

# BULLETIN

*of the*

AMERICAN ROCK GARDEN SOCIETY

*including*

## SAXIFLORA

Vol. 3

September-October, 1945

No. 5

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*Published by the American Rock Garden Society and entered in the United States Post Office at Plainfield, New Jersey, as third class matter; sent free of charge to members of the American Rock Garden Society.*

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### NORTH AMERICAN PRIMULAS

Lieutenant-Commander C. R. WORTH, U.S.N.R., Annapolis, Md.

THE genera of plants traditionally found in rock gardens are, with the notable exception of *Aquilegia*, poorly represented in the North American flora, and *Primula* has fared no better than the rest. Dodecatheons make a charming, if not entirely adequate, substitute for Cyclamen; *Drosace carinata* is merely an alias for *Androsace chamaejasme*, and perhaps three valid species of *Douglasia* compensate most delightfully for the lack of *Androsace carnea*. But of *Primula* itself, the few species all belong to sections Farinosae, Nivales, and Cuneifolia, none of which embrace the most tractable of garden plants. With the exception of two species, all are found in the western mountains and along the coasts of Canada (possibly) and Alaska. So far as I know, Mrs. J. Norman Henry, in her explorations of the wilderness back of the Peace River country, has never encountered a *Primula*.\*

*P. laurentiana* is found on the Laurentian Peninsula in eastern Canada. I have never seen it, but from its description it differs little from typical *P. farinosa*. *P. mistassinica* from the same general area extends down into this country as far as the region of my own garden, for there is an isolated stand of it in the gorge of Fall Creek on the Cornell campus at Ithaca, N. Y. It may be regarded as a two-inch version of the main species, and can be had from an eastern dealer in both mauve-pink and white. I have never grown it but it cannot offer any serious difficulty, for it succeeded in Louise Beebe Wilder's garden, which was most unsuited to fussy plants.

Of *P. farinosa* itself, there are two recorded stations in Wyoming. One of these is in wet meadows along the Snake River in Jackson Hole. Visitors to the Tetons will do well to keep watch for it, in spite of the indefiniteness of the locality. The other record is from a region about a hundred miles farther south, equally vague. I have explored that vicinity several times at various times of the summer, without finding a trace of it; but I feel certain, from the points of access to that country, that I must have followed the route of its discoverer. After the war, another try. A third record of the species in the Rockies is of something else, vastly more important.

*P. specuicola* owes its scientific discovery to a little girl. Some 40 years ago Rydberg, collecting in Utah, was told of it by her, and she rather surprisingly kept her promise to send specimens of it when it came into bloom again. For nearly forty years the species was known only by a few herbarium specimens until in 1941 I sought it out. It grows in the most in-

Reprinted by permission from the Quarterly of the American Primrose Society, Vol. 2, No. 2, October, 1944, with slight changes.

\*Mrs. Henry has subsequently advised me that she collected *Primula egaliksensis* in the course of explorations of the Peace River country (western Canada). This species is a member of the section Farinosae, but seems far removed from *P. farinosa*.—C.R.W.

credible of habitats for any *Primula*, and particularly for one of the *Farinosae*, clinging to red sandstone rocks at relatively low altitudes, seeking shade of course, but in the parching heat of the canyons of the Colorado and San Juan Rivers. There, making mats a couple of feet across on the cliffs, it looks like a gigantic *P. frondosa*, larger in leaf and length of stem, covered with white farina. When I found it, the plants were in seed, but from one half-faded flower I came to suspect that its color is of a rather deep and perhaps almost clear blue. Though classed by Sir William Wright-Smith as a variety of *P. farinosa*, for garden purposes it is utterly distinct in appearance and needs. Botanically it differs so much in relative length of calyx and corolla-tube from all specimens of *P. farinosa* which I have examined, that I feel it may well deserve specific rank.

While seeds were collected and distributed to such of my friends as I could contact in the confusion of war, my own seedlings perished of neglect in the early days of my absence from the garden, and no report has come of those sent to England. A few plants were taken, packed inadequately, for no moss was available, and part were sent home, part to Mrs. A. C. U. Berry. When I returned some weeks later, all were dead, and no wonder: they had been put in the sand bed with their crowns covered a full inch! I believe that some of those sent Mrs. Berry survived, and that it is to this species that reference is made in the *Quarterly*, Vol. 2, No. 1, p. 15. *P. hunnewellii*, described a few years ago from the north rim of the Grand Canyon, is almost certainly the same plant.

It is to Mrs. A. C. U. Berry, of Portland, that we are indebted for long and arduous search that made possible a trial of the smaller species of the *Nivales*. Of these, three names are recorded, but it is my belief that they are at most slight geographical variants of the same species. Before 1936 Mrs. Berry, ably aided by Stanley Anderson, had brought back *P. cusickiana* from the Wallawas, and then began Mrs. Berry's long struggle to persuade it to flower and grow happily in her garden: the final outcome of which I have never heard. In 1936 began the search of wild country in Idaho for *P. brodheadae* (this is the original spelling, though perhaps a typographical error). During the unsuccessful hunt of the first season I got my initial education in hunting alpine plants from them; the two tireless searchers returned again later and finally found it far from its recorded station. In 1938, E. J. Greig, aided by some information I gave him, found and collected seed of *P. maguirei* in Utah.\* He also sent me several plants, one of which budded the next spring, but weakened and went dormant just as the buds were about to open. For several years a tuft of leaves appeared in very early spring, but no further attempt was made to bloom, and finally the plants faded away. The plants of all these species are almost microscopic, only an inch or so across, and presumably the flowers are equally so; my impression from the records is that flowers are red-purple, but I may be wrong. At best these are all specialists' plants.

Nearly as small, but perfectly good-tempered (most surprising in a *Nivalid*) is *P. angustifolia* from the high peaks of Colorado. A plant set in ordinary soil on a north slope, in the shadow of a dwarf heather, prospered and flowered for some years in my garden, until at last during my absence the heather engulfed it completely. The leaves are about an inch long, narrow, bright glossy green, and the half-inch flowers are a rather bright crimson. It is a plant which any lover of the "tinies" will do well to try, and is available from a Colorado collector.

\*Herbarium material of *P. maguirei* examined after writing the article suggests an intermediate between *P. cusickiana* and *P. ellisae* in size and general appearance; the leaves are about 2 inches long, somewhat exceeded by the stems.—C.R.W.



The stalwart of the American species, *P. parryi*, is found throughout the central Rockies. I believe it has been found in northern New Mexico, and I have seen it on the Frisco Peaks, near Flagstaff, Arizona, where it appears in the most robust of its many incarnations. Its northern limit seems to be in the Tetons, and climbers along the Cascade Trail there, have it for company much of the way, until above timberline it flows all over the more level spots. An old record of its collection in southern Montana seems unsubstantiated by later explorations. It makes a thick crown from which rise almost upright, but curving over at the tips, long leaves of a rather dark green, and bears on stems that vary from barely a foot to well over two, great heads of inch-wide flowers of a most intense and vivid crimson, and always seems to flower in great profusion regardless of good or bad season. Sometimes, particularly on the Frisco Peaks, it has a regrettable odor of skunk. In its chosen spots it seems completely indifferent to soil



BY EDGAR T. WHERRY

The stalwart of the American species, *Primula parryi*. Its flowers are of a most intense and vivid crimson.

and surroundings, though it usually appears at or just below timberline and does not wander into the true alpine zone, at least in its more southerly stations. But I have found it along woodland streams, in three inches of melted snow above timberline (in the Tetons), in volcanic ash, on granite, on red shale, and even clinging to limestone cliffs. Such a plant one would at once assume to be adaptable to gardens, but such is not its record. Mr. C. T. Musgrave wrote me that one collection of seed had germinated and grown so marvellously that he had given a number of plants to the Royal Horticultural Society, where its freedom of growth was apparently greatly admired. This in the first season: next season he reported that it was not doing so well, and then silence. I have one plant at home (the only survivor) that still exists in a sand bed after some years, and annually puts out

leaves about an inch long. Mrs. G. R. Marriage succeeds with it in her mile-high garden at Colorado Springs, but in an unguarded moment she admitted to me that it makes very poor growth even at such an altitude. This flamboyant giant seems to pine for its heights, and will never become a familiar plant in gardens, I fear.

Of the two medium-sized Nivalids, I have yet to find *P. rusbyi*. According to Rusby's records, it comes from the Mogollon mountains of western New Mexico. I spent two weeks at a ranch there searching every likely and unlikely spot, and even going on a long and strenuous pack trip to the various "baldies" which to my disgust are wooded to their 11,000 foot summits, but there was no place which a self-respecting *Primula* would select. After returning home and studying everything I could find on Rusby's travels, (he had died a short time previously) I came to the conclusion that either he had been in an entirely different region, perhaps the Mogollon Rim in Arizona, for the discovery was made before the region was mapped; or that one small spot which I had not explored thoroughly, and where, on my way out of the mountains, I glimpsed another plant bearing Rusby's name, may have been the right place—but I still doubt that a *Primula* would grow there! I have no intention of revisiting those dull and disappointing peaks, but after the war, if all goes well, I shall seek another station many miles away, and there perhaps shall find the truant.

The failure of this trip was somewhat easier to bear as just previously I had found its mate, *P. ellisae*, on a most enjoyable adventure. Its first appearance was on the second afternoon of our pack trip, as we were riding along a narrow trail that skirted the edge of nothing. When a flare of crimson appeared beneath a bush, completely forgetful of the void beside us, I slid off the horse and knelt to worship the beauty. But this was only its first appearance; not till nearly a day later did we reach the summits and find that there, on open scree, the *Primula* held almost undisputed possession of many acres. All over those heights, so beaten by desert winds that we could barely sit our horses, the *Primula* paraded its numbers accompanied by only a tiny *Potentilla*. Memory after five years is a treacherous thing, and the wind prevented photography, so I may err in details. As I recall the plant, it was a miniature version of *P. parryi*, usually not more than six or eight inches in all-over height, with rather greyish leaves, several crowns, and many heads of bloom, to a plant. There, however, was none of the squalling color of the Big Fellow, but a marvelous variety of shades from palest mauve to rich red-purple, and even after long search an albino, which was most tragically lost on the hectic return trip (a story in itself). A species from great elevations (nearly 12,000 ft.) on a few isolated peaks in the New Mexican desert, would, one would think, prove almost intractable in gardens. But the story is one of success, complete so far as the war has left communication possible. *P. ellisae* came promptly and profusely from seed, flowered in a couple of years, in gardens of the skilled, and at the hands of gardeners of whom I had never heard before—and stayed to bloom in other years. At this stage I am being advised that selection of the best forms is called for—and surely few Nivalids have reached the stage where gardeners can afford to discard the inferior ones. Another trip to its mountains is called for as soon as possible in order that it may be tested generally from a fresh supply of seed.

Of *P. suffrutescens* I can only say it is a plant of the California Sierras, occurring in the Lake Tahoe region if memory serves, and that it seems fairly reasonable in cultivation in England. I have never heard of real success with it on this side. Seedlings come easily, but for me they simply sit and do nothing for years, till both they and I are wearied of the futile



attempt. Other species of the *Cuneifolia* section are found in Alaska, and occasionally in gardens, but most of the latter are from Japanese sources. *Nivalids* and *Farinosae* also occur in Alaska and the islands, but little information is available about them.

So ends the tale of American Primulas as I have seen them, in the wilds, in gardens, and in herbaria. I shall be most grateful for any additions or corrections to this account written from memory as I sit gazing at salt water, instead of at the lofty summits where I long to be.



BY DON RICHARDSON

An albino Willow Gentian, *Gentiana asclepiadea alba*.  
In garden of Richard C. Harlow, Laana, Pa.

## SOME EASILY GROWN GENTIANAS

DON RICHARDSON, Springfield, N. J.

THE NOTION that Gentians are difficult to grow leads some rock gardeners to shun the whole genus, and others to try anything bearing the fascinating name of *Gentiana*. The latter plan usually leads to the garden being overstocked with such easy, cabbagy species as *G. kesselringii*, *G. cruciata*, and the like, and correspondingly complete failure of the choice but difficult ones. Where conditions are really suitable, however, practically all gentians can be grown successfully in eastern gardens. Members of the Society who have visited Dick Harlow's garden at Laanna, Pennsylvania, have seen many reputedly difficult species growing quite happily; and doubtless there are other gardens in which some of the choicer gems of the family have been induced to thrive.

The object of these notes is to call attention to some of the really beautiful gentians that any one can grow. First to come to mind is the fairly well known *acaulis* clan. In addition to the type, variants are offered as *G. acaulis angustifolia*, *G. a. latifolia*, or under names like *G. clusii* and *G. excisa*, (which are not accepted in Bailey's Hortus.) Whatever name they may be purchased under, it is well to make sure that they are free-flowering forms. To be sure, this is no guarantee that they will bloom well in their new home, but at least it encourages trial. Give them a well-drained deep bed in fairly heavy neutral or lime-containing loam, in filtered sunlight or half shade. Prepare the bed deeply, adding stone chips or gravel, and perhaps, at a foot depth, a wad of cow manure. Plant them firmly and do not disturb their roots by subsequent cultivation. At the same time, plant a few in the last place in which you would expect them to grow. Nature being at times perverse, surprises may result.

All members of this "acaulis clan" have typical bell or trumpet shaped flowers; the hue varies from intense deep blue to rather dull purplish blues in poorer forms. The largest flowers in the group are those of *G. angustifolia*, while the loveliest blues are found in the so-called *G. clusii*. In *G. alpina* and the variant of *G. acaulis* distributed as *G. excisa* the throat is prettily mottled or streaked with green.

One excuse for submitting these notes was to show the accompanying photograph of the white form of the Willow Gentian, *G. asclepiadea alba*. The type of this species is a handsome graceful plant of alpine meadows, with usually erect, waving stems up to two feet or so in height, and trumpet shaped corollas in small groups in the axils of the upper leaves. The best forms have dark azure blue flowers about two inches long, streaked inside with whitish flecks. Poorer ones have smaller flowers of somewhat dirty purple hues. The illustration represents the finest white form I have ever seen; it was taken one August in the Harlow garden. The flowers were so heavy that the stems were arched over until they touched the ground. Albinos are usually weaker growers than the type forms of species, but that was not the case here: this plant out-stripped and out-flowered all of the numerous blue Willow Gentians in the garden. Only on close inspection could the faintest tinge of green be found within the pure white flowers.

This particular plant is on an eastern slope shaded on the south by hemlocks. My own lone specimen is at the base of a rock, shaded by a birch tree. Lt. Comdr. Harlow informs me that the clump illustrated is growing in rather acid soil. This helps to prove an old contention of mine that given a favorable situation and the right soil conditions with respect to texture and drainage, plants found *in situ* on neutral or limy soils will often thrive in acid soils, or vice versa. Most of my observations along this line have resulted from my ignorance at the start of the presumable "pH" requirements of individual species. However, I have made several definite tests with both flowering plants and ferns which tend to confirm the view stated. There are, of course, exceptions; but that is another story.

In the easy-to-grow group fall typical *Gentiana septemfida*, its variety *lagodechiana*, and their hybrid *G. hascombensis*. All of these bear their flowers in clusters. They have been grown here in full sun, though prefer a little shade. In the typical variety of *G. septemfida* the flower clusters are borne on nine-inch stems beset with paired ovate pointed leaves. The blossoms are trumpet-shaped, widening considerably at the mouth, and between the petal-like lobes of the corolla stands the beautiful crest which gives rise to the common name of Crested Gentian.



## SAXIFLORA No. 25

TEUCRIUM LUCIDUM AND *T. CHAMAEDRYIS*

UNDER the name *T. Chamaedryis* two distinct Germanders are widely cultivated. One is the true *T. Chamaedryis*; the other, *T. lucidum*—a species not listed in current handbooks. The two are much alike in floral effect, bearing, in July and August, rose-colored labiate flowers to about  $\frac{1}{2}$  inch long, in the axils of the upper leaves, in one-sided, spike-like, leafy arrangements. The branches are more or less faintly, at least partly, 4-angled. The hairiness of young parts becomes diminished toward late summer. Both are evergreen subshrubs and make admirable ground-covers. *T. lucidum*, moreover (not *T. Chamaedryis*) adapts itself for use as an erect garden edging. Both form wide-spreading mats of old, prostrate stems, from which rise young branches.

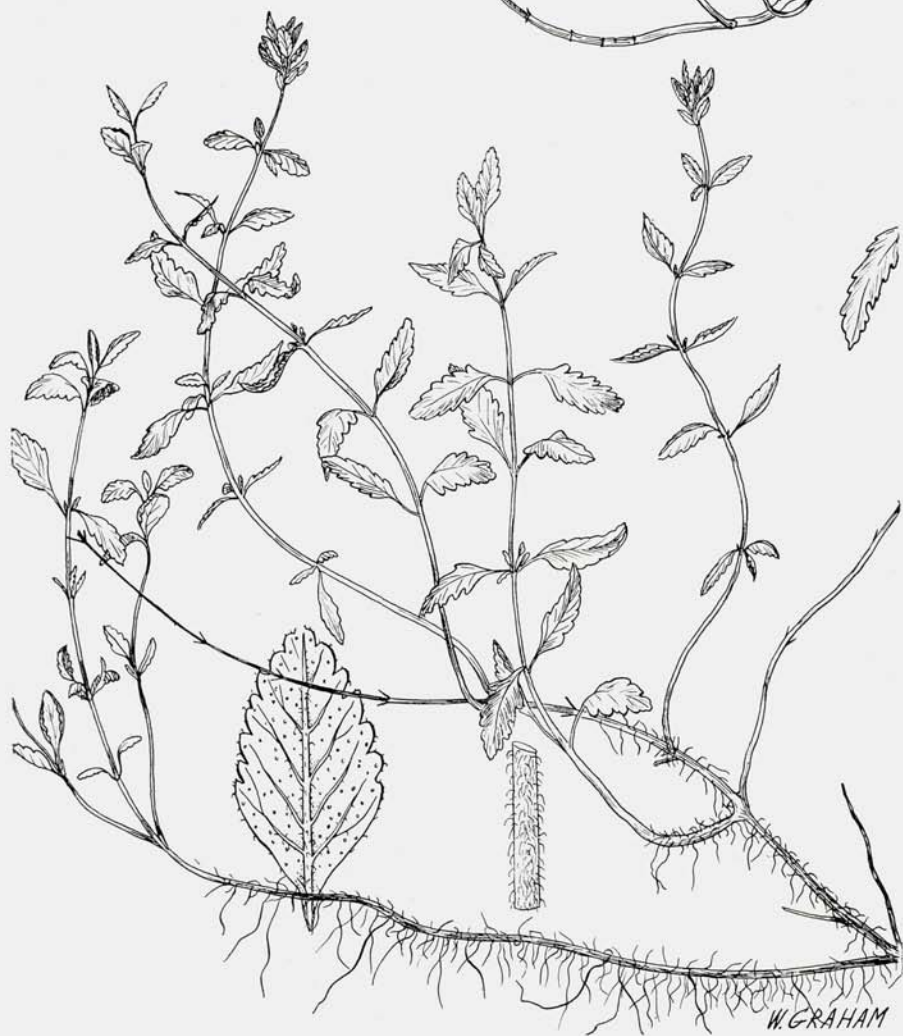
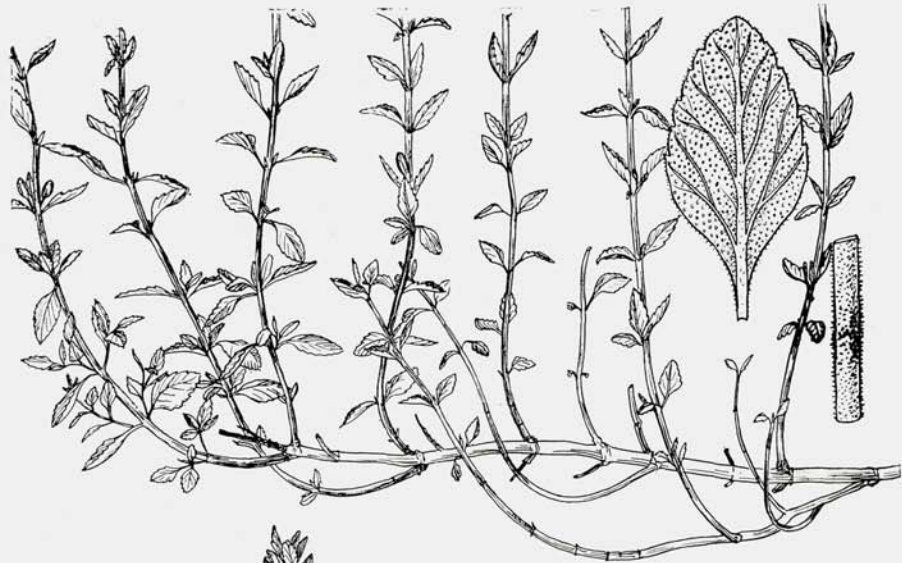
Both kinds having been propagated from divisions, the two materials run very uniform in cultivation. The form of *T. lucidum* seen in gardens represents a comparatively densely hairy form of that species, identical with herbarium material at the Arnold Arboretum, received there, in 1913, from the Spaeth Nurseries, near Berlin, Germany, under the name *T. Chamaedryis*.

The following treatment aims, not to describe the two species fully, but rather, to present certain differences by means of which the two cultivated materials may easily be told apart.

## DESCRIPTIONS:

*T. lucidum.* Prostrate stems not, or very sparingly rooting. Roots not suckering. From the prostrate stems rise stout, stiff, erect branches, to a height of a foot or more, densely clothed, when young, with short, whitish hairs which stand straight-out. In late summer, this hairiness may become much less dense, and be seen perhaps mostly at the nodes. Leaves ovate; the lower and middle ones saw-toothed; gradually reduced, toward the apex of the stem, in size, relative width, length of petiole and in serration, so that the uppermost may be bract-like, sessile, lance-shaped and entire,—quite different from the lower. Upper leaf-surface dark-lustrous green, sparingly white-hairy and glandular-hairy; lower surface paler, densely glandular-hairy, and hairy mostly on the veins.

*T. Chamaedryis.* Prostrate stems more or less freely rooting; frail and thin. Roots freely suckering. Branches ascending from the prostrate stems; frail, thin and weak; not stiffly erect. Hairs on the stem longer than in *T. lucidum*, and reflexed. Leaves oblong-ovate to oblong-lanceolate; crenately toothed; reduced toward the apex of the branch in size only, and somewhat in length of petiole; the uppermost not very unlike the lower; the hairiness generally less dense than in *T. lucidum*, and the upper surface a lighter, lustrous green.





Both kinds grow readily in any fair, light, well drained garden soil, in the open or in very light or partial shade. Good sheets of both kinds may be seen in the Thompson Memorial Garden, whence the materials for the Plate were taken. In my Poughkeepsie (N.Y.) garden *T. lucidum* has proven the least hardy of the two and has been winter-killed more than once. As a clipped garden edging it is scarcely dependable in the vicinity of New York City. Further South, it serves this purpose well, when the tendency toward decumbent developments at the base is controlled by means of clipping. *T. Chamaedrys* makes a good wall plant in East and North-east exposures. It grows wild that way in many places in Europe.

HABITATS: *T. lucidum* grows in hills and low mountain altitudes in southern parts of France, in the Italian Provinces of Liguria and Piedmont and in Greece. It has been reported from Cyrenaica, in North-Africa, whence I have seen no collected material. *T. Chamaedrys* is not truly a Mediterranean species, though principally South-European. It reaches northward out of France into Belgium; eastward, it occurs in southern parts of the Ural Mountains; and South-eastward, in Asia Minor and Persia. Over its wide distribution it varies greatly as to density of the hairiness. In material from various parts of Turkey, examined by me, both the straight and the reflexed hairs, described above, occur; but not in any of the European forms.—P. J. VAN MELLE.

Synonymy:

*T. lucidum* L., Syst., Ed. X, p. 1095 (1760); *Chamaedrys lucida* Moench, Meth. Pl., p. 383 (1794); not *T. Chamaedrys* var. *lucida* Sternb. ex Celanovsky, Prodr. Fl. Bohm., p. 367 (1871).

*T. Chamaedrys* L., Sp. Pl., p. 565 (1753); *T. officinale* Lamarck, Fl. Fr., II, p. 450 (1778); *Chamaedrys* off. Moench, l.c.; *T. Cham.* var. *prostrata*, as reported in Bailey, Hortus (1930).

## TEUCRIUM—GERMANDER

### LABIATAE

A Comparison of Two Commonly Cultivated Kinds:

*T. lucidum* L. and *T. Chamaedrys* L.

Upper: *T. lucidum*; habit, section of stem, lower leaf-surface.

Lower: *T. Chamaedrys*; habit, section of stem, lower leaf-surface.

## IN QUEST OF AUTUMN-BLOOMING BULBS

ELIZABETH LAWRENCE, Raleigh, North Carolina

IT IS unfortunate that I have chosen this time out of a lifetime of gardening to collect the fall-flowering species of *Colchicum* and *Crocus*, for they have become increasingly difficult to obtain since I have been in search of them, and this year I could not add a single one to my collection. I have loved *Colchicums* ever since, as a little girl, we used to bring the bulbs home from the "five-and-ten" and let them bloom on the parlor table. Afterward we planted them in a dank spot under the refrigerator drip, and they continued to bloom season after season. But it was much later in life that I learned that there are also *Crocuses* that bloom in the fall. I acquired several kinds and planted them in the edges of the borders where, after a few years, the tiny bulbs disappeared. I think they were pulled up along with the heavy roots of annuals. Any way, the borders are no place for small bulbs, and now they are all in the rock garden along with the *Colchicums*. The latter are practically indestructible, but they did not amount to anything in the borders either, so they are all in the rock garden with the *Crocuses*, where they grow under oak trees with plenty of leaf mold mixed into the stiff red clay, and are fertilized only by an occasional dressing of sheep manure and bone meal. Once established they bloom faithfully and increase slowly, and it seemed to me this year (1944) that they have been lovelier than ever.

Here in North Carolina the *Colchicums* begin to bloom in the middle or at the end of August, and continue—almost without a break—until the first fall *Crocuses* thrust up their buds late in September. They do not always appear in the same order, so I shall describe them as they appeared in 1944, the year this article is being written.

*Colchicum parkinsonii* was the first. It bloomed on August fifteenth, five days earlier than last year. This is an odd little flower and not nearly so striking as some of the other species, but it was the favorite of Parkinson himself, and I like it because it blooms so freely and so brightly. The small, tessellated flowers are a glowing lilac and of a very individual form, being more open than the other species, and with narrow twisted segments. This one is from Southern Europe, and I imagine that it does best in a mild climate.

*C. bornmuelleri*, usually described as the earliest, came next. A single bulb, planted years ago, sends up a succession of pale buds that deepen to lilac as they open. When these have at last disappeared, the ground is bare again until the wide leaves appear in early spring. This Asiatic species is very tough. It blooms yearly in a poor, dry soil in deep shade. The flowers are comparatively large, and very delicately colored. I expect they would be brighter in the sun, but in these parts *Colchicums* do not thrive in the sun.

Premier bloomed two days after *C. bornmuelleri*. It looks like a hybrid between that species and *C. parkinsonii*, having the form of the first and the checkered pattern of the latter. The checks are faint at first, but grow more intense as the flower matures until they are almost a Chinese lilac. The flowers are the largest I have had, three inches long. The only other horticultural form that I have tried is *C. giganteum* which has not bloomed so far. It is supposed to be a late variety, and I am eager to see what it will do here.



Last year *C. speciosum* bloomed the first of all, coming on the tenth of August, but this year it did not open until the thirty-first. *C. speciosum album*, which Mr. Craig says is the best white form, has not yet bloomed for me.

So far *C. autumnale* is the latest of the *Colchicums*. This year it bloomed on the fifteenth of September. It is a small, delicately colored, crocus-like species, not spectacular but very desirable for winding up the season. The white form bloomed on September twenty-fifth, and lasted into October. Last year it did not begin to bloom until early in October.

This fall the first Crocus bloomed on the twenty-seventh of September. It was *C. speciosus*, which is usually later, seldom coming before the first week in October. This species is usually described as "blue," but I have never had one that was not red-violet. The type, as I have it, is a sort of wistaria-violet with dark feathering and red gold stigmas. Then I have *C. speciosus* var. *globosus* which is similar but a little later to bloom. Both of these are good and permanent.

The lovely, pure white, *C. niveus* bloomed on September twenty-eighth. I could not see that it was any different from what had come to me under the name "*C. chrysanthus* Snow Bunting" which was in bloom at the same time, but began a few days later. These white Crocuses are large and free flowering, and so far have been more attractive than the white *Colchicums*.

This season *Crocus zonatus* flowered on October first, but usually it is a week earlier and the first to appear. It is typically of a rosy color, but the form I have comes out almost white with a greyish tinge and becomes a delicate lavender with age. In the pale autumn sunshine it looks too ethereal to be true. I keep thinking up excuses to go back in the garden when it is in bloom. The yellow zone in the throat and the delicate veining make such an intricate and lovely design that I can never look at it enough. But in spite of seeming so fragile it is a robust sort, increasing rapidly, and blooming over a long period, at least three weeks.

Blooming the second week in October I used to have *C. sativus*, the saffron crocus, with its bright violet flowers. It bloomed for several years, and increased, but it disappeared at last—lost I am sure in the roots of the weedy annual *Ageratum*—and of course it can not be replaced at this time.

The last and the least is *C. longiflorus*, with small mauve flowers darkly feathered and smelling of violets. These come with the leaves. The first one bloomed on the fourth of October, and now at the end of the month they are still coming.

Some day I hope to find still later kinds to extend the season into the late fall, and perhaps even to stretch it out into the winter and until the early blossoms of *C. sieberi*, which in mild winters appear soon after the new year. It would be delightful to have *Colchicums* and then Crocuses from the middle of August until March, and the idea does not seem too fantastic.



## CONVOLVULUS JAPONICUS

WHILE some members of the genus *Convolvulus*—the Bindweeds—are well-behaved in the rock garden, the same can not be said of most of them. The threat involved in admiring and acquiring one of our native species (*C. spithameus*) was noted in an earlier number of this Bulletin (vol. 2, No. 1). After seeing what has occurred in several fine rock gardens we can not refrain from also issuing a warning against an exotic species. This has been distributed under such diverse vernacular names as Ground Morning-glory and California-rose; and under the scientific synonym of *Calystegia pubescens*. It creeps widely both over *and under* the soil surface, and produces lovely pink flowers—there are both single and double forms—for a long period in summer. If you have a dry barren area where little else will thrive, separated from the site of your choice alpiners by a stout concrete wall, by all means plant it there. You will soon see why we italicized the word *under*; or why some gardeners think the plural of the genus name might well be “convolvulice.”—E.T.W.





## VERONICA ALEPPICA

VIOLET NILES WALKER, Woodberry Forest, Virginia

AMONG the problems which face the would-be rock gardener of the Upper Middle South is that of plant material that is truly dwarf and creeping, with which to clothe the rocks and provide an attractive background, (even when out of bloom) for the taller subjects blooming in the later summer months.

Diligent search for plants to give color after the spring wave is exhausted meets with unlooked-for success; but it must be confessed that the bulk of subjects found are, for the most part, around and over the 12-inch limit, inclining, strangely enough, to a lush growth not looked for in the supposedly lean diet of rock garden soil, and needing a flat background. Barring a few, such as certain Sedums, *Veronica repens*, *Mazus rugosus*, *Phlox subulata*, the Thymes, etc., repeated trials have failed to develop many dependably long-lived alpine for such use under the hot sun and unceasing dry winds of the Virginia Piedmont.

So it is a definite find to discover a plant that has beauty of bloom and foliage, hardiness under all vicissitudes of climate, and which has a clinging character that produces literally a flat carpet, covering ground and rocks in a soft cascade.



All of this and more is found in *Veronica aleppica*, an apparently little used and certainly unsung member of the great *Veronica* genus. It does not seem to be listed in any catalogues nor popular horticultural works. The soft, gray-green, downy leaves are borne on 3 to 4 inch stems which lie close to the ground, giving the impression of a mat scarcely 3 inches thick. In late April, the tiny  $\frac{1}{8}$  inch blossoms, pink with white centers, open in the axils of the leaves, literally smothering the plant. Yet, after blooming, they leave no unsightly faded stalks, the plants passing immediately into their velvety summer dress. While *V. aleppica* increases well, it is not a rampant spreader; moreover, it is easily raised from cuttings rooted in sand at almost any time of the growing season. It succeeds well in a situation where it contends with sun until late afternoon, incessant hot summer winds and sharp drainage, beside invasion from willow and walnut tree roots.

In fact, this *Veronica* can unhesitatingly be called one of the choicest rock garden subjects, deserving of wide attention.

## A NEGLECTED ELEMENT OF DESIGN

WALTER D. BLAIR, Tarrytown, N. Y.

**T**HERE is in rock garden design a neglected element which exists everywhere and is free to everyone. Without its use the full beauty of rocks and flowers is not attained. With its use beauty grows in intensity and an observer is aware of relations that stir pleasantly his emotions. This element in garden design is space. Flowers, Rocks and Space are a trinity whence arises, when each is combined with the others, compelling beauty.

Space has emotional qualities. In it is the joy of freedom and movement. There is pleasure in relating objects to objects and in choosing their groupings, contrasts and harmonies. The grouping of furniture in a room and the arrangement of objects on a mantel are simple examples.

Related areas and forms can be a source of pleasure to the beholder and produce in him an awareness of satisfying spacial patterns. Related lines, forms and colors constitute design. In a rock garden they exist in space. Any relationship that pleases is beautiful. From objects linked into spacial patterns beauty results when the grouping pleases. This beauty of spacial relations exists between the forms and positions of the individual rocks that make the ledges and boundaries for the flowers; it exists between the forms and positions of the flowers; it exists between the color masses and their forms.

Spacial relations between forms, colors and areas constitute an overweaving and penetrating pattern that can enhance the beauty of each flower by its relationship to like flowers, the beauty of each form by its relationship to other forms, the beauty of colors by their relationship to other colors. Here is a realm of satisfactions that consist of abstractions only, of patterns in space. A garden has an intricate maze of these relationships which can be arranged into pleasing spacial designs.

The simplest grouping of objects is at equal intervals and in a straight line, which by reason of its rigidity is inharmonious with the flowing informal character of a rock garden. Three objects always make a triangle and, to be serene and stable, must have the apex on top. Many objects may be grouped in related clusters to make curves and drifts that penetrate space. The designer here has wide latitude in his choice.

Emptiness is the spacial interval between the related forms and is a device to isolate and emphasize particular forms and masses. There can be no pattern in space without empty intervals between its elements.

There is in rock gardening a related spacial corollary—the surface of the ground with its concavities and convexities. Their relationships resemble the tactile values of sculpture. To be aware of the surface of the ground is to sense form as a wee joyous note in the mighty orchestra of spacial relations that a garden makes.

To the sensuous delight of a garden's flowers the beauty of abstract relationships in space should be added.

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Most of us want the prostrate gaultherias for evergreen covers in our gardens. The little *Gautheria humifusa* is rather the stepchild of the clan—we rarely see it mentioned. In the Cascade mountains it forms wide carpets in wet meadows—impossible to carve out intact. But if a recent clay cut or bank can be found the plants may sometimes be seen growing in fascinating close little cushions. The leaves are oval and pointed; the flowers small urns and the fruit scarlet.—E.M.F.



## EDITORIAL NOTES

In our last issue we presented an account of the Society's New York Show. We have many members, however, who live too far away to attend such eastern exhibitions, and it is interesting to learn how they go about bringing rock gardening to the attention of the public. Especially active in this field is Mrs. W. I. Higgins of Butte, Montana, and we are glad to be able to present here some account of her work.

Whenever there is any sort of a flower show in her part of the country Mrs. Higgins sees to it that there are included specimens and views of Montana wild flowers, large colored photographs of attractive rock gardens in that region and elsewhere, and a miniature rock garden. Then after the show, these are moved to a large store window facing a much-travelled street, and so come to the attention of hundreds of persons. A photograph of a pool and rock garden constructed and exhibited by Mrs. Higgins in this way is here reproduced.



The Northern Group of our Society sent Mrs. Higgins as a delegate to the convention of the Montana Federation of Garden Clubs at Bozeman, Montana, last June. She gave an illustrated talk on rock gardens, and reports that the views of Mr. Blair's garden at Tarrytown, and Mr. Morgan's garden near Montreal aroused particular interest.—E.T.W.

In the May-June number of the Bulletin Mr. Harold G. Rugg mentions a "*Scilla thunbergii*." This is the plant described and illustrated in Saxiflora, Plate 8, under the name *Scilla sinensis*. In Hortus II the species name is spelled *chinensis*. It is not at all the same as *S. autumnalis*. The species varies more or less in stature, length of the racemes, and width of leaves. It multiplies so abundantly from offsets in my garden at Poughkeepsie that I have never wanted to raise it from seeds.—P. J. VAN MELLE.



## SEED EXCHANGE

The following seed have recently been received and are ready for distribution:

From Mrs. Clement S. Houghton

*Clarkia elegans*  
*Dianthus plumarius* x *caesius*  
*Meconopsis cambrica* fl pl  
*Primula aurantiaca*  
*Primula sikkimensis*  
*Romulea ramiflora*  
*Salvia officinalis*

From Mr. J. M. Stirnkorb

*Camassia leichtlini*  
*Dicentra eximia*  
*Digitalis ambigua*  
*Fritillaria meleagris*

## LANTERN SLIDES

There are very few reservations on file for the Society's two sets of colored slides of rock garden subjects, so if you care to use them during the coming fall or winter write soon for dates.

We are endeavoring to accumulate sufficient Kodachrome slides for a new set which will be more up to date than the slides we have; if you have slides recently made of rock garden scenes or plants which you would like to add to the collection please communicate with either Mrs. Warder I. Higgins, 429 West Park Street, Butte, Mont., or Mr. Harold Epstein, 5 Forest Court, Larchmont, N. Y.

## LUNCHEON MEETINGS

Those members who live in or near the Metropolitan District are looking forward with much pleasurable anticipation to the monthly luncheon meetings which are held through the winter season and sponsored by the North Atlantic Group; Mr. Harold Epstein, chairman announces the following program:

October 17—Mr. Jerome W. Coombs—"Alaskan Flora"

November 21—Mr. Richard Weaver—"The Flora of Mt. Washington and New Hampshire"

December meeting to be announced

January—Harold Epstein—"Rock Gardening in Westchester"

February—Another "Stump the Expert" meeting.

March—Mr. F. Cleveland Morgan of Montreal will address our Annual Luncheon meeting.

April—Arthur H. Osmun—"Our Native Violets"

Full particulars of all these meetings will come to you later.



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