



The Penstemaniac

NEWSLETTER OF THE AMERICAN PENSTEMON SOCIETY

VOLUME 15 Nº 1 MARCH 2021

Registration Information American Penstemon Society Annual Meeting 2021

Mikel Stevens, 2021 Annual Meeting Arrangements Chair

Stephen Love, 2021 Annual Meeting Arrangements Co-Chair

Note: Lingering issues with COVID-19 still may be prevalent during the dates of our planned meeting. In consideration of the health of fellow penstemaniacs, please request vaccination—as soon as the option is available to your demographic group—as part of your preparations for attendance. Additionally, please bring a mask for use during our indoor events. In case you forget, we will have masks available.

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Welcome to Bear River Country

Despite COVID-19 concerns, we are planning a “typical” annual meeting for July of 2021, taking advantage of the penstemon habitats in the area surrounding Logan, Utah. Given the progressive status of COVID-19 vaccination efforts, we are reasonably confident that we can successfully plan and conduct this event. However, as with all plans, things could develop in a less than optimal fashion. So, please keep in touch with the arrangements committee and APS Board to receive updates. Regardless, begin your plans to join us in Logan and in the meantime, we will work under the assumption that each of us will feel comfortable returning to our “normal” routine.

The meeting will be centered at the Riverwoods Conference Center in Logan, Utah (address: 615 Riverwoods Pkwy, Logan, UT), thus allowing us to explore the unique flora of the Bear River Range of northern Utah and southern Idaho. Field trips are scheduled for Tony Grove Lake in the upper Logan Canyon area, Paris Ice Cave and Bloomington Lakes located in Idaho on the west side of Bear Lake, and the Monte Cristo area in the southern end of the Bear River Range. Several species of *Penstemon* are present in this region, including *P. leonardii*, *P. cyananthus*, *P. humilis*, *P. whippleanus*, and *P. radicosus*. On our regularly scheduled tours we will visit the habitat of the rare species *P. compactus*. On the optional Monday tour, we may also see *P. caespitosus*, *P. cleburnei*, and *P. scariosus* if we can identify accessible sites.



Meeting Dates

The 2021 annual meeting is scheduled for Friday, July 9 through Sunday, July 11 with an optional post-meeting tour of the Monte Cristo area of northern Utah on Monday, July 12.

The Region

The Bear River Range is the northern extension of the Wasatch Mountains. This range forms the eastern boundary of the Cache Valley, setting of Logan, Utah; and extends north to Soda Springs, Idaho and south to a point east of Ogden, Utah. The range consists of raised and folded karst formations made up of limestone layers resulting from sedimentation in an ancient inland sea. The resultant landforms are pockmarked with limestone caves and fossil beds. The highest point in the range is Mount Naomi at 9,979 feet. At the eastern edge of the range is the Bear River Basin, home of Bear Lake. This beautiful body of water is - sometimes called the Caribbean of the Rockies – exhibits a unique blue color, a result of calcium carbonate deposits.

Weather in this region is cool-temperate with distinct seasonal precipitation patterns. Summer days are typically warm, dry, and sunny ending with cool evenings and nights. Winters are cold and snowy. The Cache Valley around Logan averages 53 inches of snow. In contrast, the Beaver Mountain Ski Resort in Logan Canyon (within the Bear River Range) averages over 400 inches of snow. Interestingly, a site called Peter Sinks within the Range recorded the lowest historical temperature in Utah and second lowest in the contiguous 48 lower state, at -69°F.

The Bear River Range provides many opportunities for recreation, both for local residents and visiting tourists. Popular sites include Tony Grove Lake, Franklin Basin, Beaver Mountain Ski Resort, Bear Lake, Bloomington Lakes, and Minnetonka Cave. Being positioned along the Oregon Trail, the region is also rich in historical sites.

Travel to Logan

Logan can easily be reached via air or ground transport. Although Logan itself does not have airline service, you can fly into Salt Lake City, rent a vehicle and drive to Logan. Salt Lake City is served by most major US airlines.

You can drive to Logan from the north or south on Interstate-15. Take exit 385 north of Tremonton and drive 19 miles east on UT-30. Alternately, from the south, drive 62 miles north on I-15 to Brigham City. Take exit 362 and drive 26 miles through Wellsville Canyon on US-89 to Logan.

From the west drive to Salt Lake City on I-80 then follow the directions for a south arrival described above.

From the east, you can either drive to Salt Lake City on I-80 and then follow directions for a south arrival described above; or take the scenic route by leaving I-80 just west of Little America on exit 66 to US-30. Travel 69 mi and turn left on WY-89 (which turns into UT-30 at the border) and drive 41 miles to Garden City. At the junction with US-89, turn left and travel 39 miles down Logan Canyon into Logan.

Lodging

Please make your own reservations for lodging. Information describing lodging options is detailed below.

The Riverwoods Conference Center (615 Riverwoods Pkwy, Logan, UT) will be the base facility for the 2021 APS meeting. All business meetings, banquets, and presentations associated with the meeting will be held at this facility. Room rates at the conference center (connected with the Marriott TownePlace Suites hotel) are \$169 per night for single or double occupancy. A competitive group

rate has been arranged given all that will be happening that weekend in the Cache Valley (we will be competing for space with participants in a major bicycle road race). The Marriott TownePlace is a brand-new hotel and just opened for business the last weekend of February 2021. The facility is now taking reservations.

Web link to the American Penstemon Society reservation page for TownePlace Suites: [Book your group rate for American Penstemon Society](#).

Alternately: type this tinyurl.com/35uy5rzv into your browser address bar.

Rooms will be held at the group rate until June 6, 2021, or until all of our block rooms are reserved. It is critical that you book your reservation early to any and all facilities in Cache Valley (Logan area because the “UCI Gran Fondo World Championship Qualifier” will be held July 9th & 10th in Cache Valley, Utah. We have been informed that this event expected to be well-attended and late booking for lodging may be impossible.

Alternate nearby motels:

- Super 8 by Wyndham, 865 S Main St, Logan, UT, 435-363-0050
- La Quinta Inn & Suites, 853 US-89, Logan, UT, 435-752-0707
- Best Western Baugh Motel, 153 South Main Logan, Utah, 435-752-5220

RV Parks

There are two RV parks located near the conference center:

- Traveland RV Park, 2020 S. Hwy #89, Logan, UT, 435-787-2020
- Riverside RV Park, 447 W 1700 S, Logan, UT, 435-757-2346

Nearby campgrounds (for those with a preference for roughing it):

- Bridger Campground, 5.5 miles east of Logan near US-89 (non-reservable).
- Web site: <https://www.fs.usda.gov/recarea/uwcnf/recreation/recarea/?recid=9082&actid=29>
- Guinavah-Malibu Campground, 7.6 miles east of Logan near US-89 (reservable).
- Web site: <https://www.fs.usda.gov/recarea/uwcnf/recreation/recarea/?recid=9323&actid=29>
- Wood Camp Campground, 13 miles east of Logan near US-89 (non-reservable).

Web site: <https://www.fs.usda.gov/recarea/uwcnf/recreation/recarea/?recid=9835&actid=29>

Meals

Cost for meals associated with the Friday reception and the Saturday evening banquet are included in the registration fee. All other meal arrangements are the responsibility of attendees. Pack a lunch and carry it with you on the Saturday, Sunday, and Monday field trips. Most field trips involve travel into somewhat isolated areas (high clearance vehicles recommended, but not essential). It is critical that you begin each field trip with enough food and water for an all-day excursion.

Welcome Reception

On Friday afternoon, beginning at 5 pm, we will host a welcome reception at the Riverwoods Conference Center (615 Riverwoods Pkwy). Food and beverages will be provided. As part of the reception, we have invited Leila Shultz to provide a presentation on a topic entitled, “What’s so special about Logan Canyon?” Leila will discuss geological features and plant distributions that are unique in the region. Primary focus will be on the dozen+ endemic plant species found in the Bear River Range



Leila Schultz (S. Love)

(northern Wasatch). Among others, this area harbors the rare *Penstemon compactus* and *Orthocarpus holmgreniorum*.

Biography for Leila Schultz.

Leila came to Utah in 1973, starting a career of field exploration, curation, teaching, and research. She obtained degrees from the University of Tulsa (B.S.), University of Colorado (M.A.), and Claremont Graduate School (Ph.D.). She is a co-author of the Atlas of Vascular Plants of Utah and the Woody Plants of Utah, and a taxon editor for the Flora of North America for 25 years. Additionally, Leila served as curator of the Intermountain Herbarium for 20 years and on the Board of Directors for the Utah Native Plant Society and the Teton Science Schools. "I completed a monograph of Artemisia subgenus Tridentatae (Sagebrush) in 2009 and have since distributed about 30,000 copies of a Pocket Guide to Sagebrush. My retirement home is with the Intermountain Herbarium at Utah State University and my heart is with the conservation of the rare flora of Utah."

Banquet

The annual meeting banquet and business meeting will be held at the Riverwoods Conference Center on Saturday evening. A reception will start at 6 pm with the meal served at 7 pm. Following the meal, we will conduct a short business meeting and then be treated to a keynote speech by Tony McCammon, co-author of *The Heart of Penstemon Country: A Natural History of Penstemons in the Utah Region*. Since completing graduate work at Utah State, Tony has been fascinated by and a self-educated forager of native plants. His love of nature connects him to the Native American way of life and "our brothers and sisters in the plant kingdom. Penstemon enthusiasts love to admire specimens in their native environment. Some take pictures, others propagate them into their own yards. I have even seen some add them to their own peyote mixture. Native American Tribes of the Intermountain West were familiar with Penstemon as a beautiful and useful plant. And although it is the king of the wildflowers, packed inside every plant is a history, a life, and even a power forgotten." At this year's APS meeting Tony will share an ethnobotanical history of Penstemon.

Biography for Tony McCammon:



Tony McCammon (S. Love)

Tony McCammon is the founder of Bloom Horticulture Specialists, the leader in inspiring landscape stewardship and helping gardeners connect to nature's healing power. His passion for plants carries into his landscape architecture studio, speaking engagements, and consulting opportunities. Tony has worked in the horticultural field for over 15 years. He received a MS in Plant Science from Utah State University and retired from the University of Idaho to start his business. Tony has specialized expertise in woody plants, turfgrass, native plants, permaculture, floraculture, aquaponics, and pest management. He has spoken to many groups nationwide and has appeared on several garden shows. Tony loves hiking, canyoneering, playing soccer with his friends, and relishes writing in the third person. He is a featured speaker on greatgardenspeakers.com, The Association for Garden Communicators, Idaho and Utah Nursery and Landscape Association, local/state/and international Native Plant Associations, and frequently offers community classes through Dixie State University.

Field Trips

We will provide multiple options for field trips on both Saturday and Sunday to meet the needs and capabilities of all attendees. You may also choose to attend the post-meeting, half-day tour of the Monte Cristo area southeast of Logan.

All Saturday, Sunday, and Monday field trips will leave from the parking lot of the Riverwoods Conference Center. We encourage you to carpool to minimize the number of vehicles required for transport.

Saturday Tours

Tony Grove Lake/Naomi Peak



Tony Grove Lake mint (S. Love 2008)

All meeting attendees will drive up Logan Canyon to Tony Grove Lake. (The required day-use parking pass will be covered as part of your registration fee.) At the parking lot, we will split into three groups. For the adventurous, we will lead a climb to Mount Naomi, the highest peak in the Bear River Range. The hike is 12.4 miles round trip with a 2,000 feet elevation gain. Difficulty is moderate. If you choose this option, please be sure to bring the proper shoes and equipment (plus plenty of water).

A second option at Tony Grove Lake is a short 2-mile hike round trip to a *Penstemon compactus* (site). Afterward, this group will explore the ra-

vines and cliffs on the way back to Tony Grove Lake

A third option at Tony Grove Lake is to walk the nature trail on the lake shore and explore some of the easily accessed areas around the lake.

- Timetable: 8 am to 3 pm.
- Vehicle Requirements: no restrictions.

Roundtrip Drive: approximately 40 miles.

Tony Grove Lake is positioned at an elevation of about 8,000 feet. Habitat is alpine fir and limber pine forest. A number of penstemon species can be seen on this tour, including *P. cyananthus*, *P. humilis*, *P. leonardii*, *P. whippleanus*, and *P. compactus*. Many other unique and/or locally endemic species may also be seen, such as *Epilobium canum*, *Polemonium occidentale*, and *Balsamorhiza macrophylla*.



Bloomington Lake (S. Love Jul2013 (7))

Sunday Tours

You can choose one of two tours on Sunday. One option is Bloomington Lake to the west of Bear Lake. The other is to Paris Ice Cave, also on the west side of Bear Lake.

Bloomington Lake

This field trip involves an 85 mile drive up Logan Canyon and into the portion of the Bear River Range west of Bear Lake. At Bloomington, Idaho, we will turn west off US-89 and drive to the Bloomington Lake trailhead. This field trip will include a 1.5-mile round trip hike into Bloomington Lake. This hike is rated easy. On the drive to this site, we may include some other stops to sample other habitats. During this trip we may be able to see *P. leonardii*, *P. cyananthus*, *P. whippleanus*, *P. humilis*, and *P. radicosus*. Other interesting plants close to the lake include the rare *Musineon cusickii* and *Asplenium viride*.

This is also one of the few places in Idaho with established populations of *Primula parryi*.

Timetable: 8:00 am to 3:00 pm.

Vehicle Requirements: trailhead access road is dirt/gravel and somewhat rocky in places; vehicles with moderate clearance, including most sedans should be able to handle this road.

Roundtrip Drive: 170 miles.

Paris Ice Cave



This field trip involves an 81 mile drive up Logan Canyon and into the portion of the Bear River Range west of Bear Lake. At Paris, Idaho, we will turn west off US-89 and drive up Paris Canyon to the Paris Ice Cave. This field trip may include some easy to moderate hiking. On the drive to this site, we may include stops to sample other habitats. On this trip we may be able to see *P. leonardii*, *P. cyananthus*, *P. humilis*, and *P. radicosus*.

Timetable: 8:00 am to 3:00 pm.

Vehicle Requirements: the cave access road

is gravel and well-maintained; most vehicles should be able to handle this road.

Roundtrip Drive: 162 miles

Monday Post-Meeting Tour



Helianthella field (S. Love)

Monte Cristo

Timetable: 8:00 am to 2:00 pm.

Vehicle Requirements: high clearance to see *P. compactus*.

Roundtrip Drive: approximately 270 miles.

This is a part-day field trip within which we will travel south of Logan through Hyrum, Eden, and Huntington, then east into the Monte Cristo Range. The one-way drive is approximately 70 miles. There we will explore meadows and forests at elevations ranging from 6,000 to 8,000 feet. On this trip we should see abundant wildflowers that may include *P. compactus*, *P. cyananthus*, *P. leonardii*, and *P. scariosus*. We have observed herbarium records suggesting

that *P. caespitosus* and *P. cleburnei* have been found at lower elevations near Woodruff, Utah. Additional scouting activities prior to the conference may reveal sites for those species.

Field Trip Preparation

Most field trips take us into places with limited access to food, water, or other essential equipment. If you are driving, be sure to start each field trip with a full tank of gas. Make sure you have a good spare tire. All field trip participants, please bring the following:

- Sack lunch
- Water (at least ½ gallon per person)
- Jacket
- Wide-brimmed hat
- Insect repellent
- Good hiking shoes
- And remember your camera!

Annual Meeting Schedule

Friday

2:00 pm – Board Meeting (Riverwoods Conference Center).

5:00 pm – Welcome reception (Riverwoods Conference Center).

Saturday

Departure for this field trip originates from the Riverwoods Conference Center parking lot.

8:00 am – Depart on the tour to Tony Grove Lake.

6:00 pm – Reception (Riverwoods Conference Center).

7:00 pm – Banquet, annual business meeting, keynote speech (Riverwoods Conference Center).

Sunday

Departure originates from the Riverwoods Conference Center Parking lot.

8:00 am – Depart on the tour to Bloomington Lake.

8:30 am – Depart on the tour to Paris Ice Cave.

Monday

Departure originates from the Riverwoods Conference Center parking lot.

8:00 am – Depart for the post-meeting tour to Monte Cristo.

We will adjourn from the field after the tour is complete.

Registration

To register for the meeting, fill out the online registration form and make payment through the APS website (<http://www.penstemons.org/>). To access the registration form, click on the Meetings tab, and follow the instructions to pay using a credit/debit card. Alternately, download and print the registration form, fill in the appropriate information, and send the form along with a check for registration fees to:

Lupita Wessler
2841 NE Shepard Road
Bend, OR 97701-5825

Note: You must be a member of the American Penstemon Society to attend the annual meeting. If you not a member and wish to attend, please fill out and submit the online registration form on the American Penstemon Society web page: <http://www.penstemons.org/>.

REGISTRATION FORM—2021 APS ANNUAL MEETING

The 2021 annual meeting is scheduled for Friday, July 9 through Sunday, July 11 with an optional post-meeting tour of the Monte Cristo area of northern Utah on Monday, July 12. Visit the [meeting link](#) for complete information.

Name _____

Accompanying person name(s) (if applicable) _____

Street Address _____

City _____ State _____ Zip _____

Emergency Contact (name/phone) _____

Special Food or Health Needs _____

Registration Fees (Registration fee—\$130, which includes Friday reception, Saturday banquet)

\$ Total _____ # People _____ Registration made online

Sunday Field Trip Preference Bloomington Lake Paris Ice Cave

Check here if you plan to participate in the Monday Field trip to Monte Cristo



Iron Bog Camping (S. Love 2011)

Note: You must be a **member of the American Penstemon Society** to attend the annual meeting. If you are not a member and want to attend, please fill out and submit this meeting registration form, then go online to <http://www.penstemons.org/> and complete a membership application <http://penstemons.org/index.php/society/memberships> (sidebar left).

Online registration and payment instructions:
Access the APS website at <http://www.penstemons.org/>, click on the [annual meetings link](#) and follow registration and payment instructions for the 2021 meeting.

Alternate mail-in registration procedure:
Download and print the registration form from the APS website found under the annual meetings link. Fill out and mail the form, along with a check (payable to the American Penstemon Society) for registration fees to:

Lupita Wessler
2841 NE Shepard Road
Bend, OR 97701-5825

Seed Exchange

2020 Seed Exchange Information

I want to thank the following members that took the time to collect and send in seed this year for the exchange. Every donation helps us provide seed to other members and keeps the exchange viable. The members are (in order of when the seed was received):

Jay Lunn
Kathy Hardgrave
Beth Corbin
David Cammack
Lupita Wesseler
John Roden
Mike Kintgen
Mikel Stevens
Rose Littleton
Stacey Kittner

To date we have sent out 529 seed packets to 35 members. We hope that these seeds will provide our members with some beautiful plants to enjoy (and impress the neighbors).

I would like to encourage everyone to consider providing seed for the 2021 exchange. I will take cleaned or uncleaned seed anytime and in any amount. Please include some information on where it was collected (garden or location in the wild) and any other information if possible, such as elevation, flower color, etc., that would help other members. And remember, for each seed lot donated, you can receive a free packet of seeds.

Rick Wesseler

APS Seed Exchange



Penstemon humilis (S. Love HRG May21 2013 (9))

President's Letter

by Andi Wolfe

Whew! The most challenging year for all of us is done, and we see new hope on the horizon for a return to normalcy. I am really looking forward to the Logan meeting in July 2021. I can't wait to revisit penstemons in the field, and I'm sure you all feel the same. We're able to have this meeting because of the new availability of Covid-19 vaccines. I'm getting my first shot the second week of March, and it brings me great joy to think that we can put this pandemic behind us.

Please schedule your vaccinations as soon as you are eligible. If we all come to the meeting vaccinated, we won't have to worry about the possibility of spreading the virus around. We will follow CDC guidelines with regards to wearing masks and social distancing where necessary. Be sure to bring your face masks, hand sanitizer, and disinfectant wipes. I think we're all in the habit of maintaining safe practices by now. We'll continue that for the 2021 meeting.

The board has been meeting regularly since last summer's virtual meeting. We're in the process of exploring sites for the 2022 meeting and we are looking ahead to the 2023 and 2024 meetings.

Just a reminder: the 2021 grants applications are due at the end of March. Please check the website for details. Speaking of grants, I started a fundraiser for the students' grant program in December 2020. Thus far we have raised about \$1800. Thank you to all our generous donors for this program! We do have a donate button on the website, so if you would like to add to this fund, it would be greatly appreciated.

We will need to work towards getting back to a normal election cycle this year. If you are interested in serving on the board as a member-at-large, as an officer, or on any of our standing committees (newsletter, elections, website, etc.), please contact me (andiwolfe@yahoo.com).

See you soon!



Penstemon pumilus (David Cammack)



Ted Kipping 1945-2019

by Randy Tatroe

Ted was a renowned horticulturist who started gardening at the age of five. He also was an indefatigable artist, speaker, raconteur, musician, photographer and polymath. His vast knowledge of botany and natural history was evident in his presentations to plant societies. I recall a time on a field trip in Chihuahua Mexico, we came upon some mushrooms he had never seen before, but could identify because he once had read about them.

Ted attended Columbia University, earning a degree in natural history and thereafter working at the (Strybing Arboretum) San Francisco Botanical Garden in Golden Gate Park. He volunteered there for nearly 50 years and planted many of the trees and shrubs that still are in the garden. He also was responsible for selecting and planting many of trees and shrubs at the Ruth Bancroft Garden and Nursery in Walnut Creek CA. Ted once gave Marcia and me an in-depth tour of both of these gardens, recalling exactly when and why he had chosen this or that specimen.

Ted's interest in botany was wide-ranging—including lifetime memberships in the Eriogonum Society, the American Penstemon Society and the North American Rock Garden Society and dozens of other horticultural clubs and organizations. He was a professional arborist and longstanding member of the International Society of Arboriculture and the American Society of Consulting Arborists.

Ted claimed the Latin names of plants could be expressed musically, and I still can hear him in my mind, his *basso profundo* voice exploding in full glorious operatic style (phonetically),

“PEN-STEN-E-MUN.....CLU-TE-II!” He always had something germane to add during other presenters' talks, interjecting with colorful comments. On field trips, he would describe a plant with the botanical Latin and then tell us what it meant in English, thus solidifying the meaning.

Ted had literally dozens of talks and presentations that were illustrated by his exquisite and artful photography. In the 30 years I had the privilege to know and travel with Ted, I was amazed how he could capture the unusual, the beautiful natural oddity, as well as the essence of a garden or natural setting, however fleeting or finite. Ted's last completed presentation was a newly revised program titled “Hooked on Foliage,” a sensitive culmination of his passion for the beauty of plants. I still cherish the DVD he gave me several years ago called “Embarkation,” a breath-taking compilation close-ups of innumerable barks of trees. Ted shared his photos and knowledge with anyone who asked to enhance their presentations and publications.

Ted was quick with a sincere compliment, expressions of friendship, love, and gratitude. Ted enriched the lives of everyone he met and was a role model for us all. He indeed helped make the world a better place. When someone of Ted's stature passes on, the world has indeed lost an entire library of irreplaceable knowledge. We will all miss him terribly.

Ted is survived by his wife Diana, son Kirk, brother John and niece Zoe. Donations in Ted's name may be made to Save the Redwoods, one of Ted's favorite organizations.

Creating A Hypertufa Trough

By Ginny Maffitt, Sherwood OR

March 2021

A hypertufa trough provides the gardener with a container that protects plants from temperature and moisture extremes without a rock garden. If the plants are from high elevations or desert areas, it is impossible to replicate these conditions in open gardens in climates where a majority of gardeners reside. In high elevations, native plants spend at least half of the year dormant under snow, ice or heavy precipitation. Since this is so drastically opposite of their summer growing conditions, they have developed 'mechanisms' to survive and replicate. This is more obvious in animals that grow heavy winter coats and/or hibernate. Since we can't observe these changes, we must provide for them in above ground plantings. Rock gardens are the obvious choice if the



Round fiberglass pot bought in Home Depot garden section and painted to match house trim. Drilled more drainage holes. (Maffitt 20201110_103252).



Ceramic pot with various penstemon species. (Maffitt 20201110_103346)

gardener has

the wherewithal and space to purchase and haul various sized rocks and proper fill dirt. If space and labor are limited, large troughs provide conditions and longevity for these prized species.

If in-ground rock gardening is not possible, consider constructing planters in your desired shapes, materials, thicknesses and colors! The large home supply stores usually have everything needed. Make a complete list before you go, carry a tape measure so you can be sure to get the right size form, ask for help loading the Portland cement at store and at home! Be sure the correct mask and gloves are on that list and heavy plastic liner. You may already have garden or carpentry tools to gouge the lines and textures into the newly uncovered forms. Tools need to be steel to do the work and not be damaged. Include a plastic ruler to measure thicknesses as you work. A water spray bottle is helpful as the mix adheres better. Find some circular forms to leave for openings in the outer sides to plant in. Find another form to leave or cut drainage holes in the trough base;



Ceramic container with mini eriogonum and penstemons. (Maffitt 20201110_103435)

your choice. Also find a small piece of native rock with some texture on it. This can be used to press or scrape that texture onto the fresh wall tops when the trough is about dry! Sometimes, handful of crushed rock can be pressed on top.

Do construct the pot where you intend to display it! Moving it is possibly destructive to your body, the device you're trying to carry it on, and the new trough! Consider beforehand whether you would like to grow shade or sun-loving plants and place it now accordingly. If you mail order the plants, read the growing and size descriptions carefully. If they are vague, do contact that grower! If there are growers in your area, visit at a time when hordes of weekend gardeners aren't taking up the growers' time. They've grown the plants from seeds or cuttings in your climate and so have the best advice. They also might advise on spacing distance; plants should be slow growing so they don't over-run each other. If you choose to grow succulents, they usually slowly creep, plus cacti are very slow growers! They love the drainage and often bloom earlier.

Now that you've got your personal protections and supplies in a SHADY working place; time to begin. Place the form on an old tarp to speed clean up. Place form on a (temporary) liner with enough extra to wrap back inside when mix is ready to cure. This slows the process which is desirable for strength.

Mix only about half the mix you might need so you have time to form each part exactly as desired. The bottom should be slightly thicker than walls; at least an inch and a quarter...do measure. Press it down firmly with your bottom drainage hole forms in place This



Faux hypertufa rectangular trough with front drain hole; odd indentations with garden tool. Really successful planting with large Penstemon richardsonii, large Erodium reichardii from 'Bishops Farm' and very old Buckwheat, (Erigonum). (Maffitt 20201110_103812)



Mix of potentillas, eriogonums, and penstemons in 20" x 14" faux trough, which could be picked up if unwatered. (Maffitt 20201110_104010)

could be a bottle cork or even larger. A good tool for pressing mix is a potato masher! Move on to the sides working them up several inches at a time, keeping the walls raising at the same level. Continually spritz water to keep sides damp so each addition melds onto last.

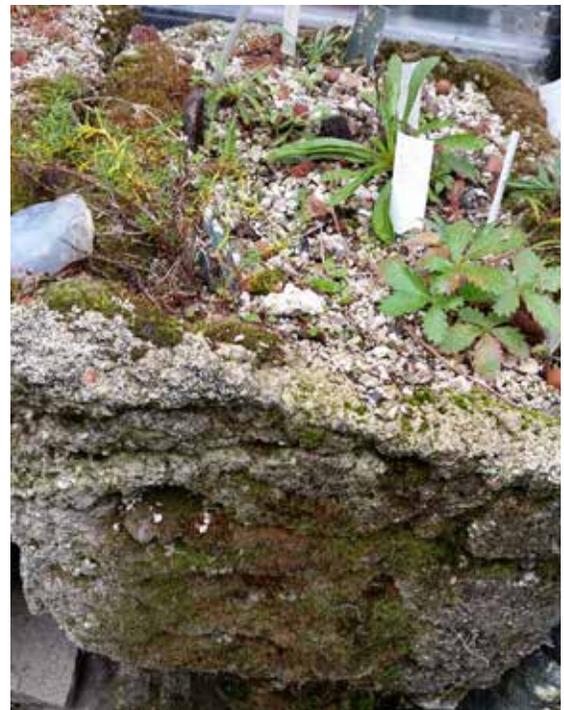
Holes can be formed in the display sides of the containers for 'draping plants' to be added! Don't put holes on sides not 'public' as this creates more drainage than needed plus extra watering. Placeholders left temporarily in these will work better. They might be small cans, pill bottles even individual instant coffee mix

cups (!) with some oil or lubricant on outsides to facilitate removal when dry! Do work as quickly as possible while mix is at its optimum. When finished, cover the top by bringing up liner plastic to go down inside to cover bottom, or add more.

Now the trough needs a slow drying time to create a stronger vessel. It should take at least 24 to 36 hours for it to dry enough to be strong. At about 24 hours, use a trowel to gently smooth inner walls to uniform thicknesses. The walls don't have to be smooth as roots like rough places to cling to, but leave lots of inside growth space. If trough seems to be holding together well, unwrap outer walls too. Gently scrape and gouge outer walls a bit to replicate a rock's texture! Caveat: don't wait too long to do this or your chance to be artistic will be dried up! Cover completed trough with plastic to slow drying. Keep it shaded...with a card or picnic table.

Planting Your New Trough

Since new cement is exactly the opposite of the acidic soils which many plants need, its 'basic' surface should be acidified a bit. Pour strong, cheap vinegar generously over inner surfaces to begin acidification. Let it dry another 24 hours before planting. If you are planting cacti or desert plants, the 'basic' pH should be fine. I like the trough to have aeration beneath, so often set it on 4 bricks or flat rocks. Its sure easier to move then also.



Two eriogonums and Penstemon venustus and one unknown species in 20"x 14" hyper-tufa trough. (Maffitt 20201110_104054)



Mix of *Lewisia longipetala*, *mini ranunculus* (buttercup), *P. peckii*, *P. pinifolius*, *P. richardsonii* v *dentatus*. None of these would survive in a rock garden bed with our wet winters. In cracked hypertufa trough bound with coat hanger wire. (Maffitt 20201110_104106)

out before going to big garden stores and nurseries. I cover the buckets with lids to keep out rain and debris. If you need larger storage containers, get plastic or metal garbage cans with locking lids...very practical! I store mine behind walls, hedges and the lawn mower shed!

In the planter, place a rock at each hole to prevent run-out. Usually, I place some large rocks at the bottom, to provide more aeration. Put several inches of the mix in on one side, then unpot one plant, sorting out roots and nestling it in with some

Plants

The main criterion for planting troughs is using really slowly growing plants! Not only the tops, but also the roots will be at war beneath soils which delays bloom of course. Even before troughs are ready to be planted, you now know their size and can estimate number of plants needed. Visit local growers ASAP and snap up species with the colors, leaf shapes, compatibility and light conditions needed for the new troughs. The roots can be trimmed or easily untangled now, and plants transplanted to slightly larger pots while the ultimate planters are curing!

SOIL MIX: USE NO DIRT! It has microbes, even egg larvae that you don't want in troughs which may not be replanted for years. Also, dirt shrinks as its vegetable contents are consumed. There are bagged rock garden mixes usually available in nurseries. In the Pacific Northwest, our soils are acidic from many ancient volcanoes, so I purchase crushed lava in several sizes, quarter/10 gravel, etc. in 5-gallon buckets with lids to store until needed. Add some vegetative material like peat also. The rock and soil supply yards usually carry this; always check them



Miniature creeping periwinkle in a small square faux tufa pot. (Maffitt 20201110_104123)



Various penstemon species in trough-like large, hand-thrown ceramic pot. (Maffitt 20201110_104146)

mix. Continue planting this way; compressing the soil a bit as you go to remove air pockets. Using a watering can, water in the lowest level before adding another layer of soil, so dry areas aren't left. Water several times that day when done so good drainage as well as soaking does happen.

Restore name tags quickly before identities get mixed! I make my own tags with the old-fashioned window blinds now usually found at thrift stores. They are thus uniform, so much cheaper and easier to write on. Use only #2 pencil, never pen as it sun fades quickly. Leave room at top end for purchase date and re-potting or fertilizing dates. I save the nursery tag, but usually stuff it down one side to be unobtrusive. Let the editor know if you have more ideas to add to this compendium!

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A single piece of pumice globe about 8" across with a 15 cm deep hole 4 cm diam planted with *P. fruticosus*. (Maffitt 20201110_130802)



Chimney pot with *Penstemon peckii* in pockets and a sedum in center. Note: plastic winter cover to keep contents dry. (Maffitt 20201110_130426)

Membership Update

APS Membership as of March 8, 2020

New members since June 2020:

Pamela Brunsfeld.....	Moscow, ID	Mike Bostwick	Lake Oswego, OR
Ethical Desert.....	Pueblo, CO	Jacob Henrie	Salt Lake City, UT
Malalaea Lawrence	Arvada, CO	Jeanne Schollmeyer	Seattle, WA
Elizabeth Harding.....	Flagstaff, AZ	Jared Del Rosso.....	Centennial, CO
Richard Anderson.....	Sandia Park, NM	Bob Skowron.....	Franktown, CO
Kevin Rand.....	Flagstaff, AZ	Ken Thompson.....	Vancouver, BC
Paige Fabre.....	Columbus, OH	David Dewenter.....	Sandy Valley, NV
Maria Sagatellova	Columbus, OH	Lee Regan	Albuquerque, NM
Rosemarie Littleton	Gardnerville, NV	Chris Guilianelli	Loveland, CO
David Killius	Rochester, NY	Stacey Kittner.....	Albuquerque, NM
Emma Wynn.....	Reno, NV	Carol Fifer	Bozeman, MT
Alex Corsten.....	Richland, WA	Glenn Guenterberg.....	Littleton, CO
Kathy Hardgrave	Salida, CO	Kathe Gabel	Billings, MT
Chen Choo	Milton, Ontario Canada	Gary Heineman	Sloan, IA
Eric Johnson	Boulder, CO	Megan Fenton	Salt Lake City, UT

New Life Members:

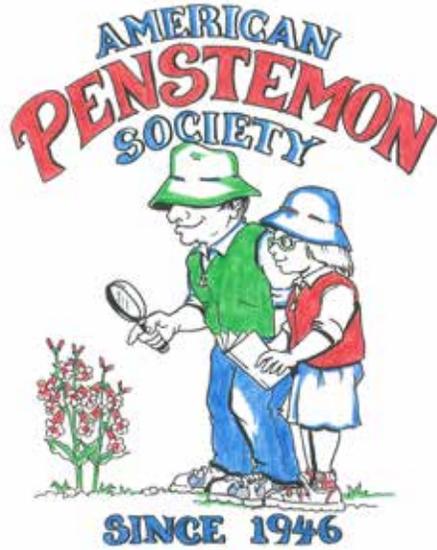
Elliott Gordon

Albuquerque, NM - New LIFE member

Lynn Yamaoka

Torrence, CA – Previous member added LIFE membership

Note: If you have not yet renewed your membership for 2021, please do so soon. Reminder emails were sent in early January. If you have a question about your membership, please contact membership chair Beth Corbin at aps.membership@yahoo.com.



Cartoon by Doug Hastings

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