

Bay Area Early Detection Team

Early Detection News

January-April 2014

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



Contents

[Noteworthy Early Detections](#)

[Survey Results](#)

- [GGNRA March-April Surveys](#)
- [Point Reyes January-April Surveys](#)

[What We Do](#)

Links

[Weed Watchers](#)

[Bay Area Early Detection Network](#)

[California Invasive Plant Council](#)

[SFNPS Invasive Plant Page](#)

[Whats Invasive! Smartphone App & Web Reporting Tool](#)

Volunteer Opportunities

[Weed Watchers](#)

[Invasive Plant Patrol](#)

[Habitat Restoration Team](#)

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.

Noteworthy Early Detections



Volunteer Joe Woods treating Japanese knotweed on Lagunitas Creek. Eric Wrubel, NPS

[Japanese knotweed \(*Fallopia japonica*\)](#)

Last Fall, Japanese knotweed was reported in scattered locations in Lagunitas Creek and San Geronimo Creek by Eric Ettinger, Fisheries Biologist for the Marin Municipal Water District (MMWD) and Joel Gerwein of the California Coastal Commission. These reports were broadcast to the Bay Area Early Detection Network (BAEDN) by Andrea Williams (MMWD).

A small patch of Japanese knotweed was also found at the same time by the EDT on Lobos Creek, in the Presidio. This patch was escaping from an adjacent garden, in a heavily disturbed portion of the creek near Baker Beach.

To see all the locations of Japanese knotweed currently mapped by the EDT, click [here](#). Note that some locations were mapped in Samuel P. Taylor State Park, as described below.

Japanese knotweed is listed by the World Conservation Union as one of the world's most invasive species. It invades riparian systems in temperate regions worldwide, and is considered one of the worst invasive plants in the eastern United States. It is a deciduous perennial that forms dense hedges that can reach 2-4 meters tall in one growing season. It grows rapidly by deep rhizomes, forming colonies that choke out all other vegetation. The vigorous root systems can cause serious damage to roadways, pavement and concrete foundations.



Japanese knotweed infestation in Alaska.
Tom Heutte, USDA Forest Service, Bugwood.org

The SFAN Early Detection Team conducted several surveys for Japanese knotweed along Lagunitas Creek this past Winter and Spring. Volunteer Joe Woods spearheaded the survey and control efforts, locating 17 patches of Japanese knotweed along Lagunitas Creek between the San Geronimo Creek confluence and Platform Bridge on NPS and State Park lands. He also implemented manual control efforts on all the patches on NPS lands. He removed the plants by the roots at each site, and has returned several times this season to conduct follow-up treatments in an attempt to deplete the underground resources of

each patch of knotweed. So far he has kept the resprouts at bay except for one patch that was allowed to regrow after one treatment. That patch regrew 2 meters tall in 2 months. Joe plans to continue his treatments through this Summer.

The Bay Area Early Detection Network (BAEDN) and the California Invasive Plant Council (Cal-IPC) are currently working on a grant proposal to eradicate Japanese knotweed from riparian zones in the San Francisco Bay Area. Contact BAEDN Chair [Andrea Williams](#) for more information.



Kangaroo thorn. Eric Wrubel, NPS.

Kangaroo thorn **(*Acacia paradoxa*)**

A patch of Kangaroo thorn was discovered last Fall by GGNRA Resource Specialist Jonathan "Coty" Sifuentes-Winter in the Marin Headlands on Bunker Road near the east entrance to the five-minute tunnel.

Kangaroo thorn is native to Australia, and is an introduced invasive plant in California and South Africa. It is a State-listed noxious weed in California ([CDFA Encyclopededia](#)). It is a large, spiny shrub to 3 meters tall

and wide. It is adapted to disturbance in its native habitat, where it regenerates from seed after fires. Like many plants in the Fabaceae family, its roots have nodules associated with nitrogen-fixing bacteria, which can alter soil nitrogen levels.

Kangaroo thorn was once more widespread in the San Francisco Bay Area, until the California Department of Food and Agriculture targeted it for eradication. Their efforts reduced the occurrence of Kangaroo thorn throughout California, and this species has not been seen in Marin County in recent years. The Marin Headlands population will be treated this year. Please report any Kangaroo thorn sightings in the SFAN National Parks to Eric_Wrubel@nps.gov.

Spanish bluebells **(*Hyacinthoides hispanica*)**

In March the EDT discovered a single plant of Spanish bluebells growing in mesic coastal scrub vegetation



Spanish bluebells. Eric Wrubel, NPS

along the Coastal Trail between Wolf Ridge and Tennessee Valley in the Marin Headlands.

To the best of our knowledge there is currently only one other record of Spanish bluebells occurring in the wild in California, from Jasper Ridge in San Mateo County (Calflora.org). However, it is reported to be invasive in California gardens. Spanish bluebells is native to Spain and Portugal, and is an introduced invasive plant in woodlands of the [mid-Atlantic region](#) of the United States, Canada, and England.

Spanish bluebells is a perennial bulb which multiplies by underground runners that form new offset bulblets each year. This growth habit is similar to that of

Bermuda buttercup (*Oxalis pes-caprae*), a common invasive plant of the coastal Bay Area.

We immediately removed the single plant by digging. It took ten minutes to completely remove the thirty, quarter sized bulbs that were attached to the base of the plant. Obviously, larger populations of this species would be nearly impossible to eradicate, as it is difficult to find all of the underground bulblets. Please report any Spanish bluebells sightings in the SFAN National Parks to Eric_Wrubel@nps.gov.

Other News

ID	Plant	Photo	Observer	Species	Observation Date	County	Location Description	Comments
40100	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40101	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40102	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40103	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40104	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40105	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40106	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40107	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40108	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40109	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	
40110	Spanish bluebell		Eric Wrubel	Campanula medium	2012-02-02	Marin	Marin Headlands	

SFNPS Early Detection User Group on Calflora

SFNPS Early Detection is a user group on Calflora.org. This group is available for staff and volunteers to report invasive plant species occurrences to the SF NPS Bay Area Early Detection Team. You can download the [Calflora Observer](#) app to record observations using a smartphone, or use the online [Observer](#). Users can also quickly view up to 1,000 occurrences previously mapped by the EDT and NPS Habitat Restoration Team.

SFNPS Weed Watchers User Group webpage.

To join, go to [My Calflora](#) (and register as a contributor if you haven't already). Then press **My Groups**. If you are already a member of any groups, you will see them listed. To join the SFNPS Weed Watchers group, send an email to the [early detection coordinator](#), and I will add you to the list.

Survey Results

Golden Gate National Recreation Area

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 NRA 2013](#)

[Point Reyes NS 2013](#)

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	These plants are not mapped. Skilled observers may record presence/absence.



		beyond control, or they are waifs.	
*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			