The Bulb Garden

~Gardening with Bulbs ~

Volume 19, Issue 1

What's Inside...

GET READY TO DONATE SEEDS by Jane McGary

Jane McGary, PBS vice president and membership coordinator, is a longtime and firm believer in the power of growing plants from seeds and explains why it's so important, especially for connoisseurs of bulbs, but also to increase diversity and resiliency in the plants we grow.

It's hard to overstress the importance and rewards of growing geophytes from seed. When you start with a single bulb, or perhaps even a few bought from a grower, you will likely have only one clone. The species may not be self-fertile and so will never produce seed. Moreover, you won't get to see the range of variation in the species, or benefit from the possible genetic diversity in your plants that may make some better adapted than others to your growing conditions. The SX (seed exchange) portion of the PBS BX/SX is thus something of which you should take advantage. But before that, members must donate the seeds. This article offers some tips to donors, from a seed donor and recipient since 1977, and one who has carried out all the various tasks of the large seedex run by the North American Rock Garden Society.

Harvesting seeds

Watch your plants closely, because some seed capsules open with little warning and drop the seeds right away. When the capsule (seed pod) is dry and perhaps showing some splitting along its seams, pick it and store it until you have enough to clean. You can also remove entire flowering stalks and put them upside down in a paper bag (be sure it won't leak), where many kinds will open and drop at least some of the seeds. Always keep seeds being processed in a dry place.

Some capsules are easily opened with your fingers, such as *Fritillaria, Crocus, Colchicum,* or *Calochortus.* Capsules of *Allium*, the *Brodiaea* alliance, and some others may have to be forced open. One way of handling the latter is to place the

***Allium cernuum* seed, covered with stiff, papery bracts. Photo: Wikimedia Commons.**

capsules in a colander or sieve over some kind of mat and rub them around to break them up and release

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DONATE SEEDS *continued*

***Lilium regale* seed. Note blank centers of seeds on right and in top row, indicating lack of embryo. Photo: David Pilling.**

at least some of the seeds. Don't press them too roughly, though.

Donate seeds that are likely to germinate. After removing as much chaff as possible by hand, examine the seeds and discard those that are obviously infertile. Small, hard seeds can be difficult to distinguish, but fertile seeds are likely to be heavier. Flat, papery seeds like those of lilies usually have an obvious embryo if fertile; it appears as a darker, slightly thicker shape in the middle of the paler, thinner "wing." If you have a good quantity of seed, sort it by winnowing. Place the seeds in a small bowl about 3 inches/7.5 cm deep, with fairly straight sides; do not use a plastic bowl, to which the seeds will cling. Working over some kind of mat you can pick up and shake off, blow *very gently – barely more than breathing* -- into the bowl, shake the contents, and continue the gentle puff of air and shaking until all, or almost all, the lighter, infertile material has blown out. Check the material on the mat to be sure you haven't overdone the winnowing. Another method of winnowing rounded seeds is to place the seeds and chaff in something like the top of a shoebox (cardboard, not plastic), tilt it, and gently shake or tap it so the heavier seeds roll down, leaving a lot of the chaff behind.

Large and/or moist seeds

You may want to donate seeds of Araceae (aroids) or other plants that produce large seeds

***Paeonia mascula* seeds and pod. Dark blue are fertile seeds, red are infertile seeds. Photo: Wikimedia Commons.**

with a fleshy coating. The soft material should be removed before you ship the seeds; if not, it will probably arrive moldy and nasty, and be hard for the manager to handle. You can soak the seeds for a few days, then place them in a strainer (sieve) and rub them under running water. Be sure to wear rubber gloves when you do this, because such tissue is often very irritating.

***Trillium ovatum* seed pod opening. Fleshy seeds in clear gel.**

Some large seeds don't have a fleshy exterior but still have much moisture content. Paeonia seed is one example. When packing these for shipment, seal the envelope with Scotch tape, because the moisture in the seeds will loosen the glue.

Fine, tiny seeds

In the PBS SX, this mostly means the nearly dustlike seeds of Gesneriaceae. Separate very

Continued on next page

DONATE SEEDS *continued*

tiny seeds into amounts appropriate for a single recipient and fold them into little squares of aluminum foil; the separate packets can then be put into a labeled envelope. The troublesome task of making up individual portions in foil should not be left to the SX manager.

Packaging

Glassine envelopes are useful for small amounts of seed. These envelopes, produced mainly for stamp collectors, are made of a coated paper that is nearly transparent. You can order them online from the North American Rock Garden Society (NARGS) or perhaps other societies that use them. Because these envelopes are not intended to contain tiny or bulky material, you need to reinforce them by putting strips of tape across the bottom and top flaps when you close the envelope. They are not very easy to write on, so the best way to label them is with small Avery (sticky white paper) labels. Sharpie ink will stick to them but may smear.

Paper envelopes known in the USA as "coin envelopes" are available in several sizes from office supply stores, and probably online. You will want a supply of these if you're sending in large quantities. As with the glassines, secure the top and bottom flaps with strips of tape. Paper envelopes don't hold up well to moist seeds.

Small plastic zip-lock bags, sometimes called "sample bags," are used by some persons for seeds. Recipients usually curse these bags because the seeds are hard to extricate – they cling to the plastic. I can think of no good reason to use them for cleaned seed, though they could be used to store entire capsules that are too dry to become moldy.

Labeling

Label each donation with the genus, species, and (if any) subspecies or other extension. If you're using paper envelopes and have very clear hand-printing, you can write the name on the packet in ink that will not run. Otherwise, it's best to print small stick-on labels from your computer. In addition, please submit a typewritten list of everything you're donating.

In addition to the identity of the parent plant, try to include such data as collector's numbers, source site if the seed was wild-collected, and unusual characteristics (such as "white form" of a usually purple flower). If the species is rare and choice, say so, because the BX manager may be unfamiliar with it.

Please check spelling when labeling packets. The BX/SX list is usually proofread, but do your best to make corrections of the final announcement unnecessary! Google can often tell you when you enter a name that is just slightly misspelled.

How much should I send?

This depends mainly on the desirability of a given species. A sack of seed from a commercially available bulb, especially if a hybrid, won't attract many orders. Rare species are usually snapped up quickly – unless they're so rare nobody has heard of them. Even hand-pollinated hybrids with identified parents may attract specialists. I would limit my donations to enough seed to provide five to ten packets of sufficient quantity to sow a 4-inch (10 cm) square pot. As for a lower limit, with our small and fanatical membership, even five seeds of an interesting species is an adequate donation; the lucky recipient will be very grateful.

Shipping

A small box will protect your seeds better than a padded mailer will. The smallest Priority Mail box available free from the US Post Office is awful to fold together, but cheap to send. Writing "Please hand cancel" on an envelope does not impress the Post Office these days. Before packing your donation, double-check that the individual envelopes have no leaks. When I was receiving the NARGS donations, I often found leaked seeds in the mailers and didn't know whether to sow them hoping they were something good, or destroy them fearing they were noxious weeds. As a PBS member, you will know not to send in the latter!

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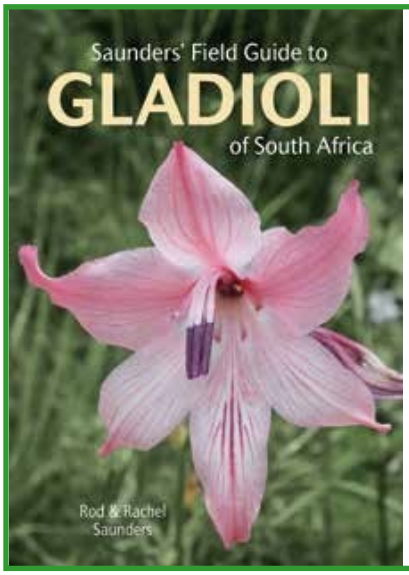

Stay tuned to the PBS forum for an announcement on the newly released book *Saunders' Field Guide to Gladiolus of South Africa* by Rachel and Rod Saunders. Members will be able to order the book at members' rates.

Exploring Floral Evolution in *Polianthes* by Brian Macneill

Bryan Macneill is a PhD student in the Department of Biological Sciences, University of Alabama, and a 2020 recipient of a Mary Sue Ittner Bulb Grant. He used the grant to help fund the building of a phylogeny of the genus *Polianthes.* Little is known about the evolutionary history of this genus and a molecular phylogeny does not exist. It is thought at this time that the genus can be split into two distinct subgenera and Bryan explains this in his essay.

The flower is the key characteristic that defines the taxonomic group known as the Angiosperms. The angiosperm flower has evolved various colors, shapes, and morphologies that can vary dramatically even among the most closely related species (Figure 1).

Pollinators act as forces of evolutionary change in flowering plants. In some cases, pollinators like birds and moths can drive multiple chemical and morphological changes in plants. These characteristics associated with a particular pollination have evolved independently across many different plant lineages and are called pollination syndromes.

My research examines how pollinators have caused evolutionary changes in the flowers of *Polianthes*, a group of bulbs native to Mexico and closely related to *Manfreda* and *Agave*. Different species of *Polianthes* have different floral morphology that is distinct in two ways. You have hawkmoth-pollinated *Polianthes*, like *Polianthes pringlei, Polianthes longiflora*, and

***Polianthes geminiflora*, a hummingbird-pollinated species lacking detectable aroma. Photo: Mary Sue Ittner.**

Figure 1. Floral color variation in Alabama native bulbs; A: *Schoenolirion* and B: *Camassia*, which are closely related to *Polianthes.* Photo by Brian Macneill.

Polianthes montana. Hummingbirds pollinate other species like *Polianthes geminiflora*, *Polianthes howardii*, and *Polianthes multicolor*. The hummingbird pollinated *Polianthes* all have red flowers that hang in an upside-down position and are narrow and tubular. They also lack any detectable aroma.

Flowers for the hawkmoth-pollinated species of *Polianthes* have white flowers that are also

***Polianthes tubiflora*, a hawkmoth-pollinated species. Photo: Wikimedia Commons.**

long and tubular and end in a large flare. Flowers in this group are oriented perpendicularly to the flowering stalk. They also produce a very noticeable sweet-smelling aroma. These traits seem to be consistently different between taxonomic groups. We want to see if species of *Polianthes* with the same pollination syndrome (hawkmoth or hummingbird) are each other's closest evolutionary relatives, or whether species with the different syndromes have evolved the same types of flowers independently multiple times (whether they have

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POLIANTHES continued

evolved "convergently", in the language of evolutionary biologists Figure 2).

Getting work done during the covid-19 pandemic was very difficult. Instead of relying on field-based collections, we had to rely on herbaria to get DNA from this group. We identified different herbaria around the country like the University of Texas Herbarium, Arizona State Herbarium, and the Desert Botanical Gardens Herbarium (Phoenix, Arizona). These herbaria shipped leaf material so that we can start building a molecular phylogeny for the group (Figure 3A).

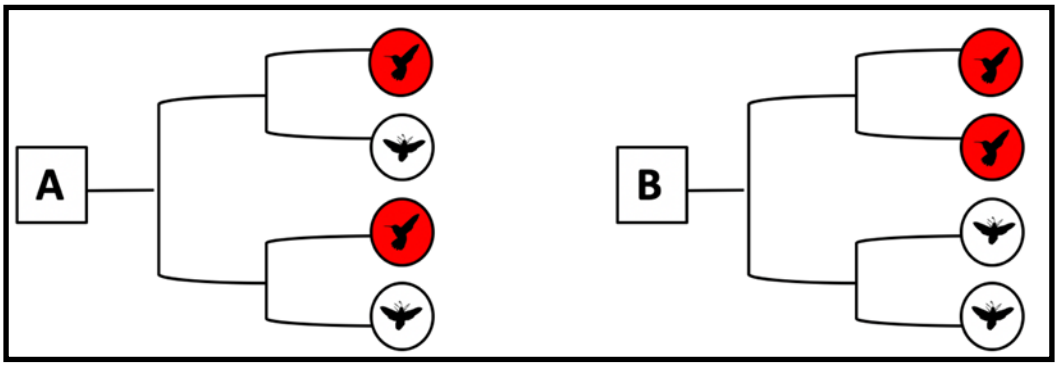

Figure 2. Hypothesis A indicates multiple origins of hummingbird pollination. Hypothesis B shows single origins of pollination syndromes in Polianthes. Hummingbird pollination syndrome is in red, hawkmoth syndrome is in white.

Constructing a molecular phylogeny for *Polianthes* will tell us how the species are related. To isolate DNA from *Polianthes* to build this phylogeny, we must first grind leaf material to release the DNA into a protective buffer.

We want to know how species are related to each other using these molecular techniques and build the *Polianthes* phylogeny. It will be interesting to see if molecular relationships match or reject current taxonomic placement for these plants. We will also include close relatives of *Polianthes* like *Manfreda*, *Prochnyanthes*, and *Agave* in our phylogeny to see how *Polianthes* relate to these others.

So far, efforts from this research have yielded a poster presentation at the Botany Virtual Conference in 2020 with two undergraduate coauthors. This project is helping push science with the next generation of plant biologists and bulb enthusiasts. I am deeply grateful to the Pacific Bulb Society for funding this research and supporting me in my botanicals endeavors to understand floral evolution in this fantastic group of bulbs! I look forward to sharing the results of my research with you all soon.

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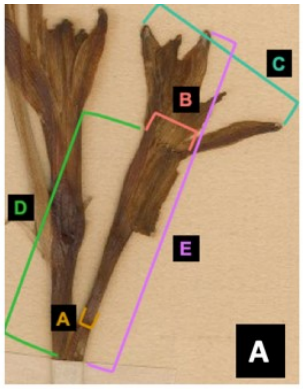
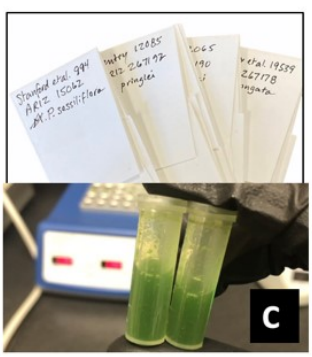
Figure 3. (A) We measured: A) Basal constriction: the width where the corolla tightens at the base of the flower, B) Distal inflation: the width where the corolla begins to flare open, C) Corolla flare: the width of the corolla tip, D) Corolla (tube) length, and E) Corolla (total) Length. (B) Me with one our lab grown Polianthes tuberosa talking about the plant in an outreach endeavor: BioByLouis. (C) Packets with herbaria leaf samples for phylogeny (top), DNA in the process of being purified (bottom; from fresh Polianthes tuberosa tissue) (D) Two herbarium students: Marvin Hudson (left) and Killian Brewer (right) helped with critical morphological measurements for this study in resolving floral evolution in *Polianthes*.





2021 Bulb Field Trip in Central California by Michael Mace

Michael Mace was one of more than a dozen PBS members and friends who took advantage of a central California bulb tour in May of this year put together by Kipp McMichael, a very knowledgeable *Calochortus* lover who knows so many of the good places to look for these endemic North American bulbs. Michael is a previous contributor to The Bulb Garden, and he was joined on this trip by his small hiking buddy.

I wanted to tell everyone how much fun I had on Kipp's central California bulb tour this spring. If you get a chance to go on a flower tour with Kipp, do it! The company was fun, the area is beautiful, and we saw a nice selection of flowers even though it was a poor rain year in California.

Unfortunately, I arrived about half an hour late, so I missed most of the introductions at the start. But the group was a lot larger than I expected, probably about 15-20 people. I think most of them were familiar names from this list (Pacific Bulb Society Discussion List), although since I've never seen most of your faces, I wasn't sure who was who.

Our first stop was a serpentine hillside that's home to *Calochortus obispoensis*, a plant I had never seen in person before. I was impressed by the way almost everyone in our group worked their way up a steep and very uneven trail (more like a goat path) to get to the flowers. We're not all spring chickens, but we're relentless when we

Above left: Mike Mace with friend. Lower left: Serpentine habitat. Photos: M. Gastil Buhl. Top: *Calochortus obispoensis.* Bottom: *C. albus.* Photo: Mike Mace.

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California Field Trip *continued*

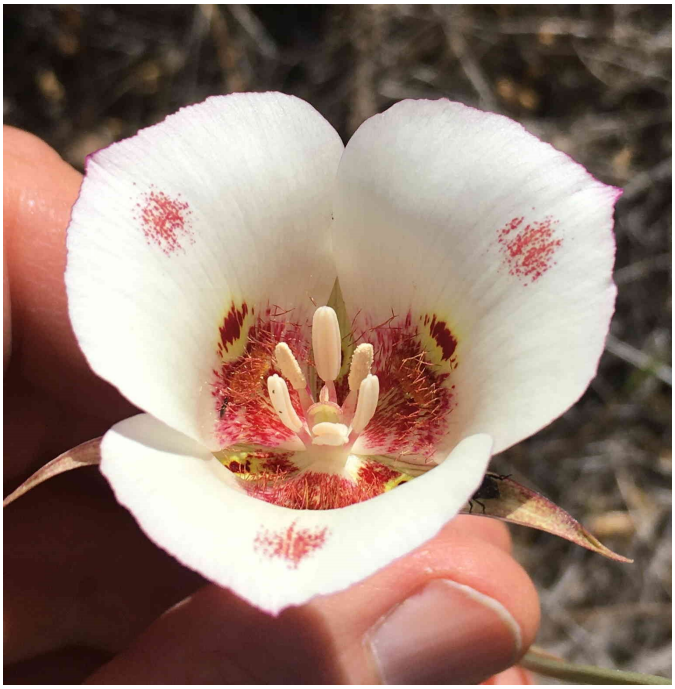
want to see a flower.

For some reason I had imagined that *Calochortus obispoensis* was a tall plant, but actually it's quite short, and the flowers are a cute little tuft of bright yellow and maroon-brown hairs. Kind of like a firecracker in mid-explosion. I thought they were charming!

Our journey then took us on a two-lane road into the hills west of Paso Robles. If you don't know the state, that's a central California town about 20 miles from the ocean as the crow flies, but a lot further by road. In this part of California there's a band of big hills (or low mountains) along the coast. The plant cover is generally intermittent oak woodland, with many clearings, and patches of other vegetation.

The hills are webbed with small roads and wineries that have been tucked into the landscape all over the place. It was amazing to drive along thinking you were completely away from civilization, round the corner, and suddenly see a big area of grape vines and a tasting room.

Our next few stops were along those little roads, where *Calochortus* flowers were growing in or near road cuts. At one stop we saw *C. albus*, which has dangling ball-shaped flowers the size of marbles. Unlike most dangling flowers, these are not open at



the bottom. The petals wrap around so the flower is fully enclosed. I always wonder why the flowers ended up that shape, and what insects crawl up into

Left: *Calochortus venustus.* Above: *C. superbus.* Photos: Mike Mace. Below: *C. albus rubellus.* Photo: M. Gastil Buhl.

those flowers to pollinate them.

In this area *Calochortus albus* is generally colored in shades of white and pearly cream (there's an exception below). *Calochortus albus* thrives in fairly heavy shade, so as you drive along you can spot it in the shadows along the road, as a flash of white in

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California Field Trip *continued*

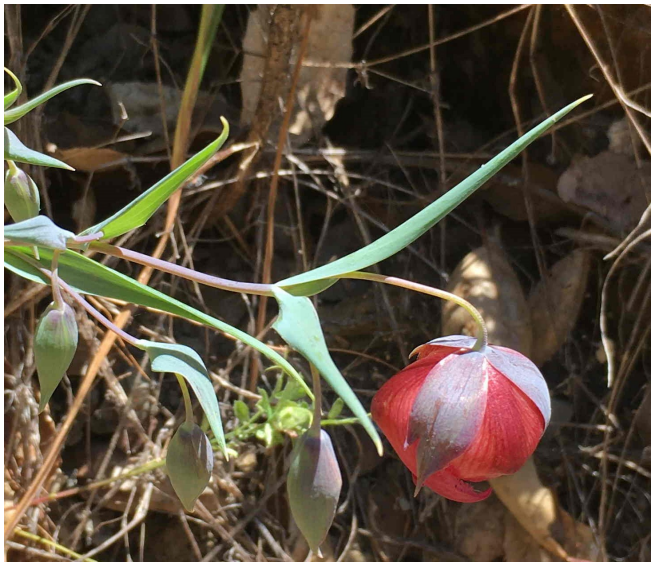
areas where few other flowers are in bloom. Unfortunately, poison oak also loves these conditions, so watch your step.

In a couple of sunnier spots we saw a few *Calochortus venustus*, probably the most extravagantly marked Calochortus species. The ones in this area are generally white with an extra petal spot on the outer edge of the flower. Each flower is subtly different, so it's always fun to look at a big stand of *C. venustus*. In this dry year we had only scattered flowers, alas.

At another spot, in a stand of shoulder-high manzanita, there were scattered lavender flowers of *Calochortus superbus*. The color really stands out, so they were easy to spot from a distance, but they were hard to get to because they were growing at the top of a steep road cut, and the soil was very crumbly.

For me, one of the high points of the trip was a visit to a stand of *Calochortus albus rubellus* (from what I understand, that's not a formal name, but we need some way to refer to them). Kipp describes the color of these plants as wine red, and I think that's the best way to summarize it, but in person they vary from dusty deep pink to almost maroon.

Like the white form, these plants grow in



heavy shade, in a road cut. It was a lot of fun to walk along the road and see how each plant differed. I've attached a couple of photos.

After that we headed over to the coast for our final stop. The landscape changes when you get close to the ocean. The oaks dwindle, and you're driving through what I believe is called coastal prairie: grassy plains and stands of low-growing brush, usually no more than hip high.

Everything here is windblown, the few trees growing almost sideways. There's often a low overcast from the ocean, but in the afternoon the clouds often lift, and you'll see dramatic vistas of mountains marching down to meet the sea.

Left: *Calochortus albus rubellus.* Photo: Mike Mace. Above: Kipp McMichael on coastal plain. Photo: M. Gastil-Buhl.

In a particular spot on the coast, we parked along the highway. The land here is a flat plain, elevated ten or twenty feet above the ocean, which is maybe a hundred yards (about 90 meters) to the west. The land ends in low cliffs that are gnawed by the ocean in storms.

At first glance the plain looks like grass and very low shrubs, but if you look closer it's a very diverse garden of miniature plants. There are annuals, wind-flattened *Ceanothus* bushes, and scattered bulbs growing so low to the ground that the flowers barely have any stems at all. We saw

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PBS Board Meeting—Minutes, May 26, 2021

Meeting began at 9:00 a.m. Pacific Time.
Roll call: Luminita Vollmer, Lee Poulsen, Johannes Urban, Martin Bohnet, Arnold Trachtenberg, Jane McGary, Robin Hansen, M. Gastil-Buhl.

President Hansen introduced new secretary M. "Gastil" Gastil-Buhl to the board, taking over from Kathy Andersen. Jane McGary agreed to serve as vice president providing she not be required to serve as president. Board Membership. Motion to floor to approve appointment of Gastil-Buhl as Secretary to replace Kathy Andersen and McGary to Vice President to replace John Wickham. Motion carried.

Trachtenberg moved, seconded by Vollmer to accept minutes of November meeting with discussed minor changes. Motion carried.
Treasurer's Report: Trachtenberg provided a screenshot of the account summary prior to the meeting showing a balance of $32,813. The PBS account was moved to Wells Fargo from UBS recently due to the relocation of the account executive who was handling the account. Fees are less at the new bank.

There have been some large expenditures for books. ***The genus Hippeastrum (Amaryllidaceae) in Bolivia:*** Design work by Tanya Harvey, printing and delivery to Trachtenberg, insertion of the Corrigenda page in front of the book, and packing and shipping supplies, for a total of $8,800 for one thousand books. PBS needs to sell 400 books to break even at $30 per book. So far, 12 copies have been sold. Additional design charges were funded by McGary personally. The 50 ***Hippeastrum*** books were sent to Dr. Lara via DHL as per our agreement. He has acknowledged receipt of them. There has been great interest from Europe and Australia. A nurseryman in Australia has expressed interest in distributing the book for us. Also we should consider shipping a quantity to Martin for distribution throughout Europe. The board decided to ship 50 copies to the EU.

The ***Amaryllis Field guide*** is being mailed to all those members who paid for it. PBS was given a large discount from University of Chicago Press as per our nonprofit status and a bulk order to one address, enabling the cost savings to be passed on to members.

A BBB complaint on Stamps.com was filed regarding numerous errors in their service over the last year. They have refunded our service fees last year and we will not be charged for the next four months going forward.

Another book, the ***Saunders' Field Guide to Gladioli of South Africa*** has an August target date for publication, and PBS will be taking orders for that book.
Membership Report: McGary said membership is high for this time of year at 375 members, which is normal for a whole year. The membership directory will be inserted into the newsletter as is done every other year, listing only members who have agreed to be listed. Some members ask to only list an email address but do not provide that. They are not listed.
Seed/Bulb Exchange: Vollmer is preparing for another two BXs. She just received a large donation of Hippeastrum bulbs including some too large for her mailing boxes. The nominal $3 seems low for these. Then she anticipates a special BX for leftovers. The Hippeastrum bulbs from Bob Hoel were pulled out of storage and look ready to emerge. A few people have said planting season is already done in areas such as Arizona or Texas. She will consult with our past BX director Dell Sherk for advice in handling challenges with requests and limited supplies.

The need was discussed for communicating to donors to only send small bulbs and to manage expectations of members ordering. There will be 4 to 6 exchanges per year.
EU Seed/Bulb Exchange: Bohnet and Urban said postal service has been slow. For both US and EU exchanges, it was agreed donors receive a credit for postage sent. This credit may be applied to future BX orders. These credits are tracked on a spreadsheet by Trachtenberg and do not expire. In some cases the credit may be applied to gift membership dues. It was agreed that policies such as this relating to the BX will be written in a document and posted on the PBS website.
Editor's Report: Hansen said ***The Bulb Garden*** is back to its normal 12 pages.
Bulb Grants: The Mary Sue Ittner Grant for Bulb Studies received three proposals about the following: Tigridieae in central Mexico; *Habranthus* in Argentina; and Zingiberaceae in India. Board members reviewed these prior to the meeting and all three aligned with the mission of PBS. Hansen motioned to fund all three at $500. Urban seconded and the motion passed unanimously.
Nomination Committee: Trachtenberg volunteered to head the committee of 2 to 3 people with at least one non-board member.

Meeting adjourned at 10:30 am Pacific Time.
M. Gastil-Buhl, Secretary

California Field Trip *continued*

many *Fritillaria biflora*, chocolate brown flowers with greenish-yellow markings inside. There were also some purple *Brodiaea* and yellow *Triteleia* a few inches tall, numerous *Sisyrinchium bellum*, a single *Calochortus albus*, and

along the road some bright yellow *Calochortus luteus*, once again only a few inches above the ground. This is also a locality for *Calochortus clavatus*, although they were not in bloom yet.

If you've never visited this part of California, I recommend it heartily in late spring after a good rain year. There can be sheets of wildflowers on the coastal plain -- big pools of yellow, orange, purple, and pink blending into each other. Plus of course the bulbs.

I could have spent all afternoon crawling around on that plan marveling at the tiny landscape. But eventually the need for lunch called to us, so we drove down to a nearby parking area and picnicked by the waves.

Lots of fun. It was nice to see everybody (even if I wasn't sure who was who), and well worth the drive down from San Jose. Many thanks to Kipp for setting it up!

Left: *Fritillaria biflora*. Above: *F. biflora* with *Sisyrinchium bellum*. Below: *Triteleia* sp. All photos: M. Gastil Buhl.

Cyclamen A Concise Guide *by Martyn Denney*

The Cyclamen Society will be publishing a new handbook, *Cyclamen A Concise Guide* by Martyn Denney, available beginning 18 September 2021. It will be available from the Cyclamen Society or Summerfield Books in the UK and from Amazon online.

I have nearly all the books on cyclamen published in the last 50 years, and for an inexpensive, concise and thorough guide that covers all known species including most recent nomenclature, it would be difficult to find a more comprehensive guide so inexpensively (£5 from the Society).

Photographs of all species are excellent, with complete cultural directions and a review of various ways of growing these members of the Primula family, from houseplants to cool greenhouses to gardens. It is aimed at the climate in the United Kingdom, but I have found that cultural directions work well in other parts of the world as long as you focus on shade/sun, drainage and winter protection. I live in US Zone 8b, but even in Zone 7, as long as tubers are kept on the dry side in pots, they survived 12-14° F (-10° C). I will mention that *Cyclamen graecum* is in full sun here about 12 miles (19 kilometers) east of the Pacific Ocean at approximately the 44th parallel and produced this summer the most unbelievable crop of seed I could imagine!

Mr. Denney includes growing from seed, exhibiting, and classifying cyclamen, along with a species by species guide. Of particular importance is his discussion of distribution and habitat which will assist you in growing these summer-dormant tubers. Photographs of cyclamen in cultivation and in the wild are very helpful. A particularly good review of pests and diseases is included although I was disappointed not to see mention of the root mealy bug, which seems to affect some species and not others; it is common in the soil in some areas.

His reading list is somewhat limited, but there is a great deal of additional information available by searching the internet, as well as the archives and wiki of the Pacific Bulb Society web site. An absolute bargain - you needn't own any other cyclamen book, unless, like me, you're dealing with a book addiction.

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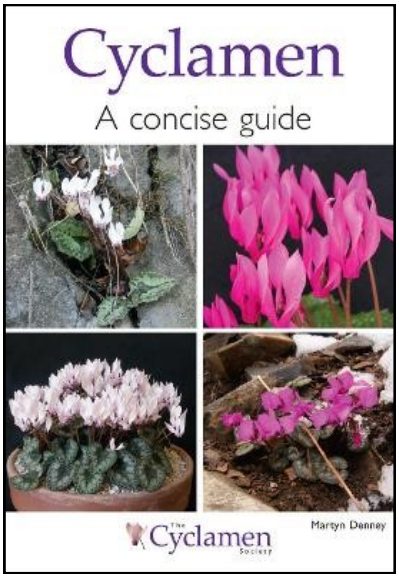
Treasurer's Report Fiscal Year 2020

Fiscal Year 2020		
Beginning Balance	**$**	**34,909.92**
U.S. Members	**$**	**4,850.00**
Overseas Members	**$**	**2,700.00**
BX Receipts	**$**	**3,910.86**
Investment results	**$**	**1,910.03**
INCOME	**$**	**13,370.89**
BX/SX Postage Domestic	**$**	**(1,010.00)**
BX/SX Postage Internation-	**$**	**(1,158.75)**
BX/SX Supplies	**$**	**(207.37)**
Board Insurance	**$**	**(452.60)**
Treasurer's Supplies	**$**	**(45.83)**
MSI Grants	**$**	**(1,110.00)**
Publications	**$**	**(5,470.00)**
Stamps.com fee	**$**	**(199.92)**
Registered Agent fee	**$**	**(310.00)**
Publication postage	**$**	**(1,035.54)**
Zoom	**$**	**(119.32)**
Teleconference	**$**	**(139.65)**
PayPal expense	**$**	**(512.02)**
Bulb Garden editing	**$**	**(2,100.00)**
EXPENSES	**$**	**(13,871.00)**
Balance 12/31/2020	**$**	**35,410.03**



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Inside This Edition:

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