

International Rock Gardener

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This month in IRG 176: Dr Sajad Alipour, a Botanist & Ecologist of Shiraz, Iran submits a report on Iranian native plants of his botanical trips this year.

Wim Boens writes this month about a Japanese plant and its cultivars which seems to create differing enthusiasms. These are *Arisaemas*, which some folk find rather sinister in their appearance. - some love 'em, some hate 'em!

Finally we have a plant portrait of *Campanula raineri*, which appeared first in *Skalničky* the journal of the Prague Rock Garden Club ([KSP](#)) from Zdeněk Zvolánek.

Cover image: *Arisaema urashima* 'Akabana' – photo Wim Boens.

Of course, as the Northern Hemisphere moves into Autumn and Winter, Spring is getting underway in the South. Here is a photo of an *Acacia* (Wattle) in flower in Australia, from Fermi de Sousa.....



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--- Iran Report ---

A summary of ten botanical trips to different parts of Iran for *Dionysia* and some Iranian bulbous plants (February - May, 2024) - Sajad Alipour

Email: sajadd.alipour@gmail.com

I am Sajad Alipour, PhD in ornamental plants and landscape. I graduated from Ferdowsi university of Mashhad (Mashhad, Iran). As a Botanist, Ecologist and Horticulturist I have been studying Iranian native plants since 2014 with a focus on alpiners and bulbous plants. Since 2021, during my field work, I have discovered and introduced several new species for the flora of Iran (*Tulipa sarvestanica*, *Dionysia splendens*, *Dionysia alipourii*, *Muscari zagricum* and five other new species that are under review). I was honoured to get an SRGC Grant in 2024 and it has greatly helped my botanic journeys. I have had the opportunity to explore the diverse plant life of Iran through ten botanical journeys. From the Zagros mountains to the vibrant deserts of Yazd, each trip has offered a unique and enriching experience.

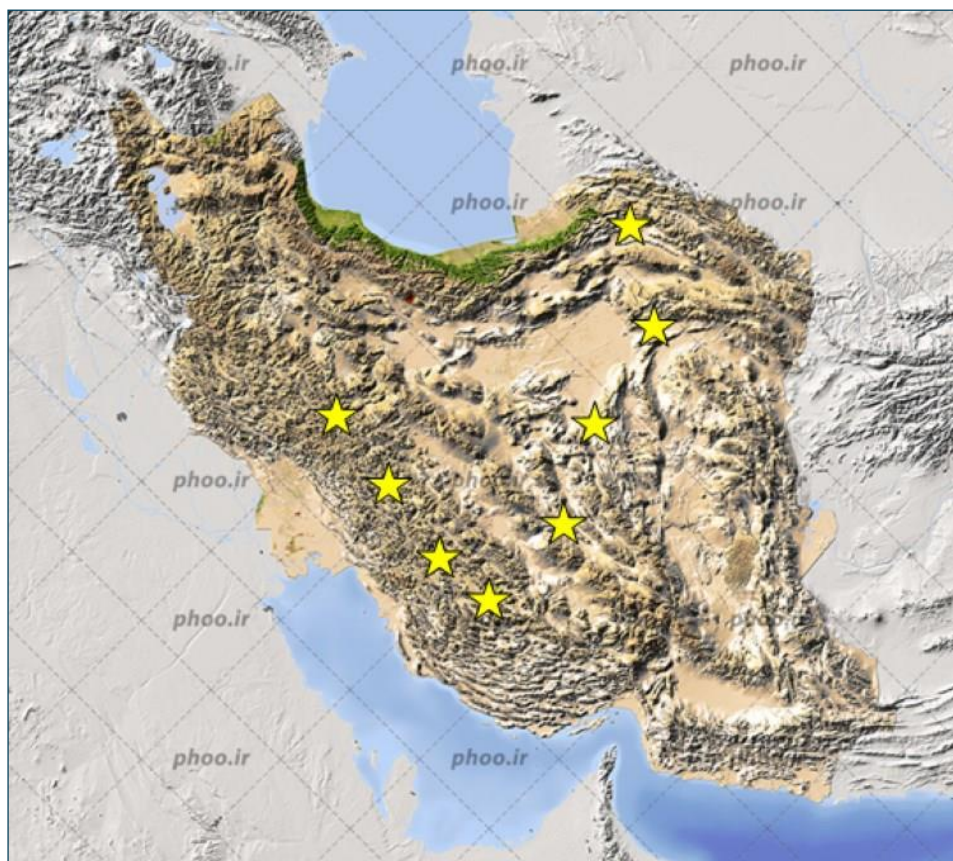


Fig 1. The various provinces that I visited in Iran this year.

During these botanical journeys, I visited the plant species of Fars, Isfahan, Kohgiluyeh and Boyer-Ahmad, Chaharmahal va Bakhtiari, Yazd, and Khorasan Razavi provinces. During these

ten botanical trips, we drove over 15,000 kilometres in total and spent over 40 days exploring the diverse plant life of Iran (Fig 1). In this paper, some species of *Dionysia* and bulbous plants are introduced.

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Dionysia brinkii Lidén, Mauser, Ghaderi, Westrand. & Mehregan

Named after Marijn Van Den Brink (Dutch botanist, gardener, climber and photographer)

Chaharmahal va Bakhtiari province, Iran

Elevation: 1800m

Blooming: April

This species does not grow on vertical cliffs but in cracks and places where crushed stone and humus has collected. So likely to thrive with a less critical growing condition than some other



Dionysia. There is only one natural habitat with about 200 plants of it.

Dionysia sarvestanica* subsp. *spathulata Lidén

Meymand, Fars province, Iran

Elevation: 1900m

Blooming February – March
2024 (The best time last week of
February to the first week of
March)

Dionysia sarvestanica subsp.
spathulata is one of the earliest
flowering species of *Dionysia* in



Iran. Unlike other species, it

grows on horizontal cliffs with direct sunlight. The cushions of this species are extremely dense and help the plant to survive in its warm habitat, which receives no rainfall for more than eight months a year.

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Dionysia lurorum Wendelbo

Aligudarz, Lorestan
province, Iran
Elevation: 2400m
Blooming: April

In the vertical rocks of the wild Oshtorān Kūh, this beautiful flower blooms in April. Its habitat is covered with several meters of snow almost all winter until early spring.



This species grows

together with *Dionysia crista-galli* and *Dionysia zschummelii* in a common habitat, and sometimes all three species can be seen on a cliff.

Dionysia bryoides Boiss.

Marvdasht, Fars
province, Iran
Elevation: 1950m
Blooming February
– March 2024 (The
best time to see is
from last week of
February to late
March)

Dionysia bryoides is
moisture-loving and
shade-tolerant,
typically growing in



shaded limestone rocks. This species also has a high distribution in several provinces of Iran. This species has flowering plants due to having different habitats during a two-month period. It has a wide range of colors, ranging from very pale pink to vibrant purple.

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Dionysia assadii Borjjan

Pasargad,
Fars
province, Iran
Elevation:
2100m
Blooming:
February –
March (Best
time to find is
last week of
February to
first week of
March).



Dionysia assadii species is one of the most beautiful purple-flowered species discovered a decade ago. There was only one known classic location for this species, but this year we found a new habitat of this plant 50 kilometres away from the classic site. This species grows on limestone rocks that may not have sufficient strength. Therefore, while photographing this plant, we fell from a three-metre rock. Fortunately, we did not sustain any serious injuries. It is unfortunate that in this recently discovered habitat, due to long-term droughts, more than half of the plants had completely perished.

Dionysia tjeerdsmae

Lidén & Mehregan
Dehbid, Fars province,
Iran
Elevation: 2500m
Blooming: April

This species was introduced to the world of botany last year. It is a hanging plant with a



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unique shape and a very fragrant scent, named in honor of Gerben Tjeerdsma (Dutch-Swedish botanist). He had collected this species in Iran in 2019. This species has a very high tolerance for dry conditions, with an average annual rainfall of 150 millimetres in its habitat, enduring about 8 months without any precipitation.

Dionysia zagrica Grey-Wilson

Lordegan, Chaharmahal va Bakhtiari province, Iran

Elevation: 1800m

Blooming: March

This species is one of the earliest flowering species of *Dionysia* in Iran. like *Dionysia sarvestanica* subsp. *spathulata*, this one grows on horizontal cliffs with direct sunlight too. The



cushions of this species are extremely dense and help the plant to survive in its very hot habitat, which receives no rainfall for more than seven months.

Dionysia iranica

Jamzad

Lordegan, Chaharmahal
va Bakhtiari province,
Iran

Elevation 2200m

Blooming March

This species is also close to *Dionysia zagrica*, but it does not have compact cushions. This species



grows on vertical limestone rocks and, unlike the *Dionysia zagrica*, is somewhat shade-

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loving. We went to the classic location to see this species, but unfortunately, it hadn't bloomed yet. Feeling disappointed, we turned back from the path and found a new road, where I saw some rocks from a distance. I noticed some yellow spots on the rocks and we got out of the car and went towards them. When we reached there, we realized that there were hundreds of bushes of that plant. This also counted as a new habitat.

Dionysia iranshahrii

Wendelbo

Semirom. Isfahan province, Iran

Elevation: 2600m

Blooming: March - April

This purple flower species is one of the most beautiful *Dionysia* in Iran. This species grows with very beautiful leaves in the high elevation of



Semirom city. its natural habitat usually has a lot of snow during the flowering season, and for this reason, it is almost difficult to reach it. Fortunately, we discovered some new habitats of this species this year, which are almost far from the classic habitat.

Dionysia bachtiarica

Bornm. & Alex.

Gandoman, Chaharmahal va Bakhtiari province, Iran

Elevation: 2900m

Blooming: March

Botanical exploration in 2022 in the province of Chaharmahal va Bakhtiari, resulted in the collection of *Dionysia bachtiarica*, a



narrow endemic species first collected in 1902 and described in 1905. This species has not been seen since 1903. One year ago, this species was rediscovered after 119 years.

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See article: rediscovery of *Dionysia bachtiarica* (primulaceae) in Kuh-e Kallar after 119 years

https://ijb.areeo.ac.ir/article_129423_64748dbf543b4434fe242521d78f667f.pdf?lang=fa

Dionysia tapetodes

Bunge

Mashhad, Iran

Elevation: 1600m

Blooming: April

This species thrives in northeastern Iran, and populations of it have been found in various habitats. It has a high reproductive rate, to the



extent that it has even reproduced in rocks destroyed by humans for road construction. We traveled 3,000 kilometres to see this species.

Dionysia archibaldii Wendelbo

Chaharmahal va Bakhtiari province, Iran

Elevation 2200m

Blooming April

This species grows on small sandstone rocks and has only been recorded at one or two locations. Unfortunately, its main habitat has been converted into a sheep stable by local people, putting this species at serious risk of extinction.



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Fritillaria imperialis

Linnaeus

Eghlid, Fars province, Iran

Elevation: 2300m

Blooming: April – May

This species is a symbol of Iran and is very popular and sacred among the local people. It is used in local poems and even in children's lullabies under



the name "Gol" (flower). This flower is even mentioned in the Shahnameh book. Shahnameh, which translates to "Book of Kings," is an epic poem written by the Persian poet Ferdowsi around the year 1010 AD. It is considered one of the greatest works of Persian literature and tells the mythical and historical past of Iran from the creation of the world up to the Islamic conquest of Persia. When the executioner's blade, named Gersiuz, cut the throat of Siavash, an Iranian hero, his pure blood spilled and his life ended. At that moment, *Fritillaria imperialis*, or tearful tulip, witnessed this event. Overwhelmed with grief and sorrow, it drooped its head down and shed tears for Siavash. Since then, this flower has been named: the weeping tulip, the drooping tulip, the broken tulip, or Siavosh's blood tears.

Fritillaria gibbosa Boiss.

Dehbid, Fars province, Iran

Elevation 2300m

Blooming March - April

This species has a high distribution in Iran and grows in arid and semi-arid provinces with an altitude above 1500 metres. This species is often found on dry rocky slopes. Because of the different habitats, the colour and patterns of the flower are diverse.



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Iris iberica* subsp. *lycotis

Isfahan and Fars province,
Iran

Elevation: 2300 - 2500m

Blooming: April

One of the most beautiful
wild irises of Iran, which
grows from the flat plains
to the mountain heights.

This species grows in
dense clusters.



Unfortunately, land use changes and their conversion to dry farming and mining activities have put this species at the risk of extinction.

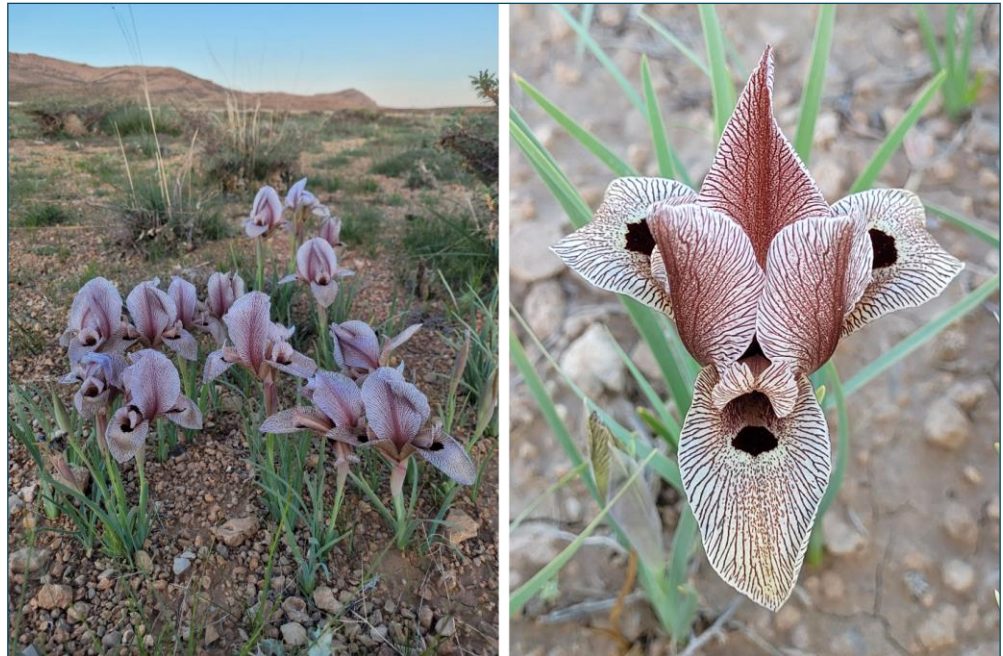
Iris acutiloba* subsp. *lineolata

Dehbid, Fars province, Iran

Elevation: 2300m

Blooming: March -
April

This species had a
high population in
Iran a decade ago,
but in recent years,
frequent droughts
and overgrazing
have reduced their
populations. In



recent years, we have observed a seed-feeding beetle species attacking the seed capsules of this species in most parts of Iran, consuming all the plant seeds.

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Tulipa micheliana Hoog

Mashhad, Iran

Elevation: 1240m

Blooming: April

Dry farming and overgrazing are the main threats to this species. On the other hand, agricultural pressure has caused this species to be pushed to road edges, and populations decrease from year to year.



Tulipa lehmanniana Merckl

Tabas Desert, Iran

Blooming : April

Elevation: 1300m

Some details about the habitat of this species:

Average rainfall:

150mm

T Max in summer: 50°C

T min in winter:

-10 °c

Dry period: April to

November



To photograph this one and some other species, we drove around 2000 kilometres (Shiraz to Tabas Desert). From Southwest of Iran to Northeast.

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Iris fosteriana Aitch. & Baker

Mashhad, Iran

Blooming: April

Elevation: 1500m

The native range of this species is NE. Iran to NW. Afghanistan.

It is a tuberous geophyte and grows primarily in the temperate biome. This species has almost a high distribution and grows

from around the roads to the mountain heights.



Iris kopetdaghensis (Vved.) B.Mathew & Wendelbo

NE of Iran

Blooming: April

Elevation: 1800m

This species is commonly found alongside gardens and roads. It prefers somewhat moist conditions. In some parts of North East of Iran, They are usually found in old cemeteries

in large numbers because sheep are not allowed to enter such places.



Eremurus luteus Baker

Tabas Desert, Iran

Elevation: 700m

Blooming: April

Some details about its natural habitat:

T Max 60°C in Summer

T Min -15°C in Winter



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Average annual precipitation: 70mm

It could be said that the hardy *Eremurus* species is more resistant to dry conditions. Imagine how this plant can survive in such harsh conditions.

Scilla khorassanica

Asparagaceae

Khorasan, Iran

Elevation: 1800m

Blooming: April

This endemic species of Iran, with small plants less than 5 cm, is well adapted to dry slopes. Because of its small size, it usually grows in the shade of other plants.



Hyacinthus transcaspicus Litv

Asparagaceae

Khorasan, Iran

Elevation: 2470m

Blooming: April

This small plant (with a height less than 10 cm) has adapted to shady areas and mostly grows under the shade of trees and rocks.



S. A.

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--- Japanese Gems ---

***Arisaema kiushianum* and *Arisaema urashima*, two multicoloured Japanese jewels. Pictures and text from Wim Boens.**

Japan is one of the hotspots for *Arisaema* species and many of them are wonderful garden plants, here I'll show you a few selections of my two absolute favourite species from the land of the rising sun.



Arisaema kiushianum

Arisaema kiushianum (姫浦島草) hails from the north of Kyushu (hence the name) and the west of Honshu. The flowers on this species always remind me of a little owl, hiding underneath the leaves...this "shyness" is also the reason I grow them in pots. While they do very well in the open garden here in the west of Belgium (if you can keep the slugs and snails away at least), it's a lot easier to admire the flowers when you can put the pot at eye level. Only a handful of cultivars of this species have already reached Europe. The common form is the easiest to find, and to me it remains the most beautiful of all selections. Here, the inside of the spathe has concentric white rings on a deep brown background around a white "T".



Arisaema kiushianum



Arisaema kiushianum

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Arisaema kiushianum 'Kikkou' leaf.



Arisaema kiushianum 'Gin' leaf.

Two cultivars selected for their leaf patterns are 'Kikkou' (亀甲) and 'Gin' (銀), meaning "turtle" and "silver" respectively, which gives a hint of the appearance of the leaves, 'Kikkou' having a turtle shell pattern and 'Gin' having a silver sheen on the leaves. The flowers of these two cultivars are paler, with broader white rings in the spathe, and are indistinguishable from each other. If you sow seeds of either of these forms, you get +/- 50% of the one and +/- 50% of the other form, regardless of its parents. In Japan, forms with variegated leaves and

with dark stems have been selected, though they are not yet available in Europe.



Arisaema kiushianum 'Kikkou' or 'Gin' flower.

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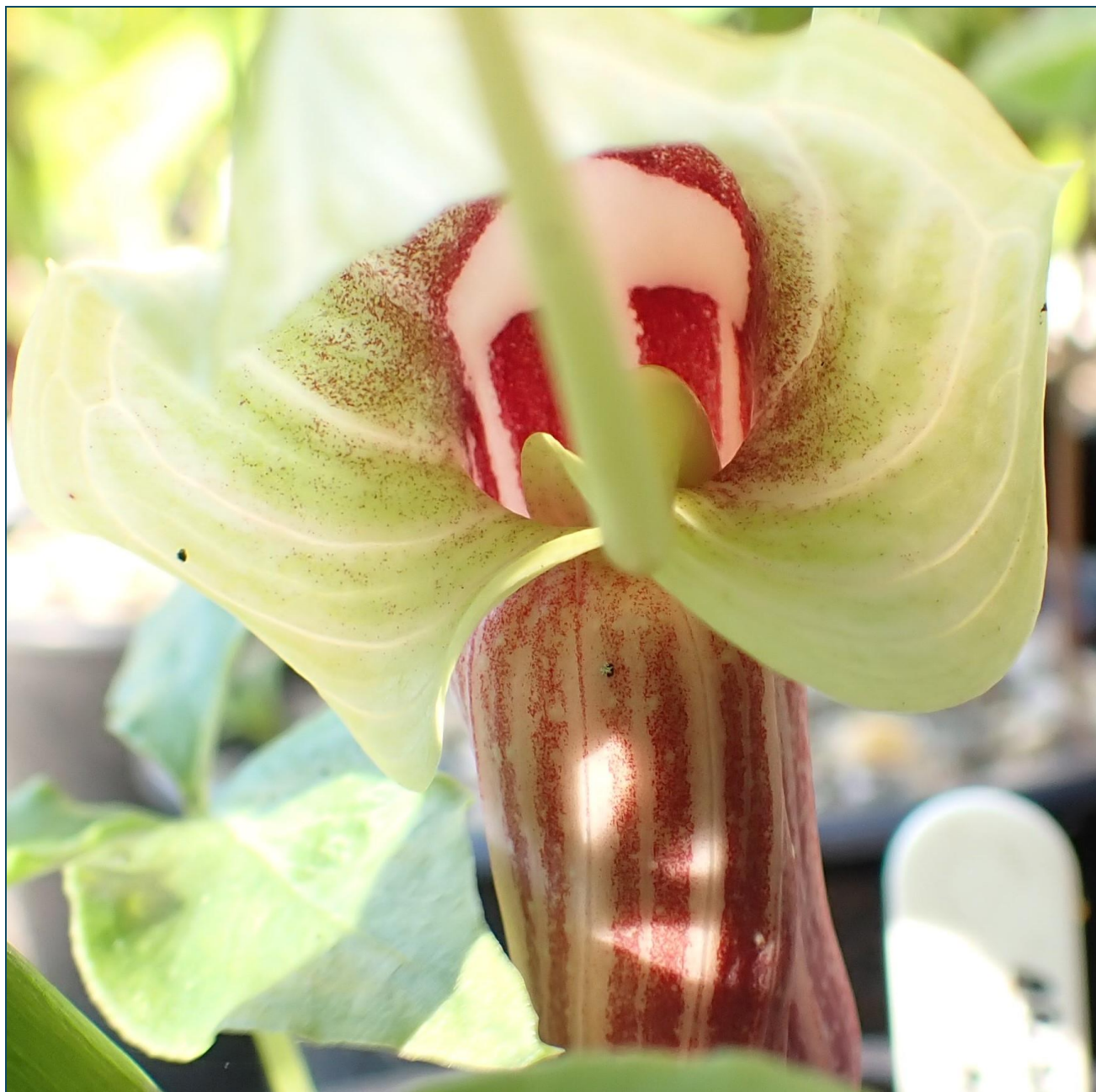
A handful of cultivars have been named for their flower colour: there's one with green and white flowers, a form with red flowers, and a cultivar with purple flowers. One of these special colour forms is already available in Europe and that is the cultivar called 'Amaterasu' (天照), named for the Japanese goddess of the sun. The spathe of this cultivar has a red exterior and green-white interior with a few red spots. In Japan quite a few other cultivars have been named which are similar to this one, although some details do differ.



Right and below:

Arisaema kiushianum 'Amaterasu'





Interior of *Arisaema kiushianum* 'Amaterasu'

Arisaema urashima (浦島草) grows in the wild in the east of Japan, on Honshu, the south of Hokkaido, the north of Kyushu and the east of Shikoku. Urashima is the name of a fisherman, featured in a popular Japanese folktale, the name is in reference to the appendix of the spadix which is similar to a fishing line. For me though, they mostly resemble monks' cowls, which might be a hidden link in my mind to the name for *Arisaema* in my native language, which is "Jan op de preekstoel" ("John on the pulpit").

The same goes for this species as for *A. kiushianum*, they are most easily appreciated when grown in pots.



Arisaema urashima

Of the more than thirty named cultivars I know of (there are a lot more, since new forms are created in Japan every year), only a few are available in Europe, some start to appear for sale with enthusiasts at plant fairs and specialist nurseries. The “regular form” which is the easiest to find, has a dark rim on the inside of the spathe, which for the rest is mostly white with dark and green spots.

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Arisaema urashima



Arisaema urashima 'Akabana'

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Of the cultivars with red flowers, at least three are now available in Europe: 'Akabana' (赤花), which means "red flower", 'Hibotan' (緋牡丹), meaning "red peony" and, 'Akatsuki' (赤月), my absolute favourite, the name means "red moon". Sarasa (更紗) with its brown, white/green spotted flowers, was named for a specific weave pattern.



Arisaema urashima 'Hibotan'



Arisaema urashima 'Akatsuki' – the author's favourite!



Arisaema urashima 'Sarasa'

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Of those with green/white flowers, two forms have also reached us: 'Soshin' (素心), which means "white heart" and 'Aono' (アオノ), meaning "blue coloured". Colours in Japan are defined differently; 'Ao' means both blue and green and 'Midori' (real green) is nothing but a subdivision of 'Ao', that's why this green coloured cultivar is named as blue in Japanese. In this form the division between the whiter outside and the greener inside of the spathe is more clearly defined than in 'Soshin'.



Arisaema urashima 'Soshin'



Arisaema urashima 'Aono'

Arisaema urashima
'Aono'





Arisaema urashima 'Hyou-Mon-Ka'

A bit closer to 'Sarasa' but different none the less is the cultivar 'Hyou-Mon-Ka' (豹紋花), so named for the pattern on the fur of a leopard, the spadix especially is spotted like that fur.



Arisaema urashima 'Ryūgū'

A nice, very dark form is called 'Ryūgū' (龍宮), which is the name of the palace of the dragonking at the bottom of the sea, from a Japanese folktale written by Urashima Taro. It has a glowing red heart in the dark spadix.

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Another dark form (one of the darkest to reach Europe), is 'Kuroho' (黒穂), which seems to translate to "smut", as in the fungal infection; not really sure about that name, though.



Arisaema urashima 'Kuroho'

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And then there's a form I grow as 'Hakukyou', I haven't found a satisfactory translation for the name, I guess it was transcribed wrongly to rōmaji ... "Haku" in the name might mean "white" or "bright" and it does have a "white heart" in the spadix, but even with a wrong name, the flower is beautiful.



Arisaema urashima 'Hakukyou'

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Resembling 'Hakukyou', there's 'Hakusin' (白心), its name meaning "white heart", which differs by having a completely white spadix.

Arisaema urashima 'Hakusin'

Many others are only available in Japan, but three (or is it four?)

I really hope will reach Europe are 'Taigāmasuku'

(タイガーマスク), meaning

"tiger mask". This form has a green flower with brown spots on the rim of the spathe, and

'Yume no ukihashi' (夢の浮橋),

which means "bridge of dreams". The typical flower colour but with

a green central stripe in the spathe. And the third one has

completely black flowers, named 'Kuroshinju' (黒真珠), = "black pearl" or 'Kagemusha'

(影武者) = "shadow warrior", the only difference being that 'Kagemusha' has completely black

stems as well. W.B.



A more extensive article discussing all known cultivars appeared in the following magazines:

- Danish: "*Arisaema kiushianum* og *Arisaema urashima*.": D-AGS, Den Alpine Have, June 2019.
- Dutch: "*Arisaema kiushianum* en *Arisaema urashima* in al hun vormen. Japanse verzamelwoede op zijn best.": VRV, Flora Montis, September 2019.
- English: "Shark's mouth and cobra lilies.": RHS, the plant review, December 2019.
- German: "Feuerkolbensorten aus Japan.": Verlag Eugen Ulmer, Garten Praxis, April 2023.

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--- Plant Portrait ---

A BELL WITH FINE PROPORTIONS

Text: Zdeněk Zvolánek, photos: Jim Jermyn and František Paznocht



Campanula raineri

If I had to vote in a contest for the prettiest little bell flower, I would choose *Campanula raineri*. Why? Because it has the most alluring proportions: a compact body with small grey-green leaves, it offers us, and the bees, perfectly shaped upright rather large sky-blue bells. The stems are up to 5 cm long. It is a lover of those northern Italian limestone areas, forming the shady northern cliffs in the Bergamo area, i.e., the mountains where the sun doesn't shine and the marked trails, are less crowded so many hikers are unaware of it.

Footpaths to the half-dozen mountain huts are well marked, and the mountain people here don't feel to be Italian, but rather a hybrid of Swiss.

I recommend going out in the province Lecco high up by car through the serpentine towards the summit of Grigna Septentrionale. Here the little alpine can be found even on flat outcrops of eroded rocks, which are so comfortable for the elderly hiker to rest. That's where the rocks glistens and the tiny, protected, *Primula grignensis* thrives. Ota Vlasak found nice hybrids of primroses here; but he went around the peak from a different side than I did with Joyce Carruthers almost twenty years ago.

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Quite by chance one can find this small campanula in these mountains below Switzerland, in the magic low carpet where there is deep fine soil and the plant can take advantage its ability to slowly sprout through the root system. By sowing from autumn to spring, forms of a different flower shape are obtained, and their colour can range from white and milky blue to dark blue with almost black. The petal bases are blue. All forms are exciting to me. However, natural collections are rare and outsiders put hybrids in seed exchanges under the sacred name of *C. raineri* which are in fact, *C. carpatica* or *C. 'Pseudoraineri'*. It is therefore necessary to be alert and get the right one.

They can also be propagated by division during the year and by cuttings in spring. Rainer's bell, which can be another name for *C. raineri*, has lovely sessile to semi-sessile leaves, and it all fits on a woody base. Excellent results are obtained after sowing in a styrofoam container, where it is possible to select those best forms. The well-known Aberconwy nursery in Wales is propagating its new cultivar *Campanula raineri* 'Joan Beeston' and two white forms adorn the British tufa. If I acquire this plant from somewhere, I'll put it in a styrofoam container in a jardiniere in a cool spot behind the house.



Campanula raineri 'Joan Beeston'



Campanula raineri forma alba.

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At Frantisek Paznocht's place in Monchenroth, Bavaria, at 450 m above sea level these bells snuggle up to rocks and self-select dwarf lavender-blue forms. Perhaps they are helped by the higher humidity, increased by a loving owner spraying with a hose every day.

Finally, I need hardly say that, as well as humans, slugs of all kinds love this alpine.



Campanula rainieri – photo František Paznocht