

Bay Area Early Detection Team

Early Detection News

November 2014 - April 2015

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



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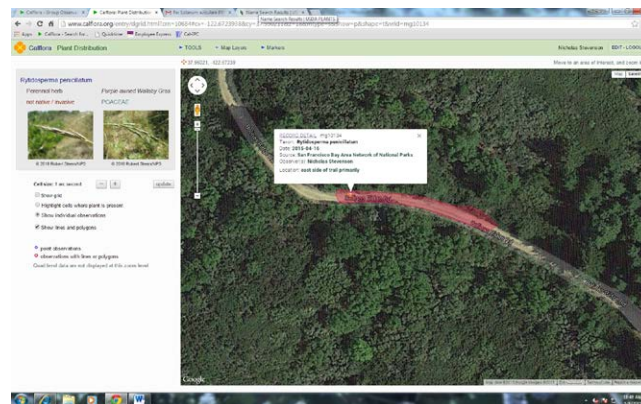
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The Early Detection Team (EDT) surveys roads and trails in the San Francisco Bay Area Network of National Parks (SFAN). We detect, map, and remove new populations of invasive plants before they can spread.

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.

New Data Collection System



A screen shot showing a Weed Manager assessment polygon.

Calflora Weed Manager

The EDT has adopted the [Calflora Weed Manager](#) system for mapping and data collection. The Weed Manager application [Observer Pro](#) is used in the field to document invasive species occurrences, assessments, and treatments on Android tablets or smart phones. Weed populations can be tracked through time using the Weed Manager history stack..

Weed Manager records are published to Calflora, a statewide database for native and naturalized California plants, providing early detection findings to interested stakeholders more rapidly than ever before. Weed Manager can be used by organizations, such as the San Francisco Bay Area Network of National Parks, and divided into specific projects. The Observer Pro app is available to the general public through Google Play, you simply need an Android device and to register as a Calflora contributor.

Noteworthy Early Detections



Bristly needlegrass inflorescence. Robert Steers, NPS

[Bristly Needlegrass](#) [\(*Stipa purpurata*\)](#)

The EDT mapped a number of new populations of bristly needle grass along the Bolinas-Fairfax road. Bristly needlegrass is concentrated in disturbed pull-outs, and spreads along the road from there. The southwest slope of Bolinas Ridge was long known to be the only Marin County location of bristly needlegrass, but new populations have been found recently in the Marin Headlands, and along the Estero trail in Point Reyes.

This perennial grass species may pose a threat to coastal prairie habitats. Populations can form a dense thatch, excluding other prairie species. Bristly needlegrass has been found in Plant Community monitoring plots far from roads or trails, indicating that it is capable of long-distance dispersal.

Red Alerts!



Traveler's joy covering trees at Conlon Avenue, Muir Woods. Eric Wrubel, NPS

[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. Traveler's joy is native to Europe. It is invasive in Australia and New Zealand, and is also expanding its range in Europe. It is a climbing vine that can cover entire trees, and is listed as a noxious weed in Washington State.

When not in flower, traveler's joy is difficult to distinguish from native *Clematis* species *C. ligusticifolia*, and *C. lasiantha*. However, traveler's joy is far more aggressive. The key difference is that the flowers are bisexual in *C. vitalba* and unisexual (and the plants dioecious) in *C. ligusticifolia* & *C. lasiantha*.

Clematis vitalba is naturalized in a few sites in eastern North America and in northwestern Oregon to the Puget Sound. The Conlon Avenue population is one of two occurrences recently found in California. The other record is in Santa Cruz County, where it is reported to be distributed along eight miles of San Vicente Creek.

Traveler's joy has been added to the EDT high priority lists for Golden Gate NRA and Point Reyes NS.

Sources:

[Clematis: Flora of North America](#)



New Zealand nightshade on Highway 1. Eric Wrubel, NPS

New Zealand Nightshade **(*Solanum aviculare*)**

This past November, a large New Zealand nightshade plant was found growing out of woodchips off Limantour Road in Point Reyes by park ecologist Amelia Ryan. This is a large nightshade that can reach two meters in height or more, and its seeds are often spread by birds, although in this case the woodchips may indicate another possible invasion route. It is known in North America only from populations in California and Oregon, but is considered a weed in other parts of

the world such as Australia.

New Zealand nightshade has been added to the EDT high priority lists for Golden Gate NRA and Point Reyes NS.

Sources:

<http://plants.usda.gov/>
<http://www.hear.org/gcw>

Chilean Mayten **(*Maytenus boaria*)**

This past winter, a new population of the exotic Chilean mayten (*Maytenus boaria*) was discovered by Golden Gate National Recreation Area Ecologist Maria Alvarez at Kirby Cove in the Marin Headlands. The only other known mayten sites in the park occur at Fort Baker and near Muir Beach. This patch included three medium sized trees. Chilean mayten is native to South America, and is a popular ornamental evergreen tree. In North America, it is only reported to be naturalized in California, but is on the California Invasive Plant Council's (Cal-IPC) watch list as a potential invasive threat.

Sources:

<http://plants.usda.gov/>
<http://www.hear.org/>
<http://www.cal-ipc.org/ip/management/alerts/index.php>

Survey Results

Golden Gate National Recreation Area
[GGNRA April 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 data presented via the Google Earth KML files 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			