BULLETIN

of the

AMERICAN ROCK GARDEN SOCIETY

Vol. 9

May-June, 1951

No. 3

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

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The American Rock Garden Society, incorporated under the laws of the State of New Jersey, invites you to join with its members in the pursuit of a better understanding of the problems of rock gardening. The annual dues are \$3.50. Address communications regarding the Bulletin to the editor, G. G. Nearing, R. F. D. Box 216, Ramsey, N. J. Other communications, except concerning the Seed Exchange, to the secretary, Dorothy Ebel Hansell, 19 Pittsford Way, Summit, N. J.

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SUBTLE SPRING COLORINGS

GRACE F. BABB, PORTLAND, MAINE

WATCHING the garden awake in early spring is a constant joy which I never tire of from year to year, with something new to be seen each day as I work around the plants and shrubs. The blending of winter coloring and fresh spring tints, the varied textures of foliage, and the different coverings of both leaf and flower buds are as fascinating as even the flowers which follow. Spring color effects are very fleeting, and only the most observant gardener really has time to enjoy them before they change to normal summer greens.

Many of the choice dwarf shrubs are bronzed over winter, such as the black crowberry, *Empetrum nigrum*, and broom crowberry, *Corema Conradii*. Empetrum, a lovely warm shade in earliest spring, turns dark green surprisingly soon. For the past few years I have managed to find only a few tiny blossoms, but this spring when I turned up the branch tips, there was a definite showing of red and purple color. The little four-petalled flowers are about one sixteenth of an inch across, and since staminate and pistillate flowers are borne on separate plants, I suppose mine will never produce berries until I provide a mate for it.

Corema also has the sexes on different plants, and luckily mine is the showy staminate variety. The little bud clusters are rich brown, at every branch tip, surrounded by a spreading rosette of new green twigs. Very early in spring, the buds quite suddenly explode into feathery stamens of bright purplish brown, making a nice color display over the branches just turning from bronze to dark green. By fall each twig will have formed a new rosette around its flower bud, so it is easy to see how rapidly the clump increases into an intricate mass of little branches.

Loiseleuria procumbens, the precious alpine azalea, is also bronzed, with a few tiny reddish flower buds showing by late fall, others appearing in spring, and new leaf tips a bright red. The lovely sand myrtle, *Leiophyllum buxifolium*, shows a constant succession of red coloring, as the first thick clusters of tiny red buds develop slowly into white flowers, mine with showy red stamens, and then to reddish seedpods which remain over winter, looking almost like fresh flower buds. The new branches also come quite bright red, in nice contrast to the dark older stems.

The younger branches of bearberry, Arctostaphylos Uva-ursi, too are red, but a darker shade, the new spring growth almost pale pinkish brown, with the foliage in mingled bronze and red and purple, as the tiny bud clusters at the branch tips begin to expand into pale pink bells. The tiny pin-point buds of Pachystima Canbyi would seem to be insignificant, but are so thickly produced at the little stem-ends, that they are noticeable even over winter for their light brown color, and make a pretty effect when open, with their many tiny stamens almost pink in color.

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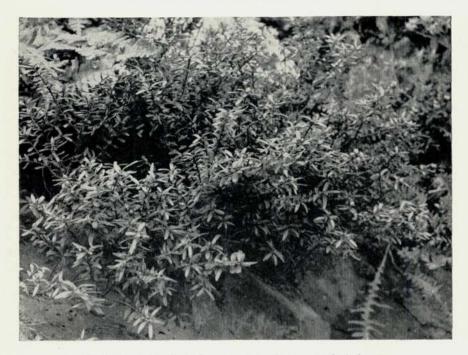
Sand Myrtle, Leiophyllum buxifolium, full of reddish tints as it opens white flowers.

Three dwarf willows are enchanting: Salix Uva-ursi, with bright yellow stems and pinhead-sized white pussies before the green leaves; the tallest, Salix tristis, reaching perhaps a foot or more in height, with gracefully curving branches, and catkins of warm lavender on gray stems; finally S. Peasei, the smallest, with bright green rounded leaves on prostrate stems, and dark red upright catkins in May, last of the three to bloom.

Rambling all around under the other plants is the delightful mountain cranberry, *Vaccinium Vitis-Idaea*, with its round evergreen leaves in delicious tints of rose and purple over winter, and the curled-under buds showing bright rose as they develop into pale pink bells. This spring I notice it filling in closely between the wide-spreading runners into mats which are most attractive, but which might be a menace to very small choice plants.

Nearby a clump of rhodora shows many colors, from a wash of dull olive green on the oldest stems to light brown on newer growth, tipped with the mauvepink buds standing like little pointed bulbs on every branch tip. In spring-like contrast is the bright green leaf color just bursting from every bud of the shrubby potentillas, and those bright red leaf-and-flower buds pointing up the dark brown stems of chokeberry, while just emerging from the ground around *Gillenia trifoliata*, the bowman's physic, which looks like a shrub but is really herbaceous, appear lovely red shoots.

The wild rosemary has more delicate spring coloring. The taller one, Andromeda glaucophylla, arches stems gracefully to a height of a foot or more, their mature color dark brown, the fresh new growth grayish white tinted with pink, and very effective. This holds its tiny pink buds clustered shyly beneath the branch tips, with one whitish bract extended above, while the buds of the more compact



Pachystima Canbyi, the tiny open flowers pinkish brown.

dwarf, A. polifolia (variety name uncertain), are held erect between the leatherybrown leaves at the stem-ends.

The most showy reds glow in the large shining leaves of the well known Galax, in the dwarf box huckleberry, *Gaylussacia brachycera* and its taller cousin, *G. dumosa*, in the lovely dwarf blueberry, which loses its gorgeous scarlet foliage over winter, but soon decorates its red stems with pale pink flower buds and bright green leaves.

The dull green leafy mat of trailing arbutus, though anything but colorful in early spring, quickly changes after the fragrant flower clusters appear, the new bright brown leaves developing, and turning slowly to light green. As a ground cover this proves particularly effective under the dark red uncurling fronds of maidenhair fern. Other ferns soon add their bit also, from the bright green of the little western parsley fern to the wooly gray of rusty woodsia along the garden ledges.

The most luscious colors among the herbaceous plants are the ever-lovely columbine and geranium rosettes, their tints of rose and purple mingled with pale or bronze-greens. The white-flowered plants of both show up very quick'y by their light green foliage, with no different colorings in stems or leaves. Clumps of Polemonium show varied shades from light to dark green, some with deep purplish tones. Penstemons exhibit a wide variety of coloring, some with handsome wine-red rosettes, some of glaucous green with soft rose and lavender shadings, the new growth often bright green on the herbaceous species, bright red on the shrubby ones.

The dwarf bleeding hearts poke up bright red shoots, here again with the pure white forms announcing their presence by remaining pure palest green. Mertensia comes to life with fat stalks of dark blue-purple, and early meadow rue sends up clubs of somewhat paler mauve and green. The gray-white, deeply veined leaves of bloodroot curl protectively around their big buds, contrasting in texture with the dainty gray-green feathery clumps of dutchman's-breeches in the woodsy corner, while in the sunny garden the bright greens of violet clumps, Campanulas, and dwarf ris tips stand out against the wooly green Antennarias and pasqueflowers. Silver and pale green tufts of Corydalis, often tinted with pink, and silvery-edged green clumps of dwarf Potentillas are forever entrancing among the gray rocks, long before any blossoms appear.

And what else Any gardener with open eyes can add endlessly to the list of spring's charms.

THE INTERNATIONAL CONFERENCE

HAROLD EPSTEIN, LARCHMONT, N. Y.

OPENING in London April 24th and closing in Edinburgh May 4th, we have just concluded a historic event which may go far toward stimulating to activity, the world over, those many gardeners whose enthusiasm for the gems of peak and moraine had, until now, not quite reached the boiling point. Certainly it has strenghened the ties between organizations and individuals already devoted to this highest and most pi_turesque form of gardening.

The two faults to be found with the whole proceedings were the backward season and the horrible weather. This spring, the latest ever experienced in Britain, held back plant growth and bloom about a month behind normal dates, with disappointing'y little to be seen on the outdoor excursions. The weather, typical of what might be expected here, was quite the opposite of what we experienced in 1949, the most favorable on record. This year, after two sunny, springy days, rain, cold and dreary skies set in, lasting until May 3rd, when some sunshine made a few photographs possible in Scotland. The Scotch claim they have had winter for the last eighteen months.

Inasmuch as the entire proceedings of the conference are to be printed in a cloth bound report (to sell at about \$1.50), I shall submit only a brief summary now. The bound report, to be published by the Alpine Garden Society, will contain not only the papers actually presented, with verbatim accounts of discussions that followed, but also other submitted papers not read because of insufficient time. It will describe in detail too the conference shows and the excursions.

Present in addition to the British and our own party were representatives from Sweden, Germany, France, Switzerland, Canada and New Zealand. The American contingent attending the conference consisted of:

Mrs. A. C. U. Berry	Portland, Oregon
Mrs. M. J. Fox	Mt. Kisco, N. Y.
Mrs. A. D. Reid	Mountain Lakes, N. J.
Mrs. G. R. Marriage	Colorado Springs, Colo.
Mr. Robert Saxe	San Francisco, Calif.
Mr. and Mrs. Harold Epstein	Larchmont, N. Y.

It is interesting to note that the only one of this group who attended also the First

International Conference in 1936 is Mrs. Marriage. As the opening event of the present conference, Mrs. Marriage presented color slides of many alpine plants of the Colorado region. The excellence of these color views and the interest in their subjects were attested by the hearty applause with which they were received.

After the session of slides and commentary came the official opening of the Conference Show at the Royal Horticultural Society's Hall. Though the adverse weather was to curtail later enjoyment of the outdoor gardens, no suggestion of disappointment clouded the magnificent indoor display. While adequate description of the spectacle is difficult if not impossible, the impression gained by viewing the scene from the balcony is perhaps the most suggestive. Standing there I could not but feel that a colorful Persian carpet of superb design was spread before us.

One of the predominating splashes of color was the display from Wisley, the Royal Horticultural Society's Gardens, blue in many shades and variations. It consisted mainly of blooming shrubs, especially dwarf Rhododendrons of the Lapponicum, Triflorum, and other series, set off by still other ericaceous dwarfs. Surrounding this were many commercial exhibits of table-height miniature rock gardens with a vast array of superbly grown rock plants and shrubs. Not only were many "bread-and-butter plants" included in these excellent exhibits, but hundreds of uncommon small jewels which had hitherto been names only, particularly to the American contingent. One of the largest displays consisted primarily of small shrubs and conifers including many items rarely obtainable in cultivation. It was truly a field day for plant lovers and connoisseurs.

Beyond these displays stood tables containing hundreds of competitive exhibits entered by members of the Alpine Garden Society in many amateur and professional classes. Unexpected contrasts greeted us. Not far from a Tecophilaea, the "glorious Gentian-blue Crocus from Chili" as described and despaired of by Farrer, stood the to us familiar bloodroot, Sanguinaria canadensis, both single and double forms, dutchman's-breeches, Dicentra Cucullaria, and further on the blue Corydalis cashmeriana. One of the many attractive pans of dwarf shrubs contained that aged rarity Pinus sylvestris var. Beauvronensis, and there were countless other noteworthy forms.

In this brief summary it is impossible to list even a few of the many beautiful pans of Primulas, Androsaces, gentians and other favorites exhibited. But it was evident they had been skillfully grown by keen gardeners from many parts of Great Britain. The high standards set in this show will be difficult to surpass in any future one.

Another exhibit section not to be overlooked was the collection of remarkable photographs and paintings of alpine plants in their natural habitat and also in cultivation.

The Conference Show was open for two days, during which time a series of papers on alpine subjects were summarized and discussed in the nearby lecture hall. All of these will be printed in the Conference Report.

The two days following were devoted to excursions in the vicinity of London, first the gardens at Wisley, wher eall too short a time was spent inspecting the alpine houses, the spacious and beautiful rock garden, which has been almost completely remodeled and replanted during the past two years, then the excellent collection of Rhododendron species and hybrids. Here the anticipated huge display of bloom was lacking, due to the lateness of the season. But the earliest blooming subjects, which in other years would have been past and faded, were there to enjoy in place of the ones planned for. That afternoon, the 26th, was devoted to visiting the new offices and gardens of the magazine "My Garden", where two additional papers were presented to the members.

On the final day, cold and rain did not discourage any from visiting the Royal Botanic Gardens at Kew, where we employed the morning inspecting the large collection of rock plants, and viewing other fine displays of shrubs and trees. The remainder of the day was spent at the very impressive Windsor Great Park, where a magnificent replanting and landscaping project has been in progress for several years. A part of the vast acreage is being artistically planted with an extraordinary collection of the choicest species and hybrids, which within a short time will make it



The famous rock garden at Kew

a focal point of horticultural interest. One huge natural amphitheater has been made to house an extensive grouping of Kurume azaleas exclusively, sure to be an unsurpassed spectacle when in bloom.

These two major excursions on the last day in England permitted, to our regret, only a few hours for each, where even a full day could hardly have done justice to the many attractions offered.

On April 30th, the second part of the conference, sponsored by the Scottish

Rock Garden Club, opened in Edinburgh with the reading of two extremely interesting papers, "Recent Primula Introductions" by Dr. H. R. Fletcher, and "Plants that have done well in my Garden" by Mrs. W. D. Crewdson.

That afternoon we spent in the magnificent and far-extended rockery of the Royal Botanic Garden. There can be little hesitation in offering the opinion that this must be the world's greatest rock garden, tastefully designed and constructed, and containing a most inclusive collection of plants of all types. Again we were confronted with a dearth of bloom, for the lateness of the season in Scotland at least equalled that in England. But we could picture the display to come while admiring unusual features of the layout, the walls and beds built with blocks of peat substituting for stone, the huge plantings of wonderful Primulas, the numerous rare ericaceous plants. The general perfection of these, and the care lavished upon the garden were evident to all attending the conference.

That evening the conference visitors were accorded a reception by the City of Edinburgh, and personally by the Lord Provost. This interesting function proved to be a memorable occasion.

On the following day a morning stop was made at the outstanding garden of the MacFarlanes en route to the Conference Show at Glasgow. Cold and continuous rain failed to diminish the group's enthusiasm. This Scottish show, although considerably smaller than the one in London, had a remarkable collection of plants, with Primulas in the majority. In fact, a casual study of the many species displayed, led to the conclusion that Scotland is certainly Primula country, with a climate really ideal for their culture. The perfection of many of the most difficult species shown astounded even ardent Primula fanciers. The honor of best pan in the show was awarded to a group of *Primula Reidii*, superbly grown. Other rare and difficult plants displayed, including *Omphalogramma Delavayi* and *Cassiope hypnoides*, gave evidence of extraordinary gardening skill.

The following day was devoted entirely to the presentation of some very informative and interesting papers, the final one in the evening being a color motion film "Plant Collecting in S. E. Tibet and Bhutan" by the famous plant explorer, Major George Sheriff. The showing of this film with a running comment by Major Sheriff was a rare treat and a highlight of the conference.

May 3rd was given over to an excursion taking in two of the finest gardens in the Edinburgh area, the first that of Major and Mrs. Knox Finlay, where we saw a startling mass planting of some of the best Primulas in cultivation. Though most had not begun flowering, it was evident that they were prospering in this climate, which seems ideal for introductions from the interior of Asia. There were also substantial plantings of lilies, Nomocharis, Meconopsis, Rhododendron, and a vast array of other interesting plants. A few years hence the more recently planted groups should produce a magnificent garden picture.

Our second visit was to Mr. and Mrs. Renton at Branklyn, whose few-acre garden is crammed with an unbelievable collection of fine plants, all arranged and planned in a most pleasing design by which the visitor seems to be in a garden several times the actual size. That day was doubly appreciated, since in the whole week it was the only one with some sunshine.

The morning of the final day was set aside for a paper and demonstration on "The Propagation of Alpine Plants", a subject that appeared particularly interesting to the large audience. The conference then concluded with a luncheon in Edinburgh and farewell greetings.

FURTHER NOTES ON VERNAL IRIS

Edgar T. Wherry, Philadelphia, Pa.

T was rather surprising to read in the March-April Bulletin that in Mr. Hamblin's experience with Vernal Iris "There is nothing difficult about it at all," for to horticulturists in general it is the most impossible of all Irises to grow. To quote from Dykes, The Genus Iris, 1913, page 96: "For some reason it is not an easy Iris to cultivate......It is probable that we do not yet know the conditions under which it thrives."

In the 1920's the late Dr. Frederick V. Coville arranged for the U. S. Department of Agriculture to send me on field trips to study the soil reaction preferences of rare native species, to help him in the improvement of the blueberry and other plants. *Iris verna* was studied from the hills of Pennsylvania southward, especially in Virginia from where it was sent to Linnaeus. It proved to be limited to the most acid of soils, where the substratum is essentially white, pure silica, sand, mingled with black upland peat. Subsequent cultural experiments showed that if planted in a rock garden where any considerable proportion of limestone was present (as is usually the case) this Iris might bloom the first year, produce only foliage the second year, and die the third. Conversations with rock gardeners in various regions have indicated to me that this is the usual experience.

So my advice to rock gardeners who wish to grow this unquestionably beautiful species is, don't try it unless you are willing to create a special pocket of really acid sand-peat soil, so located that no lime can possible wash into it from higher levels, nor earthworms bring up lime from below.

OUR SAVORYLEAF ASTER

STEPHEN F. HAMBLIN, LEXINGTON, MASS.

OF our dwarf native Composites of autumn bloom none is more worthy for a rock garden than our Aster linariifolius, in sunny spots in poor soil, native from Canada to Texas. It varies considerably in the wild, and no domestication has yet been forced upon it. The plant makes tight clumps of a foot or so height, not spreading by its roots as is the case of many species. It can be transplanted in autumn while in full bloom, also a factor most unusual with most species of Aster and autumn Composites. The leaves are very narrow (none at base of the plant), quite in the manner of Toadflax or Savory. Thus it does not crowd its neighbors, even when abundant. Summer heat and drought have no effect whatever upon it.

The usual color of the rays is a variable lavender, and special plants could be selected for size or abundance of bloom (mid-August to late September in New England). Mrs. Henry has reported forms with rays pure pink. The albino form, the rays pure white, is fairly abundant in places on Cape Cod. Further improvements in size or color of flowerheads might come from sowing of seed, and hybrids with such as *Aster alpinus* are possible. So easy is it of culture, and so showy is it in bloom in our hot dry autumns, that its local abundance is against its popularity. But it is not weedy, nor attacked by disease, as is the case of the *Aster dumosus* group. The roots are almost woody, but require no annual spring division, as many autumn Composites do. As we make much of new forms or hybrids of plants for rock gardens, here is a common plant of certain autumn bloom that already gives mass and color readily to a rock planting.



Savoryleaf Aster, Aster linariifolius, a likely subject for breeding and improvement.

NOTES ON VARIOUS ALPINES

DR. C. R. WORTH, GROTON, N. Y.

IRIS histrioides major, after two weeks of dazzling glory, has retired for another season. This species seems almost unknown in our gardens, yet it completely outclasses the popular *I. reticulata*. The needs of the two seem identical, or perhaps *I. histrioides major* is even more obliging, for it is perfectly at home in fully a dozen locations in my two rock gardens and in an open frame, and increases at a quite satisfactory rate. Its only need seems to be well-drained soil, in sun. It flowers usually even before *Crocus Tomassinianus* can open, at least two weeks before *I. reticulata*. The flowers, borne flat on the ground, are of a vivid deep blue, wider in the standard, and far more elegantly shaped than those of *I. reticulata*.

I. Vartani alba came safely through its first winter here, and flowered with I. histrioides major, although it has a reputation for tenderness. I. alata was too precocious, putting up a bud in mid-winter, which never had a chance to develop.

I. x Sindpers is producing a succession of lovely blooms, which somehow lack the superlative beauty of those of its Persian parent, now alas gone from this garden and from catalogs as well. The other bulbous Iris are either not going to flower this year, or are much later. However all except *I. orchioides sulfurea* are proving perfectly hardy, even in such a wet and open winter as the one just over. Anyone who has hesitated to try them because of high cost and reputed tenderness may feel assured that in well-drained sandy soil these treasures will be as dependable as any bulbs.

The article on Edraianthus by Robert M. Senior suggests that a note of warning, or of encouragement, may be needed. For years I tried all the cluster-heads that appeared in lists and found them invariably biennial or monocarpic in my garden. Then at last a packet—I no longer remember the name under which it was received—gave me a strain which is perennial, vigorous, and diligent about sowing itself. Because of confusion of names, I have never attempted to determine which species it may be, but it has been a constant delight for more than a decade. Apparently the best way of establishing Edrianthus in one's garden is to try every name that appears until at last an adaptable one is discovered.

Mr. Balls' raising the question of suitability of annuals in the rock garden brought to mind a long-forgotten experience. Many years ago, while collecting in the coastal hills of southern Peru, I saw from a distance a most brilliant sheet of color on an otherwise barren rock slide. When I worked my way cautiously to the spot, my incredulous eyes finally were convinced that the display was due to nothing other than the "nasturtium" of childhood days—*Tropaeolum majus* growing as a wild plant, but with larger and more brilliant flowers than I have ever seen it in cultivation. If natural habitat is the sole criterion for suitability in the rock garden, one now has perfect justification for growing Tropaeolum among the alpines.

The appearance of *Dianthus alpinus* in the Seed Exchange list may make it possible to increase the stock of this loveliest of all alpine pinks, for this species has invariably bred true here, over eighteen years, in spite of the proximity of many other species and hybrids. The true plant can be recognized early in life by its thin but stiff, rather blunt and wide dark green glossy leaves, unlike those of any other Dianthus. The best forms, though, are not too easy to obtain: I have one plant with flowers the size of a silver dollar, on stems of barely two inches. Imported seed has, however, given tall and gawky forms, apparently true, but not worth garden space.

D. alpinus needs a bit of shade and is at best not very long-lived; it is readily propagated by cuttings taken after flowering, and an occasional plant, especially if pot-grown, is somewhat stoloniferous.

Of the hybrid forms recommended by Mr. Hamblin, I have grown only two. Little Joe is at best a sawed-off Carnation of rather displeasing color and to me seems out of place in any type of rock garden. Tiny Rubies, in spite of its double flowers, is more appropriate in growth, but the rather chalky color of the flowers belies its name. A plant distributed in recent years by Carl Starker as a semidouble form of *D. Roysii* was similar in habit, but much more pleasing in color. None of these hybrids seems to be of very strong constitution in my garden.

For delightful filler in the sunny rock garden, one can hardly do better than try a packet or two of some of the more dwarf "species" such as appear in Thompson and Morgan's lists. They will not be true, but will give pleasing semi-dwarfs.

WORKSHOP MEETINGS OF THE MAINE UNIT

MRS. NETTIE HAMILTON, CHAIRMAN

Mrs. Edward Babb, Secretary

THE members of the Maine unit have long felt that we were failing to reach many gardeners around Portland who were interested in rock gardening, and would be good prospective members of the Society, but who knew little about our activities and possible benefits. This Spring we decided to sponsor a series of workshop meetings, open to all interested gardeners who wished to learn about the proper construction and planting of rock gardens. Publicity was given the project through the radio program of one of our members, Mrs. David Campbell, herself a beginner, and in the papers. Other garden clubs were notified of the programs, and any interested members invited. Gardeners wishing to attend the first meeting were asked to telephone any one of several members, so we might have a general idea how many to expect.

The first meeting was held March 27th, and was considered a great success, with more regular Maine members attending than usual, and ten guests. Others had expressed interest, but were unable to attend on that day. Guests were welcomed by Mrs. Nettie Hamilton, and names, addresses and phone numbers of all guests registered.

Two principal talks were given in the workshop, open discussions following each talk. Mrs. Ralph Denham spoke on construction and Mrs. Louis Crockett on rock garden soils. A short discussion of plants followed, with Mrs. Hayward and Mrs. Edward Babb mentioning some of their favorites. Follow-up meetings were planned for April, May and June, to include visits to different gardens where both members and guests could study actual construction of various types of rock work, and effective plantings. Mrs. Hamilton had on display a wide assortment of rock garden books, pamphlets, catalogs, and A. R. G. S. Bulletins, of interest to all who attended this meeting.

The second meeting was held on April 24th, and was very worthwhile, although the attendance was smaller, due to widespread illness. Three gardens were visited, each entirely different in construction. The first was that of Mrs. Hamilton, built around three sides of the house foundations, where most of the land was lower than the street level. The eastern side is a rock wall, the southern and western exposures more gentle slopes. Most of th plants are small choice varieties which will not run rampant,—Primulas, Saxifragas, Veronicas, Potentillas, Campanulas, and many other treasures. One of the surprises is *Oenothera caespitosa* which has husky shoots all up and down the rock wall, blooming all summer, and very obviously happy about it.

The next garden was Mrs. Andrew Duncan's, built in one corner of a flat lot, with the low artificially made mound providing locations for many choice plants. Trees and shrubs on the boundary line provide partial shade at the back of the garden for woodland plants such as bloodroot and Trilliums, while dwarf columbines, Primulas, pasqueflowers, and other sun-lovers occupy the front of the garden, around a small pool. Both the showy and the yellow ladyslippers, maidenhair-fern, dutchman-breeches, Trollius, and many other lovely natives were well established in pockets of the garden. The visit was completed by the discovery of two purple finches, male, and one female, placidly inspecting the gardeners.

The group then visited the beautiful ledge garden of Mrs. Charles Locke at

Cape Elizabeth. Here several large granite ledges have been cleared of junipers and weeds, and united into one immense rock garden so skillfully that it is hard to tell which rocks are the original ledges and which are hand-placed. Above the garden is a steep slope of lawn, and the house, surrounded with trees and shrubs, and although the foot of the slope faces directly east and out to sea, it is somewhat protected by a row of low evergreens. The result is a garden which is in bloom several weeks ahead of most others. The visitors were amazed at the masses of pink and white arabis, pasques, Primulas, bloodroot, and the great drifts of both tall and dwarf daffodils, blue Scilla and Chionodoxa, all in full bloom, where most of us had only the first scattered flowers as yet.

Before returning to Portland, the group stopped briefly at the garden of Mrs. Grover Richards which has also been extended from a huge outcropping ledge of rock. The garden is on several levels, down a long and quite steep slope, and is sheltered by trees and shrubs, many rare kinds not usually considered hardy in this locality. Many choice plants were beginning to bloom here too, but were not as advanced as in Mrs. Locke's garden.

Guests will be invited to visit several other gardens during the spring, under the sponsorship of the Maine Unit, and we are quite confident that these guest meetings will result in a better understanding of good rock gardening, and an increased interest and participation in ARGS.

Mrs. Denham suggested that gardeners study natural outcrops of ledge in woods and fields to get the general appearance of the rocks, even though they can seldom be exactly copied. She advised using rough, dark-colored rocks, especially those with moss or lichens growing over them, for a natural effect. A mixture of both large and small rocks is usually necessary, but several small ones can often be combined to look like part of one large ledge. She advised changing over the rocks whenever new ones were found which were better looking or more satisfactory than the original ones, since the average garden will be greatly improved in this way over a period of years.

In making a natural ledge into a rock garden, the importance was stressed of getting out all grass roots and weeds of all kinds before planting. This was thoroughly endorsed by many of the members who had suffered sad experiences with witchgrass, running blackberry vines, and other pests! Mrs. Denham said that the rocks and soil should then be arranged to form irregular pockets and slopes, with the surface level in the pockets to prevent washing in heavy rains. The soil should always be well settled before any planting is started. In connection with the placing of the rocks, Mrs. Hayward mentioned the interesting fact that most rock formations here in Maine run from north-east to south-west, and gardens to look truly natural should follow the same general pattern.

Mrs. Crockett said that the majority of rock plants like a sandy loam with compost or peatmoss for humus, and coarse sand or gravel added for drainage. Only a small proportion of plants have definite preferences for lime or acid soil, and good nurserymen usually give information for such plants when they are sold. She emphasized the fact that ample moisture and perfect drainage are as essential as the soil mixture in the rock garden. She advised using crushed rock or gravel in the bottom of plant pockets, as well as for top dressing the garden. Bonemeal may be used in spring to feed the plants slowly during the summer, but little or no rich dressing should be used. The great value of good compost was stressed by all members.

Mrs. Hayward recommended that gardeners always make a garden to please themselves, first of all, and grow a few special treasures among the plants, even

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though most of the garden were planted to fairly showy and easy-growing things for making a pretty picture for the public. She also mentioned the much greater effect of placing several of the same plants together in a group, giving a mass of one color, rather than single spots of color scattered around the garden.

ADDITIONAL INFORMATION ON CAMPANULA

ROBERT M. SENIOR, CINCINNATI, OHIO

THE last number of the Bulletin quoted remarks of California members who had held a round robin on the subject of Campanulas. Possibly a few observations relating to the artcile may be of some interest.

Jepson in his "Flowering Plants of California" seems to have made the mistake of classifying C. scabrella as a synonym for C. uniflora. However, the former is sufficiently distinct to be entitled to specific rank. Carl S. English Jr., pointed out a number of years ago some of the main differences between these two plants. For example, uniflora has underground stems small and threadlike, scabrella has thick underground stems. Basal leaves of uniflora are ovate-lanceolate, shorter than the stem leaves, while scabrella has basal leaves that are longer than the stem leaves. The corolla lobes of uniflora are shorter than its tube; in scabrella the lobes are longer. Moreover the capsules of these species differ in shape. Herbarium specimens look markedly different.

For those western members who might like to search for scabrella in its native habitat, I might mention that some specimens came from Mt. Aix in Yakima County at an altitude of 7,500 feet, another from Mt. Adams, still another from Mt. Eddy.

A word about C. linnacifolia. One authority contends that this plant was first named C. californica by Dr. Kellogg, and that this latter name therefore has priority.

Campanula Allionii, incidentally a charming plant, is a perennial, whereas *C. rupestris* is a monocarp. Allionii, I believe, is found in the western Alps, while rupestris is a native of Greece.

In regard to C. Aucheri, the English horticulturist Ingwersen, in an article in the Journal of The Royal Horticultural Society entitled "Plant Hunting in the Caucasus" stated, "Campanulas were everywhere, mostly the confusing group containing CC. bellidifolia, Saxifraga, Aucheri, tridentata, and ardonensis, all grading into each other to a bewildering extent." Incidentally H. Clifford Crook, an authority on Campanulas, writing in the Bulletin of the Alpine Garden Society of England, Sept. 1937, seys "Aucheri has the broadest leaves, the length being about twice the breath, C. Saxifraga has the narrowest; the length about three times the breadth; bellidifolia has smaller leaves than the others, and nearly round, while the leaves of tridentata are more greyish green in color."

A word about C. prenanthoides. An authority on the Campanulaceae, Rogers McVaugh contends that this plant should be called Asyneuma prenanthoides. I was under the impression that no Asyneumas were native to this country. One characteristic of Asyneuma is the deeply divided corolla. If any of our members wish to investigate the matter further, I refer him to McVaugh's article in the magazine "Bartonia" for 1944-45, No. 23.

For many years there has been a mild controversy whether *C. dasyantha* is a variety of pilosa, or is entitled to specific rank. Possibly the outstanding living authority on Arctic plants is Eric Hulten, who contends that dasyantha is distinct from pilosa. In his "Flora of Kamchatka" Vol. IV, he says that dasyantha is found in certain parts of Japan and in the Kamchatka Peninsula, and in some parts of the Aleutian Islands.

READERS' PROBLEMS

It was with something of a shock that we received a communication from R. W. Pitchford of Windsor, Ontario, Canada, asking if we could tell him why his *Phlox adsurgens* did not bloom. Climatically (We hope that word will save us from being called before a Senate Committee of Investigation) Windsor is a suburb of Detroit, and is part of our horticultural East. Is it possible that the aloof perverseness of this wonderful species has begun to break?

Local inquiries brought forward no rock gardener who would confess to even the slightest success with this westerner. How then could Mr. Pitchford expect his plant to grow at all, let alone flower. Three alternatives suggested themselves. The plant might not be true to name. Mr. Pitchford might have hit upon some special treatment which nobody else in the East had tried. This individual plant might be a break — the one in a thousand with a constitution capable of adapting itself to our extremes of heat and cold.

With trepidation we wrote to Mr. Pitchford turning the tables on him, asking him to tell us what we ought to know about his plant of *Phlox adsurgens*. His reply, in part — "I got a small pot-grown plant of *P. adsurgens* from a nursery in Victoria, B. C. I am quite certain it is the true species, as it conforms to descriptions of the plant found in most good books on alpines. Small oval shining leaves, trailing stems tending to root down in the surrounding soil. It flowered with me the first year, large brilliant salmon-rose flowers — a real gem. In its native range, which is Oregon, it lives in the alpine meadows amongst conifers which tend to mulch the ground around ti. It therefore has abundant spring moisture, and quite dry conditions in the summer, but nothing like the intense heat waves we experience in the East. Possibly that may be my trouble here in the Detroit area. Our winters are erratic, sometimes with zero temperatures. Indeed, we had — 7 this past winter.

"I give the plant a mulch of straw. It is deciduous and breaks into leaf very rapidly just as soon as spring weather arrives. I believe — in fact I am sure it will succeed in half shade, avoiding the midday heat, in leaf mold, peat and sand, always on the damp side. In fact, I would grow it in the same position one would handle the Asiatic Primulas. I am endeavoring to secure a stock of this plant by green cuttings or layers in early summer.

"Do you manage to flower *Gentiana acaulis*? I have had several flowers on *G. angustifolia* and several allied species of the above, a beautiful alpine. I have it growing in a moraine. Of course it does not flower as freely as in England, and it is a plant which has puzzled the alpine growers for years. I am trying some Asiatic gentians this year. *G. Macauleyi*, a hybrid of *G. Farreri*, a gorgeous plant with turquoise-blue trumpets, grown in half shade with abundant moisture, peaty leaf mold with a little sand.

"I should be glad to hear from you further about *G. acaulis* if you grow it, and the analysis of the soil if it flowers with you. I do think that in this polluted air of a great industrial city it dispels the idea that gentians must have pure alpine air.

"I hope this news on *Phlox adsurgens* is helpful. I was associated with the Royal Horticultural shows in London, England for many years, and am continually experimenting in this part of the new world on alpines rare and difficult to grow."

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Can anyone give Mr. Pitchford the information he asks for, or must we be content to thank him for the instruction he has given us?

Mr. and Mrs. G. P. Hackenbruch of Duvall, Washington write, "Conventional mulching practices proved ineffectual here this winter in our efforts to prevent frost-heaving, especially with some of our smaller rock plants. The worst damage of course occurred when we had strong frosts with little or no snow covering the ground. Naturally we are extremely interested in this subject, and we wonder if it might not be of importance to others also, enough so to warrant your inviting comment or discussion, or contributed articles from the membership."

We hereby invite any and all forms of information on the mulching of small plants, a delicate problem somewhat different from that of mulching in general. The mulch is very much in horticultural news these days, with a bewildering variety of materials offered for the purpose. Sometimes we almost think the protagonists must have waste products to sell. Sawdust is admitted by even its best friends to be bad, yet is used in enormous quantities, probably because it is better than no mulch at all. For ericaceous plants pine needles probably top the list in usefulness, with spruce or fir needles for the smallest subjects. But what about limestone plants ⁽¹⁾ Are limestone chips our best answer?

THE SEED EXCHANGE

Miss Madeleine Harding, the new director, found herself snowed under last January, with seeds from 62 donors, some from 6 different foreign countries. Later 88 persons requested seeds, some from 8 countries outside the United States. All of 566 packets were distributed. No such volume of trading was contemplated years ago when the exchange was organized, and in consequence, the machinery creaked badly. There being no deadline for the receipt of seeds, about 100 lots arrived after the list had been published. These are still in Miss Harding's hands, and she is not a little puzzled what to do with them. Even at that, the list was held up so long that many did not receive their seeds in reasonable time for sowing.

To better serve the membership, Miss Harding intends to make drastic changes in the operation of the Exchange for 1952. Though no final decision has been reached, it is certain that a deadline must be established, probably December first 1951, after which no more seeds can be credited or included in the list. Then the list can be put in the hands of the members somewhere about the first of the year.

This change should work no hardship. Nearly all seeds ripen and can be harvested before November. Now is the time to begin thinking about your contributions of seed. What are the most desirable rock plants of your own region which members living elsewhere might like to try? And remember our foreign contributors. They will want the seeds we can easily collect. And have you rarities from other lands which seed well with you? Less fortunate members may be eager for those seeds.

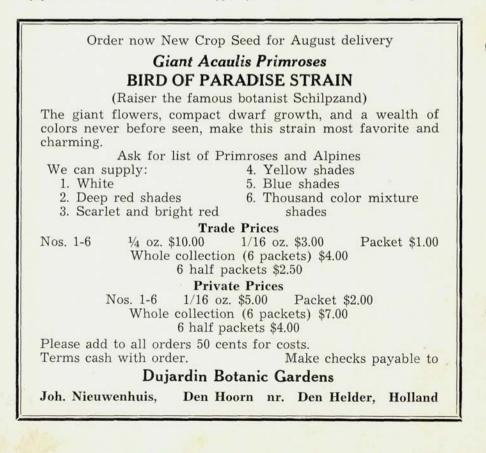
List the plants as you see them in flower, making a note not to remove the seed heads until ripe. A few labels for the finest may be in order, for who, while tidying up has not absentmindedly thrown away the seeds of some special treasure, only to regret the accident too late?

Then, seeds must be watched. Nature has worked out methods of seed dispersal much quicker than ours. Geraniums and Erodiums shoot theirs from little spring-mounted slings. Asters and other composites launch theirs on the wind, each with a parachute. The berries of many species are gobbled up by birds and mice, or dragged away by indefatigable ants. Every plant must be watched and studied to determine just when the seeds are ready, neither too soon, when they are unripe, nor too late when they are gone. Truly seed-gathering is an art.

Orderly as well as timely collection befits the experienced gardener. Seeds crammed in a pocket unlabeled are already half lost. The best way to gather is to carry a large tin box with a lid, (Those mice are peeking out at you from any crevice) and containing a good supply of coin envelopes, with little squares of waxed paper for the dust-like seeds of orchids and dwarf Rhododendrons. If you don't know how to fold those sheets, study the different methods employed by others from the seeds you receive. And be sure to include a pencil for jotting down the full varietal name of each batch collected.

Most seeds should be kept dry and cool after gathering. The least dampness may cause them to mold and be ruined. Berries however should be kept away from other types, and not too dry. Unless very juicy, they need not be cleaned immediately of pulp, but if they do require cleaning, all pulp should be washed away, macerating and fermenting for a day or so if necessary, in a bowl of water. After that they will hold up best if kept in the refrigerator slightly damp.

Threshing of dry capsules can be put off until some rainy day when you have little else to do. Such things as columbine will open up in the envelope, virtually threshing themselves. All you need do is lift out the empty capsules and fan away any pieces of chaff that remain. Poppies you can collect as clean seed, pouring it

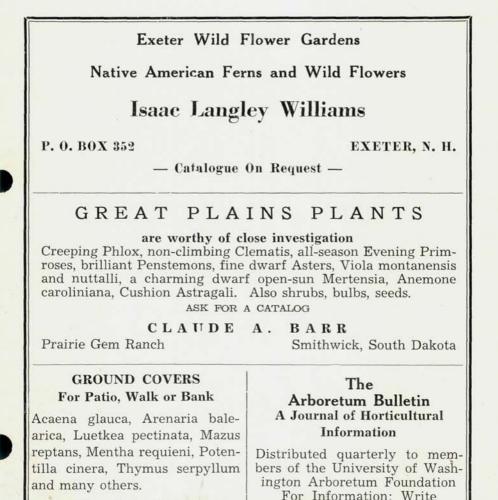


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out of the little shakers and throwing away the pods immediately. But many seeds stick stubbornly in their capsules, which, after they have dried, must be crushed between the fingers, or even with pliers, then the whole mass sifted through a piece of window screen, or you can lay out the fragments on sheets of paper or board, gradually shaking or pushing the seeds into one pile, the chaff into another, experience leading eventually to expertness.

Some seeds, such as Anemone Pulsatilla, may cling to their parachutes, requiring to be sent out unthreshed. Berries usually need boxes rather than envelopes for storage and shipping. Eeach case must be treated as judgment dictates.

Remember the wholesome ethical lesson of the exchange. In the long run we don't get unless we give.



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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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