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# More new *Paphiopedilum* species 2017 -18

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### Introduction

The Orchid Digest July- September 2017 included a paper by Cavestro, Gruss and Koopowitz about 6 newly identified *Paphiopedilum* species:

- *Paphiopedilum agusii* (accepted by Kew).
- *Paphiopedilum bungebelangii* (accepted by Kew).
- *Paphiopedilum dodyanum* (accepted by Kew).
- *Paphiopedilum lunatum* (accepted by Kew).
- *Paphiopedilum notatisepalum* (accepted by Kew); and
- *Paphiopedilum zulhermanianum* (accepted by Kew)

In the following issue, January-March 2018, Koopowitz, Lamwiriyaikul and Laohapat published information on another newly identified species. *Paphiopedilum myanmaricum* (not yet accepted by Kew). This paper excludes new *Paphiopedilum* that have been tentatively identified as natural hybrids.

For the purposes of my research, the Plant List supported by Kew and several leading herbaria <http://powo.science.kew.org/?> is used as a searchable reference as it provides details of those *Paphiopedilum* species where the identification is accepted.

Recognised authors and taxonomists including Dr Guido Braem, Dr Phillip Cribb, the late Dr Jack Fowlie, Harold Koopowitz, Olaf Gruss, the late Holger Perner and Dr Tanaka as well as many others are constantly working with this genus to properly identify species and using DNA sequencing to supplement to the traditional bases for identification. Improving our knowledge and understanding of the taxonomical procedures involved in validly identifying and obtaining recognition for a previously unidentified plant species is important in understanding why plant genera and species change as we develop better tools and procedures for their identification.

Dr Tanaka is recognised as a very knowledgeable enthusiast lists “new” species on his webpage at <http://www.orchid.or.jp/orchid/people/tanaka/indexe.html> He states that his page is not for scientists or botanists, but is targeted to enthusiasts, thereby avoiding the classification disputes that continue to plague taxonomy. My visit to his website revealed a further three new species that are covered in this paper, *Paphiopedilum natasche* (accepted by Kew), *Paphiopedilum papilio-laoticus* (not yet accepted by Kew) and *Paphiopedilum rohmanii* (not yet accepted by Kew). All the photos in this paper are, unless otherwise stated, from Dr Tanaka’s webpage.

***Paphiopedilum agusii*.** Cavestro & N. Bougourd 2017 *Subgenus Sigmatopetalum Section Barbata Subsection Chloroneura* is a recently described species from 900m Central Java in Indonesia. The species is named for Agus Marup, a local Javanese nurseryman who found, grew and flowered the plant that was later identified.

While the flower is said to be somewhat similar to *Paphiopedilum argus* (Rchb.f.) Stein and *Paphiopedilum javanicum* (Reinw. ex Lindl.) Stein, it differs from the latter in that it has a wider dorsal sepal (largely ovate and not elliptic), oblong petals (not narrowly oblong) and a sub circular staminode (not reniform = kidney-shaped). It is also somewhat similar to *Paphiopedilum callosum* and *Paphiopedilum barbatum*.

Additional research is required to determine whether or not it is in fact a new species, or a variant form of one of the species to which it is similar.



*Paphiopedilum agusii*



*Paphiopedilum agusii*  
staminode



*Paphiopedilum agusii* in situ

***Paphiopedilum bungebelangii* Metusala Section Barbata**

A new species closely related to *Paphiopedilum barbatum*, *Paphiopedilum bungebelangii* differs as its undulate, yellow/green petals with darker green stripes lack the characteristic black warts of *Paphiopedilum barbatum*. Its name means beautiful flower (bunge = flower and belangi = beautiful). This species was found at 1,550-1,650 in Aceh province and described in the Edinburgh Journal of Botany, March 2017. P.1-10 by D. Metusala. *Paphiopedilum bungebelangii* also resembles *Paphiopedilum robinsonianum* which is found nearby.



Photo: David Ng.  
Published in Orchid  
Digest Jul-Sept 2017

Photo: Dody Nugrohu.  
Published in Orchid  
Digest Jul-Sept 2017







*Paphiopedilum bungebelangii* in situ Aceh

Photo: Frankie Handoyo

Published in Orchid Digest Jul-Sept 2017

***Paphiopedilum dodyanum*** Cavestro 2017 section *Cochlopetalum*

This newly described species, also from Aceh, was found in 2016 at 1,300m in the Gayo region of Aceh, some 500 km from where *Paphiopedilum liemianum* can be found. It is similar to *Paphiopedilum liemianum* and *Paphiopedilum moquettianum* but differs from *Paphiopedilum liemianum* as it has mottled leaves, a green, spotted brown dorsal sepal, and an ovate-rhombic staminode, although it shares the heavily pigmented leaf undersides of *Paphiopedilum liemianum*. When compared with *Paphiopedilum moquettianum*, the background colour in the dorsal is green rather than yellow. This new species was described in The Internet Orchid Species Photo Encyclopedia Nomenclature Note April 2017 by Dr. William Cavestro. It was named for Dody Nugrohro, owner of Djuwita Nursery.



Photos by David Ng



***Paphiopedilum lunatum*** Metusala 2017 section *Barbata*

This species was found in Aceh, and described was described in the Edinburgh Journal of Botany, March 2017 74(1) p.1-10 by D. Metusala. It is closely related to *Paphiopedilum javanicum* but differs in its longer, oblong-elliptic petals. In fact, it was originally thought to be a red form of *Paphiopedilum tonsum* that has been for sale for some time. It has also been suggested that it might be a natural hybrid between *Paphiopedilum javanicum* and *Paphiopedilum tonsum*. This view is rejected by Metusala as he says it is a much larger flower than either of these species, and has much longer petals.



*Paphiopedilum lunata* in situ



*Paphiopedilum lunata*

Photo source [http://bluenanta.com/orchid/526524/species\\_detail/?tab=gal](http://bluenanta.com/orchid/526524/species_detail/?tab=gal)

***Paphiopedilum myanmaricum*** Koop., Lamwir. & Laohap. sp. nov. subgenus *Brachypetalum*

This new species was described in Phytotaxa 324(1):097-100, 2017 by Dr. Harold Koopowitz et al. This species from Myanmar differs from *Paphiopedilum josianae* (previously *Paphiopedilum concolor* var. *longipetalum*) found in Myanmar and *Paphiopedilum leucochilum* found in Thailand in the shape of the labellum, pattern of markings on petals and sepals, obovate to elliptical petals, shape and pattern of markings of the staminode, and pendent inflorescence. It was found in primary, broad-leaved evergreen forest and scrub on steep slopes and limestone cliffs. While similar to other members of the sub-genus such as *Paphiopedilum josianae* in having dense purple colouration on the underside of the leaves, the most striking difference between *Paphiopedilum myanmaricum* and all the other members of the subgenus *Brachypetalum* is the fringe of white hairs along the staminode basal margin. Staminode fringes are rare in *Paphiopedilum*, though common in *Phragmipedium*.

In considering whether this might be a natural hybrid between *Paphiopedilum josianae* and *Paphiopedilum leucochilum*, the authors examined man-made hybrids between these two species that bore no resemblance to *Paphiopedilum myanmaricum*. Further *Paphiopedilum myanmaricum* has no fragrance whereas *Paphiopedilum leucochilum* has a quite unpleasant fragrance, presumably to attract its pollinator.





Staminode detail

Photos Orchid Digest Jan-Mar 2018

***Paphiopedilum nataschae* Braem 2015 subgenus *Sigmatopetalum***

This new species was discovered in the north central region of Sulawesi and was described in *Richardiana* XV 276-281(2015) by Dr. Guido J. Braem. While *Paphiopedilum nataschae* is similar to *Paphiopedilum sangii*, the staminodes of each are distinctly different in shape and colour, the pouch of *Paphiopedilum sangii* has prominent veining not present in *Paphiopedilum nataschae*. *Paphiopedilum nataschae* has also been likened to the recently discovered *Paphiopedilum robinsonianum* discovered by Cavestro. The major difference between the two is the shape and colouration of the dorsal sepal, and the strongly twisted petals of *Paphiopedilum robinsonianum*. It is also noted that *Paphiopedilum sangii* var. *ayubianum* described by Olaf Gruss is somewhat similar to *Paphiopedilum nataschae*.

*Paphiopedilum nataschae* was named for Miss Natascha Popow.



*Paphiopedilum natasche*



*Paphiopedilum sangii*



*Paphiopedilum robinsonianum*

***Paphiopedilum notatisepalum*** Z. J. Liu, M. Wang & S. R. Lan 2017 Subgenus  
*Paphiopedilum* Section *Paphiopedilum*

This new species is found in southeastern Yunnan, China in the crevices of shady cliffs or rocks in evergreen broad-leaved forests over limestone where it grows as lithophyte. This new species is morphologically similar to *Paphiopedilum henryanum*, from which it differs by being smaller plants with large yellow spots on the leaves, shorter flower scape but larger flower, white and narrow sepals and light purple-red petals with larger purple spots and yellow-white margins. The molecular analyses of combined nuclear and plastid datasets (nrITS and matK) indicate that *Paphiopedilum notatisepalum* is sister to *Paphiopedilum barbigerum* which has a green leaves and pale yellow-green sepals and petals. The species name *notatisepalum* refers to purple-maroon-spotted sepals, from the

Greek *notati* (spot) and *sepalum* (sepal).

This species was described in *Phytotaxa* 302(2):156-164 2017 by Meina Wang et al. Using the World Conservation Union Red List Categories and Criteria (IUCN, 2012), *Paphiopedilum notatisepalum* should





be treated as critically endangered.

***Paphiopedilum papilio-laoticus*** Schuit., Luang Aphay & Lio 2018 sp. nov. Section *Paphiopedilum*

This new species from Laos was described as *Paphiopedilum papilio-laoticus* in Orchideen Journal Vol.6-4, 5 June 2018, by Andre Schuiteman, Sulvng Luang Aphay and Shunsuke Lio. It was discovered amongst wild-collected orchids being sold in a local market, much as was the case for *Paphiopedilum rungsuriyanum* which created a huge amount of interest when it was first flowered. It is thought that these species are endemic to Laos, and the habitat from which they were collected is being kept confidential to prevent their wholesale removal.

This species is most similar to the highly variable *Paphiopedilum gratrixianum* (and *Paphiopedilum daoense*) but has much larger flowers, a uniformly pubescent, white staminode with incurved margins and the eye-like purple spots on the dorsal sepal. The other species in the SECTION *Paphiopedilum* with a white staminode and large dorsal sepal is *Paphiopedilum charlesworthii*, but its staminode is glabrous and the dorsal sepal is uniformly pinkish with darker veins.

It is named for the Latin papilio (butterfly), and laoticus (from Laos) referring to the large dorsal sepal that resembles a butterfly wing and the origin of the species. The authors say that it is hoped that this attractive and rare species can be propagated from seed, and urge collectors not to buy plants of this species which are most likely to be wild collected. Once the identification is accepted, it is likely to be added to ICUN red list as threatened as it is only found in a very confined location.



Photos published Orchideen Journal Vol.6-4, 5 June 2018

*Paphiopedilum papilio-laoticus*

Plant habit



***Paphiopedilum rohmanii*** Cavestro & O. Gruss sp. nov. section *Barbata*

This new species from Aceh province in northern Sumatra is found in humid forest at 700- 800m. This species has a white dorsal sepal tinged with light purple and brown-purple veined, petals de-flexed, green veined and spotted with light brown, a light brown lip





veined with brown, a lunate staminode white and green reticulated in the middle. This appearance is different to most of the species in the *Barbata* section. While it most closely resembles *Paphiopedilum tonsum*, it differs in having deflexed, twisted at apex, more mottled brown petals, a staminode that is lunate (not subreniform) and green reticulated in the middle. It is quite different to *Paphiopedilum barbatum*. It is named for its discoverer Rohman Ikhwan, the owner of Roman Orchids in Aceh.

When looking at the flower, the deflexed petals bear a resemblance to *Paphiopedilum callosum* found in Cambodia, Thailand and Laos. The Sumatran species *Paphiopedilum tonsum* and *Paphiopedilum barbatum* are found on the Malay Peninsula and to the North and centre of Sumatra.



These two species are therefore geographically close to *Paphiopedilum rohmanii*. This species was published in Orchideen Journal (Internet) Vol 5.3, 2017

***Paphiopedilum zulhermanianum* Cavestro 2017 section *Barbata***

This species is found in the Bukit Barisan Mountains in Western Sumatra at 700-800m as a terrestrial. Named for M Zulherman, its finder, this species is like others in section *Barbata*. It is most similar to *Paphiopedilum bullenianum* but differs as it has a longer dorsal sepal with white margins, the petals are more spatulate (non-oblancheolate) and coloured pale purple-rose in the apical part and it has a reniform (not sub circular) staminode.



This new species was described in 'The Internet Orchid Species Photo Encyclopaedia Nomenclature Note ' April 2017 by Dr. William Cavestro.

It was disturbing to find several advertisements on the internet offering some of these newly discovered species for sale. Clearly, they will be wild-collected plants in breach of the CITES convention, but the vendors are not in any way concerned about the removal of perhaps rare and endangered species from the wild, preferring profit to conservation!

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