

NEVADA NATIVE PLANT SOCIETY

Muhlenbergia porteri is a bushy perennial about half a meter tall growing here in rock crevices.

A FISTFUL OF MUHLENBERGIAS

Story by Arnold Tiehm
Images by Jan Nachlinger

In the middle of September I took a week long trip to Lincoln and Clark counties with Jan Nachlinger and Mike Hagebusch. That area had received some late season “monsoonal” rains and we were interested to see the floral response to these rains. After all, Nevada does not consistently receive monsoonal rains.

Our first botanizing site was the Hiko Range east of Ash Springs. We were pleased with the profusion of plants in flowers. The washes abounded with *Amaranthus fimbriatus*, the rock outcrops had *Ericameria nana* and *Brickellia microphylla*, and the sandy spots had *Mollugo cervina*, *Chamaesyce micromera*, and *C. setiloba*. Also in flower were large, bushy plants of *Muhlenbergia porteri*. This species has a very diffuse panicle and florets with long awns.

It is widespread in the Mojave Desert and is known from Arizona, California, Colorado, Nevada, New Mexico, Texas, Utah, and northern Mexico (Peterson, 2003). The RENO herbarium has Nevada records from Clark, Lincoln, and Nye counties.

Muhlenbergia porteri was just a prelude because four days later we discovered a trifecta of *Muhlenbergias* growing together. We were in the Mahogany Mountains ESE



M. porteri has a diffuse purplish panicle with awns up to 13mm long.

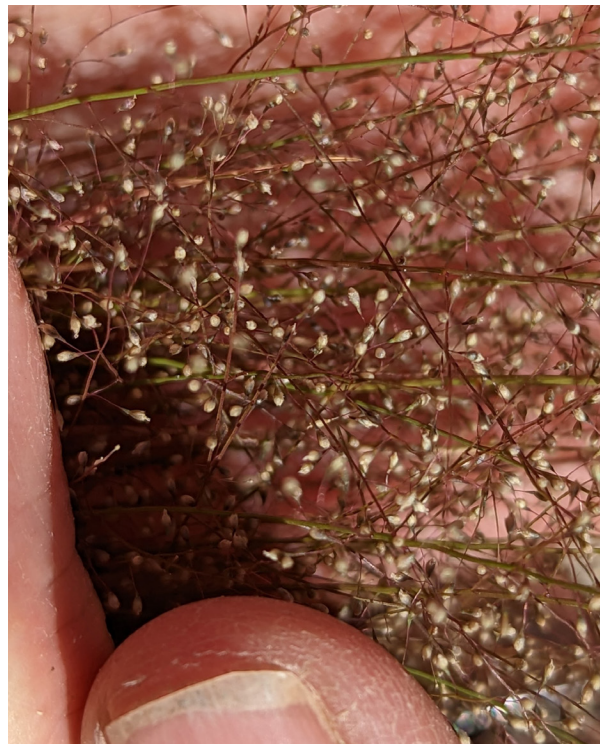
of Pioche. We ventured about a half mile south of the Deer Lodge Road on the road to Prohibition Flat and then headed NE from the parked car. We were looking for a population of the rare *Eriogonum microthecum* var. *arceuthinum* (Reveal, 2012). When we reached some rock outcrops we noticed a diminutive grass at their base as well as on adjacent shelves. A closer examination revealed it to be the very small flowered *Muhlenbergia minutissima*. Diminutive is a good term to describe the flowers as the glumes are less than one millimeter and the florets only reach 1.5 millimeters. The main stems are erect while the outer ones can be decumbent at the base and ascending. The inflorescences are open and diffuse. We were lucky that *M. minutissima* was flowering in such profusion as it made them easy to spot. Single plants just blend into the surrounding vegetation and can easily go unnoticed. It is widespread in the western United States and extends to southern Mexico (Peterson, 2003).

Nevada herbaria records exist from Lincoln, Pershing, Washoe, and White Pine counties.

Now that we were down on all fours looking at *M. minutissima* we noticed another annual *Muhlenbergia*. This one was tufted, brown in color, had contracted panicles, and the florets were awned. The glumes were as large as 5 millimeters and the florets were up to 4.5 millimeters with awns slightly longer than that. The plant was obviously different from *M. minutissima* but what was it? I remembered that *M. appressa* had recently been found in Clark County and since that was an annual I assumed that was the name of our new find. We looked in Grasses of the Intermountain Region but *M. appressa* was not listed (Anderton & Barkworth, 2009). When the book was written *M. appressa* was not yet known from Nevada and its other occurrences in Arizona and northern Mexico were outside of the geographic range of the book. What we failed to do was try to key it in the field. Upon returning to Reno I began



The annual, *Muhlenbergia minutissima*, is a small erect plant that grows in sandy or gravelly soil.



The aptly named *M. minutissima* most definitely has minute spikelets without awns.



Another annual, Muhlenbergia depauperata, also occurs in sands and gravels, but it is a more tufted plant with relatively larger awned florets and a very different look than M. minutissima.



The close-up of M. depauperata shows its thickened leaf margins and veins along with stiff awns.



Muhlenbergia wrightii is a tufted perennial with narrow panicles and is found in a variety of habitats including rocky slopes, meadows, and prairies.

to sort through my assembled specimens. When “*M. appressa*” came to the top I checked the specimens in the herbarium and it was clearly evident that our collection was not *M. appressa*. In keying it in Grasses of the Intermountain Region I came out to either *M. brevis* or *M. depauperata*. I checked with Paul Peterson, who authored the treatment in Flora North America, and he confirmed it as *M. depauperata*. *Muhlenbergia depauperata* was known from southern Utah, western Colorado, Arizona, New Mexico, Texas, and Mexico. I then searched databases online and could not find another Nevada specimen. So, we got a native plant new to Nevada. The next day we found another population to the north of the original find.

While we were on all fours collecting annual *Muhlenbergias* we noticed that there was also a perennial *Muhlenbergia* in the same spot. This one was familiar to me as I had seen it a few years ago farther south



The close-up of *M. wrightii* shows its narrow panicle and awned glume.

in the Mahogany Mountains. This one we correctly identified in the field as *M. wrightii*. It occurs in Arizona, Colorado, New Mexico, Texas, Utah, and south to northern Mexico



Unlike all the other muhlys highlighted here, *M. asperifolia*, in mid-ground, is a wet-grower, often on alkaine soils as seen here at Panaca Spring, Lincoln County.

(Peterson, 2003). Herbaria records show it from Clark and Lincoln counties in Nevada.

I titled this note “fistful”. I tried to see if there was a number associated with fistful and could not find a definite answer. Four seems like it is not quite a fistful so I will also report that a couple of days later we found the widespread *M. asperifolia* at Panaca Springs. I do not know if five make a fistful but at least it is one for each digit.

REFERENCES

Anderton, L.K. & M.E. Barkworth, Editors. 2009. *Grasses of the Intermountain Region*. Utah State University Press, Logan, UT. 559 pp.

Peterson, P.M. 2003. *Muhlenbergia*. Pp 145-200. In: *Flora of North America Editorial Committee, Flora of North America 25: 1-783*. Oxford University Press, New York, NY.

Reveal, J.L. 2012. *Eriogonum*. Pp 254-372. In: *N.H. Holmgren, P.K. Holmgren, J.L. Reveal & Collaborators. Intermountain Flora 2, part A: 1-729*. New York Botanical Garden, Bronx, NY.

SOCIETY NEWS

SCIENCE SATURDAY AT UNR'S MUSEUM OF NATURAL HISTORY

Written by Emma Wynn
& Shannon Swim

NNPS took part in Science Saturday at UNR's Museum of Natural History on March 4th. Over 180 people attended the event, celebrating plants and insects. We had several stations in a lab, visitors got to dissect lilies and look at a variety of flower forms. Learning that a single sunflower is actually composed of lots of tiny flowers was a revelation to many children and adults. Other activities included examining herbarium



Above: volunteers sharing their love of plants with adult and children visitors.



Above: A child learning about flower anatomy during Science Saturday.

specimens and playing a game which involves matching seeds to the plants that produced them. Thank you to the fabulous volunteers that gave up their Saturday afternoon to share their love of plants, especially native plants! Thank you Charlie, Ranae, Jess, Otis, Sage, and Emma!!

We have several upcoming Northern events we are hoping to attend, including TMCC's Earth Day April 20th , another day at the UNR Museum April 23rd to celebrate Native Plant Month, and the May Arboretum Plant Sale May 13-14th . Further details will be emailed.

CALL FOR SOUTHERN NEVADA EVENTS COORDINATOR

NNPS is looking for an Events Coordinator down South! If you are in the Vegas area and are interested in spreading the native plant joy, please reach out to Shannon (Northern Events Coordinator) at events@nvnp.org.

NATIONAL NATIVE PLANT MONTH INITIATIVE

Written by Ranae Zauner
and Emma Wynn

The Garden Club of America (GCA) has launched a nationwide campaign to formally establish April as Native Plant Month across all 50 states. This is a multidisciplinary, cross-committee collaboration that Nevada Native Plant Society is proud to be a part of. The GCA's goal with this collaboration is "to amplify the importance of native plants and biodiversity." More information on this collaboration can be found at <https://www.gcamerica.org/nnpmi>.

Could April become Nevada Native Plant Month? This past January, Lisa Clarke, from The Garden Club of America, in cooperation



Above: *Eriogonum umbellatum* and *Penstemon eatonii* in Emma Wynn's yard.

with the Nevada Native Plant Society, wrote to Governor Lombardo requesting April be recognized as Nevada Native Plant Month. In her letter, she wrote,

"There is a strong and growing movement across the United States recognizing the importance of native plants to our environment and for building sustainable ecosystems. Native plants are special because they have evolved over thousands of years alongside native wildlife. The unique relationships between native plants and animals cannot be replaced with non-native plants that have been transported here from distant parts of the world. Our native insects, caterpillars, and other wildlife have not had time to evolve to be able to eat these strange exotic foods. As a result, as we fill Nevada yards with non-native plants, native wildlife cannot survive. To create healthy ecosystems, it is crucial to protect our air, water, and soil, and to plant many more native plants that support pollinators and native wildlife."

While we patiently wait for Governor Lombardo's proclamation through these long winter storms, we are already dreaming and

planning for ways to include more native plants into our yards and gardens this coming spring. Check out some of these links to help you select native plants suitable for your landscape:

Southern Nevada: <https://www.redrockaudubon.com/blog/post/native-desert-plants>

Northern Nevada: <https://idahonativeplants.org/wp-content/uploads/2020/10/Landscaping-with-Native-Plants.pdf>

The Pollinator Partnership is another great resource. Simply go to <https://www.pollinator.org/guides> and enter your zip code to find resources relevant to your neighborhood. Happy planting!

UPCOMING EVENTS

April 6, 2023: After the Monsoon, Lincoln County
Speaker: Arnold (Jerry) Tiehm, Curator of University of Nevada, Reno Herbarium
Photographer: Jan Nachlinger

NEWSLETTER

Have something to share? We would love to consider your recent trip reports, phenology reports, or Nevada botanical musings for the NNPS newsletter. Contact the editor, Ranae Zauner, for details.

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atiehm@unr.edu
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emhwynn@gmail.com

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rareplants@nvnps.org
Social media: Emma Wynn, Sarah Kulpa
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Nevada Native Plant Society
PO Box 8965
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