

ROCK GARDEN



QUARTERLY

VOLUME 57 NUMBER 4

FALL 1999

This issue of the Rock Garden Quarterly is dedicated to the present and past Editors of the Chapter newsletters, in gratitude for their commitment to communication and the dissemination of information about rock gardening.

In the ten years of my editorship of the *Quarterly*, amazing strides have been made in the newsletters of the Chapters all across the continent. At first, most newsletters were mere announcements of meetings, and the formats reflected the state of the computers of the time—not too powerful and not too sophisticated. Today, newsletters are full of articles that offer a fund of knowledge, beautifully illustrated, and lovely in format. They spread the word of our art to whole new audiences. Editors, you are training authors not just to contribute to the *Quarterly*, but to write for many journals and books in the coming century.

Thank you to all who have recruited, cajoled, held hands, and written yourselves. Last but not least, thank you to all who have designed, assembled, folded, stamped, and mailed the newsletters, thus making this wonderful resource possible.

Gwen Kelaidis

COVER: *Gentiana sino-ornata*
by Lori Chips, Norwalk, Connecticut

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ROCK GARDEN

QUARTERLY

BULLETIN OF THE NORTH AMERICAN ROCK GARDEN SOCIETY

VOLUME 57 NUMBER 4

FALL 1999

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CARNEY ROCK GARDEN, WASILLA, ALASKA

WHY DID I BECOME A ROCK GARDENER?

by Florene Carney

A non-gardening friend recently asked, "Why in the world did you become a rock gardener?" I had to ponder that. Why did I?

It all started about 25 years ago during an innocent drive along Turnagain Arm, between Girdwood and Anchorage. I glanced up and spied the prettiest blue flowers that appeared to be hanging in thin air on the cliff above the highway. I insisted that we stop the car to have a better look. But alas, the lovely little plant was too high to really see. Since we had no binoculars, we parked the car and set out to climb to the top of the cliff, hoping to get a better view or at least find a nearby plant of the same type that was more accessible. As we wound back and forth on what was probably a sheep trail, we kept trying to get a better look at the plant in question and looked all the while for another plant like it. As we reached the top of the cliff, I didn't even notice the breathtaking view below. There, growing in the rocks, was another little blue-flowered plant. On closer inspection the flowers were bell-shaped, and the plant seemed to grow right out of the rock. I was smitten.

For the next few years I tried, in vain, to transplant that little flower and also to find out what it was. That was in the time before Verna Pratt started publishing her guides to Alaska wildflowers, and my best resource was Louise Potter, who had another guide to Alaskan flowers, which had hand-drawn pictures in black and white. After much searching and questioning, I determined that the plant I coveted so much was a common harebell, sometimes called bluebells of Scotland (*Campanula rotundifolia*). It didn't seem right that this lovely little plant should be called common, but bluebells of Scotland had a romantic ring to it and *Campanula rotundifolia* sounded rather regal. I could live with that.

I had been a gardener all my life, but as I struggled to provide an environment in which this little beauty would survive I realized this was a whole new kind of gardening. Nothing about it was like a regular garden. These plants seemed to thrive on very little soil and lots of gravel, or they were content to snuggle down in a crack in the rocks. It was amazing how they would light up the dullest spot

with bright blooms on tiny plants—but only if conditions were right. I became a rock gardener, although I never realized it until years later when I stumbled across an article about the American Rock Garden Society in *Horticulture* magazine. (Now the North American Rock Garden Society). If you aren't a member, the \$25 a year is worth it just for the *Quarterly*. It is full of articles with glorious color photos and line drawings of plants you may never have seen but will surely start to search for. The first few years only Susan Lemagie and I were listed under the Alaskan members, with a few people from Southeast thrown in. Slowly the list grew, and then one day Les Brake called to see if I would be interested in forming an Alaskan Rock Garden Group. I quickly offered my home as the location for the first meeting and sent a little "Thank You" in the general direction of the stars. We were off and sprinting—it was a *very* fast start. The Alaska Rock Garden Society has grown from 20 people at the first meeting to almost 200 in a short two years. I wasn't the only one who was hooked.

Since I started with that first little *C. rotundifolia*, I have collected not only campanulas of all sizes but have become enamored of other rock garden plants as well. *Lewisia tweedyi*, with its beautiful peach-colored blossoms, the *Draba* that smells so sweet as you walk by, but takes a minute to spot, because it is so unassuming; and of course those lovely primulas, among the first flowers to welcome spring. Since "The Bad Winter" about four years ago, all Alaskan rock gardeners have a penchant for gentians of all varieties (*G. septemfida* and *G. verna* come to mind right away), as they were the big survivors of that holocaust of ice and cold. *Gentiana sino-ornata* has bloomed in Susan

Lemagie's garden late in the fall, right through the first snows! That is a treat for the eyes, bright blue blossoms over pure white snow.

Rock garden plants don't all have the same growing requirements, and some research is needed for each one. Lean, gritty soil or a crack in a rock for campanulas; a little richer mixture for gentians, and everything well drained. That's part of the challenge. I now have plants from all over the world: *Primula x polyanthus* 'Cowichan' from Canada, *Stachys monnieri* from the Pyrenees, *Thymus comosus* from Romania, and a long list of glorious little plants from the Himalayas. Experimentation is part of the fun. If I haven't killed a plant three times I'm sure it is hardy and keep trying.

At first the rock garden was my respite from a full-time, high-stress job and the challenge of raising three children. Now I have found that another bonus of rock gardening is that I have met the most wonderful people who are also captivated by those rare little plants that require a special environment to survive: Sally Arant, garden designer and local nursery owner, introduced me to shady rock gardens when she gave a program at the ARGS meeting last spring; Rhonda Williams, owner of Recluse Gardens and avid plant collector, is a kindred spirit and keeps me wondering what exotic plant she will come up with next; Carmel Tysver shared her expertise in troughs and has encouraged me to give them a try; Teena Garay, from Homer, has readily shared tips on propagation. The list goes on.

The frosting on the cake is the wonderful lectures we have had in the first two years of our group's existence. Every lecture has been wonderful and provided more information than I will ever remember, but getting to meet and spend an evening with Helen

Dillon was very special for me. Ms. Dillon is the author of *Garden Artistry* and *The Flower Garden*, both published by Wayside Gardens. If you haven't read Helen's books, check them out. Her style is witty and very wise, and the pictures are glorious.

"What about rocks?" you may ask. Truthfully, I was a rock collector long before I was a plant collector. I have always loved a beautiful chunk of pink quartz or a big rock with a well in it that can be used as a little birdbath. My first rock garden was a conglomeration of my rock collection with plants stuck in between. Eventually, I tore that apart (partly because the nearby trees had sent roots all under the plantings, and they had to be removed). When the rocks were replaced, it was with an eye to what the plant needs were, not just to show off the rocks.

The rock garden at our new house (this will be our second summer here) is like a dream come true. When the snow started to melt last spring, there was a big dip in the back yard, then a hump of earth that covered over the old potato storage barn, which we call the Keep. As backyards go, it left a lot to be desired, but I could see the potential. Al and Nancy Williams, from Williams Excavating, were here working on excavating and replacing the soil around the foundation of the house. After we discussed the area, I explained that I visualized filling in on the upper level and leaving the drop off between the upper and lower level to be used as a rock garden. They quickly caught my vision, and as we worked Nancy remembered a pile of rocks up the road that a neighbor wanted to get rid of. After negotiating for several days, we struck a deal. Al hauled in four dumptruck loads of wonderful rocks. Then Nancy stood back and said, "You need more defini-

tion." By that she meant that I, as usual, had managed to square everything up. She got on the Bobcat and hauled gravel and sand and dirt and designed some beautiful curves. The really exciting part came when we started to place the rocks. Al, using the Track Hoe, skillfully placed each rock as Nancy and I directed him. Some we moved several times, but he stuck with us. Then my husband Doug mentioned that he would like to have a little pond and waterfall. We started out to do a small pond with a fern grotto at the far end of the rock garden, but the location where we wanted to put it was so sandy we couldn't get it to hold. By that time all four of us had a hand in, and it turned out to be a much larger water feature with a full-fledged waterfall and a large pond. We think the results are pretty spectacular. The Annual Meeting will be in Alaska in 2002; I hope you can all come and see what we have done.

Now comes the labor of love (I started to say chore, but it isn't); selecting plants and getting it all laid out to look natural. My goal this time is to have it look like an Alaskan mountain, up high where the Dall sheep roam, then moving down to where you would see a stream and waterfall. I am planting seeds, scouring the catalogs, pestering the local nurseries, and gleaned advice from people in the Alaska group who are much more knowledgeable than I. There is no turning back now.

As to why I became a rock gardener? It's like asking why you chose a dance partner. I didn't choose rock gardening; it chose me—and this is one dance I'm glad I don't have to miss.

Reprinted from Alaskan Rock Garden Society Newsletter, Vol. 3 Issue 3, May 1999. Editor, Jaime Rodriguez. Florene Carney gardens in Wasilla, Alaska.

WHY A PUBLIC ROCK GARDEN?

by Steve Klass

What benefits does a public rock garden provide to Wasatch Rock Garden Society (WRGS) members? Does it matter if there is a place where just anybody, even people who don't understand rock gardening at all, can see rock gardening in action? Following is a brief outline of five issues that can be addressed as benefits of a public rock garden.

What does a rock garden look like?

There are many piles of rocks on slopes in people's yards all around us. Are they all rock gardens? Upon our friends and neighbors learning of our status as rock gardeners, how many have been asked what a rock garden is and how have we answered that question? In my brief time as a member, I have observed that there is no single definitive rock garden, but that there are different aspects or expressions of rock gardening as an activity. It would certainly make our lives easier if we could respond (to "what does a rock garden look like?") with "well, go see the Rock Garden at _____ that's what one looks like!"

As we saw in our recent tour, there are many aesthetically pleasing ways to display rock garden plants in the home garden: in a wall, in a mound, as a miniature mountain landscape, in a flower bed, in troughs. Wouldn't it be great if there was one place that provided significant examples of all the different ways to grow and display these wonderful plants?

Where can we go to see rock garden plants?

Where in Utah can one see the immense variety of easy and even finicky rock garden plants that CAN grow in the home garden at 4,000–7,000' in elevation along the Wasatch Front, where our members live? Our home gardens are so limited that we usually have to choose between desert plants, alpine plants, small border perennials, bulbs, short shrubs and trees, etc. All right, some of us do have some of each of these categories in our home gardens. Some of us may even have aspirations of removing all grass and taller—than 1'—vegetation on our properties, so that we live in one giant rock garden with a dwelling and driveway interrupting the plants. But most of us don't have the room or resources

to maintain a large collection of rock garden plants.

How to maintain a large collection?

Who has the ability to maintain a large and varied collection of rock garden plants? Plants that normally grow above treeline, for example, are challenging to take care of in the foreign soil, temperature range, and rainfall at the valley elevations of our home gardens (well, not for all of our members, but for many of us), aren't they? Other types of rock garden plants have different requirements. Not all of our home gardens have the elevation change, variety of sun exposure, or natural water features that would support an in-depth opportunity to grow all types of rock garden plants. Most of us are limited in our time and financial resources, even if our properties provided such opportunities. Don't many of us wish that *SOMEBODY* had the site and maintenance resources for a more complete reference collection of rock garden plants?

What about continual access?

What about continual access to a reference collection? If any of us could truly devote the resources necessary to a large collection of plants, would we leave the gate to our back yard open every day, so that anybody could come in at any time and see the plants? Would we welcome hordes of strangers parking all along our residential street and clogging up sidewalks and our driveway as they paused to ogle all our wonderful plants?

Who has the expertise?

Who has the ability to make all rock garden plants happy, to find all the new ones available, and to tell everybody about all of that? How many of us are able to keep up on all the knowledge to continually show an ever-expanding collection of plants to their greatest advantage? Could we maintain all of the microclimates needed to showcase all of these great plants? Could we afford to travel the globe, like so many of our excellent guest speakers over the years have been able to do, so that we could bring plants from new areas around the planet and effectively nurture them here in Utah?

Only a public institution, such as a botanical garden, can address these five issues (variety of display, comprehensive collection, scale and range of maintenance, continual access, and expanding expertise), because it has the mission, site, financial resources, staff, and interpretive programs. In addition to direct benefits to current Society members, an effective public rock gardening program can: Refer potential members to the Society; Educate the public at large about rock gardens; make special efforts to educate the regional nursery trade; provide new knowledge about rock garden plants and gardening through research; Make costly mistakes of trying and failing to grow many new plants in Utah so less adventurous gardeners won't have to.

We need a place where:

- The public and nursery staff can see what a rock garden can look like.
- An ever-expanding reference collection can be maintained.
- A large-scale maintenance program can be justified.
- A large rock garden can be continuously available for observation and enjoyment.
- Expertise in growing new plants can be developed and shared.

These are five of the best reasons that a public rock garden would benefit us as the leading enthusiasts of rock gardening in our region. Selfishly, it would provide us with a source of inspiration, knowledge, and enjoyment; a permanent source of expertise that we could draw upon and that would inform the rock gardeners who succeed us in developing and maintaining rock gardens in the region; and a demonstration garden and showroom to the buyers for area nurseries, plant lovers in general, and potential members of our Society. Without a significant public rock garden, I am not sure how a large number of our fellow residents would ever appreciate what we enjoy so much about these little plants.

Reprinted from the Wasatch Rock Garden Society Newsletter, July 1999. John Stireman, Editor. This is the first of a series of articles concerning the establishment of a rock garden at Red Butte Garden and Arboretum at the University of Utah.

Steve and his wife became interested in gardening when they bought their first house in 1984. They wondered why they needed to buy new plants every year and were bored when the annual beds that they planted just got bigger but retained a static pattern over time. Soon after that, they discovered their local botanical garden and learned about herbaceous perennials. They have been hooked ever since. Their flowers are their only children, and they enjoy the slow fireworks display produced mid February through mid November in Salt Lake City. Steve invites response to his article at (801)-484-5322 or e-mail klass@utw.com.

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STRATEGIES

FOR GROWING CHOICE ALPINES

by Rick Lupp

Most of us who fall under the spell of alpine gardening soon gravitate towards trying the more challenging and beautiful plants available to us to grow in our raised beds, screes, and alpine houses. Whether this plant is *Physoplexis comosa*, *Androsace alpina*, *Campanula saxifraga*, or *Viola flettii*, we soon note that they all have at least one major need in common—they all demand perfect drainage. Thus a thoughtful approach to growing these plants requires that we find a means of providing that which nature provides so well—drainage.

SAND BEDS

Dr. Norman Deno has for many years been a proponent of the use of simple sand frames for the cultivation of alpines. This is a proven method that has been used with great success all over North America. We live and grow in a wet-winter climate where we receive approximately 60" of rain a year, usually with two months of dry in the summer, and have had very good success with sand frames. These beds come very close to providing the same conditions that we find in a natural scree, which is nothing more than

an amalgam of detritus and minerals, with the larger material up top and the fines down below. Such screes are where we find many of the choicest alpine plants in nature. It is a great mistake to add loam or compost to our beds or container mixes, as this introduces pathogens.

We can take this process one step further and construct attractive and effective screes in the form of island beds by employing very simple methods that anyone can use in their garden. We begin by excavating down and then framing up, using whatever natural material is close at hand, such as rock or wood. We try to end up with a total depth of 9–12" of actual scree in the planting beds.

When these steps are completed, we put down a liner of landscape cloth, a woven material that allows the passage of air and water while excluding moles and earthworms. We know what moles can do to a garden bed. However, many do not realize that over a period of years earthworms can destroy the integrity of our screes by introducing far too much humus in the form of worm castings. Thus it is well worth the effort to install a liner under

each bed. When the liner is in place, we fill the bed with approximately 9" of pea gravel and top it with several inches of coarse builder's sand. We also use pure sand with the same excellent results.

The finished bed should be well watered in before planting, to settle the planting material. After planting, we apply a very light dose of encapsulated, slow-release fertilizer that is temperature activated, such as Osmocote™. We repeat this light application of fertilizer each year in early spring. We have found that all alpiners benefit from having plenty of food and water available at the roots during the active growing season, whether they are growing in the open or in containers under cover. They maintain their character if not fed to excess.

Sand beds can be made to fit almost anywhere in the small garden, even against a foundation, in which case we can take advantage of the dry area under the eaves. We are often asked how trees and shrubs react to such spartan growing conditions as are provided by these all-mineral screees and are pleased to report that they maintain very good health but grow at a much slower rate. This, of course, is a very desirable feature in a rock garden!

CONTAINER GARDENING

Dr. David Hale, a very innovative grower who travels the world to bring back seed of choice alpiners, gardens in Portland and also on the Oregon coast. One of his innovations is his unique, wall-mounted troughs for a bright, north-facing wall. Such troughs provide perfect conditions for growing plants that like a cool, stable environment such as rock ferns, hardy Gesneriaceae like *Ramonda* and *Haberlea*, and choice Ericaceae like *Cassiope* and *Loiseleuria*.

The Hales grow many plants in

portable containers, ranging from troughs to galvanized tubs that can be left in the open during the growing season and placed under cover in winter. This, of course, leaves the problem of what to do with the containers during the winter. The Hales solved this problem by adding a bay window to the west end of their garage, providing winter light to their containers once brought inside.

Container growing presents another problem for those like the Hales who travel regularly, in that containers need far more frequent watering than scree beds. In this case, the problem was solved by installing a drip system with emitters in each container, to provide reliable, rather worry-free plant care for the traveler.

PROPAGATING PHLOX

We receive many inquiries each year regarding cultivation and propagation of specific plants, and each year we note that a few specific genera evoke the majority of the questions. The western phloxes are one of those groups that seem to give a lot of good growers and propagators trouble. We have found that almost all phlox do very well in the pure mineral screees without winter cover. Examples are *Phlox albomarginata* and *P. mesoleuca*, one of the Mexican phloxes. Forms of *P. diffusa* will also thrive in a scree.

Phloxes are notorious for poor seed set, and the western phloxes are quite difficult to root from cuttings. This, of course, presents a big problem for anyone interested in producing these plants in moderate to large numbers. Some years ago, after Mt. St. Helens blew, I noticed during a hike in the Goat Rocks that many of the mounds of *P. diffusa* were layering as they grew up out of the recent ash fall. This inspired me to try my hand at layering other western phloxes such as our rare

and lovely *P. hendersoni*. Success was quick—I had roots within six weeks!

Here is the technique I used: Simply spread the mat or mound apart and then plant down about 2–3" lower than the original depth, so that each individual stem is making contact with the growing mix. In six to eight weeks you should have more plants than you know what to do with!

SUN AND SHADE

Over the years we have been very pleasantly surprised to find how many plants that used to be short-lived, or unable to reach the beauty of bloom and form that they achieve in nature, thrive and grow to their full potential in mineral scree. These include *Penstemon*, *Eriogonum*, western *Erigeron*, and many others that enjoy being in full sun.

You may be surprised to find that a shady mineral scree will grow many species of *Primula* and *Gentiana* that you would not think you could grow without humus. These same shady scree will also produce wonderful heavily blooming plants of many members of the Ericaceae that are able to get their fine roots down deep to stay cool and moist in these wide-open mixes. Of course, their growth rate is very, very slow.

SOUTH AFRICAN ALPINES

Over the past several years, we have been blessed with a plethora of new South African alpine introductions from Panayoti Kelaidis, Josef Halda, and Sean Hogan. We did a series of trials over winter in an uncovered sand frame on a whole range of *Helichrysum* from these introductions, to see how they would fare over our very wet, dark winters at the nursery.

We were surprised to find that without exception the plants that were grown in full sun in a sand frame

came through the winter looking better than the same plants grown under cover. An example is *Helichrysum tri-lineatum*, a magnificent, silver-foliage, dwarf shrub that blooms in late summer and fall.

Helichrysum basalticum grows in high alpine tundra, where it forms dense cushions of tiny, white-woolly rosettes. It has small clusters of fragrant, yellow-brown flowers in summer and self-sows in a scree.

Helichrysum aureum forms a mat of attractive foliage topped with a heavy bloom of large, rich yellow flowers all summer.

One of my favorite species of *Helichrysum*, *H. adenocarpum*, has dense rosettes of light green foliage topped with almost stemless blooms that are red in bud, opening to bright pink. I have had this plant for several years in my garden, where it flourishes in a sunny mineral scree.

Helichrysum sessilioides is one of the crown jewels of the South African alpine flora. It forms up into dense domes of silver green covered with stemless white blooms during summer. We find it easy to please in the sunny scree or the alpine house.

Another stunning dome of pure silver is *H. pagophilum*. I have not had enough of this plant as yet to put a "sacrificial victim" outside, but it is no problem under cover. This plant features sessile, yellow flowers. We have been pleased to find that such a range of plants from a genus that we did not think would do well in our climate is able to come through the winter in such great condition in mineral scree.

MEGATROUGH

The ability to grow your plants under cover at least during the winter opens up a whole new world for alpine enthusiasts. Following this approach, we achieved the desired

effect by constructing a 4' x 8', raised pseudo-trough, built from pressure-treated deck wood mounted on a frame of treated 4"x 4"s. We stapled chicken wire to the outside of the deck wood and stuccoed the wood with hypertufa. The resulting planting bed is very attractive and, when filled with a mineral scree, provides perfect growing conditions for a wide array of alpiners. A bonus is eye-level viewing of our precious gems, kept safe from slugs and other predators.

The bed is sited in the middle of a 15' x 20' alpine display house and was inspired by a remark Steve Doonan once made to me about how he would like to have a giant trough under a carport in which to grow his alpiners.

MORE UNDER COVER

Of course, there are other ways to provide winter cover for your alpiners. Jane McGary of Estacada, Oregon, doesn't fool around with alpine houses. She covers entire screes with hoop houses by pounding pipe into the ground to frame her construction. She uses rocks to hold the plastic in place over winter. These temporary frames work perfectly.

Jane also has a much more elaborate means of providing for her plants' needs. For example, she has a beautiful pair of 4' x 40' light frames that she had custom made for her by a local craftsman. The frames contain a sand plunge in which she grows her plants in clay pots. Plants grown in such plunge frames require very little direct watering over winter, as the pots draw in enough moisture from the sand to maintain good winter health for the plants. These frames can be left wide open or adjusted to any position by an ingenious system of pipes and clamps.

Another of Jane's innovations is her idea of mini-plunges that she moves under cover in the winter and out into

the landscape during the growing season. A drawback to growing plants that form flowering domes in plunge frames is that the pots have to be turned on a regular basis in order to maintain an even bloom on all sides of the dome. By using mini-plunges, the entire plunge can be turned without bothering with each individual pot.

Plunge frames don't have to be fancy to be effective. A piece of glass set on slant can protect plants from winter wet carried on the prevailing wind, while the rest of the frame is open all year to provide good air flow.

Another friend approaches the problem of providing winter cover for his plants in quite a different manner, by growing his alpiners that resent winter wet under the overhang of his covered back deck. This method has the advantage of providing easy viewing and care of his plants. The plants are grown in large enough containers that all he need do during cold spells is move the plants up against the house. He reports very little damage or loss.

[This article was continued in the June, 1999, newsletter.]

HOOP HOUSES

I grow the majority of my plants under cover in simple, 20' hoop houses. I use a number of these small grow-houses instead of a few large houses, because I get much better air exchange and far less summer heat buildup with the smaller houses. These houses do a beautiful job of growing alpiners in our relatively temperate climate, where in a normal winter we get down to single-digit low temperatures. Our lowest temperature reached -12°F.

During very cold weather, I close the houses and move all the plants down to the floor, which is usually sufficient to protect them when the temperature stays above 10°F. Plants

begin to suffer serious damage when the temperature at the roots reaches 18°F. The temperature in the area between the bottom of the pot and the ground cloth in these houses, when they are closed, stays well above 18°F until the outside temperature drops below 0°F.

When temperatures around 0°F are expected, I cover the plants with micro-foam. This material allows the passage of air, water, and light while doing a good job of holding in the heat. The disadvantage to using this cover for a prolonged period of time is that every rodent in the area moves in under the protection of the micro-foam and takes advantage of the 1,000-course salad bar!

About half of my hoop houses are aligned on a north/south axis and the other half on an east/west axis. This orientation, along with shade cloth on one half of each house, gives a huge range of little microclimates even within each house. For instance, the area under the benches remains in the shade during most of the year in the houses aligned east to west, while the same areas pass through periods of sun and shade during the day in the houses aligned north to south. Also, the east side of the north/south facing houses gets much more sun than the west side when the shade cloth is in place.

The end benches are reserved for the most demanding plants that require almost constant air flow. This is provided by the prevailing wind in most cases, and the difference between the inside and outside temperature most of the rest of the time. Whenever one of these demanding plants looks as if it is not thriving, the first thing I do (after assuring that it is not being attacked by aphids and such) is to try moving the plant to a slightly different position in the house, usually in increments of a couple of feet at a time.

The cooler, more shaded areas on the floor are used to grow plants such as *Ranunculus lyallii* and *Corydalis solida*. Many woodland plants, small shrubs, and grasses also do well on the floor on a full-time basis.

Since the grow-houses are wide open most of the time, pests such as aphids and slugs have free access to the plants. However, on the other hand, predators such as the tree frogs also have free access to the pests. This goes a long way towards keeping the balance between friend and foe. In the fall these tree frogs get so tame they can be hand fed. Other predators that visit the houses on a regular basis are dragon flies, house wrens, wolf spiders, and wasps.

TOP DRESSING POTS

When growing alpine plants under cover in containers the question of what material you use as a top dressing can be quite important. I use Oregon white pumice as an all-purpose top dressing to keep down the growth of mosses and liverworts, to provide drainage around the crowns, to act as a mulch to retain moisture in the planting mix, and to help show off the plants. In most cases, on most plants, the same pumice that I use in my growing mix works just fine as a top dressing, such as on *Claytonia megarhiza*.

For other plants that tend to be found in nature on high volcanic scree, such as *Douglasia idahoensis*, or alpine sites that like sunny, drier sites with good airflow around their crowns, like *Androsace villosa* var. *arachnoidea*, I use what can be referred to in the local parlance as "popcorn pumice." This works very well for many specific plants and is nothing more than larger grades of white pumice.

The genus *Eritrichium* has been a good object lesson to me on the impor-

tance of choosing the proper top dressing. After several years of failing to bring seedlings through the winter after trying various different positions in the grow-houses and different watering operations over winter, it occurred to me that the pumice dressing might be holding too much moisture around the crowns, as I was always losing the plants to fungal attacks. I was quite pleased to find that when I switched to quartz or granite for top dressing, most fungal problems ended and I was even able to bring *Eritrichium nanum* through the winter in good condition. This goes to show how much difference little things can make.

Many of the choice androsaces that form up into dense cushions and tend to hold a lot of old foliage in the interior of the cushions are best grown on a platform of pure rock. Thin pieces work best. The interior of the cushions can be kept totally dry during winter if you water around the edges of the rock. This goes a long way towards extending the life of your plants by preventing fungal attacks. If this is not done, the dead foliage inside the cushion will soak up moisture like a sponge, and the plant will soon be gone.

GROWING *DIONYSIA*

Plants of the genus *Dionysia* are especially prone to this problem and should always be grown on rock. As plants get older, I try to clean some of the old dead foliage out of the center of the plant before winter sets in. *Dionysia aretioides* is the one exception to this rule, being so easy to get along with, it will grow for years with just about any top dressing. By the way, I have come to find that I can get seed set on my *D. aretioides* if I place the plant in the same house as my androsaces during bloom time. Moths and flies are the primary pollinators of

my androsaces, as they bloom too early for bees. The pollinators are just thick in my androsace house during late winter as there is not much else blooming at that time of year to attract them. These pollinators are quite willing to do the job on my one clone of *D. aretioides* as well, even though I have always read that the plants are self-sterile. Now I have a number of seedlings coming along.

PRIMULA TIPS

Another group of plants that requires treatment similar to *Dionysia* is *Primula allionii* and its many hybrids. By all rights they, too, should only be watered around the edges or bottom-watered, and this is the treatment recommended by most serious growers. However, since my collection has grown to over 60 cultivars of hybrids of *P. allionii*, I have had to forego prudence and top-water, since I now have hundreds of plants and not enough time to water as recommended. As a result I have found that I can, indeed, top water if I only do so when the sun is bright or there is a good breeze blowing. If conditions are not right, they can get quite dry between waterings with no apparent harm. I do follow the line in one important respect. I remove all the dead foliage before winter sets in. This is a very time-consuming task, which is part of the reason for high prices on *P. allionii*.

For those of you who want the beauty of *P. allionii* without all the fuss, try some of the *P. allionii* hybrids. Most are much easier to grow and only require about the same treatment as your *P. auricula*-type primula—drainage and yearly repotting.

That brings up another important point. The only way to keep a healthy collection of choice alpiners in good vigorous growth is to repot all your plants on a yearly basis. There is no

substitute for repotting. No fertilizer nor magic potting mix will keep your plants in first-class condition without yearly repotting. We try to repot everything in the nursery, other than large troughs, at least once a year.

DAPHNES AS CONTAINER PLANTS

When we think of *Daphne*, we usually think of them as plants of the open rock garden, scree, or woodland. Many gardeners have problems growing daphne. More often than not the cause of the problem is poor drainage and consequent root-fungus attacks. These plants grow to perfection for us in mineral screes previously discussed. Many species of *Daphne* make excellent long-term container plants, as long as they are given a very well-drained mix and regular repotting in a deep pot. We grow many of our stock daphnes (that are used for cuttings) in containers, with excellent results. Other daphnes, found in nature growing on cliffs, do especially well in deep hypertufa pots, and can be grown on in such pots for many years. *Daphne jasminea* is particularly valuable in the alpine house for its late summer and early fall bloom.

Daphne petraea is one of the most coveted of all the alpine plants and also does extremely well in hypertufa. I think that part of the reason the plant adapts so well to this treatment is that the tufa slowly warms up during the day and then slowly releases its heat during the evening, providing the same stable environment for the roots as is found in rock cliffs in nature.

The biggest problem with growing *Daphne petraea* is getting a start of the plant to grow. A slow-growing plant makes very little cutting material each year, and the cuttings usually don't root very well. A small mist system increases the take on cuttings and makes it easy to graft plants. All the

material to make a small mist system can be had from a farm supply house for about \$200.

When grafting, we use one-year seedlings of *D. mezereum* for rootstock. This illustrates one good reason for grafting a daphne, as this allows you to start out with a massive root system compared to a cutting.

The actual grafting is easy. Cut your scion with a wedge at the end of the stem; make a comparable, small, inverted wedge cut in the stem of the rootstock. Insert the scion, and wrap the graft with a grafting band—or a rubber band works just fine. Cut the top off the rootstock, and place the plants under a mist for 6-8 weeks. Then gradually move them into a regular grow-house. You can plant the whole thing down to the graft level and grow it on, or grow it on as is. Grafted plants will flower in their first spring following grafting. We use the same method on a number of other daphnes that tend to root poorly from cuttings.

Other daphnes make seed on a reliable basis and are easily grown from this seed with simple stratification from exposure to the elements over winter. And many other daphnes are very easy to start from cuttings, especially in a mist house. We usually take our cuttings in mid-July and have good success at that time of the year. They generally root in 24 weeks.

CHOICE NATIVE CAMPANULAS

I will close with a look at a group of very desirable and challenging western American campanulas: *Campanula piperi*, *C. scabrella*, *C. shetleri*, and *C. lasiocarpa*. All of the campanulas included in this group can be grown in the open in a lean scree—usually, however, only for the short term. All members of this group are a favorite food for slugs and snails. They have to

be constantly protected with bait if you have any trouble with slugs. The other big problem is that all are very prone to fungus attack. The only way to avoid this is to spray regularly with fungicide and put a cover over the plants to keep the foliage dry.

In nature, these campanulas are almost always found growing on the dry, rain-shadow side of various mountain ranges, where they get something in the range of 10" of rainfall a year—and most of this falls in the form of snow, protecting them even further from the winter wet. Thus, there is little problem with fungus attacks in their native haunts. There are also no slugs or such at the elevations at which they grow.

We find that the best approach to keeping these plants for the long term is to expect the worst and keep at least one plant growing in a container under cover at all times. All of the wonderful campanulas in this group make excellent container plants for the alpine house. Using this method, you can treat them like annuals if you like, as your potted plants will fill up the pots with stolons and starts in one season with ease. Simply pull them apart and grow them on for 6 weeks or so before putting them out in your screens. This treatment works well for all the campanulas in this group.

Our standard alpine potting mix consists of 9 parts coarse sand, 5 parts peat and 4 parts pumice or grit. We

add bone meal and dolomitic lime as mineral supplements. The proportions are adjusted for such genera as *Gentiana* and such.

Always keep an eye out for full seed capsules on your campanulas, as these are extremely variable species that give lots of opportunity to select good forms. Seedlings of *Campanula piperi*, for instance, show lots of differences, with some especially compact. One seedling turned out to be an especially good, compact form with a reliable bloom of rich color that we named 'Mt. Tahoma'. Other variations that we have grown from seed include a plant with reflexed petals, a rich purple form, and a very strange double that reverted back to a single after three or four blooms.

A ripe seed capsule picked from *C. piperi* at Mt. Tahoma a few years ago yielded a batch of seedlings, all of which had most unusual-looking foliage that was quite perfectly intermediate between *C. piperi* and *C. lasiocarpa*. When the seedlings finally began to bloom, the flowers were also nicely intermediate between the two species. The two campanulas were growing very close to each other, and the bumblebees did a fine job of creating new hybrids. I have released one as *Campanula* 'Bumblebee' in their honor. There is another variation from the same batch of seedlings that we have called 'Ruffles'.

[The editor's gratitude goes to Alice Lauber for her thoughtful transcription of Rick's talk to our chapter.]

Reprinted from the Northwestern Chapter Newsletter, April and June, 1999, Claire Cockcroft, Editor.

Rick Lupp is the proprietor of Mt. Tahoma Nursery. He gardens with his wife, Norma, in Graham, Washington.



Sand beds at Mt. Tahoma Nursery, Graham, Washington

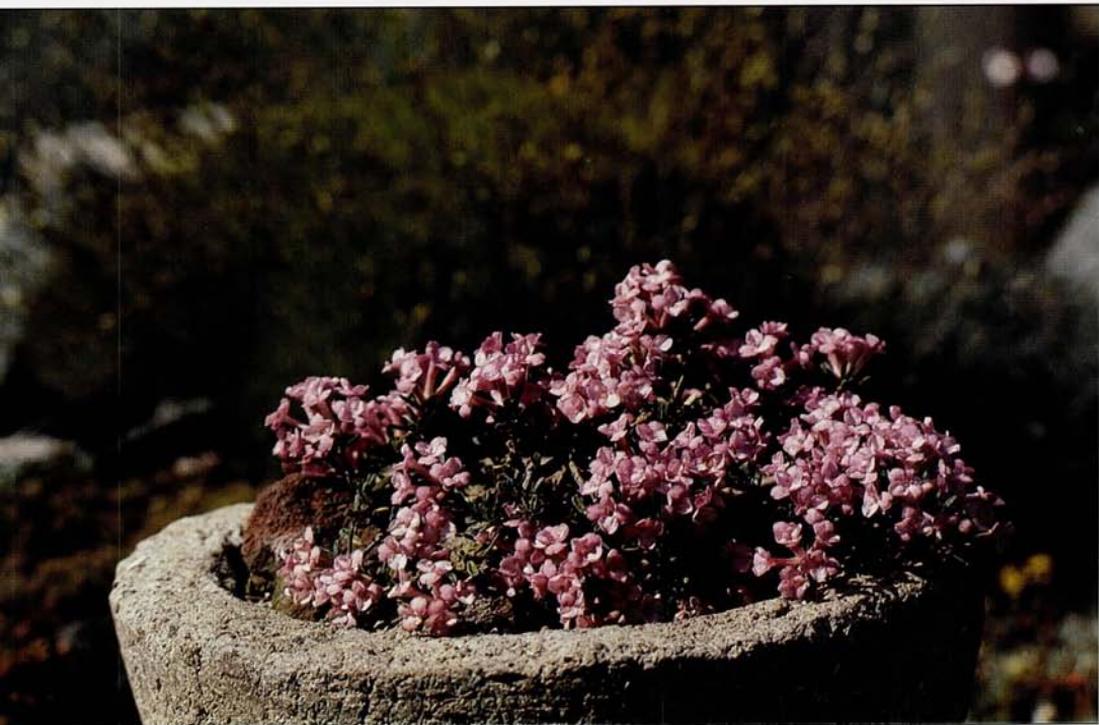
photos, Rick Lupp





Eritrichium nanum, grown by Rick Lupp

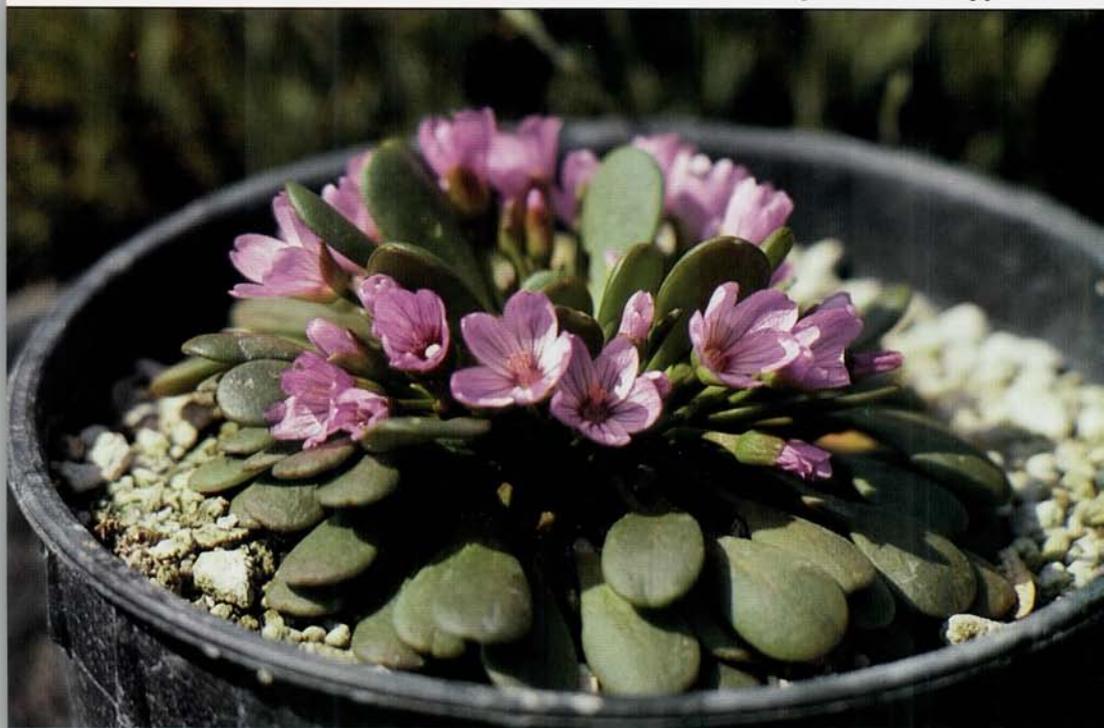
Daphne petraea, grown by Rick Lupp





Claytonia megarhiza var. *nivalis*, grown by Rick Lupp

photos, Rick Lupp





Douglasia laevigata, grown by Rick Lupp

Helichrysum adenocarpum, grown by Rick Lupp

photos, Rick Lupp



ALLIUMS

by Mark McDonough

Most of your bulbs long since past flowering? Try growing some alliums! There are a large number of species that flower in the hot doldrums of July and August. The genus *Allium* is now estimated to encompass 800–1,000 species, making it the largest genus of monocotyledons. Hundreds of species are suitable to the rock garden, valuable both for providing color in hot summer months and fall when few other bulbs are in evidence, and for their relative ease of culture.

TEN ALLIUMS FOR THE ROCK GARDEN

It is difficult to narrow down recommendations to just ten species. However, my selection is made on the basis of hardiness and reliability, dwarf stature, range of growth form, and extended season of bloom. Adding just a few alliums to the rock garden or trough can add considerable interest and floral appeal, possibly leading to an alliaceous addiction. Let's proceed, with the species listed in no particular order or preference.

✿ *Allium meteoricum*—A dwarf, refined species from Greece, Albania, and what we used to know as Yugoslavia. This is like a tiny *A. pulchellum*, but with filiform foliage that remains prostrate and evergreen through the New England winter. Open umbels of perky, bright pink flowers on 6–8" stems in July. Individual flowers are narrow tubes slightly pinched at the ends, with flared tips. Best grown in a trough where its small dimensions can be appreciated. Easy to grow in well drained, sandy soil, although sometimes shy to flower. Doesn't produce much seed.

✿ *Allium przewalskianum*—This desirable dwarf species from China is gaining popularity. While easy to grow in well-drained, sandy sites, the plants seem to fizzle out after a few years and should be maintained from seed-grown replacements. Makes clumps of narrow, grayish foliage springing from bulbs covered with shaggy, reddish-orange, reticulated bulb coats. Purple flower globes appear in summer on 8–9" stems, distinctive on account of the stamens that bend at right angles above the flat florets.

☼ *Allium paniculatum*—A highly variable entity with a large distribution over most of Europe, North Africa, and Asia. Often a tallish, slender plant to 2' or more, dwarf forms are also common. The only way to get some of the dwarf forms is to continually select *Allium paniculatum* from seed lists. The dwarf forms are most often obtained as misnomers when selecting other species from the seed exchanges.

Typically, the dwarf forms are gregarious growers, making dense clumps of flaccid, grassy foliage. In midsummer they flower rather profusely with informal jumbles of dangling bells, able to produce bouquets of bloom on 6–8" stems. The common color theme is white heavily stained with red or reddish brown, but there are all sorts of interesting variations such as pale yellow stained with brown (rather sordid in some clones), tan or parchment colored, pink, pinkish-brown, or white stained with green. My favorite selection is one I named *A. paniculatum* ssp. *fuscum* 'Jerry', one of the best dwarf "reds." It grows to about 10" tall, with a myriad clusters of white bells stained with red held on white pedicels, giving an overall effect of a unique, pale carnosus pink color.

☼ *Allium sibthorpiianum*—One of the smallest species that looks terrific growing in a trough. Originally received as "*Allium* species from Turkey", this species is unmistakable on account of the unique raised "ribs" on the bulb, only apparent during certain periods of the plants growth cycle. In flower it resembles *A. paniculatum* in miniature, but with delightful clusters of silvery pink bells on decumbent 3" stems in summer. Fertilized flowers become deep raspberry rose. Quickly retreats into dormancy after flowering, the dwarf basal foliage resprouting in autumn and remaining healthy all winter. This species has recently become a "regular" in the seed exchanges.

☼ *Allium kurtzianum*—This species from Turkey can be found in horticulture misidentified as *Allium olympicum* (originally identified as *A. olympicum* before the epithet *A. kurtzianum* was first recognized in 1983). This is an attractive dwarf species with terete grayish leaves and 3–5" silver stems that lie flat on the ground. When grown on a slope, the prostrate growth always faces downhill! Often two fragrant hemispheres of silvery pink blooms appear per bulb, peppered with yellow anthers. Flowers in July, then goes dormant afterwards. Readily hybridizes with *Allium flavum* ssp. *tauricum*, producing beautiful hybrids with semi-decumbent, intensely silver stems, and lively pink flowers. Grow *Allium kurtzianum* in a trough to appreciate its small proportions and prostrate growth habit.

☼ *Allium flavum* ssp. *tauricum*—Familiar to most rock gardeners, *Allium flavum* is a pretty species with informal bursts of bright yellow flowers in July, typically on stems 10–14" tall but possibly up to 18". The subspecies from Turkey, *Allium flavum* ssp. *tauricum*, is the one to look for. It is much smaller in stature, sometimes nearly prostrate, and frequently semi-decumbent to erect up to 12" tall. The common color theme is a pastel blend of pale yellow overlaid with pink, but almost any color is possible. After a decade of growing seed from selected color forms, a whole range of enticing cultivars has emerged. Some of these have been singled out, named, and propagated with the anticipation they'll be available through Siskiyou Rare Plant Nursery one day. The following

should whet your appetite:

'Cinnamon'—A robust plant with thick stocky silver 10–12" stems and firm, curved gray foliage, building up into a multi-stemmed clump. Large many-flowered clusters of smoldering, burnt red-orange flowers. Unlike any else you've seen!

'Hot Molasses'—Shorter than the preceding, with dark, molten red-orange flowers in smaller clusters.

'Caramel'—Stocky plant to 8–10". The silvery leaves and stems are a nice backdrop to the warm caramel tan flowers with violet stamens.

'Lemon Cooler'—A good clumping plant with 8–9" stems topped with ample clusters of lovely pale lemon flowers. Green foliage.

'Pink Parasol' and 'Pastel Parasol'—These siblings are terrific for a trough or small scale rock garden. Quickly forms prostrate, many-stemmed clumps of wiry green foliage, and multitudes of miniature poms of fresh pink and near white respectively. The stems only reach 3" tall.

'Truly Faded'—Intense silver stems are thick and stocky, reaching 10" tall. Large, many-flowered clusters of an odd madder-rose color. Intriguing!

✿ *Allium togasii* (also spelled *A. togashii*)—From Japan, this delightful, late-flowering miniature species came to me from a variety of reliable sources, including Kew Gardens. Bulbs cluster into tight clumps, making flaccid, grassy tufts of flat, linear leaves in spring and summer. The foliage quickly withers away in late summer leaving naked, 6" flower stalks topped with lollipop balls of pale pinkish-white. Depending on the clone, flowers may appear from late August though October. A tall, late-flowering form is particularly robust and easy to grow, reaching 12" in height and flowering well into the autumn. Seed set is low.

✿ *Allium daghestanicum*—The true plant is nearly impossible to come by because everything in cultivation is misidentified. My plants came from a reliable source and key out to the true species, a high altitude species from the Caucasus. The caespitose clusters of narrow bulbs attached on tough, fibrous rhizomes need good drainage to prevent rot. Produces attractive, thread-like green leaves that are firm and wiry, with airy clusters of light pink flowers on arching 10–14" stems in August. The plants have a light, wildflower look about them. This is one of my personal favorites.

✿ *Allium callimischon* ssp. *haemostichum*—This tiny species is hard to come by in this country despite being well known and frequently grown in England. From low coastal elevations in Mediterranean areas, it is surprisingly hardy with prostrate, wiry, thread-like leaves that remain evergreen all winter. A fall-blooming *Allium*, this species gives the appearance of drying up and going dead by midsummer, leaving behind spiky, twig-like spears. In September and October, the 3–4" dead spears spring back to life and erupt into whimsical sprays of open, bell-shaped, white flowers, accented with blood-red spots, red anthers, and a dark red eye. Unfortunately, the flowers are ill-scented, but they're so delightful to look at that the plant is forgiven. This is a wonderful miniature species suitable for trough culture.

✿ *Allium cupani* ssp. *hirtovaginatatum*—This species and several subspecies are widespread throughout the Mediterranean countries and are rather variable, posing difficult taxonomic complexities. My plants came from high mountainous areas of Turkey, from the MacPhail and Watson expedition. Not a great beauty but an intriguing little plant, with hairy, stiff, spear-like foliage to 6" tall in spring and summer. Like the preceding species, it goes dormant for a short midsummer period. The sheathed buds atop twiggy, dead-looking stems are so thin and narrow that they're easily overlooked. Suddenly in late summer these erupt into modest, few-flowered sprays of tiny, tubular, pinkish white flowers. Easy to grow and keep, I recommend this little species for cultivation in a trough where its small dimensions and odd growth cycle can be appreciated.

Posted on Tuesday, 25 May 1999 to: ALPINE-L@NIC.SURFNET.NL This article was reprinted from the Newsletter of the New England Chapter of the North American Rock Garden Society, May 1999, Jim Rugh, Editor.

SUMMER ALLIUMS—JULY 4

The following is a miscellany of alliums that caught my notice today, on this sweltering 4th of July.

✿ *Allium parviflorum*—Alpine Garden Society seed, 1993. A "BIO" plant (a George Schenk term for Botanical Interest Only). In the past I have grown several sorts, one clone that was only 1.0–1.5" tall in flower, with miniscule, pinkish flowers, surely one of the smallest flowering bulbs. This clone grows 8–10" tall, with very slender, olive green stems, and a diffuse spray of 6–11 tiny, pinkish, mildly fragrant flowers.

✿ *Allium kochii*—coll. Isle of Usedom, Baltic coast of Germany. Another BIO plant, perhaps even less garden worthy. Usually included in the crow garlic, *Allium vineale* (a terrible weed), this variant has tiny, dark red-purple flowers intermixed with bulbils in the inflorescence, atop 2' stems. For the die-hard allium grower.

✿ *Allium sieheanum* Mac & W 5766 (received as *A. tchaihatchewii*)—My identification of this wonderful and desirable *Allium* from Turkey. I received bulbs and seed from the MacPhail and Watson expedition to Turkey back in the 1970s. The plants were misidentified in my opinion, and *A. sieheanum* comes closest. At one point I grew lots of this beauty... but over the years, moving around to a few different homes took its toll, with but a single plant remaining and flowering in the garden today.

Whats interesting about this plant is that it came in several different forms...those with a tight clusterhead, and those with loose-flowered heads, yet with the same pinkish-purple (almost bluish), orbicular-shaped flowers...like little grape hyacinths, and sweetly fragrant too. A neat grower to only 6–8" tall, it's one to be sought after.

✿ *Allium kursanovii*—from the Herbarium in Kasachstan. The ultimate stinker. I usually try to debunk the nonsense that alliums reek so bad that they can't or shouldn't be grown...in fact most species have a pleasant sweet floral fragrance, including a few extremely sweet scented types. However this species produces a stench up to a couple meters away when in flower. All parts of the plant, including the seed heads, smell badly. Its fairly ornamental, with 16–20" stems and

knobs of pink flowers. Its allied to *Allium saxatile*, which it rather resembles. Grow *Allium saxatile* instead and spare your senses from being accosted.

By the way, I just tossed *Polemonium pauciflorum* (came as *P. brandegei*), mostly because the tall stems and pale yellow, bronze-tarnished trumpets don't compensate (in my opinion) for the skunky stench of its foliage. I still keep *Caryopteris divaricata*, a 5'-tall, fascinating herbaceous entry in this fine genus, but with horribly acrid-smelling foliage if touched or brushed up against. The abundance of curly-lash, blue-purple flowers all late summer and autumn do compensate for its stench.

✿ *Allium schmitzii*—from Portugal, I grew many seedlings, with most dying off in past winters, leaving behind a hardy individual that has been with me for years. A direct ally to chives (*A. schoenoprasum*), it shares the characteristic of hollow leaves, but the resemblance stops there. Upright, open umbels of white to pale pink flowers on 10–16" stems are most pleasant and mildly fragrant. A well-behaved plant.

✿ *Allium texanum*—Recently described, this is one of the best of the species from Texas, southwestern USA. In flower, it resembles an ample *A. tuberosum*, with upright, many-flowered heads of white flowers 3–4" across, on stems 2.5–3.0' tall. The glaucous gray foliage twists distinctively and remains in good condition while the flowers appear.

✿ *Allium austrosibericum*—another recently described species, although lumped under *A. senescens* by some authors. Distinctive, narrow, upright leaves that twist as they rise, making very dense leafy clumps to 2' across by 14" tall. Stems 18" tall carry typical lavender flower heads...just starting to bloom and lasting into August. To my eye, it is most distinctive from *A. senescens*, and should at least be regarded as a subspecies.

✿ *Allium gooddingii*—This species from Arizona, sw USA, is a delight. Glaucous, flat, linear leaves of good substance, and flattened, winged stems to 18" with an upright head of 10–11 red-purple flowers. Always a delight in flower, having nice foliage, and rarely reseeds. Needs good soil and adequate moisture.

✿ *Allium paniculatum*—There are so many forms of this species. Try it over and over again to get some of the more interesting types. I like the 6–10" dwarf selections best, some of which flower with amazing profusion, making bouquets of pastel color. The reddish ones are my favorite...basically being white variably stained red or reddish brown to yield a red or carnos pink color. A tall one to 2' with many-flowered heads of white and olive green is another favorite.

✿ *Allium flavum* ssp. *tauricum*—I can't get enough of this one! What a wild and diverse gene pool...almost any color and plant habit is possible. I've been selecting colors for the past 10 years or so, and every year brings new discoveries and new possibilities. The basic theme of this subspecies is yellow overlaid with pink, in delicate pastel tones. But colors include pure white, pink, and rose of all shades, orange, salmon, tan, beige, moonlight yellow, odd brownish pinks, and pinky orange, red-orange, burnt red and orange tones, and numerous hard-to-describe pastel mixes and bicolors.

Growth habit tends to be on the short side, typically under 1', often much less. Some plants are upright, others decumbent or prostrate. Growth can be slim and refined, to remarkably stocky. Like the best selections of *A. flavum*, the best *A. tauricum* are silvery-white with a fine "bloom," or powder, that covers the foliage

and particularly the flowering stems. Some plants are "sole growers" while others are nice gregarious "clumpers" which make fine rock garden specimens.

I've been selecting those plants that exhibit good flower color, silver growth, strong clumping habit, and dense many-flowered heads. I have tentatively named some of these selections, of which I'll mention a few:

'Hot Molasses' was selected two years ago and is by far the deepest burnt red-orange sort to date... a shocking color. The stems are silvery and stocky to 8-10" tall. Looking particularly good this year with showy many-flowered heads.

'Silver Shrimp' is a gregarious sort, making a good clump of semi-decumbent silver stems to 8-9" tall, and diffuse sprays of pastel shrimp-bisque colored flowers (not orange, not pink, but somewhere inbetween) in profusion.

'Orangeade' is a good semi-dwarf orange-flowered sort with thick, chunky, semi-decumbent stems and many-flowered heads of good orange flowers.

Many other *Allium* species are in bud or have yet to produce buds, preferring to flower in late summer and into the fall.

SUMMER ALLIUMS—JULY 14

Another stroll through the garden on this magnificent day, the 14th of July 1999, reminds me that even more alliums are in bloom. The following is a miscellany of species that caught my attention, presented in no particular order:

☀ *Allium moschatum*—From much of southern Europe and Turkey, this is a tiny thing for fanciers of small bulbs. Very small, thin, short wiry leaves and 4-5" stems presenting a few upright "star-cups" of white with brownish-red central nerves down each tepal. Not scented. In good soil, its wispieness might reach 9" tall. Not showy—it's barely noticeable—but I like it. Hardy and reliable.

☀ *Allium stellerianum* ssp. *tuvinicum*—this subspecies comes from Mongolia. Most of what is offered as *A. stellerianum* in cultivation is really *A. senescens* or some other imposter. Not to be lusted over, this is what I call a "turf allium," a species that makes short, turfy clumps of foliage from slowly expanding rhizomes and has a long (reblooming) season of flowers. Stiff, upright, narrow leaves are gray and 4-5" tall, just barely topped with chunky clusters of whitish flowers with white or yellowish anthers. The short-tepalled flowers fertilize readily, with some flowers in each inflorescence yielding quickly to the swelling ovaries and developing seeds, rather spoiling the floral effect.

This subspecies also tends to be everblooming in the summer months, so the seed capsules and spent flowers mix in with fresh blooms, detracting from its appearance. It is easy to grow and drought tolerant, although it looks best when given sufficient moisture. Even though this is a rather dull plant, I prefer this species to the next one.

☀ *Allium burjaticum*—Also from Mongolia, it's another rhizomatous "turf allium" that is rather similar to the preceding. Looser (read "unkempt"), open clumps of narrow, grayish leaves in spreading basal clumps. Dull knobs of white, rose-tinged flowers appear for a very long (everblooming) summer season. The pinkish coloration makes the flowers look gray from a distance. The concept of everblooming alliums is not a good one, because they are not "self-cleaning;" thus the old spent blooms and dry seed capsules are present at the same time as fresh flowers. This species flowers profusely, but it is still rather drab.

☀ *Allium rubens*—From Russia and Asia, this is another small, rhizomatous onion, thought to be sweet and dear by some, dismissed as insignificant by others. I rather like this one, even though it's not overly showy. Narrow, upright, green leaves and one-sided sprays of small, rose-pink bells atop 4–6" stems. Tidy and refined enough for a trough, although there are better candidates. This is another allium sharing the rare characteristic of reblooming. This species readily hybridizes with other rhizomatous alliums such as *A. senescens*, *A. nutans*, *A. albidum*, etc.

☀ *Allium albidum*—another small, rhizomatous species, from Russia, Bulgaria, Turkey, and the Caucasus. I like these rhizomatous species because they have attractive foliage masses that look good throughout the growing season unlike the true bulbous types that go dormant and dry up. I have thrown out many ugly, insignificant forms of *A. albidum*. The best form I grow is one from Turkey that keys to *A. albidum* spp. *caucasicum*. It makes prostrate mats of rhizomes and basal tufts of green, strap-like leaves 2–3" long. It's just coming into bloom now, with delicate, few-flowered clusters of white, pink-tinged flowers on 4–6" stems. Rather shy flowering, not showy but cute.

Two other forms of *A. albidum* are in bloom now, nearly identical except for being taller and much more generously supplied with flowering stems. One is 8" tall, the other 11" tall. Both have more ample semi-poms of faintly scented white, pink-tinged blooms. Very attractive.

Allium albidum crosses with every other rhizomatous *Allium* and rarely comes true from seed unless isolated. Most hybrids are inferior, being much taller and leafier but with the same small heads of pallid bloom. Occasionally a good one appears. I have selected two different hybrids so far, making handsome, leafy clumps 14" wide by 6–7" tall of glossy green, straplike leaves and a forest of 16" stems topped with white or light lavender-pink blooms.

☀ *Allium cernuum*—I forgot to mention the native American nodding onion or *Allium cernuum* in my July 4 section. Most of the tall, showy, purplish-pink ones are almost over, but there are numerous clones including late-flowering sorts. One that I named 'Leo' is still in bud and doesn't typically open until August. It has uncharacteristically short basal foliage, somewhat grayish, glaucous stems exceeding 2', with pure white heads of nodding bloom, sometimes tinged pink in cool rainy weather.

Another one called 'Rich Mountain' (collected by Rene Duvall on Rich Mountain, North Carolina) is the dwarfest form I grow. Only 6–7" in flower, the small, few-flowered umbels of deep purple-rose flowers are charming. Appears to be sterile, as I've never been able to collect seed of this one. The first buds popped today, and I expect it to look its best by the end of July and beginning of August.

☀ *Allium cernuum* 'Oxy White'—This is the name I dubbed for what is distributed as the eastern *Allium oxyphilum* described by Wherry. I have plants collected from the type habitat, but it is most certainly nothing more than a form of *A. cernuum* in my opinion (albeit a fairly distinctive form). Narrow, glaucous leaves and slender 18–24" stems carry airy candelabras of nodding white "drops." The arched pedicels are very narrow for a selection of *A. cernuum*, which adds to its charm and airiness. Just coming into bloom now, it'll be at its best by the end of July. This has hybridized with regular *A. cernuum* to produce pink *oxyphilum* seedlings or 'Oxy Pinks'.

☀ *Allium cernuum* x *A. stellatum* 'Ferris Wheel'—my own determination that this is an intermediate hybrid between *A. cernuum* and the closely allied *A. stellatum*. *Allium stellatum* can appear rather similar to *cernuum* when in bud, with the same drooping, spathed bud-clusters, but in *stellatum* these turn upright into sideways clusters of starry blooms (in *A. cernuum*, the blooms are more rounded and bell-shaped and are held in nodding heads). Just coming into its prime, this hybrid produces lovely sideways ferris wheels of starry, bright pink blooms atop 18–24" stems. The three outer tepals are spreading, whereas the three inner tepals are distinctly upright and folded together (connivent), exactly as seen in *A. stellatum*.

☀ *Allium stellatum*—This prairie species has a large distribution all the way from Mexico to Canada. It appears there are two distinctively different types: those that flower in summer, and those that flower in the autumn. The one that I grow and like very much is a robust, white-flowered sort from Canada. It has light green to somewhat glaucous foliage and stems up to or exceeding 2' tall with handsome sideways sprays of white flowers. These are still in bud and should open within the next few days. Easy to grow and drought tolerant.

☀ *Allium saxatile*—this is an extremely variable species from most of Europe and into Asia. Grow it from seed exchanges, and you're likely to get a range of plants that vary from small, semi-prostrate types to robust, 2'-tall specimens. Color is also variable, from white through all shades of pink and near-purple, and including pale yellow. Typically they have a wild, wiry look to them, with semi-decumbent stems and long, firm, rat's-tail foliage in green or gray. The blooms are "star-cups" packed into dense, knob-like heads.

I grow a white form (strongly veined brownish-red and with yellow stamens, rendering a dull, off-white appearance), a couple of strong rose-pink to purplish-pink forms, and a lovely light pink form. Some are cute and dainty, and others are stocky brutes (in terms of appearance). I think all forms of *A. saxatile* are attractive, and many are small enough for the rock garden.

More alliums are coming along and are in bud (or yet to show buds). The diverse *Allium senescens* group, along with imposing clumps of *A. nutans*, are starting to flower with most coming into their prime the next couple of weeks.

Reprinted from The Trillium Newsletter, of the Piedmont Chapter, July 1999, Bobby J. Ward, Editor and from the New England Chapter Newsletter, May, 1999, Jim Rugh, Editor.

Mark McDonough gardens in Pepperell, Massachusetts. The Alpine-L archives contain more than 300 of his postings, on a diverse variety of plants and other subjects, in addition to his writings on the onion family. He has promised to answer questions about software and computer problems that may be posed on OmniHorti. He is widely known as "the onion man." Mark became intrigued with the genus as a teenager, when he visited Eleanor Famosi's nursery in Westford, MA, and saw showy clumps 8–10" tall with showers of deep purple flowers, and much to his disbelief was informed the plant was a "flowering onion" (*Allium cyathophorum* var. *farreri*). From that point forward he has been on a quest to explore this huge yet largely overlooked genus.



Primula allionii 'Neon'

Eriogonum ovalifolium

photos, Rick Lupp

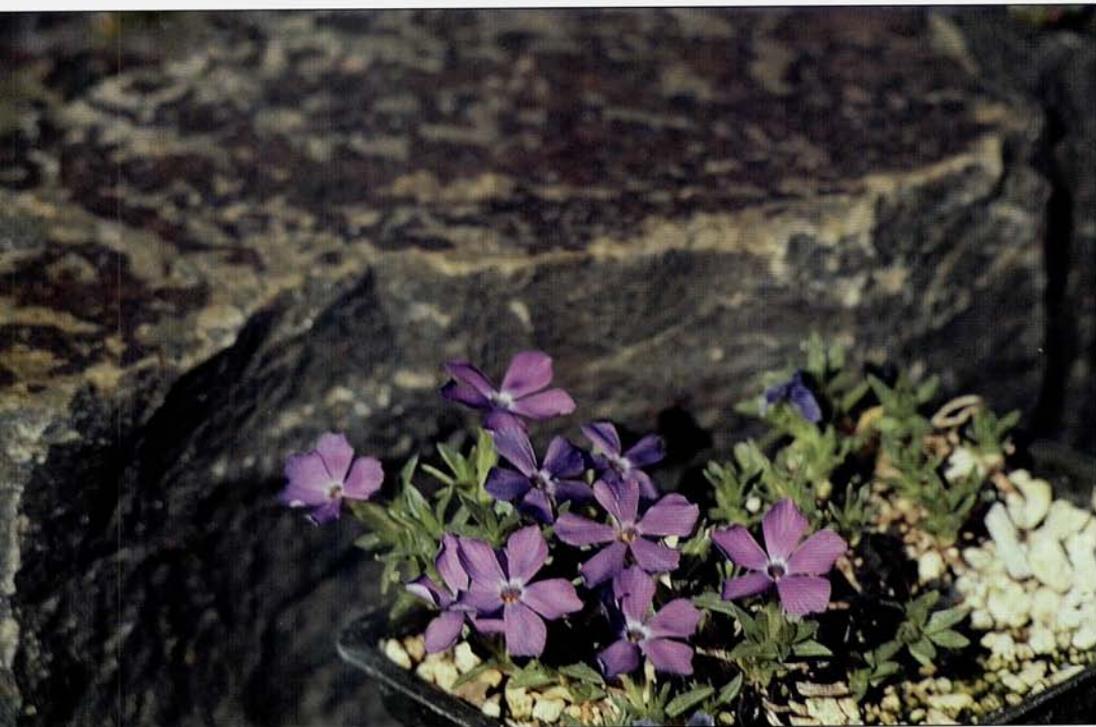




Phlox diffusa

Phlox kelseyi 'Lemhi Purple'

photos, Rick Lupp





Allium cernuum, various late-flowering selections

Allium cupanii ssp. *hirtsvaginatum*

photos, Mark McDonough





Allium flavum var. *tauricum*, orange form

Allium flavum, typical flower form





Allium paniculatum ssp. *fuscum* 'Jerry'

Allium kurtzianum (*A. olympicum* of hort.)

photos, Mark McDonough





Allium sieheanum, compact-headed form

Allium sieheanum, loose-headed form





Allium sibthorpiatum

Allium togasii

photos, Mark McDonough





Allium stellatum

Allium 'Summer Pink'

photos, Mark McDonough



THE LURE OF THE ORIENT

JAPANESE PLANTS IN MY GARDEN

by Eva Gallagher

One of the more fascinating aspects of rock gardening, especially when growing plants from wild-collected seed, is finding out more about the natural habitat where the plants originated. Then when you grow them in your garden, you can recreate your own little section of the Alps, Caucasus, or what ever region you wish, just by duplicating the habitat conditions and planting with the appropriate native plants.

In recent years I have been particularly interested in plants that come from Japan—especially the woodland plants. Although a glance at a map of Japan would indicate that the climate there is entirely different and much warmer than in eastern Canada, I have found that many plants are surprisingly hardy and do particularly well in my sandy, acid soil. (The latitude for the most southern island, Kyushu is 30–35°N, about the same as the US-Mexico border and the northernmost island, Hokkaido is at 40–45°N, about the same as Oregon.) However the north south backbone of the islands is made of steep rugged mountains, many of which are well above treeline. As Japan hosted the Winter Olympics,

once in Sapporo on the northernmost island of Hokkaido, and last year in Nagano, west of Tokyo, on the main island of Honshu, it certainly experiences cold winter weather, especially at higher altitudes.

Here then are some of the Japanese plants in my garden—some very familiar and others that may be new to you. A great number of *Hosta* species are found in the Far East—from China to Korea to Japan. Although I have a few cultivars, it is the species that I am most interested in—as they seem more suited to a woodland garden—while the cultivars to the more formal perennial border. *Hosta kikutii* has graceful, shiny, pointed green leaves and long stems of white flowers. This one is reputed to be drought resistant, growing in shady cliff crevices in Japan. My seed-grown plants vary quite a bit in appearance from 20-cm dwarfs to a 150-cm giant, so some hybridization may have occurred. That's the fun aspect of seed sowing—you never know what you will end up with! Unfortunately wild-collected hosta seed of any species is rarely available. *Hosta* 'Shaishujima', although a named cultivar, but with its thin, grassy

leaves and small purple flowers topping at 20 cm, it fits in well with other wildflowers. At the moment, it is in a rather dry location, which it doesn't seem to like, so it rarely gets to bloom. One of my priorities next year is to transplant this and several other plants that are languishing, to more favored locations.

The balloon flower, *Platycodon grandiflorus*, is another plant that is common to the Far East, including Japan, where it is found growing on grassy slopes and wooded mountainsides. Although most forms can be quite tall, over a meter, the variety 'Sentimental Blue' is a 30-cm dwarf. It still has the same huge flowers, and self-sown seedlings seem to retain this trait, often blooming when just a few inches high. A Korean friend who was recently visiting me saw the plant and told me that in Korea they eat the thick, fleshy roots—though they may not be to everybody's taste, as they are on the bitter side.

An excellent plant for deep shade is *Cimicifuga japonica* var. *acerina*, and it is found in central and west Honshu—which is the large central island, where Tokyo and most of the population are located. The variety *acerina* has maple-like leaves that are very shiny and form a low, 30-cm-high mound. An added bonus is that they seem to be slug-proof. In late August (and hopefully before we get severe frosts) sparsely branched flower stems develop that can be up to 60 cm high. The flowers are sessile and densely crowded like other species in this genus. Unfortunately, seeds are hard to come by, as in our climate they usually get frozen before they can ripen.

Primulas are another genus that is associated with Japan. If you have attended any of Paul Held's talks on *sakurasoh*—*Primula sieboldii*—you will remember the many varieties of this

beautiful species. As they go dormant after flowering, they are able to withstand dry shade, as long as they are well fed in the early spring. Another common primula found growing in Japan is the appropriately named *P. japonica*; in the last few years it has finally found its way into local nurseries. The true wild form has red-magenta flowers, and it grows by mountainside streams. Several nice cultivars, which often come true from seed, are 'Potsford White' and 'Miller's Crimson'—the latter a true, rich red that lacks the magenta tint of the wild form. This easy species appreciates lots of moisture and is excellent for the edge of a pond or bog, as long as it has some protection from the noon-day sun, which can bleach the flowers bleach to a splotchy white.

There are many other primulas that grow in the moist, acidic Japanese woodlands, and many are perfectly hardy, though they come from the lower mountain slopes. Several are endemic to Japan. *Primula kisoana*, found in central Honshu and the more southerly island of Shikoku, is an easy plant and unlike most primulas spreads by wide-ranging stolons. This is one of the few primulas that remains vigorous in my dry, sandy soil. The leaves are large, palmate, and, when young, softly downy. The species has rather harsh pink flowers, though Frank Cabot in his excellent talk at the 1998 NARGS Eastern Winter Study Weekend showed us a large patch of the exquisite white form growing in his garden at *Quatre Vents*, north of Quebec City. Norman Deno states that *P. kisoana* requires 24-hour light to germinate (*Bulletin of the American Rock Garden Society* Vol. 50(3), pp. 211–213, 1992). Seed of other rare Japanese primulas, such as *P. takedana* and *P. tosaensis* are rarely available, though in the last few years the American

Primrose Society has listed them. *Primula tosaensis* is found on limestone, and this could be the reason why it does not thrive in my acid soil, even going dormant if it gets too dry. Regrettably, when it does bloom, it never sets seed. *Primula takedana* did not make it through last winter, but I will give it another try, this time in my most protected location—the base of a north-facing wall.

Another plant from lower altitudes in Japan is a very dwarf species of Solomon's seal, *Polygonatum humile*, which is found in meadows and open woods. Unlike other species, it has stiff, upright stems, under 30 cm high. I once saw it in a hot, sunny garden where it formed an extremely dense colony, while in my garden in poor, dry soil, in shade, it forms a much looser clump, spreading by thin rhizomes. The flowers are typical for the species but seem to get hidden by the leaves as they hang right up against the stems. However, plants never set seed—maybe because of the lack of a specific pollinator. I received my plant from Gerald Taaffe's Ottawa garden several years ago, and it has multiplied enough that I'll be able to bring rooted sections to our next Chapter plant sale.

Adenophoras are the Oriental version of our campanulas, and many are found in Japan. Unfortunately, of the tantalizing number of offerings found in the seed exchanges, most are a disappointment. There was a recent posting on Alpine-L by Hubert Agback about his experience with them—most he found turned out to be *Campanula rapunculoides*. He also explained how to tell the difference between a *Campanula* and an *Adenophora*. After you remove the petals from the flower, you carefully pull off the stamens, being sure to remove the wide part at the bottom as well. This will expose

the flat bottom plate from which the stigma arises. In *Adenophora* the bottom of the stigma has a very obvious narrow cylinder around the base. With this handy tip I was able to discard several of my so called *Adenophora* species and confirm the true identity of the rest, using the key in *A Garden of Bellflowers*, by L.H. Bailey.

Adenophora verticillata is a very attractive plant, blooming in June and July. Some of my plants came from seed labeled as *Campanula divaricata*—so there are adenophoras masquerading as campanulas as well. It is very graceful, as the leaves and blue-violet flowers are in whorls. The long pedicels and extruded styles add to this effect. At 60–90 cm, it is rather tall, but there is a Japanese variety *Adenophora verticillata* var. *hakusanensis* that is on my wish list. It is only 30 cm tall and much more densely flowered.

From one of the Czech seed collectors I ordered three wild-collected species from Japan. I thought that finally I would get some properly identified plants. But Murphy's Law stepped in, and when sowing the seeds, the seed pots got mixed up before I could label them! However, I think I have managed to key them out—and all are super plants with typical blue-purple flowers. *Adenophora takedae* blooms fairly early on in July with alternate leaves on 30-cm, upright stems. *Adenophora tashiroi* is very different. It is just as short but with decumbent stems. The weight of the terminal flowers bends over the stalks, so this plant needs to sprawl over a large rock or log for best effect. With its small, rather leathery leaves, it would probably take a fair amount of sun, so I will probably move it next year from my peat bed into the rock garden. As it blooms in August, it adds some much needed purple color to the fall garden. *Adenophora nikoensis*

is again different with very graceful, grass-like leaves alternating up the stem. The whole plant is not more than 30 cm high and is just about to come into bloom at the start of September. The terminal flower buds have long, thin pedicels, which seem to be a trait of the genus. As long as frost does not damage the flowers, this should be a super addition to the semi-shady garden.

A rarely grown Japanese plant is *Boenninghausenia albiflora* var. *japonica*, and it is a subshrub growing about 60 cm high. It has *Thalictrum*-like foliage, but the terminal leaflet is larger. The white flowers are very small, so they do not put on a splashy show, but the effect is very dainty and pleasing if it can flourish in rich, woodland soil in semi-shade. Books list its hardiness as USDA zone 7–8, but it has survived now for four years in my garden in spots where leaves accumulate in the fall. As the plant produces copious quantities of seed that germinate like cress, this is an easy plant to try out in several different microclimates. Do not be in too much of a hurry to relegate the woody stems to the compost heap in the spring, as in my garden it makes new growth from near the base, often not until mid June.

One of the best iris is *Iris tectorum*, the Japanese roof iris. In Japan, it is commonly cultivated on thatched roofs. It is also found growing on old walls, as well as more conventionally in shady scrub. The purple flowers are frilled and large for the size of the plant, which is usually only about 30 cm high. I have not had the best of luck with this plant. Although it makes rapid growth from seed, flowering the second year, it often dies for me over the winter. It requires dry winters (plenty of snow cover), wet, warm summers, and perfect drainage—so a loose, leafy soil is best.

My white form is just as beautiful, if not more so.

I collect as many *Tiarella* species and forms as I can, and *T. polyphylla* is the Japanese contribution to my collection. Although the flowers are smaller and less dense than the Northeastern American foamflowers, the effect is still worthwhile. The species' best asset, however, is the fall foliage, when the hairy leaves seem to metamorphose—the stems shorten, and the leaves develop their dark markings, resulting in a huddle of semi-evergreen, marbled leaves. Dan Heims, in his article on tiarellas at his Terranova Nurseries website, describes it as lacking hardiness and as a rampant spreader. I have not found that my plants have these traits—they are fully hardy and are definitely not stoloniferous. This Oriental species then seems to have inherited the variability that afflicts its Northeastern American cousins.

There are many more Japanese plants—and many that have yet to be introduced into North American cultivation. This year the NARGS seed list contained many wild-collected Japanese seeds that I am hoping will prove to be valuable additions to my growing collection. Although Japanese plants are intermingled throughout my garden with plants from other geographic regions, one day I hope to gather all my Japanese plants together in one area. Then a stroll down the garden path will turn into a magical transference to a far-off woodland on the islands of Japan.

Revised from the Ottawa Valley Rock Garden Society newsletter Vol.7(2), October 1998, editor, Jane Palin.

Eva Gallagher gardens in Deep River, Ontario.

BOTANIZING IN MEXICO

by Mike Chelednik

Despite suppositions to the contrary, Mexico is more than just desert. Especially in the mountains, the diversity of land forms and biomes can be staggering and the plant species diverse. Earlier this year, I had the opportunity to travel to several states in Mexico in and around the Sierra Madre Oriental, a range of mountains that runs along the eastern part of the country from roughly the Texas border to Guatemala. It is a rugged region of impressive beauty. I had long been fascinated by the prolific work that John Fairey and Carl Schoenfeld of Yucca Do Nursery and Peckerwood Gardens (in Hempstead, Texas) have been carrying out for the last decade to bring new plants into cultivation from this botanically rich region. I thus jumped at the chance to travel with John, Betsy Clebsch, and Bobby Ward when the opportunity arose in late May of 1999. It was the 80th trip that had been organized by John and/or Carl since their first visit to the area with renown plant explorer, Lynn Lowry, in 1988. A great many of their introductions, despite their southerly provenance, have proven to be both adaptable and garden-worthy in eastern North Carolina

where I garden. The trip was also an opportunity for me to search for new species and forms of rain lilies—*Zephyranthes* and *Habranthus*—one of my special interests.

In the roughly 2,500 miles that we drove through Mexico, we encountered everything from deserts to fir forests; subtropical lowlands replete with bromeliads, orchids, and tree ferns; and pine-oak woodlands reminiscent of forests in eastern North Carolina. Elevations in the region in which we traveled ranged from a few feet above sea level to a little over 10,000'. During our trip, much of northern Mexico was in the midst of a severe drought with some areas having gone without rain for six to nine months. Thus, many of the rain lilies (which are actually triggered into bloom not by the rain itself, but by the low barometric pressure that precedes such precipitation) and other plants were not in bloom during our time there. Nevertheless, there was still an amazing array of interesting plants to be seen.

Before we crossed into Mexico in the drive from Hempstead, Texas, near Houston (John Fairey's home), however, we encountered the first rain lily of

the trip, *Zephyranthes traubii*, growing on the roadside south of Corpus Christi. It is a species well known to locals but I had never seen this, one of my favorites, in the wild. It is a white-flowered species of the *Cooperia*-type with an exotically long floral tube. *Zephyranthes traubii* ranges southward into Mexico, and we would see it on numerous occasions later in the trip. Were we driving through this area a few months later, there would be a wealth of yellow-flowering species of rain lilies (*Z. jonesii*, *Z. pulchella*, *Z. refugiensis*, and a little to the south, *Z. smallii*), as this region is probably the center of rain lily speciation in the United States.

The area south of the Rio Grande (known as the Rio Bravo to Mexican citizens) begins to rise in elevation as the Sierra Madre appears in the distance, and we see our first agaves, some with their preposterous, sapling-sized bloom stalks. There are also numerous specimens of *Yucca filifera*, a massive arborescent species. We pass one amazing, multi-headed specimen that was at least 40' tall with a "trunk" diameter in excess of 6'. A distinguishing feature of this species is that the bloom stalks hang gracefully to the side rather than remaining rigidly upright as they do in other species. Unfortunately, *Yucca filifera* is not cold hardy below about 25°F. Also seen in the shade of some acacias and mesquite was an odd, snaky, *Cereus*-type cactus making its way through the branches. Dotting the roadside are large specimens of *Ipomoea fistulosa*, the tree morning glory, with blossoms in various shades of lavender-blue. This is not a new plant for me—I've grown it in my own garden for years—but it's always interesting to see plants growing in their natural habitat.

As we begin our ascent at about

3,700' into the mountains on the Balcone de Chihue, the road through this range, the landscape changes to a semi-arid scrub with relatively few woody plants but a wealth of other vegetation. There are numerous agaves, *Agave lophantha* and *A. lecheguilla* being the most common. We also see our first specimens of *Hechtia* spp., dry-land bromeliads that form rosettes of narrow, twirled foliage that gives the rosettes a beautiful pinwheel effect. There is also a gorgeous species of *Dasyllirion*, marketed by Yucca Do under the cultivar name 'Green Sparkler'. The plant forms a tight clump of rigidly held, acid-green leaves, each tipped with a tuft of tan fibers. The effect is stunning, yet subtle. On our way out of the mountains, we see *Morkillia acuminata*, a beautiful leguminous shrub with large, mallow-like flowers in shades of lavender-blue that contrast beautifully with the silvery, pinnate foliage. It is said to be intolerant of freezing temperatures, but, should it be amenable, it would certainly be a worthy candidate for container culture.

We slowly descend onto an arid plain as we head southwestward and soon cross the Tropic of Cancer. We find a white-flowered species of *Zephyranthes* growing along the roadside. Desert species of this genus are notoriously difficult to bloom in cultivation. The best option, for those who try, seems to be a rich, alkaline soil and little irrigation. Further along we find *Brahea decumbens* in fruit and stop to collect seed. This is a low, stoloniferous palm with bright blue-gray, palmate foliage.

Later, in the state of San Luis Potosí, we climb back into a series of mountains that are heavily forested. There are numerous oaks (*Quercus polymorpha*, *Q. canbyi*, and many intermediates), many hung with Spanish moss

(*Tillandsia usneoides*) and other bromeliads. The aforementioned oaks are normally evergreen, but in the extreme drought this region is experiencing, they've all defoliated. As we climb higher, we pass through areas that have experienced recent rain, and we find a beautiful jasmine-scented vine (Bignoniaceae) with large cadmium-yellow trumpets growing in a *Dendropanax* tree at 3,000' elevation. We look but unfortunately find very little seed. There are numerous cycads (*Zamia* and *Ceratozamia* spp.) in the understory. On some moist rocks, I find an amazing little creeping *Aristolochia* sp. with comparatively huge flowers of cream with brown markings. Again, unfortunately there is no seed.

We head down the mountain and soon see our first coconut palms (in cultivation); now know we're in the tropics. As we pass through fields of sugar cane we see some 40-50'-tall ponytail palms (*Beaucarnea recurvata*, or probably more correctly, *Nolina recurvata*) in bloom on a distant hillside en route to Ciudad Valles, an agricultural center marked by rows of royal palms.

Outside Ciudad Valles we scan the roadside ditches for *Zephyranthes reginae*, the species once referred to as 'Valles Yellow' and first collected here in the 1950s. Unfortunately, the spring has been too dry. We slowly make our way westward into the state of Querétaro, all the while gaining in elevation, finally ascending onto a high desert plain for the remainder of the day's drive. We go down a dirt side-road in hopes of finding a parchment-colored *Zephyranthes* sp. that John has seen on prior visits. We don't find the rain lily, but I do find, while clambering over some boulders, an exquisite form of *Agave lophantha*. Normally, the leaves of this species are gray-green

with a paler stripe down the center, giving it a variegated effect. The form I find is a much darker green with a pale, but rich, gold center stripe. Bobby finds here an attractive creeping sedum.

As we near our evening's destination, we see on a distant hillside a grouping of *Neobuxbaumia* cactus. At 40-50' tall and unbranched, they resemble a forest of telephone poles. We enter the town of Jalpan, a charming colonial city where we will spend the night. Since we've gotten here earlier than expected, we take a quick jaunt into the mountains above the town. For much of the way, the road is bordered by a creek, along which grow massive Mexican sycamores (*Platanus mexicanus*), many with trunks 8-10' in diameter. We reach the top of the mountain (at about 6,000') and find an interesting *Eryngium* growing as a rosette of pale green foliage. There are also a number of beautiful oaks in this area, including one with pale, lime-green foliage.

We head into the mountains on a different route and soon re-enter the state of San Luis Potosí. As we gain elevation, we come to an area that has had recent rain, and we find rain lilies in nearly every shade from palest pink through deepest, hot rose-pink. They appear to belong to the *Zephyranthes lindleyana* complex, but we are unsure of their exact identification. At the same location I find a cormous species of *Oxalis* with prettily cut foliage and lavender flowers with yellow throats. I also admire *Asclepias pinifolius*, a milkweed that forms mounds of narrow, needle-like foliage and bears terminal clusters of blooms and large, balloon-like seed pods. There is also a wealth of xeric ferns at this site, with numerous species of *Cheilanthes* and the similar *Notholaena*, most of them a ghostly silver-gray.

We drive farther south into Hidalgo, an area that is moist and lush with vegetation. At one location below a coffee plantation, the hillside is beautifully covered with a groundcover of wandering jew, *Achimene*, and *Ruellia*. There are also an area of numerous cycads and *Chamaedoria* palms. Bobby finds a handsome tuberous begonia with large, orbiculate leaves and a ginger, probably a species of *Costus* (Zingiberaceae).

As we continue higher into the mountains, the vegetation takes on a drier, more temperate appearance, and Betsy Clebsch, who has a special interest in salvias, finds *Salvia mexicana* on a rock outcropping. Here also is *Senecio aeschenborianus*, a winter-blooming shrub that has done extremely well in my own garden in North Carolina.

We go through the village of Jacala, famous (in botanical circles) for the red- and carmine-colored rain lilies that inhabit the pastures nearby. Unfortunately, rains have not awakened the lilies just yet, and I miss the opportunity to see them in the wild. We encounter our only *Habranthus* of the trip, a tall (about 16"), white-blushed-pink-flowered species similar to *Habranthus mexicana*. Later, on an outcrop of boulders, are *Sprekelia formosissima* (Jacobean lily) in full, glorious bloom—certainly a highlight of the trip for me. I've long known this plant and grown it; however, to see it on its home ground was a truly surreal and moving experience. Growing in pockets of soil among agaves and *Cheilanthes* ferns—and attended by nearby goats—the fire-engine-red blooms stand out like flares. We all excitedly scale up the rocks to admire them close up.

In the mountains above Pachuca (state of Hidalgo) in Mexico's famous Central Plateau are forests of *Abies* sp. (firs) and *Picea* sp. (spruce) at an eleva-

tion of about 8,500'. North of Pachuca the landscape slowly descends into a semi-desert area before finally entering a moist temperate zone of vegetation. At a roadside spring on wet rocks are amazing *Pinguicula* sp. (butterworts) with big lavender, violet-like flowers. Other plants include some nice forms of *Salvia involucreta*, *Adiantum* ferns, and a plant very similar to *Eupatorium ageratum*. Woody plants include numerous *Philadelphus* spp. and a *Tilia* sp. This area seemed to be particularly rich in vines: there are two different forms of *Cobaea* spp. (cup and saucer vine), and *Lophospermum erubescens*, with large pink foxglove-like blooms and yellow markings in the throat.

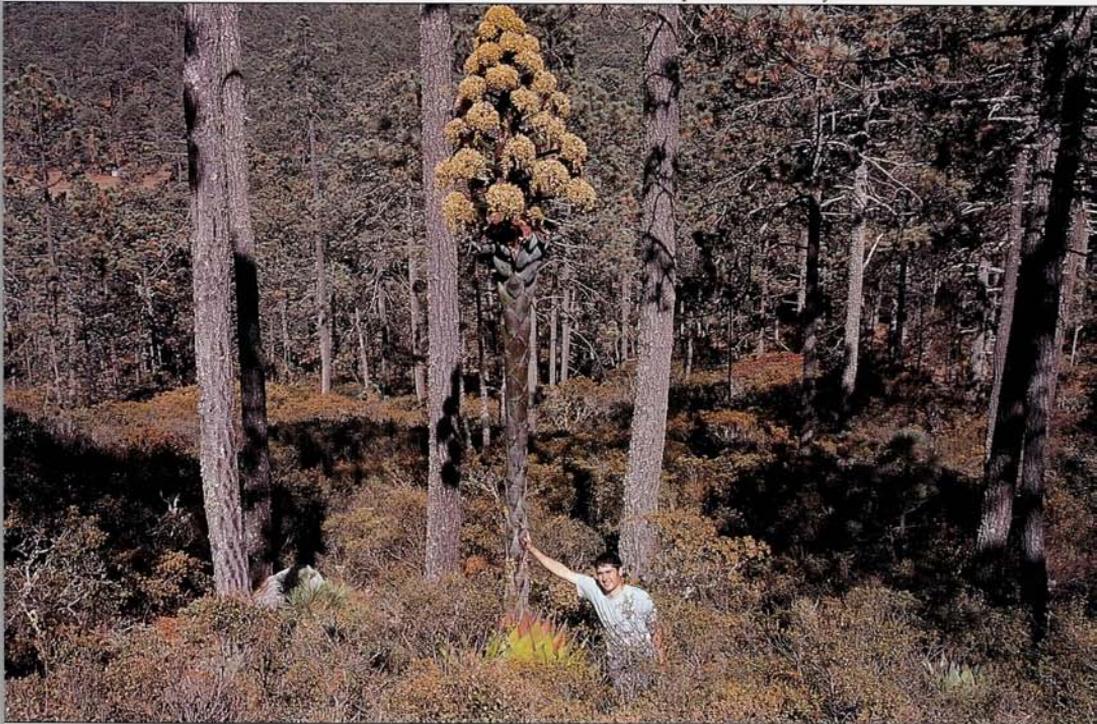
Soon after crossing back into the state of Tamaulipas, we spot some *Zephyranthes* on the roadside. They are a species or form completely unfamiliar to us—small, white flowers only an inch or so in diameter, but with pink penciling on the reverse of the petals similar to that of many crocus species. A few miles up the road we see more *Zephyranthes traubii* on the roadside. We go west again into the mountains. On the way, we pass through numerous derelict citrus orchards, many of them completely defoliated by the drought. As the road climbs higher, we enter an oak woodland. The oaks are dripping with Spanish moss and other bromeliads, and there are numerous specimens of *Salvia mexicana*, many of them beginning to bloom. Later in the day, after we've dropped out of the mountains and back into the desert, we find a field of thousands of white-flowered *Zephyranthes*, perhaps closest taxonomically to *Z. chichimeca*. It was a sight to take your breath away.

There are numerous specimens of *Dasylyrion longissimum* on the hillsides, the arborescent *Nolina nelsoni*, and



Roadside in San Luis Potosi

Mike Chelednik with *Agave montana* —appropriate for a rock garden?
photos, Bobby Ward





Sprekelia formosissima

Zephyranthes lindleyana complex

photos, Bobby Ward





Lonicera pilosa

Carl Schoei

Agave stricta in foreground; desert scene

Bobby Ward





Zephyranthes species aff. *chichimeca*

Zephyranthes species aff. *chichimeca* in habitat

photos, Bobby Ward



Agave stricta, a beautiful small species with narrow, cylindrical leaves. As we near the Nuevo Leon border, we again climb up into the mountains. This is one of the higher mountains in north-east Mexico, reaching to about 10,000' elevation. Many of the plants that occur on the desert floor (the aforementioned *Dasylyrion* sp., *Brahea decumbens*, and *Hechtia* spp.) also occur toward the top of the mountain and, at least in theory, should be more cold hardy at this elevation. There is an unknown arborescent *Nolina* on this and adjacent mountains with beautiful, lax, pale green foliage. We later pass a village where the inhabitants use *Nolina* leaves to thatch their buildings. Near the top of the mountain, we enter a forest of *Pinus rudis* with an absolutely incredible diversity of undergrowth. Clumps of *Agave montana*, many with a beautiful red flush to the foliage, dot the ridges and hillsides, looking from the distance like

colonies of sempervivums. We find a small, narrow-leaved species of *Beschorneria*, blue lupines, and the beautiful *Penstemon havardii*, with tubular, pastel-red flowers. In a shady, moist spot among some rocks I find an intriguing plant similar in appearance to a cutleaf mayapple or perhaps a species of *Syneilesis*. Unfortunately, there are no seeds and its identity remains a mystery. At the summit of the mountain, the pines take on a gnarled, wind-blown appearance, and the understorey is made up of a shrub layer of dwarf oaks, an *Arctostaphylos* sp., and *Ceanothus coeruleus*, among other things. We notice the attractive and rare *Lonicera pilosa*, a delicate honeysuckle with terminal clusters of up to 20 tubular, orange blooms.

It is the end of the trip and we are on a Sierra Madre Oriental high, with memories of seeing wonderful plants in the wild and the hope of returning to this area again.

Sources:

The current Yucca Do catalog is available for \$4 from Yucca Do Nursery, Rt. 3, Box 104, Hempstead, TX 77445. Or contact by email at yuccado@nettxas.net.

Reprinted from *The Trillium*, newsletter of the Piedmont Chapter, Vol. 9, No.3, July, 1999, Bobby J. Ward, Editor.

Mike Chelednik is a member of the Piedmont Chapter of NARGS and gardens in Greenville, North Carolina. His horticultural interests include bulbs, seed propagation, and any plant that is new to him.

*Orostachys
erubescens*



Indispensible Blues

by Irma Markert

After the first tide of spring flowering is over in the rock garden, in early summer campanulas begin to bloom and continue for a long period. They are among the loveliest of rock garden flowers, varying from thin funnels of five joined petals to flat cups and spreading stars. Most flowers are blue or various shades of white. Yellow occurs rarely. Most are of easy culture, requiring only good drainage and sufficient water during the growing season.

In his book *Rock Gardens*, Wilhelm Schacht lists the most demanding species of campanulas, which require special growing conditions in troughs, raised beds, or in the alpine house: *Campanula arvensis*, *C. allionii* (*C. alpestris*), *C. cashmeriana*, *C. cenisia*, *C. excisa* (lime-hating), *C. mirabilis*, *C. morettiana*, *C. piperi*, *C. rainieri*, *C. zoysii*. This book was edited by Jim Archibald, who will be speaking on campanulas at our Winter Study Weekend 2000 'Chasing the Blues'. In addition to the above, Foster lists those in a class for the connoisseur: *C. alpina*, *C. betulifolia*, *C. lasiocarpa*, *C. pilosa*, *C. formanekiana* (not perennial) and *C. piperi*. Every year the specialized seed lists make available new campanulas that are not listed in any of our reference books. So the diversity, the value, and the challenge of the genus are unlimited.

Campanula carpatica is perhaps the one most commonly grown species. In the early days of our rock garden, we grew *C. carpatica* 'White Chips', from seed and were lucky to obtain large-flowering plants which looked spectacular in a wall. They were so beautiful that we ordered more seed, but, alas, we obtained small-flowering plants of mostly muddy blue colors. Before we realized what we had, we had planted many plants everywhere in the rock garden and have been pulling them out as weeds ever since. They reseed prolifically. Before we had a rock garden, I had purchased *C. carpatica* var. *turbinata* from Wayside Gardens. It is a delightful form, violet blue in color and more diminutive in every way. Jelitto sells seed of both 'Blue Chips', 'White Chips', and *C. carpatica* var. *turbinata*, plus many other forms of *C. carpatica*.

Another *Campanula* that I tried before we had a rock garden was *C. rotundifolia*. Again I ordered this from Wayside Gardens because of the picture, but I was disappointed with it, as it tends to be floppy. I have also been disap-

pointed with the floppiness of any *C. rotundifolia* I have grown from seed. When we saw this campanula in scree-like conditions in Newfoundland, it was very short and breathtakingly beautiful. In grassy meadows in the Canadian Rockies, we have also seen individuals shorter than any that we have grown. This year Mt. Tahoma Nursery lists *C. rotundifolia* ssp. *arctica* 'Mt. Jolunheimen'. It is described as a 3"-tall form that was selected in Norway by Henrik Zetterlund and introduced into the US by Grand Ridge Nurseries.

We grow *C. garganica* in our limestone walls. The plant grows upward and outward forming a circle of ivy-shaped leaves that are covered with starry, blue flowers in summer. Grown on the flat, this *Campanula* seems to lose its grace, in my view. *Campanula fenestrellata* is a smaller version of *C. garganica* that we also grow.

Another easy favorite of ours is *C. cochlearifolia*. Anna Griffith describes this species as "charming little fairy thimbles" that are the most widely distributed and best-tempered of all the campanulas. We grow the light blue form in the wall and the form named 'Miranda' on top of the wall. 'Miranda' is described by Siskiyou Rare Plant Nursery as pale ice-blue and the strongest growing form. To me it appears white and makes a delightful combination with nearby pink dianthus that bloom at the same time.

Two other favorite campanulas that we have had for years are *C. portenschlagiana* 'Resholdt' and *C. poscharskyana* 'Stella'. Mt. Tahoma Nursery offers 'Resholdt' this year and describes it as blooming almost constantly from June until November. It has lots of bright purple-violet, funnel-shaped blooms on 4" stems and is just a super, no-care plant. 'Stella' is described in the Siskiyou catalog as having a profusion of dark purple bells most of the summer. It is about 6" tall and forms a mat about 18" wide.

Reprinted from Green Dragon Tales, newsletter of the Adirondack Chapter, March, 1999, Editor, Debbie Shanahan.

Irma Markert gardens with her husband Norbert in Ogdensburg, New York, above Lake Erie.



DESIGNING

FOR THE OFF SEASON

by Gwen Kelaidis

Here in Denver winter seldom buries the garden under a blanket of snow and ice for long. Many are the days of winter in which we can view the garden from the window or wander through, contemplating the meaning of dormancy. What can we do, in designing the rock garden, to widen and deepen our enjoyment of the garden in this season?

Relief

One most obvious trait of a rock garden is that it has a vertical dimension. And what a relief this is in the great sea of level lawns that dominates our urban landscapes! The mounding up of soil and rocks creates visual interest all on its own. The raised bed may meet the challenge of good cultivation, but it doesn't fulfill the soul's longing for mountainous topography, no matter how modest.

Intrigue can be created by constructing ridges that conceal what is behind them, drawing the eye and mind to follow around the ridge to the next sight. Consider your view of the rock garden from windows in your house, from doors, from benches. By building ridges at least 3' high much is

obscured: the view of paths or lawn behind the rock garden; of course the other side of the ridge; perhaps other beds or borders.

Privacy and a sense of intimate space is also created by the hills and valleys of the rock garden.

Cover

It is winter when I notice most the open, gravelly spaces in my garden. In the areas of groundcover, I wish the gravel would not show. In the steep, rock garden and outcrop areas, I am glad for the contrast of rocks with plants.

When you build the rock garden, give thought to how you want to plant each area. Will this be an area of alpine lawn, mimicking the green meadows of the Alps and dense areas of tundra? Or will it be an area where different species of plants are randomly distributed, dotted across the gravelly, rocky landscape like a pointillist painting, creating the aspect of true tundra, or rocky ledge, or rock cascade?

One of the commonest truisms in rock gardening—I hereby call it a fallacy—is that rock placement doesn't matter, because once the plants grow

they will cover the rock work. It has never been true, in my opinion, that any deformity in structure, whether of a human spine or the backbone of a rock garden, has been hidden by a silk dress or elegant plant cover. Before you declare the rock garden complete, be reasonably satisfied that it is pleasant to look upon, with or without plants. Particularly, the overall outline of the garden's crest should please you, for you will be seeing it often.

Color and Contrast

Of course, it is plants for which we construct our gardens, for the pleasure of their company. But not all plants are equally attractive in their winter state. It is unusual to even consider how the quiescent garden will look when planting; usually we are thinking of flowering period and color, of some combination of flowers in bloom time. But as the years go by, I find I am more interested in foliage, because it is in view for a longer time. I like to plant gray groundcovers next to deep green; fine foliage next to heavy; rounded mounds next to the upright lines of a vertical evergreen or a sharp rock. I enjoy *Lewisia* rosettes bridging a crevice with their plump arms; the filigreed rosettes and heavy branches of *Pteroccephalus pinardii* over the dense, curved surface of a rock; the dry, thin, steel-gray twigs of *Genista pilosa* reaching across the fat, deep red thumbs of *Delosperma*. These bring me as much pleasure—and more often—than the phlox in bloom or even the brief and glorious flowering of some new rarity.

In early winter my *Artemisia* 'Silver Mound' turns a delightful buff, snuggled next to the rusty old flowerheads of *Sedum* 'Roseum'. The rounded mounds of *Spiraea japonica* 'Magic Carpet', a bit garish in summer with their yellow-and-green mottling, turn a delightful pinky red, fading to rust,

and then devolving to twigs as the winter wears on towards spring. Together they delight my eyes as I glance from my computer screen out across the rock garden. Continuing with the larger, accent plants, the dwarf *Nandina domestica* 'Wood's Dwarf' colors up early in the fall and continues to be a spot of bright orange and red through the cold weather. I love it against the blood-red of *Eriogonum umbellatum* 'Alturas Red'.

For a winter-green groundcover, you can count on *Veronica liwanensis*, with its petite, shiny, dark green leaves forming a solid mat. *Veronica pectinata*, has woolly, delicate leaves and a fetching manner of draping itself over rocks; it remains one of my favorite plants, summer or winter, despite its ease of cultivation and its wide distribution. I wish the blue-flowered form were as available as the pink. *Tanacetum densum* var. *amani* is ever-silver, offering its gently curled, feather-like leaves in all seasons. *Delosperma nubigenum*, now designated 'Lesotho', makes an apple-green mat in summer, but most importantly here, is a deep red in cold weather. Of course, the thymes are solid stand-bys, everything from good old woolly thyme, *Thymus lanuginosus*, to *Thymus* 'Elfin', a cultivar of considerable self-restraint. If you have suffered from the over-exuberance of other cultivars, try this.

It is a cliché of rock gardening that some dwarf conifers are necessary to give structure and form to the winter garden. But if you don't want to dig and root-prune your conifers every year, as Alexej Borkovec does, to keep them from overgrowing your garden; and you also don't want to pay the hefty price for the more dwarf, slower-growing, more fragile, and much higher-priced gems of the conifer world, why not use daphnes? *Daphne x burkwoodii* may be too big for most rock-

eries, but try *D. alpina*, *D. arbuscula*, *D. cneorum* 'Eximia' or 'Grandiflora' (or any other cultivar you can get your hands on), or the exquisite *D. jasminea*. The latter is not supposed to be hardy here in zone 5, but we have been growing one strain outside for eight years. Some individuals have died, but the eldest is a gorgeous specimen, having draped itself around a rock most artistically. It is the pride of my old garden, winter or spring.

Does any plant in the woodland garden really look its best in winter? *Bergenia cordata* and *Bergenia strachyi* offer us their winter mahogany tones, lasting from frost until January. Most primulas look to me a bit peaked in deep winter, although they come quickly into growth in spring. Those of you who can grow the dwarf and evergreen rhododendrons, rejoice! for they offer lovely, husky leaves with interesting shapes and hairs. But I am not among that number, possessing soil with a pH of 7.8.

Individual plants for great winter color in the rock garden proper might include *Armeria maritima*, where not scorched by the Colorado sun on its 3-o'clock side, making a tender green mound all winter. Many dianthus, at least in their years of early vigor, produce great blobs of silver-green; the only trouble is that in some winters they do not live and are a disappointing brown. A special favorite of mine is *Stachys nivea*, its rugose, deep green leaves like long, bumpy-but-benign tongues laid flat against the gravel. *Vitaliana* species hold their own quite well, with delicate leaves in a fluffy mound. *Vella spinosa*, though spiny, remains dark green. Here, as in the groundcovers, veronicas are champions, including *Veronica caespitosa*, *V. oltensis*, and *V. pseudocinerea*. *Dracocephalum botryoides* marginally

maintains its dignity.

In areas where *Hebe* species are hardy, they are grand plants, mimicking small evergreens, never outgrowing themselves. For several years every member of the Rocky Mountain Chapter seemed to have a *Hebe cupressioides* 'Nana', very cute, rounded plants about 8" high. Then came the sudden freeze of October 28, 1991, when the temperature dropped from 70°F to -10°F in about 36 hours. This species has never reappeared. *Hebe pinguifolia* 'Pagei' came through the massacre with only a few brown leaves, however, and survived well in a valley between berms where snow lingered. It has managed again through -20° this winter. This has gray, miniature, sharp-pointed leaves held on stiff stems about 4" above the ground. *Hebe* 'John Sterling' has also come through, a swirl of whipcord foliage about 8" high, very attractive, and a good contrast above any dark green foliage, such as *Euonymus x kewensis*, *Hedera helix* 'Tsy Bitsy', cyclamen, or *Saxifraga cuneifolia*. Speaking of saxifrages, all the encrusted species are evergreen or eversilver, steadfastly knitting the rocks through the winter. Sempervivums are infinitely valuable in winter. If you grow only the choice, turn now to the kabschia saxifrages, whose petite buns look well all year around.

What about penstemons, you may ask? The easy *Penstemon hirsutus* 'Pygmaeus' has a pleasant, though mild presence in winter, with soft, dark foliage. Some of the shrubbies have a very attractive effect, much like holly in winter; beware, however, since some will burn up, the foliage turning an ugly, scorched mess. But which is which? I think any shrubby penstemon in too much sun or wind will burn in winter. I have had good luck with *Penstemon fruticosus* and

Penstemon fruticosus var. *serratus* 'Holly'. The petite, choice, darling hybrids, the *P. rupicola* selections—I would not count on them for winter show, although I consider them a must in the garden.

Many drabas are brown in winter, or at least on casual observation. In *Draba rigida* the outer leaves of the rosettes are brown, and only the inner ones carry green forward through the challenge of winter. But *Draba brunnifolia* and the *D. olympica* relatives remain greener than most. *Aethionema oppositifolia* bears good gray-green foliage through the winter, bringing its promise of burgundy buds followed by pink flowers in early spring.

I adore the winter shapes and color of many of the dwarf genistas, the steely blue of *Genista pilosa*, the interesting, curving branches of *G. dalmatica*, and what could be finer on a winter's day than the draping twigs of *Cytisus x kewensis*?

Three excellent plants for walls, offering year-round interest are: *Nepeta phyllocllamys*, with tiny, triangular, rugose leaves; quite adorable, and even if it self-sows with vigor, you should consider keeping it forever. If you weed it all out, you may never see it again. *Marrubium rotundifolium*, its round leaves with bright, hairy margins and an overall golden aura is also great in a wall. Yes, its leaves catch the dew and then the frost. It may look a bit stringy in the winter; if so, cut it back hard in August next year. And *Verbascum* 'Letitia', a very floriferous, but sterile hybrid, or the similar *V. dumulosum*, rare but incredible and moderately productive of seed; both have beautiful, woolly gray leaves attractive all winter.

Tatty winter displays of otherwise delightful groundcovers include *Coreopsis auriculata* 'Nana'; most cam-

panulas, including *Campanula cochlearifolia*, *C. poscharskyana*, and *C. portenschlagiana*; most of the coralbells, which tend to flop loosely and may have a bit of rust in the winter. Of the multitudinous selections of *Phlox subulata* many tend to go brown in Colorado in winter, especially if in exposed situations. *Phlox* 'Silene-flora' holds its green well, as does *P. borealis*—if they live, that is. I think the woodland phloxes, *P. divaricata* and *P. stolonifera* are quite disgraceful in winter, not advertising at all their glory to come in May. Most of the sedums lack that certain something in winter, dying down to mere remnants of their former selves. Gentians, saving their energy for incomparable blue later on, largely retreat beneath the soil for the winter. *Geranium renardii* has stunning fall color, but as winter wears on there are fewer shining red leaves and more and more gaps in the carpet. Most geraniums aren't really much to look at until new foliage is produced with the coming of warm weather. Epimediums are nowhere, euphorbias a wasteland, dodecatheons dormant, oreganums superfluous, zauschnerias imperceptible. Plant these for summer glory, but don't delude yourself. Other plants are needed for winter cheer.

Of course, cyclamen are enchanting in foliage at all times—but I dare not start on bulbous plants. The snowdrops and crocus begin the lively season, and I have sworn here to speak only of the quiet days between leaf fall and those first probings through the warming earth that signal the coming of the gaudy time of spring and summer.

Light

Because of the high relief of the rock garden, the light plays over it in an ever-changing way. As the sun moves through the sky, the shadows of the rocks move, too, and the plants are

thrown into sharp contrast or buried in shadow. Consider the direction of the light, which plants will be backlit, which shaded. The thin light of a sunny, wintery day, the blue light of overcast snow, the play of moonlight on the forms of rock, evergreen, and cushion all are to be dreamt of as the rock garden is built and planted.

Frost as Frosting

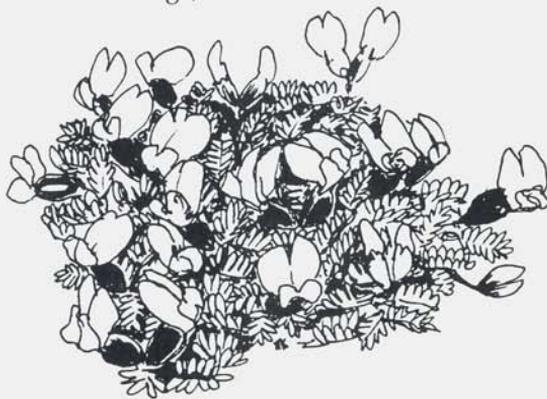
No blaring summer sunshine ever crowned the garden as a hoarfrost can. Are evergreens really added to the rock garden for year-round form and vertical contrast only? No, I treasure them most for the way they hold hoarfrost or snow. Gardeners vary in the

rate at which they tidy up the fall and winter garden. Yet removing dead stalks and flowers too early only deprives Jack Frost of his full share of winter fun.

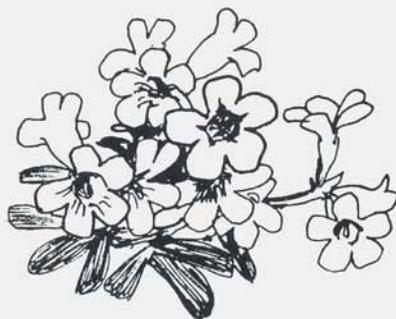
How can one possibly keep the winter garden in mind in the spring and summer, when all is abloom, all is excitement, heat, and new plants, new life? Try keeping notes on those long winter days—or just forget all this, and take your chances! You really can't fail if you plant a wide variety of plants, and that's one more reason you need to buy, grow, borrow, and trade for more, ever more plants.

Reprinted from Saximontana, newsletter of the Rocky Mountain Chapter, February 1999, Carol Minar, Editor.

Gwen Kelaidis gardens near Denver, Colorado, with her husband, Panayoti, and their two children. She first became interested in rock gardening around 1973, when her much-admired friend Jim Sawyer built a rock garden on the Wisconsin prairie. When he died shortly thereafter (of an embolism at the age of 32, whilst studying a nursery catalog of primroses), she vowed to take up the torch of rock gardening. Ever since she has rock gardened on rental properties, friends' properties, in troughs, and finally at two gardens in the Rocky Mountain West. The current rock garden is about 50' x 50', has over 10' of elevation change, and includes a waterfall and hundreds of plants.



Oxytropis podocarpa



AWARDS

AWARD OF MERIT

Robert Bartolomei

The North American Rock Garden Society Award of Merit was created in 1964 to honor persons who have made outstanding contributions to rock and alpine gardening and to the particular study of our native plants. An award for outstanding service to the Society, it is given to those who have demonstrated outstanding plantsmanship, contributed to the rock gardening literature, or performed substantial general service to the Society.

Robert Bartolomei, Director of Outdoor Gardening at New York Botanic Garden, and the recipient of the Endowed Curatorship of the Peggy Rockefeller Foundation, admirably fits all three categories. He is eminently qualified for the award, and recognition of his service to the rock gardening community and to NARGS, both locally and nationally, is long overdue.

As Curator of the T.H. Everett Rock Garden at the New York Botanical Garden, he has overseen the reclamation of one of the great rock gardens of the world. With vision, talent, and an incredible amount of personal hands-on labor, he has restored this venerable gem of a garden to world-class stature.

A product of Cornell University's famed School of Horticulture, who interned in Germany, he has served the cause of rock gardening faithfully on many levels, traveling and lecturing extensively throughout the US, Canada, and the United Kingdom. He has been a generous grower and donor of plants to all the NARGS chapters in the metropolitan area and has worked with many of us on setting up both NARGS Annual Meetings and Winter Study Weekends, to great effect.

He has guided and led field trips and tours for groups to alpine areas such as Turkey, the Dolomites, the Big Horns, and the Beartooth Plateau, enhancing the rock gardening education of many in the process.

Bob is co-author of the current *Rock Gardens*, a handsome and practical volume in The Serious Gardener series published by Clarkson Potter. He also serves as a Director of the Board of the newly-formed The Daphne Society.

He is the co-creator of what is probably the most elaborate roof garden in the world, a collection of more than 80 fibreglass troughs (that he designed and had



made), planted in tufa with over 500 taxa of choice alpine and rock plants. This uniquely lovely rooftop garden overlooks the sunken skating rink plaza of Rockefeller Center, right in the heart of Manhattan.

It is with great pleasure that we announce the NARGS Award of Merit to Robert Bartolomei.

—Lawrence B. Thomas

EDGAR T. WHERRY AWARD

William A. Weber

It is with deep appreciation and respect that NARGS has chosen to present the Wherry Award to a man who has made monumental contributions to botanical knowledge and awareness locally, nationally, and internationally. Time permits only a vignette of his achievements.

Dr. Weber has had a career spanning over 50 years at the University of Colorado as a professor of biology and natural history and serving as Curator of the Herbarium until his retirement. During the early years, in addition to a full-time teaching load, he raised a herbarium to the level of a National Research Herbarium of 450,000 specimens, specializing in bryophytes, lichens, fungi, as well as vascular plants. Internationally his preeminence is recognized in the field of lichenology. He created the Lichen Exsiccata, a reference set of 700 landmark specimens of lichens. This collection was distributed in replica to 60 herbaria all over the world to be used as a standard for comparison and identification of species. Weber conducted major studies in alpine and cryptogamic floras in Australia, New Guinea, the Galapagos Islands, and the Altai of the former USSR. Weber's many travels heightened his fascination with plant geography, which is a focus of his current research.

Weber has authored 23 books, from biographies to floras, as well as eight monographs, and hundreds of scientific articles and reports. As professor emeritus his output continues, with four additional books and manuscripts in progress. The years have not dulled Weber's thirst for knowledge nor his desire to educate. His many editions and revisions of the floras of Colorado have stimulated interest in our native plants and provided guidance to professional botanists, gardeners, and interested amateurs alike. He has given us technical, yet user-friendly, comprehensive field guides of convenient size, which contain a wealth of information in addition to means for native plant identification. These floras are responsible for education a generation of amateur botanists and plantsmen who have, in turn, contributed significantly to the discovery, understanding, and nurturing of Colorado's flora.

Personally, as a beginning student of the Colorado flora, I was inspired by his accessibility, encouragement, and impressive knowledge. He claims to have seen 99.9% of Colorado's plant species in the field and, in my experience, recognizes



most of them on sight. Having comprehensive understanding of so many disciplines, he is truly a generalist, a disappearing breed in this day of specialization. During our association of the past 30 years, he has served me as a mentor, friend, and more recently colleague. When I queried him about what he thought his most significant contribution to botany to be, he replied that it was the part he played in influencing amateur and aspiring botanists to continue his journey of discovery. He also related an anecdote about Wherry, whom he had met only once. Early during Dr. Weber's reign as curator, Wherry visited the Colorado herbarium, greeting Weber with, "I am Wherry. I want to see your phlox." That was the extent of their conversation.

Dr. Weber's recognition of the contributions of amateur botanists to the understanding of our state's floristics is commendable. His knowledge and his willingness to share it is a resource to be treasured and is acclaimed by our presentation of the NARGS Wherry Award.

—Loraine Yeatts

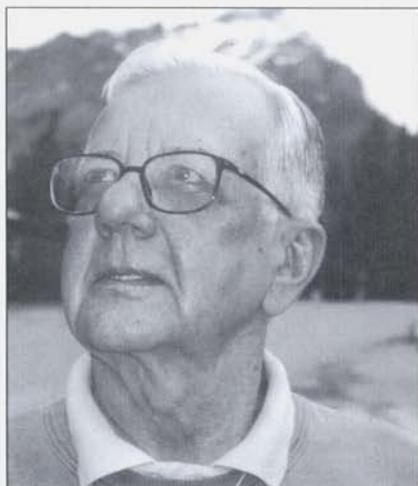
MARVIN E. BLACK AWARD

Lawrence B. Thomas

Marvin Black was a charismatic person who inspired the love of rock gardening in novices, and it is in his name that this very special award is periodically given to unique members of the North American Rock Garden Society. The recipients of the Marvin Black Award have done outstanding service to the Society for promotion of active membership, organizing meetings and trips.

It is appropriate—and long overdue—that Larry Thomas be acknowledged by the Society for personifying all the attributes of one who should receive the Marvin Black Award.

Larry is a true apostle who has congregated many converts. He single-handedly initiated and organized the Manhattan Chapter in 1987. He introduced rock gardening to the denizens of the canyons of Manhattan, New York, who now grow alpenes, like Larry, on wind-swept, sun-drenched terraces. Less than eight years after organizing the Manhattan Chapter he took on the daunting job of hosting a Winter Study Weekend in Midtown Manhattan. This Weekend was not only successful but will always be significant and memorable, being our debut on Broadway—or a few blocks from it. He has served on the Board of Directors and on many behind-the-scenes committees for NARGS and continues to do so today. Larry also volunteers his service to the Rock Garden Committee of the New York Botanical Garden. He has traveled to botanical interesting places all over the world and has organized and arranged some of these. He has written of his travel experiences for popular magazines and he has written for our own Quarterly. Of course, he also writes the Manhattan Chapter newsletter.



He is a perennial contributor to not only our seed exchange but also to European and New Zealand societies. The plants he grows from seed are shared and find homes in the most distinguished troughs. Larry, being an expert potter, has applied this skill to the service of rock gardening by devising frost-proof containers, pots, and even ceramic troughs specifically made for growing alpiners. If these are not given to fellow gardeners as gifts, he donates them to fund-raising auctions.

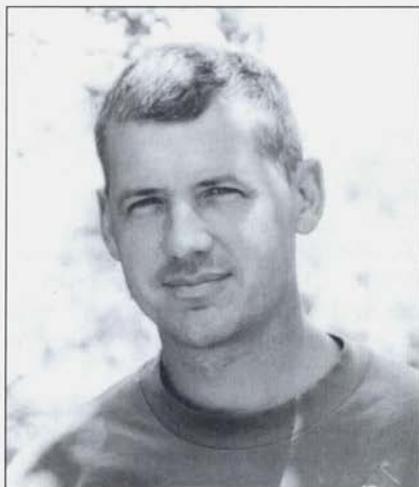
The North American Rock Garden Society reserves the Marvin Black Award for only the very few who demonstrate a love of rock gardening above and beyond commonplace enthusiasm. With this award we recognize a boy who left Amarillo, Texas, many years ago with nothing more than a tumbleweed seed in his pants cuff and a dream in his heart, and eventually conquered New York, New York for rock gardening: Larry Thomas.

—Nicholas Klise

MARCEL LEPINIEC AWARD

Tony Avent

In the eight years that Tony Avent has operated Plant Delights Nursery, he has excelled with a unique mail-order nursery offering the best new and exotic perennials to the gardening public. He has been a missionary and dynamic force in aggressively promoting horticulture to a widening market and to a public ever demanding new plants and diversity in the landscape. Tony has responded to these demands as an innovative businessman with intelligence, passion, and humor and, as a result, has become a front-runner in offering all good things green in contemporary horticulture.



As a nurseryman, plant breeder, plant explorer, and garden designer, Tony has turned a southern Wake County, North Carolina, tobacco field into Plant Delights Nursery and the Juniper Level Botanic Garden, which currently displays over 6,000 different plants—a veritable testing ground for the plants he loves, promotes, and sells. Tony has profusely and selflessly donated plants to the Piedmont Chapter of NARGS plant sales, to the JC Raulston Arboretum, and to numerous other gardening groups on his lecture tours, where he often uses his skills as an auctioneer extraordinaire to their benefit. In 1998, for example, he made 64 presentations to plant societies and organizations in the United States and Canada. Tony is generous to friends, novices or professional plantspersons alike, who stop by the nursery and gardens, frequently stuffing a plant in their hands and saying, "Let me know how it does in your garden."

The list of Tony's plant introductions (there are currently some 85) is ever growing, and his keen eye is an unchallenged testament to his genius and skill. Such gems as *Eucomis* 'Sparkling Burgundy', *Ranunculus repens* 'Buttered

Popcorn', *Yucca filamentosa* 'Gold Heart', and *Amorphophallus konjac* 'Black Stem' grace his catalog. And, who can forget his whimsically named hostas 'Bubba', 'Red Neck Heaven', 'Elvis Lives', and 'Out House Delight'. His horticultural interests extend widely from perennials and groundcovers to desert succulents, rock garden plants, and woody plants, and as he says, "all plants in between." His seed-collecting trips to Mexico, China, Korea, Texas, and the American Southeast provide new horticultural fodder for testing, selecting, and introducing desirable plants to our landscapes. His much-anticipated annual catalogs (now available on the Internet) are filled with wonderfully delightful descriptions, frequently imbued with humor as well as unbridled exuberance, such as: "This plant is dyn-a-mite," or "The mature form of this plant resembles a beanbag chair"; or "Absolutely cute beyond belief." Then there is the rare, understated description: "It grows best when planted in the morning sun."

To Tony Avent, all plants are "wonderful," "amazing," "must-haves," and "my favorite." Although Tony's roots are grounded firmly in the piedmont of North Carolina, his plantaholic enthusiasm and vision lies outside the boundaries of the Southeast. His horticultural style is unequaled, embodying a rare spirit and zeal that is in harmony with his aspirations for enriching the plant material that is available to us all.

—Bobby J. Ward

CARLETON R. WORTH AWARD

Trevor J. Cole

Trevor Cole graduated from the Royal Botanic Gardens, Kew in 1960. After several years gaining nursery experience, he emigrated to Canada in 1967. He started working at Agriculture Canada as a horticultural technician engaged in the evaluation of native plants for cultivation. He subsequently became assistant curator in charge of alpine and herbaceous plants and, in 1972, was appointed Curator of the Dominion Arboretum. He retired in 1995.

Cole was a founding member of this Ottawa Valley Rock Garden Chapter and has played a major role in its successful development over the last six years from a few individuals to a very viable society. He is always happy to share his great fund of knowledge with our membership and is a generous donor of plants for the sales. Everyone enjoys his humor as a speaker and his repartee, particularly when he takes on the role of auctioneer at our plant sales.

Cole is well-known speaker on radio, television and at garden club meetings, where he will tackle any relevant topic. He is a respected writer on rock and alpine plants, and he also writes for *The Ottawa Citizen* daily newspaper and is the main horticultural consultant for *Reader's Digest Canada*. He is Editor-in-Chief for their *Practical Guide to Gardening in Canada*, and the recently released *A-Z*.



Encyclopaedia of Garden Plants. He has written two books, the first of which, *The Ontario Gardener*, has sold 25,000 copies. His latest book, *Gardening with Trees and Shrubs* was released in 1996.

Trevor and his wife Brenda, another garden writer and graduate of The Royal Botanic Garden at Kew, are admired and respected as authorities on growing everything from the smallest rock garden plant to trees in the cold Canadian climate. They are both very active, promoting and developing horticulture as an industry and a hobby, to beginners and experts alike.

This short summary cannot really do justice to the enormous contribution that Trevor has made to promoting the plants and activities that are of particular interest to NARGS. He fully deserves recognition in general for this contribution to the Society's aims and, in particular, for his written works, which have promoted rock and alpine gardening and educated many thousands of people about the plants that fascinate us all.

—Ian E. Efford

BOOKS

A Contemplation Upon Flowers: Garden Plants in Myth and Literature, by Bobby Ward. 1999. 447 pp., 78 b/w illustrations, 6" x 9", hardcover. ISBN 0-88192-469-5. Timber Press: Portland, OR

Here is a book that is different, a book that will delight gardeners who wish to know more about the flowers they grow. It is not about their botany or cultivation but about the love and respect, or occasionally even fear, they engendered in the past, in mythology, in herbalism, and in the writings of the historians, poets, essayists, and playwrights who have described them during the last thousand years or more.

A look at the contents page with some 80 chapter headings from *Acanthus* to *Zinnia* might suggest that there is comparatively little to enthuse the rock gardener, but there are such obvious headings as *Adonis*, *Anemone* and *Pulsatilla*, *Crocus*, *Colchicum*, *Fritillary*, *Gentian*, *Hepatica*, *Phlox*, *Primrose*, *Violet*, *Pansy*, and *Viola*, as well as more general headings like *Bellflowers*, *Daisies*, *Snapdragon*, and *Speedwell* into which to delve—and who could resist *Weeds* as a subject dear to us all. This is not a reference book in which to look up specific plants in your garden but rather a book for the true lover of plants in which to browse. As Bobby Ward says in his introduction "Pick it up and read it front to back, or dart about from flower to flower."

Most of the chapters are similar in form, with a description of the genus or family, a full account of the derivation of its name, and its story in mythology, in history, and in literature. Every section contains a fascinating collection of quotations, which are sufficiently full in most cases to give a feeling of the original source. There is a very comprehensive 15-page bibliography that will enable the

reader to research further from the original sources.

I think any reader will be impressed with the staggering amount of research that has gone into this book and will appreciate some of the difficulties faced by the author in bringing together such a wealth of quotation, when one considers how nomenclature and especially the use of common names has changed over the centuries. There are many examples in the text of such problematic pearls as "Narcissus came arrayed in purple Paint, and numerous Spots of yellow stain the Flower," written in 1665. I was interested to read how invaluable to the author the Worldwide Web had been as a source of literary databases and the literature itself.

In addition to the chapters on plants the book has a fascinating chapter entitled Saints of the Spade. Like all the previous chapters this contains much that will be new to the gardener. Apart from our old friend St. Swithin, we are introduced to St. Phocas, who sadly was decapitated and buried in his beautiful garden; to St. Fiacre, who suffered at the hands of a lady gardener, and who was also patron saint of French taxi drivers, an unlikely combination; and to Santa Rosa de Santa Maria, and numerous other minor saints, all fully described for us. The book ends with two very full indices of plant names and peoples names.

—Jack Elliott

Lychnis and Silene in the Garden, by James L. Jones. 1999. NARGS: Timber Press: Portland, OR. ISBN 0-9675093-2-7, 88 pages. \$9.95, \$7.00 for NARGS members.

To write a whole book about two genera as taxonomically messy as *Lychnis* and *Silene* is a daunting task, and my guess is that the author may have spent a few sleepless nights before deciding what to write and what not to write about. Because the introductory chapters are somewhat murky on the subject of what was and wasn't included, let me say that the book describes in a rather brief manner (52 pages of text) 13 species of *Lychnis*, eight of which are illustrated, and 48 species of *Silene*, 38 of which are illustrated. Because the two genera presumably contain some 600 or perhaps even more species, the selection was, to put it mildly, quite drastic. How was it made? We are told that 121 silenes and 18 lychnises were procured simply because they were available, either as seed or as plants, and it appears that many of these plants, after being grown by the author, form the basis of the book.

Any selection invites nit-picking, but because most of the species I have liked and grown were included, I restrict myself to just one, *Silene pendula* 'Compacta'. This cute little annual should have been included for two reasons: first, it is a small, rock-garden-worthy, summer-blooming plant, and second, it is a perennial impostor in all major seed exchanges, masquerading for *S. elisabethae*, *S. hookeri*, *S. caroliniana*, and others. This problem of misidentified seed is, however, mentioned prominently in the book, and I may only add to it that the genus *Silene* is quite outstanding and possibly dominant in this regard.

Although this book was written for all gardeners, the rock-gardening background and experiences of the author make it especially interesting to NARGS members. The brief and somewhat too general description of propagation by seed or cuttings will be of interest to beginners, and the advice on placement and

care in the rock garden is generally sound and useful for most moderate-weather areas in the United States and Canada. The author is quite frank and at his best while recounting his own experience, especially with the more difficult species, and his all too sporadic suggestions for companion plants are most welcome.

The book will be appreciated by those who already have a loving acquaintance with the two plant genera and by beginning rock gardeners who aspire to grow something more challenging and unusual than *Phlox subulata*. Unfortunately, I received my review copy without illustrations, so that I cannot say whether and how useful the pictures are for identifying spurious plants, but I was assured they were of high quality.

—Alexej Borkovec

A COMPARISON OF TWO SALVIA BOOKS

A Book of Salvias —Sages for Every Garden, by Betsy Clebsch. 1999.

Timber Press: Portland, Oregon. ISBN 0-88192-369-9. 221 pp., 40 pen-and-ink drawings; 86 color photos.

The Gardener's Guide to Growing Salvias, by John Sutton. 1999. Timber Press: Portland, Oregon. ISBN 0-88192-474-1. 160 pp., 4 illus.; 58 color photos.

There are now two publications from Timber Press on sages. *A Book of Salvias—Sages for Every Garden* by Betsy Clebsch has been joined by *The Gardener's Guide to Growing Salvias* by John Sutton. Each book has been targeted to both broad and narrow audiences. As general references, both do a good job. Both are clear and comfortable in their writing styles.

Of course, there is a broad overlap of species covered, but there are sufficient differences for *Salvia* lovers to add both to their libraries. The selections of salvias described were dictated in both cases by what was available to the authors in California and Britain respectively. Both authors pay attention to the salvias grown in the western Mediterranean, especially the Sutton book.

Organization:

Both books fulfill the expectations of their authors and audiences, as inferred from their titles. Betsy's style is more narrative, and John offers a clearly written guide to using the plants. Most of their books are given to cataloging the entries, supplemented with numerous supporting chapters and appendices on related subjects.

Betsy starts her descriptions of each sage with the story of how the plant came into cultivation, when this is available, then the provenance of the plant. A verbal description of the plant and its charm follows, then its use in the landscape. This is followed with tables of prominent worldwide salvia displays, worldwide sources of salvias, a seasonal flower guide, lists of cold- and shade-tolerant sages, of salvias with showy foliage, of salvias for use in containers, and of salvias with unusual flower or foliage colors (using the Royal Horticulture

Society Colour Chart). It ends with an abbreviated list of groups of sages from prominent centers of *Salvia* distribution like Mexico, California, and Africa.

John's book starts out with chapters on the botany of salvias, another on their history, and followed by a chapter on their benefactors (collectors, botanists, and societies). A chapter on their cultivation precedes the four descriptive chapters on the salvias, followed by a chapter on propagation. Enough details are clearly presented in each of the supporting chapters to successfully guide the beginning or seasoned gardener.

Next, the author covers National Collections in England and France; various contributors including Betsy Clebsch (USA), Sue Templeton (Australia), and Geoff Genge (New Zealand) comment on their National Collections in the ensuing chapter. The tables at the ends cover a list of salvias for rock gardens, and publications, public gardens, and sources for salvias.

Coverage:

John's book lists about 280 salvias in his index, and Betsy about 250. Although the most frequently encountered plants are found in both books, there is surprisingly less overlap of coverage than first expected. In both books, a little less than half of the sages discussed are unique. John's work nicely fills in a void in Betsy's book on Old World plants, and Betsy's earlier effort is still better on New World species.

There are some terminology difference, not surprising because of the confusion in the literature. The meadow sage group of *S. nemerosa* and *S. x sylvestris* in John's work is discussed as *S. x superba* and *S. sylvestris* in Betsy's book. Some attention is given in the *Gardening Guide* to various forms of *S. splendens*, and to James Compton's *S. x jamensis* varieties. The story on the relationships between *S. greggii* and *S. microphylla* forms, including *S. x jamensis*, is still being uncovered, so the reader should expect nomenclature and classification changes yet to come.

There is still a need for more African and Asian species to be discussed, as well as a lot of new American introductions. Only a few sages are truly rock garden plants, especially *S. caespitosa* from Turkey and the Caucasus and covered only in the *Gardening Guide*. There are some other Old World species, mostly related to *S. caespitosa*, that deserve attention, but not enough is known about their cultivation to have made them worthy subjects for these books.

Most of the plants covered will be best suited for perennial beds. In that instance, both books provide information on cultivation. Betsy also suggests plant combinations to use sages in, but these settings are generally useful only for the narrower audience of Mediterranean gardeners. There is relatively little culture and landscaping information addressed in both books to the particular needs of readers who live in the humid conditions of cool New England or the subtropical southeastern United States. Americans will be frustrated that many of the new world sages available in Europe haven't made it across the Atlantic yet.

Illustrations:

The Sutton book is the better of the two, mainly because of the ten two-page plates of *Salvia* flower heads. There are seven to eight species or cultivars on these splash pages, all against a white background that allows the viewer to form a clear impression of each sage. The strongest feature of Betsy's book are the nine splendid pen-and-ink and water color images.

Both books have a many standard color photographs. There are about 43 in the Sutton book, not counting the introductory splash page images for each chapter. Betsy's book has about 86, all clustered in the center of the book. Most of the images in *A Book of Salvias* are useful, but a number suffer from the specimens getting lost in the background, frustrating the reader with inexact images. However, about half the species entries start with pen-and-ink images of flowers that will help the reader visualize the plant.

One amusing printing error needs to be brought up: whoever did the Flower Shapes layout on page 13 of the *Gardening Guide* inverted the images in sequence as well as orientation. The flower of *S. forsskaoli* (*S. forskahlei*) is really that of *S. guaranitica*, and vice versa, as well as all being upside down. The shapes of the flowers are otherwise accurate.

Both books are well illustrated and written, and will be indispensable for anyone seriously interested in Salvias. *A Book of Salvias* will be of greatest use as a reference volume, as an introduction to sages, and for devotees living in a Mediterranean climate. If you want the tools to get your hands into dirt right away, start with *The Gardener's Guide to Growing Salvias*, especially if you live in the northeastern United States. However, it won't be long before you will want to add the other volume to your library.

—Rich Dufresne

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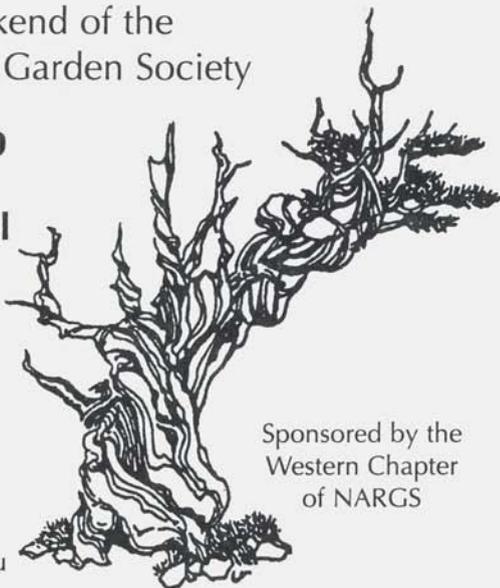
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WINTER IN THE WOODLAND

I remember when I left Detroit to move to Durham, North Carolina, I vowed never to do another northern winter. So much for that! This is my tenth really-northern winter. And what I have discovered is that I really love the winter. I am not even envious of the recent "spring" postings. And, in fact, I am hoping that we will stay in winter just a tad longer. A 20 cm snowfall yesterday makes that likely. But here, I seem alone in my enjoying this extending of winter. Dorothy, seeing all the new snow, was very distressed this morning and even more upset at hearing we will probably get another 10 cm tomorrow.

I realize that one of the reasons I like the winter is that it is a sort of period of recovery from the hardships of three seasons working outside. And these past several years have been difficult—weird weather—too much heat, too little rain. Everything has been stressed...plants, trees, critters, us. I need the winter to recover and I like to think that the woods do too. I am not quite ready for the new gardening year to begin.

One of the things that makes winters here so different from those I went through as a kid in Philadelphia and then as an adult in Detroit, is that here I live in the country. I am also lucky because most of the time I don't have to be anywhere, and I never make appointments in town for early in the morning during the winter months. Living in the country basically means clean snow—and that makes all the difference.

"They" said that this would be a hard winter—very cold and lots of snow. I was really happy. But so much for weather predictions. It has been a mild winter, not only warmer, but much less snow than usual. What it probably means for us is a terrible insect year. While we did not have another serious ice storm, we have had too many rainy days, which, coupled with the January thaw, removed some of the snow cover. Parts of the garden have been exposed for over a month.

I walk through the woods frequently, but not every day. But when I do I am almost overwhelmed by the beauty. Different times of day mean different splatterings of sun, different patters of shade. It reminds me of those little hand-held tubes that you rotate and put to your eye. I don't even know what they are called, but that is what the woods are like. Sometimes I run inside and grab the camera, but by the time I get back out, it all has changed and it is a totally different picture.

The woods are absolutely beautiful in the winter, and they reveal so much. Lots of tracks...squirrels and snowshoe hares. In the woods and the open land, the covering of snow is broken not only by the tracks but by red squirrel tunnels. There are many snow holes at the bottom of trees which are noticeable because of all the debris of cedar berries and spruce cones. Here and there are pieces of pine branches, so we look for large trees with a ring of scats at the base to locate the porcupine. This year we found several such trees but after straining our necks looking upward, we have not yet seen the porc. But it is definitely around.

Actually it seems to be a winter of more destruction than usual. It may be the snowshoe hares. We have found young branches of staghorn sumac eaten to snow level as well as a *Clethra* that we planted in the woods last fall.

Besides the patterns of light, another striking characteristic of the woods in winter is the silence. Often the only sounds I hear are of my making (the crunching of the snow underfoot, or my jacket as arm swings against body), or if the dogs are with me, theirs. If I stop and stand perfectly still, that is what there is—perfect stillness. In this world of constant noise, where people seem to wear headphones all the time, the silence is beautiful. And if there is not silence, it is usually only the sounds of the wind or of the birds. The pileated woodpecker has been active lately, the chickadees have started with their soft phoebe-like call, and the blue jays sound more like creaking gates than squawkers. This morning when I was out, just at the edge of the woods, I noticed some markings in the new snow cover—a long run of little tracks and then a disturbed circle. When I looked closely I could see the outline of wing tips around the disturbed circle...probably our sharp-shinned hawk grabbing something.

I have lived in many different climates...Philadelphia, Honolulu, Ann Arbor, and Detroit, North Carolina and here in Ontario, Canada. I hated the lack of seasons in Hawaii. Now my life is centered around seasonal change and I have become attentive to the subtle details.

We just went for a walk through the woods. We should have worn snowshoes, but we didn't, and so it was laborious. Walking and then sinking several feet. The dogs took off after the snowshoe hare. It was a wet snow and there was a big wind, so the trunks of the trees are covered in snow...one side. We look at the trees carefully as we stumble along the pathway, making mental notes of what has to be done.

This is the outside woods-work that we will do before spring actually comes. There are a lot of branches and parts of downed trees to move off the pathway as well as some "dangerous" trees to fell. Because we don't want to damage the wildflowers lurking just beneath the surface, this has to be done in a tiny window of opportunity when most of the snow has melted, but the ground is still frozen.

It is at that point, working outside in those somewhat cold and often gray days, that I will finally begin to long for spring and the beginning of growth. The marker for this time lies with the birds. It is difficult to describe the incredible such of feeling the first time we here the returning geese. Everything stops and we run out to the open trying to pinpoint the sound. Because we live so close to the river, the geese are usually not up that high. Sometimes they are flying so low that you can actually hear the beating of their wings. At that moment we know that spring has started and the round of seasons for the new year has begun. For us, it is a slow process, and the woodland flowers will not start blooming until late April, early May. But it is at that almost mystical moment, when we first hear the geese, that all the wonder and hopes return. Longing is replaced by joy, and discovery will soon follow.

—Lois Addison

This article was originally posted to Trillium-L on 2 March 1999 and was printed in the Ottawa Valley Rock Garden Society newsletter in April 1999. Editor, Jane Palin. Lois Addison gardens with Dorothy Richardson in Dunrobin, Ontario.



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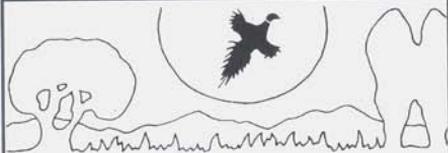
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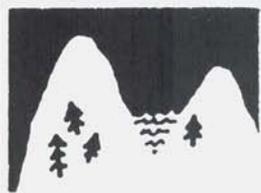
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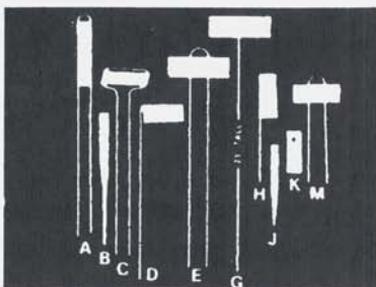


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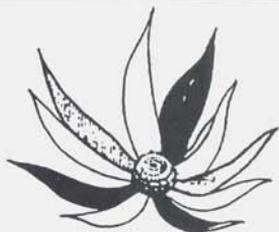
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