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AMERICAN ROCK GARDEN SOCIETY

including

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ALPINE PLANTS FOR THE SMALL GARDEN

W. E. TH. INGWERSEN

I HAVE been asked to talk to you about Alpine Plants for the small garden, as it seems likely that after this costly and disastrous war ends most of us will be reduced to gardening on a smaller scale than in the past. If such be indeed the lot of most of us I cannot think of any other kinds of plants so suited to banish sameness and repetition and to give so wide an interest than we shall find among the small plants that for ages have braved the untamed elementary forces of the higher mountains and extreme northern latitudes. Perhaps I had better include the extreme southern latitudes as well, as increasing numbers of plants from the Alps of New Zealand and from southernmost South America are reaching our gardens and are settling down to milder conditions of life under skillful care of some of our keenest amateur and professional growers of these plants. Our field of choice is indeed a wide one, it runs into thousands if we count varieties as well as species and especially if we add to the natural species the very many hybrids that have been added through propinquity in our gardens, or, indeed, designedly by artificial crossing made by growers.

Of late years man's activities in cross breeding have been so profuse that it is possible to fill a whole rock garden with plants that never grew wild upon the mountains, and a good many of such artificially produced plants would appear to the purist and especially to the observant traveller and mountaineer, as so many bedding plants of dwarf stature rather than the true children of the hills. This is especially the case among many of the Violas, Primulas, Campanulas, mossy Saxifrages, the Helianthemums and all the Aubrietas. In the case of the last I cannot remember a garden outside my own that harbours a wild species of Aubrieta, and much the same is the case among the Helianthemums. Still worse is the matter when you come to the great Dianthus clan, which inclines to so much cross breeding in our gardens that the only safe way to increase them in gardens that contain more than one species is to take cuttings of any definite species or variety one wishes to increase.

In the course of my work I go into many gardens, some of them rock gardens of considerable pretence, beautifully built and kept, and yet I have looked in vain in them for the real and uncontaminated plants that have delighted me so during my many visits to mountainous countries. Perhaps this is in part due to the fact that many of these garden-raised hybrids are easily increased by means of cuttings and division and that so many of our great rock gardens in the past were left to the administration of the paid gardener whose chief object it was to give his em-

*A lecture presented May 2, 1944; reprinted by permission from the Journal of the Royal Horticultural Society, Vol. 69, pages 219-224.

ployers great splashes of colour, mostly in the early part of the year, and in such pretentious gardens the rock garden was to my mind in serious danger of becoming but yet another phase of a bedding-out system from which we have tried so hard to break away with the passing of the Victorian era. There is no denying that such gardens were a gorgeous sight in their season and that they were, and are, as greatly admired as, say, a floral clock or other pretentious example of carpet bedding, or perhaps the endless ribbon borders of scarlet Geranium, yellow Calceolaria and blue Lobelia that encircled shrubberies and filled beds cut into the lawns, which seemed to be the measure of wealth, if not of good taste, of owner and gardener alike. On one occasion a proud owner, after conducting me for an hour or two over an enormous rock garden, built in imitation of a real mountain, told me with considerable pride that it cost him anything between £400 and £800 per year to bed out afresh the great drifts of plants upon which he relied for his annual glory. I could only tell the good man that he must be a profitable customer to his pet nurseryman and depart a sadder but also a wiser man.

Such extravagances are not likely to be repeated in the near future, or perhaps ever, and that will not be a matter that I shall regret. Much greater joy can be achieved by personal efforts in smaller surroundings, and I remember with great joy a whole afternoon spent with a gentleman in his tiny garden in the outskirts of London. He called his neat and modest house "The Nutshell," and his garden, in comparison might be likened to one of the tiny lace handkerchiefs beloved by ladies. Yet in this tiny domain he had contrived irregular grass plots more or less surrounded with rockwork and out of the grass cropped a few fair-sized boulders which were really small scree gardens, and here he grew and enjoyed a collection of round about 500 kinds of alpine plants, each one of which was a true species or choice, selected variety and each one was a perfect picture of health. This garden, the justified pride of the owner, a busy man, with only his spare hours and weekends to devote to his family and his garden, was the admiration of every beholder honoured with an invitation to inspect this alpine world in miniature.

Another little alpine garden that delights me from time to time is in a garden bordering on Wimbledon Common. This too is entirely the work of the leisure hours of its owner, a man not unblessed with the wealth of this earth. His gardeners are strictly bidden not to touch this delicious retreat, which is a bit of mountain land in miniature. Sloping grassland, tiny streams, a cliff or two, and a little alp with a tiny chalet which houses the tools of the owner. A steep little scree shelves downwards from the base of the cliff and a narrow track meanders through it. The planting is done with the most perfect restraint and every plant occupies a site in which you would look for it in the mountains, and each plant is the memory of actual days spent among the hills. The whole thing is in the most perfect proportion and I have spent many happy moments seated on a low wall, such as borders many a track in the alps, smoked a contemplative pipe and recalled happy days in the mountains, on some of which the owner was my valued companion.

It is these smaller, intimate rock gardens that I have in my mind to-day. However poor the war may leave many of us, the joys such little gardens can give should remain within the reach of most of us, and what a wealth of beauty and interest can be gathered into the narrow confines of a quite small rock garden must be experienced to be realized. A garden of this

kind need not be an affair of the three acres or so like the wonderful rock garden at Wisley, or even the sumptuous examples we used to admire at the Chelsea Flower Shows of pre-war days. Something much more modest will serve to house a very wide collection of these small plants and give you something to admire at almost any time of the year if your choice has been a wise one. Even in mid-winter, under a mantling of snow, each rock and small conifer tree would be a picture in itself and may recall days of the past when holidays in mountain lands were possible and left you with memories of a happy past. When the snow melts you should find the first of the winter flowering Cyclamen gleaming richly red among the dark leaves which make such a perfect foil for them, soon to be joined by the

BY W. E. TH INGWERSEN

Campanula elatines var. *garganica* (also known as *C. garganica* var. *hirsuta*) comes from the Adriatic region. Its copious flowers are light violet-blue.

first of the Crocus species; some of the earliest Saxifrages will join in and week by week will bring you other kinds until the great spring rush sets in and paints your little piece of mountain land with rich colour and beauty. Early summer will bring the Dianthus family, the Bellflowers, the greater Saxifrages, Stonecrops and Houseleeks in endless succession, and towards the end of summer and the beginning of autumn yet other late-flowering plants will give you splashes of colour if your choice of plants has been a wise one. When most of the flowers are gone for the season there will be berries and coloured foliage and, as so many of the alpine plants are evergreen, and of characteristic growth and colouring—silver-beaded among the Saxifrages and rich colouring in Stonecrops and

Houseleeks, silver-grey domes among the Dianthus, emerald domes among the Drabas, Silenes, Arenarias and other cushion-forming plants—there will still be much to admire by anyone with an eye for quiet rather than for blatant and startling beauty.

The thing to aim at is proportion. Not only in the height of the dwarf trees which are so essential a feature in our picture, but also in the ultimate spread sideways, or on the little cliffs downwards, that the plants we would use for our small rock gardens will reach eventually. This rather rules out most of the garden varieties of Aubrieta, of the more rampageous forms of Arabis and Alyssum, the hybrid Helianthemums and the Rockroses proper, or Cistus. Under the ban of being over big for the small rock garden also come such great favourites as nearly all the Meconopsis, the bigger growing Campanulas and very many of the Pinks, especially garden forms of *Dianthus caesius*, and the Feather Pinks or *D. plumarius* which may form patches and drifts several feet wide in time. I always think it rather ridiculous if a small rock garden contains flowering plants which at their flowering season overtop by many inches the dwarf Conifers we have planted to give us an illusion of perspective. There is also the constant danger that these fast growing plants will in the course of time overrun the more truly proportioned plants and smother them out of existence. I know one always has the good intention of cutting back and restricting the ambitions of these vigorous growers, but often the danger is not noted until these are about to break into blooms and one hesitates to restrict their display. By the time their bloom is over the harm may be done to the smaller neighbour and it is surely wiser to restrain oneself from the beginning to plants likely not to interfere unduly with each other. So I would advise that these strong growing and therefore dangerous plants should be relegated to retaining walls, raised borders, paved terraces and the front of the mixed border, where they have room to spread and develop to their fullest extent without endangering neighbouring plants. Of course, in the extensive rock garden there is room for such plants, but to-day we are considering the small garden in which their stature, spread and blatant beauty would be disturbing elements.

Into the building of these small gardens we scarcely have the time to enter deeply on this occasion. It is too difficult to convey by words instructions for the constructing of these to fit the varying spaces circumstances provide. There are amateurs who can see in their mind's eye the picture they want to achieve, and these, as a rule, especially if they are men, can build for themselves rock gardens that will be a great success and a still greater joy to the maker. But I think anyone without the strength to handle heavy blocks of stone or the artistic instinct and some fair knowledge of what the plants require had far better call in professional help to build firmly and strongly the stonework, above an ample drainage system, if your soil be heavy and ill drained, and with all the interstices tightly rammed with the right rooting material.

A certain amount of planting can often be done advantageously as building proceeds but the bulk of the filling could be left very often to the owner. For the bigger rock garden I should always advise the use of local stone if that is available; such gardens aim more at a landscape effect and in a district where sandstone rocks abound and protrude through the soil's surface it would obviously look wrong to see extensive quantities of fretted limestone growing out of the earth.

In the small rock garden, possibly closely adjoining the house and in a setting far from natural, the choice of the stone need not matter; it must be obvious that the rock garden is constructed to give the possessor a suitable home for his plants with as many aspects, planting nooks and crevices as possible to accommodate in a limited space as large a variety of plants as possible, to give joy and interest at almost any time of the year that permits of being out in the garden.

It is for that reason that I recommend abstinence from great spreading masses of colour which, making a great splash of colour for a short season, would leave as great a blank for the major part of the year. If it is your aim to find room for a really wide variety of concise growing plants, so

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The pale yellow flowered *Onosma echioides* from southeastern Europe forms a background for a mat of the albino form of the northeast-American *Phlox subulata.*

typical of the flora of the Alps, have your home for these constructed with a multitude of narrow crevices and see that these crevices are, if at all possible, narrowest at their base so that the soil can settle down firmly into them. The stones forming these crevices should be bedded so firmly that movement is impossible. If you can run to a naturally fissured and creviced stone, so much the better, and should you have tufa stone at your command, planting holes and crevices to any number can be chipped or drilled into such stone to the great benefit of your tiny plants. You will be well advised too to select for your crevice planting the smallest and youngest plants you can possibly procure. You want to aim at plants so young,

either from seeds or cuttings, that you can easily dibble their complete root system into these narrow crevices, and I assure you it will repay you far better than the hopeless task of trying to cram the whole vast roots of a more mature plant into such narrow quarters. We have, on occasion, drilled holes into a single piece of tufa measuring perhaps one foot by two feet and planted it with close on a hundred rooted cuttings of various Kabschia Saxifrages and had an enduring, charming miniature garden for fully ten years.

At the present moment I have great joy from a number of self-sown seedlings of *Saxifraga cochlearis minor*, in hair-fine fissures of a piece of Forest of Dean rock in an old stone trough and I feel confident that these seedlings in the stone will outlive me and other plants of their species growing in any of the choicest soil mixtures we can provide for them.

The advantages of narrow crevice and fissure cultivation was vividly brought home to me during my visit to Bulgaria nearly ten years ago. There in the Botanical Garden at Sofia, and in the King's Gardens at Vrana, and again at Czarska Bistriça I admired rock gardens consisting apparently of solid rock, but closer inspection revealed separate rocks so closely built that no planting place appeared more, and most far less, than one inch wide. Yet these rock complexes were abundantly furnished with a great variety of choice plants, all in superb health, and this in the sweltering plains of Bulgaria where we perspired sitting still in fast moving, open cars. Here the plants retained to the full their close growing, typical alpine habit, shaded only by groups of distant trees and fully exposed to the grilling mid-day heat. It struck me at the time that this was an ideal way for people with but limited leisure to attend to their plants. A good dewing over early on fine mornings and again when the sun was sinking kept these plants in full health and during broken, moist weather no special attention was needed at all. Perhaps the best soil of all for such crevices is really old leafmould, black and powdery, with just a sprinkling of fine sand, or failing that the rich humus from a well-managed compost heap.

The merits of the scree or moraine have, I think, been expounded almost *ad nauseam* in textbooks, garden magazines and at lectures. Apparently no two exponents agree on the exact mixtures and I am sure that the component parts of these mixtures and their various quantities matter not at all so long as the mixture be absolutely porous and not binding. So by all means let us have a scree or two in our small rock garden and let it have a good raking slope, if you can arrange this, and put into it a few firmly embedded stepping stones to enable you to tend your plants in it without the danger of stepping on them. Underground watering of such screes, although it seems so ideal, I would avoid. Ample experience has proved to me that sooner or later something is sure to go wrong with the most elaborate draining valves, and once you get stagnant moisture in your scree or moraine it becomes a death trap instead of the blessing you meant it to be.

One more word of good advice on construction I would give to those for whom stooping over their small treasures has become a strain with advancing years. Either sink your paths between your rock complexes so deep that you can deal with the greater bulk of your plants without having

to stoop, or, if sunken paths, because of heavy soil or impossibilities of draining away surface water, are in danger of becoming temporary ponds or watercourses, raise up the whole of your rockwork to a convenient level with steep sides in which only vertical crevices need to be planted and which thus would need but little and only occasional attention. This, I am sure, will greatly add to your comfort and convenience as you attend to your plants, and I rather envisage that the owner, rather than a paid gardener, should attend to the few cultural requirements needed by the plants in a really well-made rock garden. It is by close attention to your small plants that you will discover ever new aspects of beauty in them and the smaller details of their growth and structure which will add enormously to your interest in and enjoyment of them. As to the planting. If you are a beginner I should strongly advise you to start with really easy plants, say, for instance, the smaller and choicer Sedums or Stonecrops and the equally good beginner's plants, the Sempervivums or Houseleeks.

You will need these in any case to fill your ledges and crevices in the hottest, driest and most exposed topmost parts of your rock garden. Add to these the silver encrusted Saxifrages for sunny aspects (although some of these Saxifrages are not at all adverse to northern aspects.) For definitely shaded nooks select some of the choicer and smaller of the mossy Saxifrages and the smaller Saxifrages of the London Pride section. For shaded vertical crevices, especially if you stuff these with good peaty soil, you will find Ramondas and Haberleas hard to beat, and the Queen of Saxifrages, *S. longifolia*, and its hybrid offspring 'Tumbling Water,' as well as such of the greater Saxifrages as *SS. lingulata, catalaunica, lantoscana* or *callosa* will not only be happy in such positions and rejoice you with their noble sprays of flowers but they will share such positions to advantage with the Lewisias of North America which many people find so uncertain and intractable, or of but short endurance, in apparently more favourable positions.

For nooks and crannies that are shaded for part of the day reserve the endless species, varieties and hybrids of the lovely and colourful early flowering Kabschia Saxifrages; perhaps a south-western aspect is best for the most early flowering of these, whilst the later flowering ones might face from south to north-west. For full north exposures the Saxifrage family has given us the Oppositifolia group which begins to cheer us up in earliest spring with flowers varying from pure white to rose, rich magenta and ruby red. As this section tends rather to spread into little mats and appreciates a top dressing in the autumn and again after flowering in spring it is best to give them a gently sloping ledge or a position lower down on the scree rather than a crevice. Small Geranium species, Erodiums, Dianthus species, Silenes, Campanulas, Dryas, Anemones, Potentillas, Arenarias and an endless host of delightful little plants remain for you to choose from and to add to your collection, but do begin with the easiest and work up gradually to the choicest and rarest and you will have something to look forward to and save yourself annoyance and loss by gaining your experience slowly to begin with, in adventuring among Alpine Plants for the small garden that may be yours by choice or by need when peace comes back to our land.

In *Collinsia verna* the upper lip is white and the lower bright lavender-blue.

BY EDGAR T. WHERRY

During autumn and early winter only the two cotyledons are developed; don't mistake these for weeds.

Collinsia verna
SCROPHULARIACEAE

COLLINSIA VERNA

ONE of the most delicate and charming spring wild flowers of wooded stream valleys in our midland states is Blue-eyed-Mary, *Collinsia verna*. This little winter annual with its early profusion of blue and white flowers is a highly desirable subject for the rock garden, especially in a nook where the substratum is somewhat moist and limy, and the sunlight is filtered through a thin leafy canopy.

Late in May, or northward early in June, the capsules mature and burst, scattering the few rather large "popover-shaped" seeds among the leaf-litter of the forest floor. Here they remain dormant, but more or less moist, for about three months. When the autumn rains come, they rapidly germinate, sending up a long stalk tipped by the pair of rounded cotyledons. As the weather cools, these in turn become dormant, and for two or three months scarcely increase in size. They are, however, perfectly hardy, and withstand being covered with snow for long periods. Then as the days lengthen and warm sunshine falls upon them through the leafless twigs of overhanging shrubs or trees, they begin to form leafy stems. These increase in bulk rapidly during every mild spell, and by mid-April or at any rate early May, the flower buds have formed and almost over night the clumps burst into bloom. The flower show lasts for two or three weeks—longer if by this time the unfolding leaves of deciduous trees protect them from the full glare of the sun. By the time the latest flowers are fully expanded the seeds of the earliest are beginning to mature, and soon the cycle is completed.

If the seeds, instead of being allowed to fall to the ground, are collected and stored in envelopes, they seem to lose viability within a few weeks, and no way of inducing thoroughly dried out seeds to germinate has as yet been discovered. For this reason, they can not be distributed satisfactorily through the ordinary commercial channels, and the plant is best obtained through the courtesy of a rock-gardening friend who will furnish a pat of soil containing seeds or seedlings.

When the writer had found this out by several years of experiment, he was attracted by the fact that seeds of "*Collinsia verna*" were offered for sale by at least three of the famous English seed firms. Packets were accordingly purchased to see where the discrepancy might lie. In every case, the commercial seeds did not germinate in autumn, but waited until the following spring. And, when the plants came into bloom they proved to have been misidentified: the species represented was *Collinsia heterophylla* (also termed *C. bicolor*), a California annual of coarser growth and larger flowers with the lower petals of lilac hue.

Collinsia verna is a rather delicate winter-annual, attaining a height of a foot or so; the opposite ovate sparingly crenate leaves are 1 to 2 inches long, the lower ones being petioled, the upper sessile; the inflorescence is a leafy pyramidal raceme which elongates considerably during the blooming season; the 5 narrow sepals are united at base to a cup; the corolla is about ⅔ inch long and strongly 2-lipped, the upper lip consisting of 2 white petals, the lower of 2 bright lavender-blue ones; the smooth brown seeds are about 1/10 inch in diameter, and round-cushion shaped with a large round white depressed hilum.—EDGAR T. WHERRY.

Collinsia verna Nuttall, J. Acad. Nat. Sci. Phila. 1: 190, pl. 8, 1817.
Collinsia bicolor (Muhlenberg) Rafinesque, Cincinnati Lit. Gaz. 1: 84, 1824 (Name often mistakenly applied to more western species).
Collinsia alba and *purpurea* Raf., op. cit., p. 85. (Color-forms).

A ROCK GARDEN DELPHINIUM

VIOLET NILES WALKER, Woodberry Forest, Virginia

IT IS seldom that one finds delphiniums stressed as rock garden material, yet one of the choicest additions to the April display of color is *Delphinium tricorne*, a native of the Blue Ridge and Alleghany Mountains. It is true that Mrs. Henry mentioned this plant in an early number of this Bulletin; and it has been commended in several works on the genus Delphinium, but few rock gardeners have accorded it the unqualified recognition it deserves.

Delphinium tricorne is a "disappearing perennial," dying down immediately after its mission is accomplished and leaving no trace of its existence until another April comes around. Bailey says that it disappears in mid-summer, but here, in Piedmont Virginia, its fullest bloom comes in April, while by the second week in May it has seeded and is gone the third.

The pyramidal spikes of bloom are 10-15 inches high and carry as many as twenty-seven 1½-2-inch florets. These spikes spring from a somewhat scant basal group of deeply-cut delphinium-type leaves, darker and richer in their warm, deep yellowish green, and stronger in texture than the tall varieties of the herbaceous border. The flower colors vary from a lovely pale silvery-lavender-blue to a rich, dark blue-purple with a self-colored "bee" tinged with white at the base. The back of the light colored blooms are a deeper shade of the lavender-blue which shows faintly along the midrib, often tinting the upper petal, always the spur, while the "bee" is a glistening, almost pure, white.

This Delphinium seeds prolifically and, if not disturbed, quickly forms a colony; while the seedlings, which may appear anywhere in its neighborhood, will move easily at any stage of their growth. It is a true perennial, blooming the second year from seeds. It seems indifferent to soil, thriving in heavy red clay, rich garden loam or the leaner rock garden mixture. (My soils are approximately neutral.)

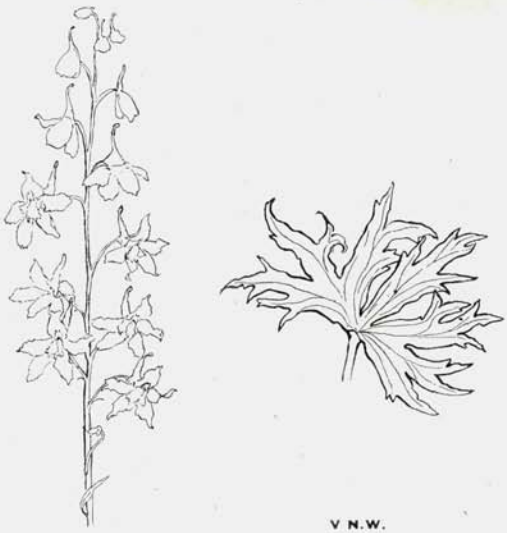
Among its many good points is that of tolerating companionships that will bloom all summer without damage to its dormant corms, so that its home spot need not be bare for more than the short period which comes between its disappearance and the advent of its successor.

I have found for this succession several desirable and easy annuals (depending on the colors of the neighbors) which can either be raised in an early cold frame or by scattering seeds among the delphinium plants.

Incarvillea variabilis and *Diascia barberae* are two of the choicest, though not too dependable from outdoor planting. *Sanvitalia procumbens* is a trusty, fine, all-summer bloomer, but its neighbors must be carefully chosen to harmonize with its strong, deep yellow. Among perennials *Nierembergia caerulea* is most desirable; it is not always dependably long-lived, but easily replaced.

If the Delphinium grouping is near the edge of a wall, *Heliotropium amplexicaule* (*anchusaefolium*) is perhaps the easiest perennial, for it has few spreading roots, only a very deep tap root, its leaves show just as the delphiniums are going, and its masses of light heliotrope-colored blooms carry on till frost.

If taller plants can be used, the perennial *Begonia evansiana* is ideal, for it also doesn't show until the delphiniums are ready to drop their seeds, and blooms late into the autumn.



V N.W.

In typical *Delphinium tricorne* the stems are stout and the flowers blue-purple to silvery lavender.

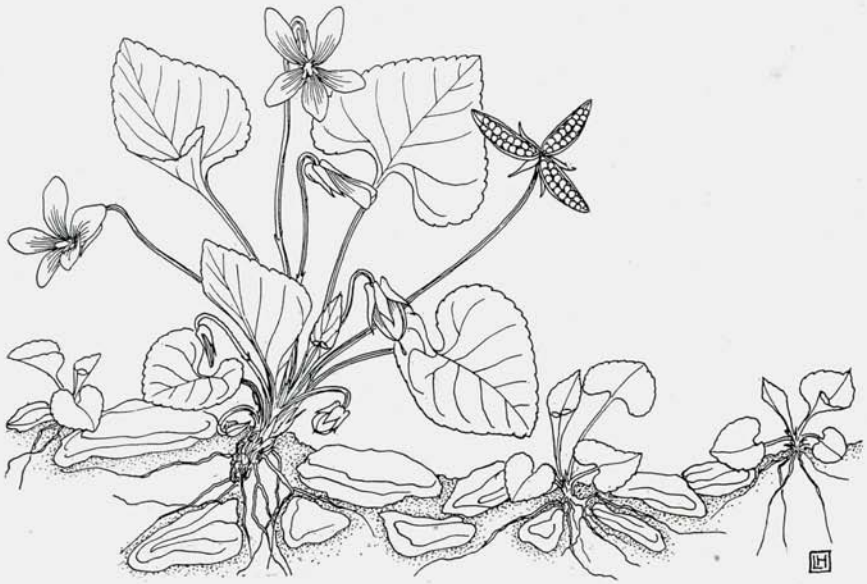
BY EDGAR T. WHERRY

The northern Alabama variety of the species has slender stems and pure white flowers; though given a species name by Rafinesque, its nomenclature has never been straightened out. Collected in Ala. and cultivated by Mary G. Henry at Gladwyne, Pa.

DOORYARD VIOLET

MOST of the plants thus far warned against as rock garden invaders do their spreading by rootstocks. Plants which produce a superabundance of vigorously viable seeds must also be kept out of the neighborhood of choice, delicate alpines. One such is the common blue violet, *Viola papilionacea*. In S. P. N. this is allotted the common name "Butterfly Violet," but that is erroneous. While it is true that the word papilio means butterfly, the species name was given not from any butterfly-like aspect of the violet, but because of a certain resemblance to the flowers of some of the leguminous plants, which are technically known as of papilionaceous habit. A real translation of the technical names would then be the "Legume-flowered Violet," but this seems rather high-sounding for such a weed. A substitute common name is accordingly suggested here.

Most violets produce seeds not only from the showy flowers which open in early spring, but also from inconspicuous greenish ones which come up in succession well through the growing season. The pods burst with a snap, strewing the seeds far and wide, and soon a host of seedlings appears. Before long their vigorous roots and foliage are competing for soil and light with their neighbors; and the violet usually comes out on top.—E.T.W.



EXPANSIVE PLANTS IN THE ROCK GARDEN

RALPH W. BENNETT, Arlington, Va.

THE TERM "expansive plants" refers to those which have a more or less restricted root-system, crown, and basal tuft of foliage, but upward widen so as to spread over a considerable space. As a rule they do not crowd or otherwise interfere with neighboring plants, and they do not take root at stem-nodes and so spread in an undesired manner. *Chrysopsis mariana*, which was discussed in the Bulletin for September-October, 1944, is such a plant; several others may be mentioned here. Obtain them in the spring, and they will beautify your rock garden in summer and autumn.

Nierembergia frutescens has no rosette and therefore occupies no ground space, but its flower mass is nearly two feet across and two feet high in a well-grown plant, or half that size when not so well grown. Its leaves are almost invisible. Its flowers are pale blue cups an inch and a half across, which because of the slenderness of the stems and the tiny size of the leaves, look like a swarm of butterflies hovering in the air. It blooms for two months or more in summer.

Platycodon grandiflorum var. *mariesii* in my rock garden sends out prostrate stems a foot or more long, which crawl over other plants without seeming to hurt them. It bears large cup-shaped flowers of a blue which I have been tempted to compare with that of Gentian. At any rate, it is a good, clear blue. They last about a month. The plant wakes from its winter sleep so late that it could be put among bulbs and would not show a sign until the bulbs had passed.

Heuchera sanguinea is a notable example of such plants. To be sure its rosettes may get to be eight inches in diameter, but its inflorescence spreads much farther. By selecting a good color form we can get an immense amount of color from a small area over a long time,—at least two months.

Rhexia virginica has no basal rosette at all, but makes a very showy flower cluster of bright pink, which lasts for about two months. It is one of the stand-bys for a colorful rock garden, as it occupies almost no room and does not bother other plants, while furnishing good color over the whole summer.

Callirhoe involucrata is another of these spreading plants. From a parsnip-like root it sends out long, prostrate stems like spokes of a wheel. These crawl over other plants to a distance of three feet or more from the root, but I have not observed any plants so crawled over that seemed to object. The vivid color that this plant makes for two months is a thing that amazes everyone who sees it.

Potentilla nepalensis occupies about six inches of rosette space and sends out runners for two or three feet, which have leaves at intervals that do no harm to the plants that they happen to rest upon. It has rose-colored flowers in a scattering fashion practically all summer and fall. The runners do not root at the nodes in my garden.

Our native *Aconitum uncinatum* makes long stems, which either recline on other plants, creep along the ground, or stand partly erect. For at least a month they bear along their whole length dark blue flowers which are quite showy. The vine-like stems do no harm to other plants.

A variety of *Aster patens* collected from the wild near home is the "spreadingest" plant that I have yet come across. From a little rosette not more than four or five inches across stiff stems arch outward, each about three feet long, the whole spreading into a circle four feet in diameter and about three feet high. These stems carry flowers of a good light

blue, which last for such a long time that the gardener wonders whether they are ever going to fade. Yet the leaves are so small that the stems do not shade the other plants enough to worry them at all. For four inches of ground space we get a four-foot circle of color for two solid months.

Plants such as those referred to are in my estimation the most valuable for achieving continuous color effects. So many of the popular rock garden show-plants—like species of *Alyssum*, *Arabis*, and *Dianthus*, and *Phlox subulata* — occupy with their stem and leaf growth nearly as much ground space as do their flower-masses. I am not saying that we should not use these plants, but that we whose rock garden space is limited may well supplement them by the sorts which give a great spread of color for a small amount of ground occupied.

BY ZENON SCHREIBER

A ROCK GARDEN HIDES AN UNSIGHTLY DAM

ON ACQUIRING and developing a property in New Canaan, Connecticut, the owner desired to camouflage a large ugly concrete dam of the artificial pond above. The picture shows how this was accomplished. Altogether there are seven pools on different levels. From the lowest pool to the overflow of the pond there is an elevation of about 15 feet. The walk, which is indicated on the right, leads across the water by the second highest pool and continues down the left side. The rock is from the immediate vicinity, the large piece—middle, left—weighing about nine tons and having been moved a mile to the site. The stones are all firmly cemented in a solid, wall-like foundation creating pockets from one to several feet in depth. The pools and beds for the different waterfalls are of reinforced concrete. This picture was taken about two months after completion. The idea of placing a rockery in front of a dam and using the overflow in this manner works out very well and might well find wide application—ZENON SCHREIBER, Paramus, N. J.

AMERICAN ROCK GARDEN SOCIETY

SPRING PROGRAM

Garden Party, Saturday, April 28 at Mrs. J. M. Hodson's home, Rock Ridge, Greenwich, Conn. The committee has arranged an attractive program; bring box lunch, coffee will be served; trains leave the Grand Central Station every half hour from 10:25 A.M.

ANNUAL EXHIBITION, MAY 16 AND 17

See cover page 4

The entries in the three classes of this Show indicate an extremely diversified and interesting exhibition. Amongst the many displays promised, will be small rock gardens constructed by outstanding garden designers, a display of unusual dwarf conifers, a large array of forty to fifty different violet species, a small garden of choice alpines growing on tufa rock, dwarf shrubs including rhododendrons and azaleas, as well as hundreds of choice and uncommon perennial rock garden plants.

These exhibits are to come from many growers, designers, and amateurs located in various parts of the United States, some as far as the Pacific Northwest. Members are requested to exert every effort to submit any appropriate specimens for exhibition. The committee will cooperate to its utmost to assist. Additional information may be obtained from Harold Epstein, 5 Forest Court, Larchmont, N. Y., in charge of Exhibits and Publicity.

It is our ambition to produce these small Shows at least once each year.

Mr. Leonard J. Buck — *In Charge of Arrangements*
Dr. H. H. M. Lyle — *In Charge of Judging*
Mr. Clarence Lewis — *Chairman of Committee*

In order that we may conform to the regulations of the O.D.T. in regard to the holding of conventions it has been decided to omit the Annual Meeting of the Society this year; there will be no lecture on the evening of the 25th of May as planned; on Saturday, the 26th, the New England Group of the Society will entertain at the home of Mrs. Houghton in Chestnut Hill; Mrs. Houghton will serve lunch to those who come in the morning and after enjoying Mrs. Houghton's garden will have an opportunity to look through a number of other gardens near; trains leave Trinity Place station, Boston, at 11:15 A.M. for Chestnut Hill.

Garden Party on Saturday, June 7th at Mrs. DeBevoise's Cronamere Gardens in Greens Farms, Conn., of which you will receive further detailed notice.

At a well attended luncheon meeting of the North Atlantic Group of the Society on Wednesday, December 20, Mr. H. Lincoln Foster gave a very interesting and instructive talk on Wild Flowers for the Rock Garden, illustrated with colored slides.

SEEDS

From Mrs. W. J. Higgins, Butte, Mont.

Erythronium grandiflorum — Mimulus lewisii

Parnassia fimbriata

Mr. G. G. Nearing, Ridgewood, N. J.

Rhododendron racemosum — Shortia galacifolia

These seeds are ready for distribution; send stamped and self-addressed envelope to: Mrs. Hildegard Schneider, 1751 Seminole Ave., Bronx, N. Y.

EDITORIAL NOTES

The Editorial Committee is planning to allot a page of each issue of the Bulletin to communications received by the Editor, comments on or criticisms of statements made in published articles, and answers to questions about rock gardening. Here are some such items by way of introduction. Our members are urged to send in more.

In one of the numbers of volume 1, *Coreopsis auriculata* was recommended as a rock garden subject. A horticulturist who saw this article wrote in to remark that although it is indeed an attractive plant, under the conditions in his garden it multiplies too rapidly. "Every year or two I have to dig the plants out and start over again so that they do not push their neighbors out of house and home."

Early in volume 2 Mrs. Marriage noted the erratic germination of the seeds of *Aquilegia saximontana*; thereupon a member of the Rocky Mountain Group reported that under other conditions this species germinates as dependendably as the average rock plant.

A question has come in as to where one might obtain plants of what British rock gardeners are currently growing under the name of *Phlox mesoleuca*, and finding to be worthy of high praise. So far as can be judged from their descriptions, the plant so named is what we know as *Phlox nana*, a native of New Mexico from Santa Fé southward, extending also into west-Texas and northern Mexico. There appear to be no dealers in native plants in this area, but amateur botanists, members of garden clubs, or forest rangers should be able to obtain it.

In the Bulletin, volume 3, No. 1, pages 8 and 9, there appeared a Saxiflora article on Juniperus procumbens nana. This was prepared from a manuscript submitted by Mr. van Melle, but was slightly condensed by the Editor. In the process certain words were introduced which had not been in the original manuscript. The author feels that as thus changed the article does not accord with his views upon the plant. Therefore the signature at the end of the article should be corrected to: EDGAR T. WHERRY.

THE ANNUAL EXHIBIT

OF THE AMERICAN ROCK GARDEN SOCIETY

in cooperation with

THE HORTICULTURAL SOCIETY OF NEW YORK

598 Madison Avenue, New York City

Wednesday-May 16th-2 P. M. to 9 P. M.

Thursday - May 17th-10 A. M. to 5 P. M.

Members and their guests are invited to attend — there will be no admission charge.