

RARE CARE

Staff
 Sarah Reichard, Ph.D.,
 Director
 Wendy Giblee,
 Program Manager
 Jennifer Youngman,
 Program Coordinator

Science Advisory Board

Joe Arnett
 Peter Dunwiddie, Ph.D.
 John Gamon
 Art Kruckeberg, Ph.D.
 Regina Rochefort, Ph.D.
 Ted Thomas
 Kelli Van Norman

Reviewing and revising the Washington State Rare Plant List

By Joe Arnett, WNHP Rare Plant Botanist

Since its formation in 1977, the Washington Natural Heritage Program (WNHP) has compiled plant occurrence records in a state-wide database and revised the state rare plant list based on data that now include over 4,500 occurrences. Starting with a preliminary list assembled by a handful of academic botanists in the early 1970s, the WNHP assigns status of endangered, threatened, and sensitive to plant species. Every two years the program reviews the list and recommends additions, deletions, and changes in status, based on current information. We rely on the statewide community of botanists to provide sighting reports, which are the foundation of our understanding of plant distribution and abundance. Additional information is gathered from herbarium collection records, current floras, published literature, online resources, and consultation with taxonomic specialists.

Species that have been assigned a status of endangered, threatened, or sensitive are considered to be of conservation concern. Species potentially warranting conservation status but that cannot yet be evaluated because of insufficient information on distribution and abundance are placed *(continued on page 2)*

Focus species added

Rare Care added several new focus species to our priority list for 2016, having wrapped up several species in the last couple of years. Typically, we prioritize five to ten focus species for monitoring by volunteers. Our goal for these species is to revisit all populations on public lands within a three to five year period in order to provide a statewide assessment of the species status.

This year we expect to complete arctic aster (*Eurybia merita*), a circumboreal species found mostly at high elevations in our state. Five of the six sites known from the state have been monitored by volunteers. Two have not been found. Volunteers reported 51, 115 and 1,000 stems at the three sites that were found. Rare Care volunteer Barry Wendling collected seeds from one of these populations in 2009 for *ex situ* conservation in the Miller Seed Vault.

Two other species recently wrapped up are pasqueflower (*Anemone patens* var. *multifida*) and Thompson's clover (*Trifolium thompsonii*). Rare Care volunteers successfully relocated four of the six known occurrences of pasqueflower in the state and reported new subpopulations at two of these. Three populations contained between 600 and 1,600 individuals, with the fourth only holding three plants. Washington populations occur in open ponderosa woodlands and subalpine ridges. *(continued on page 2)*

Bent and Bresnan recognized

This spring Rare Care recognized Julia Bent for her exceptional volunteer contributions. Mentored by Don Knoke, Julia now mentors new Rare Care volunteers. Since 2007 she has completed 38 rare plant monitoring assignments—the typical expectation is one per year!—both individually and during Rare Care's annual monitoring weekends across the state.

Last fall the UW Botanic Gardens presented the Brian Mulligan Award to another prolific Rare Care volunteer, Julie Bresnan. In addition to monitoring rare plants since 2004, mentoring new volunteers, and participating in special field and office projects, Julie has been instrumental in adding 23 new seed collections to the Miller Seed Vault, tipping us past 100 species in 2013.

Top left, Julia Bent writes a report during a Wenatchee Mountain monitoring weekend (photo by Jennifer Youngman). Left, Julie Bresnan monitors *Cryptantha leucophaea* (photo by Barbara Varnum-Finney).





THREE FOCUS SPECIES. Top left, completion of *Eurybia merita* monitoring is anticipated this year. With the update to WNHP's rare plant list, its status was upgraded from sensitive to threatened (photo by Richard Ramsden). Top right, *Eatonella nivea*, an annual with leaves no longer than 1.5 cm, is a new focus species (photo by Sheryl McDevitt). Above, *Anemone patens* var. *multifida* was recently completed (photo by Richard Ramsden).

2016 RARE CARE CALENDAR

Monitoring volunteers, please email rarecare@uw.edu to sign up for these.

June 24-26—Monitoring weekend, Colville National Forest

July 7-8—Wenatchee checkermallow monitoring, Camas Lands near Leavenworth

Flora of the Pacific Northwest also being revised

(continued from page 1) on Review List 1. Species with unresolved taxonomic questions are placed on Review List 2. The Review Lists are intended to publicize species that are in need of further inventory or taxonomic clarification. The WNHP also maintains a Watch List, which documents species that formerly had conservation status but have been found to be more widespread and abundant and less at risk than formerly thought. We are not soliciting additional information on these species at the present time.

Our knowledge about the flora is continually expanding. New species are discovered, either new to science or new to Washington, and reclassifications are always in process as our knowledge grows. For example, Don Knoke collected a species of desert-parsley in 2003 near Cle Elum that appeared different from other species that he knew. It took the focus of Mark Darrach to drill down into the complexity of this challenging genus to formally describe these plants as a new species, *Lomatium knokei*, in 2014.

The University of Washington Herbarium is currently undertaking the revision of the *Flora of the Pacific Northwest*. That effort is bringing a focused and comprehensive examination of the classification and distribution of plant species in Washington and the surrounding region. We know a great deal more about the flora of Washington than we did in the 1970s, or even two years ago when the rare plant list was last revised. No doubt our knowledge will continue to grow through the years as more study is done and more occurrence records accumulate.

*Editor's Note: Watch for the newest revision of the Washington State Rare Plant List, to be posted soon, at <http://www1.dnr.wa.gov/nhp/refdesk/lists/plantrnk.html>. *Lomatium knokei* will appear on the list as a sensitive species.*

Winter rain prompts inclusion of annuals as focus species

(continued from page 1) Thompson's clover is an endemic species found only in Douglas and Chelan counties, primarily in open grasslands and open ponderosa woodlands. Volunteers successfully relocated four of the seven known occurrences, with population sizes in the thousands to hundreds of thousands. Two sites could not be relocated, and one site is on private land.

New focus species for 2016 include four annuals—Geyer's milk-vetch (*Astragalus geyeri* var. *geyeri*), white eatonella (*Eatonella nivea*), branching montia (*Montia diffusa*) and rosy owl-clover (*Orthocarpus bracteosus*)—and two perennials—Oregon goldenaster (*Heterotheca oregona*) and Washington polemonium (*Polemonium pectinatum*). Annuals can be tricky to monitor because they are highly dependent on seasonal variations such as moisture. With good winter rainfall this year, we added these in hopes of catching a good year for them.

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