

# International Rock Gardener

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A new species of *Eranthis* from Iran is described by Jānis Rukšāns – this genus is a valuable one for early season colour in the garden and is justly popular for its bright yellow flowers at a time when such colour is so much appreciated. Elsewhere in this issue we have comments on the growing and name changes of *Lesquerella*, the former name of a genus of flowering plants in the family Brassicaceae from the Czech gardener, Zdeněk Řeháček.

Vlastimil Pilous, another Czech, takes as his subject the pipevine, Dutchman's pipe or birthwort, *Aristolochia* – these are plants with a wide distribution which have previously been much used in medicines, but which are now known to be toxic. The plants are the food of various butterfly larvae, rendering them unpalatable to predators. *Aristolochia* can be found in many countries though some are now under threat.



*Aristolochia californica* - The small flowers are very interesting and are grown to attract larvae of the native Pipevine butterflies, *Battus philenor*. Image from the SRGC Forum by Robert Barnard, USA.



Pipevine Swallowtail (*Battus philenor*) butterfly in Nashville, Tennessee – image by Ryan Kaldari.

Final item this month is news of the 4<sup>th</sup> International Czech International Rock Garden Conference, taking place from 5<sup>th</sup> -9<sup>th</sup> May 2023.

Cover image: *Eranthis kurdica* sp.nov. on a pass near Qamchiyan, Kurdistan Province, Iran - photo Jānis Rukšāns.

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## --- Species Description ---

### A new species of winter aconite (*Eranthis*, Ranunculaceae) from Iran

Jānis Rukšāns, Dr. biol. h.c. (Latvia)

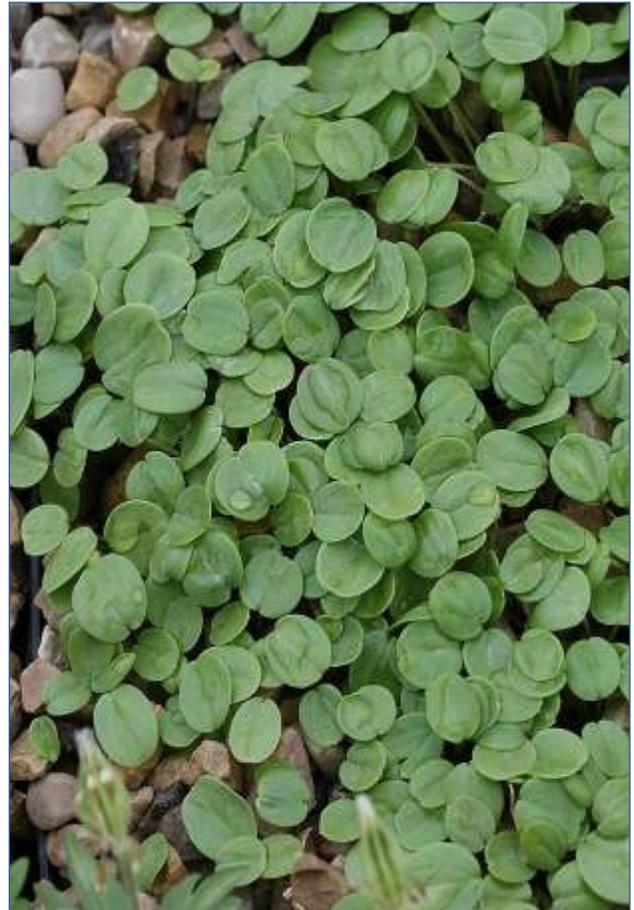
[janis.bulb@hawk.lv](mailto:janis.bulb@hawk.lv)

Published IRG 151 28<sup>th</sup> July 2022.

**Summary:** species of *Eranthis* from Iran, Turkey and Europe are discussed; a new species *Eranthis kurdica* species nova is described.

**Key words:** Iran, Turkey, S Europe, genus *Eranthis*.

Winter aconites (*Eranthis* Salisb.) are very popular garden plants. At present all the species of winter aconites are arranged into two genera – the true *Eranthis* with yellow flowers and two seed leaves or cotyledons and *Shibateranthis* Nakai with white flowers, one seed leaf (the 2<sup>nd</sup> seed leaf is aborted) and small, round spherical tubers.



Left: Two seedling leaves of true yellow blooming species of *Eranthis*.

Right: One seedling leaf of white flowering species of *Shibatheranthis*.

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In a typical *Eranthis* the flower “sits” within a rosette of leaves, whereas in *Shibateranthis* it is positioned on a pedicel that bears the flower at some distance from the leaf rosette. The Central Asian *Eranthis longistipitata* Regel and *E. iranica* Rukšāns & Zetterlund from the Kopet-Dag Mountain Range are rather special with yellow or orange-shaded flowers that are placed on a pedicel that initially is short but elongates significantly during the flowering. As both species have two seed leaves, they belong to the genus *Eranthis* regardless of the pedicellate flowers typical of the species of *Shibateranthis* (not all botanists support this splitting). Their tubers are small, subglobose with many very small daughter tubers weakly attached to the main tuber from which arise one or two radical leaves.

The most widely grown species is *Eranthis hyemalis* (L.) Salisb. (syn.: *E. bulgarica*, *E. hyemalis* var. *bulgaricus*). It is native to the European woods from SE France through Italy to the Balkans and through naturalization from garden populations it has now spread across large parts of Europe and North America. It is one of the first yellow-flowering bulbous plants of early spring that emblazons shady places together with snowdrops and snowflakes. Many cultivars have been raised, mostly recently, when some kind of “eranthophilia” similar to the other flower “philiacs” have taken place (Boens, 2014). *E. hyemalis* with its bright yellow flowers has been growing in gardens for well over 400 years. Its tubers are knobbly and uneven.



*Eranthis hyemalis*

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*Eranthis hyemalis*



*Eranthis hyemalis*

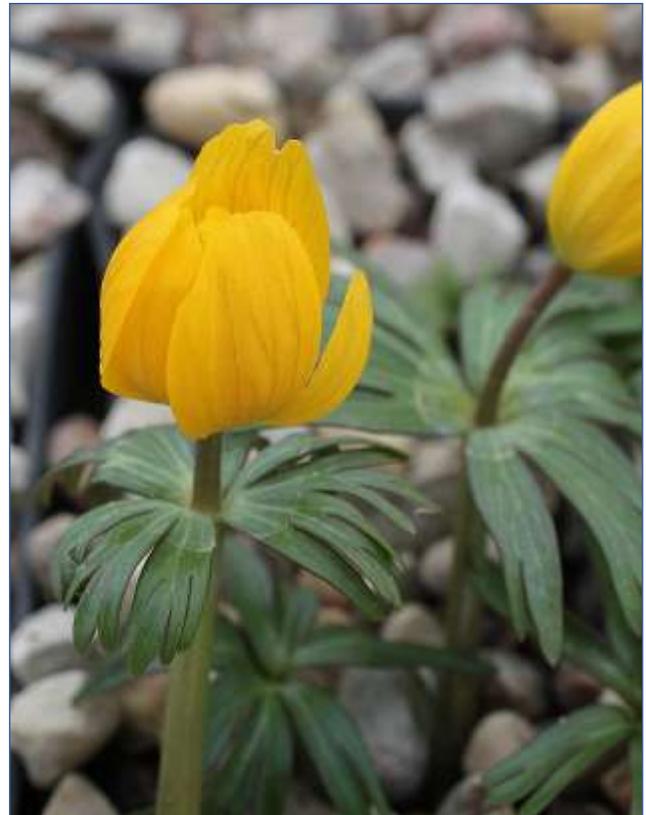
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*Eranthis cilicica* and *Crocus concinnus* on Irmasan gec. near Akseki, Turkey.



Left: *Eranthis cilicica* R2CV-039 from Gembos yaila in Turkey.



Right: *Eranthis longistipitata* from Uzbekistan.

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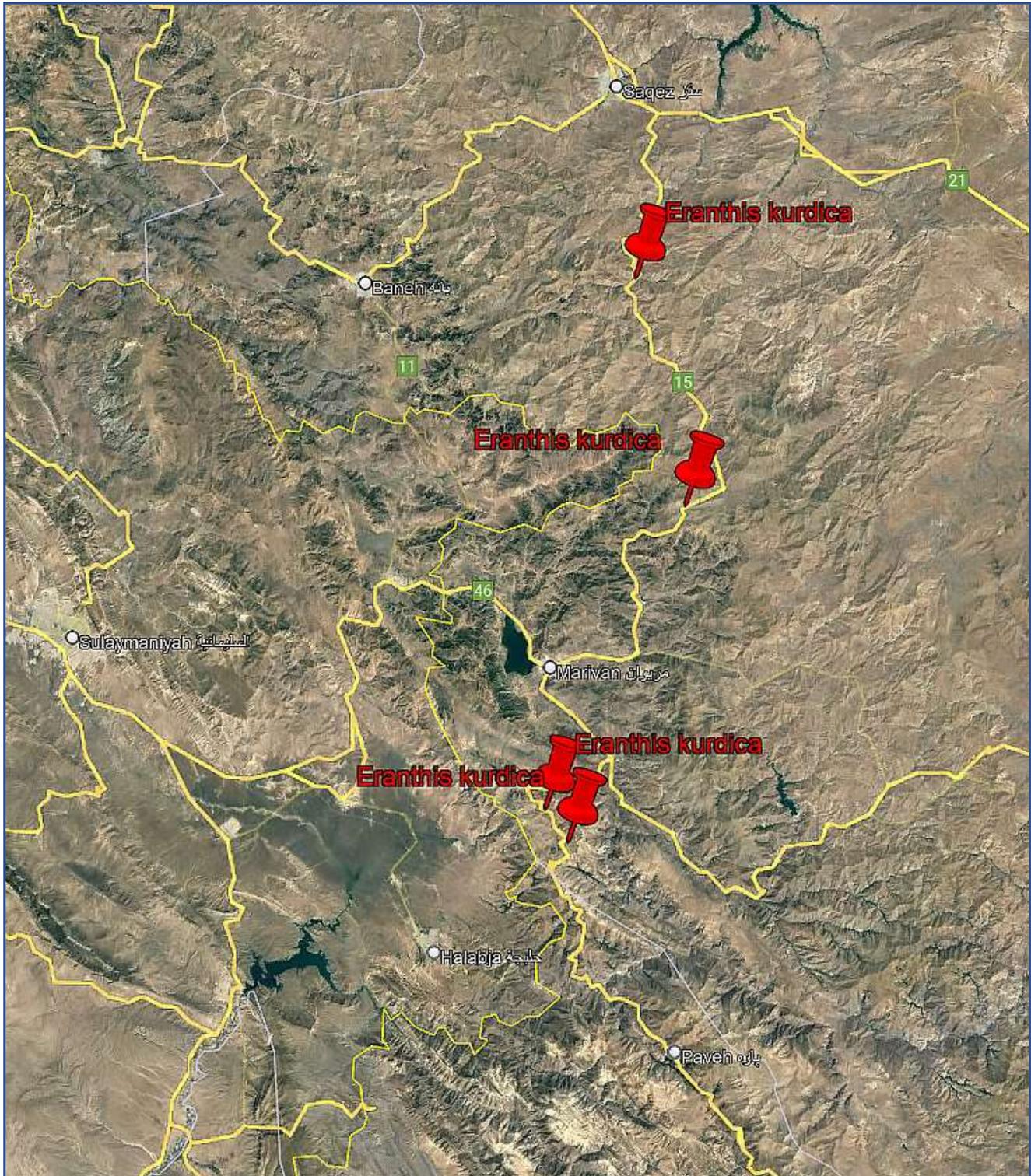
A very close relative of *Eranthis hyemalis* (according to some taxonomists they are one and the same species) is *E. cilicica* Schott & Kotschy (syn.: *E. isaurica*) growing wild in Turkey (Cilicia = a region on the south-eastern coast of Turkey). The flowers of *E. cilicica* are more golden yellow and the leaves are distinctly more finely pinnate, while the tubers of *E. cilicica* are rounder and smoother in contrast to the lumpy and uneven tubers of *E. hyemalis*. These two otherwise quite similar species are easily separated by just the shape of the tubers and leaves. *E. cilicica* is less easy to grow in the open garden and requires a sunnier position and some drying in summer, although under trees where *E. hyemalis* usually grows, the soil in summer is dried out completely by the roots of the nearby trees.

*Eranthis cilicica* according to Flora of Turkey and the East Aegean Islands (P.H. Davis & al.) is distributed in Turkey in the Taurus, the Anti-Taurus and the Upper Euphrates and it was believed that its area enters N of Iraq (most likely following Flora Iranica) and in Afghanistan, which is certainly not true, because only *E. longistipitata* occurs there. Because both species look fairly similar, Flora Iranica (H. Riedl, 1992) and Flora of Turkey does not separate them, regarding *E. cilicica* as a synonym of *E. hyemalis*. As to the area covered by Flora Iranica, *E. cilicica* (as *E. hyemalis*) is reported only from Iraq and no gatherings in Iran have been mentioned. When the two authors (Rukšāns & Zetterlund) published *E. iranica*, they followed Flora Iranica since no living plants from W Iran had, at that time, been observed by them. During the Iranian expedition of 2017 I found *Eranthis* sp. at several localities in Iranian Kurdistan (see Map 1). They were already out of flower and no plants in seed were observed. While collecting some plants at each locality and seeing only their tubers, the first idea was that I had found new locations for *E. iranica*, although they were very far from the Eastern Kopet-Dag from where *E. iranica* was described (around 1100 km). After the first blooming in cultivation, which revealed yellow flowers without elongated pedicels, the name was changed to *E. cf. cilicica*.

Because one of the key features for separating the species in the genus *Eranthis* is the shape of the underground tubers, I decided that in W Iran, and most likely in the adjacent Iraq, a new, still unpublished, species was growing. There are some other features that separate it from the rather similar in vegetative and generative parts *E. cilicica*: flowers of the plants here described as *E. kurdica* sp.nov. have wider segments of a deeper golden shade, the leaves are in general longer with respect to the length of the flower segments, and they are shaded somewhat darker purplish (in *E. kurdica* sp.nov. at end of blooming the flower segments are on average 35 mm long, but leaves reach 37-39 mm vs. *E. cilicica* where length of flower segments is in average 30 mm but leaves 25-27 mm long). For comparison

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several accessions of *E. cilicica* from regions to the northwest and east of Akseki (the distance between the observed localities of both species is around 1300 km) were used. According to the Flora of Turkey, *E. cilicica* was found at several localities at a distance from 800 to 1400 km from the localities where the here described *E. kurdica* sp.nov.had been observed (see Map 2).



Map1: *Eranthis kurdica* species nova localities.

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Map 2: Green and yellow marks – *Eranthis cilicica* localities in Turkey according Fl. of Turkey (as *E. hyemalis*); green marks – localities observed by author; red marks – *Eranthis sp.nova*; black mark – *Eranthis iranica*.

Shape of tubers in various species of *Eranthis* :



*Eranthis hyemalis* tubers.

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*Eranthis cilicica*  
(R2CV-039)  
tubers.



*Eranthis longistipitata* tubers.



*Eranthis iranica* tubers.



*Eranthis kurdica* sp.nov. tubers.



On the left, tubers of *Eranthis* sp.nov.; on the right, tubers of *E. cilicica* (both in cultivation).

### ***Eranthis kurdica* Rukšāns species nova**

**Type:** Iran, Kurdistan, along the road from Saqqez to Marivan, on gentle slopes of mountain pass at altitude 2130 m; 35°43'N; 46°23'E. Leg. J. Rukšāns 12-04-2022 (22IRS-089).

Holotype: RIG! (University of Latvia).

**Habitat and distribution:** in shade under deciduous shrubs on stream banks and on open meadows with gentle slopes at altitudes from 1550 m to 2130 m often together with *Ficaria* sp., on *locus classicus* also together with *Iris marivanica*, *Crocus* cf. *iranicus*.

**Flowering time:** March-April, depending from season and altitude. In cultivation - March.

**Description:** perennial with an elongated tuber with many small, round daughter tubers more or less loosely attached to the main tuber from which arise one or two radical leaves. Leaves palmately 3-5-parted, deeply dissected almost to the base, each lobe in turn dissected into 2-4 secondary lobes, at the start of vegetation brownish green, very narrowly edged brown, later becoming dark green; the leafless stem 5 to 7(9) cm long, shaded brownish over green with a single very shortly pedicelled flower at the top. Involucre divided similarly to the basal leaves and of the same colour. Sepals petaloid, pure yellow. During flowering the leaves

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elongate, by the end of blooming slightly overtopping the flower segments (vs. in *E. cilicica* they remain slightly shorter than the flower segments). Fruits not observed.

It can be distinguished from the very similar *Eranthis cilicica* by the shape of the tubers, and by the length of the leaves. The geographical separation provides further proof of the independent species status of the newly described plant.

**Cultivation notes.** Up to now I have a very limited experience of the cultivation of *Eranthis kurdica*. The plants were collected as tiny tubers and it took them two years to reach their first flowering in pots when it was found that they were not *E. iranica* as had been assumed judging by the tubers.

In the season 2021 the growth was very weak and only a few shoots emerged, so I thought that the plants were lost. However, the pots were left intact for one more year and great blooming and lavish growth ensued in spring 2022, showing that the plants had survived unlike the Japanese *E. pinnatifida* Maxim. which had completely perished during the 2020/21 season. I have not tried to grow it in the outside garden yet due to the meagre stocks, but I suspect that it might be even more difficult than *E. cilicica*. Both species (*EE. pinnatifida* & *cilicica*) when planted on beds in the open garden were lost within 2-3 years. At present I grow only *E. hyemalis* and the Siberian *E. stellata* in the outside garden. They both remain

alive and regularly bloom and self-seed in slightly shaded locations on beds and in sparse grass.



*Eranthis kurdica*  
17IRS-049.

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*Eranthis kurdica* 17IRS-063 leaves.



*Eranthis kurdica* 17IRS-059.



*Eranthis* (  
species nova 17IRS-059  
Iran, Kurdistan, pass between Saqqez  
and Baneh

*Eranthis kurdica* herbarium from cultivated plants (17IRS-059.)



*Eranthis kurdica* holotype (22IRS-089) herbarium sheet.

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*Eranthis kurdica* 17IRS-060.



*Eranthis kurdica* 17IRS-063

### Acknowledgments

First of all, I must express my thanks to my travel partners of the 2017 trip organized by Alice Munsey, Pietro Roseo, Norman Stevens and others (UK), who invited me to take part in this expedition. I can't forget Shole Jalili – our Iranian guide – she took care for everything to make our trip successful. Many thanks go to Dr Alireza Dolatyari (Iran) who invited me to take part in expedition of 2022 when *Eranthis kurdica* was seen in bloom in its native habitat. To Dima Zubov (Ukraine) who regardless of war in Ukraine, helped me with valuable information. As usual – my English was corrected by my Latvian friend Mārtiņš Erminass. And I'm especially thankful to my family and particularly to my wife Guna for the hard work at our garden during my absence while in the wild doing field work.

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Above and below: *Eranthis kurdica* on pass near Qamchiyan, Kurdistan Province, Iran.

## References

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**Rukšāns J., Zetterlund H.**, 2018. *Eranthis iranica* (Ranunculaceae)

Rukšāns & Zetterlund - new species of winter aconite from Iran. [Int Rock Gard. 108: 2-19.](#)



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--- Naming and Growing ---

## **TRIBULATIONS WITH *LESQUERELLA ARIZONICA***

**Text and photos: Zdeněk Řeháček**



*Lesquerella arizonica*, May, 2006.

An article "Arizona's drab sister " in the autumn Czech rock garden journal reminded me that we have had this handsome plant in our garden and tempted me rummage in the depths of my computer and see if I could write something about it.

In January 2005, I received a bunch of seeds collected in the wild from America. It springs to my mind that I had 12 plants at one time, but I'm just guessing, because I don't remember, they were probably dying from the overabundance of moisture because they came from a dry area. I may have had a few that I gave away. All I know is that I planted two plants in the garden the following year. One in full sun in the gentle south-facing slope in a lime rockery with a normal, just slightly more sandy rock mix. This is in the attached picture from May 16, 2006. The other in a normal silica rock garden substrate, a little tilted to the north. Today I

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wonder why in such an inappropriate place and not in a crevice garden, which would have been better for this drought-lover.

They weren't happy here in North-East Czechia. The flowering one did not produce seeds, and neither did any other *Lesquerella* or *Physaria*, as far as I can remember. It is not a plant suitable for the conditions of our garden. I'm sure it would be better off in southern Moravia, where there is much less precipitation and higher summer temperatures would certainly not bother it. Still, if I had another chance, I'd try it again, because it's pretty. The driest place possible, in the garden, covered with glass in the winter, and preferably in a flowerpot and a glass jar!

When I was thinking of what I could write about it, I did a bit of searching on the internet. And I discovered, among other things, that in 2002 the work of botanists Al-Shehbaz, Ihsan A. and O'Kane, Steve L.: ["Lesquerella is united with Physaria \(Brassicaceae\)." \*Novon a journal of botanical nomenclature from the Missouri Botanical Garden\* 2002, 12, 319–329.](#)



Grown by Z.R. as *Lesquerella intermedia*.

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According to this recognized paper, all lesquerella are now called physaria, except for a few species from the southeastern U.S. for which a new genus, *Paysonia*, has been created. The valid name of our lesquerella is *Physaria arizonica*\* (S.Watson) O'Kane et Al-Shehbaz; *Lesquerella arizonica* is just a synonym.

I'm not surprised, because I've never found how the two genera differ from each other. And I've tried because they're very similar genera.

\*That's how it's listed in [The Plant List](#), as well as a similar source from the Botanic Garden at Kew, which can be found at [www.plantsoftheworldonline.org](http://www.plantsoftheworldonline.org). Incidentally, this one is supposedly more accurate (or trustworthy), but I don't think it's as nicely arranged as The Plant List.

Z.R.

Other plants in this group which have been grown by Zdeněk Řeháček:



*Physaria alpestris*

*Physaria alpina*



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*Physaria chambersii*



*Physaria eburniflora*

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*Physaria bellii*



*Physaria rollinsii*

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## --- Plant Portrait ---

### **ARISTOLOCHIA, A FAMILY OF BEAUTIFUL SAXOPHONES:**

#### **Text: Vlastimil Pilous**

The world has opened up to us, foreign literature is now easy to find, and so even in the alpine (but in this case more in the perennial or grove) world it is getting harder to come up with something completely new. But there are exceptions, and one of them is *Aristolochia*. There are several reasons why they are only slightly known among alpinists: they are overwhelmingly a tropical and subtropical genus (many species are also climbers or even directly liana-like), the species growing "within our reach" are aesthetically quite uninteresting, with small flowers, and they are not very common in nature. On top of that, they often grow in habitats where they hide among other vegetation.

But this is only one side of the coin: just go to the Mediterranean or Asia Minor and the situation is immediately different. Here we find several species that can surprise us a lot, both for the size of their flowers and their curious shape and often dense attractive colouring and pubescence. The rhizomes are finely scaled, often twisted and sometimes shortly creeping or weakly branched, and usually set quite deep underground (up to 20 cm in some species). Apart from climbing species, which are not of interest to us, they are usually several decimetres high, depending on the species or habitat.

The stem is most often unbranched, slightly curved, leaves are alternate, petiolate, most often heart shaped. Flowers grow in the leaf axils. In some species they are single, in others in clusters. The stems are sometimes very long. The perianths are tubular at the base, tubular above and conspicuously bent, expanded at the end, in some species very distinctly. Many species are characterised by long and often very attractive hairs in the open part of the flowers, which are different in colour. Their presence is not accidental, but by being directed inside the tube they prevent insects from climbing out and thus increase the likelihood of fertilisation. Only after flowering do the hairs soften and allow insects to emerge. The fruits are usually surprisingly large capsules (up to the size of a walnut), variously shaped (pear-shaped, spherical, cylindrical) and the seeds are very unusual, heart shaped. This is such a dry technical description, but it sounds much better if we simply say, half-jokingly, that their flowers resemble small saxophones, or also bent pipes, with their curved tubular parts. After all, the English name of the sub-race is Dutchman's pipe.

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There are over 500 species of these worldwide, but we are only interested in a few of them. Certainly not included among them is our native *Aristolochia clematitis*, which is one of the most northerly penetrating species, both for its height of up to 1 m and its tiny, though numerous, flowers. In southern Europe, the number of species is increasing, but even here some are still somewhat underwhelming, such as the relatively small-flowered Greek species: the purple *A. parvifolia* and the red *A. microstoma*, or *A. sempervirens*, which has larger purple-yellow flowers, but is again a climber.

However, *A. cretica* is a completely different matter, growing, as the name suggests, in Crete. It already has really large flowers, brown outside and dark purple inside, but the whole mouth of its 'saxophone' is also spectacularly thickly covered with long white hairs that curve inwards. In the wild it grows in fully sunny places and is not too fussy, so that it can be seen even alongside dirt roads, the edges of olive groves and similar not very attractive habitats. I don't know if it has been introduced into culture before, but it certainly deserves it. However, as it grows in nature only up to an altitude of 800 m, it may not be winter hardy, so it is more suited to a moderately temperate greenhouse, or at least a winter cover. Therefore, I grow it near the south wall and cover it with non-woven fabric and a polycarbonate sheet for the winter, which I also put over it for the summer, as I assume that baking will also suit it better. There are a few other somewhat similar species of *A. hirta* and *A. guichardii* on a few Greek islands, but they are probably not in culture.

*Aristolochia pontica* prefers completely different habitats to *A. cretica*, namely permanently slightly moist ground, for example in the floodplains of streams, where it also seeks moderate shelter. This is quite logical, because the Pontic region, which includes the north-eastern part of Turkey called Lazistan and the adjacent part of Georgia, is itself humid and rainy, and is therefore known for its tea plantations. This species is somewhat more stately, reaching 40-60 cm in height, forming even larger clumps, and has rather large leaves, which is its handicap as they hide its otherwise very pretty, large and numerous flowers. If you open the clump in the middle, dozens of flowers appear, which are really not skimmed on. This species doesn't want baking, but rather needs wetness throughout the growing season, but I also cover it with a polycarbonate sheet for winter to be safe, not against frost, but against waterlogging in winter weather.

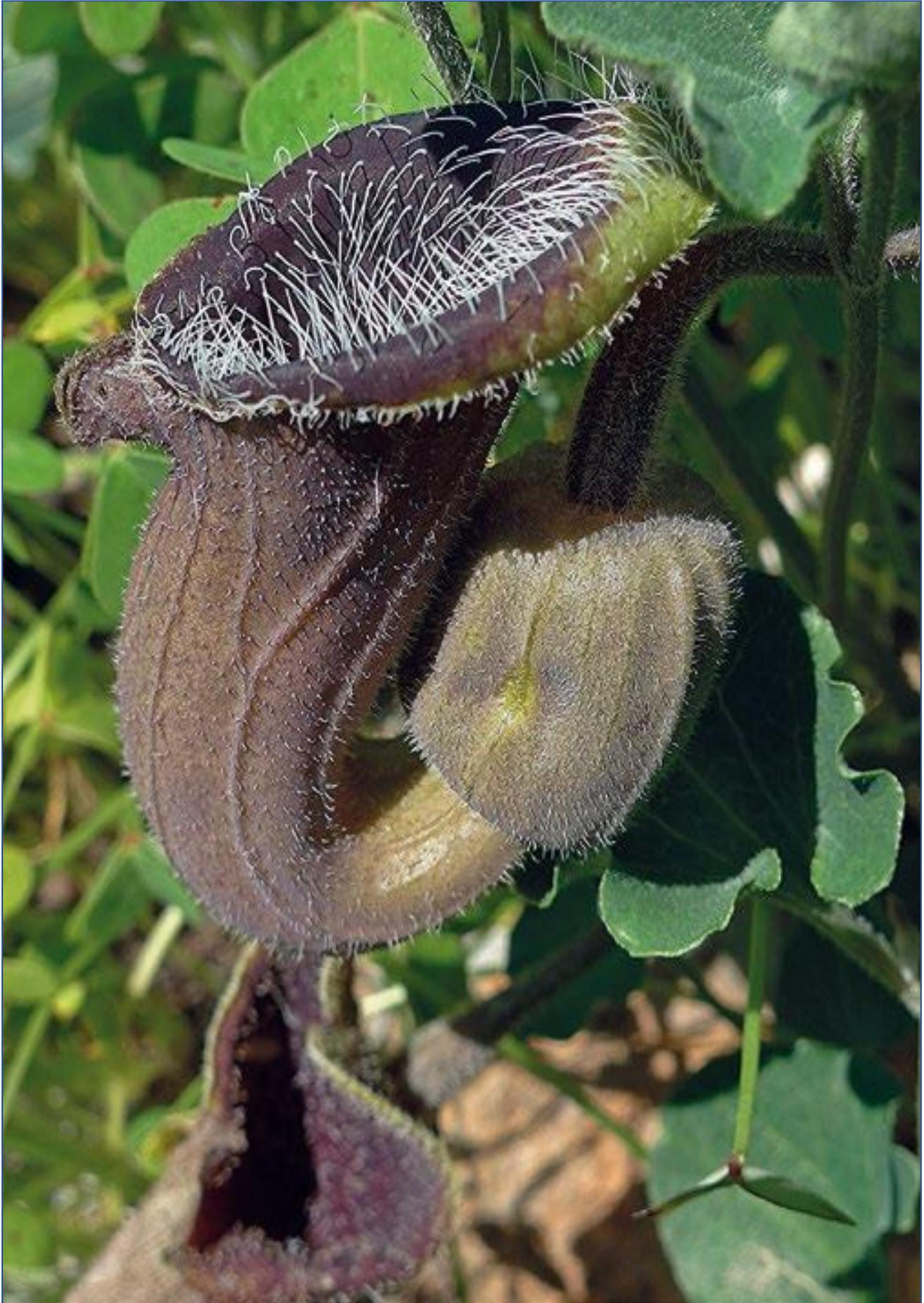
The greatest beauties of the whole genus, however, are the several large-flowered Turkish species, especially *A. lycica*, *A. maurorum*, and *A. bottae*; the first two are attractive chiefly for their mottled brownish-white or yellow flowers resembling abstract pictures, the third for

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the same, and also for their beautiful attractive pubescence. *A. lycica* grows in the western and southern parts of Asia Minor in a Mediterranean climate and its winter hardiness should be tested. *A. maurorum* grows in western and central Anatolia, and *A. bottae* from eastern Anatolia to Iran, and therefore at higher altitudes, and are therefore probably winter hardy. They are also matched in flower size and attractive hairs at the mouth of the tube by *A. paecilantha* growing further south in Syria and as far south as Israel, but winter hardiness is more than uncertain. However, all of these species can be assumed to require conditions similar to those of most local bulbs, i.e. mainly summer baking. The problem so far, however, is how to get these plants into culture. *A. cretica* and *A. pontica* are already in cultivation, but the other, even more attractive ones remain an elusive dream. In my experience in the wild, however, they produce abundant seeds, so one can assume that this might not be too difficult. The problem is elsewhere, however: they are relatively rare plants and so difficult to find in nature at all, and at a time when they have ripe seeds. V.P.



A large-flowered species is *Aristolochia pontica* - photo Vlastimil Pilous.



*Aristolochia cretica* - photo Vlastimil Pilous.



*Aristolochia pontica* - photo Vlastimil Pilous.

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Photos of other aristolochia species, mentioned above, by other photographers, to whom thanks are extended.

*Aristolochia clematitis* – in the Little Ash Garden of [Helen Brown](#) in Devon.



*Aristolochia clematitis*. fruit and seeds – Roger Culos. [CC BY-SA 3.0](#)



*Aristolochia maurorum* - photographed by Doreen Mear in Cappadocia.



*Aristolochia guichardii* - Oron Peri.

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More photos from [Oron Peri](#). He lives in the Galilee region, North Israel and is a Plantsman, Author, Botanist and leader of many botanical tours. He also has a large and important collection of bulbs from the Mediterranean region.

*Aristolochia guichardii* is a species from SW Turkey and the Eastern Greek Islands, growing in rocky situations and pine forests at low elevations.

Below: *Aristolochia hirta* has a large, deep

coloured flower with noticeable white hairs. This species is growing in the Eastern Aegean islands and SW Turkey, blooming in March-April.



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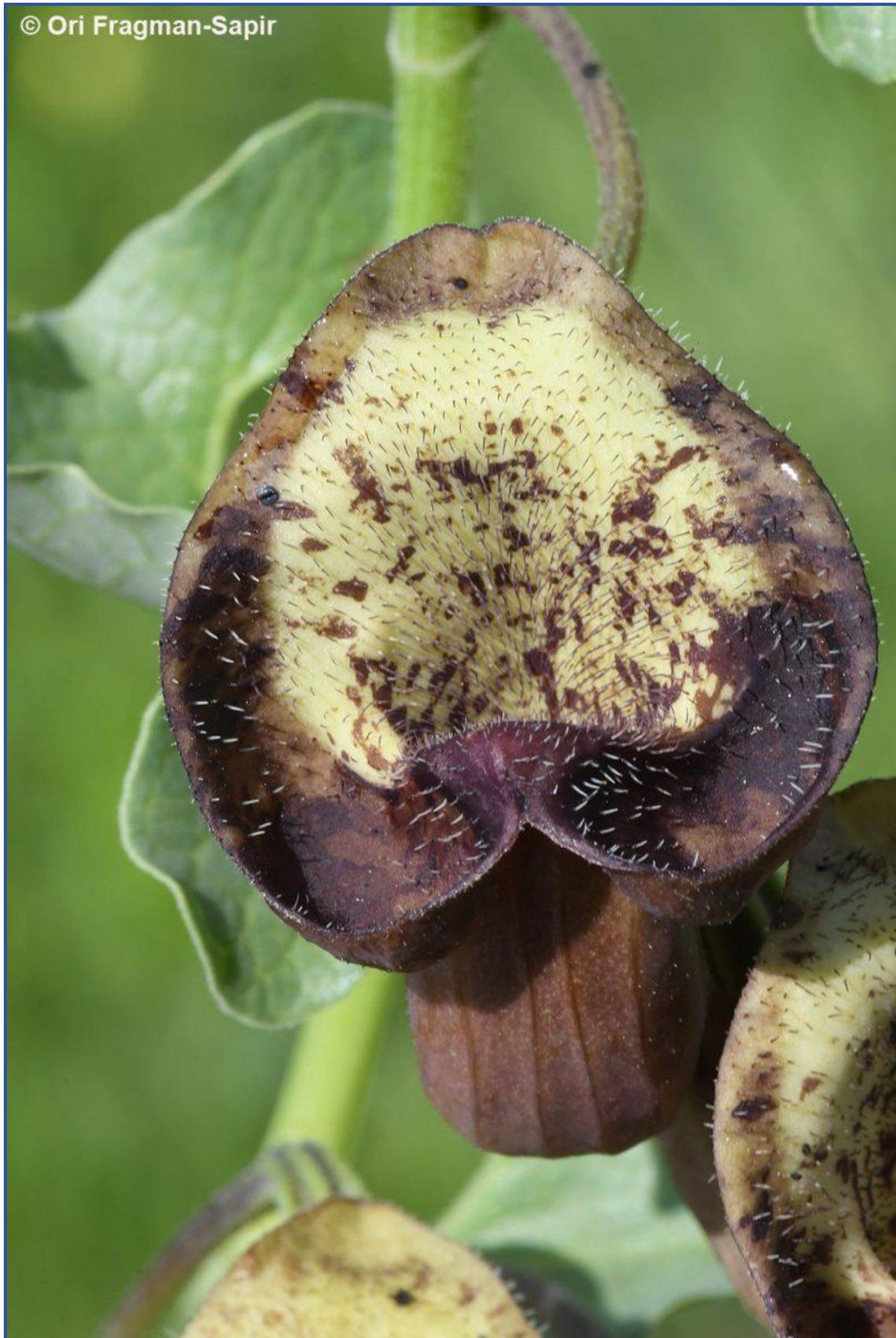
*Aristolochia lycica* is a lovely species with many maculated flowers. Growing in rocky places, often in Mediterranean scrub clearings at low elevations. It is endemic to Turkey. Flowering from Mid March to early May. Photo taken in habitat in Antalya province, SW Turkey by Oron Peri. Thanks also to the [Pacific Bulb Society](#).



*Aristolochia bottae* – photo Ori Fragman-Sapir.

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The following photos are also from Dr Ori Fragman-Sapir, the scientific editor of the "[Flora of Israel Online](#)" and the scientific director of the [Jerusalem Botanical Gardens](#).



*Aristolochia bottae*



*Aristolochia paecilantha* in fruit.

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*Aristolochia paecilantha* flowers are bright green, dark dotted. Stems are felted. N Golan Heights, Masade Forest.



*Aristolochia sempervirens*

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## **4th CZECH INTERNATIONAL ROCK GARDEN CONFERENCE 5 – 9th May 2023 Prague (Průhonice), CZECH REPUBLIC**

Registration for the conference is now open and places are being booked at speed! Our suggestion is to move quickly to reserve YOUR place at this long-awaited event with its great programme of speakers and garden visits. Previously these events have been hugely successful, and we do not doubt that this experience will be any different!

The Conference price includes

- Lectures (8 speakers),
- Entrance (Průhonice Park, May Show, garden visits),
- Garden Tour and coach transport during the Garden Tour,
- Morning and afternoon coffee-breaks,
- Lunch boxes Saturday and Sunday (during Garden Tour),
- Evening meal on Friday, Saturday, Monday, and Tuesday (farewell dinner – open buffet).

Please note that the conference price does not include accommodation which must be booked separately. **All details can be found at <https://czrgs.cz/>**



**Sajad Alipour**



**Oleg Belyalov**



**Martin Hajman**



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**Zdeněk Zvolánek**

**The Speakers at the 4<sup>th</sup> International Czech Conference.**