

# *Paphiopedilum nataschae* (Orchidaceae, Cyripedioideae), a New Addition to the Orchid Flora of the Indonesian Archipelago<sup>a</sup>

Guido J. Braem<sup>1</sup>

**Keywords/Mots-clés :** Asia/Asie, Cyripedioideae, plant sytematics/système végétale, taxonomy/taxinomie.

## **Abstract**

*Paphiopedilum nataschae*, a new orchid species from Sulawesi, is described and illustrated, and its relationship to other species of the genus is discussed.

## **Résumé**

*Paphiopedilum nataschae* (Orchidaceae, Cyripedioideae), un nouvel ajout à la flore de l'Archipel indonésien – Une nouvelle espèce de *Paphiopedilum* originaire de Sulawesi est décrite et illustrée et ses liens de parenté avec l'espèce la plus proche, *Paphiopedilum sangii* Braem, sont discutés.

## **Introduction**

During a recent exploration of part of the Indonesian archipelago, a plant, not answering to the characteristics of any species hitherto known, was discovered on the Island of Sulawesi. Upon closer scrutiny, including comparison with the fairly recently published *Paphiopedilum robinsonianum* Cavestro (2014), another Sulawesi taxon, the new species was indeed found to be a member of the genus *Paphiopedilum* hitherto unknown to science. The plants have mottled leaves, an inflorescence typically

---

<sup>a</sup> : manuscrit reçu le 15 mai 2015, accepté le 5 juin 2015

article mis en ligne sur [www.richardiana.com](http://www.richardiana.com) le 06/06/2015 – pp. 276- 281- © Tropicalia  
ISSN 1626-3596 (imp.) - 2262-9017 (élect.)

generating a single flower; the flowers are large with a synsepal that is smaller than the dorsal and a deeply saccate, pointed pouch with a well-developed auricula on each side of the aperture. The species thus fits in subgenus *Sigmatopetalum* Hallier fil. (Braem & Chiron, 2003). Although we recognise a closer affinity to *Paphiopedilum sangii* Braem (1987), we defer final judgment as to the exact place of this taxon within the subgenus until further data become available.

***Paphiopedilum nataschae* Braem, sp. nov.**

*Haec herba epiphytica Paphiopedium sangii Braem subsimilis est sed foliorum maculis, florum morphologia, coloreque differt. Staminodii clipeus sub-circularis plus minusve trapezoideus est, cum parte centrali incrassata, margine basali (supero) incrassato digitatoque, et margine apicali (infero) centrale inciso.*

Type: Indonesia, North Central Sulawesi: Alain de Raeve, May 2015, s.n. (HT: LY).

Etymology: named for Miss Natascha Popow.

*Paphiopedilum nataschae* is an herbaceous plant with tufted growths, reaching an overall height of about 46 cm. The natural span from leaf-tip to leaf-tip is about 30 cm. Each mature growth generates about 5 leaves which are oblong-lanceolate, to about 28 cm long by up to 5.5 cm wide, light green, mottled with darker green, the underside covered with many minute purple spots, the keel purple (Fig. 1). The scape is terete, to about 38 cm tall by 3.5 mm in diameter. The pedicellate ovary is about 5.7 cm long by about 4 mm in diameter. The flower bract is conduplicate, 2.6–2.8 cm long by 1.0 cm wide (folded in the natural condition). The flower (Fig. 2) is large, overall about 10 cm tall by about 7.6 cm wide (as measured on a living plant in its natural condition). The dorsal sepal is narrowly ovate, about 4.5 cm tall by 2.5 cm wide. The synsepal is about 3.4 cm long by 1.7 cm wide. The petals are 4.2 cm long by 1.4 cm wide, spreading at an angle of 25–30 degrees. The labellum is overall (including the claw) 5.0 cm tall. The claw has a width of 1.3 cm. The pouch is about 3.9 cm long by 2.3–2.5 cm wide at the rim, deeply saccate, shaped like an inverted helmet. The staminodal plate is about 0.9 cm high by 1.1 cm wide, sub-circular (somewhat trapezoid) with a thickened centre part, a thickened basal (upper) margin that contains up to several toe-like protrusions of which the last one on each side stands out like a little horn, and a distinct incision in



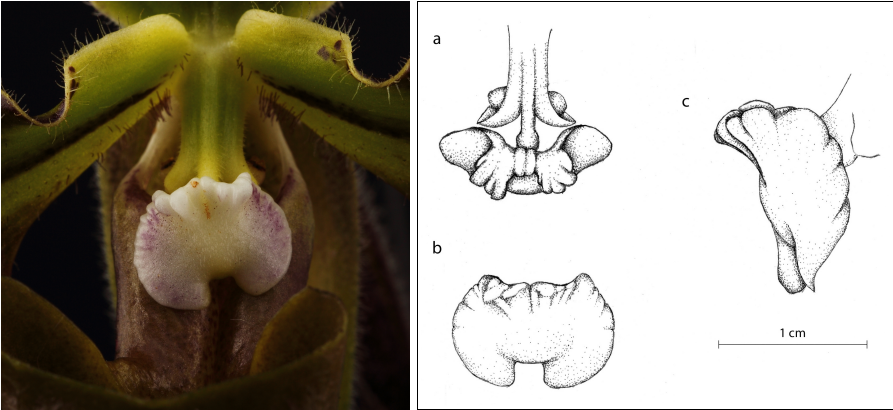
**Fig. 1: leaves of  
*Paphiopedilum nataschae***  
(left)



**Fig. 2: flower of  
*Paphiopedilum nataschae***  
(below)

the centre of the apical (lower) margin, the side margins turned backward and crimped over their basal half (Fig. 3 & 4). The scape of the inflorescence including the flower bract and the pedicellate ovary is brown and densely covered by white hairs. The margins of the petals and sepals are ciliate. The margins of the petals are very wavy. The dorsal is green over its basal half turning to yellowish-green toward the apex. The synsepal shows the same colour pattern as the dorsal. The petals are bright greenish-yellow near the base and deep purple over most of the remaining area, forming a dark stripe at the midline of each petal, and leaving a bright greenish-yellow margin. The reverse sides of the petals and sepals are covered by short

whitish hairs. The pouch is dark olive green to purple. The staminode is supported by a thick, greenish-yellow base, the staminodal shield is white along the margins and in its basal (upper) area, the raised centre is yellow and the lobes on each side of the median yellow area are more or less strongly covered by a purple hue and purple spots.



**Fig. 3 & 4: staminode of *Paphiopedilum nataschae***  
front view (left) – top, front and side views (right– drawing Hartmut Mohr)

## Discussion

Quite some interesting plants have been discovered on Sulawesi (formerly Celebes) over the last decades. In respect to the genus *Paphiopedilum*, we note the discovery and description of *P. sangii* Braem in 1987, of the multifloral *P. gigantifolium* Braem, Baker & Baker (1997), and of *P. robinsonianum* Cavestro (2014). In this article, we introduce yet another *Paphiopedilum* species from that Island. *Paphiopedilum nataschae* is, just like *P. sangii* and *P. robinsonianum*, a species that generally produces a single flower per growth, has mottled leaves and shows distinct auricula on each side of the pouch. Thus all three find their place in subgenus *Sigmatopetalum*.

When comparing *P. nataschae* with *P. sangii* (Fig. 5), we find the staminode of the two species to be very different in shape and colour: in *P. sangii*, the staminode is without any protrusions of the basal margin and fairly unicoloured. Furthermore, the pouch of *P. sangii* is prominently veined.



Comparing *P. nataschae* with the recently discovered *P. robinsonianum* (Fig. 6), we can see a distinct difference in the shape and colouration of the dorsal sepal, and we note that the petals of the latter species are strongly twisted. We also note that the length of the pouch in relation to the overall length of the labellum is much shorter in *P. robinsonianum* than in *P. nataschae*, and the staminodes of both species are quite different.

The conclusion can only be that *P. nataschae* is an autonomous species, and its discovery may raise the question what else can be discovered on the island.



**Fig. 5 : *Paphiopedilum sangii***



**Fig. 6 : *Paphiopedilum robinsonianum***

## References

- Braem, G.J., 1987. *Paphiopedilum sangii*, eine neue Frauenschuhart der Sektion *Blepharopetalum* (Untergattung *Sigmatopetalum*). *Die Orchidee* 38(4): 169-172.
- Braem, G.J. & G.R.Chiron, 2003. *Paphiopedilum*. Tropicalia, Voreppe (France). 440 pp.

Cavestro, W., 2014. A New Species of *Paphiopedilum* from the Island of Sulawesi (Indonesia): *Paphiopedilum robinsoniamum* Cavestro. *Revue RAO*: 52: 10-15.

## Acknowledgements

The author is indebted to Dr. Jon Cabrera, to B.M.Howlett and to Tropical Exotic Orchids for the photographic material and Mr. Hartmut Mohr for the drawing of the staminode and general assistance.

ph. : Jon Cabrera (Fig. 1-3), Tropical Exotic Orchids (Fig. 5), B.M.Howlett (Fig. 6)

---

1 : Professeur de Biologie à l'Université du Maryland et chercheur associé à la California Academy of Science  
braem44@gmail.com