International Rock Gardener

ISSN 2053-7557

Number 125 The Scottish Rock Garden Club May 2020

---International Rock Gardener---

May 2020

Some places are able to have a little more freedom from the Covid-19 lockdown situation, but I fear it will be quite some time before we are all able to meet up again and share our enthusiasm for plants, face to face. So it is still time to be grateful for the ability of the internet to allow us the chance to maintain at least a semblance of togetherness. The best news recently has been the report from southern England that Martin Sheader is making some progress in what will likely be a long recovery from Covid-19 and his travails on a ventilator. The relief felt by his family must be boundless - we wish them all well as Martin works his way back home to his plants.

Cover photo: *Crocus harpkeae* in habitat JJVV-022, photo Jānis Rukšāns.

This month we have two short pieces from John and Anita Watson in Chile, the latest Crocus species from Jānis Rukšāns, named for a tireless researcher at the Leibniz Institute of Plant Genetics and Crop Plant Research of Gatersleben in Germany – Dr. Dörte Harpke and a report from the Beauty Slope, the Czech garden of ZZZ, otherwise known as Zdeněk Zvolánek and Zdena Kosourová . We hope you enjoy these presentations. Please remember that there are links in the www.srgc.net site to all sorts of different items, from Ian Young's weekly Bulb Log to the Forum, which is open to all, not just SRGC members, and we also have the new Scottish Rock podcasts.

Perhaps now, as so many of us are restricted in our ability to travel and work away from home, it might be a good time to ask readers to consider sharing some of your plant and garden tales with us in these pages. If you've got a plant that is making a great show in your garden and giving you pleasure in its (and your) success, why not send photos and a few lines about how you are growing it to IRG. Have you been working for ages on a line of special plant breeding? Had satisfying results from home-grown hybrids, for instance? We'd love to hear from you and be able to share your story with our audience.

Do you remember the articles in IRG about the remarkable garden construction projects of all sorts, from troughs , tufa beds to montane screes, made in his garden by Jan Tholhuijsen? Why not make "how to" photos of a project you've undertaken and share them to enthuse others?

If you've been fortunate enough to develop a stunning new plant – why not tell us about it? There is so much that could be shared in these pages to help other gardeners to get more from their gardens – and with the widespread lockdowns there should be more time for you to tackle this! Even if you are taking the opportunity to spend many more hours in your own gardens, it's good to take a break now and again – if only for the sake of your back!

Send your text and photos to the IRG Editor - HERE.

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---Species Description---

***CROCUS HARPKEAE* Rukšāns – A NEW CROCUS SPECIES (*Liliiflorae, Iridaceae*) separated from the large complex of the so-called *Crocus chrysanthus* group.**

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Abstract: A new species in the genus *Crocus* from Turkey is described. A detailed description of *Crocus kurdistanicus* published and a new combination for *C. chrysanthus* subsp. *sipyleus* applied.
Key words: *Crocus chrysanthus*, *Crocus harpkeae, Crocus kurdistanicus, Crocus sipyleus,* Turkey, Iran.

Not long ago only three crocus species with annulate corm tunics and yellow flowers were recognised. Brian Mathew (1982) placed them all into Series *Biflori* Mathew. Combined together there were the broad-leaved *Crocus almehensis* from a small area in Iran, a species with very small flowers – *C. danfordiae*, which until recently was the only species where, within the same population, one could find specimens with yellow, white and blue flowers. The third yellow-flowered species that B. Mathew included in Series *Biflori* was *C. chrysanthus*. It is one of the most common and at the same time one of the most obscure crocus species that, according to B. Mathew, comprises all the possible cytotypes from 2n=8 to 2n=20, which can alone allow us to suppose that several other species are incorporated under this name.

In 2002, the Iranian botanist, H. Maroofi published a new taxon from W. Iran (Kurdistan) with small bright yellow flowers that looked very similar to *Crocus danfordiae*, but the species was separated by ~600 km from the easternmost known population of *C. danfordiae* in Turkey – *C. kurdistanicus* (originally published as a subsp. of *C. danfordiae*). Its description was very sketchy and lacked any information about essential features. It was only after Dimitri Zubov collected fresh material not far from the *locus classicus* and presented it to me that I was able to make its complete morphological characterisation and to publish it here (the data from the original description was incorporated here as well).

Crocus kurdistanicus 18IRS-020 in cultivation, left, and floral details,right.

Crocus kurdistanicus (Maroofi & Assadi) Rukšāns

Int. Rock Gard. 52: 3 (2014). Type: Iran, Kurdistan Province, Ghorveh (Qorveh), Kangareh village, slopes of Panjah-Ali Mountain, 24.02.2002, Maroofi 2657, holotype TARI. Ic.: l.c. p.3., Iran. Journ. Bot. 9(2): 234 Fig. 1.

Synonym – *C. danfordiae* subsp. *kurdistanicus* Maroofi & Assadi.
Habitat and distribution – known from the type locality and surroundings, as growing on open fields at altitudes of 1800-1920 m.
Flowering time – February-March.
Corm – depressed-globose or slightly flattened, round, 10-15 mm in diameter.
Tunics - outer coriaceous, inner thinner.
Tunic neck - up to 7 mm long, formed from triangular splits of main tunic, adpressed to stem.
Basal rings - 3, hard, upper something pronged, lower regularly toothed, longer tooth interspaced with 1-2 shorter ones.
Prophyll – absent.
Cataphylls – 3, light brownish turning darker at tips.
Leaves – 4-5, dull dark green to greyish green, at the start of blooming only slightly developed, later ending below or reaching the bottom of the flowers, rarely longer than the flowers at blooming time (according to the original description), up to 2 mm wide. Leaf surface papillose and densely hairy along the margins, the keel papillose along the margins, the white stripe very narrow, lateral channels with 1 rib in each.
Perianth tube – light yellow to creamy.
Bract and bracteole – silvery, transparent, the bracteole shorter and narrower, ends well below the flower.
Throat – nude, yellow, of the same colour as the flower segments.
Filaments – 2.5 to 3 mm long, glabrous, yellow.
Anthers – 7 mm long and up to 1.5 mm wide, yellow with short (<1 mm) black-tipped basal lobes.
Connective – white.
Style – orange, divided into 3 up to 2-3 mm long branches, gradually expanding to the tips and ending below the middle of the anthers.
Outer segments – 13-14 mm long and (4)6-7 mm wide, shiny pure deep yellow on both sides.
Inner segments – up to 12 mm long and 5 mm wide, of the same colour as the outer segments.
Capsule – dark dirty purplish brown, cylindrical, up to 17 mm long and 7 mm wide, positioned around 2 cm over ground level, seem to be self-fertile.
Seeds – when freshly collected light brown, proper seed something roundish - 2 mm wide and around 2.5 mm long with large darker caruncle and less distinct lighter rapha.
2n = ?
Etymology – named after Kurdistan Province, Iran.

Above: *Crocus kurdistanicus* cataphylls and seed pod, right: seeds.
Photos on 5mm gridlines.

Crocus kurdistanicus corm, basal rings and plate, on 5mm gridlines.

Crocus chrysanthus was originally described from the Balkans – from Rumelia by W. Herbert in 1837. The name Rumelia was ultimately applied to a province composed of central Albania and the northwestern part of North Macedonia, whose chief town Bitola is now located in the Republic of North Macedonia. According to Brian Mathew, *C. chrysanthus* is distributed from S Romania and central Bulgaria through the Balkans to W, S and central Turkey (provinces of Sivas, Gaziantep and Kahramanmaraş). In recent years investigations have been started and attempts made to separate new forms within this complex from the Turkish part of the range (Candan & Özhatay, 2013), but the descriptions of the majority of the new taxa are quite incomplete and the features used to separate some of the proposed new subspecies can be found in other distant populations as well. There's no doubt that *C. chrysanthus* subsp. *sipyleus* F. Candan and N. Özhatay (2013), because of its special anther colour - black striped yellow - deserves to be raised to species level:

Crocus sipyleus (F. Candan & N. Özhatay) Rukšāns **stat. nov.**

Basionym: – *C. chrysanthus* subsp. *sipyleus* F. Candan & N. Özhatay (2013: 427).
Type: Turkey, Manisa, Spil Mountain, horse place, alt. 1250 m., 6th March 2005, F. Candan. Holo: ISTE.

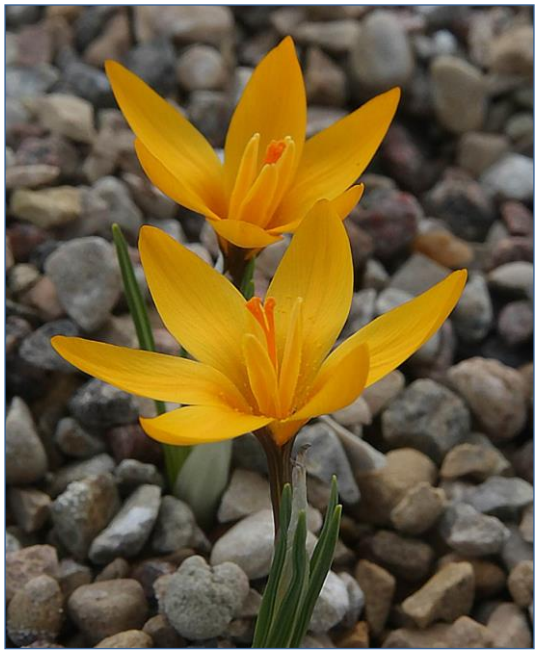
The Turkish botanist S. Yüzbaşioğlu published in 2017 a very special yellow-flowering crocus species, only 2-leafed, with annulate tunics – *Crocus tuna-ekimii* – whose leaf morphology is unusual.

Researches on gene level were carried out in the Leibnitz Institute of Plant Genetics in Gatersleben, Germany (Harpke et al. 2016; Kerndorff & al., 2017). They confirmed that hidden under the name *C. chrysanthus* were several species that even belonged to different groups. For example – the yellow-blooming *C. almehensis* turned out to be more closely related to the blue-flowering *C. reinhardii*, etc.

Crocus tuna-ekimi leaf cross-section, picture from S. Yüzbaşioğlu (2017).

Left:
Crocus reinhardii
WHIR-120.

Right: *Crocus almehensis* is a close relative of *C. reinhardii*



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During my research travels samples were collected of the so-called "*Crocus chrysanthus*" from more than 50 localities in the Balkans and Turkey. Several of them have already been published as new species – *C. gembosii* (2016), *C. henrikii* (2014), *C. muglaensis* (2014) and *C. uschakensis* (2014). There are several more on which researches are still going on; the same is true regarding the similarly large "*C. danfordiae - minutus*" complex which is represented in my collection by samples from more than 35 localities (from them one new species – *C. brickellii* was already separated in 2014).

In 2004 our team (the author, Arnis Seisums from the National Botanic Garden, Latvia and Henrik Zetterlund from the Gothenburg Botanic Garden, Sweden) passed through the Kaan Geçidi in Adana Province of Turkey, where at an altitude of 1580 m we collected a few crocus samples with already dry leaves. When they bloomed, it turned out that we had collected three different spring-blooming species [two species with annulate tunics – one with yellow, the other with light bluish white flowers (strongly resembling *Crocus kangalensis* *), and one with reticulated tunics, later identified as *C. micranthus*] and an autumn-blooming species from the *C. pallasii* group – a very few corms from each. The two yellow-flowering plants collected there looked similar to *C. chrysanthus*, though they had some distinct features; however the collected stock was too small for any definite conclusions. In 2010 together with several Czech friends (Jiři Bydžovský, Václav Jošt and Vladimir Novotný) I revisited the locality on the 7th of March. On the pass there still was some snow and we saw no flowering plants, but the somewhat lower situated yaila was almost covered with yellow flowers that superficially resembled *C. chrysanthus*. This crocus covered the entire yaila almost up to its end (which was situated farthest from the Kaan mountain pass), where a gorge opened. While gathering some plants, I immediately noticed that the corms differed from *C. chrysanthus* in several features. At the very end of the yaila the species grew below rocks by the roadside in mixed groups together with *C. danfordiae* sensu lato. Further along the road the new species was replaced by the same very light bluish white annulate crocus (*C.* cf. *kangalensis*) collected earlier on the Kaan Geçidi and on its opposite side in 2004. The *C. chrysanthus*-like species was nowhere to be seen growing together with the bluish white crocus, although *C.* cf. *kangalensis* locally formed mixed groups with *C. danfordiae*.

* *Crocus kangalensis* is described by its authors from the "environs of Kangal, Sivas Province, Cappadocia" as a rather local plant. The Kaan Geçidi is located fairly distantly therefore without checking the DNA it is not prudent to apply with certainty this name to our crocus, even though it looks very similar; its variability seems to be wider than is characterised in the original description of *C. kangalensis*.

Crocus cf. *kangalensis* JJVV-024.

Crocus cf. *kangalensis* JJVV-018.

Crocus kangalensis aff. JJVV-024 together with *C. danfordiae* sensu lato.

Left, above: *Crocus harpkeae* BATM-402 from Kaan Geçidi.

Crocus danfordiae sensu lato at Kaan Geçidi.

Crocus danfordiae sensu lato, herbarium sheet from Kaan Geçidi.

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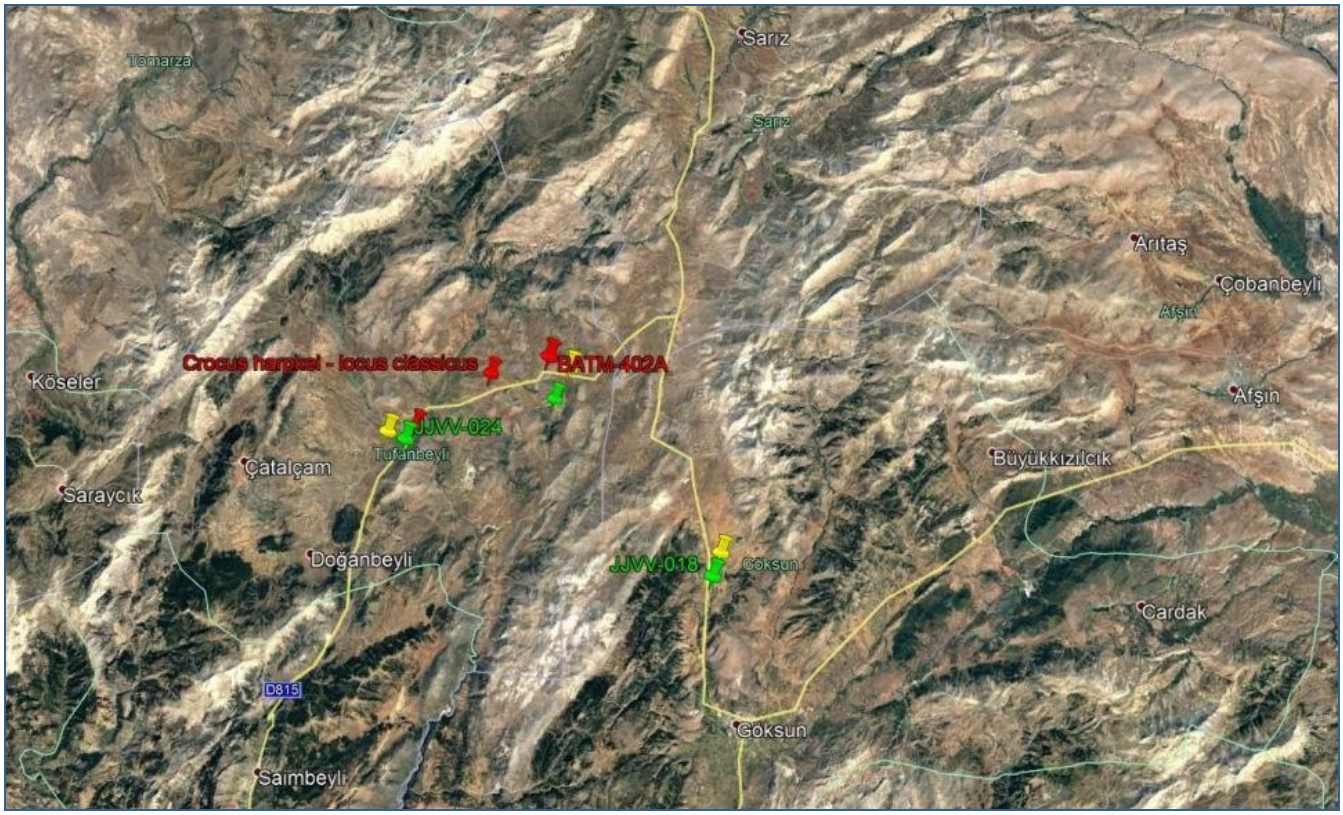
Crocus harpkeae in habitat, photo Vaclav Jošt.



Distribution area of *Crocus harpkeae* (red marks); *C.* cf. *kangalensis* (green marks); *C. danfordiae* sensu lato (yellow marks).

Crocus harpkeae in habitat JJVV-023

Crocus harpkeae from the yaila.

Crocus harpkeae (JJVV-022 - light form, JJVV-023 - deep yellow) in cultivation and habitat (on the yaila)

Crocus harpkeae Rukšāns **species nova**

Type: Turkey, Adana Province, yaila below Kaan Geçidi, 38^{0}13’ N; 36^{0}14’ E; JJVV-023, leg. J. Rukšāns, 7th of March, 2010. Holo: GAT; Isotype: GB – ex culturae in horto Jānis Rukšāns, 02-03-2016.
Habitat and distribution – known only from the *locus classicus* – a large rather isolated population on the yaila and adjacent mountain pass, growing in grass (on the pass among rocks), locally together with *Colchicum* sp. Not seen beyond the yaila and the Kaan Geçidi. Very abundantly on both sides along the Adana-Sivas road. Alt. 1400-1600 m.
Flowering time – March-April.
Corm – depressed-globose, 10-15 mm in diameter and 8-10 mm high.
Tunics – very thin, papery, with irregularly spaced basal splits.
Tunic neck – up to 15(20) mm long, consisting of elongated, broadly based triangles.
Basal rings – wide and thin, brittle, the upper edge pronged or with very minute densely spaced teeth.
Prophyll – absent.
Cataphylls – 3, white, at the top becoming creamy with ripening.
Leaves – (3)5-7, dark green with a greyish overlay, 2.5-3 mm wide. The median stripe around 1/4-1/3 of the leaf width, the keel edges and sometimes the lamina edges densely covered with minute hairs and slightly papillose on the surface; lateral channels mostly with 3 ribs in each, rarely 2 ribs in one and 3 ribs in the other or 2 ribs in either channel (10%); n = 22.
Perianth tube – creamy, suffused yellow below the flower, sometimes slightly greyish shaded in the upper part.
Bract and bracteole – silvery, ending well below the flower base, subequal or the bracteole a few mm shorter than the bract.
Throat – nude, not very distinct, only slightly darker yellow than the ground colour to somewhat orange with a diffused upper edge.

Filaments – 5-**5.5**-7 mm long, dark yellow, glabrous or slightly papillose in the basal half.
Anthers – 8-**9.5**-11 mm long, yellow, basal lobes narrow, acute, up to 1 mm long, pure yellow or rarely with black tips, generally when the outside of the outer segments is flushed greyish.
Connective – creamy.
Style – yellow turning orange-red, at the start of blooming ends below the tips of the anthers, with age reaches them or grows slightly longer, at the tip divided into three (4)5-7(10) mm long branches, which at the very top are shallowly subdivided, forming a wide crest-like stigma.
Flower segments – obovate to narrowly obovate with rounded or obtuse tips, mostly bright yellow on both sides.
Outer segments – 27-**30.5**-36 mm long and 11-**13.5**-18 mm wide, yellow to orange-yellow on both sides, sometimes on the outside with a small, rhomboid, greyish basal blotch, very rarely the outside flushed greyish throughout.
Inner segments – 25-**28.5**-34 mm long and 10-**12.5**-17 mm wide, similar in colour to the outer segments, only the outside without the greyish overlay if such is present on the outer segments. If the rhomboid basal blotch present, it is smaller than that on the outside of the outer segments.
Capsule and seeds – not observed.
2n = unknown.
Etymology – named after Dr Dörte Harpke – leading researcher of the genotypes of crocus species, she works in the Leibnitz Institute of Plant Genetics in Gatersleben, Germany.

The new species has flowers which superficially resemble *Crocus chrysanthus*, but is easily separable from the other similar species researched at present. The most important morphological feature separating this crocus from the other so-called "*chrysanthus*" crocuses are its very thin, papery tunics with a comparatively long neck, whilst in other species the corm tunics are hard and leathery. Later observations showed that the basal rings are different as well: they are similarly thin and brittle with only a pronged upper edge or occasionally it has densely spaced very minute, somewhat triangular teeth. The edge of the basal rings in the majority of the observed species with a similar flower colour and basal rings has more or less prominent teeth. This complex of features allowed to regard it as sufficiently different and worth of its own species name.

Crocus harpkeae holotype herbarium

Crocus harpkeae isotype herbarium

Crocus harpkeae corms, tunics, above, tunic necks below. 5mm gridlines.

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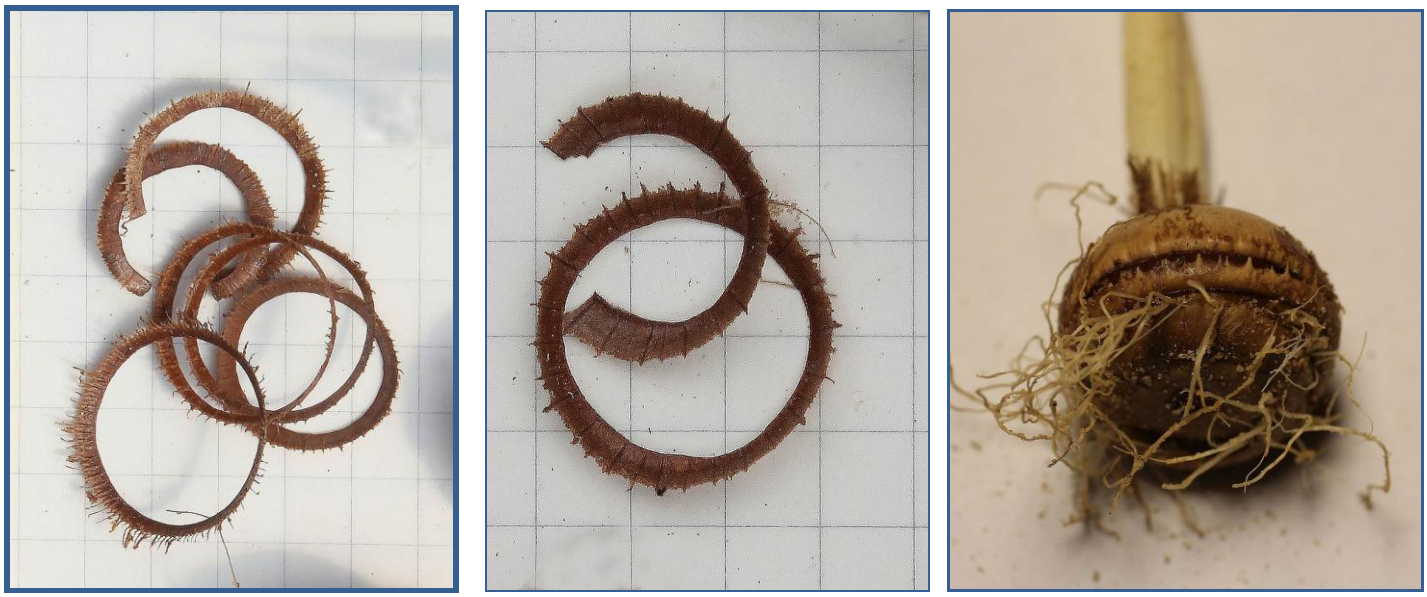
Basal rings of different species formerly regarded as *Crocus chrysanthus*: a - *C. harpkeae*; b - *C. chrysanthus* 13MCY-056 from approximate *locus classicus*.



Basal ring comparison continued: c - *C. gembosii*; d - *C. muglaensis*; e - *C. uschakensis*.

Acknowledgments
I want to express my greatest thanks to my long-time travel partners Václav Jošt and Jiři Bydžovský (both from the Czech Republic), Dimitri Zubov (Ukraine), Henrik Zetterlund (Gothenburg Botanical Garden, Sweden) and Arnis Seisums (Latvia). Of course, my thanks go to my regular language consultant Mārtiņš Erminass. And I am especially thankful to my family and my wife Guna in particular for the hard work at the nursery during my absence while in the mountains.

Crocus harpkeae in habitat – photo V. Jošt.

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Vladimir Novotný (who sadly died some years ago) and Vaclav Jošt picturing some *Colchicum* sp. near Kaan Geçidi.

Be sure to call it a type of botanical deed poll, not a dead pool. Recent new changes of nomenclature for five South American Hippeastreae

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Background

Last year John published a brief postscript to a main article (Watson 2019) selectively listing recent important name changes of Amaryllidaceae from Chile and Argentina which are cultivated, seen by members of ecotours, and illustrated in field guides (e.g. Hoffmann et al. 1998, 2015, Sheader et al. 2013). Most of these bulbous plant epithets were new at generic level, making them particularly unrecognisable for most who knew them by such long-standing familiar appellations as *Rhodophiala*, *Famatina* and *Placea*. We were reporting from a paper coauthored among others by two experts who specialise in this group, our Chilean friend and colleague Nicolás García and Alan Meerow, whom we also know (García et al. 2019). We accidentally omitted to include a very significant species as cultivated, which is now added below.

Fig.1: *Paposoa laeta* (Anita Flores)

On the 30th of April of this year Nicolás sent us and much of the botanical and botanically interested community in Chile an electronic link to a recently published paper by Alan and himself (García & Meerow 2020) which corrected some nomenclatural errors in their original revision of 2019. These had come to light since. Of course, a well-known scientific fact tells us that any taxonomy can be out of date or revealed as erroneous from the moment it's published, and that much has been and will continue to be.

So we also list below with their new names four which were made known to readers originally via IRG 117 in 2019. They're accompanied by short explanations.

Taxonomy

Paposoa laeta (Phil.) Nic. García [Fig.1].
Basionym: *Rhodophiala laeta* Phil.
Synonym: *Eremolirion laetum* (Phil.) Nic. García.

Comment: It all began with the realisation by Ravenna that the species is not a *Rhodophiala*, and its consequent transfer to the similarly named *Rhodolirium* in 2003. The next move came when it was appreciated it also differed from that one too, resulting in the creation of a new genus for it alone in 2019, *Eremolirion*. Richard Dawkins has commented that if the fanciful appearance of faces did not appear on the top of pastries and bread crust from time to time, or clouds failed occasionally to look like animals, it would defy the law of infinite possibility. This species has just provided another example of such scarcely credible coincidences. Nicolás (García & Meerow 2020) records the recent discovery of a genus called *Eremiolirion* in a quite different family (Manning et al. 2005), as if one such unusual Latin name wasn't rare and remote enough as it is! And published a mere fifteen years ago to boot. Botanical Code rules (Turland et al. 2018) oblige the provision of a new name when two are so similar they might be confused. So here we are in 2020 with *Paposoa*, as derived from the northern Pacific coast location of Chile, Paposo, where this geophyte occurs.

Fig.2: *Zephyranthes gilliesiana* (John Watson)

Zephyranthes gilliesiana (Herb.) Nic. García [Fig.2].
Basionym: *Habranthus bagnoldianus* var. *gilliesianus* Herb.
Synonyms: *Zephyranthus cuyana* Nic. García, *Rhodophiala mendocina* (Phil.) Ravenna, *Habranthus mendocinus* Phil., (plus three more).
Also: *Rhodophiala elwesii* auctt., sensu non C.H. Wright nec Traub.

Comment: The need to provide a replacement name here arose with the detection a short while ago of the legitimate original name for this plant, *H. bagnoldianus* var. *gilliesianus*, which rendered the new 2019 epithet of *cuyana* superfluous, and required that it be superseded by the new combination and status employing Herbert's variety, *gilliesiana*.

Fig.3: *Zephyranthes gracilima* (Courtesy Instituto Darwinion, Buenos Aires)

Zephyranthes graciliflora (Herb.) Nic. García [Fig.3].
Basionym: *Phycella graciliflora* Herb.
Synonyms: *Zephyranthes capitata* Nic. García, *Phycella herbertiana* Lindl., *Famatina saxatilis* Ravenna, (plus eight more).

Comment: A similar situation arose with this species, the original epithet in this case again one of Herbert's, *graciliflora*, with *capitata* of Nic García the unfortunate superfluous victim.

Zephyranthes tenuiflora (Phil.) Nic. García.
Basionym: *Hippeastrum tenuiflorum* Phil.
Synonyms: *Zephyranthes philippiana* Nic. García, *Rhodophiala andina* Phil., *Famatina andina* (Phil.) Ravenna, (plus eight more).

Comment: for our final example resulting from the uncovering of correct names from the past for this confusing and difficult genus, we turn to the renowned historical explorer and botanist of Chile Rudolph or Rodolfo Philippi, whose *Hippeastrum tenuiflora* has been revealed as the correct basic name for a familiar species we know from central Chile. Unfortunately it is still confused with another very superficially similar but more common *Zephranthes* so photos that appear under its binomial online can't be trusted. Our original colour slides of the early 1990s are not readily accessible either, so we're unable to illustrate it here. It can be seen though as an excellent botanical painting in Hoffmann et al. (1998: 247, fig.4, in that publication)

Addendum

In our original article we omitted one well-known and often grown species endemic to a wide area of southern South America, which had been given a new name in the original paper (García et al. 2019).

Zephyranthes pedunculosa (Herb.) Nic. García & S.C. Arroyo [Fig.4].
Basionym: *Habranthus pedunculosus* Herb.
Synonyms: *Habranthus tubispathus* Pax, non Baker, *Zephyranthella tubispatha* Pax, (plus five more).

Fig.4: *Zephyranthes pedunculosa* (Courtesy Flora bonaerense)

Acknowledgement

Certainly our gratitude is owed to Nicolás García for making this information available by an e-mail which was distributed widely to interested parties.

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Fig.1: *Cistanthe floresiorum*. Atacama Region, Chile (19 Oct. 2008. JMW)
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Prelude. The first of two renamed species from the north of Chile, this one a *Cistanthe* (Montiaceae)

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Background

There are several reasons for the particular interest we pair of Watsons have in the genus *Cistanthe* as whole. One is the discovery by Anita's parents of a new species, *C. floresiorum* [Fig.1], which was named for the family by myself (Watson 2019). Following on from that, another new species has been found by our late friend Carlos Celedón, which is in the process of being published. Above all, we've spent much time both observing the northern Chilean Pacific coastal species in the wild and researching them to include in the floral contents of an intended one or two volume dicotyledon follow-up to our monocotyledon field guide of the same sector (Hoffmann et al. 2015). This included during 16 field trips to as distant as 1700 kms north of our home in Los Andes from 1999 to 2005 and an earlier one in 1991. Imagine our disappointment and deep frustration when this project was cancelled in 2018. By way of compensation though, we did at least find new plants, enjoyed the 'outings', and usefully increased our overall knowledge of Chile's flora. The importance of the dozen or so species exclusively or mainly inhabiting Andean zones, e.g. *C. humilis* [Fig.2] is as an integral part of our perpetual interest in mountain plants.

Fig.2: *Cistanthe humilis*. San Juan Province, Argentina. (10 Feb 2011. JMW)

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A chance encounter

While trying to answer a query about species of the genus from a friend and colleague who lives in '*Cistanthe* country', we happened on the following in IPNI (2020):

Hershkovitz is the current leading authority on the Montiaceae, not least *Cistanthe*, apparently the family's largest and least understood genus, and has contributed greatly to our knowledge of it, including throwing light on some of its darker corners. But he made an unfortunate error in a recent paper (Herschkovitz 2019) when he published a new species by citing its type as a "lectotype" and not a type as such (IPNI 2020), as required by Article 46.6 of the International Code of Nomenclature (ICN 2012).

Since our next offering on a large scale for the IRG is to be another species in need of renaming, one of our own this time, it seems to be appropriate to introduce the theme here separately with this brief equivalent, rather than over-egging the pudding in the same issue.

Taxonomy

Cistanthe neonominata J.M. Watson, sp. nov.

Synonym: *Cistanthe subspeciosa* Hershk. Phytoneuron 2019-27: 56 (2019), nom. inval.

Type: CHILE. Atacama Region, Tierra Amarilla Province, Tierra Amarilla, ca. 700 m, September 1924, Werdermann 405 (holotype E, isotypes F, U)

Diagnosis: The renamed species belongs in *Cistanthe* Spach sect *Cistanthe*. It is morphologically similar to *Cistanthe cabrerae* (Añon) Peralta, *Cistanthe cachinalensis* (Phil.) Peralta & D.I. Ford (syn. *Cistanthe taltalensis* I.M. Johnst.) and to *Cistanthe grandiflora* (Lindl.) Schltdl., but is distinct from those presently accepted taxa in its 80-100 as opposed to ca. 50 stamens in fully developed flowers, and the long exserted style of 15 mm, rather than their shorter style of <10 mm. It also differs from *Cistanthe laxiflora* (Phil.) Peralta & D.I. Ford by its non-fruticose growth form as herbaceous to suffruticose, and its aphyllous, not foliate, floral stems.

Etymology: In order to make clear in a genus with much confusing, alternative and misunderstood taxonomy, it was decided to indicate that this taxon bore a new name, as signified by the Latin equivalent, *neonominata*.

Note: No explanation for the specific epithet *subspeciosa* was given in its publication.

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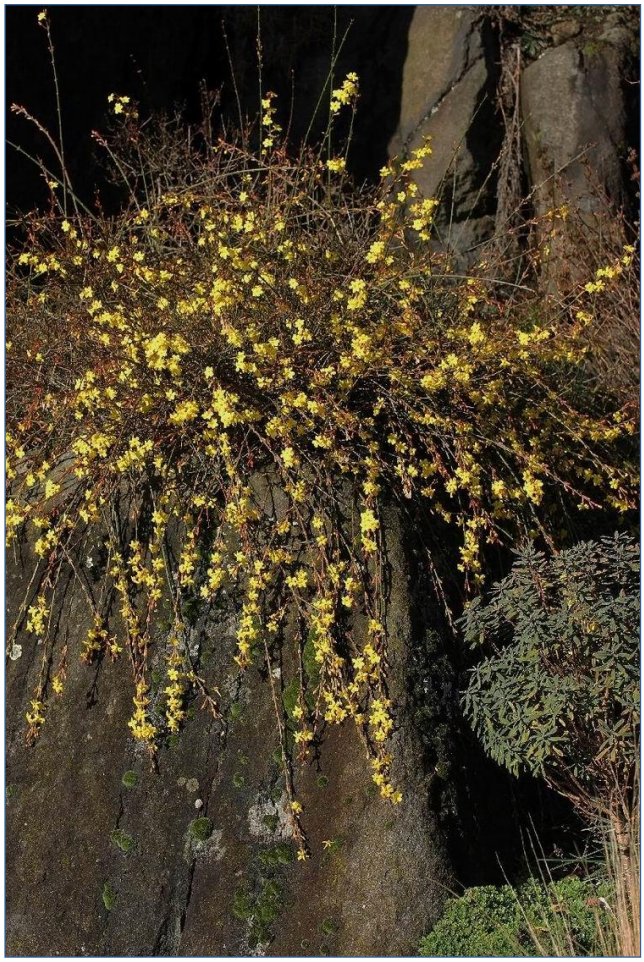
Spring Record from the Beauty Slope by ZZ

Church under Brdy Hills, seen from the Beauty Slope.

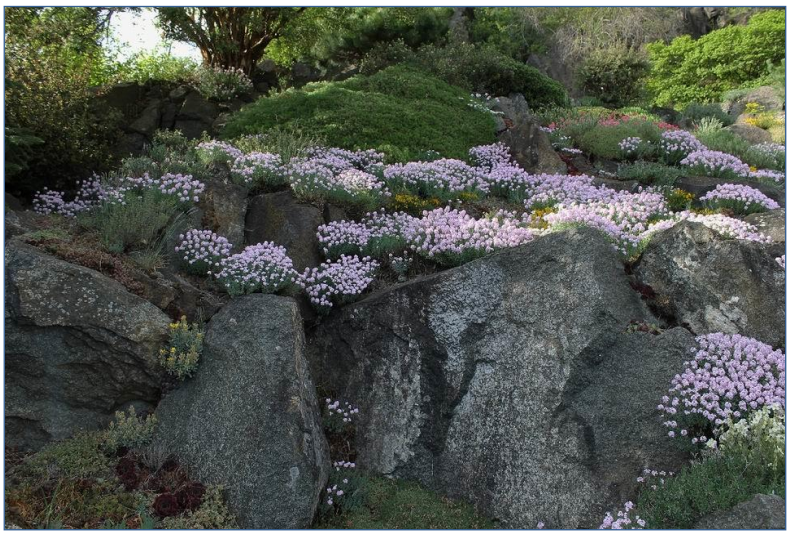
After a short winter recovery from the painfully dry year in 2019 we jumped into a very warm February with plenty of *Cyclamen coum* and blooming new apricots plumcots and pluots. Of course, we then had punishing frosts in March which killed nearly all blooming tree flowers (both pluots ´Flavor Queen´ and ´Dopple Dandy´ has only a dozen green baby fruits now). The first golden yellow flowers were seen as usually in the vivid ***Jasminum nudiflorum*** falling above large rocks. It is a quite hardy shrub here in the Czech Karst, though not easy to keep it in modest slow growth mood.



Jasminum nudiflorum

These remarks to an army of pictures are written during the pink period (artists colour trend) when is our slope under spell of Aethionemas. The main actor in this long lasting play has for the last 30 years been ***Aethionema grandiflorum*.** This is a self-sowing robust darling shrublet from Anatolia with no need for watering or care. For more a alpine looking pink aethionema, I introduced from Eastern Anatolia the dwarf compact ***Aethionema pulchellum*** (the Flora of Turkey was not able to offer me a better synonym name). This charming plant is also very easy in my xeric condition. A little more demanding is the true alpine ***Aethionema subulatum*** from the limestone alpine slopes of the Dedegol Mts. in Western Anatolia. This is shy to sow itself around and suffers in tropical heat, so I keep my small herd in eastern exposures. Really miniature is ***Aethionema schistosum*** from Eastern Anatolia (Joyce Carruthers found this lovely plant in seed during her morning toilette in a shrubby area close to the steppe ground level). Our slightly alkaline soil is fine for many Turkish plants.

View with *Aethionema grandiflorum.*



Left: *Aethionema pulchellum*

Below: *Daphne cneorum* and *Aethionema pulchellum*

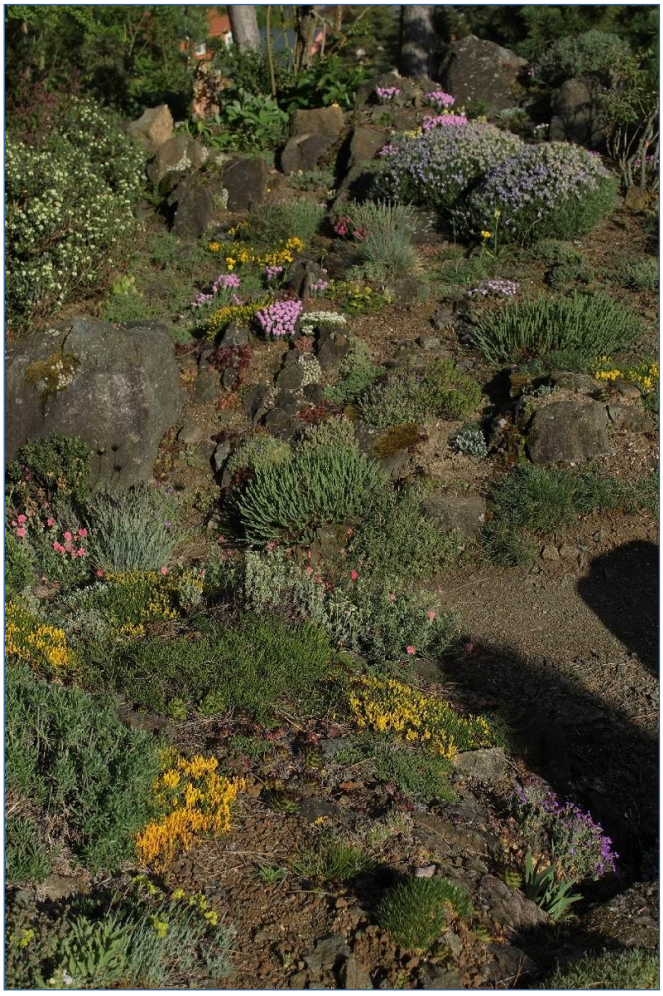
Aethionema subulata and *Paeonia tenuifolia.*

Right: *Aethionema schistosum*

Just at the end of pink period flat yellow shrublets from Turkey slowly infiltrate the rock garden with their own seeds. This is ***Genista lydia* var. *lydia*** from my collection made a few hundred metres above cool Lake Abant in NW Turkey (about 1200 m above sea level). This beauty is as tough as a tiger and covers itself under slim cap flowers. The size of a little over 30 cm across is acceptable. The communist rule “trust but control” is recommended. It is designed for dry and hot gardens and surely will exist after my departure. Much

larger is its yellow leguminosae cousin ***Cytisus decumbens*** which blooms at the spring time of **Chaenomeles x ´Kermesina Semiplena´**.

Genista lydia var. *lydia*



Cytisus decumbens and Chaenomeles x ´Kermesina Semiplena´.

A real small treasure is the soft yellow **Degenia velebitica,** which is scarce in its native rocks of Croatian Velebit Mts. It needs more of a north eastern position to protect it from our very generous photons. Easy from propagation (its own seed from the decorative bubble seed pods).

Above: *Iberis saxatilis*

Left: *Rosa hugonis* and *Phlox*

April was lightened with yellow blooming of the priest´s ***Rosa hugonis.*** Simple two-tone flowers are quickly sprinting to its hips and the red skin of branches is the ground for sharp spines. Our dry garden is easy to overload with compact ***Iberis saxatilis*** with its camera fooling intense whites.

The terrains south of Turkish capital Ankara are homeland of ***Chamaecytisus pygmaeus.*** This flat shrub is quite variable, some forms covers the rock garden at a nice speed.

Lovely adaptability to lightly shaded drier places comes from the blue ***Anemone bl*anda** from Greece. This spring we enjoyed large blooming of ***Anemone*** ´**White Splendour**´.

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The nasty weed in the Czech Karst´s garden is ***Aubrieta gracilis*** and its sisters. They are speedy cover plants with super germination at every place. Karst area is rich in insects including butterflies and small spiders; they offer the best diets to singing birds (earliest morning and after sunset).

I am always sad with the short flowering time of pretty members of the large Iris family. ***Iris paradoxa*** is the example doubled with bad erection of pretty flowers. The colour is superior to *Iris sari*, which is boring with unlucky Turkish varieties, so I did not photograph it.

Iris paradoxa

Chamaecytisus ardoinii from the Maritime Alps is hardly seen in gardens: My plant originated from an exchange of material with great Mr. Hillier in 1970´s. Keep it out of too dry and hot places, please.

Red Caucasian paeonies are weeds at our slope so I admired short flowering period of ***Paeonia caucasica* f. *alba***. ***Paeonia rockii*** (below) is a Chinese shrubby species possible to grow from seed but the germination is not generous for me. Is it a kind of a punishment that I never collected seeds in China?

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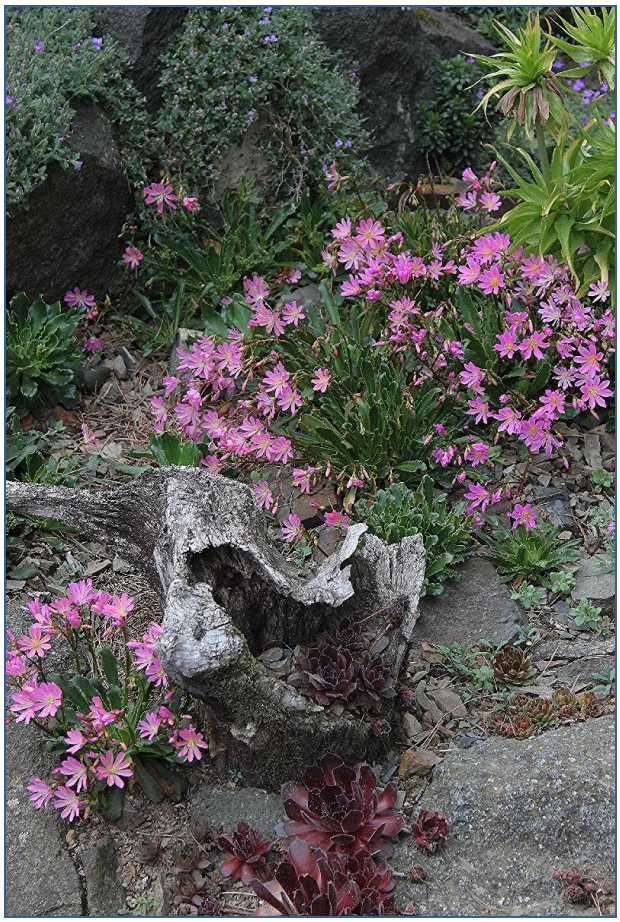
Paeonia caucasica f. *alba*

Eastern phloxes must be protected in a garden where the gardeners do not play at watering. ***Phlox* x ´White Admiral´** showed its possibilities because of one generous rain in March.

I planted ***Lewisia tweedyi*** under roof overhang and grow it in big pot with more acid soil in sandstone crevice and water with rain water. Success is seen. Zdena made two experiments with ***Lewisia cotyledon*****.** One was in a corner of the rock garden in full sun, the second under a pinched Scotch pine. Both obtained gritty acid soil and rain water injections plus the powder of symbiotic fungi called Symbivit. One group has plain pinkish flowers and the second is a mixture of Josef Holzbecher´s selected plain colours.



Light orange *Fritillaria eduardii* var. *inodora* was the first one hit by March frosts. Red ***Fritillaria imperialis*** ´**Rubra**´ was knocked down too but both stood up after their fall.

Salvia caespitosa from the Ala Dag Mts. is a vigorous shrub for robust rock gardens with white-rose large flowers. The ripening branches lying on the surface of stones are prepared for nice blooming in May, later setting black round seeds in the open seed cups.

Sue, the wife of Robin White (the king of Daphnes) sent me good form of ***Rhodanthemum mariesii*****.** This perennial Moroccan daisy from Atlas Mts. in North Africa is the winner in rich blooming and hopefully hardy in Czech continental climate.

Our May appeared in early April when the crabapple, ***Malus*** ´May Pole´ opened its flowers near our dark coloured dolerite cliff.

I was careful with the fussy Spanish ***Geranium cinereum*** to avoid baking it**;** planted in a tufa scree it is showing a lot of flowers in a young specimen. This species has long flowering period and good size of pink flowers over neat small foliage.

Penstemon davidsonii var. *menziesii* 'Merry Widow'

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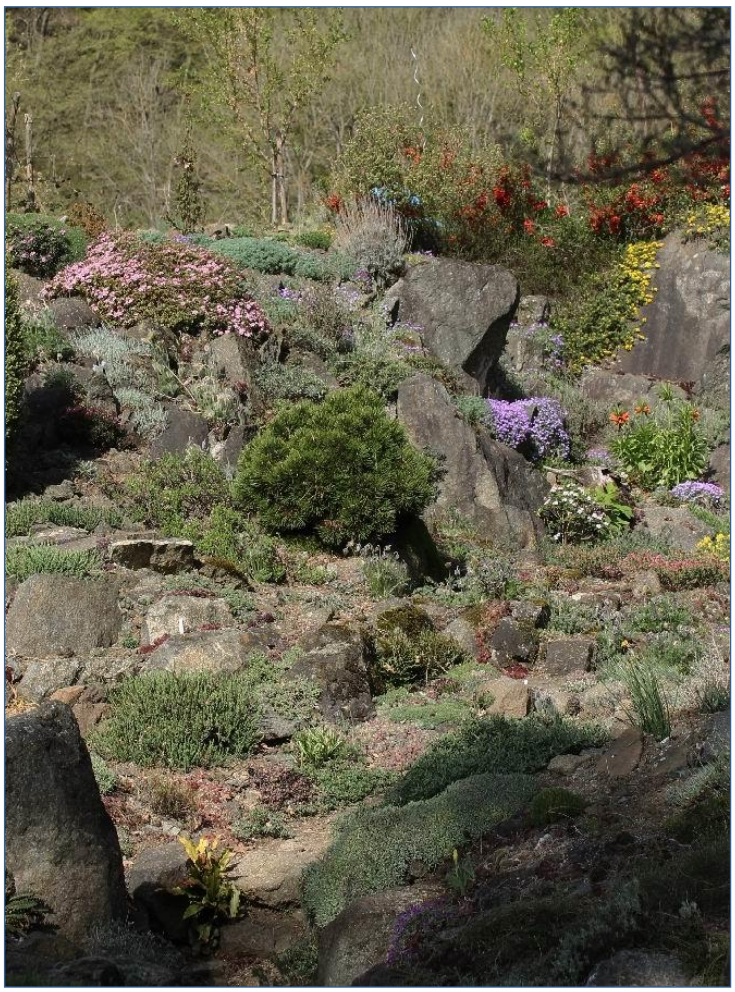
I have been for nearly 50 years admirer of American shrubby Penstemons (the Dasanthera Section). They are ideal for rock gardening but practically none of them are suitable for dry and hot places and continental winters with irregular snow cover. Changing temperatures and spring sun in frosty days kill branches and dry their bushes into death. The worst problems were with ***Penstemon davidsonii* var. *davidsonii.*** A great change comes when Oluna Ceska from Victoria, BC collected ***Penstemon davidsonii* var. *menziesii*** from limestone Mt. Merry Widow in North wilderness of Vancouver Island. She gave me a sample and it is the winning Dasanthera in our steppe condition.

The Genus *Edraianthus* has fantastic diversity in the Balkan Peninsula. Many small treasures were introduced after our Czech seed collector´s activity but only one is able to survive in cruel lowland conditions without regular watering and shading. I lost many of them and at present only one shows happiness at our slope. Shown,left, is the very variable ***Edraianthus* aff. *graminifolius*** from Suva Planina in Northern Macedonia. It is small and strong.

I killed many dwarf conifers in my semi desert condition here but one is steadily better and better. It is Montenegrin ***Pinus heldreichii* ´Schmidt´** planted with a northern exposure.



It was in Bavaria where I bought relatively small natural hybrid ***Syringa* x *persica***. It is jailed in shallow soil so it looks a little bit crippled with height of 120 cm after a decade.

Our German friend introduced us to new hybrid between ***Phlox kelseyi* and *P. borealis***, which we named ´**Wolfgang´.** It is distinct from both western and eastern Phloxes showing good vigour in our tufa raised bed.

Accommodating smaller members of the Genus *Eriogonum* is my permanent interest. This dwarf is the Californian ***Eriogonum douglasii***.

I had no intention to plant plenty of Helianthemums but they took their seats themselves with prolific seeding abilities. Unnamed seedlings are the most hardy, named cultivars elegantly disappeared. A fine species is the compact yellow Spanish ***Helianthemum lunulatum*** which comes later into bloom.

Hybrid Helianthemum

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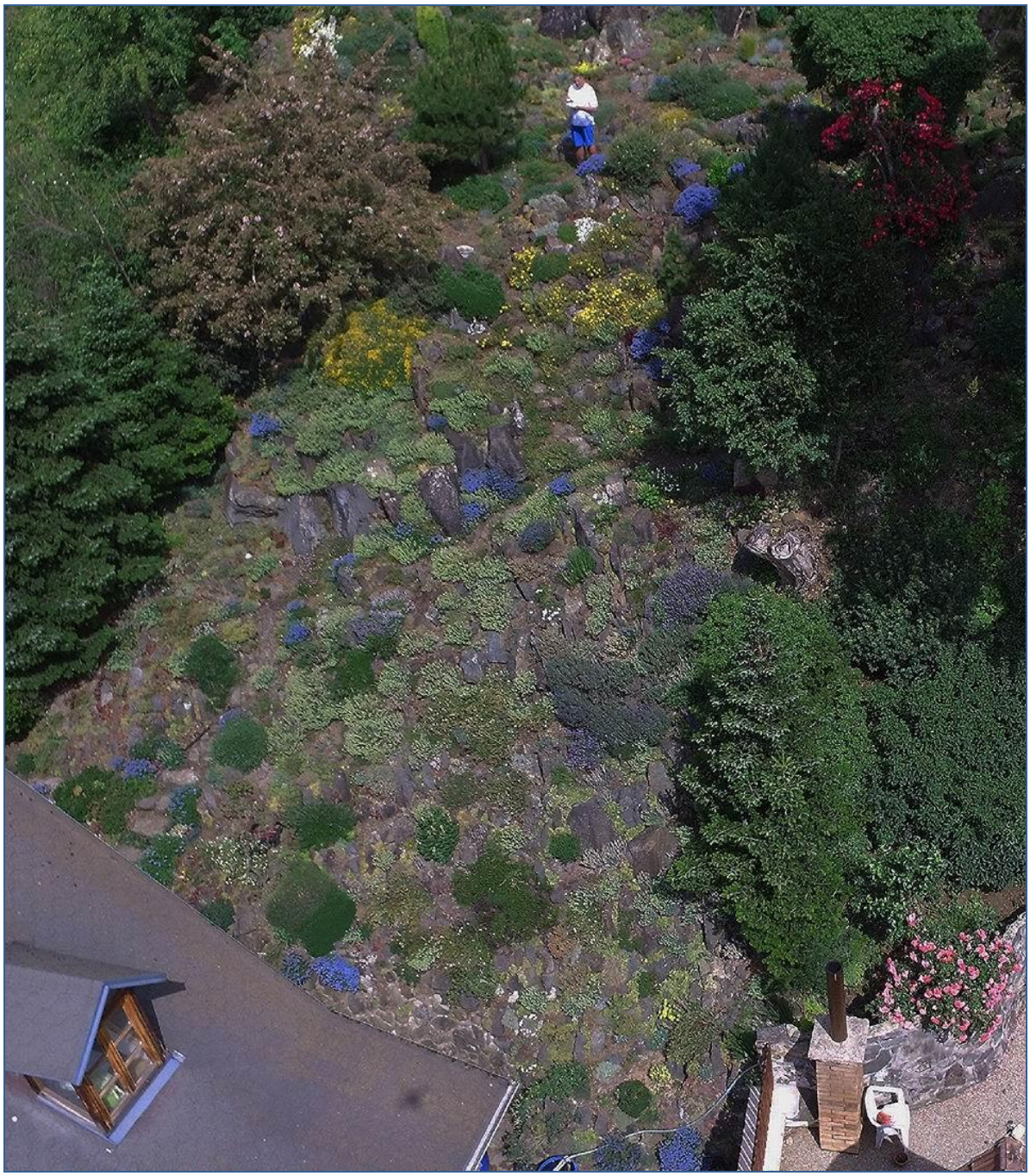
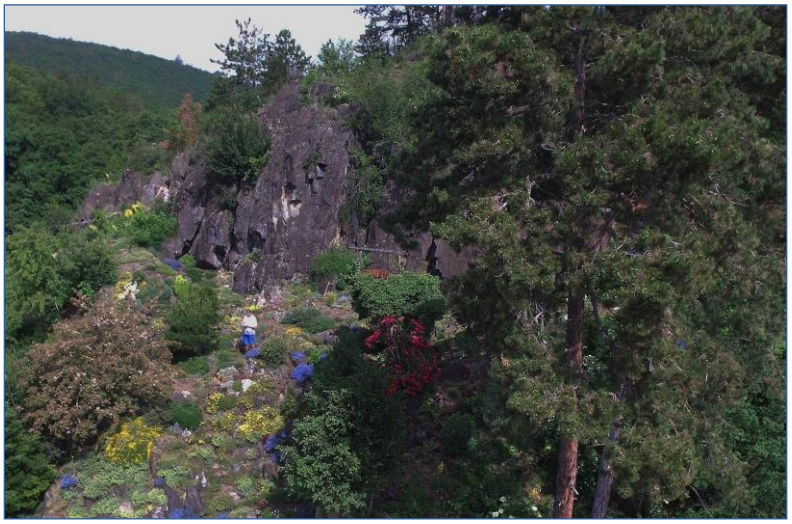
A great surprise to us are the yellow hybridizing species of flax; ***Linum capitatum*** and ***Linum elegans*** - hybrids are improving the beauty of our slope in all northern aspects and semi shade places. The picture is of blooming big plastic potful at our yard.

Various shades of pink lend colour to the Beauty Slope.





The rose-pink colour period is ending and the Croatian ***Moltkia petraea*** is preparing to take the main role in the blue period because I have plenty of them planted and seeded. They can be seen in these pictures taken by a friendly drone.

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