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AMERICAN ROCK GARDEN SOCIETY BULLETIN

Albert M. Sutton, Editor

VOL. 32 OCTOBER, 1974 No. 4

A KASHMIRIAN HOLIDAY

DR. NICKOLAS NICKOU, *Branford, Conn.*

Early in July of 1973 my son, Charles, and I left London, England on a gigantic Air India 747 for the twelve-hour flight to Delhi. We were a group of fourteen headed for Srinagar in the Vale of the Kashmir. Our leader was Oleg Polunin. We were surrounded by a swirl of saris, turbans, dark faces, running children and the din of a foreign tongue as the throng looked for seats, packed away belongings and gradually settled down for the long journey.

Shortly before takeoff a handsome hostess in a beautiful sari came up the aisle with a basket full of hard candy to prevent popping ears. Also in the basket were packets of betel which also produce a flow of saliva and swallowing to keep open the eustachian tubes. Thus, we were exposed to our first Indian plant, *Areca catechu*, the betelnut palm. I tried it. It was pleasant, new, and it served to bring on an interesting conversation with an English-speaking Indian doctor and his wife who sat beside me for the entire flight.

The fairly lengthy interlude in Delhi while waiting for the flight north to Kashmir gave us our first real taste of India. As a wide-eyed American tourist, new to the East and full of preconceived notions of misery, squalor and teeming millions, I was soon of a different opinion. It was populous. The people were poor by our standards. Many of the houses were merely shelters made of scrounged bricks, rubble, loose planks, and bits of sheet metal but the general impression was of a vigorous, busy people. Everyone moved purposefully. Even the man squatting beside the road roasting ears of corn over a smouldering stump had the air of an entrepreneur.

The city was exciting. The civic buildings, old forts, embassies, and temples were impressive. The shops sold the usual wares but the open air markets had an intriguing variety of fruits, vegetables, condiments, and spices. All of the senses were put to the test by the sights, sounds, and smells. It was a great introduction to a completely new world.

Our flight to Srinagar was uneventful except for the sight of the dry plains below and the snowy Himalayas ahead. After passing several 20,000′ ridges we slowly dropped to the 5,000′ airport. This was Srinagar. It is located in a lush green valley containing several large lakes. It is the largest city and capital of Kashmir.

Kashmir is in northern India, projecting into the Himalayas with Tibet

to the east, China to the north, and Pakistan to the west. The people are predominantly Mohammedan. It is a fertile valley with a healthful climate, and long coveted by its neighbors.

It was a pleasant five-day stay while we adjusted to the altitude before proceeding to greater heights. The botanizing, bird watching and sight-seeing were superb. We lived on houseboats which were anchored on Lake Dal. Transportation was by water taxi — a flat, graceful boat paddled by a Kashmiri, usually carrying two to four passengers. Auto taxis and some buses were also available. The city itself was classically exotic and beautifully located; surrounded by mountains, dissected by waterways and looked down on by temples and forts perched on nearby hills. The pears and plums sold in the markets were excellent. The baked goods were also quite good.

The people encountered were quite handsome, cheerful, and cooperative. The women were particularly attractive as were the bright and very numerous children—despite the many signs on walls and buildings exhorting the citizens to control family size.

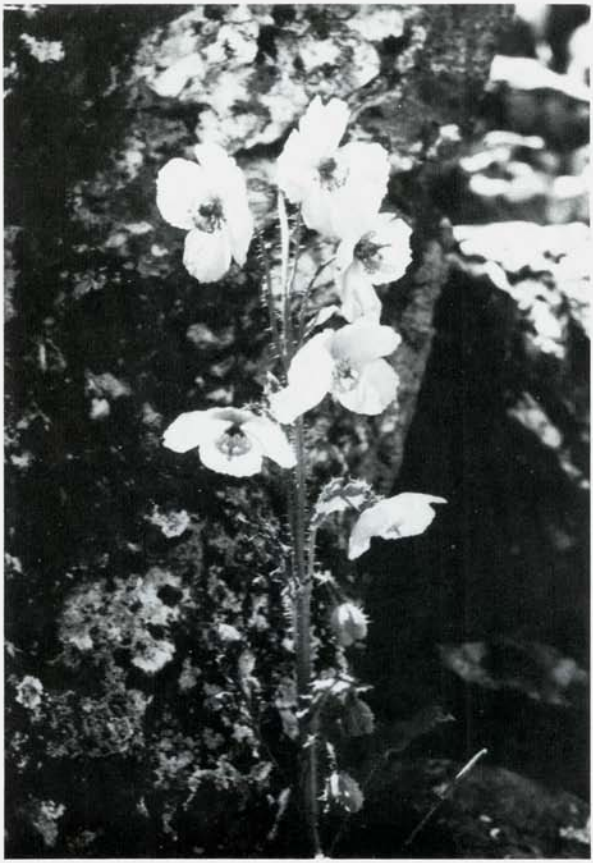
In town we saw numerous White-cheeked Bulbuls, Mynas, and the exciting Hoopoe. Gliding and soaring over the city and more commonly over the lakes and waterways were Black-eared Kites. A common sight was a tiny, iridescent, blue-green Kingfisher plunging for minnows from perches on houseboats, stakes, and waterside trees. Fewer in number but much larger were two other Kingfishers, one the Pied and the other with a long, bright red bill. Moorhens, Indian Whiskered Terns, Little Grebes, Little Bitterns, and Night and Gray Herons were also found around the lakes and marshes.

The most spectacular plant growing in the lake was the lotus, *Nelumbium speciosum,* its delicate pink flowers, five or more inches in diameter, rising several feet above the water, surrounded by enormous but graceful round leaves two or more feet in diameter—also held well above the water. In similar areas grew *Euryale ferox,* a water lily with floating, spiny leaves which were purplish underneath. Many of the canals were covered by the water fern, Salvinia, while here and there were seen the heart-shaped leaves and pretty yellow flowers of the water fringe, *Limnanthemum peltatum* (Syn. *Nymphoides peltata*) resembling a water lily but actually a member of the Gentianaceae. Another aquatic, also in the Gentianaceae, growing in shallow water, was *Menyanthes trifoliata,* accompanied by the water chestnut, *Trapa natans,* var. *bispinosa.* The latter is harvested in commercial quantities in a nearby lake as a food source.

The floor of the valley was covered with rice fields while the lower surrounding slopes were planted to pears, plums, peaches, apples and almonds. "English" walnuts, *Juglans regia,* are one of the chief cash crops in the valley. Still higher, grazed cattle, sheep and goats.

Towering over the numerous tiny villages was the enormous Chenar, *Platanus orientalis.* Some small communities were completely covered by single specimens with trunk diameters of 10′-12′ and heights exceeding 100′ boasting crowns of equal or still greater diameter.

Commonly naturalized along roadsides is our own black locust, *Robinia pseudoacacia,* plus several specimens of our honey locust, *Gleditsia triacanthos,* with no spines but loaded with characteristic pods. Planted along many roads in the lowlands was a tree which resembles the Lombardy poplar but this



Meconopsis aculeata

Nickolas Nickou M.D.

one sported a white bark—*Populus nigra* var. *thevestina.*

In the central city park of Srinagar grew some fine flowering specimens of *Maackia amurensis* but it was in the old British consulate grounds where I saw some magnificent trees and shrubs. Several deodar cedars and a large Cupressus all exceeded 80′ in height. There were several oleanders, *Nerium oleander,* a large loquat, *Eriobotrya japonica,* about 25′ tall plus a number of crepe myrtles, *Lagerstroemia indica.* In beds here and there grew masses of Gerbera, *Lycoris squamigera,* in full bloom, and some handsome shrubby jasmines about 5′ to 7′ high. Handsomest of all was a large, well-grown specimen of *Magnolia grandiflora,* hailing from our southeast and certainly one of the finest trees in cultivation.

I dwell a bit on these plants because my first impression was that the valley floor supported a zone VI type of plant as far as hardiness is concerned. The winters are quite cold. The lakes frequently freeze and not many years ago the ice on one of the lakes easily supported a driven automobile. How the plants listed above survived I do not know as they are certainly typical zone VII representatives.

The Nishat and Shalimar gardens were beautifully conceived by the Moghuls of the 1600's and would do any modern landscape architect credit. With mountains to the rear and the lake out front they are truly a sight to behold. Several flocks of Himalayan Slaty-headed Parakeets dashed about—their loud screeching breaking the quiet and peace of this delightful spot.

Several times during our stay in the valley we took some exploratory jaunts via taxi to some of the nearby and easily accessible heights—Gulmarg and Yusmarg. These are high meadows used for grazing and it was here that we became acquainted with the Himalayan ponies and saw some typically subalpine plants. Large spruces, *Picea smithiana,* clothed some of the slopes. In open areas clumps of the local lilac, *Syringa emodi,* were to be seen and most obvious on the marg was a fairly attractive spurge, *Euphorbia wallichii,* undoubtedly avoided by the grazing animals. Further exploration among the rocks and draws revealed two choice aroids, *Arisaema tortuosum* and *A. wallichianum,* the bright red *Potentilla nepalensis, Geranium wallichianum,* and *Podophyllum emodi* var. *hexandrum.* Several other woody plants of

Pedicularis bicornuta

Nickolas Nickou M.D.

interest were *Berberis lycium, Viburnum foetens* and *Skimmia laureola.* Still lower, beside the road, we saw a most unique Digitalis and the ubiquitous *Atropa belladonna*—its handsome flowers giving no indication of the great toxicity of the entire plant. Also beside the road grew *Strobilanthes alatus, Phytolacca acinosa,* and the bright red-fruited *Chenopodium blitum.* Some of the party saw a troop of monkeys but unfortunately I missed them.

Finally the sybaritic life of The Vale came to an end and we were launched on our trek into the highlands. We were driven in taxis to Sonnamarg about 50 miles to the northeast. The road gradually ascended to our first camp at Thajiwas (8,600′) at the head of a magnificent glacial valley. The Sind River kept us company with its roaring torrent. Along the way we saw several Kestrels and another handsome Peregrine, the Central Asian Hobby. The Rufus-backed Shrike was seen in trees beside the road along with more Hoopoes and several Hodgson's Pied Wagtails.

At higher elevations and on dry road cuts grew a pink flowering shrub which was new to me—*Myricaria germanica*—quickly identified by Oleg. It resembles the tamarisk of our gardens and is in the same family—Tamaricaceae. It is found in southern Europe and western Asia. I am surprised not to see it used as an ornamental.

Our first camp looked toward the glaciers at the head of the valley in one direction and down toward Sonnamarg in the other. The paved road continued on to Kargil—a sensitive area near one of the hotly contested borders with Pakistan. A hike along the edges of the snow fields gave us fair warning of the breathless excursions ahead—at far higher elevations.

I'll not take you through our daily progressions as we went higher and higher nor will I list all the plants seen but I will give the reader some of the highlights of our trip through this portion of the Himalayas.

On our first day we gradually climbed to 11,000′—at first through scattered birch groves, *Betula utilis,* and some cherry, *Prunus cornuta.* Still further *Acer caesium* became the common tree. Once above the subalpine forests we were overwhelmed by the patches of color and the multiplicity of species. On this, our first day, we were fortunate in seeing our first specimens of the Himalayan poppy—in this case *Meconopsis aculeata.* It is a pale blue prickly plant growing between rocks, and with the sunlight coming through it I could see what kept Farrer and the other plant explorers of central Asia going.

There were many Labiates to be seen. The most spectacular were *Salvia hians* and *Phlomis bracteosa.* The many louseworts also contributed to the tapestry. *Pedicularis bicornuta,* a stately yellow plant with balloon-like flowers was scattered through the area like sentinels. In well-drained areas and between cracks in the rocks grew tight bunches of *Bergenia stracheyi.* Here and there grew *Codonopsis ovata* and *Cortusa matthioli*—the latter an old friend from Europe. Here also we began to see the Swertias which were more common later, along with a unique member of the Gentianaceae—*Jaeschkea oligosperma.* Needless to say we stopped every few feet for picture taking and had to be herded along by Oleg as camp was a long way off.

Our camps were generally at 11,000′—12,000′. They were quite comfortable. There were two persons per tent, two latrine tents, and one for washing, shaving, etc. The Kashmiris cooked and served the food, set up and broke

camp and cared for the horses. They looked after us like mother hens. On the whole they were a congenial and delightful group of people.

Several nights were near freezing but the days were comfortable except for an occasional shower or, in one case, a terrific hail storm high on a mountain pass. Generally the bad weather cleared away quickly so that we were favored by clear skies most of the way.

Later in the trip as we went from Veshensar Valley to Gadsar Lake we had a long tough climb up to a 13,790′ pass which, although it appeared dry, was loaded with botanical wonders. Most unique was the rather succulent *Corydalis crassifolia* with pink flowers and inflated seed capsules. A close relative bearing masses of yellow flowers— usually tucked in the talus—was *Corydalis govaniana.* Also at these elevations was the crucifer, Chorispora, the quaint *Lychnis apetala,* several Alliums, and *Sedum ewersii.* On the shady side of the pass and always in rock cracks grew one of the queens of the heights, *Paraquilegia grandiflora,* in masses. But alas, it was past blooming and greeted us with green seed pods only.

A short but exertional walk to the left brought into view a snow-capped ridge of mountains topped by Nanga Parbat, 26,000′—a magnificent pinnacle —one of the highest mountains on earth and quite impressive in the blue sky even though it was 85 miles away.

On the way down we saw a large-leaved Rheum looking a bit out of place surrounded by dainty *Androsace mucronifolia, Lloydia serotina,* and *Primula elliptica.* At this point my son, Charles, was screaming from high above that he had found some Paraquilegia in bloom. I just shook my head and indicated that I would not—I could not—go back up. Another session of breathlessness and pounding heart was not for me. Once I headed down off a pass, it was down only, for me—until the next pass that is—a day or two later.

In one of the high cirques we were fortunate in seeing several vultures soaring. Some of them came quite near. The Himalayan Griffon Vulture with its wide wings looked like a gigantic kite but more spectacular was the Lammergeier or Bearded Vulture with very long wings (up to 9′ from tip to tip) soaring and gliding over the gulf before us—putting on a matchless flying performance. It was the birding treat of the trip.

In a wet sandy area lower in the valley was a cluster of *Primula rosea* containing one particularly colorful plant so it was dutifully photographed. Later there were patches of a small but attractive gentian, *G. carinata,* surrounded by a yellow-flowering carpet of *Sibbaldia cuneata.* Skipping about on the streamside rocks was a bird which I thought was a Dipper but Oleg as usual had the answer. It was a White-capped Redstart—a dandy little fellow with a red belly, black back and a white cap. He was common along mountain streams hopping from rock to rock and constantly wagging his tail.

I'll pause again at this point to note that there were no orchids to be found other than one flowerless plant of *Cypripedium cordigerum* at Gulmarg where, incidentally, we found the blue-flowered form of *Anemone obtusiloba.* Higher in the mountains we found only the white and yellow forms. Also, in this western portion of the Himalayas, there is a paucity of primroses; just a few species in contrast to the scores of species further east. Only two

Morina longifolia

Nickolas Niekou M.D.

Rhododendrons are native—*R. hypenanthum* which we saw with the current year's seed capsules and *R. campanulatum* which we did not find. Further east, of course, the number of Rhododendron species multiplies tremendously.

Some of the largest patches of color were contributed by the louseworts, generally pink, purple, yellow and red. In our western mountains the Indian Paintbrush, another Scroph, fills a similar niche. The composites, particularly Senecios and Tansys also color the valleys and slopes. Masses of blue were contributed by the Borages, Delphiniums and Aconitums.

At the foot of 16,000′ Harmoukh lay the alpine lake of Gangabal. It was here that Oleg showed his proficiency as a fly fisherman. He caught dozens of trout and we happily ate them all with relish.

I should pause again to say that Oleg Polunin made this expedition the joy it was with his enthusiasm, knowledge, and patience—a real English gentleman and scholar.

It was along the edge of this lake where I saw a very charming plant in bloom—*Morina longifolia*—with its spikes of pink and white flowers rising over dark green, white-spined leaves. It is a member of the Dipsacaceae and should be tried in the garden. Here also grew the statuesque *Ligularia sibirica* which also has many merits as an ornamental.

It is difficult to leave out descriptions of the bizarre Picrorhiza and Macrotomia, the unique Saussureas, the multiplicity of Impatiens, and the handsome *Lavatera kashmeriana*. How can I leave out *Iris hookeriana? Aster falconeri* and *Inula royleana* sported four to five-inch heads while another composite, *Anaphalis nubigena,* stuffed the rock cracks with its white, "everlasting" flowers. A dwarf blue-flowered Lactuca was a knockout as were *Mertensia primuloides* and *M. echioides.*

It would take many years to poke into all the valleys and explore the

screes and cliffs of just this small portion of the Himalayas but if done at different seasons a still greater haul of plants could be made.

We finished with a long wet day, skidding and sliding down almost 4,000′ in the rain to Naran Nag—site of an ancient temple. Our day was brightened by *Meconopsis latifolia* and *Campanula cashmeriana.* On drier portions of the slope grew the handsome legume identified tentatively as *Indigofera hebepetala.* In moister soil grew a yellow-berried form of *Sambucus ebulus*— an herbaceous member of the usually woody elderberries.

The world-wide-ranging interrupted fern—*Osmunda claytoniana* was found here and there, and in narrow crevices—*Asplenium septentrionale.*

Around the temple grew lush, tall *Impatiens roylei* and masses of Cannabis. It was an exhausting but happy day.

I had seen much more than I had expected—scenically, botanically, and ornithologically. Our traveling companions, mostly from the British Isles, were a pleasure to know and to be with.

All in all it was a fantastic experience in a fantastic part of the world—particularly for a plantsman.

BACKYARD PRAIRIE

RICHARD CLINEBELL, *Wyoming, Ill.*

A note from our editor regarding the possibility of a prairie article for the *Bulletin* has resulted in my own sorting out of some ideas about establishing a rock garden. I restrict myself to plants that grow in full sun, and describe some planting areas that are in some stage of development.

Looking out my window, I see a lawn of Kentucky bluegrass, a European pasture grass that comprises, I suppose, most of the lawns of North America. The decision to replace the alien Kentucky bluegrass in my personal space with native North American grasses is partly ecological and partly aesthetic. In looking through the available grasses in the native Illinois flora, however, one finds only a few native grasses dwarf enough to serve for the alternative North American lawn. Hairy grama, an infrequent, or at least an inconspicuous element of sand prairies just north of Interstate 80 (Lee County and Whiteside County, among others) and along the Illinois side of the Mississippi River (Henderson County), is the only native grass which is mature at six inches, sending up flowering stalks to, say, ten to twelve inches.

Looking westward, one finds many dwarf grasses. In hand, I have seed of Buffalo grass *(Buchloe dactyloides)* and Blue grama *(Bouteloua gracilis)* from Colorado and New Mexico respectively. In time, I hope to try many more grasses from the great plains and southwestern grasslands. The first thing I want to know about grama and Buffalo grass is whether or not they maintain their dwarf stature in this high rainfall area (northern Illinois). Then I want to see what kinds of prairie, Great Plains and western alpines and wildflowers I can get established in the turfs.

The idea first presented itself in the form of the question of how I was going to form a meaningful relationship with the truly dwarf wildflowers of the Illinois prairies, such as *Anemone caroliniana, A. patens,* Prairie-Smoke *(Geum triflorum),* Yellow Stargrass *(Hypoxis hirsuta),* Indian Breadroot

(Psoralea esculenta), Birdsfoot Violet *(Viola pedata)*, etc. What I mean is, for example, when my *Anemone caroliniana* colony along a certain prairie railroad is blooming at six inches, one must brush aside the Indian grass *(Sorghastrum nutans)*—which is about a foot and a half tall in early June—just to see them.

It was an easy step from considering the possibilities of a Great Plains short-grass prairie lawn, to the use of Blue grama (and other grasses that range up the slopes of the southern Rockies) as a basic alpine turf in a rock garden.

For alpine tundra, indeed, is a grassland community. Here, I must confess to gross neglect of the high alpine grasses and sedges while in the field in Arizona, New Mexico, Colorado, etc. I can only get up into spruce—Douglas fir forests at about 9000 feet when my memory of the basic cover grasses sort of fizzles out. Even then, a surprising number of mountain wildflowers can be found growing with Blue grama or Sideoats grama *(Bouteloua curtipendula)*, a species found particularly on canyon walls and rocky slopes. In the pinōn-juniper woodland (5000 to 7000 feet, southern Rockies, northern New Mexico) there is much more open space between trees and this space is populated by Blue grama. Among the grama one finds such things as *Townsendia exscapa, Phlox nana, Lesquerella montana, Pedicularis centranthera,* representing the Compositae, Polemoniaceae, Cruciferae and Scrophulariaceae. Further north, around Boulder, Colorado, the same Blue grama supports another Easter Daisy *(Townsendia hookeri)*, Blazing Star *(Liatris punctata), Astragalus shortiana,* Sand Lily *(Leucocrinum montanum)* and others. Higher up, at 7000 to 8000 feet, in clearings in the Ponderosa pine *(Pinus ponderosa)* forest, the same Blue grama supports fine societies of Pasqueflower *(Pulsatilla patens)*, which around Boulder are purple or rarely white; aristocrats all, including the grama.

To complete the picture of what a native North American garden might look like, there would be islands of two-foot tall grasses in the Buffalo grass lawn, and as the first tier of a sunny border. Such islands might contain Little Bluestem *(Andropogon scoparius)*, turns bright red in the fall; Northern Dropseed *(Sporobolus heterolepis)*, perfect radial symmetry, turns gold in the fall; Sideoats grama (native Illinois ecotype) and Porcupine grass *(Stipa spartea)*. Wildflowers which would be planted in with these grasses would all be native Illinois prairie plants: Leadplant *(Amorpha canescens)*, Cream False-indigo *(Baptisia leucophaea)*, Butterflyweed *(Asclepias tuberosa)*, Hoary Puccoon *(Lithospermum canescens)*, Downy Gentian *(Gentiana puberula)* and Downy Phlox *(Phlox pilosa)*.

The second tier of a sunny border, at 5 to 6 feet tall would be provided by Big Bluestem *(Andropogon gerardii)*, Indian grass *(Sorghastrum nutans)*, and Prairie Panic grass *(Panicum virgatum)*. These grasses would support such tall, coarse prairie forms as Rattlesnake Master *(Eryngium yuccifolium)*, Compass Plant *(Silphium laciniatum)*, Prairie Dock *(Silphium terebinthinaceum)*, Kansas Blazing Star *(Liatris pycnostachya)*, and Stiff Goldenrod *(Solidago rigida)*. On wetter sites, the appropriate tall grass is Prairie Cordgrass *(Spartina pectinata)*, which might provide a congenial home for Cardinalflower *(Lobelia cardinalis)* and Queen-of-the-Prairie *(Filipendula rubra)*.

To this point, most of my experience with plants has been as an observer in the wild. Thus I have become accustomed to seeing wildflowers, shade-loving species excepted, amidst a cultural configuration of grasses. Gardens without grasses seem alien to me because I have never seen such things in nature.

My interest in gardening is subject to two constraints for reasons of personal slothfulness. First, I find the prospect of *weeding* plantings through much of the remainder of my life to be a gloomy one. Second, my attitude since about age twelve toward mowed lawns has begun and ended with the observation that when you mow the lawn meadowlarks go away. This is not to say that *establishing* stands of native grasses friendly toward wildflowers and birds is easy. As a matter of fact, it is difficult. Unlike the Mongol hordes of Eurasian pasture and weed grasses many of our native grasses remain tiny plants through their first, and sometimes through their second years of life. Over this ground layer of two-inch Little Bluestem or Sideoats grama seedlings one gets the most ungodly assemblage of noxious weeds imaginable. But, after the basic native North American grass tufts are established, there is no further care (weeding and mowing) in the traditional sense.

Perhaps this article is premature. Although I have germinated the grasses mentioned here, most of them are a year old but only about 4 inches high. I claim no originality for the idea of using native North American grasses in landscape designs. Indeed, many people in the Midwest are discovering the beauty and utility of our native grasses, and we are all stumbling and choking through esoteric tomes such as Hitchcock's *Grasses of North America* and Dr. Weaver's glowing account of the Great Plains prairie vegetation. And so my purpose here is not to criticize traditional landscaping practices, but rather to describe an alternate aesthetics, based upon a very beautiful and neglected component of our native flora.

Finally, I bring Buffalo grass and Blue grama to Illinois intentionally. However, there are powerful arguments against bringing in, say, Nebraska ecotypes of Little Bluestem into Illinois, or New Mexico ecotypes of Sideoats grama into Illinois. Clearly, the planting of large tracts of Nebraska Little Bluestem in Illinois runs the risk of altering the genetic makeup of what few stands of native Illinois Little Bluestem remain. The data are by no means in but at this time it seems likely that Great Plains ecotypes of prairie grasses also native to Illinois are aggressive here and could be potentially disruptive to the floristic balance of the prairies' remnants in the state, should they run wild and get into the remnants. Caution is thus the watchword in moving native grasses around. * * * * *

SEED COLLECTING PROBLEMS—On the Pacific Coast some of the wild flower seed collectors who have been scouring the countryside high and low from British Columbia to northern California, including forays into northeastern Oregon and eastern Washington, are reporting a rather poor harvest. Heavy snowfall last winter in the mountains and a resulting delayed flowering season have caused this condition. In one area where mature seeds might reasonably be expected in mid-August, the high alpines were just coming into full bloom. No seeds there for some time yet. It is hoped that this condition is not prevalent in other parts of the country and the world.

SEED EXCHANGE '75

Our Seed Exchange Director, Earl E. Ewert, M.D. and his staff would appreciate it if you (the seed donors and the seed users) would read his message very carefully and act accordingly. The message:

Please do not send seeds packaged in ordinary correspondence envelopes. They invariably leak, and several donations of valuable seeds were discarded last year as they "leaked" and the resulting mixture could not be used. Please enclose an inventory list as this is of great help in the never ending desk work. By far the greatest number of donors send in clean seed. It takes, by actual timing, between twenty-five and thirty minutes to clean "dirty seeds." Remember the closing dates for receiving seeds is *November 1st.* This is most important as the seed list must be compiled immediately so that the printer gets the list at the earliest date. The members will then receive the seed list promptly. We cannot emphasize this enough, and seeds received late may be held over under refrigeration until next year. All donors receive the seed list automatically. Non-donors are required to write for a list and the closing date for this is *December 1st.* The orders for seeds will end on *March 1st.* This is most important and will be adhered to. Last year we asked the members to list their seed orders in numerical order so that the order could be filled rapidly and the seeds mailed—many times—the same day or next. Unnecessary delay in filling orders that are out of order, or scratched out with errors encircling the order page delays all orders, and the rest of the members are inconvenienced in turn. All these requirements are devised for the bulk of the membership and the desire of the Seed Committee to do the best job possible for the benefit of the membership.

WATCH THESE DATES—THEY ARE DEADLINES!!!

November 1, 1974—Seeds must reach Seed Exchange by Nov. 1, 1974

December 1, 1974—Non-donors' requests for a Seed List must reach Seed Exchange by December 1, 1974.

March 1, 1975—Orders for seed must reach the Seed Exchange by March 1, 1975.

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MEEHANIA URTICIFOLIA CUTTINGS OFFERED—"There has been considerable interest in England of late in *Meehania urticifolia* (from Japan) as a vigorous ground cover plant (deciduous) in leafy soil and partially shaded places. Having already grown and liked the native *M. cordata,* I acquired from England the Japanese species for comparison. Here in Virginia it makes a more vigorous plant (of similar size and spreading habit and capacity to *Lamium galeobdolen* 'Variegatum'), with flowers which are larger, more spectacular and of a stronger honey fragrance. It also flowers a month earlier than the American *Meehania cordata* (early May here as against late May). If anyone would like to try the Japanese species I would be glad to send cuttings on payment of postage." Thus writes Mrs. P. Harper, 219 Robanna Drive, Seaford, Va. 23696.

CYCLAMEN IN COLCHIDA

ING. VLADIMIR VASAK, *Prague, Czechoslovakia*

The border of Colchida runs from Tuapse in the U.S.S.R. to Trapezund in Turkey on the shores of the Black Sea. On the eastern side Colchida is protected by the main Caucasus Range, in the south by the East Pontus Mountains. It is a beautiful corner of the earth, otherwise Homer would not have praised it 2500 years ago. A beautiful countryside deserves beautiful flowers. Among the most beautiful ones are our cyclamens, called kochivarda by the people of Georgia.

In the Caucasus on two occasions I collected one of the Colchida cyclamens, *Cyclamen abchasicum* (Medw.) Kolak. It was not far from the city Sukhumi, on one occasion in the vicinity of the small river Besleti and on another occasion near the river Gumista. The town Sukhumi traces its origin to the old Greek Colchida Dioscuria.

Cyclamen abchasicum is one of the many small species derived from *C. coum* Mill. Several varieties from this group grow on the territory of the Soviet Colchida. Many of them can be cultivated and some visitors to the

Cyclamen abchasicum

Vladimir Vasak

spas at the Black Sea take home small bulbs from which they grow beautiful dainty plants. They bloom immediately after the snow is melted, and there are never too many plants like these in the garden. The older they are and the longer they are in one spot the more beautiful they are; they possess other good characteristics. In any case the small species of Cyclamen belong to the most charming plants in the garden. Occidental growers of these imports sometimes send the plants to their friends in European countries; even over the ocean. To help these growers, I am attempting to supply a key to help them identify the species. The key is according to Kolakovski (1961), the botanist from Sukhumi.

1—The leaves are elongated oval-triangular, the ratio of length to width is 3:1, similar to leaves of *C. neapolitanum*. Then it is *Cyclamen calcareum* Kolak. It grows in the crevices of lime rocks in the narrow rocky canyon of the river Ckhenis-Ckali between Svanets and Lechkhum ranges.

2—The leaves are roundish kidney-shaped, round or oval, maximum twice as long as wide.

A—The lobes of the calyx are bluntly serrated. The leaves are unevenly undulated at the edge—*Cyclamen circassicum* Pobed. It grows in the woods in the valley of the river Ackhu.

B—The lobes of the calyx are smooth, the leaves are not undulated.

a—The leaves are kidney-shaped. The anthers have a blunt end and the filaments are not widened at the bottom—*Cyclamen coum* Mill. It grows in the woods and the bushes in the valley of the river Bzyb.

b—The leaves are oval, oval-triangular, or nearly round. The anthers are pointed, their filaments are widened at the bottom.

AA—The blooms are small, lilac pink, with oval petals, 9 to 12 mm in length, 7 to 8 mm in width. The leaves are wide oval triangles—*Cyclamen vernum* Sw. *sensus stricto*. It grows in the thin woods and the bushes of the Cutaisi phytogeographical region.

BB—The blooms are large with rounded or obovate petals, 11 to 19 mm in length, 8 to 13 mm in width. The leaves are nearly round, or oval-round.

aa—The bloom is bright pink—*Cyclamen adsharicum* Pobed. It grows in the woods in Adzharia.

bb—The bloom is pale pink or white—*Cyclamen abchasicum* (Medw.) Kolak. It grows in the woods or the bushes of Abkhasia.

One could doubt the data about the existence of the real *Cyclamen coum* Mill., which originally was supposed to grow only on the island Cos in the Mediterranian Sea. But the appearance of the relict species of plants is possible even in other isolated places.

In an older work by A. A. Kolakovski, 1949, *Cyclamen abchasicum* is divided into five varieties: *Cyclamen abchasicum* (Medw.) A. Kolak. var. *albiflorum* A. Kolak., var. *purpureum* A. Kolak., var. *nervosum* A. Kolak.,

probably of a hybrid origin between var. *purpureum* and var. *albiflorum* (it grows profusely near another Bzyb fortress, near the locality Kaldakhvary), further *Cyclamen abchasicum* var. *albomaculatum* A. Kolak., a rare hybrid form and var. *roseum* A. Kolak. *Cyclamen abchasicum* is strongly variable, therefore one can find both varieties and forms which are not included even in this detailed list.

The plants which I collected near Besleti correspond to the description of the variety *purpureum,* they have light lilac blooms. The plants from the vicinity of the river Gumista have light pink blooms so that they differ from all other described varieties. *Cyclamen abchasicum* var. *roseum* grows, according to Kolakovski, only near Gagra in the crevices of limestone rocks and greatly differs from other species by small blooms, by which it approaches *Cyclamen vernum.* It could also be *Cyclamen adsharicum,* but that one grows only in Adzharia. Most probably it is a pink variety of *Cyclamen abchasicum* var. *purpureum.*

In the region of Colchida very rarely appears *Cyclamen ponticum* (N. Alb.) Pobed. (syn. *C. europaeum* L. var. *ponticum* N. Alb., *C. europaeum* var. *colchicum* N. Alb.) which blooms in summer, in July and August. It was found at the springs and the upper streams of the small mountain rivers Galisga and Mokva.

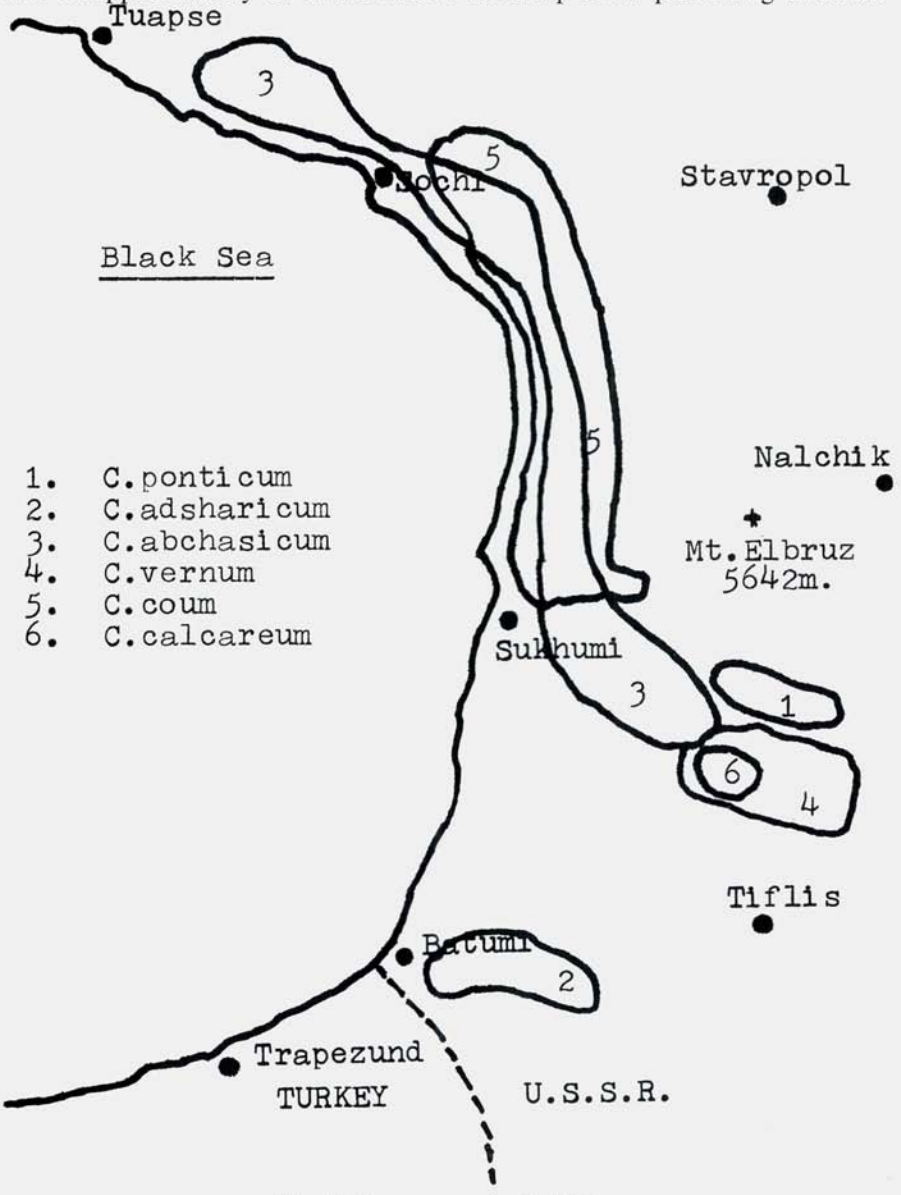
The bulbs of the cyclamen are used for healing purposes; raw they are poisonous, they contain saponins and glycosid cyclamein. By drying them the poison disappears. In places where they exist in large quantities they are collected and eaten.

The synonymity of *Cyclamen abchasicum* (Medw.) A. Kolak., is very complex. As synonymous names we can consider the following: *Cyclamen europaeum* M. Bieb., non L., *C. coum* Duby (Partim), non Mill., *C. caucasicum* Willd., *C. ibericum* Stev., *C. vernale* C. Koch, non Mill., *C. europaeum* var. *caucasicum* C. Koch, *C. elegans* Boiss, et Bushe [according to Kuznetsov (1908), Wehrhahn (1931), Farrer (1930), Kavka (1934)]; Silva Taroucca, Schneider (1934) call it *C. ibericum* Stev., Krauss (1930) *C. coum* Mill. var. *ibericum* Boiss., Jelitto, Schacht (1963) *C. coum* Mill. subsp. *hiemale* (Hildebr.) Schwarz. Among synonyms is also *C.* x *atkinsii* hort. Synge (1961) under the name of *Cyclamen orbiculatum* Mill. recognizes three small species namely *C. atkinsii, C. coum* and *C. hiemale; C. vernum* and *C. ibericum* he names as synonyms. Holenka (1971) writes about our cyclamen under the name of *C. coum* subsp. *caucasicum* (K. Koch) Schwarz, as synonyms he introduces *C. vernum* Sweet and *C. ibericum* Lemaire. The synonymity of some species of cyclamen is as complicated and interwoven as is the case with many species of Primula. It is caused by great plasticity and changeability of the mentioned species, by their easy interbreeding. We, the growers, are thankful for the variety of forms, even if it causes a headache to a botanist-taxonomist.

On the first day in Colchida I was lucky to find *Cyclamen abchasicum.* In the morning I arrived by train at Sukhumi and in the afternoon I travelled by bus to the terminal in the community of Besleti. A few kilometers from the last houses of Besleti, on the road made interesting by beautiful orchids, *Ophris oestrifera* M. Bieb., I started to climb a steep clay slope overgrown by box—*Buxus colchica* Pojark., mixed with oaks—*Quercus imeretina* Steve.,

with yews—*Taxus baccata* L. and with shrubs—*Cornus australis* C. A. Mey., *Diospyros lotus* L., *Ficus carica* L., *Laurocerasus officinalis* Roem., *Malus orientalis* Uglitz, *Philadelphus caucasicus* Koehne, *Staphylea colchica* Stev. and with quite low bushes of *Hypericum inodorum* Willd., just in bloom.

Beautiful neighbors of our *Cyclamen abchasicum* where lianas—ivy—*Hedera helix L.* and especially *Hedera colchica* C. Koch, which covered an area of approximately 50 m on one of the steep rocks protruding from the



The Cyclamen areas in Colchida

Vladimir Vasak

wooded slope. Its large glossy leaves reflected the sun's rays and blinded the eyes. Another liana frequently found there was green briar—*Smilax excelsa* L. which created an impenetrable net in the woods with its large and hard thorns. Its young, dark wine shoots, often as thick as a finger, are edible and in flavor they rival asparagus. But the older, longer branches protect the *Buxus colchica* forest with their thorns from intruders who would like to explore its secrets and those of the inhabitants of this warm, green twilight. The only accessible place was a steep scree, where neither trees nor bushes, not even green briars could take foothold. Understandably neither could I. I climbed the slope on my hands and knees, sometimes on my stomach; I caught hold of branches and bushes at the edge; now and then I slipped. At one such attempt to get higher I found two bulbs of cyclamen under an ancient buxus tree in the soft humus soil. I paid for them with my palms torn by the thorns of the liana smilax, by dirty pants and by calves tired from the steep climb. I could forgive anything because, on the Besleti slope, in the soft soil, grew together with *Cyclamen abchasicum,* gentle fern *Andiantum capillus-veneris* L., *Phyllitis scolopendrium* (L.) Newm.; on the shady sides of the boulders and rocks was *Asplenium septentrionale* (L.) Hoffm. and also *Polypodium vulgare* L. Neighbors of our cyclamen in the forest semidarkness were *Circaea lutetiana* L., *Epimedium colchicum* (Boiss.) Trautv., *Ruscus ponticus* G. Wor. and *Ruscus hypophyllum* L., *Sanicula europaea* L. and *Trachystemon orientalis* (L.) D. Don. In the places where the sun could penetrate more I found *Calystegia silvatica* (Kit.) Griseb. with large pinkish cone-like blooms, *Tamus communis* L., *Scutellaria altissima* L. and pretty flowering *Vinca pubescens* d'Urv. Added to all this—a perfect hot summer day in June and my first visit to the Caucasus; no wonder I was in high spirits.

On the photograph one can see the stronger of the two plants *Cyclamen abchasicum,* which I found near Besleti. Its blooms are light lilac, very pretty. In 1972 our cyclamen in Czechoslovakia, together with other cyclamen from the "family" *Cyclamen coum,* bloomed already at the beginning of February. At that time after the long winter "fast" the pre-spring blooms were doubly welcome.

A week later I found near the river Gumista on a slope in an oak wood a real cyclamen treasure. The cyclamen together with the oak, *Quercus imeretina* formed a partnership. The dominant plant on the stony soil of the oak wood was *Cyclamen abchasicum,* on nearly each quadrat foot there was a larger or smaller bulb, quite near the surface, for only several mm in the humus soil. The smaller bulbs were held by 3 or 4 not very strong brittle roots and at their tops there were terminal buds, quite bare without blooms, without any remnant of blooms, stems or capsules. There were no immediate neighbors only the oak which protected them. But I must mention some interesting plants which I collected on the same slope. I found *Arum albispathum* Stev., a relative of well-known *Arum italicum* Mill. The bulbs of the arum, rich in starch, in the Caucasus are dried and ground into flour. Just in bloom was *Psoralea bituminosa* L., a healing and decorative plant. In the bushy undergrowth of the buxus woods was scented *Rhododendron luteum* Sweet. Here it did not have any scent any more neither was it in bloom but at the upper line of its existence in Svanetia at the height of 1700 m, I

found the shrubs still in their full beauty. The whole plant, as with most rhododendrons, is poisonous and apparently even the honey from the nectar is harmful. Another shrub, *Sorbus boissieri* C. K. Schneid, was interesting to me from another point of view. There are nine species of Sorbus in Colchida and I was worried as to how to identify them. But only this species of the Colchida sorbus has divided leaves similar to mountain ash, *Sorbus aucuparia,* while other species have whole leaves. So the identification is quite easy. On a rotting root of *Buxus colchica* I found an unusual fungus, which looked like a complicated lace rolled into a ball.

I collected approximately 30 bulbs of cyclamen, about a half survived the transportation to Czechoslovakia and our central European winter. I could have brought 300 or 3000, they were so plentiful. I thought I should find cyclamen in Abkhasia in other places. But that was not the case as it was summer when *Cyclamen abchasicum* is very inconspicuous. Had it been in February or March I would have certainly found cyclamen in other places. *Cyclamen abchasicum* has comparatively more resistance to a central European winter, but it helps in the winter if it is covered with a bit of fallen leaves or needles, even with brushwood. It likes moist soil rich in calcium. Unlike cyclamen which have roots over the whole surface of the bulb, it has to be planted shallower as indoor *Cyclamen persicum* with half of the bulb on the surface. It needs a damper, half shaded place in the garden and it dislikes transplantation as other cyclamen do. It thrives in containers in an alpine house. It multiplies by seeds which are sown immediately after harvesting. Of course, it does not give seeds willingly, neither in nature nor when cultivated. It belongs among the gems both in nature and in the alpine house, of which there will never be enough.

They would probably be all different. *Cyclamen abchasicum,* collected near the river Gumista already had pink blooms, not lilac; its petals were wider and more rounded than was the case with cyclamen near the river Besleti.

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CUSHION PLANTS IN THE WILD—A call for help has come from Mr. Garth Merelie, 45 Woodside, Darras Hall, Ponteland, Newcastle-upon-Tyne, England. He writes, "David Rose, the curator of the AGS slide library, has requested me to make a tape-recorded lecture, illustrated with 35 mm slides, on the subject 'Cushion Plants.' It is hoped that I might obtain slides of such American cushion plants as *Kelseya uniflora* and *Eritrichium howardii,* and others. We have these in cultivation here, but I am hoping to draw a comparison between plants in the wild and plants in cultivation, in my lecture. The AGS will defray all costs and therefore if you know any member who could help me, any expenses will be repaid." Help him if you can!

SANDWICH BAG SEEDLINGS

MARGERY EDGREN, *Mendham, N.J.*

If you lack an alpine house, why not try a sandwich bag? The following method was used as a substitute for the more traditional ways of raising alpine seedlings. Only ordinary household facilities were available and soil ingredients from the local garden center and building material suppliers had to substitute for the more natural components of a John Innes mixture. A surprising number of vigorous rock plants, including some that may be considered choice or difficult, were raised from seed to flower without benefit of loam, leafmold, sun, or compost.

PACKAGING.

Upon arrival, seeds were packaged in plastic sandwich bags as follows: two bags were prepared for each packet of seed, each containing half an ordinary household paper towel folded into a small pad and moistened with water. Half the seed was sprinkled on the moist toweling in each of the two bags. Tops of the bags were next folded down, labeled and stapled shut. They were then left to await germination, one on a shelf at room temperature (65 to 75 degrees F.), the other in an ordinary refrigerator (about 35 to 39 degrees F.). No attempt was made to control light during this period.

GERMINATION.

Seeds in the warm bags generally germinated first, some (e.g. *Dianthus, Arabis*) in a few days, many others at intervals of from 2 to 6 weeks (e.g. *Gentiana scabra, Papaver alpinum*). Still others were warm and moist for months *(Pyxidanthera barbulata)* before germination took place. In general most, or at least many, of the seeds in the same bag germinated at about the same time. However, with some species, individual seeds kept germinating one or two at a time over a long interval (e.g. *Androsace sempervivoides,* the first seed germinating after a week and others straggling on over a period of six months). As soon as germination occurred in any warm bag, the corresponding package of seed in the refrigerator was removed to room temperature and, in almost all cases, germination followed after a reasonable period.

The bags of seed still left in the refrigerator generally did not begin to show germination for several weeks or months, although a few *Lewisia cotyledon* had sprouted after only six days in the cold. Frequently, germination occurred while the seeds were still in the refrigerator (e.g. *Saxifraga marginata* at four months, *Erythronium hendersonii* at three months). Sometimes the bags were impatiently removed from the cold to see if the seeds were ready. Thus *Dodecatheon meadia* was found to germinate readily when warmed after three months of refrigeration, whether the seeds showed sprouting in the cold or not. Similarly, *Aquilegia jonesii* was found to germinate in the refrigerator after seven months, but was also noted to grow within five days, when warmed after only five months of cold treatment. If no germination occurred after a trial warm period, the seeds were returned to the cold of the refrigerator.

There were stragglers in the cold group also, one example being *Lewisia cotyledon,* which kept on germinating over a period of several months. This species seemed to need cold temperatures for actual germination to take place. After the few sprouted seeds were planted, those seeds remaining in the bag failed to germinate when left at room temperature. The bag had to be returned to the cold before further germination would take place. This was much in contrast to seeds such as *Dodecatheon meadia,* where one or two sprouted seeds among several hundred indicated sufficient cold treatment and, upon warming, virtually all of the seed germinated rapidly. It is also in contrast to another species of Lewisia, *L. pygmaea.* After a few slightly cracked seeds were noted, this species was removed from refrigeration and rapid growth followed in two-to-three days. With this Lewisia, although cold treatment was necessary, actual germination took place readily at warm temperatures.

After the seeds requiring cold had germinated, the corresponding bags on warm trial were inspected. Some of the warm seeds had rotted or molded by that time, but many could still be salvaged. For example, *Gentiana acaulis* seed that had been warm and moist for three months was subsequently refrigerated for one month with good germination resulting. *Erythronium hendersonii* warm and moist for three months, was then given cold for three months, germinated and grew on well.

The length of time bags were kept around awaiting germination depended somewhat on the rarity and desirability of the seed. Probably the longest period for producing positive results for me was with *Aquilegia jonesii.* Seed was received early in 1971. Seedlings were raised in the fall of '71, bloomed in the spring of '72 and subsequently lost. The old, dried out seeds were cleaned, re-wet, and put into the refrigerator in June '72 (almost one and a half years after initial packaging). Additional seeds germinated in October and four seedlings resulted, two of which bloomed the following spring.

It should be noted that, as with other methods, there were seeds that did not germinate at all. It is certainly not suggested that this technique satisfied all requirements of all seeds for germination or growing on thereafter.

PLANTING.

The medium in which germinated seeds were planted was composed of the following ingredients:

MATERIAL	SOURCE
Sphagnum peat	Garden center
Perlite	Garden center
Sand	Building material supply
Granite grit, fine	Feed store
Granite grit, coarse	Feed store

Equal parts of each component were mixed. These materials were purchased in conveniently handled quantities from three local stores which are reasonably accessible in most communities. In the absence of feed stores, gravel or crushed rock could be substituted for the grit. Of course, materials of similar type could be substituted in varying quantities to suit individual circumstances.

Only germinated seeds were planted. The rest were left in the bag to sprout later. Germinated seeds were either individually poked into the moist planting medium with forceps for rare or difficult plants or, for great numbers

of strong growers, rapidly spread on top of the medium. Pots and pans thus planted were covered *loosely* with transparent plastic film, which was turned every day to eliminate condensed moisture and circulate air supply. The plastic covers were removed at about the time the first true leaves appeared.

GROWING ON.

Planted pans and pots were immediately placed under fluorescent lights in the basement. Tops of pans were placed very close to the lights, usually within an inch, to promote fast, compact growth of seedlings. The lights utilized were 4-foot tubes, mounted in pairs of one warm white and one daylight. These lights were left on constantly (24 hours a day).

As the planting medium was virtually devoid of nutrients, a complete liquid house plant fertilizer was used for all watering. It was mixed at the strength recommended for soil culture. Temperature at soil level averaged about 75 degrees F. Some examples of time from germination of seed to flowering are as follows:

Androsace chamaejasme	5 months
Aquilegia jonesii	6 months
Primula minima	4 months
Viola yakusimana	4 months
Primula frondosa	7 months
Lewisia pygmaea	12 months

All received fluorescent light only (no sunlight). All were grown to maturity in the same planting medium used by the germinated seeds. All except the Primulas were given cool, short (8 hours) days to induce flowering. The two Primulas flowered after sizable plants had developed, having received only constant fluorescent light since the germinated seeds were planted.

OBSERVATIONS.

A few advantages and disadvantages of this method which seemed evident to me are listed below:

ADVANTAGES:

1. Very little time and space were wasted on seeds that did not germinate.
2. Before germination, seeds were protected from natural disasters.
3. Treatment for successfully germinated seeds could be repeated under very similar conditions in subsequent years.
4. Failure of germination could be distinguished from other losses, such as damping off, drying out, etc.
5. Certain seeds requiring cold treatment could be started immediately, even if acquired in summer at surplus seed distribution, (e.g. *Erythronium hendersonii*) or gathered in August (e.g. *Dodecatheon meadia*).
6. No alpine house, pit house, cold frame, or other special construction was necessary.

DISADVANTAGES:

1. Seed had to be handled twice for planting.
2. Lack of necessary soil factors, temperature fluctuations, or other

unknown natural conditions may have prevented some viable seed from germinating.

3. Mold and bacterial growth on seeds and paper toweling occurred. It was quite variable and disagreeable, but in most cases, did not seem to interfere seriously with germination and growth of seeds. No measures were taken to control it.

THE ROCK GARDENER AS PLANT HUNTSMAN

A. J. BROWNMILLER, *Gibsonia, Pa.*

To search for a desirable strain of a cultivated alpine in one's limited area is far removed from the seemingly romantic quest of the huntsman for a new species or variant in the high alps. While the ARGS member cannot emulate the extraordinary achievements of a Farrer, Kingdon-Ward, Forrest or Davidson, he can consider himself a lonely outpost for the species he grows to observe, if not breaks in color or form, then permanence and amenability in the variety of soils and microclimates for those species which others have found difficult. The results of these low level cultivars are recorded in the names, Bressingham, Millstream, Umpqua, Elliott and so on. But the end is not yet, nor ever will be.

The nurseryman may indeed have found the perfect perennial alpine for his particular soil and climate. In the field, however, it must be remembered that while losses do occur to the dismay of the gardener, successes also occur, either because of the genetic structure or a happy cultural condition. To disseminate the knowledge of the reason for such successes was the basis of the article, "Desirable Strains, Anyone?" in the *Bulletin,* Vol 31, No. 4 and is being continued herewith. Improved practices may be merely a matter of communication between the "haves" and the "have nots". Lincoln Foster commented upon the handicap of communication in an address which was printed in the AGS *Handbook.*

He stated that unlike the British Isles, the Chapters of the ARGS in the United States and even members within one chapter were too far apart for casual visiting so that when a stated meeting was held there remained too little time after the close of the formal business to compare notes except perfunctorily. It is therefore evident to exchange cultural practices, if not thoughts on hardiness and longevity, our one recourse would be to rely on the medium which binds all members together and that is our *Bulletin.* The previous article broached the subject of exchanging information on species with which rock gardeners had difficulty, to be followed by requesting members who grew such species as a matter of course to pinpoint their cultural practices if the ruggedness of the clone was not solely responsible for its survival. No doubt we would be concerned with species termed "half-hardy", "possibly monocarpic", "treat as an annual", "lasts only two or three years", with the educated expectation that mavericks do exist which defy the rules.

A species such as *Androsace lactiflora* which is mentioned in Bernard Harkness' monumental and indispensable *The Seedlist Handbook* as an

annual is outside our ken. Experience shows that this seemingly fragile but pristine charmer seeds itself quite freely if the soil is kept top-dressed with sand or gravel and may sometimes winter over with some combination of climate with its internal vagaries. However, we cannot berate nature for not having made it a perennial nor try for the impossible. The reverse—perennials which we lose in two or three years are our concern.

Rhinanthus reports that he had repeatedly lost *Trillium undulatum* "many years ago," yet we can find it growing in mountain rockeries in Pennsylvania and West Virginia. A respected English rock gardener says he "always plants seeds of *Gentiana verna* just in case . . ." Is there not a single clone of that species to be found among the untold millions in our gardens or the Alps? *Dianthus alpinus* is another question mark. From reports of members' gardens in the *Bulletin* it seems reasonable to assume that the species has been growing in some of them for years.

The shy but common *Lobelia cardinalis* comes to mind. It has been known to sow itself in the strawberry bed or under an azalea while maintaining itself where it belongs but whether biennially or perennially we know not. Assertions have been made that it has been known to persist "for at least five years" or that the plant will overwinter if the flowering stalk is promptly cut off. Another anomaly is in Lincoln Foster's statement, "not a plumule" from Hepatica seed, Vol. 24, No. 1, ARGS *Bulletin.* Concerning *Arabis blepharophylla* Vol. 28, No. 2, "plants are not very long-lived and thus a little seed should be saved as a precaution." Of Symphyandra, Vol. 29, No. 2, "likely to be biennial or monocarpic . . . occasionally a side shoot . . . may live over." Accepting such calamitous losses graciously and repeatedly is in no other endeavor so endemic as in rock gardening. When a triumph does occur he hesitates to mention it for fear the gods of the upcoming mugs of summer or snowless winter will cut him down to size. Nevertheless, simple facts are not braggadocio.

What we need to give us hope are statements from experience such as the one made by Walter Kolaga in *All About Rock Gardens and Plants* of *Dianthus neglectus,* to wit, "my parent plant is now fifteen years old." Would that someone could say the same about *Dianthus alpinus* and others on the ephemeral list. The solution might be merely a matter of communication to get gardeners growing species which they once considered impossible.

An excellent illustration of the communications gap which existed between the "can dos" and the "can'ts" was given by Norman Deno in a slide talk to the Allegheny Chapter wherein he mentioned he could pull apart saxifrages as freely as Sempervivums with as little loss, and showed his impressive results on the screen with his audience gaping with astonishment, for many of them had not a single lush clone to their credit. The magic, as it seemed to many, was to put five inches of sand over the limestone soil. Not only does he grow saxifrages in full sun but he can sow his seed in situ. With this bit of information the burning of the browning saxifrages in summer was lifted from the shoulders of the "can't dos." Incidentally, he also mentioned he had clumps of *Gentiana verna* over five years old. We are sure Mr. Deno's offering of a "lawnmowerless city acre" would be an instant and best selling hit.

Another slight but trenchant piece of information comes from the rock

garden of one of our Directors, Carl Gehenio, who grows saxifrages and other lime-loving plants with abandon in a wall composed of clinkers of red dog, which is the residue formed when mine tailings exposed to the air burn to a rust color. It is porous like tufa in which one can bore a hole with a screwdriver to insert a seedling. No problem at all, Carl reports. Without doubt there are others in fortuitous circumstances who have experimented successfully with other species.

What is needed first of all is to hear of species with which members are having difficulty. These can be reported to a collator who would then attempt to hear from other members who have either long-lived clones or have successful cultural practices. Initially some limitations must be made with exotics of limited distribution or generally accepted impossibilities such as orchids, although *Habenaria ciliaris, Cypripedium calceolus* and *C. reginae,* may not be. The standard plants mentioned in the rock garden manuals should be investigated first.

The response to the collator will indicate the degree of interest latent in a garden adventure of this kind, not a trek into high country for fabulous and breath-taking unknowns, but a low-keyed pursuit for long-lived and variant clones or successful cultural practices. You can be sure the tenderfooted collator fears to tread the cliffs and crags of such an undertaking but will pack his gear anyhow in the hope that his efforts will be of some value to some one. Report your persistent failures so that the species can be published in the *Bulletin,* after which, "know-how" members can report their expertise. Names will be held in strictest confidence. The collator; A. J. Brownmiller, R. D. 4, Box 274, Gibsonia, Pa. 15044.

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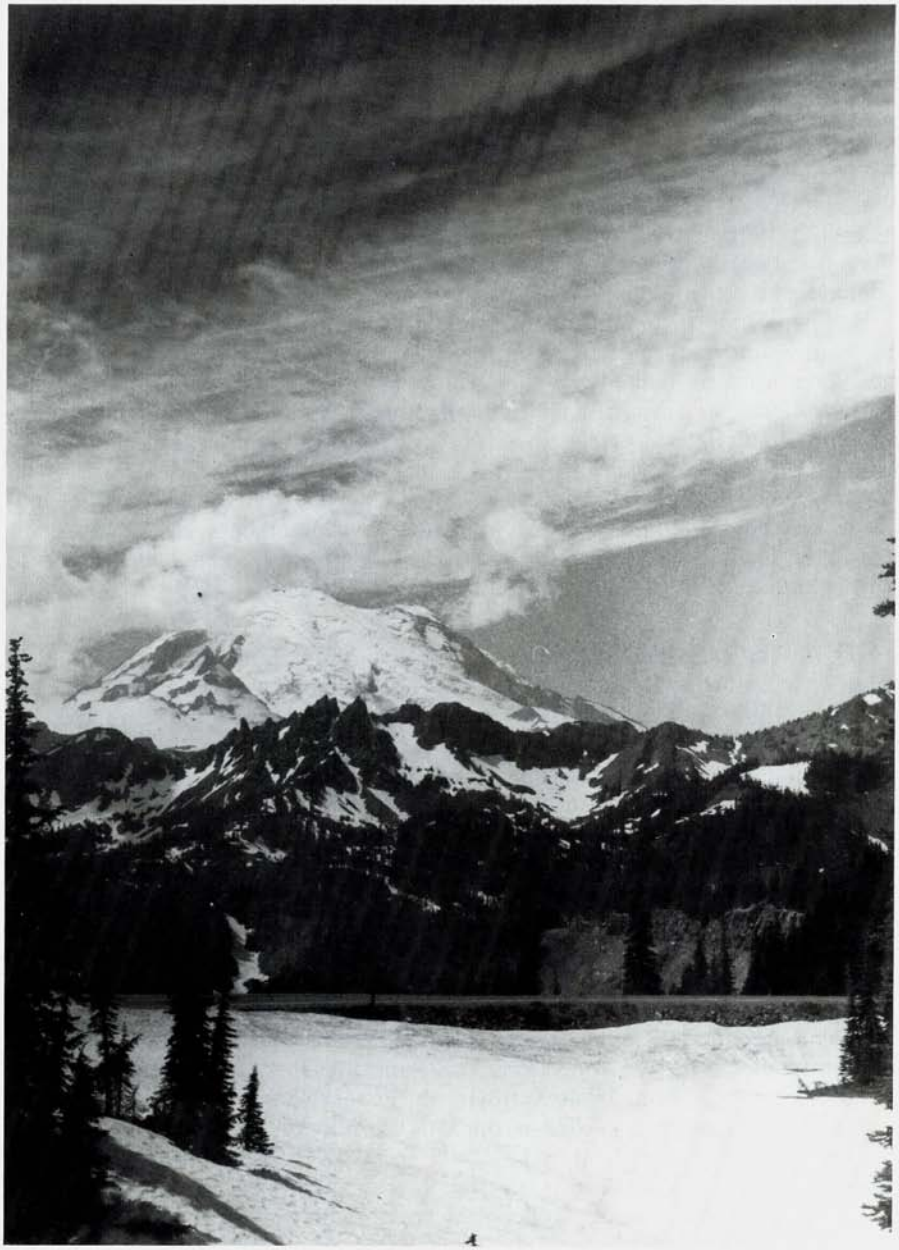
THE ARGS SLIDE LIBRARY—News from the Slide Library Director, Elmer C. Baldwin: A late and valued addition to the slide library consists of some 480 slides contributed by the Society and including among other western wild flowers a collection of approximately 80 slides photographed in Alaska and the Yukon Territory. The balance of the gift concerns plants growing in British Columbia and to the south to Arizona, New Mexico and Mexico.

Other recent collections include a set (contributed by our member, Mr. Brownmiller) covering a tour of gardens in Germany and Austria: a set of New Zealand plants (by Mr. Le Comte) and, of course, our own floral parks: the Point Defiance Park (#2507) with its fine Japanese Garden, in the West, and High Park (Grenadier), (#2512), in the East in Toronto, Ontario, are two very fine gardens.

Among the members' gardens, an attractive and outstanding western garden is shown in two collections (no duplicates), (#2506 and 2502-36). In the East, the Longwood Garden, in Pennsylvania, (#2508). Possibly our one eastern alpine garden is on Mt. Washington in New Hampshire at an elevation of 6,293 feet (set #2903-1). Our longstanding favorite continues to be on a field trip to the Tatra Mountains in Czechoslovakia (#2504). All of the above collections are available for a loan fee of $2.00 each with the exception of #2504 which consists of 190 slides. The fee for this set is $3.00. Catalog available. Mr. Baldwin's address is 400 Tecumseh Road, Syracuse, New York 13224.

HEAVY SNOWFALL IN THE MOUNTAINS

GUS N. ARNESON, *Seattle, Wash.*



Mt. Rainier (14,408 ft.) from above Tipsoo Lake (5314 ft.) near Chinook Pass—August 6, 1974

Gus N. Arneson

Snow buried the Cascade Mountains so deeply last winter that much of it still lay over the alpine flower fields all summer. This generous replenishment of the water supply has been a blessing to the Northwest in general but has brought a measure of disappointment to those who have gone to the high country to see the alpine gardens.

We went to Tipsoo Lake at Chinook Pass on August 6, normally an alpine garden of rare splendor at this date, and found it still largely under snow. *Erythronium grandiflorum* (Glacier Lily) danced on steep exposed slopes, *Anemone occidentalis* (Western Anemone) and *Castilleja* spp. (Indian Paintbrush) were pushing up to the light—often through the edge of snowfields—and on sun-bathed rock outcrops we saw some *Penstemon* spp., *Phyllodoce empetriformis* (Red Heather) and *Phlox diffusa,* but, however late August 6 appears in the processions of the seasons, it was still winter or earliest spring for the flowers and shrubs about Tipsoo Lake and Chinook Pass.

The probability of another such snowfall soon is remote so when our Rock Garden guests assemble in 1976 we can expect to lead them through fields of flowers in this area. On the other hand if, at that time, the only flowers should be found clinging to exposed rock walls and the steep slopes of Yakima Peak, if Mt. Rainier, resplendent in summer clouds, appears as it did for us on this occasion—a visit to Chinook Pass would be memorable.

* * * *

1976—Are you among those looking forward to and planning for the '76 Conference on Alpines of the Americas being held July 18-25 in Seattle and Vancouver?

Besides visits to outstanding area botanic and private gardens, a field trip to Mt. Rainier (season permitting) and pre- and postconference tours to the fascinating mountains of the Northwest, there is developing a diverse and challenging program. You, as a conference participant, will be taken by photograph on trips exploring plants of definite areas from Peru to Alaska and worthy points between. You will have unveiled for you the mysteries of a number of difficult genera many of which are American endemics. Through multi-media presentations, you will meet and hopefully become enamored of little known but admirable American crusade plants. You will meet again many outstanding American alpines, this time as they are grown in cultivation throughout the world. Speakers who are knowledgeable, eloquent, stimulating and who have access to exceptional photographs are being sought out.

Registration forms and information on arranging extended non-conference trips will be sent out later.

A tear-out mail-in '76 Interest Finder will appear in the *Bulletin Board.* It is designed to help '76 planners discover and begin making arrangements to meet the needs and desires of those planning to attend the Conference. To be effective, the form must be returned promptly. PLEASE LOOK FOR IT.

IN SEARCH OF ACIPHYLLA–1974

JAMES R. LE COMTE, *Ashburton, N. Z.*

"The best laid plans of mice and men" often get thoroughly tangled! Such was the case this season with my plans, for I had intended to visit many mountains in furtherance of the *Aciphylla* project, but regrettably time did not permit this. However, I suppose that I should be content with what did get done; a very condensed description of which forms this article. Those of you who read my first effort in the July, 1973 *Bulletin* will remember that 7 species grew for me, so at least some progress has been made because now 22 species plus 2 natural hybrids (known parentage) are growing on the property. Of several of these both male and female plants have been separated and labelled.

This year proved to be a good flowering season and most of the dwarf species and all of the large species were flowering.

First venture into the mountains was in late November when I visited Mt. Hutt (7,140′) about 20 miles away from where I live. A ski field development company has built a road up to almost 6,000′ and it is an easy nine mile drive up to this area where "vegetable sheep" abound. The two species here are *Raoulia eximia* and *R. mammilaris,* and there are also very good herb fields full of Celmisias, *Phyllachne colensoi, Pygmaea pulvinaris,* gentians, and a host of others. Most important to me was *Aciphylla gracilis* which was in abundance then but on a recent visit I noted that a large stand of this good species had gone under to the bulldozer in creating more car parking area. Price of progress! Altogether I visited this area five times this season; four of them being to guide overseas visitors, all of whom considered the visit worth while.

Aciphylla gracilis is a dwarf species of about 5 inches high, the rosettes forming clumps sometimes two feet across but usually much less, and the whole plant has a light bronzy appearance in the sun. It grows in a variety of habitats, among tuffets, in clear places and in rock crevices; the one governing factor would seem to be elevation because the species is found only on a narrow horizontal band. However, it seems to be quite amenable in cultivation and is growing happily enough for me at 600′. On a subsequent visit (Jan. 2) in company with Mr. and Mrs. Lawrence Crocker, of Medford, Oregon, *A. gracilis* was in full and beautiful flower. The inflorescence is an elongate type of about 8 to 12 inches high and the male, as usual, produces the showiest flower spikes. The bracts are not as closely set as in some species, making an open panicle, and they, and the compound umbels are a golden-orange colour which is very striking, especially in sunlight. The female inflorescence is of the same height but does not possess as much colour but has the advantage of persisting until, and sometimes long after the seed is ripened, whereas the male naturally collapses after fertilization.

This is a very good garden species and I hope once it is known better it will come into cultivation. There seems at present to be a question about the name and this may not be resolved for some time.

Late in January I was visited by my botanist friend who is researching the genus *Aciphylla* (botanically) and together we set off in a Land Rover to examine some species in the field. En route south, while driving along the Dansey's Pass road, we observed and examined 4 of the larger species, *AA. aurea, subflabellata, scott-thomsonii,* and *glaucescens*. Because their size puts them out of the scope of all but the large rock gardens there is no need to elaborate further.

Our first objective was Mt. Kyeburn which is the type locality of *Aciphylla verticillata,* and this species appears to have been collected there only once. John and I both had our 12-year-old sons with us but even though four pairs of eyes searched thoroughly, we could not locate *A. verticillata;* but we did find the small form of *A. hectori* to be quite widespread. Although this species is dealt with in a previous article it might be worth mentioning here that the small form is smaller in all its parts than the type and may enjoy specific rank once again—someday.

The next day was another hot, sunny one and our destination was Mt. St. Bathans where *A. dobsonii* was known to grow. A rough track led up a long tussocky spur to about 5,000′ where we had to leave the vehicle and climb up a rocky ridge, and there, high up, were the burnished bronze mounds of *A. dobsonii,* up to three feet across and some only a few inches.

Unfortunately no flowers were present but those mounds were reward enough. The individual rosettes are larger than those of *A. simplex* (July *Bulletin*) and each leaf is composed of three equal leaflets instead of the simple leaf of the latter. Otherwise, superficially, the mounds looked the same and both are ideal species for the rock garden. Many other plants grew on these mountains but as Aciphyllas were our goal, and time was short, no study was made of them. But we found another very interesting Aciphylla species at about 4,000′ and this plant cannot be positively identified at present because of the complexities of misnaming that have arisen over the years. Suffice to say that it is close to a plant which is erroneously called *A. similis* but which cannot be that species because it has an elongate inflorescence whereas the true type has a corymbose one. John has quite a job ahead!

The next day was another scorcher and we headed up the Old Man Range. At lower elevations *A. aurea* was in bloom everywhere and the 30″ or so, flower stems were quite a sight. As their name suggests, the colour is orange-yellow, almost golden. Further up, and in damp places all over the rolling tops, were *A. scott-thomsonii;* thousands and thousands of them in glorious bloom. Much too large for the rock garden but it is a plant to be admired nevertheless, with its male flowers a bright yellow and female flowers a lime-green yellow. The flower spikes are about 4′ tall and much broader than *A. aurea,* but one specimen at another location was 7′ high and this species is known to grow to over 10′ in sheltered places.

One of the main quests on this range was to examine a plant that I had collected, one only, last year and thought it to be a hybrid. Many of these plants, both male and female, were flowering with 12″ to 18″ stems and all were growing among the masses of the small form of *A. hectori* and a few of the type species. About 50 yards away were hundreds of *A. scott-thomsonii* and although it seemed amazing that such a large species should cross with

such a tiny one, the proof was there in the leaves which were almost small replicas of *A. scott-thomsonii.*

Quite a bit of time was spent searching for *A. pinnatifida* which I had heard grew on this range but which I had never been able to find. On impulse, a last look was taken by a stream and there it was; mats of it. There were plenty of the showy orange male flowers and the boys soon discovered mats of females in flower further down the stream, and although this species was mentioned in a previous article it is worth mentioning that it grows only in very wet places where water is trickling around the roots. Here is was spreading in saturated moss which held some soil and the stolons could be traced for almost two feet. Although its habitat in nature is so exacting, it is quite amenable to cultivation and thrives in any good potting mix without a lot of water—an excellent species which will probably become a very popular rock garden plant and may win prizes at shows, for it flowers in cultivation, too.

This wonderful day was rounded off by a close scrutiny of the two forms of *A. hectori* and of the bronze mounds of *A. simplex* which had both male and female plants in flower. No more mountains were climbed on this trip but some interesting information was gained and we returned home two days later feeling quite pleased with ourselves.

Before the end of February my feet were itching again and so I phoned my friend, Greg Hooker who had accompanied me last year, and whose enthusiasm about native plants has him bubbling over at the thought of a trip.

So naturally, we caught the first available flight to Christchurch Airport where I met him, and together we drove north up the East Coast to Blenheim, where we made inquiries about our destination—the Richmond Range. This heavily forested range lies approximately from southwest to northeast between Nelson and Blenheim, and has several peaks which thrust above the forest to an altitude of more than 5,700′. The range is also the type locality of *Celmisia cordatifolia* and close to the type area of *Aciphylla polita,* so to gain the tops was a must. Lots of inquiries were made and as a result we judged that the peak known as Mt. Fishtail would be the most accessible in the time we had and climbing times varied between four and six hours according to whom we asked. We drove for many miles along the Wairau Valley until we turned off into Pine Valley which led into the foothills, and there we had to leave the car and walk for about 30 minutes to a hut in the forest (called "bush" in New Zealand) where we would spend the night. The New Zealand Forest Service has built many hundreds of such huts along the mountains and maintains them, and the walking tracks which they serve. We found this hut clean and well appointed and after a good dinner cooked over an open fire, we "hit the sack" for a good night's rest. Little did we realize how much we were to need it.

Six-thirty a.m. saw us on the way along a rather overgrown track which fortunately was blazed at regular intervals, and for quite a while we followed along the side of the river until the track turned across the river and up a steep ridge. This ridge was never to let up; it was steep all the way; but though the going was strenuous it was very pleasant in the cool gloom of the bush (forest) and the track was now clear and plain. It may be an exaggeration but it seemed that at first we climbed for twenty minutes and rested five

minutes but ended up climbing for five minutes and resting twenty minutes. After five hours we finally broke clear of the bush and in front of us was the final leg of the climb—the rocky peak of Mt. Fishtail. We had heard it described as "just a big slag heap" and that is just how it looked; one could not imagine plants growing on it, but grow they do!

The first gem found was a Celmisia we hadn't even bargained for. Forming tight mats or mounds of small crowded rosettes on rock outcrops was *C. macmahonii* var. *hadfieldii*. The leaves are about ¾ inch long, very narrow and thickly felted with white appressed hairs. Each rosette is about 1" to 1¼" across and when they are crowded together to form a cushion of a foot or more across, the whole effect is pale silvery green and very, very delightful and indeed beautiful. This was our first meeting with this species and we were quite thrilled with the "bonus." It was not found anywhere but on rocky and shingly places and later research told us that this range is not only the type locality but is the only area where the species is found. Such a beautiful plant should be in cultivation but the remoteness of habitat has forestalled most collectors of natives and I think it is not generally known.

Remembering our main objective, we pressed onward and upward into a rocky basin where there were large patches of dwarf alpine shrubs such as Senecios, Olearias, and clumps of *Celmisia viscosa* with the longest leaves and biggest rosettes we had ever seen. A form of *C. spectabilis* was common and also *C. adamsii* which is a neat mat former with small rosettes of oblong-lanceolate leaves. *Cyathodes colensoi* and *C. fraseri* var. *muscosa* were dotted around and a few of an unknown Ranunculus were found in a rocky scree. In damp places *Anisotome haastii* abounded and *A. aromatica, Pimelia* sp. and *Leucogenes leontopodium* were also sighted, to mention but a few. Another interesting find was *Hebe tumida,* a very much branched, absolutely prostrate, fine whipcord. It is quite a small one, and a good one for the rock garden. The type locality is not known but it is probably around this area. It was a great relief to find *Aciphylla polita*—a tiny gem, too! Oliver (1955) describes this as the smallest species of the genus but an even tinier one has recently been found and I hope to give details of this in a future article.

The range of *A. polita* is given by Oliver as some of the mountains in Western Nelson; the peaks of the Richmond Range (of which Mt. Fishtail is one), and the Tararua Range in the North Island. I have never been on the Tararuas but have collected *A. polita* from the West Nelson Mountains and the plant from there differs considerably from the plant on Mt. Fishtail although they are both called *A. polita*. I have been assured that the Richmond Range plant is the true species and it is also the tinier and finer of leaf of the two. The plant is not more than two inches high (no inflorescence was sighted) and has very fine foliage which is quite soft for the genus and although each leaf segment has a sharp point, it is not prickly to the touch because of the yielding leaves.

Although we were pleased with our find, there remained one plant to locate, and though we realized that it was by now time to turn around and head back down the mountain, it was a must to find *Celmisia cordatifolia*. So up we went; into rockier places now the going got trickier as we got into rock chimneys and narrow ledges. There were quite a few wild goats about and we

had seen where a lot of plants had been chomped off so we feared for the survival of the plants, but our fears were unfounded because, tucked into a humusy crevice, under an overhanging rock, we found our first two specimens of *C. cordatifolia.*

For two grown men, we acted like a couple of schoolboys; whoops echoed all around the pinnacles. Out came the cameras for these plants were all, if not more, than I had expected them to be; deep green leaves on long petioles which are partly covered with reddish brown fur. The petiole is as long or longer than the leaf which is 3 to 5 inches long, but I would describe the leaf shape as sagittate rather than cordate as the specific name suggests. The top of the leaf is conspicuously ribbed and the underneath is covered with a thick felt of fur which is a beautiful reddish brown. I have heard the colours described as foxy red and although I have never seen a fox, the description sounds appropriate. There were no flowers present but who wants flowers on such a fabulous plant? They were beautiful!

We couldn't bring ourselves to dig these two plants so we searched about for a few others to collect, and soon found that they grow mostly in rock crevices which were filled with humus and sometimes on ledges full of the same material. We also found them all the way up a vertical crevice in a rock chimney and these were left to flourish. However, they were never plentiful and as it was nearly three hours past our deadline for starting descent, we decided we had better tear ourselves away and get down as fast as we could before dark. I am sure I've never come down a mountain so fast, but even so we just made it to the hut as darkness fell. We were too weary to cook a meal; instead we fell into bed and there was no talking *that* night.

Up early next morning we walked out to the car and drove across to the West Coast. Our destination was the Lyell Range where we hoped to engage a helicopter to lift us and our camping gear onto the top. As these ranges are also bush clad with only the tops clear, the prospect of a full day's hike, loaded with equipment, to get to the top, did not appeal; more because of a lack of time than lack of steam. Inquiry soon revealed that the venison-hunting helicopters had moved out a few days previously so we moved south to Reefton which is close by the Paparoa Ranges. This time we were luckier because there was a helicopter stationed there, engaged on survey work, and arrangements were made for an early flight. So next morning we had a cup of tea with the pilot at 5:45 a.m. and at a few minutes past 6 a.m. we were on Mt. Stevenson (4,675′)—many miles away. It took nine minutes to do what we would have been working hard to do in a very long day. Slogging through thick bush is no joke; one cannot even see one's destination; so the saying is true, "Flying is the way to travel."

As soon as the machine had lifted off to return to base, we cast our eyes around to see what we had landed amongst, and there were Celmisias everywhere. One was a very handsome form of *C. coriacea* with much shorter leaves than the type, but quite broad, of good bright green and with a suggestion of white edging and more white at the tip—a very compact form, ideal for the garden. Also there was quite a lot of *C. armstrongii* with long narrow bronze-green leaves and an orange-bronze central stripe. We collected 52 different species of plants from this range in the very short time we had

available but there is not space to describe them all here. Some of the more notable ones were *Dacrydium laxifolium* (reputed to be the world's smallest conifer), *Pseudopanax colensoi* var. *ternatus* (a very dwarf rock crevice dweller), *Anisotome haastii, Gaultheria depressa, G. rupestris* and *Myrsine nummularia* (with its lovely purple berries); several small species of Celmisia, Coprosma, *Euphrasia cockayniana* (with yellow flowers) and *Forstera mackayi.* On rock outcrops we found one of the vegetable sheep, *Raoulia rubra,* and in some wetter places, the cushions of *Donatia novae-zelandiae.*

A very notable find was a large gentian with creeping woody stems and though this falls into the description of *Gentiana montana,* it is sufficiently different to warrant further work on it. The Aciphyllas we were seeking were *A. hookeri* and *A. townsonii,* and we soon found them growing in grass and in some clear places. *A. hookeri* is very distinctive and cannot be confused with any other species; it is very dwarf and to describe the leaf I must quote Oliver —"flat squarrose, short dagger-like segments giving the tip a trifid appearance." This is a great rock garden plant—more of this species in future articles. *A. townsonii* has narrow grass-like leaves and was in fact very difficult to find where not in flower. I doubt if it would appeal to any other than a collector.

By this time it was pouring with rain and we had to return to the landing site, erect Greg's tent and after discarding our wet outer clothes, crawl into our sleeping bags. It was a great disappointment to have only three hours botanizing when we would have had twelve hours if it hadn't rained.

Visibility was very poor and the weather squally so we reckoned there would be no helicopter at 6 p.m. as arranged but that we would have to walk out next day. In the forlorn hope of being lifted out I packed all my gear so as to be ready and near the appointed time we heard the familiar "chop chop" of the helicopter and very welcome it was. What followed must have looked very funny to the pilot coming in, but we did not have time to appreciate it. In order not to keep the machine waiting, I rushed out and pulled out the tent pegs thus collapsing the tent on top of Greg who was packing his gear and who emerged from under the tent dragging on his castoff wet clothes. Once in the cockpit and lifted off, we were very pleased at not being still down there for the night, wet and shivering. The inside of the plastic bubble soon misted over so that it was whiter than the cloud outside, but we needn't have worried; the pilot knew what he was doing and soon we were flying over the clouds and could see Reefton in the distance, bathed in late sunshine. Once back in town, we found that a hot shower, change of clothes and a good feed worked wonders, and this was topped off with a trifle of indulgence in one of the many local hotels where plenty of good conversation and camaraderie put the poorer part of our day's experience a long way into the background.

To quote the Californian pilot of a meat-hunting helicopter on the West Coast—"The Coast is one of the last frontiers; here you can be as big a man as you want to be"—and he does.

Keep in mind the two Winter Study Weekends—East and West! See details of time and place in the accompanying *Bulletin Board.*

THE FINDING OF A TREASURE

MINA COLVIN, *Nashville, Ind.*

Many years ago I delighted in the spring beauty of these hillsides in Brown County, Indiana. Later when I discovered there were Phlox of a sprawling nature, I found them in colors of pink and blue and, one day, I found a white one. Some inborn knowledge told me white was great, so I had to have that plant. The only digging tool in the car was a small pair of scissors, and needless to say, they never cut anything again, but the Phlox was mine. That same plant, or its rooted stems are with me after nearly ten years.

I enjoyed my "weeds" as many called my wild flowers and then like a sleeping pupa, I was transformed into a full-fledged "flower freak." During this transformation we purchased a piece of country haven and I could then have all the plants I wanted.

Only one problem could I see—trees! I couldn't see cutting the trees to make room for flowers. In the years following I came to see the light, and a few chosen trees do go each year.

Seed raising was the only way I could hope to have the number of plants I wanted, so I spent some time ordering catalogs and raising not too choice rock plants. Miniature plants seemed to fit in with the terrain better than other kinds I had tried.

Then a friend introduced me to old ARGS Bulletins and I was snared. Why had I never done this before? And a seed list, too. Discouragement did set in when I discovered the new Bulletins were about 90% over my head. Yet I was already ahead of the monthly publications I was getting, so I decided to try to catch up. There were many trips to libraries, county, college and state, which proved a perfect place for cold winter and late wet spring days. I began to catch up a little and with the aid of a pocket-sized plant dictionary I purchased along with some labels from Paw Paw Label, Co., Paw Paw, Mich., I felt I could now venture out into the world of "plant people."

The notice came of the fall meeting in Dayton, Ohio, at the Harry Butler home. I thought about it for days. Could I go? Should I try it? It was very hard on the nerves. Then it was too late to send in my notice and the money for the noon meal. Oh, why worry? I could always find a lunch counter. I'll go! Needless to say, it was fantastic. I wasn't the only one to have made a late decision. There were almost twice the people expected. Several familiar faces helped to break the ice and I found my ignorance was tolerated. Later I realized I wasn't being tolerated but corrected and guided by those who knew. What a delightful way to learn!

A tour of the Butler garden brought up a question to me. Did I have a white *Phlox bifida?* "Yes, it comes in pure white," Mr. Butler said, so I promised to look when spring came; my own Phlox was not pure white.

I could hardly wait till spring and the flowering of *Phlox bifida.* After nearly twenty years I had found its correct name and I was so proud to live

in an area of a desired plant; what an honor! For three afternoons I drove the hills, slowly up one and down another. Quite a few white ones but no pure, yellow-eyed, white-throated white. Then right there on the hillside were two tiny sparkling white plants and that's all I needed.

I had always sent for ARGS seed but this time I could send in something that was sure to be pure and correct. But there was one problem, for I am afraid of snakes and our hills abound with nature's gifts, so all seeds were gathered with one eye out for copperheads.

The seeds themselves are not the most cooperative; two tiny seeds in the capsule and with any luck at all they will pop and fly just as reached for. I had already found if gathered early and allowed to ripen, they do not germinate. Two or three hours was all I could devote at a time before my back would urgently suggest I quit. At cleaning time I discovered close to fifteen hours had given me one tablespoon of good seed.

The next year I took plants to our Spring Meet; no point in our chapter

Phlox bifida 'Starbrite'

Virginia Howie

members ordering those hard-to-get seeds from the Seed Exchange. Again the hours of seed collecting started. On the fourth day I'd made a picnic out of it with my lunch, and truly enjoyed the beauty there. I even marked a few very late bloomers in order to return for the seeds later. Maybe the lateness of blooming would hold over into the seedlings. I looked at the sky and realized it wasn't cloudy but getting dark so it was time to go home. When I got behind the wheel I saw the first star and as if I were again a child, I made my wish, "May these seeds provide one iota of the joy that I have had today."

Back onto the blacktop to retrace my way home, I rounded a curve and there in my headlights was something I had not seen before. I backed up to get a better look and Oh! it did look good. There in the crumbling edge of the asphalt country road was the most unusual Phlox I had ever seen. I knew I'd found something very special. I looked up to say "Thank You" and there was my star shining bright. Thus my Phlox was named 'Starbrite' then and there.

The next days were spent watching and marveling at this delightful little Phlox. Could it be the growing conditions, or just what could cause it to look more like a star than any other? The flower was much smaller than the average, and yet the plant was covered with bloom. I've watched and waited but no seeds have ever formed. I waited 'til spring to be sure it would still produce the ray- or star-type flower and when it did, I sent rooted cuttings to the few people I knew who were interested. Word came from Dr. Wherry that this was *Phlox bifida* ssp. *bifida* or *typica*. He wrote that he had received a start of this plant many years ago sent from Nashville, Tenn. It had long since been lunch for a hungry varmint so he was glad that I could find this one in Nashville, Indiana.

The finding of a treasure is wonderful but the only real joy is the sharing with others, and I found that this sharing has brought me more pleasure than I'd ever hoped for. It has been a good idea, also, for I find this year hasn't been the best and I am about to lose my find. Losing 'Starbrite' doesn't seem as bad as it did for I have had the pleasure from it and now it is time to move on to other things. That is the wonderful part of gardening, each day holds the promise of being the greatest ever.

BOOK REVIEW

ECHEVERIAS A GUIDE TO CULTIVATION AND IDENTIFICATION OF THE POPULAR AMERICAN SUCCULENTS by L. Carruthers and R. Ginns, Arco Publishing Co., Inc., New York. $7.95.

This book deals with a genus of generally highland and sub-montane habitats in the New World, ranging from one species in Texas southward to northern Argentina. As stated by the author, it is not a botanical monograph, the descriptions of the reported species being in lay language rather than taxonomic nomenclature. One hundred thirteen species and variations are described, giving locale and special growing information where appropriate. In addition, sixty-five hybrids including many new ones are reported along with forty-eight excellent colored plates. Supplementing the cultural information, there is a fine chapter on the history of the genus and Atanasio Eche-

verria, for whom the genus was named.

This very desirable addition to the gardener's library suffered one fault common to most such publications. Presumably, one of the prime purposes of the authors is to assist the reader, who is interested in Echeverias, to become informed on the subject. However, the reader is not likely to feel very knowledgeable if he cannot accurately pronounce the names of the plants he is told how to grow, or understand why each species was given its specific name. Why not, in parentheses, after each specific name, give a phonetic pronunciation and definition of the term, or explanation of for whom it was named? But for this, I say, "Bravo."

Arthur S. W. Chantry, *Seattle, Wash.*

ADAMSONS PEAK, SOUTHEAST TASMANIA

KENNETH D. GILLANDERS, *The Basin, Victoria, Australia*

Plants mentioned in the following article will, I hope, be of some interest to members not familiar with Tasmanian flora. Only a fraction of Tasmanian alpine flora is covered here as I intend to mention only the more interesting plants seen while hiking to the summit of the peak. I have chosen to write about this particular mountain, not because it is particularly rich in alpine flora, but because of the range of vegetation seen, starting from heathland near the foot, through dense rain forest, sub-alpine forest to, finally, open herb fields and steep rock-strewn slopes at the summit.

Situated about 40 miles south of Hobart and only 8 miles from the coast, Adamsons Peak rises to 4017′ and seen from the road approaching it, it appears as a small version of Mt. Fugi. Actually it rises to a plateau at about 3500′, which at one end rises to another small boulder-strewn peak.

A vehicular track leads in from the highway on the coast for about two miles rising to about 500′. From here the ascent must be made on foot and the first couple of miles leads over swampy heathlands of very acid, black, sandy soil. Originally burnt out by timber cutters many years ago, this area has experienced many fires through the years, which have kept most of the vegetation confined to plants that reestablish easily or those that can reshoot.

One plant that is very plentiful here is *Patersonia glauca,* a member of Iridaceae. It forms a clump of narrow, slightly glaucous green leaves about 9″ high. The pale blue, three-petaled flowers only last a day but a succession of flowers keeps the plant looking attractive for several weeks. Plentiful here also is *Drosera binata,* the Forked Sundew, with its ascending, narrow, forked leaves covered with red hairs. The flowers are up to 1″ across in clusters, are sweetly scented and a glistening white. Bracken fern is abundant, also *Bauera rubioides,* a tangled shrub occurring from sea level up to 4000′. It grows on the mainland, too, but not in such abundance as seen in Tasmania. The flowers can be white or pale pink and are, in form, like a small dog rose.

Stylidium graminifolium, commonly known as Trigger plant, creates a splash of colour here and there with its spires of rose-pink flowers. These arise from a clump of narrow, pointed leaves which often take on a reddish colouring.

An ideal plant for the rock garden from here is *Helichrysum dealbatum.* It forms a small rosette of very deep green leaves, silver and lightly felted beneath. The flowers are produced singly on 4 to 6″ stems and are snow white, often flushed reddish on the back.

From this area, one abruptly enters a dense forest, comprised of Eucalyptus, several hundred feet high with an under storey of *Eucryphia lucida* and *Nothofagus cunninghamii. Eucryphia lucida* reaches 30 to 40′. It is locally known as Leatherwood and is renowned for the honey produced from its attractive 2 to 3″ white flowers. *Nothofagus cunninghamii,* the most common of the three Nothofagus species found in Australia, is known here as Myrtle. It reaches up to 150′ and its timber is ideal for furniture making, being a good colour and texture. It is an attractive tree with very small deep green leaves, taking on a gnarled appearance with age and becoming festooned with mosses and lichens.

Anopteris glandulosa is a most beautiful shrub, or small tree, with clusters of white or blush-pink flowers which are produced even on small young plants. Known as Tasmanian Laurel, it is grown in cultivation in cool districts and is always attractive with large, shining leaves. It is related to the Escallonias.

Dicksonia antarctica, a Tree fern, abounds. Some of them are up to 20′ high, also *Aristotelia pedunculatus,* the Heart berry, is a straggling shrub with solitary white, pendulous flowers, followed by fruits often heart-shaped. The colour varies from white through pink, red and deep purple.

The track follows an old tram track used thirty to forty years ago by timber getters to convey logs out of the forest. In many places, huge logs over a hundred feet long and four feet in diameter have been laid side by side on uneven or soft ground and decked over. These still lie there, though partially rotted now. Many hundreds of thousands of super feet of timber must haye been left to rot this way when the loggers left.

As one goes on, shrubs such as *Trochocarpa cunninghamii* and *T. disticha* are found along the edge of the track. Members of the Epacridaceae, both have a lax habit and have clusters of bluish-black fruits. *T. cunninghamii* has a more desirable habit of growth and the flowers are a cluster of small, bell-shaped pink flowers.

Another member of the same family which starts growing here and continues to the summit, is *Prionotes cerinthoides.* At this altitude, about 1500′, it scrambles over banks, old rotten logs and up the moss-clad trunks of Myrtle up to 40′. At higher altitudes it creeps between rocks and is only a few inches high. The tubular, pendulous flowers are about 1″ long, the petals reflexing at the mouth of the corolla, which is slightly constricted. In colour they vary from bright red to crimson and are produced in profusion. It has been suggested that this plant resembles Lebetanthus, a genus from South America and that both these plants show closer affinity to Ericaceae than Epacridaceae.

An Ericaceous shrub abundant here and in many parts of Tasmania is *Gaultheria hispida,* the Snow Berry, reaching 2 to 3′ in open positions, higher, of course, in the forest. It becomes covered in late summer and autumn with

large white fruits which are actually each one a fleshy calyx enclosing a small seed capsule.

At about 3000′ the forest is nearly 100% Nothofagus but includes *Phyllocladus asplenifolius,* a conifer with flattened leathery leaves, known as Celery Top pine. Here is also the giant Grass tree, *Richea pandanifolia.* Richea is an Australian genus of ten species of which nine are endemic to Tasmania. *R. pandanifolia* reaches up to 20′ with a single trunk or is sparsely branched. The foliage is a crowded bunch of leaves at the end like a Cordyline.

As one emerges from the forest at 3500′, the height of the vegetation diminishes rapidly and after passing through dwarf plants of Eucryphia, Nothofagus, Leptospermum and Cyathodes with their brilliant red fruits, the first of the true alpine plants appear on the plateau. Many small shrubs grow here, also a few gnarled dwarfed trees that have ventured above the normal tree limit, and mainly creeping plants and herbs.

Richea scoparia is one of the most abundant plants. The stiff, clasping foliage is a deep green and prickly. The flowers are in terminal clusters of 4 to 6″ high and vary through pinks and reds. *Bellendena montana,* known as the Mountain Rocket is also widespread. A member of the Proteaceae, it is a shrub of about 18″ with leathery, notched leaves and terminal racemes of white or pinkish flowers followed by most attractive fruits which are flattish discs that colour a brilliant red in autumn.

Two Helichrysums worthy of mention are *H. backhousii* and *H. milliganii.* The former is a small, suckering shrub with rounded dark green leaves with a dense indumentum beneath. The white flowers are very small and are held in dense clusters. *H. milliganii* is a herb making a rosette of rather fleshy, light green, pointed leaves. The large white flowers have a crimson back which looks very beautiful when just opening. These are produced singly on 4″ stems.

In Compositae are Celmisia, Senecio and Olearia. *Celmisia asteliaefolia* has been known for many years as *C. longifolia* till recently when it was reclassified; *C. longifolia,* being a very rare species confined to only one mountain range in New South Wales. *C. asteliaefolia,* the Snow Daisy, has as with all the Celmisias, white daisy-like terminal flowers. The foliage is narrow and a silvery green.

Senecio lautus reaches 18″ and has soft, light green, deeply lobed leaves and masses of bright yellow daisy-like flowers. *S. pectinatus* var. *ochroleuca* is a dwarfer plant, sometimes quite prostrate. The flowers are cream and are produced singly on 4 to 6″ stems.

Tasmania is rich in the number of Olearia species, several being endemic, as is *Olearia pinifolia.* If one found this stout woody shrub growing out of flowering season, it would be hard, indeed, to imagine that it could belong to Compositae. The plant lives up to its name and, indeed, looks like a gnarled pine with short, rigid, needle-like leaves, but these are hidden completely when the plant flowers with masses of small, white, daisy-like flowers.

Only three members of Liliaceae are generally seen, but these are abundant. *Astelia alpina* forms dense mats of silvery-gray foliage in very moist or boggy situations. The flowers are rather a dull brownish colour and in-

significant but are followed by clusters of brilliant, shiny, red fruits on female plants. The other two are Milliganias, known as Tasman Lilies. They are *M. stylosa* and *M. densiflora* and are similar in foliage and flower. Both form clusters of broad, light green leaves that taper quickly to a point. The scapes are covered with a dense mat of white hairs and rise up to 2′ with panicles of white or cream flowers. These, at times, take on a light reddish tinge as they age. Milliganias are most beautiful plants and require a cool, moist, peaty soil.

Most plentiful at lower altitudes, but occurring here in isolated small colonies is *Diplarrhena moraea* of the Iridaceae. It is commonly known as Butterfly Flag. The foliage is stiff and upright, making a dense clump. The flower stems vary in height according to the altitude, up to 30″ at sea level but much lower at high altitudes. The delicate white flowers have yellow and sometimes light lilac markings in the centre. They do not last for long but they have a succession of bloom over a long time.

Just before the final ascent is made, numerous colonies of the so-called cushion bushes appear. A feature of many Tasmanian mountains, these remarkable plants form huge cushions often comprised of three to four totally different species. Some of these species resemble one another in foliage, so that it is very difficult to distinguish them. Others have a different colour to the foliage and when grown together form colourful and interesting patterns. Only two appear to be colonizing this area and they are *Dracophyllum minimum,* a member of Epacridaceae, and *Donatia novae-zelandiae.* Donatiaceae is comprised of only two species. The species mentioned also occur in New Zealand and another occurs in South America. The flowers of *D. novae-zelandiae* are stemless, upturned, pure white bells with five pointed petals. *Dracophyllum minimum* is almost identical in foliage, which is deep green and comprised of very closely packed, pointed leaves, forming small rosettes so densely arranged that a plant is not marked when it is walked upon, though the centre of the cushion may be 12″ above the ground. The flowers are white and stemless, also, but are a tube with five spreading lobes.

Another Epacrid abundant here and also found in New Zealand is *Pentachondra pumila.* A prostrate creeping plant, it forms large mats of small, stiff, gray-green foliage. These become studded with stemless, upturned, small, white, tubular flowers with fringed lobes. These often remain intact and in good condition on top of the ripe fruits which are spherical, about 6 mm in diameter and a crimson red in colour.

Adding a lot of colour to the slope are some of the Eyebrights. There are several endemic Euphrasia species seen here. They are attractive herbs forming small clumps. The flowers vary from white to mauve shades. Unfortunately, cultivation could be difficult as most are suspected of being semi-parasitic.

A conifer of great interest and one which adapts well to cultivation is *Microcahrys tetragona,* the creeping Strawberry cypress. It is found growing in open, often rocky positions with cushion plants or other low-growing plants. It forms 6″ high mats of its fine, four-sided, interesting foliage. Male cones are very small but the ripened seeds on the female cones are most attractive, being encased in bright red, fleshy scales, the whole resembling a ripe raspberry. These plants can be dioecious.

The endemic, *Rubus gunnianus,* is abundant. It is an herbaceous herb, spreading with firm woody stems beneath the surface, covering an area to 3′ in diameter. The small, shining, lobed leaves are a deep green and show a likeness to a small oak leaf. The half-inch white flowers are produced in profusion and are followed on female plants by shining red, edible fruits.

Dwarfed, isolated specimens of *Telopea truncata* venture almost to the summit. This is the Tasmanian Waratah, a shrub or small tree with spectacular crimson flower heads. Perhaps the most beautiful plant to be found here is *Geum renifolium.* It is endemic to Tasmania and is found only in the extreme south of the island. The foliage is kidney-shaped, wrinkled and very hairy and is held just above the ground. It spreads slowly by thick creeping stems above or just below the surface. The flowers are held singly or, at times, two on a stem up to 30cm. They are white, 2½″ in diameter with numerous yellow stamens which take on a reddish colour with age. In cultivation, it must be kept very moist and shaded.

A plant that grows right on the summit is *Ewartia planchonii,* a prostrate herb belonging to Compositae. It has small leaves densely covered with woolly hairs, which give the foliage a silvery-white appearance. The plant grows in tight little buns up to 6″ across, between coarse gravel and broken rock, in positions that receive full exposure at all times. Its small flowers are practically stemless and are yellowish or brown. However, it is worth growing for its foliage and compact habit.

This mountain receives about 80″ of rain per annum. Snow covers it for long periods during winter and frosts can occur at any time of the year. Soil, like that on most Tasmanian mountains, is very acid, down to a pH of 4 and is very peaty.

OBITUARIES

DORETTA KLABER—Active to the last, Mrs. Doretta Klaber of Bucks County, Pa., succumbed to a heart attack while working in her garden on May 24. She was born in New York City on November 5, 1887. Early, showing artistic ability and an interest in plant life, she studied in Art Schools and in the Cornell University School of Horticulture. In 1913 she married E. Henry Klaber, a New York landscape architect and city planner; they had two children, a son who died in youth, and a daughter, now Mrs. Earl Coddingham, of Pacific Palisades, California. After living for periods in Chicago and Washington, D. C., Doretta and her husband returned to New York in 1954. Then they bought a ten-acre tract near Spinnerstown, Bucks County, Pa., rebuilding the ancient house there for summer vacationing, but soon making it their permanent home.

The tract, on the south slope of a trap-rock ridge, is studded by huge boulders surrounded by rich loamy soil with underground water at shallow depth, making it an ideal site for a rock garden as well as for propagation beds. Since the surface is kept cool by evaporating water, many plants from higher altitudes and latitudes, such as gentians and primulas, commonly pampered on laboriously constructed "moraines" hereabouts, thrive especially well. Since propagation proved easy, the site, in 1954, was turned

into the Cloud Hill Nursery, selling plants at moderate prices. When I discovered the award-winning Cut-leaf Foam Flower, duly named *Tiarella wherryi,* I collected a flat of it from a wooded hill in eastern Tennessee and drove directly to Cloud Hill, where it was soon increased and widely distributed.

Although slight of physique, Doretta was well endowed with the important a-c-e attributes,—ability, charm and energy. Beside contributing many articles to horticultural magazines, Doretta authored and illustrated popular books,—*Rock Garden Plants, Gentians For Your Garden, Primroses And Spring,* and the most elaborate, *Violets Of The United States,* soon to be published. Her loss will be sadly felt by a host of members of the Rock Garden Community.

Edgar T. Wherry, *Philadelphia, Pa.*

VICTOR H. RIES—I first met Mr. Ries three years ago, but some ARGS members must have known him for a much longer time. I thought they might want to know that Mr. Ries' gardening is done.

Mr. Ries had a wooden sign nailed to a huge tree by his front walk. It said, "GARDEN OPEN, WALK IN", and Mr. Ries really meant it, too. He welcomed any garden lover, whether a skilled old-timer or a rank beginner such as myself. His garden was unique and enchanting. He freely gave seeds, cuttings, slips and seedlings . . . and most important of all, he gave advice, sharing skill and wisdom that only years of work and study can bring. I came to learn that if Mr. Ries said to do a plant a certain way, that is the way it had better be done. At first I was contrary and tried to garden with my own short-cut method, but later found it really paid to listen carefully to Mr. Ries and do exactly what he said. What marvelous plants he shared. At first, as a beginner, I didn't understand that you can't just snap your fingers and acquire Lenten roses, or Welsh poppies, or Blue Wood Asters, or European ginger, or *Euonymus minimus,* or the delicate, tiny boxwood—Kingsville Boxwood, I think he called it. With seeds and cuttings from his garden, I now have many little plants that are rare and unusual, which I am just beginning to appreciate.

I was not a frequent visitor, nor a close friend. I was just one of the many who went now and then to see his garden, perhaps taking along a strange plant which he would instantly inspect and identify for me. I last saw him in November, when he was giving away rare boxwood cuttings to all takers. I asked him if I might come in the spring, to get a cutting of his cross-hatch vine. "Don't wait 'til spring. Take it now", he said. "Then you will be sure to have it."

It was a cold miserable day, that November day when he gave me the boxwood and the cross-hatch vine. It was the kind of day you would forget. But my cross-hatch cuttings have taken root over the winter, because I followed Mr. Ries' instructions exactly. This spring they have grown several new leaves, so, with their help, that cold day and Mr. Ries' generosity will not be soon forgotten.

My goodness! I just read this over, and I make the poor man sound like a sweet old gent. Mr. Ries wasn't sweet. He was quite irascible, even irrev-

erent. I see by the news clipping that there was no funeral service. That is quite in keeping with his personality. He was also totally scornful of pride, sham and especially stupidity.

Because of Mr. Ries I am a member of the ARGS. He told me about the organization, and said I might like to join. I have been grateful ever since.

Rosamond Warfield, *Columbus, Ohio*

SOUTH AUSTRALIAN COUNTRYSIDE

MARSHALL MITCHELL, *Moe, Victoria*

In this rather large, flat southern land with not a great number of alpine areas, I feel lucky to have one an hour's drive away; though it is not large in area yet it has a good variety of plants to see and enjoy. The drive is typical of this Australian state of Victoria. The roads are lined with Eucalyptus trees which give shade for most of the way on the hottest days. The only town one encounters is Erica which is dominated in its background by the 4,950′ tree-covered mountain of the same name.

From Erica one climbs into densely wooded mountains along the winding road with the valley of the Thompson River below and on the other side a spur of the Great Dividing Range. The turn off to Mt. Erica is passed. Mountain ash, *Eucalyptus regnans,* brings the forest right to the road edge with large numbers of tree ferns, *Dicksonia antarctica. Acacia melanoxylon* (Blackwood) and *A. dealbata* (Gray Leaf Wattle) make contrast in the rather limited range of flora here. The Acacias are often festooned with *Clematis aristata* now showing the attractive wooly seed heads.

Soon after taking the turn off for Mount St. Gwinear (4,950′) a sign reads Baw Baw Alpine Reserve. Some of the trees are Snow Gums, *Eucalyptus pauciflora* var. *alpina,* which are in low-growing groups which let in light for the alpine plant life. Now the constructed road ends making a rewarding walk necessary for all. Snow comes to these mountains for varying periods according to the winter season, usually for about five months. Some winters there is no snow.

There are now open spaces with small streams running in this granite area almost above tree level in between Mt. Erica and Mount Baw Baw (5,050′). The gentle walk in is about one and a half miles firstly dominated by the pink *Stylidium graminifolium* and the white-flushed-purple of *Viola hederacea* in large drifts. Sheets of mauve-pink Alpine Fan flower, *Scaevola hookeri* form prostrate mats here.

Soon a spreading area of moisture from a stream brings change with the bright yellow of *Ranunculus collinus,* small but in masses, growing with the delicate white *Oxalis lactea,* with leaves a shining green. *Veronica gracilis,* the slender Speedwell, with mauve flowers, is a perennial near one foot high growing in the dampness. Also growing right in the shallow water is the white Purslane, *Claytonia australasica.*

Two low-growing, white-flowered Daisy bushes, *Olearia erubescens,* with narrow leaves and *O. megalophylla,* with large leathery leaves, brown underneath, are dotted about.

Along the outcrops of granite the dominant colour changes with the

Stylidium graminifolium

Marshall Mitchell

seasons. In early summer it is orange and yellow with the Peaflower, *Pultenaea muelleri,* furnishing much of the colour. It is a very low shrub in the more exposed areas. As the season advances it is the bright pink of Stylidium that predominates. Two small shrubs whose greatest attraction is their coloured fruits can be found now among the rocks; *Wittsteinia vacciniacea* with oval, slightly-toothed leaves and the light mauve-flushed green fruit is known as Baw Baw Berry. The other is *Coprosma nitida* with shining green leaves and bright red fruits. In a much drier location nearby is *Dianella laevis* with tufts of hard, sharp-edged leaves about 2 ft. long from which the flower stems, held above, now carry large, dark, polished blue berries. Two orchids are also in areas where it is permanently moist but well drained, although not growing together. With its single flower, the Greenhood, *Pterostylis alpina* is more plentiful and very showy. Also to be found is *Prasophyllum alpinum* with numerous small, gray-brown flowers, both being under one foot in height.

As the top of Mount St. Gwinear is reached the area flattens; on the most exposed side with the tree-filled valley below, the plants are fewer, but drifts of the soft yellow *Helichrysum rutidolepis* are growing with the first Silver Daisies, *Celmisia asteliaefolia.*

The more protected open areas have many low-growing shrubs mostly keeping to their own areas. *Prostanthera cuneata* has formed neat, compact shrubs about 15″ high, but wider. They carry white-dotted purple flowers and as with many of our trees and shrubs aromatic foliage can be appreciated at all times of the year. Another shrub with small flowers in clusters, growing to near four foot is *Drimys xerophylla* var. *alpina,* the Alpine Pepper, known for its hot-to-the-taste, shiny, blunt leaves which resemble *Daphne collina* somewhat. Growing here as a ground cover round this is the prostrate shrub, *Trochocarpa clarkei* with its large, dark mauve fruit. Two Leucopogons, both with white flowers are nearby: *L. gelidus,* known as the Drooping Beard Heath, an erect shrub of about 3 feet and *L. maceraei* which can grow taller but some plants in full bloom are little more than one foot, but wider; red berries follow. Alpine Bottle Brush, *Callistemon sieberi,* has reached four and a half feet in old plants with much greater width. This has prickly leaves and yellow flowers. *Crites lancifolia,* a lower shrub has lanceolate leaves and small, white, curled flowers in spikes about two inches long.

Olearia megalophylla

Marshall Mitchell

A more sheltered area, lightly tree-lined, sloping away toward a small gully carrying a stream, has different Everlastings, taller *Helichrysum acuminatum* with large rich orange flowers reaching one foot. The yellow flower head of *Rodolepis robusta* rises to one foot from its rosette of fleshy stemless leaves. Stylidium, Celmisia and Ranunculus are plentiful here. Entering the shady gully all these cease. *Blechnum penna-marina,* an alpine fern, which grows to 4″, forms a mat on the bank almost to the water. Taller growing Coral fern, *Gleichenia circinnata,* with lacy umbrellas reaching about 1 foot, grows right into the water. The only flowering plants seem to be *Viola hederacea* and the soft pink Ladyfinger orchid, *Caladenia carnea,* dancing here on stems of 6″. Following the stream a short distance brings one suddenly to a flat area, almost devoid of any shrub, and no trees. This is a sphagnum moss swamp about two acres in area with Snow grass, *Poa australis,* but a few patches of white stand out. These prove to be Australia's only member of the Gentian family. *Gentianella diemensis,* a slender plant growing to one foot. Here the flowers are about one-half inch across, veined with purple. More light colour comes from Eyebright, *Euphrasia glacialis,* in low clumps, also *Claytonia australasica* has reappeared. One must walk carefully over this spongy damp greenness but tufts of the tussock-like grass prove safe.

The other side proves to be a ridge of rocky outcrops with plants mostly already found but yellow Billy Buttons, *Craspedia uniflora,* are a new find. They are growing among very extensive drifts of Stylidium and Celmisia. Olearias also reappear; now the slope falls away and ahead the huge treed bulk of Mount Baw Baw looms up with its ski runs, now green.

A much shorter time is taken on the return hike to transport and home. As one looks toward tree-covered Mount Erica, great white fingers seem to stretch skyward, a grim reminder of a great fire that swept most of the area 45 years ago, showing how the growth of countless years can be devastated in one grim day despite a yearly rainfall of about 50 inches. As evening advances, bird and animal life awaken and one feels that an afternoon has been lived to its fullest extent.

OMNIUM-GATHERUM

It is one thing to report the death of an ARGS member under the heading of "Obituaries" but it is quite a different matter when the one who left us is a personal friend, and Victor H. Ries, of Columbus, Ohio, who died in that city on the 28th of June, was a personal friend of a great many people, gardeners mostly. He was a personal friend of our Society's President, Harry Butler, who wrote to the editor upon learning of Vic's death.

"Thank you for all the news in yours of July 5th", he wrote, "It was the first news I had of the death of Vic Ries, which saddened us very much. Vic had been my chief wild flower confidant for years. He will be very much missed, especially here in Ohio where he was a valued advisor to the Ohio Association of Garden Clubs, an organization he founded, and for whose members he continually urged horticultural self-improvement, growing more plants from seed and knowing the proper names.

"In his gardening column in the Columbus newspaper Vic was noted

for his straight-from-the-shoulder counsel in which there was no room for the kind of fadism which sells thousands of books nowadays. There were thousands of visitors each year to his shady Columbus gardens, and none pleased him more than those who could teach him something he didn't already know about wild flowers. Vic was program chairman for the Great Lakes Chapter of the ARGS and was active in the American Horticultural Society. Vic was an outstanding plantsman with a rare sense of humor—an unbeatable combination too seldom encountered."

Now the editor must have his turn. Vic Ries had been a family friend since 1941—in the summer before Pearl Harbor. In remembering Vic, a scene comes to mind. It was on the day after I first met him while camping at Rosario Beach on the rugged inland shores near the San Juan Islands in Washington State. We had been jabbering botanical nomenclature when I asked him how to pronounce "Acaena" and he replied, "You sure pronounce all the syllables, don't you? You might just as well pronounce botanical names the way you want to for you may be just as nearly right as the next fellow."

This was Vic's first visit to the Pacific Northwest and most of the native plants were new to him and we were able to help him with many of them. While studying and photographing the plants on the bluffs along the shore we found one plant that was new to us both. Vic picked a specimen of this plant and we returned to camp where he said he would try to identify it with the aid of his equipment which included a good microscope.

The sun had set as we reached camp but there was yet time in the long Washington twilight, so Vic set up his equipment in the door of his tent with Eileen and I on either side of him and soon the plant was undergoing Vic's skilled ministration as he went about the identification. Almost at once a crowd of curious campers began to assemble in front of the tent. They watched carefully as Vic went through his strange ritual of dissection and magnification. As the light failed the crowd moved in closer and closer. Then without warning Vic exploded, as only Vic could explode. "Move back, can't you? Give a fellow a chance. This is serious business." The crowd not only moved back—it departed! The plant proved to be, according to Vic, *Brodiaea coronaria* (Salish) Engler—the Harvest Brodiaea. I just now stopped to check this plant in Abram's *Illustrated Flora of the Pacific States,* Vol. I and in the margin opposite the description and illustration of *Brodiaea coronaria,* I found this penciled note—written there over 30 years ago, "Rosario Beach, July 1941 with Prof. Victor Ries."

Through the years since 1941, Vic and Betty, his wife, have been honored guests in our home in Seattle; we have shared many a campfire and tramped many a mile in the Olympic Mountains. Often we have met them at ARGS affairs and all these years there has been a comfortable correspondence maintained. Alas! Vic's last letter remains unanswered.

We remember Vic with gratitude for all the many helpful things he did for us, the books he sent, for his blustery impatience with those who claimed more knowledge of things botanical than they really possessed. I know! It paid wonderful dividends to be honest with Vic. We are missing him.

Our ARGS contributors to the *Bulletin,* members and non-members alike, are great travelers, always in search of new and rare species of alpines and woodlanders suitable for the rock garden. Most of these contributions are instructively and entertainingly written. Recently there has been quite an accumulation of these plant exploration articles, so if the present *Bulletin* (Oct. '74) seems over-balanced with them, do not complain. In this issue and subsequent ones, you will be taken to many parts of this good earth of ours and your botanical and geographical, even geological, knowledge will be greatly broadened. You will, with the various authors, visit Kashmir, Tasmania, the Caucasian Mountains, the eastern shores of the Black Sea, Peru, Australia, New Zealand, the Great Basin of western United States, the Canadian Great Lakes region, Alaska and others. Many of the plants written about, presently unknown in gardens, in the years to come, will find their way into your garden as a result of the efforts put forth by these world-wide plant explorers. To them we owe a great debt of gratitude. They have sought out and published their findings and as a result the rock gardens of the future will be greatly enriched and our knowledge of the floriferous world will be increased.

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