



Sego Lily

Newsletter of the Utah Native Plant Society

Winter 2024 Volume 47 Number 1



| | | | |
|-------------------------------------|---|--|----|
| UNPS Rare Plant Meeting | 2 | Steve Hegji's Camera | 11 |
| Rose Torres Botanical Art..... | 3 | Astragalus utahensis in Fall | 14 |
| Salvaging Fringed Loosestrife | 4 | Grow Native <i>E. umbellatum</i> | 15 |
| UNPS Grant-In-Aid Applications..... | 6 | Utah Pollinator Program | 17 |
| Roundleaf Buffaloberry | 7 | Zach Coury Photos | 18 |

Utah Rare Plant Meeting

Organized by the Utah Native Plant Society

We are pleased to announce the Utah Rare Plant Meeting will once again be held in person at the **Natural History Museum of Utah** (301 Wakara Way, Salt Lake City) on **Tuesday, March 5, 2024** from 9 am to 4 pm and will also be available via Zoom for those unable to attend in person.

The Utah Rare Plant Meeting will offer a wide variety of 15 minute presentations given by experts from colleges, universities and government agencies about rare and endangered plants.

Here are some of the presentation topics we have so far:

- **Utah's vulnerable lichen communities**
- **Fish Lake area history of aspen and role of disturbance**
- **Population Genetics of Welsh's milkweed at Coral Pink Sand Dunes**
- **Species boundaries in *Astragalus* subsect. *newberryani***
- **USFWS update on T&E activities**
- **Ferns in Utah**

This meeting has been held for almost 40 years and has been facilitated by numerous organizations, most notably UNPS, NHMU, and Red Butte Garden. Its purpose is to further educate the public and to support the protection of endangered plants in Utah. Everyone is welcome to attend.

Register for the meeting at unps.org:

\$30 in-person (with lunch);

\$15 in-person student/presenter (with lunch);

\$10 Zoom only or in-person no lunch

If you have questions you can send an email to urpm@unps.org or contact one of these members of the planning team:

Marc Coles-Ritchie–colesritchie@gmail.com

Cathy King– cathy.king@gmail.com

Cover photo: *Asclepias welshii*, Welsh's milkweed, selected from iNaturalist © Sequoia Janirella Wrens. This photo and the two appearing on page 14 are here published under Creative Commons License CC BY-NC <https://creativecommons.org/licenses/by-nc/4.0/>

Tony Santore (Crime Pays but Botany Doesn't) produced a fine video, *The Southwest's Rarest Milkweed*, a discussion of this species in habitat: <https://www.youtube.com/watch?v=PESTi3SJQJY>



Arctomecon humilis

Rose Torres



Art and Science have always been part of my life. Botanical art is an intersection between those two worlds.

I grew up drawing, playing in fields, and growing flowers. Being out in nature has been my safe place when life is hard. Several years ago I purchased a house with a large, overgrown garden. I began researching the plants and how to take care of them. It was a big task. To make the job easier, I enrolled in the Master Gardener program offered by Utah State Extension, our local land grant university. This was my first real taste of botany, and I was hooked.

Fast forward a few years. I know the plants in my garden well, many of them are native to Utah. I started photographing them, arranging them, giving them as gifts to friends. One day I stumbled upon a painting of an artichoke. I was so inspired by this painting, I began to teach myself watercolor so I could create botanical art too.

I graduated from the Society of Botanical Artists Diploma Course with Distinction (the highest level of diploma they award). It was a Distance Learning course, so I was able to stay home while learning from some of the best botanical artists in the world.

I find myself drawn to native plants, and hope to use my art to educate others about the amazing plants that call Utah home, as well as aid in their conservation.

Salvaging Fringed Loosestrife on the Uinta-Wasatch-Cache National Forest

by Dave Wallace and Jim Cane

To resolve any potential confusion, fringed loosestrife, *Lysimachia ciliata*, is not related to purple loosestrife, a Utah Noxious Weed. The genus was named for King Lysimachus of Thrace, who used the plant to pacify a bull. The common name, “loosestrife,” is based on the belief that *Lysimachia* calms animals, causing them to “lose their strife.”

A member of the primrose family, *Lysimachia ciliata* grows in wet soils of stream and river banks, riparian woodlands and bogs. It ranges in size from about one-foot to three-foot tall and spreads by rhizomes. It has opposite leaves with ciliated petioles, the basis for the specific name. Flowers are bright yellow, about an inch in diameter, and its tiny seeds are borne in small capsules. While most flowers reward their insect pollinators with sugary nectar, *Lysimachia ciliata* produces oil for its pollinator.

Bee scientist Jim Cane explained the relationship between *Lysimachia* and its pollinator bee:

“Some *Lysimachia* species, including *L. ciliata*, exude tiny droplets of oil from the tips of secretory trichomes scattered about the bases of the petals and staminal filaments. All species of the non-social bee genus *Macropis* collect these oils as well as *Lysimachia* pollen to feed their brood. Females mop up the secreted oils using their modified forelegs. Back at her simple subterranean nest, the female paints the oil on the smooth earthen brood cell walls to repel water. She then mixes additional loads with *Lysimachia* pollen for her larvae to eat. All *Macropis* are obligate specialists for *Lysimachia* across the northern US, southern Canada, Europe, the Asian steppe and down into China. Our species, *Macropis nuda*, flies from Nova Scotia west through the northern Rockies. Here the bee is exceedingly rare, with collections housing only



Fringed loosestrife, *Lysimachia ciliata*, July 2020.
Dave Wallace photo.

three pinned specimens from Utah and three more from adjacent southeast Idaho.”

Fringed loosestrife is not uncommon in the Northeast, but it’s quite rare here. It’s believed to be a relic of the ice age, surviving in isolated locations in Utah from Cache County on the north to Utah County on the south. Botanist Blake Wellard says *Lysimachia ciliata* may occur in no more than ten locations in Utah. It’s been lost from most historical locations in the region as a result of land clearing and conversion. Climate change and the loss of its pollinator may also be factors.

Dave Wallace first identified *Lysimachia ciliata* growing near a stream in the Cache National Forest a few years ago. However, he did not appreciate the significance of the find until recently, when the Forest Service asked for help salvaging *Lysimachia ciliata* plants that were threatened by construction. They were alerted to the situation by Jim Cane, who knew of a popula-



Salvaging Fringed loosestrife, *Lysimachia ciliata*, September 2023. U.S. Forest Service photo.



Fringed loosestrife, transplanted into its new location, September 2023. Dave Wallace photo



A pickup-bed load of fringed loosestrife plants, ready for transplanting. U.S. Forest Service photo

tion botanist Richard Shaw had discovered some 35 years ago, about a mile from the plants Dave found.

We visited the construction site along with several Forest Service personnel. Trees had been removed from what had been a shady location and vehicle tracks crossed through the area, but there still were many healthy-looking *Lysimachia* plants. It was early fall and the plants were no longer flowering, but we were pleased to see some seed capsules, evidence of reproduction in spite of the

missing pollinator. We dug up several pickup-bed loads of the shallow-rooted *Lysimachia ciliata* plants from the construction area, along with their roots and soil. A couple of loads were transplanted to a nearby area beyond the construction zone. Additional plants were dispersed to favorable locations farther up and down the canyon in an attempt to improve the survivability of this unusual plant.

The *Lysimachia ciliata* situation is an interesting case. Our local Forest Service is concerned because it occurs on the Forest, yet it is not protected by inclusion on the Forest Service's list of Threatened, Endangered, or Sensitive Plants. A Forest Service botanist explained that while there is no policy on un-listed plants, the Forest plan specifies desired ecosystem conditions, for "native species . . . present in amounts and distribution similar to historical patterns," and to "provide for sustained diversity of species at the genetic, populations, community and ecosystem levels," which guides management activities for restoration of this population.

Please do not disturb fringed loosestrife, *Lysimachia ciliata*. Let the Forest Service know if you encounter it anywhere on National Forest lands. We plan to "keep an eye" on our plants to make sure our local fringed loosestrife population remains safe and healthy. This is an unusual and uncommon plant for Utah, one deserving of our attention and protection.

Utah Native Plant Society Grant-in-Aid Applications Due by April 15, 2024

The Utah Native Plant Society (UNPS) is accepting grant applications for research and education projects that will increase the understanding of native plant communities or help restore and improve the functioning of native plant communities in the state of Utah. Successful projects must provide a public benefit and must align with UNPS conservation principles (see UNPS website under "Programs"). Grant recipients should provide UNPS a final report in an article that can be submitted to the *Sego Lily* editor for publication or present the research results at the annual UNPS Utah Rare Plant Meeting.

Applications will be evaluated for potential ecological benefit to be gained and the likelihood of project long-term success. It is anticipated that one or two grants will be awarded. The amount budgeted for research grants for 2024 is \$5,000 in total. Therefore, they will likely support existing funding sources. However, small projects will be considered as well. Grant applications will be accepted until midnight **April 15, 2024**.

Proposal requirements are as follows:

1. Introductory section containing a succinct purpose/objective of the project.
2. Narrative description of the project not to exceed 2-3 pages in length. Also discuss how goals and objectives will be accomplished.
3. Identify who the primary researcher is and any others that will be involved in the project including any agencies or organizations. Provide a biographical sketch (one page).
4. Provide a one-page budget section identifying how funds will be spent. Include a breakdown by activity.
5. State how the results of the project will be published, if applicable.
6. Provide a transmittal letter containing a submission date, identification that a grant proposal is attached, applicant name, affiliated organization (if any), mailing address, telephone number, and e-mail address.

Detailed evaluation criteria are available for review in the Programs Section of the UNPS website, unps.org.

Grant applications should be submitted to: grants@unps.org or unps@unps.org

Questions can be directed to any UNPS committee member.

Bill King mzzyt@aol.com

Ronald Bolander r_bolander@comcast.net

Marc Coles-Ritchie colesritchie@gmail.com

Hard copy proposals can also be mailed to:

Utah Native Plant Society
Attention: Grant-in-Aid Program
P.O. Box 520041
Salt Lake City, Utah 84152-0041

UNPS Matching Grant Opportunity 2024

We are excited to announce that a very generous anonymous donor has offered UNPS a *\$2000 challenge grant to match donations to our Grant-in-Aid program*.

This program supports new and ongoing botanical research by new investigators for studies related to the understanding, protection and preservation of our outstanding native species in the state of Utah.

Now is THE time to donate to the Grant-in-Aid research fund of the Utah Native Plant Society and double your donation! Of course, now is also THE time to submit proposals for your own research projects relating to the goals of this program.

The grant application deadline for 2024 is April 15. Details on this program can be found on the UNPS website, unps.org, under Programs/Grant-in-Aid Program. All donations made specifically to the Grant-in-Aid fund help support this important UNPS program.

To donate, find the 'Donate' button on the Home page of our website at unps.org. That will take you to our Donate page. Be sure to select the "Grant-in-Aid" program from the drop-down box on that page!

The Utah Native Plant Society is a non-profit, qualified 501(c)(3) organization and your donations may be tax deductible.

Many thanks for your past and future support and especially for helping us achieve this generous matching donation! Grant-in-Aid Committee unps@unps.org

Propagating Roundleaf Buffaloberry (*Shepherdia rotundifolia*) Using Air Layering

by Bill Orman

After over 30 years working with the Indian Health Service in Tuba City, Arizona, my wife and I recently bought a small house in Kanab, Utah for my upcoming retirement.

During my decades here on the western Navajo Nation, I have enjoyed hiking the backcountry of Vermilion Cliffs National Monument. In addition to all the incredible rock formations in the area, I've enjoyed seeing and learning something about the native plants.

One of my favorites has always been the roundleaf buffaloberry (*Shepherdia rotundifolia*). To quote from *Woody Plants of Utah* (Renee Van Buren, et al, 2011):

“Roundleaf buffaloberry is a strikingly beautiful shrub, growing up to 2 m tall.”

“Roundleaf buffaloberry grows in Colorado Plateau shrub, salt desert shrub, pinyon-juniper, and ponderosa pine communities, below 2600 m. It is endemic to the Colorado Plateau and occurs across central and southern Utah, Colorado, and Arizona.”

When we bought the house in Kanab, the property was totally overgrown with mostly thorny invasive weeds – literally covered with tumbleweeds and puncture vine. I was told that the homes on this street were built on land that had been used for decades as a hay field. There was very little native vegetation aside from one or two four-wing saltbushes and the occasional rabbitbrush.

My first thought after starting to clear out the weeds was to try to populate my new yard with native plants – and my second thought was that I would love to be able to grow my favorite native plant of the area, the roundleaf buffaloberry.

I soon discovered, however, that the plant is not available, as far as I was able to determine, in any nursery in the area. I searched online, sent emails, and made phone calls. No luck. No one had it. One native plant nursery near Grand Junction, Colorado told me that they had tried to propagate roundleaf unsuccessfully for 5 years and had given up. It similarly was not listed in the inventories of any of the large online commercial



A beautiful Roundleaf buffaloberry above the Paria River.

nurseries, such as High Country Gardens, that specialize in native plants of this region. Many of the nurseries do carry other buffaloberry plants, such as *Shepherdia argentea* (silver buffaloberry) and *Shepherdia canadensis* (soapberry), but these are different plants and not what I was looking for.

I then turned my search to trying to find information about possible ways to propagate wild roundleaf. If I couldn't find the plant in a nursery, I thought perhaps I could grow my own. I did find a couple of academic articles online from Utah State University. One stated:

“Silver buffaloberry (*Shepherdia argentea*) and roundleaf buffaloberry (*S. rotundifolia*) are both native to Utah, though found in different environments.



A large beautiful buffaloberry in the Pinyon Juniper forest, Vermilion Cliffs National Monument.

Silver buffaloberry is typically found along rivers, while the desert-loving roundleaf buffaloberry is adapted to poor soils and arid regions in the southern portions of Utah.

The blue color and rounded fuzzy leaves of the roundleaf buffaloberry are both adaptations to low water conditions, but are also visually striking and make it desirable for cultivated landscapes.

Roundleaf buffaloberry, however, is notoriously difficult to propagate.”

These articles suggested that the researchers had been successful rooting softwood cuttings using rooting hormone and calcined clay as a growing medium. Although I am not sure I used the same technique, I did try rooting cuttings in calcined clay and I was unsuccessful. They were all dead after about 3 weeks.

I then thought I could perhaps try air layering branches of roundleaf plants that I found in the wild. I have had success rooting local *Poliomintha incana* (Purple Sage) using air layers – this plant grows locally here on the reservation in northern Arizona near our hospital and it was easy to experiment with.

For those unfamiliar with air layering, it is a technique that is used frequently by bonsai growers to clone desirable plants. There are many excellent instructional videos on YouTube, such as this one:

<https://www.youtube.com/watch?v=8Lv1DqW9sxx>

The technique basically involves choosing a healthy branch, removing about an inch of bark and cambium circumferentially directly below a node with a sharp knife, moistening the cut area with water and then coating with a rooting hormone. I used Hormex 8 rooting powder – just a guess really on what might work.

After the hormone is applied, a moist – but not soaking – softball sized ball of either sphagnum moss or coco coir is placed inside a polyethylene bag and wrapped around the area, centered on where the hormone was applied. (I used a heavy duty polyethylene storage bag, Plymor 8”x8” 4 mil zip lock, slit horizontally about 1/3 of the way from the bottom.) This is wrapped around the branch, completely covering the cut area with the moist growing medium. I then tightly sealed the bottom and top of the bag around the branch using long zip ties. After that, to provide an extra layer of moisture seal, I double wrapped the entire bag with several wraps of plastic film. Lastly, I then wrapped the entire area with a couple of layers of aluminum foil to keep the sun off of it.



My air layering gear: Clippers to remove branches that are in the way, sharp knife to remove bark, coco coir or sphagnum moss premoistened, rooting hormone, 4 mil zip lock bag, long twist ties, and plastic wrap aluminum foil.

I can warn anyone trying this that it is nice to have a second set of hands available! It can get a bit awkward to hold the bag with coco coir around the branch while simultaneously trying to pull the zip ties tight.

I tried to seal in moisture as much as I could since I placed the air layers in late August when temperatures were still very hot – and also because my plants were located in a remote area that was difficult for me to access without a long drive and hike. I knew I would not be able to return for several months to check on them. If I had had easier access, I could have checked every few weeks and just added additional water with a syringe and needle through the plastic bag if it looked dry.

For my project, I air layered 5 branches on 5 different plants that I had located in southern Utah. I placed the air layers on August 25. I was not able to return to check on them until November 4 – 10 weeks later.

I might add that I marked the locations of each of them with my little Garmin GPS handheld so that I would not have problems locating them when I returned.

I succeeded in rooting 1 out of the 5 branches. Not a spectacular success rate, but I was still overjoyed when I took off the aluminum foil and saw big healthy looking



The buffaloberry branch that I was able to root with an air layer

white roots under the plastic wrap on one of them. I really have no idea why only 1 out of 5 rooted, as I used identical materials and technique on all 5 of them. Strangely, none of the others had any evidence at all of root formation.

To harvest the now-rooted branch, I simply clipped just below the plastic wrapped area. I didn't unwrap until I got home, keeping the new roots moist. I then transplanted the rooted branch into a clear plastic gallon pot using a mix of a commercial cactus/succulent mix (Spike and Bloom Desert Blend), calcined clay, perlite, Miracle Gro Cactus potting mix, coco coir, gravel, and some sand taken from the site of the source plant.

I had been warned by a friend who has a roundleaf in his yard that this plant does not do well with excessive watering, so I tried to make a well-draining soil mix.

What I chose for a potting medium was largely guesswork. I thought that including some sand from the area of the mother plant might hopefully introduce native symbiotic bacteria and mycorrhizae that would help growth. I chose a clear pot so I could observe root growth. I am not sure it is necessary, but I chose to wrap the clear pot in aluminum foil to keep the roots in

the dark except for brief periods when I would unwrap to make observations.

After about 3 weeks, I had quite a few visible roots in the pot at the edges, and after another week, I repotted into a larger, taller clear pot. This is where the plant is now, and I continue to get healthy root growth.

I don't have a greenhouse, so the plant is indoors in a southeast facing window, getting good morning light. I also am supplementing with some grow lights. In addition to root growth, I am getting quite a bit of small leaf growth from nodes on many of the branches. The plant is also flowering now in mid-winter, no doubt due to the extended light it is getting with the grow lights. I am giving roughly 12 hours of light a day.

The true test will be when I transplant into our Kanab yard. This likely will not be until this coming fall when we complete our move to Kanab and are living there full time.

In the meantime, I plan to try air layering additional plants this spring in the hopes of having several specimens of this beautiful native plant. I may try using the higher concentration Hormex 16 rooting powder in



Roots visible through the clear plastic pot where I planted the buffaloberry stem.



An air layer in place on a local *Poliomintha incana*.

hopes of getting a higher success rate.

I hope this is of interest to some members of the Utah Native Plant Society. As I noted above, there really is not a whole lot of information available, at least that I could find, about how to propagate and grow this beautiful native plant. If anyone has any questions or would like

additional information, I would be happy to correspond. I am far from being an expert, but would be happy to share more of my experience with anyone who might be interested. My email address is

williamhenryorman@yahoo.com.



Wyoming Townsend Daisy (*Townsendia montana* syn. *Townsendia alpigena* var. *alpigena*), Aster family (Asteraceae). Hidden Peak, Little Cottonwood Canyon, Utah. Photo by Tony Stireman.



A particularly diminutive form of the highly variable species, *Tetraneuris acaulis*, Aster family (Asteraceae). San Rafael Swell, Utah. Photo by John O. Stireman III

Steve Hegji's Camera

If you've never been to the Uinta Basin in May, make this the year you do it! A simple drive along highway 40 from Starvation Reservoir to Vernal will yield lots of beautiful roadside plants. Double up on the experience - take your time and wander some of the backroads all around Myton and Roosevelt. There's lots to see that you won't encounter most other places in Utah.



Cicada milkvetch (*Astragalus chamaeleuce*) has magenta flowers, often with a magenta streaked white patch on the banner petal.



Debris milkvetch (*Astragalus detritalis*) is found only in and near the Uinta Basin and should be considered sensitive.



Duchesne milkvetch (*Astragalus duchesnensis*) is found only in and near the Uinta Basin and should be considered sensitive.



Dragon milkvetch (*Astragalus lutosus*) is found only in and near the Uinta Basin and should be considered sensitive.



Draba milkvetch (*Astragalus spatulatus*) of course comes in smaller sizes, but if you're lucky you'll spot one of these monster plants that are 2-3 feet in diameter.



Cisco mariposa (*Calochortus ciscoensis*) is one of the more striking Mariposa's of the many beautiful species found throughout western North America.



Rough paintbrush (*Castilleja scabrada*) really is a head-turner in the Uinta Basin environment. Your first thought is, "that color can't really exist!"



Rose heath (*Chaetopappa ericoides*) is not really a heath, but a sunflower family plant that is a welcome sight in dry country.



Left to right: Grand Junction camissonia (*Chylismia eastwoodiae* syn. *Camissonia eastwoodiae*) has eye-grabbing red spots and streaks on its bright yellow petals. Uinta Basin spring parsley (*Cymopterus duchesnensis*) is found only the Uinta Basin (UT and CO) and has some of the biggest leaves in the *Cymopterus* genus. Shaggy daisy (*Erigeron pumilus* var. *concinus*) is not uncommon popping up in and around the branches of sagebrush.



Cushion buckwheat (*Eriogonum ovalifolium*) is widespread in western North America. In the Uinta Basin it's not unusual to see two color forms side by side.



Flower's penstemon (*Penstemon flowersii*) is found only in the Uinta Basin (UT and CO) and really pops out against the background (mostly barren) clay soils it prefers.



The flowering stems of notch-leaf scorpion-weed (*Phacelia crenulata*) unroll like a scorpion tail as blooming progresses.



Parasol bladderpod (*Physaria subumbellata*) is mustard family plant packed with yellow flowers.



Rusty lupine (*Lupinus pusillus*) a small plant does its part to add color (and nitrogen!) to the Uinta Basin.



Little twistflower's (*Streptanthus longirostris*) deep purple buds give way to yellow/white flowers at the stem elongates.

Astragalus utahensis Fall Bloom

by Bill King

In the last *Sego Lily* we reported that UNPS has received over the years a number of reports of secondary or fall bloom of species that usually bloom in the spring and early summer. We asked for anyone who had photos of unusual fall blooming times to contact us, regrettably we have not received any responses so far.

Consequently, we decided to have a look at the observations of Utah plants reported on iNaturalist

<https://www.inaturalist.org/taxa/159031-Astragalus-utahensis>

and decided to take an in depth look at the blooming times of the Utah Milkvech, *Astragalus utahensis*. It is a perennial species that grows from a tap root, mostly in northern Utah and west of I-15 but also in adjacent Nevada, Idaho and Wyoming. It grows from about 3900 to 7500 feet in elevation and requires good drainage. It is relatively easy to identify in leaf, bloom, pod or even desiccated and there are 856 recent (mostly in the last four years) Utah observations of it on iNaturalist. In addition, there is a lot of interest in the species and some believe it to be among the most beautiful blooming plants in Utah and even a few that think it should be the state flower. We have grown the plant in our garden for over 10 years and have noticed that some years it blooms in the fall and others it does not. It has the reputation of being a very fickle plant that is sensitive to its environment both in the garden and in the wild.

We started by reviewing the blooming times listed for *Astragalus utahensis* in 11 floras and field guides. April and May was the most common blooming time listed including in the *Atlas of the Vascular Plants of Utah* (Albee 1988). Others had the range from March to June or early July. A.O. Garrett in his *Spring Flora of the Wasatch Region* (Fifth Edition, 1936) had its blooming time from April to November. Garrett's little book was critically reviewed and assisted by the likes of Dr. Per Axel Rydberg and Professor Marcus Jones. The flora that caught our eye was Rupert C. Barneby, the renowned astragalus expert in the *Intermountain Flora* (Vol. 3 Part B, page 132, 1989), said the blooming time was: "Mid-Apr-early July, sometimes again in late Aug.-Sept."

In 2020 there were 152 observations of *Astragalus utahensis* in Utah on iNaturalist but only one in July or later and

that was on the first of July. 2020 was the year that the monsoon failed to materialize in the West and the summer rains that we all depend upon in July, August and September did not show up.

On the other hand, 2021 (216 total observations) was a year of robust summer monsoon rains including over 5 inches in 24 hours on the 18th of August in Delta and an inch or two of rain in many other places across the state. There were 14 observations on iNaturalist of the Utah milkvech blooming after July 1 in 2021: 0 in July, 1 in August (Aug. 29), 7 in September, 4 in October, 1 in November and even 1 on December 6th, that being Zach Coury's photo of the milkvech blooming on December 6 near the University of Utah.

In 2022 (191 observations) there were only 2 observations of the plant blooming in the fall after August 1, both in October. The year 2023 (185 observations) has 5 fall blooming observations one in August, one in September and three in October.

So, yes, Utah astragalus does bloom in the fall when the conditions are right. Just exactly what those conditions are remain to be seen but probably include moderate temperatures and sufficient moisture. Day length may also play a role. We also noticed that the plants blooming in the fall did not seem to be as big and had fewer flowers than pictures of those blooming in the spring. Even in 2021, the year with the most fall blooming observations, the percentage of fall bloomers compared to the total observations for the year was only 6.5%.

Once again, if you noticed a species that normally blooms in the spring and you found it blooming in the fall, we'd be interested in knowing. Bill King, mzzzyt@aol.com



Left: Matt Reala, iNaturalist Oct 3, 2021 Spanish Fork Canyon near Tucker.
Right: Zach Coury, iNaturalist Dec 6, 2021 near the U of U.

Grow Native

Eriogonum umbellatum in variety

by John Stireman

The buckwheat, *Eriogonum umbellatum*, commonly called sulfur flower, is described in *Flora of North America* as “a widespread and exceedingly variable species,” listing 41 botanical varieties from shrubs 24 inches tall and 36 inches wide to compact plants a few inches tall. In *A Utah Flora*, Welsh et al, four wide-spread varieties are listed for the state.

Depending on the variety, the evergreen leaves can be large and covered in short hairs or small and glossy-smooth. The species ranges geographically from British Columbia to California, and east to New Mexico, Colorado, through Wyoming to Montana, growing in drier sites, open to full sunlight, and in soils with good drainage.

The flowers of sulfur flower occur in umbellate clusters and, as the common name implies, the color is more



In variety *Eriogonum umbellatum* v. *porteri*, the long-persisting flowers darken with reddish tints as they age.

often a soft, sulfur yellow but there are lemon-yellow and cream-colored forms among the many varieties. As the flowers age and long-persist on the plant, they often take on attractive reddish tints, some even turning brick red.

Sulfur flower buckwheat is an excellent choice for gardeners seeking native plants beloved by bees, benefiting not only the honeybee but, so much more importantly, native bees as well. The plants flower in late spring when native bees become most active.

In the garden, since the species derives from mountainous or foothill sites, *Eriogonum umbellatum* grows best in well-drained soil. They will not perform well in lawn-watered conditions, nor in soil made highly organic. And they will languish in shade, sun lovers that they are. The



Variety *Eriogonum umbellatum* v. *porteri* from higher elevations in Utah and Colorado will grow into low, widening mats. In habitat, it is covered in snow in winter. Although perfectly hardy at lower elevations, winter sun can sometimes ‘burn’ leaves and that is evident in the photo as a small, dead spot. Such damage can be eliminated by situating the plant where it receives some winter shade when the sun is low, perhaps from a taller plant to its south, but full sun during the growing season. In winter, leaves take on a deep maroon coloration.



A plant of *Eriogonum umbellatum* v. *umbellatum*, grown from seed collected above Lake Mary in the Wasatch Mountains. Leaves are larger and the flower stems longer than in variety *porteri*, bearing multiple umbels.



The commercial cultivar, *Eriogonum* 'Alturas Red,' bears green tinted, cream flowers on tall stems and has hairy leaves, appearing gray. Flowers are seen here before any sign of their eventual turn to a deep red.



Before the buds of 'Alturas Red' open, they are attractively red.

plants are long-lived. If an otherwise healthy plant becomes a little straggly, it may be cut back somewhat in late winter and return in better form. Since variety *porteri* never grows loosely in good sunlight, pruning should be restricted to any damage that might occur.

The most difficult part of introducing native plants into the garden is finding them for sale. This species, in one form or another, can sometimes be found in local nurseries. If no luck locally, here are some online sources – I am sure there are others:

<https://www.highcountrygardens.com/>

<https://www.anniesannuals.com/>

<https://www.forestfarm.com/>

<https://plantsofthewild.com/>

Adventurous gardeners might try growing from seed which is not difficult to find online. A simple germina-

tion medium of half sifted peat moss and half perlite has worked well for me. Sow the seeds on the surface of the medium and top with a layer of pea gravel. Place the pot in water and allow the soil to moisten from below. In my long experience growing buckwheat species from seed, it is clear that a cold, moist period is necessary for good germination. This is easy to provide. Seal the pot in a clear plastic bag and find a spot in your refrigerator where it won't be disturbed or forgotten for weeks. Check the pot regularly since the seeds can germinate at cold temperatures. If no germination occurs within a month, remove the pot from the bag, place it in a cool location with moderate light, and keep moist but not over saturated.

The photos here are all taken of plants in my home rock garden. An online search for *Eriogonum umbellatum* will turn up many images of the species and its varieties and cultivars.

UNPS is a 501(c)(3) organization that is run by volunteers and has almost no overhead. Your donation helps us to fund our Grant-in-Aid and other programs.

Donate to support our work in general or our Grant-in-Aid program.



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Spiny milkwort (*Polygala subspinososa* syn. *Rhinotropis subspinososa*), Milkworts family (Polygalaceae). Yuba Dam State Park, Sanpete County, Utah. Photo by Andrey Zharkikh.

The Utah Pollinator Habitat Program

by Becky Yeager

To help secure the future of Utah's pollinators, Utah Department of Agriculture and Food (UDAF), along with Utah State University, Utah Department of Wildlife Resources, and the Natural Resource Conservation Service of the USDA, has instigated a program to improve pollinator habitat as part of the **Utah Pollinator Habitat Program**. This program has been made possible with funding from the Utah Legislature since 2021. It was initially set to sunset in 2024, but has been extended to 2026, with hope of continuing beyond that date.



The program has two main goals: 1) to educate the public about pollinators and pollinator habitat and 2) to distribute pollinator-friendly **native** flowering plants and seeds to enhance or expand habitat for a diversity of pollinators. To achieve these goals, the program accepts applications from Utah residents for 'pollinator habitat kits' consisting of about 30 native plants each of either wetland or upland species. The native species chosen for the kits offer pollen and nectar for pollinators across seasons and regions. Applications are assessed for probability of success, potential for outreach (e.g., talking with neighbors, erecting signs with educational content, posting on social media). Applicants can apply for multiple kits based on the size of their property and suitable space. Those receiving grants are required to submit a simple annual report of their project progress for a three-year period following award.

The program is entering its third year. In the first two years (2022 and 2023), a total of 327 recipients created or enhanced pollinator habitats throughout the state of Utah with more than 47,000 native plants awarded. The awardees included homeowners, schools, municipalities, open space programs, and non-profit organizations, amongst others.

How to apply

Visit [Bit.ly/Utah-Pollinator](https://bit.ly/Utah-Pollinator) for more information about the program and to submit an application. The 2024 application period runs from **March 1 – April 15**. Plants will be distributed in the fall of 2024.

You can read what recipients have shared about the program on the **Utah Pollinator Habitat Program Group Page** on Facebook <https://www.facebook.com/groups/397349162477206>.

For More Information, Contact:

Mindy Wheeler
(385) 235-1062

MindyWheeler@utah.gov

Zach Coury Field Photos



Left to right: An incredible bouquet of this newsletter's namesake! Kane County, 22 May 2023.

Physaria tumulosa in its harsh habitat of shale from the Carmel Formation. Kane County, 1 June 2023.

A rare white-flowered morph of *Penstemon carnosus* found in the San Rafael Swell. Emery County, 22 May 2023.



Natural variation in achene color between different *Crepis* individuals. These were from a complicated population that seemed to have *C. occidentalis*, *C. modocensis*, as well as *C. acuminata*. Tooele County, 23 June 2023.



Townsendia incana is not exactly a rare plant, but it is rare to see it flowering so profusely!
Emery County, 22 May 2023

Your Membership

Your membership is vital to the Utah Native Plant Society. It is important that your information is correct and up to date for notifications and the delivery of The Sego Lily newsletter.

Any questions about your membership, Contact Tony Stireman, tstireman@gmail.com.

Spring is approaching... It is time to consider another issue of the Utah Native Plant Society *Sego Lily* which relies mostly upon articles from the society's membership. Please submit articles of your native plant stories and photos from hikes and field trips, conservation activities... whatever might be informative and interesting to fellow members.

The *Sego Lily* editors can use most any text format for articles (**PDFs can be troublesome**). Photos are always best submitted in original resolution and as individual files separate from text. You can indicate desired positioning within a document. We are looking forward to hearing from you. For submissions and/or questions: newsletter@unps.org or cathy.king@gmail.com.



Utah Native Plant Society

Utah Native Plant Society
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Salt Lake City, UT, 84152-0041.

To contact an officer or committee chair write to:

Webmaster: unps@unps.org

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Website: For late-breaking news, the UNPS store (posters, etc.), the *Sego Lily* archives, Chapter events, sources of native plants, the digital Utah Rare Plant Field Guide at unps.org.

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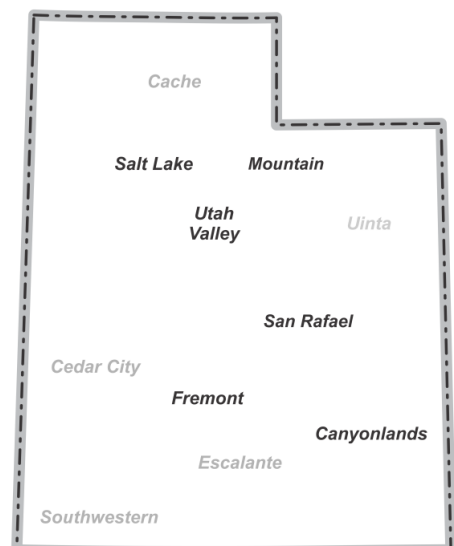
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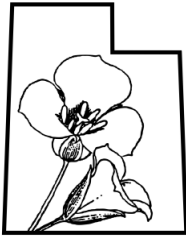
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The *Sego Lily* is a quarterly publication of the Utah Native Plant Society, a 501(c)(3) not-for-profit organization dedicated to conserving and promoting stewardship of our native plants.

UNPS Chapter Map ^{*Inactive}



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