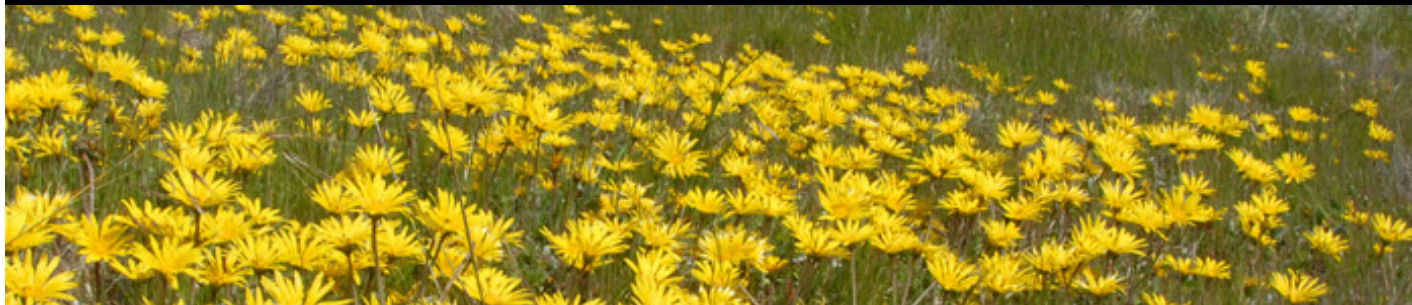


San Francisco Bay Area Network Early Detection Team

Early Detection News

August 2015

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



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The Early Detection Team (EDT) surveys roads and trails in the San Francisco Bay Area Network of National Parks (SFAN). 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 (415) 289-1849.

To see the newsletter archives, visit www.sfnps.org/weed_watchers/newsletters

Noteworthy Early Detections



Purple Awned Wallaby Grass (*Rytidosperma penicillatum*)

The EDT continues to discover widespread infestations of purple awned wallaby grass in Point Reyes NS (PRNS) and Golden Gate NRA (GGNRA). This summer we have mapped 18 gross acres in PRNS, and 1.3 gross acres in GGNRA. Total cover is low in most populations, with 0.14 total net infested acres mapped this year.

Purple awned wallaby grass invasion one year after a prescribed burn. Near Pigeon Point, San Mateo Co.,
Photo: © 2008 Neal Kramer.

Purple awned wallaby grass appears to be actively spreading and expanding its range in coastal

California. It was introduced in the early 20th century as an experimental forage grass. By mid-century it was naturalized and weedy along the Oregon and Northern California coasts. It is a relative newcomer in Marin and San Mateo Counties, first collected in Marin County on Angel Island in 1978, and in San Mateo County on San Bruno Mountain in 1989. The next collections in Marin County came from downtown Mill Valley in 1998, and from Mount Vision in 2000, five years after the historic Vision Fire.

The EDT began mapping and monitoring of this species in 2011. To date, we have mapped 115 gross acres along roads and trails in PRNS and GGNRA. However, the total net infested acres remain relatively low, at 6.8 acres. Most populations are concentrated in our mapping buffer of

five meters on either side of roads and trails, but some populations have dispersed further afield, so the true acreage is higher.

In 2011, the California Invasive Plant Council (Cal-IPC) added purple awned wallaby grass to the Invasive Plant Inventory of species with potential to cause harm to native ecosystems ([plant profile](#)). This species has been observed to invade coastal grasslands and shrublands in PRNS and GGNRA. Field observations indicate that disturbances such as mowing, grazing, and fire, favor dispersal and establishment. The highest concentrations we have mapped are found at PRNS, in the footprint of the 1995 Vision fire, and along frequently mowed roadsides. Dense stands have also been reported by other workers from rangelands in Marin County, and in southern San Mateo County following prescribed burns (see photo).

Sources:

[Darbyshire et al. 2010. The genus *Rytidosperma* \(Poaceae\) in the United States of America. J. Bot. Res. Inst. Texas 4\(2\).](#)

[Cal-IPC Plant Profile](#)

[Consortium of California Herbaria](#)

Howell et al. 2007. Marin Flora. California Academy of Sciences and California Native Plant Society.



Canary Island St. Johnswort.
Photo: Leah Bedoian, GGNPC.

Canary Island St Johnswort (*Hypericum canariense*)

In August, Canary Island St. Johnswort was discovered and removed by NPS and Parks Conservancy staff at two separate locations in the Presidio, at Lincoln Avenue north of Pacific Overlook, and on Kobbe Avenue.

Canary Island St. Johnswort is a large rhizomatous shrub, indigenous to the Canary Islands. It is found on the central and southern California coast, and is reported to be invasive in parts of Hawaii, Australia and New Zealand. Large, localized infestations of this species occur in San Mateo, Santa Barbara, and San Diego counties. In these areas, locally dense stands

exclude virtually all other plant species. Cal-IPC classifies the potential impact of Canary Island St. Johnswort on native ecosystems as Moderate - ALERT.

The only other reported occurrence of Canary Island St. Johnswort in GGNRA is from the hills above Stinson Beach. However, the Stinson Beach population may actually be the closely related [Hypericum grandifolium](#), which has been found in several other nearby locations. Both *H. canariense* and *H. grandifolium* are large, rhizomatous shrubs with the potential to invade coastal ecosystems in Central California.

Thanks to Michael Chasse and Leah Bedoian for reporting their early detection/rapid response efforts!

Sources:

[Weeds of Australia Fact Sheet](#)

[Cal-IPC Plant Profile](#)

[Calflora](#)

Perennial Pepperweed Surveys



Infestation of perennial pepperweed.
Photo: Rob G. Wilson, UC IPM.

This August, the EDT conducted targeted surveys in Tomales Bay to determine the extent of perennial pepperweed (*Lepidium latifolium*). This highly invasive wetland species was first observed in northwestern Tomales Bay in 2006, by staff at the Audubon Canyon Ranch Walker Creek Marsh. An alert was sent out to the California Native Plant Society (CNPS) and other public land agencies in the watershed. Since then, several more patches have been found in the bay: at the Giacomini Wetlands in Golden Gate National Recreation Area, at Tomales Bay Ecological Reserve, and at Whitehouse Pool County Park.

Perennial pepperweed is a rhizomatous perennial, native to Africa, Asia and Europe. It invades brackish,

saline and alkaline wetlands in North America and the Australasia-Pacific Region. It was first recorded in California in 1936 and has now been found in almost every county in the state. Dense infestations are well established in marshes around the San Francisco Bay and Delta.

Perennial pepperweed is highly competitive in lowland habitats, forming monospecific stands that crowd out native species. It exhibits a wide ecological amplitude, thriving in saturated to relatively dry soil moisture conditions. Below ground, the plant has an extensive root system spreading up 9-feet deep and 10-feet wide in each direction. A single plant can produce thousands of small, light-brown fruits. Seeds and root fragments spread easily along waterways. Cal-IPC classifies its potential impact on native ecosystems as High.

Fortunately, no new populations were found during the EDT surveys this year! Treatment efforts are currently underway for all known patches, and continued coordination between agencies and volunteer groups will greatly improve the chances of eradicating this pesky plant from the Tomales Bay watershed. For more information on this project please contact [Amelia Ryan](#).

Sources:

[Cal-IPC Plant Profile](#)
[Global Invasive Species Database](#)
[University of California IPM](#)

Survey Results

August 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.

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
List 1 (Highest Priority Plants)	 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.
List 2 (High Priority Plants)	 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.
List 3 (Medium Priority Plants)	 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.
List 4 (Lower Priority Plants)	 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.
*Point occurrences are individual points recorded to represent an entire patch of invasive plants **Polygon assessments describe the size, shape and coverage of a patch			