

American Rock Garden Society Bulletin



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BULLETIN

Editor Emeritus

DR. EDGAR T. WHERRY, University of Pennsylvania, Philadelphia 4, Pa.

Editor

ALBERT M. SUTTON

9608 26th Ave. N.W., Seattle, Washington 98107

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AMERICAN ROCK GARDEN SOCIETY BULLETIN

Albert M. Sutton, Editor

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No. 3

TWO MEMBERS HONORED

The Annual Meeting of the American Rock Garden Society for 1968 is scheduled to be held at the home of Mr. and Mrs. Leonard Buck, Far Hills, N. J., on May 18. By the time this issue of the *Bulletin* reaches you, the meeting will have taken place—perhaps as long ago as two months. Because the material for the July *Bulletin* will already have been sent to the printer before May 18, it is not possible to report the details here. However, the *Bulletin Board* accompanying this issue, having a much later deadline, will inform you of the happenings of the three-day get together of members of our Society—May 17-18-19.

The presentation of the 1968 Awards will be (as this is written) and were (as you read this) made at the Annual Dinner. The citations follow:

DOROTHY E. HANSELL

On the occasion of the Twenty-fifth Anniversary of the American Rock Garden Society, Dorothy Hansell wrote for the *Bulletin* of April, 1959, an account of the founding and early days of the Society, titled "Looking Backward."

Dorothy's lead paragraph read, "The American Rock Garden Society was launched with much fanfare on March 21, 1934, at the Hotel Commodore, New York City, in the presence of two hundred fifty rock garden enthusiasts. This meeting received nation-wide publicity, as might be expected, for it was graced by notables of the horticultural world. Sir Frederick and Lady Moore, of Glesnevin, Ireland, were guests of honor, and Richardson Wright, 'in his ever joyous vein, reminded his audience that since no christening was complete without a godmother, he would name Lady Moore godmother of the Society.' "

I would like to suggest that the second and true godmother of the ARGS has been over the years, Dorothy Ebel Hansell herself. Like a proper godmother she not only appeared at the christening, but made the christening clothes. Since that memorable occasion she has with propriety and without fanfare watched over its spiritual and material growth.

At the risk of carrying the trope too far, I would suggest that she was not only godmother but midwife and later wetnurse and even Nanny for the Society.



Dorothy E. Hansell

In the spring of 1933, Mrs. C. I. DeBevoise and Mrs. Clement S. Houghton approached Dorothy and asked her to initiate steps towards forming a society devoted to rock gardening in this country. They turned to her quite naturally because at that time she was publisher and editor of *The Gardeners' Chronicle of America* and executive secretary of the National Association of Gardeners. These positions she held as successor to her father with whom she had traveled from childhood to botanic gardens, arboretums, and the extensive estates no longer in existence.

Dorothy continued in these capacities until 1942, during which time *The Gardeners' Chronicle* was the official organ of ARGs. It was in 1943 that, with her assistance and advice, we began publishing our own *Bulletin*, with Dr. Edgar T. Wherry as first editor.

During all the years from its founding until 1942 Dorothy was the secretary of the Society as well as the editor of its pages in *The Gardeners' Chronicle*, and to read back over the proceedings of those years is to realize that small as the Society was it was tremendously active and Dorothy was in the thick of its activities.

During the years of World War Two, for her there was no time for anything but her jobs, first on the War Rationing Board and in the Red Cross,

but soon assistant to the manager and secretary-treasurer of a plant making parts for aircraft under contract to the Army and Navy. She remained there until six weeks after Hiroshima.

At the end of 1947 Dorothy was officially installed in the dual role of ARGs Secretary and Editor of the *Bulletin*, though for more than a year she had been assisting with both tasks.

She served in these positions until 1950 when she took up the demanding duties of editing the *Journal of the New York Botanical Garden*, which under her editorship was replaced by the outstanding publication *The Garden Journal*, which Dorothy continued to edit until 1967.

In addition to these fulltime duties, Mrs. Hansell has been active in many plant societies, including the American Horticultural Society. She is presently director of the American Association of Botanic Gardens and Arboreta and editor of its official publication, and is chairman of the publicity committee of the Holly Society of America. These are but sidelines to her current freelance editing for book publishers.

Characteristic of Dorothy's far-ranging and energetic devotion to horticulture, is her role in helping establish the International Peace Garden on the Canadian-United States border. In this garden located partly in North Dakota and partly in Manitoba is a plaque on which appears the name of Dorothy Ebel Hansell as one of the signers of the charter.

It is our honor, however, this evening to recognize Dorothy as one of the founders of our Society and its devoted godmother through the years. It gives me particular pleasure to present The American Rock Garden Society Award of Merit to Dorothy Ebel Hansell "for her distinguished service to the Society as one of its founders in 1934 and in the variety of official capacities since, and for her eminent contributions to horticulture as a writer and editor."

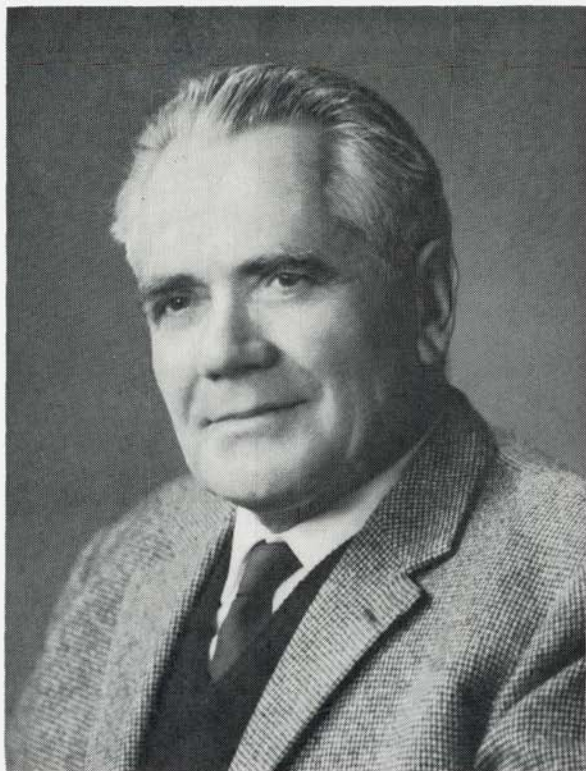
ZENON SCHREIBER

It is particularly fitting that after a memorable day at Mr. Leonard Buck's garden, Allwood, we pay tribute to the man who has played an important role in the development of that garden. In 1942 Mr. Buck had the inspiration and vision to foresee the great possibilities for a rock garden and associated landscape at Allwood, and he had the wisdom to entrust the major planning and supervision to Zenon Schreiber. Over the years since then Mr. Schreiber has brought the garden to the peak of perfection we see today, and this is but one of his many outstanding achievements.

Zenon Schreiber, who was born March 21, 1904 in Arth, Switzerland, grew up and attended schools in Chur. In 1924, after four years of specialized learning, he received the diploma of Canton St. Gall for Horticulture and Landscape Design, with a special citation for architectural drawing and a commendation for his personal herbarium of plants collected on frequent climbing excursions in the Alps. He has always been a passionate mountain climber.

Following his formal schooling, he gained practical experience in horticultural establishments in Geneva from 1924 to 1927, with a certificate of achievement in arboriculture and fruit culture.

From 1927 to 1931, Mr. Schreiber was in charge of designing and cre-



Zenon Schreiber

Pitcheer

ating a semi-tropical exotic garden, "Mar y Murtra" in Blanes, Costa Brava, Spain. Its visiting curator was the renowned botanist, Alwin Berger. In connection with this assignment, Mr. Schreiber enjoyed extensive European travel while purchasing plants and gathering information, making prolonged stays at Sir Thomas Hanbury's "La Mortola" and frequenting the exotic gardens of Monaco and the gardens of Valencia. In Barcelona he had the opportunity to carry out some garden projects for the municipal park as well as for some private homes. During this period he satisfied his "mountain fever" by frequent climbing in the Spanish Pyrenees.

In March of 1931, feeling too young to stay put and against all warnings of depression unemployment, he ventured to the United States and was engaged on the day of his arrival as cultural and construction superintendent by a firm then specializing in rock and wall gardens. This was somewhat of a painful self-demotion from his previous position, yet it provided an opportunity to build prize-winning rock gardens on estates and in various exhibitions. A rock garden in Connecticut representing his first month's work won the Herald Tribune Award.

In 1936, Mr. Schreiber decided to remain in the United States and start business for himself in "Landscape Design, Construction, Rock Gardens, Consultations." From 1936 to 1946 he participated in ten competitive rock garden exhibitions at International Flower Shows and two shows

sponsored by the ARGS. During this time he received ten first prizes and eleven gold medals, among which were ARGS medals, The Stout Medal, The Pratt Medal, the first Totty Memorial Medal, The New York Horticultural Society Medal, and the Massachusetts Horticultural Society Medal. At the New York World's Fair in 1939 he had a garden in Gardens On Parade honoring Captain Kingdon Ward.

These various exhibition gardens not only established Zenon Schreiber as a master of design and construction, but as a perfectionist of horticulture. Each garden was beautifully planted with a rich variety of appropriate material, always in perfect scale and always at the peak of development. His skill in growing and forcing rare alpiners to perfection has never been equaled.

In addition to exhibition gardens, Mr. Schreiber has designed many gardens of various types, big and small, some with extensive plantings. They are distributed in the states of New York, New Jersey, Connecticut, Vermont, Pennsylvania, Georgia, Alabama, and in Washington, D.C. Among his distinguished clients who, because they are accustomed to publicity and may therefore be mentioned, are Governor Nelson A. Rockefeller, Mr. Laurence S. Rockefeller, the Trapp family, President Eisenhower, and Mr. Leonard J. Buck. In addition, some years ago, he was of assistance in redesigning the rock garden at the New York Botanical Garden, and for the past three years he has had the honor of designing and directing the Alabama Native Wild Flower Garden for the Botanical Society of Birmingham.

For his many distinguished contributions to landscape design and horticulture, and especially for his inspiration to the rock gardeners of America, we are honored on this occasion to present to Zenon Schreiber the American Rock Garden Society Award of Merit.

* * * * *

THE *BULLETIN* AND SOIL CHEMISTRY—Mr. Paul Boswell, of Massillon, Ohio, in a letter to the editor has this to say, "In your letter you expressed hope that I find the *Bulletin* useful. I will say that had I a choice of having to give up my file of this bulletin or the rest of my horticultural library, I would be hard pressed for a decision. The experiences of rock gardeners from so many areas bring out a lot of facts that one never finds in more formalized literature on the subject. This brings to mind an article by Mr. John P. Osborne in Vol. 24, No. 2 of the *Bulletin*, entitled "Some Thoughts on Phlox and Granite" which brought light on a problem of soil chemistry that I had been seeking an answer to for many years. Having spent several of my thirty-one years in the steel industry as an analytical chemist, I have been naturally attuned to chemical factors in most subsequent endeavors. Rock gardening has furnished an excuse for considerable experimentation in the relationship between plant and mineral kingdoms, and I have long suspected that the inorganic make-up of the soil is hardly less important than the humus content."

Soil chemistry as it relates to rock gardening is a subject that should not continue to be neglected. Yet there seems to be very few who are able and willing to write about it in language that can be readily understood by the average gardener. Members and non-members alike are invited to submit articles on this subject to the *Bulletin* editor.

MORE OHIO WILDFLOWERS

PAUL H. BOSWELL, *Massillon, Ohio*

Over the years the articles in the ARGs *Bulletin* that I have most enjoyed have been those which described the flora of a particular area. With this in mind, I would like to contribute to the Society conversation a description of adventures in plant hunting and seed growing which have occurred here since my enthusiastic but botanically inept writing was published in the *Bulletin* of April, 1962. Having added Fernald's *Eighth Edition of Gray's Manual of Botany* to the family book shelf and thus relieving the inconvenience of running to the public library whenever an extraordinary species turned up, I feel a little more secure in the diagnosis of native plants, though still getting stumped on occasion.

I recall, with some feeling of guilt, Mr. Zollinger's "Impostor in the Seed Lists" and hope that I have not caused more grief in my contributions to the Seed Exchange than would be average for any other tyro. I know that I have made some mistakes, in the exuberance of sharing a plant I was fond of, but have sinned no more than I have been sinned against—though I will say that some of the mislabeled seeds I have received from our exchange have resulted in something better than ordered, and the challenge presented in identifying the strangers has usually been fun. I hope that some of our more astute botanists will state any errors detected in my contributions when they make their germination reports to Dr. Emery, so that when his findings are summarized I may read the corrections and properly revise my labeling.

I have often wished that I could find time to write to each donor to the Seed Exchange of species native to his or her particular region and thank each individually for the wonderful gifts made to my garden; however, whenever such persons were identifiable as sole contributors of an item, I have so noted in the germination report submitted, and I do hope that one day they may read of the success of their pets in an area which to some would be half way around the world from home.

Some years ago, I would have written of American plants native to the area east of the Mississippi in an apologetic tone for, after all, had not our English and European friends been kept advised and, indeed, had grown in their gardens every species that we have produced since the days of John Bartram and Andre Michaux! To read Dr. Fernald's preface to the tome above mentioned, it comes as something of a shock to realize that the knowledge of our flora is constantly expanding and that there may be still a great many unsolved mysteries. It is not to be presumed that one so untutored as myself is apt to unravel any of these loose ends, but, at least, I feel that there may be some interest in a few of the less publicized plants and how they are being grown, or have failed here. Ignoring or passing lightly over plants mentioned in the former article, let us start and continue, not in the order of dates acquired or where located, but in the sequence of classification in *Gray's Botany*.

One new fern was added to our collection last spring—the adder's tongue, *Ophioglossum engelmannii*. Found in wet woodland near Dundee

Rocks in Tuscarawas County, I thought, until the fruiting spores became more developed, that it was *Pogonia ophioglossoides* which has a single leaf similarly disposed on the stem. Probably this was a fortunate mistake for had it been the orchid mentioned it is most unlikely that it would have survived transplanting at that time of year.

I had known the green dragon, *Arisaema dracontium*, for many years, though it was rather rare in Noble County and usually found on creek banks, often as an isolated specimen. Last June I found a station in rich river silt—dozens of clumps, appearing as though every berry from each fallen seed head had germinated and grown like a hill of potatoes. My younger son, Bruce, seeing the elongated spathe of the plant and comparing it with the more common Jack-in-the-pulpit beside it, admiringly described it as “a real wierdo.” With luck, the genus may become a trio in this garden if the seedling of *Arisaema ringens* from M. Ozawa’s seed continues as it has for the past two years and eventually blooms.

We have had the fairy wand, *Chamaelirium luteum*, for a number of years. It doesn’t bloom if we have a too dry spring, but last season was ideal for woodland flowers and it responded beautifully. The clone we have blooms on stems never more than eight inches high.

The wood leek, *Allium tricoccum*, is no rarity here, appearing in rich woodlands, often in large colonies. The bronzy lily of the valley-like leaves are quite pretty in early spring, but they die down completely before the white flower heads appear on naked stalks in July.

Camassia esculenta grows abundantly in marshy spots in the river land just south of this city. One has to dig deeply for the bulbs, but with proper care they transplant readily even when the plant is in bloom. Being of smaller stature than the two species of western camas, this one is acceptable in the lightly shaded garden, though it requires more moisture than does *C. cusickii*.

Starry false Solomon’s seal, *Smilacina stellata*, occurs rarely in this area, but there is a strong colony just west of the Ohio Canal tow path, about one mile south of Massillon. The species presents no cultural problem and is better than *S. racemosa*, with larger and whiter florets.

Trillium sessile is abundant in a wooded section of the Tuscarawas River lowland just south of town. Most of our plants, however, came from a woodland some ten miles further south where strip mine operations were in progress and we were able to rescue a basket full from the bulldozers and the power shovels. A year before these sources were found, however, we had purchased three corms advertised as the toad trillium from Carl Robbins of Gardens of the Blue Ridge. This turned out to be a plant much larger in all its parts with longer petals and more markedly mottled leaves. From Fernald’s key, we identify it as *T. cuneatum*. The three plants have produced leaves every year, but only one has bloomed consistently.

With the *Trillium cuneatum* from Robbins, we also bought three each of *T. erectum*, *T. e. album*, and *T. undulatum*. The two first mentioned bloomed for three seasons, but the beautiful *T. undulatum* gave up the ghost after the first blooming. This, of course, was no fault of the supplier. We did not give them the depth of good acid leafmould soil that we have since accumulated, nor did we have the better shade of tulip trees and an American

linden which sprouted from the same leaf mould and have grown prodigiously in six years. We also have a volunteer *Cornus florida*, which is shaping up nicely, but is, of course, of much slower growth.

Three years ago when our oldest son, Tom, was compiling an herbarium as a sophomore biology project, we found plenty of *Trillium erectum* in a deep woods near East Liverpool, just west of the Ohio River, and we were able to replace the species in our garden.

We purchased *Iris cristata* from Walter Kolaga's Mayfair Gardens thirteen years ago. It has had its ups and downs, having been moved several times and blooming only rarely. Now we have it in light shade with the feeder roots in good humus and the rhizomes mulched in granite chips. It appears happy under these circumstances and we hope it will flower consistently from now on.

In July of 1966, we brought home a plant of the pad leaf orchid, *Habenaria orbiculata*, which was found growing on the edge of a roadside dumping ground and would soon have been smothered with rubbish. Last spring we dug two more in a different woods where dozens of the species were just emerging. Two of the plants bloomed last June, but one of the stalks was broken by a romping puppy, just as it was coming into flower. These plants are growing nicely in oak and beech leaf mould, mulched with stone chips and covered now with rotting pine needles. There was some nibbling of the basal leaves by slugs which we tried to discourage by sprinkling tobacco around—a technique that seems to work on the primroses in the same general area.

Some years ago, while fishing at a small lake east of Canton, we found a clump of wide-lipped orchid, *Liparis liliifolia*. It was out of bloom and we took it for an *Orchis spectabilis* which is relatively common in this area. One can image our delight when the weirdly pretty brown and purple flowers set on the following summer. It seemed completely satisfied and there were three blooming stalks the third year, but a squirrel dug the bulbs and though it didn't eat them, they were too dehydrated to recover when we found them. Since then, a plentiful source of the species has been found nearer home, and last summer we had five blooming plants about a week after the habenarias were at their peak.

Autumn ladies' tresses, *Spiranthes cernua*, blooms in October here. There were six plants at different places in the rock garden in 1961, but the count has dwindled to two last summer. These were moved to the shaded area and one bloomed to perfection, while the other continued to sulk. We know where to find replacements if these pass on and, since the area in which they are growing may become a new housing development in the near future, we will be prompt to act before the bulldozers move in.

The downy rattlesnake orchid, *Goodyera pubescens*, is relatively common in the non-glaciated area which begins at approximately the Stark-Tuscarawas line and extends southward and eastward. We had tried it several times but usually it failed to bloom and upon digging down one would find the rhizome rotting. Last spring we brought home a new plant, set it in leaf soil mixed with rotted oak wood and mulched it with granite chips. It flourished unabated and flowered the last week in July. We are beginning to believe that the answer to our native Orchidaceae problem lies in alpine culture.

The covering with non-alkaline stone chips seems especially beneficial.

The consensus of opinion among the wild flower experts on my book shelf seems to be that the showy orchis is one of the easier members of the order to grow. If this is true, I can only conclude that neither of my thumbs is, to any degree, green. One of the prettiest and most sweetly scented of our natives, it has resisted my most ardent ministrations. Two years ago, I found a colony of the pure white form, *Orchis spectabilis gordinieri*, from which I took one plant with an unbroken ball of soil. It bloomed out the cycle in the shaded rock garden but last spring we had only diminished leaves and no flowers.

Digging *Silene pennsylvanica* out of a shale bank, some forty miles east of here, in Jefferson County, did not promise much, since the plant is tap-rooted and was then in full bloom. We hoped that the seed heads would ripen, but the plants did not survive even that long. We still have some *S. wherryi*, which were seed-grown more than ten years ago. It bears flowers of a richer, deeper pink and is a first class rock garden plant, but is not so prolific as the *pennsylvanica* variety, which reputedly, often blooms itself to death.

Most of our native buttercups are too weedy for the rock garden. *Ranunculus hispidus* is a nice compact plant when it starts blooming in early spring, but as the season goes on the stems run out to two feet or more in every direction. Homer House says that it doesn't root at the leaf nodes but ours do on occasion if the soil or debris covers part of an extended stem. We also grow the naturalized *R. bulbosum*, but take care to snip off fading blossoms before seed sets.

The early meadow rue, *Thalictrum dioicum*, is an ideal plant for shady rock gardens, with creamy flowers and nice foliage. Strangely, we didn't find it until two years ago, but since then have found it abundant in several localities.

Last May, while hunting morels, I encountered a double-flowered rue anemone and, since it seemed lonely out there in the woods where cattle were being grazed, I brought it home to a place of honor in the rock garden. Not the fabled pink of Oscar Schoaf's variety, this one seems to be forma *favilliana*. It continued to bloom for almost two months—long after the specific *Anemonella thalictroides* had given up.

The wood anemone, *Anemone quinquefolia*, is not too hard to find in this area but doesn't grow well for us. *A. lancifolia* lasted much longer—one plant surviving and still blooming in its season after seven years.

Many years ago we tried some marsh marigolds, *Caltha palustris*, in the garden and though we could not provide as much moisture as the plants prefer they showed up and bloomed as the first wildflowers of spring for a couple of seasons. Probably they would have continued much longer but they got buried while dormant when alterations in the rock garden were being made and when we went back to look for more plants we found that the area had been flooded to make a recreational lake. We did not find another station until last spring, but in it there were dozens of clumps.

The white baneberry, *Actaea alba*, does not seem to be available locally and the plant we have was brought in from Guernsey County, some eighty miles to the south, where it is common. It sulked the first year after being

moved, but came on the following year and bore the ornamental "doll's eyes" in a full panicle.

The goldenseal, *Hydrastis canadensis*, has been hunted almost to extinction by collectors of medicinal roots, but last spring we found two areas where they were plentiful. Five plants were committed to our collection and seem to be thriving.

According to the flora, *Corydalis aurea* might be found in this area, but we started it with ARGs seed and it has been around for several summers. Every time it seems to have vanished a new volunteer has cropped up somewhere. We weren't as lucky with *C. sempervirens*—another biennial. Ripe seed we brought from a plant found in Tuscarawas County germinated easily, but for some reason the strain faded out after a couple of years and we haven't found any more.

Hunting assiduously for Dutchman's breeches, *Dicentra cucullaria*, we had almost become convinced that there were none in this part of the state; however, one Sunday afternoon last April I explored just a few hundred feet further northward on the old Ohio Canal section between Warmington Road and the Massillon city limits, and there in a tangled thicket of chestnut oak, witch hazel, and wild grape vines were hundreds of the blue-green rosettes with stalks just beginning to bud. In the canal cut the glacial till had been exposed and the plants were thriving mightily in a synthetic moraine. I brought home about fifteen plants and almost every one flowered a week later.

The squirrel corn, *Dicentra canadensis*, may also have been native here at one time, but since it is vulnerable to rodents I would guess that it has been pretty well cleaned out. We tried some purchased corms a few years ago and as soon as the species had made its presence known with the first flowering, the city squirrels appropriated them.

In an article published in a horticultural magazine many years ago, *Dicentra diphylla* was listed as one of "The Twelve Most Adaptable Plants." We haven't found it so. Not only does it refuse to bloom, but chewing insects find it a most delectable salad.

Heuchera villosa germinated generously from ARGs seed, and plants are growing and blooming in all exposures presented by our rock garden. It varies in stature but seems equally long-lived in sun or shade, poor or rich soil. We like it very much for its late blooming and distinctive foliage.

Bowman's root, *Gillenia trifoliata*, was brought here from Noble County, but doesn't at all mind the slightly colder winters and more generally alkaline soil. It has not failed us in more than ten years, which seems to indicate that individual plants are quite long-lived.

Rosa carolina is rather large for a rock wall, but we cut it back severely after each blooming and are rewarded every June with scores of the lovely pink single blossoms which pervade the air with a scent more heavenly than is exuded by any hybrid rose we know. Another feature—and one an ex-nurseryman appreciates—is that it is relatively free of pests and disease.

Baptisia tinctoria can be found readily in Stark County, but we haven't been able to transplant it successfully, partly because of its long tap root and possibly it also needs inoculation with the bacteria some legumes employ for the nitrogen producing factories in their root systems. I would like to try to grow it from fresh seeds, but never seem to be at the right place when

they are ripening. The intense yellow of its flowers is appealing and it would be a lovely plant to trail down from the top of a wall.

We brought home some *Oxalis violacea* some years ago, prepared to discard it if it displayed its tendency to weediness. So far, it hasn't liked the rock garden that well, and just manages to maintain the status quo.

Pachistima canbyi is usually available at local nurseries. We lost our first plant, which had been set in shade in a moist, humusy soil. The next one was put in a dryer, more starved location at the top of the north-facing wall. It seems to like it there, withstanding the full blast of winter winds as well as the plus ninety degree F. heat of our summer sun.

Panax quinquefolium, the American ginseng, is another plant almost cleaned out by the root hunters, but it may get a reprieve now that we no longer do business with China. I have had a plant in an unfavorable position for several years and it did not bloom. Last summer it was moved to the new wild garden where it seemed to perk up very quickly. The dwarf ginseng, *P. trifolium*, is more prevalent, but is harder to transplant, having a long, very brittle underground stem extending to the often deep-seated tubers. We had two plants which bloomed unflinchingly for several years but finally departed, possibly from being accidentally disturbed while they were dormant. We found a new colony last spring and now may be able to keep the species going.

The mottled pipsissewa, *Chimaphila maculata*, can be found in sandy acid soils of woodlands a few miles to the south, but we have not found it in this county where the glaciated soils are predominately limy. We tried a few plants some years ago, setting them in a mixture of sharp sand and peat moss in a partly shaded place. They stayed for three seasons but did not bloom and finally expired.

Only slightly better luck was had with *Pyrola elliptica* which I salvaged from a woodland being slashed for strip mining. These plants bloomed and were apparently happy in a rich, peaty place at the foot of the basswood tree, but one day I returned from work and found to my horror that my neighbor's game fowls had jumped their reservation and were using the pyrola bed for a dust wallow. Not one plant survived, and I haven't found another source.

Trailing arbutus, *Epigaea repens*, can be found in Tuscarawas County and, I dare say, in other areas eastward toward the Ohio River. Several years ago we dug a plant just coming into bloom and set it in a deep pocket of acid peat and sand in a shaded place in the rock garden. We babied it throughout the summer, never allowing the soil to dry out and sprayed it with chelated iron solution which we use on rhododendrons. The clump grew and bloomed profusely the following spring and we were sure that it was happily established, however it diminished in the third season and expired the fourth year after putting out one small flower. One thing that may have precipitated the decline was that the old tree which sheltered it broke up in a wind storm, leaving it exposed to the noon day sun; however, as Dr. Wherry suggests, the species is not apt to succeed where earthworms are prevalent because they keep bringing up the underlying limey soil in exchange for leaf mould and peat.

The wintergreen, *Gaultheria procumbens*, has proven even more exas-

perating here. We have tried plants on three occasions and each time they expired after a year or so without even blooming. We haven't tried digging it in winter as a frozen sod, which Norman Taylor recommends, and it is not likely that we will now that the single station where we used to find it in abundance has been obliterated in the establishment of a stone quarry.

Only one ericaceous plant has been completely successful in our garden—*Vaccinium vacillans*, our area's "huckleberry." It is a rather straggly shrublet with negligible ornamental value, but the berries are delicious.

The milkweeds are all beautiful in flower but are mostly too big and weedy for rock gardening; however, we find the butterfly weed, *Asclepias tuberosa*, in most lists of rockery plants, and certainly the color of its flowers is most distinctive. Jean de Graff, in his *New Book of Lilies* warns, however, that the Asclepiadaceae all harbor the aphid which transmits mosaic disease, and we have been more fond of our lilies than we would have been of the butterfly weed, which we can see in abundance by driving a mile down Route 21.

Our two plants of *Hydrophyllum canadense* were taken from the edge of a cold brook running through a deep hardwood forest, about forty miles east of here. Both are now growing in a dryer, more mineral soil but haven't failed to bloom, though some leaves brown on the margins when the weather is real hot. We have had them for several years and have found no seedlings around them so they can not be as weedy as our locally prevalent Virginia waterleaf. We find the white balls of florets interesting—suggesting the flower form of western phacelias, which germinate readily but will not grow here. *H. appendiculatum* is a biennial, but quite pretty in flower. We found some last spring near the village of Bolivar and brought home three plants for trial.

The Miami mist, *Phacelia purshii*, is also an exquisite thing with frilled violet-bordered white flowers. It is an annual in duration, but has re-seeded itself for four years in an east-facing wall.

Virginia bluebell, *Mertensia virginica*, can be found locally, but we bought nursery-grown roots some twelve years ago and there has been no need to augment our supply. It self seeds moderately and we have had plants to give away, as well as enough to keep up our own stock.

I have been fascinated with the skullcaps since finding *Scutellaria incana* three years ago and since then, at whatever stage of growth, have brought home anything that looked like the genus. To date, three more scutellarias and two species of stachys have been accumulated in this manner. *Scutellaria incana* and *S. integrifolia* are too tall for the average rock garden, but both bear abundant flowers of so fine a violet-blue color that one simply must find a place for them somewhere. *S. lateriflora* has tiny flowers in one-sided racemes springing from the leaf axils and produces a veritable multitude of them. Fernald gives the height of the stem as .1 to 1 meter, but those here have stayed to the low side and are within excellent rock garden size. *S. nervosa clavifolia* is the other skullcap—an almost prostrate plant and a perfect rockery subject. Unfortunately, I haven't enough seed from it to share with the Society, but perhaps next year I will have.

Whatever variety of *Stachys palustris* I have, I wouldn't recommend it. The extreme hirsute foliage is pretty, but the plant is an extreme ramper and I lost no time in getting it out of the rock garden and into the junk

section where it can compete with *Ajuga reptans* and other stoloniferous weeds. *Stachys riddellii* proved to be much cleaner with larger flowers of a light purple splashed with carmine. It, too, is quite tall and would be good only for the wild garden or border.

Blephilia ciliata appears in habit like a smaller *Lamium maculatum*, with flowers in whorls like a tiny monarda. It is quite pretty but does too well in either sun or light shade. I wouldn't recommend it among choice alpiners for it produces an abundance of seed, all of which seem to grow where they fall.

Frost weed, *Cunila origanoides*, was found in Coshocton County early last autumn and time will tell whether or not we gave it sufficiently acid soil. It was past flowering when dug, so we know nothing of its performance, as yet.

Chelone glabra elatior (Raffinesque—Schmaltz or *C. g. rosea* (Fernald), by whatever name, is a real beauty and Mr. Schmidt is to be thanked for sending it to the Seed Exchange. The plants we grew do not seem to resent a position somewhat dryer than their natural habitat and perhaps they stay within better rockery stature that way.

The plant I have been submitting as *Penstemon hirsutus albiflorus* since I joined the ARGs has remained unchallenged, though I have been expecting that a more experienced plantsman might write to inform me that the thing is not really *P. hirsutus* at all. I have checked it several times against Fernald's text, Ralph Bennett's descriptions in the *Rock Gardener's Handbook*, Homer House's *Wild Flowers* and Wherry's *Wild Flower Guide* and it just doesn't seem to fall into any precise niche in the penstemon nomenclature. Certainly, the wild colony from which this variety was taken mostly had bicolored corollas, and they looked like House's color plate, but whether white or lavender flowered, the plants are only about half as tall as the specimens I used to find in southern Ohio. Actually, the albino variety, as grown here, would take no beauty prize in any flower show. As a white-flowered beard-tongue the inflorescence is much inferior to that of *P. digitalis*, which however, is too big and weedy for the rock garden. Our most showy penstemon is *P. diffusus* which comes from the Coast Range from British Columbia to Oregon, and is as adaptable here as our own natives. *P. pinifolius* has also been quite successful and is a fine wall plant whether it blooms or not, though usually it does.

Ruellia pedunculata and *P. purshiana* both germinated and grew well from Leonard Uttal's seed. The former blooms all summer and into the autumn in the west-facing wall and is one of our most prized rock plants. *R. purshiana*, as we have it, has borne only cleistogamous flowers and must be forma *claustriflora*.

Houstonia canadensis (Wildenow) or *H. ciliolata* (Torrey), next to the widely known *H. caerulea*, is the most prevalent of the genus here. It likes an acid soil, and performs well only when it grows among stones. It blooms over a long period—usually from early July through October. Another species, brought here from Noble County, was completely glabrous with very thin peduncles, and seemed to fit the description of *H. tenuifolia*. Unfortunately, it did not remain in our garden long enough for a thorough study to be made. There is plenty more where it came from, however; the next time we are down there I hope to get more of it and try it with stone chips.

Since *Campanula rotundifolia* is circumterrestrial in the Northern Temperate Zone, I shall claim it as a native, though I haven't found it wild in northern Ohio. We have three distinct varieties, one is dark blue, all grown from seed. We also have *C. divaricata* which was purchased from Robbins. All harebells are long-lived here, and self sow moderately.

Lobelia siphilitica is another fine plant for late summer bloom and its fine blue-violet flowers are always welcome. It prefers moist places but will tolerate considerable dryness in light shade.

Most of our native composites are too big and too weedy for our rock garden but, since there are some untended city lots to the windward, we get a full quota of asters, erigerons, goldenrods, and eupatorium without trying. We had *Chrysopsis falcata* from ARGs seed for a couple of seasons but it did not make itself at home. *Coreopsis auriculata nana* is, of course, a must in every rock garden and we have had it since we began piling rocks together. *Eupatorium coelestinum* is fine for fall color, and weedy as it is, we haven't been able to bring ourselves to eradicate it completely. Our most prevalent antennaria in this area is the least pretty, *Antennaria plantaginifolia*, but we grow some of it at the top of the north-facing wall, where nothing else survives long. We have another species which may be *A. neodioica*, but our mainstay pussytoe is *A. dioica rosea*, which comes from Claude Barr's Great Plains area and is, therefore, from out of our range. It came abundantly from ARGs seed and has made itself completely comfortable here.

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LEWISIA REDIVIVA—From pages of the *Bulletin* of the Alpine Garden Club of British Columbia experiences of their members in growing this plant are reprinted here, with permission. Mrs. Muriel Ross writes, "I have managed to grow, bloom, and increase *Lewisea rediviva* in a peat wall. Experts have told me, 'No, it can't be done, they don't like peat.' Perhaps the Lewisias don't realize this, as they seem to thrive, in my climate, anyway. Between the peat blocks, I have pounded in as much ground tufa and granite chips as I can make stay in, then I planted the Lewisias and tucked as much of the granite chips as I could around the neck of each plant. I make sure after each heavy rain that the plant isn't loosened or has lost its collar, especially when the winter foliage starts to show. I think anyone can grow this plant, in a wall, with a south face. My peat wall faces south, and I grow Ramondas on the other side of it." Mr. Jim MacPhail states that he has no success at all with *Lewisia rediviva* outside in the rock garden, but he adds, "There is no trick at all to producing good pans of *Lewisia rediviva* under glass in a coldframe or alpine house. The potting mix I use is equal parts of loam, leaf-mould, and coarse sand, although they don't seem to be at all fussy about their diet as long as they don't have too much lime. I have some plants growing in fairly large pockets in a tufa rock, but these are not doing nearly so well as those in the pots—apparently they get too much lime from the tufa. If the plants are over-watered they get overly succulent and flabby. In this condition they are easy prey for green aphids. If this happens I give them a shot of Diazinon spray and let them dry out a bit. After they go dormant they are placed up on a cat-walk in full sun and get no water whatever until November."

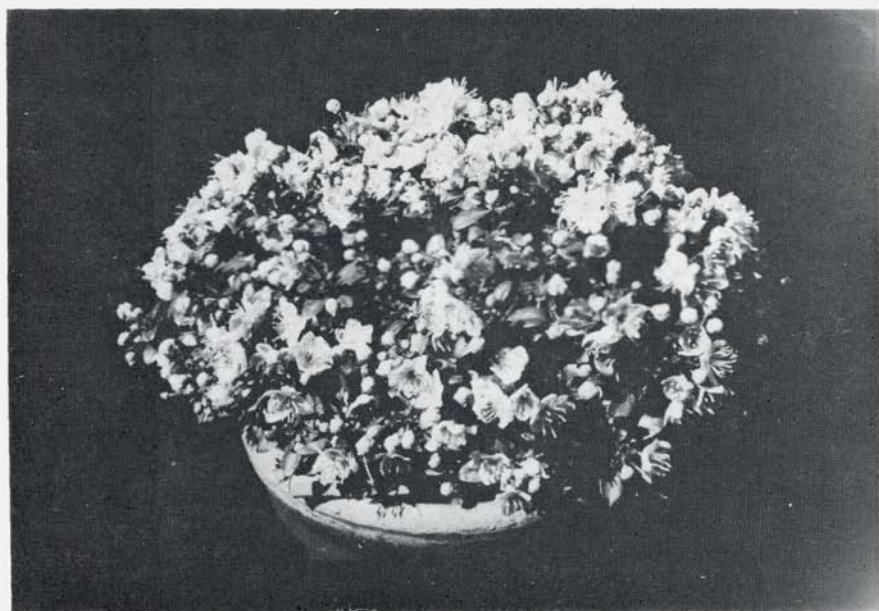
KALMIOPSIS ADDENDA

ROY DAVIDSON, *Seattle, Wash.*

There are very good and specific rules regulating plant nomenclature which should take care of any eventualities that may occur in *Kalmiopsis* or any other taxon, one of which (Art. 34, p. 49, International Rules of Botanical Nomenclature, 1950) states that the creation of any sub-specific category to include a portion of a genus or species automatically creates a second one, quite naturally, to include those portions excluded in the first act. Thus the recognition of *Kalmiopsis leachiana* 'Umpqua River form' for the plants of Douglas County, Oregon, automatically created a second form, those from Curry County, Oregon, and for which the name 'Curry County form' was proposed. There is no evidence that one or the other of these consists exclusively of dwarf members, though the observations both in the wild and in the garden would indicate a more densely congested type of growth for the former.

Through a regrettable oversight, mention was not made in the recent *ARGS Bulletin* article (July, 1967) of the two plants awarded in Scotland. Mr. Harold Esslemont has sent me the following information:

Kalmiopsis leachiana 'M. le Piniec' was given the Award of Merit when shown before the Royal Horticulture Society's Joint Rock Garden Plant Committee convened in Aberdeen in 1965. It was also given the George Forrest Medal for the best plant in the show. It was originally from a cutting



Kalmiopsis leachiana 'Umpqua River form' F. C. C.

H. Esslemont

from one of the plants sent by Mrs. A. C. U. Berry.

A plant of 'Umpqua River form' was awarded the First Class Certificate when shown at the same time. Originally it had come as a plant from Saxon & Wilson.

This brings to a total of four the designated clones of 'Umpqua River form' of this fine plant. According to the usage followed, the awarded plant and all vegetative propagations from it are designated as 'Umpqua River form' F. C. C.; the clone 'M. le Piniec' may likewise have its name followed by its award designation, thus 'M. le Piniec' A. M.

SEED COLLECTING AND SEED CLEANING

H. LINCOLN FOSTER, *Falls Village, Conn.*

As the seed exchanges of the various plant societies grow in importance and favor, the amateur contributors are annually faced with the rather fussy job of collecting and cleaning. The quality and fertility of the seeds in the offerings depend in large measure on the care with which these two steps are carried out; it does not seem amiss, therefore, to offer a few suggestions about procedures. These may also help some members with a job that seems so mysterious and difficult that it dissuades them from making contributions.

It is, of course, necessary to keep an eye on ripening seeds so as to collect them as close to maturity as possible, but before they have scattered and vanished. Not all ripen at the same rate and frequently not all seeds on a plant mature simultaneously; I have found, however, that it is not essential to gather every day. Once a week on a regular schedule will generally be adequate, though some early blooming plants do ripen their seeds very quickly and must be watched more closely. Dicentras will suddenly open their seed pods when they are still quite green on the outside. The same is true of bloodroot, violets, and geraniums. Though hepatica seeds begin to fall from the cluster while still quite green, most seeds change color when mature and most seed capsules darken before opening.

I have found that it is quite possible to gather most seeds before they are completely ripe if one gathers the whole stem with the capsules adhering and put them into a paper sack to mature. With campanulas, for instance, the last flowers will be opening when the seeds of the earlier flowers are fully ripe. If one cuts the whole flowering stem at this time and encloses it in a paper sack the ripe seeds will fall out and the rest will mature in the capsules. Seed in a pulpy fruit will also go on ripening if gathered on the branch. The same is true for the Compositae. Many of these last will be carried quickly away by the wind if left to ripen completely. It is wise to test by pulling gently a few seeds from the disk when the awns begin to change color. If they separate easily and the seed part is beginning to turn from green or white to brown, it is safe to gather. Such seeds with awns or feathery stigmas can usually be pulled away from the disk when ripe and, without further cleaning, put into seed packets with appendages attached.

With some plants such as poppies, shortias, trollius, many bulbous plants, and primulas, which open their capsules at the top, it is possible to

wait until the pod opens and merely shake the ripe seeds into a coin envelope by bending over the stems.

It is a good plan to have on hand a supply of paper sacks of various sizes for your collecting forays. These can be purchased reasonably from your grocer or hardware man who generally has an assortment of sizes. As you gather your seeds be sure to carry a pencil and write on the bag the full name of the plant from which you have collected the seed. Don't trust to memory.

Flowering stems collected for post-ripening should be plunged head-down into the paper sacks of sufficient size to allow air around the heads to prevent mildew. Store them in an airy, dry room until ready for cleaning. There is no reason why most of them should not be kept thus until near the end of the collecting season so that all cleaning operations can be done at the same time.

Cleaning is, to be sure, an intricate and rather wearisome chore. If all seeds were of the same size and all loosened themselves from their moorings in the same fashion, the process would be simpler. The seeds of some plants, it is true, can be shaken from the ripe capsules or pulled loose quite easily, but most will not be parted from their holdings so simply. Because there are many gradations of size and shape, you do need a variety of equipment for this operation. Fortunately, except for the final packets into which you shuffle the cleaned seed, these implements are usually at hand in the kitchen or attic.

Upon a large table, preferably in a place where chaff and "flug" may freely scatter, congregate sieves and strainers of all sorts available, a smooth-sided colander, and a number of shallow cardboard boxes such as those used for handkerchiefs, socks, candy, soap bars, etc. Such boxes and their lids are most useful if they have a smooth finish on the inside surfaces. You should also have on hand a good magnifying glass.

Place the colander in a wide but shallow cardboard box and shake into it the dried seed heads from one of the sacks, making sure to search out stray seed caught among the bottom folds. Plunge your hand into the mass of dried heads in the colander and gently shift them back and forth, watching meanwhile to see if something resembling seeds falls through into the box. Without crumpling the seed heads shift the colander to another empty box and study the contents of your first box through the magnifying glass. If you detect brown or black uniformly shaped objects, these are probably seeds. But not all seeds are of these colors. Common sense, however, and a perceptive eye aided by the magnifying glass will usually distinguish seed from chaff.

If most of your catch is seed, you should next lift the box and its contents to mouth level with both hands. First tilt the box away from you until all the seed and chaff are at the distant end, then tip the box toward you on a slight angle and gently shake it from side to side while at the same time you blow gently across the tumbling slide. The heavier seed should roll downhill and congregate against the lower rim of the box; the chaff will be blown toward the top or off into space beyond the farther edge. Next, carefully, so as not to mix the separated piles of chaff and seed, tip the box sideways over two other boxes placed closely side by side so that the seed

falls into one and the chaff into the other. It is now quite simple to spill the seed into an envelope and the chaff into a nearby waste bin.

Frequently, unfortunately, the operation is not so simple. Often, upon examination of the first fall-through, there is not enough obvious seed to justify the separation by blowing. You must then replace your catch in the colander which still contains the material which did not sift through before and manipulate the flower heads more forcefully to release the seed (if any). Again study the fall-out through the magnifying glass. Now there will probably be a greater proportion of crushed leaves and other chaffy stuff, but there may be also a few seeds. At this point you may prefer, instead of blowing, to separate the chaff from the seed by sifting through one of your sieves. You can work it either direction. Either use a screen size to hold back the seed and by rubbing work through the broken "flug", or by shaking in a wider mesh sieve let through the seed and hold back all but the finest blowable chaff. Sometimes it takes a number of successive operations with colander, sieves, blowing, and even finger pushing to separate the seed from the chaff. The process has its own fascination and is subject to refinements by the ingenuity of each experimenter.

There are a few types of seed which call for special treatment either in gathering, storage, or cleaning.

Seed contained in pulpy fruit is difficult to extract. If the ripened fruit is soaked in water until it has fermented most of the pulp will disintegrate and can be rinsed off by putting the rotting fruit in a sieve under running water. The seed can then be spread out on a paper towel or newspaper to dry and any remaining pulp will separate quite readily from the seed.

Some seeds like those of dicentras and bloodroot have a soft fleshy appendage at the point of attachment. If this becomes dry, germination is greatly retarded or the seed may even be destroyed. Clean such seeds as soon as ripe and enclose them in a glass jar.

Seeds with thin coatings, like those of lewisias and dianthus, are easily crushed and damaged. Avoid using pressure when sieving; and when shipping protect the seeds from crushing during transit.

Rhododendron and some other Ericaceae have fine seeds enclosed in very hard capsules. In time they split and spill the contents but this may be in very late fall or during the winter. The capsules may be gathered before they open but after they have changed from green to brown. If stored in a warm, dry place they may split of their own accord or they may have to be forced open. This latter process is hard on the fingers but can be done by using pliers or a Mouli grater.

For storing and sending very fine seed like that of saxifrages, calceolarias, and ramondas, it is safest to put them in a small glassine envelope or fold them securely into a piece of waxed paper before placing them in the paper envelope on which the name of the seed is printed, carefully and clearly. And be sure, always, to be as accurate as possible in naming and spelling.

By following these directions or working out your own refinements of the process, you may be enriching the gardens of your fellow rock gardeners and deriving a real sense of satisfaction. You will also cheer the heart of the hard-working seed exchange director if you send in packets of carefully cleaned and labeled seeds.

SEED EXCHANGE NOTES

LAWRENCE CROCKER, *Medford, Ore.*

This year I had the pleasure of packeting over 23,000 envelopes of seeds representing 2100 plant species and varieties. Seed for distribution was sent from nineteen foreign countries with leadership tied between Czechoslovakia and the British Empire (England 5, Scotland 4) with nine contributors each, followed by New Zealand with four. As might be expected, of the thirty-two contributing states, the three with the largest membership, Washington, New York, and Pennsylvania, in that order of contributing, were leaders. In proportion to membership, the states of Maine, Maryland, Alaska, and Oregon rated near the top. Seed was mailed to 110 of our overseas members in nineteen countries. In Canada and in this country 670 orders were filled. This is an increase of more than fifty orders over last year.

Little seed was held over under the new plan of sending excess seed to regional chairman who requested seed for regional distribution. This may seem unfair to members at large, but a second distribution to all members requires more time than can be spared, and also involves considerable extra costs. Unfortunately a few of the overseas shipments arrived too late to be included in the earlier orders. One shipment from France was in transit for over six weeks. Perhaps Air Mail shipment would be of help.

More contributions are desired if all orders are to be filled, especially now that each year the orders increase. Our own countrymen could help by sending more of our native seed which is in demand overseas. Our own members are anxious to receive seed from overseas. I am making a plea for more seed of the Primulaceae (Primulas, Androsaces, Dodecatheon, Cyclamen, Douglasias, etc.), more of the *Lewisia* species, and everything in the Heath and Iris families. Individual species in great demand included *Calceolaria darwinii* (which everyone desired), *Lewisia tweedyi*, *Oenothera caespitosa*, *Penstemon rupicola*, *Phyteuma comosum*, *Adonis vernalis*, *Silene hookeri*, Soldanellas, Ramondas, Douglasias, and anything with the terms "alpina" and "caespitosa" used in the name.

A few amusing incidents occurred to brighten an often tiresome and time consuming job. For one it was the quinine bitter taste left by some of the Penstemons and Artemisias, and also the unpleasant odors of the first mentioned. From one packet a lively earwig emerged (that is one thing we do not need here). From another packet a hoard of scampering beetles greeted me. I limited customers to one beetle each. One contributor carefully sifted the soil from a huge packet of seed and sent me the soil.

Regardless of the chance that some of the good contributors might take offense and not send seed next year, I would like to make a few suggestions. In the case of large seed it is very easy to clean out the dust by sifting through a sieve. (See another article in this issue concerning seed cleaning). The thing that bothered me most was the use of sticky plastic containers with labels inside. Small seed cling to this and as it is almost impossible to remove, much of the seed is lost. The label invariably gets turned around and has to be dug out. Nothing is quite as good as the old reliable

coin envelope. It would be a great help if species names were printed on the envelopes.

Along with the seed orders many personal letters were received, but due to lack of time, I was unable to answer them. I wish to thank the members for their interest and consideration and patience with my many mistakes. Suggestions for the improvement of the service were noted and changes will be considered next year. One change will be to reward contributors in a different manner. For one thing they will have first choice of seed. This alone should be a good enough reason for an increase in the number of contributors.

ORCHIDS IN CZECHOSLOVAKIA IN THE WILD AND IN THE GARDENS

VACLAV PLESTIL, *Turnov, Czechoslovakia*

I should like to link up a few words as a continuation of the article on *Cypripedium calceolus* L. by Dr. Vladimír Chaloupecký, which was published in the October, 1966 *Bulletin* of the American Rock Garden Society.

Over the years some of our wild orchids have become favorites of mine in the rock garden, and many other alpine gardeners in our country grow them with success in accordance with local conditions and the care with which they treat these lovely plants.

Cypripedium calceolus L., always a favorite of alpine gardeners, is one of the orchids that is very rare in the wild. Because it is well-tempered and of easy culture it has become, in the last few years, very popular, although perhaps it is not offered by any nursery.

Propagation by seed is still not mastered, although many specialists have made many experiments. One friend, two years ago, had one flat full of seedlings to 4 cm high, but they were later killed by overwatering. Rare even are cases of self sowing of this *cypripedium*. I had only one seedling which appeared at some distance from the parent plant, while another friend, living in Turnov, had several spontaneous seedlings in his semi-shaded rock garden.

Usually it is propagated only by division of the mother plant, but much more productive is the method of propagating by very small rootstock cuttings, which is the way I do it. Even the smallest piece of rootstock will grow in suitable conditions. In the first season such cuttings will produce new roots and stimulate some of the adventive vegetative tops underground. In the second season they will usually show stems with leaves, and in the third bloom can be expected.

In the rock garden *Cypripedium calceolus* is usually planted in a neutral or slightly alkaline mixture of limy clay and leafmould with some limestone chips, but I cannot say that successful growing of it would be impossible in any other soil. One of my friends has planted his nice colony of these ladyslippers near the top of the southeastern slope of his "main hill", in light soil, heavy with sand and the rest the usual garden soil mixture. To his joy, these *cypripediums* bloom richly, only their internodes are somewhat

*Cephalanthera rubra* and *C. alba*

Vaclav Plestil

shorter, and none of the plants are more than 15-20 cm high.

Near my home, this cypripedium is growing on the riverside, and each spring for several days the rootstocks are under water, and all summer it is in a very wet spot, yet the clumps are fine and vigorous. In another area I have seen this lady's slipper growing in spruce forests, where it is shady, either on strong layers of humus or in poor clay soil, free of any other vegetation—and the extreme of its ecological amplitude seems to be one smaller locality in Slovakia in light pine forests, where it grows in very acid soil on sandy ground. But these plants were less vigorous, though they did flower each year.

Another genus of lovely orchids in our country, with rootstock underground, is *Cephalanthera* L., represented in our flora by three very fine species, which are rarely grown in gardens. All three inhabit limestone areas in the warmer parts of our country, mostly growing on layers of limestone chips mixed with limy clay and leafmould in beech woods. The two white flowered species often climb to submountain or mountain zones in some areas.

The first and most decorative species is *C. rubra* (L.) Rich., resembling in its habit the more narrow-leaved and less robust Helleborine, with two to twelve pinkish-carmine flowers with bright cadmium yellow sign at labelum, which has a nice whitish blotch at its base. *Cephalanthera rubra* is still

very rare in cultivation because of its requirement of a perfectly drained spot, not cool, but never hot in summer, and a well-sheltered corner.

The other two cephalantheras are white-flowered and both are much easier than *C. rubra*, and in many rock gardens are to be seen very nice older colonies, well-established and still increasing. The first, and perhaps the more popular, is *C. alba* (Cranz) Simk. (syn. *C. pallens* (Sw.) Rich., *C. damasonium* (Mill) Druce. It is up to 50 cm high and has its glossy, dark green leaves alternate on the stem. They are ovate, with distinct veins. If treated as is *Cypripedium calceolus*, it grows well in any neutral or slightly alkaline soil in good drainage. I have had my plants for several years and they seem to be happy in their spot under a small maple, *Acer palmatum*, in the limestone part of my rock garden.

The third, *Cephalanthera longifolia* (L.) Fritsch, mostly better known under the synonym *C. ensifolia* (Sw.) Rich. is as nice a plant with leaves somewhat narrower and very decorative. The flowers have narrower petals and are very similar to those of *C. alba*. This cephalanthera grows in places similar to *C. alba*, though perhaps it prefers a moister and cooler spot. I have not tried it, but in the garden of a friend to the north of us is a very nice clump of it, rich-flowering each year in slight shade, in close neighborhood of the fern, *Phyllitis scolopendrium* (L.) Newm., and some small aspleniums. I enjoy seeing it in my friend's garden where it is planted in heavy, but not too limy soil on a gentle northeastern slope.

Many words have been written on the various species of *Epipactis* Zinn. Even in our *Bulletin* the more common species were discussed—*Epipactis helleborine* (L.) Cr. (Syn. *E. latifolia* (L.) All.). Even in our country it grows well in suitable conditions, increasing and wandering underground. In gardens it will produce, when undisturbed, large but free colonies. Finally, although the plant is not too showy, a detailed look at its greenish, purple-tinged individual flowers will reveal their exotic shape.

I prefer two species of *epipactis*: the first, different from all the others, a strict lowlander and an inhabiter of neutral and alkaline meadows in most warm areas of our country, is *Epipactis palustris* (Mill.) Cr. It is a smaller plant in the general habit of *E. helleborine*, but with stems turning to dark purplish-violet. In the upper part of the inflorescence are some pendulous buds. The flowers have very nicely arranged colors. Tepals are greenish outside, with a brownish-red shade, the inner side is tinged slightly by pale reddish-brown; labellum, or lip, is 10-12 mm long, white at the base, with fine lines of reddish veins, which turn to pink, and with dark yellow spots. It is my favorite of this genus, although it grows, as the name implies, in swampy and boggy places. In my rock garden it grows well, both in clay near a small pool, and in upper places in a very dry spot with the same heavy soil. Its vigor is miraculous; it was not damaged by a very dense cover of *Sagina subulata*, through which it easily grows. Such cover usually kills slowly even the most resistant bulbs, such as *Galanthus nivalis* or *Scilla sibirica*.

Very near to *E. helleborine* is another not too distant species, *Epipactis sessilifolia* Peterm. (Syn. *E. purpurata* Sm., *E. violacea* Bor. etc.), which is often present in localities with *E. helleborine*, and because of this is perhaps often neglected. All the vegetative parts of *E. sessilifolia* have a distinct violet-purple shading and its difference is distinguishable at first

sight for its leaves are not longer than the internodes. In my area it is present only on some poor localities and I did not wish to take it.

The following two species are more lovely but of somewhat less easy culture; *Epipactis microphylla* (Ehrh) Sw., is a smaller plant only 15-30 cm high with much smaller leaves than other species. They are narrowly ovate or lanceolate and flowers are purplish-green in a loose raceme, with dull rose-purplish labellum. It grows on limestone in humid, warm beech forests in eastern Moravia, and sparsely in Slovakia. The second species, and the most showy of the genus, is undoubtedly *E. atropurpurea* Raf. (Syn. *E. atrorubens* (Hoffm.) Schultz., *E. rubiginosa* Gaud.). In general habit it resembles any other epipactis. The ovate leaves are naked, in the lower part of the stem they are longer and slightly brought together; flowers are in a narrow and rich cluster and their color is carmine to maroon, often nearly black, sometimes turning to violet-purple; the throat of each flower has a bright yellow spot and the flowers are sweet scented. Very often all the plants, mostly those on a sunny spot, are all the same purple color.

I have had these lovely plants for several years; the main trouble with these orchids is that they are often damaged by slugs in early spring. It seems that the slugs prefer them to their other favorites, the campanulas and *Phyteuma comosum* and the early flowers of *Colchicum kesselringii*. *Epipactis atropurpurea*, differing from others of the genus, increases only very slowly and it seems to be most happy under the northern wall, where I have planted some ferns, phyllitis, various aspleniums and several *Ophioglossum vulgatum*, planted near *Orchis pallens*, of which we will write later.

Another dwarf orchid, which seems to have been purposely made for rock gardens, is *Goodyera repens* (L.) R. Br., the European brother of the well-known American Rattlesnake orchids. To describe it is not necessary here. All species resemble each other, but in my opinion our *G. repens* is very near to the American *G. ophioides*. In our country, *G. repens* is, from time to time, to be met with in the more cool and humid submountain spruce woodlands, always in shaded corners. It is not often found, but when it is it is in rather large colonies. I grow it in a shaded corner where the sun comes only in the early morning. It is near the small area where I have an older colony of my lovely, tiny plant, *Moneses uniflora*. This rattlesnake orchid grows often in association with *Moneses uniflora* in very acid humus. My plants are growing below my oldest and very high spruce. Perhaps the essentials for growth are not only the proper mixture of soil, but the presence of some fungi, usually present in the root areas of spruces. But these fungi are not entirely necessary for I have grown, as an experiment, for five years one goodyera in a pot under a parapet in my small greenhouse. It is interesting, that in the same spot under the spruce, but planted so as to receive some rainfall, is *Gentiana frigida*. For three years I have had several plants of it growing well there and seemingly quite happy.

Near our goodyera colony, in a less shady corner in a soil mixture more leafmould than the usual garden soil are planted two small colonies, one of *Platanthera bifolia* (L.) Rich. and the other, *P. chlorantha* (Gust.) Reichenb. These similar plants are growing from their vertical underground corms. Each has two basal leaves which are elongated to narrowly obovate, are glossy and a nice vivid green, themselves decorative. The stems with racemes

*Epipactis palustris*

Vaclav Plestil

of creamy white, lovely flowers of a very strong scent, are not more than 30 cm high in my garden. In the wild in some shaded spots it is higher.

Flowers of both species have long spurs. In the first species they are narrow in all their length, while in the second, they are a bit broader. In my garden they start to bloom at the end of May. Although the spot where they are seems to have been well chosen, I have never seen any self sowing of these desirable orchids, although in the wild can be found in some similar localities more than ten young plants (seedlings) for one mature one. It seems to be the habit of some of these orchids to produce only one new corm per year to replace the exhausted old one.

As a covering plant for these plantantheras, *Gentiana sino-ornata* Balf. f., was used and they were near some tiny primulas and young seedlings of *Lilium cernuum* Kom. which are adapted to these conditions. At one time I had in this same spot a plant of *Coeloglossum viride* (L.) Hartm., a dwarf, dull greenish-flowered species, close to the genus *Orchis*. It inhabits the moister mountain meadows and is not a lime lover. It was not happy in the spot I gave it and I transplanted it to another place with more peaty and gritty soil where it was slightly shaded and the drainage was good, and there it increased at a better rate. But it was not a plant of value for the rock garden, being in that respect in the same class as our representatives of the Twayblades, (*Listera* R. Br.). This genus is well represented in America by several species; in our country is the most common one, *Listera ovata*

(L.) R. Br., which is to be met with in the more moist meadows and at the edge of any forest. It is too high and "out-size" for our purposes; its leaves are too large and the inflorescence not too attractive, except in the detail of the flowers, the shape of which is very exotic, especially the lip which is long and furcate. The second species and much smaller is *Listera cordata* (L.) R. Br., a circumpolar plant and inhabiter of mountain swamps and meadows, not difficult and more recommended for an alpine meadow than *L. ovata*.

The next two orchids are perhaps most ideal for the rock garden, being able to grow and bloom in most any spot, except in persisting moisture; their name is somewhat poetic—*Gymnadenia* R. Br. These are smaller or medium-sized plants close to our own orchis. Both species have groove-shaped, narrowly linear leaves, alternate on the stem, and with rich and dense inflorescence of smaller flowers. In both of our species the upper sepals and petals are grouped into a hood, the lateral ones often outstanding.

Gymnadenia conopsea (L.) R. Br., a not too rare plant of light forests, shrubby formations, and drier meadows, preferring limestone, and present from lowlands to subalpine and alpine zones. In upper elevations it is more often to be seen in full sun as a very decorative component of alpine meadows, where it is not only on limestone, but, although sparsely, even on granitic substrata. The underground corms of this gymnadenia are divided into several finger-like parts, from which comes the Czech generic name—"petiprstka"—the "Five Finger Orchid." The stem, with linear-lanceolate, glaucescent leaves, which are upright and always groove-shaped, is usually 50 cm high, but in my garden in a sunny spot it is only 30 cm or less. The narrowly cylindrical inflorescence is composed of many small rose flowers; their color often varying to deeper or more pale shades. The lip of the flower is three-lobed and blunt; the spur is much longer than the seed pod. In rock gardens it seems to be happy in any spot, either in sun or semi-shade. I have several small groups of it planted in various places; in the sun near the pool in heavy soil where grow *Orchis latifolia* and *Epipactis palustris*. Another group is in semi-shade, where the ground is covered by leaves of old clumps of *Soldanella carpatica*, and where *Ranunculus alpestris* self sows. Two other plants of *Gymnadenia conopsea* are in richer soil near *Cypripedium calceolus*. That this gymnadenia is easy to propagate makes it more valuable. It replaces the old exhausted corm at the end of each summer with a new one, and the stronger plants produce two or three tiny corms often which grow to flowering size in two years if taken out.

Speaking of this plant recalls one of the finest moments of my life. It was six years ago in the summer and I had made a change in planning my usual journey into Slovakia. This year I went to visit the (I should say, "Paradise Lost") farthest northeastern part of our country where runs our boundary with Poland and USSR. The not too high mountains there, a continuation of the Carpathians, are called the "Low Polonines", because of their large pastures and fantastic meadows. Those meadows!

In my mind's eye I can still see that meadow, full of *Gymnadenia conopsea* with some platanthera in the shade of large trees on the margin—all in full bloom, with a strong fragrance. I was afraid to walk about in this meadow for everywhere were masses of flowering gymnadenias—an astonishing sight! This corner was at noon without people; only two falcons were

flying, and sometimes crying high over my head.

I had hoped to find some color variations here and perhaps the rare pure white form without lines on its blossoms, but this happened several kilometers later, before evening, when I found a group of pure white flowering plants on a ridge along the top of which runs the boundary of our country. I still have one of these plants that I picked up there and it has flowered each year, though there have been no young ones. But always this plant reminds me of the nice sunny day in the Polonines.

The second and a rarer species is *Gymnadenia odoratissima* (Nath.) Rich., usually shorter, inhabiting the same areas as *G. conopsea*, but more closely limited to limestone areas. For eight years I have had only one plant which has bloomed year after year, but has not increased. It can easily be distinguished from *G. conopsea* by its much shorter spur which is not longer than the seed pod. My plant came from a place close by a railroad station in mid-Czechoslovakia. It was growing there in very rich soil, nearly black in color. During further construction work on the railroad this locality was laid waste.

Another plant, closely related to both of the above species, is *Leucorchis albida* (L.) Mey. (Syn. *Gymnadenia albida* (L.) Rich.). It is not such a decorative plant when compared with the *Gymnadenia* species described above. Its flowers are whitish with a green shade, its leaves are much broader and of a clearer green, and glossy. It is a characteristic plant probably of all higher situated mountain meadows where it seems to be indifferent to soil conditions. The highest locality where I have seen it was about 2100 m in the High Tatras. It was on a firm scree on a southern slope. It is rather difficult to establish in the garden. Usually it takes about two years before it is well "sitting", but then it shows only leaves. Flowers in culture are rare. The proper situation for saxifrages of the Kabschia section seems to suit it best. In one garden in our area it was for several years partially covered by *Saxifraga oppositifolia*, but still it did not bloom. I had one plant in a northwesterly limy scree, but I lost it thanks to the slugs.

A short notice on the two species of *Nigritella*, *N. nigra* (L.) Reichenb., and *N. rubra* (Wettst.) Richt., may take its place here. These two small, dark reddish-pink species are very decorative, but do not grow in our territory though they were grown here in the gardens of several enthusiasts before the World War. The nearest they grow naturally to our territory is in the USSR in the East Carpathian Mountains—in Marmaros. I had hoped to find this plant when I was in the Polonines which belong to the East Carpathian floristic system, but I failed to find it.

Another high alpine gem from this group is *Chamaeorchis alpina* (L.) Rich., a truly dwarf plant with very narrow, groove-shaped and slightly falcate leaves and a very short stem usually no more than 10 cm high with a poor inflorescence of helleborine-like yellowish-green flowers with lateral "wings" turning to reddish or purplish-brown. It is limited to limestone screes in the alpine zone, never many in one locality. I was very surprised three years ago to see a well established and blooming plant in a small stony field in a rock garden of a friend in Turnov. He has this gem still living and in good condition.

TO BE CONTINUED

NOTES FROM THE NORTHWEST

DOROTHY METHENY, *Seattle, Wash.*

For the benefit of intrepid travelers who care to brave the complications of faring forth at this time, and for the armchair travelers, we are listing here a brief preliminary report of the results so far received by Brian Mulligan, Director of the University of Washington Arboretum and member of the Northwest Unit, ARGS, in answer to his questionnaire concerning alpine gardens or mountain gardens operated by botanical or other institutions in mountain areas of various countries. This questionnaire was distributed early in 1968 on behalf of the Northwest Unit. It is expected that information from more gardens will eventually be forthcoming. When all have been heard from, the results will be written up in greater detail.

In the meantime—the one mountain alpine garden known of in the United States is Mt. Goliath Alpine Unit of the Denver Botanic Garden. It is situated in the Rapajo National Forest, Colorado, near the highway to Mt. Evans, about 50 miles west of Denver and ten miles south of Idaho Springs. Final approach is by footpath from the parking lot on the highway. The garden altitude extends from 10,500 to 12,000 ft. It comprises a typical alpine meadow with native plants only, and no maintenance except that volunteers visit regularly to label plants. As the road is closed much of the year by snow, the open season is only about from June 1st to September 1st, and during that time from 150 to 200 visitors are known to arrive there.

In the center of Vienna, Austria (elev. 550 ft.) is the *Alpengarten im Bebevedere*, a large walled garden containing both natives and hybrids amounting to 4,000 to 6,000 taxa. During the six months of the year it is open, April 1st to September 30th, it sees approximately 30,000 visitors.

Very different is the *Alpengarten Rannach* (address—A-8046 Graz-St. Veit), in southeastern Austria. This garden, about 75 miles due north of the Yugoslav border, is smaller and privately managed under direction of a delightful octogenarian, who has one helper. Despite its 2,100 ft. elevation, its average January minimum temperature is reported to be not much below the freezing point and it is open all year to visitors, who may refresh themselves in its heated snack shop. For anyone driving, it is thirty minutes by car from Graz, with the highway leading directly to the garden house. Arriving by common carrier takes more doing as it involves tramway from Graz along the Mur River to Andritz, bus from there to St. Veit, and then a one-hour walk to the garden; but on summer Sundays there is a bus from Graz to Rannach. The plants represent natives of the European Alps, excluding Balkans and Caucasus, and amount to more than 500 species.

The Alpine Garden of the Czechoslovak Academy of Sciences is at Cernolice, about thirteen miles southeast of Prague, at an elevation of 1,000 ft. Its plant collection comprises about 1,500 species of worldwide origin, but it concentrates especially on those of the Carpathians and the Alps, as well as the natives of its own environment. Its present main task

is to propagate alpine plants for transferral to the park at Pruhonice and for exchange. It is open year-round, but may be visited only by special permission.

In France, the Jardin d'Altitude du Haut-Chitelet lies at an altitude of 3,710 ft., a mile and a quarter from the Col de la Schluch (pass) in the Vosges Mountains of northeastern France, and may be arrived at directly by highway. It is a division of the Botanic Garden of the City and University of Nancy, and is about 75 miles from that city. This is a brand new garden specializing in plants of the Vosges, and had its planting started only in 1967 and will, of course, be more interesting after two or three years. It is to be staffed from May 1st to November 15th. An interesting note is that volunteers helping to build the garden have been both French and German youths.

Straight south, close to the Col du Lautaret, immediately north of the Massif du Pelvaux, on the highway between Grenoble and Briançon, is the Institut Alpine du Lautaret. Like the above, it can be easily reached by those who may no longer be hardy alpinists, as it is only a few hundred feet from the highway. As the garden is at an elevation of about 6,600 ft., it is staffed for four months in the summer only, during which period an estimated 30,000 to 40,000 persons stop by to see its collection of natives and exotics.

About 60 miles northeast of Lautaret, by high-flying crow, is the Giardino Alpino "Paradisica", at Valnontey, near Cogne, in the northwest corner of Italy. This garden, which is situated within a national park, contains both native and exotic plants growing at an elevation of 5,500 ft. Some 10,000 visitors arrive there during the May to October open season.

If one were to drive north through Aosta, in Italy, and then pass through the Great Saint Bernard Tunnel into Switzerland, he would before long be able to stop at the University of Lausanne's alpine garden at Pont de Nant sur Bex in the Bernese Alps. This garden, at an elevation of 3,872 ft., is open six months of the year during which time about 10,000 visitors go to see its 2,000 plants. Its calcareous (pH 7+) soil supports both native plants and exotics from "all mountains of the world."

Another and much more elevated Swiss alpine garden (6,232-6,560 ft.) is the Alpengarten Schynige Platte, also in the Bernese Oberland, but near Interlaken. From June to the end of September it can be reached by footpath, or, for the less energetic, by railway which runs directly to the garden. It is a place to see plants native to the central part of the Alps, growing on sandy limestone (pH 7 to 4). This pleasure is made available by the members of the Society for the Alpine Garden. Some 35,000 persons yearly find it worth their while to make the trip.

In West Germany, another high (6,000 ft.) limestone garden is the Alpengarten auf dem Schachen, near Garmisch, Bavaria. This is a branch of the Munich Botanic Garden, from which it is 75 miles distant. It is staffed for a short season only—July 1st to September 5th. Its collection includes alpine plants from all continents, for which it offers a guidebook (in German). This garden can be reached by a small dirt road, but only about 2,000 persons find it each year.

It is quite obvious that Colorado's Mt. Goliath garden wins the elevation sweepstakes hands down. But, if one were able to take off for a

summer in Europe, what a charming itinerary these nine European gardens, most of them truly alpine, would provide. A glance back at the statistics, however, suggests that, if quiet perusal of the plant population is an object, one might want to plan arrival at Belvedere, Lautaret, and Schynige Platte on one of the less popular days of the week.

PAPAVER ALPINUM AND CLEMATIS ALPINA

BETTY JANE HAYWARD, *Scarborough, Maine*

The appeal of rock garden plants sometimes springs from the fact that many are miniature forms of plants that are familiar. *Papaver alpinum* is an example. It is always noticed and admired. The dainty blossoms in shades of yellow and orange, pink and white above the fine silver foliage, fit in everywhere among the choice plants. With ease of culture in well-drained, gritty soil, selected colors come relatively true from the seed that is contained in the oblong seed capsules.

A recent introduction from Japan is the very attractive *Papaver moyabenum tokewokii*, a miniature poppy with silver leaves, a bit coarser than those of *P. alpinum*, but still dwarf; the flowers are the loveliest pale, pale yellow of silken texture. The seed forms quickly in the capsule, which is perfectly round, quite unlike *P. alpinum*. It dehisces at the top in openings that easily spill out the abundant seed. Germination is quick and easy. It is a worthwhile new plant.

In the Alps and other European mountains are several alpine types similar to *P. alpinum*, or a variation of it. *P. pyrenaicum*, and its variety, *P. p. rhaeticum* are mostly in shades of yellow or orange. *P. rupifragum* is a relatively tall sort with silvery foliage and flowers in shades of orange or brick red. It is a nice companion for *Phlox divaricata*.

There are few vines that are right for use in the rock garden. The clinging, spreading character of most prohibits their use among choice alpine neighbors. This is particularly true regarding the lovely vine, *Clematis alpina*, though this is contrary to suggestions for planting it to twine through low shrubs, etc., found in every reference on the subject. Experiences in sea level gardens refute the advice.

The beautiful form grown from seed and labeled *C. macropetala* (whether right or wrong) when large enough to plant out was placed beneath an old and twisted *Pinus mugo mughus*. In the beginning the effect was delightful; slender tendrils draping through the dark evergreen foliage were soon adorned with the loveliest blossoms of delicate pale blue; centers filled with creamy stamens.

Alas! Soon the old pine was burdened and bent beneath the weight of the exuberant vine. When replanted to climb and cling to the rough bark of a maple tree at the margin of the garden, it proved to be a much better place for the enjoyment of the beauty of the lovely blossoms and the attractive display of the seed arrangement that remains for many weeks. Wisdom often comes with experience, advice to the contrary.

FOUR DAYS IN PRAGUE

(Editor's Note)—An international event of interest to rock gardeners occurred in Prague, Czechoslovakia, during the last days of February, 1968. President H. Lincoln Foster of the ARGS, accompanied by Mrs. Foster, on a month's tour of the Eastern Mediterranean, stopped first at Prague where they spent four days—days of rather hectic activity and of thorough enjoyment. While, as yet, no details of the Prague visit have been forthcoming from Mr. Foster, reports from ARGS members in Czechoslovakia, excerpts from which appear below, will acquaint our readers with the warmth of welcome accorded the visitors and the extent of interest manifested in many areas of rock gardening, alpine culture, and most important of all, in international good will. Excerpts are from a chronological account of the visit written by Mr. Jos. Starek at the editor's request, and from a personal letter to the editor from Mr. Vaclav Plestil, both members of the ARGS. Mr. Starek's account:

"Since the day we were informed about the probable visit of Mr. and Mrs. Foster to our country, we sincerely looked forward to their arrival. We prepared a programme of meetings, appointments, and sightseeing, but their limited time of four days was very short, indeed.

"We had a fresh light cover of snow on Sunday and the weather was sunny and chilly on Monday, February 26, when at noon we saw the Pan American aircraft high above the Prague Airport. Mr. and Mrs. Foster were



Welcoming speech by Dr. V. Markl, Chairman of Amateur Decorative Plant Growers. (from left to right) Dr. V. Markl, Mr. J. Starek, Mr. H. L. Foster, and Dr. V. Chaloupecky.

Jiri Karas



From left to right—Dr. M. Blazek, Mrs. Olga Duchacova, Mrs. H. Lincoln Foster and Dr. V. Markl.

Jiri Karas

welcomed by Mrs. Olga Duchacova, Mrs. Vera Stepankova, Dr. Vladimir Chaloupecky, my wife and me.

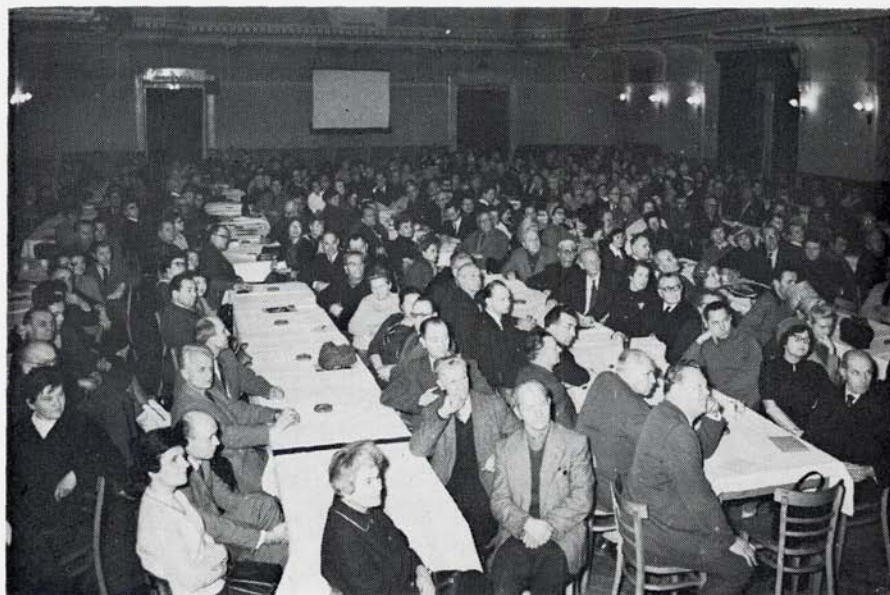
"Every free hour of our long-awaited guests' stay in Prague was dedicated to the exchange of gardening views. On Tuesday afternoon, Mr. and Mrs. Foster were received by Ing. D. Lanska, Mr. J. Pesl, and Dr. Stary, leading officials of the Czechoslovak Garden Society. The very cordial talks lasted more than an hour.

"In the evening, the local rock gardeners and the members of the Amateur Decorative Plant Growers organized a party in honor of the guests in the Club of the Ministry of Education and Culture. Invited were all ARGs members in Czechoslovakia, amateurs as well as professional nurserymen, employees of our botanical and research institutions, also authors of books and articles on plant cultivation. Many of them travelled to Prague from very remote places.

"Mr. Foster selected for this meeting slides of typical American genera—Trilliums and Lewisias. This contribution was very much appreciated by all the local gardeners, who do not often grow these plants. Only a few experts grow and propagate them, and in normal nurseries they are not available. We all drank a toast to the health of our guests—to our garden friendship and further development of mutual cooperation among the members of the ARGs and Czechoslovak Garden Society.

"On Wednesday, Mr. and Mrs. Foster visited the Botanical Institute of the Czechoslovak Academy of Sciences in Pruhonice and were shown around their rock garden and park. The weather was very cold that day and so a tea party in a well-heated hut in the park was very welcome. The organizers were (Mrs.) Ing. L. Opatrna, Ing. J. Lehovec, Ing. Z. Tyller, Dr. M. Blazek, and a few other employees of the Botanical Institute.

"On Thursday, Mrs. Duchacova gave a dinner in honor of the guests at her country villa. In the evening, Mr. and Mrs. Foster addressed a large public meeting of about 370 gardeners and friends in the Prague Cultural



Listening to Mr. H. Lincoln Foster's address in the Prague Cultural House, Feb. 29 1968.
Jiri Karas

House at Smichov. Posters giving information about the ARGs President's lecture were seen in many places in Prague, and nearly all the daily newspapers published brief news items about it.

"Mr. Foster screened a lot of his favorite slides of American wild flowers, rock gardens, and fine views of American mountains and countryside. Commentaries were interpreted into Czech. Gardeners present at this meeting received the screening and commentaries of our American friends with great enthusiasm, and were very happy, indeed, to hear many valuable views on gardening and on the building of rock gardens. The audience was happy to see American flowers, many of which were so far unknown. Mr. and Mrs. Foster answered questions and met some of their ARGs pen-friends, whom they knew only from their letters. There was a long applause at the end of the meeting. Cordiality, warm friendship, and the desire for lasting cooperation were the main features of this meeting.

"Frankly speaking, it was a very sad moment, indeed, for many of us when we said good-bye to Mr. and Mrs. Foster."

In Mr. Plestil's letter, he told of other ARGs members, not mentioned in Mr. Starek's account, who were present at the various functions. They were Ing. Vladimir Vasak, Mr. Bohumil Janouch, Mr. Karel Stivin, and Mr. Frantisek Holenka. Mr. Plestil wrote, in connection with the language barrier, "Here, I have seen how difficult it is to talk and hear, to read and write, to listen and understand (those are two very different things), but finally I understood well." He told about the translating from English to Czech, and vice versa, so that all present were able to understand. He wrote, "The lecture and the following discussion were translated by Mr. Jos. Starek. I greatly appreciate, as did all others, his magnificent work, both with organizing all, and with the translating—it was done perfectly!"

REQUESTS BY MEMBERS

FOR RARE PLANTS, CUTTINGS, SEED, OR SLIDES

Will any member who is able to fulfill a request, please contact directly the person who has made the request!

Nepeta hederacea variegata, cuttings; *Geranium ibericum*, cuttings. Will swap cuttings of uncommon Campanulas and Dianthus. William Rawson, 16475 Ferris Ave., Los Gatos, Calif. 95030.

Androsace imbricata, plants; *Lithospermum canescens*, plants; *Aethionema jucundum*, plants; *Diapensia lapponica*, plants. Mrs. Jean Koroluck, 316 Centre Ave., Lindenhurst, N. Y. 11757.

Second hand edition of Reginald Farrer's *The English Rock Garden*; *Viola pedata lineariloba* (alba), plants; *Phlox stolonifera alba*, plants; *Hepatica triloba* (double), plants; Southern Spiderlily or Swampily, believed to be species *rotata*, plants; *Primula* species—*PP. juliae*, *edgeworthii*, *gracilipes* (single and double), *sonchifolia*,—will trade *PP. rosea*, *kisoana*, 'Wanda', *kleinii*, *sieboldii*, *judiae* hybrids, plants; *Primula X pubescens* 'Faldonside', plant; *Linum elegans*, plants, *Corydalis cashmeriana*, plants. Alice Fletcher, The Green House, R.D. 1, Glen Mills, Pa. 19342.

Phyllodoce alpina, a plant; *Diplarche multiflora*, a plant; *Cyathodes pumila*, a plant; *Pentapera sicula*, a plant; *Coprosma pumila*, a plant. Mrs. Sallie D. Allen, 18540 26th Ave. N.E., Seattle, Wash. 98155.

Please send your requests to Mrs. Allen whose address is immediately above.

* * * * *

COLLECTING *GENTIANA SCABRA* SEED — Mrs. Doretta Klaber, Quakertown, Pa. gives us this informative account of her method of collecting seeds of this gentian: "Some people say that *Gentiana scabra*, blooming so late, makes few seeds, and that they are hard to collect. It may interest members to know that I hand-pollinate mine, that is, I take a water-color brush and go from one flower to another as though I were a bee. Then, when the pods have swollen so that I can feel them as I press gently, I usually tear off the corollas so that water does not stand in them. A bit later, when it begins to get really cold, I pick all the stems and bring them into the house and place them in water. They are watched daily, for the pods will begin to split at the top on a few each day. At this point, when a slight pressure opens the capsule, I pick them off and collect the seeds, allowing them to dry a day or so before packaging them. They ripen gradually and have to be watched which is the reason for bringing them indoors. This all sounds like a lot of work, but a few minutes a day does the trick."

UNCOMMON LATE-FLOWERING PLANTS

WILLIAM RAWSON, *Los Gatos, Calif.*

The beginning of summer always brings a certain sadness as the flowers of spring fade. Most of the spring flowers are of the "backbone" genera of rock garden plants, i.e., the saxifrages, crucifers, primroses, and phlox, etc. But summer also brings into flower some of the less common plants whose merits lie not only in their late season of bloom, but in associations with people, far away places, books about rare plants, and numbers on seed exchange lists. The late summer and autumn plants have a beauty of their own to replace that of the fading flowers of spring.

The beauty of summer begins, here, with the first flowers of the *Hypericum*s. I know that this is a genus which is not always hardy in the North, but it gives us southern gardeners compensation for the lack of flowers on our saxifrages and our scrawny primroses. *Hypericum kelleri* is my favorite of this race. A check of popular rock garden books fails to find this species described. This plant has no height at all. It forms a mat of close thyme-like leaves of a light green color. The mat spreads rather quickly and I have it planted in full sun next to a mat of *Antennaria parvifolia*. In summer, the stemless, red gem buds appear and open to become yellow stars scattered across the light green background. The plant is a prolific bloomer and brightens up its nook of the garden far into autumn.

Summer in my garden is the season of the evening primroses. Each year, I raise one or two more species of the *Oenotheras*, so that now there are large white and yellow cups scattered throughout the garden. *Oenotheras* are not alpiners, nor do they mix well with the small mountain flowers. *Oenothera caespitosa* has been found at high elevations, but it and its kin are plants of the high plains and dry deserts of the Southwest. My own plants of *O. caespitosa* were raised from seed which I collected in Utah's Wasatch Mountains at a place called Clover Creek (El. 7,500 ft.). The creek gushes from the mountain side from an underground source and brings moisture to an otherwise arid region. Along the creek grow columbines and aspen, while not many yards away are the cactus *Opuntia polycantha*, *Viola nuttallii*, *Mentzelia* sp. and *Oenothera caespitosa*. I had planned to collect ripe seed, but when I came someone had picked the plant. This was unfortunate because *Oenotheras* do not make good cut flowers. Fortunately, there were one or two ripe capsules which provided the seed from which my plants were raised. Most of the pictures I have seen of *O. caespitosa*, particularly in European publications, show a variety with smooth green leaves. The silver, pubescent variety is much more lovely and is the one I have.

Oenothera caespitosa can be propagated by seeds or cuttings (not too damp). Cuttings taken in autumn and wintered over will bring early blooms the next year, whereas spring cuttings will bring bloom in late summer and autumn. The plants usually die after flowering, but this year one of my plants lived through our mild winter to flower again. This species resents transplanting except when very young.

My other favorite evening primrose is *O. fremontii* which I raised from Claude Barr's seed. This plant has silver leaves and lovely soft yellow flowers. It is a dwarf species; about six inches, and is a perennial.

Oenothera flowers open very quickly in the evenings; in fact, I read that one could hear them snap when they opened. One evening, I went out and waited in the gloaming for the Oenotheras to snap. There was no sound when they opened and I was very disappointed. These plants are pollinated by moths at night and it is interesting to see the several kinds of moths. The most fascinating to see is the hummingbird moth as it flits from flower to flower.

I was happy to see in Mr. Anthony Huxley's new book, *Mountain Flowers*, a plate and description of *Stachys densiflora*, a very good plant for summer and autumn. This species is very neat, unlike some of its relatives. It forms a clump of dryas-shaped leaves from which the purplish trumpets appear in close heads above the leaves. It is very easy to grow, but resents disturbance. I moved a plant last year and it produced but few flowers last summer. It reminds one of a refined salvia. Its native home is in the southern European mountains.

Finally, a plea for a too little grown wall flower. Most crucifers are plants of spring, but *Erysimum helveticum* (*E. dubium*) is in flower at all seasons. It requires no attention when established since it will seed itself here and there in a modest way. It can grow to a foot or more, but by cutting out the central stem, the plant can be kept low. It is an excellent plant to provide color in late summer and through the winter when color is needed.

INTERCHANGE

THE AMERICAN HOSTA SOCIETY—A request has been received from Mrs. Glen Fisher, Secretary-Treasurer, to inform our *Bulletin* readers of the existence of such a society. If you are interested in hostas and the new society, write to Mrs. Fisher at 4392 W. 20th St. Road, Rt. 3, Oshkosh, Wisconsin 54901. She observed that there are over 90 species and garden forms of *Hosta* known in Japan, many of which are in the United States, and that with the advent of many new hybrids, it is imperative that a registry be maintained. Also, it is essential that the nomenclatural mess the genus has fallen into be straightened out.

VIOLA PEDATA — From Sky Hook Farm, Johnson, Vermont, Alice Hills Baylor writes, "When I read Martha Mears' article on *Viola pedata* in the January issue of the ARGs *Bulletin*, it occurred to me that I have often intended to write just such an account of that most beautiful violet. I agree with her as to the culture for I, too, have seen stations of *Viola pedata* in northern Illinois, Michigan, and Indiana. I was Naturalist at White Pine State Park in Illinois for many years, so have first hand knowledge of the stations in that area. This park is near Oregon and Dixon, Illinois. In that area there is a great deal of sandstone outcropping. This sandstone is very acid and the bluffs on which *Viola pedata* grows are covered with trees, both deciduous and evergreen (White pine and cedars). Therefore the soil condition in the

natural habitat of this violet is acid sandstone, topped with rich acid humus in shade.

"Mrs. Mears speaks of Louise Beebe Wilder's advice on the growing of this violet. She lived in the lower Michigan area where the conditions were much the same as some areas of northern Illinois and Indiana."

OMNIUM-GATHERUM

Another Annual Meeting has taken place. A new president has been elected and new officers have taken the place of those who have served their term. The details you can read in the *Bulletin Board* accompanying this issue. As I write this early in May, I am unable to report the meeting in the July *Bulletin* for the deadline under which I operate will not admit of it. I was asked to write an editor's report to be read at the meeting and I did so. Perhaps it was read, perhaps not. It is almost certain that it will not appear in the *Bulletin Board*. So, again, as was done under like circumstances two years ago, it seems proper that the report should appear in the *Bulletin* so that all members may know its contents, not just those who attended the meeting. So here it is in full under the title, "A Message from the Editor."

Amid all the exciting matters to be taken up at this the 1968 Annual Meeting of the American Rock Garden Society, surely you can spare a moment to listen to a message from the editor of the Society's *Bulletin*. You will not have to listen to any cries for help, any exhortations to produce more contributions to the *Bulletin*; there will be no complaining, nor any sour notes. So relax and listen while I tell you how grateful I am for the privilege of serving as the editor. I have had six years now—six years of exciting enjoyment, of exhilarating work, and the satisfaction of knowing that in my later years I can still occupy myself with something useful.

Where could I find a post which offers so many opportunities of making friends with so many people throughout the world? These people live in many of our own states, in Canada, in England and Scotland, in Czechoslovakia, Austria, New Zealand and in Australia, even in far off Sikkim. Being the editor of the *Bulletin* makes this possible. How else, if I were not the editor, could I help in the interchange of botanical and horticultural knowledge that is now criss-crossing the world; information that emanates from our members everywhere, and which reaches others through the pages of the *Bulletin*, through personal correspondence, meetings, and the exchange of books, plants, seeds, slides, etc.?

As editor, I can take part in the Society's intensive effort to bring about better understanding among people, wherever they live. It must be true that people who love gardening and adore alpine plants, though they are of different nationalities and different ideologies, can easily be brought to love each other. How wonderful to have a hand in this!

Undoubtedly you have noticed changes in the *Bulletin*; from 32 to 36 pages per issue, a new cover, and more easily read type. Also, you may have noted a more international flavor in its contents. Many will approve of this, though some may not. Actually, there are surprising things in store

for members, that are planned for future issues of the *Bulletin*. At present, material acceptable for it is in good supply, and member cooperation in the production of this material is heartening. This present situation should not lull any of you into a sense of complacency. Material production, through the efforts of our members, must be maintained at the present level if the *Bulletin* is to be kept virile; and of less importance, perhaps, the editor kept happy.

Because of the present healthy condition of material supply (hopefully a continuing phenomenon), I urge the Executive Committee, and others concerned, seriously to consider the possibility of authorizing an increase in the number of pages of future Bulletins from the present 36 pages to 40. Such an increase will benefit the members, and allow for the utilization of more of the material now on hand that can not find its way into the *Bulletin* because space is lacking. It is like having money in the bank and no way of spending it.

Let us now, and for all time, settle the question of the advisability of continuing the Index. Let it be published every two years, as in the past! This is but one more chore for the editor. The Index questionnaire was not answered by a majority of our members, but those who did answer were unanimous in their desire for its continuance. To quote from one of the last answers, "Of course it is important. I subscribe to everything "alpine", and everything finishes up in the garbage can, except the A.G.S. *Bulletin* and the A.R.G.S. *Bulletin*. Both are bound, and regarded as of immense value. If your A.R.G.S. *Bulletin* possessed no index, why bother to bind it? You are producing something which is tremendously valuable—you must not spoil it by illogical economics. If your *Bulletin* were not a valuable work of reference (i.e. indexed) it would go in the garbage can with the rest of them." These are strong words, made all the stronger because they were written by a fellow editor, by the Honorable Editor of the *Bulletin* of the Alpine Garden Society of England—Roy Elliott himself—your distinguished guest and principal speaker of the evening.

One more thought! Competition is supposed to be the mainspring of success in any endeavor. Rivalry is intense in the field of journalism. Generally, publications in the same category are very competitive—they can not look to each other for help or understanding. This is not so in the case of those publications concerned with rock gardening. The three English language publications, the Bulletins of the Alpine Garden Society of England and our own Society, and the *Journal* of the Scottish Rock Garden Club can now be joined by the *Bulletin* of the Alpine Garden Club of British Columbia. Among these there is no competition. There is only mutual esteem and a desire and a willingness to aid one another. This is but one more manifestation of the beneficent spirit that exists among gardeners, especially among rock gardeners, and is the result of their communion with nature, their love of the beautiful, the need to share, and of working in the ground with bare hands.

As the *Bulletin* editor, I wish to thank all who have contributed material to our *Bulletin*, whether published or not, and especially am I grateful to those who read the *Bulletin*, for a publication's value is in direct proportion to the totality of its reading.

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