



NEVADA NATIVE PLANT SOCIETY

VOLUME 44 NUMBER 6 - SEPTEMBER 2018

▲ Gap Spring by R. Tielje

SOCIETY NEWS

NORTHERN NEVADA EVENTS

September 6 – Temitope Israel Borokini, Ph.D. Candidate with the UNR Department of Biology, will discuss his *Ivesia webberi* rare plant research.

October 4 – Ann Pinzl, Archives Chair for NNPS and longtime member, will give a program on her **travels to Madagascar**.

November 1 – Jessica Kindred, with the State BLM Office, will discuss the **Seeds of Success program** during our final meeting of the year.

Meeting are held in room 300G of the Fleischmann Agriculture Building on the UNR campus, north of 9th Street and Evans Avenue. Enter the building under the breezeway on the west side near the street. There's an elevator at the east end of the building. Meet on the third floor and down the hall from the **UNR herbarium**.

Social time at 7:00 PM; program at 7:30. The outside doors are locked at 7:30.

SOUTHERN NEVADA EVENTS

The fall program meetings will be listed on the NNPS website shortly.

Our program coordinator is Lesley DeFalco. Contact her at defalco@usgs.gov to receive email updates for Southern Nevada events.

Newsletter submissions – Please submit photos, essays, tales of your botany field trips, plant-related book reviews, or any other material that would be of interest to members to newsletters@nvnp.org.

Events subject to change.
Visit nvnp.org for updates.

2019 PHOTO CONTEST

It's time for another photo contest! The photos will be used to create a NNPS Calendar for 2019. Each member may submit up to four photos. Please do not submit photos that were entered in previous years.

Photos must not contain borders, decorations, watermarks, trademarks, or other personally identifiable markings. The photographers will be credited on the calendar. The original photos must be at least 3300 pixels wide and/or 2500 pixels tall to print properly. The webmaster will contact photographers for original photos after the voting.

Submission Deadline September 22nd, 2016. Voting for favorites will begin September 30th.

We are also taking pre-orders for the calendars. This allows us to order the right number of calendars. Pre-ordered calendars will be available at cost plus postage (or pick up for free in Reno, Carson City, or Henderson) but we will not know the cost for each until we have the order ready. We anticipate a printing cost between \$10 and \$12 depending on the number of calendars ordered. The calendar will also be available for purchase from our online store.

BOTANY BILL UPDATE

On July 18th, Senator Mazie K. Hirono (D-Hawaii) introduced the Botanical Sciences and Native Plant Materials Research, Restoration, and Promotion Act. The bill encourages federal land management agencies to hire botanists, conduct research on native plant materials, and incorporate native plants in projects on federal land when feasible.

"Native plants play a crucial role in conserving and protecting our land and are an important part of our culture. They recharge our watersheds and are less prone to fire than nonnative species," Senator Hirono said. "This bill provides resources to ensure that our land managers have the necessary tools and expertise to protect our native plants, many of which are endangered and are found nowhere else in the world."

The bill was cosponsored by Senators Van Hollen (D-MD), Whitehouse (D-R.I.), and Duckworth (D-IL).

The legislation would promote native plant research and use by:

- Creating a botanical research grant program within the Department of the Interior.
- Promoting the hiring of botanists within the Department of the Interior and creating a student loan repayment program to attract and retain botanists.
- Directing the Departments of the Interior, Agriculture, and Defense to provide preference to native plant materials in land management projects and justify the use of non-native plant materials.
- Requiring the use of native plant materials in surface transportation projects and federal building design.
- Promoting interagency cooperation for various activities relating to native plants.
- Directing the National Fish and Wildlife Foundation to incorporate into existing activities native plant conservation.
- Creating a grant program within the Department of the Interior to keep rare plants off the Endangered Species list by increasing their populations and helping those currently on the list recover.

For more information on the House and Senate native plant legislation, see the [Botany Bill website](#). Also see [H.R.1054](#) and [S.3240](#).

Article reprinted from [Big Island Now](#).

AN OVERLOOKED GRASS

ALOPECURUS ARUNDINACEUS

Article by Arnold Tiehm

During spring break I teach a two day basic grass identification class. In this class participants learn all the grass lingo and how to dissect grass flowers and identify the parts. We then take this information and key each specimen to genus. We usually look at 50 different genera of grasses. When we do *Alopecurus* I give the participants what I have always called *A. pratensis* and note that the awns are not as long as the illustration in *Intermountain Flora* (Holmgren & Holmgren, 1977).

This May I was botanizing in very, very, very dry Lincoln County and I stopped along Echo Creek to collect a willow. Along the moist creek banks was a nice stand of what appeared to be *A. pratensis* so I dug up specimens and made a nice collection. When the dried specimens came to the top of my “to identify” stack I dissected a few flowers noting the short awns. I then checked *Grasses of the Intermountain Region* to see how long the awns were listed for *A. pratensis* (Crins, 2009). After noting that the awns were described as longer than my material I tried the key to species. Well, to my surprise, it keyed to *Alopecurus arundinaceus*. I checked the distribution map and the only records from the region were in south-central Idaho and southwest Wyoming. I then went to the RENO herbarium (ed. RENO is the official code name of the herbarium at the University of Nevada, Reno) and looked at all the *A. pratensis* specimens. The herbarium did not have any specimens named *A. arundinaceus*. With a superficial peruse I realized there were actually two species in the *Alopecurus pratensis* folders. I then dissected flowers from each specimen, noted the characteristics, and separated *A. pratensis* and *A. arundinaceus* into different

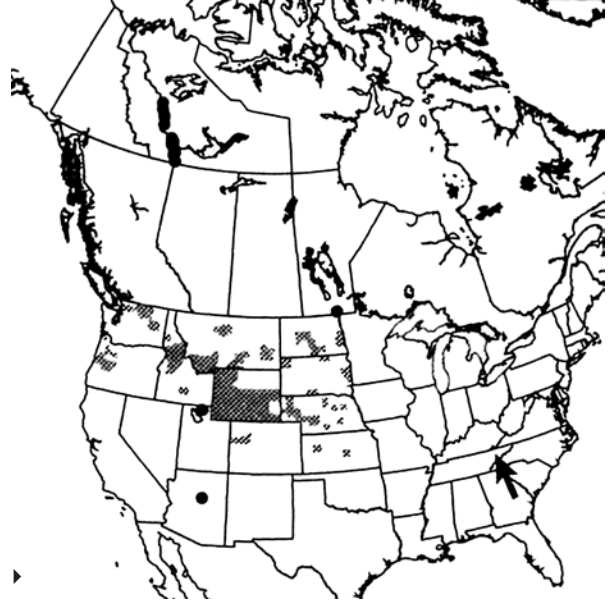
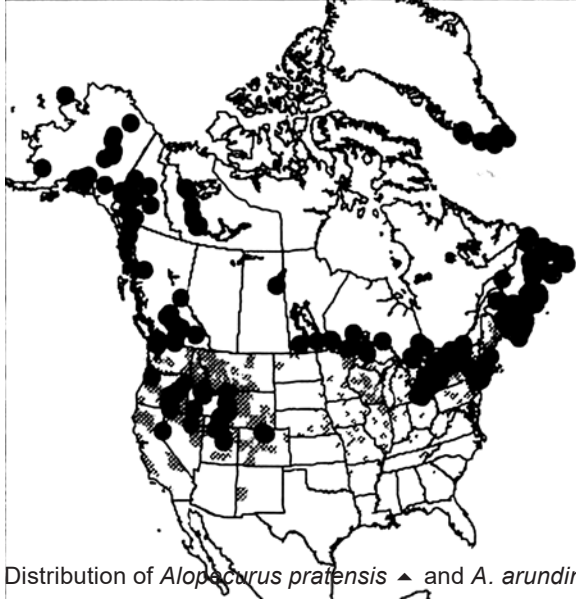
stacks. Wow, how had I missed this all these years? I then contacted Mary Barkworth and she confirmed that we had been remiss in not separating these two taxa.

They can be separated by the following key:

- Awns readily evident without magnification, well exerted from the glumes; glume tips not spreading; lemmas acute – *A. pratensis*
- Awns not readily evident even with magnification, enclosed in the glumes or slightly exerted; glume tips spreading with age giving the glumes an urn shape; lemmas obtuse to truncate – *A. arundinaceus*

A check of the literature revealed no records of *A. arundinaceus* from California or Oregon (Crins, 2012; Wilson et al., 2015). It is widespread in Wyoming and Montana (Lavin, 2012). The RENO herbarium has specimens from Elko, Eureka, and Lincoln counties with the earliest being the one from Eureka County collected in 1980. I also remembered I gathered my material for the grass class from Douglas County. I made a collecting trip there and sure enough I found *A. arundinaceus* in abundance. The RENO herbarium has records of *A. pratensis* from Humboldt and Washoe Counties. The oldest is “Grass plot south of Station Building” [UNR Agriculture Experiment Station], May 1893, Hillman s.n.

I checked with Barbara Wilson, co-author of *Poaceae* in the Oregon Flora, and she informed me that *A. arundinaceus* has since been found in Oregon and that she has also seen a specimen from California (Wilson et al., 2015). The expanding distribution of *A. arundinaceus* can be partially explained



Distribution of *Alopecurus pratensis* ▲ and *A. arundinaceus* ►

by Crins (2009): “Introduced for pasture in North Dakota and is now grown more widely, having been promoted as a forage species. It is sometimes used in seed mixtures for revegetation projects.” Since *A. arundinaceus* is not in identification manuals for California, Oregon, and the Intermountain Region, I believe there are more specimens hiding in herbaria under the name *A. pratensis* (Crins, 2012; Holmgren & Holmgren, 1977; Wilson et al., 2015).

I also checked with Matt Lavin who wrote the treatment of *Poaceae* for the **Manual of Montana Vascular Plants** and he replied with the following separation characters: “I have been observing both species commonly over the years especially in Montana. It has become evident to me that *Alopecurus pratensis* is a bunch grass even if this growth form is obscured in meadow settings and it grows in moist meadows where water stands little if at all during the growing season. *Alopecurus arundinaceus* is a robust rhizomatous grass with a spreading growth form in wet meadows and pastures where water stands for much of the growing season. When this grass is grown for hay, it can be harvested by middle to late summer after the pastures have dried. The leaves of *A. arundinaceus* become broad (well over 1 cm wide) and strongly scabrous by middle to late summer and this generally reduces

the palatability of this grass. The awn differences, therefore, underlie a much larger morphological and ecological difference.”

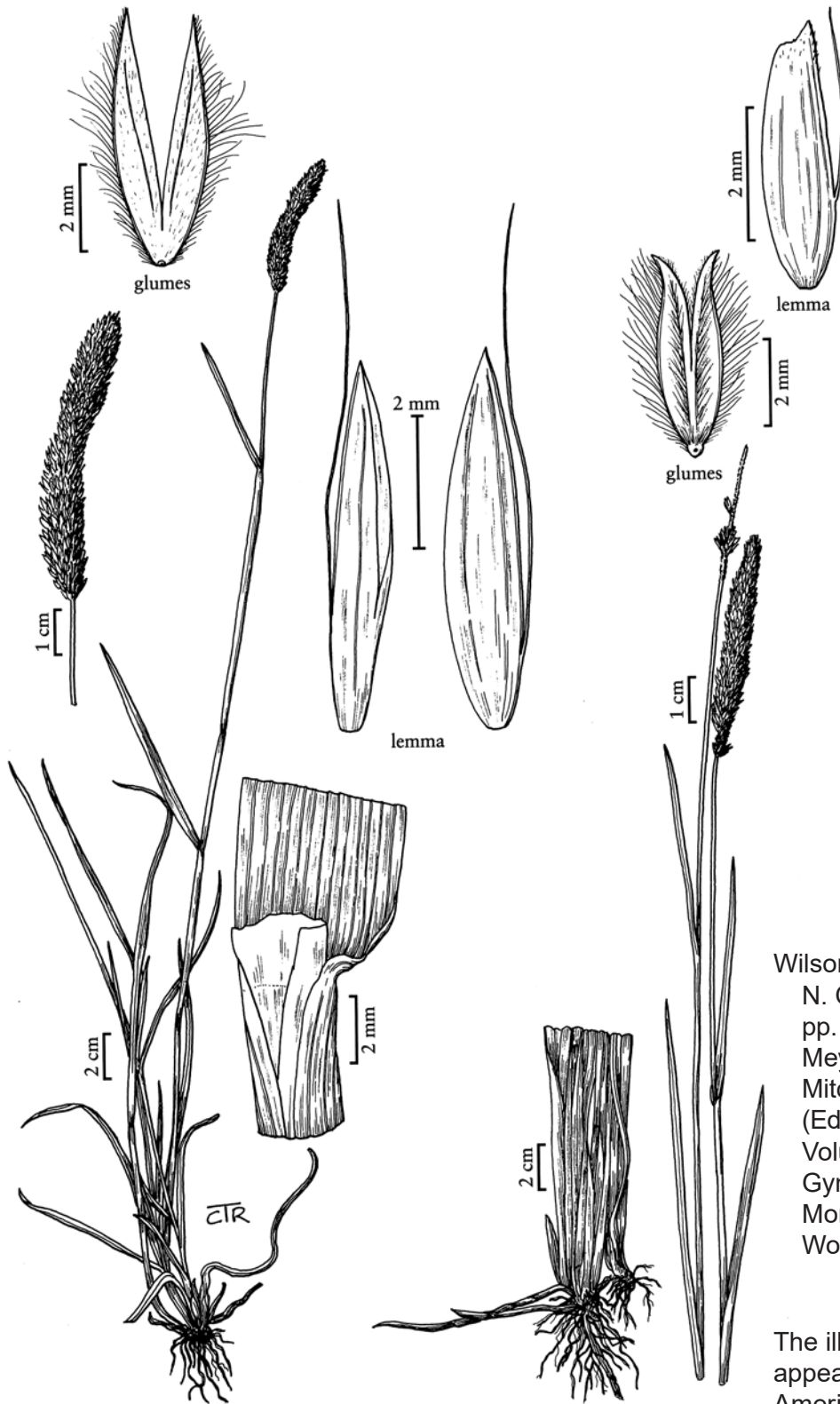
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A. pratensis

A. arundinaceus

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