SCHOOL OF ENVIRONMENTAL & FOREST SCIENCES
UNIVERSITY of WASHINGTON
College of the Environment

RARE PLANT PRESS

From Washington Rare Plant Care & Conservation

Fall/Winter 2025 Vol. 20, No. 2

NOTES FROM THE FIELD

We expected this survey season to be difficult with a hot and dry spring and summer causing shorter and earlier windows for finding rare plants. However, our volunteers, ever dedicated to the cause, rose to the challenge.

Sarah Stolar knew success would require arduous effort to reach a fern-leaf goldthread (*Coptis aspleniifolia*) population after Rare Care's last three attempts couldn't reach the location. She bushwhacked through difficult terrain for seven miles – at times having to crawl on her hands and knees to get through the brush. She not only found the goldthread but spent five hours surveying it in a shin-deep bog.

Jeff Thorson signed up to relocate a historical population of Alice's fleabane (*Erigeron aliceae*) found in the 1980s. Due to historical location inaccuracy, Jeff had a large 1-mile radius search area. Brainstorming ways to best find the population, he discovered others had recorded it on iNaturalist (a flora and fauna observation app). He reached out to the observers to get coordinates, and the rest was smooth surveying.

Our volunteers also had success with a hard-to-find genus – moonwort (*Botrychium*). Inconspicuous, with unpredictable fruiting times, our success rate for finding moonworts is low. However, Jeannie Mounger with Cliona Byrne found upswept moonwort (*Botrychium ascendens*), and Janka Hobbs found western moonwort (*Botrychium hesperium*).

Long-awaited species were added to the Miller Seed Vault this season. Robin Fitch braved a windstorm in the Blue Mountains to collect Davis's daisy (*Erigeron davisii*) seeds before they all blew away. Mary Kline visited a fringed kittentails (*Veronica schizantha*) population three times to get ripe seeds, finding two new subpopulations along the way. Julie Bresnan took a long drive to the Okanogan Highlands to collect seeds from two populations of northern blue-eyed grass (*Sisyrinchium septentrionale*).

If we could list all our volunteers' accomplishments this year, we would need to print a book. Each effort is linked together in discovery, wonder, and a deep belief in the importance of protecting Washington's rare plants.

Alice's fleabane (Erigeron aliceae) *in the Olympic Mountains.*
Photo by: Jeff Thorson

Sarah Stolar after her 14-mile roundtrip bushwhack in Mt. Baker-Snoqualmie National Forest. Photo by: Sarah Stolar

Upswept moonwort (Botrychium ascendens)
Photo by: Jeannie Mounger

HABITAT RESTORATION FOR CLIMATE RESILIENCE

Along the rutted road to Colockum Creek Area of Critical Environmental Concern (ACEC), remnant patches of 7-foot-tall big sagebrush (Artemisia tridentata) give a glimpse of what the ACEC might have looked like before recent wildfires. Today, most of the site is covered by a near-monoculture of nonnative cheatgrass (*Bromus tectorum*) and tumble mustard (*Sisymbrium altissimum*) because the site has burned three times since 2013.

Fires used to burn sagebrush steppe ecosystems in Washington every 30-70 years, not every 3-4, but cheatgrass is a fierce and flammable competitor. It shortens the amount of time between wildfires, making it difficult for native species to reestablish, especially fire-intolerant species like big sagebrush.

Bureau of Land Management's Colockum Creek ACEC is managed for the state endangered Whited's milkvetch (*Astragalus sinuatus*), which is endemic to a 6-square-mile area near Wenatchee. While Whited's milkvetch can survive fires, its seedlings struggle to establish when there is dense competition with cheatgrass.

That's why Rare Care's 2025 Habitat Restoration Plan recommends restoration of a native plant community that can reestablish quickly after wildfires to prevent cheatgrass invasion. Recommended species include bluebunch wheatgrass (*Pseudoroegneria spicata*), balsamroot species (*Balsamorhiza spp.*), and common rabbit-brush (*Ericameria nauseosa*) — a shrub that resprouts from its crown after fire.

Notably absent from our recommended species list is big sagebrush, despite its historical abundance. Shorter fire intervals are predicted to continue at Colockum Creek, and big sagebrush does not resprout after fires. Repeated restoration efforts would be required to reestablish big sagebrush after each subsequent fire, since it would take years to return naturally. Our expectation is that restoring the fire-prone site with species that can resprout after fire will help resist

*Whited's milkvetch (*Astragalus sinuatus*) surrounded by cheatgrass (*Bromus tectorum*).*
Photo by Naomi Reibold

future cheatgrass infestations, help more Whited's Milkvetch seedlings survive, and create a more resilient native plant community.

The restoration plan is the first part of what we expect will be a multi-phased "staged scale restoration" approach. Staged scale restoration involves restoring increasingly large areas while testing different restoration techniques, with each stage comparing the best methods from the previous stage until the optimal method is found. For the next phase of restoration, we recommend testing one to two different herbicides in combination with planting and seeding native species. Herbicide will help reduce the cheatgrass population for long enough to help planted and seeded native species establish.

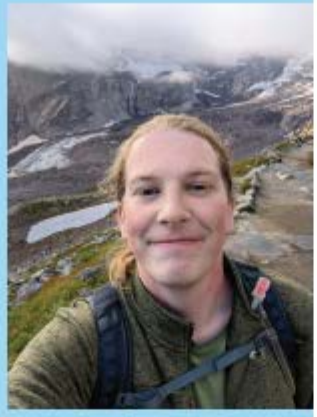
Although restoring more heavily with fire-tolerant native species may result in a community that differs from the historical state, an adaptable management approach will help ensure this ecosystem has the resilience to support Whited's milkvetch in a changing climate.

*Colockum Creek ACEC in March 2014, thick with big sagebrush (*Artemisia tridentata*) before wildfires killed the shrubs.*
Photo by Brittany King

*Colockum Creek ACEC in April 2022, wih swaths of cheatgrass (*Bromus tectorum*) and no big sagebrush (*Artemisia tridentata*). Photo by Allie Howell*

MEET OUR FIELD TECH

Jacob Maki was our 2025 seasonal field technician. Jacob started as a volunteer monitor with Rare Care in 2021. After graduating with a degree in plant biology from the University of Washington last year, he decided to take a stab at a full season of Rare Care.



Jacob Maki at Mount Rainier National Park. Photo by: Jacob Maki

Assisting with seed collections, outplantings, and monitoring, he traveled across the state from the Olympic Mountains to the channeled scablands in Odessa, WA.

Jacob tackled steep slopes, harrowing cliffs, and hot weather throughout the field season.

"Many of our plants require some intrepid travel," Maki said. "It gives me a new appreciation for everyone associated with the program, knowing how much dedication finding some of these plants requires."

MONITORING WEEKEND

The weekend of June 5th-8th, 14 Rare Care volunteers traveled to the Okanogan Highlands in the Tonasket Ranger District of the Colville National Forest for our annual Monitoring Weekend. We conducted 16 surveys with 10 surveys dedicated to our target species, Northern blue-eyed grass (*Sisyrinchium septentrionale*).

2025 Monitoring Weekend participants gathered around for a morning meeting. Photo by: Naomi Reibold

2025 PLANT CONSERVATION LEADERSHIP SUMMIT

In August, Rare Care Program Manager Wendy Gibble attended the Plant Conservation Leadership Summit at the Atlanta Botanic Gardens. Over 100 leaders from 64 botanic gardens and affiliated organizations across the US convened to strategize how to advance plant conservation objectives in this new environment of severely reduced federal funding. Nearly all organizations have been impacted by the termination of federal grants and/or the lack of new funding opportunities. This, combined with increased competition for private philanthropy funds, will severely impact plant conservation work nationwide in the foreseeable future.

Over the 2-day summit, key themes emerged from working sessions. There was broad consensus that a national strategy is needed to articulate short-term and long-term goals, identify actions to mitigate risks to plants over the coming decades, and integrate ecosystem restoration more explicitly into rare plant species conservation. Organizations will need to cultivate new partners, for instance, collaborating with industry and for-profit corporations to achieve conservation actions that align with shared objectives. Participants agreed that the botanic garden community needs to shift its mindset about how it approaches plant conservation.

Another theme that arose is a need to shift public views about plant conservation outcomes. Participants highlighted the need to share stories of successful recovery and delisting of species on the Endangered Species Act and illustrate how species conservation can be achieved alongside economic development. These stories should be shared regionally and nationally to build awareness of how plant conservation intersects with disaster mitigation and resiliency, better health outcomes, and improved economic and recreational opportunities.

Participants developed some recommendations for next steps. There was broad interest in developing a coalition of organizations to increase coordination and resources to advance key strategies. This coalition will support engagement with policymakers and key allies, look for opportunities to coordinate messaging campaigns, and develop non-federal funding for regional or national conservation projects.

Rare Care and UW Botanic Gardens are excited to collaborate with botanic gardens across the country in this important work.

July 1, 2024 - June 30, 2025

THANK YOU

Volunteer hours: 2,196

$10,000 and Above

Anonymous

$1,000 and Above

Bonhoeffer Botanical Gardens
Deupree Family Foundation
William and V. Lee Ellis
Hyde Family Foundation
Christopher Mealy and Ara Olufson
Mark Mease
Washington Native Plant Society
Salal Chapter
Susan Wheatley

$500 to $999

Anonymous
Curtis Sundquist
Jeff Thorson, Ph.D.
and Marilee Henry, Ph.D.
Washington Native Plant Society
Olympic Chapter
Sandra Whiting

$250 to $499

Paul Ballinger, M.D. and Susan Ballinger
Pamela Camp
Steven Clark and Cherie Kearney
Earl and Tena Doan
Peter Dunwiddie and Elizabeth Bell
Wendy Gibble
Virginia King
Susan Saul
Paul Slichter
Withey Price Landscape and Design LLC

$100 to $249

Everett Abegg
Lyle Anderson
Jane Beaven and Dan Finn
Thomas and Donna Blanton
Ron and Susan Bockelman
Tom and Sally Cahill
Mickie Chamness
Tanya DeMarsh-Dodson
and Alan Dodson
Shelley Evans
Joan Frazee
Cleveland Hall and Lafe Lawyer
Janka Hobbs
Catherine Hovanic
and William Brookreson
Shaun Hubbard and Harold Kawaguchi,
In memory of Ann Bucher,
Madrona Nursery
Richard Johnson, M.D.
and May Reed, M.D.
Larry Loftis
James and Colleen Lourie, in honor
of George Thornton
Frederick McDonald
Michael McGoodwin, M.D., in memory
of Rebecca C. McGoodwin
Rae Meaney
Christopher Mehlin, Ph.D.
and Tracy Mehlin
Steve and Katie Messick
Queen of Spades Garden Club
Christine Reinl, in honor of Dottie Davis
David Selk and Therese O'Connor
Mary Ann and Carver Simmons
Hally Swift and Eric Strandberg
Theodore Thomas
George Thornton and Lee Miller
Molly and William Tomita
Susan Van Leuven
Susan Varnum
Mary Lee and Robert Virden, in memory
of Rachel Virden Hulscher
Cheryl Wagner
Andrew Walker
Jeff Walker
Stephen West
David Wilderman and Jean Ponzetti
Carolyn Wright

$50 to $99

Robin Fitch
Ann Freeman
Timothy Fullam, Ph.D.
David Hepp and Laura Lipton
Michael Hobbs
Bob and Judy Kent
Kay Sonnier, in memory
of Howard Beuhler
Linda and William Swartz
Brian Thompson
Mary Water

Up to $49

Jeanette Burkhardt
Graham Crawbuck, in memory
of Louisa & Jim Nishitani
Kristin Follmer
Helen Lau
Margaret Miller
Justine Nagel and Charles Nagel, M.D.

*Northern false coolwort (*Bolandra oregana*) Photo by: Adam Spencer*

Rare Care is grateful for support from the Miller Charitable Foundation, Center for Plant Conservation, Washington Native Plant Society, private organizations and individual donors.