

# Alpine Garden Club of British Columbia

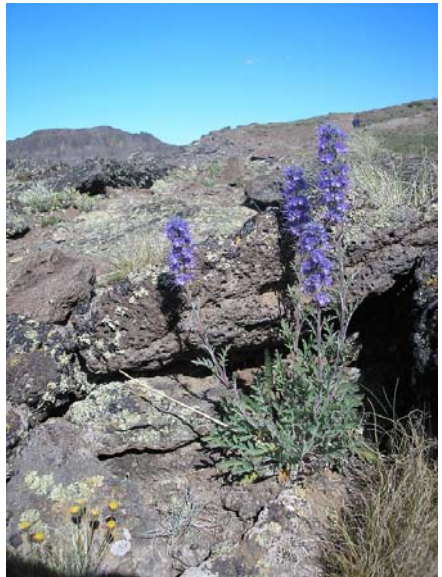


*Intermountain Scenes & Plants: Lamoille Canyon, Ruby Mountains, Nevada*

*Evening in Bristlecone Grove,  
Great Basin Nat.Pk. NV*



*Phacelia sericea at Kiger Gorge,  
Steens Mt. OR.*





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**Meetings are held the second Wednesday of each month except July & August, in the Floral Hall, VanDusen Botanical Garden. Doors and Library open at 7:00pm and Meetings start at 7:30pm sharp with the educational talk. Don't forget to bring a prize for the raffle which goes a long way to paying for the hall rental.**

**Front Cover Photos: Brent Hine, UBC Botanical Garden, Vancouver, BC**

**Back Cover Photos: Daniel Mosquin, UBC Botanical Garden, Vancouver, BC**

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## POSSIBLE DISRUPTION OF PLANS FOR SEPTEMBER

At the time of going to print there is no news of an agreement between the City of Vancouver and its striking workers. Should this continue to the time of our September bookings and VanDusen Gardens remain closed, please check the Club's website for alternative arrangements.

On this note, it would be really helpful if we could have a list of members' email addresses so that we could notify them of changes of plans/venues, hikes, special events and so forth. Please, especially local members, consider sending your email address to Ian Gillam; the addresses will not be shared with any other organization or group.

## PROGRAM:

**September 12<sup>th</sup>** : Philip MacDougall will give an account of one of his hit and run botanical tours. China Lite presents an alpine flora travel-log of Taiwan, the beautiful island.

**September 23<sup>rd</sup>: AGCBC Fall Sale** at VanDusen Gardens, Floral Hall from 1 to 4 p.m. A chance to acquire a wide variety of rare and unusual plants not widely available from nurseries.

**October 10<sup>th</sup>**: In October 2006 Margaret Charlton and Charlie Sale returned to New Zealand. Charlie will take us on a tour of some of the best gardens on this island. Blessed with a benign climate, almost anything can be and is grown, sometimes your only problem is to keep the sheep off the lawn.

**November 14<sup>th</sup>**: The [March 2006 on-line issue of "The Plantsman"](#) contains Graham Ware's informative article on the climbing aconites. Tonight he will present an overview of the full genus. That such a diverse group of horticulturally significant plants has not had a significant treatment only speaks to the complexity of this group.

**December 12<sup>th</sup>**: Christmas party and charity auction.

## **THE WESTERN WINTER STUDY WEEKEND 2008: "Plant Treasures for the New Millenium"**

As I hope most of our members know we are hosting the upcoming Western Study Weekend from February 29<sup>th</sup> until March 2<sup>nd</sup> 2008. For me these study weekends are among the highlights of the horticultural season. This year we have added an on-line registration form. Updates to the Conference arrangements will be posted on our website and included in our newsletter. There was a strong preference among past attendees to include the banquet in the base registration fee; also included are a light breakfast and coffee breaks on the weekend.

With an exciting lineup of speakers and the enthusiasm and knowledge that attendees bring to the program there are few better gardening events. Conferences of this nature cannot be successful without relying on our membership to volunteer time to the many tasks required; I hope all of us will become involved in some way.

Suggestions can be directed to me at 604-580 3219 or to <http://www.agc-bc.ca/contact.asp> And remember, there will be shopping! Philip Mac Dougall, Co-chair, 2008 Western Study Weekend



***Blandfordia punicea*, Tasmania**

### **EDITOR'S NOTE:**

This issue contains further articles in the series on the history of rock gardening, crevice gardening and alpine troughs. We hope you will find the articles interesting and informative. We hope too that you will be encouraged to send us ideas for the bulletin. We would particularly love to receive articles and photos of your garden(s) and hear tales of your trials and successes.

## SEED EXCHANGE 2007:

Here we go again with our 37<sup>th</sup> Seed Exchange and we are hoping for a good one. It all depends on our loyal members collecting and sending us good seeds – please think of us when you are on wonderful trips into the mountains, meadows or just into the garden.

**Online Ordering Update:** We are happy to announce that online ordering for seed is now available. If you wish to be able to place your seed order online please register at <http://www.agc-bc.ca/seed-exchange/register.asp> between now and seed ordering time in November. It is important that you do this in order to be able to use the online ordering procedure.

**Seed donors:** The deadline for receipt of seeds for inclusion on the list this year will be Wednesday, October 24<sup>th</sup>. This will allow us to compile the list and get it in the mail by early November. If it is not possible to send your seed donation by that time please send an alphabetical list of seed you will be sending and we will include it on the list. The list may be sent by post or e-mail and the seed should be sent as soon as possible thereafter.

Please include an alphabetical list with your seed and please print clearly. In the case of wild collected seed, please include detailed information as to the location of collection and, if the specific identity of the plant is uncertain, a careful description of the plant: size, flower color, habit etc. Similar information about any not-commonly-known plant is very helpful to us and to those ordering seed.

Please be certain that seed you send is clean and not of invasive or otherwise undesirable plants. No permit is required to send non-commercial seeds to Canada. Mark your envelopes 'Flower seeds of no commercial value' and mail to:

Alpine Garden Club of BC  
c/o 2237 McBain Ave.  
Vancouver BC Canada V6L 3B2

**Seed ordering:** Our Seed List and order form will be sent out in early November. Again, we hope to be able to accept orders by e-mail this year but details later. Only Club members are eligible to take part in the Seed Exchange. Seed donors have first priority in the choice of scarce seeds. All members may order up to 30 packages of seed. Those who donate seed of five or more different species are allowed up to 60 packages (US members are only allowed 50 packages by USDA regulations). North American members should donate seed of five or more species native to North or South America. Additional seeds from any region are, of course, also welcome. Overseas members receive donor status for seeds from any region.

**US members:** It will no longer be possible for us to send orders to the US unless an import permit and mailing sticker is provided with the order.

[www.aphis.usda.gov/import\\_export/plants/plant\\_imports/smalllots\\_seed.shtml](http://www.aphis.usda.gov/import_export/plants/plant_imports/smalllots_seed.shtml)

and for permits [www.aphis.usda.gov/permits/ppq\\_epermits.shtml](http://www.aphis.usda.gov/permits/ppq_epermits.shtml)

In addition, please include a copy of the form, which we will provide, with your order. This will include a list of all seeds requested.

**Joyce Fingerut** – alpinegarden at comcast.net has very kindly offered to answer questions regarding the permit process for any US members having difficulty.

*Our exchange is made possible by the generous donation of seeds from our members. Please do continue to collect and donate seeds. Thank you very much to our donors.*

If there are any questions or comments please contact us at the above postal address or online at <http://www.agc-bc.ca/contact.asp>.

### **A REQUEST FOR BACK (WAY BACK) ISSUES OF THE BULLETIN**

We have been trying to compile a complete archive of our Bulletin and, thanks to several members, have gotten most of them. The Bulletin was started in 1958 at which time we were 'The Canadian Primula and Alpine Society' and the Bulletin was published monthly except for July and August. We have been unable to locate any of volumes 1 or 2, (1958 and 1959). We also lack volume 3 numbers 1 & 8 (1960), volume 4 numbers 4 & 10 (1961) and volume 5 number 9 (1962). Would some of our long-time members be so kind as to search your libraries and see if you might have these. If you do not wish to part with these ancient, rare and precious documents I would be pleased to photocopy them and return them to you.

Please do not deliver stacks of other Bulletins and material to me as we have most, if not all, of the later Bulletins; often several copies. Thank you ~ **Ian Plenderleith**



**BERRY BOTANIC GARDEN**  
~ by **Ian Gillam, Vancouver, BC**

Rae Selling was born in Portland, Oregon, where her father was a prominent businessman, in 1881. This was the year in which Augustine Henry took up a post with the Chinese Maritime Customs and began his study of the Chinese flora in his spare time. Rae was a close contemporary of the younger plant collectors, Reginald Farrer and Joseph Rock. Rae Selling enjoyed a privileged education in Portland culminating in a world tour with an aunt – eighteen months travel in a



*Regional natives and alpiners from around the world grow side by side in the trough garden*

vanished world of the turn of the century. Shortly after returning to Portland, Rae married Alfred Berry and settled down to raise a family. Increasing difficulty with the early onset of deafness perhaps kept her from becoming another society lady and she began to garden. This developing interest was fed by subscriptions to British horticultural publications and she sought to grow both the new plants coming from China and elsewhere and some of Oregon's notable natives.

Mrs. Berry subscribed to expeditions of Kingdon-Ward, Ludlow and Sherriff, and Joseph Rock receiving a share of the seeds collected. From study and practical experience she was successful in growing a remarkable collection of rhododendrons, primulas and lilies native to conditions very different from Portland's rather mild maritime climate and was notably successful with many "difficult" plants. The garden of the Berry home was getting too small. In 1938 the Berrys purchased a wooded property of five-and-a-half acres (2.2 ha) near Portland. This offered varied terrain and exposures with a small stream. Rae's valued plants were moved and given room to grow. Many are still there almost 80 years later.

A further interest was in rock and alpine plants. These were grown in raised beds supported by logs. Her gardener late in her life, Jack Poff, gradually introduced rocks to the beds. As the logs decayed their initial rectangular shapes eventually assumed more natural outlines that the rock garden shows today. It was he who introduced hypertufa troughs to the garden, still a feature. The rock garden has recently been named for him.

Rae Selling Berry was a founding member of the American Rock Garden Society (now [NARGS](#)) and of the [American Primrose Society](#),

of which she became the first Honorary Life Member. She continued developing her garden as well as exploring for plants in the Pacific Northwest into her nineties and died at home in 1976 at the age of 95. She had made no provision for maintenance of the garden or disposition of her plants and seemed resigned to the estate being levelled for development. Through the efforts of local citizens a group called Friends of the Berry Botanic Garden was set up and was able to purchase the property with funds raised by donations. The non-profit group continues to maintain the garden, providing income and volunteer labour as well as developing activities in conservation of threatened species of plants. A seed bank of such species is part of its present mandate.

Objectives for the collection have changed over the garden's history. Mrs. Berry's concern was to bring into cultivation a considerable number of newly discovered plants from China and neighbouring lands and determine how they could be grown in the garden. Many of these were truly new and undescribed, identified by collector's number. An important horticultural interest was to select, even unconsciously, individuals that were more vigorous, easier to cultivate or more attractively flowered. Unfortunately no records exist of the sources of many plants in the garden raised from seed collected on these expeditions and it is not possible to be sure of the origins of particular plants. Rhododendrons have grown so well that present-day plants may be volunteer hybrid seedlings, now well established. Current conservation requires botanical gardens to cultivate plants known to represent their species in the natural state and from a known location, important for future scientific study and possible re-introduction to habitat. Thus a thinning out of overgrown specimens in the Berry Garden is taking place, linked to replacement by plants of known wild origin and with continuing emphasis on plants from Oregon and from China.

This story that began in the 19<sup>th</sup> century is continuing successfully in the 21<sup>st</sup> as the garden approaches its 30<sup>th</sup> year as a non-profit foundation. The Berry Botanic Garden is open to visitors by appointment. Details may be found on its website [www.berrybot.org](http://www.berrybot.org)



### **CLASSIC COLLECTING** **~ By Ian Gillam, Vancouver**

Serious plant collecting, searching for new and unknown species, is by its nature a risky business. Finding new plants requires exploring new locations and these are necessarily beyond the usual frontiers, difficult of access, sometimes disease-ridden and often with scant law and order. These dangers persist to the present day, though travel by air and motorized transport make getting to the starting point much faster and more convenient than in the past. Satellite communications may now

allow a chance of rescue in case of disaster. A proportion of earlier collectors died in the course of their expeditions. As a reminder of their efforts and sacrifices, listed below are the fates of some important and some promising collectors in temperate regions who died in the field.

- A. Gored and trampled by a bull while wintering in Hawaii, 1834
- B. Died of infection, Upper Burma, 1920
- C. Recovered from the Yangtze River, presumed drowned, 1918
- D. Drowned when a boat overturned on the Columbia River, 1838
- E. Died of an apparent heart attack, Teng-yueh (now Tengchong), Yunnan, 1932
- F. Died of natural causes at the age of 65 while overwintering in Montreal, 1805-06
- G. Died in Cuba, probably from illness, 1835

To avoid trivializing these misfortunes this is not a contest. It is intended to stimulate your interest in the discovery and introduction of plants that add to our enjoyment of our gardens and contribute to our agriculture. Names of these collectors appear on p. 60.

High on the list of collectors who completed many arduous expeditions and died peacefully at home must be Frank Kingdon-Ward (1885-1958). His explorations centred on the high mountains of western China, Upper Burma, northeast India and southeast Tibet, where he found many new species, principally of plants but also some mammals. He collected both for seed and herbarium specimens and many of his collected plants remain in cultivation in countries around the world. Their native locations may be even less accessible today due to political conditions as well as presenting unchanged difficulties due to topography and weather.

Kingdon-Ward was also an explorer and geographer, filling in areas of the maps that were partly blank at the time. He wrote for periodicals as well as publishing a considerable number of books on his travels and on gardening subjects. His earlier works were printed in modest editions and are now scarce. It is thus welcome that two have recently been reprinted by Orchid Press in Bangkok as part of a growing list of reprints of older works on Asian travels.

*"... trek into the cultural and natural wonders of southern Kham, into the watershed area of Asia's mightiest rivers – the Salween, Mekong and the Yangtze, and the deep canyons of Kham once traversed by the notable British explorer and botanist Frank Kingdon Ward, who left fascinating accounts of the three mysterious rivers and their people."*



"In Farthest Burma", originally published in 1921, covers a strenuous tour of eight months duration in 1914. "A Plant Hunter in Tibet" was published in 1934 and describes an expedition in south-eastern Tibet in 1933. Both are now quality soft-cover facsimile reproductions of the original text and illustrations. They are readily available from Internet booksellers at reasonable (if remarkably wide ranging) prices. Reprints of some of his other works are similarly offered from other publishers.

To have survived some of these expeditions Kingdon-Ward may simply have been tougher and luckier than some of his contemporaries. The terrain of his chosen area consists of the supporting ranges of the world's highest mountains interspersed with the chasms cut by rivers large and small, rivers fed by very high and frequent precipitation. Travel largely consists of climbing one high ridge then dropping down to the next river back close to the elevation of the day's start. Trails were (and probably remain) often overgrown, very steep and extremely muddy. A variety of biting insects batten on travellers by day and by night and at lower elevations the bushes and bamboos swarm with leeches.

In Upper Burma in 1914 the region was sparsely populated and unproductive of food. Progress was much slower than expected. Towards the end of that expedition K-W's diary noted that he began to doubt if he could complete it. He did finally make it to the little British fort marking the last outpost towards the frontier, where officers he had met earlier at first failed to recognize him. They gave him the unexpected news that major war had broken out in Europe some months earlier. Fever caught up with him and he had little consciousness of the next few weeks. Fortunately the fort's medical officer was in residence and K-W recovered under his care. On a much later journey in north-east India his party was close to the epicenter of a major earthquake that brought down landslides and boulders but they escaped without injury.



*"... travel had bitten too deeply into my soul, and I soon began to feel restless again, so that when after four months of civilised life something better turned up, I accepted with alacrity. This was none other than the chance of plant-collecting on the Tibetan border of Yunnan, and though I had extremely vague ideas about the country, and the method of procedure, I had mentally decided to undertake the mission before I had finished reading the letter in which the offer was made".*

*~ Frank Kingdon Ward.*

Frank Kingdon-Ward made in all twenty-two expeditions in Asia, spanning forty-six years (1911 to 1957) with the last, in Sri Lanka, being in his seventy-second year. It is now possible as a tourist to experience some of the scenery and the plants he described with little inconvenience. Major parts of his area are probably not accessible today. His writings are more readily available than they were and will continue to enthrall new generations of armchair travelers.



**DARWINISM CONTAINED: TOUGH TROUGHS**  
~ By *Panayoti Kelaidis*, Curator of Plant Collections  
[Denver Botanic Gardens](#) Colorado

Several books and a number of articles have been written over the years on the subject of rock garden troughs, but it has always seemed that there was a good deal more to be learned and said about these magical, mysterious and increasingly popular manifestations of our recondite art. I've already contributed a few articles to the literature on troughs describing the elaborate trough plaza at Denver Botanic Gardens that was given the name of Wildflower Treasures. I believe this may be the most successful public display of trough gardening I've ever seen at a public garden. Not only are these massive troughs exquisite works of art, they are filled with very special plants superbly grown.

Moreover, they are arranged and organized by a literal and elaborate floristic scheme as strict as the rules for a sonnet is in poetry. Each trough is a literal re-creation of a distinct mountain, valley or parkland somewhere in the state of Colorado, complete with rocks, mulch and the precise plants that grow at a specific elevation and microclimate. Would that all public garden displays could be both artistic and scientific at the same time!

The motley assemblage of troughs in my home garden are nowhere nearly as rigorously conceived, nor do they have such integrity of organization, maintenance and focus. We're talking about many dozens of troughs that have been built and acquired over a 30 year period after all, each capturing some phase of a long love affair with alpine plants – or more accurately put, perhaps – with rock plants. What my home troughs possess that Wildflower Treasures is yet missing, is the hoary patina of time, the gnarly growth of plants that have persisted for decades and the benefit of survival of the fittest. I know that if a plant is still growing in one of my troughs, it is a categorical and undeniable winner. Just as one finds the same weeds cropping up in gardens in warm temperate or cold semiarid regions: *Oxalis corniculata*, *Senecio vulgaris*, *Lactuca*, *Sonchus*, *Cardamine*, so it is that classic perennials for the border or alpine for our gardens seem to adapt to wherever these garden styles are attempted. So may it be with troughs.



*All centre page photos: Panayoti Kelaidis – Above “Six Sax Trough”  
Below: “Twelve Semp Trough”*





Above: *Orostachys spinosa*  
Below: *Eritrichium howardii*



Those living in the Maritime Northwest can't really imagine the extremities of weather that plants are subjected to in a Continental steppe climate: you cannot underestimate the intensity of sun and dryness that are the hallmarks of the steppes. The summer consists of weeks and weeks of 30<sup>0</sup>+ Celsius weather from May all the way to October (peppered with the occasional 40<sup>0</sup>), and the winters overlap summer at both ends, with heavy frosts occurring from late September all the way to May again. The night temperatures regularly plunge 5-10<sup>0</sup> C in this period, with periods of extreme cold that one cannot write about without sending shudders up the backs of gentle, Maritime people.

Surprisingly the classic rabble of garden alpinists: androsaces, alpine primulas, saxifrages, gentians and dianthus will thrive under this regimen provided you can give them shade from the extreme heat of summer and never forget to keep the troughs moist. One day of drought too many and your gentian or primula is toast. In order to avoid this eventuality, I make sure the alpine troughs are next to the front door where I go in and out.

There are a few "signal" plants in these troughs that let me know it's time for a soak. For instance, *Primula ellisiae* from New Mexico is rather lax and leafy in growth: when it flags, it's time to water. It is a relatively forgiving primula and can recover from quite severe dehydration. Troughs seem the only way that I can keep *Gentiana verna* alive for more than a few years: this magnificent cobalt miniature does not like drying out, however – and prefers shallower containers than saxifrages, for instance. Saxifrages are the champions of trough culture: they seem to even tolerate the occasional baking provided they are not in too much sun. Most of my troughs, however, are in the full blast of the Colorado sun and contain a rather different assortment of plants. For the hot rock troughs we draw primarily from the vast flora of the Intermountain region: penstemons, eriogonums, phloxes and all manner of daisies have found their way into the couple dozen containers I maintain in sunnier, drier conditions. Early in my experimentation I would include the occasional cactus in this or that trough: an *Echinocereus* here, a *Pediocactus* there.

Although most of my steppe troughs are situated around the perimeters of the vegetable garden and get a bit of spray from the automatic sprinklers every other day or so in the heat of the summer, they need water nonetheless. I water all these dryland troughs once or twice a week thoroughly in the hottest weather (mind you, they're getting some overspray as well). Even so, the occasional vacation or busy spell inevitably leads to a few troughs here or there drying out. Depending on how baked they get, some of the drylanders within inevitably perish.

Except for the cacti. As a consequence the dryland troughs have transformed more and more into succulent troughs with sedums, talinums and cacti proliferating, seeding and spreading at the expense of the more ephemeral herbaceous and woody plants. Nowadays, when I show off my steppe troughs, visitors often call them my cactus containers.

There are many penstemons that will spread and persist: some 25 year old mats of *Penstemon aridus*, for instance, show that these are not

ephemeral. *Phlox hoodii*, *P. alyssifolia* and *P. bryoides* are also pretty indestructible.

Many eriogonums will also persist (although usually not the best ones!). A few daisies – *Erigeron compositus*, *E. vegus*, *E. nematophyllus* – can become Methusalahs, including a number of Townsendia, believe it or not. But *Echinocereus reichenbachii*, the fabulous Lace cactus, has filled its trough with so many seedlings that I pot a couple dozen up every few years to share with friends. *Coryphantha vivipara* has pupped and grown to such dimensions in several troughs that it's threatening to squeeze neighboring plants out of existence. *Escobaria missouriensis* and especially the miniature *E. sneedii* var. *leei* seem to think that troughs are their preferred habitat, forming robust clumps in no time.

*Pediocactus simpsonii* is another prolific self sower in troughs. And be sure to use only the tiniest Opuntia, since prickly pears will quickly fill all but the largest troughs with their flat little pads of concentrated fury, as Farrer might have said.

Troughs have turned out to be the finest way to showcase tiny cacti, and depending on exposure and watering, the very best way to grow dozens of miniature plants. The alpine phloxes of the west never seem to last for me in open soil, but have proven long lived and indestructible in troughs.

You are invited any time you come through Denver to drop in and check them out: I have no doubt that they will cheerfully prosper many more years into the future – even with my desultory care.



**WHAT I DID DURING MY SUMMER VACATION \***  
~ Brent Hine, Curator of the [E.H. Lohbrunner Alpine Garden](#)  
**University of British Columbia**

As I write this in early August I feel as if summer is nearly past. It's common to all of us around this time, as daylight hours have long since peaked and any fresh hints such as heavy dew on grass or perhaps only a cooler than average evening where a sweater becomes necessary heightens our anticipation that a change is just over the horizon. I am happy to reassure myself such is not yet the case (for *at least* two more weeks!) and there is still plenty of time to get out and enjoy my surroundings with family and friends. By the way, my condolences for summer-lovers reading this in Autumn.

Looking back, I had long anticipated and planned for a seed collection trip to the Great Basin and Intermountain region. Finally the time came and my colleague Daniel Mosquin and I headed for the US border on June 30<sup>th</sup>, armed (not a good border crossing word) with enough gear to seriously bulge a small car. Once across, we spent almost two weeks experiencing plenty of dryland *terra incognita* throughout Washington, Idaho, Nevada and Oregon, before returning via the Columbia Gorge and the Wenatchee mountains, University of

Washington Herbarium, and home. What was notable? Many many things, including:

Washington ~ our first taste (smell?) of the unique flora, including the ubiquitous *Artemisia*, or sagebrush, and our first collection (not *Artemisia*)

Idaho ~ a moonlight swarm of bugs which thoroughly decorated our Boise-bound SUV (our windows were already up), a free night's motel stay, and the first roadside delights of *Penstemon*, *Erigeron*, *Castilleja* and so on.

Nevada ~ more bugs! As in thousands of giant crickets, crossing the highway and becoming so much food for others of their kind. Lamoille Canyon in the Ruby Mts and its dramatic scenery, masses of interesting plants and wild turkey (not the liquid kind). 3000 year old Bristlecone Pines at 10,800ft, long stretches of – you guessed it – *Artemisia*, 40<sup>0</sup>C temps, a bomb in a tree (?!), yes.

Oregon ~ more heat, fabulous Steens Mountain, deer, local folklore, lots more plants, interesting geology, high elevation prairie, and finally ending with the Gorge.

Washington (closing our loop drive) ~ more oven-like heat, higher mountains (cooler) and new “grail” plants which was a fitting way to end things – we were home by the next evening.

I also counted three drops of rain on the last leg of our journey. Well not exactly three. At Steens Mt. Summit we hunkered under the boiling lid of a thunderstorm, with accompanying 80 kph winds pushing us toward the rugged cliff edge and into the gloom toward the Alvord Desert. We also drove 3800 miles, or 6100 kilometres.

As in all idyllic journeys there is always more of interest to tell, and most of it will be different next time. I hope to show and tell more later when I've dug myself out from various piles of work accumulated here at the garden (and created by this trip!) while I was away.

*\* in this sense vacation is used to mean a leave from regular work!  
(See the photos taken by Brent on the front cover, & by Daniel on the back cover)*



### **Fates of the Plant Explorers (See page 53)**

- A. David Douglas
- B. Reginald Farrer
- C. Frank Meyer
- D. Peter Banks, Robert Wallace and his wife
- E. George Forrest
- F. Francis Masson
- G. Thomas Drummond



## **RECYCLED CONTAINERS**

**~ by Ian Gillam, Vancouver**

The smaller plastic pots for growing plants such as alpenes come in many individual designs. They may be round or square but are usually found in fairly standard sizes from two to about six inches (5-15 cm). Their size is usually marked on the bottom, sometimes in inches alone but often also in metric measure. Above these sizes such light, rigid plastic pots are too fragile for commercial use and nurseries use altogether different containers, often black and of thicker, but more flexible, vinyl material. Emphasizing the difference, in North America their sizes are quoted in U.S. gallons, usually one, two, five or fifteen gallons (approximately 4, 8, 19 and 57 L).

This distinction dates back to times before plastic pots became available. In larger sizes terracotta (clay) pots were heavy, fragile and too expensive for nursery use. Larger plants were sold bare-rooted or dug with a root-ball that was then wrapped in sacking. As increasing demand for potted and growing plants developed an alternative idea quickly caught on. Restaurants and institutional kitchens used supplies of fruits, vegetables, jam and even eggs packed and preserved in metal cans much larger than for household use. The used cans were available free. A few nail holes in the bottom and they made useful growing containers. Cans were cheap enough that larger operations could buy them from the manufacturer and cans of one, two, five and fifteen U.S. gallons became standards of the nursery industry.

Extracting an established plant from a can without damage to the roots required cutting and bending the sides, favouring the roots at the expense of the fingers. More convenient vinyl pots have replaced metal cans yet in North America these pots are still referred to as cans and still come in the gallon sizes.



Gardeners everywhere have long shown ingenuity in adapting recycled containers for growing and displaying their plants. Such is the story of stone sinks and troughs. Stone was long the material for making indestructible containers for washing dishes or feeding and watering livestock (and even for coffins).

*A trough in Utrecht, Holland made from sewer pipe and broken tiles.*

All these became obsolete as more convenient forms became available. Some gardeners saw the discarded stone containers as useful planters. They remain particularly suited to creating miniature rock gardens. This use must have occurred to a number of people but it first received wide publicity in 1923 when Clarence Elliott exhibited established trough gardens at Chelsea Show. Presumably he had been creating and selling these gardens at his famous Six Hills Nursery for some years.

Increased demand has driven up the price of these old stone troughs in Britain. Here in western North America they were not used. The early European settlers probably made do with wooden troughs and sinks, soon replaced by galvanized iron and then by ceramic. A few local gardens have imported stone troughs but most private growers substitute ones made of hypertufa or other cement mixes.



*"Planted Up" a fishbox trough created by Ian Young,  
[The Scottish Rock Garden Club UK](#).*

A further adaptation of found containers has created interest in recent years, the use of styrofoam insulated boxes hardened and disguised with several coats of paint sprinkled heavily with sand while still wet. These are surprisingly effective and durable. Recent displays at shows in Britain of planted troughs made in this way have greatly increased interest in the

procedure though it too has been around for some time, being referred to as widely known in the AGS Bulletin as long ago as 1979.

As stone sinks were replaced by synthetic materials so modern kitchens are undergoing refitting with fashionable granite counter tops. In an era when houses seem to last for ever shorter lifetimes one wonders what use may in future be found for redundant slabs of polished granite.





**NORTH AMERICAN ROCK GARDEN SOCIETY 2007 ANNUAL  
CONFERENCE:**

**Canaan Mountain Resort, West Virginia  
~ by Charles Sale, Woodlands, BC**

This year the annual [NARGS](#) conference was held in Canaan Valley State Park high up in the Appalachian Mountains in beautiful West Virginia. (Canaan is pronounced can ain in West Virginia)

Martha Oliver, the conference organizer, opened proceedings with an overview of the geography & history of the area. It was astonishing to see photographs of vast swaths of huge trees being logged, completely denuding the mountains. Red spruce, *Picea rubens*, of great age was the prime target along with Eastern hemlock, *Tsuga canadensis*. Looking at the forest today, it is difficult to imagine a clear-cut wasteland. The entire state of West Virginia was logged over half a century ending in the 1920s. The resulting barren landscape by this time was soon further devastated by frequent fires that burned not only the mountains of slash, but needle duff and peat of several feet – right down to the bare hard sandstone underneath.

Soon after though, all over this devastated landscape, Mountain Laurel, *Kalmia latifolia*, appeared. Its small seeds were easily spread by the winds. New plants grew readily at all elevations. Interestingly, plants higher up had pink flowers of varying shades whereas those lower down were primarily white. It is speculated that the pollinators higher up were attracted to the pinkest flowers, and in a short time these predominated.

Next we heard William Grafton. He is a natural resources management specialist, and an Associate Professor in [Forestry and Natural Resources at West Virginia University](#). Bill spoke of the landscape and flora of the Dolly Sods Plateau (named after the Dahle family, early pioneers) where we were to hike next day. The plateau elevation is over 1300m (4200') at its highest point.

We were taken to four locations on the Plateau. Vast stretches of kalmia were in full flower. These filled in all the areas that were still too exposed or bare to support large trees. We were able to observe the gradual return of the old forest. The more sheltered places now had a high canopy of trees, primarily *Picea rubens*. Here too were Red Pine - *Pinus resinosa*, *Magnolia acuminata*, Yellow Birch – *Betula alleghaniensis*, *Acer pensylvanicum* – a striped bark maple, the alders *Alnus rugosa* and *A. serrulata*, as well as two service berries, *Amelanchier bartramiana* and *A. laevis*. There were also many species of Eastern American rowans. Notable was the growth habit of the spruce and hemlock. The lower branches functioned as ground cover and were smothering the competing shrubbery.

Beyond these protect-ed areas were vast bogs where we saw



*Rhododendron prinophyllum*

sundew, *Drosera rotundifolia*, and in places with open pools cranberry, *Vaccinium oxycoccos macrocarpus*. The tiny white flowers of the cranberry speckled the moss and contrasted beautifully with the reds of the sundew.

On higher ground in the boggy area we saw our first rhododendron, the deciduous azalea

*Rhododendron prinophyllum* with its elegant pink blossoms. This is definitely a plant of garden merit. There were large sweeps of it, but we were late for the full flowering. The same was true for *Rh. calendulaceum*, (photo right) the aptly named Flame Azalea. We saw one ten-foot specimen in full flower. *Rh. maximum*, an evergreen, was everywhere but yet to flower. *Cornus canadensis* was much in evidence. These mountain tops are its southerly limit in Eastern America.



*Rh. Maximum* – state flower of W. Virginia

We stopped at several places strewn with very large, quite flat rocks, often very tippy to walk upon. Wandering over them was worth the effort for the cracks and crannies afforded great protection for plants. *Kalmia* was the dominant plant here in these open spaces but there were many other things of interest. I especially liked a *Clematis occidentalis* (formerly *C. verticillaris*) with its attractive seed heads as it scrambled over the rocks. There was also a large patch of the Bleeding Heart *Dicentra eximia*.

The sighting of the day though was the endemic *Heuchera pubescens* (formerly *H. alba*) with flowers of rich cream on stems 30cm tall. Other plants that caught my eye included an hypericum with very attractive 15mm. long leaves. Although not in flower it was making a nice dense rounded plant about 90 cm. dia. x 40 cm high; *Menziesia pilosa* was in full flower and while not as showy as the Asian species was very nice nonetheless. The flowers were more of the size of *Vaccinium angustifolium* of which we saw large stretches. We were in mist from low clouds much of the day. This explained how many plants were able to survive with such little water holding soil on the barren plateau. Spring is a long season on this high plateau. Much had either finished blooming or was just about to start. This day was worthwhile for the *Kalmia latifolia* alone.

That evening Bonnie Isaac, Adjunct Research Science and Collection Manager at the [Carnegie Museum of Natural History](#) Pittsburgh, spoke of the enormous changes that have formed the North American Continent – from ice ages to upheavals – and their impact on plant evolution and migration. Her well-illustrated talk was of the changes of the past 150 years that Martha Oliver had referred to the previous evening. It was good science – understandable and just the right length to hold her audience. The many questions that followed were testimony to this.

Next day at Blackwater Falls, 300m (1000') lower, we followed a trail through an eighty year old magnificent Carolinian deciduous forest. Here we saw *Magnolia fraseri*, (See left) *Oxydendrum arboreum*, (Below) *Castanea*



*dentata* – the American chestnut, and *Liriodendron tulipifera*. Large patches of the nastily thorny *Smilax herbacea*, the equally fierce *Aralia spinosa*, and the very dense *Rhododendron maximum* largely made up an almost impenetratable tangle of shrubs under the trees. The few kalmia we saw had white flowers as did the only *R. maximum* we saw in bloom. Along our narrow path were many club mosses as well as *Mitchella repens*. The view



of the falls from our high vantage point was magnificent.

William Cullins is the Nursery Manager at the [Garden in the Woods](#), the [New England Wildflower Association's](#) exciting garden near Boston. Bill spoke at the closing dinner and his presentation on paleo-speciation and neo-speciation was exceptional. His clear pictures took us along the paths of speciation in both very ancient times and the post-Wisconsin glacier era in North America. Some species are now marooned, having retreated south for warmth by moving alongside rivers, finally reaching flat bottomland. They no longer have access to the higher cooler ground they require as temperatures rise in their present habitat. *Shortia galicifolia* is an example. Other species moved southward along north-south mountain systems and now have the option of moving higher up the mountain as long term temperatures rise. Some of course get marooned here too when the mountain top height is inadequate for their temperature needs. For example there is a remnant population of a potentilla species growing atop Mt. Washington in New Hampshire; other populations of this species are now in the high arctic.

Bill discussed the difficulties, both philosophically and practical, of re-establishing species in more geographically suitable territory. In saving a species from extinction, irreparable harm might be done to its new ecosystem by upsetting the balance in the new home.

Propagation challenges were another issue. Achieving good seed germination rates is often a challenge. Then finding suitable growing mediums with the needed micro-biological elements necessary for initial growth and establishment can be difficult. Failure of young plants is frequent during the search for ideal conditions.

I had planned to slip away during Bill's talk because I had to be on the road long before dawn, but this informative talk, so skillfully structured and presented, was far more compelling than extra sleep. It made for a marvelous conclusion to a stimulating conference.

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## ONLINE POLL

~ From our Editor, Sue Evanetz

Let the revelations begin! To help us fill the Bulletin with content which will amaze, fascinate and educate – please forward your choices (preferably with commentary) to Sue Evanetz: <http://www.agc-bc.ca/contact.asp>

## QUESTIONS

1. Which is your favourite alpine?
2. Which alpine (or genus) in your opinion, is the most overrated?
3. Which plant (or genus) is your favourite bulb (or corm, tuber etc)?
4. Where is your favourite place to see alpiners in the wild?
5. Which plant is in your experience the most difficult to grow?
6. Where is the best garden (public or private) to see alpiners?
7. Where would you like to visit (a place you have not yet been to) to see alpiners in the wild?
8. Which author is your favourite writer about alpiners?
9. What is your favourite colour in an alpine plant?
10. Which is your favourite plant to grow for foliage effect alone ("not mucked up with flowers")?
11. Which plant (or genus) is your favourite non-alpine plant?
12. Which plant would you describe as "I wouldn't grow it if you paid me"?
13. Which plant in an alpine show most lingers in your memory?
14. What do you consider a horticultural triumph?
15. Which plant are you most proud of growing and flowering?
16. What is your favourite fern?
17. Which plant (or genus) is your favourite woodland plant?
18. What is your favourite "ordinary alpine"?
19. Which plant (or genus) is your favourite shrub?
20. Which plant (or genus) is your favourite climber?
21. Which plant would you describe as "I look at it and it dies"?
22. Which is your favourite orchid (terrestrial or exotic or none)?
23. As the saying goes, which plant would you describe as "I'd kill to be able to grow it"?
24. Which is your favourite conifer?
25. Which is your favourite non-coniferous tree?





*Above: Ruby Mountains in Evening Light*

*Below: Brent Hine in the Juniper Hills*

