NORTH AMERICAN ROCK GARDEN SOCIETY

The Rock Garden

QUARTERLY

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CONTRIBUTORS

All illustrations are by the authors of articles unless otherwise stated.

Todd Boland is a research horticulturalist at the Memorial University of Newfoundland Botanical Garden located in St. John's, Newfoundland, Canada. Todd is Chair of the Newfoundland Chapter. He is one of the stalwarts of the NARGS web forum and manages the NARGS "Plant of the Month" feature and photo galleries. When not in his garden, Todd enjoys pursuing a passion for bird watching, a hobby that has inspired him to travel to many exotic places.

Mike Kintgen is Senior Horticulturist at the Denver Botanic Gardens where he oversees the Alpine Collection and nine gardens, including the Rock Alpine Garden, and South African Plaza. He has been a member of NARGS since 1993 (age 12) and has been President of the Rocky Mountain Chapter. He is currently busy working towards the Annual Meeting for 2016 in Steamboat Springs.

Stephen Love currently serves as a Professor of Horticulture at the University of Idaho where he teaches and conducts research on topics related to xeric and native plant gardening. His interests include the domestication of native plants from the western US for use in home and commercial landscapes. An avid gardener himself, Stephen's personal rock garden includes over 200 species of native alpine and desert plants. In addition to being a member of NARGS, Stephen is also a past President of the Eriogonum Society and Bulletin Editor for the American Penstemon Society.

Liam and Joan McCaughey are retired doctors and active members of the Ulster Group of the Alpine Garden Society. They garden in County Antrim, Northern Ireland, at an altitude of 30 feet, but their interest in alpine plants and photography has led them over the years to visit mountain habitats in five continents, and on occasion they give talks about these trips.

Sally Walker was born in England. She studied at Waterperry Horticultural School, worked at Jack Drake's Alpine Nursery and at Ingwersen's Nursery. She came to the U.S. in 1963 and woeked as a propagator at Western Hills Nursery. With husband Tim, in 1975 she founded a seed business in Arizona, later named Southwestern Native Seeds (see her ad on page 285). Sally has deposited some 1600 herbarium specimens from her collections at Utah State University Intermountain Herbarium (Logan). She received the NARGS Marcel Le Piniec Award in 1996. Sally's motto is "I Brake for Wildflowers."

Front cover: *Eriogonum ovalifolium* var. *depressum* – Stephen Love

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The Rock Garden

QUARTERLY

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EDITOR
Malcolm McGregor,
16 Mill St., Hutton,
Driffield, East Yorkshire YO25 9PU, U.K.
<mmcg@mmcg.karoo.co.uk>
0044 1377 270717

Advertising inquiries should be addressed to
Wendy Sellars, Advertising Manager,
PO Box 38082, 10-2448 160 Street, RPO Morgan Heights,
Surrey, BC V3S 6R3, Canada
<NARGSads@shaw.ca>

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From the Editor

NO SOONER DOES one Annual Meeting take place than the next appears on the horizon. Ann Arbor was the venue for this year's meeting and the whole event was a triumph of planning with every attendee seeming to have nothing but praise. Plant sales, tufa sales, silent auctions, business meetings, presentations, garden and habitat visits, all functioned smoothly. So, many thanks are due to the organising group, garden owners, bus tour guides, and contributors to the plant sales. But perhaps the greatest thanks are due to three key members of the organization, and their wives, who also opened their gardens for garden visits: Tony and Susan Reznicek, Jacques and Andrea Thompson, and Don and Mary LaFond. That Jacques and Don also managed to provide demonstrations, Jacques of making a stone trough, and Don of taking *Daphne* cuttings, and then the three of them drove the buses for the extension trip around the Upper Peninsula can only leave every attendee deeply in their debt.

And so we can now pencil June 23-27, 2016, into our diaries for next year's event in Steamboat Springs, Colorado. In this issue, Mike Kintgen provides a first taste of what the area has to offer – booking details will follow in a future issue.

THE GEOFFREY CHARLESWORTH Writing Prize stands apart from the other awards given by NARGS. Unlike the awards reported on page 234 this is a competitive award. It is given to the writer of what is regarded as the best piece of writing in the previous year's *Quarterly*. And the list of recipients is a meritorious one. Since its inception in 2008 it has been given to Kristl Walek, Andrew Osyany, Panayoti Kelaidis, Charles Hipkin, Stephanie Ferguson, Mike Bone, Dieter Zschummel, and Don LaFond. Their articles have ranged across the field of rock gardening, growing plants from seed, plant exploration from North America to Tibet. There is no model for what makes a great article. It is a matter of style and subject coming together.

This year's winner, Gwen Moore, follows in exactly this tradition. Gwen was editor of this publication from 1990 to 2000 and it was a pleasure to be able to publish an article by such a notable predecessor. Her article "Gardening with Elk: Theory and Tactics" in the Spring 2014 issue brings her gardening experience, and the clarity of her written voice, together. Communicating with any gardener, with elk problems or no, Gwen's article is a joy.

Steppe flora in Middle Park

Steamboat Springs and the Northern Colorado Rockies

Mike Kintgen

HISTORIC STEAMBOAT SPRINGS, Colorado, is located about 170 miles northwest of Denver in a botanical paradise. Elevations in the region range from 6,000 feet to over 12,000 feet, taking in almost the full spectrum of life zones found in Colorado. The only one missing is short grass prairie, which in this part of the state is replaced by sagebrush steppe. In the summer it is possible to start in sagebrush steppe and hike your way up through all the life zones to the alpine in one day. It is not surprising that with so much diversity in landscapes and habitats a wide range of vascular plants call northwest Colorado home. Long known to botanists for an array of flora disjunct from the Pacific Northwest in the cool and moist Park Range to several possible endemics of middle elevations, and a rich steppe and meadow flora encompassing both wide-ranging species and regional endemics, few areas of Colorado can show off such floral diversity.

The past four NARGS Annual Meetings in Colorado in 1986, 1993, 2003 and 2010 centered around alpines and rock gardening and focused on the rich and interesting Front Range and the central Rockies of the state with their rich alpine, subalpine and montane floras. The area around Steamboat Springs, venue for the 2016 meeting, is a bit different: the mountains tend to be a bit lower, none are over 12,400 feet, and they are a bit more gentle. The high alpine areas tend to be accessible only to hikers, meaning they are often full of solitude and wide open vistas over the steppes and lower mountains of northwest Colorado and southern Wyoming. Depending on snow conditions we may have a few hikes going up into the subalpine/alpine areas of the Flattops; however, most of the hikes and trips will focus on

Steamboat Lake

elevations ranging from the rich and varied steppe flora up into the interesting montane and subalpine areas. Variable winter snowfall, snowpacks, and upredictable spring meltouts (even more possible and unpredictable in the last 10 years) make it difficult to predict what exactly will be in bloom the last weekend of June 2016, but in general Steamboat Springs could easily challenge Crested Butte as the

"Wildflower Capital of Colorado," and probably exceed it in variety.

Below is an introduction to some of the mountain ranges and areas around Steamboat Springs. Watch for individual articles leading up to the meeting covering various aspects of these special areas.

Park Range

This north-south-trending range starts near Steamboat Springs just north of Rabbit Ears Pass and runs into southern Wyoming. Steamboat Springs Ski Area covers scenic Mount Warner and the neighboring peaks of this range. Easily the most rugged part of northern Colorado, and the most northern areas of alpine tundra in Colorado, northwest Colorado's highest peak is here and is the crown jewel of the Mount Zirkel wilderness area, one of Colorado's first and most beloved wilderness areas. Rugged granitic peaks and glaciated valleys with some of the highest snowfall rates in the state create a haven for several Pacific Northwest disjuncts. The most famous and photographic are *Rhododendron albiflorum*, *Trillium ovatum* and *Mimulus lewisii*. Heavy winter snowpack makes the range difficult to access before July 1 most years but several hikes, weather-permitting, will allow visitors to see *Trillium ovatum* and a host of other choice forest- and meadow-dwelling plants. *Erythronium grandiflorum* can put on a spectacular display in some years and covers a wide elevation range. Flowering can range from early April around Steamboat Springs to early August in higher elevations of the Park Range.

North Park

Colorado has many "parks," the name given by trappers and explorers to the broad open valleys and basins of the Rockies. Four large parks stretch across central Colorado from north to south with the creative

names of North, Middle, South and the San Luis Valley. Countless other parks are found throughout the state and vary in size from a few square miles to several hundred. North Park is high sagebrush steppe with an average elevation of 8,000 feet. Sitting in the rainshadow of the Park Range, precipitation averages 10 inches a season. Full of choice *Eriogonum*, *Astragalus*, *Aster coloradoensis*, *Castilleja* and *Penstemon*, with a smattering of alkaline fens, this area can be a very interesting region to visit. A trip is planned to the area.

The Flat Tops

Situated to the southeast and east of the steppe, this series of high volcanic plateaus and peaks is one of Colorado's lesser-known treasures. The heart of the region is preserved in the Flat Tops Wilderness Area. Several of the highest plateaus and peaks are home to some of the largest expanses of alpine habitat in the state. The reward for making it to the top is a "Sound of Music" experience with flower-filled alpine tundra stretching in all directions, with the rugged peaks of Colorado's highest mountain ranges stretching to the north, east, and south. Limestone and sedimentary rocks abut the volcanic basaltic lava flows of the northern part of the range, creating a spectacular region of deep canyons, glacial lakes and mind-boggling rich flora in the southern part of the range. Elevations vary from 7,000 to over 10,000 feet on the Coffee Pot road.

North Routt County

The area north of Steamboat Springs and west of the Park Range is a region of eroded volcanic peaks intruding through sedimentary rocks. Elevations range from 7,000 to almost 11,000 feet, offering steppe, oak scrub, aspen, montane and subalpine meadows, and mountain and subalpine conifer forests.

Stillwater Reservoir in the Flat Tops

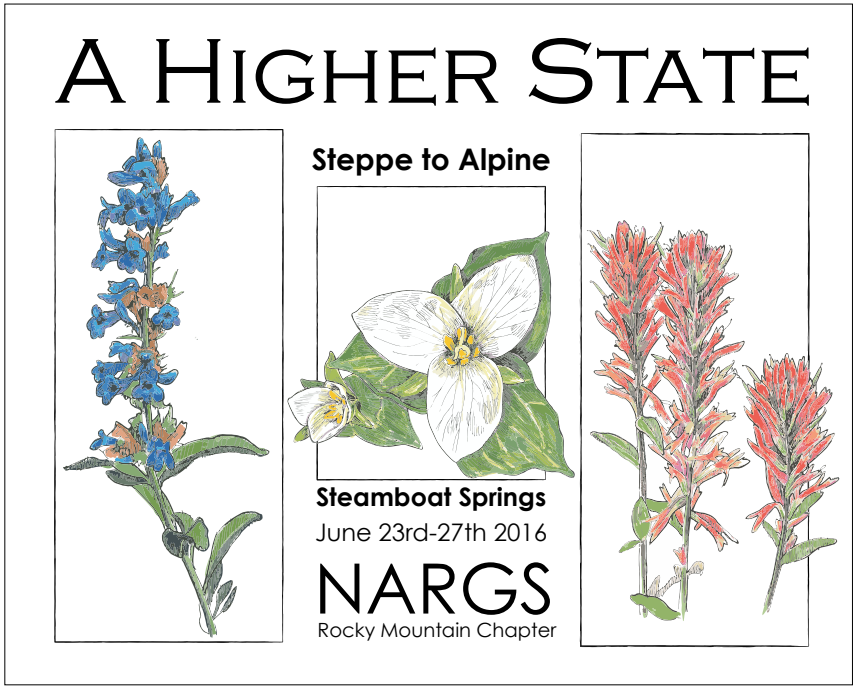
Castilleja chromosa northwest of Steamboat Springs

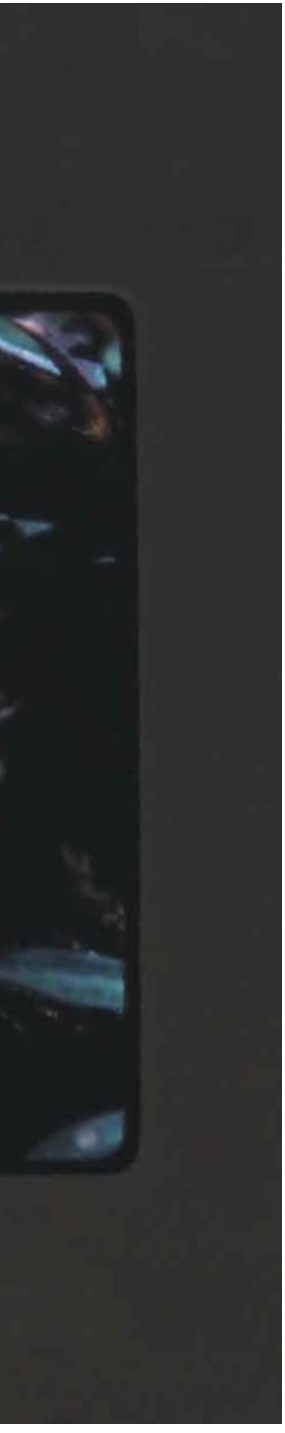
Wildflower displays can be spectacular and could include *Phlox multiflora*, *Wyethia*, *Bistorta*, *Penstemon* and *Castilleja*. This is the region I have gardened in for over 25 years at 8,200 feet.

West of Steamboat Springs

Following the Yampa River west from Steamboat Springs to its rendezvous with the Green River near the Utah border takes one through the towns of Milliner, Hayden, and Craig. Eroded volcanic peaks and sedimentary ridges create a variety of habitats ranging from cool coniferous forest, aspen groves, oak scrub to sagebrush steppe and windy ranges lined with cushion plants. One of Colorado's richest expanses of steppe starts at the west end of Steamboat Springs and runs all the way into Utah and southwest Wyoming. In late spring this area is home to a spectacular display of *Phlox*, *Castilleja*, various yellow "daisies" and *Penstemon*.

Steamboat Springs will offer conference attendees a chance to see a different side of Colorado, one where alpine peaks overlook gentle slopes of dense conifers and aspen, and broad green valleys where local agriculture still holds sway open to wide vistas of sagebrush steppe. Fuller details will be available in the next issue of the *Quarterly.*





Some Rock Garden Subjects from Arizona

Sally Walker

SOUTHERN ARIZONA HAS two growing seasons: spring and late summer and autumn and, if we have a dry winter, which has happened the last three years, the spring season doesn't amount to much. The summer rains start in July and continue till September. But in between these two seasons is the main dry season starting in mid-May and many days the temperature will rise above 100 degrees.

My earlier attempts at gardening in Arizona were unsuccessful and now I don't garden at all; although now I know so much more about the flora and might have a better chance.

Throughout the more than 40 years we have been in Arizona, we have been learning the plants. We keep notes of their times of flowering and, most importantly, their times of being in seed. I can think of some plants that I haven't seen in flower for years, just in seed.

While gardening in Arizona can have severe difficulties attached to it, by growing the native mountain plants, we hope that people who live in climates that are more conducive to gardening will be able to grow them. All the plants mentioned in this article grow above 4000 feet in elevation in Arizona so should be hardy, but most could benefit from extra watering in cultivation

Townsendia exscapa grows from 4500-7000 feet in Arizona. Although it can be found from Canada to Mexico, I have never found a large patch of it. The leaves appear in late winter. "Exscapa" means "without a stem" and what stem there is is hidden by the flowers so it seems as if the flowers sit on the ground. Its common name is Easter daisy. After flowering the seedheads form puff-balls which are quite attractive; then the plants die down through the summer. Picture taken April 12, 1984.

Aquilegia desertorum is found at 7000-8000 feet. I think it is misnamed as it blooms among rocks in coniferous forests and is not a desert plant. The flowers are slightly smaller than those of *A. triternata* and the leaves are biternate. It is only found in central Arizona. Picture: Coconino County, July 30, 1988.

Aquilegia triternata grows from 4000-10000 feet and has a wider distribution - from western Colorado to New Mexico. Picture: Catalina Mountains, August 11, 1986.

Spring flowering bulbs need November rains to get them started. *Calochortus kennedyi* blooms in late March and April at 5000 feet or lower. At this elevation they may may not receive any summer rain, but the bulbs can take it as long as it rains the next November. This picture taken near Tucson, Arizona, April 8, 1978.

Fritillaria atropurpurea, like *Calocochortus kennedyi*, blooms in spring. Its habitat is pine-oak woodland from 5500–8000 feet. It is still possible to collect seeds in June, when the temperature is 100F. Picture taken near Sedona, Arizona, April 23, 1990.

Milla biflora does not come up every year. It needs a good rainy season. It lives in grass amongst pinyon, juniper, and oak from 4000–7000 feet. In spite of the specific name "biflora", I have seen as many as five flowers per stem. It grows near the border and in Mexico. Picture taken near Chihuahua, Mexico.

Lilium parryi (below) starts into bloom in late June at the hottest driest time of the year, but it lives at over 7000 feet. I drove over the base of the Huachuca mountains, on June 23, 1970, then took the dirt road that goes over Carr Canyon and had to hike down to the lilies. I hoped this wouldn't be too difficult for my four-year-old. It wasn't. Later I returned for seed. The lily produced a large quantity. I scattered some beside a creek at various elevations in the Chiricahua mountains. Thirteen years later four plants flowered. Then, there was a flash flood which demolished them. *Lilium parryi* is more common in California. Picture: Huachuca Mountains, June 23, 1970.

Arizona Flora (Kearney and Peebles) lists 37 species of evening primrose. *Oenothera neomexicana* is one of the white ones. Travelling up the Swift Trail, the road up Mt. Graham, in the early morning in August at 8500 feet, round the last bend before the road levels out at 9000 feet, one can see a patch of *Oenothera neomexicana* in bloom. It is white, fading to pink. Descending later on in the day, the flowers are over and there is little sign of them. Early morning primrose would be an appropriate name. Picture: August 16, 1997.

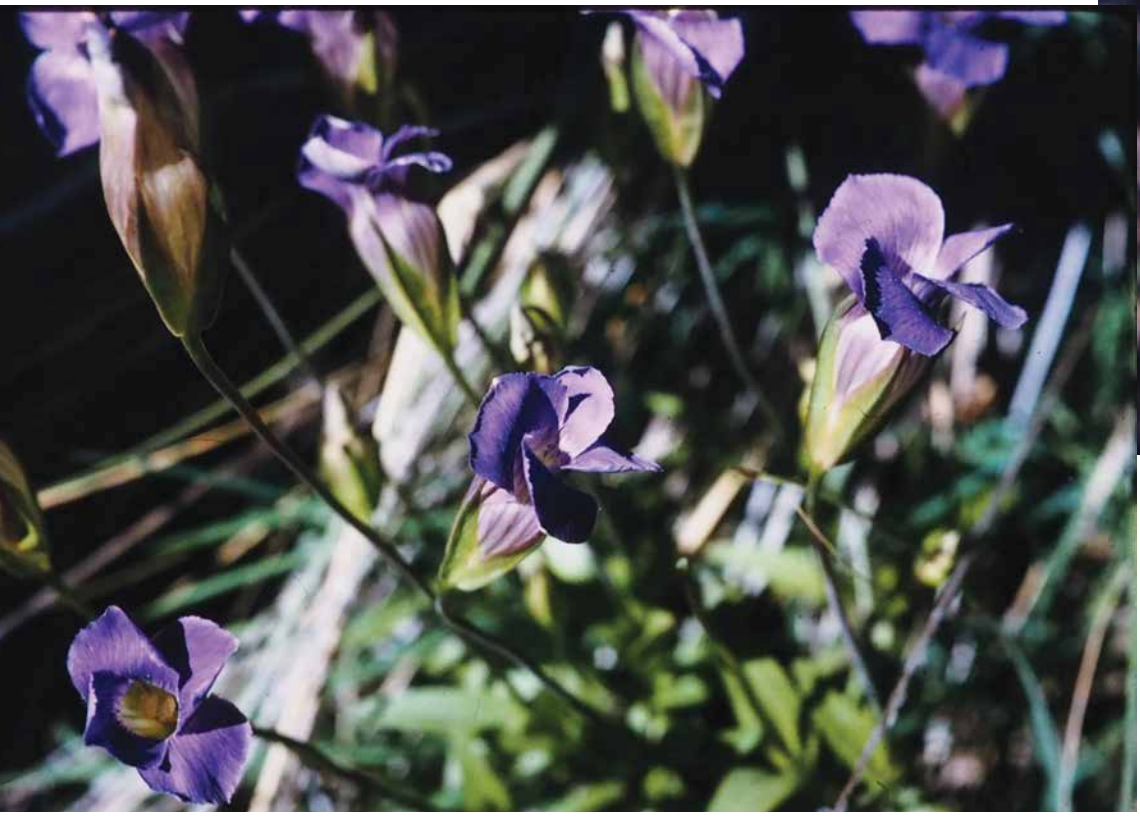
Nemastylis tenuis (above) grows amongst grass at 6000 feet in the lower parts of the forest. It is really a Mexican plant which just crosses over into Arizona. Picture taken in Huachuca Mountains, August 15, 1992.

Iris missouriensis var. *arizonica* (opposite) is more robust and prettier in southern Arizona than some examples of the species I have seen elsewhere. It blooms in late May in the Chiricahuas. Upper picture, Chricahuas, June 12, 1969; lower picture, Apache County, June 20, 1980.

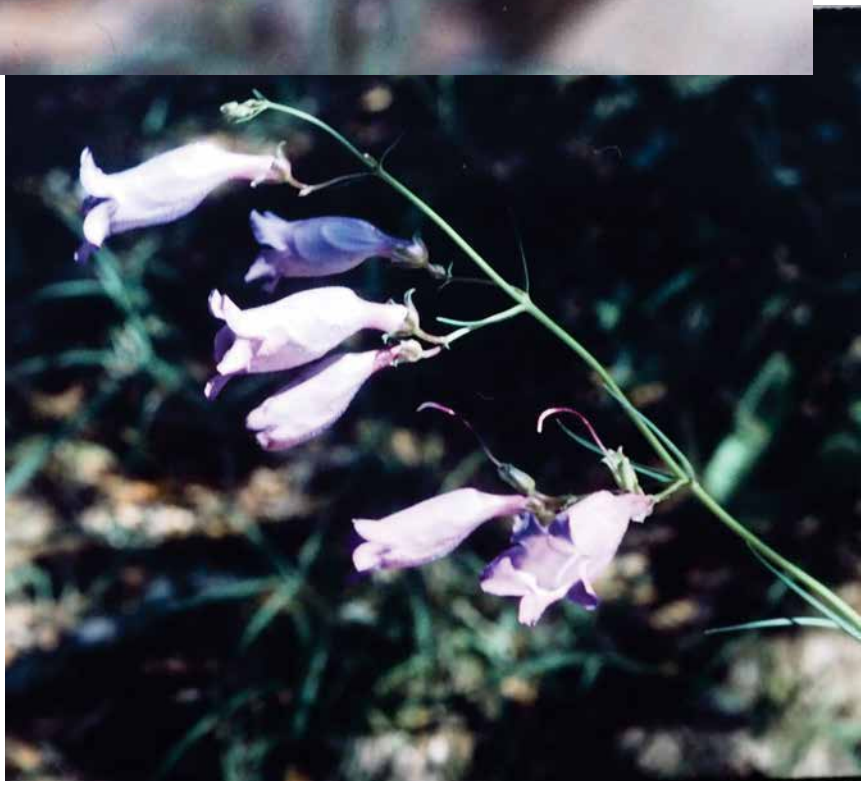
Dodecatheon ellisiae is found from 8000-10000 feet in the Pinaleño Mountains, also known as Mount Graham. Plants growing beside a creek may bloom in late June whereas plants growing in the coniferous woodland bloom a month later. It has thin rounded leaves and white petals. Picture: Pinaleños, 18 September, 1980.

Primula rusbyi grows among rocks in coniferous forests from 7500–10,000 feet in the Catalinas and other mountain ranges in southern Arizona and in New Mexico and blooms in the summer rainy season. Picture: Catalina Mountains, August 11, 1986.

Gentianella detonsa subsp. *elegans* flowers in meadows at 9000 feet in the Piñalenos and some other southern Arizona mountains. Picture: Huachuca Mountains, October 12, 1966.



Gentiana parryi used to be common in the meadows of the White Mountains at 8000-9000 feet, but recently I have not found so many, Cows? I don't think they could eat so many. It is probably due to one of our many droughts. Picture: Sept 22, 1985.



Arizona has a very extensive list of penstemons with 38 species.

Penstemon stenophyllus (opposite) grows in the Huachuca and Patagonia mountains and in Mexico at about 5000 feet. It is one of the taller species and has purplish-blue flowers. Pictures: Santa Cruz County, October 9, 1986 and October 3, 1987.

*Penstemon ambiguu*s (below) is small with pink or white flowers and blooms in open areas. It is quite common on the Navajo Reservation and can also be found south of Interstate 10 east of Deming, New Mexico. Picture: September 16, 1980.

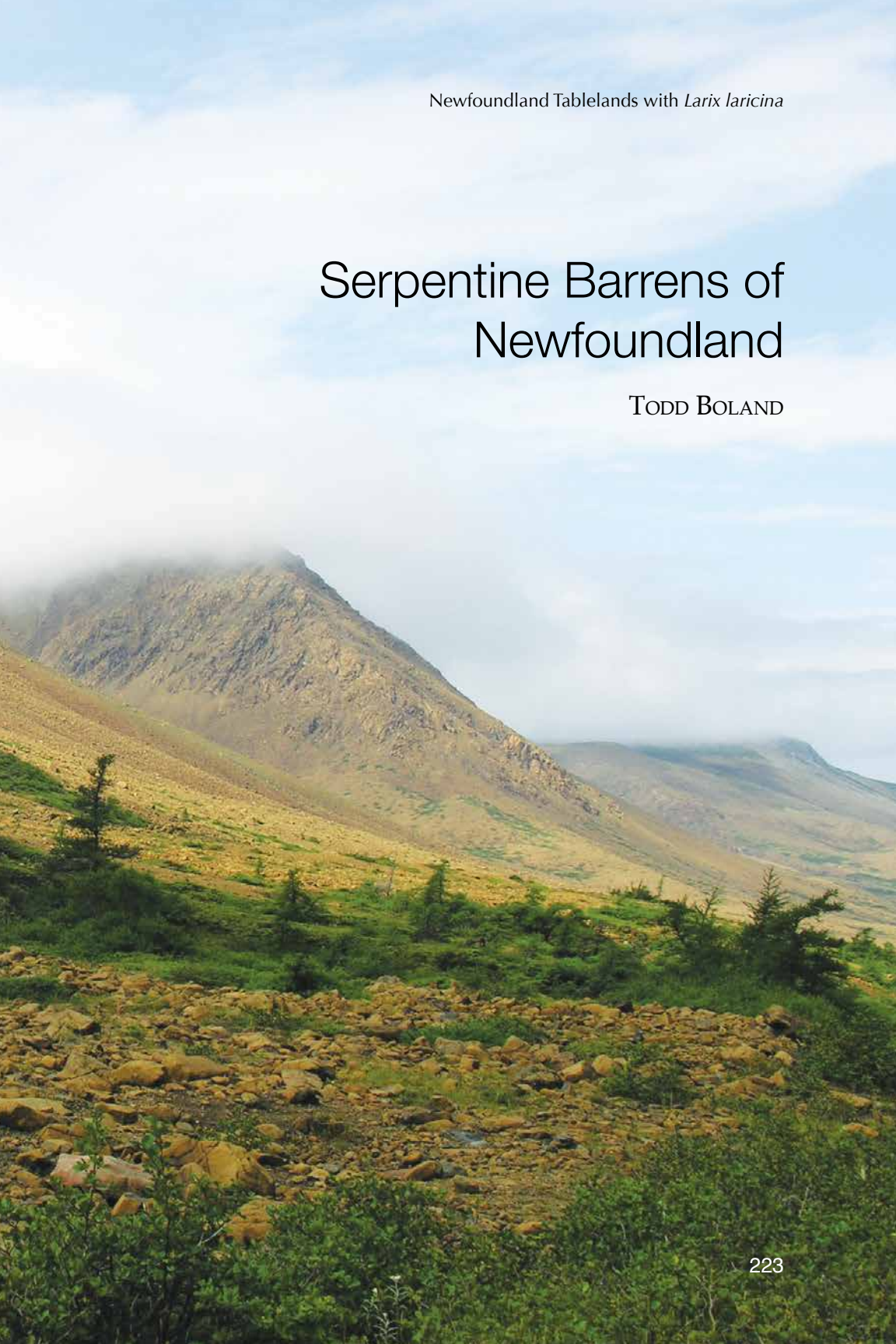
Salvia henryi (opposite, above and below) is from the Chiricahuas and does well on limestone. It blooms in both the spring and summer rainy seasons, provided there is enough moisture. Picture: April 20, 1982.

Salvia lemmonii grows from 6000-8000 feet. It flowers in July and August, growing in several mountain ranges in Pima and Cochise counties. Most have flowers that are lavender pink, but in the Santa Ritas the flowers are reddish crimson. Picture: August, 13, 2006.

I hope that this selection of pictures taken from our slide library which we have built over 40 years or more gives you some taste of what the southern Arizona mountains offer to the rock gardener.

Serpentine Barrens of Newfoundland

Todd Boland

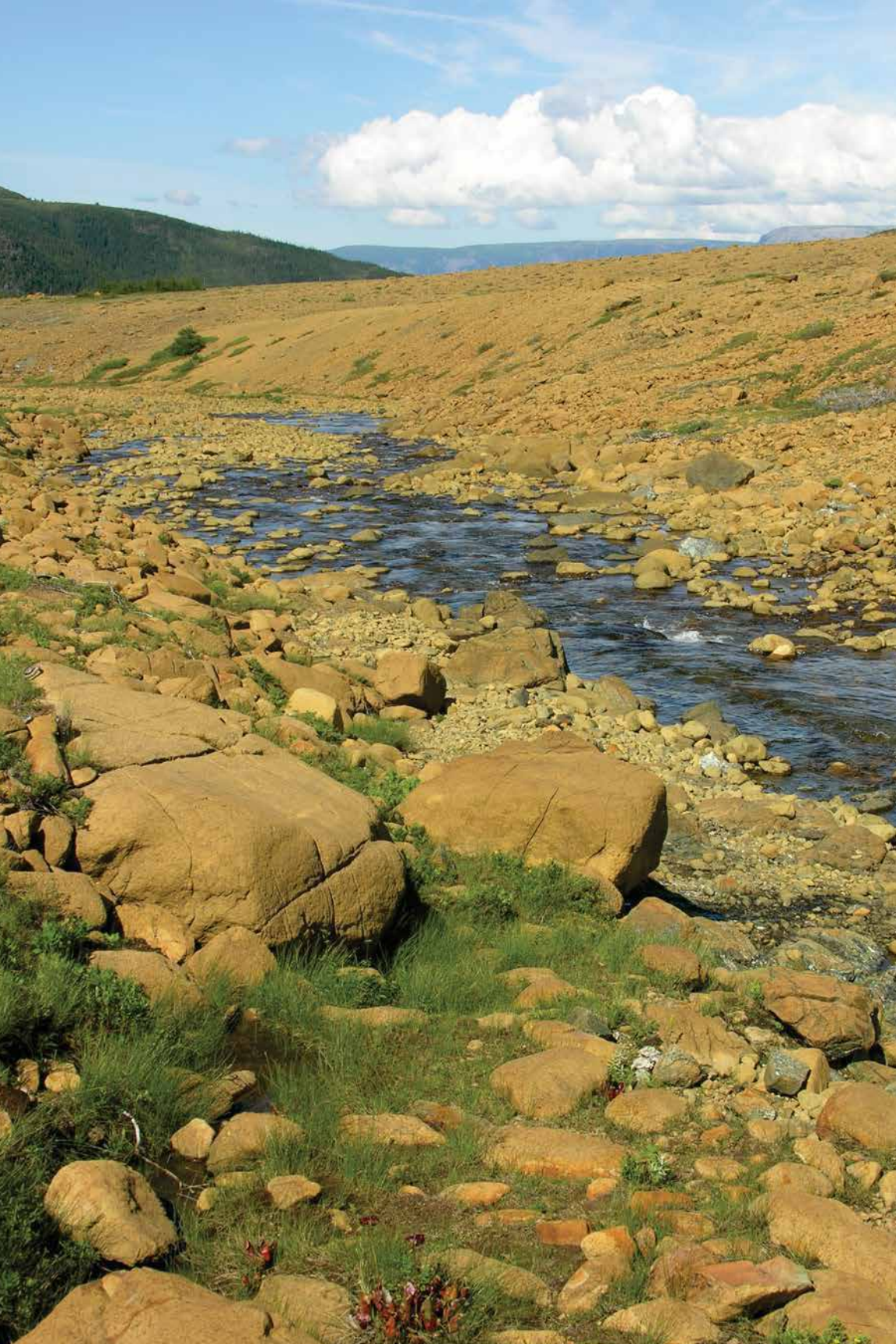


NEWFOUNDLAND IS NO doubt the best place in eastern North America for encountering a wide variety of arctic-alpine plants. Many of these are calciphiles restricted to the limestone barrens along the west coast of the Great Northern Peninsula. Here, the combination of exposure, climate and soil (or lack thereof) restricts the growth of typical boreal forest species such as *Abies*, *Larix* and *Picea*. With the lack of competition, arctic-alpines can survive. As it happens, many of our alpines have a Holarctic distribution so would be familiar to people from northern Europe. Examples include *Saxifraga paniculata*, *Diapensia lapponica*, *Cornus suecica*, *Bartsia alpina* and *Silene acaulis*, just to name a few. However, Newfoundland's alpine flora has another surprise. In three widely separated regions of Newfoundland, we have outcrops of serpentine rock, a rock type rare in the world and one that is often home to endemic species or those with wide ecological tolerances.
So what is serpentine rock?

Serpentine is metamorphosed peridotite. Peridotite is the main rock that composes the oceanic crust. Only through extreme geological uplift and folding does oceanic crust become heaved above sea-level. The pressures involved in achieving this change the peridotite into the olive-green serpentinite . There are often white veins through the serpentinite, appearing like snake-skin, hence the common name. When exposed to the effects of weathering, the surface of serpentine becomes rusty-orange, the distinctive colour seen throughout our Newfoundland serpentine outcrops.

From a plant perspective, serpentine produces a host of issues for plant growth. The soils derived from serpentine are high in toxic heavy metals such as chromium, cobalt and nickel. Add to this the fact that the resulting soils are low in potassium and phosphorous and have a low ratio of calcium/magnesium. The resulting vegetation is often specially adapted to these soils. However, a few plants simply have wide ecological tolerances allowing them to survive in this hostile environment. The resulting "serpentine barrens," at least in Newfoundland, appear devoid of plants but close inspection will reveal a surprising variety, albeit thinly distributed. There are even a few stunted shrubs and conifers that add to the haunting beauty of this landscape.

As mentioned, we have three outcrops of serpentine; the Blow-Me-Down Mountains west of Corner Brook, the Tablelands of Gros Morne National Park, and the White Hills south of St. Anthony. The only easily accessible area is the Tablelands, where a highway passes along the base of the "mountains" (really, plateaus at about 600 feet above sea level). Here, the national park has several hiking trails that will bring you into the heart of the serpentine barrens and allow access to the unique plants that grow there. The serpentine barrens of the Tablelands are just one of



many reasons that Gros Morne National Park was declared a UNESCO World Heritage Site in 1987.

So what plants can you expect to see among the serpentine barrens? Well, it should first be noted that although initial appearance would suggest the area is desert-like, that is far from the truth. There are certainly dry ridges in the summer months, but the top of the Tablelands is actually covered in bogs and everyone knows that water travels downhill. This water does flow as streams in places, but more often than not, the water travels just below the surface rock layer. So while the surface looks dry, just a few inches below, the gravel (I am reticent to say "soil"!) is actually quite wet. So, the most bizarre plants seen among the serpentine rock are pitcher-plants! *Sarracenia purpurea* is actually our official Provincial flower, a common plant throughout Newfoundland's copious bogs. Seeing them growing on gravel is a bit disconcerting until you realize how wet the substrate is below. Pitcher plants are not the only insectivorous plant found here; three species of sundew, *Drosera*, as well as butterwort, *Pinguicula vulgaris*, are also commonly encountered.

Sarracenia purpurea

Minuartia marcescens (above) and *Cerastium terrae-novae* (below)

The plants of the pink family, Caryophyllaceae, appear to be the most serpentine-tolerant and/or adapted. *Minuartia marcescens* is nearly endemic to Newfoundland. It is also found on the Shickshock Mountains of the Gaspé Peninsula, Québec, which is the other serpentine region in eastern Canada. This evergreen sandwort has needle-like foliage and small white flowers throughout June and July. Similar but more tufted in appearance is *M. rubella*. Also similar but with broader foliage

is the mat-like *Arenaria humifusa*. These sandworts share the serpentine barrens with other relatives in the pink family including *Sagina nodosa*, *Cerastium terrae-novae* (an endemic), *Lychnis alpina* and *Silene acaulis*.

Other species rarely encountered away from serpentine include *Armeria maritima* subsp. *siberica*, *Adiantum aleuticum* (an eastern North America disjunct population of this western North America species) and *Artemisia campestris* subsp. *caudata*.

Armeria maritima subsp. *siberica*

Adiantum aleuticum

Osmunda regalis

Packera paupercula

Triantha glutinosa

Anemone parviflora

Primula mistassinica

Campanula rotundifolia

The remaining herbaceous alpines found on the serpentine barrens are also found on our limestone barrens; *Saxifraga aizoides*, *Packera paupercula*, *Tofieldia pusilla*, *Triantha glutinosa*, *Anemone parviflora*, *Primula egaliksensis*, *Primula mistassinica* (strangely the white form is more common on serpentine than the typical lilac-pink), *Erigeron hyssopifolius*, *Solidago uliginosa* var. *terrae-novae* and a genetically dwarf form of *Osmunda regalis*. There are even a few "alpines" here that are widespread

across Newfoundland including *Symphyotrichum novi-belgii*, *Campanula rotundifolia* and *Sibbaldiopsis tridentata*.

There are also several woody plants which call the serpentine barrens home. Two Newfoundland woodies are almost restricted to serpentine, namely *Salix arctica* and *Rhododendron lapponicum*, and the only plant more bizarre to see on serpentine than pitcher plants is Lapland rosebay. It may be rarely encountered on our limestone barrens but is far more common among the serpentine. So much for the theory that rhododendrons need acidic soil! *Arctostaphylos uva-ursi* is another

Rhododendron lapponicum - Lapland rosebay

ericaceous plant that seems at home among the serpentine. Here, too, grows a genetically dwarf form of *Shepherdia canadensis*. Both *Juniperus horizontalis* and *J. communis* may be encountered, with the forms of *J. communis* very flat and dense. Rounding out the list of woodies in this unique habitat are stunted forms of *Dasiphora fruticosa*, *Larix laricina* and *Betula pumila*.

The serpentine barrens of Newfoundland are like no other place on earth. While they appear lifeless at first glance, a stroll among this otherworldly landscape will reveal a host of hidden treasures.

Juniperus communis

NARGS Awards

IT IS OUR members who are at the heart of the process whereby NARGS gives its awards. It is members who nominate people for awards - without those nominations the process is stymied. Each year we appeal for nominations for the various awards and once again the time is approaching for those nominations. If you know of any members who you feel are worthy of an award, then please feel free to nominate them. It is easy to get in touch by email and the Chair of the Awards Committee would be delighted to hear from you: Peter George <petergeorge@verizon.net>

The full list of awards for which nominations can be made is:

Award of Merit

Carleton R. Worth Award

Marvin E. Black Award

Marcel Le Piniec Award

Edgar T. Wherry Award

Linc & Timmy Foster Millstream Garden Award

and the Chapter Service Awards (which are reported in each issue of the *Quarterly*).

Details of the awards are given under the name of those awarded this year and the others are appended at the end of this article. There is also the Geoffrey Charlesworth Writing Prize which is reported separately on page 195.

Leonard Lehman - Award of Merit

The Award of Merit is given to persons who have made outstanding contributions to rock and alpine gardening and to the North American Rock Garden Society. In addition, the recipients will be people of demonstrated plantsmanship. Leonard Lehman of the Allegheny Chapter perfectly fits these criteria and is a very worthy recipient.

Len has been an active member of the Allegheny Chapter for more than 30 years and he is the Chair-elect of the Chapter for 2014 and 2015.

He has been the driving force in the establishment of the Allegheny Chapter's rock garden, partially established with NARGS funds. His

selection of plants has resulted in a rock garden with exciting color throughout the gardening year.

Anyone who knows Len realizes he is a walking encyclopedia of plants, able to identify (and spell properly) names of plants and their cultural requirements and he is always available to answer questions and provide help for chapter members. He has conducted many well-received workshops on the propagation of plants through seed starting and cuttings.

He is our most prolific writer of articles for the "Alpine Line," the Chapter's newsletter, under the byline "The Bug Catcher's Net."

For those outside the chapter, Len was in charge of the very successful NARGS 2012 Eastern Study Weekend held here in Pittsburgh.

And he is one nice guy.

It is my pleasure, writes Al Deurbrouck, to have nominated Leonard Lehman for the 2015 NARGS Award of Merit.

Lori Chips - Carleton R. Worth Award

This award is given to an author of distinguished writings about rock gardening and rock garden plants in a book or in magazine articles. The Award may also be based on an Editor's body of work for a Chapter Newsletter. The recipient does not have to be a member of the Society. Lori Chips, artist, writer and poet, has served several NARGS chapters over the past 25 years, but in particular has created a wonderful, literate and informative body of writings which certainly merits the Carleton Worth Award. As the Berkshire Chapter newsletter editor for 9 years, she could always be counted on to surprise the chapter with a special piece of writing or poem which made those issues something special, to be read and re-read.

Beyond her writing for NARGS and NARGS chapters, Lori has regularly provided articles for the catalogs of Oliver Nurseries where she is the alpine manager. So many of these dispense wisdom with a light touch that they are always worth reading <olivernurseries.tumblr.com/archive>.

The archive of the Berkshire Chapter newsletters in which Lori's articles are so prized can be visited at <www.nargs.org/newsletter/chapter/313> .

For all her work Lori well deserves this award which is long overdue.

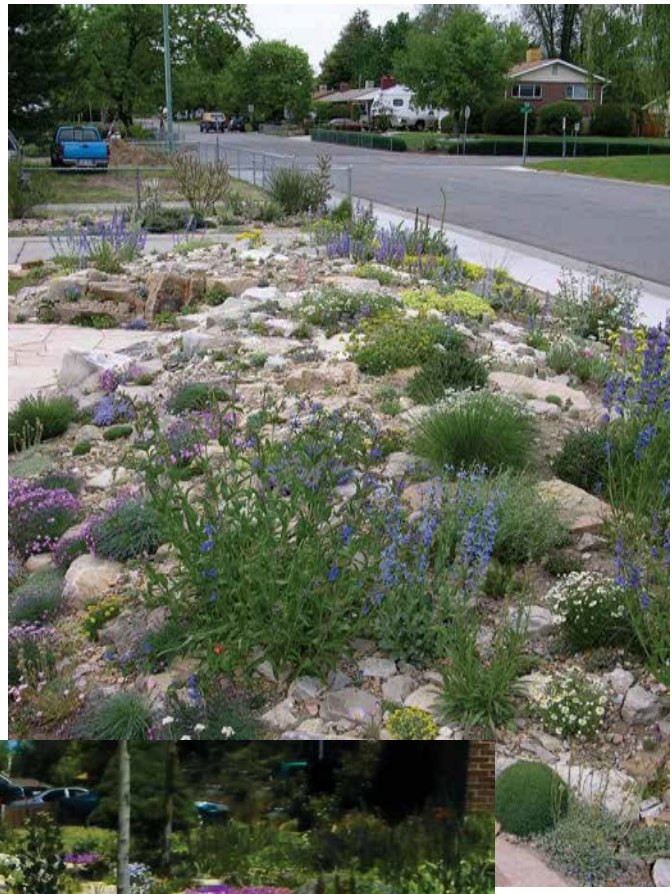
Linc & Timmy Foster Millstream Garden Award

Established in 2006, this award is for an outstanding contribution to the North American Rock Garden Society for creating a superior garden. This is not meant to be a competition, but to recognize members' great gardens across the various styles and regions of the United States and Canada. Since there is such a wide range of possibilities in style and climate regions, it has been decided there need to be four categories of gardens. They are: the Container Garden, the Alpine Rock Garden, the Woodland Garden and the Special Garden. Any of these gardens must be a private garden to eliminate unfair institutional advantages. This award is meant to reward the creation of gardens which meet the high standard set by the North American Rock Garden Society and reflec well on that society. For greater detailed information and requirements contact the current Awards Chairperson. The recipient must be a member of the Society.

Four gardeners were awarded this prestigious garden award in 2015 and each of these is profiled in brief outline over the next pages.

John Stireman,
Sandy, Salt Lake County, Utah - Award for Dryland Garden

John Stireman's garden is at the center of our society here and has been visited and praised by many garden designers and horticultural professionals from all over the U.S. and praised as the best of its kind they have seen. Panayoti Kelaidis has featured it in a blog post and called it "The Greatest Garden on Planet Earth." John's garden has served as a continuing source of inspiration to members of Wasatch Chapter of NARGS and the greater public



Two views of John Stireman's spectacular dryland rock garden

here. He continually uses his knowledge, encouragement, and plants, to foster new and aspiring rock gardeners.

What is perhaps most impressive, is that it shows what treasures may be grown on a small suburban lot for those with an adventurous spirit and who are willing to experiment.

John has written about his gardening in the *Rock Garden Quarterly* in vol. 67, pp.121-128 (Spring 2009)

Stireman garden with *Delosperma*, *Draba*, and *Townsendia* in bloom

Dr. Anton (Tony) Reznicek
Ann Arbor, Michigan - Award for Unique Garden

I met Tony about 25 years ago at my first Great Lakes Chapter meeting. The chatter from the other members at the time was that his garden was the one on a city lot in Ann Arbor where he grew no lawn grass and he had a tree fern in his front yard. My first visit to his garden was quite remarkable. Yes, it was a city lot, but no one said his back yard went straight up. The narrow strip of level area in the back yard held a wonderful array of shady plants from *Shortia* to *Helonias* to *Pteridyphllum racemosum*, and real sandstone troughs holding cool little plants like *Cassiope*. To top it off, a tree with 2-foot long leaves, growing right against his house. Of course it doesn't end there. From this narrow level area the yard takes a big vertical jump up to a narrow terrace filled with rock garden plants. It is a pleasure to stand on the path and look down at the bed, concentrate on one small spot and count the number of plants stuffed together; and of course, depending on the time of year, all the different bulbs crowding where seemingly there is no room. The garden from there takes a 45 degree angle up where the steep slope is planted with trees and shrubs, and an occasional rock outcrop added

in. There are paths that switchback up the slope that a flatlander thinks deserve a rail to keep you from tumbling down. Don't forget native plants. Up top are various selections of Midwest plants, trout lily, bane berry, jack-in-the-pulpit, and columbine.

As some of you will know, sometimes one city lot won't hold a growing plant

Tony Reznicek during the garden visit at the NARGS 2015 Annual Meeting in Annn Arbor

One of the Reznicek rock gardens

A view of Tony Reznicek's crevice garden with a selection of *Daphne cneorum* in the foreground

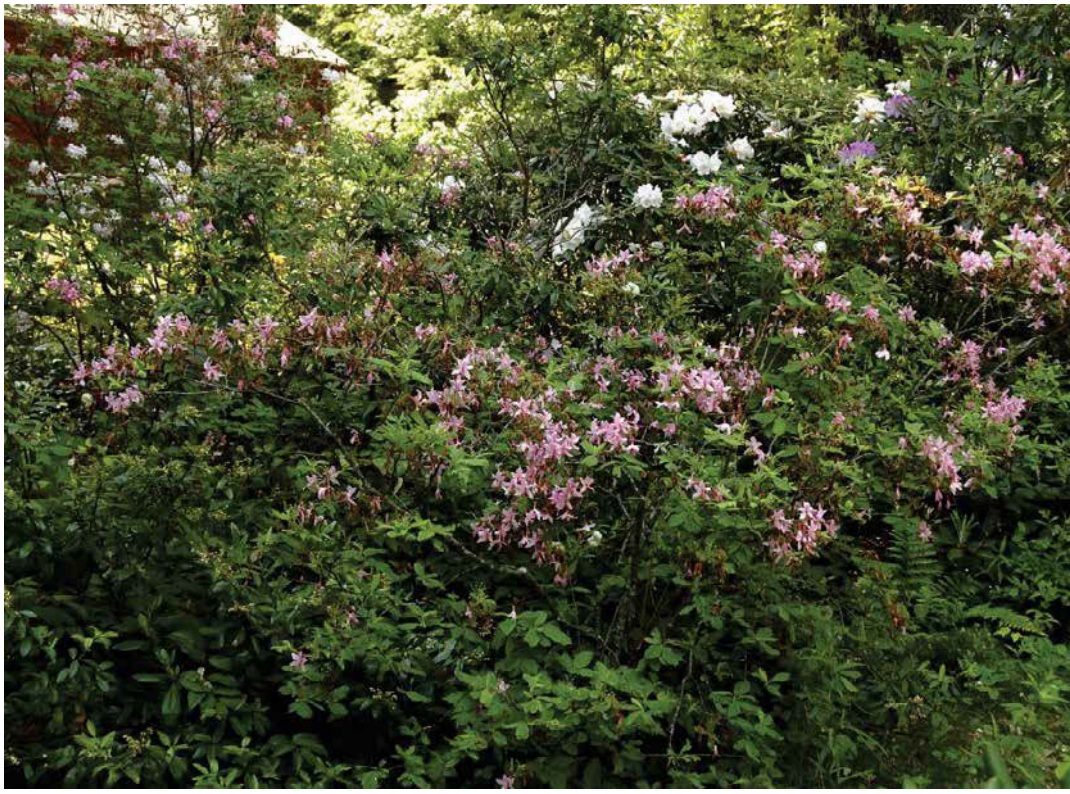
A selection of trilliums alongside the dividing fence between the two gardens

collection. The solution, of course, is to buy the neighbor's house. His new yard has the same steep slope. After eliminating a bamboo patch in the back and a front yard infested with vinca, it was time to plant a new garden.

In the new front yard 10-15 yards of sand was dumped and sculpted. A full-sun rock garden with prickly pear cactus as a hedge lives there now. The new back yard was terraced; a peat bed and Czech-style crevice garden were installed. Tony decided that this would be a good subject to have a meeting around. He brought in truckloads of flattish limestone and more sand. Tony got the rows of vertical stone started and invited the chapter members to install the stones as they thought would look good. It's now a large planted crevice garden and just another part of a great garden managed by a great plantsman.

George Newman
Bedford, New Hampshire - Award for Woodland Garden

George has been gardening at his current location in New Hampshire for over 35 years, and on the 2-acre woodland that he maintains there are literally thousands of beautifully grown plants, many of which are native New Englanders, and some that are found virtually nowhere else in this region. He has grown most of his plants from seed, often



George Newman woodland garden with native azaleas

Part of the bog garden within the Newman garden

collected during his many trips to locations as varied as the Pine Barrens of New Jersey, Newfoundland, and even Svalbard, Norway. He grows big plants and small plants, but all are provided a perfect setting and absolutely ideal conditions. He has naturalized terrestrial orchids in his moister areas, and has patches of *Shortia* and *Trillium* that are as much as 30 feet in diameter.

This is a special garden, and George is rightly honored by this prestigious award. after the decades he's spent creating and maintaining this special place.

Rhododendron carolinianum

Clematis coactilis

Don LaFond (center with red cap) leading a tour of his garden during the NARGS 2015 Annual Meeting in Ann Arbor

Don LaFond
Ann Arbor, Michigan - Award for Alpine Rock Garden

Don's garden, for which he is receiving this award for Alpine Rock Garden could equally have been chosen as a Woodland Garden. It involves a spectacular use of a site that was once a commerical sand pit, and it is amazing what he has done with a site that would make many traditional gardeners give up. So many of the things that Don and Mary have done to grow plants are original and site specific – like

The LaFond garden is a mix of wonderful rock gardens such as that opposite with clusters of containers, some found, some made, in which small groups of plants can be featured

A raised bed integrated design-wise with the pool beyond exemplifies Don's innovative approach

growing plants in raised shade beds as outlined in the Winter 2014/15 *Quarterly*. The garden runs the full spectrum from woodland gardens to sand beds to a bog garden, plus tufa beds and more traditional rock gardens. Besides plants, the garden pays close attention to vistas. Altogether this is a garden where house, garden and other spaces are unified by what Don and Mary have done.

A group of *Viola pedata* in a sand-filled trough

The garden exemplifies all that NARGS stands for: beauty, diversity, well-grown plants, and a broad interest in the use of small plants in the garden. Quite simply, Don's garden is a delight for any rock gardener.

Awards not given in 2015

Three awards were not given in 2015.

Marvin E. Black Award

Established in 1990, this award is given to a member of the Society who excels at promoting membership in NARGS; organizing study weekends, national, and international meetings. They should also be involved in such activities as planning trips to study plants and to meet other plant people. The emphasis shall be placed on a member who has helped other people to reach their potential in the plant world. The recipient must be a member of the Society.

Marcel Le Piniec Award

Established in 1969, this award is given to a nursery person, propagator, hybridizer, or plant explorer who is currently actively engaged in extending and enriching the plant material available to rock gardeners. This may be a joint award if two people have worked closely together. The recipient need not be a member of NARGS.

Edgar T. Wherry Award

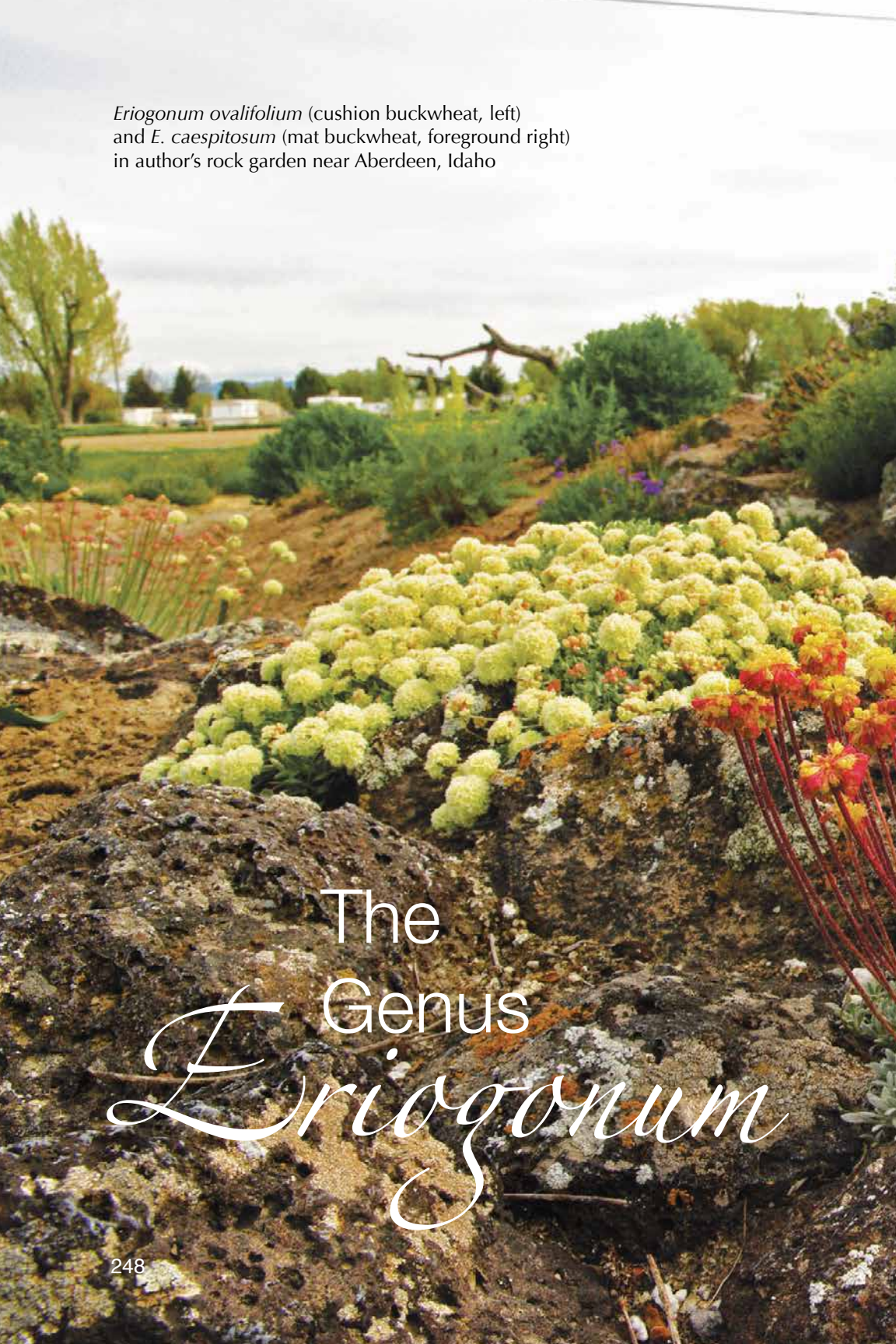
Established in 1973, this award is given from time to time to a person who has made an outstanding contribution in the dissemination of botanical and/or horicultural information about native North American plants. The works must be scientifically sound, but may be written for popular readership and do not have to be specifically about rock garden plants. Generally, the award recoginizes a body of work or a lifetime of literary effort rather than a single work (see the Carleton R. Worth Award). The recipient does not have to be a member of the Society.

These awards along with the Award of Merit, the Carleton R. Worth Award and the Linc & Timmy Foster Millstream Garden Award, can be given in any year if there are worthy nominations. Those nominations depend on members. If you think that you know someone who might be worthy of an award then please get in touch. Don't leave the awards to others - nominate people you think should receive them.

Peter George, Awards Committee Chair <petergeorge@verizon.net>

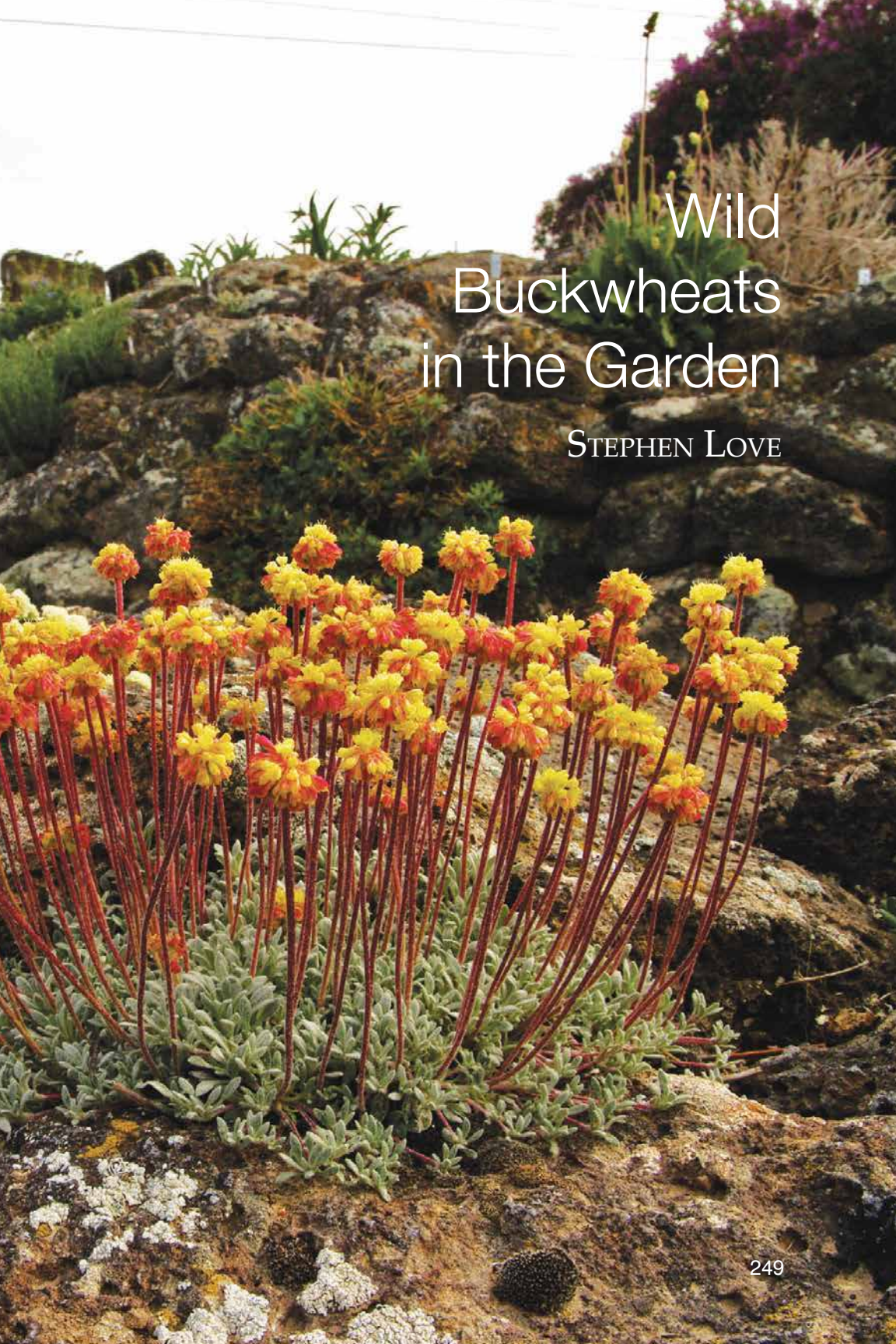
Details of awards and who has received them over the years can be found on the NARGS website <www.nargs.org> under About Us.

Heartfelt thanks are due to all those who contributed to the assembling of the photos and the nominations for the awards.



Eriogonum ovalifolium (cushion buckwheat, left) and *E. caespitosum* (mat buckwheat, foreground right) in author's rock garden near Aberdeen, Idaho

The Genus *Eriogonum*



Wild Buckwheats in the Garden

Stephen Love

MY PERSONAL INTRODUCTION to wild buckwheats was in 2005, the year I instigated a native plant domestication project at the University of Idaho's Aberdeen Research and Extension Center. In the process of accumulating research materials, I collected seed of several buckwheat species in the mountains of central Idaho and established plants in evaluation plots on the research station where I work. "They're awfully slow growing,"was my initial response as I inspected one-year-old sulphur-flower buckwheat plants in my evaluation plots. Following a second year of growth – and the appearance of a few flowers – my opinion improved markedly and I began to watch the plants closely. By the end of the third growing season, my thoughts had evolved along the lines of: "How can anyone find satisfaction in life without cultivating at least one outstanding buckwheat." Many times since, I have wondered why buckwheats continue to escape recognition within horticultural circles. I'm always pleased when knowledgeable NARGS members beat the drum for the buckwheats and so this article is written to provide some information and education about this intriguing group of plants.

Taxonomically, the wild buckwheats are characterized as species within the genus *Eriogonum*, one of the genera within the knotweed family (Polygonaceae). It is a large genus, containing over 250 distinct species. The genus *Eriogonum* is divided into 7 subgenera, based on flower morphology, plant structure, growth habit, life cycle, and distribution. Geographically, species within the genus *Eriogonum* are restricted to North America (including Mexico) and are native primarily to the dry climes located in the western portion of the continent.

Species of *Eriogonum* with the greatest horticultural potential are long-lived perennials belonging to one of two subgenera – *Eucycla* (containing 110 species) and *Oligogonum* (containing 36 species). Both subgenera are comprised of plants with a range of stature and morphology. Subgenus *Eucycla* includes a number of the very best small bun species, although it also contains such large shrub species as *Eriogonum corymbosum* and *E. fasciculatum*. Subgenus *Oligogonum* is comprised largely of very attractive subshrubs, including species such as *E. umbellatum*. But this subgenus also includes short-statured cushion plants such as *E. caespitosum* and diminutive shrubs like *E. thymoides*.

The wild buckwheats are morphologically and physiologically diverse. Growth forms include shrubs, subshrubs, and non-woody (herbaceous) plants. Their life-cycles can be perennial, biennial, or annual. Some species grow taller than the average person; others are small enough to slip unnoticed beneath a hiker's boot. Depending on climate, some species are evergreen, others deciduous. Flowers – all very tiny individually but often in clustered heads – may be white, yellow, pink, or red. Bloom time ranges from very early spring to very

late fall. From a horticultural perspective, there is a buckwheat species to meet any objective in almost any garden.

GARDEN-WORTHY ERIOGONUM SPECIES

To date, I have had opportunity to grow and observe 56 species of wild buckwheats. I would like to share with you my impressions and observations as they relate to some of the best garden plants. As you read through the descriptions, recognize that my observations are influenced by personal circumstances. To put things into perspective, I live in the cold desert climate of southeastern Idaho; USDA hardiness zone 4, 106-day frost-free season, annual precipitation less than 10 inches, and soil pH of 8.4. The southwestern desert or coastal species of buckwheats do not survive my winters. On the other hand, with minimal supplemental irrigation, I can grow most of the hardy species without the need to amend soils or improve drainage. If you live where climate and soil conditions are distinctly different, it goes without saying that my observations may not reflect your past or future experiences with species of *Eriogonum*.

In order to simplify my summary of garden-worthy wild buckwheats, I have chosen to divide them into four groups, based on stature and form rather than on taxonomic group:

small cushion species;
large cushion species;
subshrubs;
shrubby species.

SMALL CUSHION BUCKWHEATS

I include in this category some of the best buckwheats for planting in troughs, rock gardens, and other small spaces. The small cushion plants have densely mounded foliage and, when mature and in bloom, are typically less than 6 inches tall and 12 inches wide. These are the "cute" plants.

Eriogonum caespitosum (mat buckwheat). My introduction to this species came during a hike into the rugged lava fields common to the southern segment of the Craters of the Moon National Monument in Idaho. The yellow color of early spring blooms quickly attracted me to these tough, rock-hugging plants. In subsequent travels, I found mat buckwheat to be a variable and widely distributed species, with representation in all western US states (except Washington), the southern Rockies of Canada, and high-elevation sites of northern Mexico. Outstanding attributes of mat buckwheat are the fuzzy, gray to silver, evergreen leaves and the ground-hugging habit. The flowers are bunched into small pom-poms at the top of thin, unbranched stems.

The stems are usually short; and indeed I have seen forms of this plant with flower stems so short that the blooms are entirely embedded in the foliage. Bloom is very early with first flowers appearing in late March or early April. Bloom color is primarily yellow, although flowers on the female plants (it is a dioecious species) usually change to dark maroon after pollination. Although the bloom period is fairly short, the foliage makes a valuable contribution to the garden throughout the year. I find mat buckwheat to be a very utilitarian and attractive species in my rock garden.

Eriogonum douglasii (Douglas buckwheat). I obtained my first seeds of Douglas buckwheat from the now defunct Rocky Mountain Rare Plants. The original collection site was the Blue Mountains of north-central Oregon. Native range for this species includes these same Blue Mountains, the eastern Cascade Range, and the eastern Sierra Nevada Mountains of the western US. This tough little plant produces tight mounds of silver or silver-green, very fuzzy leaves. Even in my tough climate, during winters without a protecting blanket of snow, the leaves usually remain evergreen. Round balls of capitate flower heads grow at the top of stiff, unbranched stems. The flowers are bright yellow and fade to red with age. In my Aberdeen garden, Douglas buckwheat will

Eriogonum douglasii (Douglas buckwheat) in author's rock garden

bloom for about 6 weeks during May and June. I have found this to be a very dependable, long-lived, and attractive garden plant.

Eriogonum gracilipes (White Mountain buckwheat). This little jewel is endemic to the White Mountains of California where I saw it on a field trip associated with an annual meeting of the fledgling Eriogonum Society. White Mountain buckwheat is a diminutive plant, only 3–4 inches tall in bloom and not much wider. Plants form tight cushions of blue-green, fuzzy leaves. Flowers are produced in dense pom-poms at the ends of curved, unbranched stems. Flower buds are red. Newly opened flowers are cream or yellow then fade to shades of red. One of the things I really like about this species is its tendency to bloom off and on for an extended season – May into October. White Mountain buckwheat is a marvelous little rock garden plant, but in my climate it can sometimes experience significant winter injury. This species may need a slightly warmer climate or a site with consistent snow cover to be at its best. I am still looking for an accession that consistently holds

Eriogonum gracilipes (White Mountain buckwheat) in native habitat near crest of White Mountains east of Bishop, California

up to exposure and winter cold. In my latest accessions, I see evidence that I am making a little progress along this line.

Eriogonum ovalifolium (cushion or oval-leaf buckwheat). Cushion buckwheat is a beautiful species. My first sight of it was at an elevation of over 10,000 feet while hiking to Brockie Lake in central Idaho. After stumbling upon a carpet of these beautiful plants, I spent hours photographing the decumbent soft pink flowers that decorated cushions of silver leaves. I later keyed these plants to the variety *depressum*, one of 12 botanical varieties recognized within this variable species. In my opinion, all 12 varieties are garden-worthy, although some are more attractive than others. Spoon-shaped, silver or silver-green leaves are densely arranged in tight mounds up to 6 inches tall. Flowers are arranged as pom-poms at the end of unbranched stems. At one end of the spectrum, I have seen forms of cushion buckwheat with flower stems up to 15 inches tall and, at the other end, flowers completely embedded in the foliage. Expression of flower stem length appears to be related to habitat elevation and exposure. Flower color ranges from cream, to yellow, to pink, to dark red. In Aberdeen, bloom begins in May and lasts for about 6 weeks. This is an exceptional species with superior garden potential. I highly recommend cushion buckwheat, in

Cushion buckwheat (*Eriogonum ovalifolium* var. *nivale*)

A dark red-flowering form of cushion buckwheat (*Eriogonum ovalifolium* var. *depressum*). Research plot at the University of Idaho's Aberdeen R & E Center

any of its forms, and urge interested gardeners to sample the variety of this wonderful species.

Eriogonum shockleyi (Shockley's buckwheat). Shockley's buckwheat can be found in several western states. It always seems to grow in the harshest of sites, and looks good doing it. Native habitat includes desert locations in the central and southern Rocky Mountains of the US. Flowers of Shockley's buckwheat lack bright color but plants make up for this deficiency with exceptional form. Leaves are greenish-gray, fuzzy, and arranged in very tight buns. The white pom-pom flowers grow on short stems and appear to float at the surface of the foliage. The plants are in continuous bloom from June into October. The plants grow very slowly and always retain their compact, contained shape. Shockley's buckwheat makes a very nice rock garden plant.

In addition to those described above, there are several other small cushion species that may be worth considering, including *Eriogonum*

bicolor, *E. breedlovei* (lacks hardiness in my climate), *E. kennedyi* (lacks hardiness in my climate), *E. kingii*, *E. ochrocephalum*, and *E. rosense*.

LARGE CUSHION BUCKWHEATS

The large cushion species have much the same form as their small cushion cousins. However, their size precludes use in troughs or small gardens and makes them more suitable for placement in large rock gardens, beds, or borders. Plants of some of these species can be quite large, achieving a height of over 15 inches and a spread that may exceed 3 feet.

Eriogonum arcuatum (Baker's wild buckwheat or James's buckwheat). The jury is still out on the taxonomic classification of *Eriogonum arcuatum*. It is sometimes given species status and other times accorded a place with the yellow-flowering forms of *E. jamesii*. Baker's wild buckwheat comes from the Four Corners region of Utah, Arizona, Colorado, and New Mexico. Regardless of taxonomic uncertainty, this is a marvelous garden plant. The dense, mounding foliage consists of silver-green, spoon-shaped, fuzzy leaves. Large, capitate heads, also very fuzzy, hold numerous dark yellow flowers. The best form of the species is the one frequently recognized as the botanical variety *xanthum*. Plants of this variety produce flower heads on short, unbranched stems that hold the flowers just above the foliage, thereby retaining cushion form through blooming. Although the unique form

Baker's wild buckwheat (*Eriogonum arcuatum*) growing in research plots at the University of Idaho's Aberdeen R & E Center

makes this plant striking when out of flower, the 6 weeks of May-through-July bloom creates additional appeal. Although I try not to show obvious preference amongst the buckwheats, I think this is secretly one of my favorite species.

Eriogonum compositum (arrowleaf buckwheat). I was stunned by the beauty of arrowleaf buckwheat when I first came upon the species in the south end of Hell's Canyon in Idaho. In addition to western Idaho, this species also grows in eastern Washington and Oregon, and northern California. Arrowleaf buckwheat is a unique plant and I was unsure as to where to place it within my utilization categories. Plants lack the tight mound form of the other large cushion plants but its herbaceous habit precludes categorization as a shrub or subshrub. The leaves are large, arrowhead-shaped, and form a loose mound. The dark yellow flowers (accessions from some locations have cream-colored flowers) are arranged in huge, highly branched umbels that achieve heights of up to 2 feet. In bloom, with flowers usually lasting 5 to 6 weeks in June and July, this plant is a show-stopper. After bloom, the leaves remain healthy and attractive for the remainder of the summer. In fall, some plants provide a nice show of red leaf color. This is an unrivaled garden plant where there is sufficient room to let it strut its stuff.

Flowering arrowleaf buckwheat (*Eriogonum compositum*) plants growing in the Lewis and Clark Gardens at the Idaho Botanical Garden in Boise, Idaho.

Eriogonum pauciflorum (fewflower buckwheat). I have yet to figure out how this species got its common name. Plants in the garden grow large and flower profusely. Fewflower buckwheat is a plant of the western Great Plains and Rocky Mountain foothills. The best form I have found for the garden is derived from the variety *gnaphalodes*, an accession I obtained from the Eriogonum Society seed exchange. It was originally collected from Weld County, Colorado. The dense, silver-green foliage eventually reaches dimensions of 6 inches tall and up to 5 feet wide. By late June, sparse flowering begins but the best show is delayed until September and October when the plants are covered with flowers. The white blooms are arranged in small round pom-poms and the short, unbranched stems hold the flower heads near the top of the foliage. This large plant needs space, but is definitely worth considering as a garden specimen.

Foliage of fewflower buckwheat (*Eriogonum pauciflorum*) as seen prior to the plant's fall bloom period. University of Idaho's Aberdeen R & E Center.

Eriogonum strictum (Blue Mountain buckwheat). I have grown many forms of Blue Mountain buckwheat over the years, some with silver leaves, others with brown; some with yellow flowers, others with white; some with upright, sparsely branched flower umbels, others with radiating, highly branched umbels that create dense spheres of flowers. Unique forms of this species are indicative of origin and representative of numerous habitats located throughout western North America. The forms I have grown to like best are derived from subspecies *proliferum*, var. *proliferum* and are native to the northwestern US states and British Columbia. Plants of this variety have tight mounds of silver leaves

and lacy umbels of white or pink flowers held high above the foliage. This variety of Blue Mountain buckwheat blooms late in the season, flowering for 12 weeks in July through October, and is a great plant for providing late-season interest in the garden. This species tends to frequently seed itself around the garden, a trait that could potentially be troublesome if the plants weren't so beautiful.

A number of other large cushion species are worth consideration for planting in the garden. Among these are: *Eriogonum brevicaule*, *E. capistratum* (could be considered as a small-cushion species), *E. coloradense*, and *E. jamesii* (both the cream-flowered variety *jamesii* and the yellow-flowered variety *flavescens*).

SUBSHRUB BUCKWHEATS

Eriogonum subshrubs, by definition, are plants of relatively small size (at least compared to other shrubs), have a perennial woody base, and often produce leafy or flowering stems above the base that last for a single season. Most of the subshrubs have evergreen or semi-evergreen leaves. Many make very nice garden plants. Here are a few that have impressed me.

Eriogonum thymoides (thyme-leaf buckwheat). Plants of thyme-leaf buckwheat are proof-positive that woody plants can be very small.

Two-and-a-half-year-old seedings of *Eriogonum thymoides* in editor's garden showing the tiny size of the plant

Thymeleaf buckwheat (*Eriogonum thymoides*) in its native habitat, Gooding City, Idaho

This tiny plant is a resident of the driest, rockiest places in Idaho, Washington, and Oregon. During a recent trek to Gooding City of Rocks in central Idaho – prime *E. thymoides* habitat – the largest plants I observed were 4 inches tall and in full bloom. Although tiny, the plants are well-formed and highly branched. The leaves are tiny, needle-like, blue-green in color, and densely situated along the stems. The flower heads are a study in contrast, bright white cotton balls, lined and striped with scarlet. If you wish to grow this intriguing little species, patience is essential. I have plants in their third year of life this past summer that finally managed to produce their very first flowers. But, if you have the right dry rock-garden site for this species, it is worth the effort and the wait to get it to flowering age.

Eriogonum umbellatum (sulphur-flower buckwheat). You could populate a garden with just this one species and still provide plenty of diversity and season-long interest. Sulphur-flower buckwheat is an incredibly variable species, comprised of 26 botanical varieties with a wide range of native habitats, plant stature, architectural form, foliage appearance, flower color, bloom time, and adaptation. All members of the species share some things in common, including a woody basal branch structure, evergreen or semi-evergreen spoon-shaped leaves, and cream or yellow flowers arranged in simple or compound umbels. Most of the recognized varieties have garden potential, but a few

Alpine sulphur-flower buckwheat (*Eriogonum umbellatum* var. *minus*) growing in my rock garden near Aberdeen, Idaho

are especially interesting due to expression of one or more unique characteristics. For example, variety *ellipticum* is a tall, yellow-flowered (fades red), late-flowering form of the species that provides color after most wildflower species are past bloom. Variety *minus* is one of the most unusual forms of the species with mat-forming, lime-green foliage, decumbent flower stems, and amazingly dark red flowers. Variety *porteri* is one of the most diminutive forms of the species – a great rock garden plant – growing only 3 inches tall, with repeated cycles of bloom, and light yellow flowers that fade to red. No matter your preference, you can find a plant to appreciate among the sulphur-flower buckwheats.

Eriogonum wrightii (bastardsage or Wright's buckwheat). I acquired my first accession of bastardsage from Ron Ratko, owner of Northwest Native Seed. The seed originated from the San Bernardino Mountains in California. I assumed this native of southwestern US and northern Mexico deserts would not survive winters in Idaho. Surprisingly, this species did OK most winters and when it did suffer from the cold, it left enough seedlings to maintain itself in my rock garden. Bastardsage produces a flat mat of foliage with woody stems. The silver, oval leaves cover the highly branched plants. In mid-summer, flexible, wand-like flower stems emerge from the foliage. Much later in the fall, white or pink flowers begin to open and decorate the numerous supple stems. As the flowers age, they fade into shades of orange and red. This is a dependable plant for adding late-season color and interest to the garden. However, bastardsage is prolific from seed and will require efforts to identify and remove volunteers each spring.

A few other subshrub buckwheats may be worth considering for the garden, including *Eriogonum heracleoides* (most forms are rather plain, but occasionally a nice one can be found), *E. lonchophyllum*, *E. niveum*, *E. racemosum*, and many of the other varieties of *E. umbellatum* beyond those I describe above.

SHRUBBY BUCKWHEATS

Shrubby species may produce small or large plants, may have dense or sparse form, and may produce flowers arranged in heads or solitary blooms arranged along stems. The one thing they do have in common is woody, perennial branches as a basis for plant structure. Many of the shrubby species are native to warm deserts or coastal regions and are not hardy in Idaho, but here are a few that can take the winters of Zone 4.

Eriogonum corymbosum (lacy buckwheat). I first saw lacy buckwheat along a road in the red rock country south of Kanab, Utah. Timing was late in the season and only skeletons remained of the summer's growth, but that was enough to kindle my interest. I harvested a few seeds and

Lacy buckwheat (*Eriogonum corymbosum*) growing in research plots at the University of Idaho's Aberdeen R & E Center.

took them back to Aberdeen, fully expecting lack of hardiness to put an end to this misadventure. As things turned out, the plants were fully hardy and intriguingly beautiful. The plants are true shrubs, do not die back in winter, and produce inconspicuous, deciduous leaves along the stems. Lacy buckwheat can be a little homely in the spring after the old flower stalks are removed. But by mid-summer new wiry inflorescence structures begin to form and the plants transform themselves into the distinctive domes that originally piqued my interest. Depending on provenance, the dense domes may be a diminutive 10 inches tall or exceed 4 feet. At season's end, thousands of white or pink flowers appear and put on a show until well after frost. The form and structure of lacy buckwheat is retained throughout the winter and into the next spring. I can't now imagine my xeric garden without this plant.

Opposite: bastardsage (*Eriogonum wrightii*) growing in author's rock garden, Aberdeen, Idaho

Eriogonum sphaerocephalum (rock buckwheat). The rock buckwheat is a small shrub, but still a shrub. It is a widely distributed species native to the westernmost states and provinces of the US and Canada. I have harvested seed from many forms of rock buckwheat in my home state of Idaho. Some forms are rather plain, with olive-green leaves and cream to buff flowers. Other forms are very attractive with silver leaves and bright yellow flowers. These last make the best garden plants. Flowers are present for about 7 weeks in May to July, but the plants are attractive all summer. In warmer climates, the plants are evergreen, but in my garden and research plots, the leaves tend to be damaged in the winter and can become deciduous. Regardless, spring recovery is quick as the plants prepare for the summer's annual performance. I have found rock buckwheat to be a very nice garden species.

There are a few other shrubby species of buckwheat that come from habitats that make me think they can take the cold of my Idaho garden. One shrub I have yet evaluate but may prove to be hardy is *Eriogonum clavellatum*. It may also be possible to discover a cold-hardy accession of *E. heermannii*, although I have yet to find it.

Tips for Obtaining and Growing Buckwheats

I guess an article on buckwheats would not be complete without a few growing tips to help interested gardeners succeed with these remarkable plants. Occasionally, potted plants of a few species of buckwheat can be found in the specialty nursery trade. However, getting access to most species will require propagation from seed. Here are a few ideas for obtaining seed, producing seedlings, establishing plants in the garden, and providing conditions for long-term plant health.

Buckwheat seed can be collected from the wild, purchased from wildflower seed suppliers (such as Alplains, Southwestern Native Seeds, Western Native Seed, or others), or obtained through the NARGS or Eriogonum Society seed exchanges (access provided to members of the respective organization). Wild-collected seed is ready for harvest when the spent flowers feel dry to the touch (they may still appear fresh and colorful). The seeds can be separated from the dried perianths by rubbing the dried flowers between your hands and blowing away the chaff.

Typically, buckwheat seed displays fairly high rates of germination and seedlings emerge fairly quickly. Wild-collected seed harvested after a dry year or following periods of active insect predation, may not germinate very well. When it comes time to plant your buckwheats, I would suggest growing seedlings in controlled conditions rather than just scattering the seed in the garden. Buckwheat seeds tend to be a favorite food for birds, small mammals, and insects. It's rare to see mature plants produced by direct seeding. As for seed pretreatment,

A yellow-flowered form of rock buckwheat (*Eriogonum sphaerocephalum*) growing in research plots at the University of Idaho's Aberdeen R & E Center.

information derived from research literature would suggest that seeds of many buckwheat species, especially those native to high elevation sites, need relatively long periods of stratification (cold, moist treatment). My experience indicates this is not accurate. I have found that species from cold climates may benefit from 2 or 3 weeks of cold stratification, while those from warm climates do not require any stratification. Seeds can be stratified either by putting them in a plastic bag containing moist potting mix and placing them in the refrigerator or by planting them in containers and placing them outside in early spring. Seed stratified in plastic bags can be planted in flats or pots after cold treatment.

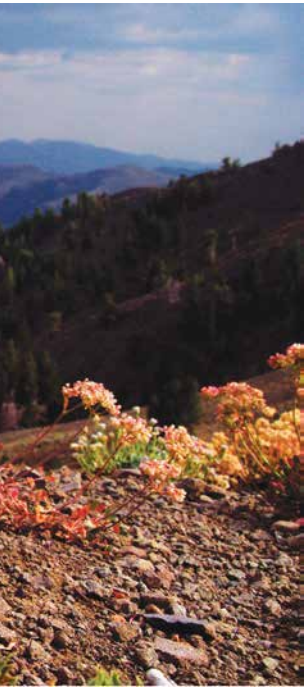
After emergence, damping-off of young seedlings is the most common cause of failure. Proper water management (moist but not wet,) is the best tool for preventing damping-off. Young seedlings must be grown in full sun or with plenty of supplemental artificial light.

Eriogonum umbellulatum var. *umbellulatum*

When the seedlings have two or three leaves, they can be transplanted into larger pots. For pot culture, use some type of soilless potting mix. Most gardeners use a soilless mix with excellent drainage characteristics (plenty of sand and gravel), but I have found that the type of mix is less important than proper moisture management. Even a short period of water-saturated soils may result in the loss of potted *Eriogonum* plants.

Establishing Plants in the Garden

Because I live where buckwheats thrive, I don't have to worry much about amending soil or creating contours for improving drainage. This will not be true in every case. If you live in a damper climate, realize that nearly all buckwheats are xeric species and ensuring survival may require significant extra work directed at creating a healthy environment. Prepare the site prior to producing seedlings, primarily with intent to improve drainage, if needed. Time your activities to reduce the time seedlings need to spend in a pot. Many buckwheat species struggle in pot culture. Make an attempt to transplant potted plants into the garden the same year the seedlings are grown. Once transplanted into the garden, the plants will require frequent watering during the first few weeks, at which time a slow weaning process can be initiated. Once buckwheats establish the deep root system that



makes them drought tolerant (may take several months), irrigation can be significantly cut back or eliminated. There are large differences among buckwheat species with regard to tolerance to moist conditions. Be sure to study species habitat requirements to figure out which ones are most likely to succeed in your climate and situation.

Conditions for Long-Term Health

Buckwheats are low-input plants. They prefer soils with low organic matter, limited amounts of fertilizer, and low to moderate levels of irrigation. Along with good drainage, limiting inputs is the key to keeping most buckwheat plants healthy. In simple terms, don't love them to death. If your garden includes weed barrier and mulch, take measures to ensure moisture is not held around the plant crowns, especially during fall and spring. Cut large holes in plastic mulch around the plants to keep the plastic from retaining moisture next to the stems. Use gravel or other non-organic mulches, rather than composts or wood mulches, to help minimize moisture retention.

Obviously, I can cover only the most essential elements of buckwheat culture within the scope of this article. Recognize that there are many other important principles that may enhance success. Any information you can find on the topic of growing xeric plants should be applicable to buckwheats. But the main thing is to watch the plants themselves, understand their responses, and adjust management accordingly. The plants will tell you what they need.

If you have less interest in gardening and more interest in learning about some of our remarkable North American wildflowers, I hope I have sparked some interest our wild buckwheats. I have just scratched the surface and I am sure you will discover many sources of additional information. If gardening is your forte, I hope your plant palette includes a few buckwheat species. If not, understand that your life may be less than satisfying without opportunity to cultivate at least one representative from the genus *Eriogonum.* Grow a buckwheat; then tell your friends.

Additional Reading

Reveal, J. L., "*Eriogonum* in the Garden," *Rock Garden Quarterly* vol. 65, no. 2, p. 106-165 (available on the NARGS website).

Bookshelf

Liam and Joan McCaughey *on*

Flora of the Silk Road

Flora of the Silk Road

Chris and Başak Gardner

2015
ISBN 978-1-7807-941-7
Hardcover: 416 pages, 500+ color photos
10 x 12 inches.

THE FIRST THING that must be said, is that this is a beautiful book. The illustrations equal or better those in any volume of wild flowers which we have seen; they are accompanied by good descriptions, and the production values of the volume itself are also excellent - well bound and with first-rate colour reproduction on high quality paper.

The Silk Road, the ancient network of trading routes which linked China and the East with the West and was in decline even as Marco Polo travelled, is the background to the wealth of flora described and pictured.

In the introduction, there is a concise account of the Road, from its beginnings some two thousand years ago when Roman and then Byzantine emperors wanted the silks of China, through a millennium of trade until it gradually faded with the fall of the Mongol empire in the fourteenth century, and to its rediscovery as the Russian and British empires vied in the "Great Game" in the eighteenth and nineteenth centuries. This is followed by a short chapter in which Chris gives pertinent advice on taking pictures of plants in the wild - very different from in a garden or on the showbench. The hints here are very much of a practical nature, and derived from experience of photography in the natural setting.

The authors, Chris and Başak Gardner, are both expert photographers, and very knowledgeable botanists. They are natural history guides, and we have had the pleasure of travelling with them, with Chris in Yunnan and twice with Başak in Turkey. We met them as leaders of tours organised by Greentours, and they now also take their own tours <www.viranatura.com>.

The area covered by the Flora of the Silk Road is vast, and thus no book could hope to be a comprehensive guide to all the flowers to be found there, and this is not its aim. What it does do, and magnificently, is to choose some of the best that is to be seen, and by showing the plants in their environment, to evoke the atmosphere of the many regions covered.

In concept, therefore, it nicely bridges the gap between the formal and comprehensive (and often dull) flora, and the coffee-table book. The writing is concise, informative, and botanically accurate, while the pictures show the features of the plants described, but in an artistically pleasing as well as informative way. It is a big book, four hundred pages, and describing over five hundred species. While the gardener often wants a prescription as to how to grow a particular flower, how much better it is to see the way it grows

in the wild, and the combination of pictures of habitat along with the descriptions of geography and climate given here will allow one to better understand what underlies the requirements for cultivation.

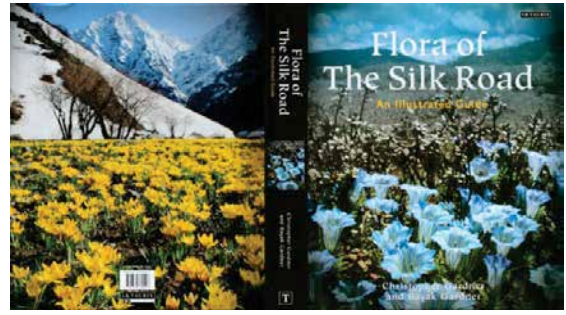
The book runs, like the Silk Road, from Turkey in the west to China in the east, and the regions and floras shown are of course those which the authors have visited in their extensive travels as botanists and wildlife guides.

At the beginning of each chapter describing a country or region, there is a useful brief introduction to key features – geology, climate and history/culture, and an overview of the botany. This is followed by a carefully chosen series of double-page spreads, each almost self-contained, and showing a selection of related images of flowers, flowers in their environment, or stunning shots of the landscapes along the Road, with text describing this content. This includes accounts of the habitats and plant communities in which the photographs were taken, and while some of the selections of images are of the plant communities, others show a variety of related species. For example five species of blue gentian in the Kaçkar mountains in northwestern Turkey, or a selection of oncocyclus irises in central Asia. My personal favourite picture, however, is of a single plant of *Rheum nobile*, on a 45 degree scree slope, at 16,000 feet in the Daxue Shan in northwest Yunnan in China, with its background of high mountains.

Politics along the Silk Road have always been, and are still, complex. We enjoyed seeing pictures of the desert city of Palmyra in Syria (which we have visited but aren't likely to see again), the magnificent tiled mosques and palaces in Samarkand, Esfahan, Persepolis (still on our wish-list) and the Buddhist sites in Yunnan (visited with Chris). Parts of the Silk Road are inaccessible at present to any sensible traveller, but as a successful proxy Chris and Başak have shown us plants and landscapes from surrounding regions such as Ladakh, which share much of the same flora.

The Silk Road ended in the populous regions of southern and eastern China, but in this book, the authors have chosen instead to highlight the wilder country in the high mountains of the western part of this vast country. Wisely, too, as this region, on some of the minor branches of the Silk Road, contains most of the biodiversity of China, and a majority of its contribution to the flowers and trees which we cultivate in our Western gardens.

Both Chris and Başak take great care with their photography, and this shows in the quality of the pictures. The images capture exquisite detail, for example in the close-ups of oncocyclus irises with their delicate reticulation, and at the other end of the size spectrum, there are dramatic images of desert and mountain landscapes from Turkey through Iran and central Asia to the Himalaya.



In summary, a beautiful book which describes the flora along a fabled road at the centre of history, and does it well. The danger is – it will make you restless and itching to go yourself. But Chris and Başak would take you !

Treasurer's Report

Included with this report you will find a Balance Sheet as of December 31, 2014 and a Profit & Loss Statement for year ending 12/31/2014. As of 12/31/2014, all Bank Accounts and Investments have been recorded into our QuickBooks accounting system and all accounts have been balanced to the appropriate year end statements.

Below, I have listed those areas of Net Income and Net Expense that have a significant impact on our operations:

Net Income:	2014	2013
Memberships	$57,358	$55,146
Donations	$21,921	$20,897
Interest	$1,405	$3,398
Advertising	$1,420	$2,335
Book Service	$543	$2,027
Amazon Payments	$756	$730
Seed Exchange	$1,235	$548
Net Expense:		
Bank Fees	$3,775	$2,061
Speakers Tour	$6,789	$3,766
Internet Services:		
Website Development		$35,471
Website Administration		$3,000
Website Upgrades	$3,892	
Website Maintenance	$3,663	
Website - AGM	$3,848	
Website - Seed Exchange	$2,909	
Website Hosting & Registration	$2,525	$2,498
Annual General Meeting	$5,831	
Quarterly:		
Contract Services	$22,700	$20,940
Preparation, Printing & Postage	$43,075	$44,192
Grants/Awards	$5,867	$7,312
Administration:		
Executive Secretary	$14,570	$14,857
Administrative Committee		$1,127
Other	$2,534	$1,103

The activities of NARGS in 2014 resulted in a deficit of $37,843. A deficit of $27,510 was projected in the 2014 Budget. The areas primarily responsible for this additional deficit are as follows:

- Website upgrades, maintenance and additional programming was $8,312 greater than projected, primarily due to work that was required for the SeedEx on-line ordering system, AGM on-line registration, and membership related website adjustments.
- The 2014 AGM in Santa Fe concluded with a deficit of $5,831, a result due primarily to unfulfilled room and food guarantees that could not be met due to poor attendance.

In general, other expenses were in line with Budget projections. Revenues, in most areas, met Budget expectations. Membership income and donations were much the same as in 2013, and investment income continued to decline as anticipated. The SeedEx continues to operate at a small profit.

Respectfully submitted April 3, 2015
Bill Adams, Treasurer

BALANCE SHEET at December 31, 2014 (US $)

ASSETS		
CURRENT ASSETS		249,304.33
Cash in Banks	49,304.33	
Investments	200,000.00	
TOTAL ASSETS		249,304.33
LIABILITIES & EQUITY		
EQUITY		
Unrestricted (retained earnings)		126,547.38
Restricted Funds		160,600.08
Norman Singer Endowment Fund	152,392.08	
Robert Senior Award	1,275.72	
Carleton Worth Award Fund	3,337.78	
President's Discretionary Fund	3,594.50	
NET INCOME		(37,843.13)
TOTAL EQUITY		249,304.33
TOTAL LIABILITIES & EQUITY		249,304.33

PROFIT & LOSS - January through December 2014 (US $)

INCOME			
CONTRIBUTED SUPPORT		79,278.54	
Memberships	57,357.55		
Donations & Special Bequests	21,920.99		
EARNED REVENUES		47,287.79	
Interest	1,405.03		
Advertising	1,420.22		
Book Services	796.29		
Amazon Payments	755.73		
Seed Exchange	14,782.77		
Annual General Meeting	28,127.75		
TOTAL INCOME			126,566.33
EXPENSE			
GRANTS, STIPENDS and AWARDS		5,866.81	
Stipends	300.00		
Grants - Singer Endowment	2,960.00		
Awards	2,606.81		
BANK FEES		3,775.33	
ADMINISTRATIVE EXPENSE		17,104.89	
Executive Secretary	14,569.87		
Legal & Filing Fees	50.00		
Insurance	1,287.00		
Supplies	130.25		
Promotional Materials	505.45		
Accounting	263.32		
Telephone & Electronic Services	299.00		
PROGRAM SERVICES		137,662.43	
Annual General Meeting	33,959.07		
Book Service	253.32		
Membership Publications	501.82		
Seed Exchange	13,547.45		
Speakers Tour	6,788.70		
Internet Services	16,836.82		
Quarterly	65,775.25		
TOTAL EXPENSE			164,409.46
NET PROFIT (LOSS)			–37,843.13

NORTH AMERICAN ROCK GARDEN SOCIETY

The Rock Garden
QUARTERLY

summer
2015

volume 73 | 3

NARGS Bulletin Board

From the President

My biggest task since becoming president – aside from the budget which links to the issues of membership dues and chapter membership – has been dealing with unhappy members. Really.

I know that sometimes I am naïve, but this shocked me – how could anyone be so angry with an alpine plant club? For a time I struggled with this but eventually I arrived at a place where I was hopeful – these people care enough about NARGS to be unhappy.

At the Annual Meeting in Ann Arbor I shared a barchart that displayed the membership of each chapter and also the percentage of the chapter membership that had a NARGS membership as well. The NARGS memberships were far lower than most people imagined, with most chapters averaging a NARGS membership at 20%–30% of their own membership. And this average hides enormous disparities – some chapters with well over half their membership also being NARGS members, and chapters with almost none of the chapter members being NARGS members.

As the audience groaned, I had to share that these numbers don't surprise me. I think that they might be the norm across most plant societies with a structure like ours.

Do we need more members? Yes, of course, but requiring all to join is surely the worst way to build an organization. The most effective way might be to think of those chapter members who are not NARGS members as members-in-waiting. A pool ripe for harvesting but they must be carefully nurtured to arrive at a more inspiring place so that they join on their own. After all, they must care about their passion first, and then honestly feel motivated to support NARGS for their own reasons.

In the end, our problems are not unique, but our solutions will need to be if we are expecting to survive as a plant club. First, we all need to care enough to not only fix the problems, but to own them as well. The solutions may need to be clever, but fundamentally, the hurdles are simple

– NARGS has a tight budget, and there is little to no waste. NARGS needs to somehow offer more benefits to get folks interested in supporting it, and it needs to function with a balanced budget before it can invest in benefits.

The economics are simple, if NARGS loses money, it cannot offer benefits. We cannot blame the management of NARGS – waste has been eliminated and solutions involving requiring all chapter members to pay NARGS dues are not generally accepted. Unfortunately, right now, the only other solution has been to raise NARGS dues for 2016. While not the worst solution, it is one I would rather have not made although membership rates for NARGS have remained the same for ten years when prices of most things have risen year on year.

Moving forward I am eager to grow NARGS any way I can, but I cannot do it without your support. At the Ann Arbor AGM I announced an aggressive 5-year strategic plan: NARGS 20/20. The plan outlines a number of task forces which address a number of specific NARGS opportunities and needs, (the specifics of which I will share in the next issue, but they range from an e-commerce strategy to plant and garden tours) but uses a more holistic approach. These task forces will require you – the members – to help us solve this challenge by involving yourselves in enhancing what NARGS offers.

The best solution found came to me rather unconventionally. I started to receive letters from members who were dissatisfied with NARGS managementand one letter in particular struck me. A member sent a hand-written letter, a "rant" even, about how reducing the size of the board from 75 to 14, eliminating the requirement of chapter chairs to be present and to vote, essentially took away their "voice" in any decision-making. (A note here: The reduction in board members was necessary. As anyone who sits on a board knows, trying to get a consensus with more than 50 people is nearly impossible, and studies show that overly-large boards often need to be reduced periodically to encourage swift decision-making.) However the logic, from the perspective of the chapter chairs, made sense.

So part of the plan is to create a chapter chair strategic planning committee (meeting) held at every Annual General Meeting, which could make suggestions to the Board on what they actually want or need, rather than simply just a vote at the end. This not only allows more involvement but also gets their ideas on the table first. It allows the chapter representatives to actually sit in a room and share ideas, to discuss them and to share what the corporate world calls "best practices."

Overall, what I have discovered is that the truth is most of you do care. You just haven't been given a platform on which to share what you want to do with your club. I then realized that it wasn't ME who could save NARGS, it was YOU.

If NARGS succeeds, it's because the members and chapters want it to. If not, then who am I to intercede? I'm not being snarky, I'm being realistic. I can care until the cows come home, and it won't make much of a difference. But if NARGS grows because more members join and the benefits get a little better each time then, a much healthier and sustainable future model grows.

All this has thus led me to this concept – a five-year plan which places the future of NARGS not in my hands, but in the hands of each member and chapter. The message is clear to those chapters with almost no members at the North American level: others are more involved, offer more benefits, or are doing something right; so perhaps chapters could share their ideas with each other so that more chapters are more committed to NARGS.

Each of us owns a piece of NARGS, each of us owns a bit of this franchise, and if we care enough about what we love so much, then together we can find the best trail for this North American Rock Garden Society which more people can follow.

Matt Mattus, NARGS President
<mmattus@charter.net>

Membership Dues Increase beginning October 1, 2015

In the President's letter above, Matt Mattus reflects on the reasons why an increase in membership dues has become necessary after a ten-year standstill. As a result of discussions by the Board of Directors it was agreed unanimously that there would be a dues increase as follows:

- U.S. and Canada Regular Membership $40
- Other Countries Regular Membership $45
- Lifetime Membership, Under 60 $750
- Lifetime Membership, Over 60 $675

Unchanged: Student $15, Additional Household $10 each, and Patron $75

The new rates will be effective as of October 1, 2015.

Some of you have never supplied NARGS with an email address. Would you provide it for an occasional message from NARGS? It helps us keep in touch with you.

We do not share email addresses.

Please email

<nargs@nc.rr.com>

Chapter Award for Service
Piedmont Chapter

Bobby G. Wilder

Bobby G. Wilder has been an enduring presence in the Piedmont Chapter, having attended its organizational meeting in the fall of 1985. Over three decades, Bobby has served as Chapter Chair in the early 1990s and Treasurer from 1994 until 2015. Bobby has also served on the NARGS Board of Directors and acted as treasurer for two national meetings and two winter study weekends which our chapter hosted. During two NARGS Seed Exchanges our chapter, Bobby gave up a considerable portion of his home to provide space for seed distribution and also processed orders from the members. He has graciously provided housing for out-of-town speakers and hosted numerous chapter dinners. We are deeply grateful to Bobby for his tireless dedication to the Piedmont Chapter and also to the greater NARGS community. The award was presented at the April 2015 meeting.

--Charlie Kidder, Piedmont Chapter

Patrons

The following recently became NARGS patrons:

James H. Locklear (Nebraska)
Joan Schwarz (Colorado)
Minnesota Chapter of NARGS (Minnesota)

NARGS Donations

Donations between February 1 and May 13, 2015: $3987.71.
Designated for the general fund, *Rock Garden Quarterly*, speaker's tour, seed exchange, and website development.

Adirondack Chapter's Fund of the Community Foundation of Tompkins County (New York)

Anonymous (Ohio)

Adler, Lee Howard (New York)

Briggs, James (Michigan)

Carrier, Bernard (Quebec)

Halverson, Jean (Wisconsin)

Killin, Joyce (Ontario)

Miller, Joyce E. (Oregon)

Norton, David (Massachusetts)

Pikes Peak Chapter dissolution (Colorado)

Wopat, Debra Healy (Wisconsin)

OBITUARY

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

Helga Andrews, Sudbury, Massachusetts
Sylvia Clise Duryee, Seattle, Washington
Charles Hardman, Baldwin Park, California
Peter J. Savage, Calgary, Alberta
Gene Schwarz, Denver, Colorado
Sandra Steinberg, West Hartford, Connecticut
Michael Upward, Pershore, Worcestershire
Evelyn Wilson, Luck, Wisconsin (age 101)

Memorial contributions for Helga Andrews may be sent to NARGS, P.O. Box 18604, Raleigh, NC 27619-8604

New Members

Welcome to all those who joined between February 1 and May 13, 2015.

Allison, Elisabeth, POB 367, Woodlawn, ON K0A 3M0, Canada
Baldauf, Stephan, SB-Pflanzenhandel, Hohenburger Str. 22A, Schmidmuehlen 92287, Germany
Berestetska, Lyudmyla, 825 Regina St., Philadelphia, PA 19116
Berkeley, Patricia, 91061 Leashore Dr., Vida, OR 97488
Beverin, Donna, 71 South Dr., West View Shores, Earleville, MD 21919
Bohlander, Dare, 5827 S. Louthan St., Littleton, CO 80120
Bojorge, Alvaro, 238 Peck Lane, Bristol, CT 06010
Brodovich, William, 3085 Belvidere, Ann Arbor, MI 48108
Carr, Deb, 7520 Eggleston, Boulder, CO 80303
Covill, Jill, Bunchberry Nurseries, 2779 Hwy #1, RR #2, Annapolis Royal, NS B0S 1A0, Canada
Dominijanni, Cristina, 18 South Trail, Niantic, CT 06357
Douma, Blanche, 6170 Thistle Lane, Central Point, OR 97502
Dueringer, Kim, 2102 28th Ave. W, Seattle, WA 98199
Evans, Dean, 27 Firetower Rd., Stephentown, NY 12168
Evans, Neil, 48 Friars Ave., Peacehaven, East Sussex BN10 8SB, United Kingdom
Fike, Elizabeth, 523 Shadow Hills Dr., San Marcos, CA 92069
Goetz, Betty, POB 1213, Bothell, WA 98041
Gould, Bill, 18 Buckingham Place, Glen Rock, NJ 07452
Greene, Judi, 820 NE 134th Ave., Alleman, IA 50007
Grindrod, Betty, POB 509, Claverack, NY 12513
Haberman, Donna, 2254 McKinley St. NE, Minneapolis, MN 55418
Hawksley, Christopher, 21473 Goethe St., Grosse Pointe Woods, MI 48236
Healy, Miriam, 2B Granville Cres., Dun Laoghaire, Co. Dublin, Ireland
Heckman, Sharie, 11021 N 725 W, Nappanee, IN 46550
Hoversten, Mary, 2539 Bunker Hill Rd., Ann Arbor, MI 48105
Hunt, Sarah K., 601 Sunset St., Santa Fe, NM 87501
Kabeary, Shirley, 131 Bermuda Close NW, Calgary, AB T3K 1G4, Canada
Killin, Joyce, 44 Roanoke Rd., Hamilton, ON L8S 3P7, Canada
Krasle, George, 17520 174th Ave. NE, Woodinville, WA 98072
Lutes, Roderick, 30 Garden Hill Ave., Moncton, NB E1C 3E4, Canada
Luteyn, James, 32075 East Side Dr., Beaver Island, MI 49782
Lyon, Danny, POB 31, Bristow, OK 74010
MacKay, Chris, 17 Wallfield Place, Aberdeen, Scotland AB25 2JR, United Kingdom
MacRae Library, Dalhousie University, Faculty of Agriculture, POB 550, Truro, NS, B2N 5E3, Canada
McGee, Mark, POB 27348, Seattle, WA 98165

McKillip, Peggy, 724 Highland Way, Bowling Green, KY 42104
Melara, Lucy, 3914 Fairhill Dr., Houston, TX 77063
Murphy, Lorraine, 571 Dunbar Hill Rd., Hamden, CT 06514
Neal, John, 2705 Camden Rd., Greensboro, NC 27403
Palmer, Michael, Univ. of Michigan Matthaei Botanical Gardens & Nichols Arboretum, 1800 N Dixboro Rd., Ann Arbor, MI 48105
Parr, Anthony, 15414 SE 17th St., Bellevue, WA 98007
Philo, Susan, 59980 Highway 26, John Day, OR 97845
Prestegard, Elly, Langarinden 407, Nyborg 5132, Norway
Sambucci, Piero, Via Fontana del Turano 5, Velletri 00049, Italy
Schulz, Noel P., 108 Lincoln Place, Waldwick, NJ 07463
Stehouwer, Steven, 1073 McLeod Hill Rd., McLeod Hill, NB E3G 6H8, Canada
Symes, Barry, 171 Damers Rd., Dorchester, Dorset DT1 2JP, United Kingdom
Warren, Paul, 270 West 17th St., Apt. #18D, New York, NY 10011
Whitaker, Alicia, 40 Fifth Ave., 13C, New York, New York 10011
Whitman, Maryann, 2271 Rochester Rd., Oakland, MI 48363
Wideman, Brenda, 7919 Babcock Rd., Lexington, MI 48450
Wiss, Ann, 12 Chestnut Place, Short Hills, NJ 07078

NARGS Speakers Tours

I am just back from the annual meeting in Ann Arbor where we toured some incredible gardens, no doubt influenced by interactions with speakers provided by NARGS members like you. It is this spirit of participation and cooperation that is the value and essence of NARGS.

I have valued my participation as Speakers Tour coordinator over the recent years and have passed that opportunity on jointly to Jim Dronenburg of the Potomac Valley Chapter and Panayoti Kelaidis of the Rocky Mountain Chapter. I expect they will soon post information on the 2016 speakers.

I will be completing my turn as coordinator with the Fall West tour with Jerry Kral through October 2015. My sincere gratitude to all those participating NARGS members who have patiently worked with me to facilitate the tour. Without this kind of participation NARGS has no value at all no matter how much money there may be in the coffers. I encourage you to contribute in whatever way possible to promote and enhance NARGS so that we all may continue to enjoy the many benefits of this incredible organization.

Thank you
Harold Peachey

Seed Exchange

We have just completed another successful Seed Exchange, and its success is all due to the many members who pitch in and volunteer their seeds and their help. And, of course, those who support the Seedex by "shopping!"

It all begins with our hundreds of Donors, who each year collect, clean, and contribute the seeds from their gardens and their travels. We couldn't possibly have a Seedex without them. Our stellar donor was, once again, Ron Ratko, with the highest number of highest quality donations; other donors of note were Panayoti Kelaidis, Arie Rietveld, Kathy Allen, and Lori Skulski. We thank all our donors - profusely.

We enjoyed the continuing help of many chapters and individuals who re-packaged the donated seed into smaller packets - the beautifully labeled ones you receive. We appreciate their reliable help and their positive responses when they are called upon each year.

This year, the two distributions were beautifully handled by many volunteers in two of our chapters: Bobby Wilder coordinated the efforts of members of the Piedmont Chapter in the Main Distribution, and Linda Meyer led the Rocky Mountain Chapter volunteers for the Surplus Round. We owe them a great deal of thanks for all their hard work, time, and patience.

Of course, the master hand guiding the many facets of the Seedex belongs to Laura Serowicz, the Intake Manager (and so much more….). Laura will be waiting for your seed donations, so don't let her down. If you send five (5) packets of different seeds, in return you will receive Donor status, which will entitle you to an additional ten (10) packets in your main round order, plus priority in having your order filled (so you can get some of the rarest seed in short supply).

The Donor Instructions and Donation Form are tucked into this issue of the "Rock Garden Quarterly" and we hope you will use it to bolster the seed list this year. Instructions for donating seed are also available on the NARGS website. Mail your seeds to:

Laura Serowicz
15411 Woodring Street
Livonia, MI 48154-3029

International members will also find the special seed import permit to include with their donations. Follow the information given in the Donation Instructions very carefully and use the green/yellow mailing label on your shipping envelope, as that has the address of the U.S. inspection station which must receive and inspect the seeds before they reach Laura. Send no more than 50 packets of seed in one shipment and, if you plan to donate more than 50 packets (which we would love you to do), contact Laura for another permit and mailing label.

If you have questions, or the forms have not reached you (it happens), you can contact Laura at: <seedintake@mi.rr.com>

The seed list for the 2015-2016 Seed Exchange will appear on the NARGS website on December 15. If you wish to receive a print copy of the list, you must request one by December 15 from:

Joyce Fingerut
537 Taugwonk Road
Stonington, Connecticut 06378-1805
U.S.A.
<alpinegarden@comcast.net>

There will be more details about ordering seed, either online or by mail, in our fall issue of the *Quarterly*.

In the meantime, I hope you have the best gardening season ever!

Joyce Fingerut, Director
NARGS Seed Exchange

2015 Election Results

Recording Secretary: Elisabeth Zander* - 184 votes

Treasurer:
Richard Lane* - 122 votes
Dave Brastow - 61 votes

Directors:
Mike Kintgen* - 165 votes
Joanna (Jody) Payne* - 117 votes
Anna Leggatt* - 97 votes
Michael Riley - 76 votes
James Dronenberg - 74 votes

The candidates marked with an asterisk * have been elected.

NARGS Chapters (meeting place/area) and Chairpersons or Co-Chairs

Adirondack (Ithaca, NY)	John Gilrein <basecamp@alum.syracuse.edu>
Alaska (Anchorage & Mat-Su Valley)	Carmel Tysver <garden@gci.net>
Allegheny (Pittsburgh, PA)	Len Lehman <lclehman1@verizon.net>
Berkshire (Stockbridge, MA)	Judith Brown <jloveys@nycap.rr.com>
Calgary Rock & Alpine Garden Society (Calgary, AB)	Margaret Fong <mjfhello@yahoo.ca>
Columbia-Willamette (Portland, OR)	Jane McGary <janemcgary@earthlink.net>
Connecticut (New Haven, CT)	Virginia Gingras <ginnygingras2013@gmail.com>
Delaware Valley (Philadelphia, PA)	Arle Kruckeberg <drarlek@yahoo.com>
Fells (Newbury, NH)	Thelma Hewitt <thelmakh@gmail.com>
Gateway (St. Louis, MO)	Mariel Tribby <mtribby@gmail.com>
Great Lakes (Southern MI)	Patrick Ion <ion@ams.org>
Hudson Valley (Westchester Co, NY)	Don Dembowski <dondembowski@optonline.net>
Long Island (Oyster Bay, NY)	Donald Ohl <donohl@yahoo.com>
Manhattan (New York, NY)	Brendan Kenney <ny10014@aol.com>
Mason-Dixon (Norrisville, MD)	Joan King <jsking121@gmail.com>
Minnesota (Minneapolis/St. Paul, MN)	Cheryl Philstrom <cphilstrom@frontiernet.net>
New England (Waltham/Boylston, MA)	Ellen Hornig <hornig@oswego.edu>
Newfoundland (St. John's, NL)	Todd Boland <todd.boland@warp.nfld.net>
New Mexico (Santa Fe/Albuquerque)	Jean Warner <jean@cybercomp.net>
Northwestern (Seattle, WA)	Robert Fincham <bobfincham@mashell.com>
Nova Scotia (Halifax & Truro, NS)	Jeff Morton <jmorton@porthort.com>
Ohio Valley (OH & surrounding states)	Mary "Maggie" Whitson <mkw513@hotmail.com>
Ontario (Don Mills, ON)	Donna McMaster <dmcmaster@rogers.com>
Ottawa Valley (Ottawa, ON)	Zandra Bainas & Linda Nishikawa <president@ovrghs.ca>
Painted Hills (John Day, OR)	Gail Klodzinski <gailkathryn3@hotmail.com>
Piedmont (Raleigh, NC)	Charles Kidder <chas36kid@gmail.com>
Potomac Valley (Alexandria, VA)	James "Jim" Dronenburg <2rutlands@comcast.net>
Quebec (Montreal, QC)	Robert LeClerc <leclercr@bell.net>
Rocky Mountain (Denver, CO)	Mike Bone <BoneM@botanicgardens.org>
Sierra (Sonora, CA)	Val Myrick <vkmyrick@pacbell.net>
Siskiyou (Medford, OR)	Lillian Maksymowicz <lillian@ashlandhome.net>
Wasatch (Salt Lake City, UT)	Tony Stireman <tonystireman@msn.com>
Watnong (Far Hills, NJ)	Michael Wilson <miwilson@ramapo.edu>
Western (San Francisco Bay area, CA)	Ted Kipping <tkippingsprint@earthlink.net>
Wisconsin-Illinois (Madison-Chicago)	Debra Wopat <ddwopat@gmail.com>

NARGS Structure

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

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

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

Officers

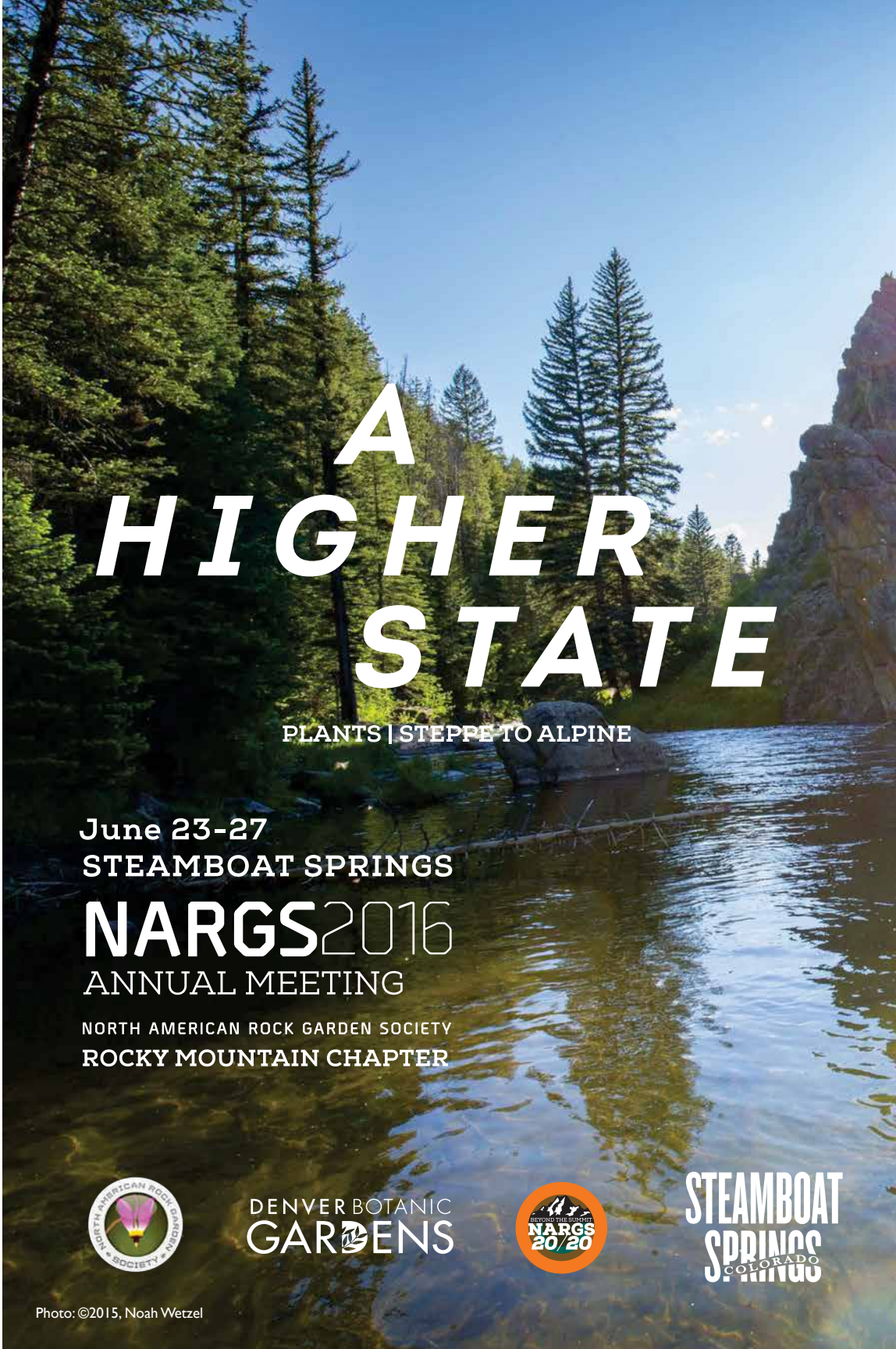
President	Matt Mattus <mmattus@charter.net> 26 Spofford Rd., Worcester, MA 01607
Vice President	Betty Anne Spar <bettyannespar@gmail.com> 206 Wolfe St., Alexandria, VA 22314
Recording Secretary	Elisabeth Zander <canbya@gmail.com> 127 North St., Goshen, CT 06756
Treasurer	Bill Adams, 330 Carlile Ave., Pueblo, CO 81004-1054 (till 12/31/15) Richard Lane <rhlane01@gmail.com> 4904 Hermitage Dr., Raleigh NC 27612
Director-at-Large	David White <dmwhite_nc@yahoo.com> 3 Ontario Ct., Durham, NC 27713
Immediate Past President	Peter George <petergeorge@verizon.net> P.O. Box 833, Petersham, MA 01366-9755

Directors of the Board

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

Managers

Executive Secretary	Bobby J. Ward (919) 781-3291 P.O. Box 18604, Raleigh, NC 27619-8604 <nargs@nc.rr.com


A HIGHER STATE
PLANTS | STEPPE TO ALPINE
June 23-27
STEAMBOAT SPRINGS
NARGS2016
ANNUAL MEETING
NORTH AMERICAN ROCK GARDEN SOCIETY
ROCKY MOUNTAIN CHAPTER
DENVER BOTANIC GARDENS
BEYOND THE SUMMIT
NARGS 20/20
STEAMBOAT SPRINGS COLORADO
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