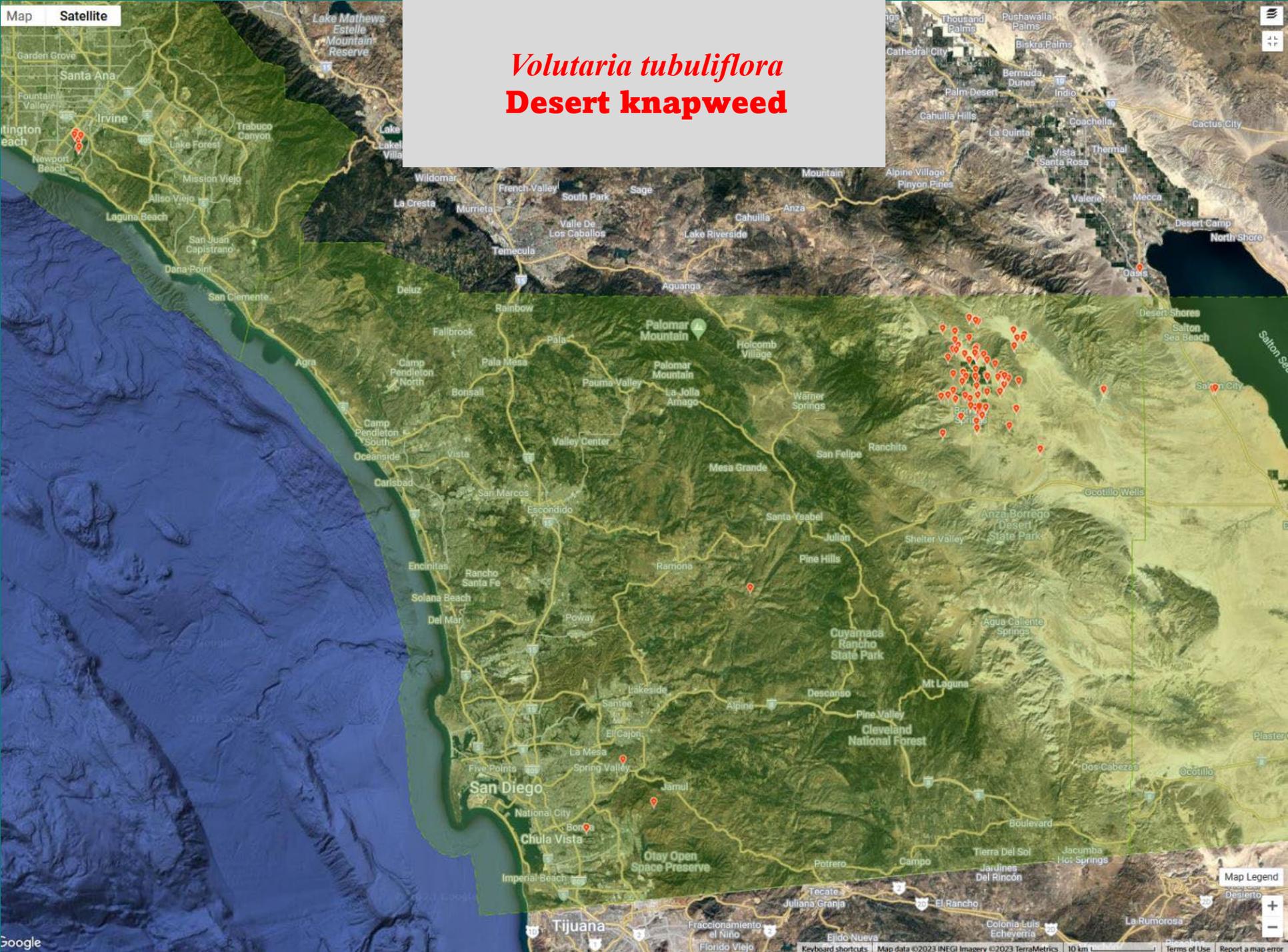
Photo by Jason Giessow



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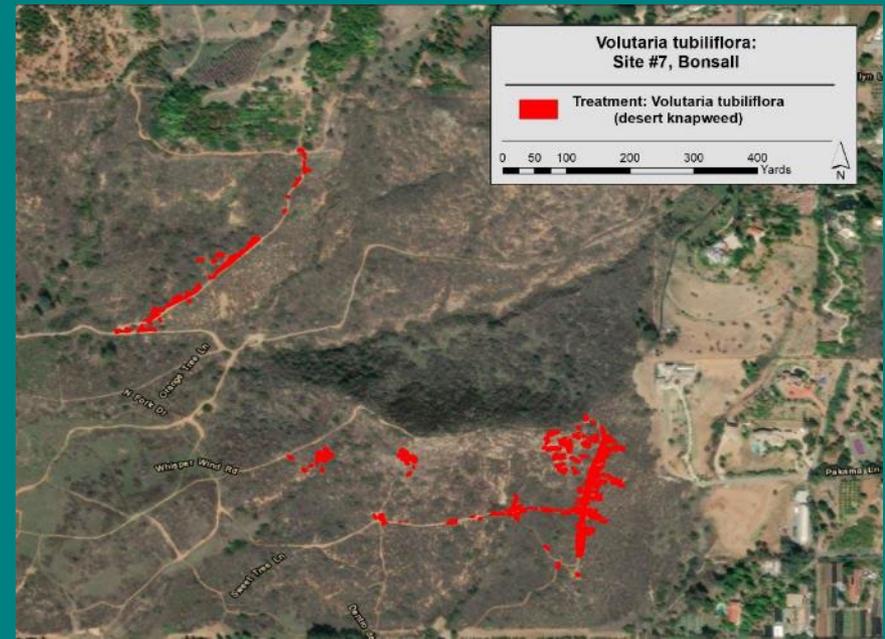


Volutaria tubuliflora
Desert knapweed



Desert Knapweed:

- 1 new confirmed (treated- Bonsall), 1 new report



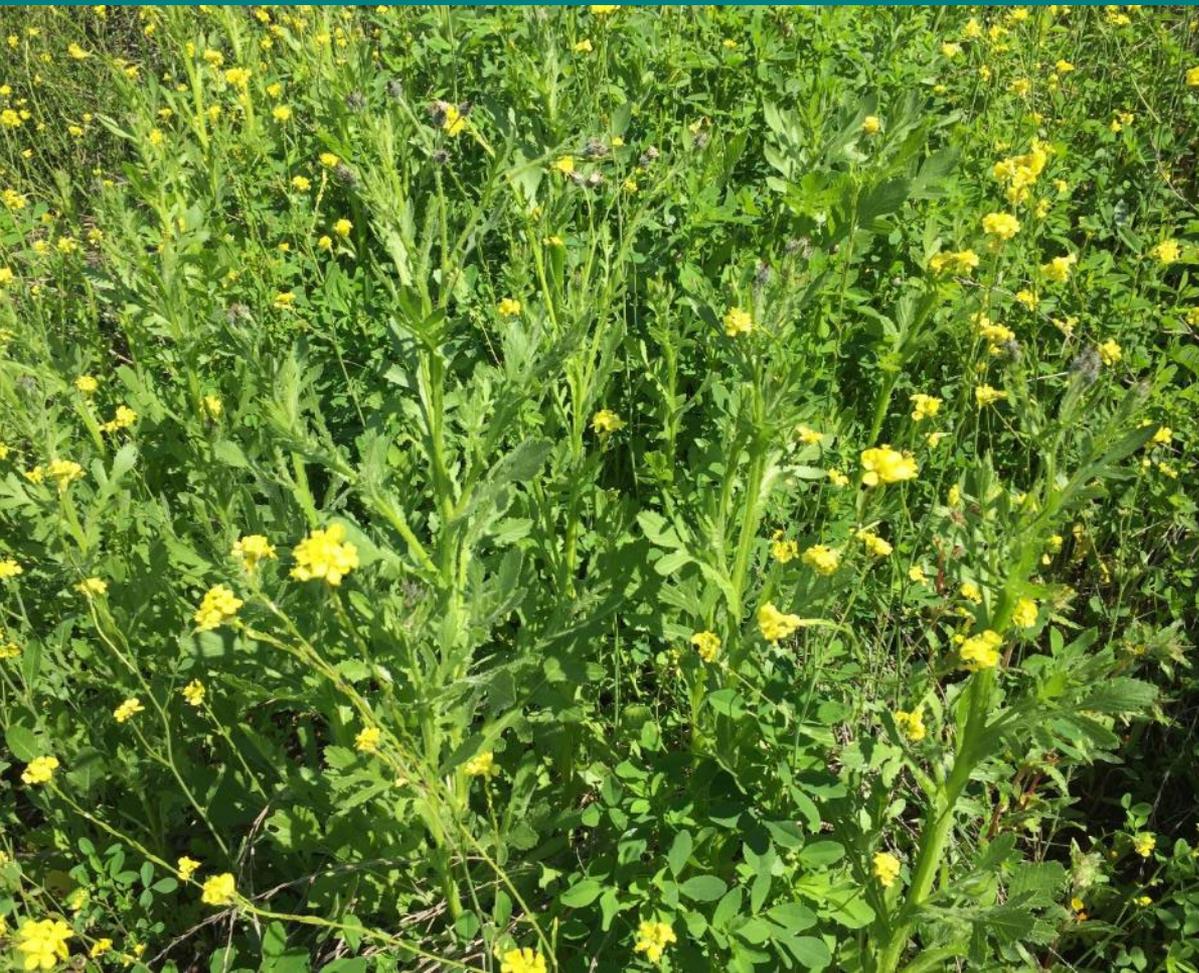


Spring 2024 photos



Current desert knapweed phenology:

- Could not find plants to photograph (yea!)
 - Plants would be at basal stage right now, still likely small
 - Plants will flower and set seed, even if small
- (2" mature seed-bearing plants seen in desert in dry years)



Invasive Non-Native:
Ward's weed
(*Carrichtera annua*)

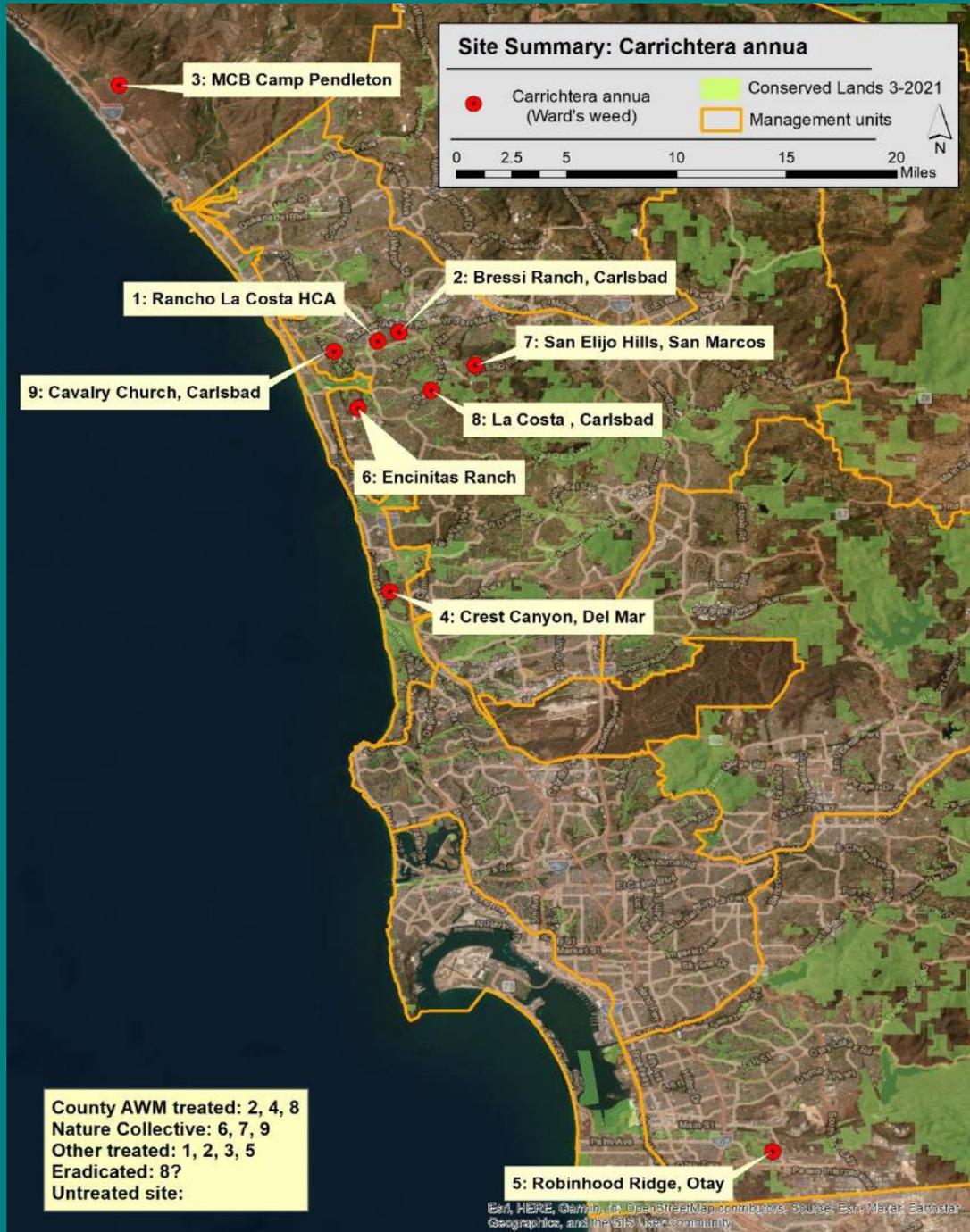
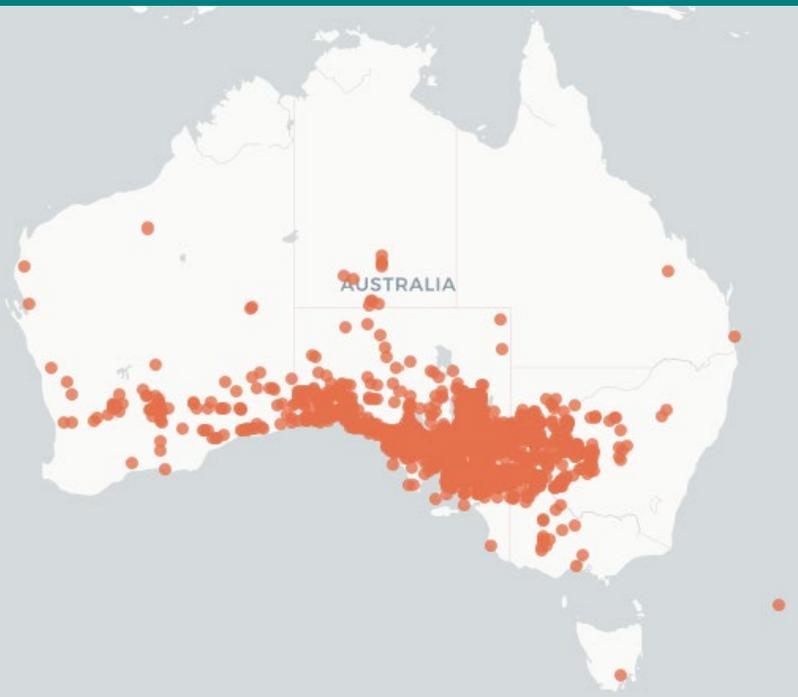
Description: Plant size varies from small to multi-branched 0.5m ht; Stems branched basally and distally; form similar to a small tumbleweed; Basal leaves: petiole 1–4.5 cm; blade 3-6 lobes each side, 1.5-4 cm, terminal lobe linear to oblong, margins entire. Flowers white or creamy yellow petals 6.5-8 x 1-2 mm ; Fruits short reflexed pods.

Ecology: Plant size varies greatly depending on environmental conditions; prefers disturbed areas, but readily invades between and under shrubs; coastal sage, maritime chaparral, grasslands



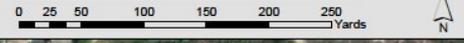
Ward's Weed:

- 1 new report (site #9, treated),
- 2 eradicated or close (sites #4 & 8)

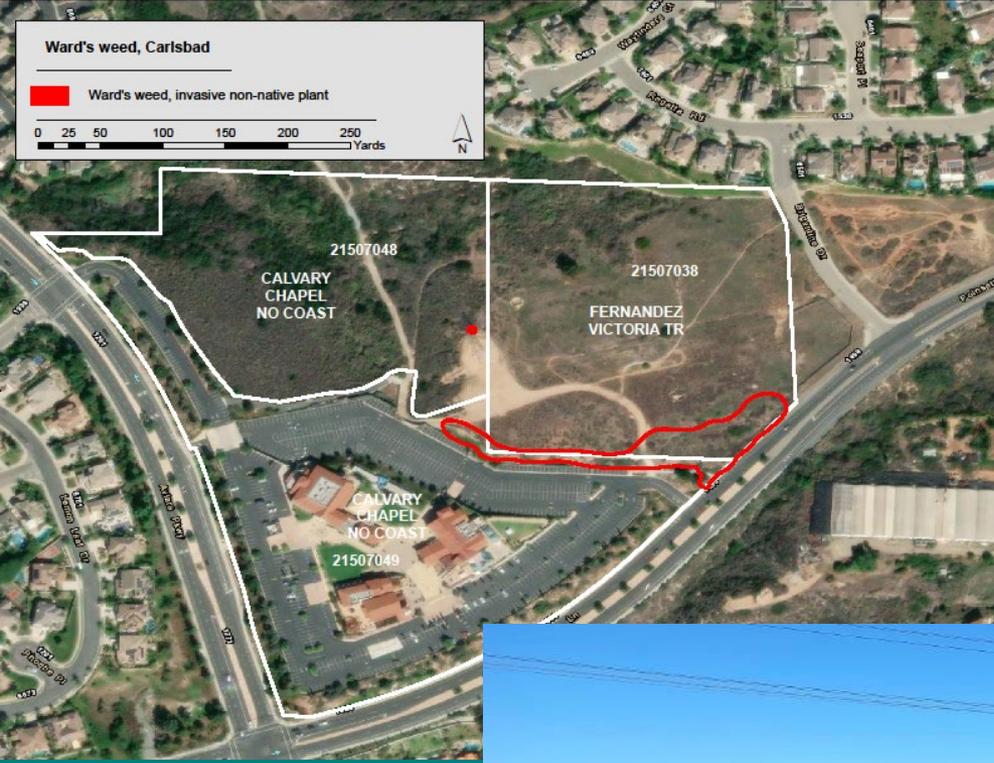


Ward's weed, Carlsbad

Ward's weed, invasive non-native plant



0 25 50 100 150 200 250 Yards



**Cavalry Church,
Poinsettia Lane:**

**New site 1.0 ac,
treated**



**Cavalry Church,
Poinsettia Lane:**

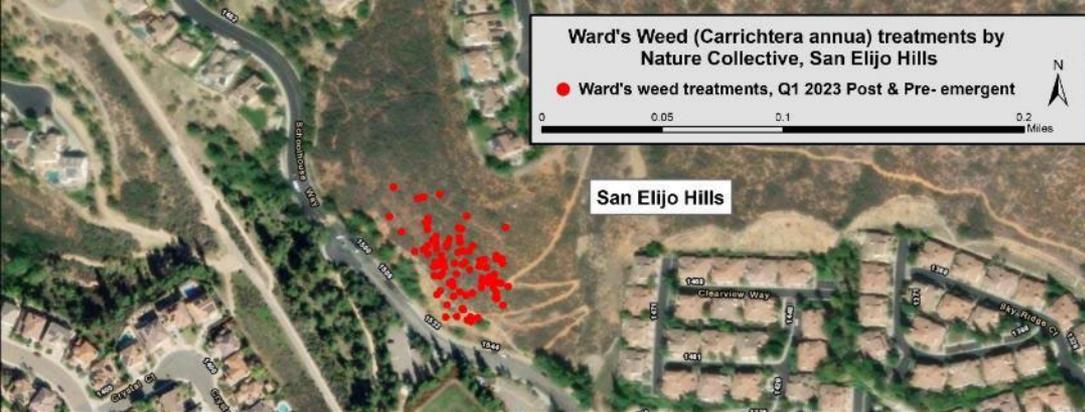
**New site 1.0 ac,
treated**

**Great
suppression**



Oops, missed a 20' x 20' spot- this is what the entire site would have looked like (or worse in landscaped/irrigated areas)





San Elijo Hills: newer site

- No plants seen in 2023/24!
- Scattered seedlings in 2024/25

Early 2022/23



2024/25

2024/25



Ward's weed: Treatment Teams

 Treat area: Ward's weed 1-50% cover

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles



ACS Work Area

County Work Area









Foliage bright green



Foliage going dormant



Invasive Non-Native:
Canary Island St. John's Wort
(Hypericum canariense)

Description: multi-stemmed perennial rhizomatous shrub up to 3m ht; leaves opposite, waxy, lanceolate and bright green; terminal clusters of yellow flowers; leaves yellow early in season and generally drop in summer; capsule fruits dry and dehisce tiny seeds.

Ecology: disturbed areas, coastal sage scrub and grassland habitats. Can form dense stands that exclude native species.



All photos Jason Giessow

Hypericum canariense: Canary Island St John's Wort

16 sites:
10 being treated
6 sites left to start on

- 1 new iNaturalist site

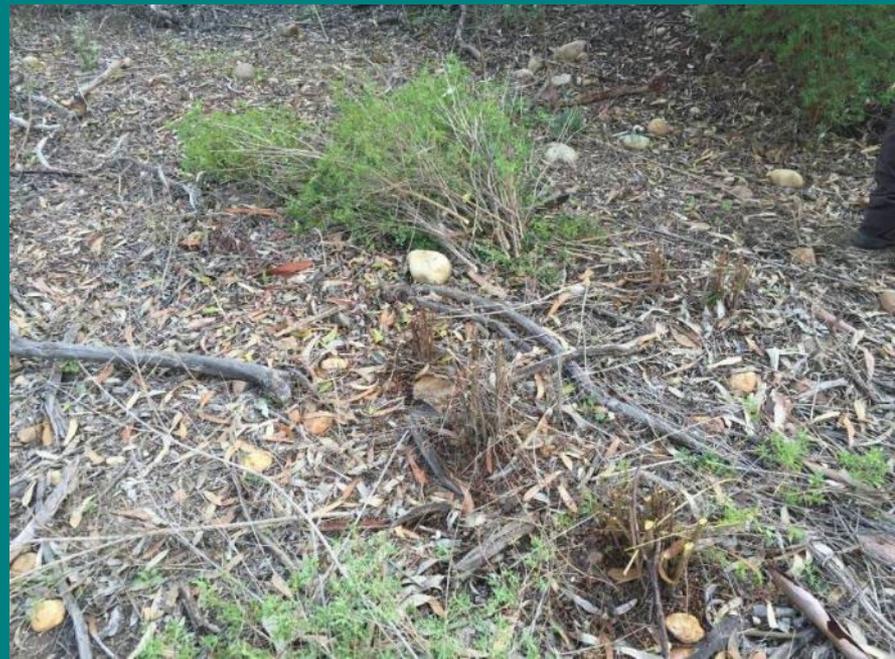
- control at sites appears
good to fair, but many
seedlings, need better
seedbank control

Eradication seems feasible,
but two sites very steep.





Balboa Park







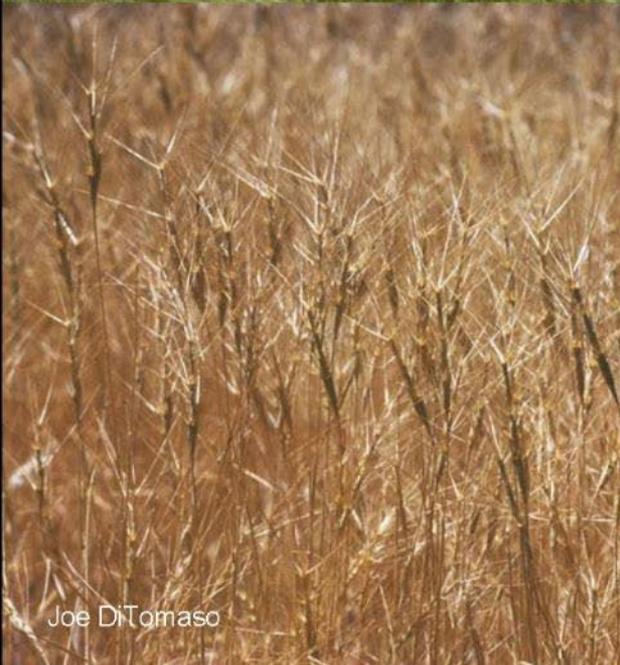
Joe DiTomaso

Invasive Non-Native:
Barbed goat grass
(Aegilops triuncialis)

Description: annual grass, 17-45cm ht, leaf blade 1.5-7cm, 2-3mm wide; inflorescence 2-5.5c, spike like; fertile spikelet 2-3 awned, distal spikelet 3-awned or 1-awned with 2 lateral teeth.

Ecology: rangelands, grasslands, and oak woodlands. Cattle/rangelands are areas of greatest risk for introduction/invasion.

Similar to (see back): Three-awned goat grass *Aegilops neglecta* (non-native)



Joe DiTomaso

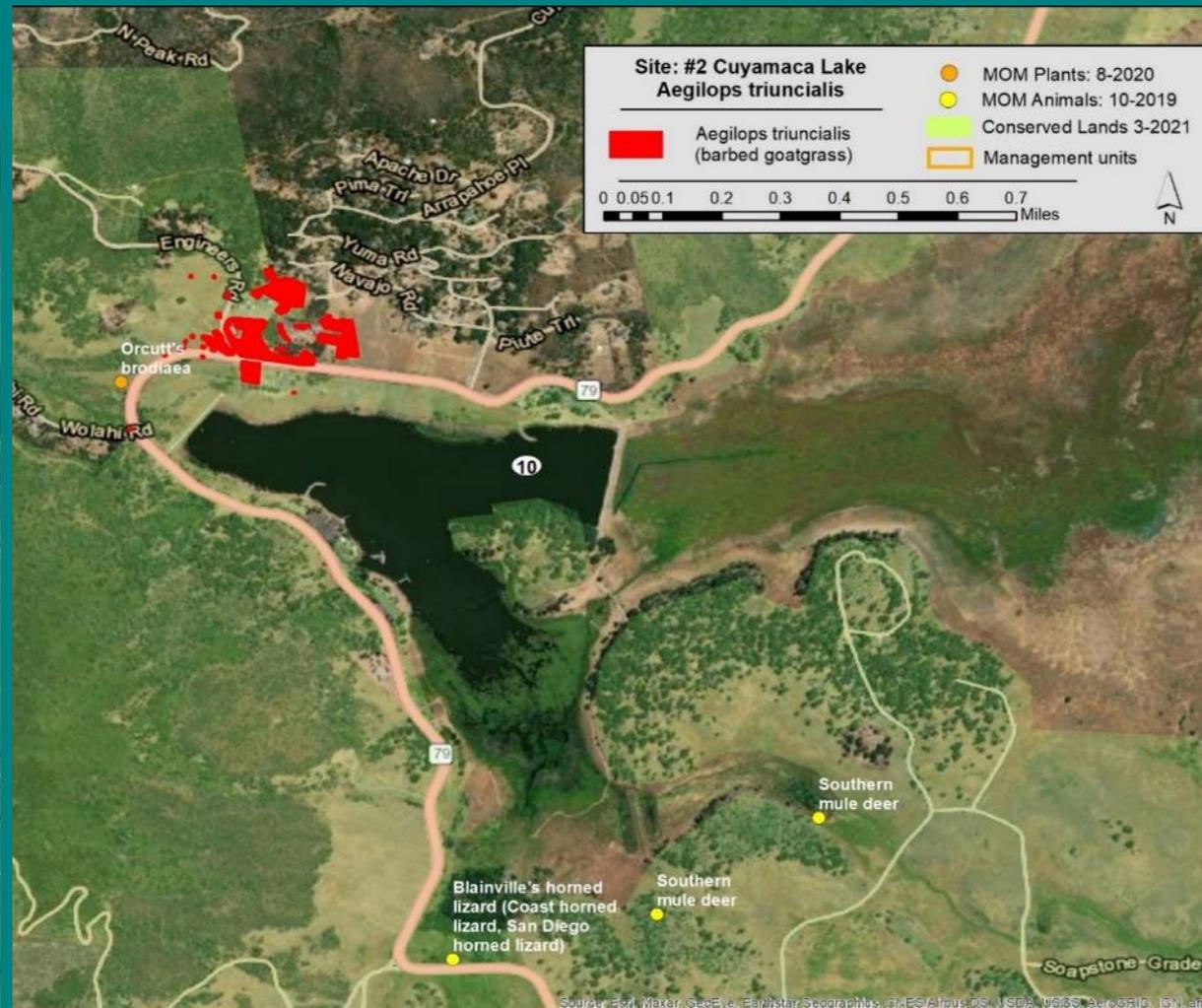
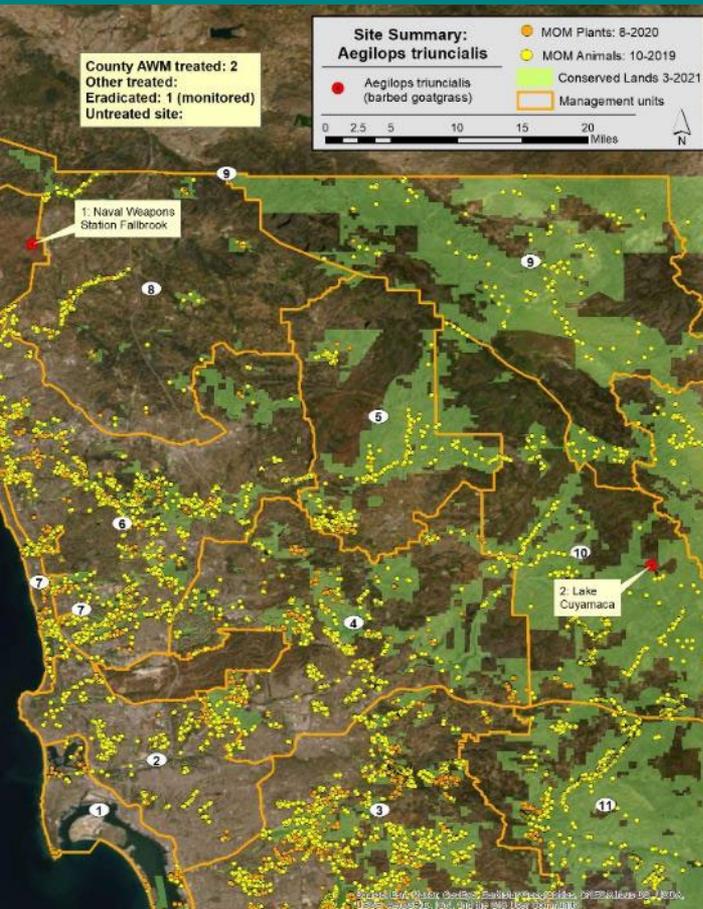


Joe DiTomaso

Barbed Goatgrass:

- No new reports

Site	Size of population	Treated in:	Treated by:	Funding status
Fallbrook NWS, DoD	2.0 ac	Started in 2011, eradicated. Monitoring is ongoing	DoD	Funded: DoD
Lake Cuyamaca	6.4 ac	2019, 2020, 2021	County AWM	CDFA WMA Grant, now SANDAG EMP



**Barbed
goatgrass**





Invasive Non-Native:
Stinknet
(*Oncosiphon piluliferum*)

Description: Pungently scented. Pls 15-45(70) cm. Leaves 1-4+cm, alternate, petioled or sessile; 2-3 pinnately dissected; segments linear, with resin glands. Inflorescence: 1-4 yellow discoid heads in cyme like clusters.

Ecology: Disturbed areas, uplands (grass/scrub), riparian.

Similar to (see back): *Hemizonia fasciculatum* (tarweed), *Cotula spp.* (brass buttons), *Erodium spp.* when plants are young (stork's bill).



Photo by Anna Bennett



Photos by Ron Vanderhoff



Photo by Ron Vanderhoff



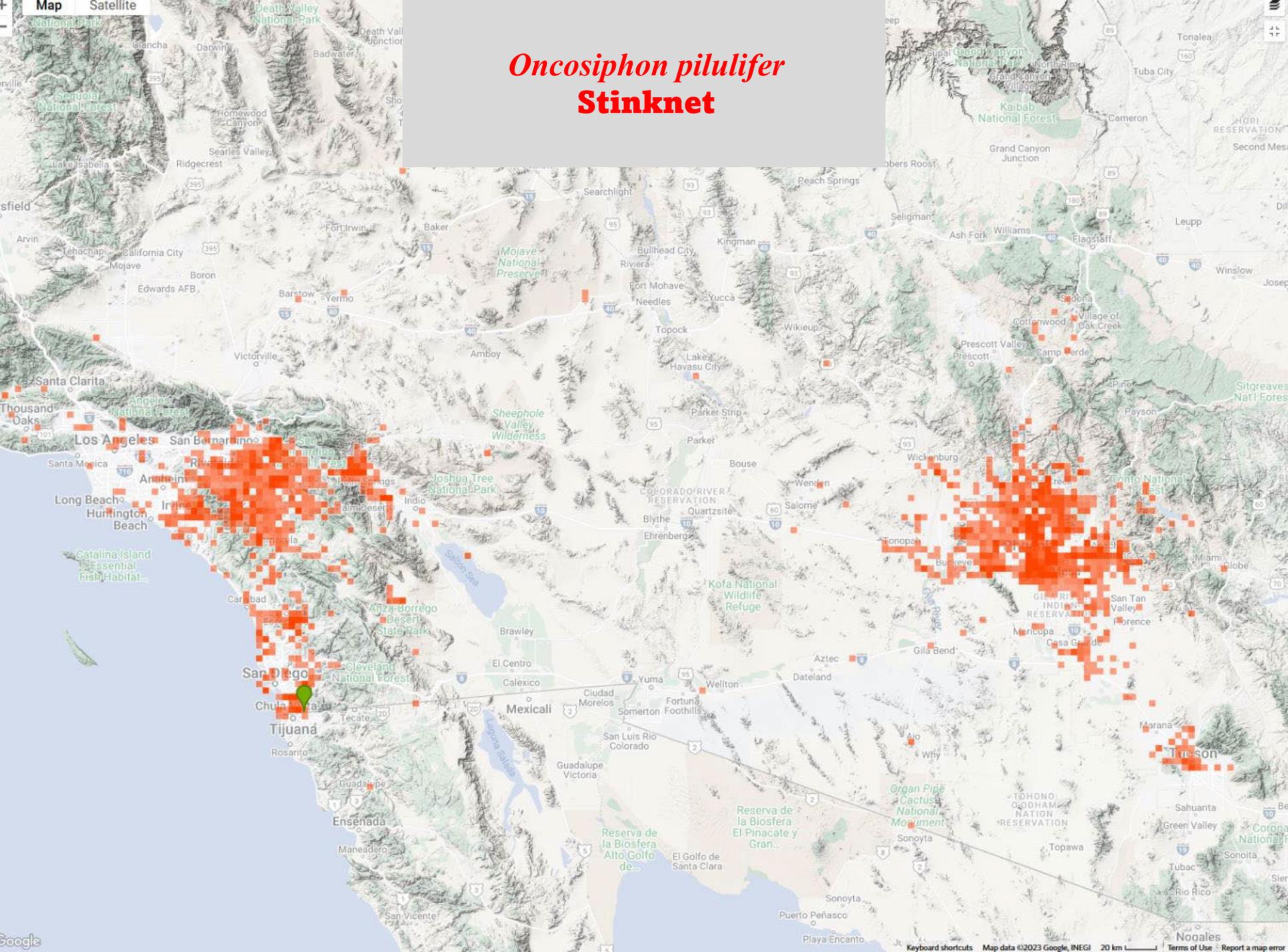
Photo by Keir Morse



Photo by Ron Vanderhoff

Report sightings to: iNaturalist or Calflora

Oncosiphon pilulifer
Stinknet



Suppression (Containment)

Stinknet *Oncosiphon pilulifer*

Continued control/containment
at many sites

Hand pulled and used pre + post

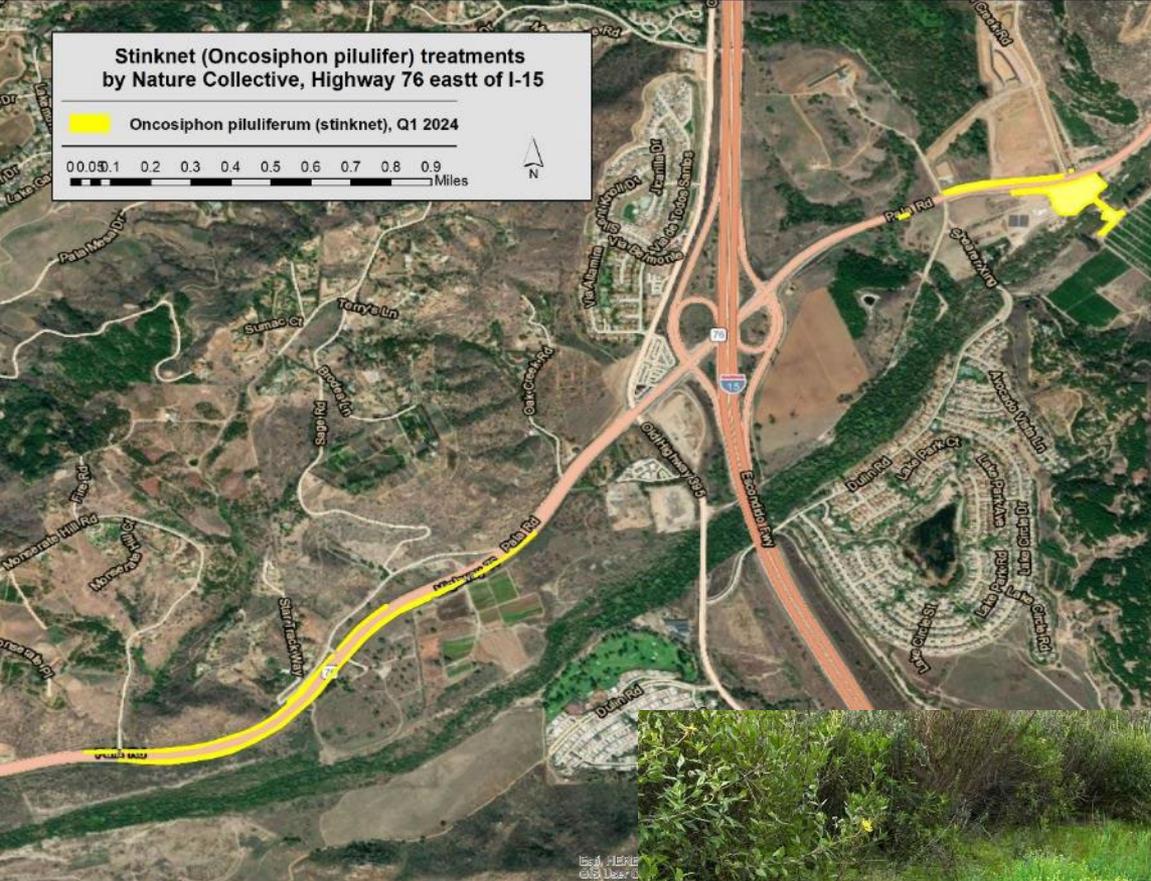
Lead:
Nature Collective



Stinknet (*Oncosiphon pilulifer*) treatments
by Nature Collective, Highway 76 east of I-15

 *Oncosiphon piluliferum* (stinknet), Q1 2024

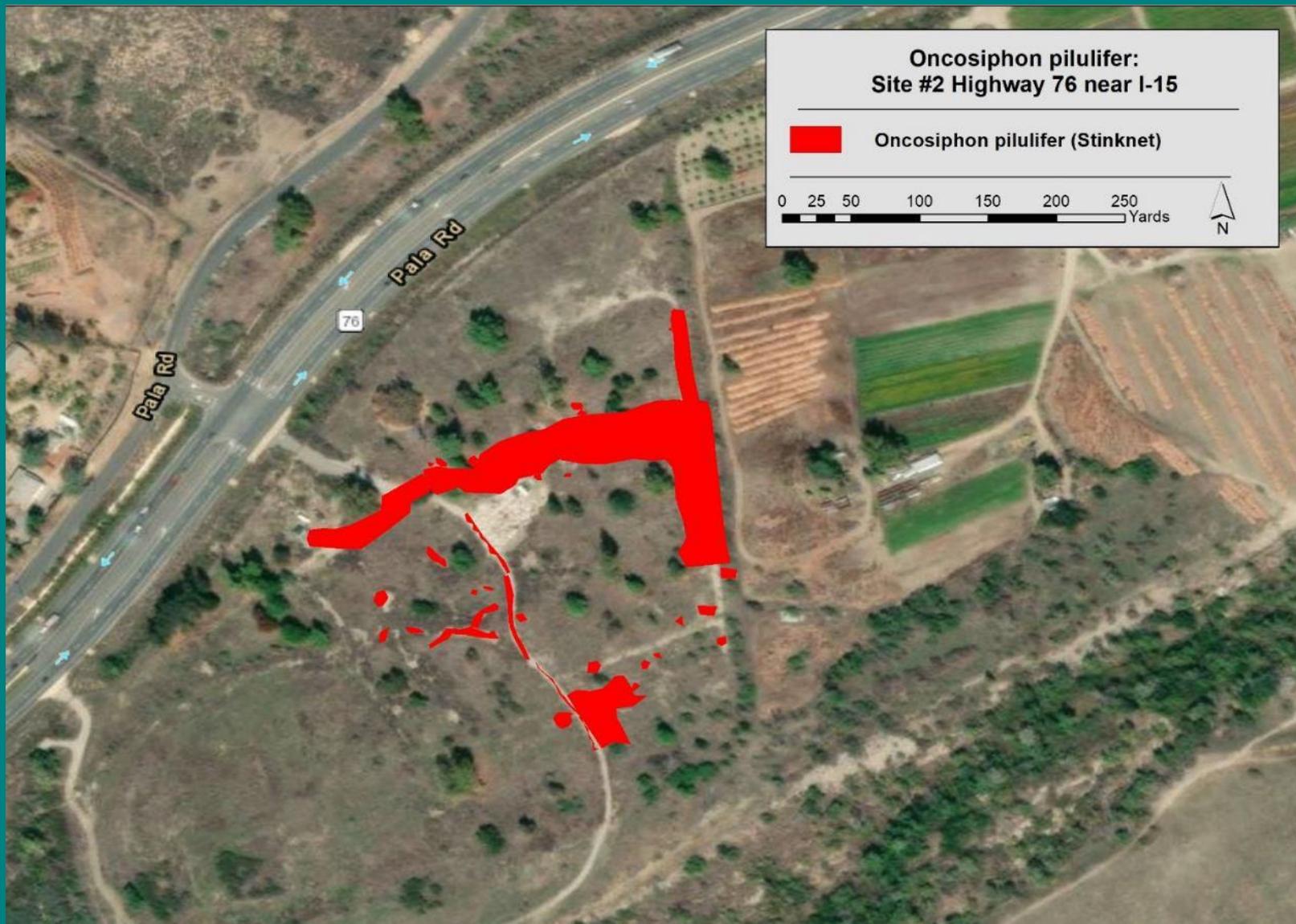
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9
Miles



New site:
Highway 76



New site: ex-Faubus County Park, treated by County AWM:
In spring 2024 >6,000 plants 3.9 acres
Re-treated spring 2025





Pre-emergent was very effective



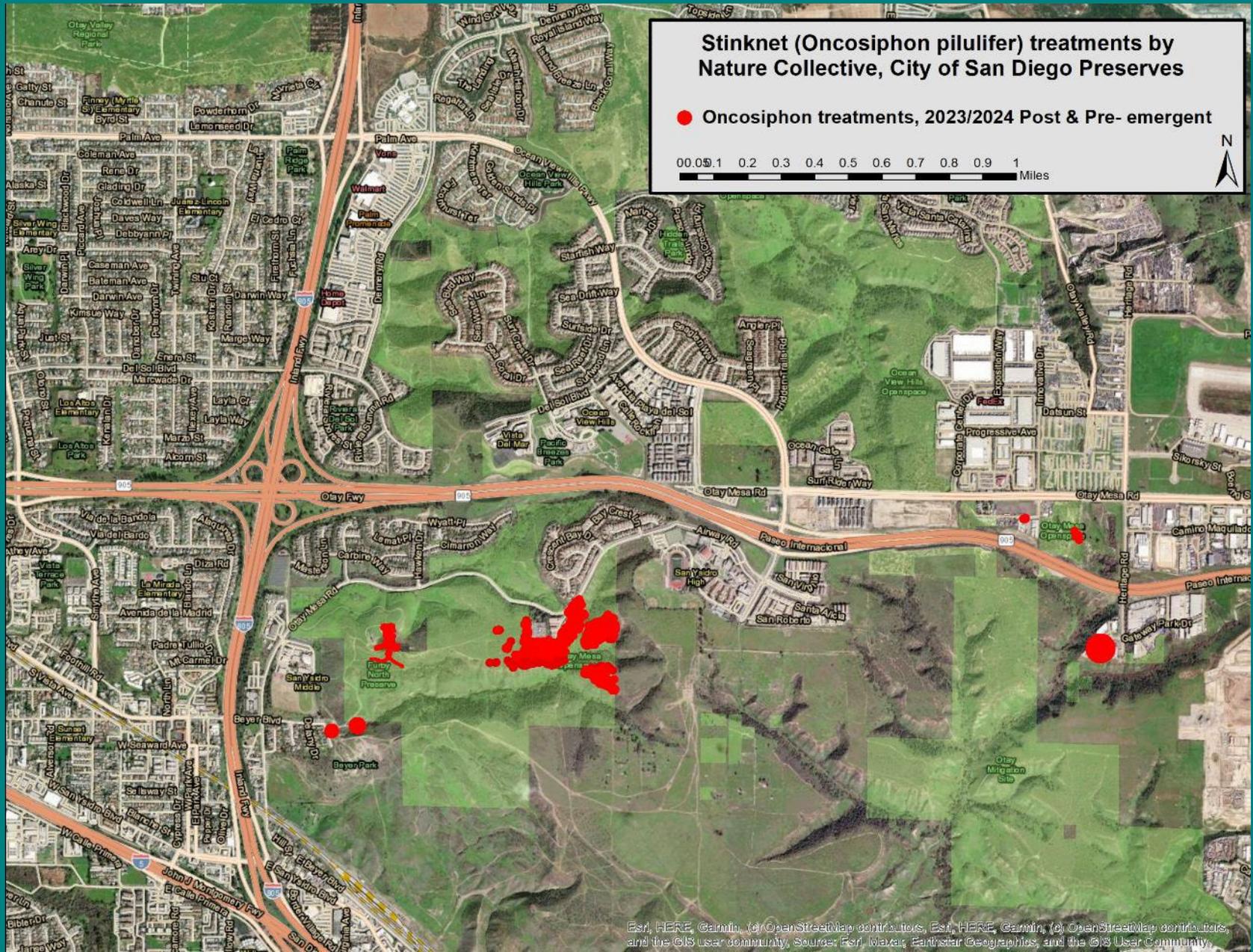
Dead plants still standing, seedlings very small



Stinknet seedlings tiny: crush them to confirm



Otay re-treatments: County AWM Furby County SD, City SD open space



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San Diego WMA (SDWMA) Annual meeting:

June 3rd

**9 am to 3 pm ?
SD County Operations Center ?**

**DPR Continuing education hours will be
applied for**

California Invasive Plant Council

Cal-IPC Symposium

*Beyond Eradication:
Resistance, Resilience, and Recovery*

Ventura and Online, Nov. 12-15

2025
Cal-IPC
Symposium

Photo: Hannah Litwiler, CC BY 2.0

Register now! 2025 Cal-IPC Symposium – Ventura and Online, Nov. 12-15.

