

BULLETIN

of the

AMERICAN ROCK GARDEN SOCIETY

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Dorothy Ebel Hansell, Editor

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EXPERIMENT IN NEW YORK

DWIGHT RIPLEY, WAPPINGER FALLS, NEW YORK

AUGUST is apt, I think, to be rather a depressing month in the rock garden, and August 1950 is certainly proving no exception. This morning I trotted out as usual before breakfast to give the choicer things a quick once-over, and to my intense annoyance (and amazement) found that the two little plants of *Asyneuma lycium*, a Turkish campanulad which only yesterday looked radiant in its north-facing crevice, had inexplicably succumbed. Brown and shrivelled, they might have been dead for weeks. I suppose it is the work of some subterranean ghoul in insect form, but right now I am too put out to investigate the cause; and, anyway, the asyneumas are beyond recall.

Then several species, which Mr. Barneby and I collected in Colorado this summer, seem to be on their way back to Colorado, in spite of their healthy appearance when planted out; the allied genera *Oxytropis* and *Astragalus* are particularly exasperating in this respect and one day, I guess, we shall just have to give up trying to grow them. And *Xylorrhiza coloradensis*, a dwarf cousin of the Asters, with toothed leaves and beautiful pink daisies, from a rocky hill in South Park, won't be with us for very long, I suspect. But the penstemons are doing fine so far (there's one genus you can depend on), while great pleasure is derived by us both from daily contemplation of our cacti, one of them with scarlet flowers. Mostly mamillarias, they come from high altitudes in the Rockies, so there should be little doubt of their hardiness. To those who shudder at the idea of cacti in a rock garden, I can only point out that a mamillaria is after all the logical ne plus ultra of desirability. When the choicest of all the *Kabschia saxifrages*, for instance, is generally conceded to be the one with the smallest leaves and the largest flowers on a cushion as round and hard as a stone, surely a plant that abandons foliage entirely and boasts flowers many times bigger than any *Kabschia's*, and of brilliant color to boot, merits our respectful attention? However, I'll admit it took me twenty years to reach this conclusion.

Leaving a garden entirely to its own devices for five weeks (during our Colorado trip) is not, of course, the best antidote in the world to the aforementioned gloom; but by now the worst of the weeds seem to be under control, and the above-ground insects decimated by that boon to harassed gardeners, "Synklor". What are the weeds, incidentally? Perhaps the worst is a violet (*V. cucullata?*) which seeds itself with wild prodigality in every conceivable crevice and often in the very middle of some priceless 'bun'. Next come an oxalis — though this is very easy to uproot — and another violet, *V. fimbriatula*. Then there are two prostrate annuals, a mollugo and a euphorbia of the section *Chamaesyce*, which quickly carpet vast areas with their dubious filigree unless checked in time. Fellow-members often refer casually to the alpine treasures that seed themselves all over their gardens, but I can't say they do the same here; *Hypericum rhodopeum*, though, did seed quite

freely this year, and talinums and arenarias just stop short of being a nuisance. *Dicentra eximia*, if treated as a xerophyte and given practically no soil at all in full sun, seeds in almost too many crevices, but then that again is very easy to dislodge.

What are the insects? Crickets, ants and grasshoppers are the most obvious, but "Synklor" takes care of them. Grasshoppers were particularly tiresome, having the habit of attacking a single tiny seedling and returning to it day after day. No slugs—which to one brought up in England is almost unbelievable—but a loathsome and terrifying wasp called *Sphecius speciosus*, or the cicada-killer (maybe the male finds the female *speciosus*, and vice versa: certainly to the human eye there is little beauty evident), which makes holes in all the best ledges, dragging battalions of paralyzed cicadas down, down, down among the roots of *Erinacea pungens* and *Talinum okanoganense*. This afternoon I purchase carbon bisulphate, and if the encyclopedia is to be believed, it's the cicadas who'll be laughing tomorrow.

Since writing *Experiment in New York* (in the January-February Bulletin, 1950) I've decided that maybe we were carrying the Spartan idea *too* far, and some of the sterner parts of the garden have consequently been made over, the almost pure gravel being mixed with considerable amounts of loam. Even lime has been added to one section. Perhaps in a few years' time the whole garden will adhere strictly to tradition! But at the moment, despite losses from starvation and such, it's undeniably nice to have certain plants growing quite in character—which would be impossible in a richer medium. *Aquilegia scopulorum*, for example, is only two inches high here even at flowering time, while the 'difficult' western phloxes (which bloomed well for us in 1950) maintain their natural conciseness and rigidity. In fact, we would rather not have certain species at all than have them growing out of character.

Our chief reason for re-making some of the rock garden was one that may come as a surprise to the reader: while rare westerners flourished, some of the commonest and easiest plants from Europe just died. Imagine a garden in which no armeria will grow! Or one where no saxifraga or campanula ever lasts more than a few weeks, or where aubrietias are starved! However, since our specialty is American rarities, whether beautiful or not (or even downright hideous if their rarity warrants it), there seems no need to get unduly anxious over bringing *Campanula cochlearifolia* through a hot summer.

An arresting color combination this spring was provided by *Tulipa hageri splendens* next to *Iris pumila* Bride — though I imagine some people might not care for it too much. To me, at any rate, it was ravishing, and the result of a casual planting; for although I knew the color of the iris, I was unaware that the tulip was of a deep and brilliant copper — a shade I've read about and heard about but never actually seen in a corolla. The contrast between the iris's very pale, milky bluish-white and those fiery cups just above ground-level was something memorable, indeed. Yet a week or so later a second species of tulip, *T. orphanidea*, came into flower, and this, which I also had never seen, was of even subtler shape and hue than its predecessor, the copper containing less red and being more of a pure and absolute brown, the petals exquisitely pointed. Another color combination we liked quite a bit was *Castilleja barnebyana* emerging from the exact middle of a cushion of *Penstemon davidsonii* — scarlet and violet! Seeds of the parasite were sown around the base of the penstemon early last year, since we knew it is useless to sow castillejas in the open ground. This year we collected seed of *C. integra*, the plains species with enormous dazzling bracts, but we haven't yet decided who shall play hostess to it — perhaps our lone shrub of sagebrush?

Quite a few seeds, as a matter of fact, were harvested this July in Colorado and northern New Mexico, and sixty-five species brought back alive (or half-alive)

in the back of our station wagon, planted in three metal window-boxes fitted to a wooden platform and receiving a good deal of light during the return journey to New York. Fortunately the weather was cool all the way across, and as a result we have high hopes for most of our little treasures, in spite of my momentary discouragement this morning. In fact Mr. Barneby has just peered over my shoulder and pointed out that as far as *he's* concerned, *Xylorrhiza coloradensis* is perfectly O. K. and I'm grossly exaggerating its state of health. So maybe after all, the mood of pessimism induced by *Asyneuma's* demise is an unnecessary one. Let us hope so.

In my last article I also mentioned the fact that on our way back from California in March 1949, we stopped off at 5,000 feet in western Texas and dug up some plants (twenty-four species, to be precise) about whose subsequent hardiness



Photo by Rupert Barnaby

Talinum okanoganense in New York

I expressed mild doubts. So it is right that I should state here and now that exactly half that number came through last winter unscathed: this surprised me somewhat, I must admit, for in view of the altitude and a memory of how cold it can be in that part of the world, I'd expected at least eighty per cent to pull through. *Aquilegia chaplinei* — practically indistinguishable from *longissima* — is the rarest of these and the one to pay the least attention to Jack Frost, but then it belongs to a genus whose area of distribution is in the north and so could be relied on more than, say, *Salvia Henryi*, whose connections are entirely southern. A puzzling plant is *Oenothera lavandulifolia*: this, one of the 'gems of the race' with its bright, square bugles and oddly discreet foliage, grows in some of the bleakest sections of the United States, yet has never come through a winter here — and I'm convinced it has been killed by frost and not by untimely thaws (or kindness, or neglect). I've had this from Claude Barr, whose ranch can scarcely be said to be in the tropics, and I've dug it in the Guadalupe Mountains, and invariably spring reveals a sodden little wad where once the bugles blew. I also pointed out that those two alpine penstemons, *PP. whippleanus* and *hallii*, were the only ones of their genus to bloom

poorly in 1949. This year — possibly piqued by my remarks — both of them flowered magnificently. But to offset this, *P. baccharifolius*, about which I raved at considerable length, is no longer with us — dismissed by winter's rigors. Why this should go, yet *P. dissectus* (of which I've sung even more lyrically) remain with us, is something of a mystery. Why should a plant from practically sea-level in Georgia prove more cold-resistant than one from interior Texas?

To round off this piece on a note of optimism, let me observe that *Lewisia tweedyi* is crazy about us (I can't think why); while other species grateful for the minimum of attention they receive, and not referred to in my previous article, are *Ceanothus Greggii* (one of the survivors from the Guadalupe Mountains), *Erysimum kotschyianum*, *Eriogonum crassifolium* from Laramie, *Erodium chrysanthemum*, the Moroccan *Leucanthemum catananche* (masquerading coyly as *Rydbergia grandiflora* in an eastern nursery); *Lupinus breweri*, which with two varieties of *L. albifrons* forms a trio of glistening silver; *Ptilotrichum purpureum* from the gloomy scree of Andalusia (a flat pink alyssum reputed to be impossible even by English gardeners); a whole suite of rather homely native umbellifers, of botanical interest only; *Petrophytum Hendersonii* and *P. caespitosum*, apparently quite content; four *Phlomis* and two *Paracaryum* (Boraginaceae) from Turkey; *Silene Petersonii*, *Salvia Montbretii* (a white-leaved mat!), *Stachelina unifosculosa* from Greece, and bright gold *Zinnia grandiflora*, that welcome hemisphere of the western plains.

How many of these will still be here next year is, of course, another matter entirely.

SOME ASTERS AT GLADWYNE, PA.

MARY G. HENRY, GLADWYNE, PA.

WHEN spring comes to my rock garden with all its many new and enchanting phloxes cascading over and among the rocks, it seems as though no other season could show a fairer sight.

Amsonias, delightful fine-leaved dwarf species in heavenly pure tones of blue, and Baptisias in luscious shades of creamy yellow add great beauty in the springtime, too.

Then come the penstemons to make such a gorgeous display the others are almost forgotten.

Before these are all over, the yuccas, over thirty different kinds, raise their noble spires.

By mid-July there is a little lull in the rock garden as far as bright color is concerned, but we can then enjoy the contrast of the many types of foliage and the many shades of dark, brilliant, and gray-greens. It is then, too, the seed pods of the yuccas begin to perch on the branches of the tall stalks, seemingly nodding at each other like little green parakeets. Fortunately for me the rock garden is a bit quiet in July for the lilies, hundreds of them in many, many varieties, seem to occupy almost every minute of the day, my only regret being that the minutes are all too few!

By mid-August, *Liatrix pycnostachya* waves its great colorful wands among the big boulders of the rock garden. The silvery spires of *Liatrix aspera* in bud are just as beautiful as the full blown flower. These grow among the smaller rocks below *Liatrix pycnostachya*.

Gradually the whole rock garden becomes a soft purple, a very telling shade against the gray rocks, in September. For weeks there is a blaze of purple, lighted

only by half a dozen plants of the bright golden-lemon *Eriogonum Alleni*. These handsome perennials, a solid mass of bloom two and a half feet tall and four and a half feet broad, resemble shrubs rather than perennials.

The seasons with all their varied floral treasures pass all too quickly and by October it would seem there could be no more startling display of bloom. At least in bygone days it seemed so to me.

After some years of hunting late autumnal flowers in their native haunts, asters seems to be the answer, but *not* the big floppy ones that are seen so often in borders.

Aster tardiflorus, in a good pink, is a delightful variety of this rare little aster. In their blooming sequence. It flowers about mid-September and surely it is one of the best and, to my mind, ranks among the very nicest autumn flowers. It is a dwarf plant, only about twelve to fifteen inches tall with comparatively large flowers of a brilliant deep blue-purple. The foliage is not coarse and remains attractive and green all winter. There are three other varieties of this species growing here, but the one I have described is my finest variety. I found it in New Jersey.

Aster tardiflora, in a good pink, is a delightful variety of this rare little aster. I found it in northern Pennsylvania growing among trilliums and so I have it in semi-shade near the edge of the trillium garden. It makes a neat mass of tidy little pure pink flowers, ten inches tall and fifteen inches broad in ten years' time.

The most important of all the asters for the rock garden is *Aster oblongifolius*. It bears flowers of a heavenly shade of blue, with scarcely a trace of lavender. Early in the year it makes small tidy rosettes that are inconspicuous when so many floral treasures unfold their lovely flowers. Then, right at the time they are most needed, *Aster oblongifolius* suddenly expands its myriads of blue blossoms and soon makes nicely rounded, neat mounds of solid blue that seem to bounce from rock to rock until each is comfortably settled in a niche of its own. It seeds freely but is not too invasive.

Last year, 1949, my friends and I, too, thought the rock garden was at its very loveliest when decked with the blue beauty of this delightful aster. The mounds are about two feet high. Dr. Wherry took me to western Pennsylvania to collect it.

Claude Barr, the very able plantsman, sent me a marvelous pink aster that goes by the name of *A. kumleini*. Dr. Wherry says it is the same as *A. oblongifolius* and so it appears to me. It is an enchanting thing.

Neat and pretty little *Aster linariifolius* is surely one of the gems of the race and a truly choice little plant for the rock garden. The bright but pale blue-lavender flowers come along in September and last well into October. I have pink-flowered ones, both of which are very nice.

A. grandiflorus from Virginia is larger than the foregoing. It is growing on the edge of my front drive, but as soon as I can get some more plants, it will be moved to the rock garden. This grows about two and a half feet tall and is wider than this. The flowers are the largest of any aster I have and their color is a dark but very radiantly bright purple. A late flowering solidago sets it off to perfection.

Aster ericoides grows about eighteen to twenty-four inches tall and produces its closely set, small white flowers in lavish and graceful profusion, albeit in a neat and tidy fashion. It is well named for the small dainty foliage reminds me of heather. Dr. Small, when he saw it years ago, said I had the true species but it was often misnamed. Its home is in Rhode Island. One day I saw it, or rather a pink form of it, from a bus window. It was at the base of a telegraph

pole and I was on my way to visit one of my sons at school. I counted the telegraph poles to the first crossroad, but it was two years before I was able to get there in a car and pick it up.

Aster georgianus from the hills in Georgia is another magnificent dark, dark beauty, in fact, it is the deepest in color of any aster I have ever seen anywhere, wild or cultivated. The deep purple has a tint of plum. These last three species are only suitable for a fair-sized rock garden.

Aster turbinellus is sort of an airy-fairy plant, so light and elegant is its inflorescence. The plant seemed to have neither stems nor leaves for no greenery could be seen, only a mound of pale blue stars that seemed to float on air! This and other plants are mementoes of a field day spent with Dr. Edgar Anderson in the Ozarks.

One more little aster, the last species to bloom here, must be mentioned, *Aster concolor*. It makes a compact clump of many slender stems with little gray leaves closely pressed against them, the upper part of which is densely decorated with very lovely small lavender-blue blossoms. The effect at this late season is utterly charming.

In a rock garden, trial garden or wild garden, it seems as though almost "anything can happen". I mean, of course, with the aid of pollinating insects. Although I started the gardens with the idea in mind of collecting and perpetuating only the finest varieties of our choicest native plants, still I cannot close my eyes to many beautiful hybrids that have arisen between the species, and asters are no exception.

Last year (1949) right between them and equidistant from *Aster oblongifolius* and *A. cricoides*, there appeared a very beautiful hybrid. It is a perfect intermediate in color, in growth and in blooming season. Four more of these hybrids flowered this autumn. Everyone, including a number of botanists, was unanimous in praising highly these lovely new asters.

Early in October an extraordinary variant bloomed among the many plants of *Aster linariifolius*. The half-sized flower heads are semi-double, and there is no central disc; instead there are a few feathery stigmas, and the ray florets are fringed. Probably it is just a mutant, but an attractive one.

Only to-day, October 15th, another new aster appeared. It is an attractive plant with light pink flowers, growing only a few inches from *A. turbinellus* and seems to be intermediate between that and *A. oblongifolius*.

The exquisite *Phlox nivalis* Gladwyne is as usual flowering in October. All this while *Eriogonum Alleni* is still in bloom. What a long season it has and so it carries the wonderful combination of purple and gold and graces the garden nobly when fresh bright flowers are ebbing low.

PLEASE NOTE !

If any members of the American Rock Garden Society are planning to attend the Second International Rock Garden Conference in London and Edinburgh next April, will they please so advise the President, Mr. Harold Epstein, 5 Forest Court, Larchmont, N. Y. Also, will they let him know whether they would be interested in a pre-conference trip to Ireland; if a sufficient number of members are interested, such a trip will be arranged.

PHYTEUMAS

ROBERT M. SENIOR,

CINCINNATI, OHIO

IT is very seldom that *Phyteumas* are seen in the rock garden, although some of them are attractive, not particularly difficult to raise, and are fairly long lived. They belong to the *Campanulaceae* and are found mostly in the mountains of Europe and Asia Minor. The most curious one, differing in appearance from all the other species, is *P. comosum*, said to be a handsome plant, and on which a number of years ago the Royal Horticultural Society conferred an "Award of Merit". This is only four inches high, with flowering stems bearing flowers that are inflated toward the base, and narrowing upward into a very slender tube, almost closed at the apex, and through which the exerted pistil extends. The flowers are light lilac at the base and deep violet-purple at the apex.

A number of years ago, I started to raise this plant from seed, and though it remained with me for two years, it grew with tantalizing slowness and during the second year died. It is occasionally listed in the catalogues of nurserymen, but it is a rather expensive plant, in part, I judge, because it takes so long to bring it to maturity. Incidentally, Bailey in his "*Cyclopedia of Horticulture*" has a picture of *P. comosum*.



Phyteuma Scheuchzeri

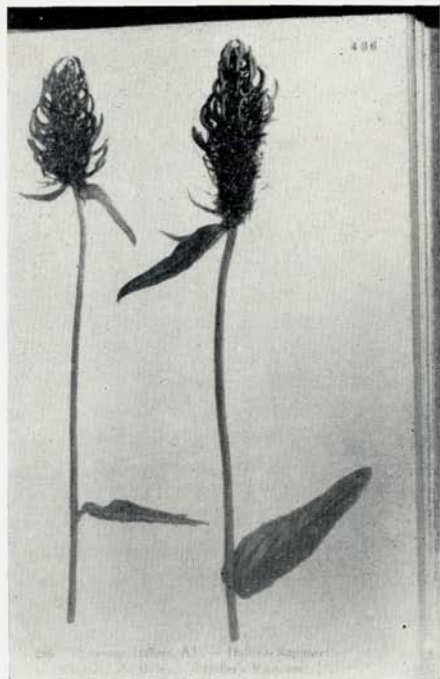


Photo from Correvon

Phyteuma Halleri

The other members of this genus may be classified according to the shape of the flower heads. One group has heads that are more or less cylindrical or egg-shaped, the other has somewhat globular heads. The two pictures give an idea of this difference. The globular ones are generally lower growing and, to my mind, more attractive.

Phyteuma spicatum, *halleri*, *nigrum*, *michelii*, *scorzonifolium* and *betonicifolium* belong to the group having cylindrical flower heads. Of these I have raised *nigrum* and *halleri*. Both, if I remember right, were fully a foot and a half high, with very dark blue-black or brown-black flowers that were curious rather than attractive. I did not mourn their ultimate demise.

Of the species with more or less globular heads, some of the best are *P. scheuchzeri*, *charmeli*, *globulariaefolium*, *hedraianthifolium*, *sieberi*, *orbiculare*, *pauciflorum* and *humile*. The tallest is seldom over one foot high; *pauciflorum* and *humile* are generally under four inches. Of course, the height will vary somewhat, depending on soil and climatic conditions. I have raised several of these *Phyteumas*. My *charmeli* and *scheuchzeri*, with dark violet-colored heads, are so much alike that a casual glance might mistake them for the same species. *Charmeli*, however, has flowering stems that are somewhat shorter, possibly eight inches high. *Scheuchzeri* has lived in my garden for three years, so I consider it reliably hardy.

Phyteuma hemisphericum, which I once raised, is about five inches tall. It has both basal and stem leaves that are linear or narrowly linear-lanceolate, entire or with a few small teeth. As its name implies, the flower heads are hemispherical. It is a native of the Alps and Pyrenees.

Phyteuma humile, which I am trying to raise this year, is one of the lowest growing plants of the entire genus. An herbarium specimen that I saw, was only three inches high, and some of the basal linear leaves were longer than the flowering stem. The head is also dark violet-colored, and the individual flowers somewhat curved. If *humile* proves hardy here, it should be an interesting addition to the rock garden.

It is said that white varieties of some of the above-mentioned plants are occasionally found, but I have never seen these listed in the catalogues of any nurseries.

PHLOX IN CALIFORNIA

PART of this "robin" will be repetitious, for in the robin which went astray, we discussed *Phlox subulata* at the request of one member of our group. As I explained previously, *Phlox subulata* is a dry wall subject which wants good drainage and does not need fertilizer for it furnishes its own by gradually dropping needles. These decay and make a top coating of soil for the tiny roots which form along the runners. When the plant has reached the size and shape suitable for a pocket, or to hold it in bounds, I shear it. If it lengthens after flowering, I cut it back, leaving one to two inches of "stubble"; in a couple of weeks, it is a neat carpet again. Frequently it blooms in the fall after this treatment. This is the only period when I give *P. subulata* much water, for I believe that excessive watering retards blooming.

Perhaps this treatment might not be desirable in lower California - the heat might kill it while the plant was sheared, but the same heat may stop it from being straggly in the first place.

Phlox amoena is another subject for the beginner and it likes open sun in a pocket. In spring, it sends up a stem six inches tall and a head of rosy pink blooms that last a month or more. I have had plants with eight or ten blooms—a sheet of glowing color. *P. amoena* seems to need replanting every three or four years to do its best, for it has a tendency to die out.

Phlox diffusa is one of the needle type; I have seen it in the Olympics, Siskiyou and Cascades. The best forms are neat mats, sometimes spreading two to three feet across. The shape of the flower varies from a precise, large, well rounded one to a narrow, more strap-like one, flaring at the point. The tiny blooms are borne right in the needles and extend just over the foliage. This phlox likes open

talus slopes and does not require much watering when grown in the rock garden - in fact, it does not like overhead watering, nor wet feet. It likes sunshine and drought and responds to the shale-covering treatment in late fall or early spring.

Some forms of *Phlox Douglasi* are good, others are not. It should be a compact cushion-like mat, or more or less upright. Sometimes it is two inches, sometimes two feet. Sometimes the plants are even hairy. This phlox is best as a crevice plant, where it seems to stay put.

Phlox rigida is a cushion form with large, pure white flowers; the narrow leaves are revolute. It blooms more sparingly than either *P. diffusus* or *P. Douglasi*. These three species are the most satisfactory for this locality, although there are doubtless others from other sections with which I am not familiar, which would prove desirable.

Before leaving the straight needle group, I should mention *P. nivalis* from Georgia which comes in many color forms and is so similar to *P. subulata* that the distinguishing mark is the position of the stigma. Perhaps I had better leave this to the botanist!

Another group of the needle section is the arachnoid, in which the needles are covered with cobwebby hairs, either entirely or largely. Among these phloxes are *P. bryoides*, a dense mat of closely packed ovate leaves arranged in four rows and covered with white wool. Only when blooming does this species resemble a phlox; then its single white flowers identify it. At other times, it would be taken for a sedum. *P. bryoides* does not like dampness but wants a high, dry, cold situation in winter and heat in summer.

Phlox muscoides is similar except that it lacks the row arrangement of the leaves. *P. canescens* is less hairy and seems to lose this characteristic in gardens. *P. Hoodi* also belongs here, and all four are slow and difficult growers.

Three of the leafy western phlox, which I know, like light shade, growing in semi-open or open situations and usually at the base of trees or open shrubs. The first is *P. adsurgens*, a dwarf woodlander and considered by many as the cream of the crop. On a trip into the Siskiyou last summer, I saw it creeping along in light shade, growing in the grass with violets and bleeding-hearts. Its tiny stem was elongated so that the flower was at the top of the lower things and peeking through the taller ones. *P. adsurgens* seems to want loose soil, good drainage and coolness about its roots. I planted the cuttings in sun and in shade and while they live and are putting out new "feelers", they are having to readjust themselves, for the soil here is heavy. They appeared to have stood the months of rain and the flood which covered them with three inches of silt - but what they will do under this treatment instead of their usual snow covering in the mountains remains to be seen.

I found a clump of *Phlox Stansburyi* growing in one location with *P. adsurgens*, but the former seems to like a drier, more acid soil than does *adsurgens*. *Stansburyi* is taller, about twelve-inch flower stems, and the flowers are a deep, clear rosy pink instead of the apricot-pink of *P. adsurgens*. It is a very desirable and altogether lovely species, growing under the high open pines with *Iris bracteata*.

Phlox longifolia is similar to *P. Stansburyi* but not as clear in color of flower and more straggly in growth. Eloise R. Nelson, Orick, Calif.

Our experience with phlox has been somewhat limited. The *P. subulata* group of which we have several varieties has been anything but successful. The plants do grow and bloom, but they look dry most of the time, even with shearing back. We do find that some shade - our situation is hot, dry and windy - seems to produce better plants and more lasting flowers.

(Continued on page 105)

HIGH HUNTING

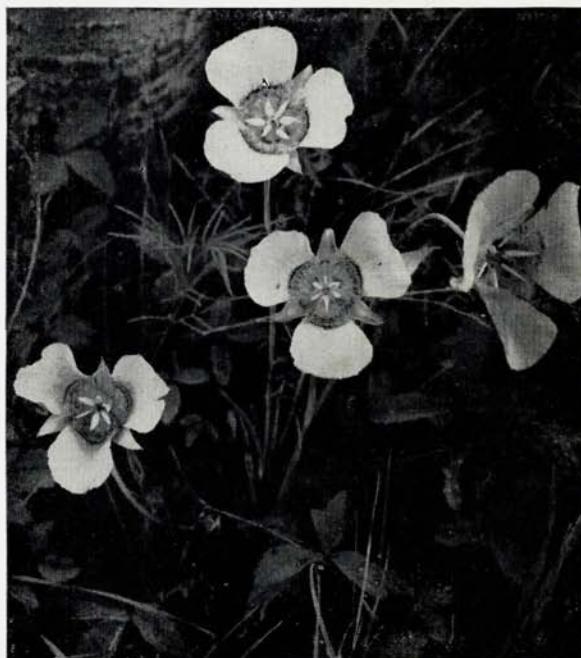
KATHLEEN MARRIAGE, COLORADO SPRINGS, COLO.

HELEN Fox and I have just been on a jaunt over the Continental Divide to Aspen to soak up humanitarian studies and music, but most of all to see wild flowers.

Some of the most suitable for rock gardens that we saw are:

In South Park, 9,000 feet elevation, *Campanula Parryi* growing on the peaty humps at the margin of irrigated meadows. This, I am confident, knows where it looks its best for it chooses to open its wide-awake, lavender-purple flowers in the silver-grey mats of *Antennaria rosea*. The slender stems and modest behaviour of this gem puts to shame its rampant sister, *C. rotundifolia*.

By an icy stream on Independence Pass, 12,000 feet elevation, was *Sedum*



Calochortus Gunnisonii

integrifolium—King's Crown, about six inches high, whose geometrical foliage is attractive and crimson crowns colorful. This grows readily in the garden and sometimes in conditions very different from those in which we found it. In my garden, one self-sown plant sat up and put on its many crowns on a south bank in full sunshine winter and summer.

Tucked between large rocks in shade we found *Saxifraga austromontana*. Its neat green rosettes knitted into a mat are decorated with creamy white flowers on four-inch stems. It is always a tidy little lady.

In the scree on Independence Pass, *Penstemon Hallii* was blooming on shorter stems than at lower elevations and here it was purple instead of the usual blue; acidity may account for this color change. It is a good rock garden plant, more permanent than some of its cousins. In my garden it keeps well-groomed and blooms profusely—open-mouthed blue trumpets on six-inch spikes.



Penstemon Hallii in the author's garden

Up here in scree *Silene acaulis* was plentiful. A usual complaint is that in cultivation this is sulky about blooming. Perhaps it is a trifle stingy, but its closely-woven, round, green mats like big green pancakes are worth having in the alpine lawn, even if they never show a flower. In the highest outcrops of lichen-encrusted rocks was that "King of the Alps", *Eritrichium argenteum*, "of a blue so clear, so blue, so placidly celestial . . ." (See Farrar on this in *The English Rock Garden*.) It is the delight and despair of rock gardeners.

Everywhere on the heights *Viola bellidifolia* was full of bloom. This doesn't give a hoot for conditions—it keeps its tidy habit even when warm and well fed.

Of course, Helen Fox was looking for lilies. Two belonging to Liliaceae we saw are petite enough for any rock garden:

One is *Zygadenus elegans* with its racemes of creamy white, diminutive lilies rising from a tuft of narrow leaves. It makes a good vertical note in a symphony of flat mats and cushions. Hundreds of these decorated the grassy slopes, as we slithered down the west side of Independence Pass.

The other is *Calochortus Gunnisonii*, an airy graceful thing that knocks the smugness off any rock garden; its lovely lavender cups lined with white are a joy. This is the only one of the list stubborn about growing and flowering. In the garden I plant forty bulbs and am lucky to get a dozen flowers. Why? On grassy slopes near Camp Aspen, they flower by the hundreds. Helen Fox—who hops up mountains like a goat—brought back a few lovely flowers of this *Calochortus* from a trail near Ashcroft.

The above plants, always excepting *Eritrichium argenteum*, are all reasonably easy to grow from seed. Their one common demand is a root medium that allows complete drainage so that their crowns may dry off in comfort before winter. A lean diet of scree, chip rock or coarse gravel suits most of them. They incline to look less attractive when over-fed. Don't we all?

Though many of these plants grow in full sunshine in their mountain home, they appreciate a spot of shade and preferably a north slope at lower elevations. The ground at their toes is always cold.

LATE BLOOM in the ROCK GARDEN

FLORENS DE BEVOISE, GREENS FARMS, CONN.

IN the early days of rock gardening, the general supposition was that the bloom was over with the close of spring. This idea has ended with the tremendous numbers of plants which carry on during the summer, fall, and a few even through the winter months.

Acanthophyllum spinosum, a dainty and attractive plant for full sun, blooms in July; its mats of spiny foliage are covered with sweet-scented flowers.

Androsace lanuginosa leichtlinii has umbels of white flowers with crimson eye. All the androsaces enjoy sun and this one blooms in July, or later.

The Campanulas add much beauty to the rock garden in midsummer. It is only possible to mention a few of the numerous species and varieties in these notes. *C. carpatica alba grandiflora* is a fine hybrid with large white flowers. *C. White Star* is another fine and free-flowering plant. *C. pusilla alba* is a dwarf species with dainty white bells blooming in early July.

Among the blue Campanulas, *abietina* has bright green rosettes with lovely blue flowers on six to eight-inch stems; it blooms over a long period. *C. allioni* is a high alpine species, having large blue flowers. This comes from the western Alps and is one of the most beautiful of all Campanulas. *C. caespitosa* has ovate, toothed leaves and nodding blue bells. The well-known *C. carpatica* with its lovely blue flowers and its several varieties are all good for July and August bloom, perfectly hardy and satisfactory. *C. collina* comes from the Caucasus and is an outstanding plant for summer bloom; it requires full sun.

Convolvulus Cantabrica is one of the loveliest of summer-blooming plants. It hails from Spain and is perfectly hardy in Connecticut. The soft gray foliage and pink flowers on semi-trailing stems are very effective and the bloom continues through summer and early autumn.

Many of the daisy tribe will carry bloom through August and September. Among the smallest of the lot are *Erigeron pumilus* with tufts of gray-green foliage and mauve flowers, and *E. trifidus* with dainty pale lavender flowers on three-inch stems. These bloom from May to August. *E. rotundifolia caerulescens* has small blue daisies over clusters of tiny foliage throughout summer and fall.

For summer and early autumn the gentians add much color to the rock garden. The list is long, but to mention only a few—*G. Purdomi* is quite outstanding with fairly large violet flowers on procumbent stems in late summer. It hails from Tibet. Another excellent late bloomer is *G. septemfida*, which comes from the Caucasus. All gentians like partial shade and an acid soil containing peat and humus.

The Globularias bloom in late spring and early summer and their soft blue heads are quite lovely among the crevices in sun or partial shade.

Lamium maculatum is a trailer with variegated leaves; its lavender flowers bloom throughout the summer and early fall. There is also a white form. *L. maculatum* makes a good groundcover.

Callirhoe involucrata, another trailer, which comes from the Midwest, has large wine-colored cups and is a constant bloomer throughout the summer.

Serrulata Shawii is a rare and very choice plant. The deeply serrated foliage is attractive and in late September its lavender flowers, while rather small, are quite lovely. It does well in sun or shade.

For the background, *Anemone hephehensis* is charming, bringing out its pale pink and old rose flowers in September and October.

Many of the tiny asters also appear in autumn. *A. kumleini* is one of the best for background effects.

The lovely hardy *Cyclamen neapolitanum* and *C. europaeum* have marbled leaves and their pink butterfly flowers add a note of color and interest in the autumn.

Viola cornuta Papilio and *V. florariensis* bloom off and on during the winter months, even when they have to push up their blooms through a light covering of snow.

Erica carnea produces its soft pink flowers throughout the winter.

If space permitted, I could mention many other plants which bloom through the autumn and early winter and bring color and interest to the rock garden.

NOTES FROM A NEW ZEALAND GARDEN

THE New Zealand Hebe, formerly linked with Veronica, is a genus which often arouses the interest of the collector. Some forms are of excellent garden merit. One of the daintiest and most beautiful of all native flowering shrubs is *Hebe Hulkeana*, the exquisite loose lilac sprays of which have earned the name of New Zealand lilac. The flowers have a satiny texture which emphasize their particularly delicate shade of lilacs. The bottle-green, leathery foliage is also unusual and attractive. This comparatively dwarf shrub (three feet) can be kept compact by cutting back after flowering, and is useful as a rock garden shrub or as a small ornamental hedge.

Two New Zealand trailers for the rock garden are *Fuchsia procumbens* and *Pratia angulata*. The fuchsia is unique in that its flowers are erect. The fruits which are produced abundantly, are bright red with a glaucous bloom and about the size of a damson plum.

Pratia angulata is useful for draping over a ledge and runs about freely, but is easily checked as it is shallow-rooted. The white flowers on slender stalks held just above the foliage have two ascending and three drooping petals. They are followed by a prolific crop of purple berries. I grow *P. angulata*, but there is a scented one, *P. macrodon*, which I have yet to obtain.

Three bulbs flowered in my garden this year which are new to me—as far as flowering goes. One is a chance seedling which at first I thought was an unusual-colored Sparaxis. Close investigation proved that it was hybrid between Sparaxis and *Streptanthera cuprea* which grow fairly close to each other here. The color of the new flower is nasturtium-red overlaid with petunia-purple, darker in the eye. The rounder petals were the first hint of its cross parentage. All who have seen this new bulb have been quite taken with it—perhaps my garden may have produced something worth while!

The second bulb is *Leucocoryne ixioides* Glory of the Sun, which I have had for some time, but had not previously flowered. The delicate looking flower on a long thin stem is rather inclined to fall over; there are four or five flowers to a stem. The color is white base with edges and tips of blue and a pale yellow center. I have heard that it is likely to sulk even for years—but anyone who is fortunate enough to strike the right conditions will find the bulb really worth growing.

The third is the queer South African bulb, *Helixyra torta*. I have had it for several years and all that it did, year after year, was to send up a thin leaf with a spiral at the top. This year it produced two flowers, each lasting for a day. The flower resembles a *Moraea* in appearance, pale blue with white markings. So fleeting are its blooms that many would probably consider it not worth growing; but I understand that when *Helixyra torta* gets established, the blooms continue for weeks with, perhaps, two days' interval between them. If one can get a pocket of them, they might give temporary interest to the garden each year.

Not new to my garden but for the first time in clumps large enough to be called drifts and, therefore, really showing up their beauty are *Geissorhiza secunda*, starry blue branching sprays; *G. furva*, rich dark red flowers, more like the *Babiana* in shape; *Hesperantha Bauri*, striped outer petals opening to flat white stars. Not until late afternoon do I see this or its companion, *H. Stanfordiae*, a bright yellow.

Iris pavonia or, as I believe it should be called, *Moraea glaucopsis*, is another gem. A plate in the latest "Journal of the Royal Horticultural Society" gives some idea of the different varieties—in vivid yellow, orange, and purple. The one mentioned above is pale blue with royal-blue eye.

Tulip species flowering for me this year are *Hageri*, *Celsiana*, and *Kaufmanniana*. *Romulea bulbocodium*, with its crocus-like, lemon and lavender cups, was an earlier beauty.

Spring is half-way through (October 18, 1950), and American seed sent on exchange is beginning to germinate—each day is likely to be enhanced by another green shoot.

Mrs. C. Walker, Te Horo, Manawatu Line, New Zealand.

PHLOX IN CALIFORNIA

(Continued from page 100)

While visiting at Saxton and Wilson's in Maplewood, Oregon, last year, we were told that nematodes on the roots might be the cause of our trouble. According to Victor Reiter, of San Francisco, it is prevalent in this section. However, *Camla* and *Camla alba* do very well, usually having two periods of bloom.

Phlox Kelseyi, a native of the Northwest, does well with us, surprisingly enough. This is a very low grower with needle leaves and lovely lavender-blue flowers, with orange anthers. The flowers last over a long period.

Phlox glaberrima, which came from James E. Mitchell in Vermont, grows well enough, produces nice leaves, but no flowers. It desires a woodland spot and blooms in midsummer - so we have been told.

Phlox stolonifera (reptans) is our most reliable, spreading well by runners rooting at the nodes and sending up stems six inches high with lovely flowers in soft lavender-pink. This phlox blooms in advance of all others.

Does anyone know anything about *Phlox lanata*, a native of Oregon and probably one of the wooly kinds?
Virginia Stewart, San Anselmo, Calif.

I have been looking for a phlox which would stay green all summer and I think the nearest to doing it is the variety of *P. subulata* called Emerald Cushion and, perhaps, Purdy's Purity.
Harry E. Jacobs, San Carlos, Calif.

THE EDITOR GOES—

THE EDITOR COMES—

The Editor, Dorothy Ebel Hansell, bows out with this issue of *The Bulletin* and hands the proverbial "blue pencil" to her successor, Mr. Guy G. Nearing of Ramsey, New Jersey. Mrs. Hansell has been guest editor of the *Journal of The New York Botanical Garden* since June 1st and now is assuming the responsibilities of editor of *The Garden Journal of the New York Botanical*, a new publication to make its initial appearance in January 1951. Mrs. Hansell's resignation was accepted with regret at the meeting of the executive board of the American Rock Garden Society, held in New York City on November 15, 1950.

At this same meeting, the executive board appointed Mr. Nearing editor, and he will immediately begin preparation of the January - February 1951 issue of *The Bulletin*. Mr. Nearing, who has been a member of the American Rock Garden Society since July 1935, is author of *The Lichen Book* and of numerous articles on horticulture and botany. He is also a lecturer in this field and a leader of outdoor trips for the Torrey Botanical Club. He was a nurseryman from 1925 - 45 and recently resumed that occupation, aiming to specialize in dwarf shrubs, particularly rhododendrons. He is the originator of the Nearing method of cutting propagation (Bulletin 666, Agricultural Experiment Station, New Brunswick, N. J.) Mr. Nearing studied at the University of Pennsylvania, Harvard and Columbia.

The Editor takes this opportunity of publicly thanking those who cooperated with her during the past several years by contributing articles to *The Bulletin*, and solicits the same kindly cooperation for her successor, Mr. Nearing.

1951 SEED EXCHANGE

Members are urgently requested to send their seed donations to the Director of the Seed Exchange, Miss Madeleine Harding, 22 Robinson Street, Cambridge, Mass., so that they will reach her prior to January 6th for inclusion in the 1951 Seed Exchange List. The list will be mailed to all members with the January-February 1951 issue of the *Bulletin*.

Last year, for the first time, the Society announced the seeds available for distribution among the members in one principal list in January 1951, with a supplementary list in March 1951. The latter was made necessary due to the late arrival of seed donations. It is hoped that all contributors to the Seed Exchange will make an extra effort to get their seeds into the hands of the Seed Exchange Director, Miss Harding, by January 6th, thus eliminating the necessity of printing a supplementary list.

The seeds will be distributed in February and March. Scarce seeds will be distributed among the contributors to the Seed Exchange; then in order of requests received.

ANNUAL DINNER — NORTHWESTERN UNIT

The annual dinner meeting of the Northwestern Unit of the American Rock Garden Society was held Thursday evening, October 26, at the Seattle Tennis Club. Twenty-six members and friends gathered to hear Rainier Park Naturalist Mr. Potts talk about the park. Slides and movies illustrated his talk and were most interesting.

The kodachromes included views of other parks, scenery on Rainier, and flora of Fainier with some of the outstanding slides showing fall color. The movies were of animal life in the park. Bear, deer, goat, pharmigan, ousel, cony, marmot, weasel, raccoon and other birds and animals were shown in their natural habitats.

Prior to the program new officers were announced, having been elected at the business meeting held on the field trip in the Cascade Mountains October 8.

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Mrs. B. O. Mulligan - 1110 32nd Av. South - Seattle 44
Sec'y.-Treas. - Mrs. L. N. Roberson - 1539 E. 103rd St. - Seattle 55

SECOND INTERNATIONAL ROCK GARDEN PLANT CONFERENCE, 1951

A conference is being organized by the Alpine Garden Society and the Scottish Rock Garden Club, to begin on April 24th. During the first week, a two-day show will be held in London, also lectures, discussions and visits to gardens of interest. The following week will be spent in Edinburgh and other Scottish cities where a similar program is being planned.

Full particulars will be given in the conference program, to be issued with the December number of the Alpine Garden Society Bulletin and the Yearbook of the Scottish Rock Garden Club. Copies of this program may be obtained by non-members on applications to C. B. Saunders, Secretary of the Alpine Garden Society, Husseys, Green Street Green, Farnborough, Kent, England; to R. Burnett, C. A., Secretary of the Scottish Rock Garden Club, 4 Forres Street, Edinburgh 3, Scotland; or from the Secretary of the American Rock Garden Society.



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This Society, founded in 1930, has well over a hundred members in North America. As distance prevents their taking part in the Society's other activities, it is obvious that they have found the Quarterly bulletin to be good value for their subscriptions.

Further particulars regarding the Alpine Garden Society may be obtained from the Secretary, C. B. Saunders, Husseys, Green Street Green, Farnborough, Kent or, better, from Mr. C. R. Worth, Groton, New York, who is one of the Society's Ass't. Hon. Secretaries (foreign).

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- 4 Volume 1 (1943)
- 23 Volume 2 (1944)
- 20 Volume 3 (1945)
- 14 Volume 4 (1946)
- 5 Volume 6 (1948)
- 6 Volume 7 (1949)

These volumes are a Gold Mine of Information

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