

RARE

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Washington Rare Plant Care & Conservation ♦ University of Washington Botanic Gardens
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PLANT

R E S S



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Rare Care celebrates 10 years of rare plant conservation

Ten years ago this October, Dr. Sarah Reichard, then a relatively new research faculty member at the Center for Urban Horticulture (CUH), launched a program focused exclusively on the study and conservation of Washington's rare plants.

The idea first came to her when she was a graduate student studying botany at University of Washington. She became keenly aware of the lack of a coordinated effort to promote research and study of rare plants in this state. Within a year of her appointment to the CUH faculty,

Reichard was invited to join the Science Advisory Board for the Center for Plant Conservation (CPC). Through this work, she became more familiar with other conservation programs, in particular the one at Berry Botanic Gardens in Portland, Oregon. She applied for a grant from

The Bullitt Foundation to launch a new program, which she named Washington Rare Plant Care and Conservation.

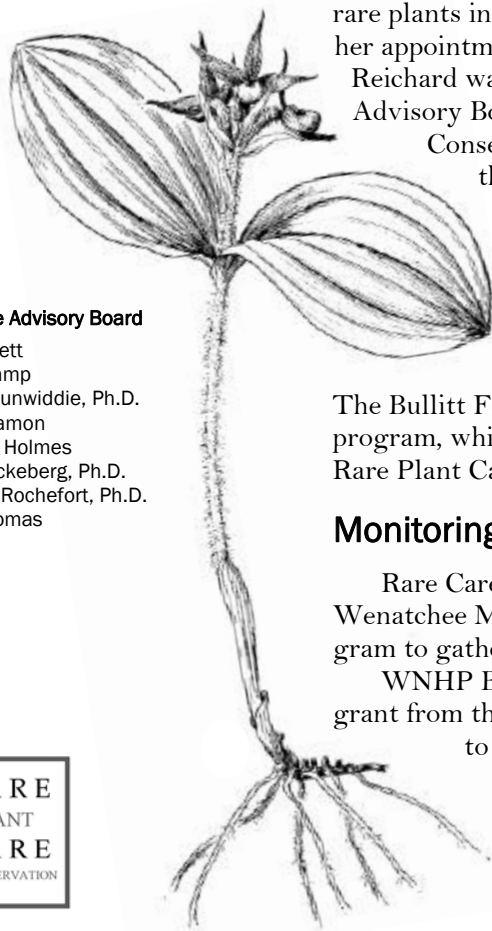
Reichard's concept was to develop "a community of undergraduate students, graduate students, and volunteers working on a daily basis towards rare plant conservation in Washington." For the first couple of years, the primary focus was research. Graduate students studied the effects of recreational climbing on *Silene seelyi*, propagation techniques for *Castilleja levisecta*, and factors affecting the rarity of *Sidalcea oregana* var. *calva*.

In 2001, the program expanded substantially with the launch of the rare plant monitoring project. While on CPC's Science Advisory Board, Reichard became familiar with a citizen science monitoring program at the New England Wild Flower Society, developed by Conservation Director Bill Brumback. The project was a huge success, and Reichard felt that a similar effort was needed in Washington State and that it would complement the mission of Rare Care.

Reichard and Wendy Brown, Rare Care's program manager at the time, included a rare plant monitoring project as
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Science Advisory Board

Joe Arnett
Pam Camp
Peter Dunwiddie, Ph.D.
John Gamon
Russell Holmes
Art Kruckeberg, Ph.D.
Regina Rochefort, Ph.D.
Ted Thomas



Cypripedium fasciculatum

Monitoring weekend focuses on Wenatchee Mountain endemics

Rare Care's 2nd annual monitoring weekend took place in June in the heart of the Wenatchee Mountains. We teamed up with the Washington Natural Heritage Program to gather data on a number of taxa found only in the Wenatchee Mountains.

WNHP Botanist Joe Arnett is conducting a 3-year review of these taxa under a grant from the US Fish and Wildlife Service. Some of the objectives of the review are to provide updated information on known populations of listed and other rare species, and to conduct inventories to fill in gaps in information on the distribution of Wenatchee Mountain endemic plants.

With over 50 endemic taxa to survey in the vast area bounded by Cle Elum on the south, Route 2 to the north, the Cle Elum River drainage to the west and Mission Ridge to the east, Arnett has a daunting task. It is a project that would benefit from having more people out in the field looking for the plants along the myriad roads and trails crisscrossing the mountains. Rare Care's rare plant monitors excel at this, and it presented a perfect opportunity for Rare Care and WNHP to expand our successful partnership.

For the first year of this review, we decided to concentrate our efforts around the Icicle Creek drainage and revisit known populations
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College of Forest Resources



Top left: Rare Care Program Manager Wendy Gibble (right) discusses *Silene seelyi* locations with rare plant monitoring weekend volunteers (left to right) Jeff Thorson, Wendy McClure, Rod Gilbert and Julie Bresnan.

Top right: *S. seelyi*'s white to purplish flowers are smaller than 12 mm. Photo by Rod Gilbert.

Bottom: *Silene seelyi* has glandular leaves.

Photos on these 2 pages by Jennifer Youngman unless otherwise noted.



Silene seelyi* differs from *S. menziesii

With about 10 native species in Washington, *Silenes* offer a moderately difficult identification problem. However, only one native *Silene* besides *Silene seelyi* has flowers smaller than 12 mm.

S. menziesii has white flowers and obovate or oblanceolate leaves mostly 2 to 6 cm long. *S. seelyi*'s flowers tend to be white to purplish, and its ovate to lanceolate leaves are often less than 1 cm long. *S. seelyi*'s leaves are glandular, and *S. menziesii*'s are not.

Rare Care and partnering agency biologists team up

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of *Silene seelyi*. This species occurs only at 22 sites, growing on granitic cliffs often used by rock climbers. These sites range in elevation from 1,100 to 6,000 feet, taking us into a wide variety of vegetation communities where many other endemic taxa potentially occur. Therefore, while monitoring sites of *S. seelyi*, our monitoring teams kept a sharp eye out for other endemic species and created plant lists for each area visited.

Over the two days, 20 Rare Care volunteer monitors and staff, plus several biologists from partnering agencies, visited 11 occurrences of *S. seelyi* and one occurrence each of *Cypripedium fasciculatum* and *Iliamna longisepala*. *S. seelyi* was found at all 11 sites visited, with higher numbers found at 7 of the 11 sites than previously reported. Two other *S. seelyi* occurrences were visited in the subsequent week by rare plant monitors as individual assignments; one was successfully relocated while the other was not. Rare Care plans to revisit this site, plus the remaining 8 sites that Rare Care has not monitored, over the coming 2 years to complete the review of this species.

In 2009 and 2010, rare plant monitoring weekends will return to the Wenatchee Mountains to continue our partnership with WNHP to survey Wenatchee Mountain endemics. Future trips will focus on the Teanaway drainage and Table Mountain area.

Volunteers find rare species on second or third attempt

Rare Care revisits sites at least two more times if an occurrence is not found on the first attempt. This year proved why that's a good idea. Rare Care volunteer Richard Ramsden found 47 *Erythronium revolutum* on DNR land in Clallam County. His was third in a series of searches made by different individuals.

Another successful third attempt was made by volunteer Steven Clark, who located one golden chinquapin in Gifford Pinchot National Forest's Mt. Adams Ranger District, slightly outside the area where *Chrysolepis chrysophylla* had been mapped. Following two unsuccessful searches made by other volunteers in 2004 and 2007 in Mt. Baker-Snoqualmie National Forest's Mt. Baker Ranger District,

Brenda Cunningham didn't find *Saxifraga rivularis* in the exact location marked on the map either. But she did find 20 individuals not far away.

Other times, it just requires a different year in the same place. Mother-daughter team Betty and Hally Swift searched for *Spiranthes porrifolia* in the same spot they searched last year, and this year they found 5 individuals flowering in the Okanogan-Wenatchee National Forests. Sara Wu and Marilyn Sarsfield visited a Conboy Lake National Wildlife Area site of *Orthocarpus bracteosus* that had been carefully searched by a different volunteer in 2007. They counted 68 plants and recorded their exact location using a GPS, which will be a great aid in future surveys.

Rare Care expands from research to monitoring

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part of the 5-year Strategic Plan they started to develop in 1999. When presented to Rare Care's Science Advisory Board, there was so much enthusiasm for the idea that the Board asked Rare Care to launch it immediately rather than wait several years.

At that time Laura Zybas, one of Reichard's graduate students, was looking for a project for her Masters in Forest Resources degree. Zybas agreed to develop a Quality Assurance Plan for the proposed monitoring project and launch the project. She visited Brumback in New England to observe how his program was executed and to learn what components were vital to its success. Of particular interest was the approach used to ensure that high quality data were produced by the project and that confidential information on the location of rare plants was not released to the general public. Zybas adopted many of these tools to implement Rare Care's rare plant monitoring project.

In 2001, Zybas launched the monitoring program by training volunteers in Seattle. In 2003, she expanded it by offering trainings in Richland and Omak. Since then, Rare Care has trained over 250 volunteers statewide. The program has become one of the largest of its kind in the nation and has resulted in nearly 700 reports to the WNHP on the status of populations of over 190 species of rare native plants.

In 2003, with a grant from the Miller Charitable Foundation, Rare Care initiated its *ex situ* program with construction of the Miller Seed Vault. Today the vault holds seeds of 62 species of rare native plants. It is also used for short-term storage of native seeds for restoration and research. Many volunteers who started out as monitors have become seed collectors and helped build the collection.

When asked about priorities for the next ten years, Reichard noted that Rare Care will need to remain focused on its mission but adaptable in its execution in order to be responsive to the needs arising from an increasingly changing world. She also foresees that the *ex situ* collection will play an increasingly important role in the future as we begin to grapple with the affects of global climate change.

Right: WNHP Program Manager John Gamon (center), guest speaker at Rare Care's 10th Anniversary, talks with Rare Care volunteers Nancy and Andrew Rabin.



US Fish and Wildlife Service Ecologist Ted Thomas (right), guest speaker at Rare Care's 10th Anniversary Celebration, talks with Rare Care volunteer Richard Ramsden.

2009 RARE CARE CALENDAR

Ongoing

Seed cleaning in the Miller Seed Vault, Seattle

Sat., Feb. 28

Rare Plant Monitoring Training, Seattle

Tue., March 10 - April 14, plus a Saturday in April

Plant Identification course and field trip with Dr. David Giblin, UW Botanic Gardens

Sat., March 28

Navigation Training for Rare Care volunteers, Seattle

TBA 2009

Rare Plant Monitoring and Seed Collecting Trainings, Eastern Cascades region

Sat., May 16

Rare Seed Collecting Training, Seattle

June 6, 12:00 pm - 4:00 pm

Celebrating Wildflowers, Olympic Sculpture Park, Seattle

July 24-26, 2009

3rd Annual Monitoring Weekend, Wenatchee Mountains

Rare Care volunteer Betty Swift (left) talks with WNHP Botanist Joe Arnett (right), while Hyde Herbarium Manager Wendy DesCamp (back left) and former Rare Care Program Manager Carolyn Alfano look over items such as botanical illustrations and cabin getaways generously donated by volunteers and friends for the 10th Anniversary raffle benefiting Rare Care 2009 special projects.

SPECIAL MONITORING PROJECT:

Rare Care will retrace Elroy Burnett's footsteps with help of financial gift

Anybody working with rare plants knows that Elroy Burnett played a significant role in advancing our knowledge about the distribution of rare and obscure plants and lichens in Washington State. Elroy was a self-taught botanist who hiked extensively throughout the state, particularly in the Cascade Mountains. He had a particular interest in obscure and unusual plants, and his success in locating them stemmed from years of careful observation, detailed record-keeping of his excursions, and the deep familiarity he developed with Washington's plant communities. Although Elroy passed away in February 2008, we are fortunate for the legacy he left for us, including reports on, and in some cases discovery of, 47 occurrences of rare plants in the Washington Natural Heritage Program's database and nearly 300 sites of sensitive plants and lichens tracked by the US Forest Service and Bureau of Land Management. A detailed article on Elroy's contributions can be found in the spring/summer 2008 issue of *Douglasia*.

To honor Elroy's memory, Tracy Fuentes, a Rare Care volunteer and a former Forest Service botanist, has given Rare Care a gift to support revisits of some of the occurrences documented by Elroy Burnett between 1981 and 1996. Starting in 2009, Rare Care, with the assistance of our rare plant monitoring volunteers, will retrace Elroy's steps to some of Washington's most obscure species, such as several populations of *Botrychium* species (moonworts). We will also focus on revisiting occurrences first discovered by Elroy, such as the only known occurrence of *Phacelia minutissima* in Washington State and one of the only two known occurrences of *Pyrrocoma hirta* var. *sonchifolia* in the state. We hope our rare plant monitors will join in this effort to retrace Elroy's footsteps during the 2009 season.

THANK YOU TO ALL WHO CONTRIBUTED BETWEEN JULY 1, 2007 AND JUNE 30, 2008

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 3,575 hours of their time.



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 PLANT ENDOWMENTS

U.S. Forest Service

IN MEMORY OF ELROY BURNETT

Tracy Fuentes

\$1,000 AND ABOVE

Anonymous
Alan Sugino
Lily Takatsuka

\$500 TO \$999

Eve Dixon
Sarah Reichard
Walter and Patricia Riehl

\$100 TO \$499

Julia Bent
Eleanor Boba
and Alan Humphrey
Elisabeth Bottler
Barbara Carman
Patricia Danford
Earl and Tena Doan
Sylvia Duryee
Michael and Jana Hobbs
Scott and Susan Lipsky
Michelle Margroff
and James Ellingboe
Douglas Owens-Pike
Mani Soma
Fred Stark
Linda Swartz
George Thornton
and Lee Miller
Jeffrey Walker

\$50 TO \$99

Suzanne and Marvin Anderson
Lorraine Brooks
Michele Chamness
Sharon Dunn
Jean Emmons
Leonard Fuller
Charles Hawkins
Julia Jose
Clay Kemper
Don Knoke
Ken and Lois Prestrud
Gloria Reading

UP TO \$49

Julie Combs
Brenda Cunningham
Amanda Davis
Charles Finkel
Kimberly Frappier
Thomas Guobis
Cleveland Hall
Marie Hitchman
Robert Jackson
Peggy Miller
Phyllis Pierce
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William and Mary Lou Safranek
Eric and SK Schmieman
Louise Smith
Brooke Sullivan
Dick and Janette Tureman
Wendy and Christopher Wayne

IN-KIND GIFTS

Sky Nursery

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