

The Bulb Garden



~Gardening with Bulbs ~

Board of Directors

Nhu Nguyen, President
xeranthem@gmail.com
 John Wickham, Vice President jwickham@sbcglobal.net
 Kathy Andersen, Secretary
ksa2006@verizon.net
 Arnold Trachtenberg, Treasurer
arnold140@verizon.net
 Jane McGary, Membership
janemcgary@earthlink.net
 Dell Sherk, BX Director
ds429@comcast.net
 Jennifer Hildebrand, Publications
theotherjen8@yahoo.com

Volunteers

PBS list: Eugene Zielinski (List Administrator), Mary Sue Ittner, Arnold Trachtenberg, Diane Whitehead
PBS wiki: M. Gastil-Buhl (Wiki Editor), Mary Sue Ittner, Nhu Nguyen, David Pilling, Mike Mace, Travis Owen
BX/SX: Dell Sherk, Steve Marak, Karl Church, Marilyn Pekasky
The Bulb Garden: Robin Hansen, editor; Jennifer Hildebrand, co-editor
The PBS Directory: Jane McGary, editor
Publications Distribution: Arnold Trachtenberg

What's Inside...

- > *Calochortus* of Western North America (Part 1), by Kipp McMichael, p. 2
- > Bulbs after Snowmelt from Baku to Diyarbakir, by Jane McGary, p. 8
- > Book Announcement: *Flora of Oregon*, p. 14
- > Book Review: *The Genus Erythronium*, p. 15

Spring Bulbs in Northern Greece

Tony Willis

Tony Willis is a member of the Scottish Rock Garden Club and has written for the Royal Horticultural Society Lily Group Newsletter. As well as being a passionate gardener with a particular interest in bulbs, his main focus is seeing plants in the wild. To this end he has visited Greece more than twenty times over many years as well as Turkey, Patagonia and the west coast of the USA. He uses a Panasonic Lumix DMC-FZ200 and says he just points it at a plant and hopes for the best. — Ed.

This article illustrates the ease with which it is possible to see some wonderful bulbs and many associated plants in the mountains of Northern Greece. All



Crocus pelistericus flourishing on Mount Voras. Photo by Tony Willis.

the plants mentioned, with the exception of *Crocus cvijcii* and those on Mount Olympus, can actually be seen from the car but naturally I would recommend getting out and walking amongst them.

The area covered stretches from Mount Falakro in the east to Mount Voras (Kymachalan) in the west, and south as far as the Katara Pass including

Mount Olympus and Mount Vermion. Many of the plants are common to each of the areas but each has its own specialities. All the areas can be covered in a two-week period.

The key point is that each of the three mountains, Falakro, Voras and Vermion, has a ski centre at their summit which means they can be easily accessed by car.

I have visited this area many times, usually in early May. This year, together with a group of friends, I visited

Mount Falakro and Mount Vermion in the first week of March. Mount Voras was snowed up and impassable. The weather is usually dry and warm or even very hot in May, but in March we

had three glorious days and then torrential rain, with heavy snow on the mountains for the rest of our stay. No further viewing of any plants was possible.

To access this area it is best to fly to Thessalonica and pick up a hire car at the airport. The thought of driving in Greece with its high accident rate puts a

(continued to page six)



Calochortus of Western North America

by Kipp McMichael

Figueroa Mountain, north of Santa Barbara, CA, is prime *Calochortus*-hunting territory! Photo by Kipp McMichael.

Kipp McMichael is a professional web developer and an amateur naturalist with several degrees, none of them plant-related (but don't tell that to his overly-large plant collection). He grows cacti, succulents, caudiciforms, and far too many bulbs in his home garden in Berkeley, CA. — Ed.

The *Calochortus* of western North America are a diverse collection of species ranging from the west-

ern Great Plains to the Pacific Ocean, with a southern cohort extending south to Guatemala. The genus name, meaning "beautiful grass," is an apt description of a plant that, for much of its life and much of each season, is nothing more than

an erect, arching or prostrate green blade. In late spring through summer, these plants stealthily push thin bloom stems aloft that erupt into an array of dazzling flower morphologies - from tulip-like cups to erupting bowls of vibrant filaments to nodding globular pendants hanging from arched stems.

A bulb lover obsessed with this genus would be lucky to find oneself a resident of central California where, within a day's drive, one can visit the habitat

of some 30+ species of *Calochortus*. Luck is sometimes a matter of perspective however, and the luck of being so close to so many species is also the curse of the temptation to try and see them all.

Being both lucky and cursed (and obsessed), I endeavored in the spring and summer of 2015 to catch every blooming species of *Calochortus* I could reach by car, bicycle and hiking boot. I was able to cajole two fellow bulb-lovers, the (pseudonymous) Fred and Leon, to join me in my adventures. In a dozen or so forays from Lake County in the north to San Diego County in the south, I was able to catch approximately 30 taxa in bloom, with many

species seen in multiple locations. The habitat preferences of many *Calochortus* are shared by other geophytic taxa, so trips to see the former al-

ways turned up sightings of *Brodiaea*, *Dichelostemma*, *Fritillaria* and *Bloomeria* to name only the showiest bulbous neighbors. Indeed, these trips were a feast of intriguing taxa from all the native plant families of California but, aware of the bulbophilic context, I'll confine myself to (mostly) the *Calochortus*.

(continued to next page)



Calochortus tolmei thriving on the Central Coast of California. Photos by Kipp McMichael.



***Calochortus* of Western North America (cont'd)**

(continued from previous page)

It all began on an early Monday morning in March when I headed to Point Reyes to catch the diminutive *Calochortus tolmiei* where it blooms on thin-soiled ridges overlooking the Pacific Ocean. *Calochortus tolmiei* is one of the "pussy ears" — so-called because the flowers are filled with short filaments giving the blossom a fur-lined appearance. The cattle-grazed hilltops in this habitat are home to large, spreading clumps of Douglas iris, bracken fern and prostrate coyote bush, in the shade of which the tallest specimens of *C. tolmiei* lift their fuzzy, periwinkle flowers to a lofty six inches. Close by, in the exposed soils of more barren patches, *C. tolmiei* grows to barely three inches. This population was just entering bloom when I visited and thousands of plants decorated the ridgeline where I walked.

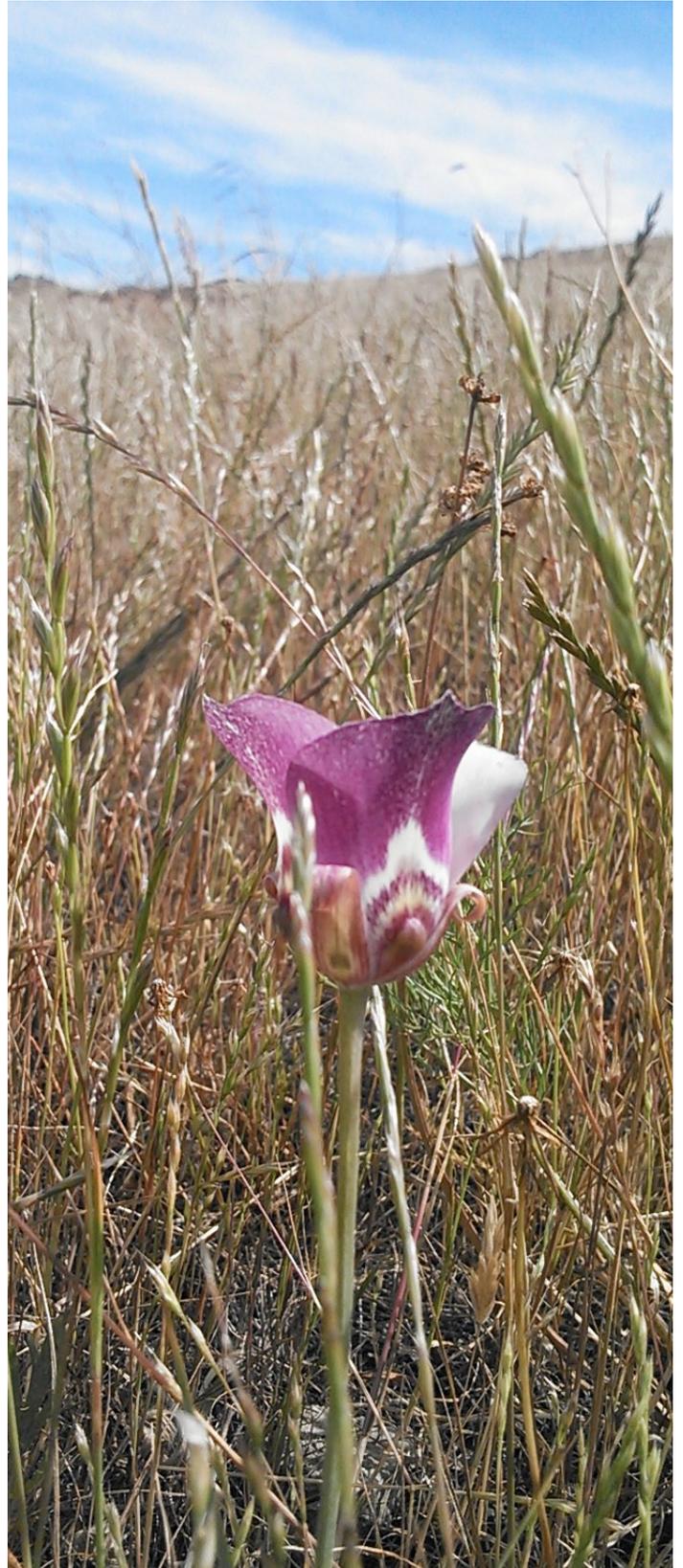
I spent the remainder of March and April visiting local populations of *Calochortus uniflorus* near Santa Cruz, a distinctive southern landrace of *C. tolmiei* in Woodside, *Calochortus pulchellus* along Mitchell Canyon in Mt. Diablo State Park and *Calochortus umbellatus* at Ring Mountain in Tiburon. With a month of local, solo trips behind me, I set my sights on a longer trip to the Central Coast of California. Leon joined me on this trip, and so we embarked at 5 a.m. on a Friday with our first destination being Figueroa Mountain north of Santa Barbara.

In the third and driest year of a three-year drought, the California landscape was already golden and sun-baked by the time of this late April trip. Figueroa Mountain had experienced a dry winter and spring, and we arrived to find *Calochortus catalinae* already past its bloom. Generally, identifying *Calochortus* species by their capsules alone is unreliable but *C. catalinae* is distinctive in having rounded capsules and we found perhaps a half-dozen plants.

Further up the mountain, in serpentine outcrops with sparse vegetation, we found a substantial population of *Calochortus clavatus* var *clavatus* just coming into bloom. The most exposed plants held nearly stemless yellow bowls lined with club-ended whiskers while plants on the shadier sides of slopes lifted their blossoms as tall as two feet.

We departed Figueroa Mountain to return northward for a lunchtime stop in the city of San Luis Obispo. There, in the serpentine hillsides of several city parks, we hoped to catch the eponymous *Calochortus obispoensis* in early bloom. We were too early for that taxon but we did find a few beautiful blossoms of *Calochortus argillosus* appropriately growing in the clay (Latin: *argillum*) soil in the saddles between hills. The remainder of our stops were all too early for the taxa we'd hoped to see so we planned a return trip for April.

My next *Calochortus* foray targeted a serpentine meadow near Lake Berryessa where, in 2014, I had spotted at least two taxa of *Calochortus* in seed. My winding
(continued to next page)



Calichortus argillosus, photo by Kipp McMichael.

Calochortus of Western North America (cont'd)

(continued from previous page)

route to the location was punctuated with stops for road construction - one of which yielded an unexpected sighting of *Calochortus amabilis* when I got out to stroll the roadside while waiting for the construction zone escort. The ride through the construction zone was rich in late spring flowers and I spotted many more *Calochortus amabilis* on the route.

As I neared the end of the construction zone, I caught sight of some large white flowers just off the road but was unable to stop. When I returned later in the morning, I got permission to park at this patch of flowers to wait for the escort. Once I had parked, I strolled over to the large population of *Calochortus superbis* just beginning what looked likely to be a fine bloom - the first large white flowers opening their brilliantly marked throats skyward.

The highlight of the first half of my season of *Calochortus* was a two-night trip to southern and central California on a weekend in mid-May.

This trip, I was joined by Fred, another phytophile who finds setting off at 5 a.m. to find flowers in the wilderness perfectly acceptable. Our first target was one of the more extreme habitats for *Calochortus*, the Mojave Desert.

We'd gotten some local advice that the season for *Calochortus striatus* had been early and sparse and that we might catch a few stragglers. We arrived at our intended destination, a wash east of Rosamond, to find the local plants had not heard this news. Indeed, it was difficult to imagine a more prolific season for this population: The wash was full to the point of leaving few sole-sized places to step without crushing a plant in bloom or seed. Beautiful, striped pink flowers were crowded with maturing seed heads in every spot of available ground in a population thousands and thousands large. A season this rich was unexpected in this desert habitat in a drought-parched state. Then again, these plants have been at this a long time and certainly know better than humans how to survive and prosper in that desert!

We left the Mojave Desert just as the morning

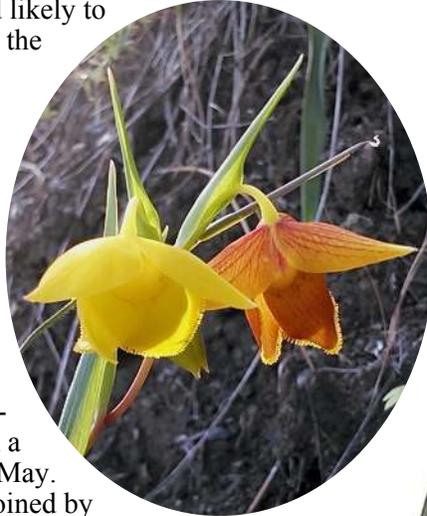
sun grew hot and headed west for Soledad Canyon, a beautiful valley in the mountains of northern Los Angeles County. I had visited this spot, where the Pacific Crest Trail crosses the Santa Clara River, in the fall of 2014 and observed the seed-set of what must have been a spectacular bloom of *Calochortus plummerae*. (I also saw a second, unidentified *Calochortus* in seed as well.) Given that the rainy season of 2013/14 was also a drought, this taxon, like *C. striatus* in the desert, seemed to be capable of flouting rainfall statistics.

We arrived after a short hike to the ridgetop habitat of *C. plummerae* to find that the vigor of *Calochortus* in the face of drought is not limitless: A very, very meager season greeted us. Where, in 2014, thousands of plants had bloomed and set seed, we found scarcely a dozen plants and fewer blossoms. Herbivory in this spot, as we

would see in many locations this year, took a significant toll and we could only locate four flowers and the same number of buds. These few flowers were reward enough however and the large, pink blossoms full of magenta and yellow hairs were certainly some of the prettiest of the season.

On our way back to the trailhead, Fred meandered off-trail just long enough for me to become annoyed (Someone must be the time Nazi in multi-destination road trips, after all.) — that is, until he craftily spotted a sparse patch of *Calochortus clavatus* var *gracilis* downslope from the trail. Clearly preferring the shade of shrubs and yucca on this dry hill, only a few plants had blossoms. It had been such a dry year that one plant's previous season's seedpod was still unopened beside a bloom from the current season.

Our next stop after Soledad Canyon was on the other side of the LA Basin in the mountains southwest of Corona. I had visited this spot in the late summer of



Left:
Calochortus amabilis.
Center:
Calochortus superbis.
Right: *Calochortus striatus*.
Photos by Kipp McMichael.



(continued to next page)

***Calochortus* of Western North America (cont'd)**

(continued from previous page)

2014 to find abundant seed-set of unknown taxa. I had tentatively identified this population as *Calochortus weedii* based on herbarium information but *Calochortus splendens* was also reported from this location. We finished an unexpected two-mile hike (after we found the forest road gate closed) to find the purported *C. weedii* were, in fact, a taxa I will call *Calochortus davidsonianus*.

Genetic evidence and my experience in the field indicates that within the currently recognized species named *Calochortus splendens* there are at minimum two subspecies and perhaps two separate species (We'll meet the "real" *Calochortus splendens* in the next installment.). Whereas type *C. splendens* is a pink flower filled with white tangled filaments that blooms few-to-a stem, the plants we found held many-blossomed stems (Seven or more buds were common.) with only slightly-whiskered, purple-throated flowers.

We returned to the car and set course for the final destination of the day, Ronald W. Caspers Wilderness Park in the hills near Mission Viejo. In the weeks prior to this trip, a naturalist had been posting mouth-watering images of *Calochortus weedii* var *intermedius* on social media. She was gracious enough to point me to a few specific spots, and with these in mind we embarked from the parking area at Caspers. A scenic, but warm, hike to the ridgeline eventually brought us to a trailside population of *C. weedii* var *intermedius* in peak bloom. The flowers were truly a site to behold with an endless diversity of orange, brown, rust and purple filaments on petals that are just as beautifully colored on the inside as on the outside.

We left Caspers and returned north as the sun set, our



Left to right, top to bottom: *Calochortus plummerae*, *C. clavatus*, *C. weedii* var *intermedius*, *C. davidsonianus*, *C. kennedyi*. Photos by Kipp McMichael.

destination a hotel in Lebec — a small highway-side hamlet near one of the storied places for *Calochortus* in California, Mt. Pinos. One of the few alpine peaks in the Transverse Ranges, Mt. Pinos is home to several *Calochortus* species but, given its elevation, our mid-May arrival time was too early for most taxa. After a hike to the alpine fields at the summit, we headed away from the mountain toward the Maricopa Highway. As we came

'round a bend in the road with Mt. Pinos a few miles behind us, a brilliant vermilion blossom of *Calochortus kennedyi* caught my eye, and I brought us to a quick stop just beyond it. We spent the next 20 minutes canvassing the sagebrush slope and basin above the road where we found a small population of stemless *C. kennedyi*, their radiant, saturated blossoms blooming straight from the white soil.

After the unexpected delight of *Calochortus kennedyi*, a taxon neither Fred nor I had ever seen, Fred's day was immortalized when we stopped for lunch and homemade pie which he described as "epic." Epic pies behind us, we headed back toward San Luis Obispo County stopping along the way to catch *Calochortus clavatus* var

clavatus in bloom along a road cut. The final destination of our weekender was a population of *Calochortus albus* west of Templeton where this usually white fairy lantern can be found in shades from pink to deep maroon.

We arrived to find the population in all stages of bloom - from unopened buds to maturing capsules. We also found an almost random distribution of flower colors with purest white and darkest maroon plants growing and blooming side by side. Clearly under complicated genetic control, the saturated colors of this typically white-flowered species were another reminder of the amazing morphological and chromatic variability in this intriguing genus...

Stay tuned for part two in our next edition!

Spring Crocus in Northern Greece (cont'd)

(continued from page one)

lot of people off but in fact it is perfectly safe. Many of the casualties on the roads can be attributed to a blatant disregard for the law regarding wearing seat belts and crash helmets. The police appear to do nothing to enforce these

supermarkets. The latter is useful for buying lunch as none of the places I am suggesting you visit has any facilities whatsoever. Taking lunch with you is therefore a must.

In March before heading up the mountain a short diversion is

biflorus subsp *alexandri* growing with *Crocus flavus*, which after some distance changes to *Crocus chrysanthus*. Also in flower are *Scilla bifolia* and *Helleborus cyclophyllus*. As you continue upwards the hillside on the left still contains large numbers of *C. biflorus* subsp *alexandri* but here they are growing with completely sessile *Pulsatilla halleri* subsp *rhodopaea*, a stunning combination. Not far away on the opposite side of the road is a cattle pen and this area contains large clumps of *Crocus orphei* (= *C. reticulatus*). Soon after reaching this point in March, the snow is down to the roadside and there is no



Above: *Crocus cvijicii*. Right: *Galanthus gracilis*.
Photos by Tony Willis.

laws and as a result serious injuries do occur. Once outside Thessalonica the roads are quiet and in the mountains it is rare to see another vehicle. I do recommend taking out insurance to cover the usual excess for any damage as parking in the towns is difficult and many vehicles are covered in dents and scratches.

Leaving Thessalonica heading east it is a couple of hours along the motorway to the pleasant town of Drama which is close to the first mountain Falakro. It is possible to stay very near to the mountain at Granitis but after the ski season the isolated hotel does not serve evening meals and there is nowhere to eat in the vicinity. There are several good hotels in Drama which also has all the usual facilities such as restaurants and

useful up the road to the northwest towards the village of Makriplagi. After about five miles, as the road rises into the hills, the verges are home to large numbers of *Galanthus gracilis* interspersed with *Crocus flavus*.

Leaving Drama heading up towards Falakro on the main road towards Bulgaria the turning for the ski centre is clearly marked on the right. After following this for about two miles there is a chapel on a knoll and from here in March there are wonderful views over the snow-covered peaks.

At this point the roadsides start to become covered with *Crocus*



point in going any further. Visiting the mountain in early May presents a different picture. It is then possible to drive snow free up to the ski centre which is completely deserted and in very poor condition.

On the way the early crocus have all disappeared but now the crevices in roadside rocks are filled (continued to next page)

Spring Crocus in Northern Greece (cont'd)

(continued from previous page)
with blue *Viola perniensis* and *Saxifraga sempervivum*. Soon on the left there is a picnic spot and from here onwards the woodland opens out. Amongst the sparse woodland and also in the open are good numbers of *Fritillaria drenovskyi*. Growing with them are *Dactylorhiza sambucina* in both yellow and purple. This can be seen on most mountains in

large robust
ing in
On the
side

Greece and they are
plants grow-
open turf.
opposite
of the
road
are



some
plane
trees

(*Platanus orientalis*) and under them grows *Fritillaria pontica*. Later in the season *Lilium martagon* ssp *cattaniae* can be seen together with numerous orchids such as *Listera ovata* and *Platanthera chlorantha*.

Approaching the resort, which sits in a bowl in the mountain, the hillside behind it appears a light yellow as it is covered in a carpet of *Crocus chrysanthus*. Growing amongst it is a very poor form of *Corydalis solida*. *Erythronium dens-canis* grows here but I have not found it. Climbing to the ridge gives great views of the Pirin Mountains across into Bulgaria.

Mount Vermion is an easy drive from Drama and both in March and in May a short detour on the way to visit Mount Pangeo is very worthwhile. The road up Mount Pangeo is easy as far as a derelict hotel. After that there is a huge hole made by logging lorries and a 4x4 is necessary. A track runs along the hillside below the hotel and in

March there is *Galanthus gracilis*, and then in May good numbers of *Paeonia peregrina*, the latter likely to have been ravaged by deer.

Mount Vermion is a beautiful mountain and in March a good place to stay is the Hotel Vermion on the slopes of the mountain. It is quite run-down but at that time of year it is full of skiers and is fully functioning. It is set in a beautiful park and has many nice restaurants in front of it. The situation in May is very different and it basically has one person on duty and no facilities at all. There are several other new hotels nearby but I have always stayed in Naoussa which is a lovely town at the foot of the mountain.

A drive up the mountain in March towards the ski village of Seli soon moves beyond the cultivated level, and the woods on either side of the road are home to countless thousands of *Galanthus graecus*. This is not a recognised name and the plants seem to be a mixture of *G. gracilis* and *G. elwesii* with innumerable variations between the two. There are fine patches of yellow *Primula vulgaris*. Although it is possible to drive at this time to



Left: *Pulsatilla halleri* subsp *rhodopaea*. Above: *Crocus orphei*. Photos by Tony Willis.

the ski centre there is nothing further to see other than *Crocus chrysanthus*, which in any case is growing with the *Galanthus*.

The situation is very different in May. The woods along the way are home to many orchids and there are some very large *Ramonda nathaliae* in flower at this time, growing in crevices in rocks at ground level at a picnic spot still within the tree line. At the village the
(continued to page ten)

Bulbs after Snowmelt from Baku to Diyarbakir

Jane McGary

Jane is a past president of PBS and gardens in Milwaukie, Oregon, near Portland. She is interested in rock gardens as well as bulbs grown in cold frames, and she has a bulb house. —Ed.

In late April 2015 I joined a small group for a tour organized by Greentours on behalf of the Alpine Gar-

den Society (AGS) to view early flowering in Azerbaijan (southern Caucasus) and eastern Anatolia, the northeastern corner of Turkey. Four participants and leader Kurt Vickery, a bulb specialist, traveled in vans, accompanied by a local driver and a local guide. Our itinerary was based on field notes made a few years earlier, and these were supplemented by the sharp memory of group member Michael Almond, who had traveled in the area quite a few years earlier.



den Society (AGS) to view early flowering in Azerbaijan (southern Caucasus) and eastern Anatolia, the northeastern corner of Turkey. Four participants and leader Kurt Vickery, a bulb specialist, traveled in vans, accompanied by a local driver and a local guide. Our itinerary was based on field notes made a few years earlier, and these were supplemented by the sharp memory of group member Michael Almond, who had traveled in the area quite a few years earlier.

Visiting Azerbaijan is fairly complicated even with the help of Greentours. There are strict government controls, not least on citizens, and one cannot drive from the northern to the southern region because of the intervening territory of Nagorno-Karabakh, claimed by Armenia. The people we met, however, were helpful, friendly, and enthusiastic about nascent conservation projects. Much of the countryside has not been severely overgrazed, so native plants continue to flourish.

The 2015 spring was a bit late, so there were a few

disappointments in regard to the Iris species touted in the AGS advertising, but on the other hand, there were fine displays of snowmelt bulbs. From the oil-rich capital city of Baku we traveled to the Talysh Mountains and stayed in a forested area. The hilly woodland here is known as the Hyrcanian Forest biome and is dominated by broadleaf trees with a sparse understory,



Clockwise from top left: *Iris iberica*, *Iris lycotis* group, and *Iris imbricata*.
Photos by Jane McGary.

where a few *Galanthus* in seed could be found.

The iris hunt began with an excursion to see the *Oncocylus* species *Iris iberica* subsp *lycotis*, with flowers in two shades of purple. We saw it in meadows on gentle slopes, green with spring but probably dry in summer. In the same area, but growing on steeper slopes, was the bearded species *Iris imbricata*, a robust plant with copious fans of leaves and multiple pale yellow flowers on each tall stem. I have found *I. imbricata* easy to grow from seed.

We had to fly to Nakhchivan, the southern part of Azerbaijan, because of the political situation mentioned above. In both the northern and southern regions my favorite excursions were to alpine meadows. The short turf was still moist from snowmelt, and little streams coursed through the drainages. *Gagea* species covered
(continued to page twelve)

Board of Directors Meetings, July 12 and September 27, 2015

July 12

Your board of directors met on July 12; all were present. Additionally, President Nguyen welcomed TBG Editor Robin Hansen to the meeting.

Arnold reported a balance of \$38,433.00. The treasury is up because the market is up. The \$10,000 invested in Fidelity five years ago is now worth \$14,800. Two hundred extra copies of the last *Bulb Garden* were printed to use as promotional copies and to send out with the new member packets. The Stamps.com account has provided us with a 1/2 penny discount on all mailings to US addresses.

Nhu has not received any new grant applications.

Dell reported that the division of labor between the BX and the SX was working well in its early stages.

Jane stated that PBS has 310 members. Membership is down, but it is still higher than at this time last year.

On the electronic media front, Nhu reported that use of our Facebook page is limited; we get one or two hits per week, most of which are international. Volunteer Travis Owen remains very busy. His latest project is putting each species on its own page.

We are getting back on track with the printing of TBG! Arnold shared a request from the printer & we discussed the text-to-photo ratio.

John reported that we are making excellent progress achieving tax exempt, non-profit status. Signatures from certain board members are required, but then the project will be complete.

Members of the subcommittee investigating the possibility of publishing a scientifically-oriented journal will continue their discussions.

September 27

Your board of directors met on September 27; all were present. Additionally, President Nguyen welcomed TBG Editor Robin Hansen to the meeting.

Arnold reported that the markets have been down the last few weeks, but our accounts are still healthy: the total amount in all accounts at Fidelity as of 9/26/15 was \$38,506.92. Arnold ordered extra supplies for new member welcome packages. PayPal has changed its interface page, which has made things a little tricky, but no real problems.

Jane informed us that we have 331 members, which is typical for this time of year. We have had a lot of turnover, but that's very typical for our membership patterns.

A lot is going on with our electronic media team. Nhu reported that Ibiblio is running the latest software for Mailman. For now, the problems we've been experiencing have been solved. David Pilling is looking into setting up a server on his own computer to allow for some experimentation/research. They hope to find a way to allow users to send pictures to the listserv as attachments. They're working with a software that will strip the picture from the email, set it up with a web address, and then embed a link to the file in the email (so that large files will not have to be attached and transmitted). In terms of sustainability, David Pilling will be asked to provide some sort of documentation or "how to" manual to ensure that whatever changes are made can be maintained by the tech team as a whole. Nhu suggested that it might be in our best interest to allow the tech team to purchase web space – we may need to migrate to a different host. He'll do some research and present us with a motion to approve a set fee via email.

The BX/SX division is still new and adjustments are being made. SX 3, with approximately 80 items, went out months ago. Dell will be in communication with Steve to get an update. The next SX list has been submitted to Marilyn Pekasky for proofreading.

Jennifer reported that the combined issue of TBG will come out soon. Robin has done a great job collecting stories, and contributors have been generous with their text and photos. We are working to establish an archive: Jen will send all digital copies to Nhu. We want to allow members to purchase the entire archive. We'll need to discuss a fair price, which will be determined in part by the delivery method.

John has sent the paperwork to achieve non-profit status to Nhu for review; Nhu will return it soon and then we'll collect the necessary

signatures. Nhu has requested some changes, which John will forward to LegalZoom. Once the changes are made and the signatures are collected, the document will go to the IRS. Arnold will make necessary changes with our banking institutions.

New business:

The next membership directory will be a simple list on paper. (Putting it online makes people's information too easily available.) Jane will compile the information and send it to Arnold to go out as an insert with TBG (around Dec. 1).

In the next election, Arnold and Kathy will each run for their respective positions. Nhu plans to step down as president for now, so we need to find a new president. John is willing to be nominated as vice president. Nhu will appoint the nomination committee.

We closed the meeting by exploring whether it would be possible to give grants to individuals to collect seeds. We discussed the need to protect plants from potential damage and other challenges. Jane, Nhu, and Dell will form a subcommittee to write a proposal that will be shared with the board.



Treasurer's Report, January—June 2015

BALANCE 1/1/15	\$36,435.69
U.S. Members	\$2,180.00
Overseas Members	\$1,750.00
Contributions	\$124.00
BX Receipts	\$3,062.96
Investment results	\$386.32
TOTAL INCOME	\$7,503.28
BX/SX Postage	(\$783.98)
BX/SX Supplies	(\$447.36)
BX/SX Support Staff	(\$77.89)
Board Conference Calls	(\$193.95)
Treasurer's Supplies	(\$194.95)
Total Publications	(\$3,020.00)
PayPal Expense	(\$344.08)
TOTAL EXPENSES	(\$5,062.21)
Net Change in Account	\$2,441.07
BALANCE	\$38,876.76

In the last issue, we neglected to mention that another member of the SX team whose work is invaluable is Karl Church who packets all of the seeds. Thanks, Karl!

Spring Crocus in Northern Greece (cont'd)

(continued from page seven)

trees give way to turf and the ski centre is a little further on. Around the main hotel there are numbers of *Corydalis solida* in a magnificent white form growing with *Scilla bifolia* and lots of *Violas* and *Dactylorhiza sambucina*. In April this area is covered in thousands of *Crocus cvijcii* but by May these have disappeared. This is the one plant I have mentioned that is not possible to see from the car in May. Looking upwards from the hotel lingering snow patches can be seen and a brisk walk to one of these will easily reveal the crocus in fine flower. The walking here is wonderful even without adding in the plants. There is a second ski resort on the mountain called Pigadia but I have never found anything of interest in May.

Moving on from the Mount Vermion area, it is an easy drive along the new motorway which runs from Thessalonica to Ioannina through spectacular scenery to the town of Metsovon at the foot of the Katara Pass.

The temptation here is to stay in the town which is very lovely with a large central square containing some magnificent plane trees. However it has horribly narrow streets and although there are many hotels, parking is very difficult. In view of this I always stay at the Hotel Victoria at the top of the town. It has good parking and wonderful views but is a stiff walk back up the hill after a good meal in one of the many very nice restaurants in the town.

Metsovon is situated at the western end of the pass, which used to be the main road through this area. The road has now been superseded by the motorway and although it has not been maintained it is still easy to drive along.

As you leave the town immediately on the left is a high woodland bank and this contains many *Fritillaria*

thessala and *Helleborus cyclophyllus*. A little farther on as you start to climb there are large flat meadows containing many *Narcissus radiiflorus* (= *N. poeticus*) whilst in the bogs at the edge of small streams are *Dactylorhiza baumanniana* which are not in flower at this time of year. However, driving up the pass affords magnificent views of the town and the surrounding mountains, until upon reaching the top, it flattens out for a short way. On the way up there are sites for both *Fritillaria epirotica* and *Lilium albanicum* but in May neither are in flower and I have not found them.

Depending on the season, at the top of the pass there are great numbers of *Crocus veluchensis* in some



Clockwise from top left: *Dactylorhiza sambucina*, yellow form; *Fritillaria thessala*; *Jankaea heldreichii*. Photos by Tony Willis.

very fine forms growing with *Primula veris*. A moderate walk will bring you to an area of *Daphne blagayana*, but May is a little late for this to be in flower.

Driving a mile down the far side there is a place to park on the right and opposite it is a wet area containing large stands of both *Dactylorhiza saccifera* and *D. kalopissii* together with hybrids. On the drier areas are orchids and many *Lilium chalconicum*. These will all be in flower in June; however on the bank slightly past this seep there is *Fritillaria montana* growing and flowering in May.

Moving back north I always stop off for a couple of days at Mount Olympus which is quite the most wonderful place to visit. May is not the best time for flowers on this mountain although there is a still lot to
(continued to next page)

Spring Crocus in Northern Greece (cont'd)

(continued from previous page)

see. The place to stay is Litochoron, a small town at the base of the mountain. It is a friendly place with lots of hotels and places to eat. Sitting out in the evening with a beer looking up to the snow-covered slopes is idyllic.

At the top end of the town of Litochiron there is a nice but demanding walk up the gorge, and although it is possible to walk to Prioni, the starting point for the hike up the mountain, this takes about six to eight hours.



Above: *Fritillaria messanensis*;
Right: *Crocus pelistericus*. Photos
by Tony Willis.

and on the left in crevices are some very good plants of *Jankaea hel-dreichii* which are usually in flower in May. Also on the way are several *Ophrys* and a number of *Fritillaria messanensis*.

The usual entry point for the mountain is Prioni (well sign posted from Litochiron), some miles along a well-made road, apart from the last half mile which is rough and unmade. From here the walk up the mountain along a well-made donkey track to Refuge A begins. It is very steep but has now been much improved by the addition of a couple of water points

(drinking water facilities-Ed.) on the way. It is best to avoid weekends when the small car park gets full and lots of unfit and ill-equipped people are staggering up the track in the heat. In May there is not much to be seen apart from some *Fritillaria messanensis* growing in amongst lily of the valley (*Convallaria majalis*); often the way is still blocked by snow at quite a low level. The best time to visit is in June when there are numerous species in flower starting with



However, after an hour along the path, a crest is reached

Lilium chalcedonicum near the monastery along the road to Prioni and continuing on to high alpine at the summit.

Finally in order to visit Mount Voras, most people stay at Edessa which is only a short drive from the mountain. It is an attractive town but very busy and congested and so I prefer to stay at Naoussa which adds an hour onto the journey.

Mount Voras can be approached from two directions. From the east just out of Edessa a new road has been constructed to the ski centre. This goes through several miles of fruit farms and then climbs through dense pine forest which is inaccessible and quite barren. There are a few non-flowering *Lilium martagon* growing in small clearings. The road is already in decline with some large holes but perfectly passable. A mile

or so from the top it opens out into wide meadows which contain many fine *Dactylorhiza sambucina* but nothing else of interest.

The western approach road continues past the ski centre (off to the right down a side road, then descending back to the main road farther to the west); this approach is longer but by far the best. It ascends through beautiful deciduous forest, which later in the season has lovely forms of *Lilium martagon*. It then turns to pine and has wonderful views over the surrounding countryside.

The flowers on the way start with *Crocus veluchensis* and *C. sieberi* in woodland clearings and then as the open areas become more dominant these are filled with crocuses, *Primula veris* and beautiful forms of *Viola eximia* in both yellow and blue. Naturally there are huge numbers of *Dactylorhiza sambucina* and many other species too numerous to mention.

The glory of this mountain however has to be *Crocus pelistericus*. If the timing is right as you reach the final crest before the road to the ski centre you are greeted by a large bowl perhaps half a mile long and a quarter mile across on the right hand side of the road which is a shimmering purple haze of the crocus. It is growing in many thousands in dense turf with its feet in running water. On the drier areas there are large numbers of much paler *Crocus veluchensis*.

Greece is a wonderful country to visit with very friendly people. The travelling is through beautiful scenery and food and accommodation are easy to find. The flora is the largest in Europe and hopefully this article has shown how straightforward it is to see some of it at its best.



Bulbs after Snowmelt (cont'd)

(continued from page eight)

the ground almost uniformly with their bright yellow stars. *Gagea* is closely related to *Tulipa* but is rarely cultivated, perhaps because of its small size. (The stems are only a few cm tall, and the flowers are about 2 cm across.) Only *Gagea fibrosa* seems to be widely distributed; it is pretty and quickly forms rather showy clumps. I wish more species were available for our rock gardens and bulb lawns.

In the water-eroded soil near seasonal streams were colonies of a small *Colchicum* (or *Merendera*, if that genus is to be separated from *Colchicum*). Most gardeners think of colchicums as fall flowers, but there are quite a few spring-blooming ones which are small and have modest foliage. Growing them from seed takes patience as germination is erratic, but I've raised many. Now I understand their needs better after seeing them in nature. Fortunately I've always irrigat-



Top: *Fritillaria caucasica*, one of the “black-flowered” frits. Right: *Fritillaria crassifolia*. Photos by Jane McGary.

Also very prominent in the alpine meadows was *Puschkinia scilloides* with short but showy spikes of pale blue flowers. Easy to grow and commercially available, it's a necessity for the early spring garden, tolerating both sunny and shady exposures. Darker blue *Muscari* species were there too, well spaced in the turf and suggesting their placement in the bulb lawn, where competition may restrain their multiplication. Some meadows we visited were quite blue with tens of thousands of *Muscari*. More blue came from the common *Ixiolirion tataricum*.

A special find in one meadow was *Fritillaria caucasica*, one of the “black-flowered” species, growing near the crests of hills where it may enjoy better drainage and perhaps a little difference in snow cover. The only other frit we saw on the trip was little *Fritillaria crassifolia*, growing on steep, stony places and displaying wide variation in its patterns of green and brown. Both these species are very easy to grow from seed.



ed them (and other snowmelt bulbs) copiously in spring. This flood-washed streamside habitat was also the only place I saw a crocus, one of the many subspecies of *Crocus biflorus*; it was just below the snow in Anatolia.

The “title” of the AGS tour was “Ararat,” and after crossing into Turkey we drove around this legendary mountain. Snow patches lingered on the passes
(continued to next page)

“The best gardening advice I ever got was, ‘Try everything.’”

Bulbs after Snowmelt (cont'd)

(continued from previous page)

and higher slopes. Close below the snow we found *Iris caucasica* in full flower, its frilly masses of pale yellow concealing the foliage. It is in the Scorpiris (Juno) section. I've grown seed under this name several times but it always turned out to be *I. bucharica*; I'll keep trying, and perhaps it will show up in the collections Kurt Vickery includes in his seed lists.

Iris iberica subsp. *elegantissima* (Oncocyclus) is a "grail plant" for many travelers longing to photograph its spectacular flowers of white and dark brown. We finally found it on a rubbish-strewn hill-ock on the edge of an Anatolian town, holding up



well in a light rain. A Kurdish woman and two children were there collecting herbs, apparently a kind of thyme, and admiring the irises too. Another Onco we wanted to see was *Iris gatesii*. We visited the home of an amateur botanist who told us it might be in flower high on a neighboring mountain, and we photographed it in his garden but decided, given the late afternoon and long, demanding climb involved, to pass up the wild population.

My favorite iris of the trip was *Iris paradoxo*

(Oncocyclus), which is unusual in having very small falls almost covered with the dense beard. The population we visited was near the Hoşap Pass (spelled variously, e.g. Choschab) and closely resembles forms in cultivation. The irises grow on the summit of a steep hill also crowned by the ruins of an ancient fortress. A road leads upward from the meadow where we left our van, and I started up it while the rest of the party walked through the valley. Thinking they knew something I didn't, I went

Top left: A meadow of snowmelt bulbs. Bottom left: *Iris paradoxo*. Above: A member of Jane's travel group demonstrates the proper technique for photographing *Iris lycotis*. Photos by Jane McGary.

back down to the base of the hill and followed them up a very steep slope, finally hauling my ruined knees up to the summit, where the road ended in a parking lot containing a full-sized tour bus. That the sight of the irises made me stop cursing is proof of their great beauty!

From this trip I took away a much better understanding of the area's bulbs, both those we commonly grow and those thought of as rare and difficult in cultivation. I was inspired to have a large, open raised bed built this summer, punctuated with basalt rocks, into which I moved divisions of some Oncocyclus and Regelia irises and a number of bulbs from my "Mediterranean" bulb house. I'll also be adding *Puschkinia* and some *Muscari* to my bulb lawn. If only I could get one more plant we saw in the snowmelt meadows: *Adonis wolgensis*, one of the bright yellow perennial species. I can't promise these plants snow every winter, but with excellent drainage they may tolerate the winter wet of western Oregon. The best gardening advice I ever got was "Try everything."



Book Announcement: *Flora of Oregon*

(Ed's note: Information used in this review/announcement was provided by Linda Hardison, Director of the Oregon Flora Project.)

The first volume of the *Flora of Oregon* is now in publication after twenty-some years of collaboration among 20 authors, thanks to a multitude of volunteers and the generosity of many people.

Volume 1 presents taxonomic treatments of the 1,054 taxa of pteridophytes (ferns and fern allies, including club-mosses and horsetails), gymnosperms, and monocots (lilies, grasses, sedges, and others). "Treatments" are comprised of identification keys, detailed descriptions of each taxon, and illustrations. The first volume additionally contains introductory chapters, appendices, a glossary, references, and a taxonomic index.

Being the first of a three-volume flora, the editors wanted *Volume 1* to include information that provides context for the encyclopedic work of the floristic treatments. The details of preparation and presentation of information are given in the Design and Content chapter, and on a larger scale, in the section outlining the history of the Oregon Flora Project. A collection of biographical sketches of notable Oregon botanists from 1842 to the present recount the oft-time heroic efforts individuals have made in pursuit of their botanical passions.

Dennis Albert authored the Ecology chapter; it describes the eleven ecoregions of Oregon and the predominant plant habitats

they support. This is followed by "Exploring Oregon's Botanical Diversity," a chapter by Ed Alverson. It presents descriptions of places to visit that are outstanding examples of Oregon's plant communities. Organized by ecoregion, the editors feel it helps a wider audience appreciate and explore Oregon flora. These two chapters include 69 color photographs to

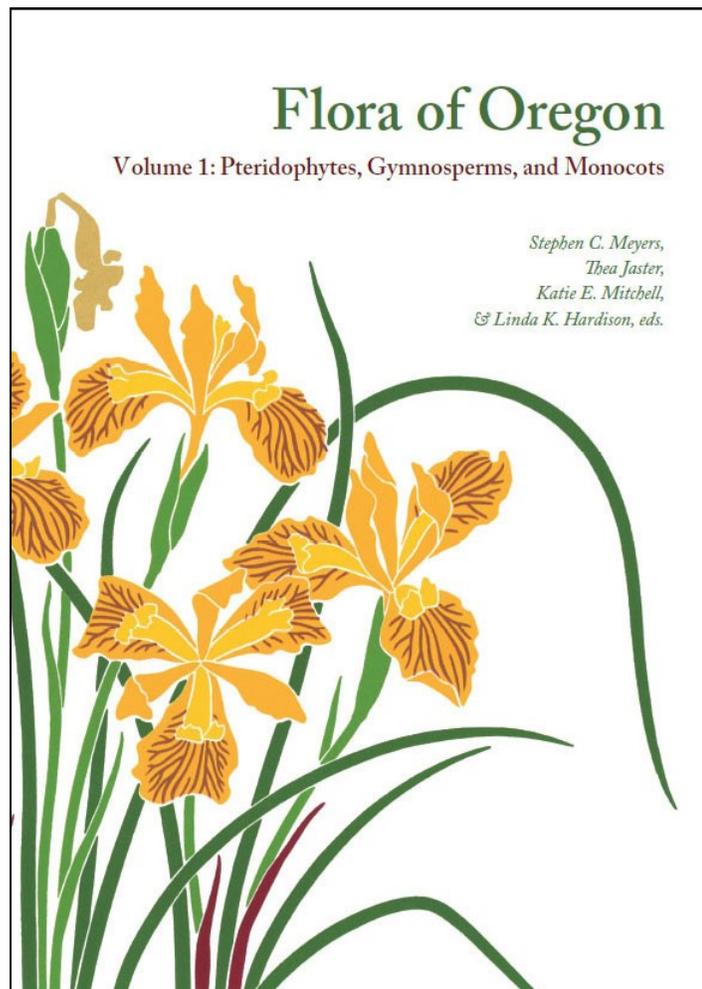
names complete the book.

The completion of *Volume 1* is an enormous achievement for the OFP. A great deal has been learned that will help the editors complete the remaining Flora more efficiently. Part of the challenge Taxonomic Director and Chief Scientific Editor Stephen Meyers faced was insuring consistency in the writing and tone of the contributions as well as visual consistency. The 3,600 taxa of dicots will be arranged alphabetically and divided into approximately equal sized books: Adoxaceae — Fagaceae (Vol. 2a) and Garryaceae — Zygophyllaceae (Vol. 2b). Volume 2a is should be ready for BRIT Press by the end of 2017.

With five years of targeted effort and direct expenses (artwork, contracts, printing) approximating \$260,000, as well as intense proofreading, formatting, revision and feedback from Barney Lipscomb and Brooke Best, both PhD botanists, *Volume 1* of the *Flora of Oregon* represents a significant accomplishment that is derived from twenty years of research, collaborations, and data gathering. The OFP is proud to release this publication, and honored to bring to completion this

much-needed reference about the plants of Oregon.

Available from BRIT Press, 1700 University Drive, Fort Worth, TX 76107-3400 USA or purchase online at shop.brit.org. \$75.00 each plus 4.50 shipping within U.S. For overseas orders, please contact orders@brit.org. For further general information, please see www.oregonflora.org.



further entice readers into the field.

Following the taxonomic treatments are appendices that emphasize Oregon's rare and unique taxa. Appendix 1, which lists the plants not treated in the Flora, demonstrates the extent to which the editors document and track the botanical knowledge of our state. A glossary, concise list of references, and index of common and scientific

The Genus *Erythronium*, by Chris Clennett

The Genus Erythronium, by Chris Clennett. Botanical Magazine Monographs. Richmond, UK: Royal Botanic Gardens, Kew, 2014. ix+158 pp. ISBN 978-1-84246-492-2.

This is the first monograph to include the entire genus *Erythronium*, which has species in the Northern Hemisphere of both the Old World and the New. In format it adheres to the pattern of Kew botanical monographs, with chapters on history of study, phytogeography, morphology, studies of cell and gross structures, palynology (pollen studies), and phylogeny, ecology and conservation, and taxonomy. “Taxonomic treatment” includes the meat of the book, with “species accounts” (pp. 40–119) of 29 species recognized in this work. These

are followed by a brief treatments of hybridization and cultivation. Back matter includes a glossary of botanical terms, list of abbreviations, and selected bibliography, along with separate indexes of scientific names, common names, and cultivar and hybrid names.

Author Chris Clennett is a horticulturist and botanist, currently manager of the garden at Wakehurst Place in England, a garden associated with Kew; he has been at Wakehurst since 1987. His PhD dissertation focuses on *Erythronium*; he has also written on *Cyclamen*.

The book is illustrated with 14 color plates of botanical paintings by Christabel King, Pandora Sellars, and Meiko Konishi. These are all beautiful, though mostly somewhat idealized; Konishi’s *Erythronium japonicum*, in particular, does not seem to me to present an accurate visual impression of the plant in growth. In addition, there are color photographs throughout, mostly by Clennett; a few of these are of unsatisfactory quality, particularly those taken in natural habitat.

Most serious readers of this volume will probably already have a hand lens to use in identifying plants, and one hopes it is large enough to magnify text as well, since the designer of the book has chosen to set it in a very small type size, combined with a wide page, so that it is quite difficult to read. This is my most severe criticism of the book.

The species descriptions reflect assiduous examination of herbarium specimens as well as field visits and garden cultivation of many of the taxa. The synonymy in particular seems remarkably well researched. Identifying a living plant from the descriptions will require a good command of botanical terminology; there is no “cheat sheet” section to

help the novice in this regard, and little in the way of subjective comments on the appearance of the plants. However, a “Notes” section under each species mentions species that may be confused with that under discussion, with notable distinctive characters. (One characteristic I missed seeing mention of is the lovely fragrance of some species, such as *E. helenae* and *E. hendersonii*.) A distribution map appears with each species, and these would have been more useful if the scale had been reduced (say to the US state level) in the cases of narrow endemics. The American species accepted accord in general with the views widespread in North American botany, along with sensible discussion of points of controversy, so

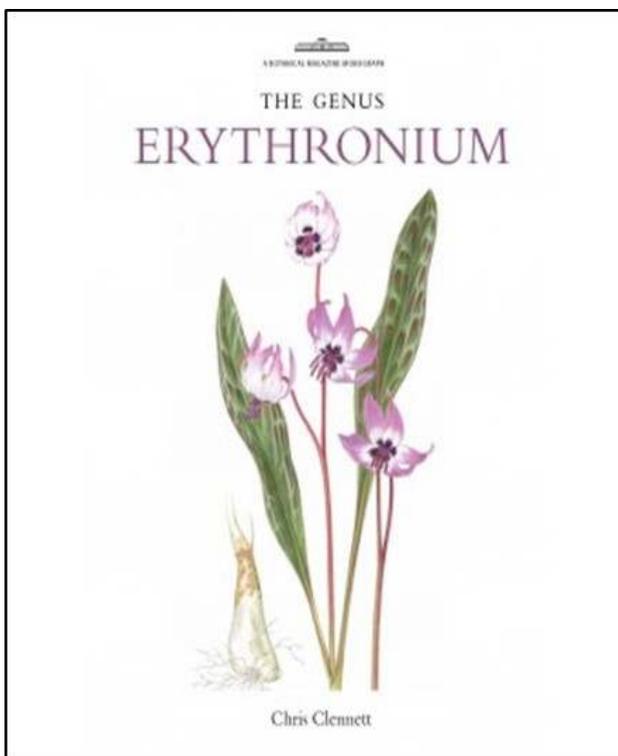
readers need not fear that their pet taxa have been effaced by the gods of Kew, as we sometimes see.

Each species description includes a paragraph on cultivation. As is usual in British works, it refers to growing the plants in England, but at least we do not read “not in cultivation” under plants that we benighted colonials cherish in our own gardens. “The author is not aware of this species in cultivation” (p. 110, on *E. pusaterii*) is more tactful; this reviewer, however, is aware of it. “This species is currently unknown in cultivation” (p. 111, *E. quinaultense*; p. 71, *E. umbilicatum*) is a bit more daring, and calls for the emendations “unknown to the author” or “in cultivation in the UK.”

In summary, this book is a valuable addition to the libraries of bulb enthusiasts and those especially interested in North American native plants. Those who focus on cultivation might want more detail in that respect, but this is not the purpose of the Kew monographs. I hope more gardeners will be inspired to grow the less common species, which are easily raised from seed. Their flowering is brief, but Chris Clennett’s work should remain authoritative well into future years.

— Jane McGary

(Ed. Note: This is a reprint of a review posted on the North American Rock Garden Society website. As the first monograph that includes the entire genus, I think it’s a valuable addition to our libraries, although expensive. I ordered mine from Amazon so there was a discount.)

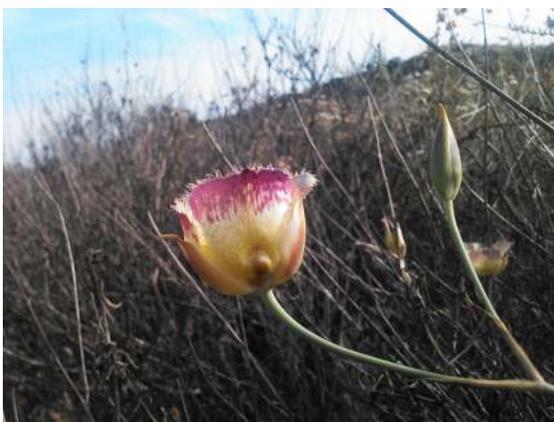


Arnold Trachtenberg
140 Lakeview Avenue
Leonia NJ 07605

www.pacificbulbsociety.org

Pacific Bulb Society, *The Bulb Garden*, Volume 13, No. 3-4

Gardening with Bulbs



In this issue we join Kipp McMichael on a *Calochortus*-lover's dream tour of Central California. Photo by Kipp McMichael.

Inside This Edition:

Spring Bulbs in Northern Greece <i>By Tony Willis</i>	1
<i>Calochortus</i> of Western North America <i>By Kipp McMichael</i>	2
Bulbs after Snowmelt from Baku to Diyarbakir <i>By Jane McGary</i>	8
Book Announcement: <i>Flora of Oregon</i>	14
Book Review: Chris Clennett, <i>The Genus</i> <i>Erythromium</i> <i>By Jane McGary</i>	15

The Bulb Garden © 2015

The Bulb Garden is the newsletter of the Pacific Bulb Society (PBS). It is published, if enough articles are submitted, around the third week of each quarter and is available to PBS members. This newsletter provides gardening or bulb related articles, news of interest to members, and announcements of the PBS organization.

Editor: Robin Hansen, robin@hansennursery.com

Co-Editor: Jennifer Hildebrand

Visit us online! www.pacificbulbsociety.org