



NORTH AMERICAN ROCK GARDEN SOCIETY

The Rock Garden

QUARTERLY

WINTER 2015/2016

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Front cover: North Carolina Piedmont garden with agaves - Michael Papay

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The Rock Garden
QUARTERLY

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From the Editor

I HAD TO fit a pane of glass back in the alpine house today. The windows and door are always open except in the very fiercest of storms, when they predict gusts of 70 miles an hour and over. Then it's a matter of heaving the door shut and trying to batten down the windows, neither one so easy these days as the cedarwood frame has gradually twisted. Whether we should look at a new one is an open question, rather like whether it is time to look at a new car. Both the alpine house and the car are still functioning, just they're not in the prime of life.

Obviously the car is important, but the alpine house is invaluable. It's where I keep the most unusual of my saxifrages, the ones I don't feel I want to risk outside. There are the pots of bulbs grown from seed collected by a friend in Kazakhstan; some dionysias and some dryland bulbs; some South American specialities such as oxalis; a collection of cremanthodiums.

It's quickly obvious to anyone who looks that I'm a plant nut and editing this journal brings me articles on all sorts of groups of plants and I fall for them. Enthusiasts writing about their own subjects. And there is little more enticing than listening to or reading about someone's enthusiasm. In the last few years I've got sucked into growing eriogonums from seed. They are really fun, partly at least because the seed often germinates well, and although some really struggle with our winters, others are growing fine, although why one will flower brilliantly one year and then take years off I have no idea. There are the pulsatillas that I can't help but keep adding to; irises I keep hoping will reappear in the spring.

And then there is fitting in trips to places. This year we've got a trip to the Pacific Northwest talking to NARGS chapters and NARGS members in some of the other gardening clubs; and then there's the Annual Meeting in northern Colorado. The last issue of the *Quarterly* focused on the area around Steamboat Springs and in this issue there is a review of the book *Steppes* that provides another view of this region which is valuable alongside the more traditional "high-mountain rock-plants" approach.

So, anyway, before we're travelling, I'll have to get most stuff out of the alpine house to look after itself. Much easier than finding some poor neighbor who worries about overwatering. It also means that there is little point being tempted by new plants this spring – little chance to look after them in the early stages – on the other hand there is always that list of irises that came in the other day

The Hart Tree





The Sierra Nevada— A Backpacker's Paradise

DON SELCER

I WON'T TRY to convince you that the Sierra Nevada mountains of California are the world's most wonderful mountains. But, for a backpacker, the beauty of the Sierras, their flora and fauna, their ease of accessibility, and the solitude they can provide have made them my favorite vacation destination for 40 years.

The Sierra Nevada range is still rising. It slopes relatively gently from the west but rises steeply from the east. From the Tioga Pass road in Yosemite National Park, to the south end of the range, about 125 miles, an area which includes Mt. Whitney (the highest peak in the lower 48 states), there are no roads crossing the range.

This article will provide a sample of backpacking trips to three regions of the southern Sierras: a lower altitude trip to a sequoia forest, a mid-altitude trip to mountain lakes in Sequoia National Park, and hikes over high altitude passes approached from the eastern side of the range. These latter passes may cross into Sequoia or Kings Canyon National Parks or, farther north, into wilderness areas north of Kings Canyon National Park.

Redwood Canyon—Kings Canyon National Park

I do believe the trees of these Sierras are among the most spectacular and varied anywhere. The iconic *Sequoiadendron giganteum* (giant sequoia), found only in the Sierra foothills, does not have to be seen from a parking lot! There is a surprisingly remote and little used trail that leads through the largest sequoia grove in existence. In early June one can hike downhill from 6200 feet along Redwood Creek to 5500 feet through some of these sequoias. The Hart Tree, one of the largest sequoias in the world, with a diameter of over 21 feet, is found in a spectacular, cool, mossy forest of ancient trees, a short walk from the streamside campsites. Other meadow-lined trails nearby are filled with wildflowers, especially in early June.

The area is home to numerous wildflowers, trees, and shrubs, including *Cornus nuttallii* (western dogwood), with its spreading habit and huge white flowers, often at eye level. One of my favorite wildflowers, *Lupinus stiversii* (harlequin annual lupine), a California endemic, is present on steep hillsides on one of the side trails that loop and rejoin the central trail. In some years it occurs in very dense stands, yet, other years it may hardly be found. Other favorite plants common



Lupinus stiversii

Leptosiphon montanus

Cornus nuttallii

here are the large woodland *Viola lobata*, both subsp. *integrifolia* and subsp. *lobata*, and a Sierra western slope endemic, the annual *Leptosiphon montanus* (mustang clover, formerly *Linanthus*), found covering large areas in good years.

So many lower elevation areas of



the Sierras have been developed or have had roads run through them that it is a pleasure to experience this habitat in an undisturbed state. Bears and other animals are numerous at this altitude. This is also home to the spotted owl (*Strix occidentalis*), an endangered species requiring huge areas

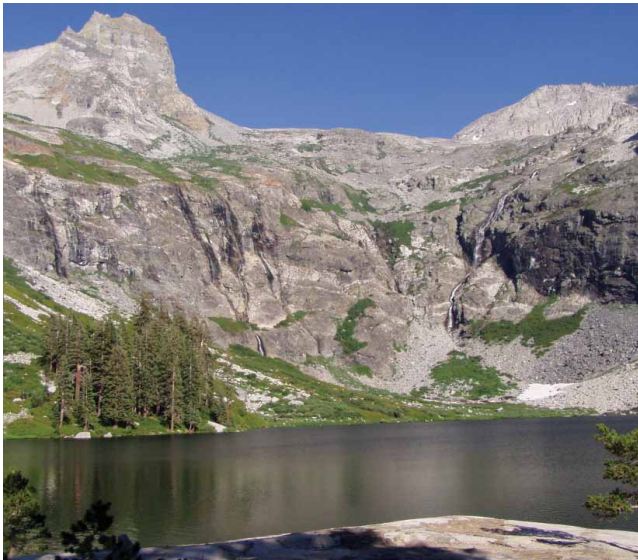


of old growth forest to survive. Viewing this sleepy one (above) resting in an *Abies concolor* (white fir) was a peak birding experience!

Lake Hamilton and Above

Our first long backpacking trip, in 1974, is still an all-time favorite. Starting in Giant Forest at around 6,700 feet, home of the General

Lake Hamilton



Sherman tree, the largest sequoia of all, one reaches Lake Hamilton, after 16 miles of hiking the High Sierra Trail, a beautiful trail that traverses the range.

Lake Hamilton, “The Jewel of the Sierras,” is at 8200 feet in a magnificent cirque of granite cliffs and near vertical meadows above. The trail above the lake ascends to and traverses these gardens, passing

Angel Wings



many ancient *Juniperus grandis* (Sierra junipers, formerly *J. occidentalis* var. *australis*) perched next to the steeply switchbacking trail. The Sierras are known for these incredible trees with their reddish, shredded bark and gnarled habit, often growing on granite slabs seemingly devoid of soil. Fantastically picturesque, they overlook Lake Hamilton as well as Angel Wings, the white granite massif which rises above the lake on its northwestern edge. *Dicentra nevadensis* (Sierra bleeding heart), a Sierran endemic, is scattered here, competing for space in a crowded display of subalpine flowers. Also found here are the ferns *Athyrium alpestre* (*A. distentifolium* var. *americanum*) and *Pellaea*

Dicentra nevadensis



Ancient juniper, young back-

Pellaea bridgesii



bridgesii (Bridge's cliffbrake), as well as *Lilium kelleyanum*, lupine, *Aquilegia formosa* and *A. pubescens* (columbines), *Mertensia ciliata* (streamside bluebell),





Precipice Lake

Vaccinium caespitosum

several *Castilleja* (Indian paintbrush), and many others.

After passing through the waterfall-fed meadows, the trail arrives at Precipice Lake, perched at the base of a sheer cliff, usually partially covered with snow and ice on its surface, 2000 feet above Lake Hamilton. Just above this is Kaweah Gap, at the Great Western Divide, which is home to small streams of water lined with *Vaccinium caespitosum* (dwarf





Pinus balfouriana

bilberry) and *Kalmia polifolia* (bog laurel). Beyond is Nine Lakes Basin. This stark seemingly barren basin with a white granite floor is blindingly bright. Yet a good stand of the very locally restricted California endemic *Pinus balfouriana* (foxtail pine) thrives here, with its purple, sap-drenched cones. It is a close relative of *Pinus longaeva* (bristlecone pine) growing in the White Mountains across the Owens Valley. On the small side,



Dicentra uniflora

Dicentra uniflora (steer's head), a northwest native, hides in open view an inch off the ground. In moist areas among rocks is a *Ranunculus* sp. (buttercup), while growing vertically on the rocks in drier locations is *Jamesia americana* var. *rosea* (cliffbush) from the Hydrangeaceae (formerly Philadelphaceae), a small shrub (under 3 feet), here in a pink-flowered form. This variety is native to California from 6,000 feet to above 11,000 feet, occurring in dry settings in the Sierras as well as the White and Inyo mountains to the east and southeast.

Jamesia americana var. *rosea*



Eastern High Sierras

For alpine plant lovers, the best way to access the High Sierras is to enter on one of the many trails which begin on the eastern side of the range. The drive there, due east from the Bay Area is itself a great experience. Highway 120, closed in winter, goes through Yosemite National Park with superb vistas of granite slabs, domes, and junipers, and climbs over Tuolumne Pass at 9,900 feet, the highest road to cross the Sierras. Dropping 6500 feet to Mono Lake, then turning south, one passes through the Owens Valley, scene of the early 20th-century California Water Wars, with the White Mountains to the east (reaching to 14,200 feet), and the now steeply rising southern Sierras to the west.

Most of the excellent trails to the high country start in wilderness areas at 8,000 to 10,000 feet (though one begins in a Mojave Desert landscape at just 4,500 feet) and reach passes at around 11,500 to 12,000 feet, arriving at the pass typically in 5 to 8 miles from a trailhead. The photos in this section are from several of these trails: from north to south Mono Pass, Piute Pass, and Kearsarge Pass. Mono Pass and Piute Pass are in the John Muir Wilderness between Kings Canyon and Yosemite, while Kearsarge Pass links the John Muir Wilderness to Kings Canyon National Park. All these trails display a wide range of plants as they pass from sub-alpine to alpine zones, and afford beautiful vistas. I will focus on the alpine plants here.

Mono Pass is at 12,000 feet, and continues on into Pioneer Basin. Near the pass, one may find *Penstemon davidsonii* (Davidson's penstemon) with its large purplish-pink flowers growing in the granite

Penstemon davidsonii





Castilleja lemmonii

Castilleja nana

crevices. Lower down, this may hybridize with *Penstemon newberryi* (mountain pride) where their ranges overlap. *Draba densifolia* is also here on gravelly areas. *Castilleja lemmonii* (Lemmon's paintbrush), with its bright magenta blooms is common high in the Sierras, often growing in dense clusters.



The remote Pioneer Basin area has a wealth of alpines, both in the moist areas near tiny streams and small lakes, and on the steep screes leading to the ridges with their spectacular views to the North. Here are *Eriogonum lobbii* (Lobb's buckwheat), *Micranthes aprica* from the Saxifragaceae, *Castilleja nana* (dwarf alpine Indian paintbrush), a tiny



Eriogonum lobbii

Tiny annual *Eriogonum*

paintbrush native from California east to Utah, and *Chaenactis alpigena* (southern Sierra pincushion), with its flowers often lying horizontally. I especially like a tiny annual *Eriogonum* (buckwheat) which grows on a steep scree close to the ridge above the basin.

The Piute Pass trail is one of the





Looking north from the ridge above Pioneer Basin (above)

Piute Lake (opposite above)

Kearsarge Lakes (opposite)





Gentiana newberryi

easiest, climbing gently five miles from 9,200 feet to the pass at 11,500 feet, and continuing on into Humphrey Basin, with glacier dotted peaks to its south. Excellent stands of *Pinus albicaulus* (whitebark pine), trees up to 60 feet tall, become reduced to low shrubby trees as the trail ascends above 11,000 feet. Beautiful meadows near alpine lakes harbor *Gentiana newberryi* (alpine gentian), with its striped buds and blue to almost white flowers. Its cousin *Gentianopsis holopetala* (Sierra gentian) is also nearby. Huge stands of *Mimulus* sp. cover rocky areas near the pass. While the goal of many hikers is to traverse as much distance as possible daily,



Polemonium eximium

Primula suffrutescens



focusing on the scenery, the alpine enthusiast will want enjoy the view, but spend even more time appreciating the small plants, animals, birds and insects which seem to appear if one is unhurried.

Farther south, the Kearsarge Pass trail rises from around 9,200 feet in the John Muir Wilderness to 11,800 feet in five miles where it crosses into Kings Canyon. This is a trail with magnificent views east to the White Mountains as it climbs through some foxtail pines and into lake-strewn alpine country. *Monardella odoratissima* (coyote mint) is common in the Sierras and is well named, as a light brushing of any part of it leaves a powerfully pungent yet somehow pleasant aroma on the fingers. Rarely, white-flowered forms of this plant can be found growing alongside the typical purple blooms.

In moist areas, the lovely *Primula suffrutescens* (Sierra primrose), a California endemic, displays brilliant pink flowers with yellow centers, opening soon after snowmelt. The iconic *Polemonium eximium* (Sierra sky pilot) is another Sierra endemic. This plant is uncommon and occurs from 10,000 to 14,000 feet, usually on talus formations on the ridges and passes. It flowers early so is often missed by hikers, and the flowers last only one day each. The plant has a powerful aromatic quality, and not a pleasant one. It is always exciting to find a flowering specimen. Once, nearing a pass, I started looking for it, and was shocked to find that someone had picked a dozen heads, and laid them neatly oriented on a granite shelf. Outraged at who would do such a thing, I later found the

High altitude "garden" of castillejas and others on the Kearsarge Trail



culprit—a pica (*Ocotona princeps*), a small rodent-like animal related to rabbits, who was airing them out to dry before taking them down to its home under the boulders!

According to tree ring analysis, 2015 saw less snowfall in the Sierras than any time in the last 500 years. However, a major El Niño event is predicted to bring abundant precipitation this winter, replenishing the mountains and helping reverse the four year California drought. If this comes to pass, 2016 should be a banner year for wildflowers and a great time to visit these beautiful mountains. They are unsurpassed for beauty and ease of accessibility.

Late in the day on the Piute Pass trail –
our shadows in front of whitebark pines (*Pinus albicaulis*)



Thanks to Howard Cohen for the photograph of the Spotted Owl.



Chipmunk

JODY PAYNE

THERE WAS A chipmunk on the rock garden this morning. This is nothing new but he was not digging, crouched over eating, in a flat run, nor was he cramming stuff into his cheek. He was on top of the stone wall that encloses the garden, walking along on his hind feet waving a banner for Brent and Becky's Bulbs. I expected a joiner to pop in with a tiny base drum but that didn't happen.

MAY

Taking pictures of the meadow one morning, I was suddenly aware of a chipmunk digging at my feet. He jackhammered into the hole piling dirt up on my boot until his striped backside disappeared below. His head re-emerged with a tulip in his teeth, dead still, looking at me with his black jetbead eye. Then out of the hole like a rocket, he ran to the ridge rock with the tulip leaves waving in the breeze. He sat in the sun gnawing around the middle like it was an ear of corn. He finished it off lying back on one elbow with crossed legs, dangling the greens above his mouth and crunched them down, carefully licking each finger; belly bulged in the shape of the demised.

JUNE

With his irresistible drive he sails over any defense this gardener can use including dried coyote urine, hot pepper wax, crushed seashells, mean words, stern reprimands, slurs to his lineage, slingshots or tweaking.... Chipmunk population control is handled at will by the red tail hawk patrol. Up close, everyone fears....the hawk.

JULY

Another morning while taking inventory in the moraine my eye was tightly focused on teeny weeny plants. Then, yellow feet in a slow

moving stream were in front of me and above the feet, the rest of the hawk. As if stung by a jellyfish, his eye enveloped me, deployed like a giant insane beach ball piercing me through with no awareness of my mind or body. I was prey. In a flash of his telekinetic power he would swoop me up to the sky of blinding sun. Instead, he returned me with awesome grace from my odyssey, lifted his shoulders and rose up flying close, my eye almost touched by his fingers.

Once I watched him flying away, thirty feet in the air and climbing, with a snake dangled from his talons. The snake was curling and alive. I wondered what the snake saw up in the air and how it registered it all in his brain before he passed out or was eaten.

AUGUST

The chipmunk digs and we weed. The season cools and we both sense completion, if there is such a thing in the garden. I am deaccessioning last year's tulips from several hundred of each species to a "Mass" which defaults in the database as five. I concede that our tulips are annuals. We can live with this but not a spring in the rock garden without *Tulipa* 'Lady Jane', 'Tinka', 'Titty's Star', 'Little Beauty' or *T. tarda*. The darling little furry maestro does wait until after the tulips flower to begin his ripping. This is curious and makes me wonder if he smells the forming embryonic flower as the leaves photosynthesize. Or is he working with us?

SEPTEMBER

It is late summer and like Voldemort, he-who-must-not-be-named has finished the tulips in the garden. I open my mailbox and there is another Brent and Becky's catalog with the pages turned down and tulips circled over and over in red pen...another one is slid under my door, crumbled and damp. He bounces onto to my shoulder and whispers *Tulipa turkestanica* with painful desire. He has become crazed and fiendish, like the piano player in the 1930s' film "Reefer Madness," dark circles under his eyes, listening to his inner voice desperate for all the bulbs he covets.

OCTOBER

As I sit in my office writing this, ten crates of bulbs surrounding me, I think the only creature crazier about bulbs is the chipmunk. He feeds my passion and I feed his.

NOVEMBER

I get an email from NYBG with Holiday Gift ideas from the Gift Shop...and wonder how he pulled this one off!



Cutting Daphnes

DON LAFOND

I THINK DAPHNES are the premier rock garden shrubs but they are usually expensive to purchase, and somewhat hard to find. They come in every size you can imagine from 2–3 inches tall to good-sized shrubs. Unfortunately the tree-sized members of the *Daphne* family are not hardy in northern latitudes and only two are hardy even in Florida. But most daphnes (the true *Daphne*) are hardy. And almost all will root from cuttings, though from my experience, timing is the most important factor in taking cuttings.

There seem to be some myths that daphnes are hard to propagate. I don't agree. The propagation gods say you should take cuttings only in the morning or only in the evening or when the moon is waxing and gibbous or waning and crescent. I cut

Don demonstrating his technique with *Daphne* cuttings during the Annual Meeting in Ann Arbor, 2015



all but a couple of kinds around July 4 in Michigan. I have cut in the morning or evening without any noticeable increase or decrease in success. In other latitudes you will have to adjust the timing, but July 4 would be a good date to start.

You are shooting for semi-ripe wood, and a convincing description of that still eludes me. Until you learn what semi-ripe wood feels like just keep making a couple of cuttings every week in mid-summer, and record the information. You



Daphne cneorum cultivar in Tony Reznicek's crevice garden

will then hit upon the date that works for you. I'll bet you will find a range of dates; this will vary with the yearly weather. Just remember not to make it too complicated. One trick that works sometimes is if you can strip a leaf off the stem without it tearing the bark: that's a sign that the wood is ready.

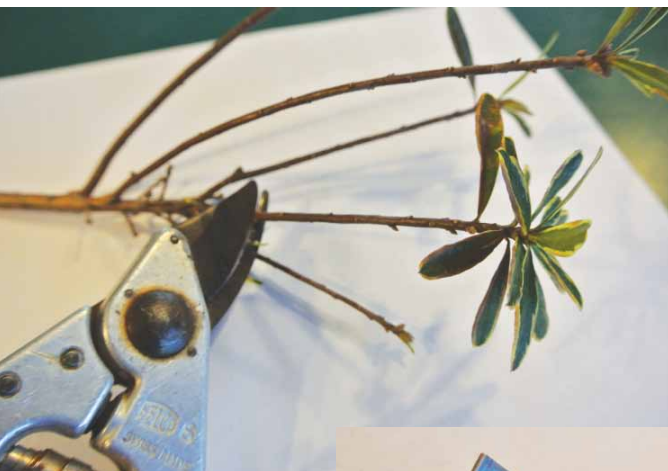
Some are easier than others. *Daphne grandiflora* is one of the few species that I have a hard time getting cuttings to root successfully; even Rick Lupp resorted to grafting. However, Ger van den Beuken gave me some advice about *D. grandiflora* and *D. petraea*, which was to take the cuttings with a bit of a heel of older wood. I haven't had a chance to try it yet but I will. Most propagating books will show what a heel cutting looks like if you don't know. Essentially, you gently tear the cutting from the branch taking a bit of branch wood with it. But for the rest, I don't do this.

Actual cutting is straightforward. You approach the *Daphne* with a calm attitude and some small sharp snippers, tell it that this won't hurt

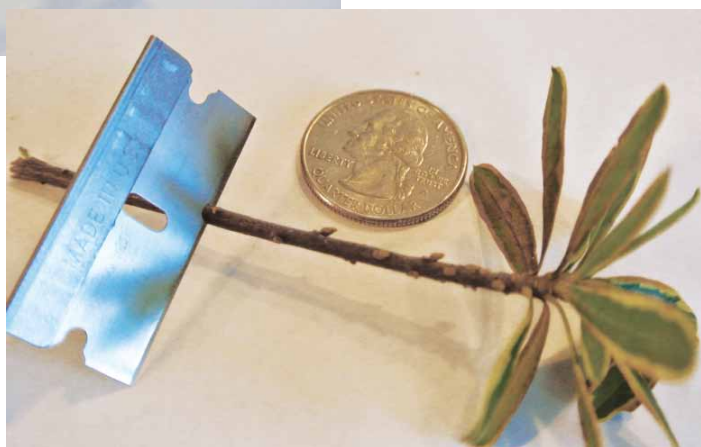
a bit, and take a few stems or branches. A nice length to work with is 2–4 inches but with tiny daphnes sometimes you can only get ½–1-inch-long pieces. They will root, it's just harder to work with them (and try cutting small *Acantholimon* or *Dianthus*, ugh!). If you're going to stick them in the next 5–10 minutes just put them in bag and carry them to the propagation area. If you are doing more than one species at a time, label them and put them in separate bags. Don't rely on your memory; it won't work. If you have to transport them any distance, or keep them for any time, seal them in a ziplock bag in a cooler with an ice pack. The cuttings will be fine that way for 24 hours. Refrigeration will keep cuttings fresh longer, at least a week. That being said, the least amount of time between cutting and sticking the better.

“Cleanliness is next to godliness” isn't a saying you will hear come out of my mouth in other circumstances, but when it comes to the tools needed for cuttings, it is absolutely appropriate. It is important to clean the snippers between cutting each plant. I use Clorox wipes; alcohol swabs work just as well. As I have seen happen over time in some

Daphne collections, by not cleaning the tools between each plant, you can spread phytophthora through plants. This won't necessarily kill the plants but your cuttings often won't root with phytophthora-infected plants. Of course, and unfortunately, this is not backed by any scientific experiment from me.



Cuttings taken in two stages. Stage 1 (above) is to take a 2-4 inch cutting (in this case of *Daphne x burkwoodii* 'G. K. Argles'). Stage 2 (right) involves recutting just below a bud.



Having got the cuttings, you now need a place to stick and root the cuttings. I use a wooden box I made with a hinged top. The top is clear for light to get through. It has holes drilled in the bottom for drainage. Fill it with about 6 inches of your mix, then water it. It's good to leave it for a day to drain. When peat is used, make sure that the peat is completely moistened. The size of the frame or box isn't that important but it should be at least 10 inches deep as this leaves enough head room for the cuttings. Make the box to fit the space you have. Don't be afraid of making it too big, you can always put different types of cuttings in the box; daphnes seem to get along well with others. You can also use a pot with a plastic bag for a tent, or a busboy tray. It just needs to have a clear cover. A Nearing frame (an open-fronted, north-facing frame with a rooting box and a sloping roof) works great, as well.

The medium I use for cuttings is my sand, dug from the yard. It's free, but then our house is built on the site of an old abandoned industrial sand pit. I scrape a few inches of sand from the surface, then dig the sand and use that to fill my cutting box. Most people use a mixture of sphagnum peat and perlite. I've also seen pure perlite used successfully. Some people make elaborate mixes with Turface, perlite,

Daphne cneorum 'Parker's Variegated'



and peat dug from a bog that has mummified buried druids or some such. I'm convinced that the medium is not what makes or breaks the success of the cuttings, it's timing. The mix just needs to be sterile (or sort of) and be airy. I wouldn't use just plain soil.

So now we stick 'um. You will need a wooden board to cut on, about a foot long or so, some single-edge razor blades, labels, and a pencil. Take each stem and re-cut it with the razor blade. Re-cut it just below a bud. Then dip it in rooting powder and push it in your box of mix. If the cutting is a bit too soft and flexible you need a stick to make a small hole for the cutting. For rooting powder, I just use Dip'N'Grow or one of the commonly available magic powders. Some folks insist on using their own magic sauce of IAA, IBA (indole-3-butyric acid) or the like, or dipping gel, or chemicals manufactured under a second full moon in June. It's very possible that the very hard to root things benefit from these special sauces but I find them mostly not needed; it's timing in taking the cuttings that matters.

Line up the cuttings in your box or frame. Label them, put the genus and species, and the date you stuck them, on the label. Always put your label in the same spot, either in front or behind the row, it doesn't matter where, just be consistent. Now water them in; you don't want

Daphne velenovskiyi 'Rubicon'





Daphne x rollsdorfii 'Arnold Cihlarz'

a swamp, just moisten the mix. Use a watering can with a fine rose so as not to disturb the cuttings. I leave my cuttings in the frame until the following spring. I take them out in time so I can have an empty frame ready in July. Check every once in a while so they don't dry out, and don't pull on them to see if they rooted yet. In the beginning it's better to be just slightly on the dry side so they don't rot, but you do want to see some condensation on the window. I don't have a misting system so I don't know if that works better or not. Later on during the spring things can be a little wetter in the frame. Once you have killed a few you will get the hang of aftercare. In the trade they often will dig them out and pot them sooner so they can use the propagating space more often; for me it's easier just to leave them in the box.

Early in the spring I open the lid for a while, increasing the amount of time each day. In a week or two they are hardened enough to leave the lid open. Which reminds me, where to put the box or pot. I put mine in my greenhouse, arranged so they only get reflected or northern light, similar to a Nearing frame.

Daphne velenovskyi 'Balkan Rose'





Daphne x susannae 'Tichbourne'

You can put them under lights or just set the box out in a spot where it gets lots of light but not direct sun, as this might cook new cuttings.

Now that I've said all this I'm quite sure that many of you have done the opposite of what I do and had terrific luck. Just try it; you will be surprised at what happens. But then you will have the trouble of what to do with all the plants.



A HIGHER STATE



Steppe to Alpine



Steamboat Springs

June 22nd-27th 2016

NARGS

Rocky Mountain Chapter



Botanically, the Steamboat Springs region lies at a crossroads of several vegetation types. This makes it a great location for the NARGS Annual Meeting with opportunities for attendees to experience some of North America's iconic mountain habitats from steppe and foothills to alpine.

The region is located at the intersection of floral regions: the northern edge of the Southern Rockies, the eastern edge of the Great Basin, the western edge of the Great Plains. It includes both regional endemics and about 100 species of plants more common in the Northern Rockies and Pacific Northwest. It is one of the most interesting areas botanically in a very botanically rich state. One can see everything from steppe *Penstemon* and *Castilleja*, to *Rhododendron*, and alpinines in the same weekend.

We will be using the newly rebuilt Colorado Mountain College Campus, which offers spectacular views of the Yampa Valley, for the conference, and several local hotels/campgrounds for lodging. A potpourri of regional, national, and international speakers will cover various aspects of the world's steppes and semiarid mountain ranges with reference to the garden as well as the wild. A series of local garden tours, hikes to see Rocky Mountain flowers in the wild, plant sales, book sales, and book signings by local and nationally known authors will round out the conference.

PROGRAM

The schedule is designed to allow participants enough time to truly enjoy Northwest Colorado and use Denver as a transportation hub.

The start on a Wednesday and the ending of the conference on Monday is also designed to avoid the heavy traffic on I-70 Fridays and Sundays. Monday is the day Mike Kintgen's high elevation garden will be open 35 miles north of Steamboat Springs.

WEDNESDAY JUNE 22

4 pm Tour of Alpine collections at DBG with Mike Kintgen and staff, or tour the garden on your own.

6 pm Banquet at DBG by Tony Racconis

7 pm Opening lectures at DBG

Mike Kintgen - What makes Northwest Colorado so special?

Kenton Seth - Colorado Pop Hort: What's New, Old and Unique in Colorado

THURSDAY JUNE 23

8:30 am Optional van pick up at DBG, breakfast and lunch on your own

2-6 pm Registration in Steamboat Springs

5-6 pm Plant and book Sales

6-7 pm Barbeque catered

7 pm Awards

7.30-9.30 pm Lectures

Nick Courtens - Betty Ford Alpine Gardens

Johan Nilsson - Goteborg Botanic Garden

FRIDAY JUNE 24

Welcome breakfast and tours at Yampa River Botanic Park

10 am- 4 pm Private Garden tours Steamboat Springs

12-1pm Lunch on your own

1-3 pm NARGS AdCom meeting

3-5 pm NARGS Board meeting

4-6 pm Plant/Book Sales continue

4-6pm Book signing Kelly Norris/ Jim Locklear/ Mary O'Brien / Karen Vail/Steppe book authors

5-7 pm Dinner on your own

7-9 pm Lectures

Jim Locklear - Claude Barr

Kelly Norris - Modern day work in the American heartland

SATURDAY JUNE 25

Breakfast on your own

7.30 am Hikes leaving Steamboat Springs

7.30 am Van tour with Mike Kintgen to North Park

Boxed lunches included

Free evening to enjoy Steamboat, go to the Rodeo/Strings in the Mountains etc.

SUNDAY JUNE 26

Breakfast on your own

7.30 am Hikes leaving - Boxed lunch included

6pm Banquet

7-8 pm Closing lecture - Marcela Ferreyra - Patagonia

8-9 pm NARGS Annual Business meeting

Note: Returning to Denver on Sunday night is not recommended due to traffic on I-70

MONDAY JUNE 27

Breakfast on your own

North Routt County garden tour - Kintgen high elevation garden

A few choice areas of wildflowers in North Routt County

Some vans return to Denver, other vans go on to Wyoming for post-conference tour

TUESDAY JUNE 28

Remaining vans (if any) depart for Denver.

HIKES - 4 LEVELS

SATURDAY 25 AND SUNDAY 26

1. Very easy - either up in a gondola (small additional fee) to mid-mountain ski area or a self-led drive to see wildflowers
2. Easy - A shorter hike with moderate elevation gain at a more moderate elevation 7,000-9,000 feet above sea level
3. Medium - A longer hike with moderate elevation gain and possibly some stream crossing or steep sections 7,000- 10,000 feet above sea level
4. Difficult - longer hikes of up to 7 or 8 miles round trip with several thousand feet of elevation gain. Participants on these hikes should expect some snow on the trail and stream crossing. 8,000-11,000 feet.

Saturday 25 van tour

A trip in a van (places limited) to observe the rich and varied flora found in North Park. Expect a wide variety of steppe plants: *Eriogonum*, *Astragalus*, *Penstemon*, *Oxytropis*, and *Phacelia* along with some wetland/ fen and montane species. This trip is geared towards plant nerds that want to see a wide variety of plants in one day. No long hiking is involved and most sites will be along the road. There might be some short strenuous hiking to visit *Rhododendron albiflorum*.

Registration Form

We would prefer that you register through the NARGS website <www.nargs.org> but if you do not have computer access, please fill out this form, and send with a check payable to "RMC - NARGS."

**Mail to: Gesa Robeson, Conference Registrar
1648 Yosemite Street, Denver, CO 80220 USA**

You need to be a NARGS member to register (though you can join on this form or online if you are registering online). If more than one member of a household is registering for the meeting, please complete a registration form for each person, using the form on the reverse of this page for the extra person. If you will be accompanied by a guest who will not be attending the trips and programs, but wishes meals, again use the form on the reverse for the extra person.

Name: _____

Mailing address _____

City: _____ State /Prov.: _____ Postal/Zip code: _____

Country: _____ Email: _____

Phone: (_____) _____

Vegetarian _____ Yes / No Other special dietary requirements: _____

REGISTRATION (enter amount on the right)

Registration US\$360 (US\$375 after April 1, 2016)

includes Meal Package detailed on page 133 US\$ _____

One-year NARGS membership (if not a member)

US\$40 if resident in N. America; US\$45 if overseas US\$ _____

Guests - Guest Meal Package (detailed on page 133) US\$100 US\$ _____

Van ride from Denver to Steamboat Springs roundtrip - \$60
(\$30 if booking on Plantsman's Tour) US\$ _____

Dorm Accommodation \$60 per night US\$ _____

Hiking Options (circle one for each day):

Saturday 25th Very Easy - Easy - Medium - Difficult - Kintgen Van Tour

Sunday 26th Very Easy - Easy - Medium - Difficult

Do you need information about transportation from Denver Airport (DEN) to Denver Botanic Garden (DBG)? (Yes/No) _____

NOTE: Sorry, refunds after May 1 only in extraordinary circumstances.

Registration Form for ADDITIONAL individuals

Please fill in this page ONLY if you are registering an extra person.

We would prefer that you register through the NARGS website <www.nargs.org> but if you do not have computer access, please fill out this form, and send with a check payable to "RMC - NARGS."

**Mail to: Gesa Robeson, Conference Registrar
1648 Yosemite Street, Denver, CO 80220 USA**

You need to be a NARGS member to register (though you can join on this form or online if you are registering online).

Name of Additional individual: _____

Mailing address _____

City: _____ State /Prov.: _____ Postal/Zip code: _____

Country: _____ Email: _____

Phone: (_____) _____

Vegetarian _____ Yes / No Other special dietary requirements: _____

REGISTRATION (enter amount on the right)

Registration US\$360 (US\$375 after April 1, 2016)
includes Meal Package detailed on page 133 US\$ _____

One-year NARGS membership (if not a member)
US\$40 if resident in N. America; US\$45 if overseas US\$ _____

Guest Meal Package (detailed on page 133) US\$100 US\$ _____

Van ride from Denver to Steamboat Springs roundtrip - \$60
(\$30 if booking on Plantsman's Tour) US\$ _____

Dorm Accommodation \$60 per night US\$ _____

Hiking Options (circle one for each day):

Saturday 25th Very Easy - Easy - Medium - Difficult - Kintgen Van Tour

Sunday 26th Very Easy - Easy - Medium - Difficult

Do you need information about transportation from Denver Airport (DEN) to Denver Botanic Garden (DBG)? (Yes/No) _____

NOTE: Sorry, refunds after May 1 only in extraordinary circumstances.

ACCOMMODATION

HOTELS

The committee recommends the following hotels in Steamboat Springs.

Rabbit Ears Motel - rate of \$139

(970) 879-1150

<www.rabbitearsmotel.com>

Nordic Lodge - rate of \$149

(970) 879-0531

<www.nordiclodgeofsteamboat.com>

Hotel reservations must be made directly with the Rabbit Ears Motel or Nordic Lodge via phone or online. Mention you are with the NARGS Conference. Those wishing to use the dorms will register on the registration form.

REGISTRATION AND MEALS

You must be a member of NARGS to register and if you are registering online you must be logged in. If you do not have computer access you can fill in the form on page 131 (and the one on page 132 if you need it) and send with a check.

The Conference registration fee (US\$360 until March 31, US\$375 thereafter) includes all programs, hikes, and Meal Package.

CANCELLATION

There is a \$25 cancellation fee until May 1, 2016. After that no refunds except in exceptional circumstances, sorry.

MEAL PACKAGE

The Meal Package consists of reception Wednesday at DBG, evening reception Thursday, and Sunday night banquet; also breakfast Friday, and boxed lunches Saturday and Sunday. Guests may have a Guest Meal Package consisting of reception Wednesday at DBG, evening reception Thursday, and Sunday night banquet, for a fee of \$100.

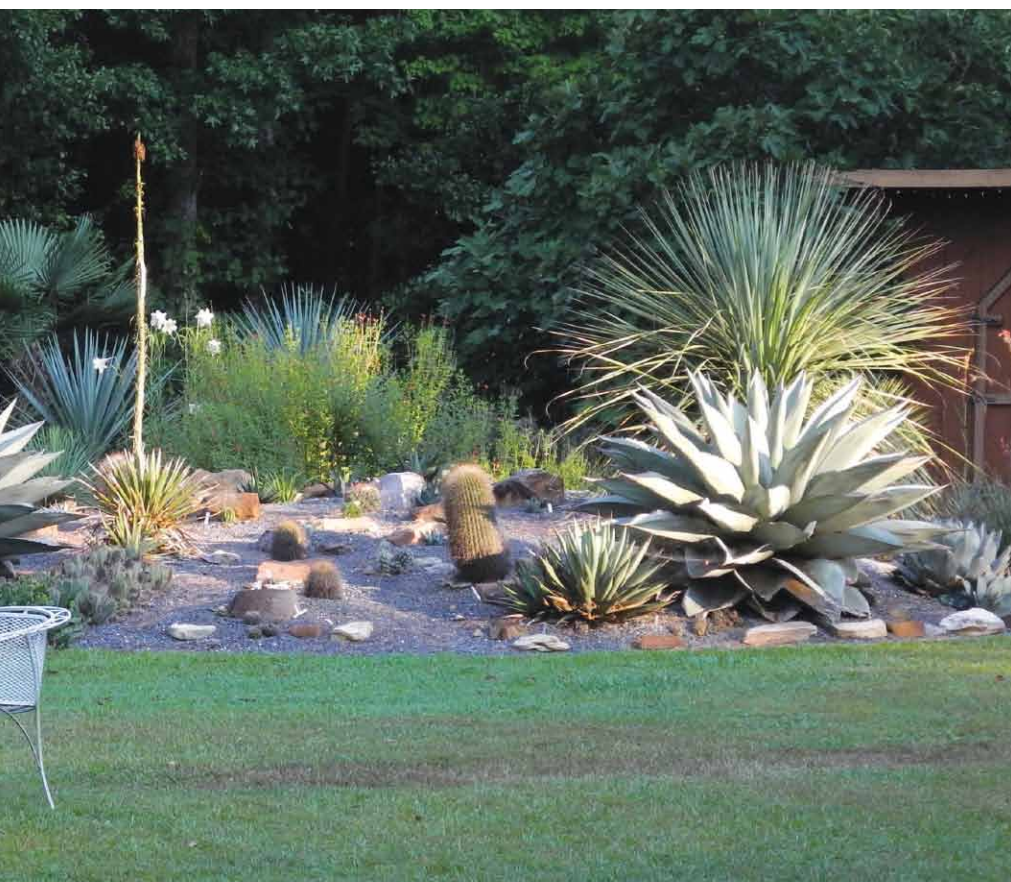
GROUND TRANSPORTATION TO AND FROM STEAMBOAT SPRINGS

If you don't wish to rent a car then you don't have to. Vans will travel from Denver on June 23rd and return on the 27th or 28th. The cost for the round trip is \$60 per person.

For any questions contact Mike Kintgen at
<KintgenM@botanicgardens.org>

Agave ovatifolia in the foreground with cacti,
Nolina, *Agave*, and *Yucca* in the background





A Garden of Agaves in North Carolina

MIKE PAPAY

ONE SUMMER AFTERNOON, my doorbell rang, and to my astonishment a reporter from Fox News asked me outside for an interview. She wanted to talk about my garden. With a camera following my every move I felt a growing sense of apprehension, but to my relief the reporter's beauty was matched by her intellect, and she proffered the right questions in a kindly way to which I found easy answers. In just a few moments the crew grew disinterested, the questions ceased, the camera went down, and I found myself being thanked by my interlocutor. So that was that. Then one evening a few days later the phone rang and a neighbor told me she'd just seen me on Fox Evening News! "What in the world?"

It turned out that it was the very large and handsome *Agave americana* adorning the front of the house that had caught the eye of the Fox News team. It was *exactly* what they needed. I realize now that they could have filmed the whole thing without my being there, but they were considerate enough to ask me in front of the camera. And so that is how my huge and handsome *Agave americana* came to be paraded on television as living proof of global warming. How else could such a strikingly “tropical” plant be grown so well in Apex, North Carolina? Little credit mind you to the slightly nasal-voiced odd little gardener who knew well enough to grow the plant near the south-facing wall where every ray of sunlight and all its heat would be garnered. Well, we had our moment of fame, and for this I am grateful. My garden was catching the public’s eye.

Most gardens have their origins in inspiration, and mine owes a continuing debt to Tony Avent of Plant Delights Nursery. The breadth of Tony Avent’s botanical obsessions seems boundless. If you are excited about a particular plant (or plant Family), you are not only likely to find that Tony is a fellow aficionado, but probably is a prime conspirator

Agave ovatifolia and *Yucca rostrata* x *rigida*





Agave ovatifolia and *Yucca rostrata* x *rigida* with a group of flowering *Gymnocalycium gibbosum* x *baldianum* in the foreground

who's leading the pack - or is egging the leader on. I thus found my interests in cacti and agaves guided, widened, and nurtured. As I explored the literature of horticulture, my enthusiasm grew – as did my garden.

You may think, that like the Grinch's heart, my head grew three sizes that Fox News day, and my Aunt Nancy might think you were right. As she generously drove us from one garden to another in Miami whilst Julie and I were on vacation, my Aunt stopped the car at a busy intersection where she was craning her neck to get a look at the traffic. Then she blurted out, "I might be able to see something if you'd get your big ol' Charlie Brown head out of the way." I dutifully slouched into my seat and got said head out of the way. You know, I think it has been right ever since. (Aunt Nancy was only having fun with me. We laughed and laughed deep belly laughs as we motored through the intersection). The Fox News experience roused in me a sneaking suspicion that my garden designs might possibly be going in the right



direction. I began to look around for further inspiration so that I could look ahead.

To my great fortune, my friend Ray Longhurst (of St. Newlyn East, Cornwall) suggested that Tresco Abbey Garden in the Isles of Scilly should be at the top of the list of great gardens to see in the United Kingdom. My blessed wife arranged us a visit despite my protestations about all the bother and expense. As usual, she and Ray were absolutely right. Tresco Abbey Garden just blew me down. For two hours we immersed ourselves in one stunning vista after another. You stand at the entrance to the gardens stunned by the magnificent view. You walk ahead, turn a bit, and find yourself stunned by another exquisitely



Agave ovatifolia, *Nolina durangensis* with arching green leaves, and *N. nelsonii* with rigid blue-gray leaves. To the left of the central large *A. ovatifolia* is *A. gracilipes* and to the right *A. parryi* subsp. *huachuensis*

designed view. And this goes on and on repeating itself for two hours, until you are glad to sit down for a bit of tea at the garden café and gather your wits about you. The Tresco Garden experience taught me the importance of planning dramatic long views requiring many years of growth to achieve full effect. With brilliant insight, Tresco's owners have planned the views *decades* ahead, and keep to this golden standard. Dear reader, I do not imply that my garden in any way even remotely hints of the magnificence at Tresco Abbey Garden, but what decent

views my garden might have owe their existence to that inspiring day. Well, that, and to Peter Seabrook.

You may not hear much about Peter Seabrook these days, but I tell you that in his many years as Foreign Correspondent for the Public Broadcasting Service (PBS) television show "The Victory Garden" Peter Seabrook was worth his weight in gold. Besides his impeccable dress, British charm, good form, and keen intelligence, Mr. Seabrook helped viewers understand the little things that made the landscapes he was touring "just so." One of the things he said stuck with me. His words were probably better chosen, but what I remember is "Every garden needs a nice bit of lawn to set it off." A bit of lawn does give clarity to



the landscape, a place to look, and a place to amble and contemplate. Thank you, Mr. Seabrook, for the invaluable insight.

In 2008, Julie and I moved west in North Carolina from the burgeoning town of Apex to the rural expanse of New Hill. My momentarily famous *Agave americana* is now a memory, and other plants now strut their stuff. Tony Avent keeps churning out amazing new things from Plant Delights Nursery, and the memories and images of Tresco Abbey Garden continue to inspire. Fox News is unlikely to track me down in woodsy New Hill, so I am left to my research of horticultural literature in comparative calm and quiet.

Agave ovatifolia, group of *Yucca linearifolia*, and *Sabal etonia* (foreground right)





Dolomites: a view towards Rifugio Auronzo
at Tre Cime di Lavaredo

Six European Treasures

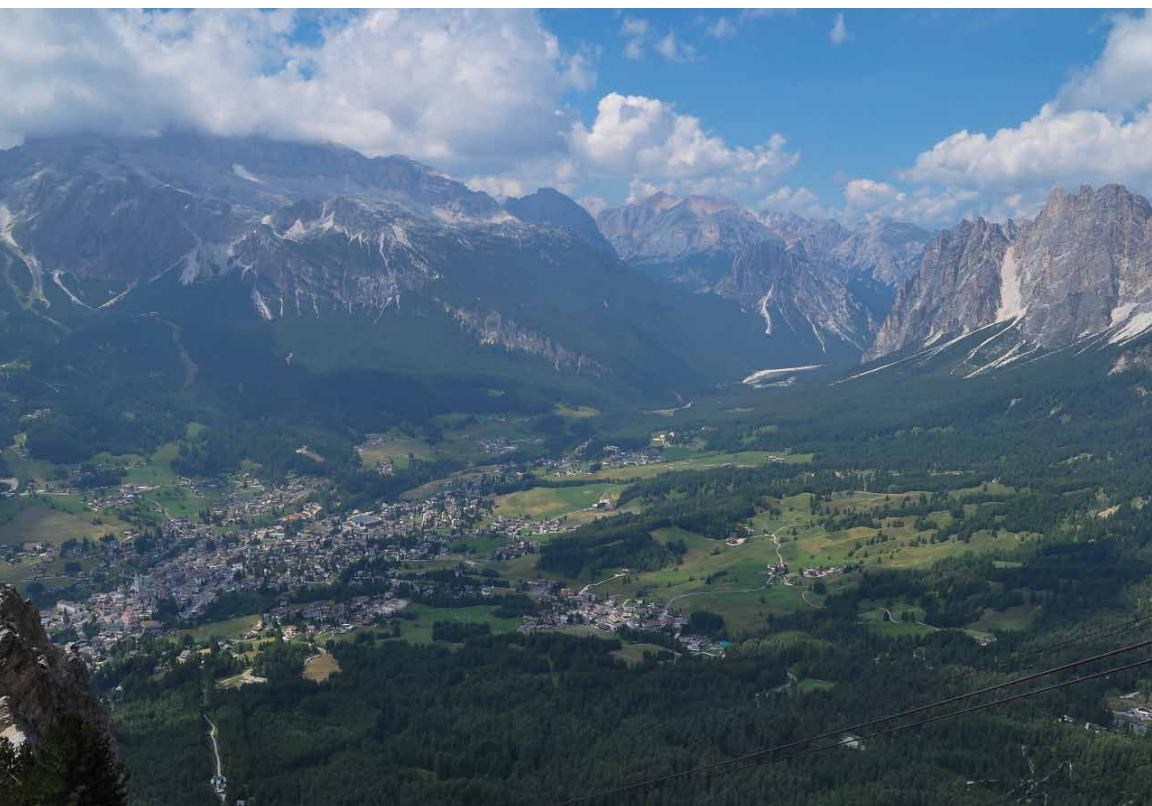
HARRY JANS

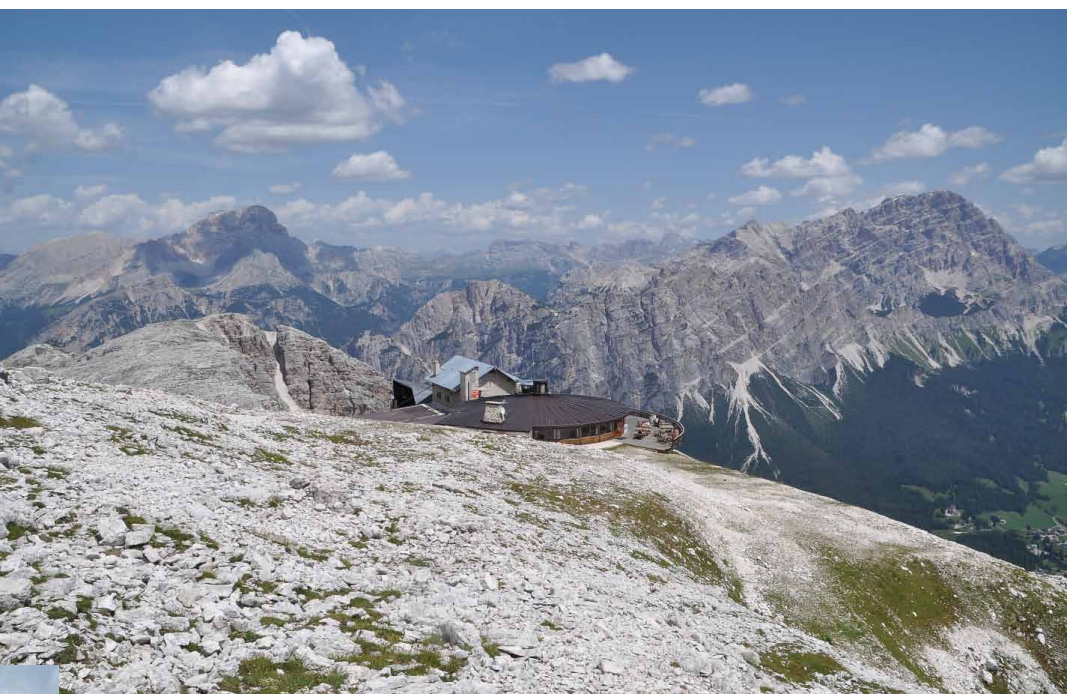
I WOULD LIKE to highlight a few of the best alpiners I have seen on a holiday during the last ten days of July in Italy and Slovenia. Normally the best time to visit the European Alps would be from the middle of June to the middle of July. At that time you are able to see many of the best, and certainly the most, plants in flower, but if you are a bit later you will see plants which always flower late in the season.

During most of my visits to the Alps I was always too early for a few specialties I wanted to see in full flower. So my wife and I decided to go this time on holiday much later. Of course, it all depends on the weather, but some of the plants mentioned below are usually in better flower condition around the first or second week in August. But not in July 2015. We were lucky to find them in perfect condition.

First we drove to Cortina d'Ampezzo in Italy, in the center of the famous and spectacular Dolomites. We based ourselves on a campsite just out of Cortina. From here we started our daily botanical trips. Some of them started after just 10 minutes drive from the campsite to the first cable car. For others, like visiting the impressive Tre Cime de Lavaredo or Drei Zinnen it took us 40 minutes by car.

A view of Cortina d'Ampezzo in the Dolomites,
from the cable car to Ra Valles





Ra Valles cable car (below) and the cable car station at Ra Valles (above) at (2472 m/8110 feet)



After the Dolomites we moved on to Slovenia to explore the mountains around Mount Triglav in the west of the country, the highest mountain in that area. So, which six treasures in Italy and Slovenia did we see?

Papaver alpinum subsp. *rhaeticum*

One of the most beautiful members of the European poppies, this grows mainly in limestone scree conditions, on rocky slopes and among boulders. The pure deep-yellow flowers, on 10-15 cm (4-6 inch) hairy stems are very attractive. It doesn't make very large clumps, but sometimes the plants can have up to 30 flowers although most likely you will find smaller plants. They are usually not long-lived in gardens and it is best to keep propagating by seed, which is not too difficult.

Papaver alpinum subsp. *rhaeticum* above Ra Valles,
below at 2615 m (8580 feet) and oppsite at 2520m (8270 feet), Dolomites







Potentilla nitida

If someone is looking for a compact *Potentilla* this is the one you need. The best plants are to be found in the Dolomites and limestone rocks where they can form large compact mats. The flowers can be stemless and are most of the time pale pink, but on some occasions you will find very deep pink and even white forms. This has the reputation of being shy flowering in cultivation, but there are some good forms that will flower well. I have a form, in my garden, that is very compact, flowers well every year, and even seeds itself on the large tufa rock it is growing on. I planted it many years ago in a 2.5 cm (1 inch) hole. For me, in the Netherlands, the best place for it in the garden is in full sun.

Potentilla nitida above Cortina, Ra Valles (opposite and below)
at 2500 m (8200 feet, Dolomites)







Campanula morettiana (above and below) and with *Physoplexis comosa* (opposite), Val Travenanzes (Passo Falzarego), 2115 m (6940 feet), Dolomites

Campanula morettiana

For me, this is one of the best campanulas but for the alpine house and tufa wall rather than the ordinary rock garden. It is a late-flowering species from a very limited area in the Dolomites. In the summer of 2015 they were in flower in the last week of July, but normally it flowers much later. I have even seen plants in flower in the end of August and beginning of September.

It grows mainly in shady limestone rock crevices and can form large dense plants with tiny hairy leaves.

If you grow them in a pot, then division is a method of propagation. Otherwise seeds are the best way to propagate them. Unfortunately seed set is not very good in cultivation. That is at least my personal experience. If you grow it in a pot use well-drained limestone mixture with, if possible, some chunks of tufa in it.

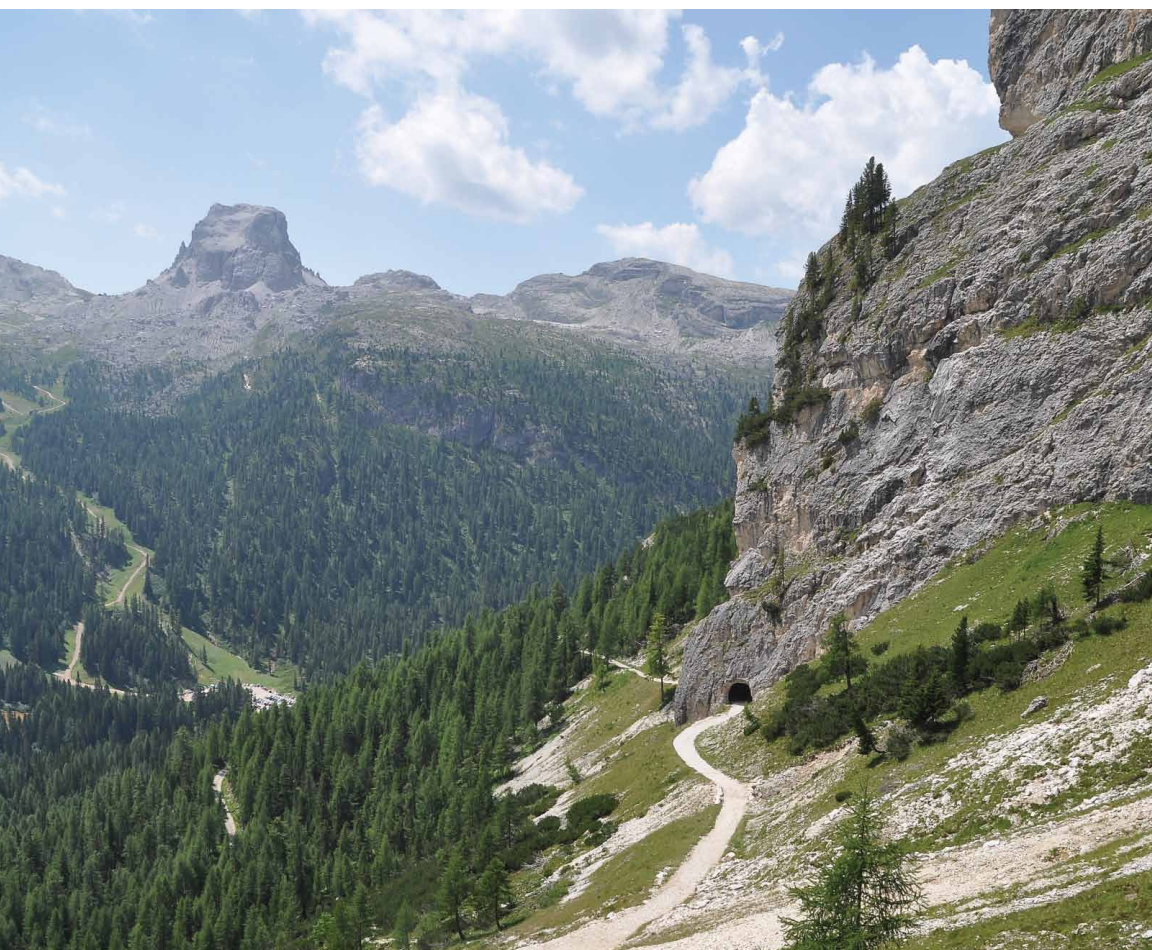




Physoplexis comosa

If I had to choose only one plant which is more or less endemic to the Dolomites it would be *Physoplexis comosa*. Here it is photographed at Val Travenanzes (Passo Falzarego) at 2115m (6940 feet).

Again a species which has a late-flowering season, it always grows in vertical limestone crevices sometimes in full sun, but also in half shady positions. Some of the plants start with almost white flowers, which approach pink later.



Physoplexis comosa (opposite), Val Travenanzes (Passo Falzarego - below)
habitat of both this species and *Campanula morettiana*, Dolomites

In my garden it is an easy plant and is very happy in tufa rock. About 20 years ago I planted several young plants in my tufa wall and now the whole wall is full of *Physoplexis* all growing as spontaneous seedlings. In the wild I have seen small dark brown butterflies pollinating the flowers, but in my garden small bumblebees do the trick and seed is set regularly. If you grow these plants from seed, leave them in the seed pot for two years and then transplant them into single pots with crushed limestone chippings.



The Dolomites near Tre Cime di Lavaredo (Drei Zinnen)



Campanula zoysii (below and opposite), Vogel Ski Center,
1790m (5870 feet), Julian Alps, Slovenia



Campanula zoysii

At first you might think that this is not a campanula at all. It certainly does not have the typical cup-, vase-, or urn-shaped flowers.

It is endemic to the Julian Alps in Slovenia where it grows in limestone crevices. It doesn't like full sun exposure or very dry positions. In some places you can find it at a low altitude, but the best plants can be found above 1750m (5870 feet). It can vary in colour from pale to deep blue. There was a whitish form in cultivation under the name 'Lismore Ice' but I am not sure if it is still around as it is a very slow grower and not so easy as the species. Plants in cultivation flower well but most of the time they die after that.

Campanula zoysii should be propagated by division, cuttings, or by seed, which in my garden is seldom set.





Saxifraga squarrosa (below and opposite), near Rifugio Tondi (2335 m/7660 feet) above Cortina d'Ampezzo, Dolomites, Italy



Saxifraga squarrosa

A super cushion plant that can be found in the southeastern Alps in Italy, Austria, and Slovenia. The hard cushions of tiny rosettes grow mainly in limestone rock crevices. It looks very similar to *Saxifraga caesia* which has a wider distribution range and grows in many occasions very close to *S. squarrosa*, but the rosettes are just a little bit larger so sometimes it is difficult to see the difference between the two. Both plants are possible to grow in cultivation. *Saxifraga caesia* is a bit easier, but also *S. squarrosa* is possible, even for many years. The best spot is in a large tufa rock which is out of direct sunlight from noon onwards. If you have excess seeds, just sprinkle them over tufa rock. You have to be patient but a few small plants should show themselves in a few years

For me, these are the six best alpines seen on our short trip. Of course there was much more. If you are interested then have a look at my website at www.jansalpines.com at *My Images, Gallery*.

For details of Harry's tour to Lesotho see his advertisement on page 185.



Bookshelf

SANDY LEVEN

Steppes

The plants and ecology of the world's semi-arid regions

Michael Bone, Dan Johnson, Panayoti Kelaidis, Mike Kintgen, and Larry G. Vickerman
2015

ISBN-13: 9781604694659

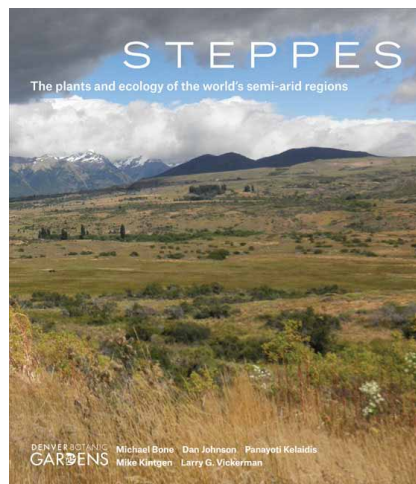
Hardcover: 360 pages, 380 color photos
8½ x 10 inches.

\$49.95, £35.00

THE AUTHORS OF this beautifully illustrated book are senior staff members at Denver Botanic Gardens which is renowned for its work in studying plants from areas with similar growing conditions and introducing them to cultivation. The authors define “steppe” in considerable detail and, simply I conclude, that it is continental grassland or scrubland, sitting in a rain-shadow which is subject to great variations in temperature. Denver itself sits centrally in the American steppe. Thus we have 4 steppe regions of the world. Each region is treated in turn.

Starting with an overview by Panayoti Kelaidis, the geography and plant families of each steppe region are described by one of the authors. The

Central Asian Steppe (mostly southern Russia, Kazakhstan & Mongolia) is by Michael Bone; Central North American Steppe (the Great Plains) is by Larry G. Vickerman; Intermountain North American Steppe (the Great Basin and the Colorado and Columbia Plateaux) is by Dan Johnson; Patagonian Steppe (the eastern slopes of the southern Andes and Patagonia) is by Mike Kintgen and the South African Steppe (much of the northern Karoo and the Free State) is by Panayoti Kelaidis. The authors explain the similarities in climate, soils, and ecology shared by the various steppes but the many differences are not overlooked. In each section there is



first an overview of the climate and geology followed by an alphabetical list of its plant families.

The book it is not a Flora. Several plant families are represented in all regions. Certain species in each family are picked out as examples, as is their suitability as garden plants. The many similarities in climate, landscape and floral families are explained. Indeed, most of the landscape pictures could be from any continent.

Most plants have been photographed in the wild, whilst some others are in cultivation, many in Colorado gardens. The splendid pictures of delospermas must entice every Coloradan to grow some of these South African treasures. I was delighted, as a resident Scot, to see that *Helichrysum ecklonis* was photographed in Royal Botanic Garden Edinburgh, Scotland. That this gem from the South African steppe can thrive far from its home is proof of the adaptability of steppe plants. Flowering times are not given and would have been helpful to the travelling photographer.

Great emphasis is laid on the importance of the interaction between plants and people. Human development started on open grassland steppe. The plants which evolved there adapted to the conditions and in turn have shaped the land. Grasses are key to these lands. The herds of animals which grazed them were hunted for food. Most of our root and cereal crops are developed from the wild plants and grasses of the Eurasian steppe. As the world becomes ever more crowded more Steppe is being cultivated and developed for mining and fracking.

The landscape pictures emphasize the startling beauty of wide open spaces as well as showing how different they can be.

This book is a pleasure to read. It guides the gardener in a knowledgeable but gentle fashion through several disciplines. The photographs are great at capturing the wide open spaces which are home to many excellent plants and the quite square format helps emphasize the broad horizons. The close-ups are razor sharp. The authors have collected and assimilated much scientific, technical, geographic and botanical data and distilled it into easily accessible drams of information.

If you garden in the middle of North America, this book is a must. For the rest of us it is very enjoyable and thought provoking. Where else do you find rock garden plants and Genghis Khan side by side?

Now that I've read this book I am tempted to revisit Denver, at the center of the American steppes; I'd come with a sharpened perspective. And Russia, Patagonia, and South Africa have all moved up my list of places to visit.

P.S. Buy and read this book before the NARGS 2016 Conference in Steamboat Springs. You will get so much more from what you see, and three of the authors are scheduled to speak at the meeting and are leading some of the walks and tours associated with it. *Sandy Leven*

Another review (by Arle Kruckeberg) can be found on the NARGS website at: www.nargs.org/book-of-the-month/jan-2016

An Entanglement in Agave Taxonomics

MICHAEL PAPAY

A Few Introductory Comments

I HAVE FOR some time been working on a book (*Splendor in Spines*) and the article which follows, which is largely excerpted from that, provides information about Prince Joseph and his German realm.

In 1842, Friedrich Otto, the Director of the Berlin Botanic Garden, named *Agave salmiana* for His Highness the Prince of Salm-Reifferscheid-Dyck.¹ Otto had included the name when he listed novel plants growing in the Prince's gardens. To solidify the plant's name in science, however, a formal description was needed, which the Prince gave himself in 1859, just two years before his death.² When he put his name to paper, however, the prince abbreviated it slightly as "His Highness the Prince of Salm-Dyck." As it turns out, this slight clipping of the name was actually the end of a set of already monumental abbreviations.

The county in Germany historically known as Salm-Reifferscheid-Dyck had once been a part of the Holy Roman Empire. The person in charge of that realm had the royal and magisterial title, Imperial Prince of Salm, Duke of Hoogstraten Forest, Count of Dhaun and Kyrburg, Rhine Count of Stein, Lord of Diemeringen and Anholt.³ The man who held this title – and for whom *Agave salmiana* was named – was Joseph Franz Maria Anton Hubert Ignatz Furst zu (1773-1861). Not surprisingly, this was often shortened to Prince Joseph. However, when Howard Scott Gentry happened to make reference to the Prince of Salm-Dyck whilst recording a neotype for *Agave scabra*, he included the abbreviation J.F.M.A.H.I.F.,⁴ which piqued my curiosity and led me to discover the rest of the story.

1 Friedrich Otto, 1842, *Allgemeine Garten-Zeitung* 10: 51

2 Prince Salm-Dyck, 1859, *Bonplandia* 7: 88

3 Wikipedia

4 JUSTOR.org <<http://plants.jstor.org/stable/10.5555/al.ap.person.k36644>>

The Entanglement

SOME OF US spend our lives hoping to achieve a lasting mark of importance. Just recently, I thought my time had come. I had discovered something amiss in the obscure world of *Agave* taxonomy. The man who wrote the modern monograph on this taxonomy, was Howard Scott Gentry. In his great book, *Agaves of Continental North America* (1982), Gentry asserted that *Agave scabra* (1859) had priority of publication over *A. asperrima* (1864) and that *A. scabra* was therefore the accepted name. However, in 1992, just months before Gentry was laid forever to rest, Bernd Ullrich reversed the decision, and asserted that *A. asperrima* was the correct name. All of this I learned in 2015. I could not get over how Ullrich had omitted the original account by Prince Joseph in 1859. Thus began hours and days researching original documents and translating them from Latin and German to English. Everything pointed to the Prince's description being right. The telling of it would make a good story, so I wrote it down. The exhilaration I felt was as almost as if I were at a football match, was waved in from the stands to participate, and was making a real difference.

Howard Scott Gentry wrote, "*Agave scabra*, next to *Agave lechuguilla*, is the most widely spread and abundant *Agave* in the Chihuahuan Desert of Northern Mexico. It is unusual among wild agaves in that it inhabits the broad valleys and plains as well as the stony slopes of mountains."¹ With such a vast distribution, *Agave scabra* displays a good bit of variation in form and climate tolerance. Its wildlings, seedlings, and hybrids could keep an agave aficionado busy for much of a lifetime.

The curious story of *Agave scabra* begins in 1846 when Doctor Friedrich Adolf Wislizenus undertook a "personal" scientific excursion into northern Mexico. The U.S.-Mexico War loomed on the horizon, and into this oncoming storm Wislizenus set forth, presumably unaware of the approaching dangers, though I am not so sure.² He wrote in his Memoir, "*In the spring of 1846, I left St. Louis, Missouri, with the intention of making a tour through Northern Mexico and Upper California, and of*

1. Gentry, 1982, *Agaves of Continental North America*

2. Before Wislizenus set out on this adventure, he was most assuredly in contact with Dr. George Engelmann of St. Louis, Missouri. Dr. Engelmann kept regular contact with the U.S. Government regarding military expeditions within the country, as botanists were frequently part of said expeditions. Wislizenus also had a history of cavalier activities in Prussia, and I have a sneaking suspicion that he would have relished the chance to be a spy - if indeed that was what was intended with his "personal" expedition. It would go a long way to explain why Colonel Doniphan retrieved a foreign doctor posing as a scientist behind enemy lines.

returning in the fall of the next year. The principal object of my expedition was scientific. I desired to examine the geography, natural history, and statistics of that country...."³ In May of 1847 Dr. Wislizenus found himself near Mapimi, Mexico, an area pertinent to our story, but circumstances had earlier intervened and delayed this arrival. War had broken out between the United States and Mexico.

Whilst this war raged on in the surrounding countryside of Chihuahua, Wislizenus decided to have some of his guns fired and cleaned. This so enraged the anxious populace of Chihuahua that they wanted to dispatch with the brazen foreigner, but Governor Armijo intervened and civilly applied the law, whereupon Wislizenus was arrested and detained, thereby very likely saving his life. This was on August 29th, 1846. On April 5th, 1847 Colonel Doniphan was in Chihuahua, and Wislizenus was able to attach himself to the Colonel's Corps in the capacity of a surgeon. His confinement over, Wislizenus continued his observations and collections. When at last he arrived back in St. Louis, Wislizenus entrusted the bulk of the plant material to Doctor George Engelmann, presumably with any accompanying notes.

Eleven years later (1859), Prince Joseph of Salm-Dyck published the description of *Agave scabra*, and stated, "*This plant, which grows in Chihuahua has risen in our garden from seed, which Dr. Wislizenus sent to Germany...*"⁴ The Prince died two years later (1861) and was unavailable for council or comment when General Jacobi published his description of *Agave asperrima* (1864). According to information given by General Jacobi, his plant originated from the Munich Garden where it was grown from seed sent there by Ferdinand Lindheimer, the seed of which came from Texas or maybe even the Rocky Mountains.⁵ Even the title of General Jacobi's description states the source, "*Agave asperrima. Nob. e Horto. Monac. von Lindheimer als sp. e Talmit.*" It is clear that Prince Joseph and General Jacobi had plants from different sources. Too, the Prince's plants had leaves 5 inches long ("*Blätter die nur 5 Zoll lang*"),⁶ and Jacobi's plants had leaves a foot long ("*Blätter ... fußlang*").⁷

3. Wislizenus, 1848, Memoir of a Tour of Northern Mexico in 1846 and 1847

4. Prince Salm-Dyck, 1849, *Agave scabra*, Bonplandia 7:89 ("*Diese Planze, welche bei Chihuahua wachst und in unseren Garten von Samen aufgegangen ist, welchen Dr. Wislizenus nach Deutschland geschickt hatte...*")

5. Jacobi, 1864, *Agave asperrima*, Hamburger Garten und Blumenzeitung 20:561 ("*Die Pflanze stammt aus dem Münchener Garten, wo sie unter der Benennung spec. e Talmit aus Samen gezogen war, welchen Herr Lindheimer dorthin gesandt hatte. Ganz bestimmte Angaben über ihr Vaterland haben mir nicht erlangen können, doch vermutet Herr von Martius, dass Lindheimer den Samen derselben mit einer Sendung geschickt habe, welche aus Texas oder vielleicht auch aus Regionen westlich der Rocky Mountains stammt.*")

6. Prince Salm-Dyck, 1849, *Agave scabra*, Bonplandia 7:89

7. Jacobi, 1864, *Agave asperrima*, Hamburger Garten und Blumenzeitung 20:561

Nevertheless, 26 years after the Prince described *Agave scabra*, Dr. Engelmann described *Agave wislizeni* as its substitute, stating “Living plants were sent by me to Prince Salm, and seeds to different European correspondents, among others to Prof. A. Braun of Freiburg. Two years later, Gen. v. Jacobi obtained some of the young plants raised from these seeds in the botanic garden of that university and afterwards communicated them to Prince Salm...the General expressly states, they are perfectly smooth on both sides...”⁸

Engelmann assumed that the plants that Jacobi had sent to the Prince were the ones that the Prince had used to describe *Agave scabra*, but the Prince explicitly stated that his plants grew in his garden from seed sent by Wislizenus.⁹ In 1865, Doctor Karl Koch said of the Prince, “The roughness of the leaves must have been very noticeable to him, for he gave this species the name “rough agave” (*A. scabra*) because of this characteristic. And if he really had made an error, he would surely not insist on this error and not say the truth.”¹⁰ Still thinking that the Prince had used Jacobi’s smooth-leaved plants to describe *Agave scabra*, Dr. Engelmann pronounced *Agave scabra* as inappropriate, and described the smooth-leaved *Agave wislizeni* as its substitute, which it is not.

But where exactly in Mexico did Wislizenus collect the seeds that he later sent to the Prince? Dr. Engelmann was under the impression that the seed was from the same collection from which he himself sent plants to the Prince and seeds to Professor Braun. If this was the case, Engelmann wrote, “This interesting species [*Agave wislizeni*] was discovered by Dr. A. Wislizenus on the celebrated march of Doniphan’s corps through Northern Mexico, on the Nazas River near San Sebastiano, in the southeast corner of the State of Chihuahua, not far east of Parras, May 10, 1847, in flr. and fr.”¹¹ When we come to the section of Wislizenus’ account regarding his time between Mapimi and Parras (May 10th - 14th, 1847) the only thing he noted (to my horror) having collected (May 13th) was the skull of a native Lipan medicine man killed earlier in the day by the troops who ambushed the Lipans at a hacienda named El Pozo (the well).¹² In the entirety of his Memoir, Wislizenus made no mention of collecting agave seeds or plants.

8. Engelmann, 1875, *Agave wislizenii*, Transactions of the Academy of Science of St. Louis 3:320-321

9. Prince Salm-Dyck, 1849, *Agave scabra*, *Bonplandia* 7:89

10. Koch, 1865, *Agaveen-Studien*, *Wochenschrift Gartnerei Pflanzenkunde* 8(24):186 (“Die Rauigkeit der Blätter muss ihm im Gegentheil sehr aufgefallen sein, denn er gab nach diesem Merkmale der Art den Namen der rauhen Agave (*agave scabra*). Und hatte er sich wirklich bei seinen ersten Angaben über die Pflanze geirrt, so würde er doch nicht auf meine spezielle Anfrage absichtlich auf seinem Irrthum beharrt und eine Unwahrheit gesagt haben.”)

11. Engelmann, 1875, *Agave wislizenii*, Transactions of the Academy of Science of St. Louis 3:320-321

12. Wislizenus, 1848, *A Memoir of a Tour of Northern Mexico in 1846 and 1847*

Perhaps not surprisingly, it was the great explorer and botanist, Howard Scott Gentry, who took up the challenge of retracing the section of Wislizenus' journey relevant to our story. Gentry wrote, "In the spring of 1973, I took the opportunity to investigate the agaves growing about the lower Rio Nazas and the old Hacienda San Sebastian. During the 126 years after Wislizenus, the country has been much changed by man's increase and industry. There are no agaves about the ruins of the Hacienda San Sebastian. All the flat land about there for 8 to 15 miles is occupied by intensive agriculture and outlying industries of the cities of Torreon and Gomez Palacio. On the chance that Wislizenus may have collected his seeds on the way from Mapimi to San Sebastian, I checked the old mule trails coming down the eastern bajadas of the Sierra Sarnosa. Along the eastern base of this limestone range, about ten miles west of San Sebastian, there is a fine stand of what has been long recognized as *Agave asperima Jacobi*. Some of these plants follow the rocky bajadas to the borders of the cleared farm lands. This is a widespread variable species in the Chihuahuan Desert and the only paniculate *Agave* I located near San Sebastian and the lower Rio Nazas. Wislizenus rode through this area on May 10, 1847, the day he reached San Sebastian (Wislizenus, 1848, p.68). These plants all have scabrous leaves and down-flexed teeth as described by Salm from his young specimens (11-12 years old). *A. scabra* Salm (1859) has priority over *A. asperima Jacobi* (1864) and, according to my interpretations, should replace the latter in usage."¹³ Gentry stated, "According to the rules of nomenclature (1966)... a name cannot be rejected because it is not appropriate or is disliked. The rule of priority is pro facto and requires first name recognition and use."¹⁴

The problem of two species (*Agave scabra* and *Agave wislizeni*) arising from the same collection puzzled Gentry. He then had an inspiring thought. When an agave flowers, its leaves wither and dry almost beyond recognition. Too, from an agave stalk "It is not hard to pull off a few capsules and put them in a saddle bag as a man rides along horseback to Parras. He [Wislizenus] may have considered the two collections as of one species and had no time or energy to make a note of it. How or why he did it is now speculation, but subsequent events strongly indicate that he did."¹⁵ Gentry's investigation was fruitful. Besides locating a stand of *Agave scabra* ten miles west of San Sebastian, he later found *A. wislizeni* "a few miles east of Parras, which is not far from the trail Wislizenus followed."¹⁶ By the way, per Gentry (1982), *A. wislizeni* is now known as *A. parrasana*.

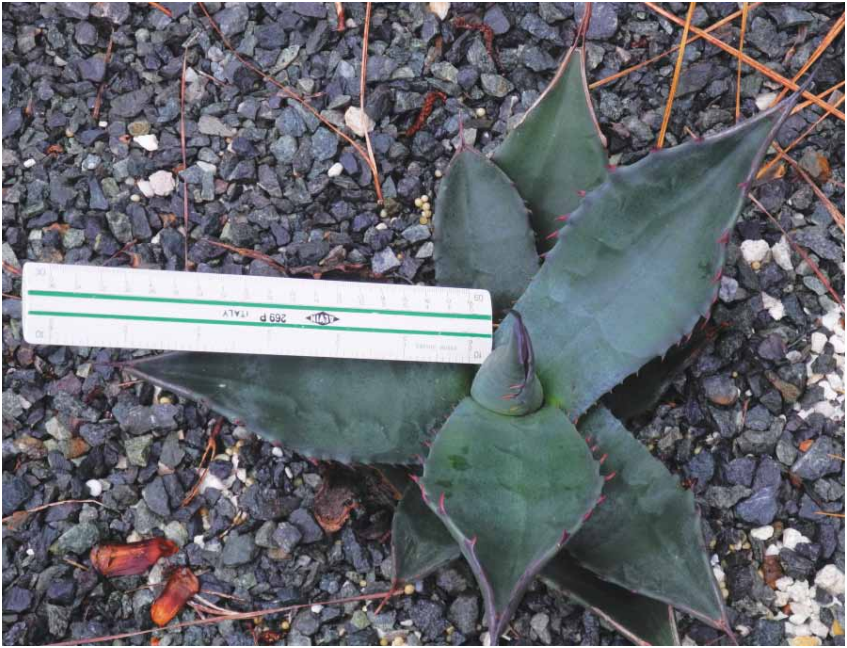
Our story is nearly at its end, with but one further piece of evidence to add. In my collection are diminutive plants of *Agave scabra* that match

13. Gentry, 1975, *The Case of Agave scabra and Agave wislizenii*, *Cactus & Succulent Journal* (US) 47:102

14. *Ibid.*

15. *Ibid*

16. *Ibid*



Two specimens of *Agave asperrima*, Baluarte, Mexico, with 6-inch Engineer's Scale, author's garden. By the way, Baluarte, Mexico is, according to Wikipedia, where the highest cable-stayed bridge in the world fairly flies 1,322 feet above the Baluarte River. Drive the highway from Durango to Mazatlán. Just don't look down.





Another specimen of *Agave asperima*, Baluarte, Mexico, with 6-inch Engineer's Scale, author's garden.

the Prince's original description of the species. My plants sprouted from seeds purchased in 2013 from Mesa Garden as "*Agave scabra*, Baluarte, Mexico." Many of the young plants have leaves only five inches long (excluding the terminal spine). They have leaves of dark matte green with a blue haze, many plants have scabrous leaves, but with age some plants produced smoother leaves as per *Agave scabra* subspecies *maderensis*.¹⁷ All in all it appears the Prince was a little bit unlucky. You see, his plants of *Agave scabra* were small, and for 156 years no one else reported seeing such small plants of *Agave scabra* – until now.

I had seemingly scored a goal! Suddenly the referee blew his whistle, the lights in the stadium were lit, and I discovered myself playing the

17. Gentry, 1982, *Agaves of Continental North America*

best game of my life ... entirely out of bounds. You see, Tony Avent of Plant Delights Nursery had just emailed me with Fritz Hochstatter's recent publication (2015) on the genus *Manfreda*.¹⁸ After a few minutes perusing its pages I came across the account of *Manfreda scabra*. To my dismay, I learned it was originally published as *Agave scabra* in 1797, by Casimiro Gomez Ortega. That was 62 years before Prince Joseph's publication. Ortega was "spot on" as they say, when he placed his plant in the genus *Agave*, for that is where it belonged in the taxonomic scheme of his time. The genus *Manfreda* was named 69 years later (1866) by Richard Anthony Salisbury, for *Agave* relatives with particular floral features. Ortega's *Agave scabra* then became *Manfreda scabra*.¹⁹

Prince Joseph was unaware of Ortega's publication, and so were General Jacobi, Howard Scott Gentry and Bernd Ullrich. Alas, by priority of publication, what is now known as *Manfreda scabra* invalidated the use of the name *Agave scabra* by the Prince. Because General Jacobi's excellent description of *Agave asperrima* was for the same species described by Prince Joseph, it is *Agave asperrima* that it should be called. It all seems a bit unfair, but the final whistle has, as they say, sounded – and in effect did so more than 200 years ago. The thing is, my article was on the very cusp of being published when Tony Avent's email arrived. I rushed off correspondence to the editor, Malcolm McGregor, breaking the news. I then modified the proposed article to reflect the latest information, dubious, though, that it would be accepted for publication. I am left to contemplate what Howard Scott Gentry once wrote, "Man's mistakes are frequently more interesting than his accomplishments."²⁰

18. Hochstatter, 2015, *Manfreda* Salisbury, *Polianthes* Linne, *Prochnyanthes* Watson

19. Richard Anthony Salisbury, 1866, *The Genera of Plants*, p.78

20. Gentry, 1975, The Case of *Agave scabra* and *Agave wislizenii*, *Cactus & Succulent Journal (US)* 47:102

NARGS 2015 Election

Nominations and Voting

Procedures

The publication of the combined list of candidates on the following pages in this issue of the Quarterly precedes the online election (May 1-15) prior to the AGM in Steamboat Springs on June 26. The following candidates are standing for election:

President	Matt Mattus
Vice-President	Betty Anne Spar
Board of Directors	Dave Brastow Julia Caroff Martha Oliver Verna Pratt

On the following pages you will find pictures and biographies of all candidates. Matt Mattus, Betty Anne Spar, Julia Caroff, Martha Oliver, and Verna Pratt are the chosen candidates of the Nominating Committee and Dave Brastow has subsequently been nominated from the floor. The candidates for President and Vice-President have served in office for two years and are eligible to stand for a further one-year period of office, The 4 candidates for 3 positions of Director are standing for a three-year period of office. Biographies and photos of the candidates may also be viewed at <www.nargs.org/2016-election>.

The election will take place May 1-15, 2016, prior to the Steamboat Springs annual general meeting. All active members are encouraged to vote by logging on to <www.associationvoting.com/nargs> or by using the link from the NARGS website mentioned above. You only need your last name and e-mail address to login.

If you do not have access to a computer, contact Bobby Ward at
PO Box 18604, Raleigh, NC 27619-8604, USA
and a mail-in ballot will be sent to you.

The votes will be tallied by Associationvoting.com and the preliminary results will be announced on the NARGS website after the vote, certified at the AdCom meeting on June 24 in Steamboat Springs, and published in the Fall 2016 Quarterly.

CANDIDATE for PRESIDENT

MATT MATTUS - A life-long plant enthusiast, Matt has been a member of NARGS for over ten years. Gardening on two acres in central Massachusetts, (which sits between two local NARGS chapters, the New England and Berkshire chapters), he frequently speaks at both locations about his passions. His blog *Growing With Plants* explores his favorite gardening travels and adventures, as well as his favorite plants which include South African bulbs, camellias and alpines. Matt keeps many troughs, containers and various alpine gardens on his property. As a designer, you can frequently see Matt's contributions on the NARGS website on banners, logos and other visual treatments. Matt is very active in the American Primrose Society, and was the editor of their quarterly. Professionally, he is the Imbedded Innovator-Futurist at Hasbro. [Matt has served on the Board of Directors and is the current President of NARGS.]



CANDIDATE for VICE-PRESIDENT

BETTY ANNE SPAR - A Brooklyn girl who made good, prior to my career change to Horticulture at 47 years old, I was affiliated with a market research company for 17 years, CBS News, and the United Nations Development Programme. I've worked as a propagator for a commercial nursery, and assistant to the curator at The New York Botanical Garden T. H. Everett Rock Garden, Bob Bartholomei, who became my mentor. I am forever grateful. After relocating to Washington, DC, I began as a gardener at the United States Botanic Garden and retired two years ago as the Chief Administrative Officer. I joined NARGS in 1991, but was affiliated with the local Hudson Valley and Manhattan chapters. I joined the Potomac Valley Chapter in 1993 and I have held the positions of Chair, Secretary, Hospitality and Program Specialist, the latter for six years. I've assisted with two Potomac Valley Chapter NARGS Eastern Study Weekends, and a Seedex distribution. In terms of NARGS, I've attended at least 15 Annual General Meetings; chaired the NARGS Awards Committee; and developed and chaired the Book of the Month reviews. I rarely say "No" to extra responsibility. Ask anybody. [Betty Anne has served on the Board of Directors as Director at Large and is the current Vice President.]



CANDIDATES for BOARD of DIRECTORS

There are 4 candidates for 3 vacancies

DAVE BRASTOW - It's hard to believe how much a major factor NARGS has become in my life. I look forward to meetings (national and two chapters), to the arrival of each *Quarterly*, and to the yearly onset of the Seedex. NARGS is about interesting people sharing ideas, knowledge, plants and adventures.

But this election isn't about horticultural skill. It is about the running of NARGS. I've held a number of chapter offices, and have attended most of the national board meetings, the last 12 years as chapter president, committee chair, and observer.

The sad fact is that NARGS is in deep trouble, and has been for a number of years. There are severe budget problems, the continuing frustration with the website, membership decline, talk of reductions of the *Quarterly*, and the lack of communication and transparency. Most administrative and policy work is now done online or via conference calls, to which members can't comment, contribute or usually even see.

I can bring to the board organizational experience; ideas regarding membership; programming experience; and most of all, a desire to increase communication and volunteerism.

If you are truly interested in NARGS, go to the NARGS website and login, then go to About Us>meetings>Board of Directors Reports. 'NARGS 2016 Budget' has 4 pages of budget, but also 12 pages of communications between the directors

JULIA CAROFF - Julie is a member of the Great Lakes Chapter, where she served as Hotel Liaison for the 2015 AGM in Ann Arbor and worked on the program. A lifelong gardener, Julie is now studying botany at the University of Michigan following her retirement earlier this year. For most of her career as an attorney, Julie was active in a professional organization, the Federal Bar Association, which, like NARGS, has a national organization with local chapters that do not require chapter members to be national members. She understands the importance of the national organization to the success of chapters and has experience in addressing the kinds of membership and revenue issues that NARGS is currently facing. Julie is a devoted reader of the *Quarterly* and is looking forward to attending the Annual General Meeting in Steamboat Springs in June.





MARTHA OLIVER - Martha Oliver has been a life member of NARGS since 1986. With her husband Charles she worked at The Primrose Path, then a retail nursery, now devoted to hybrid heuchera, tiarella, primula and phlox. She currently works at Powdermill Nature Reserve, the field station of the Carnegie Museum of Natural History in Pittsburgh, where she has installed butterfly, wetland, herb and rain gardens, and is currently working on a shale barrens garden. A frequent speaker for NARGS, she impersonates Miss Gertrude Jekyll, most recently for the Potomac Valley Chapter.



VERNA PRATT - I was raised on a farm in Massachusetts and have been an avid gardener ever since. I moved to Alaska in 1966 and immediately became entranced with photographing the alpine plants. I spearheaded forming the Alaska Native Plant Society in 1982, and eventually wrote five books on Alaska Wildflowers which are widely used at present. I garden with a mixture of native plants and cultivars and helped to form the Alaska chapter of NARGS in 1997. At that time a group of our chapter built the beginning of the rock gardens at the Alaska Botanical Garden. These gardens now include 5 small gardens including a tufa garden. A large trough garden was added last year. I currently volunteer helping to maintain the finished gardens, and the wildflower trail. In 1999 I lectured on the East Coast Speaker Tour and in 2001 lectured at the International Rock Garden Plant Conference in Scotland.

Voting online for all posts will take place May 1-15, 2016.

Login to <www.associationvoting.com/nargs>.

You will be asked to login with your last name and email address.

Select "Proceed to Ballot." You will be presented with the ballot and instructions. Further details are available on the NARGS website <www.nargs.org>.



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NARGS Bulletin Board

President's Letter

Of all of the things I expected to run across when I accepted the nomination for president a year and a half ago, I never expected the reality of what holding such an esteemed office really meant. First of all, one is rather powerless. I expected to jump right in, hoping to execute the many plans I had, only to discover that, in reality and on many levels, the organization was not as healthy as I had believed that it was.

Since then I've received both positive letters and, sadly negative ones, and a few more than I had at first expected. Although I am sympathetic with those who might be discouraged with the performance of the website, or glitches with the seed exchange payment systems, all-in-all, things have run smoothly. This is thanks in no part to what I have achieved in my short time in this role, but it is because of the work of AdCom and our Board. That's where so much starts, and that is where any positive note should be sent.

I come from a business environment where I am asked to deliver big, if not giant ideas on a daily basis as a "futurist." It's my responsibility not only to spot new "white spaces" where opportunities might emerge, but to also capitalize on trends which perhaps others, especially the competition, may not have identified yet. Such ideas are rarely applicable to this society for a number of reasons, but I would be remiss if I did not at least remind you all of some of the positive accomplishments that your leadership team has been able to act on over the past year.

We should all be optimistic about this spring's introduction of NARGS TOURS (thanks to Panayoti Kelaidis who has organized the pre- and post-Annual Meeting tours to Wyoming and to Tours Committee Joint Chairs Jody Payne and Malcolm McGregor) which promises to grow with each year. Another development is a deep analysis and functional audit of the existing website (by Elisabeth Zander) which we intend to address over the coming year. Finally there is a careful evaluation of the budget, which is about as lean as a budget can be for an organization the size of ours.

I can't tell you how often that I've sat in a meeting at work taking notes while, in a side-bar on my laptop, I add a separate list for how these could apply to NARGS. Ideas are often just that, "ideas," like our spring anemones they are often exciting and hopeful, but ephemeral in nature, fading away with time. With luck they will return, after winter snow, or spring rain.

And so it goes with NARGS – except our "spring rain" came early this year, in the form of a welcome downpour of contributions from so many of you –

generous donors who cared enough to collectively donate \$20,000 after our December appeal for donations. You cared enough to support our organization as it steadily grows to redefine itself into what, I believe, will be a model for other modern plant societies to follow.

What that exactly means yet I don't know, but I imagine that it will require some significant changes to what we might consider to be untouchable or sacred. The last thing I would want to see is the *Quarterly* go away, or the Seed Exchange, as those are indeed, sacred to me, but if we are able to keep our minds open as we look at options, we may all be surprised at what might actually be a more efficient answer.

Change is inevitable, or, shall I say, failure is inevitable unless we all become more comfortable with creative change. It's the way the world works today. Yet we should all be grateful, and proud that our club is strong enough to pull together when the seas become rough. All this proves something very important: that NARGS is still alive in the hearts and minds of its membership, that it matters to you.

Hope to see you all in Steamboat Springs this June!

Matt Mattus
President, NARGS

LATE NEWS

At the beginning of February our webmaster for our Drupal website at <www.nargs.org> resigned, so we are looking for a new volunteer webmaster.

This job requires experience or a strong desire to learn Drupal 7 web management/development.

Proficiency might include Git, Drush, HTML5, CSS, PHP, MySQL, JavaScript, and Adobe CS Suite a plus.

Satisfactory history background check a must.

Interested parties can apply to, or get further information from Bobby Ward at <nargs@nc.rr.com>.

NARGS Awards

Nomination letters for NARGS Awards should be sent to the awards committee chair, Peter George, by April 30. A description of the awards may be found on the NARGS Web site at:

<www.nargs.org/north-american-rock-garden-society-awards>

Recipients will be announced at the Annual Meeting in Steamboat Springs in June.

Peter's email address: <petergeorge@verizon.net>.

His mailing address is:

Peter George, P.O. Box 833, Petersham, MA 01366

New Members

*Welcome to all those who joined between
November 5, 2015, and January 31, 2016.*

Baldwin-Owens, Betsy, Sun Chaser Farms, 16531 County Rd. 31,
Platteville, CO 80651-8316

Barnard, Robert, 604 4th Ave., Sacramento, CA 95818-3341

Bauwel, Robrecht van, Beauvoislaan 117, 2920 Kalmthout, Belgium

Bousselot, Jen, Colorado Native Plant Soc., 6369 E. Mineral Pl, Centennial,
CO 80112-3017

Bricker, Matthew, 1500 E. Kings Hwy., Coatesville, PA 19320-2028

Cartwright, Anne, 5106 MacIntosh Ave., La Grange, KY 40031-8910

Ciccone, Frances, 100 Heath Dr., Baden, PA 15005-9616

Ciccone, Sandra, 2303 Mercer Rd., New Brighton, PA 15066-3425

Clark, Rachel, 16 Crossfire Dr., Clancy, MT 59634-9784

Craig, Richard, 2494 Prairie Rose Ln., State College, PA 16801-2498

Dorio, Amy, 102 Whisconier Rd., Brookfield, CT 06804-3434

Everding, Kenneth, 145 Good Hill Rd., Weston, CT 06883-2335

Ferriolo, Flavien, Route D'Alès, 30330 Connaux, France

Filmer, Alan, Rose Cottage Chapel Ln., Epperstone, Nottingham NG14
6AE, United Kingdom

Goertzen, Miriam, 7345 Alderbrook Rd., Tillamook, OR 97141-9221

Goodman, Gay, 1000 Cordova Pl #462, Santa Fe, NM 87505-1725

Haddock, Robert, 1535 Dahlia St., Denver, CO 80220-1230

Haddock, Susan, 1540 Roxbury Rd., Ann Arbor, MI 48104-4048

Hammond, Blake, 1810 East Stadium Blvd., Ann Arbor, MI 48104-4419

Hector, Michael, POB 183010, Shelby Township, MI 48318-3010

Hennessey, Barry, 14 Avondale Rd., Basildon SS16 4TT, United Kingdom

Hommeyer, Penelope, 18 Blossom Ln., Groton, MA 01450-1339

Hughes, David & Christine, Linmoor Cottage, Highwood, Ringwood,
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Huntington, Lee Ann, 1601 Monoco Parkway, Denver, CO 80220-1642

Iglesias, Carolyn, 355 West End Rd., South Orange, NJ 07079-1445

Jeffery, Nancy, 1037 Kimberly Dr., Layton, UT 84040-2805

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Kelley, Charles R., 3 Brandywine Ct., Highlands Heights, KY 41076-1602

Kelly, Janet, 1141 Emperor Ave., Ottawa, ON, K12 8C3, Canada

Kintgen, Dale & Kay, 6859 W. Quarto Pl., Littleton, CO 80128-4788

Kyle, Judy, 5-9853 Blvd. LaSalle, Montreal, QC, H8R 2N9, Canada

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Witten, Jane, 1720 Chestnut Hill Rd., Pottstown, PA 19465-7808

**We have learned of the death of the following
NARGS members:**

Lowry, Ned M. (Bellingham, Washington)

Pitney, Kathleen Troast (Mendham, New Jersey)

Applications for Norman Singer Endowment Fund - due May 15, 2016.

Based on the income earned by the Norman Singer Endowment in 2015, NARGS expects to award \$4,000-5,000 in grants in 2016 for projects that advance the art and science of rock gardening. Guidelines for submission of applications and selection of projects, as well as the application form, are provided on the NARGS website at:

< www.nargs.org/norman-singer-endowment-fund >

The deadline for submitting applications is May 15, 2016. Grant awards will be announced at the Annual General Meeting in Colorado in late June.

Committee Chair, David White: *< dmwhite_nc@yahoo.com >*

NARGS Donations

Donations between November 5, 2015, and January 31, 2016: \$20,758.80.

Designated for general fund; in appreciation of Fred and Roberta Case's bog articles in the Rock Garden Quarterly; the Rock Garden Quarterly;

Speakers' Program; the Seed Exchange; in memory of those killed by terrorists, both domestic and foreign; in honor of Thelma Hewitt and her leadership of the Fells Chapter of NARGS; in honor of Dan Johnson and Jody Payne; in honor of Great Lakes Chapter for gift of Lakeside Daisy plants to Allegheny Chapter; in memory of Helga Andrews, Jean Fuller Beckman, Pat Bender, Cindy Bledsoe, Ned Lowry, Marcia Meigs, Dr. Jacob Theodor Tabernaemontanus, J. C. Raulston, Margaret "Midge" Riggs, Mary R. Washburn, and Richard H. Washburn.

Very many thanks for the generosity of all listed below.

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Harry Dewey obituary

Long-time NARGS member Harry Tillinghast Dewey died February 17, 2016, age 95. He was a professor of Library Science at various colleges and universities. Harry served NARGS in many capacities, in particular the Potomac Valley Chapter, helping organize national meetings. He was quick to see the potential of the Internet and in 1995 he founded Alpine-L, a worldwide electronic rock garden discussion group established as a Listserv, which he managed daily from his home in Beltsville, Maryland. Harry described the Internet and its potential use to gardeners in the *Rock Garden Quarterly* in 2001 (vol. 59, pp 115-124). He received the NARGS Award of Merit in 2002. Harry was a keen and interesting gardener with a raucous, infectious laugh. Born on February 29, he died just shy of his 24th bissextile birthday. Harry is survived by his spouse, E. Thomas Comstock. Condolences to Tom at 3904 Parsons Rd., Chevy Chase, MD 20185-6733.

Ned M. Lowry obituary

Northwestern Chapter member Ned M. Lowry died on November 24, 2015, age 82. He was a chemist by training, working both at DuPont and Boeing.

Ned and his wife, Betty, traveled extensively to study and photograph plants—from Alaska to Patagonia. Together or separately Ned and Betty wrote three articles for the NARGS Quarterly: "Growing Eriogonums," "Mountain Plants of Ecuador and Peru," and "Members' Seed Preferences (1978 and 1979)."

For more information

<www.nargs.org/news/2015-12-08/ned-m-lowry-death>.

SEED EXCHANGE

We hope you all enjoyed browsing and ordering from our 2015-2016 Seed Lists - receiving seeds from both the Main and Surplus distributions. We are, indeed, fortunate to have so many members who contribute time and energy and seeds to this wonderful membership benefit. Thanks to all of them, NARGS is able to offer an outstanding array of seeds of alpine and rock garden plants, collected from gardens and in the wild.

Thanks are due to the seed collectors, in North America and around the world, who make the Seed List so attractive to the adventurous, advanced gardener. And it takes many hands, in many homes and chapters, to repackage the seeds, making them available to as many members as possible. We thank all who helped with this critical Phase of the Seedex.

We must single out for special notice and thanks the volunteers from the Piedmont and Rocky Mountain chapters, who brilliantly handled the Main and Surplus rounds' distribution of seeds. Their coordinators, Bobby Wilder, Marlyn Miller, and David White of the Piedmont Chapter and Linda Meyer and Randy Tatroe of the Rocky Mountain Chapter, have assumed a large portion of those loads. We appreciate the many hours and efforts that all have given over the past two years.

We are grateful for the time and expertise that our Web Site Administrator, Daniel Dillon, invested in the electronic ordering system, working with patience and good grace.

Of course, the seed exchange would never get off the ground, much less fly as it does, without the capable and continuous oversight of our Intake Manager, Laura Serowicz, who organizes and coordinates so many stages of the work, from the seeds themselves - and their recording, taxonomy, packaging - to their place on our website.

We encourage all of our seedistas, who love reading the seed list and germinating the seeds, to add to the fun of the next seedex season by donating seeds. There is as much pleasure to be gained by sharing seeds as by germinating them.

Please take an extra few moments to gather seeds, from your gardens or on your travels. A donation of five packets of different seeds will gain Donors ten extra packets on their orders, plus priority in having their orders filled (with a better chance of receiving those rare seeds in short supply). Look for the instructions and form with the summer issue of the *Rock Garden Quarterly* as well as on the NARGS website <www.nargs.org>.

Best wishes for generous germination and a great growing season.

Joyce Fingerut, Director

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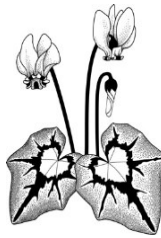
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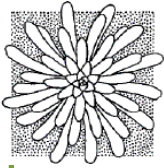


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Mason-Dixon (Norrisville, MD)	Marika Sniscak <marika123@verizon.net>
Minnesota (Minneapolis/St. Paul, MN)	Cheryl Philstrom <cphilstrom@frontiernet.net>
New England (Waltham/Boylston, MA)	Ellen Hornig <hornig@oswego.edu>
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New Mexico (Santa Fe/Albuquerque)	Robin Magowan <magowanrobin@gmail.com>
Northwestern (Seattle, WA)	Robert Fincham <bobfincham@mashell.com>
Nova Scotia (Halifax & Truro, NS)	Roslyn Duffus <roz.lakeside@gmail.com>
Ohio Valley (OH & surrounding states)	Mary "Maggie" Whitson <mkw513@hotmail.com>
Ontario (Don Mills, ON)	Cheryl Johnson & Lin Chevrier <cjohnson24@sympatico.ca>
Ottawa Valley (Ottawa, ON)	Zandra Baines & Linda Nishikawa <president@ovrghs.ca>
Painted Hills (John Day, OR)	Gail Klodzinski <gailkathryn3@hotmail.com>
Piedmont (Raleigh, NC)	Charles Kidder <chas36kid@gmail.com>
Potomac Valley (Alexandria, VA)	James "Jim" Dronenburg <2rutlands@comcast.net>
Quebec (Montreal, QC)	Robert LeClerc <leclercr@bell.net>
Rocky Mountain (Denver, CO)	Mike Bone <BoneM@botanicgardens.org>
Sierra (Sonora, CA)	Val Myrick <vkmyrick@pacbell.net>
Siskiyou (Medford, OR)	Lillian Maksymowicz <lillian@ashlandhome.net>
Wasatch (Salt Lake City, UT)	Tony Stireman <tonystireman@msn.com>
Watnong (Far Hills, NJ)	Michael Wilson <miwilson@ramapo.edu>
Western (San Francisco Bay area, CA)	Ted Kipping <tkippingsprint@earthlink.net>
Wisconsin-Illinois (Madison-Chicago)	Ed Glover <glover@oncology.wisc.edu>



NARGS STRUCTURE _____

The officers of the North American Rock Garden Society consist of a president, a vice-president, a recording secretary, and a treasurer. The officers are elected by the membership.

The Board of Directors of NARGS consists of the four above-named officers, the immediate past president of NARGS, and nine elected directors.

The affairs of NARGS are administered by an Administrative Committee (called AdCom) consisting of the president, vice-president, recording secretary, treasurer, and one director-at-large, selected annually by the NARGS officers from among the nine elected directors.

OFFICERS _____

President	Matt Mattus <mmattus@charter.net> 26 Spofford Rd., Worcester, MA 01607
Vice President	Betty Anne Spar <bettyannspar@gmail.com> 206 Wolfe St., Alexandria, VA 22314
Recording Secretary	Elisabeth Zander, 127 North St., Goshen, CT 06756
Treasurer	Bill Adams, 330 Carlile Ave., Pueblo, CO 81004-1054 (till 12/31/15) Richard Lane <rhlane01@gmail.com> 4904 Hermitage Dr., Raleigh NC 27612
<hr/>	
Director-at-Large	Don LaFond <plantjunkies@gmail.com> 11836 McGregor, Pinckney, MI 48169
Immediate Past President	Peter George <petergeorge@verizon.net> P.O. Box 833, Petersham, MA 01366-9755

DIRECTORS OF THE BOARD _____

2013–2016	Gordon MacKay, Cowichan Bay, BC Don LaFond, Pinkney, MI James Locklear, Lincoln, NE
2014–2017	Panayoti Kelaidis, Denver, CO Brian Carson, Stittsville, ON David White, Durham, NC
2015–2018	Mike Kintgen, Denver, CO Anna Leggatt, East York, ON Jody Payne, Cushing, ME

MANAGERS _____

Executive Secretary	Bobby J. Ward (919) 781-3291 P.O. Box 18604, Raleigh, NC 27619-8604 <nargs@nc.rr.com>
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Back cover: Max with, among others, *Iris bucharica*, *I. magnifica* 'Agalik', *Pulsatilla vulgaris* 'Papageno', *Daphne cneorum* 'Benaco' – Don LaFond



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