

BULLETIN

of the

AMERICAN ROCK GARDEN SOCIETY

including

SAXIFLORA

Vol. 5

July-August, 1947

No. 4

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DWARF WESTERN ASTERS

CLAUDE A. BARR, Smithwick, S. D.

IN THE COURSE of my horticultural enlightenment someone dropped the advice that all the world loves a daisy. How wise the world is, I reflected, and drew warm comfort from the assurance of so much good company. Though greater worldly wisdom now has taught me that the dictum bears to some as little conviction as that other generalization, that gentlemen prefer blondes, at the time I accepted it at face value and—be it further confessed—neither sophistication nor social pressure has jarred me from that original and self-discovered love of flowers on the daisy pattern.

An orb of gold with an aura of radiant white rays grew somewhere in a wild field of a very early day in my history and at first sight that form impressed itself upon my heart. Common? It seems I have never seen too many of them. Outmoded? Nature replies, emphatically, no. Machine made? Well, hardly, for if one would be critical a hand wrought individuality may be noted in every repetition.

Let us grant it well that all the world of flowers is not made up on the Composite pattern; then, consider in detail some western Asters. Color, stature, habit and blooming season qualify a number of them for the discriminating attention of the rock gardener.

A dwarf of the dwarves is *Aster scopulorum* (synonym, *Ionactis alpina*), of the mountains of Montana and Wyoming and west to Nevada and Oregon. A tiny bushlet, single-stemmed at the ground, with many diminutive branches from the base that strive to produce at about the same level, between four and eight inches, flower heads an inch or more wide of vivid violet-purple with small golden center. Crowded little leaves are dark green and the plant inconspicuous after the June blossom time, but it repeats its lovely show year after year and does not become aged too soon. My plants are now about six years old and show no signs of failure.

Aster ptarmicoides (syn. *Unamia alba*) comes into flower in July and its rays of fine white radiating from creamy white disks may still be in evidence in September. Individual blossom heads last for a month. The plant requires some space to itself for good performance, and much shade and a moderate diet seem to be effective in restricting its upward tendency to ten inches. In a stimulating setting it easily goes to sixteen inches, with no improvement in the blossom crop. In this Aster also the heads tend to be borne at a level, in broad corymbs. One to eight stems rise from a basal tuft of light green, linear to lanceolate, somewhat ribbed leaves. Large crowns may be divided. Seedlings are very easy. In the wild the plant is found from Colorado and Saskatchewan eastward.

Provided with a mechanism for spreading, but not unduly, *Aster meritus*, five to ten inches high, (or, according to report, to sixteen in some of its phases) is at its loveliest when, grown to a two or three feet wide pillow, it spreads its uninterrupted coverlet of gold-accented pinkish violet. This it puts on sometimes in late June but mainly in July. At other times the very broad, somewhat toothed leaves of rich dark green are not unattractive and the reddish brown pappus tufts of the seed heads and the later, paler "flowerets" of dry, spread-out bracts carry pleasant notes to the end of the season. Moderate richness, plenty of light, though some shade is appreciated, and freedom from competition are needed for the best response. The native range of this species is from South Dakota to British Columbia and northern Alberta.



BY CLAUDE A. BARR

Aster meritus spreads its coverlet of gold-accented pinkish violet.

Aster kumleini rarely shows bloom until September. So wonderful are its gold and blue, with a purple tinge of course, that the daisy pattern is, according to viewpoint, a matter of irrelevance or a positive asset. Certainly the flower of *A. kumleini* brings joy whether as a solitary gem far out amid the prairie grasses or starring a rocky slope or other favored spot, or in dense sheets under cultivation. The heads with a nice balance of ray and disk are from an inch to a rare inch and a half, flat or faintly up-tipped at the margin and light-reflecting. The leaves are small, elongate-oblong, stiff and rough with short stiff hairs, not unattractive though obviously of dry climate type. Stems are slender and stiff and capable when growing in too much shade of stretching up to twice the ten inches of the most select forms. Though the plant spreads by short stolons a number of years are spent in attaining a yard-wide clump. Ray color sometimes varies to pretty shades of clear rose pink, light blue, etc.

Aster kumleini has sometimes been called *A. oblongifolius rigidulus* and the question comes, what is the typical *A. oblongifolius* like? I have in my garden a plant from eastern Kansas and another from Texas that have been identified for me as *A. oblongifolius*, and more recently have had the selec-

tion known as Campbell's Pink. These plants are more leafy, the leaves slightly larger and deeper green, stems come more thickly from the crown, are more erect and less branched. They often reach to fourteen or eighteen inches in full sun. Their effect is rather plain, to my eye. Blooming time is about the same, with the exception that the Texas visitor, a blue-purple, holds to a schedule of its own, opening regularly a full month later than the others. In a late fall it has come into bloom in November, by which time the cautious northern Great Plains plants are all fully set for winter. Rydberg defines the native range of *A. oblongifolius* as of prairies, from Pennsylvania to Minnesota, to Tennessee and Texas, while *A. kumleini* is of the plains states and eastward to Missouri and Wisconsin.

A distinct and delightful species of the central and southern Plains is *Aster fendleri*, which sometimes flowers at four inches in the hard, stony situations it frequents, and at its greatest hardly exceeds twelve. The stems are apt to be quite erect but in young or newly divided plants they branch freely. There is ample leafage, reminiscent of that of *A. multiflorus* and *A. ericoides*, the leaves mostly about an inch long, stiff, sharp-tipped and with a sparse fringe of tiny bristles. Much of the individuality of the plant's effect derives from the blossom heads, smallish golden centers and rays of medium blue-lavender, bright and pleasing. The uniquely modeled rays, tapering from midway to a sharp tip, and widely spread are daintily cupped. *A. fendleri* is free blooming, early September or later, though it does not mass its color as do some others. It has no travelling rootstocks and the dense crowns it makes when not restrained by rocky footing indicate frequent dividing.

Aster batesi (sometimes called, though I believe erroneously, *A. ericoides batesi*) is well behaved. In eight or ten years my plants have widened their crowns less than an inch a year. Hardly distinguishable from *A. ericoides* out of flower, with more or less the same habit and small linear leaves, the ray flowers of the tiny crowded heads have color. Sky blue, blue-lavender, pale lavender or, let us admit, more frequently than all a slaty mauve, surely as deadly and distasteful as any flower color can be. If all lavender or mauve flowered plants of this general type belong to *A. batesi*—texts and authorities are as wary as possible of committing themselves—I have seen some charming pillows of blossom at eight inches; while my garden plants, from southern Nebraska, make no pillows at all but send up divergent rods of bloom to eighteen or twenty inches, if not sheared.

With so much variation in color and habit any representative of the species is worthy of scrutiny. I have admitted it to this list because in northern Kansas, the past September, in a road ditch, with roots half exposed, I chanced upon a ten or eleven inch cluster of blossoms of a thrilling light blue. During the remaining autumn days two or three divisions of this prized find seemed to dwell safely in my garden, and may the promise thrive and multiply.

The choice of white Asters of good character and stature would seem to be *Aster porteri*, which I have not seen. It is pictured and described by Ashton, Plants of the Rocky Mountain National Park, and by Pesman, Meet the Natives. The descriptives free flowering, fine and delicate are applied. Pictures show an open paniculate habit and flowers of fine form, and there appears no indication of spreading rootstocks. Ashton gives the height at six to ten inches, Pesman agrees that it is low, and Rydberg's technical description defines its stature as eight to sixteen inches. It grows on sunny open slopes in Colorado, from plains levels to 10,000 feet, and blooms variously from July to October.

Reported also as of the mountains from Colorado to Alaska and in Eurasia as well is *Aster alpinus*, with more or less solitary broad heads of violet and gold, ten inches tall. *Aster apricus* is an alpine dwarf of the Rockies and Cascades with usually solitary heads of "brilliant rose-purple or violet," and *Aster griseolus*, Coloradoan of the heights, four to six inches tall, has broad heads of purple, as many as four in a corymb.

Other names of asters with intriguing descriptions, include *A. adscendens*, *A. armeriaefolius*, *A. canbyi*, *A. cordalenus* and *A. ericoides prostratus*, *A. fremonti*, *A. integrifolius*, *A. richardsoni*, (related to *A. meritus*) and *A. underwoodi*. And what of an Aster, a Coloradoan, of rock garden dimension, that is "really red"? Such an Aster is known to be in existence, so there is treasure to be prospected for among the western Asters.

POTENTILLA FRUTICOSA VAR. MANDSCHURICA

CLARA W. REGAN, Butte, Montana

SHRUB CINQUEFOIL, *Potentilla fruticosa*, has a wide distribution in the North Temperate zone. Its yellow flowers and green hairy leaves are well known to many of us in northern and upland North America. But the finest development of the plant comes from central and northern Asia, where variation has produced a series showing gradations of color ranging from white to cream, pale yellow and golden yellow. A number of the variants have been brought into cultivation under the names of vars. *dahurica*, *farreri*, *mandschurica*, *veitchii*, *vilmoriana*, and perhaps more.

The variety whose name heads this note is the only one with which I have had any success. It is a hoary, hard-bitten little shrub, and, as I write this in mid-March, grey and ancient-looking and thoroughly dejected, with peeling bark and the remnants of last year's flowers still clinging to the branches. It looks utterly dead.

Given a month's time, leaf-buds will swell along the branches and small three-parted leaves, almost white with a silky pubescence, will make their appearance. Another month and every branch will be loaded with tiny single white roses, three-fourths of an inch across; quite amazing in overall quantity. The plant then resembles a silvery globe spangled with flowers of dazzling white. Although, naturally, the first brilliant burst of bloom is the most beautiful, the display keeps up into September.

The variety is said to be semi-prostrate, and so it was for me for several years; but now it chooses to stand erect, and is a rounded bush about 18x18 inches. It is one of the most imperturbable, certainly, in my rock garden. It is not annoyed by anything, standing 40 degrees below zero without protection, never losing so much as a branchlet.

Lest I have painted too glowingly the good qualities of this admirable shrub, and aroused too much enthusiasm in rock gardening breasts, I hasten to add that it will never be common in gardens. Like the famous old English recipe for jugged hare that begins "First catch your hare," first get your *Potentilla*. Then, after getting it—and I cannot at this time tell anyone where it is to be had—it is very hard to establish. Mine was helped by a persistent spell of rainy weather. Otherwise covering with a glass jar until the roots take hold seems to be the only solution.

My plant grows in full sun, in a hot and well-drained position, in ordinary rock garden soil with limestone chips added. The limestone was an afterthought, after several years, and perhaps that is the reason it forsook its decumbent habits. The calcium may have stiffened its frame, just as it is said to do for humans. Perhaps it might be a good idea to do as much for *Potentilla fruticosa typica*, which is undeniably floppy in my garden.

A TUB POOL FOR THE ROCK GARDEN

ALMOST EVERY gardener longs for some small patch of water in the rock garden, both for its own beauty and to add realism to the water-loving plants which grow naturally along the lakes and streams. Lacking a carefully made concrete pool, a sunken tub can be very effective. We bought a large tierce, and sawed off the upper half, leaving a tub about 18 inches deep and four feet across. ("We" means, of course, that my husband did the actual work, while I did the heavy looking-on.) We sunk this in the ground at the foot of a slope in the rock garden, then built a rock wall to approximately the height of the slope, filling in everywhere with a scree mixture. A few other rocks were strategically placed to simulate an outcropping ledge, making an ideal location for choice alpinines. A path led down to a small paved section at the front of the pool, planted with low things such as Violets and Bluets. Where the slope falls at the other side of the pool, very few rocks were used, and a richer soil, with ferns, Polemonium, Columbine and Asters making a colorful display for much of the season.



BY MRS. EDWARD M. BABB

The tub pool has its edges camouflaged.

A hedge of Baptisia separates the whole pool planting from the lawn. The Dwarf Waterlily, *Castalia odorata minor*, was planted in a box of rich soil in the pool, and proved perfect for the situation. Its snowy golden-hearted blossoms are four-inch miniatures of the wild Waterlily of the ponds. The sweet-scented blooms open for several days—if sunny—from mid-morning till mid-afternoon, through July and sometimes later. This Dwarf Waterlily is perfectly hardy, having been left in the pool for several years now with no special care. We put a layer of sand in the bottom of the tub, and the green plants for goldfish have rooted well there. I plan to add a clump of Arrow-head, confined in a can to prevent its spreading. The picture of the rock wall, taken in June, shows Heuchera, Yellow Stargrass, Bluets, late *Phlox subulata*, Forget-me-nots, Bluebells, *Iris setosa canadensis*, Polemonium, *Potentilla villosa*, and *Aquilegia rubicunda*.—MRS. EDWARD M. BABB, Portland, Maine.

IN QUEST OF THE FAIRY SLIPPER

FRANCES KINNE ROBERSON, Seattle, Wash.

MY FIRST sight of the Fairy Slipper or *Calypso bulbosa* came as a surprise when I wandered down to the creek near our winter camp site on the snowy slopes of Mt. Rainier. Bare patches of ground were beginning to show under the fir trees and, in one of these, a solitary elfin plant grew with its one rounded basal leaf almost flat against the fir needles. The lone flower on an erect four-inch stem was of clear pink spotted with purple and white. Later I learned to appreciate the fragrance held captive in this wee slipper so that I understood why it should bear the name of the Greek goddess who was able to capture a valuable prize,—in her case, Ulysses.

Calypso bulbosa has been known variously as *Cypripedium bulbosum*, *Cytherea borealis*, *Cytherea bulbosa*, *Calypso borealis* and *Calypso occidentalis*; it must once have been quite plentiful, judging from the records of the early botanists. Now it is in danger of complete extermination for several reasons: the deforestation of large areas has destroyed it as well as its congenial habitat; unscrupulous collectors have denuded some areas of all plants so that none are left to produce seed; plants brought into cultivation have perished because of unsuitable growing conditions, or because they fell prey to birds or mice; and, prior to the war, increased travel facilities brought hikers and campers into the hinterlands where they often picked the flowers in great quantity thus decreasing the possibility of seed setting, and also disturbing many of the roots, so that they died.

This same Calypso was responsible for a collecting trip a year or two after my first acquaintance with it. My husband and I started out one rainy Sunday driving south from Seattle, Washington, through Tacoma and across the government reservation on the Nisqually Plains where we drove off the main road to eat our lunch. The grassy expanse where we stopped showed never a bud or blossom although we knew that it would be wrapped in a Joseph's coat of flowers a month later. In other years we have visited there in April and on through June to find a quick succession of flowers beginning with the blue *Viola howellii*, the yellow *Ranunculus orthorhynchus*, the white flowers of wild strawberries, and, near the clumps of oak trees (*Quercus garryana*) or under the symmetrical young firs, the lavender flowers of *Synthyris rotundifolia* barely topping the low tufts of crenate leaves from which they spring. These are followed by the mottled brown and yellow bells of *Fritillaria lanceolata*, the more fragile blue bells of *Campanula rotundifolia*, the saucy Shooting Stars of *Dodecatheon latifolium*, and the blue or white flowers of *Camassia leitchlinii* whose bulbs the Indians used to roast for food.

But there were no flowers that day, so we continued our search for the Fairy Slipper. The sun came out as we rode on to the beginning of the Douglas fir forest where we left our car and began browsing on foot. As we penetrated the seemingly primeval forest a Tule wren burst forth in exuberant trills of welcome and a russet-backed thrush whistled enquiringly. The huge pillars of the Douglas firs appeared even more massive when close to the slender, graceful boles of the vine maples drowsing in the sunny spots and not yet ready to celebrate the coming of spring.

Logging-off had been in progress in this area, defacing the earth's mantle considerably but the Salal, Oregon grape and other natives were attempting to repair the damage as best they could. Myriads of *Trillium petiolatum* looked up at us from the forest floor and we wondered not at all that many children call these pure white chalices "Easter Lilies." But

nowhere did we see *Calypso* until a group of children came by, each clutching a tiny bouquet of the prized flowers, which they called Ladyslippers. The oldest child showed us where to find the flowers growing and then he and his charges rushed off home with the coins with which we rewarded them. A canvass of the immediate vicinity showed us literally hundreds of plants in bloom and, from one spot where a bulldozer was waiting to uproot all plant life, we rescued a few which lived for several years in our garden.

Yes, it is possible to grow *Calypso bulbosa* in cultivation. First, the soil should be imported with the plants, if possible, or else the soil supplied should approximate that from which the plants were taken. Decaying fir needles have proven satisfactory in our garden. Next, protection against underground and surface marauders is necessary. A rectangular wooden frame with half-inch mesh hardware cloth on the bottom and a cover of the same material can be camouflaged so that it is not obtrusive. In our most successful planting we were fortunate enough to have a rubbly deposit near the *Calypso* bed so that the moles and mice found it difficult to make underground runs, and overhead the low branches of a pine tree swept close to the ground so that quail and pheasants were not apt to peck at the flowers and bulbs.

I do not know of anyone who has grown *Calypso bulbosa* from seed but it would be an interesting long time project. I presume any protective screen such as has been mentioned in the preceding paragraph, would interfere with pollination by insects making it necessary to hand-pollinate in order to secure seed. Each flower can produce lots of fine seed so that proper handling should result in quantity production.

The so-called bulb is rather an inflated sac growing close enough to the surface to get plenty of air. The current year's flower depletes the food stored in one sac while the leaf is manufacturing food to fill a new sac. Sometimes there is present a third sac, a shrivelled one from the preceding year. Both leaf and flower wither and die before summer but the autumn rains encourage a new leaf to appear and so the life cycle continues.

All conservation groups urge protection for this elfin member of the orchid family and it would be a real advance if someone could undertake the propagation of *Calypso* from seed.

As Mrs. Roberson's interesting account of *Calypso* did not quite fill out the page, a few lines of comment are here added. There are really three forms of this orchid, the European (to which the name was originally applied), the east American and the west-American. They differ in minor details of shape and coloring of the flower parts, but no agreement has been reached as to their nomenclatorial distinction, and customarily they are merely lumped together as one undivided species.

In the Album of Orchids of Europe, Henri Correvon states that it grows in sunny sphagnum bogs in northern Europe, but that even when planted in similar habitats in his experimental wild gardens at high altitudes in Switzerland it has never really thrived. The eastern American form, which has disappeared from most of its former localities with the cutting of the forests, has likewise never been successfully cultivated. Unlike the European, it is a plant of shady woodlands, growing in damp subacid humus-rich soil relatively free from fungi, the growing season being short and the soil temperature never rising much above 60°. The western American form is also a woodland dweller, being usually found in well rotted conifer needles; it can sometimes be grown.—E.T.W.



Daboecia cantabrica

Originally published as Plate 1 on December 31, 1938.

DABOECIA CANTABRICA

Irish Heath

THERE IS no question as to the desirability of heaths in the rock garden, especially the larger garden, in which an area may be given over entirely to these highly ornamental plants. Even in smaller ones, however, the Irish heath is much to be desired; its individual flowers are the largest of the hardy heaths, and its long flowering season, from June until frost, makes it of especial value. Furthermore, its attractive low growth and neat evergreen foliage are much in its favor. Many specialists consider it the most choice and beautiful of the heather-like shrubs, and indeed its slender flower spires, hung with white or rosy purple bells, make a lasting impression upon one seeing them for the first time, and the impression becomes more lasting with familiarity.

While the typical form has rosy purple flowers, there are several equally attractive varieties. Probably the finest form is the variety *alba*, with more upright growth, somewhat darker foliage, and large and more freely produced pure white flowers. The variety *atropurpurea* has more darkly colored flowers, the variety *rosea*, pink flowers, and the variety *bicolor*, or *versicolor* as it is sometimes called, has purple, white, and pink and white striped flowers all on the same plant. There is also a dwarf variety, *nana*, with smaller and more narrow leaves.

The plant is native in County Mayo and the Connemara district of Ireland, Southwestern France, Northern Spain and the Azores, a seemingly strange distribution, but one shared by a number of other plants, and the source of much theoretical discussion.

It is not an especially difficult plant to grow, requiring the same lime-free soil preferred by the majority of ericaceous plants and, as with the heaths and heathers, benefitting by a good mulch of well-rotted peat. In the northern parts of this country it requires a somewhat sheltered location, as it is not of such iron-clad hardiness as its cousins, the true heaths, and the heather. Propagation is readily effected by cuttings of well-ripened wood taken preferably during the period from November to January. An equal mixture of fine leafmold and sand is the best medium, and the cuttings should be made quite firm. The soil must never be allowed to become dry during the rooting process. Propagation by seed, which is usually freely formed, is equally easy, the treatment being the same as for any ericaceous plant.

The Irish heath is a low shrub with glandular-hairy branchlets, occasionally reaching two feet in height, the growth spreading or upright according to variety. The leaves are alternate, evergreen, ovate or elliptic, with an abruptly pointed tip and revolute margins, dark green and shining above, white-woolly beneath, one-fourth to one-half inch long. The inflorescence is a slender raceme six to seven inches long (up to twelve inches in var. *alba*) and glandular-hairy. The bell-shaped, nodding flowers are one-third to one-half inch long, rosy purple, purple, pink, white, or pink and white striped, the calyx small, four-parted. The eight stamens are concealed within the flower. The capsule is four-valved with many small, roundish rough-surfaced seeds.—E. J. ALEXANDER.

Vaccinium cantabricum Hudson, Fl. Angl. ed. 1. 143. 1762.

Menziesia polifolia Jussieu, Ann. Mus. Par. 1: 55. 1802.

Daboecia polifolia D. Don, Edinb. N. Phil. Jour. 17: 160. 1834.

Daboecia cantabrica K. Koch, Dendrol. 2: 132. 1872.

ROCK GARDENING WITHOUT ROCKS

KATHRYN E. BOYDSTON, Niles, Michigan

IN THESE DAYS of housing difficulties there may be many beginning rock gardeners who find themselves in a situation similar to mine at the time of the depression—with a growing interest in gardening but with a rented and temporary roof over our heads. It would have been foolish to plant the expensive roses, shrubs, and vines which would logically come first in planting a garden, yet I was quite unwilling to suspend all plant experiments through the years which stretched vaguely ahead to the time of a permanent location.

So, closely following instructions of Louise Beebe Wilder, I set up a tiny nursery consisting of a very small cold frame and three board-edged beds. With small expenditure of money for seeds and plants I learned a good deal about care of seedlings and propagation of plants, and when we left this home I had many plants for my friends and for myself many hours of experience which would save time in my next garden.

In fact, this plan had proved so sound and so pleasant, as soon as we came to Fernwood some eight years later, I lost no time in starting another "nursery" this time, of larger proportions but still compact enough so that it would not become a burden. The beds are laid out in geometrical pattern with grass paths between wide enough to admit a garden cart, wheelbarrow, and lawn mower. Three of the beds across the far side are six feet wide to hold lilac suckers, young evergreens or other shrubs, but all others are only three feet wide, twelve being just beds with varying types of soil, twelve being edged with 1 x 6" boards nailed firmly to 2 x 4" stakes driven into the ground at the corners. Lath shades (with the lath placed their own width apart and nailed to 1 x 2"s) are made to fit these beds, as well as the cold frame which is made with five small windows hinged and fitted to hook open to a simple rail behind them. The narrow beds and small windows would bring a smile to commercial growers, but for a woman they mean easy reaching and light lifting!

The cold frame is always crowded with ever-changing boxes of seeds, seedlings, cuttings, or young plants needing special protection. In some of the beds there are baby evergreens, boxwood from cuttings and perennials for trial or increase before placement in borders, but it is the board-edged beds of bewitching small jewels which are an unailing source of pleasure from the time of first bloom in spring until the time of lightly covering them with straw or pine branches for their winter rest. Truth to tell, the whole of my rock gardening experience is still confined to these nursery beds!

Though sites have been selected at Fernwood for a rock wall, numerous paths, steps and terraces as well as two rock garden settings, it has not yet been possible to have the time nor the stone necessary for their construction. Though it may seem a long time to wait, I consider the time well spent. For me this method of rock garden beginning has proved so acceptable, I heartily recommend it to others.

When a wall or other planting is under way how much easier and more successful it will be to choose my own time and weather for the job and to plant as I build—with small plants close by and in good health, suffering no shock from a recent long journey.

A much larger number of plants will be on hand to choose from, as I usually purchase only one of a kind and while it waits in the beds for a permanent home it can with no further expense be increased to several or many by divisions, layering or cuttings.

It would have been quite impossible during the war years to care for this many plants if they had been scattered in various places. Except for the times of division and transplanting, a very few hours a week are sufficient to care for the weeding, watering and top-dressing necessary for the several hundred plants in this concentrated area.

The needs and idiosyncracies of individual plants can be so much better studied and met during this get-acquainted period in the nursery. Losses are fewer as new soils and situations can easily be tried before a dissatisfied guest becomes a real casualty. In spite of glowing description an occasional rampant evil-doer is found out in time to save many a fragile life in a later planting.

Some of the plants are in light sandy soil, others in a lean gravelly soil of sharp drainage, others in nearly pure leaf mold. Some are in sun, some in shade. There is an acid soil section in sun and one in shade for plants requiring them. Some have a top dressing of limestone chips, others of gravel and others of peat moss. The more difficult rock ferns and Saxifrages are planted between pieces of flagstone or granite rock so that they may feel at home even while in the nursery beds.

The beds are numbered so that as each plant arrives it not only has a small marker put in front of it with its name, date of planting and nursery source, but for double-check its position in the numbered bed is noted in a garden note book.

Obviously the facts gradually being learned could not have covered half as many plants in the same amount of time if they had been planted in outlying places on arrival. Though I have had catalogue acquaintance with many of these plants for several years, the majority of them I had not seen until exciting boxes from east and west brought them to my nursery beds. In the four seasons since 1942, I feel I have come to quite friendly terms with 8 different Arabis, 9 Androsaces, 20 Campanulas, 10 Drabas, 9 dwarf Narcissus, 20 Phloxes, 11 Saxifrages, 17 Thymes, 24 Veronicas, 50 Violets, and 22 rock ferns. Though at this writing they are all covered with deep snow, my index cards tell me that besides those mentioned above, there are 179 others from *Arctostaphylos* to *Vancouveria*. A distracting and fascinating hobby, rock plants! Though I do often dream of them making spreads of color or fine green in a later setting of mossy rocks, cool stream-side or sunny slopes, I doubt I can take more pleasure from them then, than I have while they have been gathered so compactly together in my nursery beds.

THE EASTERN GLOBE-FLOWER

ABOUT THE European Globe-flower, *Trollius europaeus*, there is something stiff and formal, not quite in sympathy with the general run of rock garden plants, though in its native home it does inhabit moist alpine meadows. Its American cousin, *Trollius laxus*, is a more charming wilding, a rare denizen of shady swamps in the eastern part of the country. There in the rich moist soil it may reach a height of eighteen inches, holding its two-inch greenish yellow cups above the early sedges. When grown in the drier sites of the rock garden it flowers more profusely and its stems are laxly graceful above the dark green buttercup foliage.



BY H. LINCOLN FOSTER

Eastern Globe-flower, *Trollius laxus*, holds its two-inch greenish yellow cups well above the foliage.

This Globe-flower does not insist on swampy soil, but it does want some shade for sure success, such as the shade cast by a large rock, which will also keep its roots cool. The spring season of its flowering and its soil and shade requirements make it a happy companion for *Mertensias*, especially the lovely spraddling *Mertensia lanceolata*.

Trollius laxus comes easily from seed sowed as soon as ripe, or fall-sowed for spring germination, flowering the second season. Older plants may be divided after blooming, but they must be well-watered until established.—H. LINCOLN FOSTER, Norfolk, Conn.

EDITORIAL NOTE.—The Editors of Standardized Plant Names, of Biological Abstracts, and of the Bulletin of the American Rock Garden Society, have held that species epithets should be uniformly decapitalized. It is interesting to note that a British editor has come to the same view: In the Kew Bulletin, 1946, No. 2, p. 49, we read that: "Beginning with the first part of the 1947 volume, all specific epithets will be printed with a small initial letter in the Kew Bulletin. This decision has been reached in order to ensure uniformity, and to avoid the unwarrantable expenditure of time on research when the use of capitals is in doubt."—E.T.W.

SUMMER BLOOMING ROCK PLANTS

WHEN THE PAGES of the early numbers of the Bulletin were being scanned to compile the list of June blooming plants published in volume 5, No. 3, it was noted that a number of species to be counted on for mid-summer display had also been discussed. Some of the species included in the previous list continue to bloom more or less through the summer, thus overlapping the period of the 30 comprised in the following one.

Aconitum uncinatum, Summer Aconite (vol. 3, p. 29). Stems reclining; for the shady rock garden.

Allium oxyphilum, Shale Wild-onion (1: 5). Flowers white.

Asclepias tuberosa, Butterfly-weed (1: 7). Ranging in hue from pale yellow to deep orange-red.

Calluna vulgaris, hort. vars., Scotch Heather (3: 38).

Chrysopsis villosa, Hairy Golden-aster (2: 44; 5: 6). One of the best of the yellow daisies of rock garden stature.

Coronilla cappadocica, Spanish Crown-vetch (3: 43). Bright yellow pea flowers in globular clusters.

Crassina grandiflora, Rocky Mountain Zinnia (2: 44). Golden-rayed.

Cyclamen europaeum, European Cyclamen (3: 94). Sweet-scented.

Epilobium latifolium, Low Willow-weed (4: 90).

Epilobium obcordatum, Rosy Willow-weed (2: 12). For a spot where magenta hues will not clash.

Erica cinerea atrorubens, Ruby Twisted Heath (1: 115). A r. g. gem.

Erica vagans St. Keverne, Cornish Heath (hort. var.) (3: 6).

Gentiana asclepiadea, Milkweed Gentian (3: 69). The albino form is especially fine.

Gentiana romanzovi, Summit Gentian (2: 38). Will evidently have to be kept cool to grow at low altitudes.

Gentiana septemfida, Seven-lobed Gentian (5: 32). Highly recommended.

Geum (*Sieversia*) *peckii*, White Mountain Geum (5: 12). Reputed to be easy to grow, at least in New England rock gardens.

Hypericum moserianum, Hybrid St. Johns-wort (3: 52). A low shrub with huge golden flowers.

Lilium (2: 84 to 87). Five sorts of rock garden stature are:

L. catesbaei, esp. var. *longii*, Virginia Pineland Lily. Moist peat.

L. davidi, esp. var. *willmottiae*, Szechwan Lily.

L. elegans, hort. vars. Thunberg's Lily.

L. michauxi, Carolina Lily. Deliciously fragrant.

Origanum vulgare, Wild-marjoram (2: 20). An aromatic herb.

Paronychia argyrocoma, Allegheny Nailwort (1: 3). The silvery stipules surpass the flowers in effect.

Platycodon grandiflorum, Balloon-flower (3: 29). The weight of the flowers causes the stem to recline and so fit the rock garden.

Satureja montana, Winter-savory (2: 19). A fragrant herb.

Solidago cutleri, White Mountain Goldenrod (5: 12). One of the few members of the genus of rock garden stature.

Teucrium chamaedrys, Shrub Germander (3: 71).

Teucrium lucidum, Shiny-leaf Germander (3: 71). Both desirable rock garden mints.

Thymus serpyllum, hort. vars., Mother-of-thyme (2: 19). Varieties can be obtained which bloom at almost any season.—E.T.W.

A ROCK GARDEN MYSTERY SOLVED

THE MEMBERS of the Society who were so fortunate as to be able to attend the annual meeting at Cronamere saw not only many familiar rock plants, but also some little-known ones in that lovely garden. And there was one that nobody could name! The conspicuous sheaths around the stem at the bases of the stalks of alternate leaves, together with the makeup of the tiny pink flowers, marked it as a *Polygonum*; but what could its species be? A shoot chosen by Mrs. De Bevoise as typical was duly pressed in a note book, and subsequently compared with the descriptions of the members of the genus in the literature, proving to agree best with a *Polygonum capitatum*. Finally comparison with specimens preserved under that name in the herbarium of the Academy of Natural Sciences of Philadelphia showed this identification to be correct. The localities represented are in the lower mountains of India.



The flower-globes of *Polygonum capitatum* are of a delicate pink.

Mrs. De Bevoise writes that some 8 or 10 years ago she received some seeds from India; while none of them were labelled as representing this species, a chance admixture could readily have occurred. Two years ago she noted a patch of the plant in a shady nook, and wintered some of it over in the greenhouse; divisions from this yielded the attractive clumps we saw. Its aspect is well shown in Mr. Devlin's sketch; if we could only afford a color plate, this would show a tendency of the older leaves to take on bronzy shadings, and the cute little globes of flowers to be of a delicate pink. Perhaps some Indian botanist can contribute it to our seed exchange.—E.T.W.

ROCK GARDEN BOOKS

IN RESPONSE to the often heard question, "Where can we find helpful information on rock gardening?" a list of some of the outstanding works in this field is here presented. Most of them, alas, are out of print, but these can at times be obtained from second-hand dealers and in any case are to be found on the shelves of many libraries.

- Alpine Garden Society. Bulletin, 1930 to date.
- Anley, F. A. *Alpine house culture for amateurs*. N.Y.: Scribner, 1938.
- Chittenden, F. J. *Rock gardens and rock plants*. London: R.H.S., 1936.
- Clay, Sampson. *The present-day rock garden*. London: Jack, 1937.
- Correvon, Henry. *Rock garden and alpine plants*. N.Y.: Macmillan, 1933.
- Elliott, Clarence. *Rock garden plants*. London: Arnold, 1936.
- Farrer, Reginald. *Alpines and bog plants*. London: Arnold, 1908.
- Farrer, Reginald. *In a Yorkshire garden*. London: Arnold, 1909.
- Farrer, Reginald. *My rock garden*. London: Arnold, 1927.
- Farrer, Reginald. *The English rock garden*. London: Jack, 1930.
- Farrer, Reginald. *The rock garden*. N. Y.: Nelson, 1932.
- Gabrielson, I. N. *Western American alpines*. N.Y.: Macmillan, 1932.
- Hornibrook, Murray. *Dwarf and slow-growing conifers*, N.Y.: Scribner, '39.
- Irving, W. & Malby, R. A. *Saxifrages or rockfoils*. London: Headley.
- McCully, Anderson. *American alpines in the garden*. N.Y.: Macmillan, '31.
- Mansfield, T. C. *Alpines in colour and cultivation*. N.Y.: Dutton, 1942.
- Skinner, Henry T. *The rock garden*. Ithaca: Cornell Ext. Bull. 403. 1939.
- Symons-Jeune, B. H. B. *Natural rock gardening*. N. Y.: Scribner, 1932.
- Thornton, Archie. *Rock garden primer*. N.Y.: De La Mare, 1929.
- Wilder, Louise B. *The rock garden*. N.Y.: Doubleday, 1933.
- Wilder, Louise B. *Pleasures and problems of a r.g.* Garden City, 1937.
- Wilkie, David. *Gentians*. N.Y.: Scribner, 1936.

Omission from the above list of one work which is still in print may be noticed: Preece, W. H. A. *North American rock plants*, ser. 1. N.Y.: Macmillan, 1937. The editor regrets that he can not recommend this. The title is misleading, in that there are included many species of bog and woodland plants which are not at all likely to succeed in the rock garden. Conservationists can only regret the inclusion, for instance, of the Pink Lady-slipper or Moccasin Orchid, which is not in any sense a rock plant, and which can not be cultivated successfully in any sort of garden. Moreover, most of the illustrations are crude snapshots of no scientific or artistic merit.

Some day perhaps the American Rock Garden Society can sponsor the preparation of a work comparable to those of some of the eminent British rock garden writers listed, with chapters contributed by rock gardeners having experience with American climates and conditions generally.—
E.T.W.

THE AMERICAN ROCK GARDEN SOCIETY

An article on rock gardening was released for publication with the cooperation of members in Portland, Me.; Syracuse, Larchmont and New Rochelle, N. Y.; Westport, Conn.; Norfolk, Va.; Plainfield, Paterson and Mountain Lakes, N. J.; Cincinnati, O., Colorado Springs, Col.—to mention some of the places which come quickly to mind—editors of local newspapers made good use of it. Headquarters has already received well over one hundred inquiries—and several new members—and more continue to come in daily. This is certainly indicative of interest in rock gardening.

SEED EXCHANGE

The following seed has been received lately; send request and stamped, self-addressed envelope to Mrs. L. D. Granger, Warren, Mass.

From Mrs. H. P. Magers, Mountain Home, Ark., *Lilium regale*: from Mrs. M. J. Fox, Peekskill, N. Y., *Lilium concolor pulchellum*, *L. pumilum*, *L. martagon album* x *L. hansonii*, *L. davidii macranthum*, *L. hybrids scottiae* and *L. davidii*, *L. regale* (some roseate), *L. auratum* x *Henryi*, Funnel Lilies (mixed ancestry, some *Sargentiae*).

Members attending the annual meeting of the American Rock Garden Society gather on the lawn before the residence of Genl. and Mrs. C. I. DeBevoise, "Cronamere," Greens Farms, Conn. They came not only from Connecticut and the nearby states of New York and New Jersey, but also from New Hampshire, Massachusetts, Pennsylvania, Washington, D.C., Virginia and Wisconsin.



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