



Weed Alerts 2021

and inventory updates

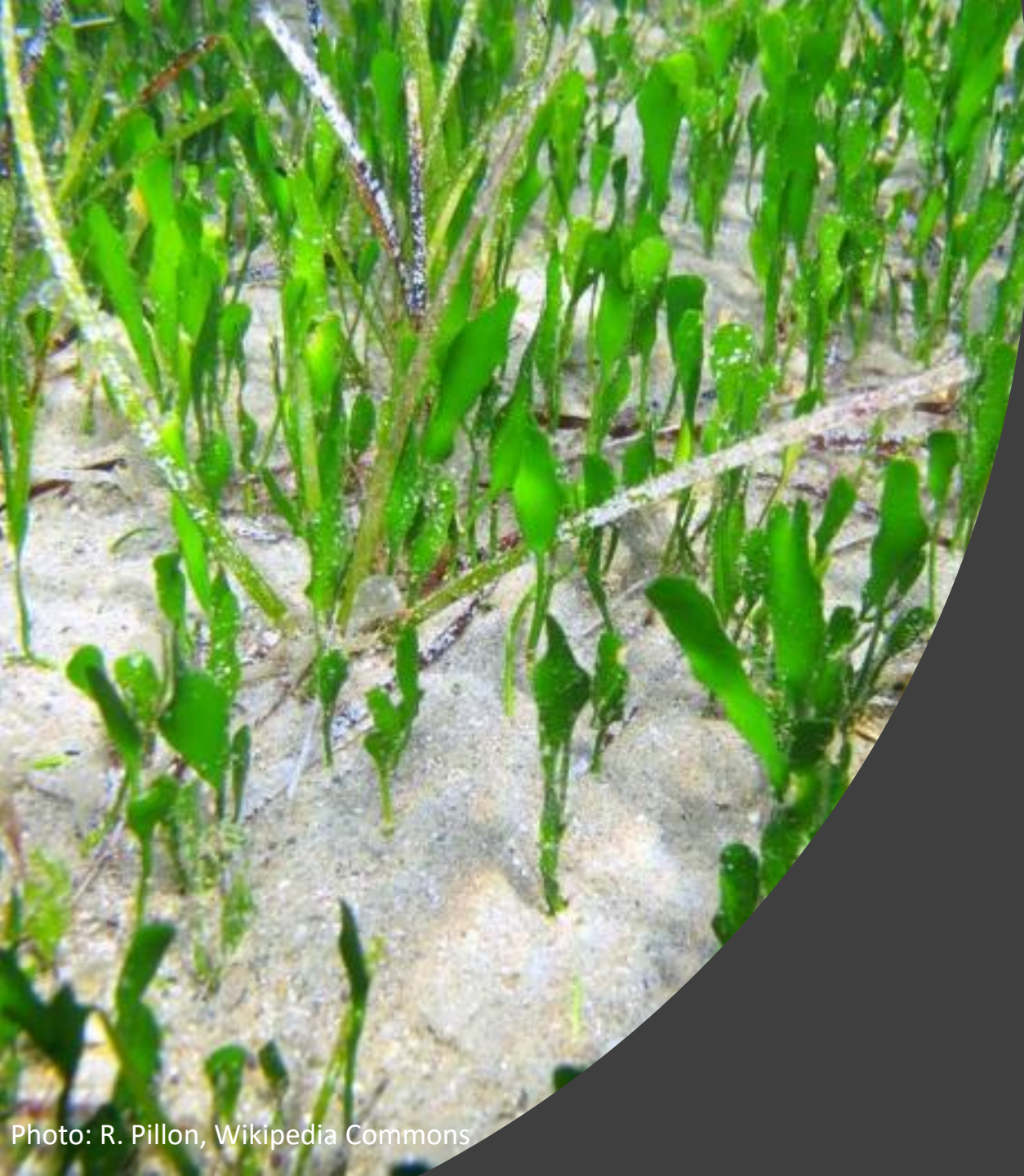
Jutta Burger

Science Program Director California Invasive Plant Council

Robert Price

Primary State Botanist, California Dept. of Food & Agriculture





Leafy Caulerpa / Blade Alga

Caulerpa prolifera
(Green alga, Caulerpaceae)

- Occurs in shallow waters of the Mediterranean, north African coast, Caribbean, and eastern seaboard of the Americas
- Found this year in Newport Bay, CA; rated “Q” by CDFA
- Not palatable to many fish
- Used as an aquarium plant (one potential source of introduction)
- Multiple species of *Caulerpa* are prohibited from sale under California law due to toxicity to marine fish; so far not *C. prolifera*

Leafy Caulerpa (*Caulerpa prolifera*)

- Coenocytic alga (many nuclei in the fronds, but not divided into cells)
- Bright green with many small blades connected by runners and attached to substrate by rhizoids
- Blades are NOT frilly like *C. taxifolia*
- Spreads by fragmentation with ocean currents or boats
- Outcompetes marine eelgrass; may inhibit other species phytochemically
- Record location and contact CDFW if you think you've found it – do not try to remove on your own
- Report at this website:

<https://wildlife.ca.gov/Conservation/Invasives/Species/Caulerpa>



Photo: CDFW

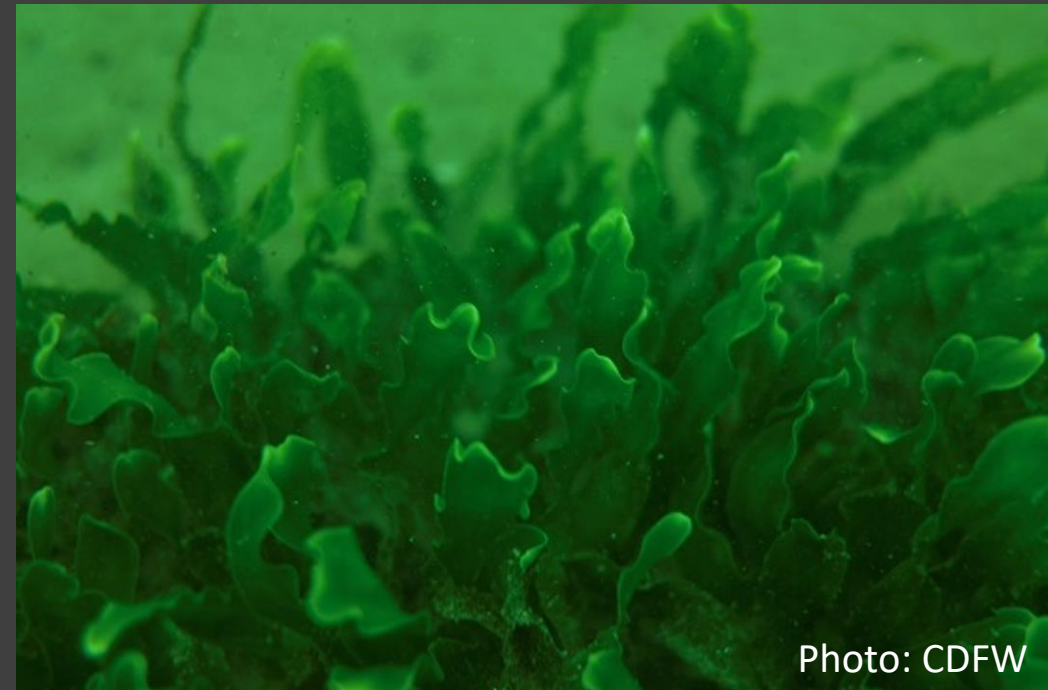
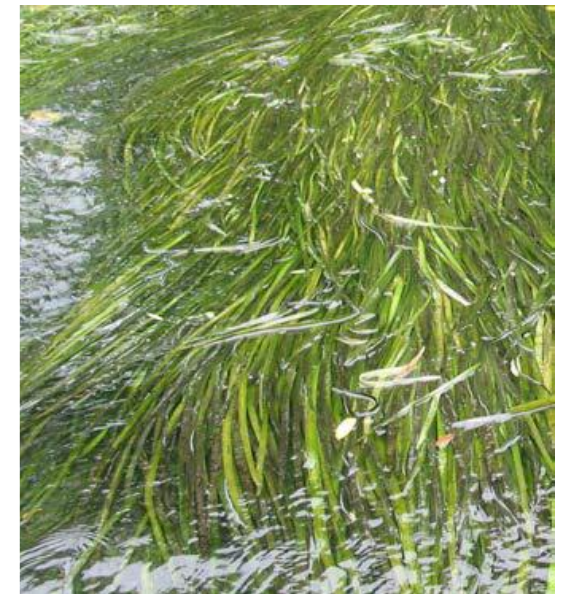


Photo: CDFW

Australian Eelgrass / Ribbon Grass

Vallisneria australis (Hydrocharitaceae)

- Freshwater perennial native in ponds and streams of E Australia.
- Naturalized in New Zealand and parts of Europe and Asia, probably via aquarium plants. Only one gender in most of NZ.
- Newly identified from Sacramento Delta (Sacramento, San Joaquin, and Solano counties) in 2021 using ITS DNA sequencing; rated “Q” by CDFA, in risk review process.
- Has long strap-shaped leaves (≤ 3 meters long and 1.5-4 cm wide; max size longer and wider than in the native *V. americana*, occurring from AZ eastwards). Separated by floral and DNA characters in 2008 revision by Les et al.
- Spreads by rhizomes and stolons; broken pieces can be spread by water flow and boats; can invade reservoirs and irrigation canals.



Flowers of *Vallisneria australis* in Australia



- Dioecious; unclear if both genders are present in California
- The small male flowers detach and float to the female flowers at the water surface (water pollination)
- Female flowers are borne on long stalks, which retract by spiral coiling after fertilization

Notes on *Vallisneria* species as aquarium plants

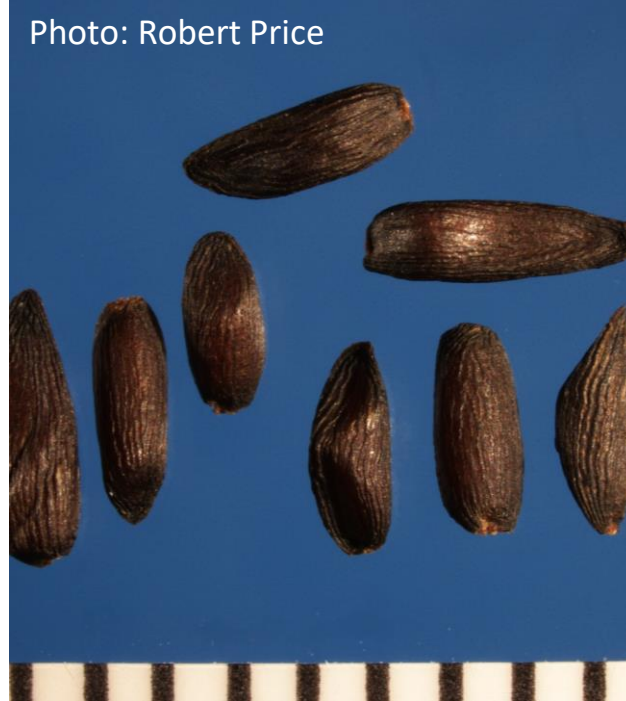
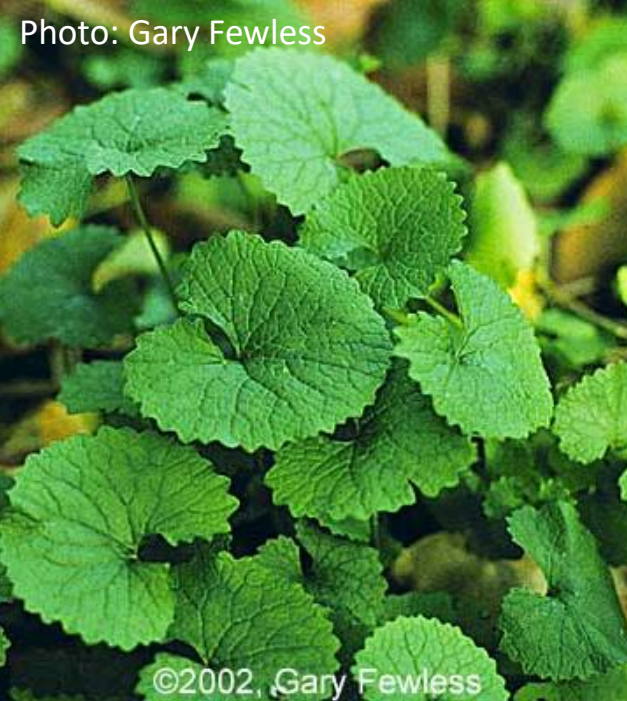
- Eelgrass species frequently used as aquarium plants: they are attractive and providing aeration and food for aquarium fish
- **BUT: Exotic aquarium plants should never be disposed of improperly into natural habitats, since they present a strong naturalization risk!**



Garlic Mustard

Alliaria petiolata (Brassicaceae)

- Biennial native to Eurasia and North Africa
- Widely naturalized in northern and central U.S. in open, riverine, and wooded habitats
- Can form dense patches; allelopathic; forms soil seed bank
- Listed as noxious weed or prohibited invasive species in AL, CT, IA, IN, MA, ME, MN, NH, NY, OH, OR, UT, VT, WA
- Newly documented in California (San Bernardino Mts.) in remote riparian area in 2020 by California Botanic Garden; targeted by USFS for control.
- Currently rated “Q” by CDFA; in review



Garlic Mustard

Characteristics

- Crushed foliage has garlic odor
- Leaves toothed, basal rosette of kidney-shaped leaves
- Stem-leaves
- Flowers white and four-parted
- Fruits narrow and stiffly spreading
- Seeds blackish-brown, longitudinally ridged



Control of Garlic Mustard

- Manual removal of rosettes and second-year plants **before the seeds are produced** can be effective for small numbers of plants
- **Avoid moving seeds on shoes and clothing**
- Can resprout from portions of the taproot, and germinate over time from the soil seed bank, so **populations must be monitored for several years to insure eradication**
- Herbicides such as glyphosate can aid in control of the plant, but repeated treatments will be needed as new plants germinate
- **King County (Washington) garlic mustard identification and control online booklet** is a helpful reference

Redpurple Ragwort

Senecio elegans
(Asteraceae)

- Native to Cape region of South Africa
- First recorded 1912 in San Francisco Co.
- Now found in at least 7 coastal counties
- Expanding locally in coastal dune habitat
- Previously rated as CDFA B and under review
- PRE rating of High Risk in review for Cal-IPC inventory

California distribution data from Calflora, including iNaturalist and California Consortium of Herbaria data

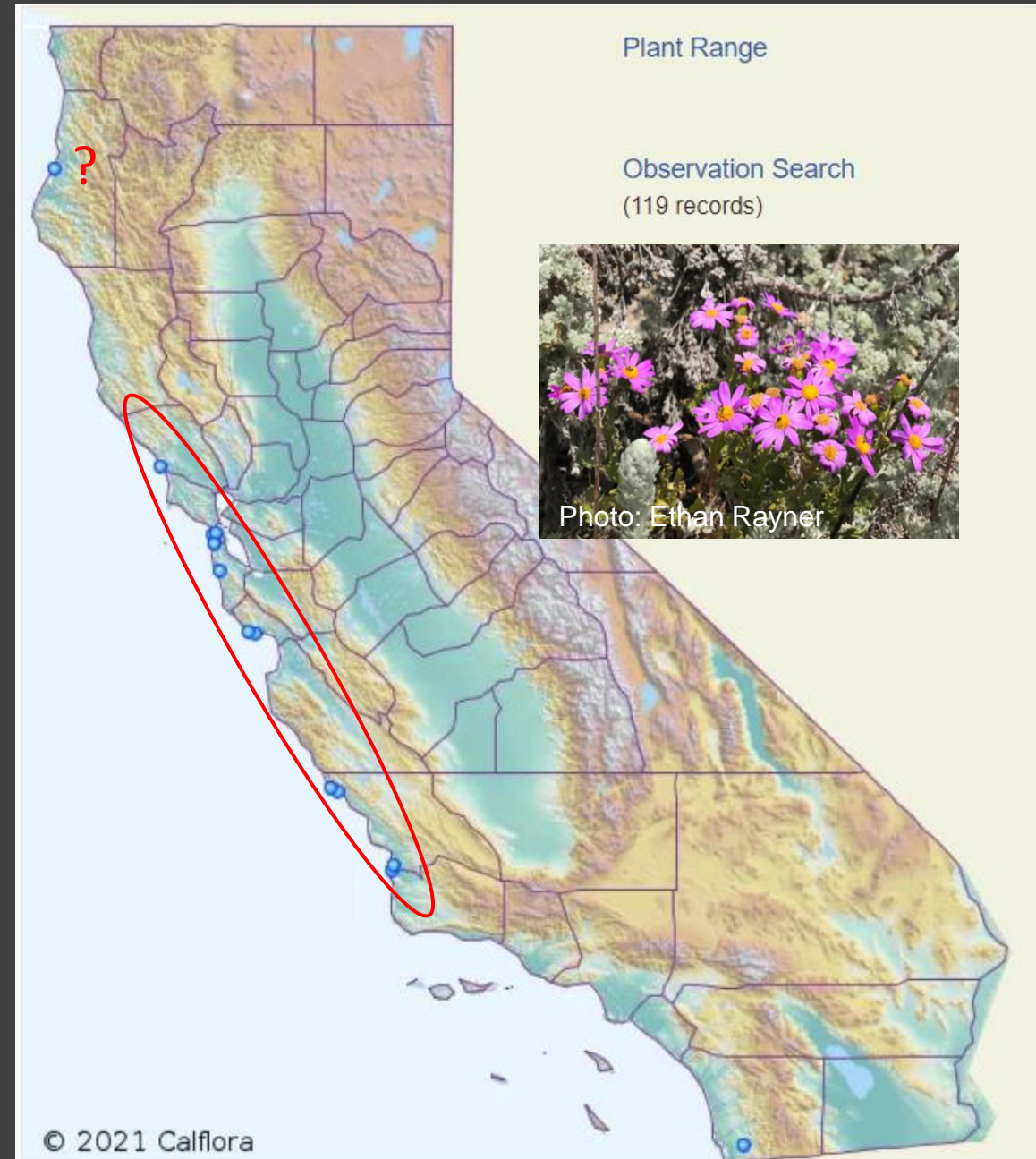




Photo: Ethan Rayner



Photo: Ethan Rayner



Photo: Ethan Rayner



Photo: Neal Kramer ©2011

Redpurple Ragwort (*Senecio elegans*)

- Fleshy-leafed annual
- Long taproot
- Lobed leaves have glandular hairs
- Pink-purple ray flower, yellow disk flowers
- Phyllaries w dark tips
- Can invade intact sand dune habitat

Sea Daffodil

Pancratium maritimum

(Amaryllidaceae)

- Native to the Mediterranean
- First collected 1920 (CCH)
- Spreading locally in coastal dunes in Ventura (San Buenaventura State Park)
- Probably introduced as an ornamental
- Unrated to date (by either Cal-IPC or CDFA)

California distribution data from Calflora, including iNaturalist and California Consortium of Herbaria data



Sea Daffodil

Pancratium maritimum

- Blooms in summer/fall
- Leaves die back to bulb late season
- Roots are difficult to remove
- Can reproduce vegetatively through bulbs
- Self-incompatible
- Seeds float
- Spreading locally into intact dune habitat



Photo: Diana Wing



Photo: John Beall



Photo: Diana Wing

Grassy Vetchling

Lathyrus nissolia (Fabaceae)

- Population in Willits (Mendocino Co.) first observed in 2014 (Geri Hulse-Stephens)
- Native to the northern Africa, much of Europe, and western Asia
- Spread across several acres
- 2003 herbarium record (CDFA) from residential garden (Sonoma Co.)
- 1984, 1979 herbarium records from Douglas and Washington Co., Oregon (OSU)
- No other North American records!

California distribution data from Calflora, including iNaturalist and California Consortium of Herbaria data



Grassy Vetchling

Lathyrus nissolia

- Annual forb
- Erect, unbranched stem, <0.5m
- Grasslike leaves, no leaflets, 2 small stipules at base
- Flowers solitary, dark pink/crimson, on long slender pedicel
- Seedpods long, thin, not hairy
- Seeds are poisonous
- Spreading in wet meadow habitat
- Potential threat to sensitive species (incl. *Pleuropogon hooverianus*)?



Photo: Emily Allen



Photo: Bob Huttar



Photo: Bob Huttar

Early Alert & Call for Data: Memphis grass (*Cutandia memphitica*)

- Native to north Africa, western Asia, and Spain
- Found in 2020/2021 in 29 Palms Springs region
- Single previous herbarium record (from 1933) from Devils Canyon Nursery, San Bernardino Co.
- Any other desert records?
- Forming monocultures?



Early Alert & Call for Data: Swamp Wallaby Grass (*Amphibromus nervosus*)

- Native to southern Australia
- Record of colony, edge of vernal pool, Santa Rosa, Sonoma Co. (first observed 2017)
- Previous herbarium record from large clone Sacramento Co. (2000), known since 1990
- Other populations? Is it spreading?



Scientific name	Common name	CDFA Rating	Weed Alert?
<i>Adonis aestivalis</i>	Summer pheasant's eye		candidate
<i>Arum italicum</i>	Italian Arum		candidate
<i>Asclepias curassavica</i>	Tropical milkweed	In review	
<i>Asparagus aethiopicus</i>	Asparagus fern		candidate
<i>Euphorbia helioscopia</i>	Sun spurge	B	2019
<i>Euphorbia myrsinites</i>	Myrtle spurge	A	2015
<i>Hieracium aurantiacum</i>	Orange hawkweed	B	2019
<i>Lythrum junceum</i>	Creeping loosestrife	Q	2020
<i>Melia azedarach</i>	Chinaberry		
<i>Melinis repens</i>	Natal grass		candidate
<i>Pentaglottis sempervirens</i>	Evergreen bugloss		
<i>Potentilla recta</i>	Sulphur cinquefoil	Noxious	
<i>Searsia lancea</i>	African sumac		
<i>Senecio elegans</i>	Redpurple ragwort	In review	2021

PRE Assessments in Progress / Completed and in Review for Cal-IPC Inventory

NEW AND DISTURBING SPECIES TO REPORT?

Contact us!!!

Jutta Burger jburger@cal-ipc.org

Robert Price robert.price@cdfa.ca.gov

Send close-ups, whole-plant and habitat photos

Map on Calflora or iNaturalist

Contact your County Ag. Commission

Submit specimen to your local herbarium