

RARE

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PLANT

R E S S



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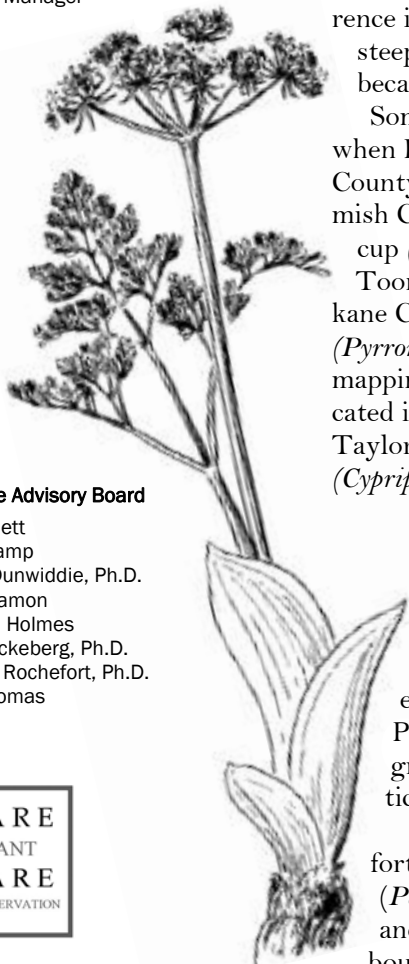
GREAT FINDS 2009: Volunteers make significant cinquefoil find

During Rare Care's monitoring weekend in the Wenatchee Mountains last summer, volunteers Paul Slichter, Ellen Kuhlmann and Barry Wendling spotted twenty-nine Brewer's cinquefoil (*Potentilla drummondii* ssp. *breweri*). This was significant, because the Washington Natural Heritage Program has no reports of this species since 1956, and none of the four historical sightings (1899-1956) were from Kittitas County. Slichter was familiar with the species from sightings in his home state of Oregon. The knowledge and experience that volunteers such as Slichter bring to the monitoring program reveal the value of a citizen monitoring program.

With two more sightings of Seely's silene (*Silene seelyi*) this year, Rare Care volunteers have monitored nearly every known occurrence in Washington State. Besides Michael Muscari's find ("Retracing a botanist's steps," p. 2), Gail Roberts relocated a silene occurrence originally reported in 1952. Elroy Burnett redocumented the occurrence in 1984, but another botanist was unable to find it in 1990. Roberts hiked up a steep snow-melt draw and counted five large silene clumps on cliff faces before it became too steep to continue.

Sometimes rare plants are found on the second or third attempt. Such was the case when Kelli Van Norman found northern microseris (*Microseris borealis*) in Skamania County, when Katie Messick and Brenda Cunningham scrambled as far up a Snohomish County mountain as possible without technical gear and found Cooley's buttercup (*Ranunculus cooleyae*) and Alaska harebell (*Campanula lasiocarpa*), and when Ron

Toonen found 13 yellow lady's slipper stems (*Cypripedium parviflorum*) in one Spokane County location and 3 stems in another. Toonen also found Palouse goldenweed (*Pyrroma liatriflorum*) in Whitman County that had been missed previously due to a mapping discrepancy. And sometimes rare plant populations aren't found where indicated in the records, but in neighboring vicinities, as when Melissa Rathbun and Tina Taylor turned what would have been a negative report for clustered lady's slipper (*Cypripedium fasciculatum*) in Kittitas County into a find. (continued on page 2)



Lomatium tuberosum

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Rare Care banks rare alpine seeds from national parks

Rare Care recently wrapped up a 3-year effort to collect and bank seeds of rare alpine plants found in national parks in Washington. We focused on endemic alpine plants and rare montane to alpine species that are at the southern extent of their range in Mt Rainier, North Cascades, and Olympic National Parks. These species were selected by park scientists because their limited geographic range and/or their dependence on cool, moist habitats make them particularly vulnerable to extirpation due to global warming.

At Mt. Rainier National Park, two endemic species were the focus of our efforts: obscure Indian-paintbrush (*Castilleja cryptantha*) and Mt. Rainier lousewort (*Pedicularis rainierensis*). Obscure Indian-paintbrush's range is limited to the north and east side of Mt. Rainier and is found almost exclusively within the park boundaries in subalpine meadows. Mt. Rainier lousewort has a similar range and habitat requirements, but it occurs on the west and south sides of the mountain as well. Seeds from three populations of Indian-paintbrush and two populations of Mt. Rainier lousewort, located at geographically distant points, were collected and added to the seed bank in the Miller Seed Vault. Rare Care seed collecting volunteers Marilee Henry, Dennis Noson, Emily-Robin Pierce, Betty Swift, and Jeff Thorson contributed to Mt. Rainier National Park collections. (continued on page 3)



School of Forest Resources
College of the Environment



Thanks to Rare Care volunteers, Washington Natural Heritage Program now has a confirmed current sighting of Brewer's cinquefoil. Photos by Paul Slichter.

Focus species: *Potentilla drummondii* ssp. *breweri*

Cinquefoils are found in most habitats of Washington State, but with over 20 species in our flora, they can pose some identification challenges. *Potentilla drummondii* ssp. *breweri* can be distinguished from other cinquefoils found in the Pacific Northwest by the combination of its tufted growth habit; its grayish, hairy, odd-pinnate basal leaves comprised of 7 to 13 deeply-dissected leaflets; and its slender style that is longer than the fruit. In Washington, it is found primarily at elevations above 5,000 feet.

Rare Care doubles known occurrences of sticky goldenweed

(continued from page 1)

Volunteers also found rare plant populations never before documented: Whited's penstemon (*Penstemon eriantherus* var. *whitedii*), Chelan County, Julie Sanderson; bristly sedge (*Carex comosa*), King County, Fred Stark; Howell's daisy (*Erigeron howellii*) and Oregon sullivantia (*Sullivantia oregana*), Skamania County, Steven Clark; and Suksdorf's desert-parsley (*Lomatium suksdorfii*), Klickitat County, Paul Slichter. In Kittitas County, Julia Bent, Don Knoke, Paul Slichter, Ellen Kuhlmann and Barry Wendling found two large new occurrences of sticky goldenweed (*Pyrrcoma hirta* var. *sonchifolia*), which doubles the number of known occurrences of this species in Washington State.

Alison and Jim Henderson found and precisely mapped an M-precision (accurate only to within 1 mile) Nuttall's quillwort (*Isoetes nuttallii*) population in Klickitat County. And Rare Care has been attempting to document a difficult-access, Whatcom County occurrence of arctic aster (*Eurybia merita*) for several years now. Along with a valuable report, the successful Richard Ramsden provided advice: "Bring DEET, netting and ice axe."

A negative search for canyon bog-orchid (*Platanthera sparsiflora*) is also of interest, because all four *P. sparsiflora* occurrences in Washington are believed to be possible misidentifications. Volunteer Cleveland Hall took the time to identify every *Platanthera* she observed: "All green *Platanthera* observed appear to me to be *P. stricta* with scrotiform spur much

shorter than lip & column less than 1/2 [the height of the] hood. White *Platanthera* observed with slender spur much longer than lip (with basal dilation) appear to me to be *P. dilatata* var. *leucostachys*."

One more find: while monitoring pygmy saxifrage (*Saxifraga rivularis*) in the Okanogan-Wenatchee National Forests, Brenda Cunningham observed a wolverine in broad daylight.

Retracing a botanist's steps

As part of a newly-funded effort to revisit rare plant occurrences found by Elroy Burnett in the 1980s and 90s, Rare Care volunteers traveled to 8 sites in Chelan, King, Kittitas and Skagit Counties this year. They found their target populations at 5 of the locations. Walking in Burnett's footsteps isn't an easy stroll. Some of the plants grow on vertical slopes. The documentation for others is "M precision," meaning the mapping is accurate give or take a mile! One of Burnett's sightings consisted of 3 dwarf plants, 4 inches tall with 1/2-inch long leaves and 1/8-inch long flowers, at the edge of a meadow. You get the idea.

Volunteer Michael Muscari surveyed a site in the Okanogan-Wenatchee National Forests for Seely's silene (*Silene seelyi*), continuing Rare Care's search for the species that was the focus of the 2008 Monitoring Weekend. He found the species "only on vertical surfaces of rocks" (not on merely steep slopes). However Burnett reported on 500 acres stretching from 2400 to 5900 feet in elevation; Muscari had time to carefully record data in just a corner (continued on page 3)

Seeds from three species collected in North Cascades National Park

(continued from page 1)

Collections completed in Olympic National Park included two populations of Cotton's milk-vetch (*Astragalus cottonii*) and one population of cut-leaf synthyris (*Synthyris pinnatifida* var. *lanuginosa*), both of which are endemic to the Olympic Mountains. Cotton's milk-vetch occurs in the northeastern Olympics on sparsely-vegetated scree slopes. Cut-leaf synthyris has a similar range but prefers more stable rocky substrate that supports pin cushion plant communities. Although both taxa have very restricted ranges, synthyris can be quite abundant locally, whereas populations of the milk-vetch are often smaller. We also collected seeds of one population of tall bugbane (*Cimicifuga elata* var. *elata*) along the Elwha River in the Olympic National Park. Although this species is not a montane or endemic species, the Park requested that seeds be collected and banked in case the populations are inadvertently impacted by the dam removal project. Rare Care seed collecting volunteers Earl Doan, Tena Doan and Rachel Hulscher contributed to Olympic National Park collections.

Seed collections in North Cascades National Park were completed for three species: Alaska curved woodrush (*Luzula arcuata* ssp. *unalaschensis*), Kotzebue's grass-of-parnassus (*Parnassia kotzebuei*), and green keeled cotton-grass (*Eriophorum viridicarinatum*). All three species are more common further north, but are known from only a few sites in Washington. Alaska curved woodrush is found at or above 6,400 feet elevation with less than 6 known extant populations in the Cascade Mountains. Four populations of Kotzebue's grass-of-parnassus occur in Washington, all in Okanogan County in moist sub-alpine habitat. With 11 occurrences in our state, green keeled cotton-grass is more common than the other two species, but the only confirmed site in Washington's Cascade Range is in the North Cascades National Park. All other sites of this montane wetland species occur in the northeastern portion of the state. Rare Care volunteers Brenda Cunningham, Tim Manns, and Kim Rasmussen contributed to North Cascades National Park collections.

In addition to these collections, Rare Care continues to work with the Forest Service to collect and bank seeds of alpine species on National Forests.

He liked it steep

(continued from page 2)

of the site. Since the slope has hundreds of rock outcrops, there are "likely many hundreds" of silene clumps.

Thomas Erler and Niall Dunne, new volunteers this year, climbed past 3 waterfalls, scrambled over boulder fields and pushed through devil's club to reach an Alaska harebell (*Campanula lasiocarpa*) site that Rare Care volunteers had not been able to reach in previous years despite two attempts. Burnett's handwritten notes from his 1981 sighting say, "I was looking for a way to climb Mt. Index. I made it to top of ridge. It's real steep."

Burnett was a self-taught botanist whose explorations resulted in rare plant records spanning at least 7 counties and 7,000 vertical feet. His botanizing took Brenda Cunningham into Skagit County bogs in search of a rare sedge. Betty Swift, Hally Swift, Julia Bent and Don Knoke collected data on clustered lady's slipper (*Cypripedium fasciculatum*) in Chelan County. In Kittitas County, Julia Bent and Don Knoke documented both pink and yellow forms of tall agoseris (*Agoseris elata*) and found M-precision sticky goldenweed (*Pyrrcoma hirta* var. *sonchifolia*). Rare Care will continue in Elroy Burnett's footsteps next year.

Katie Messick examines Alaska harebell after quite a scramble to reach it. Photo by Brenda Cunningham.

New & repeat donors keep finances sound

In these challenging economic times, Rare Care is pleased to report that we were able to sustain our programs through the last fiscal year and enter the current year on a sound financial footing. Although we were not impacted by budget cuts at the University of Washington (the state does not provide support for Rare Care's programs), our funding for the rare plant monitoring project was not renewed last year. However, the Forest Service and the Central Puget Sound Chapter of the Washington Native Plant Society stepped in and provided funding for the rare plant monitoring project in 2009 while we pursued additional funding. This summer, Rare Care was awarded a grant from the US Fish and Wildlife Service to support this important project through 2010 and help the Service in its evaluation and review of sensitive plant species in the Pacific Northwest.

Funding for our *ex situ* program continues to be strong due in large part to the commitment the Miller Charitable Foundation has shown toward plant conservation and operation of Miller Seed Vault. Rare Care also received generous gifts from the Deupree Family Foundation and the Lake Washington Garden Club that will allow us to make technological improvements and equipment upgrades in the upcoming year to support the growth of our program. We are deeply grateful for the support we have received to develop this program and for the community's commitment to plant conservation.



2010 RARE CARE CALENDAR

Ongoing

Seed cleaning, Miller Seed Vault

Sat., Feb. 27

Rare Plant Monitoring Training, Seattle (all day)

TBA March - April 2010

Plant Identification course with Dr. David Giblin, Seattle

Sat., March 27

Navigation Training for Rare Care volunteers, Seattle (all day)

Season Kickoff for Rare Care volunteers, Seattle (late afternoon)

TBA April or May 2010

Rare Plant Monitoring Training, Okanogan County (Got friends there? Encourage them to apply now!)

Volunteer forums statewide

Sat., May 22

Rare Seed Collecting Training, Seattle (all day)

Fri.-Sun., July 9-11

4th Annual Monitoring Weekend

Volunteers found undocumented sticky goldenweed sites. Photo by Paul Slichter.



THANK YOU TO ALL WHO CONTRIBUTED BETWEEN JULY 1, 2008 AND JUNE 30, 2009

Rare Care is grateful for financial support provided by generous donors. Rare Care relies on grants and donations to fund all program activities. We are also grateful for support provided by a talented and dedicated corps of volunteers who gave more than 3,720 hours of their time.

IN HONOR OF ELROY BURNETT'S BIRTHDAY

Tracy Fuentes

SAVE OUR SPECIES

SEED COLLECTION SUPPORTERS

Eleanor Boba
and Alan Humphrey

GERMINATION TESTING SUPPORTERS

Dianne Pierce

FIELD MONITORING SUPPORTERS

Anne Goslin
Holly Greenspoon

Marilee Henry
Jocelyn Horder
Martha Pierce
Fred Stark
Michael Van Winkle

\$1,000 AND ABOVE

Alan Sugino
Lily Takatsuka

\$500 TO \$999

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Julie Sanderson
Brooke Sullivan
Hally Swift (in recognition
of Betty Swift)

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David Boose

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Cleveland Hall
Marie Hitchman
Robert Jackson
Mary Pat Larsen
Peggy Miller
Jennifer Purnell
Linda Storm
Susan Wheatley

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Rare Care recently launched a page on Facebook. Visit www.facebook.com and become a fan to keep up with the latest news, human interest, photos, events and opportunities. Also, Facebook makes it easy for you to communicate with Rare Care and other Rare Care fans. See you there!



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.

SAVE OUR SPECIES

But
for how much
longer?

Give a gift of conservation for the holidays and help save a species. Call 206-616-0780 or visit <http://depts.washington.edu/rarecare>. Washington Rare Plant Care and Conservation

Rare Care is grateful for support from the Miller Charitable Foundation, Bullitt Foundation, Hugh and Jane Ferguson Foundation, Deupree Family Foundation, Seattle Garden Club, Tacoma Garden Club, Washington Native Plant Society, private organizations and individual donors.