

A scenic view of a mountain valley. In the background, a prominent rock formation with two distinct peaks rises above a dense forest of evergreen trees. The valley floor is a lush green meadow, and the foreground is filled with a variety of wildflowers, including bright red columbines, white and yellow umbellifers, and purple lupines. The sky is overcast and hazy.

NORTH AMERICAN ROCK GARDEN SOCIETY

The Rock Garden

QUARTERLY

WINTER 2015/2016

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Kenton J. Seth is a 28-year-old practitioner of rock gardening who says he owes everything to the generous plant people of Colorado. He lives and gardens in western Colorado and works as a freelance gardener/landscaper. He promotes landscapes that don't need watering, crevice gardens, and wild-flower appreciation, which he documents online at <kentonjseth.blogspot.com>

Karen Vail was born and raised in the stunning Yampa Valley of Colorado. Her landscape business of 20 years encourages native and xeriscape design.

When not on her knees in gardens, she explores the vast flora of the area and has put much of that interest and knowledge into a new book *Edible and Medicinal Plants of the Southern Rockies* with co-author Mary O'Brien.

Front cover: Rabbit Ears in the background with spectacular *Castilleja chromosa* and an array of other alpine flowers (p.17) - Karen Vail

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NORTH AMERICAN ROCK GARDEN SOCIETY



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 NORTHWEST COLORADO
 SPECIAL

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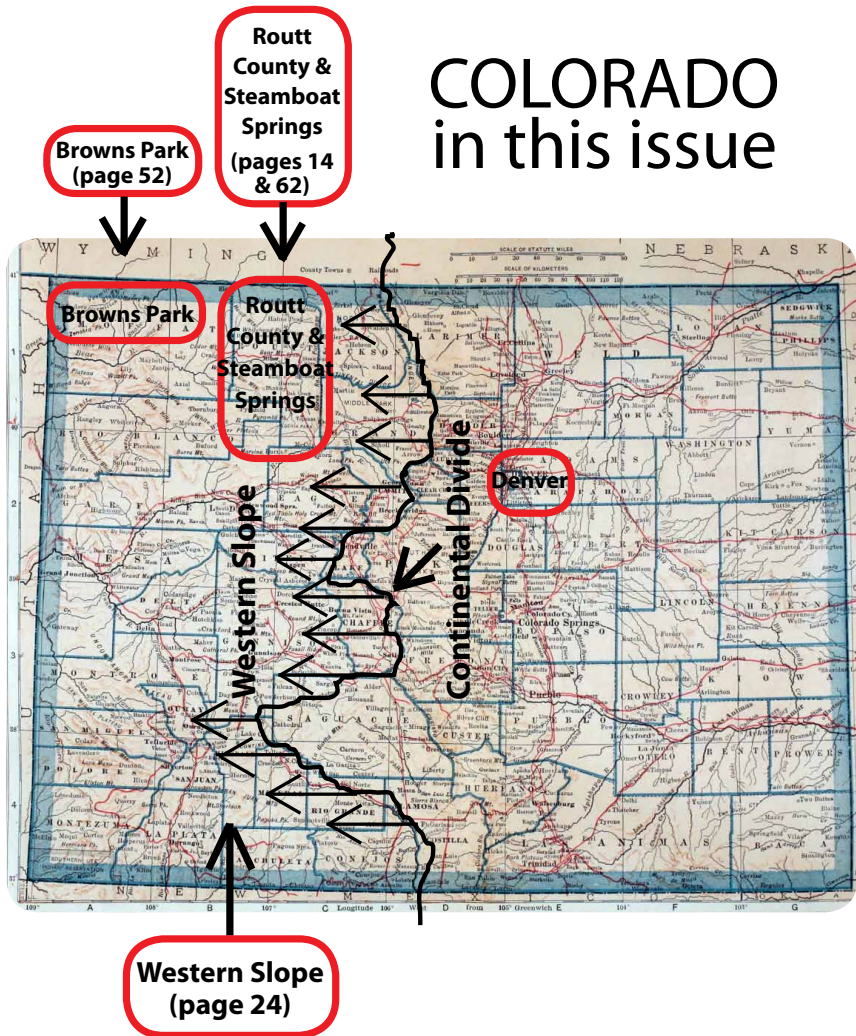
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From the Editor

THIS SPACE IS the one where I can be as idiosyncratic as I am when lecturing on alpine plants and rock gardening or teaching my adult program literature classes. And yet there is sometimes a need to make sense of what the current issue is about. With the 2016 Annual Meeting being part of the Rocky Mountain Chapter's conference in Steamboat Springs (with a great prequel in Denver) there was an obvious advantage to putting together a special issue on northwest Colorado.

Mike Kintgen, who is at the center of the meeting's organisation, has also been central in helping bring this issue together. Articles about aspects of the landscape and flora of different areas, are combined with



some disquisitions about gardening developments by some of the key players in major rock gardens in the state.

It becomes clear that northwest Colorado is a fulcrum for floral diversity. Northern Rocky Mountain influences butt up against more typically Colorado flora of the Southern Rocky Mountains. The Continental Divide, running north-south, divides the flora of the Front Range (the first mountain range after the Appalachians that travelers from the east meet as they travel west) which can be seen from Denver, from that of Routt County, North Park, and Browns Park in northwest Colorado. Plants are as likely to be connected to those of the Great Basin which runs on west through Utah and Nevada till it comes up against the Sierra Nevada as they are to the classic Rocky Mountain flora.

This is spectacular country and provides the visitor with a sense of the open spaces, dramatic landscapes, and harsh climate that struck the European settlers as they travelled west. The peoples who had long inhabited the land are referred to by Karen Vail, while the contemporary pressures on the region are part of Kenton Seth's survey of the Western Slope. Landscapes do change under human pressures: tar sands in Alberta, aluminum smelting in Idaho, the destruction of the prairie flora of the Great Plains. Although there are changes, this is still a region of open spaces that still provide the outsider with a great thrill. Karen Vail's picture of the revegetating flora in the area of "The Blowdown" is one that can only revive the spirits of even the most pessimistic eco-warrior.

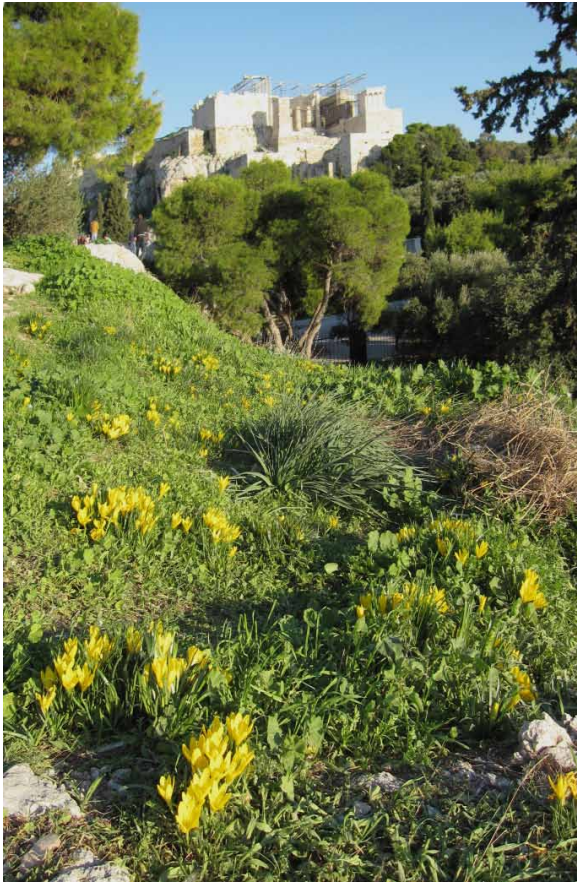


Apart from items which are strictly about Colorado there are a couple of other things worth bringing to your attention. The first is the Plantsman's Tour of Wyoming (page 76) which is a first fruit of the new NARGS Tours program. There are just 20 places for this 5-day tour to one of the most spectacular wildflower venues in the US, and Cody is just so much fun!



The other thing to highlight is that there was one class winner from the 2015 Photo Contest, Michael Heim, whose pictures did not feature in the last issue with the other prizewinners. Michael won the prize for Class 1 "The Rock Garden in Winter" and his full entry appears on page 80.





Sternbergia lutea on the Areopagus, with the Acropolis in the background, November 5, 2015, Athens, Greece

have already flowered. For them autumn is not a season of senescence; it is much more sensible to think of them as amazingly early spring flowers. Others such as *Oncocyclus* and Juno irises are starting into growth. Tulip seedlings from Central Asia are emerging. So whatever is happening outside your window right now – blizzard, fog, incessant rain, deep snow cover – it will soon be turning toward spring.

Happy Christmas or Seasonal Greetings – take your pick!



In the last issue there was a strong focus on autumn. Lola Lloyd Horwitz celebrated the end of the vegetative year in its “senescent beauty” and others focussed on fall-flowering gentians and saxifrages. And the fall is the experience most of us have of autumn. But, having recently visited the Peloponnese to see the autumn-flowering bulbs, it is obvious that there are other seasonal patterns for plants in different climatic zones.

In the alpine house those bulbs from dry-summer habitats are starting into growth. Some such as *Galanthus peshmenii* and *Crocus matthewii*

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.

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 series of local garden tours, hikes to see Rocky Mountain flowers in the wild, plant sales, book sales and signings by local and nationally known authors will round out the conference. 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. Several hikes on both Saturday 25 and Sunday 26 showcasing a variety of habitats and suitable for different levels of ability are planned. A great wildflower display this year will hopefully be repeated in 2016.

The region is located at 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, and 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.

For rock gardeners and alpine flower enthusiasts Steamboat Springs is highly appropriate as the focus of the conference will be the world's continental mountain ranges and steppes and the importance they play as the origin of many classic rock garden plants as well a continual source of new plants for the garden.

HIKES - 4 LEVELS

SATURDAY 25 AND SUNDAY 26

1. Very easy - either a ride up the 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 with Mike Kintgen

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*.

SPEAKERS

The selection of speakers for this meeting is second to none with leading speakers from Colorado, Iowa and Nebraska as well as leading speakers Johan Nilsson from Sweden, and Marcela Ferreyra from Argentina.

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 Optional 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 tour pick up at DBG, breakfast and lunch on your own
- 2-6 pm registration in Steamboat Springs
- 3 pm orientation tour for guides/chase car drivers etc
- 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 (covered by YRBP, thanks!)
- 10 am- 4 pm Private Garden tours Steamboat Springs
- 12-1 for 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 Americans heartland

SATURDAY JUNE 25

- Breakfast on your own
- 7.30 am Hikes leaving Steamboat Springs

7.30 am Possible 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 one's 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 one's 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 onto to Wyoming for
post-conference tour (see p. 76)

TUESDAY JUNE 28

Remaining vans (if any) depart for Denver.

STEAMBOAT SPRINGS is a family-friendly, historic ranching/tourist town of 10,000 people in the beautiful Rockies of Northwest Colorado. It offers activities for the whole family and would make an excellent site for a family vacation or trip with the grandkids to the American West. The town is famous for its two sets of hot mineral springs that offer the opportunity to soak and relax in addition to swimming and water slides at the Old Town Hot Springs (The Rabbit Ears Motel offers a coupon to use at the Old Town Hot Spring and Recreation Center in downtown Steamboat Springs).

Other activities include:

- Rodeo every Friday and Saturday night
- Strings in the Mountains Summer concert Series, the summer season opens the last weekend in June
- Golf, fishing, river rafting, and boating at nearby state parks
- Biking (mountain biking and Yampa River Core trail in town)
- Boating on any of the several nearby state parks
- Tread of the Pioneers Museum

For more visit the Steamboat Springs chamber website
<www.steamboatchamber.com>

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 members 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 opposite and send it 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, 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 Geust 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 want to hire 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 return trip is \$60 per person.

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

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 use form on the reverse of this page (if more than one, please complete a registration form for each person) 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.

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 10 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 10) 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

Planstman's Tour of Wyoming (see page 76) June 27-July 1
US\$950 per person, double occupancy (cost covers guides, transportation
during tour, lodging in Cody, all meals) US\$ _____

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 10 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 10) US\$100 US\$ _____

Van ride from Denver to Steamboat Springs roundtrip - \$60
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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.

WHAT TO BRING

Be prepared for all types of weather. Late June in Denver is usually warm to hot during the day with a chance of afternoon thunderstorms, and cooling off in the evening. Expect highs in the 80 to 90s and lows in the low 60s.

Late June in the Steamboat area is similar: usually warm to hot in the valley with a chance of afternoon thunderstorms and cooling off in the evening so a light jacket sweat is recommended. Expect highs of high 70s to low 90s (rare) in town during the day and lows of high 40s to 50s over night. Expect temps anywhere from 40 to 70 at the higher elevations. (Some hikes will be going over 11,000 feet elevation so expect snow patches on the trail and wet trails).

Bring layers for many types of weather, lightweight pants or shorts, short sleeve shirts and lightweight long sleeves shirts are great for most of the hikes. Pack a waterproof jacket and another layer in case the weather turns. Cotton is terrible if it gets wet and cold, wool or other materials are better. We also recommend sturdy hiking or trail shoes, wool or synthetic socks. Sunglasses, sunscreen and a hat are a must as the sun is strong and June often brings cloudless skies. A day pack is recommended. Insect repellent is also recommended for hiking. A water bottle is recommended. Some light snacks and bottle water should be provided.

Remember Steamboat Spring is just under 7,000 feet and all hikes are going to higher elevations. The air is thinner here so please take it easy when you first arrive. It usually takes 48 hours to fully adjust. Keeping hydrated and limiting alcohol consumption helps the transition. Participants will have Wednesday in Denver at 5,300 feet, Thursday driving to Steamboat Springs, then Friday are garden tours in the city. Hikes are on Saturday and Sunday to allow participants maximum time to acclimatize.

A HIGHER STATE

Steppe to Alpine



Steamboat Springs
June 22nd-27th 2016

NARGS
Rocky Mountain Chapter

A Tour of Northwest Colorado

KAREN VAIL

WE INVITE YOU to Northwest Colorado for the 2016 NARGS Annual Meeting! Just to whet your appetite for what this botanical paradise offers, the next few pages transport you on a journey through the montane valleys, the subalpine forests and meadows and up to the alpine zone. Four general geographic areas are highlighted: The Yampa Valley (where the host town of Steamboat Springs is located), the Rabbit Ears Range, the Park Range, and the Flat Tops Range.

The Yampa Valley

Steamboat Springs, elevation 6,700

feet, nestles in the scenic Yampa Valley ringed by foothills and mountains up to 10,400 feet. With the Yampa River flowing through the valley, it seems that Yampa is something very important!

Of course it is only natural that yampa (*Perideridia gairdneri*) is a plant. Yampa (also spelled yampah) is a Ute Indian word roughly translated to “little root” or “useful root.” The Utes of northwest Colorado harvested the roots, which taste like baby carrots, and became known as the “eaters of yampa” or the Yampatika Utes.

Perideridia gairdneri





Wyethia amplexicaulis colors a slope on Emerald Mountain
with a lone *Quercus gambelii*

Calypso bulbosa (left) enjoys rich conifer forests, and *Fritillaria atropurpurea*
(right) is a secret found in sagebrush shrublands





Corydalis aurea

Several plants such as *Corydalis aurea* find the travertine from long-ago mineral springs attractive homes.

The lush valley floor meets mountain shrublands rich in *Quercus gambelii*, *Amelanchier alnifolia*, *Prunus virginiana*, and *Symphoricarpos rotundifolius*. Moisture slopes are dotted with *Populus tremuloides* with a diverse understory of herbaceous species.

Mimulus lewisii



Rabbit Ears Range

This small stretch of mountains, with Parkview Mountain as its high point at 12,296 feet, is a land bridge of sorts running east to west connecting the Park Range on the west slope of the Continental Divide to the Never Summer Range on the east slope. This range has signs of violent volcanic activity everywhere, with formations including the iconic Rabbit Ears (front cover). Stunning subalpine meadows, cool moist spruce/fir forests and rich aspen cover this rolling landscape.

Windy Ridge is a long open ridge leading to a National Historic site, the Windy Ridge Quarry Site. High quality quartzite was “mined” from this area for more than 10,000 years by many different Native American tribes. The ridge offers stunning views to the east, and a wide diversity of plants not often found at higher elevations such as *Oxytropis sericea* and *Linum lewisii*.



Linum lewisii and *Oxytropis sericea*

Looking east from Windy Ridge





Landscape in the Mt. Zirkel Wilderness Area

The Park Range

Most of the Park Range is of mild-mannered mountains until you get to the Colorado-Wyoming border where the Mt. Zirkel Wilderness Area thrusts up in knife-edge spines and broad alpine expanses. Mt. Zirkel is the highest point at 12,220 feet. Considered one of the wettest ranges in Colorado, the flora is unbelievably stunning and carries many Northern Rockies species to their southernmost reaches. In the lush spruce/ fir forests of the subalpine we find the well camouflaged *Cypripedium fasciculatum* and the surprising *Rhododendron (Azaleastrum) albiflorum*.

Trillium ovatum



These plants and the snow white *Trillium ovatum*, gracing conifer areas as well as moist aspen areas, are found in Colorado only in the Park Range. A flash of fuchsia near the water while walking along crystal clear subalpine streams in the Zirkels signals *Mimulus lewisii*.

Mother Nature has dealt the Park Range a rough hand in the

past decade. In 1997 winds of up to 120 mph from the east uprooted and broke hundreds of acres of conifers; an event called “The Blowdown.” Native bark beetles escalated into epidemic proportions with this new food source and killed thousands of acres of spruce and pine. Standing dead trees, dried to kiln-dried conditions from years of drought, erupted through the summer of *Cypripedium fasciculatum*



Rhododendron albiflorum

2002 in fires that eventually claimed over 42,000 acres.

These burns, pictured below, are now revegetating with surprising speed and a wide diversity of species.

The burns with revegetating flora





Flat Tops view with *Aquilegia caerulea*

The Flat Tops Range

The Flat Tops “cap” the broad ranging White River Plateau. It literally is a cap of thick, tablelike layers of basalt reaching to the highest point at Flat Top Mountain, elevation 12,352 feet, in the Flat Tops Wilderness Area. The Flat Tops are volcanic, but unlike the drama of ranges such as the San Juan Mountains, the shield volcanoes comprising the Flat Tops simply oozed viscous lava, flowing in pools to the lowest points covering many miles.

As volcanic activity continued the land rose and water chewed away at the softer rocks leaving the cap rocks of harder basalt revealing a large broad plateau. Glaciation up until only 10,000 to 11,000 years ago created the stunning cliffs, cirques, tarns and aretes, leaving the plateaus above treeline literally “Sound of Music” beautiful with endless fields of alpine flowers including *Hymenoxys (Rydbergia) grandiflora* and *Myosotis asiatica*. Already colorful cliffs splattered with orange, chartreuse, yellow and a host of colored lichens are softened by fuzzy *Phacelia sericea* and delicate *Aquilegia caerulea*. Ringing the base of the cliffs are spruce/ fir forests colored silver with standing dead from a 1930s and 1940s beetle epidemic. Rich emerald green meadows thriving with a wide variety of wildflowers such as rich orange *Hymenoxys (Dugaldia) hoopesii*, *Ipomopsis aggregata* and *Penstemon confertus* are plentiful.



Hymenoxys (Rydbergia) grandiflora and *Myosotis asiatica*

Subalpine meadow in the Flat Tops with *Hymenoxys (Dugaldia) hoopesii*,
Ipomopsis aggregata and *Penstemon confertus*



The drive into the Flat Tops can be spectacular with colors brushing the sagebrush shrublands. *Frasera speciosa* is a cyclical plant exploding in population every 4-7 years with up to 8-foot-tall stalks and shares the rich shrublands with *Lupinus* spp. and *Castilleja chromosa*.



Frasera speciosa in full flower in the sagebrush shrublands of the Flat Tops

Hopefully this has piqued your curiosity as to what northwest Colorado has to offer. Believe me, this only touches the surface as to the diversity of ecosystems and wealth of flora. It is an area well worth exploring, so make sure you take some extra time while you are here. You will be richly rewarded!





Aquilegia caerulea and *Phacelia sericea*

The Western Colorado Gem in the World's Floral Crown

KENTON J. SETH

IT MAY NOT be a big jewel, and it is certainly not an ancient evolutionary sanctuary like Turkey, defended geologically from the march of glaciers, nor the high point of world biodiversity like Ecuador's Yasuni National Park, but it is still special – a familiar ruby in material, but shaped by a different cut.

The Western Slope of Colorado is the edge of several biomes and eco-regions, and the crushing intersection of even more geological



formations. The Southern Rockies, very much separated from the Northern Rockies (which are the home of grizzly bear and *Kelseya uniflora*, neither of which appear in the Southern Rockies), are what characterise the region to the east, with the expanse of the Great Basin to the west. These two do not segregate in a clean line. There is a clash, leaving low valleys at 4500 feet (1300m) and high mountains at 14,000 feet (4200m) and plenty of uplands, steppe, and mesas in between. Biologically, it is a patch spanning alpine and desert and the flora reflects that. A few plants of the Northern Rockies can be found, such as *Mimulus lewisii*, *Fritillaria pudica*, and *Rhododendron (Azaleastrum) albiflorum*, the latter species represented in Colorado by variety *warrenii* with the type being found to the North.

The Western Slope's small ranch communities and dotted ski-towns are serviced by the peach and wine community of Grand Junction, Colorado. The small city sits at the confluence of the Gunnison and Colorado rivers, draining both ends of the Southern Rockies into Utah.



Book Cliffs, Roan Plateau

People here have a history of baring teeth and arms over water. The Colorado flows down to make Lake Powell, cut the Grand Canyon, feed several exploding metropolises on the way, and the remainder is used to grow much of the nation's food in California. All this before it famously dries up before ever seeing its historic resting place in the Sea of Cortez. Naturally, that means the river sliced through some local geology.

To our south we are bordered by the northernmost slice of the Colorado Plateau which actually extends into four states. But it has been divided by the wrinkles of time, our section being the Uncompahgre Plateau and even closer Glade Park, a 9000-foot (2700m) aspen-topped mesa skirted by glorious, remote desert canyonlands.

These canyonlands see a Great Basin invader: the largest of the cold-tolerant buckwheats: *Eriogonum corymbosum* which is a great shrub, up to 4 feet tall (120cm) and very amenable to dry sunnier gardens. Glade Park is also one of the very few Western Colorado mesa-niches which hosts a charismatic plant on the end of its long leash tied to

Glade Park with manzanitas on the foreground slopes



its Californian home: the greenleaf manzanita, *Arctostaphylos patula*. Its voluptuous smooth-skinned red bark, intriguing as it peels, and evergreen leaves, has seduced even the rock gardeners of Scotland to manage to paintstakingly accomodate it in Edinburgh. Interestingly, the manzanita genus *Arctostaphylos* is a sort of dry-rugged Mad Max member of the otherwise prissy heath family, emanating from America's West Coast to only present on other continents as the familiar and demure species: Kinnikinick or *Arctostaphylos uva-ursi*. The genus itself is still difficult enough to greatly frustrate



Arctostaphylos patula (above) and closeup of peeling bark (below)





Looking southeast at the Colorado National Monument
(Loren Eakins)





Echinocereus triglochidiatus forma *inermis* under *Artemisia ludoviciana*,
Ribbon area near Glade Park

grows from managing to grow more than a couple of varieties.

To the north of Grand Junction is a very sparsely populated region of great economic and botanic importance. Unfortunately, these two interests are pitted against each other in our politics and newspapers in a conservation-versus-resource-extraction game. Natural gas is derived from a great deal of the young shales in the Piceance Basin (pronounced unintuitively as "PEE-ahns" Basin), which is a geologist's candystore of colorful soils and stones which have become a quiet neighborhood of oddball endemic plants with very edaphic (soil-related) tastes.

Most of these rare plants dotted all over the basin tend to be the tiny screwballs which attract rock gardeners and make us question our ethical consciences about growing them. These include *Penstemon scariosus* var. *albifluvis*, *Physaria obcordata*, *Physaria congesta* cute as a



Phacelia submutica (above) and *Astragalus naturitensis* (below) - photos Loren Eakins



Penstemon debilis in cultivation in private crevice garden



golden button, *Phacelia submutica*, which is an ugly speck of an annual, that because of that habit, flirts with extinction every summer before germinating again in the early spring in its dangerously specific red clay. The famous king of oddballs, *Penstemon debilis*, has cold silver leaves and gaping pink flowers to make up small plants whose stems elongate underground with the unstable, incredibly steep shale slopes in which it has chosen to grow. These plants are truly a troupe of colorful misanthropes who have made a controversial evolutionary choice of diet and home. Inspiring some philosophical pause, those very sandstones and shales betray through their fossils that different species of ginkgoes and sycamores were our flora at one time.

A few plants we traditionally think of as plains and prairie children have snuck into the Western Slope. Very few, truly, and the ones the casual explorer will notice first are the very grasses that define different prairie ecosystems back on the plains. Switchgrass, or panicgrass, *Panicum virgatum*, spills into the Great Basin to hide out in canyon bottoms where it can find a bit of water for which it has not lost its taste in its desert life. Little bluestem also does this, *Schizachyrium scoparium*, but it finds a place for its straw in rimrock stone crevices and hanging-garden seeps and natural grottoes, not at all the way it or panicgrass grow in great bold waves for miles and miles in the Plains. Both species are smaller and are a much more sun-tanned bronze than their representatives in the East, rarely ever brought into gardens, but retaining these traits when they are.

Worldwide genera that have a knack for settling in weird niches in the world's forgotten trouser pockets like bluestars, *Amsonia*, and milkwort, *Polygala*, have local lonely ambassadors in the desert. Bluestars manage to whore their way around the Northern Hemisphere, and three wind up in the Great Basin's deserts; but the only one that shows its rare beautiful face in Colorado is *Amsonia jonesii*. She has proven to be very much at home in cultivation; planted in the 80s, old garden plants show no sign of giving up. *Polygala subspinosa*, our only species in that very cosmopolitan genus, has been savvy at eluding me - from being spottable between look-alike astragalus in its home, to coaxing one into domesticity.

As the population of the Western United States increases the way it has, and with it the demands on the Colorado River, it will surely affect the greater gardening culture, which will be forced to work with less water. One may predict the "trickle down" effect on rock gardening will mean we are looking at a future where more of us are looking to the edges of mountains and desert, and the millions of acres of sagebrush land netted therein for plants to keep us company at home when we are not trekking over the Western countryside in our hiking boots.

Mike Kintgen with *Amsonia jonesii*





Nick Courtens in the new alpine house at Betty Ford Alpine Gardens

Developments at Betty Ford Alpine Gardens

NICK COURTENS

TUCKED NEAR THE heart of the iconic ski town of Vail, Colorado, about 100 miles due west of Denver, Betty Ford Alpine Gardens has long been a summer attraction for most of the town's visitors and residents. When the snow flies until the time it melts, the gardens become mostly inaccessible and completely buried. This can last anywhere from five to six months. Until this year, the gardens operated from a small office located off site from the gardens with no visitor center. Thus the need for a building for year round visitors and staff was developed. In the fall of 2014, the gardens broke ground on a permanent home next to the gardens.

Work quickly began and during the design phase of the building, questions were asked about what was needed in this building. The first thought that came to mind was an alpine house. This was then drawn into the plans for the building and would soon become a key feature of the building. The architects, builders, and engineers all started to ask questions about how it would be designed and built. This left me to do

some major research. It soon became apparent that the best way for me to learn what was needed and how it would be built would be to visit a few alpine houses. So I did just that. With help from the Scottish Rock Garden Club's Diana Aitchison Fund, I visited some of the best-known alpine houses and rock gardens in the UK. The two weeks I spent showed me several different ways an alpine house could be built and how it served both the gardens and its visitors. This experience was fundamental in the way I would approach the design and purpose of the Alpine House at Betty Ford.

A few of the alpine houses that I saw in the UK that have permanent plant displays incorporated tufa as the rock of choice. This allowed the gardeners to grow some very choice and unusual alpine plants. I was soon convinced that we



A small part of an indoor tufa wall at the Royal Botanic Garden, Edinburgh, Scotland, with *Primula* and *Dionysia* along with a range of other alpinines

Kenton Seth (foreground) at work on the tufa at Betty Ford Alpine Gardens



had to have a large tufa rock garden inside the alpine house. Although a rotating plunge display is traditional, a large backup of plants was something we could not do right away. Tufa was tracked down and, by fortunate circumstances, the supplier had just enough to complete what was envisioned.

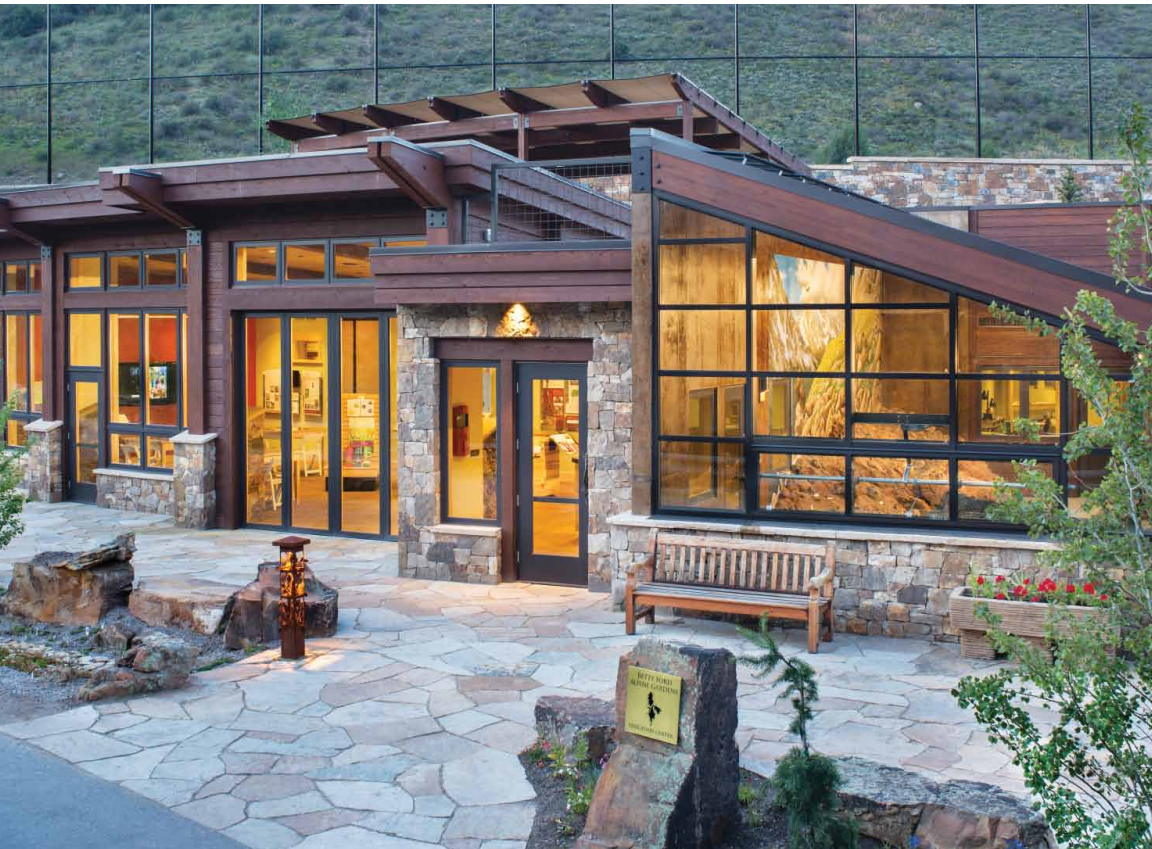
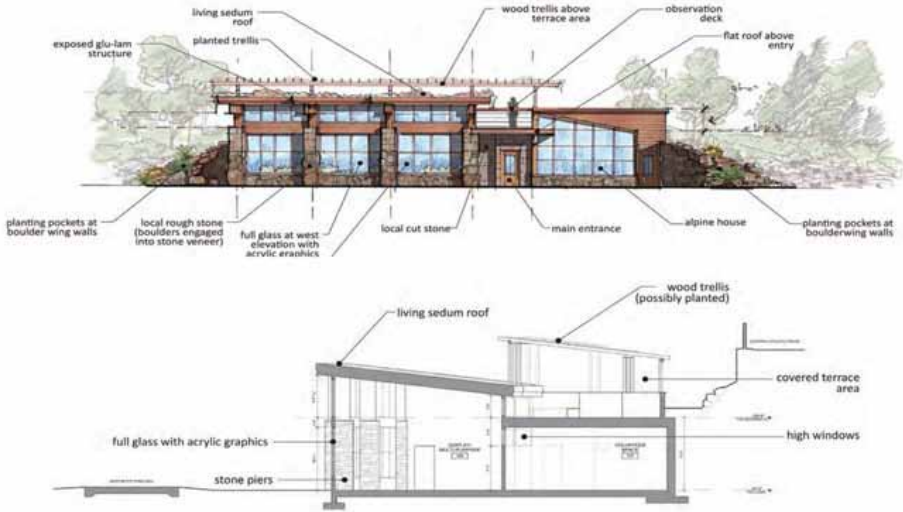
With help from my good friend and master crevice-garden builder, Kenton Seth, work began in May 2015 on the two large planting beds. In 3 days, Kenton and I placed 15 tons of tufa boulders and sand. Glass and framing went up soon after and a local artist was brought in to paint a mural of a Rocky Mountain alpine scene that blends into the tufa beds seamlessly. The alpine house also features an automated Wadsworth system that controls vents, shades, and heating and cooling which is monitored by an interior sensor and exterior weather station. A Ferrari of alpine houses if you will. Planting was the last thing to take



The Education Center (opposite) has a green roof (above) and provides a great center for people to learn, as well as providing direct access to the alpine house (far right in the picture opposite)



THE EDUCATION CENTER



place, but now *Dionysia*, *Gentiana*, *Saxifraga*, *Primula*, *Androsace*, *Eritrichium*, and many other choice alpinists, are being grown in the pure sand and tufa mix. I am also experimenting with some South African and South American species that typically would not survive a cold and long winter but may do better in an alpine house. My hope is to have some color for visitors in the late winter as well.

Rather than completely filling the alpine house and stuffing every crevice or drilling a hundred holes, I am going to take some time to learn what does well and how things react over the course of a winter.

Apart from the alpine house, several hypertufa troughs accent the exterior of the alpine house, as well as rock gardens and a live roof and deck that look out onto Vail Mountain and the Gore Range. The inside of the Education Center features educational and interactive displays on alpine plants, mountain ecology, and children's activity kiosks. A library collection focused on alpine plants, rock gardens and botany is free for all to use as well.

The Education Center spares no expense in educating visitors and students who are interested in learning more about the fragile mountain environments. The building will help to expand the current plant collections, conservation and research work. The alpine house and education center will also be open to the public year round.





The new alpine house with tufa and mural in place and initial plantings

During the Annual Meeting in Steamboat Springs I will be speaking in detail of the work that went into building the alpine house and education center as well as the other important work that Betty Ford Alpine Gardens is currently doing. It will be a great opportunity to show people just how things have progressed and I hope that some of you will be inspired to come and see just what we've done and how much progress we've made in the last few months.





25 Years
in a
Mountain Garden

MIKE KINTGEN

Kintgen garden in Steamboat Springs, Colorado

THE IDEA STARTED innocently enough. For my seventh birthday I received a young ponderosa pine (my favorite tree) from my parents. We planted it in the corner of the yard at the place north of Steamboat Springs. We were still in the midst of landscaping the yard of the rather newly built home. My parents were smart, and knew giving me a corner of the yard next to the sandbox my brother and I would play in, would keep me busy. I am not sure they knew it would keep me busy at least into my thirty-fourth year. I already had an interest in *Sedum* and *Sempervivum* at the time, and my grandmother was very kind and shared starts from her amazing garden in Englewood, Colorado.

At age 10 I picked up a book on saxifrages at the local library in Littleton, Colorado. The rest was history: from then on I was hooked on alpiners. Luck further interceded as my neighbor Alice McBee at the end of the cul-de-sac was an avid gardener, a member of the local rock garden society (NARGS Rocky Mountain Chapter - RMC-NARGS), and most importantly a volunteer in the Rock Alpine Garden at Denver Botanic Gardens with Panayoti Kelaidis. So, at age 11, I joined the local rock garden society and meet Panayoti who would become one of my heroes. I joined NARGS at either age 11 or 12. Through middle and high school I read everything I could on rock gardening, attended as many local meetings of RMC-NARGS with Alice as possible and occasionally volunteered at DBG. Thanks to local plant sales, the NARGS seed exchange, other NARGS members, and Alice's generous hand, I fleshed out the garden north of Steamboat Springs with a small collection of alpine, native and steppe plants.

As luck would have it gardening at 8,200 feet is great for growing alpiners, with some challenges that few who garden in urban areas or at lower elevations would encounter. First and foremost the ever-present wildlife, while delightful to the eye, also happens to find the garden a delightful high-end buffet. Working with the wildlife has been eye-opening and called for just giving up on some items they find particularly delectable. I really do not grow tulips or crocuses anymore.

The animals that present the greatest challenge in order of damage are voles and pocket gophers, deer, elk, moose, cattle, sapsuckers, marmots, and chipmunks. The damage from burrowing rodents far exceeds almost all the damage from other animals combined. Active year round, and epically damaging under the winter snow cover that can last 5-7 months, they have wiped out entire sections of the garden.

To combat their fine taste in plants I started planting everything in completely enclosing wire cages underground that would protrude just 1- 2 inches above the surface. This seemed to work for a while until the voles discovered they could just climb over and this necessitated cutting a piece of wiremesh and completely enclosing herbaceous plants and bulbs in the fall, to keep the rodents out over the winter.

Around this time I decided to build some raised beds that had wire on the bottom and another piece of wire put over and tied down in the fall. This allows me the opportunity to grow many plants in one large cage which provides a larger root area, faster planting, and faster covering in the fall and uncovering in the spring.



Saxifraga 'Cranbourne' on tufa boulder

In the continual give and take with the voles I also plant as many plants as I can of what they do not eat. The list is short but seems to include *Narcissus*, *Leucojum*, *Colchicum*, *Paeonia* (except *P. anomala* which was completely consumed), some *Euphorbia*, *Rhodiola*, *Helleborus*, some *Iris* (such as *Iris germanica*), and *Gentiana*.

Lewisia tweedyi



After the burrowing rodents, deer are the next biggest challenge. They have a taste for flower buds, and for *Daphne*, and *Arctostaphylos*. Most damage occurs in the fall when the deer are trying to fatten up for the winter; they go from dainty browsers to bush hogs, mowing down all but the most unpalatable plants and then even those sometimes get chopped. To work with the deer I use several methods: hide tasty stuff in shrubs they will not get into, use things like sticks and branches to mimic shrubs, cover things with wire cages, and spray items they particularly like with my best friend, Liquid Fence. This has allowed me to cut back on the number of cages and sticks I place in the garden, making the garden more attractive and easier to get ready for the few garden visits that I have. It also allows me to maintain the plants without having to remove a cage. Most of the wire is seasonal, placed only when the plant is particularly desirable or over things like shrubs in the autumn to prevent them being browsed back to branches too large to eat.

Asperula boissieri



Elk are the next most destructive although, luckily, here they are still shy, unlike on the Front Range of Colorado where several of my volunteers are overrun by elk in their foothill gardens. However, when the elk do come through in the autumn they are like deluxe brush hogs. They will even eat pine trees.

The moose is a very rare visitor thankfully, but its rare visits are marked by large footprints in anything they step on, and the *Betula* and *Salix* in the garden are their browse of choice.

Cattle, while not wild animals, do make infrequent visits when they break through the fence. Colorado is an open-range state which means leasing rights allow cattle to wander public lands, and any unfenced private lands near said public lands, with the responsibility being on the landowners to fence them out. (Please do watch for cattle on the roads around Steamboat Springs). We are fenced, but occasionally the moose or a herd of elk goes through the wire fence and the cattle seem to possess a knack for finding an opening in any fence.

Sapsuckers! These slightly cute native birds are kind of cool to see in the woods, their coolness factor diminished when they attack the

Kintgen garden in summer



trunk of almost every deciduous and coniferous tree in the garden in the spring or fall. Damage can be so severe that the whole tree dies above the site of the attack. Luckily most deciduous trees re-sprout from the base or side branches. Their sucking binges seem to occur right about the time I feel like my tree is starting to look like a tree and has somehow escaped the other challenges to reach a reasonable size.

Marmots and chipmunks are more of a nuisance than a real challenge most years. They are most damaging in the early spring when tender shoots of perennials are just what they have been waiting for all winter. Chipmunks are small enough that the losses are pretty small; the marmot is encouraged to live elsewhere, away from the garden, or given a one-way ticket to a better place.

Apart from the animals, things are rather easy. The only other major challenge is the long winter snow cover since many steppe, desert, and some high alpine plants that grow on cliffs and are not used to being covered by snow for 5-7 months, simply rot under the snow.

As mentioned, the much cooler summers and winter snow pack that clearly mimic most montane plants' native habitats, and especially the cooler summer nights (rarely above 50 and more often low 40s to high 30s) make cultivating most alpinists easy. I have gentians that are going into their late teens.

Another benefit to gardening at this elevation is that flowers' colors tend to be more intense. The cooler temperatures, along with the higher ultraviolet light levels, allow pigments to become much stronger. This makes for beautiful photos and a wonderful gardening experience.

Due to harsher climatic conditions, most plants stay closer to their wild character only truly high alpinists stretch a bit. That is probably because I grow some of them in a bit more shade than they might like, to combat the strong Colorado sun, dryness, and the fact that I am not around to water them except at weekends.

Good wildlife does exist. There are many welcome visitors to the garden, and of course everyone except the cattle is native to the region and belongs here. If the poorly behaved listed above would only adopt "a look and do not touch policy" in the garden they would be welcome. Nevertheless welcome wildlife includes hummingbirds, mountain bluebirds, sandhill cranes, countless other birds, toads, the weasel, and fox.



Gardening at 8,200 feet in the northern Colorado Rockies has been a wonderful experience, and it's hard to believe that when I started 27 years ago when I was just 7 that it would be one of the most fulfilling and interesting things I have done.

NARGS 2016 From-the-Floor Nominations

Elections of President, Vice-President, and Directors

The first nominations were closed on November 1. The names of those nominated so far can be viewed on the NARGS website at:

<www.nargs.org/election>

There is now the opportunity to nominate FROM THE FLOOR until January 31.

The combined list of candidates will be published on the NARGS website and in the Spring 2016 *Quarterly* which will be dispatched around March 20.

Election online May 1–15 prior to June AGM, with the announcement of election results at the Annual Meeting in Steamboat Springs June 22–27, 2016.

From-the-floor nominations for any post should be sent by email to Don LaFond, Chair of the Nominating Committee at

<plantjunkies@gmail.com>

They can also be posted to

Don LaFond, 11836 McGregor, Pinckney, MI 48169, USA

Nominations should include:

1. Name, chapter (if applicable), e-mail address, and position for which each person is nominated.
2. Bio of nominee (100 words or less, written by nominee)
3. Picture of nominee.
4. Note of acceptance from (new) nominee indicating a willingness to be one of the above officers of NARGS (two-year term) or a NARGS Director (three-year term).

All nominations and required nominee information must be received by February 1. The bios and pictures of all candidates will be published in the next (spring) issue of the *Quarterly*.

Crevice Garden at Yampa River Botanic Garden

GAYLE LEHMANN

YAMPA RIVER BOTANIC GARDEN is situated in Steamboat Springs and was opened in 1997. But, ever since the garden was first opened, the steep, south-facing Summer Sunshine Garden had been a problem. The steep grade and lack of terracing, combined with poor soil, made this a garden which could not sustain plants for lack of water and was nearly impossible to work on. In keeping with our goal to keep constructing different types of gardens, we struggled to find something which could work in this space. When the Summer 2011 issue of the *Quarterly* arrived, I discovered the article from Stephanie Ferguson about construction of a crevice garden. I became inspired to create one here at the Park.

Spurred on by this idea I began some research about this form of garden. Of course the names of Josef Halda and Zdenek Zvolanek came up in my Google search. Both of these Czech botanists have been instrumental in promoting this type of rock garden. With my newfound idea and some photos I decided to approach my Horticulture Committee. We had a big space to consider – over 700 square feet – and a very steep slope. It was met with some skepticism and a big price tag for all the rock needed.

Initial layout of the site with some key rocks positions marked



In 2013 we secured a grant from the Colorado Garden Show for \$7,500 to purchase the rock and the approval to go ahead with the Garden. It took several committee meetings and much head scratching to decide where the trail should go and the orientation of the rocks. The choice of rock was also critical for the finished look of the garden. We selected a type of Moss Rock Veneer from Laramie, Wyoming. The quarry is only 200 miles from Steamboat Springs and had all of the features we were looking for. After deciding the placement for some larger feature rocks, I went to the site and hand-picked all of the large rocks that would serve as anchor rocks and the corner switchback. It was great to see the rock in its natural setting with lots of vertical examples on site.

After delivery of 6 pallets of veneer and 6 large feature stones – a total of 10 tons – it was time to get to work constructing. We enlisted the help of the City’s Public Works Department to set the big rocks in



Rock outcrop near Laramie, Wyoming, source of our rock

place. It was very important to have these aligned correctly to form the main structure of the garden. Once they were set, the switchback trail was laid, and rocks lining the trail were placed first, to help aid in stability of the trail. All the rocks were dug into the original soil with as much as two-thirds of the rock buried. Ryan Keating, an employee, was instrumental in hand placing all of the rocks. He created several “veins” which can be seen running through the trail which gives the garden an authentic feel.

The rockwork took a month to complete and then we back-filled the crevices with a mix of 1/3 soil, 1/3 gravel – we used crushed fines – and 1/3 compost. Since it was the end of our season we decided to let it overwinter with no plants. This would give everything a chance to really settle. Our annual snowfall is usually around 170 inches (435 cms)



City of Steamboat Springs helped place the biggest rocks

so it was with great joy in the spring, that we saw almost no erosion or rock slippage. Now the fun of planting began.

Using many plants acquired from LaPorte Avenue Nursery, NARGS plant give-aways, and donations of plants from Denver Botanic Gardens, we spent many hours unwrapping and placing these little gems in just the right cracks. The

bare-root method is recommended and does take a bit more time, but it is well worth the effort as the plants very quickly look so at home with little to no wilting! There are some genera which are grouped together such as *Campanula*, *Draba*, *Dianthus*, and *Erigeron*. We estimate that there are about 500 plants in this garden so far and room for more still.

With the help of the NARGS Norman Singer Endowment Fund we have been making labels for all the plants and have had a class in Crevice Rock Gardening 101. Public interest has been great and we answer many questions daily about this beautiful style of rock garden. Anyone with a problem slope should consider transforming it into a crevice garden.

Key elements of rockwork in place





Crevice garden in October 2013 before planting,
shows the structure very clearly

Crevice garden in summer 2015 with plants flourishing





Steppe habitat in Browns Park

A Visit to Browns Park

MIKE BONE

THE NORTHWEST CORNER of Colorado is home to a very special habitat, unique, full of geological treasures and wondrous plants. The greater Browns Park area is a place for outdoor recreation enthusiasts of all types. Some of the most famous hunting, rafting, hiking, birding, and botanizing sites can be found in the area which straddles the Green River in Moffatt County, Colorado. This is predominantly in the Browns Park National Wildlife Refuge, rich in natural resources and with a rich western history of cowboys, miners, rustlers, train robbers and treasure

hunters. While you are in Colorado for the 2016 NARGS meeting, you just might get the chance to get out and see some beautiful steppe habitat and some of the choice rare plants that are only seen in the greater Browns Park area.

One of the things that helps make this area unique is the fact that the mountains on either side of the parkland run east-west providing protection from the prevailing storms from the north. The majority of the storms are stopped to the north creating a valley that is insulated enough to extend the growing season here, sometimes by several weeks. Early settlers knew this and took advantage of the extended grazing season and would overwinter their herds in the parkland. Even today in some of the flat steppe areas ranching and grazing are still viable livelihoods.

At the turn of the century, there were great feuds over land between the shepherds and the cattle ranchers. Even before the turn of the century, there were hunter-gatherer tribes in this area as is evident from the numerous locations of Bronze Age carvings at the entrance to Irish Canyon, as well as at the school house on the National Wildlife Refuge.

Astragalus sp.



As far as geologic features go, the Browns Park area is one where it is possible to spend a lot of time exploring. The short list of my favorites are Irish Canyon, the Vermillion Bluffs, The Gates of Lodore, Lookout Mountain, and Diamond Peak. Each one could warrant multiple visits and weeks on end to explore.

Irish Canyon is a rare uplift canyon that has never had water or a constant water source running through it. As you travel from south to north through the canyon you travel through upland sagebrush steppe that is dominated by *Artemisia nova* and a mix of grasses like *Hesperostipa comata* and *Oryzopsis hymenoides*. This area seems unassuming from the south but as you enter the canyon you get to a narrow point and you can see a very distinct band in the geology, of pure limestone glowing in one of the upper strata layers. Inside the canyon there is a unique population of albino *Lewisia rediviva*. At the campground all around the campsites is the beautiful *Penstemon pachyphyllus* subsp. *mucronatus*. If that were not enough reason to visit this canyon, only



Penstemon pachyphyllus subsp. *mucronatus*

Penstemon yampaensis



a couple hundred yards to the north is a healthy population of the tiny *Penstemon yampaensis*.

The Gates of Lodore not only sounds like some mystical place in a Tolkien novel, it looks like one too. Here, where the Green River cuts through a long, winding, and sheer canyon there are rare and wonderful plants growing. The Gates are one of the most popular and busiest river-rafting let-ins in Colorado. People have to take part in a lottery even to get a permit to raft this portion of the Green River. The road leading in is lined with little cushions of *Eriogonum ovalifolium*, and several species of *Castilleja*. But the highly protected secret is one

of very few remote locations of *Eriogonum shockleyi*.

If there is one place that a rock gardener can appreciate, it will be Lookout Mountain. Here is an easily accessible bunnery of low cushion-forming plants. While still being relatively low in elevation,



Eriogonum shockleyi

Eriogonum ovalifolium





Gates of Lodore



"Bunnery" on Lookout Mountain



it is still one of the highest points in the area. Affixed atop the edge of this wedge mountain is a radio communication tower proving that this is a good unobstructed vantage point. While not high enough to be true alpine this is a very cold windy exposed mountaintop and the list of rare and choice alpine plants is quite impressive: *Phlox bryoides*, *Cryptantha caespitosa*, *Astragalus spatulatus*, *A. detritalis*, *Oxytropis sericea*, *Castilleja chromosa*, and *Penstemon humilis*. While the plants are beautiful, rare, and it is one of the only places in the world you will see many of

Phlox bryoides





Vermillion Creek

these species, there is another vantage point worth noting. Here atop Lookout Mountain you have a view out to the Vermillion Bluffs. This is a gypsum badland much like the Badlands of South Dakota and the Zaisan Desert on the Kazakhstan-China Border.

Here in Browns Park, where you are surrounded by mountains and immersed in different kinds of steppe, you will find a truly wild remote part of the Rockies teeming with choice rock garden gems. There are very few amenities to be found in this, the most northern corner of Colorado. No fancy coffee houses, no comfy beds, but wilderness as far as the eye can see. Panoramic views abound and a true sense of what it is to be completely immersed in the west awaits you in Browns Park.



Oenothera caespitosa

Vermillion Bluffs



Special Plants of the Steamboat Springs Area

MIKE KINTGEN

ROUTT COUNTY AND neighboring Moffat and Jackson counties constitute the northwestern corner of Colorado, and span several floristic boundaries. Moffat County, the most northwesterly county in Colorado, is largely influenced by elements from the Great Basin, Colorado Plateau, and Rockies, and Mike Bone's article on Browns Park covers key elements of this. Routt County, with its higher elevations, more mountainous terrain and associated greater precipitation, has elements of a disjunct Pacific Northwest / Northern Rockies flora, along with classic Southern Rocky Mountain elements. Jackson County combines all the above elements with the addition of some Great Plains factors.

This variety is what makes northwest Colorado so appealing: there is the opportunity to see dry steppe in the morning and a few hours later be standing among *Rhododendron*, *Trillium*, *Lycopodium*, and *Cypripedium*. One can also experience two seasons in one day. *Penstemon* and *Castilleja* will be blazing away in the lower valleys while *Trillium* and *Erythronium* are still in full glory in a cool subalpine forest, hence the *Penstemon*, *Castilleja* and *Trillium* for the floral emblems of the 2016 conference. During the conference we will be able to show visitors many of these elements on the various hikes. This article will focus largely on Routt County where most of the hikes take place with mention of a few areas outside Routt County with some of the most noteworthy plants and their associations noted.

Routt County, while moderately sized among Colorado counties, covers a rather long north-south chunk of Colorado. Habitats within the county range from pinyon juniper near State Bridge in the far southern part, to sagebrush steppe throughout at moderate elevations. Oak and serviceberry shrublands give way to aspen forest in moister areas, and at higher elevations blend into dense coniferous forest in the montane and subalpine zones, and finally into alpine habitats in the highest elevations of the Park Range.

The Herbarium at the University of Colorado in Boulder lists 834 species for the county on a computer-generated list. There are several species missing from this list, especially grasses, and new county



Tundra conditions in the Mount Zirkel Wilderness
with *Eriogonum arcuatum* var. *xanthum*



records probably bring the current native and non-native flora for the county closer to 1000 species.

Pacific Northwest disjuncts

The Steamboat Springs area is perhaps best known regionally for many species of plants from the northwestern US and Canada, hundreds



Erocallis (Lewisia) triphylla

Mimulus moschatus



of miles from their normal ranges in the Park Range. These disjunct species include some surprising names. *Rhododendron (Azaleastrum) albiflorum*, *Drymocallis (Potentilla) glandulosa*, *Erocallis (Lewisia) triphylla*, *Lewisia nevadensis*, *Mimulus moschatus*, *M. lewisii*, *Trillium ovatum*, and *Viola purpurea* are just a few of the showier plants that William Weber mentions in the Colorado flora. Interestingly, he mentions that the Park Range is noteworthy for harboring perhaps up to 100 species not found elsewhere in Colorado. Many of these species are found in lush montane or subalpine forest. The Mount Zirkel Wilderness

Area is perfect for finding most of these, and the hikes to Three Island, Gilpin, or Bear Lakes, are three of my favorite trails to find these gems. The Big Creek Lakes area on the northeast side of the wilderness area is also particularly rich.

Regional endemics

The area near Steamboat Springs is not nearly as rich in endemics as the steppe regions to the east, north or west, or the high calcareous ranges of central Colorado.

There are however a few regional endemics, one being *Ipomopsis aggregata* subsp. *weberi* a white variant of the common pink-to-red scarlet gilia. It produces spectacular displays on Rabbit Ears Pass from late June to mid-July depending on the snowpack. It is also known from northern Idaho and south-central Wyoming where many of the species found in the Park Range spill over the state boundary via the Sierra Madre Range (in reality the northern extension of the Park Range).



Ipomopsis aggregata subsp. *weberi*

Corallorhiza maculata

Iliamna crandallii

Collected near Steamboat Springs and listed as being endemic, Crandall's wild hollyhock would be a great find. I have never set eyes on it despite several searches and apparently it has not been seen since 1937. It is very similar to the more widespread *Iliamna grandiflora*.

Orchids

While not exceedingly rich in orchids, Routt County does offer a few eye-catching and intriguing orchids. *Cypripedium fasciculatum* is probably the most beloved by local wildflower enthusiasts for its nodding greenish,



brown-maroon flowers. I have often seen it in rather dry lodgepole pine forest with *Vaccinium*. One of the best sites is the Master Key Mine near the town of Columbine. *Calypso bulbosa* is always a crowd-pleaser and can be found in damp spruce and fir forest. Lucky participants might just spy both of these special orchids next June on several of the hikes. Mixed in are *Corallorhiza*, coral root orchid, and various *Listera*, *Goodyera*, *Piperia*, *Limnorchis*, and *Spiranthes* in various locations ranging from moist forest to wet sunny seeps and streamsides.

Flowers that paint hillsides and meadows

While not of rare or even regional-specific species, the displays of wildflowers that are produced in the Routt County area can be phenomenal. From snowmelt to late summer various wildflowers can paint the landscape in ribbons and pools of colors. Below are several descriptions of what might catch your eye from the car through the seasons.

Early spring brings waves of various buttercups and other early

Erythronium grandiflorum





Ranunculus alismifolius var. *montanus*

Ranunculus jovis

flowers. In north Routt County at elevations around 8,000 feet and above, near Steamboat Lake and the town of Columbine, it starts in May (earlier near Steamboat Springs) with *Ranunculus glaberrimus* and *R. jovis*. At the same time, *Erythronium grandiflorum* can paint entire hillsides yellow. Oddly enough, some of these populations of fawn lilies seem to bloom heavily on alternating years. Blue *Mertensia brevistyla*, white *Noccaea fendleri*, and *Claytonia lanceolata*, can add cobalt blue and snow white accents to all the yellow. At about the same time, *Ranunculus alismifolius* var. *montanus* chimes in from truly wet meadows with *Caltha leptosepala* and,





Delphinium nuttallianum

down around Steamboat Springs in the rich hay meadows, *Ranunculus acriformis* paints yellow patches in early June. Following spring up to the subalpine and alpine elevations, *Ranunculus eschscholtzii* and *R. adoneus* can be found high in the Park Range and Flat Tops in late June and on into July.

After the first flush of yellow, blue, and white, the party continues with *Phlox multiflora* and *Delphinium nuttallianum* on the dry sagebrush hills near Steamboat Lake with populations of the *Phlox* often seeming white to the camera but really a mix of white, soft blue, lavender and pale pink to the human eye. If deep saturated purple is more to your taste then *Delphinium nuttallianum* is the plant for the job. Its displays range from scattered individuals in meadows and open aspen forest, to saturated pools of purple-blue near the Steamboat Springs airport in mid- to late May. *Geum triflorum*, various yellow *Senecio* species along with white *Bistorta* and *Valeriana*, greet the summer solstice from moist montane meadows.



Phlox multiflora
Geum triflorum



About the time that *Phlox multiflora* is going over, fields of yellow *Wyethia* and blue *Lupinus argenteus* celebrate America's Independence Day on the sagebrush slopes. Fields of white *Ligusticum porteri*, blue *Delphinium glaucum*, and yellow *Helianthella (Helianthus) quinquevovis* bloom beneath the aspen. As summer progresses, fields of *Agastache urticifolia*, *Delphinium occidentale*, and yellow *Heliomeris multiflora* continue the show. Late summer brings variously colored asters (now in a variety of genera), blue *Gentiana parryi*, and sundry yellow Asteraceae including *Solidago*.

A few of the author's favorites commonly seen along side roads and trails in Routt County

It's difficult to choose favorites among such a rich native flora. Of course every native plant holds some special place in my heart. What I have tried to do is discuss a few that have attracted my attention since I was young although none of these are regionally rare or endemic.



Linanthus nuttallii

Widespread but only locally common, this plant forms domes of white phlox-like flowers on gravelly slopes on Rabbit Ears Pass in early to mid-summer. It has proved to be a decent garden plant in my garden at 8,200 feet, even self-sowing a bit.

Linanthus nuttallii

Clematis hirsutissima

A native of dry sagebrush slopes and steppe, this clematis is clump-forming rather than a vine. It is slowly gaining a following among gardeners in its native region thanks to the work at Laporte Avenue Nursery in Fort Collins. It has been a long-lived beautiful addition to



Clematis hirsutissima

the garden with nodding maroon, blue, or maroon-brown flowers and fluffy seed heads over beautiful ferny foliage.

Clematis columbiana

Preferring moist north-facing slopes and scrambling rather than clump-forming, its pale blue flowers are always a treat to discover in early summer on stems clambering over stumps and logs.

Sorbus scopulina

Arguably my favorite native shrub, this forms clumps of rather coarse branches and twigs with bright green pinnate leaves. Clusters of white flowers in June develop into beautiful clusters of orange and red berries by late August and they can last into the winter. In autumn when the aspens are blazing away, this *Sorbus* adds tones of burning orange, red or bright yellow to the picture. It is an easily grown shrub for mountain landscapes and it deserves to be more widely grown in its native range.

Ceanothus velutinus

Like *Sorbus scopulina* this is not rare or regionally endemic. It catches one's attention most in winter when it is the only broad-leaved evergreen shrub in the landscape. Broad-leaved evergreens are rare in cold steppe climates but this denizen of rocky well-drained slopes and gravelly lodgepole pine forest scents the summer air, first with its cream-colored flowers in early summer and later, on hot summer days, with its resinous leaves. Sadly, it has proven to be rather difficult to cultivate longterm in western landscapes. It may well be that it needs to establish a relationship with some mycorrhiza.

A few areas outside of Routt County

Grand County and Middle Park

South and east of Steamboat Springs stretches Grand County the source of the Colorado River (historically the Grand River) in Rocky Mountain National Park. Much of the county is Middle Park, a large expanse of steppe. It stretches from the west side of the Front Range north and west to the Gore and Never Summer and Rabbit Ear Ranges. What at first appears as a dry open valley of sagebrush and greasewood is in reality an area of amazing diversity. Specialized soils that have not been glaciated or leached by heavy precipitation harbor several rare endemics along with plants more widespread through the western steppes.

Grand County holds at least two endangered species of plants (and possibly a third that was just recently discovered): *Astragalus osterhoutii* and *Penstemon penlandii*, one of few federally endangered *Penstemon* species. Both species commemorate regionally active botanists: William T.C. Penland is of note as being an avid alpine botanist who discovered many of the rare alpine species on Hoosier Pass in central Colorado and was a specialist in *Penstemon*. Both the *Astragalus* and the *Penstemon* are found on selenium-rich soils near Kremmling. Sharing a nearby habitat with the *Penstemon* is the recently described species of *Phacelia ginaglenneae*. It is found on soil that resembles lunar surfaces.

Gracing slopes of sedimentary-derived soils are more common *Astragalus* species, *Erigonum brevicaule*, *Penstemon caespitosus*, *P.*



Astragalus osterhoutii, Grand County

Penstemon penlandii, Grand County



cyathophorus (a monitored species), *Aletes nuttallii*, *Delphinium geyeri*, *Phlox hoodii*, *Oxytropis sericea*, and several *Erigeron* and *Townsendia* species. Early summer can be peak bloom time in Grand County with both highway US 40 and state highway 9 passing through the heart of Middle Park from Denver to Steamboat Springs and promising interesting roadside botany.

North Park

Slightly higher than Middle Park and with similar and also different substrates, this area is interesting in that it is the southeastern limit in Colorado for several Great Basin and more northern Rocky Mountain species, notably *Lewisia rediviva*, *Penstemon radicosus*, and *Eriogonum ovalifolium*.

Several regional endemics and at least one federally endangered species call this impressive sagebrush valley home: *Eriogonum exilifolium*, *Aster* (*Machaeranthera* or *Xanthma* in various floras) *coloradoensis* and *Phacelia formosula* (a federally endangered species) are part of the rich steppe flora. Sand dunes in the northeast corner of the park are the home of an endemic *Corispermum* (Bugseed). Mixed in are wet alkaline meadows and fens hosting two native species of *Primula*, *Pedicularis scopulorum*, and *Petasites sagittatus*. Acidic fens and bogs at the northwest corner of the park are home to *Drosera* and *Eriophyllum*, while *Trillium*, *Cypripedium* and *Rhododendron* border the west end of the steppe in the forest on the slopes of the Park Range, creating a truly dynamic flora.



I hope you will find northwest Colorado as botanically interesting and fruitful as I have. It has amazed and nurtured my curiosity in nature since various wildflowers caught my eye as a young child wandering the fields and trails with my parents.



Phlox multiflora with Sand Mountain in the background



PLANTSMAN'S TOUR OF WYOMING

5 day tour: June 27–July 1, 2016

DESCRIPTION

Big Horn Mountains, Wyoming: June 27–July 1: "Plantsman's Tour" led by Denver Botanic Gardens Curator **Panayoti Kelaidis** (and potentially another curator if we use two vans): (5 day tour)

TRIP OVERVIEW

The end of June and early July is peak season for flowers throughout the Rockies, but never more so than in the State of Wyoming, which may resemble Colorado in rectangular shape, but has a fraction of the human population ... although a good many more antelope.

Departing from Steamboat Springs we will spend the first day traveling to Cody, Wyoming (which will be the base of operations for the trip). En route we will stop several times to admire the sagebrush steppe, which harbors a wealth of unusual endemic taxa. Lunch will be a picnic en route.

In Cody, we will stay at Thomas the Apostle Retreat Center – a beautifully situated complex with spectacular views of the Cody valley, and comfortable rooms. We will be hosted by the Center managers, Jay and Caroline Moody who have created lovely gardens surrounding the Center which are full of unusual native and adapted shrubs and perennials. The Center <tac.dioowy.org> has many acres of pristine sagebrush steppe that are also well worth exploring.

On the first day in Cody we will drive to the summit of the Bighorn Mountains, which are largely composed of dolomitic limestone in the area we will explore: this area is almost mythical for its wildflower displays – and there are many unusual and some very rare plants that are only known from here and a few neighboring spots: the gorgeous



Aquilegia jonesii - star of the Bighorn Mountains

Jones' columbine (*Aquilegia jonesii*), Kelsey moss (*Kelseyia uniflora*), and the regional endemic rock brake fern (*Pellaea occidentalis*), are just a few of the gems we shall see.

The next day will be a circle drive over Beartooth Pass – one of America's most spectacular highways which crosses many life zones and has spectacular montane, subalpine, and alpine flower displays – all of which should be at peak bloom. Here Purple Saxifrage (*Saxifraga*

View from Beartooth Highway looking southwest





Douglasia montana - Beartooth Highway roadside

oppositifolia) has its nearly southernmost occurrence, as does purple heather (*Phyllodoce empetriformis*). For dozens of miles the road is ringed by a tapestry of wildflower color unequalled anywhere - a day you will remember!

A third day will be dedicated to time at the Retreat Center, optional visit to the world-class museums in the Buffalo Bill Center of the West, and hikes in the cushion rich steppe flora.

Come join us on this trip: we can guarantee you more flowers than you dreamed possible, and views to match!

Eritrichium nanum - Beartooth Highway roadside

Price:

\$950 per participant

Includes: Guide, all transportation in a motorcoach (Steamboat Springs-Cody-Denver), St Thomas Retreat accommodation, and all meals.





Historic picturehouse in Cody

Trip Details:

Group Minimum: 10 participants

Group Maximum: 20 participants

Physical Exertion Rating: Easy to moderate

Vehicle(s): fifteen-seat passenger van(s).

Booking

Booking should be done at the same time as Registration for the Annual Meeting (see page 11). There is a space on the Registration Form. It is likely that this tour will book out rapidly once Registration for the Annual Meeting opens.

Tour leader Panayoti Kelaidis is happy to answer any questions about the tour. You can email him at <kelaidip@botanicgardens.org> or you can call 303-356-1698.



St. Nick's Progress

THIS SEQUENCE OF pictures by Michael Heim won the 2015 Photo Contest Class 1 - The Rock Garden in Winter - and this felt like exactly the right time to publish them ~



NORTH AMERICAN ROCK GARDEN SOCIETY		
	<i>The Rock Garden</i>	<i>winter</i> 2015 2016
	QUARTERLY	volume 74 1
NARGS Bulletin Board		

NARGS Donation Appeal

Dear NARGS member,

The NARGS Administrative Committee thanks those of you who have supported NARGS, either with a financial donation and/or through service to the society. The purpose of our society is to encourage and promote the cultivation and conservation of rock garden plants along with knowledge of their value, habits, and geographical distribution.

Due to declining membership, our accounting shows us to be in great need of basic services for 2016. Simply put, we do not have enough projected renewal income to cover the cost of basic 2016 services. At the Ann Arbor annual general meeting, plans were presented to rectify this general income deficit via a series of new and ongoing income-generating projects. Botanical tours are one such activity that is already under way, and merchandising on the website, for example, is another possibility.

This next year, however, your financial support will be greatly needed. For example, if every member were to donate \$5 for each hard-copy issue of the journal, for a total of \$20, we would be able to maintain the journal intact. However, a donation in any amount is appreciated.

In the U.S., NARGS is a 501(c)(3) tax-exempt organization and your donation may be tax deductible to the extent permitted by law.

You may make a donation on-line on the NARGS website:

<<https://www.nargs.org/product/donation>>, using the "donate" button.

Or you may donate by check (made payable to "NARGS") or by credit card. Mail checks or credit card information to:

NARGS, PO Box 18604, Raleigh, NC 27619-8604

Thank you for your support

Happy holidays.

NARGS Administrative Committee

New Members

*Welcome to all those who joined between
August 6 and November 4, 2015.*

Adams, Rosemarie, 1089 Kilmer Rd., N. Vancouver, BC V7K 1P9, Canada
Arllen, Nancy, 920 Irish Rd., Scottsville, VA 24590-4008
Ashenden, Beverly, 1545 Satellite Dr., Medford, OR 97504-9072
Bechand, Elizabeth, 13 Maryview Dr., Wynantskill, NY 12198-8703
Boyle, Mike & Marlene, 10641W. Ida Pl., Littleton, CO 80127-2014
Chamberlin, Carolyn, 4627 Eagle Trace, Medford, OR 97504-9049
Clark, Amy Pelletier, 197 Salisbury Tpke., Rhinebeck, NY 12572-3040
Clay, Virginia, POB 456, Oxford, NC 27565-0456
Davis, John, 4845 Northwood Pl., W. Vancouver, BC V7S 3C5, Canada
Evanetz, Susanne, 3731 Beach Ave., Roberts Creek, BC V0N 2W2, Canada
Giesecke, Lori, 1044 Fairplay St., Aurora, CO 80011-7026
Gottselig, Len, 1062 Evergreen Cir., Canmore, AB T1W 2P9, Canada
Harvey, Barbara, 102 Ayr Ct., Cary, NC 27511-6402
Horky, Josh, 911 N. 5th Ave. E, Duluth, MN 55805-1340
Imison, 520 Mt. Macedon Rd., Mount Macedon, VIC 3441, Australia
Kellog, Karen, Garuda Gallery, 162 Gay St., Sharon, CT 06069-2059
Kennedy, David, 82 Camp St., Katoomba, NSW 2780, Australia
Kimiharu, Hayano, Kotobuki 3-5-36, Honjo, Saitama, 367-0023, Japan
Laskowski, Robert, ul. Odolanowska 33, Topola Mala, 63-400, Poland
Maurin, Sharon, 1505 Cypresspoint Dr., Medford, OR 97504-9272
Munger, Laddie, 1001 Washington St., Cary, NC 27511-3919
Nunnally, Gordon, 3121 Old Military Rd., Central Point, OR 97502-1115
Palmer, Irene, 424 W. Lamb St., Apt. 1, Bellefonte, PA 16823-1226
Portier, Cathy, Alpenplanten.BE, Margareta Van Vlaanderenstr. 27,
St.-Kruis Brugge 8310, Belgium
Smart, Cindy, Durango Botanical Society, 1400 Main St., Durango, CO
81301-5184
Smith, E. White, 4317 N. 18th St., Tacoma, WA 98406-4307
Springer, Irene, 955 Eudora St., Apt. 204 E., Denver, CO 80220-4339
Stevens, Roy, 196 Kirkfield Rd., Withernsea, Hull, E. Yorkshire HU19 2LE,
United Kingdom
Strong, Shirley, Strongs Alpine Succulents, POB 50115, Parks, AZ 86018-
0115
Sundin, Jane, POB 8, Broadway, NC 27505-0008
Thomas, Andrew, 2169 Purple Martin Dr., Rock Hill, SC 29732-7780
Uban, Bradley, 3730 Big Woods Rd., Ijamsville, MD 21754-9418
Uhler, Michael, 5514 Brookdale Ave., Oakland, CA 94605-1023
Willis, Joshua, 1724 Darbrook Dr., Charlotte, NC 28205-4944
Wilson, Carl, 2886 S. Quay Way, Denver, CO 80227-3540
Wolf, Mary Linn, 1295 Long Acre Rd., Palmyra, VA 22963-5036
Yano, Satoshi, 61 Horton Rd., Cold Spring, NY 10516-3803

NARGS Donations

Donations between August 6 and November 4, 2015: \$3320.

Designated for the general fund, educational tours, speakers tour, *Rock Garden Quarterly*, website, and in memory of Helga Andrews, John Bieber and John Willis.

Adelman, Elizabeth L. (Wisconsin)

Andre, Henry (France)

Avery, Lela (Vermont)

Bennion, Frank (United Kingdom)

Brown, Alison A. (Maine)

Brown, William (Bill) (New York)

Davison, Richard (Massachusetts)

DeRouin, Cecile (Florida)

Friberg, Shirley J. (Minnesota)

Griffith, Charles (Minnesota)

Hull, Carol Leighton (Massachusetts) Willis

Koch, Dean (Wisconsin)

Langdon-Paff, Dawn (Michigan)

Lockhart, Bruce (Massachusetts)

Moore, Nancy J. (Massachusetts)

Novak, Janet (Pennsylvania)

Peroni, Guiseppe (Italy)

Stephenson, Bob (Colorado)

Thompson, Andrea (Michigan)

Vaxvick, Linda L. (Canada)

Weinz, Barbara D. (Massachusetts)

OBITUARY

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

Myrna Ann Jewett, Monroe, Washington

Nickolas Nickou, Branford, Connecticut

**Kai Mei Parks (Camellia Forest Nursery), Chapel Hill,
North Carolina**

Margaret "Midge" Riggs, Hastings on Hudson, New York

Theodora Unzner, Schoneiche, Germany

SEED EXCHANGE

We have many people to thank for our annual Seed Exchange, which is in process now. It all begins with the many generous donors, who take the time and effort to gather, clean, and ship seeds to NARGS – and we all thank you for sharing so liberally.

After our Intake Manager, Laura Serowicz, enters the names of the seeds (updating to reflect the latest taxonomic changes), descriptive information, and the donors, she packs up the donated seeds and ships them to the several chapters and individuals who divide and re-package the seeds into the familiar glassine envelopes, and seal them with the informative labels. We have these people to thank for making it possible to share the seeds among so many of our members.

The seed list and the electronic ordering system were slated to go live online on December 15. Thanks go to Daniel Dillon and Blazej Owczarczyk for all their work in redesigning this program. Members seed orders began on December 15.

Beginning in January 2016, members of the Piedmont Chapter will begin filling the orders that arrive by mail or through the NARGS website. This year, the Main Seed Distribution is being organized by David White, Bobby Wilder, Marlyn Miller, Charlie Kidder, and Bobby Ward, with the assistance of their chapter's volunteers. You will be able to place an order until February 5, 2016.

If you are new to NARGS, or have not ordered online in previous years, make sure that our Executive Secretary, Bobby Ward <nargs@nc.rr.com>, has your most current email address. Then, set your user name and password on our website. To begin ordering seeds, you will need to log into the NARGS website and be sure to read the introduction and instructions for placing an order.

If you require a printed seed list, contact me right now:

Joyce Fingerut

537 Taugwonk Road, Stonington, CT 06378-1805, USA

<alpinegarden@comcast.net>

Please note: NARGS requires all members to pay for their seeds; overseas membership fees no longer include the seed exchange and therefore must pay for seeds.

For those who simply can't get enough seeds, there is always a Surplus Round of orders in March, which will again be handled by the members of the Rocky Mountain Chapter. In this round, you can order

up to 100 packets of seed, for the unbelievably low price of \$5 for 20 packets.

There are always a surprising number of choice items still on hand, and you can purchase seeds in the Surplus Round even if you have not participated in the Main Round. Linda Meyer will again be coordinating the efforts of the many volunteers from this very active chapter. (All this, plus the Rocky Mountain Chapter is hosting a fantastic national meeting for this summer, too!)

Be sure to look for the Surplus Round list of available seeds online on March 1, or request a print copy of the available seeds by checking that box on your first seed order. The second round closes on March 20 and, after that, all remaining seeds are distributed to NARGS chapters that request them.

We hope that all these seeds and (hopefully) seedlings will encourage you to think about sharing the seeds of the plants from your gardens and your travels.

In the meantime, I hope you have a viable winter and enjoy an early, refreshing spring.

**Joyce Fingerut, Director
NARGS Seed Exchange**

NARGS Speakers Tour

The NARGS Speakers Tour will host Eleftherios Dariotis, a horticulturist and botanist from Greece, an expert on Greek and Mediterranean flora. He has studied in both the U.S. and U.K. Eleftherios will be traveling to western U.S./Canada chapters in the spring of 2016. A schedule, topics, and planned chapters visit is posted on the NARGS Web site.

For more information contact James Dronenburg at: <2rutlands@comcast.net

A speaker is being lined up for eastern US/Canada chapters for fall 2016.

—Submitted by Panayoti Kelaidis and James Dronenburg

OBITUARY NOTICES

Myrna Ann Jewett

Northwestern Chapter member, Myrna Ann Jewett, of Monroe, Washington, died on October 31, 2015, age 75. She was a long-term member of NARGS, having joined in 1981, and was a vital member of the Northwestern Chapter. Myrna was a retired scientific computer programmer.

Her favorite plants were Pacific Northwest natives, including conifers and "ground-hugging" plants. In the winter 2012 issue of the NARGS Quarterly, Myrna wrote an article titled "Whidbey Island, Ebey's Landing" as her recommended places to visit around Puget Sound during the NARGS meeting at Everett, Washington.

Kai Mei (Chang) Parks

Kai Mei Parks, Chapel Hill, North Carolina, died October 22, 2015, age 78. She was born in Shanghai, China, and lived in England and California, working as a medical x-ray technologist.

Kai Mei moved from California with her former husband, Cliff, to Chapel Hill, where she co-founded Camellia Forest Nursery. The mail-order nursery served local and national customers, specializing in camellias and exotic shrubs and trees. Her favorite camellias were 'Kai Mei's Choice' and 'Crimson Candles'. She excelled in tapestry weaving and won many awards for her work. Her son, David, now operates Camellia Forest Nursery.

Margaret "Midge" Riggs

NARGS member Midge Riggs, Hastings-on-Hudson, New York, died October 19, 2015, age 85. She was a member of NARGS since 1983 and a member of both the Hudson Valley and Berkshire chapters. She was one of the organizers of the Hudson Valley Chapter in the early 1970s.

With a degree in biology, she worked in genetic counseling and health services for women including Planned Parenthood.

Midge was an avid rock gardener; her garden in Hastings was on the Garden Conservancy tour several times over the years. She and her late husband, David, traveled the world looking at gardens and enjoying the scenery, visiting Russia, Poland, Turkey, China, Switzerland, Egypt, as well as around the United States. She gave lectures at NARGS meetings, and opened her garden to NARGS members, including during annual meeting tours.

Patrons

The following recently became NARGS patrons:

THORNTON W. BURNET, JR. (VIRGINIA)

KINDIG, SYLVIA M. (PENNSYLVANIA)

Berkshire Chapter Award for Service

Lori Chips

Lori Chips was interning at the New York Botanical Garden alpine house when I met her many years ago. Her vivaciousness and hands-on knowledge were immediately apparent. My questions about pots and the plunge bed led to a professional discussion of her experiences with them, which she shared enthusiastically. Her love of the subject was obvious.

Later, when Lori was Alpine Manager at Oliver Nursery in Fairfield, Connecticut, Berkshire Chapter members were impressed that she would share her expertise at our meetings. Lori not only gives us her insight into special alpiners, but she donates trays of these plants from the nursery to our member sales tables year after year. Tray-full after tray-full . . . with the same selfless dedication to the chapter. Her expertise with growing ranges from the classical androsaces and saxifrages of overseas high mountains, through western North American gems like penstemons and eriogonums, to local natives like the phlox cultivar 'Ellie B'. At each members sale she shares tips and culture for the various plants. We learn so much from her!

Lori has enriched our newsletter with exquisite drawings and articles that express the same infectious love of plants we know from her in person. She has also redesigned our membership brochure, adding wonderful copy with enticing photos, then printing and distributing it. We are indebted to her energy and creativity.

A recognized expert on trough-making and planting, Lori has helped with many of our workshops, sharing her ingredients list and tips for planting design.

In summary, Lori continues to be a smiling presence at chapter meetings, generous with her plant knowledge, and a good friend to everyone. The Berkshire Chapter is pleased to recognize Lori Chips for loyal service to the chapter and for promoting rock gardening in the Northeast.

--Submitted by Elisabeth Zander

Piedmont Chapter Award for Service

Marian Stephenson

Marian Stephenson has been a vital part of the Piedmont Chapter for many years, contributing her time and talents in many ways. She has served on our board, including a six-year term as chapter chair, during which time the by-laws were updated under her leadership. In 2004 Marian chaired the highly successful NARGS annual meeting that the Piedmont Chapter hosted in the Raleigh-Durham-Chapel Hill area.

In September 2004, she became co-editor of our newsletter, The Trillium, and has served in that capacity for the past eleven years, publishing typically five issues per year. During this time the newsletter has introduced color pictures and has been published electronically for our membership, thereby saving on mailing costs.

For all these reasons and more, the Piedmont Chapter is pleased to present the NARGS Award for Service to Marian Stephenson.

--Submitted by Bobby Ward

Rocky Mountain Chapter Award for Service

John Brink

John Brink became captivated by rock gardening in the mid-1980s when he first visited the rock garden at Denver Botanic Gardens. He soon joined NARGS and the Rocky Mountain Chapter for both the educational and social benefits of being a member. For years John has volunteered at the Spring Plant Sale and in 2012, he joined the Board as Member-at-Large, Metro Area.

As a board member, John has worked on updating our chapter's by-laws, creating written guidelines for reimbursement to hosts for our speakers, and helped with our chapter's Internet presence. He has served on and chaired our awards committee, helped with the NARGS Seed Exchange, and written articles for the Saximontana, our chapter newsletter.

John is a modest and compassionate person who works quietly behind the scenes, never seeking praise or credit for his work. As a member of the board, he is skilled at critically analyzing situations and arriving at solutions that are considerate of diverse viewpoints. In short, John has contributed enormously to our chapter and richly deserves the Award for Service from the Rocky Mountain Chapter of NARGS.

--Submitted by Mary Jenson and Caryl Shields

Rocky Mountain Chapter Award for Service

Kenton Seth

Kenton Seth is a western Colorado native whose artistic eye, thirst for knowledge about plants, and passion for gardening are having a growing impact and influence across Colorado and beyond. In addition to his involvement in creating crevice gardens in numerous private and public gardens, he has been active in acquiring and disseminating knowledge about western U.S. native dryland plants of horticultural value.

Kenton has consistently volunteered when asked to serve on chapter committees, and he has demonstrated leadership and initiative through his service as the 2015 Plant Sale Chair and his major role in developing a large public crevice garden in Arvada, Colorado. He has regularly contributed articles to *Saximontana*, the chapter's newsletter, and published accounts of his extensive travels in the *Rock Garden Quarterly*. Kenton has also enthusiastically given presentations and demonstrations on a variety of subjects for the Rocky Mountain Chapter, as well as to other chapters of NARGS. His outreach efforts to other organizations and to the public compellingly promote rock gardening and the appreciation and cultivation of rock and alpine plants and wildflowers.

--Submitted by John Brink

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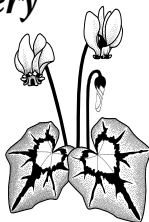
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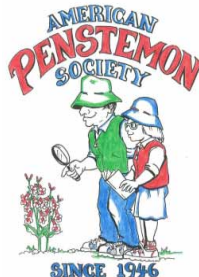
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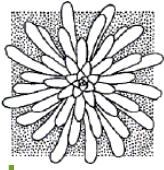


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The officers of the North American Rock Garden Society consist of a president, a vice-president, a recording secretary, and a treasurer. The officers are elected by the membership.

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.

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