# International Rock Gardener

ISSN 2053-7557

Number 102 **The Scottish Rock Garden Club** June 2018

# ---International Rock Gardener---

June 2018

The IRG Team is pleased to be able to publish a description of a new species of peony, named for the late, great Jim (J.C.) Archibald by two of his many admirers, Jānis Rukšāns and Henrik Zetterlund. The SRGC is proud to host online the Archibald Archive to represent the work of Jim and Jennie Archibald in bringing such a wide range of plants to the attention - and gardens - of so many plant lovers worldwide. Imagine then, our delight to be given another species description by these two famous plantsmen, this time of a crocus to be named for two of our team. Margaret and Ian Young seem inextricably bound with the SRGC over decades as exhibitors to show secretaries, speakers and founders of the IRG amongst other things! With his Bulb Log Diary written every week since 2003, Ian has also continued his determination to communicate and inspire with plant lovers around the world in that way. The Youngs feel they have gained great friendships and knowledge from the SRGC and are happy to work voluntarily to “give back”. That Jānis and Henrik have chosen to honour them in this way is deeply appreciated by Margaret and Ian both for themselves and for the association with the SRGC. The third new species this month is an Andean *Alstroemeria* from Chile, described by John M.Watson, Ana (Anita) R. Flores with Gloria Rojas.

Cover photo: *Paeonia archibaldii* Rukšāns *species nova*.

Jānis Rukšāns and Henrik Zetterlund at the hill where *Paeonia wendelboi* was found.

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## ---Species description---

# *PAEONIA ARCHIBALDII* Rukšāns – A NEW PEONY SPECIES FROM IRAN

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Published in International Rock Gardener 102 – June 2018 Pages 3 - 13

The horticulturally very important genus *Paeonia* is highly complicated taxonomically. It is distributed all over the Northern Hemisphere and can be found wild from N America through NW Africa, Europe, Asia to Siberia, China, and Japan. Different botanists regard differently the status of the species already described, so the number of recognised taxa diverges greatly in the publications of various authors. So Stern (1946) recognises 33 species, Halda (2004) – 25, but in the latest monograph on the genus by Hong (2010) 31 species are included, but many species of other authors are regarded as subspecies. With the inclusion of subspecies, the number of recognised taxa sensu Hong rises to 50. The pronounced polymorphism within the genus makes the distinction of species sometimes (or rather quite often) very difficult. The situation with the Caucasian peonies is especially complicated – many new taxa published by Russian and Georgian botanists are now regarded by Hong as subspecies or synonyms of other species. But this does not mean that Hong's monograph includes all *Paeonia* species existing in nature. After Hong's work was published, one more species from Iran (*Paeonia wendelboi*) was described by me (J.R.) together with Henrik Zetterlund from the Gothenburg Botanical Garden. The range of some Caucasian and E Turkey species according to Hong enters Iran along the southern coast of the Caspian Sea – Zagros, Gilan and Mazandaran provinces, but peonies occur in Golestan Province as well (M. Assadi, 2016).

*Paeonia wendelboi* Rukšāns & Zetterlund

The most recent comprehensive review of *Paeonia* species growing in Iran was published in "The Iranian Journal of Botany" vol. 22. #2, pp. 75-78 (M. Assadi, 2016). According to this publication, there are three recognised species in Iran – *Paeonia mascula* (L.) Miller (in Flora Iranica as *P. kavachensis* Azn.) from W Kurdistan, where it occurs in a *Quercus* forest near Chenarch village between Marivan and Saquez; *P. wendelboi* Rukšāns & Zetterlund – a very narrow endemic, known from two small localities between Asalem and Khalkhal, and the much more widely spread *P. tomentosa* (Lomak.) N. Busch, distributed along the southern coast of the Caspian Sea (Mazandaran and Gilan provinces) and, according to M. Assadi, entering Golestan Province to the east. All these species are easily identifiable – *Paeonia mascula* has red flowers and is glabrous throughout, *P. tomentosa* is white-flowered and, as can be guessed from its name, conspicuously hairy at least on the lower surface of the leaves, and the

recently (2014) described dwarf *P. wendelboi* has bright yellow flowers. The latter species had been introduced into cultivation several times – at first in the Gothenburg Botanical Garden from seeds originally collected in the wild by M. Assadi (1978) and later by J. C.(Jim) Archibald (1941-2010, a famous plant seed collector and distributor and a great friend of the author).

Another very special dwarf *Paeonia* sp. with pure white flowers and completely glabrous leaves was found by Jim Archibald ENE of Firuzkuh in Mazandaran Province of Iran at an altitude of approx. 2000 m on a steep slope near the tree-line in a rich diversity of dense, deciduous scrub. Shortly before his death Jim Archibald shared some seeds of this peony with the author of this publication and now they have started blooming. According to Jim's report, its large, pure white flowers with cream anthers on pale pink filaments sometimes open almost at ground level in spring. With its globular flowers and glabrous carpels it bears some resemblance to *P. obovata* growing wild in the Far East (visitors to Rukšāns' garden when seeing this peony in flower usually ask – is it *P. obovata*?). The more mature, thin-textured foliage somewhat reminds one of *P. tomentosa*, though the leaves of the Archibald's plant are completely hairless beneath and at the start of vegetation are deep purple, retaining some hints of purple during the vegetation.

*Paeonia tomentosa* in Iran - distinctly hairy leaves.

Actually, this glabrous peony species was found long before Archibald did so and is listed in Flora Iranica (Riedl, 1969) under the name of *Paeonia wittmanniana* Hartw. ex Lindl. var. *nudicarpa* Schipcz., although the area of *P. wittmanniana* is restricted to Georgia, Armenia and Turkey (Hong, 2010 – as *P. daurica* Andrews subsp. *macrophylla* (Albov) D.Y. Hong). Records of *P. wittmanniana* from N Iran by Boissier are referable to *P. tomentosa* (M. Assadi, 2016), regarded by Hong as *P. daurica* subsp. *tomentosa*. Specimen Renz and Iranshar 17756 with glabrous follicles cited by M. Assadi was collected above Talar e-Sarband in a Sangdeh forest, not far from the Archibald's locality in the eastern part of Mazandaran Province. It seems that this gathering was not known to Hong as the only samples of a peony from Mazandaran Province cited in his marvellous monograph came from the western part of Mazandaran Province, from a degraded forest above Siah Bisheh, the locality where *P.*

*tomentosa* was observed by Rukšāns in 2008 (WHIR-125B) and is shown here. It appears that this locality has now been destroyed and no plants were found there in May, 2018.

*Paeonia tomentosa*

*Paeonia tomentosa* on a steep Iranian hillside.

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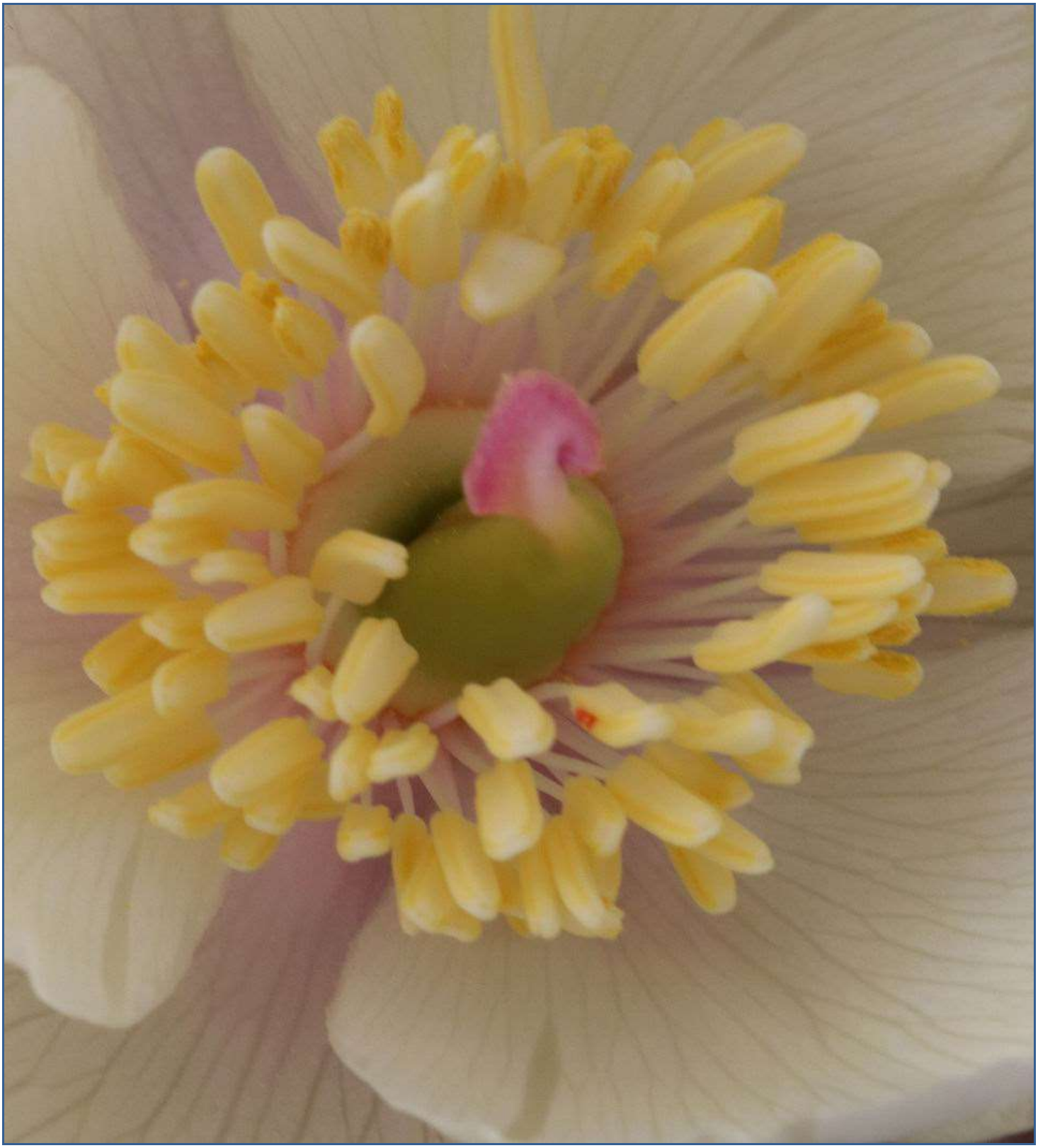
We cannot agree with the statement of M. Assadi (2016) about this “glabrous” peony that “it seems it does not need to raise a distinct taxon for it”.

What is it that makes this peony so special as to be worthy of its own species name? Firstly, it is its dwarf habit – according to Archibald, “sometimes [flowers] open almost at ground-level”. Although Hong (2010) regards the plant height as unimportant in the taxonomy of *Paeonia*, sometimes the differences are so impressive that they cannot be ignored.

This dwarf habit of Archibald’s peony is retained in cultivation – regardless of whether it grew in the open garden or in the greenhouse its height never exceeded 30 cm, being even shorter than the yellow-flowered *Paeonia wendelboi*. *P. tomentosa* (as it is regarded by M. Assadi) can even reach 1 m height and such were the plants of this species observed by me (they were 0.7-0.8 m high). The other feature that separates it from the white-flowered Iranian peony *P. tomentosa* is the completely glabrous leaves and follicles. We did not observe any hair or even papilla on its leaves, leaf margins, enervation or other parts. In addition, its leaves have a very special deep purplish red colour which fades with age, but keeps some purple hints on the leaf margins almost up to the end of vegetation. There are some other species in which the young leaves can be purplish tinted in some populations, but none holds this colour so long even after flowering.

*Paeonia ruprechtiana* (*P. daurica* subsp. *coriifolia*) - red leafed form.

We found similar forms of *Paeonia ruprechtiana* Kem.-Nath. (*P. daurica* subsp. *coriifolia* sensu Hong) in Georgia (CMGG-004), but their flowers were dark, reddish pink and the texture of the leaves was smoother. There are other taxonomically less important features that are mentioned in the description of the new species which confirm its distinct specific status. We decided to name it after its introducer into cultivation Jim Archibald as *Paeonia archibaldii.*



*Paeonia archibaldii*, close-up of flower centre.

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## ***Paeonia archibaldii*** Rukšāns ***species nova***

**Type** – Ex culturae in horto Jānis Rukšāns, plants from Iran, the eastern end of the Elburz, Mazandaran Province, ENE of Firuzkuh, 35.52 N and 52.57 E, alt. 2000 m, originally collected by J.C. Archibald. Holo: GB (Gothenburg).

**Syn.**: *Paeonia wittmanniana* var. *nudicarpa* sensu Riedl, 1969.

*Paeonia archibaldii*

**Habitat and distribution** – at altitudes around 2000 m, in clearings and margins of deciduous forests and dense deciduous scrub. At present known only from the type locality and its surroundings, but it is possible that plants growing to the east of it as far as Gorgan could belong to the same species (in Flora Iranica *Paeonia wittmanniana* var. *nudicarpa* is mentioned as growing in Gorgan, too).

**Flowering time** – May.

**Diagnostic characters**. **Roots** carrot-shaped, attenuate downwards, up to 3 cm in diameter. **Stem** – green, but at the base and below the lower leaves with some reddish staining, bottom scales glabrous, red. **Lower leaves** biternate with 9-11 leaflets, distinctly glabrous throughout, at the start of vegetation and until blooming noticeably purplish red, later gradually becoming greenish from the midvein, dark green at very end of vegetation, but still retaining the purplish staining at the edges. **Leaflets** obovate, shortly acuminate at the apex; in young plants the shape variable – from broadly obovate to even lanceolate, upper leaves triternate, with entire or segmented leaflets. **Petioles** glabrous, leaves glabrous throughout – on the surface, along the margins and enervation. **Flowers** solitary and terminal with 5-7 pure white petals. **Involucrate bracts** – 1-2, leaf-like, at blooming time deep bluish purple with red innervation, **sepals** – 2, orbicular, brownish green with red innervation and a wide reddish purple margin, rounded at the apex, glabrous. **Carpels** glabrous with a style less than 1 mm long, **stigma** pink. **Filaments** 6-7 mm long, white, staining pinkish at the base or light pinkish throughout, glabrous. **Anthers** 4-5 mm long, creamy yellow, **disk** – greenish white to creamy white, flat, 1-2 mm wide.

**Chromosome number** – unknown.

**Etymology** – named after James Cartledge Archibald, who was the first to introduce this beautiful species into cultivation and drew our attention to it.

Right: *Paeonia archibaldii,* lower scales
Below: *Paeonia archibaldii,* involucrate bract

*Paeonia archibaldii* - sepals, end of blooming

Right:
*Paeonia archibaldii*– biternate glabrous leaves after blooming.

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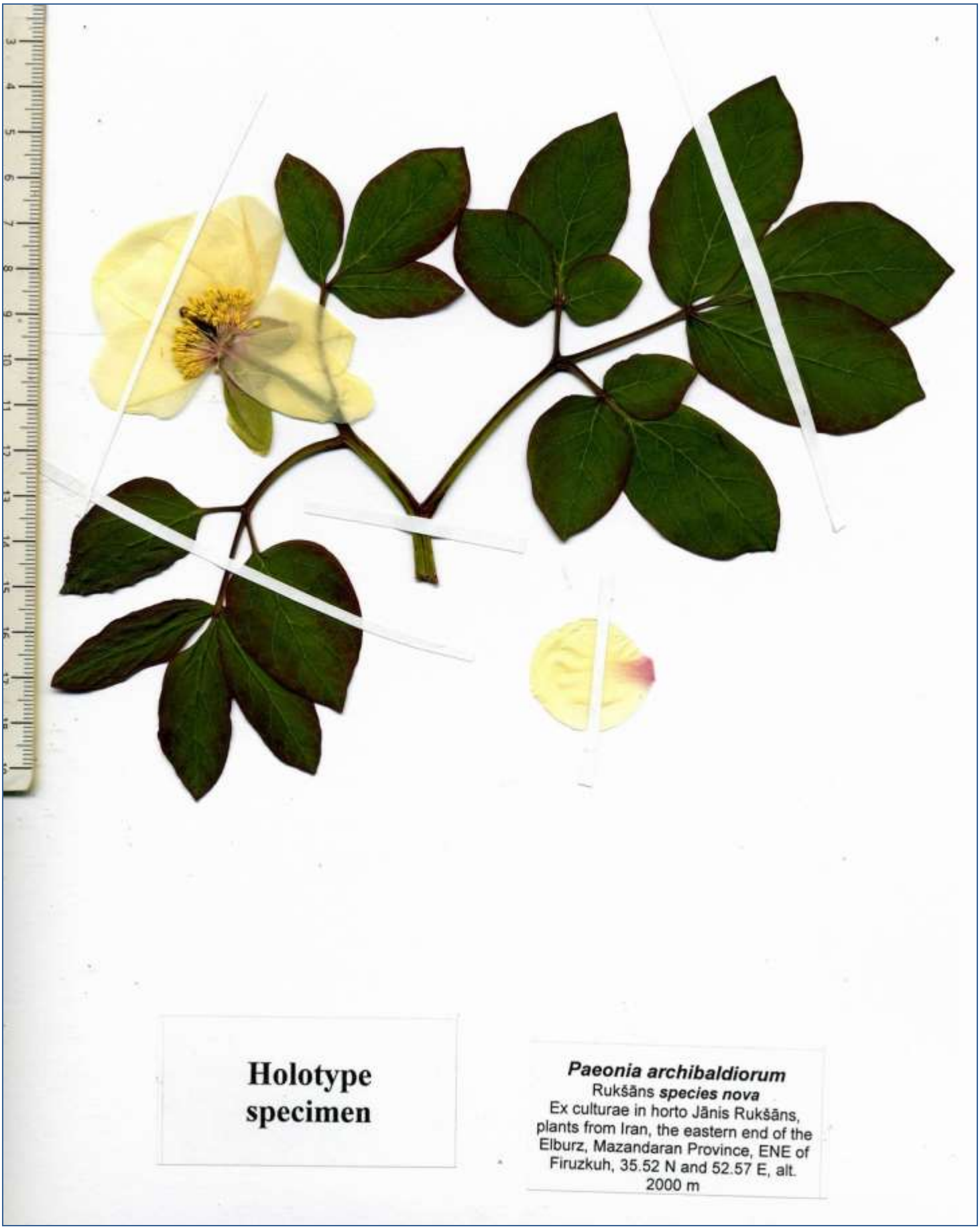


*Paeonia archibaldii* - holotype specimen (marked with “working” name)

*Paeonia archibaldii*

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