# Weed Alerts 2020 and more...

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# Creeping Loosestrife Lythrum junceum (Lythraceae)

- First recorded in Alameda Co. 1905 but previously misidentified as *L. californicum*
- Currently documented in riparian areas across Santa Clara Co. and in Alameda Co.
- No state rating by Cal-IPC or CDFA yet
- Probably far more common than currently reported
- Not currently in the Jepson key!
- Needs genetic work (hybrid potential)



# Creeping Loosestrife Lythrum junceum (Lythraceae)

- Can be confused with L. californicum and L. hyssopifolia
- Perennial, rhizomatous herb
- Sprawling, mounding habit
- Angular stems
- Tristylous, 12 stamens
- Pink flowers **solitary** in leaf axils
- Petal bases are white
- Hypanthium has pink spots



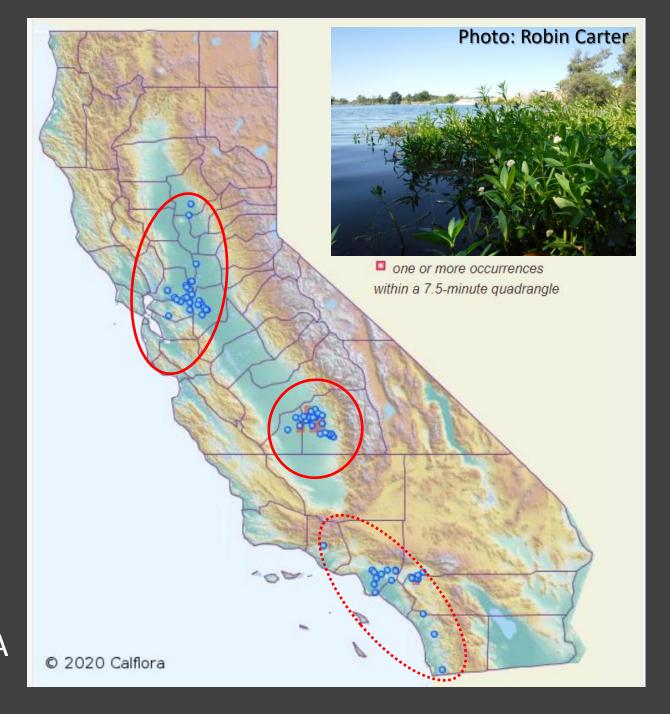
Dense stand of Lythrum junceum, Coyote Creek, Santa Clara Co.

Photo: Jennifer Mo



# Alligatorweed Alternanthera philoxeroides (Amaranthaceae)

- CDFA A
- Cal-IPC HIGH
- 2017 Weed Alert
- Aquatic weed that can grow on land
- Multiple modes of introduction
- Native to South America
- First record in L.A. County in 1946
- Spreading in northern and central CA



Alligatorweed

Alternanthera philoxeroides

(Amaranthaceae)

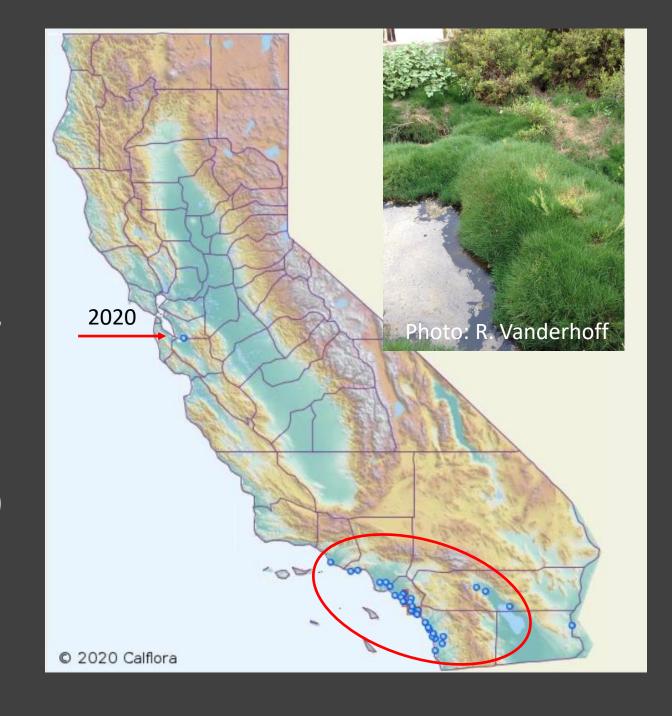
- Stoloniferous perennial with hollow stems
- Spreads by stem fragments and as floating mats
- Can be terrestrial (weed in rice)
- Flowers February/March
- Only two cytotypes in CA
- Actively being managed





# Seashore Paspalum Paspalum vaginatum (Poaceae)

- Cal-IPC "Watch" [PRE = 18]
- First recorded in 1994 [Riverside Co.], 2002 [San Diego Co.], 2003 [Orange Co.]
- Aggressively invades wetlands
- Spreads by rhizomes, stolons, seed(?)
- Widely established in warm climate areas worldwide, incl. coastal SE U.S.
- Popular turf grass



- Seashore Paspalum
   Paspalum vaginatum
   (Poaceae)
- Can be easily confused with other Paspalum, Zoysia and Bermuda grass
- Leaves narrow, sharp-tipped, folded or flat
- Ligules are membranous and have hairs
- 2-branched inflorescence
- Spikelets in two rows
- Seeds smooth
- Highly salt tolerant













African lovegrass

Eragrostis echinochloidea

(Poaceae)

- First CA record this September!
- Found/identified by Jon Rebman, Dawn Lawson, John LaGrange at Fallbrook Naval Weapons Station, 2020
- Native to South Africa
- Has established in Arizona
- Same common name as several other species!
- We do not know how invasive it will be yet



From: Heering 1914. Die Futterpflanzen Deutsch-Südwestafrikas und Analysen von Bodenproben: botanische und chemische Untersuchungen (Wikipedia)



https://plants.usda.gov/core/profile?symbol=EREC

# African lovegrass Eragrostis echinochloidea (Poaceae)

- Perennial bunchgrass with panicled infl.
- Glumes distinct ovate/obovate
- Ligule = minute hairs
- Reddish-brown ellipsoid seeds
- Grows knee-high
- Highly drought tolerant
- Favors disturbed, rocky conditions







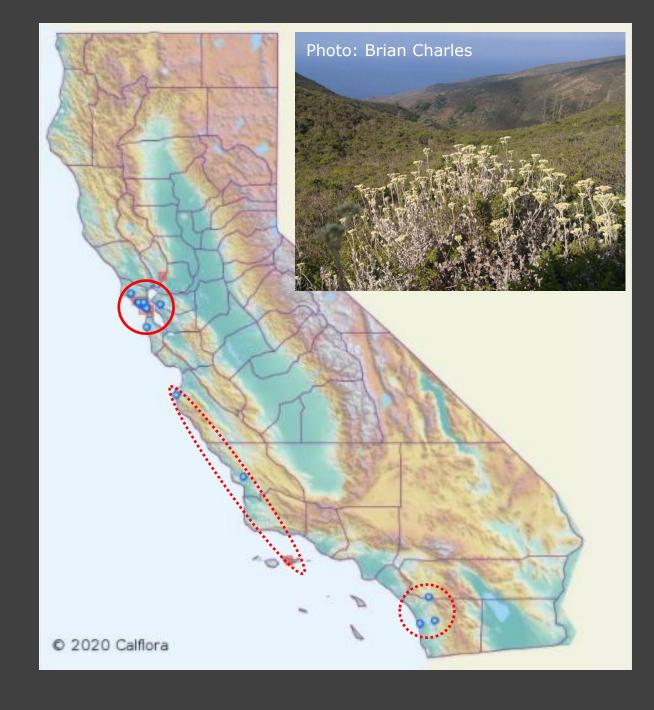


Photo: Liz Makings. SEINet Portal Network. 2020.

http//:swbiodiversity.org/seinet/index.php

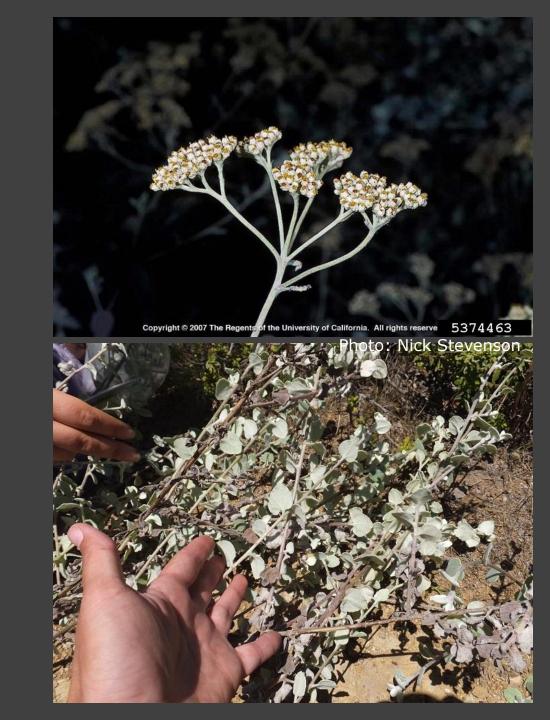
# Licorice plant Helichrysum petiolare (Asteraceae)

- Cal-IPC "LIMITED"
- 2017 Weed Alert (first record 1969)
- Native to South Africa
- Expanding locally in coastal northern CA (San Mateo Co.)
- Establishes in undisturbed habitat (in scrub and open forest)
- Still grown in the nursery trade



# Licorice plant Helichrysum petiolare (Asteraceae)

- Perennial shrub
- White, papery flower heads
- Foliage has licorice scent
- Establishes in undisturbed habitat (in scrub and open forest)
- Still grown in the nursery trade



Established stand of Helichrysum petiolare in scrub habitat

• Photo: Dan Gluesenkamp



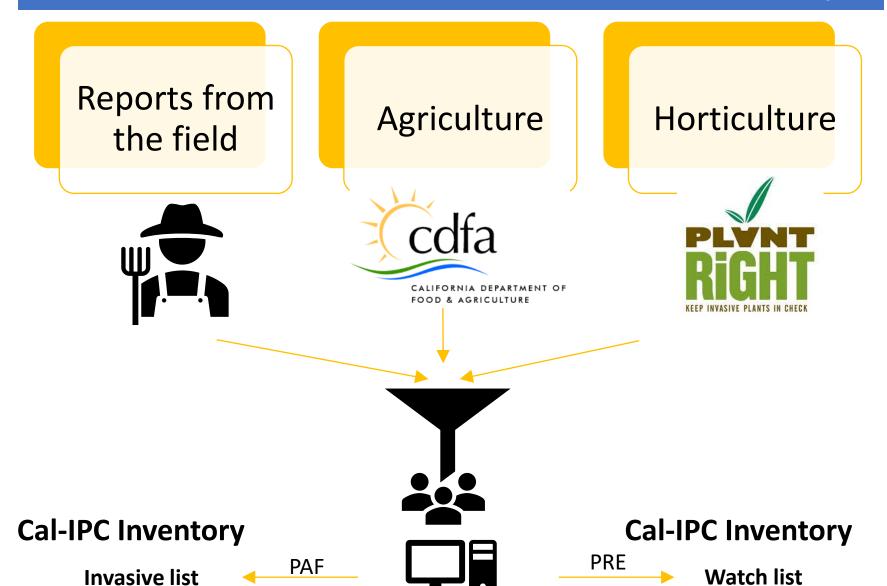
### OTHER NOMINEES OF NOTE

Scientific name	Common name	Region
Matthiola parviflora	(none)	Arizona
Myoporum acuminatum	Waterbush	Persistent in coastal southern CA
Oncosiphon piluliferum	Stinknet	Range expansion to northern CA!
Paspalum urvillei	Vasey's grass	Santa Clara Co.
Pelargonium grossularioides	Gooseberry Pelargonium	San Diego Co.
Rapistrum rugosum	Turnipweed	Coastal southern CA
Zeuxine strateumatica	Lawn orchid	Coastal southern CA





#### California Invasive Plant Council Inventory





### 1. Plant Assessment Form (PAF)

- For species that are already established and reported as invasive across least some parts of the state
- Uses 13 criteria in three categories
  - Environmental Impact (4)
  - Rate (or potential rate) of spread (7)
  - Ecological amplitude (2)

**Final Invasive Plant Rating:** 

Limited \* Moderate \* High

Or "assessed, not included in inventory"





### 2. PRE (Watch List) Scoring System

#### **Uses 20 criteria**

- invasive history and climate matching (6)
- impact on native plants and animals (4)
- reproductive strategies (7)
- dispersal (3)

#### **Final Risk Rating:**

- Low < Evaluate further < High</li>
- High ratings (>15) enter inventory



#### State of California plant rating systems

- CDFA maintains several official plant lists:
- CA noxious weeds, 3 CCR § 4500
- CA agricultural and vegetable crop species, 3 CCR § 3899
- Plants rated under ABCD organism rating system, which now undergo the posted Pest Rating Proposal (PRP) system

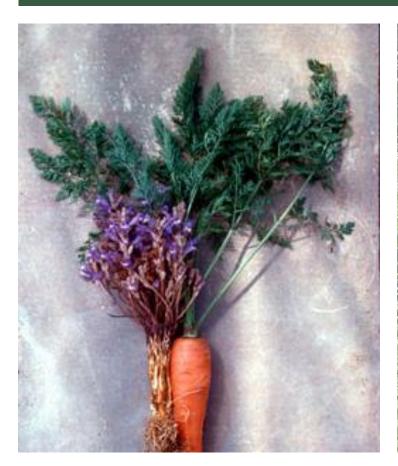
### CCR 4500 List. Noxious Weed Species.

- CDFA system in longterm use, with 175 entries in the publicly posted (Westlaw) list
- Mostly individual species, but some genera
   (Aeschynome, Cuscuta) and groups of species
   (Onopordum thistles, Centaurea jacea complex)
- In almost all cases also have legacy ABC ratings
- Letter ratings are now being reevaluated under current posted PRP system
- Management varies with distribution in the state, from immediate quarantine for newly introduced
   Federal noxious weeds to biocontrol and local control for long-established naturalized species

# Rated organisms under Pest Rating Proposals

- System is used for all plant pest organisms (insects, snails, weeds, fungi, protists, bacteria, viruses etc.)
- Current system with publicly posted PRPs is from the last ten years
- Beyond the species on the CCR 4500 list of noxious weeds, some 50 plant species (plus the genus Striga) have recently been evaluated via posted PRPs
- Taxa are numerically rated 1-15 using potential range, host range, dispersal potential, economic impact, and environmental impact
- 0-3 points are then deducted for current California distribution
- Final scores: Low (up to 8 points), Medium (9-12), High (13-15) lead to a letter rating of A, B, C, or D

#### "A" rating criteria





- Pests of agriculture or environment that score as high risk and are not known to occur in CA or are extremely limited in distribution in the state
- Some examples: Orobanche
   aegyptiaca, a recently introduced
   species of Federal noxious weed
   parasitic on crops such as tomato and
   potato, a single CA population under
   very active control
- Hydrilla verticillata: an introduced species and Federal noxious aquatic weed that obstructs bodies of water, under very active control in California
- Heracleum mantegazzianum (giant hogweed): an introduced invasive species and Federal noxious weed of urban and wildland habitats, not naturalized in California
- Photo credits. Orobanche: Dr. R.
   Jacobsohn, Agricultural Research
   Organization, Bugwood.org. Heracleum:
   Dr. L. Mehrhoff, Bugwood.org

#### "B" rating criteria

- Pests of agriculture or environment that score as medium to high risk and are of limited distribution in the state but have the potential to spread further
- Example: Pilosella (Hieracium)
   aurantiacum (orange hawkweed),
   an introduced species widely
   invasive in forest clearings and open
   habitats
- Iris pseudacorus (yellow-flag iris), an invasive species of wet environments
- Photo credit: M. Shephard, USDA Forest Service, Bugwood.org





### "C" rating criteria

- Pests of agriculture or environment that are of common occurrence and generally distributed in California
- Can be noxious weeds that are very broadly distributed or lowrated weedy plants of limited pest potential
- Not under statewide official control, but are subject to nursery hygiene measures and if noxious may be subject to border prohibitions and stringent tolerances in crop seeds offered for sale
- May be subject to biocontrol and local control
- Example: Convolvulus arvensis (field bindweed), an exotic naturalized species widespread in urban and agricultural habitats
- Photo credit: S. Dewey, Utah State Univ., Bugwood.org



### "D" rating criteria

- Plants that have a low risk of invasiveness or are beneficial to agriculture or the environment of California
- Non-invasive cultivated plants, crops, and almost all native plants will be assigned this rating, usually without a formal PRP analysis
- One group of native plants that is rated C are native species of *Cuscuta* (dodder), of which at least 2 species are frequent parasites of horticultural and agricultural crop plants.
- Cultivated Hibiscus, photo credit: R. Baalbaki, CDFA Seed Lab

#### **NEW AND DISTURBING SPECIES TO REPORT?**

Contact us!!!

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Send close-ups, whole-plant and plant-in-setting photos

Map on Calflora or iNaturalist