

BULLETIN  
of the  
AMERICAN  
ROCK GARDEN SOCIETY

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No. 3

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# BULLETIN

of the

## AMERICAN ROCK GARDEN SOCIETY

Albert M. Sutton, Editor

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### THE ANNUAL MEETING AND AWARD PRESENTATIONS

The Annual Meeting of the American Rock Garden Society was held on May 7th, 1966 at the home of Mr. and Mrs. Jerome A. Lukins in Port Chester, New York. Minutes of the meeting and other highlights will be reported in the Bulletin Board. The Directorate page of this *Bulletin* reflects changes in officer personnel. The presentations of awards were made by Mrs. Dorothy E. Hansell, Mr. Bernard Harkness, and Mr. Harold Epstein, and were as follows:

CARLETON R. WORTH—Address by Mr. Bernard Harkness:

Carl R. Worth well exemplifies the tradition of gardeners whose notable contributions to horticulture are only a part of their careers. His professorship of mathematics at Ithaca College culminates the other phase of his life's work, which began with degrees advancing to the Ph.D. from Southwest Missouri State, University of Chicago, and California Institute of Technology. His service to that discipline, doubtless most of us consider mathematics disciplinary, includes teaching at the University of Arkansas and at Rutgers, service with the Naval Reserve in World War II, leaving with the rank of Commander, and since 1954 at Ithaca. Rutgers University Press has published two editions of his "Mathematics for Students of Biology."

Tonight our interest pertains to his exploits in plant science. Bare statistics rarely give us much inkling of motivations, but if one were privileged to know his parents and to sense their interest in his horticultural efforts, it would be evident that heredity played its part.

In recent years no plant collector has become so widely associated with that immensity, the Rocky Mountain range, as Carl Worth. Fourteen collecting trips have made many remote place names familiar to rock gardeners everywhere. Both in writing and in lecturing, as at the 1961 International Rock Garden Plant Conference in London, the Rocky Mountain natives have been brought forward to attention. The attachment of "Worth coll." to a contribution to the Seed Exchange has long ensured a popular demand.

Other countries, other continents have been visited; notably in 1938 Carl was a member of the second University of California Botanical Garden expedition to the Andes.

He has long been associated with our counterpart societies in Scotland and England, presently serving as a vice-president of the latter's Alpine Garden Society. A further great service to our own Society was his editorship of the



Dr. Carleton R. Worth

*Bulletin* from October 1954 to October 1962. It is with appreciation for all his good works that this Citation of the American Rock Garden Society is presented.

**HAROLD EPSTEIN**—Address by Mrs. Dorothy E. Hansell:

Harold Epstein became a member of the American Rock Garden Society in 1937; within six years he was elected a member of the Board of Directors; within eleven years he was elected President. And, unstinting of time, energy, and enthusiasm, he filled that office most capably until 1964.

His interest in rock gardening was aroused only three years after his initial interest in gardening began, and it culminated in the artistically designed and well-planted rock garden which furnishes such a beautiful setting for his home in Larchmont, New York.

Harold Epstein has grown a wide variety of plants from this and foreign countries. The "easy-doers" are not for him, only the difficult ones which challenge a grower's knowledge of the plants' habitats as well as his cultural ability. He delights in showing the plants that grace his rock garden and that fill his greenhouse benches and propagating beds. He enjoys the stimulation which comes from comparing notes with well-informed plantsmen, both in person and by wide-spread correspondence.

While rock gardening and the American Rock Garden Society have commanded Harold Epstein's first attention, his horticultural interests have not been confined to them. He has served the Hortus Club of New York as President for the past fourteen years, and the American Orchid Society as trustee, the Horticultural Society as director. He is a past president of the Greater New York Orchid Society, and the Men's Garden Club of New York, and is a member of and



Harold Epstein, President Emeritus

actively interested in many other horticultural organizations and specialized plant societies.

In presenting this award, the American Rock Garden Society especially honors him as its past president, as an outstanding horticulturist, and in particular as a keen rock gardener.

MR. and MRS. CARL S. ENGLISH, JR.—Address by Mr. Harold Epstein.

The wide interest and knowledge of the inspiring team of Mr. and Mrs. Carl S. English, Jr. embrace numerous aspects of botany and horticulture. Their deep affection, however, lies in the alpine heights of the West. Mrs. English claims that the shutter of her camera refuses to operate below 5,000 feet elevation. Their philosophy may best be described in her own words: "And once a rugged, alpine skyline has laid bare its treasures before our gaze and the clean, mountain wind has cleared the mental cobwebs from our brain, always thereafter, with every thaw of a new spring comes the old, tormenting urge to return to those pathless heights."

As a botany student at Washington State University, Carl S. English, Jr. met Edith Hardin, a zoology major, who shared his interest and devotion to the subject of taxonomic botany. Upon his graduation in the spring of 1929, Mr. English settled in Portland, Oregon, where he became engaged in landscape work. In the fall of 1929, Edith Hardin and Carl English were married and at once began a spare time seed and plant business, dealing exclusively in Pacific Northwest native material. In 1931 they moved to Seattle where Mr. English filled a position as assistant horticulturist, and later, horticulturist, at the park in connection with the Government Locks. Under his supervision a small but inter-



Carl S. English, Jr.

nationally recognized botanic garden of great interest and beauty has been developed. Their home nursery and seed business, still in operation, is well known in this country and abroad for choice, rare plants from all over the world.

Before her marriage, Edith Hardin made extensive explorations (1924-1928) in the Mt. Baker area, studying, recording, and collecting the flora and fauna of the north side of that 10,788 foot volcano as a thesis for her master's degree. Her botanical findings and those of Dr. Harold St. John, as senior author, were combined and the "Flora of Mt. Baker" was published in *Mazama*, Vol. XI, 1929. In December, 1929 this work was reprinted in booklet form.

Mr. and Mrs. English have traveled throughout the mountains of the West with botanical and horticultural interests ever in mind. Alpine specialists are indebted to Carl English for the discovery and naming of *Talinum okanoganense*, *Claytonia nivalis*, and *Lewisia rupicola*. Together they have selected superior forms of native plant material and have propagated these for distribution. Their most recent explorations have taken them to the high mountains of Arizona and New Mexico from whence they have brought back thrilling plant additions that are proving quite hardy in the Pacific Northwest.

Mr. and Mrs. English have conducted classes in botany and horticulture,



Edith Hardin English

photographed much of the native flora, and have lectured to garden clubs, nature organizations, schools, and colleges. They have contributed faithfully to Northwest Unit programs, plant sales, and all activities of ARGs. Their many fine articles have appeared in numerous publications including the ARGs *Bulletin*. Mr. English served three years as Regional Chairman of the Northwest Unit. During another year Mrs. English served as Regional Vice-Chairman in charge of program. Both presently serve the *Bulletin* in an advisory capacity.

Each summer Mrs. English takes a class of teenage girls and boys to the Olympic Mountains of Washington for the study of natural science, botany, and zoology in particular. After ten days in the field under her inspiring teaching and gentle guidance, the young people come home filled with knowledge, and eager to return the following year. Her deep interest in the education of the young is implemented by her keen perception of their individualities, inclinations, and talents.

As part of their experimentation in the field of genetics, Edith English produced the lovely yellow-flowered hybrid, *Iris*  $\times$  *aureonympha* 'Golden Nymph' (*I. douglasiana*  $\times$  *I. innominata*) which won for her a well-deserved National Horticultural Achievement Award in 1950. Two noteworthy hybrids produced

by Carl English are *Penstemon* × *edithiae* (*P. barrettiae* × *P. rupicola*) and a lewisia hybrid (*Lewisia howellii* × *L. rupicola*). Outstanding selections of native plants given cultivar names by the Englishes include: *Synthyris reniformis* 'Regina', *Dodecatheon pulchellum* 'Red Wings', *Iris douglasiana* 'Pegasus', and *Iris douglasiana* 'Chamois'.

At their home they have an extensive herbarium and library of botanical and horticultural books. In their busy lives they still find time to assist and encourage those who wish to learn. They help identify plant material and give cultural information drawn from their accumulation of many years' experience in successfully growing numerous kinds of trees, shrubs, and herbaceous plants. They work tirelessly in the interest of conservation to which they are deeply devoted. In recognition of their limitless contributions, it is with gratification that we present Edith and Carl English the American Rock Garden Society Award.

## CORYDALIS CASHMERICANA

B. N. GHOSE, *Darjeeling, India*

*Corydalis cashmeriana* Royle is indeed an alpine jewel amongst plants in the Himalayas and is greatly sought after by alpine gardeners in Europe and America. I will try to describe the locality where it grows in the Eastern Himalayas. We read in Hooker's *Flora of British India* that it is found from Kashmir to Sikkim in the Himalayas. Blatter in his *Beautiful Flowers of Kashmir* has mentioned the localities it inhabits in Kashmir, but nothing is known about the habitat of this plant in the Sikkim Himalayas.

Years ago I received a letter from a friend in England, a keen lover of alpine plants, who asked that I secure a few of these plants for him. He wrote to say that I should buy, borrow, or steal, for he must have this gem for his garden. This prompted me to collect from the wilds, as the plant was not available from anyone in our neighborhood.

*Corydalis cashmeriana* grows near Kanchenjanga, both towards the south and the north. The Singalila range rises from Kanchenjanga and runs in a southerly direction and forms the political boundary between India and Nepal. It has many high serrated peaks culminating in the perpetually snow-capped mountain, the Kanchenjanga, which forms the characteristic feature of the scenery of Darjeeling, the queen of hill stations in India. All who have seen this mountain admire its beauty and grace, and agree that it is unbeatable in beauty by any other mountain mass on the face of the globe. The Singalila range affords the convenience of a good motor road from Darjeeling to Phalut. Further northward there is a tolerably good path leading to Chibhanjang, but onward there are no roads and the only path available is that used by graziers who frequent the whole range with their flocks of sheep, goats, and yaks during summer and rains. For many miles one has to pass through uninhabited regions where one can get no food or shelter. As these essentials are unobtainable, one must carry his own tent and provisions. This makes the travelling in these hills expensive.

The track goes over the mountain ridges which I have already stated are serrated, so every day one has to pass through many descents and ascents where ponies cannot be used. Streams and springs supplying water for one's use are few and far between. This is natural at such high elevations and one has to make long marches to obtain water and a little space for a camp. Level grounds are unavailable in these steep hills. The path runs through rhododendrons, betulas, pieris, berberis and stunted bamboo growths and other plants. Further onward, trees disappear, moss carpets the boulders along with saxifrages, clintonias,

gentians and a great variety of other herbaceous plants. A few that remain are stunted, weather-worn and prostrated. Primulas are abundant and *P. sikkimense* and *P. stuartii* occupy shallow water courses and nearby many ferns are met with. Many rocks are ornamented with cushions of saxifrages, androsaces, arenarias which flower beautifully with white and yellow flowers during their season.

The following day after marching through a narrow pass one comes across the weather-worn cliffs which tower like an enormous wall with pinnacles of bare rock, very awe striking, intercepted by equally strange valleys. As these rocks are continually falling and the place is very windy throughout most of the day, vegetation gets no hold on these rocks except on the terraces, where saxifrages grow amongst moss and the ground is covered with thick grass amongst which are numerous primulas, *Gentiana amoena*, nadostachys, etc. Here on a ledge of the cliff, overhung with low rocks, *Corydalis cashmeriana* grows and flowers. It is very difficult to approach this ledge. It is so narrow and low that one cannot turn around when he has uprooted a few plants. He will have to trace back his steps very carefully; otherwise he may fall and risk his life.

This herbaceous plant is found in such subalpine regions and is very difficult to approach and difficult to collect. It has a very small bulb bearing palmately-parted leaves with terminal semi-pendulous racemes bearing dazzling dark blue flowers.

It is not to be supposed that this is a common plant, though it has been collected in Western Himalayas and in the Singalila range, and also in the Lohnak and Zemu valleys, which are just towards the north of Kanchenjanga.

The proximity of the huge mass of accumulated snow on these mountains makes the place very cold indeed. Further the whole range of these hills receive the monsoon rains and the downpour is nothing less than 200 inches a year. The upper portion of the mountain receives comparatively more sunshine and is therefore drier than the valleys below. This is beneficial for the growth of herbaceous plants. Further we think that the small plants receive the benefit of the heated earth and boulders, underneath which we have observed they snug together and grow beautifully. Probably they cannot thrive in the open in such inclement regions.

## ENCOURAGEMENT FOR BEGINNERS!

INGE BARTHO, *Center Conway, New Hampshire*

The manner in which each of us comes to the conclusion to make, develop and maintain a rock garden is surely something that reaches and touches each individual differently. But I think it starts in most cases on a smaller scale and just grows and grows as all of it gets more fascinating with each passing season. And little by little comes the knowledge which we search for, so much enjoy, and envy a bit in others. Does it not seem that a foreign language assails us when first meeting with other gardeners? Everyone uses Latin names for plants, and worse, each one seems to use different pronunciations. One stays lost in the background—just listening. At first, most names mean nothing, though some remain in one's mind permanently. Even now a few don't ring a bell with me.

As all beginnings are hard, so is this one. Tend your rock garden, label the plants clearly, and every time you look at the labels and plants more names and characteristics will stick in your mind. Also notice the likings of the plants in this way. Some will do splendidly right off, while others recommended as "easy" won't like your place at all. And if the plants are presents from another gardener, you won't much like the idea of telling him you failed, but he will understand. Find out where the difference in soil, treatment, exposure, moisture given, or

what not, lies. Is your soil too acid, or too alkaline? The remedies for this are easily found in any book on gardening, and you can quickly adjust your soil to suit your plants. But one has to experiment here, too, and losses are certain to occur. Don't be discouraged—try and try again! I lost in my first years more plants than I care to remember; sometimes valuable ones, others cherished presents. This is an example: I made four attempts to keep *Aquilegia jonesii* alive, and only the fourth time did I succeed by putting so much lime in the soil that it looked nearly white. Now I hope for bloom in 1966. I am always optimistic and this helps to keep me cheerful in spite of everything.

I suppose we all have different situations for our rock gardens. But it seems to me that one has to keep in mind that sun means *full* sun. In full sun plants keep their smallest which is the goal to reach for in a rock garden. If you do not have these conditions there are so many lovely plants which grow in semi-shade or shade that you can always have a lovely setting. In locations too hot and sunny, the lee of a rock, the shade of a dwarf shrub may be enough protection to suit a plant. And always the plants like a very good cover of stone mulch. Here I buy and use granite chips in various sizes. I lay them on an inch thick, but I have to replenish them every second year as the chips work into the ground. This is a big advantage to all mountain plants. But each gardener has to try and try again in his locality. Here lies your advantage, as you can gradually learn which plants are going to stay with you and prosper.

I am sure you have all planned your first rock garden carefully, but there seems to come a day when the plants come faster than you had planned for, so expansion follows. This will go on as long as there is space for it.

But to come back to learning the names and understanding requirements, don't get discouraged ever! There will always be plenty of experts ahead of you. This is just wonderful! Here are the very people one needs; one can ask questions, visit gardens, find friends, and through them the most wonderful things happening are yours. Every visited garden is a lesson, a most enjoyable one, too. And I must acknowledge thankfully that I never left another's garden fairyland without being "loaded" with the most exquisite plants. In this way my garden has grown, too, with many of the special plants in it presents, reminders of happy hours. A gardener is a lucky person and has all the reasons to be cheerful. Certainly you will lose plants, but they will always do their best to stay with you. Give them the smallest chance and many of them will adapt themselves to places very alien to them. How otherwise is it possible to have the same species growing in rock gardens in so many different areas?

Another thing: look up the membership list and try to find another gardener near you. Pay him, or her, a visit. I am sure you will be very welcome. Gardeners love to see one another, show their gardens, exchange ideas and plants. Invite them to see your garden and never mind that your garden is in its beginning and does not look "settled." How could it be otherwise when you are just beginning? All will be happy with what you have achieved so far. So, show, go, ask!

There is a fact that one often learns only the hard way. That is about plants that spread too much, and are in the course of time more of a pest than a source of joy. They become a nuisance in the rock garden proper, especially where there are the smallest and the most rare species. So, when you get a plant, ask if it spreads rapidly and if so, give it a place where it cannot roam, or seed itself over everything. If you have a slope, plant such plants at the bottom. Many very lovable kinds are in this category, so take this fact into consideration. I have many of these and have set them as far away from all others as possible, and so I enjoy them fully, too.

I have come across gardeners who claim their plants land every spring at the

bottom of the slope. I have steep places, too, but, so far, no plant has slidden down. In my soil are plenty of rocks of different sizes and plants get squeezed between them in such a way that they cannot slide. Until frost and heaving comes, they are securely anchored. Between rocks on the top part of the garden I lay either another rock or plant sempervivums or low-growing sedums. Both soon form mats which hold the soil. Mat-growing plants soon cover the "holding" rocks and all looks natural and good again.

Another thing—go to the meetings! The company of all the other gardeners and their families is refreshing. You hear and see a lot to help with your problems, and you get new ideas. Ask questions to your heart's content for everyone will help you as well as he or she can. The plant exchanges are wonderful, too, for you will be taking home such beautiful plants. Never mind that you cannot take to the exchange an abundance of especially assorted plants—no beginner can do that. Often I took what seemed to be "old hat" to everyone there. Bring what you can, label clearly, keep well-soaked and fresh-looking, and go home richly rewarded. To be a beginner has many advantages for all love to help you. If you come into someone's garden and there are plants which interest you, which you would like to own, why not ask? Perhaps there is one there for you. We all like to give if we have enough, and often those who raise plants from seed will gladly give from their abundant stock. Ask! I am sure your request will be welcomed.

A good way to build any garden without too much expense is to start with seeds. Of course, it takes longer than by getting plants from a nursery, but it is so much more fun. You have for pennies a marvelous seed list at hand—our exchange. Use it! Read all you can about the plants you expect to grow, and then order. Not all of the seeds will germinate for you, but most will come if carefully tended and never left to dry out. Overwatering should be well taken care of through good drainage in your seed bed or pots. And here, also, I recommend from the beginning a good mulch of chips. This way there will be no moss or rot to the crowns of tender alpiners. Many of the seeds will do very well just sown in the open. But it cannot be stressed enough—don't ever forget them! They need your attention at least once a day, but on dry or windy days, twice a day. This means that on dry or windy days you might have to water again in the evenings, which is said to be against all rules. I often have, for instance, to water in the evening, and no losses have occurred from this.

Now, should your back ache from lugging rocks, sifting soil, spreading chips, watering by hand, etc., go to your loveliest plant and all is well again. Do this often for the summer is short.

Here comes fall—soon the garden rests. Get everything completely clean—this is important. Now you can rest a little, too. Winter comes with catalogues, letters to other gardeners, orders filled out, new plans and resolutions. This is the time to "study," to think over matters, to learn. Take a general view of your garden and find out where and how to better it, where to change, if necessary.

Barely is the snow gone and the first of your rock garden plants pop up. Even in the snow, quite a few grow and flower. Before you know it, you are gardening again, and are a more experienced gardener. Hurrah! You are on your way, and with each passing season you will feel more confident and be more happy and successful.

Good luck to you!

\* \* \* \*

Seed contributions should reach the new Director of the ARGS Seed Exchange, Mr. Lawrence Crocker, before the 10th of November—sooner, if possible. His address is 3355 Jacksonville Hy., Medford, Oregon 97501.

## THE GENUS *PHYTEUMA*

RICHARD LANGFELDER, *Chappaqua, N. Y.*

The *Phyteumas* are too little known, and if a rock gardener talks about them at all, he surely has in his mind the Queen of the clan, *Phyteuma comosum*, called in my old country, "Die Teufelskralle" and also "Rapunzel." He will probably assert that it is a difficult plant and unsuited to our climate, but if he means eastern New York, where I live, or New England, then he is wrong. To raise this jewel of the Alps requires a lot of patience and, as ever, an understanding of its needs; but it can be done.

*Phyteuma comosum* hails from the Dolomites, enjoys lime and scree, and grows best wedged in between rocks. It makes a tuft of glossy, dark-green, sharply-toothed leaves, and bears in summer many heads of large, deep purplish-blue flowers shaped like tiny bottles with elongated tips.

Besides *P. comosum* there are other even less familiar *Phyteumas* which I like fully as well. Outstanding among them are *P. pauciflorum* and *P. hemisphaericum*.

My first encounter with *P. comosum* dates back to 1929 when I was vacationing at the Pragser Wildsee, not far from Cortina d'Ampezzo. Prags is surrounded by high mountains; over 6000 feet high. My eight-year-old daughter wanted to pick a few Edelweiss (*Leontopodium alpinum*), so early one afternoon we started up an old cow path leading into the mountains. After about an hour's hike we came to the Edelweiss growing in the rocks, but not having the right footwear for mountain climbing, only heavy loafers, it was necessary for me to get down on my belly and crawl between the rocks to reach them. I managed to pick a few, and then, returning with them to where my daughter waited, I spied a different flower growing in a large rock crevice. Of course, I had to crawl back and pick that flower too! It turned out to be "Die Teufelskralle!" But, when we carried our treasures back to the hotel, instead of praise for my choice find, I was scolded soundly by my wife, by the hotel manager, and by nearly everyone else. One should never crawl among those dangerous rocks without the proper gear! I took a picture of my Teufelskralle propped up in a glass of water, but in nature it grew sideways out of the rocks.

Seven years ago I received in September some seeds of *P. comosum* from Boothman's Nightingale Nursery, Maidenhead, England, which I had ordered the previous spring. (I give the address because it is not easy to secure fresh seed of this species). I sowed the seed at once in a pot of gritty, limy soil, placed the pot in my coldframe and during the fall and winter it froze and thawed several times.

In April the seed germinated but I left them in the pot until September when I transplanted into two-inch pots. Three of these I kept, and the remaining eleven seedlings were given to friends. Early in October I set my three seedlings into the rock garden, wedging them between rocks in a mix of half sandy loam and half lime, grit, rubble, bonemeal, etc. The following spring I found two plants alive and growing; the other had died. Two years later the two started to bloom. Last spring one plant had two blossoms, and the other, one. I feel sure this performance could have been better. Now, if I get *Phyteuma* seed, I plant them directly in the coldframe, as I do with all my alpines. From such a spring sowing I found in September a very good seedling which I did not disturb. I expect to see more of them emerging next spring.

*Phyteumas* may be separated into three categories: 1. The alpines—those that grow above 6000 feet in rocks and scree; 2. Those that grow in alpine meadows; 3. The taller ones that like more or less shade.

*Phyteuma pauciflorum*

Virginia Howie

### THE ALPINE GROUP

Into the alpine group I would put, besides *Phyteuma comosum*, *P. pauciflorum* (*globularifolium*) which occurs over 6000 feet in the Alps, and its subspecies *pedemontana* which is at home in the Tyrol. This is the most diminutive of all—about one to two inches, with rosettes of short, lanceolate, rounded-tipped leaves and little heads of dark blue flowers. It likes stony, peaty soil.

*P. hemisphaericum* has narrow, pointed, almost grass-like leaves about three to five inches in height, and clear blue flowers. It is at home in the Alps and also likes stony, peaty soil.

*P. humile* and its variety *hedraianthifolium* both like the same kind of soil with some sphagnum.

*P. sieberi*, also a nice, small-type *Phyteuma*, with globular heads of violet-blue flowers, hails from the Southern Alps to the Apennines.

### ALPINE MEADOW GROUP

*Phyteuma orbiculare* grows about a foot high, has blue and violet flowers in globose heads, is easy to grow and is self-sowing. In my own garden it now comes up among the rocks and gives a good performance. Strong limy soil is preferred.

*P. scheuchzeri* is a little smaller than *P. orbiculare* and grows in the mountains of southern Europe. The flowers are violet-blue.

*P. betonicifolium*, *P. charmelii*, *P. michelii*, *P. halleri*, and ssp. *scorzonrifolium* belong here, too. These I have not grown but will try to get seeds this year and grow them.

Richard's first *Phyteuma*

Virginia Howie

### TALLER SPECIES FOR SHADE

*Phyteuma spicatum* and *P. nigrum* grow on shady banks, in light woods, or on the edge of woods. They are up to two feet high. *P. spicatum* has white flowers with greenish tips in dense spikes. *P. nigrum* has very dark blue flowers. I grow both; they are long-lived and I like them very much.

All *Phyteumas* are best raised from seed. They have long tap roots, transplant easily when young, but later with difficulty. If one has plants to spare, *Phyteumas* can be propagated by cuttings, and cut sections of the tap root might possibly bring results.

## PROPOSED PUBLICATION ON SEED TREATMENT AND GERMINATION OF ROCK GARDEN SPECIES

It has been proposed that the American Rock Garden Society prepare and publish specific information on the seed treatment and germination requirements of plants suitable for rock gardens. One of our newer members, Dara Emery, horticulturist at the Santa Barbara Botanic Garden, has suggested that we compile and publish this information which he is willing to prepare for printing.

There are many species suitable for rock gardens and many are obscure in cultivation. No one person has had experience with more than a limited number. Some information, perhaps more than we realize unless we compile it, has been published from time to time, in various places. Thus this would have to be a group project participated in by those who have had experience with even a few species, or who have time to search out already published information.

Three groups of volunteers would be necessary. One, a research committee to check through the literature. With a group of members working together, each person might look through several back issues of the ARGs *Bulletin*, or other pertinent journals or books. This could be very interesting to the individuals doing it and would not require a great deal of anyone's time. Two, the ARGs members, as many as possible, who are willing to write in their procedures for seed germination of species with which they are familiar. Three, a small group

of our most knowledgeable members to act as an editorial committee.

The information desired on a species would be approximately as follows, or as much of it as is available:

1. Botanical name
2. Seed dormancy type(s) (if known)
3. Seed treatment used or recommended
4. Approximate germination temperature range (if not known, there are ways to calculate it)
5. Approximate time from sowing to first germination
6. Notes: additional pertinent information, i.e. use fresh seed only; low percentage viable seed; difficult to spot-off; damps off readily; keep on the dry side; much easier to propagate from soft wood tip cuttings in spring with bottom heat; etc.

This type of information could be published relatively inexpensively in chart or tabular form on approximately 300 to 500 species at a time in leaflet or booklet form. A short introduction explaining the different seed treatments recommended would be necessary in the first issue.

Such a publication would be a large undertaking, perhaps too large in view of the dependency on volunteers; however, if we could start such a compilation of seed germination information, it would be a help to our members, future, new, and old. This real contribution to the already existing fund of horticultural literature would be excellent publicity for the American Rock Garden Society.

There is the proposed project. What do you think of it? Would such a publication be useful to you? Would you volunteer, or be willing to help prepare it by, one, serving on a research committee or, two, contributing your own knowledge and experience or, three, serving on the editorial committee? Please write your answers and comments to our Society's president, Mr. H. Lincoln Foster, Falls Village, Conn. 06031.

## INTERCHANGE OVERFLOW

(Editor's Note)—Following are excerpts from recent letters received from Maj. Gen. D. M. Murray-Lyon, of Pitlochry, Scotland. He is ever ready to share his horticultural knowledge, and especially is he diligent in providing pertinent comments for inclusion in *Interchange*:

*PRIMULA SCOTICA*—In reference to Mrs. Baylor's interesting article on *Farinosae* primroses—here *P. scotica* is always a really good deep purple, definitely *not* pink. Here also it is short-lived, even when given a mulch of gravel.

*HEPATIC A TRILOBA*—In Lincoln Foster's article, "Hepaticas", he said he would like people's experiences with hepatica seed. I have never had to deliberately raise from seed. I get plenty of self-sown seedlings from plants grown in my Peat Beds. On my *H. triloba* card is an entry, "Aug. 2, 1962—eighteen self-sown seedlings from 'Loggery' pricked out in box. Wintered in cold frame. April 18, 1964 planted out in Garage Peat Bed. Flowered March 1965." *H. transylvanica* has spread quite a lot on its own by seed. Here they flourish among dwarf rhododendrons, cassiopes, etc. with at most shade around midday in summer from deciduous trees.

*KALMIOPSIS LEACHIANA*—In answer to Sallie Allen's query about this species, I can say that I see no difference between the varieties *Le Piniec* and *Umpqua Valley*. What does *Le Piniec* say? I have one in flower now in my little cold greenhouse (letter written February 8, 1966), and my oldest plant outside is covered with buds, or was a few days ago when it appeared from under the snow for a few days.

LATE BLOOMING SEDUMS—Having read Mr. Senior's article on

*Sedum cauticola* and *S. sieboldii*, I would like to mention two other late blooming ones that are hardy here in Scotland, which *S. sieboldii* is not. One is *S. hidakense* from Japan, which is rather like *S. cauticola* but a little smaller and more compact with flowers of a pleasing pinky-brick colour. The other is *S. pleuricaule*, at least that is the name under which it received an "Award of Merit" from R. H. S. on Sept. 20, 1957. At present amongst gardeners over here (Great Britain) it is known as *S. ewersii* var. *pleuricaule*. The description of the plant which received the A. M. was as follows: "The plant exhibited had a spread of 19 inches by 15½ inches, and carried about 200 heads of flowers, each consisting of from 10 to 20 flowers, magenta-rose in colour. The stems were reddish and the foliage was glaucous green, faintly tinged with pink." It is very similar to *S. cauticola* and is hardy here growing in a south-facing wall.

## RHINOPETALUM AND ITS FIVE SPECIES

VACLAV PLESTIL, *Turnov, Czechoslovakia*

The genus *Rhinopetalum*, separated from the larger genus *Fritillaria*, has now five species and, in my opinion, are very nice and interesting and suitable for the rock garden. The genus is widespread in lowlands or in lower parts of mountains in Central Asia, and only one species, *R. gibbosum*, occurs from there to southern Transcaucasia and north Iran.

The plants of this genus differ from the fritillarias by some very marked characteristics. Leaves in all the species of *Rhinopetalum* have two forms. The lower pair always larger than the others; they are usually paired, or come together, are elliptic, ovate, or broadly lanceolate. They are alternate on the mid part of the stem, but the upper two to four leaves are paired. Flowers are arranged in open, unilateral inflorescence, campanulate or saucer-shaped, pendulous on very short pedicels. The upper flowers in the inflorescence always have rudimentary, sterile pistils.

The smallest and one of the most beautiful for the rock garden is *R. karelinii* Fisch. which inhabits the great area from the Caspic Sea to West Tian-Schian and West Pamir in Tadjikistan, but rarely or sparsely. This species is only ten to fifteen cm. high, with the stem and the upper leaves and pedicels covered by tiny cobwebs, all leaves glaucous to green, fleshy; the lower ones paired, elongate or broadly lanceolate; the others linear or narrowly lanceolate. Flowers are broadly campanulate, usually two to eight in number, with perianth segments lanceolate, ten to fifteen mm. long, pale lilac to rose, mauve or dull lilac checkered, somewhat similar to *Fritillaria meleagris* L. Nectaries, placed on the base inside the perianth segments, are greenish with tiny black stripes inside, the outside black. In the upper perianth segment is the nectarium, larger than in others. For this reason the flowers seem to be zygomorphic. This is an early species, in the wild flowering in March or April.

The second very handsome species suitable for rock gardens is *R. sten-antherum* Regel, about fifteen to twenty cm. high, inhabiting the lower parts of West Tian-Schian at about 1100 meters elevation. It is similar to the foregoing species, the basal leaves broadly elliptic or ovate, usually blunt; flowers are a dull lilac-rose or mauve, or rose-violet, deeply veined, in number one to five, with perianth segments to eighteen mm. long; nectaries all equal, green and black striped. In its home on grassy slopes and between shrubs, it flowers in March; in our gardens it will be somewhat later.

The most common species and the one most often in cultivation is *R. bucharicum* Rgl., flowering much later than either of the above mentioned species, and taller, from ten to forty cm., with from three to ten flowers on a stem, white or

pale lilac with green veins. The nectaries are ovate, greenish inside and drab violet outside. The two lower leaves are usually ovate or elliptic, blunt, fleshy. This species is widespread in the mountains to the west of Pamir in Tadjikistan, in dry, grassy slopes at elevations from 900 to 2400 meters.

Another species, *R. arianum* A. Los. et Vved., is a taller plant, from twenty to fifty cm., entirely glabrous, with the lower leaves glaucous, lanceolate and acute; all others smaller and lanceolate. Flowers, two to twelve, are greenish outside and rose inside, with dull, darker spots and blotches, purple-veined, with perianth segments to twenty-two mm. long and lanceolate. It is a relatively rare species, inhabiting sandy lowlands southwest of Kara Kum (desert) in Uzbekistan in the area of Sutchan Darja (river) and in Tadjikistan in the valley of the Kashka Kum river.

The last species of this interesting genus I have never seen, and I have no description of it. It is *R. gibbosum* A. Los. et Vved., and I should very much like to try it.

My *R. bucharicum* and *R. stenanthum* grow well in porous, not heavy soil, in well-drained, sunny places in the rock garden. I have only young plants, but they are healthy. They seem to be not difficult to grow, any more so than other bulbous plants from arid areas. They can be damaged by wet winters.

All Rhinopetalums are easy from seed when sown in the autumn. Seeds germinate at low temperatures, in free soil, or in a frame, very well, but seedlings increase slowly. The mature bulbs of all the species are very similar to those of the genus *Fritillaria*, containing four large scales which are not larger than two cm. across.

(Editor's Note)—Latest authority available does not recognize *Rhinopetalum* as a separate genus, but includes its species under the genus *Fritillaria*.

## BIG SUR CEANOTHUS

DARA E. EMERY, *Santa Barbara, California*

Big Sur Ceanothus, *Ceanothus maritimus*, has a short and sketchy history. It is found in the wild only on the coastal bluffs north of San Simeon in San Luis Obispo County, California. It was first discovered and collected there in 1889 by Mrs. Katherine Brandegee, who considered it to be a form of *C. crassifolius*. In 1949 it was again collected, this time by Dr. Robert Hoover, who sent seed from his collection to the Santa Barbara Botanic Garden. In 1953 he decided that this ceanothus deserved specific rank, and so named it *C. maritimus*. Now, in addition to being grown in botanical collections, it is occasionally seen in private gardens in southern California.

This prostrate shrub has rigid branches to about three feet in length and foliage that is either open or dense depending on the environment. The leaves, three eighths to three fourths of an inch long, are oppositely arranged on the stem, glossy green above and white tomentose beneath. They are leathery and vary in shape from narrow to broadly obovate or oblong. The leaf margins are revolute with one to three teeth on each side. Corky stipules are conspicuous along the stems. Tiny fragrant flowers appear in early spring in axillary clusters about one to one-and-one-half inch in diameter. In the wild the flowers are light blue or occasionally white. In the Santa Barbara Botanic Garden in a well-drained, loamy soil they are pale blue, but in a clay soil they are pale lavender. The individual flowers, when viewed through a hand lens, are very lovely. The fruit, a capsule about one fourth inch in diameter, has curious short apical horns.

The ideal place in the landscape for Big Sur Ceanothus is in a large rock garden. Branches exposed to the sun turn white and can be seen occasionally

through the foliage. Together with the rocks this creates a most interesting effect. It would make a distinctive tub specimen, and a good, short-term bank or ground cover.

This ceanothus is a stem rooter. It is also a non-burl former and is apt to be relatively short-lived under cultivation. It usually grows six to twelve inches tall by four to six feet wide, and along the southern California coast prefers full sun and a light, well drained soil with periodic summer watering. In our garden in a clay soil with regular summer watering, one grew even larger, to two feet tall by nine feet wide, and had very dense foliage. It was magnificent. In the winter of its fourth year, this plant developed lime induced chlorosis. We were unable to correct the soil condition—excess soil moisture during the winter rainy period. The plant eventually became unsightly and was removed.

This species is subject to mildew when grown in too much shade. It was reported several years ago to be growing well at the arboretum in Davis, California, a hot interior valley where maximum summer temperatures can be above 110 degrees F., and winter minimum temperatures can be below 15 degrees F. No reports have been seen concerning the response of this species to conditions colder than at Davis, and the maximum cold tolerance is not known. It is intolerant to saline soils. Lime induced chlorosis as mentioned above can be a problem in clay soils, and the yellowing of the leaf tips and margins is permanent and unsightly. If the soil situation is corrected promptly, the undamaged and subsequent new foliage will be normal. This species seems to be quite resistant to the two important ceanothus problems, a stem gall, and an air-borne spore fungus which, though non-systemic, usually attacks the crown and kills the plant.

Big Sur Ceanothus is one of the few opposite-leaved ceanothus than can be easily propagated from cuttings. Soft tip cuttings and the use of bottom heat are recommended. Seed require hot water treatment for prompt germination. Since ceanothus seedlings are intolerant of the bare-rooting necessary in spotting-off, seed should be sown one to three per small pot. Then if more than one germinates, at the four leaf stage the weaker ones can be discarded.

## ANOTHER NEW MEMBER AND HIS VIEWS

GERHARD SIDOW, *Montvale, New Jersey*

I have been a member of the American Rock Garden Society for about a year now and feel a desire to let my fellow members hear how pleased I am to be one of their very active, very learned, and very devoted group. It is indeed a pleasure to receive the *Bulletin* every three months, read through it from cover to cover and learn more about the fascinating art of gardening, or to be more specific, rock gardening.

Nevertheless I am herewith going to make a few suggestions concerning the *Bulletin* even though I understand that I may be way out of line and might be banned for life from the ranks of the ARGSS.

Basically, rock gardeners can be divided into two large groups—landscapers and collectors, with a great deal of overlapping. While admittedly the majority of our members belong to the second group, there must be many who engage in rock gardening mostly with the aim of beautifying their surroundings. Furthermore, there are those who are just beginning to see the beauty of the marriage of rock and plant.

It is these people I thought were a little bit neglected, at least in my first four issues of the *Bulletin*. Let us take a look at the highly sophisticated, knowledgeable alpine plant collector and how he reached this interesting part of rock gardening. If he were not directly introduced to it by friends or relatives, he

was, more likely than not, led to rock gardening by force because he was just sick of reseeding that steep bank behind the house, or he might have discovered one day that somehow tall irises look better next to a rock than if seen standing alone. In either case, the evolution of a rock gardener has begun.

He will now start experimenting in his garden and will soon discover that his irises and petunias, and what have you, planted between the evenly spaced stones, don't quite create the picture he had in mind. Determined as most gardeners are, he is now looking for help and might finally knock at the door of the ARGs. Surely, he thinks, these people must be able to help in his search for improvement, if anyone can, and he anxiously awaits his first issue of the *Bulletin*. He opens the pages and becomes more and more bewildered by such strange things as *Corydalis cheilanthifolia*, screes, *Leiophyllum buxifolium*, pH's, freezing of seed, coldframes, etc. Maybe he has still enough determination left to go on and try to enrich his knowledge, or maybe he might drop rock gardening altogether, and that, or so it seems to me, is a greater tragedy than petunias in a rock garden.

Should not the ARGs extend a helping hand to this man in his search for a more beautiful garden? Should we not tell him about the beauty, maintenance, and propagation of such old standbys as *Phlox subulata*, *iberis*, and *Primula polyantha*? It will not take much to tell him that a few choice rocks spaced properly will make a world of difference, and if we can convince him to replace his irises with some dwarf varieties, or even *Iris cristata*, another devotee will have been won for life. He will now become more and more an efficient landscape gardener, thrilled by the colorful "common" rock plants, and be happy and content to have achieved what he set out to do, or he might graduate from *Primula polyantha* to *Primula* × *bileckii* and become a collector, or better yet, might be able to combine both lines of rock gardening. Either way, it seems to me, worth our while to have won him over to our side.

I realize that you can't bore a reader circle that is used to counting stamens in every flower with such details as how deep to bury a rock, or how to divide a clump of thyme, but maybe other ways can be found to speed the novice along to better gardening.

One idea would be to maintain a small library of books on all phases of rock gardening, the existence of which could be brought to the attention of every new member. I am sure enough members have outgrown some of their books which could be devoted to such an undertaking. I submit this article for the members to read and to think about and make comments. Surely no burning questions are involved and I might not have written this article had it been possible to be out weeding in my garden.

Be it as it may, I wish every fellow rock gardener another joyous spring, and may the beauty of his *Cerastium tomentosum* or his *Cerastium alpinum* var. *lanatum* help him forget for a moment the harsh realities of our world.

## WHICH SIDE IS "UP?"

BURR BRONSON, *Watertown, Mass.*

These are the facts of what happened to me. One would think that a fellow of my age, who had been growing most kinds of flowering plants for over half a century, would know by this time the difference between the top and the bottom of a cyclamen corm. But not me, for I have never bothered to grow any kinds of bulbs, especially cyclamen.

In July, 1965 I received several dozen nice large *Cyclamen neapolitanum* corms with the expectation of potting them and selling them in September or



Burr(bank) ? makes a discovery

Virginia Howie

October as potted plants.

The corms arrived on time and were nice large ones, rounded on one side, with the opposite side fairly flat with a central depression from which what appeared to be dried roots extended. This, I reasoned, was the bottom and I proceeded on this theory to pot each one; just covering the corm with earth.

I might add that I had already consulted several rock garden books and back numbers of several journals, but found no directions for planting cyclamen. The pots were placed in a shaded coldframe and forgotten until one day in late September a customer asked if I had cyclamen for sale. I went to the coldframe and to my surprise found the corms all up out of the pots, and what was growing in the ground was the mottled green foliage—half buried.

What a revolting development this was. Needless to say, they were all repotted, this time the right way.

Perhaps there are some of our newer members, who, like me, will not know which is top or bottom, and this confession may be of some help to them.

## THE DOUBLE PINK RUE ANEMONE

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

*Anemonella thalictroides* is a delicate early spring plant of open woodlands in Eastern North America. In neutral soils, rich in organic material, moist but well drained, this monotypic genus has an elfin, if rather fleeting, charm. The five to ten white, petal-like sepals cup a cluster of fine stamens and pistils. The flowers are arranged in an open umbel on thin, wiry stems with involucre leaflets forming an airy collar beneath. The leaflets are repeated more generously on the rue-like, leafy stems which arise, with the flowers, from the cluster of tuberous roots and persist after the sepals have fallen. The over-all height is usually under one foot.

In its range from southwestern Maine, westward to Minnesota and southward to northern Florida, Alabama, Arkansas, and Oklahoma, it tends to vary in color, showing more and more pink in the blossom in its western extension.

Whole stands in Arkansas and Oklahoma are almost raspberry in color. These color variations are worth searching for and introducing into cultivation.

Besides the color variations there are forms in which the stamens and pistils have been transformed into sepals, giving the plant the flore-pleno type doubling so sought after by gardeners generally. The double white form has been christened forma *favilliana* after its discoverer. It has a beauty and even greater lasting quality than the fully double Bloodroot, *Sanguinaria canadensis multiplex*. Think what a fully double pink Rue Anemone would be like! And it is no dream-wish. Such a plant has been discovered, has been propagated, and is now being distributed.

The rose-pink pompons last for well over a month on this plant, and when well grown, each umbel produces secondary umbels of fresh flowers from early spring into July. Because there are no sexually functioning parts to the flower, it does not quickly shatter by being fertilized, nor does it, of course, set any seed. Fortunately the cluster of tuberous roots, just beneath the surface of the soil, provide a sure and easy method of increase.

Such a choice plant, originating as a chance genetic sport would not be likely to reproduce in nature by division except by extraordinary coincidence. A burrowing mole, or inquisitive squirrel might perhaps dislodge and transport one of the clustered tubers. More likely, however, would be the complete extinction of this choice double pink Rue Anemone by the inevitable change of environment which would "swamp-out" this one-in-a-million genetic accident.

Fortunately for us the gentleman, Oscar Schoaf, who spotted this beautiful "freak" in a small graveyard in Owatonna, Minnesota, amidst a wave of the common single variety, recognized its distinction. In honor of his discovery about twenty years ago, I would like to propose that this extraordinary form be known as *Anemonella thalictroides* 'Schoaf's Double Pink.' There seems to be no technical name assigned to this form in botanical literature.

To Mrs. Louise Koehler of Bixby, Minnesota, we owe the introduction of this wonderful plant into general horticulture. To quote from a letter from Mrs. Koehler: "I knew nothing about this *Anemonella* until one spring when my husband went to pick up his seed corn at the dealers. I rode with him. While I was waiting for him to finish his business, I watched a neighbor across the driveway working in his garden. When I saw mounds of pink along the border I got out of the car and walked over to see what those mounds of pink were. It was then that the gardener gave me two of the plants. He said they could be increased by dividing the tubers which I did the latter part of July when they had finished blooming.

"This gentleman's name is Oscar Schoaf. He tried to sell the *Anemonellas* to a nursery, at a price, but never succeeded. He left his plants in large clumps and seldom divided them. I divided mine regularly and soon had them by the hundreds. I felt I should not sell them until he had had a reasonable length of time to find a nursery to take them. I don't know what price he demanded for them. After twelve years I started selling them. Everybody who saw them wanted to buy some. I sent plants to the University of Minnesota Arboretum, to Mrs. Mary G. Henry, Gladwyne, Pa., and to several friends who had wild flower gardens.

"Mr. Fred Abbey of Gardenside Nurseries, Inc., Shelburne, Vt., had a short writing about the *Anemonella* in an issue of his *Gardenside Gossip*. I don't remember which issue.

"The book, *Wildflowers of North America*, by Lemmon and Johnson had a good picture of the double pink *Anemonella*. It was taken in the garden, in Rochester, Minn. of a friend, Earl Tesca, to whom I had given a plant."

Through the generosity of Mrs. Koehler the plant is slowly getting into wide circulation. All those who have it are, I am sure, grateful to Mr. Schoaf and Mrs. Koehler and to others who have extended its introduction by skillful division and generous sharing. It is thus, slowly to be sure, that choice plants arrive in our gardens. The three essential steps are a keen and discriminating eye to spot the plant, skill and willingness to propagate, and finally a love of sharing such beauty with others.

This multiplex form of *Anemonella* seems more vigorous than the ordinary white. Under good cultivation it may be divided annually after flowering when the foliage begins to pale. Each single tuber in the cluster, up to as many as ten, will produce a plant the following spring, some of which will flower. All will flower abundantly and for a long season the second year.

Transplanting may be done in very early spring or in fall. A location on a slope with adequate moisture and soil rich in leaf mold will produce an abundance of flowers, especially if the site is sheltered from sharp winds and provided with constant, high, deciduous shade. Division every other year will insure a good display of flowers and rapid increase of *Anemonella thalictroides* 'Schoaf's Double Pink.'

## MY SEVEN ROCK GARDENS

J. P. ZOLLINGER, *Kingston, N. Y.*

### Part II

ROCK GARDEN NUMBER FOUR, called the Mound, was built at the same time as Number Three. Not far from the latter there was a spot where generations of former owners seem to have dumped all the stones and rocks, down to egg-size, which came out of their vegetable patch. Now the excavation necessitated by the operations described above produced more material which was piled up over the old stone heap, making of it a wide mound, with the larger rocks jutting out in many places, or forming an irregular and often interrupted edging.

In contrast to Number Three, the least troublesome rock garden so far, the Mound has proven the most problematic. Drainage is excessive. The bought "top soil" I dressed it with seems to shed the rain like a duck's back, and the east, south, and west exposures get no shade at all. Only the most drought-hardy plants survive this habitat for longer than a season or two. Here, again, getting enough of the right species has proven very difficult. A few plants of *Calluna vulgaris* 'Sister Anne' have taken, with a lot of prodding. Two specimens of *Penstemon davidsonii* seem not to have decided yet whether they like it here, or not. Only *Arenaria loricifolia* and *Thymus serpyllum album* seem established on the sunny side. On the shaded northern slope, *Campanula adria* (which came to me from John Politi of the New York Botanical Garden, via the Norths), and *Arabis procurrans*, and a small plant of *Buxus microphylla* seem more or less contented. So far my hope of giving over this mound to choice alpinists and saxatiles has not been realized; only a hill covered in summer mostly by portulaca tending to choke out what might otherwise survive, has resulted. Unless more good and serviceable plants turn up, the Mound may ultimately be monopolized by *Thymus serpyllum album*.

ROCK GARDEN NUMBER FIVE, the New Mound, also came into being in the wake of building activities, though its actual construction was delayed for a year. In what was left standing of the old farm cottage, all the old, fragile interior walls of lime and sand were torn out, and some of the rubble saved for the base and core of a longish rock composition. Together with Number Three

and Four it forms a sort of chain linking the house with the main rock garden. Our soil is rather acid, so the idea of a special lime "bed" seemed to have much to recommend it. The old rubble was enriched with well-decayed stable manure and loam. Here too, drainage is rather sharp, but since the New Mound is only half as high as the first and consists mostly of big, flattish pieces of rock, moisture retention appears to be better.

Here more campanulas are established, chiefly the low *C. elatines garganica*, some very dwarf pinks, *Erysimum kotschyianum*, a good early crucifer, some encrusted saxifrages and *Saxifraga* 'Tumbling Waters', still quite small, but eventually, I fear, much too large for this location. *Aquilegia scopulorum* did suspiciously well from the beginning and proved to be not the real thing, but it is still tolerated until better things come to hand, since it is low and flowers freely. Here and there along the base of the New Mound *Carlina acaulis* grows and should flower next summer. Where the structure flattens out in the direction of Number Four, a small bed of *Opuntia polyacantha* (seeds from Claude Barr) has been established and should also begin to bloom next year. Between the two mounds on one side and the terrace wall on the other side, a flag walk, flanked by ericas and callunas, and, until the latter cover the ground, by occasional low annuals, leads from the house to the main rock garden.

ROCK GARDEN NUMBER SIX is again no garden in the literal sense, but a "crazy paving" negotiating between the concrete floor of the porch and the curving steps of the stone terrace. We simply call it the Paving. Many of the slabs were on occasion dug out of our own grounds, others were donated by a neighbor who has an abandoned blue stone quarry in his woods. The slabs rest on a bed, in places a foot deep, of sand, soil, and small stones. Drainage hence is very good, but not too rapid, and the slabs, of course, keep the compost moist even at times when rainfall is scarce. This paving is still in an experimental stage. In fact, having been in too great a hurry to see something growing on it, I was unwise enough to use *Thymus serpyllum* and *Phlox subulata* in one section, with the result that the slabs were completely covered within two years, and that part will have to be rebuilt soon, and replanted with more restrained growers. *Cymbalaria pilosa* also likes it too well here. So did a clump of *Dianthus* 'Sammy' which in no time grew a foot wide and bloomed itself to death. *Dianthus alpinus* made a brilliant show for one summer, but of the half dozen plants only two reappeared the following year, put out a few meager blossoms and then deteriorated completely. One worthless and totalitarian weed, *Oenothera pumila*, I introduced here at the recommendation of Lawrence D. Hills. It propagates faster than rabbits and by itself is not worth looking at.

There are, however, a few enjoyable things here, and ideal for the situation. These I mean to propagate and use to replace the weeds and rampers. *Saxifraga trifurcata* (somewhat too tall when it flowers, which is not for long) makes a fine emerald cushion, which some visitors instinctively kneel down to touch lovingly. The few patches of *Arenaria verna caespitosa* spreading modestly along the joints between flags usually receive the same attention. *Aethionema* 'Warley Rose' is represented by several specimens and finds the habitat ideal. *Hypsela longiflora* and *Veronica repens*, though never very showy, are much appreciated here as restrained and compact fillers of joints. And finally there are several plants of *Gentiana scabra Buergeri* (seeds from Mrs. Doretta Klaber) which are the "stars" of the fall season. Their blue is not so startling as that of *G. acaulis* or *G. sino-ornata*, but still very good (except in color slides, which render it as lilac). Fortunately, the undesirables are mostly to one side and can be overlooked, so that as a whole the Paving proves a fine asset. We certainly enjoy sitting on the porch and having the well-behaved occupants between the flagstones

practically at our feet.

ROCK GARDEN NUMBER SEVEN, at this writing, is no more than an assemblage of big rocks pushed and piled together by a bulldozer under my supervision. It is not that we needed another rock garden, but we did need a garage. The old barn which so far served as such had become decrepit, and was torn down at the end of last summer. Like many old wooden barns, it rested on stone piers, its floor about a foot above ground. To make it possible to bring the concrete slab of the planned garage down to proper level, a bulldozer was needed, and the desired level could not be attained without digging out a lot of rocks, the largest of them half the size of the bulldozer. Neighbors wondered who was going to cart those away. The question never occurred to me. To me it was a matter of course that they were the raw material for another rock garden—the last one, though, I hope. Seven is a goodly number, sacred in olden times, and I'd like to let it go at that.

Number Seven no doubt will in the future go under the name of the Garage Rock Garden. It is on the far side of the driveway and should, when finished, provide a pleasant accent in the grounds north of the house, which are otherwise of little interest and until now have been neglected. What remains to be done is to find a cubic yard or two of suitable soil to fill the gaps between the rocks. As for the planting, I have at least a picture in my mind of what it ultimately should look like: a simulated outcropping in a piece of lawn, the whole backed by some evergreens serving as a foil, and the pockets planted with things that can look after themselves, *Cytisus decumbens* e.g., and other trailers hanging down over the rocks, and at the foot perhaps some very dwarf evergreens for a groundcover. But I will probably dispense with flowering species, unless, like ericas, callunas and *Arctostaphylos uva-ursi*, they are also good evergreens.

As may be guessed by the more knowledgeable readers, with seven rock gardens to care for, none is truly "finished." In fact, the entire layout might best be called a sketch for a garden, and it will probably remain one. In an urban or suburban environment some greater finish might be *de rigueur*. Here, where we are surrounded by unkempt woods and abandoned farm land, liberally dispensing weed seeds, meticulousness would be unattainable and indeed out of place. A rock garden is, after all, a sort of wild garden and should be kept free of sophistication and preciousity. In the case of our Slope you certainly could not draw a hard and fast line where the rock garden ends and the wild woods begin. The two are, to a certain extent, part of one another.

## THE BLUE OF LITHOSPERMUM

C. R. WORTH, *Ithaca, N. Y.*

Early spring is lavish of blues in the rock garden, with *Anemone blanda*, *A. apennina*, *Hyacinthus azureus*, scillas, chionodoxas and myosotis making sheets of vivid color, along with more subdued patches of muscari and bulbous iris. Then for months, until *Gentiana septemfida* and the Asiatics bloom, true blues are mostly lacking, unless one can coax a few flowers from *Gentiana acaulis* or *Penstemon angustifolius* and *P. nitidus*. The lithospermums, all too little known in this country, offer during late spring and early summer somewhat modest displays of stars and tubes in shades of blue as brilliant as those of eritrichium.

The genus is a rather small one, with about a dozen species in cultivation, but its nomenclature has been altered considerably in recent years, so that "Farrer" is of little use in determining what may be expected under a particular name, or in seeking a desired plant. Complications have been added by Dr. I. M. Johnson's division of the genus into four (see Bailey, vol. 6, pp. 91-100, 1958),

to the confusion of the horticulturist. *Lithospermum*, as Dr. Johnson has defined it, retains all the American species and some others not in cultivation, while the more familiar European and Asiatic ones are scattered among *Lithodora*, *Moltkia*, and—horribly named—*Buglossoides*. While *Lithodora* may be more mellifluous than the more familiar *Lithospermum*, and *Moltkia* has been in fairly general use for some years, how can one introduce a plant to a garden visitor as a *Buglossoides*? I fear that I shall cling to the British custom of using only *Lithospermum* and *Moltkia*, but as the long-awaited *Hortus III* will follow Johnson's terminology, I have inserted parenthetically the latest binomials. And please note that a few changes from familiar specific names add their part to the confusion.

*Lithospermum prostratum*, now *L. diffusum* (*Lithodora diffusa*) is the only species at all well-known in this country, and can still be found in an occasional catalog, usually as one of the cultivars 'Heavenly Blue' or 'Grace Ward.' So far as I am aware, the paradoxical *L. prostratum erectum* has never appeared in American lists. This species is, at least in my garden and I believe also in the milder climate of northeastern New Jersey, no more than of borderline hardiness. It is also reputedly a violent limehater. For some years I struggled with 'Heavenly Blue' in pots in the alpine house, where it made a fairly dense shrublet, three inches high, of rather narrow and short dark green leaves, and bore a few of its rich blue forget-me-nots in late spring, but never flowered throughout the summer, as catalogs assure one that it does. 'Grace Ward', reputedly a much better doer, appears identical in both appearance and behavior, and probably was wrongly labeled. Neither is with me at present, but perhaps some day I shall again bravely attempt to please them.

*L. oleifolium* (*Lithodora oleifolia*), should from all reports be rather more tender, yet my one garden plant, after appearing dead following the severe winters of 1963 and 1964, eventually broke from the base and soon appeared as prosperous as ever, although none of the plants, in the open or in pots, flowered in 1965. For me it makes a compact little shrub only a few inches across and two inches high, with dark leaves both wider and longer than those of *L. diffusum*, and half-inch forget-me-nots of a most dazzling mid-blue.

*L. fruticosum* and *L. rosmarinifolium* (both now *Lithodora*) likewise are of dubious hardiness, and difficult to find, although Correvon's 1966 list offers seed of the former. I have had no experience with either.

Moltkias are at least as likely to be found under this name as under *Lithospermum*. It is greatly to be hoped that one of the several expeditions to the Near East in 1966 will come back with seed of the golden *M. aurea*. Three of the four moltkias in cultivation are shrubs, one a hybrid between the other two. I have raised them from seed from various sources, under assorted names, and never twice have gotten the same type of plant. Among them, *M. petraea*, from Sundermann, was a rather narrow shrub six inches high, with narrow, very deep blue tubes (not pink turning blue, as in all descriptions). This lived through only a couple of winters in the garden, and I am not certain whether pot plants are still with me.

*M. × intermedia*, from Correvon, and still unflowered, are erect, rather thick-branched shrubs now a foot in height, and rather sparsely leaved. They have not yet been tested in the open. The prize one, probably obtained as *Lithospermum graminifolium* (correctly *Moltkia suffruticosa*), dwells on the top of a sandy mound, exposed to all the gales of the windswept ridge where I live, and is a dense mat about a foot and a half across, more than six inches high, of long, narrow, grassy leaves, with quantities of narrow half-inch tubes of a most brilliant blue in mid-June.

*Moltkia doerfleri* is herbaceous, putting up annually a host of slender stems

a foot or more high, hung with inch-long pleated tubes of a somber deep purple. It spreads moderately underground, accepts any nonalkaline soil (I have no lime, so cannot report on behavior in soils of high pH) in sun or light shade, and divides and re-establishes without fuss. A couple of years ago the patch became too large, so in the middle of a dry summer I removed the surplus, stuck them here and there because I hated to throw them away, gave them no water—and all grew. However, seedlings took fully ten years to flower, which may help to explain why it remains a very rare plant.

Farrer's glowing account of *Lithospermum japonicum* led me, in the late 1930's, to seek it from its native land. Wada did not list it; the Botanic Garden at Tokyo assured me that it is not a Japanese plant, but a native of Korea, which seems strange, as Farrer mentions (certainly from personal observation) the plant growing profusely on the slopes of Fujiyama. A letter to a Korean botanic garden brought the information that *L. japonicum* was likewise unknown there, and the promise of seed of another species—which was never received. From all this effort, I did receive seed of *Lithospermum (Buglossoides) zollingeri*, which I now suspect was what Farrer had in mind, for my plants seem to fit his eulogy of *L. japonicum*, rather than the unflattering remarks bestowed on *L. zollingeri*.

As I have it, *L. zollingeri* is an almost prostrate creeper, rooting down and making new plants at intervals of six inches or a foot, with relatively wide oval leaves, dark green and hairy, and half-inch salvers of a luminous mid-blue, larger and more brilliant by far than those I have had on *L. diffusum*, and consoling me for my failures with that perverse gem. It has been easy under pot culture, but the first few attempts to establish it in the garden came to naught after a winter or two, and I came to the conclusion that it was not hardy. Then I decided to try once more with a surplus plant, and stuck it in a rather congested northeast exposure where it had to contend with a red pulsatilla, *Gentiana septemfida*, and an assortment of rather transient aquilegias. There it sulked for a couple of seasons. Then in 1964 it began to spread mildly, and after the bitter, snowless winter of early 1965, it decided really to go to town, galloping about, diving under small rocks and coming up more luxuriantly on the other side, and everywhere putting down roots—thereby removing any doubt of its frost-hardiness, but suggesting that it is somewhat particular about location. It is a treasure, yet as far as I know, no one else grows it, either in this country, or in England.

Of the hardiness of *L. purpuro-coeruleum (Buglossoides purpuro-caeruleum)* there never was any question, although like *Moltkia doerfleri*, it took so many years to come into bloom that it barely escaped being discarded during the long wait. Over perhaps fifteen years it has made itself completely at home on the weed- and grass-grown sunny slopes of a now abandoned rock garden, where it covers many square feet, and usually blooms unobserved and unappreciated, although there is a smaller patch growing happily, and more conservatively, in half-shade in the new garden. It puts up long stems, to two feet or more, which tip-root like a blackberry, and if left unchecked will cover considerable territory in a few years. The leaves are light green, larger and thinner than those of *L. zollingeri*, and the flowers are slightly smaller and a lighter blue. Clearly not a plant for a choice spot, it is well deserving of some less important place where it will look after itself.

Of the yellow species, true *Lithospermum* (there is a blue one in China, unknown in cultivation), the species from the Midwest and Rocky Mountains have proved perverse and impermanent in my garden, and seed has been most reluctant to germinate. They are lovely, but I have yet to learn the secret of taming them.

Seed of the blue species germinate reasonably well, without long delay, but

is not too easy to come by, as few of the four nutlets per flower develop. It may require years of searching through seed lists to get more than a few of the species available. The seedlings grow readily, but, as mentioned, often require a number of years to reach flowering age. *LL. doerfleri*, *zollingeri*, and *purpuro-coeruleum* will take care of their own propagation, while the woody species are fairly easy to root from cuttings of half-ripe wood, taken in mid-summer.

## SOME MOUNTAIN TRAILS IN NEW HAMPSHIRE

MARY GRAY, *North Reading, Mass.*

Mountains are climbed for more reasons than just because they are there. It might be for the view, for adventure or the challenge; or if one is interested in the alpine flora, to see the plants that are growing on the top. It was for this last reason that I took my pack, boots, and camera to the White Mountains in New Hampshire last June. The new highways made it possible for me to leave home at 6 A.M. and arrive at Marshfield Station at the base of the Mt. Washington Cog Railroad where the Ammonoosuc Trail begins, at about 9:30.

After following the trail through open woods for about a mile and a half, I came to a beautiful pool at the foot of some fine cascades. Then began the steep climb to the top, and I huffed and puffed past *Rhodora* (*Rhododendron canadense*), some fine scenery, back and forth across the brook and along a line of cairns to the Lakes-of-the-Clouds Hut where I spent the next two nights. The hut, at 5,000 feet on the shoulder of Mt. Monroe, is maintained by the Appalachian Mountain Club, and provides meals and bunks for climbers at moderate rates.

Mt. Washington has the worst weather in the world, and many people have lost their lives by underestimating its violence. Only last August 30 there were two and a half inches of snow with wind gusting to 105 MPR and the temperature at 20 degrees. The variety of plants has been limited by the extreme glaciation which took place only a few thousand years ago. There is the story of a woman from Europe who was disappointed in the native flora she found on the mountain, so she planted *Saponaria pumila* (*Silene pumilio*) which is found on the Ammonoosuc Ravine Trail. This plant, of course, is native only to the European Alps, and finding it here has caused a bit of speculation. This plant is available from the Mountain Nursery in nearby Jefferson Meadows and so could have been easily obtained by the mountain-enricher or lily-gilder. There are also reports of a foreign sedum growing in the area.

After a cup of tea and a can of sardines, I explored the Monroe Flats where the most interesting plants grow. Just off the trail, a very small area is the only place where *Potentilla robinsoniana* can be seen. This is a tiny plant, no larger than a half dollar, which is spotted most easily by the silver hairiness of the leaves. As far as I know, no effort has been made to propagate it, although a few have been transplanted to a like area. This stand is moving slowly to the edge of the Oakes Gulf, and would seem to be endangered by the drift of the rocks.

*Cassiope hypnoides* was a much smaller plant than I had expected and really wasn't any larger than the moss for which it is named. The nodding flowers were white and bell-shaped. It was growing in rock crevices and there was a particularly nice specimen in the middle of the Oakes Gulf Trail where it must have been stepped on frequently during the summer when it was out of flower.

*Rhododendron lapponicum* had almost finished flowering, but I found one in full bloom crouched among the rocks and covered with light purple flowers. *Loiseleuria procumbens* spread its branches over the rocks. The tiny, deep pink flowers were in clusters on the ends. *Phyllodoce caerulea* was a small straggly

shrub with pink—not blue—flowers, growing in almost inaccessible places. *Kalmia polifolia* was beginning to blossom nearby.

That evening, after an ample dinner served family style on a long table in the hut, we watched a storm come across Franconia Notch, blotting out first Mt. Washington to the north, and then Mt. Monroe. We went to bed that night with the sounds of rain and of thunder echoing through the mountains.

The next day was bright and warm with a cloudless sky. Taking my lunch and camera, I followed the cairns to the Alpine Garden Trail on the east side of Mt. Washington, crossing the headwall of Tuckerman Ravine where there had been skiing the previous Saturday. There were mats of fir and spruce which had been stunted by the winds. Just above one ravine I came across a particularly handsome stand of *Geum peckii* in full bloom. At the edge of the headwall of another ravine I found the *Silene acaulis* for which I was looking. It was every bit as beautiful as I had expected. I took off my boots, taped my blisters, and ate my lunch, surrounded by these dainty flowers, overlooking Pinkham Notch and the Wildcat Ski area. I then climbed to the summit of Mt. Washington. I returned to the hut late in the afternoon. The summit of Mt. Monroe was a twenty minute climb after supper, and we watched the sunset from there.

The last day I concentrated on photographing *Diapensia lapponica*, which grows abundantly there, making mats of extremely beautiful blossoms. On the old Crawford Path, half way between the crosses which mark the places where two men had died, I found the plant of double diapensia. Each flower was a marble-sized ball of white petals—an unbelievable sight. One of the fallen flowers had at least twenty-four petals. I spent quite a while admiring it. Then, as there could be nothing more beautiful to see after that, I picked up my pack and went down the mountain.

## BOOK REVIEW

ALL ABOUT ROCK GARDENS AND PLANTS. By Walter A. Kolaga. 378 pp., illustrated. Doubleday & Company, Inc., Garden City, New York, 1966. \$4.95. Mr. Kolaga has given us a book, primarily intended for beginners, following the English tradition, with emphasis on the lime-no lime factor, and on the construction and preparation of the rock garden with much concern about stratified rock. He gives us four chapters of details of location and construction. He explains several types of gardens: the dry wall of English literature; the paved garden; the woodland garden; various wet gardens from streams through pools to bogs; scree; and the moraine of gardens, which was probably invented by Farrer, and was certainly promoted by him. This is the detritus-filled concrete or clay-lined trough, watered by underground pipes.

In a chapter dealing with planting and maintenance, he gives many interesting ideas about trimming, mulching, propagation, and even fertilizing of alpine plants.

The five chapters describing plant materials are well organized. In one he deals with shrubbery and trees which are useful in the approach to and the background of the rock garden which is away from the house. In the plant lists he gives a good cross section of those available to the beginner which he will be able to grow with some degree of success. Perhaps as a teaser he has included some "impossibles": *Dicentra pusilla*, *Diapensia lapponica*, *Pyxidantha* spp., *Cypripedium* spp., *Pyrola* spp., *Chimaphila* spp., and *Moneses uniflora*, as well as *Soldanella minima*. These are neither readily obtainable to the most knowledgeable rock gardeners, nor easily grown by a beginner or by an expert.

The book is well supplied with illustrations and with diagrams to aid those interested in the planning and construction of gardens.

Mr. Kolaga states in his foreword that he is most familiar with rock gardening in the Northeastern United States and that his information is based on his observations there. This makes one wonder a bit about the title, which is nothing if not all-inclusive. The most nagging thought provoked by this book is the nearly complete lack of knowledge about the Pacific Northwest (the home of this reviewer), and perhaps of other regions, as well. There was some misinformation. It was flattering to learn that we here in the Northwest were somewhat successful with *Eritrichium nanum*, and disturbing to read that our West Coast lewisias came from the Rocky Mountains. Many of the best Western American plants were not mentioned at all, and some of our least desirable species were mentioned. I had hoped we in the separate regions of this country understood each other better than is evidenced here.

L.E.J. *Seattle, Wash.*

## TWO UNUSUAL DODECATHEON SPECIES

Laura E. Jezik, *Seattle, Washington*

*Dodecatheon patulum* is not often mentioned in the literature. Farrer and Clay were both aware of it, as was Correvon. Munz now lists it as a subspecies of *D. clevelandii*. I have not seen that species, so cannot have an opinion. For the present I shall call it *D. patulum* as it has been known under that name for some time.

This Californian, from hot adobe land in the north Sacramento Valley, is a good creamy-white or light yellow, with a prominent red-black central zone. It is about three inches tall, and is a colonizer, locally covering acres so thickly that it is difficult to avoid plants while walking through. Jepson says it favors slightly alkaline areas. I found it intergrowing with two-inch *Orthocarpus erianthus*, an annual, which gilds acres with its tiny calceolaria-like pouches at the tips of its stems; *Baeria chrysostoma*, another annual, three inches of bright daisy; *Brodiaea capitata*, ever present and ever lovely, and several other bulbous and annual plants, as well as the perennial lupines. *Dodecatheon patulum* keeps its feet out of the water and climbs every rise, if only slight, and stays away from the occasional puddles. It grows among volcanic rocks, and without them, in full sun and under deciduous oaks in some places. It is sometimes subject to frosts of 30 degrees F. as late as mid-March.

Occasionally genetic memories of family redness dominate and there will be a small colony of pink plants. These are fewer-flowered than the type and more delicate. The central zone is redder than black. Next to this is a golden stripe, then a short white one, and the tip two thirds of each corolla lobe is a good true pink.

Like many another plant from the valleys of California, it has a short period of active growth. It breaks dormancy at about the end of February, is in full bloom by mid-March, has spent its seed and disappeared by the first of April.

In the garden, in my maritime climate, this plant requires a hot scree with perhaps some attention paid to its liking for alkaline areas. Gardens which can provide the unbearable heat of its summer home, could grow this in clay, but water would have to be carefully managed.

In reading Clay again, I came upon his comment on *Dodecatheon glastifolium*, that it was described from California, but he implied it was apparently not in the trade. Perhaps the reason is that *D. glastifolium*, Greene has been included in the variable *D. conjugens*. It differs a bit from the latter in being very long-pedicel, and has distinct leaves, wavy, waxy, and nearly succulent, deep green. I have this in colors ranging from a good red to a hot pink, a mauve,



*Dodecatheon conjugens (glastifolium)* collected in northern California

Wm. Eng

a pale pink, and a white good enough to be named.

Though listed from Modoc County, in the extreme northeastern corner of California, I found quantities of it west of the Cascades, in Shasta County, where it grew as part of the foothill community with small deciduous and evergreen oaks, redbud, ceanothus, and others. It prefers a soil with more vegetable matter than does *D. patulum*, often growing in oak leaf mould over adobe. It can be treated in the garden the same way as other hot land dodecatheons—a scree again, but with more leaf mould than for *D. patulum*, and full sun in mild climates.

The habit of early dormancy in dodecatheons adapts them to positions in full sun. With the exception of the two wet species (*D. dentatum* and *D. jeffreyi* and its varieties), most dodecatheons are better in sunny screes than in shade. All of them will be found growing in full sun, some of them are always there, and a few, like *D. hendersonii*, will grow in open glades in sunny woodlands.

Of the more than fifteen species I grow, all, again excepting the wet ones, have been found more often in clays than in any other type of soils. These native clays are prairie and hot land clays, not packed and compacted as garden clays are, and they are not often wet down. In the garden the same conditions can be obtained by using a loose soil with nourishment, both mineral and vegetable, but with perfect drainage.

The prairie dodecatheons are good-natured and tolerant plants, adapting well to gardening conditions.

## INTERCHANGE

*SEDUM CAUTICOLUM* vs. *SEDUM CAUTICOLA*—A Japanese sedum which is often mentioned as desirable, not only for its fine style, but for its fall blooming, was named by R. L. Praeger in 1917. In Curtis's *Botanical Magazine*, New Series Vol. 174 (Plate 401), published by the Royal Horticultural Society, December, 1963, appears this comment, "Specific epithet was given from its growing on cliffs. Praeger published it as *Sedum cauticolum*. This is now considered a grammatic error, to be altered to *S. cauticola*." The nature of the error was not specified. In the recently published book, *Collins Guide to Alpines* (reviewed in last issue), this sedum is listed as *S. cauticola*. Can light be shed on the nature of this "grammatic" error?

WANTED—A COPY OF A 1964 *BULLETIN*—If you have an extra copy, or an unwanted copy, of *ARGS Bulletin*, Vol. 22, No. 1 (January, 1964), please mail it at once to Mr. Hochheimer, Ridge Farms Road, Norwalk, Conn. 06850. A member lacks this one number to complete his set and the Society's supply is exhausted.

A PRIZE IS WON—Mr. Lee Raden, Chairman of the *ARGS* Delaware Valley Section, reports that his section won the Gold Medal Certificate of the Pennsylvania Horticultural Society at the Flower Show held at the Philadelphia Civic Center recently. The exhibit, a rock garden, was on a table ten by four feet and featured over fifty different species of rock garden plants.

SEED LISTING No. 1303—Opposite this number in the last seed list appeared this notation, "(Tasmania) Blue-berried Creeper." Perhaps those who obtained seed under this number would like to know the species name. A note sent to Mr. Harkness by Mrs. E. C. Smallwood, Fairways, Hythe, Kent, England may help. She wrote, "Thanks so much for the seeds. No. 1303—Tasmanian Blue-berried creeper is surely *Billardiera longiflora*, a very charming but tender climber and a member of the Pittosporaceae."

YES! MOUNTAIN GEM PHLOX IS STILL THERE—Dr. Edgar T. Wherry writes from Pennsylvania: "In the *Bulletin*, Vol. 24, No. 2, p. 65, Mr. Fuller raises some questions about the Phlox which under the mistaken (and misspelled) epithet 'mesaleuca' wins awards in British flower shows. Having in the course of my 25 years of study of the genus sought out the native haunts of most of its members, I can answer these with competence. As pointed out by Sealy in the text accompanying a colored illustration in the *Botanical Magazine*, Vol. 164, pl. 9674, 1946, the authentic name for the plant is *Phlox triovulata*, published by Torrey in 1858. This occurs in western Texas, southern New Mexico, southeastern Arizona, and northern Mexico, blooming in spring, and in years of abundant rainfall, again in autumn. By search through the colonies where it grows, individual dwarf plants with especially large, bright pink flowers can be found. The accompanying illustration represents a plant much like the British prize one, photographed by the writer on April 13, 1948, in sandstone gravel of low acidity along a little-used mine road not too far from Las Cruces, New Mexico. *Phlox triovulata* is indeed one of the most beautiful of all. My favored colloquial name for it is Mountain Gem Phlox. Difficult to explain is the success of British rock gardeners in growing this native of hot, dry lands in their cool, moist climate. (Picture on following page).

TO THOSE INTERESTED IN JAPANESE NATIVE PLANTS—The following letter was received from Mr. Richard A. Brown, a new *ARGS* member whose address is 1050 N.W. 178th, Seattle, Wash. 98177. He wrote: "As a relatively young and new member of the society, I have often regretted the fact that my brief experience with alpines and rock garden plants has prevented me



*Phlox triovulata* (mesaleuca) ?

Dr. Edgar T. Wherry

from contributing to the *Bulletin*. However, I feel that I now have something to share with the other members, especially those who hold a special interest for the plants of Japan.

"Recently, in Japan, a botanical institute was formed with the primary purpose of presenting to the public the flora of Japan in a technical-nontechnical journal. Each quarter a journal is published focusing on one selected Japanese plant, discussing it both from a plant taxonomist's viewpoint and from a non-technical standpoint. Within each issue are numerous photographs and a full page color reproduction of an artist's drawing of the plant.

"Since the institute was formed on a nonprofit basis, the membership dues are exceptionally nominal considering the quality and scope of the journals. Therefore, I would like to recommend to members interested in Japanese plants, the Suzuki Botanical Institute. To those who wish to join and support the institution in its aim to supply to the world accurate and detailed information about selected Japanese plants, the annual subscription dues are three dollars, payable to:

The Suzuki Botanical Institute  
Izumi-761, Komae-machi  
Chofu-P.O., Tokyo, Japan

"It is hoped that once a supporting membership is attained, an information and seed service will be initiated. Anyone desiring further information is invited to contact me at my home address."

(Editor's Note)—The editor has been shown the first quarterly by Mr. Brown. The subject was *Nandina domestica* and if this is a sample of what is to follow, quarter after quarter, one's expenditure of \$3.00 will, in the editor's opinion, be money well spent. This quarterly approaches the dignity of a monograph, and it is printed in English as well as in Japanese.

*DIAPENSIA LAPPONICA*—In last July's *Bulletin*, information was requested about this plant by Mrs. Sallie Allen, of Seattle. Maj. Gen. D. M. Murray-Lyon, of Scotland, has written of his experience with it. "In August," he wrote, "I had some nice little plants sent me from Lapland by a member of

the S.R.G.C. I have found them easy growing beside *Loiseleuria procumbens*, and under the same conditions, i.e. full sun and humusy soil which does *not dry out*. The compost I used was approximately: parts by bulk — peat 1, leaf mould 2, loam 1, coarse sand 1, and crushed rock 1. They also flowered out of doors."

## OMNIUM-GATHERUM

Are you interested in the wild flowers of Alaska? Do you desire plants or seeds of some of them for your garden? If so, you would do well to write to Miss Helen White, Alaska Trails Homestead, Star Route, Wasilla, Alaska 99687, and ask for her seed list. Seeds are harvested from plants in the wild or from wildings that she has transplanted to her far northern rock garden. Ask her to tell you of the nine booklets she has written on Alaskan subjects. Miss White is a new ARGS member and the editor has just received an article by her on the flowers of Alaska, which will undoubtedly appear in the October issue.

Oregon loses a fine gardener. It is with regret that we announce the death on March 19 of Mary I. Byman, who lived and gardened near Canyonville, Oregon. She was 86 years old and to the very last she was much concerned with every one of her beloved plants. A description of her extensive garden and details of her life-long devotion to wild flowers were given in the *ARGS Bulletin* of January, 1964 (Vol. 22, No. 1) in a moving article by Olga Johnson, of Grants Pass, Oregon. It is suggested that a re-reading of this article at this time would be fitting as a sort of personal memorial for this fine plantswoman.

If you enjoyed the two amusing sketches enlivening the pages of this *Bulletin*, be thankful that Virginia Howie, of Millis, Mass. is a member of the ARGS, and is so generous with her delightful talent. If these humorous drawings left you doubtful as to the propriety of including them in the *Bulletin*, blame the editor. They were included in the hope that a little lightheartedness would not be considered as inconsistent with the spirit of rock gardening, even by our most austere members.

Our Society had its own May Day; not May 1, but May 7. At least three important events, all including garden tours, took place on that day. Perhaps there were others of which the editor is not aware. The most important, of course, was the annual meeting of the ARGS at the home of Mr. and Mrs. J. A. Lukins, Port Chester, N. Y., details of which appear elsewhere in this *Bulletin*.

The Delaware Valley Section, under the leadership of Lee Raden, Chairman, held their first garden tour of the year visiting the Klabers' garden, the Nimmons' and the Rodebaughs' in that order, all in southeastern Pennsylvania.

Saturday, the 7th, was the most heavenly day imaginable in the Seattle area. Members ferried across Puget Sound to Bremerton where they visited the fine gardens of Mr. and Mrs. Vernon Steinke, and Mr. and Mrs. William E. Bogard.

The Northern Westchester Section missed the 7th by a week. On May 14 members flocked to the New Jersey Pine Barrens on a collecting trip. Perhaps we will hear later of the interesting plants collected there.

Has it ever occurred to you that some of the difficulties you have experienced with certain species in your garden may be attributed to the possibility that the ailing plants are not happy with the company you have forced them to keep? Plant association—the tolerances or intolerances of plants toward their intimate neighbors is a subject which if properly explored should help us make the "niffs" perk up and be happy. Some individual plant in your garden, enjoying exactly

what it needs in the matter of soil content, moisture, situation, exposure, etc., may still be anemic, or even die, because of the adverse effects of close association with some other perfectly decent plant. Why?

Many of these intolerances are already known. For example: Mr. Zollinger's necessity to sacrifice a fine specimen of butternut tree because rhododendrons, as well as most other plants refuse to grow, or even live, within its perimeter (see page 55 of April's *Bulletin*). Many other plants are suspected of inimical, even lethal effects on other plants, while perhaps some of the worst offenders remain unsuspected. Do not blame any plant for these conditions. A plant cannot be held responsible for its nature. One plant is offensive to another—another plant has not yet learned to counter the adverse effects of close proximity to some other plant, so we have conflict and our gardens suffer because we lack knowledge. Diligent research by our horticulturists, and garden-level experimentation by all interested gardeners, with a steady and intelligent interchange of findings may in time teach us the "whys and wherefores" of this disturbing situation to the end that we will take a more realistic and knowledgeable approach to plant selection and plant disposition in our gardens.

To the gardener this offers an additional challenge, two challenges in fact: 1st—to discover the truth about the disharmonies in plant association, and 2nd—to all other questions of compatibility, of color, size, leaf pattern and texture (to say nothing of supplying cultural requirements), the gardener must now determine association compatibility. All this adds to the complexity of rock gardening, and to the joys of successful achievement.

So far we have mentioned only tolerances and intolerances. The former is the ability to put up with the inharmonious; intolerance is the inability to do this. There is another side to this matter of plant association, and it needs intensive study, too. We need to know more about the plants that have definite beneficial effects on their neighbors, but this can wait a bit and yield priority to the other problem of intolerance that vexes us. Knowledge already accumulated on this subject should be made available, and suggestions on the possible steps to be taken to arouse the interest of our gardeners and stimulate research on the problem of plant association in the garden is invited.

You will read, or have read, in the accompanying Bulletin Board, as part of the Minutes of the Annual Meeting, about the reading of a report from the editor. Therein you will read that the editor "again pleads for contributions to the *Bulletin* from the membership." The editor wishes to disavow the implication expressed in this quotation from the Minutes. In his report he did not plead for contributions. As stated in previous Bulletins, the editor will never plead, or beg, or beseech. He will ask for contributions in a dignified manner—but plead—never!

The editor's report was read to those privileged to attend the meeting; less than 10% of the membership. That the other 90% may know exactly what the editor had to say in his report, it follows in full:

The editor of the American Rock Garden Society's *Bulletin* was asked to send a report to Mr. Hochheimer, for possible reading at the annual meeting on May 7. What is there to report? You already know that the *Bulletin*, each quarter, leaves the printer on time; reaches the Secretary on time, but does not always reach you on time, due mostly to the vagaries of the Post Office Department. These *Bulletins* have either pleased you, or left you cold. The editor cannot report on this for he is seldom appraised of the members' reactions.

True it is that since the last annual meeting, the *Bulletin* has expanded from 32 to 36 pages; advertising has picked up, due to the efforts of our able secretary;

and membership has increased. In this respect perhaps the *Bulletin* has helped.

Briefly, there are four factors that influence the effectiveness of a publication for a society such as ours: 1st—CONTRIBUTIONS—This is a joint editor and member effort. The editor asks, then prods; the members either respond or evade. For the time being the combined efforts seem adequate and the editor wishes to take this opportunity to thank those who have made contributions. 2nd—EDITING—No comment; 3d—PRINTING—Here we can but lavishly praise our publisher for the excellence of his work and the whole-hearted co-operation with the editor in solving the problems that arise. 4th—READERS—You, the members, are the readers. The most perfect publication in the world would be worthless unless read. The *Bulletin* is also worthless unless you read it. The ideal would be for every member to read every line of every *Bulletin*, even to the advertising. The editor knows that there is a sorry difference between this ideal and actuality. The blame for this cannot be assessed with any degree of accuracy. The editor will accept his just share—will the members accept theirs, both in the areas of contributing and of reading?

Accepting the blame, however, is not enough. It merely conditions us for better or worse, depending on what we do, or fail to do, about it. To admit blame is good for the soul; to strive for blamelessness is an approach to perfection.

In the next two years, under the officers elected at this meeting, shall we (officers, members, and editor) band together to propel the *Bulletin* along this difficult road to some undisclosed goal where perfection seems not so far distant? The editor is willing and eager. Are you?

Members everywhere will soon be thinking of collecting seeds for the Seed Exchange. This year we lose Bernard Harkness as our director. How can we thank him enough for the many years that he has served so brilliantly? Losing his devoted services might well be disastrous were it not for offsetting gains. He has written that after his retirement, not only from the Seed Exchange, but from his regular position, as well, he will have time to devote to the preparation of material for the *Bulletin*. Thus we will gain, and his services to the ARGS will not be lost, only directed through different channels.

Also, we gain the services of Lawrence Crocker who is our new Seed Exchange director, as announced in the *Bulletin* Board which was enclosed in the April *Bulletin*. Lawrence lives near Medford, Oregon and is associated with Boyd Kline in a growing nursery business, in Medford, which specializes in native plants. The flora of southwestern Oregon and northwestern California, including the Siskiyou Mountains, and the valleys and headwaters of the Umpqua, Rogue and Klamath rivers hold few secrets from these two men.

When asked if he had any special message, or instructions concerning this year's Seed Exchange for publication in the *Bulletin*, Lawrence replied, "All that is needed is a reminder for the members to get the seeds to me as soon as possible—no later than early November." This seems to the editor to be an understatement. Certainly every member will wish Lawrence every success in his new position, but it is hoped that many of them will do much more than that, for a man in a new and unfamiliar position, regardless of his knowledge, ability, and dedication to the job, can always use help.

If you plan to send seeds, please take extra pains this year. Collect, prepare, and package seeds so that they reach the director in good order. Label plainly—type or print botanical names so that Lawrence does not have to make any decisions. Above all, see that the seed packages reach him well in advance of the dead line—"no later than early November." Every thoughtful thing you can do this year to help make the Seed Exchange director's task a bit easier will be

appreciated by him and by members all over the world.

Remember, we need lots of seeds with many species represented; seeds well cleaned and packaged; clearly labeled and sent in as early as possible. Notes concerning seeds of rare or unusual plants, and special cultural directions should accompany the seeds. Let's all do our utmost to make Lawrence's first year as director a great success. We know that he will extend himself to the limit to achieve this goal. It is the little, thoughtful things we do in gathering and preparing our seed contributions, in packaging, labeling and early mailing that will help the most.

Address all seed contributions to Mr. Lawrence Crocker, Director ARGS Seed Exchange, 3355 Jacksonville Hy., Medford, Oregon 97501.

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