

BULLETIN

of the

AMERICAN ROCK GARDEN SOCIETY

Vol. 2

September-October 1944

No. 5

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

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ROCK PLANTS VS. BOG PLANTS

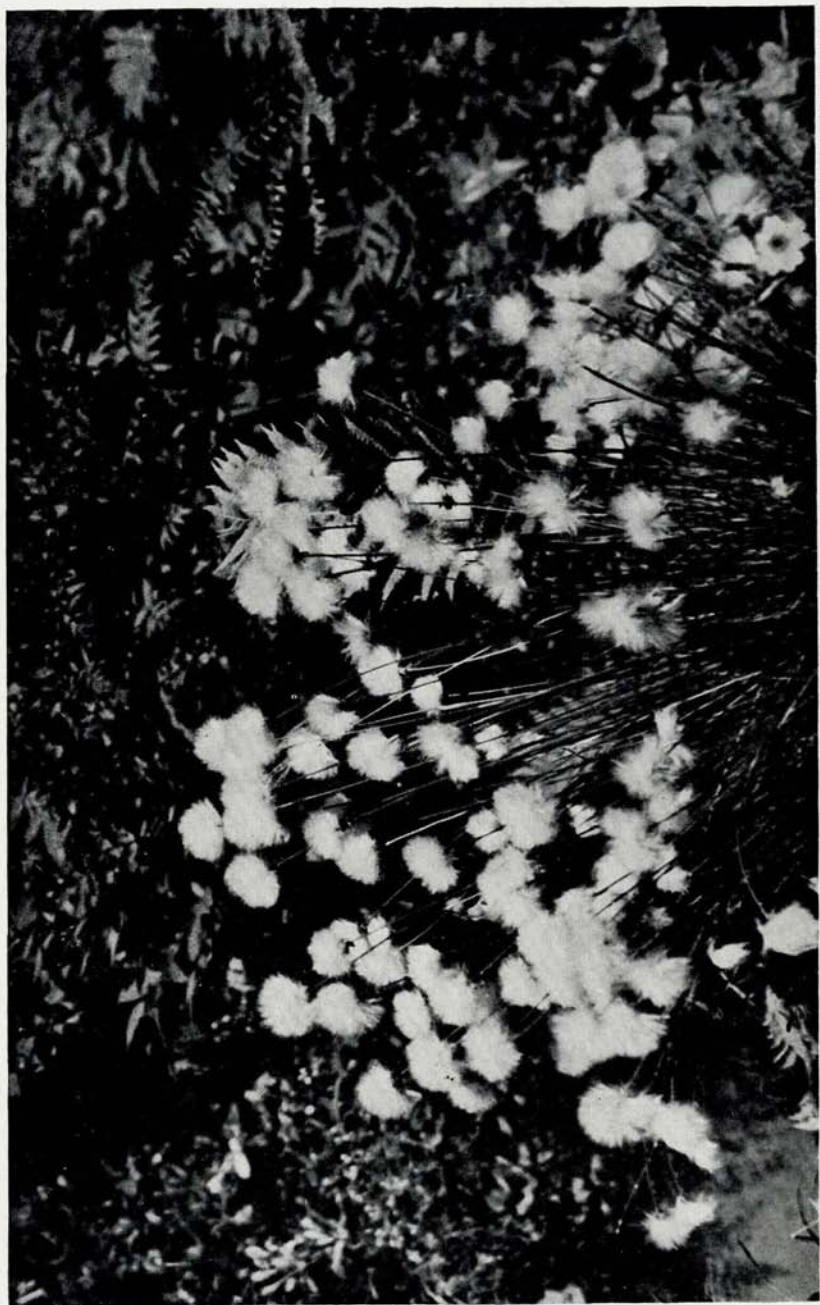
AS A RULE, plants which grow naturally in rocky places do not thrive in wet soil, and those found in bogs and swamps pine away and die when planted on dry rocks. To be sure, there are notable exceptions. The writer can well recall his surprise at seeing the cute little *Coreopsis rosea*—which he knew in the field only as a puddle plant—growing luxuriantly in dry gravel in Mrs. Wilder's marvelous rock garden at Bronxville. And Mrs. Walker is successfully growing that striking aroid, Carolina-calla (*Peltandra glauca*)—a native of wet acid peaty hollows in southern pinelands—in a well-drained corner of her rock garden at Woodberry Forest. However, the wide tolerance and adaptability of a few plants such as these does not justify their classification as rock plants.

There is a regrettable tendency on the part of American writers—not only of magazine articles but even of books—to list as “rock plants” inhabitants of swamps and bogs, also those of rich woods, pinelands, prairies and other rockless habitats. Possibly under exceptional conditions a series of such plants could be grown on the same rocky slope; but the average rock gardener would be merely wasting time and money, to say nothing of contributing to wild flower destruction, by trying to do so.

As one of the chief aims of the Editor of this Bulletin is to furnish reliable information to its readers, every effort is being made to obtain authentic data on the habitats of the plants included. So, when you turn the page, please be advised that the species so attractively illustrated and discussed is *not* being presented as a rock plant.

Many rock gardens and wild gardens include some water features. When the water available is not too alkaline, and the rocks over which it trickles are essentially lime-free, it may be allowed to fill a depression underlain by peat and sand; then, if a layer of sphagnum moss lives, thrives and increases in bulk, there results a habitat suitable for the many attractive species classed by the ecologist as bog plants.

If our members will only send them in, we will be glad to publish articles on plants suitable for bogs and other adjuncts to the rock garden.—E.T.W.



BY HENRY H. M. LYLE

Eriophorum spissum in its fourth week of bloom, in bog garden.

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ERIOPHORUM SPISSUM

DR. HENRY H. M. LYLE, New York

ABOUT twenty species of the genus *Eriophorum* occur scattered throughout the northern hemisphere, chiefly in cold or arctic regions. The genus epithet is derived from the Greek for wool-bearing, but the plants are commonly termed Cotton-grass or, more accurately, Cotton-sedge. The French Canadians call them "Linaigrette."

These plants inhabit for the most part acid bogs and muskegs, and indeed play an important part in the formation of the peat which gradually fills all wet depressions. In the early days the silky flower heads were collected and used to stuff cushions, pillows, and quilts; and in back country they are still extensively so used. Thinking to test out their horticultural value, we assembled a collection of the American native species; but only one proved of sufficient decorative value to be retained.

The one selected as worthy of the bog garden is that known throughout the Province of Quebec as the "Linaigrette dense." In English-speaking countries it is sometimes called Hare's Tail (or Haretail). Botanists have been much confused as to its correct technical epithet, variously mistaking it for the Eurasian species *E. vaginatum* (*E. caespitosum*) or *E. callitrix*. In 1925, however, Professor Fernald cleared the matter up, showing that the plant in question is a species distinct from any of these, and naming it *Eriophorum spissum*.

This plant is to be characterized as a non-stoloniferous hardy perennial, growing in dense tufts which form mounds slightly raised above the surrounding ground. The white flower-heads are borne on long stiff stems up to 2 feet in height, much overtopping the dark green filiform leaves and giving the effect of a radiating dome. Compared to the other species tried, its striking features are its compactness and neatness of form, its wealth and persistence of bloom, and its relatively meagre root-system. It is also the earliest to bloom.

Its natural range extends from Arctic America south to the Pocono Plateau region of Pennsylvania. The writer's stock was obtained near Sacré-Coeur, Quebec. In his bog garden it has bloomed regularly every year from the middle of June to late July. The accompanying portrait was made in the fourth week of bloom; its aspect was even more striking a week earlier. There is a silvery iridescence about it—best shown when the sun is bright and the breeze is blowing—that gives it a fairy-like quality, especially when viewed against a background of dark green fern foliage.

*Seed is available in the Society's seed exchange.

[A group of bulbs not treated last month may now receive attention:]

LILIES FOR THE ROCK GARDEN

ALAN MACNEIL, North Springfield, Vermont

IN THE wild many lilies are found growing in crevices in rocky gorges, lodged in pockets of soil on cliffs, and above the timber line where only true alpine grow. These species are peculiarly appropriate to the rock garden.

These lilies also vary widely in habit, in season, and color, offering the gardener a most interesting range from which to choose. Very few plants will spread a more attractive sheet of bloom through low stones, against the soft green of a Juniper or the deeper green of *Taxus* than a goodly clump of *Lilium elegans* or *Lilium umbellatum*. And nothing will provide a more brilliant mass of color. The warm vivid orange-yellow of *L. elegans* Leonard Joerg is unequalled growing up through the bronzy purples of some of the dwarf junipers. The brownish-red of *L. umbellatum* Mahogany has a depth and richness of color in its broad wide-open blooms that adds a most distinctive note to *Azalea calendulacea* or soft gray-green foliage.

Lilium tenuifolium Red Star is completely delightful with its delicate scarlet petals sparkling gaily on six-inch stems as its nestles among low stones.

A fairly sizable colony of the alpine *Lilium formosanum* Pricei growing with ferns in partial shade is a delight to the eye and the nostrils in August. As for *Lilium rubellum*—it is the purest gem, so lovely that it is well worthy of the choicest spot the garden affords. Because of its special beauty and delicacy it should not be marred by contrast with other flowering plants, being far better if seen quite alone with ferns or low-growing evergreens against stone or foliage.

There are a few moderately tall alpine lilies which if carefully placed can be charming in the rock garden. In their native haunts some grow in association with dwarf shrubby and grasses rather than spreading themselves through the rocks, and if grown this way in the garden, they will greatly increase the list of completely suitable material. *Lilium regale*, for instance, grows on the sheer cliffs of a gorge in western China and great masses of bloom hang from the sky when the plant is in flower. Obviously *L. regale* will be appropriate only in a rock garden which tends to simulate its natural setting.

Lilium wardii and *L. duchartrei*, as well as our own native *L. parryi*, are alpine and comparatively tall, but magnificent when planted against or through Azaleas, Rhododendrons, or *Acer palmatum*.

Lilium willmottiae (*warleyense*) has a slender drooping stem that makes it effective when planted on a slope where it can overhang and festoon large boulders. In Formosa *Lilium speciosum* gloriosoides grows at right angles from almost perpendicular cliffs.

When it comes to culture, one must remember that each lily is native to a given corner of the northern hemisphere and that some are found in nature only within a very circumscribed geographic area. Consequently it is not to be hoped that all lilies will thrive in a given garden with its own special cultural conditions. However, if the gardener selects wisely and plants a fair cross section of lilies he will succeed with the majority

of them; some will be only moderately successful, and a few will fail. However, the same would be true of any comprehensive genus, whose representatives were collected from widely diverse geographic areas.

Fortunately most lilies are highly adaptable and the requirements for success are comparatively simple. Wilson has commented again and again on the poor quality of soil in which he found many lilies. They like an ordinary garden soil. Some of them prefer lime, others prefer an acid soil, but most of them will adapt. Some like a fairish amount of humus in the soil; compost, well rotted manure, peat,—all of these are excellent. Once established they can stand much heavier feeding than is commonly supposed. We like to apply a commercial fertilizer in fall or very early spring so that it will dissolve and be available during the period when the plants are growing and maturing. And we like to use a fertilizer fairly high in potash content,—say 5-10-10 or something similar.

Lilies must have good drainage and most of them like shade at some point during the day. All of them like to be grown with other plants so that the ground in which the bulbs are set is shaded and moist, while the heads of bloom are held erect in the sun. When lilies are grown in clumps they tend to keep their own ground cool.

Most bulbs are shipped with the roots on them and this is an advisable practice as these roots help to keep the bulbs in firm sound condition. But these same roots will rarely, if ever, re-establish and take hold when the bulb is replanted. We therefore clip them before setting the bulbs. Moreover, with any of the rarer or more capricious species, we dip the bulbs first in a disinfectant (some one of the more recently developed formulas) and then in one of the hormone rooting powders, so that new roots will form quickly.

The subject of disease is not discussed here because the points of view of experts are still so varied, and because research is still very much in progress. The best advice that can be given at this time is to buy sound bulbs from a reliable nursery. At the time of purchase make inquiry as to their special requirements both as to culture and to location in the garden.



BY ALAN MACNEIL

Lilium elegans hybrids bloom in July.
The unspotted flower in the foreground
was 7 inches across.

A list of rock garden lilies may be helpful to the reader. The following are native to rocky and often to alpine sections. As mentioned before the taller ones require special settings.

L. amabile. Easy. Height generally 15 to 18 inches. Best if grown in clumps, especially against stone or foliage, or through dwarf shrubs. Color vermillion.

L. amabile luteum. Yellow form of the above. Especially choice.

L. brownii. Comparatively easy. A lily native to all of China, the mountains as well as the lower sections. Height 2 to 2½ feet. Best used in connection with shrubbery, especially evergreens and rhododendron. Color white with chocolate brown reverse.

L. dauricum. A cup-shaped group of lilies best used in masses in full sun through low rocks.

L. dauricum praecox. Easy but not available at present. Height 6 to 7 inches. Ivory flushed with soft apricot—brown spotted. June flowering.

L. dauricum luteum. Easy but not available at present. Height 9 inches. Yellow.

L. dauricum Wilsoni. Easy. Height 12 to 15 inches. August flowering. Apricot, brown spotted.

L. duchartrei. A Tibetan alpine that is not definitely reliable in all gardens. Height 2 to 4 feet. White, purple spotted. July flowering.

L. elegans. This entire group is easy and completely reliable. They are at their best when massed so that they provide a solid sheet of color.

L. elegans Alice Wilson. Earlier than most. Pale soft yellow. Very large blooms. 5 to 8 inches tall. Not available at present. The more ordinary commercial form is orange-yellow with smaller blooms. Be certain of stock in purchasing this.

L. elegans atrosanguineum. Deep blood red. 8 to 10 inches tall. Late June, early July flowering.

L. elegans biligulatum. Brilliant orange-scarlet with deeper color at the tips of the petals. The color is especially good.

L. elegans Double Scarlet. A recent introduction. The color is a deep sort of rosy pink with paler petaloids. 10 to 12 inches. July flowering. Very striking.

L. elegans Leonard Joerg. A good orange-yellow dwarf variety.

L. formosanum pricei. A true alpine. Easy, but highly susceptible to mosaic. 10 to 12 inches tall. Mid-August flowering. Best grown in colonies, and should not be planted too close to other lilies. Comes easily from seed. White.

L. hansonii. Very easy and reliable. From the Korean mountains. Height 24 to 30 inches. Best grown in partial shades and against shrubbery or stonework. Color, clear yellow.

L. henryi. This well-known lily is native to the mountains of Hupeh province of China. Unless its native manner of growing, either through shrubbery such as junipers or rhododendron, or overhanging walls or rocks, is simulated, it is not an appropriate subject for anything but the large rock garden. Color orange-yellow. August flowering. Easy and completely reliable. Height 4 to 7 feet.

L. kelloggii. From the California mountains. Rather difficult in the east but very lovely. Likes a cool, moist situation, and the association of shrubbery. Color pale pink. Height 2 to 3 feet.

L. martagon album. Moderately easy. At its best associated with ferns in semi-shade. Likes a sweet heavy soil on the dry side. Height 2 feet. June flowering. White.

- L. michauxi*, (*carolinianum* of older botanical manuals). Moderately easy but susceptible to mosaic and basal rot. Height 18 inches. Orange-red. Late July flowering.
- L. monadelphum szovitzianum*. A lovely native of the Caucasus. Rare, but moderately easy. Should be associated with shrubbery or in connection with large boulders. Color pale straw yellow. Height 3 to 4 feet. Late May to early June.
- L. parryi*. One of our loveliest natives, this grows in the high mountains of the Sierras, up to 11,000 feet. As it is capricious it should be planted with the fingers crossed. Likes abundant moisture and partial shade and the companionship of other plants, preferably shrubbery. Height 3 to 4 feet.
- L. philadelphicum*. An eastern native, unfortunately difficult. It likes a hot dry sunny spot, in strongly acid soil. Height up to 18 inches, but more generally 8 to 12. Color vivid orange-red. July-flowering.
- L. regale*. Native to western China. Easy. This lily is too well known to need more than mention here. It is not generally associated with rock gardens, though its origin is in a very rocky mountain gorge.
- L. rubellum*. A true alpine native to Japan. Comparatively easy and reliable. True pink. Height 8 to 12 inches. Late May to early June flowering.
- L. rubescens*. Found on the crest of the Coast Range of California. Not too easy in the east. Culture same as for *L. kelloggii*. Height 3 to 5 feet. White passing to purple, with purple spots. Late June.
- L. scottiae*. A hybrid. Easy. Height 15 to 18 inches—sometimes taller. Color brilliant scarlet. June to July.
- L. scottiae* seedlings. These belong to the cup-shaped group of lilies and are excellent for sheer brilliant color. Dwarf.
- L. tenuifolium* Red Star. Easy. Discussed earlier in this article. Height generally 5 to 7 inches. Origin not known.
- L. umbellatum* (Hort.) Similar to *L. dauricum* and *elegans* in habit, but of European rather than Asiatic origin. This is an easy and attractive group, but on the whole because of habit and stature not suitable for rock garden purposes. *L. umbellatum* Sappho, a soft orange-red brown spotted; *L. umbellatum* Mahogany, a magnificent deep brownish red; and *L. umbellatum* Thalia, a clear lacquer with deeper staining on the tips of the widely separated petals are the most dwarf and consequently the best for the rockery.*
- L. wardii*. A true alpine from Tibet. A lily that may or may not "take." But it grows magnificently in gardens when it grows at all. Height varies from 3 to 5 feet, but is sometimes taller. Likes an acid soil, and seems to prefer it dry and gravelly. Likes the association of shrubbery such as Azaleas or Rhododendrons. August-flowering. Color pale rose, purple spotted.
- L. washingtonianum*. Another West Coast mountain lily, and a beauty. Comparatively easy in the east, but not completely reliable. We grow it in a sandy location just above the water level of the brook and it seems to do very well. Early flowering. White stained with purple and fragrant. Height 15 inches to 2 feet.

*Note: The Lily known in horticulture as *L. umbellatum* is not the one to which this name belongs under the rules of botanical nomenclature: that is a native of the midland United States and Mexico, the species name having been assigned to it by Pursh in 1814. Ed.

[Notes on plants for the shadier parts
of the rock garden are always welcome:]

TIME MARCHES ON

ELSE M. FRYE, Seattle, Wash.

WHEN I was younger than I am now I wanted only plants from the mountain peaks for my rock garden — only saxatile plants, tiny rosettes and small avalanches of bloom. Years have passed; my moods mellowed and the garden took on the appearance of a small area around tree line with creeping and dwarf shrubs predominating. And that is as it is now.

Lately I have discovered some space hitherto unoccupied and neglected — choice little woodlanders could be inserted in the close shade of my small shrubs and under the sweeping branches of taller plants. In my questing about for plants suitable for such places I have come to be interested in the genus *Oxalis*. Why these species are not more commonly seen I do not know.

Oxalis adenophylla is a lovely thing and as easy as a clover. It likes a well-drained loam and some heat from the sun but will grow in shade too. It has a corm-like base thickly wrapped in a cover of fine fibrous scales, among which the young offsets are produced. At least every other year the whole should be lifted and the young removed and all replanted. From this base comes a mass of crisp round blue-green leaves with many narrow leaflets inclined to fold on the midvein. The wide chalice is barely pink and each petal is blotched at the base with clear dark crimson. It is at home in the southern Andes.

Oxalis enneaphylla seems more precious yet—perhaps because it is more difficult to come by. The leaflets are a little finer, a little bluer than those of the preceding species. Among them sit the lovely white goblets, very stately and very chaste, warmed by a bit of palest yellow at the base. Many of them come and go till far into the fall—at least in the cold-house. The past winter a clump had to endure the brunt of wet and cold outside—just for experimental purposes. It is quite different from *O. adenophylla* in its root system. Here we find a scaly rhizome-like root which each season produces a new bud. The latter becomes the new growing point, while the older portion becomes dormant, it is said, and remains so until severed from the young growth, when it begins to grow again. I have not had mine under observation long enough to be sure, but it does seem to me that there is more than one growing point in my plants. Anyway, sometime when I have enough of them to become prodigal and reckless I shall make a sacrifice and scrape the little fleshy scales from a rhizome, layer them in sand as lily scales are layered—and see what happens. *O. enneaphylla* also has a pink variation, variety *rosea*. Opinions vary as to its merit. It is indeed lovely, but does not please me quite so much as the typical variety of the species nor as *O. adenophylla*.

Mr. Clarence Elliott gives a very spirited account of his experiences in collecting *O. enneaphylla* in its several color forms in the country around the Straits of Magellan. I think that one of the endearing characteristics of all Englishmen is that when they want to dig a plant or to shoot a tiger, their bags are at once packed and they are off. On this occasion in 1909, he found an especially extraordinary large white form of *O. enneaphylla*. I like to hope this was the ancestor of mine.

I have in the garden also another beauty, *Oxalis braziliensis*. The leaves are rather short-petioled and inclined to remain more or less folded a great deal of the time. They are thick, almost fleshy, purple on the under side. Among them nestle amply large rose-purple flowers. It is a very nice thing. It does not grow fast and I have always felt it had to be sheltered. The rhizome is fleshy and scaly. This I periodically break for increase.

Oxalis oregana, too, is a pretty thing, at home in the foothill country of Washington continuing through the Redwood country of California. For the small garden it is far too invasive, but for naturalizing in the woodland it is very nice. The more northern form is white; toward the south it tends to become pink, although the latter hue seems not to remain fast in the face of change of habitat. It would be an interesting subject for experimentation in soil acidity.

This is but a small beginning in the way of *Oxalis* species, when one considers there are more than 800 listed and described.

Then there are the woodland Anemones. It would be difficult to find more thrilling plants for shade and half-shade than *Anemone nemorosa* and its varieties. In a day, almost, the lovely ferny leaves uncurl and then come the lovely blooms. Of those I know, *A. n.* *Robinsoniana* appears most fragile, but it is appearance only. *A. n.* *Alleni* is a very large flower, the outer parts washed with rose-blue. The double white form, *A. n.* fl. pl., is lovely too, especially when growing among other dainty green patterns. Nothing is more discouraging to discover in a package than a few of the fleshy rootstocks of these anemones. They look like nothing at all alive. But they do grow and prosper amazingly: colonies—and that is how they are most beautiful—are formed in due time.

Anemonopsis macrophylla is a distant cousin. The leaves are large but divided in anemone-like fashion. They make a coolish-looking cover on the ground in summer and then rather late in the season send up stems some two feet in height on which droop large waxy lavender blooms. The plants had best be left till the roots have reached some size. Then they can be lifted and easily broken into several pieces—each piece must have a growing point.

Glucidium palmatum would fit into these same shady situations. At present I can not write from any personal knowledge of it. Farrer's description stirs hopes—"a stout imperial Ranunculad, about 2 feet or more, with ample and splendid foliage like that of a maple, at the top of which hang solitary flowers of satiny rich violet." I wonder if many people in the United States have this plant?

A native and an exotic member of the Barberry family deserve inclusion in our series.

Vancouveria hexandra is not more beautiful, but smaller in foliage than most Epimediums and therefore more dainty in effect. The young foliage is divided into many wedge- to heart-shaped segments. Pale in color, they seem to have the happy faculty of catching light. The up-side-down flowers of rich cream do not diminish the light airiness. This plant I keep rather on the outskirts of the shade to keep it from interfering with more precious—from a monetary standpoint—plants.

Jeffersonia dubia is a Manchurian plant that craves gentle shade and cool mold. Its leaves are thin pale round discs on fragile stems. The large evanescent flowers of lavender blue are apt to develop a little before them. They really are a lovely sight. The plant may be divided in late summer. It is best to dig it and with a hammer and a sharp knife sever the matted roots so that each partition has at least one bud.

[We wonder how many of our members'
rock gardens contain the charming:]

ANEMONE CAROLINIANA

CLAUDE A. BARR, Smithwick, S.D.

UNUSUALLY pleasant notes concerning a favorite native plant, *Anemone caroliniana*, have come to me from Mr. Harold Albrecht of Belle Plaine, Minnesota, and I have fortunately obtained his permission to share portions of them with the Rock Garden Society.

"I was pleased to learn that you have the fragrantly dainty *Anemone caroliniana*. It is easy to handle, spendthrift in blossoms, trimly neat of foliage. Also, in the fall it gives forth another pleasant cloaking of leafage. My area of this flower is very thickly planted with the little 'cormy' roots. I had them near a catalpa which had seeded itself. For three years the catalpa stretched, prodigiously. Was it to be the catalpa or the lesser plants? I decided in favor of the lesser,—then discovered catalpa roots everywhere. I dug up all the anemones, placed them in a container and, shame to tell, forgot them for a long time. Finally, almost to my horror, I ran upon them. I sowed them thickly, lavishly. There on my little hilltop they came up 'to a man,' no lapses. Each spring this is a little oasis of beauty, shining in the sun."

From a garden club paper: "One of the choicest things I know, of the wee things for the garden that grow wild on rocky slopes or on grassy hill-sides, is *Anemone caroliniana*. . . . In springtime from the greenery of its earth-close leaves spring lovely rounded blooms. Some are delicate lavender, others have a stronger wash of color; their range runs from pale to fairly strong in blue. There are white ones too. On the tip-top slope of one of my garden hills they make a gay island of blossoms tumbled over by bees, neat and trim, respecting the rights of other plants, quarreling with none. These frail-sturdy flowers have a choice perfume, one you may snuff to the depths of its goodness and still find sweetness. After flowers have turned to seed the leafage dies down, the mats disappear till the fall, again to come forth green. Upon their bed I've strewed the brown rusty hearts of rocks and cinnamon colored 'rotten stones' from dry creek beds. The effect is pretty and compensates for the lack of summer greenery although nearby plants of other varieties encroach somewhat upon the area to tone down a too barren spot."

Further correspondence—for *Anemone caroliniana* has not been too easy in my high western South Dakota garden—brought these details: "Yes, the anemone grows on our dry south-facing bluffheads in lean rocky or porous soil. I dug up my root-corms (from near the catalpa) on a 29th of July, so they were well matured and dry. There were numerous bulbs but I'd had few flowers,—too heavy and moist a soil, I suspect. These bulbs were placed in an open pan, covered with earth. Then very late in September or early October I tumbled them pell-mell into the new location and there they have thrived and blossomed profusely. They have scree mixture there, perhaps slightly richer than lean. This is about forty miles southwest of Minneapolis."

More or less hidden in Mr. Albrecht's accounts are to be found most of the cultural requirements of the charming Prairie Anemone. It is interesting to note, however, that its haunts vary from "dry bluffheads" in

eastern Minnesota to "moist swales" on the higher, dryer Great Plains in central South Dakota, Nebraska and Kansas, and the correct inference doubtless is that medium conditions as to richness and moisture are sought. Given drainage, Mr. Albrecht's planting flourishes in a mixture "perhaps slightly richer than lean," while on the grassy plains the low places gain some needed surface run-off and the richer humus in such situations aids in equalizing the moisture supply through the growing season. You may be sure that a moist swale accepted by the anemone is moist only relatively or seasonably, and its usual faintly gritty loam has drainage and also aeration, and for the dormant time more or less drought.

It has been observed in many parts of the range of the species—scattered areas from Wisconsin to South Dakota and Texas to the Carolinas (where discovered and named)—that the flowers are much more abundant some Springs than others. Fall leafage is thought by some to be an important prerequisite. Certainly some weeks or months of moisture ample for uninterrupted plumping of tubers and expansion of stolons and leafage are a necessary preliminary to free blossom turn-out.

The leaves of *Anemone caroliniana* are an inch or so wide, much divided into narrow lobes, dark green, softly hairy, and grow in small clusters two to four inches high. It is astonishing how small the shriveled, dark brown dormant tubers are. In an established planting there are many leaves from non-flowering small growth and from the short stolons or rhizomes by which new plants are freely produced, the better covering the ground and setting off the inch and a half or wider blossoms that are carried at four to ten inches. Petal-like sepals are cupped in lovely fashion about a small cluster of golden stamens, eight or so segments forming a dainty single flower; better developed blossoms with up to twenty segments appearing double. Shining white and rich textured blue are the usual colors, along with lavenders and light blues—and there are tantalizing reports of an occasional pink.

HERMODACTYLUS TUBEROSUS

THE family *Iridaceae* offers a wide field in which to find varied and interesting additions to our gardens and particularly to the rock garden. Going further, many unusual and choice subjects are available to the Mid-Southern gardener which, since they are often thought not to be hardy north of Virginia and Maryland, are left unnoticed and almost never brought to general attention.

Among these is *Hermodactylus tuberosus*, the "Mourning Widow Iris," whose unique coloring and attractive form make an especial appeal in the early spring garden. The slightly fragrant blooms, carried on 10-inch stems, appear in April. The 2-inch falls are a deep black-purple, velvety in texture, while the tiny ½-inch sharply-pointed upright segments are a soft pale green, of sparkling crystalline character.

The distinctive rush-like leaves, growing fifteen to eighteen inches, are four-angled, and die down soon after the bloom has faded; the slender corms push out like fingers, making a good increase when in congenial surroundings. It has lived with me for twenty years and persisted in spite of many handicaps, both of climate and of treatment, and never fails to provoke enthusiastic comment.—VIOLET NILES WALKER, Woodberry Forest, Virginia.

[If your rock garden needs color in
early Fall, consider the merits of:]

LYCORIS RADIATA

VIOLET NILES WALKER, Woodberry Forest, Va.

Lycoris radiata is one of a group of amaryllids whose virtues as hardy subjects for the "Borderline" Rock Garden are almost entirely unsung. This, of course, is due to the fact that its general reputation as a half-hardy or tender bulb precludes any effort to stress its virtue outside of the Southern States. The average searcher for information, turning to Bailey's Cyclopaedia of Horticulture finds that J. N. Gerard's introductory description speaks of its relatively modern introduction to American gardens and remarks that it is best suited to greenhouse culture. This is truly a case illustrating the wide-spread contention that in the majority of American horticultural publications, the bulk of general information given is mostly for one latitudinal zone,—that lying between the 40th and 45th parallels,



BY VIOLET NILES WALKER

The gorgeous rosy crimson spidery blooms of *Lycoris radiata*.

ignoring the possibilities of other sections of our vast country. This failure to mention any probable adaptation of plant material to other climatic zones has been especially responsible for limiting the scope of the Mid-Southern rock garden, since many of the subjects regarded as "must-haves" in northern localities will not survive our long, hot, dry summers, and sooner or later go into the discard, while untold numbers of so called tender plants will prove to be dependably hardy.

Mr. Gerard to the contrary, *L. radiata's* first introduction to America long ante-dated the Revolutionary War, as is indicated by one of its nick-names still in use: "British Soldiers." Moreover, it has survived years of neglect and still flourishes, almost uncared for, on many of those great Tidewater estates of Colonial days, which fell into neglect after 1861, while

in a few gardens of the Piedmont section where it has found its way, it has shown itself indifferent to those extremes of temperature ranging from 10° below zero (even occasionally 20° below) to 90° above, with which the foot of the mountains is blessed (?); and this even with the shallow planting, that like other amaryllids, it demands.

L. radiata, like *L. squamigera*, blooms while its foliage is dormant, but unlike the latter (whose broad, narcissus-like leaves appear in March) the narrower, strap-shaped leaves of *radiata* with their whitish mid-rib come in late September as the blooms fade, and remain evergreen throughout the winter, dying down in late April.

About the 10th of September, the bare, pinkish spear-head buds (also called "Naked Ladies") push out of the ground, shooting suddenly to a 10 to 12-inch stalk, crowned at the top by a circlet of gorgeous rosy crimson, spidery blooms with their long-curved white filaments and yellow anthers which are responsible for still another pet (but misleading) nickname: "Spider Lilies."

Although the bulbs multiply rapidly, they resent disturbance except at the psychological moment of complete dormancy, which occurs when foliage is dead. Moving at other times will not kill the bulb, but often prevents that season's bloom. No protection from frost is needed, but careful marking is necessary to prevent cutting into the bulbs while dormant.

L. radiata will grow in any good soil, but prefers a light, sandy one, and is extraordinarily happy in the mixture and sharp drainage of the rock garden. Moreover, it is tolerant of any low-growing, long-blooming perennials or annuals, that are not too possessive, such as *Scutellaria baicalensis*, *Diascia barberae*, *Incarvillea variabilis*, *Nierembergia hippomanica*, etc., etc. With all its other assets, its crowning virtue is possibly its blooming date, for a well-established clump brings fresh, brilliant color to the September garden for ten days or two weeks at a time when the summer bloom is becoming weak.

[Autumn-blooming also characterizes
the subjects of the next three notes:]

THE ADAPTABLE CHRYSOPSIS MARIANA

AN AMAZING case of adaptability of a wild plant to a rock garden has come to attention. In the field across the street *Chrysopsis mariana* is such a dowdy plant, so devoid of attractiveness among the weeds and grass, that no one ever seems to think of bringing it into gardens around Washington, D.C. It has only a few flowers open at a time and most people consider it just a weed. I have never seen it in any garden except mine and that of a friend with whom I have discussed it. But last spring, from a plant that I had brought in, a chance seedling came up and showed such adaptability to rock garden conditions that it amazed me, having almost no resemblance in habit of growth to its parents.

It was on a little shelf in stony soil with rocks below and above it. Instead of the three or four leaves with no arrangement at all which the plants in the field have, it made a perfectly symmetrical, neat little rosette about six inches across, the leaves lying close to the ground and being quite numerous, bright green in color. From the exact center one flower stalk arose, perfectly vertical. At six inches high it divided into a corymb, which became six inches across, perfectly flat-topped, and solid with flower-heads. Among the open flowers were buds, which prolonged the bloom. The inflorescence was bright spectrum yellow for over a month.

No inhabitant of any high mountain could have looked more characteristically alpine than this denizen of our lowland fields when it was born and grew up in a rock garden. Mature plants when brought in do not show any such desire to change their habit of growth. They bloom better than in the wild, but do not make symmetrical rosettes or neat clusters.

In one other respect *Chrysopsis mariana* surprised me. A plant from the loamy field found a congenial home on a slope of the rock garden in stony soil and almost full sun. After two years it was making such a display that I was moved to count the flower-heads. There were 169 open at once. The plant grew two feet high and the same in width, but had only three branches and was not bushy or symmetrical. It occupied only about a six-inch circle of ground space with its crown, and the upper part did not interfere with the neighboring plants.—RALPH W. BENNETT, Arlington, Va.



BY EDGAR T. WHERRY

Though allied to *Narcissus*, the golden chalices of *Sternbergia lutea* look more like *Crocus*.

THE GOLDEN STERNBERGIA LUTEA

WHILE on the subject of autumn gold in the rock garden, mention should certainly be made of *Sternbergia lutea*. This native of Mediterranean shores is hardy north to middle New England if the bulbs are planted 6 inches deep, in heavy soil. During the summer it produces a group of narcissus-like leaves, among which spring up lovely crocus-like flowers in succession for a period of several weeks. When garden visitors see this plant for the first time, and are told its technical epithet, they always ask, doesn't it have any common name? Well, S.P.N. tried to create one for it, but came up with "Falldaffodil," which is not only poor construction but also misleading in that the flowers bear no resemblance to daffodils, as appears in the illustration. So they are advised that anyone who is capable of accepting for common use such personally derived names as the rock garden genera *Hutchinsia*, *Lewisia*, and *Ramonda* (to say nothing of *Fuchsia*, *Puschkinia* and *Wulfenia*) should not have too much difficulty over *Sternbergia*.—E.T.W.

[This month we suggest as a plant
to keep out of the rock garden:]

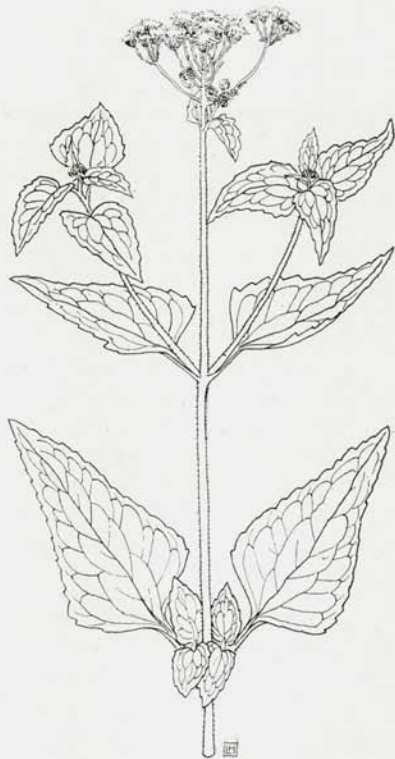
THE INVASIVE MIST-FLOWER

ONE OF our loveliest native, fall bloomers is the much cussed Mist-flower (*Eupatorium coelestinum*), also called Wild Ageratum. No need to dig it from the wild—some neighbor will gladly give you a bushel,—more, if she has been beguiled into planting it in full sun. Unfortunately, beginners are usually told that this plant loves full sun. It does. Here is one of the few cases in which it is not wise to tell the whole, unvarnished truth. Given full sun in cultivation, it tries to take the neighborhood; and why it does not do so in the wild, is one of the problems which I am still pondering.

Place it where it will get no more than an hour of full sunshine a day and it will do no worse than try to take the flower bed. But I find it native here, in deep, dank shade where mold thrives but few flowering plants will live. In such a location, it stands as a single plant, increase seeming to be by seed alone. The flowers are a clear shade of light blue, in the same season with *Chrysanthemums*; and there are plenty of blooms in this deep shade. I also find them growing in shade, among rocks, where there seems scant room for the roots.

I do not find it in open meadows. That may be due to gophers but am not yet certain. Several years ago there was a patch in open woods where the early morning sun shone for an hour or so. The owner gave me permission to dig all the plants I wanted, and the supply seemed inexhaustible. Then came Mr. Cole's long illness; to be followed by a fall for me which made me a semi-invalid for many months more. Altogether, it was nearly two years before I again visited this patch.

A little mountain stream, bordered by Wood-betony (*Pedicularis canadensis*) ran about fifty feet away, but the Wood-betony had kept strictly to the edges of the streamlet. When I next visited the little glade I found that during the previous months, some one had felled several trees, with tops falling into this open place. Shade on the ground was about equal to a lath house. Dead leaves had fallen and been held there. Not a Mist-flower can I find there, but the Wood-betony has taken the place. I have not yet solved the mystery of the disappearance of the Mist-flower—LAURA DEAN COLE, Grannis, Arkansas.



THE AMERICAN ROCK GARDEN SOCIETY

SEED EXCHANGE

The following seed have come in since our last list was published and are ready for distribution.

From Elmer C. Baldwin, Syracuse, N. Y.

Aethionema pulchellum	Anagallis Arvensis var. phoenicea
Arenaria preslii	Asphodeline lutea
Aubrieta deltoidea	Brunnera macrophylla
Cassia marilandica	Cephalaria tatarica
Cheiranthus Cheiri	Daphne mezereum
Dianthus deltoides	Erinus alpinus albus
D. deltoides albus	Galega officinalis
D. deltoides Wisley var.	Genista tinctoria
Geranium sanguineum nanum	Incarvillea Delavayi
Knautia drymeia	Linaria alpina
Linum austriacum	L. alpina rosea
L. perenne album	Lotus corniculatus yellow
Lychnis flos-cuculi	L. corniculatus Red
L. viscaria splendens	L. corniculatus Orange
Mazus reptans	Phyteuma Scheuchzeri
Pterocephalus parnassi	Salvia pratensis
Scabiosa ochroleuca var. Webbiana	Salvia Tenorei
Verbena bonariensis	

From Dr. H. C. Scorgie, Still River, Mass.

Aquilegia vulgaris var. olympica	Arabis Suendermannii
Iberis castus	Linaria Panceicii
Lychnis alpina	Potentilla alpestris
Veronica fruticosa	P. rupestris

From Mrs. Warder I. Higgins, Butte, Mont.

Allium Schoenoprasum var. sibiricum	Aquilegia flavescens
Arenaria caespitosa (verna)	A. glandulosa var. jucunda
Clematis (vine) lavender-blue	Dianthus alpinus
Douglasia montana (deep pink)	Lychnis alpina

From Miss Elizabeth Ball, Muncie, Ind.

Primula japonica (cherry red)

From Mrs. C. I. DeBevoise, Greens Farms, Conn.

Aquilegia glandulosa var. jucunda	Clematis (vine)
Allium albopilosum	Sedum Nevii
A. Beesianum	Alyssum montanum

From A. H. Osmun, Plainfield, N. J.

Hypericum olympicum	Ruella ciliosa
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When you order be sure to enclose a self-addressed, stamped envelope Mrs. Hildegard Schneider, 1751 Seminole Ave., Bronx, N. Y. in charge of Seed Exchange.

We regret to have to announce the death of one of our original members, Miss Marian R. Case of Weston, Mass.

The Middle Atlantic group of the A.R.G.S. will hold a luncheon meeting on Thursday, October 26 at the Hotel Bellevue-Stratford in Philadelphia; Anne B. Wertsner will give an illustrated lecture on Rock Gardens.

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