

RARE

Washington Rare Plant Care & Conservation ♦ University of Washington Botanic Gardens
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R E S S



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Rare Care volunteers document yellow sand verbena populations

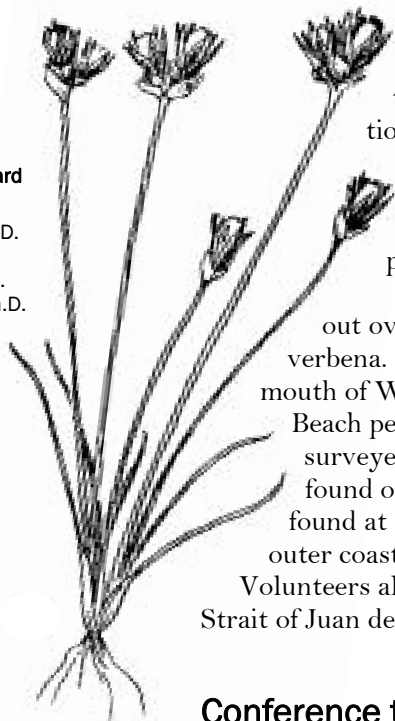
This summer, a handful of Rare Care volunteers scoured Washington beaches looking for yellow sand verbena (*Abronia latifolia*). Their goal was to document locations where large patches occur, potentially offering suitable habitat for the rare sand verbena moth (*Copablepharon fuscum*).

A member of the four-o'clock family, yellow sand verbena creeps over sandy dunes and strands where other plants struggle to survive. While not considered rare in Washington—although a close relative, pink sand verbena (*A. umbellata* var. *breviflora*), is endangered—it is considered vulnerable in British Columbia and Oregon. It faces stiff competition for its habitat from invasive European beach grass (*Ammophila arenaria*), particularly on the outer coast. Its range extends from Vancouver Island south to California, and in Washington its largest populations appear to occur on beaches of more protected inland waters. Coincidentally, the sand verbena moth has ten known populations, all within the Salish Sea from Whidbey Island north to southern Vancouver Island.

In 2009, the U.S. Fish and Wildlife Service was petitioned to list the moth under the Endangered Species Act. As part of their evaluation, they asked Rare Care and the Natural Heritage Program to collect data on the status and distribution of the moth and its host plant, yellow sand verbena. Of particular interest was whether the moth occurs on the outer coast, which might suggest that its range and population are larger than currently known.

In the first phase of this project, Rare Care volunteers fanned out over beaches between Moclips and Willapa Bay to look for yellow sand verbena. Virtually no sand verbena was discovered between Westport and the mouth of Willapa Bay, which was unexpected since it is regular on the Long Beach peninsula all the way to Leadbetter Point. (Long Beach Peninsula was surveyed in 2006 by the Bureau of Land Management.) Sand verbena was found on Ocean Shores beaches, but populations were smaller than those found at sites where the moth is present. It does not appear to occur on the outer coast north of Ocean Shores.

Volunteers also checked a number of sites on the Olympic Peninsula along the Strait of Juan de Fuca, Whidbey Island and San Juan Islands. *(continued on page 2)*



Juncus kelloggii

Conference to foster dialogue on conserving plant biodiversity

University of Washington Botanic Gardens and Rare Care will host a plant conservation conference March 13-14, 2012. The conference, titled *Conserving Plant Biodiversity in a Changing World: A View from Northwestern North America*, will bring together scientists, conservationists, policymakers, and land managers to share information on the state of plant conservation. The geographic range includes Pacific Northwest states (Idaho, Montana, Oregon, Washington), British Columbia, Alberta, Yukon and Alaska. The conference will also include a botanical art and photography exhibit and contest in which artists, conservationists and native plant enthusiasts can display their work depicting native flora of Northwestern North America. Visit the conference website for more information (<http://depts.washington.edu/uwbg/research/plant-biodiversity-2012.shtml>).



School of Forest Resources
College of the Environment



Sites may offer habitat for rare sand verbena moth

(continued from page 1)

Several of these searches turned up substantial populations of yellow sand verbena. There is a reasonably good chance that one or more of these sites will be shown to hold the sand verbena moth, especially when in close proximity to known populations.

Moth surveys started this summer, and more are planned for the summer of 2012. Surveys consist of running one or more light traps at yellow sand verbena populations to see if the moth visits the light trap. In addition, more beach surveys will be conducted to complete the mapping of yellow sand verbena populations, and vegetation and habitat data will be collected at sites with sand verbena moth populations. If you would like to become involved in this project and help survey beaches for yellow sand verbena, please contact Rare Care at rarecare@uw.edu.

Rare Care adds endangered species to seed vault collection

Rare Care worked with partners in the US Fish and Wildlife Service, US Forest Service, and Washington Natural Heritage Program to add several species to the Miller Seed Vault *ex situ* seed collection. Seed collections were completed this year of two endemic species of the Hanford Reach listed as Candidates of the Endangered Species Act (ESA). White Bluffs bladderpod (*Physaria douglasii* ssp. *tuplashensis*) is a mustard that is known from only one population located on the distinctive white alkaline soils that comprise the White Bluffs along the east side of the Columbia River. The other is the Umtanum desert buckwheat (*Eriogonum codium*), a matted perennial with only one known population that also appears to be restricted to a particular geologic substrate.

Also added to the collection were seeds from two listed species, with the intent that a portion of the seeds will be used for reintroductions within the next couple of years. A seed collection was made from a population of Wenatchee Mountain checker-mallow (*Sidalcea oregana* var. *calva*) located on private land. Seed collections were also made of the showy stickseed (*Hackelia venusta*) to support experimental outplantings planned by Rare Care in the next couple of years. Both of these species are listed as endangered under the ESA.

Eighteen other collections, made by Rare Care volunteers and staff as well as agency partners, were added to the Miller Seed Vault in 2011, bringing the total number of rare native plants held in the collection to 91.

Above: Yellow sand verbena creeps over dunes where other plants struggle to survive (photo by Wendy Gibble). Top left: Large patches of yellow sand verbena offer potential habitat for the rare sand verbena moth (photo by Mary McCallum). Top center: Krista Thie contacted Rare Care in 2007 about developing the monitoring program in White Salmon (photo by Bev Linde). Top right: Diffuse stickseed was one of nearly a dozen rare plant species documented during the rare plant monitoring weekend (photo by Julie Bresnan).

2012 RARE CARE CALENDAR

- Sat. Mar. 3 – Monitoring Training, Seattle (Apply by Feb. 10)
- Tue. Mar. 6 to Apr. 10 – Plant ID, Seattle, with Dr. David Giblin
- Sat. Mar. 31 – Navigation Training, Seattle
- Sat. Mar. 31 – Volunteer Forum, Seattle
- Sat. May 12 – Seed Collecting Training, Seattle
- Dates TBA – Monitoring Trainings & Volunteer Forums, statewide
- Dates TBA – 6th Annual Monitoring Weekend

Two dozen rare plant surveys completed during fifth annual monitoring weekend

A basalt canyon decorated with the blue blossoms of ceonothus. Open Ponderosa pine and Garry oak woodlands loaded with wildflowers. Scenic views of the Columbia River Gorge and Mt. Adams. A riverside camp filled with native plant enthusiasts. All this and more aptly describe Rare Care's fifth annual monitoring weekend in Klickitat County.

Twenty-five volunteers, agency partners and Rare Care staff gathered in mid-June to monitor known populations of rare plants in the Klickitat Wildlife Area, Conboy National Wildlife Refuge and surrounding areas. We knew from the outset that our survey plans had to be adjusted because of the late wet spring conditions, which caused as much as a one-month delay in the onset of flowering for many species. We were too early to catch the long-bearded sego lily (*Calochortus longebarbatus* var. *longebarbatus*) in bloom, whereas we caught the tail end of Baker's linanthus (*Leptosiphon bolanderi*), a tiny spring annual that normally blooms in April and May. Our timing was perfect for finding Pulsifer's monkey-flower (*Mimulus pulsiferae*), another tiny annual found in seasonally moist areas that seemed to have benefited from the wet spring.

Klickitat County is an ideal location for our annual outing. It is located at the east end of the Columbia River Gorge, a region that hosts some of the state's most diverse flora. The Gorge is one of the few places in the northwest where moist Pacific air meets dry Columbia Basin air near sea level elevation, providing a corridor for migration and a refuge for relict populations from previous glacial and interglacial periods. The Columbia River system also provides a significant corridor for species movement from its headwaters in the Rocky Mountain ecoregion of British Columbia, through the Okanogan highlands, Columbia Basin shrub-steppe and east Cascades, and out to the wetter ecoregion of the west Cascades. The convergence of these topographic features is likely a major factor in the high number of endemic species found in the vicinity.

Fortunately for Rare Care, Klickitat County also hosts a dedicated group of volunteers committed to preserving their region's rich floral heritage. This group got its start when White Salmon resident Krista Thie contacted Rare Care in the fall of 2007 to inquire about the possibility of developing the rare plant monitoring program there. Krista spread the word through the local botany community, and in spring 2008, 21 new volunteer recruits attended a Rare Care training session. A second training was offered in spring 2011, building depth to the core group and including additional volunteers from the Portland area. The Gorge volunteers organize a number of group outings each year to support one another with their monitoring assignments. The intimate knowledge of the flora and the region they brought to the monitoring weekend was invaluable for conducting surveys for new populations.

All told, 24 surveys were completed over the three-day campout, including new populations of rare plants such as oblong bluecurls (*Trichostema oblongum*), western ladies-tresses (*Spiranthes porrifolia*) and common bluecup (*Githopsis specularioides*). Regional endemics such as Barrett's

penstemon (*Penstemon barrettiae*), gooseberry-leaved alumroot (*Heuchera grossulariifolia* var. *tenuifolia*), and Suksdorf's desert-parsley (*Lomatium suksdorfii*) are locally common on the cliffs and steep slopes of the Klickitat River, and several populations of each were monitored. In fact, they are so common in the area that several new sites were documented while groups were surveying for other rare plant populations. Other species whose populations were monitored included the blue-flowered diffuse stickseed (*Hackelia diffusa* var. *diffusa*) and the very rare Ames' milk-vetch (*Astragalus pulsiferae* var. *suksdorfii*), found in Washington only from an area around Conboy National Wildlife Refuge.

Although we accomplished so much in the short three days we had, we wrapped up the monitoring weekend with the impression that there is still so much ground to cover in the region. We look forward to more explorations in the basalt canyons and pine woodlands in the coming years.

Below: Rare Care volunteers scoured ridgetops, cliff faces, wetlands and roadsides in search of rare plant species during the monitoring weekend (photo by Bev Linde). Bottom: Jason Clinch and Marilee Henry perch on a steep slope alongside the state sensitive gooseberry-leaved alumroot while Jeff Thorson reads the key to Heucheras aloud (photo by Julie Bresnan).



THANK YOU, DONORS: JULY 1, 2010 - JUNE 30, 2011

Rare Care is grateful for financial support provided by generous donors. We rely on grants and donations to fund all program activities. We are also grateful for the support of volunteers who contributed more than 4,875 hours of service.

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From Tweedy's willow in the north to clustered lady's slipper in the south,

more than 320 rare native plants grow in Washington State.

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for how much
longer?

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Photo by Bob Jackson

Photo by Richard Ramsden

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