

# International Rock Gardener

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The day of the first major Scottish Rock Garden Club event of the year draws near as I write this - it seems a good idea to add the link here to find details for all those events. Discover the SRGC timetable for [shows and other events here](#) on the SRGC website. The SRGC Early Bulb Day is one of the most popular events of the year – after winter days the urge to get together to socialise and enjoy the talks, plant displays and sales is a strong one. This year the speaker for [two talks in Dunblane](#) was Johan Nilson of the Gothenburg Botanic Garden. The SRGC has a long association with the GBG and it is a pleasure that this is continued with the friendship of Johan, who first visited Scotland with Peter Korn some years ago.

As usual, a large audience was expected to attend this vibrant event.

The SRGC Summer event will feature Kenton J. Seth from Colorado as the SRGC embraces its international core. We have yet to welcome Paul Spriggs of Canada, who has worked extensively with Kenton on several projects, to any events in Scotland but we hope it will be possible in time – meanwhile, we learn a little more about him.

One of the benefits of the IRG is the ability to share with readers occasional articles which have featured elsewhere and, we hope, reach another audience. This month we have been permitted by the editorial committee of the RHS Daffodil, Snowdrop and Tulip Yearbook to publish an article which first appeared in the yearbook of 2016 by plant hunter and researcher, Dr Dimitri Zubov, whose reports of plant expeditions and findings have captivated readers in the SRGC Forum over many years.

Cover photo: *Galanthus nivalis* from Moianès, Catalonia – photo Dimitri Zubov.



From top left, clockwise – Johan Nilson; Kenton J. Seth; posing with Althea the bloodhound, Dimitri Zubov between Ferran J. Lloret and Rafa Díez Domínguez; Paul Spriggs with trays of young plants.

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## ---Bulbs in habitat---



*Galanthus nivalis* at high altitude in the Parc Natural del Montseny, Catalonia.

### **Galanthus nivalis in Catalonia, Spain - text and photos Dimitri Zubov**

The most widespread and well-known snowdrop species is *Galanthus nivalis* L. Against other species, its comparatively large distribution is from the Dnieper Upland and the south-western spurs of Central Russian Upland in Ukraine in the east, to the Pyrenees and Iberian Peninsula (Spain) in the west. It extends from the 51<sup>st</sup> parallel north in Germany and to the 20<sup>th</sup> in the Pindus range in southern Albania and northern Greece. It is therefore very interesting to explore the extreme borders of the area of this species and to look for possible polymorphism (variation) among material in these regions.

#### **Original discovery**

The history of the discovery of outlying populations of *G. nivalis* on the Montseny Massif, which is part of the pre-coastal range (now UNESCO World Biosphere Reserve) in Catalonia, the autonomous community in Spain, is very interesting. Possibly because he was aware of an herbarium specimen at the Madrid Botanic Garden from 1872 from the region, renowned Catalan botanist, Dr. Pius Font i Quer [1-3] re-located *G. nivalis*. This was on a field excursion with his students from the Faculty of Pharmacology of the University of Barcelona on 12 February 1918. It was growing at 800m in the valley of the Gualba River. Font I Quer notes that the snowdrops bear different Catalan names and according to his 1926 paper [3], the most frequent is “*lliri de neu*” (in Olot area). There are also “*flor de neu*” (Camprodon), “*viola d’hivern*” (Espinavell) and “*viola blanca*” (Selva).

#### **Almost a century on....**

I arrived in the Catalan capital, Barcelona on 6<sup>th</sup> February 2016 for my own Catalonian snowdrop adventure. My kind hosts and guides for the trip were Ferran and Audald Lloret and Rafa Díez, Domínguez who joined us later. Within Catalonia is the Parc Natural del Montseny which was home to

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our first population of *G. nivalis* but which is popular with the Catalans and sadly showed the effects of trampling of tourism in a sensitive environment [6].



Wider view of the galanthus at Montseny

Their habitat, at an altitude of approximately 1100m which sits over colluvial soils with a bed-rock of metamorphic schists, was underneath stands of mainly *Alnus glutinosa* and *Fraxinus angustifolia* with some *Quercus ilex* and *Acer campestre*. Here, *G. nivalis* formed a dense carpet, occupying quite a large area. Flowering at the site is typically from mid-January onwards but in what had been an unusually dry season, there were relatively few flowers to be examined and photographed, the majority having gone past their best with many clumps having already showing well-developed seed capsules.

In their general appearance, the features of the Montseny *G. nivalis* accorded with those of usual representatives of the species with blue-grey leaves and more dense deposit along the center of adaxial (upper) leaf surface. The flowers are quite large, with a bold U or V-shaped, dark green apical mark on the inner perianth segments. So, I cannot agree with the assertions of the British botanist Sir Frederick Stern [4], echoed later by prominent Soviet morphologist Zenaida Artjushenko [5], that *G. nivalis* plants from Spain and Ukraine are smaller in size. According to my own field observations, both Catalanian (around Barcelona and Gerona, the westernmost border of species distribution) and Ukrainian plants (around Uman in the Cherkassy area, the easternmost border) form medium- and large-sized vegetative clones with numerous individuals within them. Also of note were broad and round outer perianth segments in the majority of the plants in this population, as well as pronounced ribbing and basal claw at the spoon-like outer perianth segments. The ovary was usually cylindrical or truncated conical, which is typical for the species as a whole. Away from the main population we saw the snowdrops in small patches growing in beech forest (*Fagus sylvatica*) together with *Helleborus foetidus*, *Erica arborea*, *Rubus ulmifolius*, *Hedera helix*, close to Font i Quer's original location along the river of Gualba.

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Inverse poculiform *G. nivalis* in the Fluvià valley in volcanic country near Olot, Catalonia.

The next day we went to the province of Gerona in county of Garrotxa where we visited several rather localised populations around Olot, along the rivers, Fluvià and Gurn (elevation: 460m). Here the Snowdrops were growing together with *Fraxinus angustifolia*, *Alnus glutinosa*, *Corylus avellana*, *Acer campestre*, *Rubus ulmifolius*, *Hedera helix*, *Buxus sempervirens* and *Arum italicum*. The valley of the river of Fluvià is enfolded by sedimentary rocks of volcanic origin, the largest of the volcanoes being that of Santa Margarida. Most of the snowdrop micro-populations seen in the valley probably came down from the Pyrenees highlands. In the areas that were most subject to trampling such as in a park in Olot, capital of La Garrotxa, the populations were scarce and plant sizes were the smallest, although the number of bulbs in the clumps was roughly the same. Plants grew on sandy soil along the river and under the plane trees (*Platanus x hybrida*) with residual vegetation of common alder. But here they were accompanied by *Helleborus viridis* and I was lucky enough to find an interesting small clump of an inverse poculiform.

Next we went to La Selva, the coastal county in the province of Gerona which is sandwiched between the mountain ridge of Catalan Transversal Range (Serralada Transversal) and the Costa Brava [7]. Our destination was the Estany de Sils, a shallow lake represented by wetlands and marches located in a tectonic depression. This place was, for me, highly significant for being the locality from which French botanist Frère Sennen, in 1915, deposited a specimen which he labelled *Galanthus fontii* (*nomen herb.* for *G. nivalis*), in honour of Pius Font i Quer, (Museum National d'Histoire Naturelle, Paris; MNHN-P-P02193922). Although *G. fontii* was never published, Sennen believed it differed from the Central European geographical race of *G. nivalis* in the pronounced white leaf apex (which we noted in other populations we saw) and he allocated it to a new Mediterranean geographical race. We examined small populations along the rivers of Santa Coloma and Riera dels Pins growing under plane trees (*Platanus x hybrida*) with scrub of *Buxus sempervirens*, *Hedera helix*, *Ruscus aculeatus*, and *Ilex aquifolium*. This area is closest to the coast, and where the snowdrops occurred at their lowest altitude, at approximately 100m. While some showed the white leaf others did not and the *G. nivalis* were of more note for both of the size of the clumps and their dimensions, albeit after flowering. They were 50cm in height with leaves extraordinarily broad at 3cm wide, their margins with slight longitudinal folds associated with *Galanthus plicatus*. Another unexpected feature was that in the majority the leaf apex was significantly cucullate (hooded), whereas in *G. nivalis* it would normally be

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flat. Bulbs we examined could be described as the size of an average *Narcissus* – seemingly associated with the nitrogen-rich soils, in which these plants grew.



Near the river at Olot.



Unusually broad foliage on large clumps *G.nivalis* after flowering, seen at low altitude in the county of La Selva, Catalonia.



Narrow foliage type at La Selva.

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We then returned to the Barcelona area to look at one micro-population in the county of Moianès along the river of Riera de Gai. The colony, at an altitude of 770m, was in a narrow shaded ravine under light woodland of *Quercus robur*, *Pinus sylvestris* and *Acer monspessulanum* with scrub of brambles (*Rubus ulmifolius*) and with ground-level companions, *Hedera helix* and *Arum italicum*. Here the snowdrops were at their peak of flowering – you could smell the flowers before you saw them. This was the latest-flowering population of *G. nivalis* we saw in Catalonia. Plants here had distinctly clawed, spoon-like outer segments with a bold dark green apical mark on their inner segments. We also found some clumps with green apical outer segment markings, further inverse poculiforms and a clump whose flowers showed long, narrowly rhomboid outers.

Nearby, was a second, even smaller population, on the north-western slope, dispersed in a rocky ridge among oaks (*Quercus robur* and *Q. ilex*), and maples (*Acer campestre* and *A. monspessulanum*), under scrub of *Buxus* and *Daphne laureola* (altitude: approximately 970m). Plants were of medium and dwarf size, growing sometimes in stony pockets in very little soil, accompanied by *Hepatica nobilis* and *Helleborus foetidus*. In contrast to other plants we saw these *G. nivalis* had adapted to the meagre sustenance in their ecological niche by their dwarf habit.



*Galanthus nivalis* variations from Moianès.

### Conclusions

The difference in the size of these plants depending on environmental factors and habitats was notable and was associated with a gradation that could be observed in the decrease of plant size with an increase of altitude in the *G. nivalis* colonies we visited.

However, while the demonstrably inconstant, white leaf apices fail to support the taxon, *G. fontii* Sennen, the evidence in favour of Catalan material as part of Sennen's Mediterranean race of *G. nivalis* along with that from the Spanish Pyrenees and France to the northern Greece border is more persuasive. Material from this region demonstrates common morphological features such as normally un-reflexed sinus lobes and an inner segment marking which is typically a large apical U or V: whereas the inner-segment markings of material in Ukraine of *G. nivalis* are narrow and reduced while their sinus lobes are reflexed. This opinion may be consistent with our 2013 paper [8] on the genus where, based on DNA sequencing data from nuclear genomes, we showed and delimited two biogeographical clades or groups of *G. nivalis*: (1) Central/South East Europe and (2) South West Europe but further work is needed to confirm this.



Another example from Moianès.

I would like to thank the wonderful and enthusiastic people who showed me the numerous populations of *G. nivalis* in Spain and agreed to help me study them in the wild. They are [Ferran J. Lloret](#) and Audald Lloret from the [Hortus Botanicus Ilercavonensis](#) in Flix and Rafa Díez Domínguez and his charming wife Delphine Fayaud from Segovia. D.Z.

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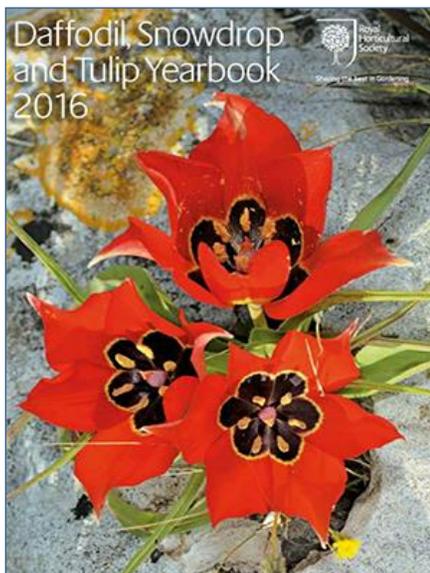
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Dimitri Zubov, Rafa Díez Domínguez and Ferran Lloret



Dr Dimitri Zubov is a biologist, biotechnologist and botanist from Ukraine. He is the co-author of research papers on *Galanthus* and member of a phylogenetic study team for the genus based at the Royal Botanic Gardens, Kew.

We at IRG are indebted to the editorial team of the Royal Horticultural Society's Daffodil, Snowdrop and Tulip Yearbook for their permission for Dimitri Zubov's article to be republished here. The Yearbook is published annually and is available from the [RHS](#) or from [John Gibson](#) of [Kettering](#) for just £9.50 and includes an interesting mix of diverse articles, trial and international show reports, book reviews, plant recommendations and more on all the featured genera.

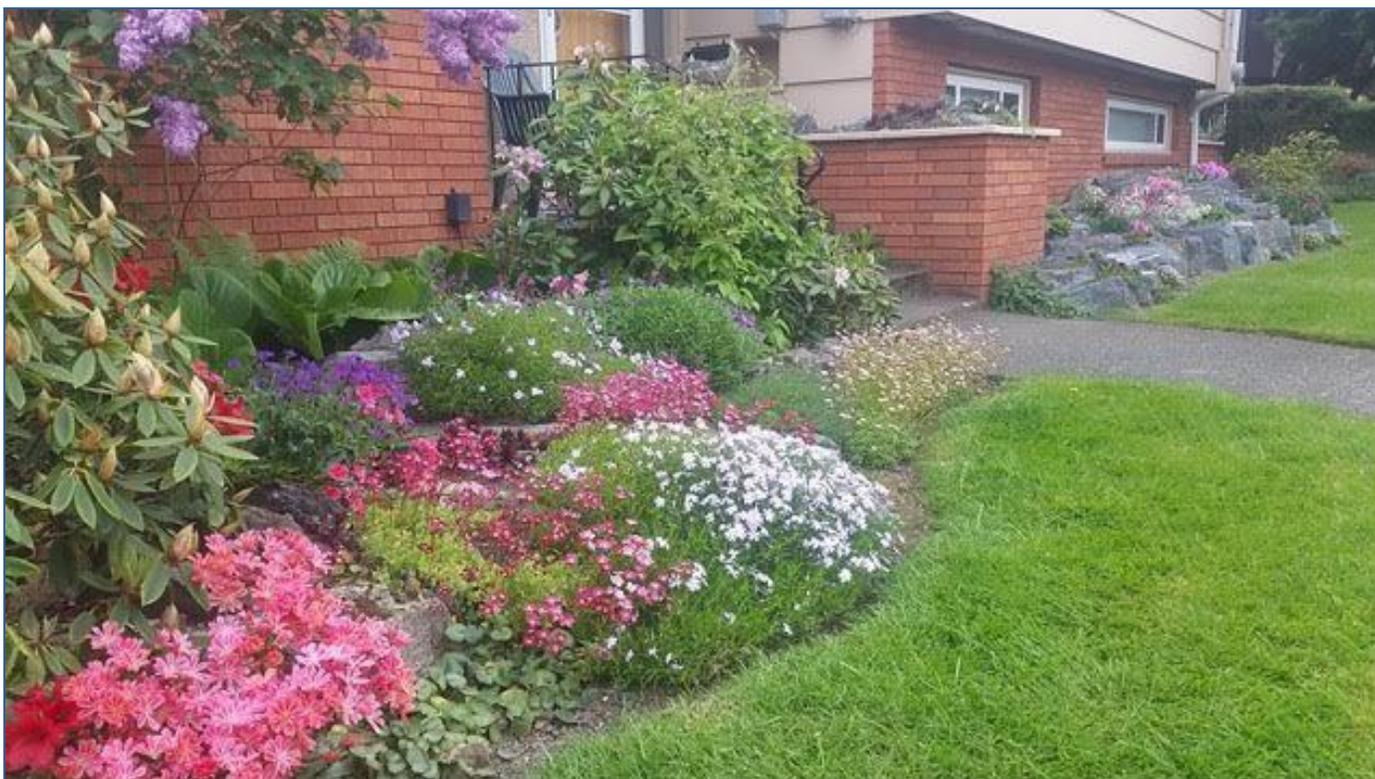
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## ---Making a Garden---

### **Not so quiet on the western front: Paul Spriggs, British Columbia, Canada**

Twenty-five years after arriving on Canada's west coast, the Czech influence of Zdeněk Zvolánek is strong in western gardens.

Victoria B.C. has long been a hotbed of rock gardening. Dubbed the "city of gardens", it has the mildest climate in all of Canada with balmy Mediterranean winters, and cool, dry, maritime-influenced summers. Winter rains pose the biggest challenge to alpine gardeners here. Beginner rock gardeners quickly learn that snow covered alpines, kept dry in their mountain homes in winter, often sulk and rot after the incessant lowland rains have their way with them. Summer drought, though detrimental to many choice alpines grown in the open rock garden, can usually be dealt with by growing in bright shade and supplemental watering, since our summers don't ever get too hot. Despite the above climate limitations, many rock garden plants are totally at home in Victoria.



Rock work and flowers in a Victoria garden.

As a distant outpost of the British Empire, Victoria experienced a population explosion at the beginning of the 20<sup>th</sup> century. Most of these newly arrived immigrants came from the British Isles, looking for new opportunities that a young, growing country could provide. Rock Gardening was just gaining momentum in this very period, spurred on by publications such as Reginald Farrer's seminal rock gardening text, "My Rock Garden" published in 1908, and his later work, "The English Rock Garden" published in 1913. Many of these British ex-patriots soon realized that Victoria was a perfect place to practice this new style of gardening, and in 1921, formed what could be debated as the first rock gardening club, known as The Vancouver Island Rock And Alpine Garden Society ([VIRAGS](#)). Names like Ed Lohbrunner, for whom the [alpine garden at UBC](#) is named, [Ian McTaggart-Cowan](#), [Hans Roemer](#), and [Rex Murfitt](#) are legendary in these parts and their Influence is still felt in Victoria gardens to this day.

Perhaps the latest and greatest of the internationally known rock gardeners to descend on Victoria and whose influence is certainly felt more than ever, even after leaving Canada 5 years ago, is Czech crevice garden master, and party animal, Zdeněk Zvolánek.

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A brief history by way of a flashback: Portland, Oregon, around 1981, the Western Winter Study Weekend. It was here that history was made and a dynamic duo of modern rock gardening was spawned.



Attending that ARGS conference ([now NARGS](#)) were two people whose lives would be changed forever. These were Joyce Carruthers, originally from Wales, then living in Victoria, and Zdeněk Zvolánek who, for practical purposes is known as ZZ, (since most westerners cannot properly pronounce his name!) of Czechoslovakia. They came from different worlds yet shared a common passion. The initial spark developed into romance. As their romance grew and developed, so did their rock gardening. Over many years this rock gardening powerhouse duo would travel back and forth between their large urban rock garden in Victoria and ZZ's Czech garden in the village of Karlik, known as the Beauty Slope. Plant treasures from Joyce and ZZ's numerous botanical expeditions, many of which are rare and difficult to grow were abundant here. These two gardens also featured many styles including planted walls, troughs, screens and of course, ZZ's own developing style: the crevice garden.

ZZ and Joyce Carruthers.

ZZ himself was a student of the great [Josef Halda](#), having built gardens together in the early 1980s including the Prague club garden at the St. John of the Rock church.

Here he learned and put into practice the fundamentals of rock gardening in crevices. As time went by, ZZ modified Halda's horizontal or sloping construction style, experimenting with placing the rocks more or less vertically. He saw the crevice garden not only as a pleasing, aesthetic representation of nature, but also of necessary functionality.

All this travel meant leaving the gardens for extended periods. As all gardeners know, garden absenteeism can spell certain death to many plants that require constant attention if they are to be grown well. ZZ discovered that by placing stones in a vertical position, he could create situations where the plants are more resilient to extremes of drought, and excessive moisture. Controlling the moisture regime is one of the great challenges faced by the rock gardener. Often too much or too little water will spell certain death. Vertical crevice gardens drain better than other types of rock gardens due to their slanted return to ground level, offering excellent surface drainage, and because of the deep sandy soil filling the crevices which allows for superior vertical drainage through the soil. Conversely, he found that on hot days, water would condense on the buried surfaces of the rocks, and capillary action would draw moisture up from below, thereby requiring less, or in some cases, no watering. Plants growing in natural crevices often send their roots far and wide in the search for nutrients and water. This offers the roots a certain level of protection that they may not get in a pot or in a traditional rock garden. He found that he could leave his gardens for longer periods and suffer fewer losses. Moreover, he found that often the plants would perform better in a vertical crevice than in any other situation.

Over nearly thirty years Joyce and ZZ worked together as a team, spreading the gospel of crevice gardening to new ears in the west, eventually they would help construct crevice gardens all over the western world including the large granite garden at the [Montréal Botanic Gardens](#), and the wonderful garden at [Bangsbo Botanic Garden, Frederikshavn, Denmark](#).

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One of my first meetings with ZZ was at a crevice garden workshop in his Victoria Garden in around 2005. Here I learned the first of many crevice lessons which included rock placement, soils, planting and maintenance. Little did I know at the time that crevice gardening would become such a huge part of my life. I'll never forget the end of the workshop which involved everyone eating, drinking and making merry as ZZ entertained us by performing Czech folk songs on his concertina. There's always a party when ZZ is around!

During the following few years, ZZ and I worked together, me as his "apprentice", building crevices gardens around Victoria, including the one-tonne portable "build on the spot" demonstration garden which still gets built at the entrance to our annual spring show.



Sadly, fate dealt a terrible hand in 2010 when Joyce's life was taken prematurely in a freak car accident in the B.C. interior. This seemed to happen at a time when their momentum and renown was still building, and was a serious blow to not only ZZ, but to the international rock gardening community, as Joyce was well known and respected throughout the western world. With his beloved "Joycee" no longer at his side, and little left to keep him in Canada, ZZ moved back to Karlik and the beauty slope for good. Losing club mentors is never a good thing and with Joyce's death, and ZZ's departure, a giant hole was left in the VIRAGS membership. I still miss them at our monthly meetings.

The first garden we built together was in the garden of then VIRAGS president Yvonne Rorison in 2006, in Victoria. Since then I have built roughly 25 crevice gardens around the region, plus countless troughs and demonstrations. These gardens range in size from smallish outcrops, to huge constructions involving many tons of stone. Most of these are in private residential gardens, and 2 are in public parks. I also had the good fortune to be asked to help long-time rock-gardening friend Kenton Seth to aid in the construction of his massive crevice outcrops at what has become known as the Apex Garden in Denver Colorado. These experiences have taught me much and I feel honored to have worked in the company of such talented and creative people.

Although ZZ may be gone from the city of gardens, His influence and legacy are still felt strongly here on Canada's west-coast.

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*Cytisus demissus* and *Lewisia tweedyi* in a small crevice bed.

It seems that crevice gardens are popping up everywhere these days. There is currently a small but growing population of professional landscapers and private homeowners who are tackling crevice garden projects as the word spreads, including municipal projects, parks, and private gardens both on Vancouver Island and the lower mainland. All because of ZZ! As a living legend in this world, I'm sure he must be very proud. So many gardens I have visited in the past few years feature crevice gardens of all shapes and sizes. The same holds true for other western rock gardening centers like Calgary and Denver where people like Stephanie Ferguson and her stratified soil technique, and Kenton Seth with his experiments in arid, desert climates, are further spreading the gospel of the crevice. The result: A groundswell of enthusiasm for this style and confirmation that without a doubt, when it comes to crevice gardens, things are not so quiet on the western front.

The famous giant wooden one-tonne trough which is planted up to decorate the entrance to the [VIRAGS show each year](#).



Vancouver Island Rock and Alpine Garden Society  
Annual Spring Show  
March 17 & 18



Primula marginata

Cadboro Bay United Church  
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Victoria BC

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Stephanie Ferguson near the top of her steep garden in Calgary where she grows a remarkable range of difficult and beautiful plants. Read Stephanie's articles on the making of her garden in these two issues of the Rock Garden Quarterly of NARGS - [Vol. 69 No.3](#) and [Vol. 69 No.4](#).

The following photos are some of the gardens Paul has worked on in North America –



At times some mechanical help is need for the big rocks.

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Kenton Seth with Paul Spriggs at the huge [Apex scheme in Colorado](#) - photo by Susan Sims.

Below: first of three photos of a garden built by Paul for Janice C. who had explored some terrific crevice gardens with the group at the International Czech Conference in 2013.



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Another of Paul's gardens, being worked with Bryce McBride and Ty Danylchuk.



*Primula marginata* forms



Pink mounds of *Saponaria x olivana*



Two views of a crevice in progress



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Plants establishing well in one of Paul's gardens.

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## ---Plant Description---

### Introducing GALANTHUS 'DRYAD ARTEMIS' – text and photos Anne Wright

*Galanthus* 'Dryad Artemis' was first described in the [SRGC Forum](#) on 22<sup>nd</sup> January 2017.

After 8 years work, and trialling here in the nursery in Yorkshire for stability and reliability, Dryad Nursery is proud to introduce the first variety to be released from our green snowdrop breeding programme. The new group will take Gods and Goddesses as a theme, and will include offerings for lovers and collectors of green and inverse poculiform snowdrops.

*Galanthus* 'Dryad Artemis' is a beautiful and elegant lady with neat and graceful flowers and an upright habit, much admired. It is vigorous and increases well. Artemis was the goddess of chastity and the hunt, and the sleek shape of the plant and purity of the crisp markings of the flower is a tribute to those qualities, while the inner mark is reminiscent of an ancient Greek bow. The icing on the cake is the delicious scent.



#### DESCRIPTION

Flowering height 200 - 300mm. Leaves, plicate, erect, approximately 16mm x 170mm at flowering time. Scapes upright. Ovary cylindrical, length:width approximately 4:3. Flower shape conical. Flower length including ovary 23mm. Pedicel 80% the length of the straight spathe.

Outer segments 19mm long by 16mm wide, pure white with a deep green, indented, inverted horseshoe mark at the apex. This mark continues as deep green striations all the way to the base on the underside of the outer segments. 'Claw' is 3mm.



#### **G. 'Dryad Artemis' segments**

The inner segments are laterally incurved, flared at the apex, with a deep, narrow sinus. The inner segment mark is a dark green inverted V, narrow at the basal end, and broad towards the apex of the segment. This mark continues

as deep green striations all the way to the base on the underside of the inner segments. There are two faint green spots at the sides of the inner segments near the base. The flower is scented. A.W.



*Galanthus* 'Dryad Artemis'

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'Dryad Artemis' – a new introduction [from Dryad Nursery](#), Yorkshire, UK.

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---Trees for the garden---

## A small selection of Oaks – George Watt, Drongan, Ayrshire, text and photos

Unbelievably, it is now eleven years since Sue and I started to develop our garden at Burnside in Ayrshire in south-west Scotland. Part of that garden consists of an informal arboretum and in order to contribute to the SRGC Summer Event last year at Dunblane, I took along a few examples of oak foliage with some data on each. Although certainly not alpines, several people appeared to show an interest and the Editor later suggested that I should submit an article to 'The International Rock Gardener'. I have finally managed to comply.

Gardens are often not large enough to accommodate oaks but there are several dwarf species available with two possibilities being listed below. If a native oak is desired with all its many associated links with insects, birds and mammals then *Quercus robur* 'Fastigiata Koster' may be the answer as it remains slender throughout its life.



***Quercus dentata* 'Carl Ferris Miller'**

### ***Quercus dentata* 'Carl Ferris Miller'** (Daimyo Oak)

*Q. dentata* is native to Korea, Japan and China. It grows to 26m high by 6m wide, but rather slowly and the leaves, which tend to persist for much of the winter, may be up to fully 30cm long. Carl Ferris Miller, the creator of the famous Chollipo arboretum near Seoul, South Korea, chose to name this particular cultivar of *Q. dentata* because of its particularly fine autumn colours. A similar cultivar is *Q. dentata* 'Sir Harold Hillier'.



[ Ed.: A short digression here to introduce George Watt and his wife Sue Simpson. Many members have been delighted by visits to their ever-developing garden, Burnside in Ayrshire. Sue is well known for her very successful exhibits both at SRGC shows and the joint SRGC/AGS shows. George and Sue seem tireless in their enthusiasm to improve their garden and the fine plants that they grow and show. Something of an inspirational pair! ]

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***Quercus ellipsoidalis* 'Hemelrijk'**  
(Northern Pin Oak or Hill's Oak)

Native of north central USA and southern-central Canada, the Great Lakes area and the upper Mississippi valley, *Quercus ellipsoidalis* may grow to 20m tall and 13m wide.

This particular selection, *Quercus ellipsoidalis* 'Hemelrijk' is noted for its stunning red autumn colours. Hemelrijk is a famous landscape park and botanical garden in Belgium created by the de Belder family.

***Quercus cerris***  
**'Argenteovariegata'**  
(Turkey Oak or Austrian Oak)

*Q. cerris* is native to south Eastern Europe and Asia Minor. It should not be confused with the American Turkey Oak (*Q. laevis*).

*Q. cerris* may grow to be 38m high by 25m wide but the wood is of poor quality and was often used for panelling and hence its other name, the Wainscot Oak. This selection *Q. cerris* 'Argenteovariegata' was made for obvious reasons and there is a fine specimen of it in the garden at Inverewe.



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***Quercus petraea* 'Laciniata Crispa'**  
(the Sessile Oak, the Irish Oak, the Durmast Oak, etc.)

*Q. petraea* is native to most of Europe, into Anatolia and Iran. It grows very slowly but may reach a height of 40m and a width of 25m. The wood is excellent. *Q. petraea* 'Laciniata Crispa' is a smaller and fairly rare form of this species and is noted for its very narrow and often threadlike leaves which may be up to 25cm long.

***Quercus rhysophylla*** (the Loquat Leaf Oak)

This is an evergreen Mexican species which grows at mid altitudes in the Sierra Madre Oriental. It may attain up to 25m in height and has the most wonderful shiny red leaves with the new growth in spring. In our very frosty pocket at Burnside the leaves are gradually lost as the winter proceeds and early leaves may be damaged by late spring frosts. However, it has survived thus far!



***Quercus bicolor*** (the Swamp White Oak)

This species is to be found in the north central and north eastern mixed forests of North America where it often clings to stream edges. Despite tolerating wet soil, useful at Burnside, it is also drought tolerant. *Q. bicolor* may attain a size of 20m x 20m and is noted for its fine yellow autumn colours.

## ---International Rock Gardener---

### ***Quercus myrtifolia***

This evergreen species is native to the south eastern United States from Florida up to South Carolina and is found on dunes, sand hills and dry sandy ridges. It may grow up to 12 m. Considering its pedigree, a harsh and waterlogged winter might present a challenge.



### ***Quercus scytophylla***

*Q. scytophylla* is a native of western and central Mexico from Sonora to Chiapas at altitudes of 900-2600m. It may grow to 20m with a trunk diameter of up to 1m but is unlikely to achieve that on our site in Ayrshire. It retained its leaves in our tunnel house last winter which was fairly mild and had previously survived -5 degrees C in Derbyshire. It has now been planted out and we await each winter with trepidation.

### ***Quercus velutina* 'Rubrifolia'** (Eastern Black Oak)

This species is to be found in eastern and mid-western USA, from Florida and Texas north to Maine, Ontario and Michigan. Specimens may grow up to 18m tall and of about the same width. The broad leaves are exceptionally long, up to 40cm. The cultivar *Q. velutina* 'Rubrifolia' is grown for its excellent reddish brown and yellow autumn colours.



## ---International Rock Gardener---



***Quercus rubra* 'Aurea'**  
(Northern Red Oak)

*Q. rubra* is native to eastern and central USA and to south eastern and south central Canada. Specimens may grow to a height of 15m and a width of 10m. This species is well known for its red and orange autumn foliage. *Q. rubra* 'Aurea' is quite different inasmuch as the leaves are an excellent yellow for much of the growing season.

***Quercus castaneifolia* 'Green Spire'**

*Q. castaneifolia* is a native of the Caucasus and is also to be found at altitudes of up to 2000m in the mountains of Iran. Specimens may grow up to 30m with a trunk diameter of 2m. The leaves resemble those of the Sweet Chestnut, *Castanea sativa* and hence the epithet *castaneifolia*. *Q. castaneifolia* 'Green Spire' has a more fastigiate habit than that of the species.



***Quercus cerris* 'Curly Head'**

This is a dwarf form of the Turkey Oak, *Q. cerris*. It grows very slowly and has a distinctive upright, fairly columnar habit making it suitable for small gardens or even rockeries. The leaves, remarkably glossy and curly and about a third the size of a normal *Q. cerris* leaf tend to persist on the plant well into the winter, even in their dried state.



## ---International Rock Gardener---



***Quercus alnifolia***  
(The Golden Oak of Cyprus)

*Q. alnifolia* is endemic to Cyprus and in particular to the Troodos Mountains where it may be found at an altitude of between 400 and 1800 metres. It usually forms a multi-branched shrub, 3 – 4m in height but occasionally may be found as a small tree up to 10m tall. This oak tends to form an understorey with *Pinus nigra*, *Pinus brutia* and *Cedrus brevifolia* and helps to prevent the erosion of steep slopes. The acorns are long and narrow and are held

within prickly cups. The common name derives from the very attractive golden-yellow tomentose hairs on the undersides of the leaves.



*Quercus alnifolia*, showing the undersides of the leaves.

For those of you who are interested in this genus there exists [The International Oak Society \(IOS\)](#).

As for books on oaks, the scene tends to be dominated by publications orientated towards North American species of which there are many. The current best 'bible' on oaks of the world is 'Guide Illustré des Chênes' by Antoine le Hardy de Beaulieu and

Thierry Lamant, ISBN-13: 978-2960097405 but I have to say that this two volume work is expensive and definitely a challenge to my poorly remembered school French! G.W.

# ---International Rock Gardener---

## ---The Beauty Slope---

It is some time since we had a report from the Beauty Slope, the garden of Zdeněk Zvolánek in Karlik in the Czech Republic.....

These photographs are by ZZ's companion, Zdena Kosourová.

Right: The Beauty Slope with some autumn foliage.

Below: *Daphne transcaucasica* on the snowy slope, taken in early February 2017, with a view to the nearby church.



DAPHNE TRANSCAUCASICA