American Rock Garden Society Bulletin

MY FAVORITE PLANT-HUNTING AREA — *Bob Woodward* 81

DAVIDSONIA ROYI (SEATTLE)

AQUILEGIA ENTHUSIASM 89

ON SNIFFING TRILLIUMS 90

THE LITTLE SPIRAEAS & CO 92

OENOTHERA MISSOURIENSIS INCANA — *Claude A. Barr* 95

MUSINGS ON A PLANT NAME — *Clifton L. Merrill* 96

STUDY WEEKEND 1971 — *Mrs. John S. Kistler* 98

GROWING ALPINES UNDER GLASS — *John P. Osborne* 100

IMPRESSIONS — THE 4th INTERNATIONAL CONFERENCE 102

BOOK REVIEW 108

LOISELEURIA PROCUMBENS — *Oscar Fervidi* 109

OMNIUM-GATHERUM 111

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AMERICAN ROCK GARDEN SOCIETY BULLETIN

Albert M. Sutton, Editor

VOL. 29 JULY, 1971 No. 3

MY FAVORITE PLANT-HUNTING AREA

BOB WOODWARD, *North Vancouver, B. C.*

One can never be quite sure what is the most predominant force in a hobby such as rock gardening. Certainly, as I jot down these recollections, the tenuous awakening of the garden from its winter dormancy fills me with ripples of joy and anticipations. But then I bethink me of that wondrous exhilaration which overcomes me during our summertime jaunts into the mountains to discover the plants in their natural habitats. Only a poet could voice those feelings and I shan't try. But, of all the myriad trips we have taken throughout North America and the Alps, none fills me with more nostalgia and with a keener desire to return than the Big Horn Mountains of northern Wyoming.

We discovered this treasure trove not quite by chance. For as avid readers of the ARGS *Bulletin* we had read with delight the Rocky Mountain articles of Dr. Carl Worth, that inveterate collector of so many choice species. Our first visit (Iva Angerman, Jim MacPhail, and myself) was in 1966. We were green (still are) and did not recognize half of what we saw but we were thrilled! Last summer we visited the Big Horns once in early July, which found the blooming period at its best, and again in the middle of August, which was ideal for seed collecting. The timing was a matter of luck, as the season can vary quite drastically.

Our route from Vancouver, B. C. is quite direct. Through the state of Washington to Spokane, from there to Missoula, Montana (and a stopover to investigate the famous Waterworks Hill, where grow masses of *Douglasia montana* and *Phlox missoulensis,* although the natives we questioned were blissfully unaware of them). From Missoula south to Yellowstone National Park, which we cross as quickly as possible, not being geyser addicts. Out the Northeastern exit of Yellowstone, from the town of Cooke City, we linger long in the Beartooth Pass region, where the road climbs to an altitude of nearly 11,000 feet and where the alpines are legion and exciting.

Beartooth deserves a pause. Here we first found the flat, compacted mats of *Trifolium nanum,* a clover which only reveals its typically leguminaceous foliage once you have pried the leaves apart, so tight is it. The clover heads sit atop these mats, a kind of burnished red color, large and solitary and brash. Trifolium is a plant of the high screes. Its companions include magnifi-

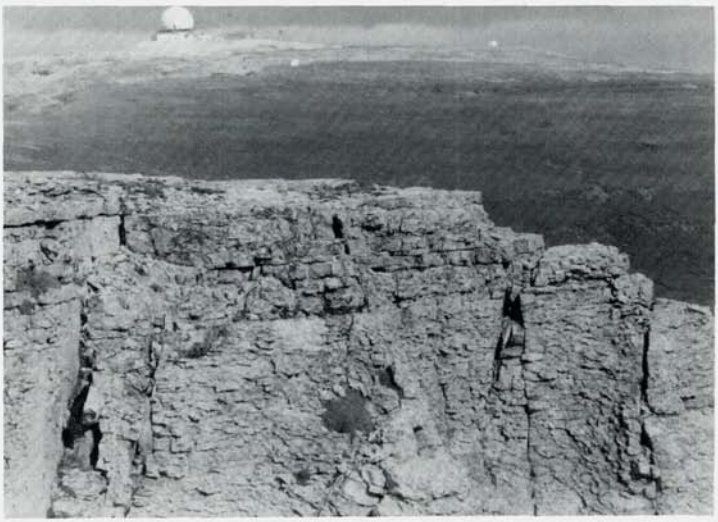
cent cushions of *Draba oligosperma,* sometimes fully a foot across, every rosette a spray of bright yellow flowers; *Gentiana romanzovii* (G. *frigida* to the botanically pure), with strap-like compacted foliage, hardly recognizable as a gentian, and flowers in haunting shades of chartreuse, purple, almost white, near brown; there are Douglasias and Phlox and Polemoniums and Eritrichiums and Pedicularis etc., etc., on these screes. One scree plant, rare but there, is the elfin *Campanula uniflora,* about which one might say, "I'm glad I've seen it and I won't lose any sleep if I can't grow it." Once, when I wanted to point out this rarity to a California couple—who incidentally were politely but decidedly bemused as to why I should point out such a minute thing as something special—I couldn't find it despite the jerry-built rock cairn I'd built to mark it.

The moisture-laden slopes of the Beartooth are rife with good plants: three species of dwarf willows for those afflicted with 'Salixophilia'; a shimmering pink form of *Kalmia polifolia* var. *microphylla;* the bog sedum, *S. rhodanthum;* Phyllodoces, Violas, Mertensias—so many of the subalpine beauties common to the Rocky Mountain slopes.

Yes, it is good to stop at the Beartooth! But the call of the Big Horn is in the air. So we travel by the shortest route possible over dry enervating lowlands to Lovell, Wyoming, a sheep town of considerable charm and vitality. Out of Lovell (on Route 14A) we soon begin the steep but easily traversable highway up to the mountain fastnesses. Once we begin to climb again our senses rejuvenate, our 'hearts leap up', our expectations begin to churn within. And we are soon rewarded. Sheets of Balsamorhiza be-sunning the meadowlands, dry banks of Penstemon (of various species, predominantly *P. montanus* (?) in exciting hues of blue to purple. The purist—whoever he is—will say that they are too tall for the rock garden but massed on the hillsides they are breathtaking. Here and there we glimpse small stands of majestic, rather solitary *Calochortus gunnisonii,* a mariposa lily, white with intricate central markings in rainbow coloring. In one of the pulloffs, luxuriating in baked-hard limestone gravel, we find the lax mats of *Penstemon aridus,* a needle-leafed Penstemon, no higher than 6″, with large purple-pink beardtongues. And for the first time there is the sense of discovery—a plant new to us! Soon we reach the lower subalpine meadow plants: Castillejas, Erysimums, Delphiniums. Occasionally a brightly-waving stand of *Iris missouriensis* has found a home where there is underground seepage. For this is dry country and its inhabitants must be able to withstand drought and sun, probably for the length of their growing season after the snows have gone.

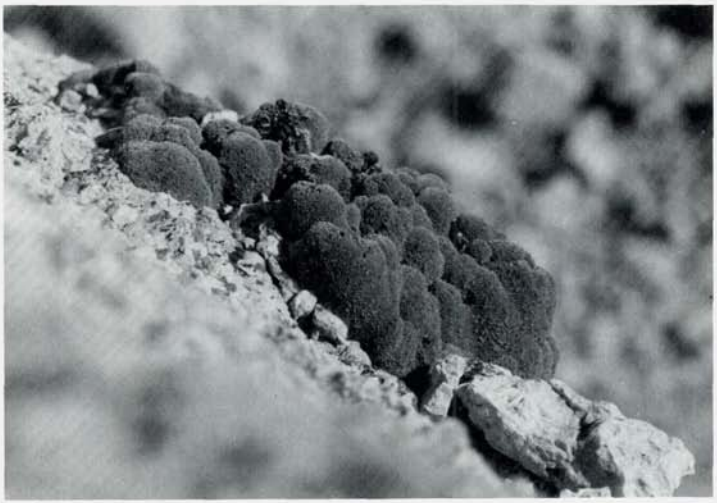
As the climb becomes steeper, the banks of the cliffs are literally edged with huge clumps of *Phlox multiflora,* and soon we round a bend and behold the alpine meadow. Is there such a sight to compare with a meadow in the full lushness of the blooming period? Colors and shapes and scents dazzle the mind, emblazon the heart. There are not great rarities here but the profusion is overwhelming: *Lupinus* ssp., *Polemonium confertum, Castilleja flava, Pedicularis* ssp., *Oxytropis* ssp., Erigerons, Townsendias, stately green-flowered *Frasera speciosa,* seed heads of *Anemone patens, Myosotis alpestris* (which an Austrian friend calls "that surrogate for Eritrichium nanum"). Every inch is color.

And now we know how close we are to our ultimate destination, Medi-



Cliffs near Medicine Wheel (Note *Kelseya uniflora* on cliff, also Radar Dome in distance)

James MacPhail



Kelseya uniflora

James MacPhail

cine Mountain. In order to reach Medicine Wheel, an ancient Indian relic, the road here leads up into the high screes. In fact, two roads lead up. The other one goes to a Civil Aviation radar dome, a mark on the landscape which for days will be a directional guide for us.

We first take the Radar road. And now we are traveling in fits and starts. A *Townsendia grandiflora* by the roadside is a plant 8 inches across,

about 1½" high, huge violet daisies with a pronounced yellow center. Everywhere typical plants of the scree: diminutive, compact, flaunting flowers, intense colors, the inexplicable harmony of habit and flower and situation. There are Drabas with tight rosettes *(D. densifolia)* and Drabas with lanceolate gray foliage (*D. incerta*). There are composites of many shapes, colors, and species (Erigerons, Townsendias, Senecios et al). Here we find *Dodecatheon uniflorum* in moist fissures in the rocks with bright *Ranunculus eschscholtzii* and procumbent Salixes for company. The Dodecatheon is a whey plant, blooming only where the snow has lain long. By seed-collecting time it has disappeared.

But now we are in frantic search for the classic plant of these high dolomite lime screes: the fabled *Aquilegia jonesii*. First we are happy to find the incredible foliage; so densely packed as to be unrecognizable at first but in fact very typical columbine foliage, except for the glaucous sheen of it. The plant may be fairly described as a cushion Aquilegia. But we long to see the flowers. Some are over, many have not bloomed at all. Finally we find one or two late flowers in shady nooks. They are a cerulean blue, massive for the size of the cushion, and upturned rather than drooping. We must wait until we visit other peaks before we find gloriously flowering specimens, always by the side of the roads where huge deposits of limestone chips have been dumped. It is no wonder that *A. jonesii* has a cursed reputation in cultivation, for even after one has provided the impeccable scree conditions, and a definitive collar protection, one might be chary of providing the amount of lime necessary to induce flowering. Some plants have as many as six flowers. In these barren, lonely surroundings they are like jewels on the crown of the world.

The Medicine Wheel area is the real epicenter for us of our "Favorite Area". Plant-hunt in this place and never again could one relegate American alpines to second or third echelons. The relic itself is an archaeological mystery of uncertain origin and not a little fascination. It is constructed of stone laid side by side, forming an almost perfect circle 70 feet in diameter. Around the rim of the wheel, there are six small monuments, or cairns, about two and a half feet high. In the center of the wheel is a hub 12 feet in diameter. The Crow Indians of present inhabitance have no memory, mythical or actual, of its origin and it is presumed to be prehistoric, possibly connected with a sun-worshipping religion. It provides a good taking-off point for plant exploration.

We follow the line of the great white cliffs, bold in outline, almost like ruins of some ancient Mayan pyramid. The formation gave obvious evidence that these mountain peaks were once part of the sea floor, so layered and stratified are they. Indeed, occasionally we note fossils of primordial sea animals. The cliffs are impressive and imposing. But the plants! Here is the ultimate dream: the tight congested cushions of *Douglasia montana,* spangled with the soft pink primuloid flowers, set off so dramatically by the glistening limestone chippings. And *Clematis tenuiloba,* a 6-8" high plant with typical purple-pink clematis flowers more than half the total size of the plant, and yet so fragile-looking, almost too frail to withstand the raging winds of these lofty crags. The fragrance of *Gillia spicata var. cephaloidea,* about 3-4" high with a capitate head of pristine white blooms, swashes the air with its seduc-

White form of *Eritrichium nanum* var. *argenteum*

James MacPhail

tive perfume. There are tufted, silver-leafed Potentillas, more Drabas and Townsendias, cherry-colored *Telesonix* (nee *Boykinia*) *jamesii* var. *heucherifformis* jammed into almost every rock crevice. This Saxifraga relative is larger-flowered in its var. *jamesii* (found on Pike's Peak, Colorado) but what a gala thing it is here.

And then we stumble (mostly because of our exhilaration) onto a gentle scree slope bejeweled with the sapphires of *Eritrichium nanum* var. *argenteum*. One is forever awed by this plant: the cluster of congested, woolly rosettes, the intensities of the blues, in an amazing range of hues; the discovery of the occasional pure white or soft pink forms. All the connotations inherent in Farrer's famous phrase, "Woolly-Hair the Dwarf." Here it is so prolific, so smothered with acaulescent blooms (the stems later elongate as the seeds develop) that one cannot believe it is the *bette noir* of every alpine grower. That little other than mystic incantation will induce it to prosper and flourish in any lowland situation (and even mystic incantation, were one possessed with the wherewithal, would probably prove fruitless). The cushions vary in diameter from 2-4″, but almost all are blooming wildly (the epithet is strangely apt in this context). But there are indications the *E. nanum* is not a long-lived plant: that it grows furiously for about two seasons and then dies off. Later, when we visit *E. nanum* in seed the rosettes are desiccated and dead-looking, although indeed most (but not all) will spring to life the following season.

One could not expect more! But more there is! For soon we trip upon huge mats (up to three feet in diameter) of what at a casual glance looks like gray moss. But moss it is not! For here is one of the three recorded stations of the legendary *Kelseya uniflora*. The large cushions are iron-hard (one feels one could tap out a melody from them) but the largest of them, those of perhaps a century of growth, are dying out and seedlings of Eritrichium, Townsendia, Potentilla etc. have germinated in the midst of them. Surely

Scene on Hunt's Mountain—*Dryas octopetala* in foreground

James MacPhail

Aquilegia jonesii on Hunt's Mountain

James MacPhail

there is no plant like this for cushion effect: the *sine qua non* for the bunnery! The flowers (and most of them are over) are typically Rosaceae, light pinkish with prominent protruding stamens. It is so difficult to believe that what we are so raptly gazing at is in reality a shrub! That beneath the cushions which dome themselves into every contour of the rocks is an intricate network of woody shrub-stems.

It is always a source of amazement to me how selective some plants can be of their habitat. Kelseya will grow only in the nooks and crevices of rock outcroppings. It never seeds itself in the talus beneath and as often as not chooses the shady side of the rocks. Also, I rather fear that Kelseya is in its decline in this station. Many of the old plants betray signs of slow decay and the seedlings are few and far between. How much of a relic plant this is I do not know, but I suspect (in the realm of pure speculation) that it is indeed ancient and that its lease on life is tenuous. All the more reason to learn its temperament in cultivation. At home we have pot grown a small seedling for several years, planted in a hole in tufa; the rate of growth is infinitesimal, and there has never been a hint of flowering, but the compact cushion is one of our special delights. Hopefully, if we germinate some of the fresh seed we collected we can find crevices in the tufa garden where it will acclimatize. For Kelseya is pure joy; a plant with perhaps equals among the cushions (yes, Aretian Androsace, possibly *Gypsophila aretioides)* but never betters.

And still the screes of Medicine Wheel yield further rewards. One plant, obviously a legume, eluded our identification for a long time. It resembles a prostrate (literally) lupine and its brightly poised flowers (we once found the "rare white form"—we are addicted to looking for the "rare white form") range from pastel shades of red and orange to blues and purples and violets, all on the same plant; soft tones of the rainbow arching through the lovely, soft gray-green, typical pea-flower foliage. But so minute and compact! Here is a plant (that we have tentatively keyed as *Astragalus tegetarius*) which I doubt is in cultivation. For one thing the seeds must be carefully handpicked one by one (this is a weary, patient memory speaking) from the center of the plant, which is somewhat spiny. The picture of us crawling about on our hands and knees for hours, hand-picking one seed at a time, caused many a passerby to conjecture we were plucking out seeds for some fabulous new food crop. Real health faddists! But if the fresh seed germinates and it can be induced to accept pot culture (some of the legumes object to the restriction), or perhaps even the tufa scree, what a magnificent addition it will be!

The road (if such it can be designated) up to Sheep Mt. leads first to Duncum Mt., where the screes are dominated by that always surprising composite, *Rydbergia (*or *Hymenoxys* or *Actinella) grandiflora.* Monumental, golden sunflowers perch themselves on a six-inch plant; the flowers seem impossibly large for the size of the plant and yet not displeasingly disproportionate. There are thousands of them on Duncum Mt. and the sight is one long song of joy, especially as they are wafted by the wild wind, but few have seeded themselves on the adjoining peaks. This question of selectivity again: why does Rydbergia choose this particular site almost to the exclusion of all others: soil? or exposure? or a question of mycorrhiza? The companion plants are often those that appear on the other peaks: *Aquilegia jonesii,* Eritrichium, *Astragalus tegetarius, Oxytropis besseyi* (not so flat as the Astragalus but lovely, woolly-silvery foliage and glowing purple flowers).

On Duncum Mt. there is a strange (even eerie) rock formation which I have always maintained (in a fantasy sense) are the remains of an ancient fortification. What plants inhabit these rocks! A version of *Eriogonum ovalifolium* (possibly *E. depressum*), flatter and more silvery than any other form I have found of this ubiquitous gem; a mat-forming Saxifraga, perhaps

S. austromontana, impressive in habit, rather plain-Jane in the flowers; a Draba relative, diminutive *Lesquerella alpina,* gray foliage and clusters of bright yellow crucifer blooms radiating from the rosette; *Lloydia serotina* in the rock crevices, more exciting for its rarity and its family connections (perhaps the smallest of the lilies and almost always the highest in the mountains —we are here about 10,000 feet) than for the quality of its bloom; *Paronychia sessiliflora,* which is just plain nothing in the flower (and this from an *afficionado* of green flowers) but a fine rounded cushion which more than pleases me in rocky outcroppings in the garden. And as the darkness crept in, we came upon a gently sloping bank with underground seepage and no less than four species of the dwarf willows, including *Salix dodgeana,* the minutest of the minute.

Surprisingly, when we scouted Hunt Mt., which is a mere six miles away from Medicine Mt., we found an almost turnabout in the flora: many more of the plants which prefer the granite screes. Masses and masses of *Dryas octopetala* (in gardens designated *minor* because of the reduced foliage) cascading down from the rocky sentinels, more profuse than I had seen it in the Swiss Alps. And sure enough its companion piece is that other circumboreal crowd-pleaser, sprawling mats of *Silene acaulis,* in varying shades, some dazzling, others distinctly wishy-washy. Here and there were pert plants of *Lewisia pygmaea* in a very alive-pink form. Higher in the screes, *Aquilegia jonesii* in robust bloom; great patches (you read correctly) of *Eritrichium nanum,* and in one place only, beneath a rocky ledge in a spot which was probably an underground spring, a glorious colony of *Primula parryi.* We had once traveled almost two hundred miles south from the Big Horns in search of this Primula and here it was—almost under our collective noses. It was in that perfection of bloom so fleeting in the mountains, the sun's rays glowing through the ruby flowers with a radiance that one cannot imagine. Our very hearts must have glowed back in response, so delirious were we with the beauty. Later—about a month later when we returned to collect seeds—we were appalled (to bring us back to earth) by the overpowering stench of the plant. But in flower, it was dream-like.

And so I hope from these rather waxing-golden notes you can perceive some of the joys we have derived from "our favorite area". And hopefully we can all together dispel some of the subtle inferiority complex surrounding American alpines. In cultivation they are still to be fully tested. But if one succumbs to that slightly high-fantastical theory that after they have battled the cultivator every inch of the way at first, most alpines will eventually respond to some kind of loving care (not, however, smothering over-affection) and as the phrase has it, "settle down" in cultivation.

Meanwhile as a frank proselytizer for American alpines, may I offer this admonishment: go to the Big Horns!

* * * * *

Must we wait ten years for the next International Rock Garden Plant Conference and Show? Can the host societies of the past widen their base by taking in other competent societies, letting them shoulder the responsibilities under experienced guidance? Could this next conference be held in America and in five years? It would then be truly international!

DAVIDSONIA ROYI (SEATTLE)

(Editor's Note)—Our Seattle member, Roy Davidson, who enlivens and facilitates the editor's work with his delightful articles, has earned himself a binomial designation for use in the presentation of his writings in the ARGS *Bulletin*. The supposition that more than one contribution by an author should not be published in any one issue is not necessarily well-founded, for its application tends to withhold for an indefinite time from the reading public material that is available and timely. Therefore, there should be no valid objection to combining several contributions under a collective heading and publishing them as soon as they become available. Hence you have Davidsonia royi (Seattle).

AQUILEGIA ENTHUSIASM

Mr. T. J. Cole's careful evaluation of some fifty lots of Aquilegia grown from seed (ARGS *Bulletin*, January, 1971) is certainly a labor of love, and one in which I took much interest, as would anyone so intrigued by the humorously harlequinesque members of the genus. Perhaps a few notes of my own could add a mite. As a boy I knew, from the seeps in black basalt cliffs of the family ranch, the plant later to bear the forma name *wawawaensis* of *Aquilegia formosa*, and as a neophyte taxonomy student I wanted to call attention to its seeming differences, which no one else could see! So, imagine my chagrin upon discovering that someone else had noted it and received credit for its recognition. It assuredly is *not* a markedly distinct plant, particularly on a herbarium sheet, having been annotated as a local race of the species from a very wet habitat. In the living state it seems to be especially glandular throughout and the color is a soft yellow diffused with only a touch of red to give a pale carrot or salmon tint.

The whole plant is strongly aromatic, a point not noted in its description, nor in subsequent discussion. As to the name, "Wawawai" is the site of an ancient tribal council of the Nez Perce Indians, and later a pioneer village which bore the name. To this place some of my ancestors migrated in 1877. The site is soon to be inundated by the floodwaters of the fourth of the lower Snake River dams in southeast Washington, and there is a movement on foot to name this body of water Lake Wawawai (Wah-*wah*-wi), to commemorate the Red Man and his council as well as the White Man's settlement. The name means "talk-talk-talk", thus "place to talk."

Several years ago, I was gifted with a seedling lot of the Biedermier strain of Aquilegias, and I note in the recent seed list that Mr. Cole has ascertained it was never intended to have been a species designation! It was my understanding that it had been bred in Europe, from what lines I do not know, and that it was hailed as the "answer" to a rock gardener's need. I found them too tall, very coarse, and the colors unbelievably muddy. Perhaps I had a bad seed lot.

Shortly thereafter, I received a little potted Aquilegia seedling of unknown affinities, said to be from a plant in the famous collection of Portland's Mrs. Berry. It grew into a perfectly lovely little, three-inch mound of

incised, silvery blue-green leafage, different but every bit as lovely as that of "Jonesy" (the famous beauty from the northern Rocky Mountain limestones, *A. jonesii*). It was a plant of utter grace, over which hovered, with a poise that only the *most* refined of columbines can achieve, its ethereal blue flowers. But the best was yet to come. It stayed with me, and when it had grown into a voluptuous old grandmother of four years and five inches, it was broken up. The divisions flourished! It had also self-sown from a few seeds that had escaped the harvest for exchanges. Not all the children duplicated the mother, and for all this I blamed the undiscriminating bees, of course. Since then I have removed all others of the genus from that area of the garden.

This little gem would appear to be of partly *scopulorum* ancestry. But HOW can it be so lovely and still so EASY? It has all the attributes of the finest high montane columbines, plus one—the virtue of being of easy culture. "Jonesy" I have not removed from nearby; it grows well but has not flowered in its six years tenure.

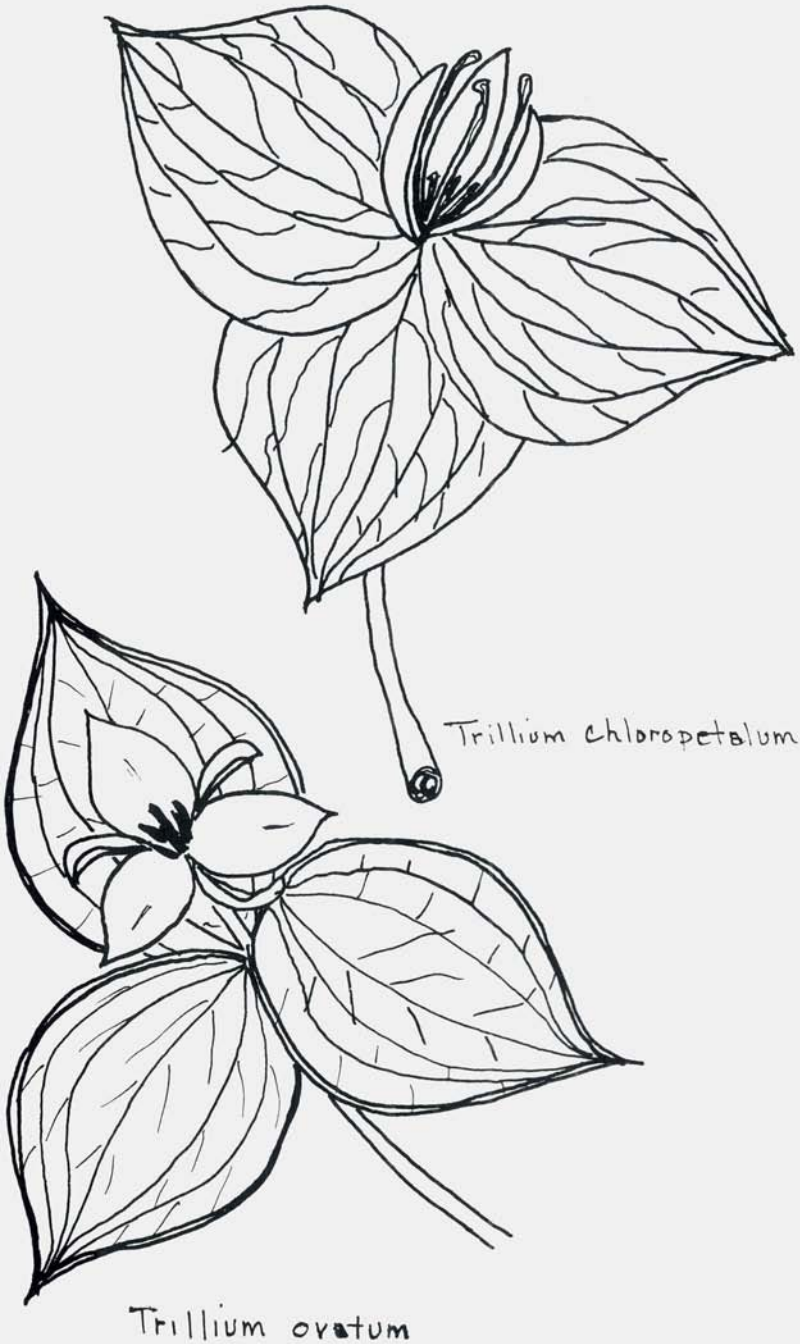
I wonder if *Aquilegia ecalcarata* (in Cole's list, *Semiaquilegia ecalcarata*) has been selected for "strains," or maybe it, like the others, is subject to a dilution of genetic structure through out-breeding? The typical quiet flower on a plant twice the size it should be, as Mr. Cole described, would certainly proved a disappointment, but a clear lilac form without the muddying purplish shading on a ten-inch plant might be an improvement, at least in the eye-of-the-mind. It will be interesting to note what seedlings come from Mr. Cole's collection of compatible species growing together.

ON SNIFFING TRILLIUMS

While many of the wildflowers may be possessed of a generally unnoticed, delicate scent, a pronounced fragrance is not commonly mentioned among the attributes of the genus *Trillium*. Dr. Wherry has opened up this interesting subject (ARGS *Bulletin* of January '70) regarding which I've had some concern. How many Trilliums are fragrant and to what degree? It is likely that most are at least faintly scented, but how many "fill the air" as Dr. Wherry experienced with *T. chloropetalum* in southwestern Oregon?

Some years ago I had brought into the garden a few summer-ripe rhizomes of this plant from west of Grants Pass on the Rogue River, and one balmy April afternoon the following spring I was fascinated by a strong "new" perfume seeming to quite suddenly "fill the air." It was remindful of the Yucca's scent of a July evening, a totally unfamiliar experience at this season. An examination, follow-your-nose style, disclosed, of course, the source to be the Trilliums around the upper pond, set in a glen of dogwood. Dr. Wherry likened this fragrance to that of roses; perhaps so—no two roses (nor no two noses) smell alike!

When the Harold Epsteins called a few springs later, this same colony was flowering, though past prime, and it was a chilly day. Nevertheless, and at my bidding, they dutifully knelt on the paving to sniff and were agreed that there was indeed an appreciable degree of fragrance. I had found a large and decidedly more fragrant colony on Cow Creek, a westerly drainage of the Umpqua system, some miles north of my first station and nearly due west of Dr. Wherry's; the three forming a large triangle of mountainous ter-



Linda Wilson

rain within Oregon's Josephine and Douglas Counties.

Correspondence with western Trillium buffs had not shed a great deal of light on the subject and, in fact, until reading Dr. Wherry's report was much significance given to the find of strongly fragrant individuals. No botanical descriptions give consideration to scent. Mr. Leonard Wiley has not noticed any, though he admits his nose is not a "keen" one; neither has Mr. James Baggett, who consulted Mr. Gilman Keasey on the matter. Mr. Baggett had reported Mr. Keasey (*Bulletin,* July '69) as a grower of thousands of this species for the market. If it were generally so fragrant, the attribute would seem unlikely to have gone undetected. Mr. Baggett wrote, "Our conclusions are based on a rather small sample, all from a limited area and none is strong enough to smell, except by close sniffing; each was a little different, and I suggest that individuals vary regardless of the area. This is true of *T. ovatum,* and the best of that species are more fragrant than the best of *T. chloropetalum* in our experience."

This is a sound observation and I can only conclude that within that rough triangle in southwestern Oregon *Trillium chloropetalum* perhaps reaches its ultimate development of fragrance, not attaining such a degree in other areas and that these individuals surpass *T. ovatum* in amount of scent. That it is a "fixed" factor not dependent on local conditions seems assured since high degrees of fragrance have been detected both *in situ* and when transplants have been made. Propagation both by offset and by seed is being undertaken in the garden.

Perhaps Trillium Sniffing Expeditions this coming spring might disclose degrees of scent in other species.

THE LITTLE SPIRAEAS & CO.

The general nursery listings under the genus *Spiraea* would lead one to the conclusion that the one and only that is less than three feet is the form of *S. bumalda* called 'Anthony Waterer.' Some of the references, such as Wyman's on shrubs and vines, do allude to a couple of others, but they are rarely seen as "available" items in the nurserymen's catalogs. Those of us who delight in the miniature qualities of *Kalmiopsis* as against the majesty of *Kalmia latifolia* will be delighted to discover that there are some similarly scaled *Spiraea* species and that they are obtainable subjects, not just names to be put on the waiting list.

The genus *Spiraea* is another of the ornamental-laden Rosaceous genera of the northern hemisphere. Whereas the majority of them are estate-sized subjects, two of the species (or species complexes) have mercifully, by natural or induced means, given a number of under-a-foot individuals that carry all the charm of clusters of hawthorn blossoms, though in smaller scale, and on delicate bushlets of foot-high dimensions, or less. The curse of the rosaceous shrubs has been removed in these small versions for they renew themselves with basal or subterranean growths rather than producing their new growth toward the upper extremities as the taller species do, with the result becoming a decadent sprawl, unless the required thinning and heading back promotes a dense and basally oriented branching (which in any case is but temporary in its effectiveness and requires annual effort). The flowers

are as attractive as on the larger members, and by contrast on the smaller and more delicately-scaled plants, are much enhanced.

European is the species *Spiraea decumbens,* under a foot, white-flowered, and either glabrous or pubescent. There are several synonyms as *S. lancifolia* var. *decumbens, S. procumbens,* and the very dwarf, gray-pubescent form from the Italian Alps, *S. decumbens* var. *tomentosa* (or *S. hacquetii*). This last, in the nursery trade, is a low-mounded, fine-leaved decumbency to 8 inches whose elegant inflorescence of snowy white is accented by its delicacy of foliage. Although among the choicest of its sort and named since 1885, *S. hacquetii* is scarcely known, and deserving of wider appreciation.

The Asian counterpart is the far-ranging *Spiraea japonica,* a complex of forms (and of names), pink or white flowers, and again glabrous or pubescent, varying from a few inches to above a yard. In nature this species assumes many guises, and in recognition, many names. The white ones have been called *S. albiflora, S. leucantha,* and *S. japonica alba,* and are noted for the profusion of flowers. When mated to the pink *S. japonica,* the result was *S.* X *bumalda,* of which 'Anthony Waterer' is the best known selection: although designated as "hybrids" as are so many of the related plants to be discussed, they represent selections under controlled matings of some of the noteworthy natural forms given the recognition of names. There are many of these, but among the smaller available by name are *S. bullata* (*S. japonica* var. *bullata*) compact and densely twiggy, gradually forming a spherical shrub of a couple of feet, with small, crinkled (bullate) leaves and a profusion of rosy flowers. Unknown as a wild plant, this has probaby been propagated in the Orient for generations prior to it introduction into western horticulture in 1880. This has also been cataloged as *S. crispifolia,* and there is at least one other form of the species with somewhat bullate foliage, though lacking the compactness of this one.

It is within the so-called hybrids between forms of *S. japonica* that the most enticing smaller developments have occurred. The pink *japonica* when mated to the white *albiflora* gave, according to the records, not only the crimson 'Anthony Waterer', but a similar taller one designated as *S.* x *bumalda* 'Froebeli'. When *bumalda* was crossed back to *bullata, S.* x *lemoinei* resulted, from which the form 'Alpestris' was named. It is a very soft, lax shrub to about six inches, smothered in season in its outsize pink corymbs, a little lower and perhaps paler than the form of *S. japonica* designated as var. *alpina.* A rather similar one, though with somewhat bullate leaves, is apparently of unrecorded origin, and cataloged variously as either a *bumalda* or a *bullata* and designated as *'Nyewoods';* it is not as stiff as *bullata* and is said not to exceed six to eight inches and to bear rosy-crimson flowers.

Flowers are not, of course, the sole attribute of a good plant, and thus the flowerless one cataloged as *Spiraea normanii* is grown for its spreading, angled branchlets and intensely crimson autumn color. Its affiliation is not easily discerned, though it would seem more similar to the Asian *S. japonica* than the European *S. decumbens.* (If it were to produce flowers with stamens as long as the petals, but not exceeding them, it would conform to the latter species.

Mention might be made of some few good plants that were formerly

considered to belong within the genus *Spiraea,* but are now ranked elsewhere. *Stephanandra incisa* has finely divided, stipulate leaves which turn to a brilliant red-purple in autumn, flowers white, minute and unimportant, and a spreading habit of invaluable groundcovering quality. The western American *Petrophytum* species were once included within the genus *Spiraea.* The rather wide-ranging *P. caespitosum* of the limestone Rocky Mts. forms cushions of silky pubescent, rosetted growth and few-inch, white, bottle brush-like racemes. Similar, though differing in details and less densely silken, are *P. cinerascens,* endemic to basaltic cliffs in north central Washington, and *P. hendersonii,* likewise an endemic to Washington, but from high elevations in the Olympic Range. These are plants for the warm, sunny scree, delightful as slowly spreading specimens.

Holodiscus was also once put into the genus *Spiraea,* and though none come within the diminutive dimensions of the plants enumerated above, selected clones from the heights of the Sierra Nevada have flowered profusely at a foot-and-a-half. Though they would like to go to three feet in cultivation, the strong growths can be headed back, encouraging a rather stoloniferous habit, and a lower and denser individual. It is evident from the leaves that they belong to *H. discolor,* although the more restrained manner of growth leans toward *H. dumosus.* Regardless, the beige-lace of the inflorescence has found favor for this usually badly top-heavy shrub, so that the clone cataloged as *H. discolor* 'Tioga' ought to be a welcome improvement.

Spiraeas and their ilk should not fall into disfavor because the familiar ones are course, rangy or gawky; there are many as refined as any of the graceful Ericaceous shrubs; the summer flowers and autumnal coloring of many are added incentives to growing them.

* * * * *

WHO ARE THESE PEOPLE?—This obscure incident will illustrate the type of people who congregated at Harrogate for the five delightful and hectic days of the 4th International Conference. In the dining room of the Crown Hotel, eight assorted delegates, gathered at random about the round table, had just finished an excellent dinner. Conversation had been brisk and the two motherly waitresses had served well and graciously. The diners rose to leave and the editor, being the last to rise, found himself approached by one of the waitresses.

"Could you tell me, sir," she said, "Why all these people are here? Why have they gathered? What is it that they are interested in?" Then plaintively, "No one of the hotel or kitchen staff tells us anything, and we are curious."

"We come from many lands and we are all gardeners." I told her, "We are interested in the small flowering plants and shrubs of the mountains and the forests. We like to see them where they grow naturally, and like to bring some of them to our rock gardens to try to make them grow happily there."

Her expression as she listened was one of utter attention, her eyes glowed with understanding and she answered softly, as to herself, "They are all gardeners—they love flowers. No wonder they are all such nice people!" Then directly to me she said, "Thank you, sir, for telling me. I will tell the others."

COMMENTS ON *OENOTHERA MISSOURIENSIS INCANA*

CLAUDE A. BARR, *Smithwick, S. D.*

In Mr. T. J. Cole's excellent photograph of *Oenothera missouriensis incana,* in the April, 1970 *Bulletin,* the form of the typical ovate to ovate-lanceolate leaf is clearly shown, as distinct from that of *Oe. missouriensis* var. *missouriensis* which is described as lanceolate, and the distinctive light reflections from the leaves seem to come in part from the described silvery hairs, as it should.

In the comprehensive treatment of the Onagraceae, Philip A. Munz, published by the New York Botanical Garden, 1965, the variety *Oe. m. incana* is listed as *Oenothera missouriensis* Sims var. *incana* A. Gray, Bost. Jour. Nat. Hist. 6:189. 1950. To this and other similar Oenotheras Munz gives the group heading, Subgenus *Megapterium.* In *Flora of Kansas,* Frank C. Gates, 1940, the listing reads *Oe. m. incana,* and in *Keys to the Flora of Oklahoma,* U. T. Waterfall, 1962, it is recognized as *Oe. m.* Sims var. *incana* Gray. Munz offers nothing definitive as to the habit of the plant, but does state that the range of var. *incana* is largely west of the range of var. *missouriensis,* that it is in higher drier country which might account in part for the usually shorter and more erect stem of var. *incana.* As to greenness or grayness of the leaf, Munz states that the leaves of var. *missouriensis* are greenish, only the younger leaves, stems, etc. grayish; while the entire plant in var. *incana* is thickly invested with silvery strigose pubescence.

My own source of stock of *Oenothera missouriensis incana* was Mrs. Laura Williams, Atlanta, Kansas, which is probably within the ranges of both the above mentioned varieties, though Mrs. Williams seems to know only var. *incana.* From her seed my plants have come both notably green and notably silvery, both forms having the ovate to broadly lanceolate leaf and relatively short, erect stem habit. On questioning, Mrs. Williams stated, "Both green and gray leaved plants grow intermingled a few steps from my doorway." Possibly these are among the "intermediates" which puzzled investigators find do not check closely with published technical descriptions.

Further than this, in my garden at Prairie Gem Ranch in western South Dakota, hybridization among certain members of the Megapterium group occurs with such freedom that seed from the most nearly typical plants of *Oe. m.* var. *incana,* or *Oe. m.* var. *oklahomensis,* or *Oe. fremontii,* after years of growing within flight range of the local pollinators may be safely assumed to be hybrid seed. The saving factor is that all bear their marvelously beautiful, large, yellow flowers over a very long season.

Typical *Oenothera missouriensis* var. *missouriensis*, as I have grown it, and have seen it elsewhere, has proved unable to withstand the long droughts to which this garden is subject. A much shorter-stemmed plant from the northern portion of the Texas Panhandle, white-silvery in leaf, relatively large flowered, and with seed capsules much reduced in size, seems to fit Rydberg's description of *Megapterium argophyllum,* and therefore must be considered a form of *Oe. m.* var. *incana.* I do not find that Munz refers to *M.*

argophyllum; he does give as a synonym of *Oe. m.* var. *incana, M. argyrophyllum.* A test is yet to be made with seed of this very silvery type for hybridism.

I believe that Mr. Cole's plants of "trailing habit" may be influenced by the humidity of his environment. Or possibly by an inheritance from *Oe. fremontii* which is a low, somewhat procumbent type.

MUSINGS ON A NAME CHANGE

CLIFTON L. MERRILL, *North Bath, Maine*

The name of the well-beloved plant of our southeastern states, *Galax aphylla,* has now been changed to *Galax rotundifolia.* Comparison with the plant in the Linnaean collections at Burlington House in London has shown that the *"Galax aphylla"* of Linnaeus is a different plant than the one named *Galax rotundifolia* by Pursh. The latter has accordingly been designated as the type.

Among the names of well-known rock garden plants which have been changed in recent times, the following come readily to mind: *Semiaquilegia ecalcarata (Aquilegia ecalcarata), Dianthus noeanus (Acanthophyllum spinosum), Galax rotundifolia (Galax aphylla), Plagiorhegma* or *Jeffersonia* (whichever is correct), *Chamaepericlymenum canadense* (certainly a mouthful) for the euphonious *Cornus canadensis,* and *Ptilotrichum spinosum* (*Alyssum spinosum*). Rock gardeners have shied at *Ptilotrichum spinosum* possibly because the mind boggles at the consonantal conjunction of "Pt", looks 'round in alarmed disbelief, pretends it isn't there, and then goes determinedly about other duties as if the latter were intended all the while.

We tend to forget that in biology—and its branches of botany and zoology—the word "Synonymy" is employed in a different sense than in common English usage. In English, a synonym is "a word having the same or nearly the same meaning in one or more senses as another"; in botany, it is "an incorrect or outmoded systemic name." True, *Galax rotundifolia (Galax aphylla)* is precise, the synonym hunched in parentheses in a sort of forlorn, alienated majesty. *Galax aphylla (Galax rotundifolia)* is improper as putting a deposed monarch back on a throne, a practice sometimes frowned upon by nations and always by botanists.

Casual mention of a new name can lead to misadventures in communication; especially so if the nomenclatural neophyte is so recently fledged as to be recognizable only to the sponsors of the hatch. Such a non-communication chain reaction was set in train by a current *Bulletin* article (a most informative and enjoyable one) in which *Galax rotundifolia* was noted. Perhaps if *Bulletin* authors were urged to attach the immediate synonym to a newly accepted name, confusion would be avoided. Such a procedure might serve to give ballast to minds adrift on a sea of name changes. *Galax rotundifolia* tells nothing but the truth; *Galax rotundifolia (G. aphylla)* tells the whole truth to the generality of rock gardeners.

To labor the point farther, one of the exhilarants of existence for the

average rock gardener-collector is a hint that there is a new (to him) species of a favorite genus. The chase is on, the dogs in full cry, one throws one's heart at a tricky fence and one's horse follows, but when the quarry is sighted, comes the denouement; the plant one has been pursuing is already growing in one's garden under a synonym. One's spirits are abraded, lassitude and boredom result.

The rules and methods adopted for the formation of botanical names in the International Code of Botanical Nomenclature are sound; names in violation must be brought into conformity. It is good that our attitude is mellowing and no longer do we overhear at a faculty tea: "Whatever happened to So and So who changed This and That to That and This?" "Oh, you mean old John—he disappeared into long term research and, mercifully, was never heard of again!" Nevertheless, a few comments on name changes might be in order.

To fume about name changes is to rail against research and the discovery of truth. Scientists are the first to admit there are abuses. It would be contrary to the history of human frailties if such improprieties did not occur. But the advanages of scientific procedures, as laid down by the Code, far outweigh the tergiversations of the few.

In 1933, L. H. Bailey published a book with an inspired title, *How Plants Get Their Names."* Not "got", mind you, but "get." What is inherent in the Bailey caption?

Truth is relative; not absolute; is what is agreed upon at a particular moment in time by informed people as being consistent with the known facts. As factual knowledge grows, comes the need for new concepts of truth. We identify and define such additions where plants are concerned in Latin binomials. So the process goes on. Names are changed, are changing, will change.

And so, grumble as we may, and gibe as we will, names will continue to change and be "hard" to pronounce, the latter fact being to a respectable elderly gentleman with uncertain dentures, such as the present writer, just another example of the "slings and arrows of outrageous fortune."

New names must be recorded; these are scattered in scientific journals and proceedings, authoritative books, floras etc., spread over many countries, written in different languages. Unfortunately, there is not a regular authoritative reporting of name changes readily available to all botanist and plant lovers. Surely we should bear this in mind when we criticise the editor and contributors to the *Bulletin* for violating the rules of name priority. "Seek and ye shall find" is true of heavenly, but, not necessarily, of nomenclatural salvation. Usually one discovers the changes by sheer accident, like encountering an old school fellow; "Fancy meeting you after all these years. I thought we were both dead!"

In view of the difficulties in keeping abreast of name changes, we should be most lenient towards those individuals who, in our *Bulletin,* are doing their very best to cope with the system as it exists.

Perhaps the type change as between *Galax aphylla* and *Galax rotundifolia* might be summed up in deathless doggerel:

> The nuptials of the latter are consummated,
> And the marriage of the former is Reno-vated.

STUDY WEEKEND 1971

MRS. JOHN S. KISTLER, *West Chester Pa.*

What a wonderful way to spend a frigid winter weekend, when there is absolutely no gardening to be done, even in the Alpine House! A Study Weekend at the Claridge Hotel in Atlantic City; New Jersey; with 130 rock gardeners in attendance is our bit of heaven. A few came for a day, but most of the hearty group arrived Friday in the late afternoon and stayed till the end on Sunday. They came from all over—from Maine to Virginia, and west to Wisconsin. The longest traveling being the John L. Warrens from New Zealand. To spend a breakfast or lunch at the same table with some of these knowledgeable people is an experience.

Friday night, Dr. Richard Lighty, of the University of Delaware, showed slides of his plant explorations in the mountains of Korea which was sponsored by the U.S. Dept. of Agriculture and Longwood Gardens, Inc. Among the plants he showed were Gentians, Orchids, Legumes, Lilies, and Saxifrages. The only plant from his trip that has found its way into Delaware Valley gardens is *Viola variegata,* a tidy little violet about 5 cm high, with lovely mottled leaves. It has proved perfectly hardy here, so perhaps other plants will be introduced later.

Saturday morning brought us all together early to be ready for the Discussion of Alpine Houses. Lincoln Foster, who has an alpine house for growing and blooming his fine collection of alpines, was the moderator. His panelists were Paul Palomino, Lee Raden and Rex Murfitt, all of whom have or have had alpine houses. After Linc's introductory words, and after each member of the panel had explained why he had an alpine house, there were so many questions from the floor, that it became a question and answer program on the various phases such as the kind of house, what size, type of heat, kind of pots to use, height of staging, plunge material, exposure, etc. The answers varied with the panelists according to the size and location of their alpine houses. They did agree that the space under the benches was needed for growing and that the benches should be raised to about 40″, or that there should be light down to the floor level. It was a most informative and well spent morning.

After lunch, with many questions on alpine houses being tossed back and forth, we all gathered to hear Dr. William Overlease, Professor of Biology at West Chester (Pa.) State College, talk on "The Ecology of Arctic Alpine Plants." He explained why and how these plants have had to adapt themselves to their environment to be able to survive. The shortness of the growing season, the length of the arctic day, the intensity of light, and the presence of permafrost, all have affected the structure and habits of these plants. This helps give us a better insight into the needs of these plants as we grow them in our gardens or alpine houses.

Then came bedlam! The Book Sale! We had all browsed through the books earlier and many hoped to be the only one interested in some particu-

lar book. Not so! There were many bumped elbows, and many sad faces as books were grabbed, but there are many happy hours of rock garden reading to fill the long winter evenings for the lucky buyers. Florence Roberts, who by day is Librarian at Longwood Gardens, had collected the books from many sources. Some were gifts from rock gardeners, others were on consignment, and still others were bought for resale. A supply of Alpine Garden Society publications was also for sale. Several of the rarer books, such as one of Farrer's and Clay's sequel to Farrer, were auctioned off by Lee Raden.

Soon, we all settled down to hear "How to Grow Alpines without Alpine House, Frame or Pit", or "Natural Rock Gardening." This was a great program by Norman Deno, Professor of Chemistry at Pennslyvania State University and a lily enthusiast, as is Dr. Lighty. Some of his plants are grown from seed that is sown directly on the ground, others are so happy that they are seeding themselves everywhere in his garden. He showed slides of midwest cactus blooming in his mid-Pennsylvania garden, of orchids seeding themselves (with a little help), of Primulas, of Delphiniums, and many other plants. He admitted, however, that he has a perfect site for this, a north-sloping rocky hillside with moisture underground. Above all this is a gardener with a knowledge and love for all the plants he grows.

The hotel personnel was fascinated by the members of the ARGS present, because they stayed to listen to all the speakers and did not slip away as the lights lowered. They had come to listen and to learn. So when we finally ended our afternoon, it was only by rushing that we could meet for a short chat and a quick sip before we were heading for the dining room. This was our banquet—a hearty and delicious roast beef dinner. Then another speaker, Rex Murfitt, formerly of Stonecrop Nurseries in New York state, and now living in Victoria, B. C. whose subject was "Collector's Alpines." After sitting all day, and the big dinner, there could well have been a temptation to doze off, but not this group! Rex showed beautiful slides of container-grown alpines that has us all wanting to try our luck. There were pictures of Saxifrages in full bloom, *Draba rigida* just a mat of yellow, Petrophytum in bloom, and many others. Then he took us up into the mountains to see some of the plants in the wild. His slides had shown us what we could enjoy if we had an alpine house. It was great! But now we were tired, so no night life for this group. Off to sleep we went, to be ready for the next day. Snow was spitting down; no one even thought of a stroll on the Boardwalk.

Sunday morning found everyone at breakfast early. The reason was a 9 o'clock seed sale. Again there were some bumped elbows. In a short time we were all settled in our chairs to listen to Gertrude Wister take us through spring with her talk and slides of "Small Daffodils, Iris, and Other Small Bulbs for the Rock Garden." Her introduction was a plea not to use the dwarf Daffodil species, but to use the tiny hybrids. Several of the species are no longer growing in the wild due to over-collecting at the wrong time of year. She mentioned one species that they are trying to re-establish in the wild by sowing seed over the area where they once grew. Then she took us on a picture tour of the Wister's garden. Mrs. Wister is a former Assistant Director of Scott Foundation of Swarthmore College and a former Assistant Director of Tyler Arboretum.

Study Weekend 1971 came to an end, but many new friends were

made; many new plants were seen, and many a longing for an alpine house is being turned over actively in many minds. I wonder how many new alpine houses will come into being as a result of the 1971 Study Weekend!

GROWING ALPINES UNDER GLASS

JOHN P. OSBORNE, *Westport, Conn.*

The interest in growing alpines under glass has been increasing at an amazing pace. When I built my greenhouse ten years ago I doubt that I could have counted over half dozen alpine houses that I knew of. Now they seem to be going up everywhere. But interest in rock gardening in general has been growing so much in the past years that it is only natural that an interest in alpine house culture should follow. No one who has been bitten by the bug can be content to sit out the winter if he can possibly do anything about it.

Surely no other branch of horticulture offers such a wide range to choose from, nor one so lovely and challenging, as does that branch which has to do with the little plants of the mountains and high meadows of the world. The field is so great I doubt that any one person has grown them all, so that from a collector's standpoint it offers a lifetime of pleasure. Some of the loveliest may be too tender or may dislike our wet, rainy winters too much to be grown in the rock garden—hence the alpine house where they will thrive and flower to light up our winter months, possibly a month before they would flower in the garden.

Most alpine houses these days are constructed of aluminum and glass, but many are built of fiber glass and polyethylene on a wood frame. These are less expensive to build and if they have adequate ventilation they do very well. Ventilation is essential if alpine plants are to thrive. Ideally, the alpine house should have both top and side window ventilation to assure a through current of air, but this is not always feasible. During the fall and spring months the door can be kept open and if the house has an opening at the top this will assure a flow of air. It is during the winter months that there is a problem to be solved.

By mid-March in my area of Connecticut some shading is very necessary. There are various kinds of material for this purpose but I like the slat blinds that can be rolled up or lowered according to the weather, but I must confess that once they are rolled down they usually stay down until the leaves appear on some oak treees that provide sufficient shade.

Heating is not much of a problem in an alpine house as very little is needed. I keep a night temperature of 33 degrees or just above freezing, but temperatures of five or even ten degrees below this will do no harm if not maintained too long. Some very simple and inexpensive heating units are available that are adequate for the average small house. My own alpine house is 14 x 20 feet and is heated by an oil-fired hot air furnace which was installed by the builder with some reservations on my part. Now I would not part with it for it not only heats well but solves the problem of adequate air circulation during the winter months.

Watering is by all odds the most important factor in successfully growing

alpines under glass, and the most difficult thing to learn. Alpines are tough little plants and will grow in any decent soil so long as they have good drainage, maybe not as well as they would grow if they had a soil to their liking but they will grow. But they are so easy to kill by thoughtless watering.

From November to March they require very little water. After growth starts and during the spring and summer, they need plenty.

It may be helpful to a better understanding if you can visualize the space between the minute particles of mineral and organic matter that we call soil as being filled with water and air, which in fact it is. If this space is filled with too much water for too long a time, the root will rot and the plant will die. If, on the other hand, the space is filled with air only, for too long a time, the root will dry out and the plant will also die. What we should attempt to do is to fill this space with water to be absorbed by the roots and gradually to be replaced by air through evaporation before more water is introduced. In other words, after a plant has been watered the soil should be allowed to become reasonably dry before it is watered again. This is so important for alpines grown in pots.

No two alpine houses are exactly alike. Different exposures and light conditions vary so much it takes the experience of a couple of growing seasons to find the answers. This much can be said, however, you will lose very few plants from under watering.

Watering inevitably brings up the question of pots. Clay vs. plastic. This used to be a controversial subject—but alas no more—for plastics are taking over the world. Right off, I must admit to a phobia where plastics are concerned. I realize their value—they are cheaper—more durable—need less watering—need more drainage material in the soil. In fact, I know all the answers, but one; how to grow anything in them!

I may be forgiven this prejudice for fully-three quarters of my alpine house is given over to Saxifrages and for these I think clay pots are definitely better.

I have three long staging benches in my alpine house, one along each side and the other in the middle, which are filled with coarse sand and the pots are plunged in this material. The sand is kept constantly wet and the clay pots absorb enough moisture to keep the Androsaces, Saxifrages and plants of this type healthy and happy during the dormant period. Primulas and the larger leaved plants will require more watering to prevent them drying out, but not too much more.

The pots should be top dressed with a mulch of 1/4 inch stone chips tucked up close around the neck of the plant to keep the roots cool and the foilage dry.

When growth starts in the spring all of my plants get a feeding with a liquid fertilizer, usually a fish emulsion, and a light top dressing of leaf mould and sand.

The spring clean up takes a little time. All the pots are scrubbed clean of moss that has accumulated during the winter. The plants that need repotting are potted on in the next size pot. But a word of warning here; do not over pot! Most alpines do best when their roots are somewhat restricted. They will flower better and the chance of the root rotting is lessened.

How best to handle these mountain plants during our hot and humid

summers? This is the most trying time for them and there is no ideal way. I remove them from the alpine house about the middle of May to a place on my flagstone terrace. An area is laid out with cement building blocks and this area is filled with sand where the pots are plunged, and shaded by a lath screening. It is cooler here and they have better air circulation than I can provide in the alpine house. They always suffer some but here they spend the summer until they are returned to the alpine house in November.

I grow many of the winter and spring blooming species Cyclamen which are in flower by January; in February the Kabschia Saxifrages take over, then come the Primulas, Gentians, Phlox, etc. So the alpine house is a world of color, fragrance and beauty for the first four months of the year.

Soon the rock garden will be at its peak and the seedlings will need attention and I will be occupied with them for the next eight months.

IMPRESSIONS
THE 4th INTERNATIONAL CONFERENCE

Your very persuasive editor, Mr. Albert M. Sutton, has asked me to write a few impressions of the International Conference, particularly in comparison with the 1961 Conference. I find it a little difficult to remember much about 1961, but here are a few thoughts on 1971.

First, I should like to say how very much I enjoyed meeting so many people who were only names to me before. The programme was excellent, and very much appreciated, and I shall long remember "Nomenclature" by Dr. W. T. Stearn. It sounds a dull subject, but as given by Dr. Stearn it was very informative and exceedingly amusing. Also very much enjoyed was the lecture "Japanese Alpines" given by Mr. Eliot Hodgkin; beautiful slides, and the different types of Japanese gardens enthralling.

Last, and by no means least, I was very interested in the lectures given on American plants and gardens, first by Mr. Lincoln Foster, who lectured so well and showed us so many Americans gardens. Those were a revelation to me. There was such a diversity of gardens, something I had never thought of before—everything from desert to formal gardens with climate playing so important a part in what can be grown. Then, "Rock Garden Plants of Western America," by Margaret Williams and Wayne Roderick made a fitting last lecture. To see pictures of *Aquilegia jonesii* smothered in flowers made us despair of the poor things we grow in captivity.

I think that the Conference being held at Harrogate, instead of being divided between London and Edinburgh, as in 1961, had its points, and on the whole was a good thing. Everything was concentrated in one place, making it easy to attend lectures. And the show, too, where all the plants were together in the marquee, and so could be "browsed over" conveniently. Not in its favor was the fact that there were relatively few plants from the Scottish Rock Garden Club, and this was a pity as the two clubs tend to show different types of plants. The general impression was that the standard of plants and presentation was high. I am sure that there will be lists of the prize winners and plants published, but as this is going to the U.S.A. I must

mention two superb American plants on show. A plant of *Kalmiopsis leachiana* 'Umpqua form' superbly flowered and filling a 12″ pan, and also a pan of the same size filled with *Boykinia jamesii* [now being called *Telesonix jamesii*] covered with flowers. Special mention must be made of the Wisley exhibit (Royal Horticultural Society) rock garden, pool and all—a magnificent bit of work, expertly planted with beautiful material.

So, now all is over but the shouting and the memories. I enjoyed every minute of the conference, hard going though it was and in spite of the unspeakable weather of two of the days! I think congratulations are due to the organisers who worked so hard and so long to make it possible for us to have such a feast of alpine plants and lectures.

Sheila Maule, *Balerno, Midlothian, Scotland.*

I may be too late with these deathless impressions, and if so, I am sure that the editor has a big waste basket handy. After a few days back at our rock pile, we are anxious to start making some changes, incorporating some elements of rock work and planting we saw from Surry to the Scottish Highlands.

For Midwestern farm folk, it was an exhilarating experience to visit the great rock gardens of Wisley, Ness, Endinburgh, and that charming 'close', the Waterperry Horticultural School.

But it was the good growing and the eye appeal of the back gardens of the several members who kindly allowed us entry to which we could best relate. Whether we carried cameras or not, we shall surely retain in our memory banks more flower pictures than we have ever racked up before in two weeks. We must even envy the extravagant growth of the rock plants in those "Almond puddings and dog's graves" we still found along the roads, despite Farrer's denouncement. We stopped at one such; a small house which seemed afloat on billows of pink-to-purple Aubrietas. I asked the owner of this 'riot of color' if she belonged to any of the rock garden societies. She said, "No, I am just too busy gardening." Well! One could do worse for a hobby!

Harry Butler, *Spring Valley, Ohio U.S.A.*

Perhaps no country can boast as many gardens and gardeners in proportion to its population as can Britain. Certainly that was our impression as we rode through the towns and countryside from Wisley to Pitlochry on the special garden tour. Arriving in London three weeks before the organized tour, we were overwhelmed by the extensive plantings of early bulbs in the London parks; unlike anything in our own mountain area. They were in bloom nearly two weeks early, according to our British friends. England had had a mild winter, a circumstance particularly fortunate for visitors.

Our interests were specialized, of course, but Britain appealed to us, not only as a general gardening country, but as, surely, the center for appreciation and cultivation of alpine and rock plants. This is the general impression we carried away from the tours of public and private gardens in England and Scotland and from the meetings at Harrogate sandwiched within this period.

Special impressions! Too many to incorporate in a short statement, but

here are a few. Foremost, the extremely warm hospitality of our English and Scottish hosts, as well as their scientific erudition in matters of rock garden plants. As horticulturists many of them try to cultivate and succeed in cultivating a far greater variety of rock garden plants than would grow naturally, even in the ideal gardening climate of Britain.

This may in part reflect the competitive spirit so evident at a British flower show. Among other impressions of British rock gardens is the widespread use of elevated beds, the extensive use of dwarf evergreens, the far greater abundance of privately owned greenhouses (glass houses) than in America, and of course, the beauty of hundreds of specimen plants we saw in many gardens. Our twelve days of garden tours and meetings provided a rare experience with rock gardens and rock garden plants.

Marion and Gordon Alexander, *Boulder, Colorado, U. S. A.*

I joined the American Rock Garden Society last December after being a member of the Alpine Garden Society since 1962. I thought I would get mental indigestion at the recent rock plant Conference at Harrogate—sessions started at just after 9 a.m. each day and went on until 10 p.m. But not a bit of it. I revelled in the activities, the friendly contacts, and the exchange of growing tips. I thought of getting an early start home on the final day—Sunday.

I'm glad I didn't give in to the pressures of thoughts of work to be done in my Berkshire garden. The last talks, by Margaret Williams and Wayne Roderick, turned out to be for me, at any rate, the high spots of an absorbing conference. As Major General D. M. Murray-Lyon said to me, "If we were all alpine gardeners there would be no wars."

David J. T. Rose, *Twyford, Berkshire, England*

The Plant Conference at Harrogate was, in all its aspects, truly inspirational. For those of us who lack a broad recognition of rock and alpine plants, the opportunity to attend the illustrated lectures pertaining to plants from various parts of the world, remote from our experience, was most rewarding. I am sure that everyone who attended the conference took away with him more knowledge about rock plants and their culture than he brought with him and left Harrogate with a more cosmopolitan appreciation of the subject.

I believe, however, that the plant show may have done more for some of us, certainly more for me, than did the lecture hall. Perhaps the initial reaction to the show's exhibits, in their dazzling perfection, was one of discouragement and despair that we could ever be able to accomplish in our own gardens and alpine houses as much as these, but sober second thought should make us realize that if others can create such beauties we should be able to do the same thing, with hard work and a great deal of patience. The show set a standard of excellence which was indeed an inspiration to all of us.

Not the least of the benefits of Harrogate was the opportunity to meet lots of very nice people, all interested in a common subject and many of these people from distant parts of the world. The spirit of cooperation and friendship and of good-natured rivalry seemed to be universal, even between

the English and the Scots, in spite of the gentle ribbing of each other. In fact, I think it was well demonstrated that rock gardeners are nice people.

Those of us who had the good fortune to make, before and after the Conference, a tour of public and private gardens had an unforgettable experience. I think that nothing does rock gardeners as much good as to see how someone else does, it, and what a wealth of ideas we carried away from some of the celebrated places we visited, gardens that we had heard so much about and longed to see. Our thanks go out to all those responsible for creating these gardens.

Charles R. Sellers, *Georgetown, Conn., U. S. A.*

My impressions of the 4th International Rock Garden Plant Conference and Show at Harrogate can be described in one word: "Incredible."

To be more specific, it was a pleasure and a thrill to see, hear, and talk to amateurs, professionals, plant explorers, and writers who previously had just been names in various journals. Let me not forget the painters and photographers whose works so beautifully depicted the common and rare plants which interest us. They adorned every wall available.

A great interest of mine is plant exploration, so it was particularly thrilling to see and hear A. J. Huxley, Oleg Polunin, Admiral J. P. W. Furse, and Professor G. Pontecorvo describe their adventures in the less accessible crannies of this earth which still produce new material for the rock gardener. There was something for everyone and the attendance at each session was impressive.

A minor point, but one which added to my appreciation of the proceedings was to listen to the English language beautifully spoken and beautifully used.

Nickolas Nickou, M. D., *Branford, Conn., U. S. A.*

"A pulse in the Eternal Mind, no less, gives somewhat back the thoughts by England given . . ." Anon.

From a million impressions, how can I choose one for two paragraphs about the Conference? Perhaps, I shall take the mundane, practical approach and write about plants from the point of view of a rare plants nurseryman. It is evident that these English have been doing their homework, for they have developed some fabulous plants. At Wisley we saw mossy saxifrages of surpassing beauty and substance; flowers larger than those we have and with improved colors. So, I shall throw out all my old stock and grow the newer, better ones. We have heard before that our Lewisias have developed new color forms in England, so the bright reds, oranges, coppers of *Lewisia cotyledon* were not unexpected. Jack Drake has developed and named a color form of *L. tweedyi* whose relatives in Washington State would not know. I risk committing sacrilege but I have to admit that all wild color forms of *Lewisia tweedyi* are not beautiful. Some have very thin, washy, dull shades of yellow, but others are worthy of the accolades that are given to the plant. Jack Drake's new plant is an intensified version of the best color form I have ever seen; but the foliage is the same as the wildlings we are familiar with.

Among ARGS members in my region, and perhaps in others as well,

there is a strong tendency toward nature appreciation. Some of us will go so far as to say that everything in nature is beautiful, and that every plant is better off left to the tender mercies of nature (and sometimes, bulldozers). I do not entirely agree. Years of plant exploring have shown me thousands of wild plants of poor form, poor color, poor substance, and poor vitality. So I strongly believe in selection of the best forms for horticulture. My visit to England has shown me that the English have gone one better. They have appreciated, then selected, and finally they have improved wild plants. There is a very keen and a very healthy competitive spirit among English exhibitors. Every year one must come up with something new to steal the trophy from that *Androsace helvetica* which Grower X exhibited, so there is always a search for newer plants, better forms of old plants, and successful methods of growing difficult plants. This spirit of competition has produced some really superior plants.

After the Conference I was fortunate to be able to attend the Birmingham Show, which was quite interesting in a number of ways. There was a beautiful, hard-leaved *Claytonia nivalis,* a native of Washington's Wenatchee Mts. This specimen had developed several side rosettes and filled a 10″ pan. It made me feel proud. But, I thought, the most interesting plant at this show was an unusual form of *Lewisia rediviva* exhibited by Kath Dryden. She told me she had grown it from seed distributed by that great, unsung American plantsman, Wayne Roderick of Berkeley, Calif. It was from one of his favorite haunts which has produced some very interesting endemics. This form was especially long-leaved, with lovely, large double-flowered blossoms of appleblossom pink. The petals are especially wide and ample. Kath said she had several variations from this lot of seed. I can see the possibilities presented by her variant plant, and perhaps, in years to come, a new race of horticultural *L. rediviva* might emerge from selective hybridization using this plant.

The English have shown me that there are unlimited possibilities presented by wild plants. They produce better forms without sacrificing the inherent wild qualities of the natives. I can only stand in awe and admire what is being done.

Laura Jezik, *Seattle, Washington, U. S. A.*

With the 4th International Rock Garden Plant Conference and Show and the tour of the English and Scottish gardens which some of us were lucky enough to combine, the thoughts that come to my mind are of gardens big and small, with each one having something to excite one that was different from any other. When one comes from another land, one is drawn to plants which have been names only or are known only from pictures. But Primulas in many different species and cultivars were my highlight. Not all were known to me, but how well grown and placed where they seemed at home. *Primula denticulata,* tall and showy in many lovely colours—dwarf gems outdoors and in alpine houses—*P. hirsuta, P. pubescens,* and *P. marginata.* Who could have missed the colour and perfume of *P. auricula*—old dusty miller yellow—or the so different *P. bileckii?*

At the Conference one was drawn to that which interested one the most. To my memory comes the Iris, those for the rock garden especially—

the bulbous ones, and the demonstration of rock garden construction. What a good film this would have made for all to see! The Show I will leave for someone more talented to cover, but the range of plants, bulbous, perennial and shrub had to be seen to be believed.

Marshall Mitchell, *Moe, Victoria, Australia.*

At this stage of the game the impressions are of the people one met. Some were old friends and correspondents, but many, like the editor and his lady, had only been names to which one can now attach faces and personalities. For us the Conference started early with a visit from your delightful ambassador, Sallie Allen, who spent a few days in our home. It finished with the visit to Edinburgh of two bus loads of delegates from, I think, nine different countries, all eager to discuss the growing of plants under vastly different conditions, and to see what we grow in our gardens here and to tell us of their own efforts.

The talks at the Conference will be published, so there is no need to say more than that they encircled the globe, bringing before us plants known and unknown, easy and difficult, whetting our appetites for new treasures for our gardens. The Show was unusually exciting as it brought under the one marquee plants from the south of England and the north of Scotland, with a few from abroad—a collection we seldom get the opportunity to see.

And now this 4th Conference, the third I have been lucky enough to attend, is over. Must we really wait ten years for another one?

Kathleen Hall, *Edinburgh, Scotland.*

The friendliness and thoughtfulness of our knowledgeable hosts, the beauty of the green countryside, the dedication to floriculture, not only of the represented groups, but of the least villager, it seemed, was most impressive.

Beautiful displays, beautifully grown plants, and treasures brought into cultivation so successfully from far places of the world by British gardeners and plant explorers attested to their ability, love of beauty, and intense interest in horticulture. So many of these plants have found their way in to grace our American gardens.

American plants were in much of the British scene. Carefully tended, carefully selected, potted, in greenhouses, *Lewisia tweedyi* lived with plant nobility—fragile, delicate, lovely! But how I wished that everyone could have seen them where and as they grew years ago. Robust, elegant, and unique, they grew in great masses, unharmed and almost unknown in their steep and often rocky subalpine hillsides in the Wenatchee Mountains of Washington until the sheep were allowed in, destroying them and driving their meager offspring into areas unsuitable for their rich coloring and their vitality. Collectors have taken a further toll. Few can resist the glowing beauties as they come upon them nestled in their remote rocky sanctuaries, apricot and pink against the dark cliffs. Accustomed to winter snows and the hot, drying winds of summer, *Lewisia tweedyi* is not easy to grow and to keep, but the British people *are* growing it—and successfully!

Any fear that *Lewisia cotyledon* might become lost to cultivation was easily dispelled by the sight of thousands of them in nurseries and private

gardens.

An added pleasure for many of us was meeting old friends, renewing friendships, not only with people in England and Scotland, but also with many of our own countrymen whom in our vast country we so seldom are able to join.

E.B.S.—*U. S. A.*

BOOK REVIEW

CACTI OF THE SOUTHWEST by Del Weniger. University of Texas Press, Dallas and London, 1970. 249 pp. 64 pages colored illustrations. $25.00.

This book is concerned with the cacti of five states: Texas, New Mexico, Oklahoma, Arkansas, and Louisana. To anyone, anywhere who is, or may be, interested in cacti in general, or in the cacti of the five states enumerated, the color pictures alone are worth the price of this book, illustrating, as they do, nearly 200 species and varieties of many genera. The introduction should be read carefully to put the reader in the proper mood to enjoy the next section of the book—the illustrations.

These beautiful color illustrations, sometimes three and sometimes four to the 9 x 12 inch page, show plants of fantastic form, spiny, of course. The colors of the blossoms, in many instances are strange, many are subtle, and none are glaring or unreal. Those responsible for the photography and the color printing are to be congratulated for their skill and their evident desire to present cacti in their true colors.

Following the many pages of pictures, if one may pull his eyes away from them, is a 6-page exposition entitled "What is a Cactus"? This part is also well-written and so crammed with interesting information and a sincere feeling for cacti that this reviewer, previously totally uninterested in these plants, now, after reading these six pages finds himself well on the way to becoming a cactus buff. How far and into what new fields of horticulture the reader is led; led away from the orthodoxy of non-cactus plants and into a plant world where imagination may run wild only to find that nature in the cacti world has far outimagined the most imaginative.

Then comes "Key to the Genera of the Cacti" followed by a detailed key, by genus, and then by individual species descriptions, each stressing three subheadings; description, range and remarks. Here the reader may become intimately acquainted with those species that intrigue him as he compares description with the colored illustrations in the front of the book. Last of all are two indices; one listing the scientific name and the other common names where such exist. An example: *Acanthocereus pentagonus* whose common name is Night Blooming Cereus.

While not a book for the general use of rock and alpine plant gardeners, those gardeners who live in the hotter and dryer parts of the world, especially those in our great Southwest, where rock gardening as usually practiced is nearly impossible, could find much pleasure in turning to the cactus world for quaint and colorful plants with which to populate their garden plots. Even those living in the colder climates having a sunny, dry microclimate within their garden might find pleasure in trying cactus there. Surely some of the hardier species and varieties might do well. This book *Cacti of the Southwest* would be of invaluable help.

LOISELEURIA PROCUMBENS

OSCAR FERVIDI, *Monza, Italy*

Many ARGS members, especially those living in northern countries, already know this pretty little plant, closely related to the much showier garden azaleas. Not all know, however, that besides growing in northern tundras around the pole, we find it also in the Alps, nay, in the southern Alps, in those mountains sheltering the oddest mountain flora in Europe.

How it descended so far southward from its northern dwellings is not hard to surmise; pursued by the glaciation, it followed the glaciers' fronts, and when they retreated, this adaptable plant found a stable home on the high, flat summits beaten by the winds, the violence of which it endures by keeping tightly prone to the ground. It represents the extreme expression of the dwarf shrub association, already at the limit between the alpine and nival levels, at least in its southalpine stations.

But most peculiar is how *Loiseleuria procumbens,* a plant that tolerates absolutely no lime, even though in traces only, in the Alps is found mostly in calcareous places where no one would think it could be found. In fact, in the places where it grows, the calcareous skeleton of the rocks has been dissolved by the rain and snow water, and crumbled by the constant action of frost. In this rubbish have multiplied many characteristic lichens of the boreal tundra, such as *Alectoria ochroleuca, Cetraria nivalis,* and others, and

Loiseleuria procumbens

Nino Arietti

many generations of lichens with the decomposition of their thalli have created acid humus niches in which *Loiseleuria* could grow.

So one might think of an easy culture in the garden; a bit of care and a good acid soil should assure success with this beautiful little azalea. On the contrary, *Loiseleuria procumbens* is one of the typical "impossible" plants, at least in southern Europe. But, since nothing is absolutely impossible, provided there is enough patience and care, I'll try to record some observations I have made in the last years.

First of all, drainage must be perfect, and this can be obtained through a gravel and stone chip subsoil (aged dolomite, which "breaks" nicely and helps to keep the subsoil healthy). The site has to be luminous, but not exposed; a good west or northwest oriented rock niche can shelter from morning sun (deadly during winter and spring) and midday sun (very dangerous during the summer). The soil must be free from lime. I have obtained good results with heath-earth and sphagnum, eventually lightened with some washed sand, if necessary. In this respect, I should like to point out the excellent results I obtained with sphagnum from high alpine pools; usually it is rose-colored and, if well-dried, sterilized and finely sifted, is perhaps the best thing I ever tried. I had received this advice from Sen. Paolo Berlanda, one of the few Italian ARGS members, some time ago and I am still grateful to him for this hint.

To repeat; drainage must be perfect, the soil, on the contrary, must be humid, and during the summer the plant must be constantly sprayed with rain water. (I use lightened water, which does quite well). Propagation is rather difficult; seeds germinate poorly and the little plants are feeble. It is better to try to root cuttings. This is also not so easy, at least here (our summers are too hot), but a bit of rooting hormone can support the hope.

Even though the plant does well in the garden, it is far from reaching the full flowering that so surprises one when seen in the middle of the calcareous Alps.

* * * * *

EVERY YEAR HE COMES—The Conference and the garden tours were over and we were in the Highlands. We had parked on the shore of Loch Duich where it merged into Loch Alsh, both sea lochs, where we could look out at Eilean Donan Castle on its small, rocky isle. We were taking pictures of it but the tide being out did not add to the charm of the scene. Parked near us was a small car with a man leaning on it, his chin on his crossed arms, gazing fixedly at the castle. In the ensuing conversation it was revealed that the man's name was MacRae, that his ancestors, members of the Clan MacRae, had for centuries been associated with this castle. What was so poignant about this man's watching his ancestor's ancient home was that he came each year to this same spot, a sort of solitary pilgrimage, to look his fill on the castle and to relive, from history's pages, the glorious exploits of his Clan as its members successfully defended their stronghold in 1553 against Donald Gorm, a Lord of the Isles; or mournfully mull over the castle's destruction by English frigates in 1719. How fortunate for all that between 1912 and 1932 the castle was fully restored and faithfully so — by MacRaes.

OMNIUM-GATHERUM

And now it is the editor's turn. What were his impressions while in Britain? He realizes that he is honor bound to make this report and he is happy to do so. Impressions come to one from many sources and are concerned with many matters. Since rock gardening and rock garden plants were the main theme of the Conference and the dominant reason for the editor's journey abroad, it will perhaps be well to concentrate thereupon. What rock gardens were visited, what plants were the most impressive, what added knowledge was gained, was there groundwork laid for the input of interesting articles for the *Bulletin* among overseas contributors, were non-member delegates encouraged to become members of the ARGS? What of the countryside, the cities and towns in relation to gardening? One could go on and on! However, any country visited is made up of territory, people, climate, history and habits. One cannot concentrate on one or two and ignore the others, and still come up with a comprehensive overall impression.

Of necessity, this must be a brief report. How can it be brief and yet cover so great a field? Much of interest must be left out, or withheld for another time; details must be but scanty; much must be left to the readers' imagination, and the report, if it fulfills its purpose, must be readable, must tend to increase the knowledge of gardening and the countryside of those kept-at-homes, and above all must instill in them a keen desire to visit the lands described, at the first opportunity.

The land! Much of it broad, agricultural, green, smiling in the pale spring sunshine, with enough hills to relieve the monotony of level ground, much of it given over to cattle and sheep. There was, especially along the railroad rights-of-way, evidence of England's intensive industrialization, intermingled with railside displays of the gorses' *(Ulex europaeus)* yellow flame and the modest wild primrose *(Primula vulgaris),* its pale yellow blossoms lighting up the dead grasses of yesteryear. And the cities and the town! They are mostly neatly laid out, with long rows of continuous housing, street after street until abruptly there are fields where sheep or kine may look longingly through the last fence at the carefully tended back gardens. And the row houses have the front doors of each individual dwelling unit painted a different bright color, easily distinguishing it from its immediate neighbors. Most noticeable beside these colorful doors were the uncountable chimney pots, the lavender sheets hanging out to dry behind the houses, the inconsistency of high rise apartment buildings (called "flats" by the British) rising usually two or three in a neighborhood, well above the house rows, and the presence of so many greenhouses (glass houses) in the rear of the homes, where both flowers and vegetables are grown. Most noticeable were the flower gardens, both back and front—truly Britain is a land of gardens.

In Scotland, there is a wilder country and much water. There are lochs everywhere, both sea and fresh water, and rivers, and much reforestation on the otherwise treeless hills. On the train from London to Edinburgh, the transition from England to Scotland was not clearly marked, although Scotland's particular flavor was unfolded as we journeyed north. To tell of

the cities visited will require another report. However, we do have vivid impressions of such cities as Edinburgh, Birmingham, Chester, Newcastle-upon Tyne, York, Pitlochry, Harrogate and, of course, London, though little enough was seen there for we were always just arriving or leaving. Enough of the land!

The people of Britain—what about them? The overriding impression of those who serve and those who are served is one of unfailing courtesy, friendliness, and a sincere desire to be helpful. The people unconcerned with gardening we must not dwell upon, as interesting as they are, for it is the others we must tell about. These can be divided into several categories: those with whom we were associated on the garden tour, those delegates to the Conference not on the tour, and other gardening people met by chance.

The people on the garden tour rode in two buses (coaches), but usually the two buses were not at the same garden at the same time. The editor and Mrs. Sutton were assigned to the "A" bus, whose tour leader was Kenneth Hulme, Director of the Ness Gardens, as the University of Liverpool Botanic Gardens are known. He and the bus driver, George, were adept at keeping us on time, despite several wrong turnings, and they were extremely considerate of the passengers, some thirty-six of them, representing six countries. As garden after garden was visited it was noticeable that interest never waned, variations in the weather had no effect, garden manners were perfect and many were the photographs taken. Congeniality was the keynote in A bus, as it must surely have been in B.

At the Conference there was a difference. One was a part of a constantly shifting crowd. A person met once might never be seen again during the five days. Sometimes the same person was seen and talked to several times a day and on each day, as the some 600 gardeners visited the show, attended lectures, walked the streets, lounged in the several hotels and had their meals. You will already have read about the lectures, well attended and broad in their scope. Here specialized knowledge was shared. At the rock garden plant show, housed in a long marquee, two commercial displays were near the entrance. They were those of Jack Drake, whose nursery in Aviemore, Scotland, was later visited, and Will Ingwersen, whose nursery is at East Grinstead, Sussex, England. The newest in improved plants were well displayed and questions freely answered. The planted rock garden with its water accompaniment was the work of the Royal Horticultural Society's Wisley Gardens. It was thoughtfully done, full of color, entirely harmonious without a single clash. It was expansive with its water relief, and well proportioned and had a charm and elegance that held the visitors' attention and admiration. The competitive part of the show will undoubtedly be covered in some official publication of the Conference Committee. This committee must be congratulated on the excellence of its arrangements and the perfect timing. All events and all lectures started and ended on time—an unusual achievement where hundreds of people are concerned. Everything had been provided for, and though undoubtedly minor crises arose from time to time, no evidences of them were allowed to ruffle the surface calm.

The gardens visited on the garden tour were of many kinds. There were extensive public gardens, elaborate private ones, and more modest gardens where the homes were smaller and each had a message of its own.

The first day of the tour took us to Wisley and Windsor where we were introduced to gardens on the grand scale. Long swaths of daffodils naturalized in the greensward beneath the scattered deciduous trees barely coming into leaf foretold what we would find nearly everywhere we went. Pools and slowly wending waterways where bordered *Lysichitum americanum* and *L. camtschatcense* (yellow and white) showed us that the British treasured these plants which to Americans of the west are considered to be ungainly swamp plants. In the rock gardens it was not uncommon to see *Primula rosea* blushing in situations at the water's edge, in some places the moving water undulated the plants' leaves. Charming! Next day on to Waterperry School of Horticulture where we were welcomed by Valerie Finnis and where girl students were busy at their gardening tasks. Then to Oxford Botanic Garden where we were able to greet friends of the tour organized by Harold Epstein which happened to coincide there with our own visit. In the afternoon we visited Broadwell, Joe Elliott's nursery. In his alpine house we saw several very large pots of *Daphne petraea,* some of them heavily budded in dark red. How cheated we felt here and in other nurseries, as well, that we were not able to buy and take home with us some of the treasures we found to be available.

Monday was our day in Birmingham where we found ourselves enchanted with the smaller gardens of Roy Elliott and Jim Broadhurst. What can be said to do justice to the pleasure we found there? Had it not been for the insistence of our tour leader that we had a schedule to keep we might have remained there as long as there was daylight. Our hosts would have been well within their rights had they herded us to our bus long before we took our reluctant departure. One memory we took away with us was of tufa gardens and alpine houses so filled with the wealth of the alpine world that they were crowded with people all during the visit.

It is proper that we digress here long enough to express to the owners and directors of the many gardens visited our collective appreciation for the endless hours of garden grooming that preceded the visiting dates. Each garden was immaculate. And while we were yet in Birmingham, should one have caught a gleam of pride and satisfaction in the eyes of a Broadhurst or an Elliott, there was every justification for its presence.

The next morning found us at Hodnet Hall near Market Drayton, Shropshire, where again Narcissus was very much in evidence. The extensive plantings, fine trees, broad lawns and a whole series of pools provided for us a very pleasant morning. The plantings were so naturally done as many times to give the visitors the impression of being in a well-kept semi-wilderness. Then on to the Ness Gardens near Liverpool. For us this was a time of pure delight. Here we saw *Pieris formosa forrestii.* This particular plant was raised from the first packet of seed collected by George Forrest in Western China. We were a bit late to see it in its early spring glory of vivid scarlet new shoots. Another magnificent plant, that caused much comment, was *Rhododendron roxieanum,* also from an original importation of seeds of this species. The arrangement of dark, narrow leaves and pink inflorescence nestled among them gave this plant a highly stylized appearance. We were shown the peat gardens, newly established, where members of the Ericaceae family are most successfully grown. Here were the smaller, more prostrate

Rhododendrons, Cassiopes, Phyllodoces and Gaultherias, especially *G. procumbens* which seemed overjoyed to be there. Mr. E. B. King, a retired banker and a Ness Gardens enthusiast, acting the day of the tour as a volunteer guide, not only showed Eileen and me many things we might otherwise have missed, but made it possible for us to remain an hour or so after our bus had departed. He showed us the lovely heather garden in the late sunshine. Mr. King then drove us in his own car to his home, aptly named "Byways" on Crossdale Road. We enjoyed his white house and the surrounding garden. He then drove us to our hotel in Chester, the Grosvenor, one of the better hotels of the tour. He was our guest for dinner and stayed a bit afterwards for a showing in our room of some of our Mt. Rainier slides. He had even furnished the projector and screen.

Two more gardens near Chester were those of Mr. and Mrs. P. L. Kent, whose home, "The Shack", seemed misnamed, and Sir Harold and Lady Bibby of Tilstone Lodge. At the Kents we saw a fine specimen of *Rhododendron* 'Anthony Webb' brightening the rear of the garden with its intense yellow blossoms. Along a path, they had a small, flourishing colony of *Pinguicula vulgaris,* which we saw nowhere else. To digress again, another flower, *Lithophragma parviflora,* often seen in the warmer parts of the Pacific Northwest was found to be beautifully cultivated in British gardens. There they have a pink mistiness and a daintiness seldom equaled in the wild. Here, in America, it seems as though no one had ever thought of bringing them into the garden. This will be remedied at once.

At Tilstone Lodge, our reception by Sir Harold and Lady Bibby was little short of royal. The lovely home was shared with the visitors who were taken on tours throughout the entire house. Many treasures accumulated through the last centuries were in evidence. In many rooms *Rhododendron fragrantissimum,* treated, temporarily at least, as house plants were in full flower and their delicate perfume seemed everywhere. Hospitality here was spontaneous, lighthearted, and the visitors left the house with a feeling that they had been privileged to experience a bit of the elegance and graciousness of an English household as it had existed in previous centuries, and in this instance was still in existence. Then to the garden!

To read about this fine garden, the last to be visited before the conference at Harrogate, and the gardens on the second part of the tour you will have to wait for the October issue of the Bulletin. Already far too much has been written for one issue. Also, far too much has been left untold!

SEED GATHERING TIME for the winter seed list is fast approaching. As you know, the operation of the 1972 seed exchange (seed crop of 1971) will shift from Connecticut to Pennsylvania, from Henry Fuller to Mrs. Armen H. Gevjan, whose address is 536 Dogwood Place, Newtown Square, Pa. 19073. There is where you will send your seeds this fall and in the fall of 1972. Among several recommendations made by the new director are these three: 1—Please clean all seed carefully, removing chaff and flower stems. 2—Avoid storing in glassine or synthetic envelopes. 3—Please check spelling carefully, and if you are still uncertain, place a question mark after the name. The editor can add this from his own experience in helping when the seed exchange was located in Seattle some years ago. In placing plant

names on seed packets, please use typewriter or print in ink. Hand writing is out in most instances for though each person can read his own handwriting, it turns out that many times he is the only one who can. Play safe! The seed exchange is no place for guessing on the part of the donor, or second guessing on the part of exchange personnel. This was made clear in England when American plants a few times were found to be mislabeled. When questioned, the answer was almost invariably, "Well, that was the name on the seed packet."

If some of our members are wondering why communications to the editor have remained unanswered, especially during the last several months, let them listen to this tale of woe. Correspondence, which is the very life of material gathering, nearly doubled in the last year and in many instances a letter received necessitates not only its own answer but the writing of one or more other letters. The editor does not have any stenographic help and even when matters are normal he has difficulty in keeping even with this correspondence. Then came Christmas, 1970, with its extra demands on time, followed by the time-consuming preparation of the 1969-1970 Index. Then, because of the pending month-long trip to Britain to attend the well-known Conference at Harrogate, most all of the work in preparation for the July, as well as the April issues of the Bulletin had to be done before April 10. Then came the month away from home when no actual Bulletin work could be done nor any letters answered. Home on May 8, it seemed that by the normal closing date of June 10 for the July Bulletin all work could have been done and a dent made in the accumulated correspondence. But such was not to be the case. During that month almost nothing was done because of some horrid bug picked up in the editor's travels which rendered him practically useless. As of June 10, as this is being written, all is well again. The urge and ability to work has returned. But so much valuable time has been lost that it will be some time before all past correspondence will have been answered. Please be patient! Contributions have been received during this inactive time and have not been acknowledged. Please do not stop the flow of these contributions just because of this.

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NEW PLANTS FROM SOUTH AMERICA? — If you have read the new advertisements in this issue, you will have noted that there is a plan afoot to search for and collect plants, bulbs, and seeds in the Andes Mountains of South America. One of the two hopeful explorers is John M. Watson, of Lewes, E. Sussex, England. The editor met and talked to Mr. Watson while at Harrogate and found him full of enthusiasm and anxious to complete the necessary financing without which such an extensive project cannot be undertaken. Of course, his ad is a plea for financial support, but in talking to him one is conscious that this support is only a means to an end; the eventual establishment of a whole array of new and useful plants with which to grace future rock gardens. To help finance an undertaking such as this is to make possible the full utilization of the energies, knowledge, experience and willingness to work hard and long under possibly trying conditions which will be the contributions of John Watson and his co-explorer, Martyn Cheese. Help them if you can!

THE REV. HENRY JARDINE BIDDER'S GARDEN — In the A.R.G.S. *Bulletin* of Jan. 1971, Elizabeth Hall writes in her interesting article on Farrer; "From 1898 to 1902 he (Farrer) was a student at Balliol College at Oxford where he took classical honors. While at Oxford he and one of the Dons, Mr. Bidder, designed and rebuilt a rock garden which was admired for many years."

This might lead to a misconception as the rock garden was actually in the gardens of St. John's College, next door to Balliol. The Rev. Henry Jardine Bidder was a Fellow, and in his later years Bursar of St. John's and like many clergymen of the 19th century he was an enthusiastic gardener. About 1893, he started to construct the rock garden in the northwest corner of the beautiful gardens of his college and he took an active interest in it until his death in 1923. My father became a Fellow of St. John's in 1919 and the famous rock garden was one of the main attractions for visitors at that time. As a small girl, I often met Mr. Bidder in the garden, a portly and rather gruff person of whom I stood in considerable awe. It is difficult to visualize what the rock garden was like half a century ago; probably there were gay splashes of colour which appealed to a child, but on my last visit there, some four years ago, it seemed to be but a shadow of its former glory. Perhaps one becomes too sophisticated as the years go by!

Kathleen S. Hall, *Edinburgh, Scotland.*

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PLANT COLLECTING — Since April was rather early for flowers in the Highlands, we were surprised to find some, at least, especially some rather pale violets on the sea cliffs of the Isle of Skye. However, the faithful dandelion was in evidence and so was an ardent flower lover. We had stopped at a lay-by while another car sped toward us on the narrow but well-paved road. On the road bank we counted eleven scattered yellow blossoms and one small black-faced and black-footed lamb. This lamb proved to be a rapid flower collector. A minute went by and then that bankside contained one lamb and no dandelions—that is, no visible dandelions. He seemed partial to yellow!

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