# 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)



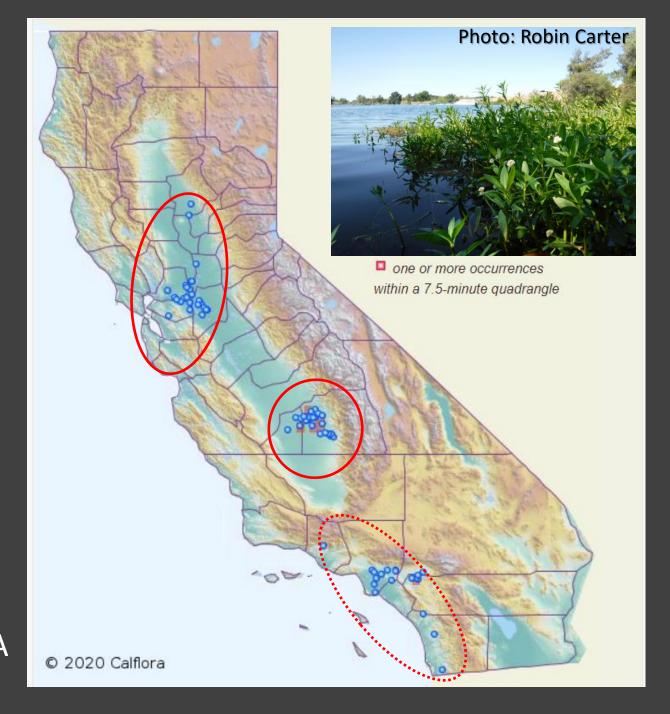
# Creeping Loosestrife Lythrum junceum (Lythraceae)

- 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



# 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)

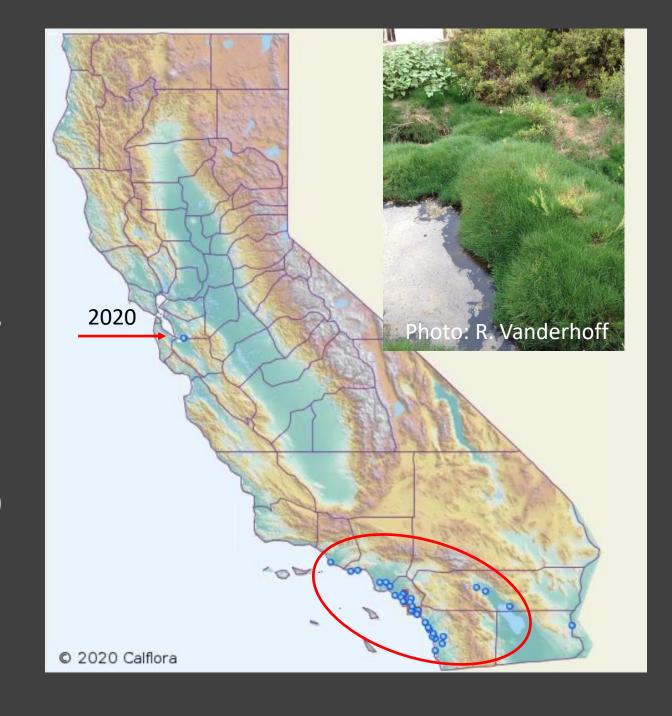
- Stoloniferous perennial with hollow stems
- Spreads by stem fragments and as floating mats
- Can be terrestrial (weed in rice)
- Flowers February/March
- Only two cytotypes in CA
- Actively being managed





# 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







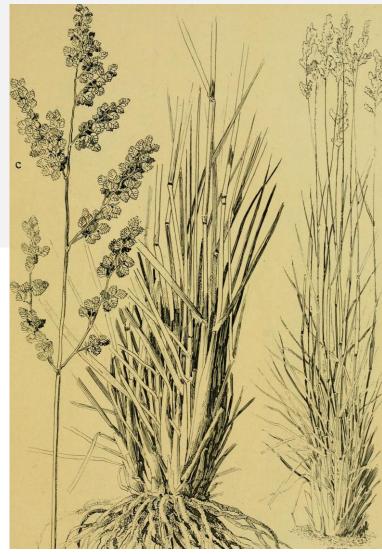


African lovegrass

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







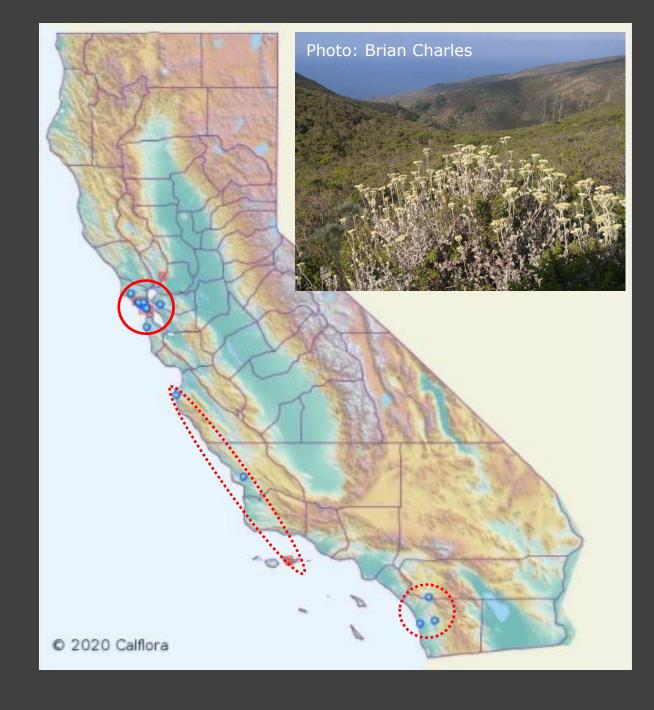


Photo: Liz Makings. SEINet Portal Network. 2020.

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

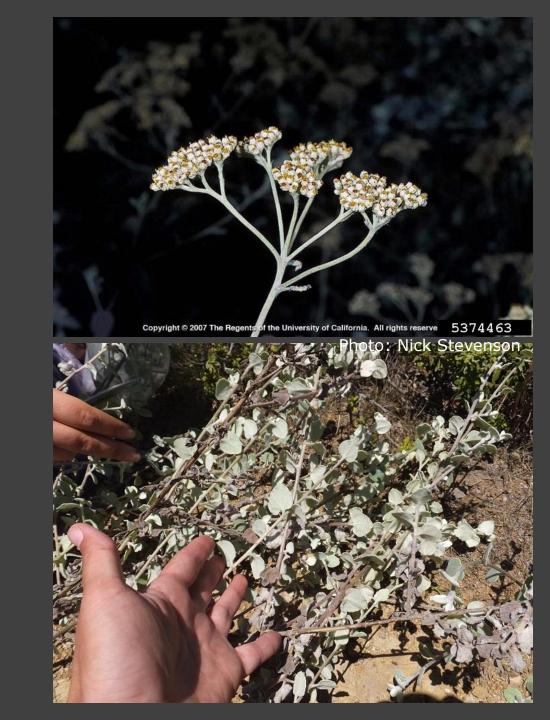
# Licorice plant Helichrysum petiolare (Asteraceae)

- 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



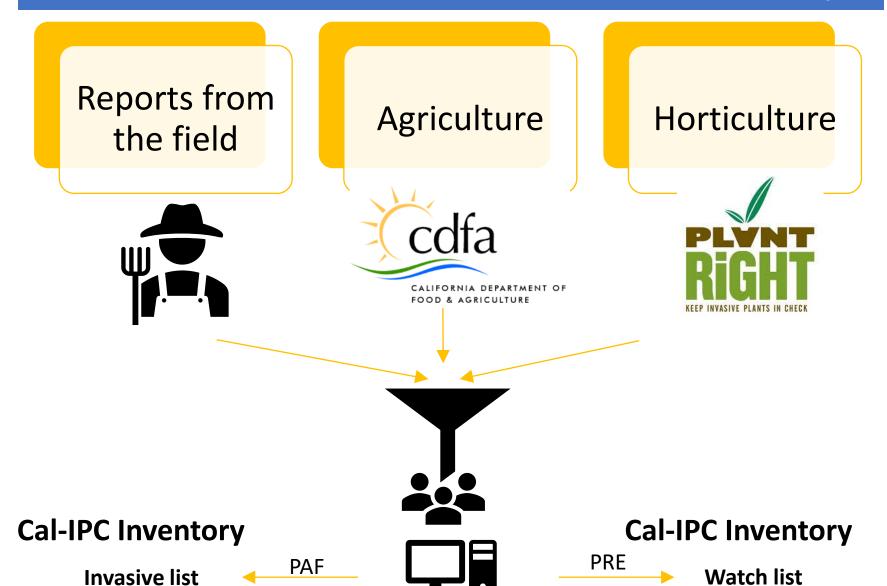
### OTHER NOMINEES OF NOTE

| 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<br>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

### Unsolicited "mystery seed packages"

Photo credit: New York Times







- The mystery seeds appear to be economic plants (spices, fruits, vegetables, flowers, legumes, etc.)
- No Federally actionable species of seeds or pest contaminants were reported in this recent data sample for California
- BUT: undocumented or unsolicited seeds could contain noxious weed seeds, pathogens, or insects and should not be planted
- Can be reported to your County Ag Commission or USDA APHIS
- Double bag and seal well for disposal

Some recent examples of the mystery seeds, intercepted in California

- Amaranthaceae: *Amaranthus* sp.
- Apiaceae: Daucus carota
- Asteraceae: Chrysanthemum coronarium, Helianthus annuus, Lactuca sativa, Tagetes sp.
- Chenopodiaceae: *Beta vulgaris*
- Cucurbitaceae: Cucumis sativus, Cucurbita pepo, Momordica charantia
- Lamiaceae: Melissa officinalis, Ocimum basilicum
- Solanaceae: Capsicum annuum

### **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