

BULLETIN

of the

AMERICAN

ROCK GARDEN SOCIETY

VOL. 24

October, 1966

No. 4

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IS THE ART OF BONSAI FOR AMERICANS?

GEORGE SCHENK, *Seattle, Washington*

(A talk given in Kirkland, Washington, to members of the Creative Arts League, February 11, 1966).

I suffer from blank brain in front of an audience. You'll have to forgive me for reading this ten minute talk. I'm not even sure about my qualifications for being here. I've been studying and practicing the art of bonsai for only ten years; first in Japan where I saw great bonsai and learned intensely as a child learns. For the last five years I've been a student of Kelly Nishitani's here in Seattle. I do feel positive about that. He is one of America's few bonsai masters.

Bonsai is the Japanese art of growing trees and shrubs in small pots to restrict their growth, usually to a foot or less, and of shaping them over a period of years into graceful and dramatic miniatures of ancient appearance. Quite suddenly bonsai has become an American art . . . or an American attempt.

I want to tell you why I find the art of bonsai worth practicing and why I believe you'll find it worth knowing about. As for practicing the art of bonsai—well, I don't think that's everyone's cup of ocho. I have little to say about the techniques of bonsai making. Mainly, I hope to convey the electricity of this art, its dramatic tension, its balance of earth forces and oriental grace.

Why should the art of bonsai have been brought to America? You know we've brought in Japanese culture by the boatload and by the bookful since the second world war, but nothing would seem to me less likely to have caught the American fancy than the art of bonsai. At first thought it seems so thoroughly un-American. I can think of half a dozen good reasons why bonsai-making should be as rare an activity in this country as zither strumming.

The making of a bonsai takes a great deal of time, patience, meticulous handwork, planning for effects to be achieved years hence. Making a bonsai is neither athletic nor competitive. Its rewards are private. But this privacy of bonsai, this inner adventure, is a way to calm, to journeys of meditation, to oneness of self and world. Here the art has something of religion, something of philosophy, for bonsai has figured in both. Bonsai has derived from and has contributed to Zen Buddhism. Scrolls show that the art was first practiced in Japan by Zen monks more than a thousand years ago. Bonsai achieved its typical Japanese finesse during the centuries which followed, during a flowering of Japanese literature, garden art, painting and those private arts of calm, journeying in meditation, attaining oneness with the world.

Contrast the internal spirit of this art with the spirited externalism of our



Don Normark

Fig. 1 Potting and training give full scale trees and shrubs bonsai character in this roof top garden. Left—*Abies lasiocarpa* with *Sedum album* as a ground cover. Center—*Acer circinatum* with stones, ferns, and *Galax aphylla*. Right (behind the woman)—*Rhododendron decorum* underplanted with *Campanula cephalenica*. The huge pots are of ferro-concrete darkened with carbon and surfaced with blue-gray granite aggregate.

America. How can bonsai hold a place in the land of T.V., Rock-and-Roll, supermarkets, superhighways, glass towers, go-go girls? The hold that the art of bonsai has on Americans is the fact that it is a fine antidote for bigness and confusion.

Making a bonsai is a private experience, but the meaning of the experience is universal. The art of bonsai is charged with universal themes, with the struggle to live as expressed in the muscled clench of tree trunks and branches, with the passage of time as written on whitened wood, with the transference of life into moss and lichen, with the immortality which connects these processes, with the sense of beauty which comes from discovering them.

Bonsai trees are not doll trees but miniatures. When we see universal themes reduced into the foot-high dimension of these trees, isolated in a bowl of clay, we may gather that the world is not very different for us than it is for a tree. A tree, in becoming a bonsai, becomes as any art, an image of ourselves.

Now where is this ancient and healing art going in the United States? It's certainly here, or the pursuit of it is here. There are dozens of bonsai clubs in the West and East. I was looking at the bookshelves in the University Bookstore the other day and I saw eight titles on bonsai culture. The editor of *Sunset* books has told me that their \$2 manual on bonsai sold 30,000 copies the first six months it was on the racks. Most of the bonsai literature we have in English is honest and helpful. But now comes the brass band! If you look in the backs of

quite a number of our national magazines, you'll see ads for "living ming trees," or "bonsai from seed." These ads often have a line drawing of an ancient little tree with a twisty trunk and branches going off into tendrils, more art nouveau than true bonsai. You are to infer that you can create such a tree from seed or a seedling, not by the time you are ninety-three, but perhaps this very spring, in time for your garden club. Once in a Seattle department store I saw "bonsai kits" each containing a pencil-size pine seedling, a papier-maché pot and potting mixture. These kits were selling for \$4.95 and going so briskly that there was a line of people waiting to buy them. None of this is bonsai. It's good old American salesmanship. I heard an echo of P. T. Barnum, the super carney man, in every ding of the cash register.

The only way to create a bonsai in short order is to begin your work in 1940, or 1900 or even in 1860. The trees I have brought tonight date back to then. I stepped across time by finding old and likely trees in the mountains or in a neglected nursery corner.



Don Normark

Fig. 2 Plant sculpture at left has developed from the analysis of "great themes" which underlie the bonsai "group planting" of *Abies lasiocarpa* at right. Note that the form of these two compositions is that of unequal triangles, the same balanced asymmetrical form which the Japanese sublimated into the "heaven, man, earth" principle. The triangle is the basic tree form.

A five dollar bill charged, in the name of bonsai, for a pencil-size pine sapling is evidence of a fad. The somewhat frantic pursuit of bonsai in the United States has reached and surpassed the fad for Zen we had a few years ago. This fad for bonsai will pass. By the time an art form gets to the department stores and the magazine ads the *avant-garde* who discovered it and championed it into being here will have grown bored with it, restless people that they are, and will have chucked it for something newer. I expect that, beginning now, bonsai, as a do-it-yourself pastime, will become less fashionable every year. Then what will become of the art of bonsai in the United States? Of course there will always be a dedicated few who will keep it whole; preserve it as a philosophy and a demi-religion; uphold such laws as that of heaven, man and earth being symbolized in a triangle of branches; who'll brace up to its discipline of soil mixtures, of wiring procedures, fertilizing with rare elixirs. Only through these people will the classic art of bonsai stay alive in this country. What follows after their lifetimes? Some of their best work will become vintage only after 2000 A.D. We will hope that when bonsai becomes *passé*, not as an art but as a fashion, and that if bonsai shows are discontinued after a few years, we may have several public collections about the United States such as that which the Brooklyn Botanic Garden has now; places for these people to exhibit their work and share the philosophical experience which has gone into it. It is in this sharing that bonsai will remain meaningful to Americans. Is the art of bonsai for Americans? Yes.

Now, in rhetoric at least, I have taken the abused art of bonsai out of public hands and returned it to a few priestly practitioners, who keep the trees in ivory greenhouses, open to the public from ten to four-thirty. But bonsai is too lively an art for that. Holding all these universal themes, the art of bonsai is too charged with life to be made impotent. The classic art may pass entirely to a few specialists, but impressions of the art will pass into American culture. Certainly the art of bonsai will influence painting and garden design. The vigor of bonsai is such that it may even breed new arts.

I have two pictures to show you of some work of mine which has been influenced by bonsai. The work employs the great themes which I have found in bonsai. One picture (*Fig. 1*) shows trees of bonsai character in scale to fill a roof top instead of a table top. The largest pots here are eleven feet across, the trees up to twenty feet high. The other picture (*Fig. 2*) shows a sculptural form completed with plants—a plant sculpture if you will. The powerful upright forms which suggest cliffs, or ruins, or time-blasted wood, are pitted and rusted iron welded together. The fountain-like trees branching from it are *Tsuga canadensis sargentii*.

USING ALPINES AS BONSAI

CONSTANCE RAPHAEL, *Seattle, Wash.*

Those of us who are interested in alpines are in a uniquely advantageous position when it comes to collecting plants suitable for use as bonsai. Many of our native trees growing just below the timberline have already been naturally dwarfed by their adverse environment. Those whose needles have been reduced in size and whose trunks have grown in interesting shapes make marvelous specimens.

A good bonsai brings a bit of lovely scenery indoors where it can be admired at leisure. Grandeur can be achieved in a small container with the use of one perfectly proportioned tree or shrub, and perhaps a rock or two. Many of the small alpine plants become truly exquisite planted in ornamental bonsai pots and viewed at eye level.

George Schenk has planted a miniature scree for me (technically it's a



Don Normark

Fig. 3 Mrs. Raphael's four-year old tray landscape combines these alpine shrubs and plants: Background—*Leiophyllum buxifolium*. Middleground (left to right)—*Cyathodes fraseri* (in flower), *Viola yakusimana* (in flower), three *Chamaecyparis pisifera* 'Pygmaea', *Jasminum parkeri* (with twiggy stems and three-part leaves). Foreground (left to right)—*Saxifraga* 'Kelleri', (a *Kabschia*), *Draba bryoides* var. *imbricata* (in flower), *Selaginella remotifolia* 'compacta', *Saxifraga aizoon* var. *baldensis*. Plants not shown include an inch-high dwarf of *Acorus gramineus*, *Vaccinium vitis-idaea* var. *minus*, and *Helichrysum selago*. (Caption by George Schenk).

lonkei, or tray landscape) which I bring inside to use as a centerpiece for my dining room table (Fig. 3). Here alpine plants from all over the world live happily together, and something is usually blooming—either *Jasminum parkeri*, *Viola yakusimana*, *Vaccinium vitis-idaea minus* or any of the other dozen varieties in the dish.

Whenever I go on a collecting trip I try to bring home a large rock as well as small plants and trees. These can be used to re-create a small edition of the particular mountain I have just visited.

The best plants to use as bonsai are those which have small leaves, flowers and fruits. While one can dwarf the trunk of any potted plant, the flowers and fruits remain nearly normal in size. Some plants will show a marked reduction in leaf size when treated as bonsai, some will not. *Acer glabrum douglasii* is a

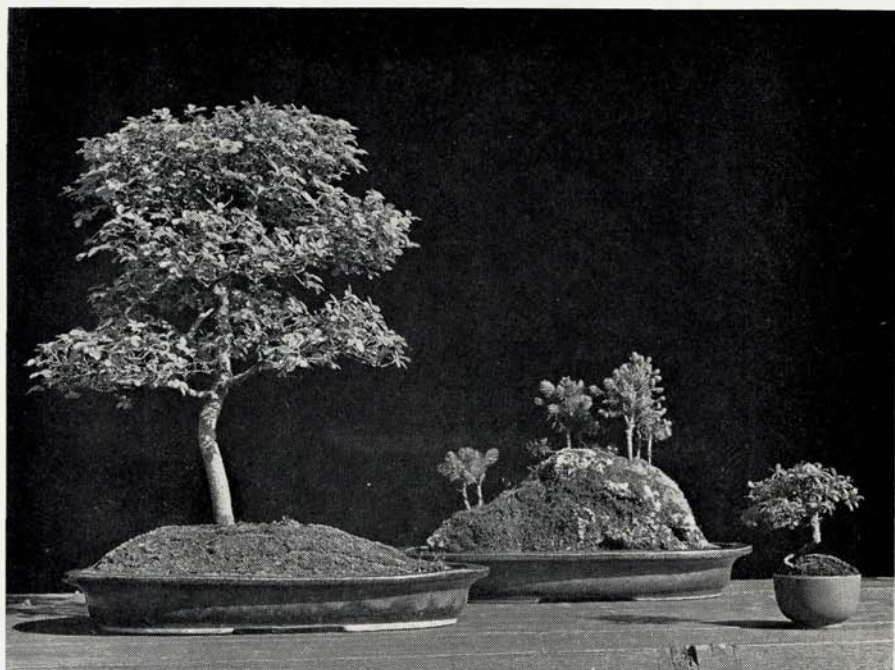
good subject; *Acer circinatum* is not. The only way to tell is to try all kinds.

Japanese bonsai containers have the best possible drainage. This makes the cultivation of plants very easy. They are always widest at the top for ease in transplanting and are certainly more beautiful than flower pots.

If you have a particularly beautiful and interesting specimen, try using it as a bonsai. Then it can be brought into your home and enjoyed at any time of the year, though of course, it must live outdoors most of the year.

Learning to pinch, prune, and wire your plant to achieve an aesthetic bonsai can be an absorbing new hobby. Best of all, the longer you have your bonsai, the more beautiful it becomes.

Here is a list of some of the alpine trees and shrubs, mainly American, which I am developing into bonsai: *Abies lasiocarpa*, *Artemisia tridentata*, *Buxus microphylla* (Fig. 4), *Carmichaelia enysii*, *Cercocarpus montanus*, *Genista villarsii*, *Haplopappus resinousus*, *Juniperus communis*, *Kalmiopsis leachiana* (Umpqua variety), *Larix occidentalis*, *Leiophyllum buxifolium*, *Pinus contorta*, *Tsuga mertensiana*, and *Vaccinium parvifolium*. I also use small-leaved, small-flowered rhododendrons of the Azalea, Lapponicum and Saluenense series.



Don Normark

Fig. 4 Left—Foot-high Chinese elm bonsai, *Ulmus parvifolia*, is twenty-five years old. Over the years its branches have been thinned, shortened, and temporarily wired. Center—*Picea glauca albertiana* 'Conica' in this "group planting" are growing on a tufa rock. Gray rock mosses hold the tree roots in channels leading down the rock surface to the soil at its base. This three-year old planting was kept moist and shaded the first summer. Right—Eight-year old *Buxus microphylla* has been pruned from beneath to heighten and expose the trunk.

Constance Raphael grows these and many other bonsai on tables outside her dining room windows. Her trees are planted in sandy soil with a little added humus, but no clay (contrary to Japanese soil mixtures). The bonsai are fertilized with mild dilutions of "Rapid-Gro", twice in the spring and once in the fall. Watering is a daily task throughout the growing season. (Caption by George Schenk).

IN SEARCH OF ALASKA'S FLOWERS

HELEN WHITE, *Wasilla, Alaska*

The state of Alaska is rich in flora as in other resources. Many of the flowers are readily accessible along the roadsides; others may be found only at rather high altitudes. The farther north one goes the lower the alpine can be found. Most plants desired by rock gardeners are alpine and these mountain flowers are seldom accessible before early July. Numerous ones, such as the gentians, are not usually found until mid or late August—just before the first snows.

Along the roads and trails many flowering plants may be found, among them *Dodecatheon macrocarpum*, *Iris setosa*, *Lupinus nootkatensis*, *Geranium erianthum*, *Rosa acicularis*, *Mertensia paniculata*, *Achillea millefolium*, *Angelica lucida*, *Antennaria isolepis*, *A. rosea*, various arnicas, *Aquilegia formosa*, *Aster sibiricus*, artemisia in variety, *Campanula rotundifolia*, *Caltha palustris*, *Astragalus alpinus* and *A. frigidus*, eriophorum, senecio, and pedicularis in variety, *Papaver radicum*, polemonium in variety, etc. A bit of hunting is necessary for such plants as *Silene acaulis*, the pyrolas, *Rhododendron lapponicum*, *Loiseleuria procumbens*, various violas, primulas, saxifragas, cypripediums, diapiensias, cassiopes, and phyllodoces.

There are thousands of species and subspecies in this far north land and the short growing season, coupled with the long hours of sunlight in summer, often produce spectacular displays. A few miles northeast of Anchorage on the Glenn Highway, there is an area known as Eklutna Flats. On this low, seaside land there are acres of *Dodecatheon macrocarpum* all in full bloom at one time, in late June as a rule. Just as they begin to fade, *Iris setosa* comes into bloom and the intermingling of rosy-purple and violet-blue is magnificent, and also most photogenic. As the years pass however, more weedy plants such as the dandelion are infiltrating and the picture is gradually being spoiled. This land all subsided a few feet as a result of the big earthquake that struck Alaska a couple of years ago and is completely inundated with salt water at each high tide. However, the plants continue to grow and bloom in spite of such adversity.

Another famous wild flower garden is at Eagle Summit, on the Steese Highway north of Fairbanks slightly more than a hundred miles. Here the alpine are real finds, although many common varieties make their homes here, too. *Eritrichium aretioides*, *Androsace chamaejasme*, *Rhododendron lapponicum*, *Dodecatheon frigidum*, and other choice plants may be found here from mid-June until early August.

McLaren Summit is a good place to locate alpine, too. However, one must plan on a little climbing to reach the better ones and it is steep and rocky climbing, but well worth it. This place is on the Denali Highway which extends into Mt. McKinley National Park, and of course, flowers are abundant in the mountain meadows of the park. In fact, the whole of the Denali Highway seems to have been meant for flower lovers.

Palmer, Alaska, which is northeast of Anchorage is the place to inquire how to get to the mountain meadows of the Talkeetna Mountains around the old Lucky Shot and Independence gold mines. These mountains are not readily accessible until after July as they are not on a main highway, but the flora is varied and abundant and jaunts into little-used side roads will reveal many surprises.

Traveling south from Anchorage, on the Seward Highway, there are more fabulous mountain meadows. This has been called "The Garden of Eden" by at least one flower lover that I know. Along this highway, as everywhere else,

one must drive slowly in order to see the flowers. Better still, pull off the road at frequent intervals and explore. The choicest specimens are not usually readily seen from the car, as everyone knows.

The foregoing has been about flowers found mostly along the highways. Now to get up to higher elevations, which in this instance means Anthracite Ridge. A tough day's hike is required to reach this ridge which lies approximately one hundred miles northeast of Anchorage, Alaska's largest population center. The only practical way to go to the ridge is by helicopter, however, as we did last July 11. Once there, the rock "hounds" of both varieties can have a field day and add to their collections many fine specimens of plants or rocks.

Last summer I was asked to help in making up a minimum party for a helicopter trip to the ridge. The Gem and Mineral Society of Anchorage sponsored the trip and had to have twenty or more people in order to get the group charter rate of \$35.00 per person for the flight. Naturally, I jumped at the chance to go since I was interested in both rocks and plants. The altitude assured an abundance of the latter. After a long and tiresome delay waiting for the helicopter, it finally arrived and we were ferried singly and in pairs to the ridge. The altimeter registered 5500 feet just before we landed. As you know, this height is the equivalent of 10,000 feet, or more, depending on the latitude, in the main body of the United States.

We landed in a tiny space with very little room to spare, on a ridge extending in two directions from the site. This was the lowest part or "saddle" of the ridge and was carpeted with alpine gems except for the unsightly scars left by previous rock hunters (rosy-banded agates, jasper, and rock crystal are plentiful here). In one direction from the landing area the ridge widened out a bit as it rose in natural steps, and extended in that direction only about 300 yards, or so. In the other direction from the landing site a "hog-back" rose somewhat more precipitously and was rather more difficult to climb. Apparently this last had not been molested by rock diggers, and the flora was plentiful here and much varied.

One side of the hogback fell away into a steep slide area which was too dangerous to traverse. The other side went straight down for hundreds of feet, with irregular edges where huge chunks of rock had broken away. This vast natural rock garden was a dream come true. There were many familiar plants but several of these were so reduced in size due to the great altitude that I did not recognize them at first. Several others I had never seen before but recognized from reading descriptions and viewing pictures of them.

One of the most interesting to me was *Saxifraga flagellaris*, the Whiplash saxifrage, with all its runners terminated by new little plants. The large, yellow blossoms were lovely. Another saxifrage, *S. oppositifolia*, put on a most spectacular display there. In many places the plants cascaded down the rocky cliffs literally like small waterfalls and painted the rocks with their rosy-purple brilliance. These were only visible from certain positions due to their habitat on the cliff faces.

Several of the specimens I collected and dried were sent to my friend, Dr. Wherry, at the University of Pennsylvania for identification. He forwarded them to Dr. Shetler at the National Herbarium, who furnished final identification for me. One of these was rather rare and was classified by Dr. Shetler thus: "? *Androsace* sp. (still being studied) **A. alaskana* Cov. & Standl." Others he identified as *Saxifraga hirculis* L.; *S. caespitosa* L. ssp. *sileneflora* (Sternb.) Hult.; *S. eschscholtzii* Sternb.; *Draba* sp. (probably *D. nivalis* Lilj.); and *Spergularis rubra* (L.) Presl. Some of these I had identified tentatively, but was not sure. For instance, the *Saxifraga eschscholtzii* was so reduced in size—maximum height one and a quarter inches—that I thought it must be something else.

The little "bobbles" on these were indeed fascinating in such miniature form.

Other saxifrages found there were *S. tricuspidata* (common all over the state), *S. bronchialis*, *S. cernua*. Alaska's state flower, *Myosotis alpestris* was most plentiful in this region, but grew only three to five inches tall, whereas, on the less alpine levels it often attains twelve inches. *Lloydia serotina* was common as were *Dryas octopetala*, *Anemone narcissiflora*, *A. parviflora*, *A. richardsonii*, *Oxytropis lapponica*, many varieties of pedicularis, several of draba, and also of antennaria. Also found were a low, white polemonium, as yet unidentified, *Cassiope tetragona*, *Cerastium alpinum*, *Erigeron aureus* (?), and several others of which I failed to obtain specimens. There were many other low shrublets such as the net-veined salix and *Salix herbacea* (?).

If you can imagine a small area, five acres at most, with many large outcroppings of barren rock and the rest a carpet of minute plants, you can easily understand how I nearly went crazy trying to get photographs in the overcast weather, collect specimens for drying, and also specimens for my rock garden on the homestead. Not being a botanist and having only four hours in which to work before the helicopter returned to take us back to the valley made it most difficult. I'm sure I missed many gems completely as well as a lot of other good things, and since we were not allowed much extra weight to carry back, only a few plants were brought out. Hindsight tells me that if I ever get such a chance again I will do better, but it was a wonderful experience that will be remembered for the rest of my days.

It is impossible to give much of a picture of Alaska's flora in such limited space. For those who find it inconvenient to come to Alaska to see for themselves, these books may prove helpful. Louise Potter's *Roadside Flowers of Alaska* is limited to flowers found along the highways and is written in a non-technical style. The full-page black and white illustrations are excellent in most cases. J. P. Anderson's *Flora of Alaska and Adjacent Parts of Canada* is rather technical and the illustrations won't help anyone but a real botanist. It is quite complete, however, and contains much valuable information. Polunin's *Circumpolar Arctic Flora* is certainly circumpolar in scope but the habitat for each plant is given so one can easily find the Alaskan ones. The line drawings are very good for identification purposes. It is a British book and quite expensive, but indispensable for me, at least. *Wild Flowers of Alaska*, by Ada White Sharples, is good in many ways but largely limited to a relatively small area of southeastern Alaska. The illustrations are black and white photographs, some of which are fine.

A VERY SPECIAL SPIDERWORT

LEONARD J. UTTAL, *Madison Heights, Va.*

Tradescantias, the Spiderworts, are striking native perennials of old-fashioned cottage gardens. If admitted to the rock garden, or even the woodland zone, let it be with utmost caution. In native rocky or prairie soil, spiderworts mind their own business, which to us means they stay put and beguile us with their odd, tropical look. Let us not deny that their bold, pennant-like leaves jutting from zigzag stems and blue to rose and white, odd, tricorn flowers comprise a striking combination of characteristics. So we succumb and transplant them (they move so easily) or buy an advertised clump. How they love the richness and security of the garden!

Some of the broad, boat-leaved types, like *T. virginiana* or *T. ohioensis* wax tall, dense and rank, and are out of place in a rock garden. Others with more grass-like leaves, which at first seem more innocent, turn out to be rapacious

spreaders, swallowing all cherished small things in their path. *T. bracteata* and *T. occidentalis* are of this nature.

There is one very different species, native to the south Atlantic coastal plain, so different from its congeners that it was formerly placed in the separate genus *Cuthbertia*. This is *T. rosea*, and it may be admitted to the rock garden enthusiastically. This choice little spiderwort goes by the common name of Roseling in its native sands, and in May it dabs vast fields with bright pink. It only grows a foot or so high and confines itself to neat clumps. The foliage, depending upon variety, is narrowly grass-like to rush-like. The abundant, bright pink, tricorn flowers are borne at the tops of the stems, which are also rush-like. They last longer in the sun than do the more ephemeral flowers of their ranker relatives, but do profit by some shade. Clumps lift out easily and while adaptable to most garden soils, really ought to be treated to something resembling the soil of their home, which is fine, hygroscopic sand enriched by fine acid humus.

Although a monocot, *T. rosea* has something of the personality as well as color of a choice dianthus or armeria. With its odd, three-parted flowers, and its general unfamiliarity in most gardens, should you obtain it you will have something that is likely to arouse inquiries. It is believed to be hardy perhaps to Boston.

There are many fine plants which remain inexplicably out of the trade. Perhaps this is due to the fact that the south Atlantic coastal plain has not been thought of as a likely source of rock garden plants. The only way I know to obtain the Roseling is to dig it yourself, should you be in the area. It is very tenacious of life as are so many grass-like plants, so it will stand quite a journey. I have yet to obtain seeds. Perhaps there is a very short period in which ripe ones are available.

DWARF CONIFERS FOR THE ROCK GARDEN

ELIZABETH CAPERCI, *Seattle, Wash.*

In a recent American Rock Garden Society *Bulletin*, a member expressed the thought that an article on dwarf conifers and shrubs would be welcome. Although my husband and I are not experts in the field, we have been growing and propagating quite a few dwarf evergreens through the years. This seems a good opportunity to tell about them.

There are so many different varieties that it is difficult to know where to begin. Perhaps it is natural that the first one that comes to mind is a personal favorite, *Chamaecyparis obtusa* 'Nana Gracilis'. It is aptly named, as its rich green foliage is most graceful with its swirly, fan-like habit of growth. It is small-growing; a fifteen year old plant rarely being a foot high, with more spread than height. As with most dwarf shrubs, it should be grown in mostly full sun, to retain its tight habit. Too loose a habit in this type of plant, which is the result of too much shade, causes it to lose a great deal of its charm.

Of the many kinds of dwarf spruces, perhaps one of the most common is *Picea glauca* 'Conica', otherwise known as Alberta spruce or Albertina. This spruce grows in a compact cone, and it has a nice, bright green color. Small plants of it look like darling little Christmas trees. In fact, I have put many of them in pots and decorated them with tiny bulbs, and used them for table centerpieces, or given them as gifts.

The flat, spreading dwarf spruces are especially ideal for rock gardens or corners of a small planting. *Picea abies* 'Procumbens' is one that grows just a few inches high. *P. a.* 'Pumila' and *P. a.* 'Repens' among others, grow from one to two feet high, while some, like *P. a.* 'Capitata' and *P. a.* 'Maxwellii,' even-

tually reach four feet. However, all of these are spreading plants, and seldom grow more than an inch or two a year. They have to be several years old from cuttings before they begin to show their natural shape. The needles of the spruces are fairly stiff, and they have such a tight habit of growth that the old needles have to drop inside the plant when they shed. It is a good idea to wash out the old needles every year with a strong spray from the water hose. This eliminates the "nests" of old needles that might otherwise be a breeding place for red spider. This is the only care the spruce needs. They never need pruning. After a plant is established, an occasional watering is all that is necessary. They are an excellent addition to any garden, their rich green coloring giving a good background for flowering plants. In the spring, their new growth is a lighter shade than the rest of the plant, giving the impression of fluffy flowers of their own at the tip of each branchlet.

No garden is complete without pines. But everyone knows pines, and I think, everyone likes them, so I will not go into them. It is enough to mention that my favorite for the rock garden is *Pinus mugo* 'Pumilio'. It forms such an interesting pattern. Incidentally, they are wonderful material for bonsai, if anyone is interested.

When thoughts of trying to write this article first presented themselves, I didn't realize that we had so many varieties. To attempt to write a little about each one would take a book! So I will mention a few more particularly suited to the rock garden, and save some space to discuss propagation.

A favorite rare little fir is *Abies balsamea* 'Hudsonia'. In the rockery, a twenty-year-old plant is ten inches high and fifteen inches wide. A *chamaecyparis* with a golden tinge that is smaller than its name is *Chamaecyparis pisifera* 'Squarrosa Pygmaea Aurea'. It grows in a tight little bun. *Tsuga canadensis* 'Nana' is another one. Its soft foliage gives it an almost feathery look. To inject a personal note, we have been for a long time trying to locate *Tsuga canadensis* 'Pygmaea', an even smaller variety of the former. We have accumulated a couple by that name, but they turned out to be 'Nana'. Anyone know of any source? If you are a collector, you know that no matter how many dwarf conifers you might have, there are always more that you want.

Tsuga canadensis 'Pendula', more commonly known as Sargent's Weeping Hemlock, is a choice selection for anyone's rock garden. Although we usually grow this one from cuttings, my husband has one that he grew from seed. This weeping hemlock has to be at least fourteen years old before it will have cones. Our seedling is about eighteen years old now, and is more golden in color than the parent plant. The foliage is much more tiny, and the plant is less than one half the size of a cutting grown at the same time. Oh, the fascination and satisfaction derived from coming up with a new variety!

Last, but definitely not least, I would like to mention the tiny collectors' items known as the Golf Ball and Tennis Ball cypresses. *Chamaecyparis obtusa* 'Caespitosa' and *C. o.* 'Juniperoides' grow just like their common names imply, like golf and tennis balls; very tiny, very tight, very round. Three year old plants grown from cuttings are the size of a quarter. These little green balls are perfectly hardy, the only trouble with them is in trying to find them in the weeds, which have a nasty habit of growing larger than the plants.

Dwarf conifers are very satisfactory plants in the rock garden. They require a minimal amount of care, no special soil, and can withstand almost any condition.

Propagation is not difficult with these plants, either. We are rather lazy gardeners and like to enjoy our garden as much as possible, so we try to minimize the work by doing everything the easiest way we can find, and still get results. Pines are grown from seed, but the majority of the dwarf conifers are

grown from cuttings. We will be taking our evergreen, or "winter" cuttings as soon as the weather allows. Perhaps it was thinking about what cuttings to take, and the fact that our stock is slightly blanketed with snow at this, the beginning of the new year, that inspired the attempt to write an article on the subject.

Because dwarf conifers are all slow-growing, the cuttings are necessarily quite short or small. Tip cuttings are not our choice as we prefer cuttings from the side or underneath of the last year's growth. They are taken with a heel, which is trimmed and rounded. The lower half of the foliage, or needles, is trimmed off with sharp scissors, or a knife. The cuttings are then dampened, dipped in a rooting medium, and put in flats which contain coarse washed sand mixed with a small amount of peat. If there is room on the rhododendron cutting bench, which contains a rooting cable, the flats are placed on top of that. As this seldom happens, they usually are just left on a bench in our unheated greenhouse to fend for themselves. They are watered occasionally if they seem to need it. When rooted, they are moved from the flats into a bench which has a mixture of a little more peat than sand. There they stay for another year, then they are moved out into the open garden in the full sun, wind, rain, or what have you.

We have surprisingly good luck with our dwarf conifers. May you have the same!

INTERCHANGE

BOOKS ON AMERICAN ALPINES WANTED—If you would care to exchange a book, or books, on American alpine and their culture for "new picture books on our (Czechoslovakian) mountains and our mountain plants," please write to Mrs. Olga Duchacova whose address is Mnichovice U Prahy, cp. 356, Czechoslovakia. She writes that so far she has no books on American plants and that if she ever took a trip abroad she would gladly live on bread and water so that she could spend her money on books and plants.

LAST WORD ON THE *SEDUM CAUTICOLA* QUESTION—Many members have written to explain why *Sedum cauticola* is correct even though Mr. Praeger named it *S. caucolicum*. The simplest explanation was given by Dr. Edgar T. Wherry. He wrote, "The grammatic point is that the Latin term for growing upon, *cola*, is not subject to declension, and so cannot correctly be made to end in *um*."

PHLOX TRIOVULATA LOCATIONS—In the July *Bulletin*, Dr. Wherry's discussion of *Phlox triovulata* revealed the geographical areas where this choice phlox could be found. The editor purposely did not pinpoint possible collecting areas. However, Dr. Wherry, in commenting on the Interchange item has since written, "It was O.K. in the interest of conservation to omit details of *Phlox triovulata* localities; but I would have liked to have a note inserted to the effect that 'Dr. Wherry will furnish detailed directions as to localities to anyone who will agree not to vandalize the colonies.'" If you are interested, write to him at the University of Pennsylvania, Philadelphia, Pa. 19104.

GENTIANA PORPHYRIO—This gentian, more properly called *G. autumnale*, is a native of the New Jersey pine barrens, where, according to Mr. Richard Langfelder, of Chappaqua, N. Y., it is apt to disappear. He wrote that on a trip to the barrens last year he collected about a dozen broken roots of this plant which he took home and treated as root cuttings. He said that he now has several potted plants of this gentian and that he thinks this is the way to propagate it as seeds are scarce and do not germinate well. In nature the plant is often overlooked when out of flower as the foliage has a grass-like appearance.

CYPRIPEDIUM CALCEOLUS IN CZECHOSLOVAKIADR. VLADIMIR CHALOUPECKY, *Prague, Czechoslovakia**Cypripedium calceolus* in the rock garden

Dr. Vladimir Chaloupecky

The yellow Lady's Slipper, *Cypripedium calceolus*, is the most showy orchid in Czechoslovak nature. You certainly know it, with its stalks of twelve to eighteen inches high, each with three to five broad, slightly pubescent, bright green leaves with curved veins, and carrying one or two flowers, according to variety. The flower has a lemon-yellow lip and the other petals are mahogany brown; the side ones, slightly pendant, are nicely torted. The shape of the flower is revealed in the accompanying pictures.

C. calceolus grows in the warmer areas of southern and central Bohemia, and in several places in Moravia and Slovakia. When we compare all localities, we can see that they grow between 1600 and 2300 feet above sea level. However, these orchids can be found at higher altitudes in the Mala Fatra Mountains and the Belansky Tatras. The soil always contains calcium, the climate is rather warm—the temperature for an average year is plus 7 to minus 9 degrees C. In colder places it grows only in special micro-climates. This orchid blooms in the second half of May and early June. As with all of our orchids, *C. calceolus* is protected by law from collection and destruction.

Cypripedium calceolus likes to grow in semi-shaded places among shrubs, or very often, in beech forests; never in thick mats of grass or other plants. The



Cypridium calceolus L.

Dr. Vladimír Chaloupecký

soil must be porous, rather stony, so that the water drains quickly and does not stay around the rhizomes of the orchid; this would be fatal.

In the same places we can find for example, *Lilium martagon* L. (which is more hardy), *Dictamnus albus* L., *Scorzonera purpurea* L., *Lathyrus pannonicus* Garcke, *Bupleurum longifolium* L., *Orchis purpurea* Huds., and *Ophrys muscifera* Huds., choosing only a few of the many plants growing in the localities of the cypripedium.

The best plants of *C. calceolus* I have seen were in the Mala Fatra Mountains, where in the thin beech forest on the south-facing steep of dolomite gravel, under rocks, grew large clumps with from fifteen to twenty flower stalks. This made a charming picture, indeed, when spots of sunlight wandered over the rusty carpet of old, dry leaves, the few clumps of bright green grass, and the sweet-smelling orchid queen of this silent kingdom among gray beech trunks. Here the gravel is now filled with decayed and decaying beech leaves; drainage is perfect; this is important as in summer there are often rains. Winter is dry and the snow cover heavy. The cypripedium is protected against rather severe frosts by fallen leaves and the snow cover. The locality of which I write is about 3,000 feet in elevation.

From all given data we can deduce how to plant this orchid in our garden; in semi-shade; in a mixture of $\frac{1}{2}$ old beech leaf mold, $\frac{1}{4}$ good garden soil, and $\frac{1}{4}$ limestone gravel. In summer we should apply enough water to keep the medium fresh and cool, and in winter, as a protection against rains, five inches of dry leaves covered with a plastic sheet or similar cover is quite sufficient.

It seems that such conditions are the best for the garden culture of this lovely orchid, and by copying them roughly we can grow this plant without difficulty.

MY ROCK GARDEN IN FALL AND WINTER

MADALENE MODIC, *Sewickley, Pa.*

There is still a little mulching to be done in November. The sun has already lost much of its warmth. I, too, have lost my zest for working. I know that in a few days the winter winds will be sweeping down the valley. I will then be content to walk through the garden and look at the plants settled in the leaves, or in the snow.

As I tucked the leaves under and around the plants I noticed the change in color. The first frosts really bring the change, first to the sedums and the tips of the sempervivums. The little narrow leaves of *Sedum middendorffianum* turn scarlet as they sway in the breeze. *Sedum aizoon* colors red close to the soil and the tip ends seem to be outlined in red. The outer leaves of *S. nevii* are a deep copper tone. I bought *S. ternatum* for its bright amber color. I did not think it could be the same plant that grows in our woods, but one day on a walk in these woods I noticed it on a slope that was then in full sun since the leaves of the trees had fallen. This sedum is not as amber colored as the one I bought, but was nicely touched with pink, red, and a faded yellow among the green leaves. These were all mulched with grit.

The wild buckwheat plant that was such a nice green all summer, with pink flowers, is now a deep amber which will turn to a rich brown as the leaves dry out. These leaves will remain all winter.

The geranium leaves are now a maple red. That is our native one, *G. maculatum* and the one I raised from seed labeled *G. prostratum*. *Euonymus kewensis* has turned a mahogany red as it drapes down over the rocks. The lower leaves of those columbines labeled "Rocky Mountain" are purple. Golden thyme is a dull, dark green all summer, but the first frost brings forth the golden tips, and

as the weather grows cold, the green seems to fade away leaving the golden hue.

Ceanothus prostratus has grown well this summer. This will be the third winter and I am hoping for some bloom in the spring. This is a wild lilac from the Northwest. It stays green all winter. I mulch it with pine needles as it is protected by a kalmia hovering above it. The little mountain andromeda that I brought back from Virginia is close by. It formed buds early in the fall, as if to hurry me along, for it was getting ready for spring.

The buns of *Dianthus* 'Tiny Rubies', 'Petite', and 'La Bourbrille', and the mats of *D. plumarius*, and *D. arenarius*, and the sheared aethionemas lend a beautiful blue-green contrast to the dark green of *Penstemon menziesii*. *P. hirsutus* var. *pygmaeus* and *P.* 'Tiny Tim' lie close to the soil with their leaves turned to one side showing their garnet satin lining.

Erica darleyensis got so mixed up in our weather that it is blooming now. It had been so dry and then late in September we had such warm rains that *Daphne cneorum* is blooming, as are some of the other shrubs.

It is nice to walk around my rock garden just after a light snowfall has covered all the leaves. Only the rocks and the very tips of the plants dot the garden in a pattern so different from summer and fall. The little conifers, rhododendrons, and heathers really show off in the snow. If it is only a light snow, the gray, woolly leaves of *Veronica pectinata rosea* lie like a scarf with little snowflakes nestling among them. *Ilex crenata* var. *helleri* is at least fifteen inches high and twenty-four in diameter, and not far away is *I. c. nummularia*, much smaller. The tiny, dark green leaves and compact forms are always a delight.

There are many plants with buds already formed with so much beauty to release in the spring. There is *Rhododendron racemosum* promising pink flowers next April, *R.* 'Ramapo' and *R. intricatum*. *R. obtusum* f. *japonicum* is surely the queen of the rock garden when in full bloom.

Even the twiggy growth of the cotoneasters add a certain charm without their leaves. The winter snow will find many new plants in my rock garden. And the garden will be free of weeds, or nearly so, and a joy to behold.

PLANT JOURNEY — 1931

BERNARD HARKNESS, Rochester, N. Y.

Early in life I decided that I wanted to work with plants, and there have been few setbacks and much help along the way to achieving this ambition. Immediately after graduation from high school, I began an apprenticeship training in the Cornell University greenhouses for a year before enrolling in the College of Agriculture course in floriculture and ornamental horticulture. In 1927, the summer after my sophomore year, I asked Mr. W. A. Toole if he could use some help at the Garry-Nee-Dale nursery in Baraboo, Wisconsin. In fact, I wrote to three native plant nurseries but Mr. Toole was the only one to offer employment "sight unseen."

Immediately on arrival a cycle of work began that engaged my lasting interest in growing native plants. Early in July, I went with a work crew to camp some miles to the north in an adjoining county to carry out from a swamp enough sphagnum moss to last for a year of packing plants for mailing. Soon the nursery held its traditional Flower Day Show where I had the chance to prepare a display of native plants in bloom. Mr. and Mrs. Toole would spend one day every week or ten days on a plant-hunting trip, taking me along. Among the available areas were the interesting "driftless" section in central Wisconsin, the unglaciated area where the ice flows split apart to leave an untouched island where many special plants now grow; the Wisconsin River basin with rich soils where cardinal flowers appear in abundance; sandy bluffs

covered with low junipers and pasqueflowers, and open prairie areas where the western plants begin to appear, as penstemons and liatris. (See *The Vegetation of Wisconsin* by John T. Curtis. Univ. of Wis. Press. 1959). When my family drove out to pick me up to return to New York state, the greatest treat I had for them was to show them the sandy plains and sphagnum swamps of Adams County to the north—the unglaciated area.

About that time Mr. Herbert Durand of Bronxville, New York, published his book, *Taming the Wildings*. I began some correspondence with him which led to an invitation to visit him the next Easter vacation. At that time my enthusiasm, rather than my knowledge, I am sure, prompted him to put me in charge of a new rock garden project on which he was advising Mr. Anton G. Hodenpyl at Locust Valley, Long Island, while both he and Mrs. Hodenpyl went off to Europe for the summer. Here I returned the summer after graduation from Cornell and remained until the fall of 1930, becoming acquainted with one of the finest collections of plants, both woody and herbaceous, I have ever known. There was always something new to discover. Here I came to know Hart's-tongue fern, *Sarracenia flava*, *Shortia*, *Pyxidantha*. This garden had just been re-done and some amazement was expressed about the number and size of the rocks which were found to be hidden in the construction.

All this ancient history is to explain, when a summer vacation came in 1931 with no gainful occupation presenting itself in this depression year that I was spending in the graduate school of landscape architecture at Harvard, how the idea came to me to visit the native plant nurserymen across the country. I found that by including stops at a few national parks I could have two companions of the road to share the expenses of the trip. I furnished the vehicle, a 1929 Whippet roadster, my first car—of fond memory. The *Florist's Exchange* agreed to use my write-ups of the nurseries I visited along the way; I happened to have a friend on the staff in the person of E. L. D. "Ned" Seymour. It is of interest that in a letter of instructions from the publisher, Mr. A. T. de la Mare, he noted that the paper would be interested in "uncommon hardy plants for the rock garden—that is—plants that are highly suitable for that purpose but are not yet catalogued to any extent."

The expedition got under way and started south through Pennsylvania. In the July 11, 1931 issue of the *Florist's Exchange* the series began with "An Interesting Rhododendron Nursery." This was not the first discovery of Joseph Gable and his rhododendrons; I was merely one of a long line of admiring visitors, a line that had continued for decades. It is typical of Mr. Gable that he took the trouble to take me out to see native stands of the Atlantic azalea, then not too well known. We then collaborated on a note about them for the English *New Flora and Silva*. I was able to report that in his garden were such rhododendron species as *R. racemosum*, *R. lapponicum*, *R. smirnovii*, and *R. tschonoskii*—very good rhododendron fare for the time.

Copy trickled back more slowly the farther along we traveled and I didn't know whether any was used or not until returning home. But on August first my report on the nursery of E. C. Robbins, "Gardens of the Blue Ridge," Ashford, North Carolina, appeared in print. I had not been able to resist describing the beautiful drive through many miles of woodlands with mountain laurel and flame azaleas in bloom along the way. The whole Appalachian flora was concentrated in his nursery beds; *Galax* and *Shortia*, *Potentilla tridentata*, *Aconitum uncinatum*, *Heuchera americana* and *H. villosa*, *Houstonia*, *Birdsfoot violets*, *Sedum ternatum*.

On Sept. 12 the title was "Two Southern Plantsmen and Their Stock." The two were Ralph W. Shreve, Farmington, Arkansas, and W. A. Bridwell, Forest-

burg, Texas. It is unfortunate that Mr. Shreve's stock and his interest in the Ozark plants, both woody and herbaceous, came at a low ebb in patronage of nurseries; I expect we would better reward such knowledge today. I rather doubt that my words of praise for *Allium stellatum*, *Cooperia drummondii*, *Iris cristata* forms, *Liatris* spp., and *Talinum calycinum* helped matters very much.

It is a question whether Mr. Bridwell was much concerned about my efforts in his behalf. After wandering around a bit in the limestone hills of Montague County, Texas, south of the Arbuckle Mountains of Oklahoma, we finally came to a break in the wire fence and went down a trail to the little cabin where we found Mr. Bridwell living alone except for a few cactus plants. It is always inspiring to see self-sufficiency of this sort. It was from this locale that Mr. Bridwell issued his little lists making available his collected bulbs and roots of such things as *Allium drummondii*, *Astragalus* spp., *Androstaphium caeruleum*, *Manfreda* (or *Agave*) *virginica*, and *Tradescantia* spp. Of *Eustoma russellianum* he wrote that he thought it to be the showiest gentian in existence, but he was frank in admitting that it rarely lived beyond the first season away from its native habitat of seepy, lime-impregnated clay. I believe the Bridwell family is deserving of more study for Mr. Bridwell referred the plant hunter to D. V. Bridwell, Winkelman, Arizona, for wild flowers of the extreme southwest, and to L. H. Bridwell, Tyro, Arkansas, for wild flowers of the lower Mississippi basin. Would we had such a network today!

From Texas there was a long jump to Ukiah, California. Carl Purdy's nursery and gardens were as he had written in his catalogue, "nine miles from Ukiah, part of the distance over a steep mountain grade, but a road that will give no concern to anyone used to mountain roads." I shall always be grateful to the Whippet that it made the grade. Later, I heard Carl Purdy lecture on his beloved plants, and I am sure that you will envy my recollections of this fine old gentleman showing me about his mountain acres and telling of his experiences in collecting the wonderful variety of native plants that he grew in surroundings of exceptional beauty. He explained his methods of growing the California bulbs from seed in the deep soil pockets of the valleys on his mountain site. At that time Mr. Purdy's list included fourteen alliums, nineteen lewisias, thirty-two calochortus and seventeen erythroniums, as well as a notable collection in such varied genera as *Helleborus*, *Sedum*, *Hemerocallis* along with the best of the northern California native plants.

At Locust Valley, one of the much appreciated sources of well-grown alpine plants, was Rockmarge Alpine Gardens, Medina, Washington. So a travel-worn trio called on Mrs. Edith Banghart. In the November 7 *Florist's Exchange* I hopefully noted that her wholesale list included excellent androsaces, dwarf aquilegias, helianthemums, and genistas. A retracing of this journey of thirty-five years ago would find few traces, even of some of the nurseries and their owners. Fortunately, however, Mrs. Banghart, as you will recall in the 1966 ARGS Seed Exchange list, was still sharing her enthusiasm for rock plants.

There were other nurseries along the return route eastward. Mrs. Clarice Nye of Prospect, Oregon, had a dooryard nursery, extending her hobby of wild flowers to others for their pleasure. She had color forms of native dicentras, and a great many alliums and brodiaeas. In Salt Lake City, Utah, Ben Johnson and Mrs. Johnson took me on an all day trip into the Uintas, an area that seems to be rather seldom collected in now. Although handicapped by a heart condition, Ben Johnson, a lawyer, was for years active in exchanging plants from Utah.

This account of an old journey seems to indicate that we may have lost

some ground in opportunities to grow our own American plants. The brightest spot in the picture today is, I think, the generosity of the contributors to our Seed Exchange in sharing the seeds from their plant-hunting trips. We need to encourage them and to hope for even more extensive coverage of our vast untapped reservoir of interesting and ornamental wild plants.

There are continuously coming from the presses inspiring helpful aids in the form of regional floras. I would like to mention a few out of many such. Strausbaugh and Core's *Flora of West Virginia* is now completed in four paper-bound volumes. Herein botanical identification is facilitated by good scale drawings. A most helpful aid that such publications give one is that of planning beforehand trips to see the best localities for plants when one's time is limited.

Stayermark's *Flora of Missouri* is an exceptional work in this field. Areas can be seen at a glance as each species is located by county on a small-scale map; each plant is well drawn for identification; collecting areas are given full ecological description. Practically all of the desirable species Steyermark transplanted to his own wild flower preserve in northern Illinois; his results make a valuable record, for example, as to which species of puccoon transplant easily. The following is the type of information that one finds throughout the book in addition to the botanical data; *Tradescantia longipes*—"Sometimes known as wild crocus in the St. Francois hills section of the Ozarks, the flowers of this species appear to arise just above the ground level and are usually deep purple, violet, or deep rose, occasionally pink or bluish. It is a desirable type of plant for the rock garden, but requires an acid soil free of lime rock. The flowers have a pleasant fragrance, resembling that of lily-of-the-valley." A photograph of *Tradescantia longipes* appears in the select gallery of almost unobtainable treasures in Sampson Clay's *The Present Day Rock Garden*.

In her list of plants of Kentucky, Dr. E. Lucy Braun recommends to us a St. Johnswort, *Hypericum dolabriforme*, as an abundant and showy plant (it is a small-leaved plant about a foot high with flowers an inch across) almost limited in distribution to the limestone area of central southern Kentucky. How many more plants of potential value to our gardens need a trial, at least?

Having been in a position to know the keen response to all the fine seed collections made from what our hills and ravines offer, I give you that slightly tarnished slogan, "Carry On!"

ENDEMIC PLANTS OF CZECHOSLOVAKIA

I. *DAPHNE ARBUSCULA* CELAKOVSKY

Ing. FRANTISEK PROCHAZKA AND FRANTISEK KOTEK
Pardubice, Czechoslovakia

With this article we should like to start a series of articles on endemic plants appearing in Czechoslovakia. Many of them have great decorative value and are also easy in cultivation so that they may be successfully grown in our gardens or rock gardens. Besides their charm there is also that special feeling of certain originality regarding their limited localities in nature.

At the southern foot of the most western part of the main Carpathian Range which penetrates into Slovakia, the eastern part of our republic, there is a small Karst mountain range of lime and dolomite, called the Muran Mountains. Their steep rock walls, some of them more than 1400 m high, make deep valleys through which run often wild streams.

When, more than a hundred years ago in 1853, the Slovak botanist, G. Reuss, visited those beautiful romantic mountains and found there the dwarf shrublets with lilac-pink flowers, he didn't anticipate at all that he had found

a new undescribed species, even one of our most remarkable ones. He believed it to be a variety of *Daphne cneorum* L. The botanist, A. Richter, who collected there two years later was of the same opinion. Richter's collections from the year 1855 came into the hands of the Hungarian botanist, V. Borbas, who specified the shrublet also as *D. cneorum* L. var. *abietina* BORB. But F. L. Celakovsky, an outstanding Czech botanist of that time, found immediately that it was a new species of a definitely formed character and described it also in detail.

Daphne arbuscula CELAK., is a dwarf, 10-30 cm shrublet, the stem of which is rather trailing and fork-branched. The young twigs are red and glossy and at their ends are produced rosettes of evergreen, leathery, shiny leaves which are oblong-linear, blunt-pointed, incurved and have a distinct middle groove on the outside. The flowers are carried in terminal clusters of 3-8, lilac-pink in colour and are very conspicuous, neat and scented. The buds are either glabrous, *D. a.* forma *glabrata* CELAK., or covered densely with hairs, *D. a.* forma *hirsuta* CELAK.

Daphne arbuscula flowers in May and June and appears only on steep limestone or dolomite rocks near the upper end of the Muran Mountains at the altitude of 900-1300 m. The whole locality of this plant takes only an area of a few square km. It grows in no other place in the world. In the horticultural literature you may read that it grows in Hungary but that is a mistake having its source in the former political incorporation of our country into the Austro-Hungarian Empire before 1918.

Daphne arbuscula seems to be a very old species in its development. It is not closely related to the two other *Daphnes* growing in our country, *D. cneorum* L. and *D. mezereum* L. Its nearest relative is *D. petraea* LEYBOLD, an endemic plant of the Tridentine Alps and it is somewhat akin to *D. striata* TRATT., growing also in the Alps.

In nature, *Daphne arbuscula* appears together with *Sesleria calcaria*, *Bellidiastrum michellii*, *Primula auricula* L., *Pulsatilla slavica* REUSS, *Clematis alpina* (L.) MILL. and *Saxifraga aizoon* JACQ., which all are nice plants for the rock garden and can be grown quite successfully. Such a setting in a rock garden would well fill not only natural but aesthetic requirements.

In the wild this plant must be strictly protected for its extraordinary rarity but, on the other side, it can be freely grown in our rock gardens because in parks and nurseries there are sufficient plants from which it can easily be propagated. When it sets seeds it is necessary to extract them from the berries in July and dry them on an iron or glass pane. Then they can be sown in peaty soil with coal dust. In spring when the seedlings begin to grow well they can be potted and in summer can be planted in the open. But it is necessary to nip them out in the first year and winter them in a cold frame. Easier, of course, is propagating them from cuttings, with or without a heel, taken in June or July and inserted in sandy peat in a shady frame. Pot them in a leafy soil and grow on in a frame and in May nip them out and insert in a peat bed. The nipping-out insures a good growth and prevents an eventual flowering that might weaken the young plants. Plant in the open after 16-24 months from time cuttings were taken. They can be treated with rooting compound. Even though this species grows in the wild only on carboniferous formations it is good to propagate it in a peat mixture.

This small shrublet, rivaled only by *Daphne petraea*, is surely the most charming *Daphne* suitable for our rock gardens. It can well compete with difficult *D. alpina* and *D. striata* just as with easy-going but not so charming *D. cneorum* and creamy-flowered *D. blagayana* from southern Europe. With the exception of the dwarfiest rhododendrons, it is surely the most beautiful small

shrub for a rock garden, being prominent in a dwarf slow growth, decorative leaves, beautiful flowers and in an intensive wonderful scent. The plant is worth every trouble and besides its excellent qualities the pleasure of the grower may be heightened by his awareness of the immense rarity of this plant in nature.

OBSERVATIONS

ELIZABETH PETERSON, *Seattle, Washington*

GROUND COVERS are plants too often taken for granted. I quote from John Daley's book on ground covers: "This low, spreading evergreen, which somewhat resembles boxwood in its foliage and texture, though it has been used as a ground cover for more than fifty years, is not widely known." This reference is to *Pachistima*! There are two: *Pachistima canbyi* and its taller western cousin, *P. myrsinites*. They have a golden green in their leaves which provides a superb foil for shrubby penstemons, and they are easily propagated by cuttings. Try some penstemons and pachistimas together and see what you think!

WARNING! Some new rock gardeners may want to use ground covers until the plants in their gardens have spread sufficiently, and their use is frequently to be recommended; witness George Schenk's beautiful garden which manages to be a combination of meadow, rock garden and alpine lawn in riotous array. However, there is one cover best omitted; the beautiful white or blue *Vinca minor*, unless it is *V. m.* 'Bowles Variety' which is reported not to be stoloniferous. One can come from the garden exhausted and bloody after having tried to remove the murderous shoots of "periwinkle." Better a short fight with *Thymus serpyllum*. If you have a bank you know no one is ever going to want changed, a beautiful carpet of *V. minor* with bulbs rising through it is the answer.

COMBINATIONS! Gay as an Hawaiian shirt is the combination of vivid orange *Eschscholtzia californica*, the orange-centered, lavender *Aster farreri*, and the warmer purple *Iris sibirica* blooming together. A paler orange drift is accomplished with the California poppies abutting *Papaver atlanticum rupifragum*. They also provide a happy incident when joined by nodding, Copenhagen blue *Linum perenne*. *Meconopsis cambrica*, with its lemon yellow poppies, might also join the group.

At present, on a torrid July day, there is on the sunny slope a cool, refreshing combination. There is a clump of almost mustard yellow *Haplopappus coronopifolius* backed by a joyous bell-chorus of rich purple *Campanula carpatica* 'Blue Carpet', the whole waved over by the graceful *Linum perenne*.

To get down to the cultural details; the eschscholtzias, papavers, and meconopsis can be sown in place; in fact, it is hard to stop their sowing in place. *Iris sibirica*, though preferring moist soil, seems to do well anywhere if watered and mulched, and can be divided endlessly. *Campanula carpatica* (one of the vigorous campanulas) forms a loose clump of lanceolate, acute, wavy-margined, light green leaves from which arise seven-inch high racemes, holding one and one half inch wide, upright "cups" of blue, white or purple (depending on variety) in the center of which nestle three white horizontal stamens. This campanula divides well in spring or fall and produces a good seed crop. This plant, which comes from Transylvania, is especially beautiful in sun, if mulched, or will do well in partial shade.

The haplopappus mentioned is a South American shrub which is semi-shrubby here and slow to produce its crisp, trilobed, lanceolate leaves in spring. The yellow "daisies" with central discs of the same color terminate from six-inch high stems. The foliage is a shiny, gray-green. Soft cuttings are recommended in July and August.

Upon closer examination I discover the sixteen-inch high linums to be not blue, but gray-blue, marked from the yellow center with pencil lines of deeper blue. Their small, linear to lanceolate leaves adorn one slender stem which terminates in a much-branched panicle of flowers. These flowers last but a day but are followed by more the next. Though reputed to close in the morning of a summer day, I find that they do not do so until noon. This plant may be transplanted in fall or spring, divided in June, or left to seed about. When the stems begin to be bare and lanky, cut back to induce new growth. There are other blue linums of shorter growth, such as *L. alpinum*. For me, however, only *L. perenne* can produce that "mother hen watching over baby chickens" effect.

BEGINNERS! In one respect I think Mr. Sidow might be a *little* bit out of line; that is in feeling that the *Bulletin* might play a role in helping the evolution of a beginning rock gardener. Individual members can perform this service insofar as there is nothing to prevent them from writing a small item for the *Bulletin* regarding their favorite, or healthiest, or most prolific plant, be it beginner's or connoisseur's. A botanical and lyrical description of a clone of *Iberis* 'Snowflake', telling where it is placed in the garden, when it is pruned back, and how to propagate it is always a pleasure to read. Even an expert may have missed some detail of a plant's personality, or he may have missed trying it in a different location for better results. It would be too much, however, in view of all the other programs of the ARGS, to work up a Beginner's Column, especially as the Alpine Garden Society is already doing so, and in view that every month produces more members who are beginners.

The number of books on the market dealing with beginning rock gardening is "proliferating" at the moment. If not available in stores they often are from Lynn Ranger, and they are certainly available in our libraries. While the *Bulletin* has much to do with stimulating the beginner to look for "five stamens", it is the duty of the beginner to lay hands on every useful book he can. It might be worthwhile, however, for the *Bulletin* to print a list of the most useful, most available books on beginning rock gardening in print today.

NOTES FROM THE NORTHWEST

SALLIE D. ALLEN, *Seattle, Wash.*

DOUGLAS OF THE FIR—Listening to a lecture on so colorful a plant explorer as David Douglas (1799-1834) serves to whet the appetite and open the door to further study of his explorations of Western North America. He was a Scotsman by birth. As an apprentice gardener in the botanical garden at Glasgow, he came under the influence of Sir William Hooker who later recommended him as a botanical collector of the Horticultural Society of London. He was sent by the society to the United States where he sought out the wealth of interesting plant material, often penetrating the wilderness on foot and alone, or in the company of Indians. Seed, plants, bulbs, herbarium specimens, and detailed notes were sent back to London to the society.

Many authors have written about David Douglas, discussing the character of the man as well as the contributions he made to the world of botany and horticulture. *Douglas of the Fir*, by Athelstan George Harvey, vividly describes the fascinating adventures, frequently quoting directly from David Douglas' Journals. It is extremely interesting to read of the difficulties and the manner in which with tremendous perserverance this dedicated scholar carried out his chosen work. His impressions in his own words when he first beheld an unknown tree, plant, or shrub were indeed inspiring. He wrote of the Douglas fir calling it, "One of the most striking and truly graceful objects in Nature."

GARDEN TOURS—With the arrival of May comes the strong desire to see

the gardens of our members, for from them we receive inspiration, ideas, and pleasure. Some of the fine gardens we have the opportunity of visiting from time to time, while with others we have never had that pleasure. This May a large group of Northwest Unit members ferried across Puget Sound to the Bremerton area to visit the extremely interesting and completely dissimilar gardens of Mr. and Mrs. William Bogard and Mr. and Mrs. Vernon Steinke. Although the gardens were unlike, similarities prevailed within the feeling the owners have toward their gardens, each revealing a taste for rare plant material, a real love for their gardens (and every individual plant), and the ability to grow these plants superbly.

At the home of the Bogards, before approaching the rock garden, one is impressed by an unforgettable vision of pattern and harmony. A large, beautifully shaped native dogwood, *Cornus nuttallii*, towered above its miniature counterpart, *Cornus canadensis*, in a densely colonized underplanting. Both were in full bloom, looking as if this were the way nature had intended it to be in her overall plan of things.

Mr. Bogard's taste in plant material seems to run predominantly, though not entirely, to the very tiny, non-invasive rarities. If a plant grows too large, or too quickly, he feels he just does not have the space for it. He usually wants just one of a species, placed like a jewel in its own setting, surrounded by rock chips and separated from its nearest neighbor. Each individual, however, complements its neighbor, creating a lovely overall harmonious design. This garden utilizes a landscape form without using the plants in a landscape manner.

The trails through the screes are in close enough proximity so that the plants are right at one's feet; much like walking through an alpine tundra. This gives the visitor the privilege of studying the habits of each individual plant at close range. In such a garden even our professional botanists are given the opportunity of seeing for the first time rare, personally selected color forms of excellent native plant material, and of seeing it expertly grown.

At the lower level of a dryish slope could be seen several *Eriogonum* species well-flowered, but at the same time retaining their compact habit as they are seen in the mountains. One was a distinctive, gray-leaved species from the Olympics which no one seemed to be able to identify. The wonderful, cushion-forming *Potentilla villosa*, with soft, downy, strawberry-like leaves, displayed large, bright yellow flowers. *Petrophytum hendersonii*, an endemic of the rocky cliffs and talus slopes of the Olympic Mountains of Washington, was a joyous discovery to many of us who had never seen it before. It is a little, shrubby plant of neat habit, of the Rosaceae family, with small, blue-green leaves and charming, dense spikes of small, white flowers.

It is hoped that the implication has not been that this is a garden of natives alone. As a matter of fact, it brings together gems from every corner of the world to dwell together in dignity and propriety.

The home of the Vernon Steinkes may be reached by driving down a winding lane to a picturesque location on the salt water. This unusual property, perhaps two sizeable lots, gives the impression of expanse and privacy. There are delightful natural areas used in a natural way, where trees have not been cut, nor the ground leveled beneath them. The most has been made of the ground contours as they were, and the condition of shade that existed.

One of these partially shaded areas was devoted to selected forms of members of the *Ericaceae* family, as well as other peat-loving plants. Exceedingly interesting was a heavily-flowered *Vaccinium vitis-idaea minus*, unusual in that it did not have the typical suckering, spreading habit, but gave the impression of an individual little shrub. Close by was a well-grown *Cassiope mertensiana* var.

californica with exceptionally large, white bells and wonderfully fresh, healthy foliage—a joy to see! If a personal note may be injected, in the writer's garden grows the collected parent plant of this *cassiope*, not nearly as floriferous as its lovely offspring. This is a tribute to Mrs. Steinke's ability. It is also an example of the reason for the importance of propagating and distributing the rarities, as is done by so many of our members.

This is a progressive garden in various stages of development; some parts older and matured with time; others in intermediate stages, while one is a newly constructed, sunny scree garden. To illustrate the wide range of plants thriving under these varying conditions, one finds an unbelievably large planting of *Fuchsia procumbens* proving itself perfectly hardy in this location. One of Mrs. Steinke's favorites is the precious little *Thalictrum kiusianum*, four inches high, with dainty, fern-like foliage and sweet, rosy-mauve flowers of long duration. Others of her favorites are the *Lewisia* species; *Lewisia cotyledon* being one of the most memorable with a wide shading of color forms. The extensive collection of small shrubby *Penstemon* species was especially noted by one of our members who was thusly inspired to start on the trail of a fascinating new pursuit; that of studying and collecting the little shrubbies.

Mr. Steinke has facilitated his wife's successful propagating methods by building her a propagating frame mounted on legs, out of reach of slugs and other destructive pests. It is covered with fiberglass which provides a warm moist atmosphere and sufficient light.

Is an absolutely perfect day possible? This was one. Warmth of hospitality, of spring sunshine, and friendship were all combined in the visit to these two delightful gardens. With this pleasure came many new ideas for trial in our own gardens, and added knowledge of truly outstanding plant material.

ADONIS VERNALIS IN THE WILD

JOS. STAREK, *Prague, Czechoslovakia*

There is hardly a member of the American Rock Garden Society who does not know *Adonis vernalis* (*Ranunculaceae*). Anyway, I hope that the following information and the pictures shown, which were taken in the natural surroundings where this European wildling grows, may interest you or help you in your cultivation of this plant.

Adonis vernalis grows mainly in eastern and southern Europe. In Czechoslovakia we have a number of localities, some of them near Prague. One of the largest localities is the region of the České Stredohorí Mountains (the Bohemian Highlands). This region is protected from the north by a chain of mountains and is open towards the south. This geographical position substantially influences the climatic conditions, making them suitable for certain plant genera growing there on hills, rock, in valleys and woods.

There are various types of hills of volcanic origin. Some of them are flat; others are higher and steep, sometimes rocky, with terraces and screes. Rocks in this region are mainly of basalt and phonolite. The valleys and flat parts of the landscape between hills are usually of sandy-marl stone and marl. The soil is well drained and very rich in mineral substances (mainly alcalic).

It is interesting to notice how sun exposure greatly influences the location of certain plants on some of these hills. *Adonis vernalis* usually grows on hill-tops and on the southern warm slopes with a typical prairie character. There we can find more or less dwarf and compact plants as well as some with single or semi-double flowers. Usual neighbour of *Adonis vernalis*, flowering at the same time and covering only the northern slopes of the same hills, is *Pulsatilla patens*, with large blue-violet blossoms. On the western slopes we can see

*Adonis vernalis*

J. Starek

P. pratensis var. *nigricans*. These plants flower there in April, when the grass is still dry though nearby rocks are already nicely decorated with large clumps of *Alyssum saxatile* and potentillas. In clefts of phonolite rocks there are occasionally *Dianthus gratianopolitanus* and some other plants.

A few weeks later, the flowers of *Adonis vernalis* are followed by the noble white blossoms of *Anthericum liliago*, *A. ramosum*, *Astragalus danicus*, *A. austriacus*, *A. excapus*, some oxytropis, various centaureas, thymus and salvias.

In June and July the slopes are mostly covered by *Festuca vallesiaca* and very decorative stipas (mainly *Stipa pulcherrima* and *Stipa capillata*). Then in the hot and dry summer nearly all the plants including *Adonis vernalis* dry, and the hills are dreary. But their beauty, as you know, has not died off for good—only till the next spring.

Adonis vernalis is conserved in the wild, but is generally available in local nurseries. It is propagated by division or by seed. The latter way is sometimes not reliable and we discussed this subject several times at our local rock-gardeners' meetings. From a large number of *Adonis vernalis* seed sown only a few seedlings appear, as it seems to happen in the wild. When seed is collected in June-July and sown immediately on top of a light alcalic soil in the seed-box as recommended, sometimes it germinates perfectly the following spring. At other times it does not germinate at all. I have heard about similar experiences from my colleagues.

Adonis vernalis, as well as some other species of this genus, is entirely herbaceous. It is cultivated for the pharmaceutical industry because it contains such drugs as adonitoxin (adonitoxina / $C_{29}H_{42}O_{10}$ /) and strofantin (Cimarin/K-strofantin $C_{30}H_{44}O_9$ /).

There are about ten species of annual and about fifteen species of perennial adonis in Europe and Asia. Most of these annuals are weeds. Only *Adonis aestivalis* with small red flowers and *A. autumnalis* from southern Europe are occasionally grown in gardens, though they possess only an inferior decorative value. On the contrary, nearly all the perennial species are ornamental, hardy and long-living alpinists. The colour of most of them is yellow.

The locally published book, *Alpinky*, by Prof. Dr. Albert Pilat and Prof. Dr. Milos Deyl, lists the following yellow species suitable for garden cultivation:

SPECIES	DESCRIPTION	TIME OF BLOOM	NATIVE OF
<i>A. vernalis</i>	Height at beginning of flowering 10-15 cm, after flowering about 25 cm.	April-May	Southern and eastern Europe
<i>A. amurensis</i>	"	Feb.-March	Asia
<i>A. dahurica</i>	Leaves develop fully at flowering time, otherwise very similar to previous.	March-April	—



Adonis vernalis — an early spring bloomer

<i>A. volgensis</i>	—	—	Spread from Siberia to Balkans
<i>A. walziana</i>	Hybrid of <i>A. vernalis</i> x <i>A. volgensis</i>	—	—
<i>A. distorta</i>	Only 10-15 cm high	May	Italy
<i>A. pyrenaica</i>	20-30 cm high	June-July	Pyrenees
<i>A. cyllenea</i>	Relative of previous	—	Greece
<i>A. chrysocalyx</i>	Also very similar to previous one, about 30 cm, only the fruit is smaller.	—	Asia
<i>A. apennina</i>	Similar to <i>A. vernalis</i>	—	Italy

In addition, Mrs. Anna S. Griffith, in her book, *A Guide to Rock Garden Plants*, describes a species having silky blue buds opening into solid white chalice.

<i>A. brevistyla</i>	—	May	Himalaya
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Among other plants which grow in the Bohemian Highlands are: 1—in valleys and woods—*Cypripedium calceolus*, *Gymnadenia* sp., *Epipactis atrorubens*, *Ophrys muscifera*, *Coeloglossum viride*, *Cephalanthera alba*, *C. rubra*, *Orchis purpurea*, *Lilium martagon*, *Ficaria vernalis*, *Hepatica triloba*, *Viola odorata*, *Primula veris* or *P. elatior*; 2—on terraces and screes—*Sedum acre*, *Sedum album*, *Saxifraga caespitosa*, *Allium montanum*, *Iris aphylla*; 3—on rocks—*Asplenium ruta-muraria*, *A. septentrionale*, *A. trichomanes*, *A. germanicum*, *Woodsia ilvensis*.

LETTERS

(Editor's Note)—Two letters are published below. One seems proof enough that the *Bulletin* is really read all the way through, and the other tells of an ambitious project concerning American violets).

As editor of the *Bulletin* you must have been even more delighted with the July issue than I was as a reader. What a stroke of luck to have found in your mail bag, along with the plea from G. Sidow (p. 88) for help for the novice who is not a collector, but merely wants a pretty rock garden in a hurry, the coincidental contribution from I. Bartho (p. 79), as apt as though she had read Sidow's mind, explaining the means through which "little by little comes the knowledge which we search for." And then to find in the same bag three separate references to *Diapensia lapponica*, which one member (p. 97) climbed a New Hampshire mountain to see in flower; because of which another (p. 98) hotly attacks a writer who implied that the plant is easily obtainable and grown; and which a third (p. 102), in Scotland, explains how to cultivate, having found the secret by practicing with "some nice little plants sent me from Lapland."

However ingratiating the editor and the officers of the Society find member Sidow's plea to be (and it is one I sympathize with, for my husband and I are in Sidow's class as gardeners), I suggest that it be tactfully disregarded. Let Sidow get his advice about growing *Phlox subulata* from the popular garden magazines available at every suburban news stand. Let him, while weeding his petunias, dream of carrying "his own tent and provisions" and making "long marches to obtain water and a little space for a camp" as, in the company of B. N. Ghose, of Darjeeling (p. 78), he attempts the long climb up a "perpetually snow-capped mountain, the Kanchenjanga," to gather *Corydalis cashmeriana* for a friend in England who had written that "he must have this gem for his garden." Let him even perhaps grow discontented with "the beauty of his *Cerastium tomen-*

tosum" in New Jersey and travel as far as Chappaqua, New York, for advice from member Langfelder (p. 82), who with "a lot of patience" has succeeded in growing, from seed obtained from a nursery in Maidenhead, England, a species of *phyteuma* he first saw almost forty years ago when he innocently risked his neck to pluck a blossom from a rock crevice in a mountain near Pragser Wildsee.

Like Sidow, my husband and I are seeking merely to landscape around a suburban house with pretty plants and rocks. But let our needs for information about common plants and common garden problems be met elsewhere. We look forward with great interest to the compilation of information, promised us (p. 84) by the collectors in the Society, concerning "seed treatment and germination requirements" of plants we have so far met only in the pages of the *Bulletin*. With the help of that compilation and without scaling any mountains, we may yet share some of the rewards of the venturesome.

SYLVIA EBERHART, *Bethesda, Maryland*

Now that *Primroses and Spring* is off my chest, I'm embarked on a much more ambitious and difficult project.

I am going to draw all of the United States wild violets in color from life, and hopefully find some organization or Foundation that will sponsor the printing of such a book. As you know there is no modern book on the subject, and Viola Brainerd Baird's book had only 1000 copies printed, which are certainly not generally available. In addition there have been some changes in nomenclature and some additions since that was printed. Also, I find some inaccuracies in the drawings and think one important omission was a drawing of the root systems, which I think very important in the identification of the different species.

I want to do this book for several reasons: 1—To get to know our native violets myself; 2—To help others do the same, and 3—As a contribution to American horticulture. For this latter reason I hope the American Rock Garden Society, as a unit, will be willing to sponsor it, in so far as encouragement and publicity is concerned.

At the moment I am collecting plants from nurseries, and I would be glad to hear from any who deal in wild violets, if I have not already been in touch with them. I do not, at present, want plants from individuals as I would probably get too many duplicates, but once I have exhausted the nursery list, I may very well want to ask members to try to help me find specific plants. Of course any newly discovered violet would be most welcome. I shall be glad to pay any expense that might be involved. I am collecting by airmail, as I could not possibly do the extensive traveling that would otherwise be necessary. I do not want to draw from herbarium specimens as I feel their deadness gets into the drawings.

It will be a book for the run-of-the-mill gardener and amateur, but botanically correct and will show all necessary data for identification, including root systems. Most, if not all of the drawings will show the spring flowering and the later seed-bearing development of the plants.

It is going to be a long and expensive but interesting project. I would be glad if this letter could be published in the *Bulletin*, so that anyone with unusual native violets, or any idea of who might sponsor such a project financially, could write me.

DORETTA KLABER, *Quakertown, Pa.*

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Mail all seed contributions to Mr. Lawrence Crocker, 3355 Jacksonville, Hy., Medford, Oregon 97501. Mail them before November 10, please—sooner, if possible.

SOME ROCK GARDENS IN NORTHERN CALIFORNIA

OLGA JOHNSON, *Grants Pass, Oregon*

The impressions of two Oregon rock gardeners upon visiting California may be of interest to other ARGS members, so many of whom live diagonally across the vast width of the United States from that fabled Pacific commonwealth. The trip taken by Adelaide Crawford and the writer last spring covered only the northern half of the state.

When we left Grants Pass on March 4, our own rock gardens were still quite dormant. There were practically no wild flowers in bloom north of Marysville, California, our first stop, except mustard and California poppies. In all northern California I saw only one yellow poppy; the others were all deep orange. We drove on to Berkeley March 6, through country increasingly green, with brass-bright splashes of acacia visible for miles, many fruit and nut orchards blooming in more delicate display, and each new, red-flowering peach in the home grounds bringing another shock of appreciation. Berkeley was our headquarters for a crowded week.

On the bay (western) side of the mountain ridge set not far back from the coastline, the heavily populated Berkeley-Oakland residential area is very steep, making perfect sites for rugged rock gardens, and requiring streets that are better fit for cablecars, except where they wind their way up in gradual slopes with horseshoe turns. Here we visited the hillside garden of ARGS member A. F. Jensen in Berkeley which surrounded a home owned by members of the Jensen family for seventy-five years—a long time “out West.” Mr. Jensen is no longer young and admits that he now gives more attention to rhododendrons than to rock plants; the former take less care, and besides, new rock plants are hard to obtain. He reported that in the 1930's there was a booming interest in rock gardening in the Bay area, and a lot of nurserymen stocked rock plants; but when the gardeners found that so many of the little fellows required special conditions and care, their interest flagged. Also the broad-leaved evergreens are so satisfactory and easy there. We found almost no alpine in local nurseries.

Mr. Jensen, nevertheless, has many interesting rock plants growing on the irregular high terraces which form his shaded back yard garden where cineraria is a weed! These included an apparent hybrid of *Cyclamen neopolitanum* and *C. persicum* (but how could they when they bloom at different seasons?). He also had *C. europeum*, *C. coum*, and *C. repandum*. There were nice clumps of blue *Anemone blanda*, potentillas, campanulas and erodiums, dwarf rhododendrons, fine dwarf evergreens (chamaecyparis, juniper, etc.), many in containers, and an adjacent greenhouse with orchids, from just popping-up seedlings, to large, mature plants, some of which were blooming.

The Jensen garden was in sharp contrast with that of Homer Patterson in adjacent El Cerrito, which has been planted in the rock outcropping that forms the front yard of the home, facing west in full sun. Here *Lithospermum diffusum* ‘Grace Ward’ sprawls widely and happily. *Polygala capitata*(?) and a red-flowered Mexican creeper cascade over the face of the outcropping; *Geranium lancastriense* and a lavender erysimum and others form large mats; smaller areas are the residences of *Anacyclus depressus*, *Erodium chamaedryoides*, *Oxalis adenophylla* and *O. bowieana*, and many dianthus not yet in bloom.

There was a fine rock-top clump of a Felicia species that we saw repeatedly, not the viny type, but more reminiscent of a large, electric-blue erigeron or *Aster frikartii*. We found no felicia for sale, but at any rate it is said to be not too

hardy. Gazanias, of course, were present everywhere in the area, as were various color forms of the perennial, half-shrubby dimorphothecas.

Rock gardens in the Bay area, we are told, are the more successful for the mid-summer fog and cold that makes it not so comfortable for the gardeners. This feature of the climate is also favorable for rhododendrons and fuchsias.

Over the top of the ridge eastward, looking down upon Orinda and the Walnut Creek valley, we visited the garden of our Society member, Leo Brewer. He was not at home, but his wife was most hospitable. The mountainside above his house has been planted with native shrubs, including various ribes and arctostaphylos, of which there are so many kinds in California. Mr. Brewer also grows native bulbs. Unfortunately we did not find time to visit the F. O. Pearce garden in Orinda.

Homeowners less discriminating than those I have mentioned, and less devoted to gardening, cover their more vertical-than-horizontal grounds with ivy, creeping juniper, *Fragaria chiloensis*, etc.

From the valley floor near Walnut Creek we ascended Mt. Diablo, now a state park. The mountain and the valley with its high rounded hills were a vivid, almost unbelievable green (which in that climate lasts but a short season), beautifully patterned by the darker patches of live oak (camphor trees, so someone called them), madrone (*Arbutus menziesii*), and many shrubs, all as round-topped as the hills, thus sculptured, I suppose, by wind and summer drought. The equally beautiful California homes are spreading along the steep canyons to the very hilltops, in a lush growth of their own. Due to the late season we saw few wild flowers on Diablo, except lupines, poppies, white dentarias (called Spring Beauties here in the west), Blue Dicks (*Brodiaea capitata*), a lone blooming plant each of *erysimum* and *ranunculus*, and an occasional castelleja.

There is no space here to tell of our visits to Golden Gate Park, Tilden Park, and the Arboretum of the University of California near Berkeley. From Berkeley we crossed to Sausalito and headed south to Santa Cruz and Carmel. Along the way the spires of aloes in fiery reds, and echiums in blue and wine, and the various lower-growing succulents became rapidly more striking though the famous seaside borders of mesembryanthemum at Pacific Grove had very little bloom as yet. In the grounds of a Mission at Carmel we did see the Fig Marigolds (*M. aequilaterale*), in all their shocking intensity of red-purple. In shade plantings here, as in the Bay area, extensive use is made of Woodwardia ferns, (*Woodwardia radicans*), or Giant Chain Fern, which sometimes attains eight feet in height, as companions to shrub-like fuchsias, and below them, tuberous begonias.

At Carmel and Sausalito the shops are intriguing hillside labyrinths in which one could get lost for days, but the prices are as high as the hills. In one garden shop we saw single rosettes of common succulents in small pots priced at \$1.25 each!

Point Lobos Park, below Carmel, is unforgettable. The brochures claim that a famous landscape architect called this spot "the greatest meeting of land and water on the face of the earth." You rock gardeners would have enjoyed particularly the cliffside mosaics of rosetted succulents in green, silver and red above the dashing and roaring water. There were mat-forming plants we could not identify, not yet blooming; much *Zygadenus fremontii*, the showiest of the Wax Lilies, at least in my experience; a few *Iris douglasiana* already in bloom; a paintbrush with rounded lobes instead of the jagged ones with which we were more familiar, conforming again to the geographic-botanic style of their setting. The frustrating variety of unfamiliar shrubs included an eriogonum, probably *E. latifolium*; elsewhere we saw the spectacular *E. giganteum* (with old flower heads many inches across). *Armeria maritima californica* was beginning to bloom.

(The proud Californians frequently add this "var. *californica*" to specific names; maybe it's quite justified.

Our first stop en route north was at an alpine nursery of ARGS member Ray Williams at Watsonville. Mr. and Mrs. Williams raise a lot of the rarer things from seed. He specializes in Australian natives and was writing an article on them for some horticultural publication. I came away with potted plants of *Hippocrepis comosa*, *Alyssum serbicum*, *Potentilla triangaformis*(?), *Anemone multipetala*, a draba, and a saxifrage.

March 20 saw us heading north, with Sebastopol (near Santa Rosa) the first night's stop. Here we visited ARGS member Jean Ireland, an old acquaintance, whose old garden on her apple orchard property is overgrown because she is unable to do all the necessary work any more, but it still is a very fascinating place to browse. A new experience was a patch of blooming *Viola pedunculata*, that proudest of western violets. Jean drove us to the Manning Heather Gardens near the coast, with its background of great Douglas firs; a memorable display and a knowledgeable owner. Many of his heathers are too tender for us, but we found all the hardy ones, too. They are allowed to self-seed and cross at will, a lot of interesting hybrids resulting. We came away with *Erica lusitanica*, the *Erica carnea* hybrid 'Dawn,' *Daboecia azorica*, and *Calluna* 'Mrs. Pat.'

Last stop, but not the least, was at Orick to see the mountainside garden of Eloise Nelson. She had just begun the planting when we were there three years ago. It was too early for much bloom, but what a transformation of that north-facing slope. There were so many fine things, including ferns and heathers, evergreens broad-and narrow-leaved, creepers, bulbs, and many natives. The surrounding garden is being put into rhododendrons, which do well there. The disadvantage of the location is the frequent salty winds which have burned her camellias so that she is putting in a windbreak of eucalyptus on the west and north. We were given pots or divisions of *Lithospermum* 'Grace Ward,' the tiny fern, *Echia ponorima*(?), which Mrs. Nelson called a "dwarf deer fern," *Pimelea coarctata* (New Zealand). One of the loveliest plants in bloom was the native wallflower, *Erysimum capitatum*, not miniature but a generous clump with large creamy flowers. Jean Ireland had given us seedlings.

In stimulating contrast, as we drove on toward Crescent City, were bold sunflower clumps of balsamorhiza and wyethia on sunny hillsides, and a little further on the low mottled leaves and spider-like flowers of *Scolioopus hallii*, Fetid Adder's Tongue, in the deep shade of the redwoods.

Whenever we talked to a California ARGS member, we heard of the prospective get-together for Bay area members, which by the time this is in print, will be of record. When I introduced myself to Mr. Patterson in El Cerrito, he was so pleased to meet a fellow member of the Society for the first time. We heard often of the young California Native Plant Society, set up for conservation activities, with Lester Rowntree as honorary president. To home and to work on March 23.

OMNIUM-GATHERUM

Undoubtedly many members have been wondering why their letters to the Editor have not been answered, nor their contributions acknowledged, and soon may become annoyed because the October *Bulletin* has not reached them on time. If you are one of these, please know that your editor has been in trouble. To be deprived of the use of his eyes during two months, critical months in the preparation of material for the coming *Bulletin*, is about the worst thing that could happen to an editor. Bad enough to be hospitalized for eye surgery, to endure first the enforced darkness and later the drastically restricted use of even the unailing orb, ("Read nothing smaller than the newspaper headlines,"

said the doctors), but worse was the frustration; time passing in idleness; the October *Bulletin* dead lines drawing ever closer and nothing done; letters piling up that in all courtesy should not remain unanswered; the first dead line passing and frustration mounting.

Thankfully, recovery has been rapid and this is being written with both eyes open and functioning to a fair degree, and there is hope that the October *Bulletin* may not be too late in spite of the doctors' admonitions to "take it easy—go slowly—don't strain your eyes—get plenty of rest." Soon the answering of letters may be resumed. The backlog of neglected correspondence is great, and long before it can be materially reduced there will be the January *Bulletin* to be prepared. Please bear with me!

I must acknowledge with gratitude the help, and offers of help from members of my family and from Society members, even from friends who are not members. That the *Bulletin* is in your hands as you read this, instead of many weeks later, is due entirely to their timely help.

The success of the 1966 Slide Competition was duly reported in the *Bulletin Board* that accompanied the April *Bulletin*. The 1967 competition is scheduled to take place about the same time of year, probably in March.

Mrs. Mary Gray, Director of Slide Collections, will be asked to inform us further on this subject, either in the *Bulletin* or the *Bulletin Board*. Last year there were two classes of slides, with prizes for each class; over-all garden scenes and close-ups of rock garden plants. As a suggestion to Mrs. Gray and others in charge of the 1967 showing, could there not be a third class, i.e., plant portraits in their native habitat?

Surely, we urge members to begin reviewing their existing slides for possible submission in 1967 and to take every opportunity to exercise their cameras between now and next March. Perhaps the prize winning picture of 1967 has not yet been taken. Of course, too much enthusiasm generated among our numerous photographers, here and abroad, could produce a crop of acceptable slides far beyond the number that could be coped with in the final competition. To overcome this happy eventuality, there could be informal preliminary showings before a handful of competent judges to determine which slides should be eliminated and which should survive to be shown at the formal competition in March.

Have you been duly vigilant lately in seed collecting for the current Seed Exchange of the ARGS? Lawrence Crocker hopes so, and so do all of our members who each year look forward to the receipt of those precious small packets. Each packet contains the seeds of your choice. Contemplate these seeds for a moment! Tiny reservoirs they are of the most stupendous import; messengers of life from some happy garden or sun-drenched mountain pass. For you they hold your fondest anticipations; they hold the gifts of beauty and grace if you will but minister knowingly to their needs, and when your garden is later aflame with the brilliance of their flowering, won't you pause and give thanks wherever it is due?

Some of these seeds may, even in the perverse way that life has, hold bitter disappointment for you; failure to germinate; inability to survive transplanting; mishandling on your part; they may even turn out to be other than you were led to believe, and from these disappointments spring the tendency to blame the seed-gatherer first and yourself perhaps not at all.

But first these seeds have to be gathered, cleaned, packaged and properly labeled, then dispatched to Mr. Lawrence Crocker, Director of the ARGS Seed Exchange, 3355 Jacksonville Hy., Medford, Oregon 97501, not later than the first part of November, this year.

Our busy Czechoslovakian friends have been wonderfully generous in their contributions to the *Bulletin*. Numerous articles and many fine flower pictures have been received. In this issue you will find an article under the joint authorship of Ing. Frantisek Prochazka and Frantisek Kotek, of the Natural Scientific Department of the East Bohemian Museum. This is the first article of a series to be written on the plants endemic to Czechoslovakia which are suitable for the garden. This article was written in Czech and translated into English by Mrs. Olga Duchacova. Also appearing is an article on *Cypripedium calceolus* written by Dr. Vladimir Chaloupecky of the Inst. of Epidemiology & Microbiology in Prague. He is a member of the ARGs. Mr. J. Starek, who writes in this issue on *Adonis vernalis*, is known to our readers as he has written for us before. There are at least two other articles from this flower-loving country in reserve for future Bulletins.

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