

# Alpine Garden Club of British Columbia



*A Purple glow in the editor's shade garden from Hardy Orchids:  
Left: *Dactylorhiza foliosa* and Right: *Bletilla striata**

**AGCBC meetings** are held on the second Wednesday of each month except July and August in the Floral Hall, VanDusen Botanical Garden. Doors and Library open at 7:00 p.m. and the meetings start at 7:30 p.m.

Please bring plants for the plant draw; the proceeds of which go toward paying for the hall rental. Don't forget to bring your coffee/tea mug.

## **2017 AGC-BC Upcoming Events**

- **September 13, AGC-BC Meeting** - Ken Marr on Flora of Northern BC Alpine
- **September 16, 12pm - 4pm** -AGC-BC Fall Sale, Floral Hall, VanDusen Botanical Garden, Vancouver
- **October 11, AGC-BC Meeting** - Tony Reznicek on Rock Garden and Woodland Plants under the Lights of Modern Evolutionary Biology
- **November 8, AGC-BC Meeting** - Ron Long on Tundra, and AGM

For more information, visit <http://www.agc-bc.ca/events>

## **Donating Seed to the Seed Exchange**

It is time to think of seeds again. The Seed Exchange is a major activity for the Club, and it depends completely on people sending in seeds. Therefore seed donors get special treatment when it comes to ordering seed from the seed exchange: they get the first chance at seeds that are in short supply, and they can order more packets than non-donors. So why not give it a try this year, if you are not already a donor? We all grow interesting plants, and it is actually quite fun to hunt for seeds – in your own garden or in the wild. Please ensure that the seed is as free as possible from chaff and other kinds of contaminants. Also please make sure the seed is dry, and especially if you send it in a plastic baggy. We don't recommend this as we end up throwing away seed every year because it arrives moldy (sometimes to the extent that it is hard to recognize any seed). Please make the label easily legible – I am sometimes left guessing, and I might guess wrong.

You need five different kinds of seeds to qualify as a donor, and for people in North America, these need to be natives of North or South America. Overseas members get donor credit for seed from any country. That said, we like seed from anywhere, and we

do take into account how many kinds of seeds you send, so we certainly hope you'll go beyond the minimum!

### IMPORTANT, PLEASE NOTE

**I am back at home and back in the saddle again this year, so please send all seeds to me at: Linda Verbeek, 5170 Sperling Ave, Burnaby, BC, V5E 2T4, Canada**

It is a great help to us if you can include with the seed an alphabetical list of what you are sending. Also, if you have wild collected seed, please include the location where you collected it, and if you are not sure of the species, some details of height, flower colour (if you know it), possibly growing conditions, etc. Seed is much more likely to be interesting if it is described as:

*Penstemon* sp., 20 cm, compact, small leaves, flowers pink, growing at 8,000 ft, than if it is described as: *Penstemon* sp., and no more.

The seed should be mailed in a package labeled: **flower seeds of no commercial value**, to Linda Verbeek at the address above, and mailed to arrive before **27 October 2017**. This gives us barely enough time to complete the seedlist by the time the Fall Bulletin is due. If this is impossible, please make sure we do at least get a list of what you are planning to send by that date. This can be e-mailed to: [beekbos@shaw.ca](mailto:beekbos@shaw.ca). And please make sure that you will actually send what you are saying you are sending. It is important that you send the seed as soon as possible, if you can't make the deadline. Packaging the seed is another major job and it starts soon after the deadline.

Finally, to end as I started, the donors are the pillars of our exchange – without you there wouldn't be one – so I'd like to thank in advance everyone who'll be sending seeds this year.

*Linda Verbeek*

## From the Editor

Dear Readers,

**Please mark your calendars for the Fall Sale.** Volunteers are needed to help and plants should be brought in for the club table. Thank you!

In this issue, a couple of photos by way of an update on using Carnivorous Plants and Hardy Orchids in the garden - a proper update will be in the fall issue. And there are lovely photos from the Club Bus Trip and a Member's Garden.

As you know seed saving season is well underway (and you will have just read Linda's invitation to participate in the Seed Exchange). So, to whet your appetite for starting some interesting alpine, this issue has a bumper crop of alpine plant portraits.





*L: Drosera capensis v. alba and R: Drosera binata enjoying the sun in the editor's rock garden, both starting to flower and set seed. Both carnivorous plants grown from seed.*

And, if you'd like a worthwhile read, seed and conservation related, then check out *The Plant Messiah* by Carlos Magdalena. A review and details follow. Also apropos, Robin Hansen, editor of the Pacific Bulb Society Journal, has sent along a review of Jānis Rukšāns' new tome, *The World of Crocuses*.

Deadline for the Fall issue is November 1st and it is firm, due to the need to get the Seedlist out on time. I would appreciate your photos or writings. I am still working on pieces on Gentians (thank you Carla and Bill Bischoff and Alison Carson for photos) and Cyclamen (thanks again Carla and Bill for photos) for the rock garden. I plan to have those articles in the Fall issue, so this is your chance to send in photos, recommendations, experiences.

Happy Seed Collecting and Growing!  
Valerie Melanson



*A strange bud on my Primula vialii this year – three heads fused into one. Now to see if any of them set seed. A bit early to tell at the moment.*



## In Member Gardens - Carla and Bill Bischoff

*(photos by Carla)*

Bill notes this cactus (right) is from Bolivia and they have had it some 30 years, often divided and replanted. Winter in cool greenhouse. Summer all the sun it can take. On July 26th there were two more flowers open and Bill counted 12 more buds. Each flower lasts about three days.



*Echinopsis werdermannii* July 25, 2017



*July : L: A front yard oasis, R: Backyard fabulous lilies*

# Book Review – The Plant Messiah: Adventures in Search of the World's Rarest Species, by Carlos Magdalena

Valerie Melanson

Carlos Magdalena is a botanical horticulturalist at Kew. Fascinating! you say, but why *The Plant Messiah*? Named that by a Spanish newspaper, it fits, and here is why...

Growing up in the Province of Asturias, Spain, Carlos became fascinated by plants and nature, with a particular passion for waterlilies. He eventually found his way to Kew and convinced the principal of the prestigious horticultural school to take him as a student, after proving himself as an intern. Interning in the Tropical Plant Nursery, he cared for *Ramosmania rodriguesii*, a critically endangered shrub from the island of Rodrigues in the Indian Ocean. Later he was to visit the island and solve the puzzle of propagating “The Living Dead” plant. It was the first of many. Perhaps his most famous patient has been the *Nymphaea thermarum*, a waterlily now extinct in the wild in Rwanda. His success in figuring out a successful propagation protocol became a major news story around the world and was covered by David Attenborough in the series, “Kingdom of Plants”.

In his Introduction, “A Messiah’s Manifesto”, Carlos writes: “My mission is to make you aware of exactly how important plants are; in fact I am obsessed by this idea. ...Plants are the key to the future of the planet...A messiah can’t change attitudes without supporters who will spread the gospel. When it comes to conservation we need passion, we need motivation and we need action.”

To this end he heads out on Kew conservation missions – to teach and facilitate at a local level – forest rehabilitation by alley cropping, setting up propagation nurseries, making seed balls and other techniques. Collecting seed and herbarium specimens, to preserve and propagate, from the Andes to the Amazon, from the mountainous Mascarene Islands, to Australia and elsewhere, and always looking out for ‘water babies’.

And now this book – after relating many fascinating botanical adventures, full of enlightening and frightening glimpses of how humans impact the world, he concludes with a call to arms. “...let’s turn things around and garden our way out of this apocalypse, green up the world and plant our future”.

I highly recommend this book – Viking (Penguin Random House UK), 2017, available from Kew Bookshop, <http://shop.kew.org/kewbooksonline>





## B.C. Alpine Plant Portrait - *Saxifraga ferruginea*, syn. *Micranthes ferruginea*, “Rusty or Alaska Saxifrage”

*Valerie Melanson*

I first met this species on an Alpine Gardeners' group outing to Mt. Cokely, on Vancouver Island, in 2011. Given the long dry period we had been through, by August 20 the patches I saw in detritus on exposed rock shelves were mostly ripening their seed capsules and taking on 'fall colours'



*L: On Mt. Cokely with seed capsules forming, August 20, 2011*

But a few seeds and bulblets/bulbils were to be had. I was happy to be able to start some at home and have a flowering-and-bulblet producing plant for 2012. The bulblets were a success to root.



*L: Bulblets picked off plant, started to root in potting compost on August 18, 2012. They were well rooted by December 22, 2012.*

I saw this species again, this time in an open wooded situation above Paradise Meadows in Strathcona Provincial Park, July 19, 2013.



*Photo of plant on trail leading from Paradise Meadows to Lake Helen Mackenzie, Strathcona, showing flowers and some bulblets.*



*Close-up showing flowers going to seed and a few bulblets*

Pojar and MacKinnon in their two handbooks, *Plants of Coastal British Columbia* and *Alpine Plants of British Columbia*...give the following details: The species is perennial. From its short, erect, unbranched stembase, there are one or more leafless stems, from 10 to 40 cm tall. The leaves, 2-10 cm long are wedged to spoon-shaped with teeth. The flowers, 10-20 in open clusters, are white, the petals having distinct stalks and the upper three are usually larger and have two yellow spots. The ferruginea refers to its rusty sepals. Bulblets often replace lower flowers – this is most common in the southern part of their range.

For habitat they note: “Moist, mossy outcrops, stream-banks, wet rocks, frequent throughout our region in open habitats, from sea level to alpine.” And that it is “... a widespread and very variable species; it can form large, showy colonies on exposed, rocky headlands and sea-bird islands, where it tends to be a robust plant with thick, fleshy, densely hairy leaves.”





*L.*: Flower photo from SaxeBase, a great internet resource of the The Saxifrage Society - <http://www.saxifraga.org/plants/saxbase/taxon.asp?Taxon=331>

References:

*Plants of Coastal British Columbia, including Washington, Oregon and Alaska*, compiled and edited by Jim Pojar and Andy MacKinnon, B.C Forest Service, Research Program (Vancouver: Lone Pine Publishing, 1994), ISBN 978-1-55105-042-3, page 163.

*Alpine Plants of British Columbia, Alberta and Northwest North America*, by Jim Pojar and Andy MacKinnon with Rosamund Pojar, Curtis Bjork and Hans Roemer (Edmonton: Lone Pine Publishing,

2013), ISBN 978-1-55105-886-3, page 148.

(original version published in "The Crevice" # 25, January 2014)

## North American Alpine Plant Portrait - *Saxifraga oppositifolia*

*David Sellars*



We have often seen *Saxifraga oppositifolia* blooming profusely in the European Alps but it is a challenge to see it in flower in the mountains of North America. The plant is found at high elevations in exposed positions on north facing rock cliffs. Snow tends to blow off steep cliffs during winter storms and it flowers very early in the spring before snow has melted on the alpine meadows with access trails still snow covered.

We drove up the Beartooth Highway in Wyoming on June 30 and we were delighted to find large flowering cushions of *Saxifraga oppositifolia* on road cuts right beside the road at about 10,000 feet elevation. The *Saxifraga oppositifolia* were growing



in rock crevices on steep north facing cliffs in shade from the midday sun. In exposed, sunny areas, plants that emerge right after snowmelt such as *Douglasia montana* were also in full flower.

*Saxifraga oppositifolia* probably does not enjoy a dry protective snow cover in the winter like many alpines. This could explain why the plant is tolerant of wet winter conditions at sea level. The fact that *S. oppositifolia* grows profusely in the wild at low elevations in the Arctic is another indication of its adaptability. However it may not suit warmer continental climates.

In the rock garden, *Saxifraga oppositifolia* needs to be moist and shaded from the hottest midday sun in addition to the usual alpine plant requirements of good drainage, gritty soil and a coarse stone mulch. The best position is in a north facing rock garden tucked below a large rock to provide partial shade.



*Close-up of Saxifraga oppositifolia  
on Beartooth Highway*



*Douglasia montana*

The *Saxifraga oppositifolia* grown in rock gardens are forms from European populations. The North American version has much tighter and harder cushions than the lax European plant. Many of us have tried to grow the North American *S. oppositifolia* without success. I suspect that the problem is that it gets too hot in the summer in our gardens.



## International Alpine Plant Portrait - *Verbascum acaule*

*Ger van den Beuken, The Netherlands*



*Verbascum acaule* is a rosette forming perennial from southern Greece where it grows at high altitude between shaded limestone rocks. It is one of the most dwarf and rarely available species of the *Verbascum* genus and is especially suitable for the rock garden. The best place, if available, is a vertical crevice or on a dry wall. Otherwise in the alpine house to be sure it will survive during winter. It is a real stunning plant with yellow flowers, red in bud, of more than 2 cm on maximum 5 cm long stems. The ovate leaves are very coarsely toothed on stalks of 2 to 5 cm long.

The soil I use is a sharply drained mix of coarse sand, grit, a very small part of soil, and, because it loves a higher pH, an additional part of lime. I grow my plants always in my alpine house in deep clay pots plunged in a sand bed.

I never see any seeds on my plants, so I do propagation by cuttings from non-flowering shoots in late summer. It also should be possible to try with root cuttings but with this I have no experience.

## International Alpine Plant Portrait - *Ranunculus montanus*

*Linda Verbeek*

In general, buttercups, and especially yellow buttercups, don't have much of a reputation among gardeners. Sure, there are a few treasures among the white-flowered ones, like *Ranunculus parnassifolius* from the European mountains (which is very difficult to grow), or *R. calandrinoides* from the Atlas Mountains in Morocco, but most buttercups are positively shunned. Perhaps you'll say that it is no wonder, given the pesky one that invades all our lawns (*R. repens*). Nevertheless, I have a yellow alpine buttercup which I have treasured for decades. What I'm talking about is *Ranunculus montanus*.



This is a flower of the alpine meadows of the Alps and the Pyrenees, so a true alpine. It is a deciduous plant which overwinters with small tuberous roots. In my garden, over the last 20 or 25 years, it has made a slowly expanding clump of typical buttercup foliage, no more than 15 or 20 cm tall, and by now about 60 cm across, which in mid-spring literally covers itself with golden flowers. The display lasts for several weeks, and after that the odd flower pops up once in a while right through the summer. I have never seen seed, and I have never seen a plant pop up elsewhere in the garden, so it is totally no problem. It grows on the edge of a 'scree', and therefore has good drainage, but otherwise it doesn't seem to have any fussy requirements at all.



# International Alpine Plant Portrait - *Nototriche mackleanii*

*Ger van den Beuken, The Netherlands*

*Nototriche* is a genus of the high Andes in Argentina, Chile, Bolivia and Peru, and belongs to the Malvaceae family. Several species are described, but as far as I know only a few are in cultivation. During our expeditions in South America we have seen species like *Nototriche compacta* and *Nototriche aretioides* in the higher mountains of Central Patagonia in Argentina. *Nototriche turritella* we found on a lava slope in fine sand on Volcan Taäpaca in Northern Chile above 5200 m. We also found another undescribed species on the shore of Lago Chungara, very close to the Bolivian border.



*Nototriche compacta*



*Nototriche turritella*

*Nototriche mackleanii* (right) is an endemic species from the south of Peru, where it grows in fine lava or between bigger lava rocks, to more than 5000 m in altitude.

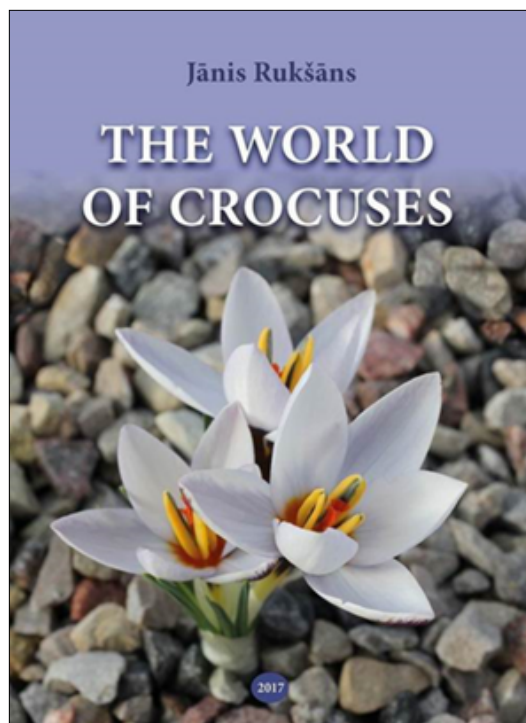
It has affinities with *N. aretioides* but is more decorative, with large stemless crocus like violet blue flowers, more than 4 cm wide, on hairy rosettes. Although winter hardiness is not an concern, protection against rain or snow is advisable, and to keep plants under glass or preferably in an alpine house. The soil I use is a mix of lava grit, sand, perlite and a very small part of peat. It is important to keep the pH level below no. 6. The only way of propagation is by cuttings during spring and summer.



(originally published in "The Crevice" # 45, Early Spring 2017)

## Book Review - *The World of Crocuses* by Jānis Rukšāns

Robin Hansen ([hansennursery.com](http://hansennursery.com), Editor of the *Pacific Bulb Society Journal*)



Jānis Rukšāns' latest book, a monograph on crocuses, has just been published under the imprint of the Latvian Academy of Sciences, and is now available from the Scottish Rock Garden Club and from several other sources. This generously detailed book, with over 560 pages, 1,700 photos, illustrations and distribution maps is not a rehash of his previous book on crocuses, but is a thorough treatment of the genus *Crocus*, listing all 235 known species, and celebrates Rukšāns' incredible, bulb-obsessed 50 years of studying *Crocus* in the field and in his nursery and gardens. He expects it to be most useful to gardeners as well as amateur botanists, but it is the result of ongoing phylogenetic research up through 2016 and must be considered the definitive work of this genus.

Thanks to the author's perseverance, obsessions and willingness to endure incredible tests of endurance, political obstruction, and gruelling travel conditions, we have a delightful and extraordinary reference that would simply be impossible as a resource on the internet, but as a book available at all times will considerably ease our way in growing and enjoying these delightful bulbs. He is well-known for his plant breeding, his lectures and his many articles on all manner of bulbs.

Jānis has deconstructed and reconstructed the genus *Crocus* according to one comment I received, but isn't that what botanists do from time to time, especially now that DNA has entered the scene? And we are (usually) that much further ahead in our knowledge of a genus because a botanist was willing to spend years or a lifetime narrowly focused on one genus.

The old familiar argument between "lumpers" and "splitters" will instantly arise with this new book, and readers' comments forthcoming will be either as clear as Crater Lake on a sunny day or as muddy as the puddles in my driveway. So be it – if nothing else, we'll be entertained, educated, annoyed or seriously aggravated. Ultimately, though, we'll have a new and complete reference book.



When I received the book from Jānis, I instantly stopped what I was doing and started reading, delighted to see a thorough monograph on a genus of which I've become ever more enamoured. The author begins with the basics – cultivation, propagation and pests and diseases – and details some of the issues facing anyone who studies these particular plants, flung across thousands of miles and many habitats, often in rugged and barely accessible terrain. Rukšāns is primarily a commercial grower of some 50 years standing, and he clearly explains the basics and shows a deep knowledge of the growing *Crocus* in the difficult climate where he lives and works. He divides *Crocus* into three groups based on their native growing conditions, and under each species he gives quite detailed information about habitat and distribution which is very helpful to us as we attempt to grow them in our gardens.

In the section on propagation, Rukšāns comments that many *Crocus* are self-sterile, which is news to me, a neophyte with this genus; he recommends sources of seed since so many species are otherwise unavailable. He discusses pests and diseases in detail and illustrates clearly with photos the symptoms of viral infections, a necessary and often overlooked concern.

Then comes the section on classification and identification which will no doubt be an endless source of frustration, affirmation or just plain disgruntlement to the minority who insist on cut and dried determination of names. As an amateur grower (some of you will no doubt be appalled at my willful ignorance), I refuse to concern myself with these issues beyond a certain point. I just want to grow lots of different kinds of cool *Crocus*! And this book will help me do that.

I will say that while I have a vague understanding of DNA, I am far more concerned with identifying living plants in the field, and so that affects my response to botanical monographs, as in “just tell me what the plant is...”. Nonetheless works such as *The World of Crocuses* are essential to our understanding of the plants we grow. If names change, so be it. We can always find the synonyms and ultimately know what we are growing.

There are issues of irregular editing for clarification and comprehension throughout the book, due in part to the fact that Rukšāns is not a native English speaker. I didn't find the editing to interfere given that we receive such detailed descriptions of all known species accompanied by numerous clear photos and illustrations. Gardeners, after all, speak a universal language.

The keys are just before the listing of species begins, and included at the beginning of the keys is a list of important characteristics to assist in identification of individual species. Rukšāns divides the keys into autumn and spring flowering bloomers with further subdivisions under each category, then follows the keys with one to three pages on each species which includes detailed descriptions followed by comments on field

studies and personal observations. He also discusses locations, and clearly states whether he is familiar with a species.

Included with each species listing are location maps, multiple photos (often *in situ*) of flowers and corms (some on graph paper). The descriptions are standardized throughout, and while I wish the paper the book is printed on allowed sharper images, that is a minor quibble. Illustrations throughout the book are clear, bold and well done, and I find the photos of plant parts quite useful.

*The World of Crocuses* concludes with a section on hybrids, a glossary, a list of *Crocus* species described or reclassified, a bibliography and a list of the main synonyms. There is no index which could prove frustrating when in search of synonyms not listed, but the book is well organized and the contents page covers the book well.

If you are “crocus-crazy”, this book is a necessity; even if you’re not that severely addicted, you should consider buying it because you will use it over and over. Please thank his many generous supporters, many of whom are acknowledged, and consider financial support for future monographs. Without support of such individuals and plant societies we will be deprived of vital information we need to grow the plants we love. Unfortunately, publishers, as Jānis mentions, claim monographs don’t sell, so it is left to plant lovers to step forward.

NOTE: The SRGC was proud to support the publication of Jānis’ *The World of Crocuses* - a magnificent work of 570 pages, detailing all his work on the genus over the last 50 years. This encyclopaedic book is available from Jānis Rukšāns - 45 euros +postage –

email [janis.bulb@hawk.lv](mailto:janis.bulb@hawk.lv) (also available from the Alpine Garden Society, see <http://www.alpinegardensociety.net/sales/books/>)



*This is Crocus huffelianus 'Carpathian Wonder' from Ruksans' book, and was his introduction.*



# Club Bus Trip to Heronswood, Far Reaches and Other Points

*Photos by Bruce McConnell*



*Lunch at Heronswood*

*Tour at Windcliff*



*Magnolia from North Vietnam,  
a Dan Hinkley introduction*



*Mt. Baker from the ferry*





*Arisaema nepenthoides*



*Cypripedium sp.*



*Polygonatum sp. at Heronswood*



*Pseudomuscari sp.*



## In Praise of Moss

David Sellars

Visitors to the garden from Alberta often get excited by the mossy boulders we have on our north facing rock garden. The moss appears pretty exotic to gardeners from dry areas. Those from British Columbia are not so enthused. In fact, one of the local problems brought up about using tufa is how do you get rid of the moss? We have learned to love moss in the garden. For a start it provides a varying “ground cover” which softens the look of large boulders. It suppresses weeds and holds moisture. But the best attribute is that it acts as a perfect seed bed for a variety of special plants. Rhododendrons will happily self-seed into moss even in rocky areas. Moss is also a favourite seed bed for Saxifrages and they will grow into large mats even when there is only a thin layer of moss on a granite boulder. We even had a *Campanula barbata* self seed into a mossy crack in a boulder by the pond.

One shady area of the garden planted with *Erythronium* and *Trillium* developed a very thick layer of moss over the years on top of bark mulch. We decided to leave the moss to see what happened. The *Trillium* and *Erythronium* seeded enthusiastically into the moss and over the years we ended up with many more plants.

The most exciting thing was that the *Erythronium oregonum* and *Erythronium revolutum* formed natural hybrids and we had lovely white flowers with pink highlights. Here on the west coast, we are fortunate to have moss to enhance our gardens.



*Campanula barbata*



*Saxifrage on a mossy rock*



*Erythronium revolutum hybrid*