

## San Francisco Bay Area Network Early Detection Team

# Early Detection News

## September-October 2015

National Park Service  
U.S. Department of the Interior  
S.F. Bay Area Network  
Inventory and Monitoring Program



### Contents

[Noteworthy Early Detections](#)

[Survey Results](#)

[Red Alerts](#)

[New Species Found](#)

[What We Do](#)

### Links

[Weed Watchers](#)

[Bay Area Early Detection Network](#)

[California Invasive Plant Council](#)

[SFNPS Invasive Plant Page](#)

[Weed Manager](#)

### Volunteer Opportunities

[Weed Watchers](#)

[Invasive Plant Patrol](#)

[Habitat Restoration Team](#)

*The Early Detection Team surveys roads and trails in the San Francisco Bay Area Network of National Parks. We detect, map, and remove new populations of invasive plants before they can spread.*

*Do you have early detections to report, or need more information? Contact the Early Detection Coordinator, Eric Wrubel, [Eric.Wrubel@nps.gov](mailto:Eric.Wrubel@nps.gov) (415) 289-1849.*

*To see the newsletter archives, visit [www.sfnps.org/weed\\_watchers/newsletters](http://www.sfnps.org/weed_watchers/newsletters)*

## Noteworthy Early Detections

### [Traveler's Joy](#) [\(\*Clematis vitalba\*\)](#)



Last fall, a *Clematis* specimen collected at Conlon Avenue in Muir Woods was identified as traveler's joy (*Clematis vitalba*) by Dean Kelch of the California Department of Food and Agriculture (CDFA). Traveler's joy is native to Europe, and is naturalized in a few sites in eastern North America. It is also naturalized in northwestern Oregon to the Puget Sound and listed as a noxious weed in Washington State. It is invasive in Australia and New Zealand, and is expanding its range in Europe.

When not in flower, traveler's joy is difficult to distinguish from the native virgin's bower (*Clematis ligusticifolia*). Traveler's joy is far more rampant than virgin's bower, with the ability to smother entire trees. The key character that distinguishes traveler's joy from virgin's bower is that the flowers are bisexual in traveler's joy, while they are unisexual (and the plants are dioecious) in virgin's bower.

Traveller's joy smothering trees and shrubs near Muir Woods.

Photo: Nicholas Stevenson, NPS.

Muir Woods is one of [two locations](#) where traveler's joy has recently been detected in California. The other population is in Santa Cruz County, where it is reported to be distributed along eight miles of San Vicente Creek.

Beginning this year, traveler's joy was added to the early detection lists for Golden Gate NRA and Point Reyes NS. Early Detection surveys this year in the Redwood Creek watershed have detected 16 patches infesting 3.8 net acres, distributed over roughly two square kilometers. Park staff have reported numerous additional patches of *Clematis* from the Redwood Creek watershed, which will be revisited during the blooming period to confirm their identity.

Sources:

[Clematis: Flora of North America](#)

[Invasive species compendium](#)

[King County noxious weed control program](#)



Intern Lindsay Ringer with Kulea grass.  
Photo: Eric Wrubel, NPS.

### **Kulea grass** **(*Phalaris elongata*)**

The Early Detection Team discovered two new patches of Kulea grass this year at Point Reyes NS along the Coast Trail east of Limantour Beach. This is in addition to the nine patches that were previously mapped in 2013-2014 along the Estero and Muddy Hollow Trails.

In 2013, the discovery of Kulea grass revealed a California grass mystery. The Early Detection Team found a suspiciously large canary grass (*Phalaris*) in the vicinity of Limantour Beach, Point Reyes NS. Specimens of this grass were sent to the California Department of Food and Agriculture (CDFA) [Plant Pest Diagnostics Center](#).

Dr. Fred Hrusa of the CDFA identified the grass as *Phalaris elongata*. This grass was previously misclassified in California and elsewhere as *Phalaris tuberosa* var. *hirtiglumis*, which was subsequently misapplied as a synonym of Harding grass (*P. aquatica*). The most recent

worldwide treatment of *Phalaris* ([Baldini 1995](#)) treats *P. elongata* and *P. aquatica* separately. *P. elongata* is the only species in the genus *Phalaris* that has hairs on the glumes.

Further research reveals that this species is known as [Kuleagrass](#). It was introduced for range improvement in California in the 1970's as a superior replacement for Harding grass, but was never widely used because of declining ranching profits. Kulea grass is closely related to invasive Harding grass. Kulea grass is larger, more robust and spreads by short rhizomes. It is reported to have greater seedling vigor, higher winter production and better survival than Harding grass. These characters could also make it more invasive. It is native to the western Mediterranean region where it inhabits "ditches and garrigues" near the seashore, indicating that it may be invasive in coastal wetlands.

Sources:

[Baldini, R.M. 1995. Revision of the genus Phalaris L. \(Graminae\). Webbia 49:2](#)

[USDA. 1985. 'Perla' Kuleagrass release brochure. USDA Plant Materials Program.](#)

[Adams T.E., and L. K. Burgess. 1985. Perennial grasses for California rangelands. Proceedings of the Society for Range Management 1985 annual symposium.](#)



Leafless stems of Spanish broom  
Photo: Nicholas Stevenson, NPS.

### [Spanish broom](#) [\(Spartium junceum\)](#)

In late September the Early Detection Team discovered a small patch of Spanish broom growing in coastal scrub vegetation [along the ridgetop](#) at Mori Point.

Spanish broom is a large, drought-deciduous shrub with cylindrical, photosynthetic branches resembling rushes. Large, yellow pea-like flowers are borne from spring through summer, followed by dark brown pods. It favors dry, disturbed sites.

Spanish broom is native to the southern Mediterranean region and is invasive in the United States along the Pacific Coast, as well as in South Africa, Australia, and New Zealand. In California it is concentrated in the North and South Coast Ranges. In comparison to other weedy broom species, it is relatively uncommon in the San Francisco Bay Area. The Mori Point population is only one of two known locations within the Bay Area National Parks, the other

being at the north end of Bolinas Lagoon.

The California Invasive Plant Council (Cal-IPC) classifies the potential impact of Spanish broom on native ecosystems as [HIGH](#). Like other weedy broom species, Spanish broom is a nitrogen fixer with a very long-lived seedbank that can cause severe ecosystem impacts by changing soil chemistry, increasing fuel loads and fire intensity, and outcompeting native species.

Sources:

[Cal-IPC Plant Assessment for Spartium Junceum](#)

[Species account from \*Invasive plants of California wildlands\*](#)

[Global compendium of weeds](#)

---

## Survey Results

### [September-October 2015 EDT survey results](#)

The August 2015 surveys were conducted in:  
**Golden Gate National Recreation Area**  
**Point Reyes National Seashore.**

The link above will take you to the Calflora Observation Hotline, where EDT records can be viewed in an interactive map. [Click here](#) for help using the Observation Hotline.

---

## Red Alerts

At the recent 2015 Cal-IPC Symposium in San Diego, Dr. Dean Kelch of the CDFA presented a list of new, potentially invasive species in California, including over 20 species newly added to the state noxious weed list.

[Click here for the 2015 Red Alerts presentation](#)

Among the species described in the presentation, several have been found in Bay Area counties, including:

- False yellowhead (*Dittrichia viscosa*)
- Small flowered hawksbeard (*Crepis pulchra*)
- Fertile capeweed (*Arctotheca calendula*) - not to be confused with the more common prostrate capeweed (*Arctotheca prostrata*)

---

## New Species found at Point Reyes



### [Purple top vervain](#) [\(\*Verbena bonariensis\*\)](#)

In October, Early Detection intern Raphaela Floreani Buzbee discovered a patch of purple top vervain at the edge of the southeastern Limantour Beach parking lot. Purple top vervain is new to the Point Reyes NS park plant list, and there are no records in Calflora for this species in Point Reyes.

Purple top vervain occurs sporadically in southeast Marin County, and scattered patches have been recorded in Golden Gate NRA in the Marin Headlands.

This species is native to South America, and is naturalized in California in the San Francisco Bay Area and Central Valley, where it is frequently found in disturbed mesic sites such as irrigation ditches. It is currently on the [Cal-IPC watchlist](#). It was evaluated, but not listed by Cal-IPC due to its limited statewide distribution and expected impacts.

Purple top vervain at Limatour Beach.  
Photo: Nicholas Stevenson, NPS.

Sources:  
[The Cal-IPC Watchlist - Update July 2015](#)

---

## What We Do

The Weed Watchers map, assess, and report occurrences of priority invasive plants along trails and roads in the San Francisco Bay Area network of National Parks, treating localized infestations when feasible.

The [monthly survey results](#) presented in this newsletter represent only new observations of patches of priority invasive plant species. A patch is defined as a group of individuals that is at least 20 meters from the next nearest group. Some patches may not be mapped in a given month if they have already been recorded in previous years, or if the patch is too large (see below).

## Priority Species Lists

### Golden Gate National Recreation Area John Muir National Historic Site Pinnacles National Park Point Reyes National Seashore

See the table below for more information about our priority invasive species and the data that we collect:

| Our Priorities                                                                                                                                                                         | Example                                                                                                  | Explanation                                                                                                                                                                                              | Data Collected                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>List 1 (Highest Priority Plants)</b>                                                                                                                                                | <br>Fertile capeweed    | List 1 plants are highly invasive and are typically not widespread. Control or even eradication is often feasible.                                                                                       | <i>Point occurrences*</i> and <i>polygon assessments**</i> are recorded for all patches, regardless of their size.                                                          |
| <b>List 2 (High Priority Plants)</b>                                                                                                                                                   | <br>Cape ivy            | List 2 plants are highly invasive and usually more common than List 1 species, but are still feasible to control in many places.                                                                         | <i>Point occurrences</i> are recorded for all patches regardless of their size, and <i>polygon assessments</i> are recorded for all patches smaller than 100 square meters. |
| <b>List 3 (Medium Priority Plants)</b>                                                                                                                                                 | <br>Sweet fennel       | List 3 plants are usually widespread and difficult to control at the scale of the park. Uncommon species of concern are also listed here to improve our understanding of their distribution in the park. | <i>Point occurrences</i> are recorded for all patches smaller than 100 square meters.                                                                                       |
| <b>List 4 (Lower Priority Plants)</b>                                                                                                                                                  | <br>Rattlesnake grass | List 4 plants include all other exotic species that are not captured by Lists 1 – 3. Typically, these are ubiquitous invasive plants and are beyond control, or they are waifs.                          | These plants are not mapped. Skilled observers may record presence/absence.                                                                                                 |
| <p>*Point occurrences are individual points recorded to represent an entire patch of invasive plants</p> <p>**Polygon assessments describe the size, shape and coverage of a patch</p> |                                                                                                          |                                                                                                                                                                                                          |                                                                                                                                                                             |