

International Rock Gardener

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We tend to think of Siberia as being a snowy wilderness - and of course, it can be - but it is good to read about one of the areas with a rich flora from a new IRG contributor, Ole William Purvis, a lichenologist, researcher and author who shares a report from a visit he made some years ago to the [Sayan Mountains](#). From the Czech Republic, Zdeněk Zvolánek introduces the photography of Ladislav Blažej, of plants in the Pirin mountains of Bulgaria. Many of these alpine plants make excellent subjects for a trough garden – next month J. Ian Young will give some tips on how to landscape and plant up such containers to greatest effect.

The IRG began in January 2010 - at the time we thought it would be online for a year as an experiment but the ninth year of the IRG begins - there is hope that our marvellous contributors will continue their support in sharing information about the fascinating little plants of the mountains and wild places of the world with a truly international audience. All brought to your desk for free, with hopes of a wonderful year for readers and their plants alike!

Cover photo: *Ledum palustre* L., photo by O.W. Purvis, image © NHM.

In December your IRG Team was pleased to see this evidence of our 2018 Calendar (with photos kindly provided by [Cliff Booker](#)) being displayed so attractively in the office of the Tallinn Botanic Garden in Estonia. You can still download a copy of the Calendar [from this link](#).



Display of IRG 2018 Calendar by Krista Kirotar

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Alpine Plants of the East and West Sayan Mountain, Siberia:

Ole William Purvis, Taplow, England

Contact via: owpurvis@gmail.com

I would like to share a few snapshots with you - a personal selection of alpine plants* which I was privileged to photograph on my first visit to Siberia (June - July 2006). These photos were incidental to lichen field work carried out in collaboration with Dr Tatyana Otnyukova. She was interested in morphological changes in lichens and element concentrations. A particular focus was the legendary *Usnea longissima*, which in favourable localities can reach lengths greater than 2-3m.



Dr Tatyana Otnyukova with Siberian Silver Fir (in the background) festooned with the lichen *Usnea longissima*.

We were initially based at Akademgorodok, Krasnoyarsk. Tatyana, her colleagues and I then travelled south along the Yenisei River, one of the largest in the world, to our base near the (then) recently formed fabulous [Ergaki National Park](#), in the W. Sayan Mountains, 200km north of Mongolia. During our visit, we explored sites with contrasting climatic conditions and vegetation types. This included above the upper limit of the Siberian Silver Fir - *Abies sibirica* forest at circa 1500m.

Meadows and other damp places were often dominated by the bright orange *Trollius asiaticus* L. - the Asian Globe Flower, occasionally intermixed with yellow-coloured variants, often intermingled with vivid purple-blue *Aquilegia*. Higher up, at and above the tree line, some of the brightest globe flowers are considered to be a West Sayan Endemic - *Trollius vitalli* Stepanov. Near the upper limit of the *Abies sibirica* forest, the beautiful yellow *Rhododendron aureum* Georgi was in bloom. I was amazed to learn that this species takes around 20 years to reach flowering size. Higher still, I

was told that what appeared to me to be but young saplings of Siberian pine - *Pinus sibirica*, were in fact about 150 years old. Under such harsh climatic conditions, plants grow slowly. A special treat one day was visiting high mountains to search for alpine plants, particularly the legendary *Paraquilegia anemonoides*, with exquisitely beautiful violet-blue flowers. However, the weather was so cloudy and misty with intermittent rain, that we missed seeing the spectacular views. By a snow patch, a pale-yellow *Corydalis* was in flower - identified in the field as *Corydalis bracteata* (Steph. ex Willd.) Pers. Since our visit, two new yellow *Corydalis* have been described from the Krasnoyarsk region alone. On the steep cliffs above, *Paraquilegia anemonoides* was in flower, though I decided the risk to see it was not worth taking. We returned to Krasnoyarsk, visiting the impressive Sayano Susenskoe ([Sayano Shushkenskaya](#)) hydro dam en route.

I hope you will enjoy these photos. What a privilege it is to see such amazing plants in their proper habitat. In some cases, in great profusion, or to discover a little beauty nestling amongst rocks. Above all, what an immense pleasure to share all this with such wonderful people in the field.

* Some plant identifications were recorded using a digital camera in the field. Nomenclature is according to the [plantlist index](#).

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Acknowledgements

William Purvis warmly thanks the late Professor Alan Davison for his kind assistance with the grant application and the Royal Society for awarding the International Outgoing Short Visit, Dr Otnyukova, now retired from the V.N. Sukachev's Institute for Forest Research, Siberian Branch of Russian Academy of Sciences, Akademgorodok, Krasnoyarsk for organizing the expedition and Nikolai Vital'yevich Stepanov (Siberian Federal University, Krasnoyarsk), Elena Bazhina (V.N. Sukachev's Institute for Forest Research) and Mike Gilbert (Natural History Museum & Kew Gardens).

All images © NHM.



The author

Literature

Stepanov, N.V. (2010) Stories about Ergaki's plants [in Russian]:- Степанов, Н.В. Истории о Растениях Ергаков - Николай Степанов - [google books: Истории о растениях Ергаков](#)

Stepanov, N.V. (2015) [New data about yellow-flowered Corydalis \(fumariaceae\) of section Corydalis in Krasnoyarsk region. Вестник Крас ГАУ 6: 175-181.](#)

Quote re Nikolay Stepanov's book:

Sayans represent one of the few centers of Russia's richest biodiversity and are a blank spot on the "map" of biological knowledge. Especially the lack of information is felt for nature lovers. After all, when you get to such heavenly corners of the earth as Ergaki, you want to know what a blade of grass, a butterfly or a mushroom is, as their name is. In the book you will find information about the most vivid species of Ergakov plants, their characteristic features. This is intended for a wide range of readers, lovers of wildlife.

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Preparing tea. *Dasiphora fruticosa* (L.) Rydb. is in the foreground.



Dasiphora fruticosa (L.) Rydb. – previously *Potentilla fruticosa* (L.)

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Dasiphora fruticosa by the river.



Tourists picking flowers



This *Pinus sibirica* Du Tour is around 150 years old!

150 year old pine tree

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Anemonastrum crinitum (Juz.) Holub.



Aquilegia borodinii Schischk.



Aquilegia glandulosa Fisch. ex Link.





Bergenia crassifolia (L.) Fritsch

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Bergenia crassifolia



Betula divaricata Ledeb

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Far left: *Callianthemum sajanense* (Regel) Witasek
Left: *Campanula dasyantha* M.Bieb.
Below: *Clematis alpina* subsp. *sibirica* (L.) Kuntze.



Cortusa matthioli subsp. *altaica* (Losinsk.) Korobkov.



Cypripedium macranthos Sw.



Cypripedium guttatum Sw.



Corydalis bracteata (Steph. ex Willd.) Pers.



Cypripedium macranthos Sw.

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Campanula dasyantha M.Bieb.



Delphinium elatum L.



Doronicum altaicum Pall.



Erigeron sp.



Gentiana grandiflora Laxm.



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Dracocephalum grandiflorum L.



Hemerocallis minor Mill.



Above: *Iris ruthenica* Ker Gawl.

Left: *Heracleum sphondylium* subsp. *montanum* (Schleich. ex Gaudin) Briq.

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Iris ruthenica Ker Gawl.



Lonicera caerulea
subsp. *altaica*
(Pall.) Gladkova

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*Lonicera
caerulea*
subsp. *altaica*
- in fruit.



Lilium pumilum Delile



Lilium martagon var. *pilosiusculum* Freyn

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Lilium martagon var. *pilosiusculum* Freyn



Paeonia anomala L.

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Paraquilegia anemonoides (Willd.) O.E. Ulbr. – in seed.



Patrinia sibirica (L.) Juss.



Pedicularis fissa Turcz.

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Primula cortusoides L.



Rhododendron aureum Georgi



Rhododendron ledebourii Pojark.

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Rhododendron ledebourii Pojark.



Left above: *Saxifraga nelsoniana* subsp. *aestivalis* (Fisch. & C.A.Mey.) D.A.Webb



Right above: *Sedum roseum* (L.) Scop.

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Trollius asiaticus L.



Trollius vitalii Stepanov

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Vaccinium vitis-idaea L.



Viola uniflora L. with *Gentiana grandiflora* Laxm.

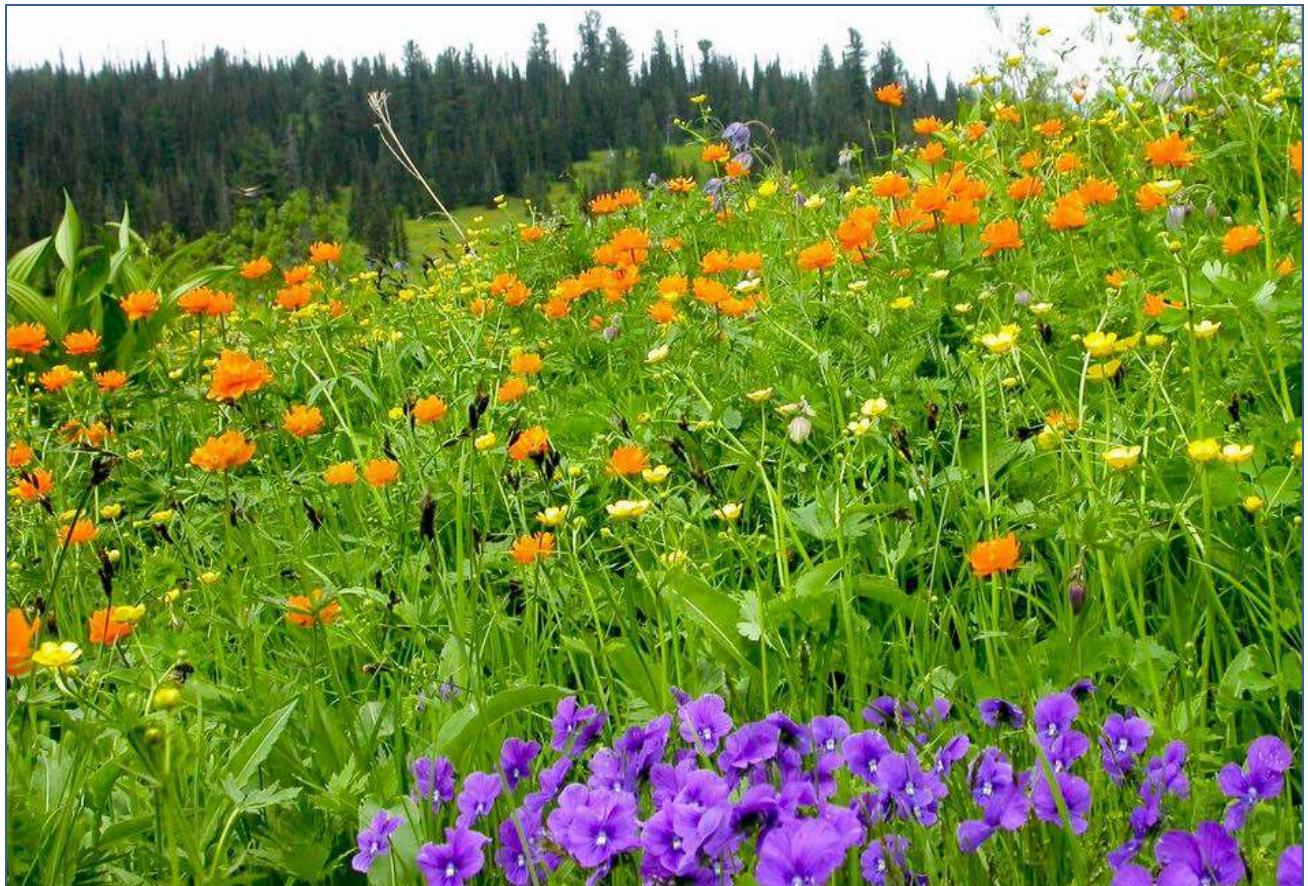


Viola altaica Ker Gawl.

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There can be little doubt that Trollius were abundant in the area at that time.



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Some plants of Mt. Vichren - text Zdeněk Zvolánek, photos Ladislav Blažej

It is always good for 'oldies' to support a few young enthusiastic rock gardeners. So I publish here ten good fresh photographs taken around Mt. Vichren in the Pirin Mountains. The Bulgarian peak Vichren is the third highest mountain in Balkan Peninsula. The young man is Ladislav Blažej, who has his rock garden 6km from my garden and he shows us the results from his new camera. Mt. Vichren resembles a marble elephant pushed up from a granite base.

Mt. Vichren

ED.: These mountains are covered in a thick layer of marble stone, heritage from the days when the Pirin Mountains were at the bottom of the sea. Glaciers that appeared afterwards destroyed the marble layer in the other parts of the mountains and they are now covered in granite. The highest sections remain marble.



Alyssum cuneifolium
var. *pirinicum*

ZZ: I think that *Alyssum cuneifolium* var. *pirinicum*, *Daphne velenovskyi* and most other alpine plants from the area do not like stronger limestone substrates having neutral soil and plenty neutral rain water.

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Androsace villosa: Very often the natural rock garden is a messy mish-mash. The fine *Androsace* suffers in this democratic society.



Arabis ferdinandi-coburgii

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Daphne velenovskyi



Saxifraga ferdinandi-coburgi - This easy Saxifraga is also named after the flamboyant Bulgarian Tsar, Ferdinand Saxe-Coburg-Gotha.



Gentiana verna var. *balcanica* prefers acid-neutral soil.

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Silene acaulis is an international alpine, better above tree line than in garden.



This is the local pale form of *Thlaspi bellidifolium*

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Saxifraga oppositifolia on Mt. Vichren often has six petals.

Comment from ZZ: My first claiming of Mt. Vichren (Vihren) was in 1975. I went slowly from this Southern saddle, Kabata, smoking cigarettes and looking for colour varieties of *Saxifraga oppositifolia*. The last attempt was in 2009 with Joyce Carruthers, when strong July rain turned us back, both cold and very wet.



Photo by Zdena Kosourová from 28th December 2017 of ZZ enjoying the view after a small hike to at the highest cliff above the village of Karlík, and just above their garden, the Beauty Slope.