

BUILDING BLOCK REPORT

Phalaenopsis bellina (Rchb.f.) Christenson 1995
Subgenus: *Polychilos*



Phalaenopsis bellina

General Information:

This species is found in Malaya and Sarawak in Borneo. Sweet (1980) reported that *Phalaenopsis bellina* f. *murtoniana* was originally collected near Changkat in

southern Perak state. Griesbach (1998), however, indicates that *Phalaenopsis bellina* and its forms are found on Borneo while *Phalaenopsis violacea* occurs in Malaya, which reflects the thinking on the distribution of these plants that was generally accepted for many years. Recent work, however, shows that these orchids occur in both regions, with those from Borneo reported as originating in lowland forests while plants found on the Malay Peninsula have been reported as occurring below 650 ft. (200 m).

Phalaenopsis bellina has long been included in the synonymy of a broadly defined *Phalaenopsis violacea*, and indeed they are closely related sister species with very similar lip morphology. Following an examination of floral fragrances and a review of other morphological differences, *Phalaenopsis bellina* was separated from *Phalaenopsis violacea*. *Phalaenopsis bellina* has been known as the “Borneo” type of *Phalaenopsis violacea* – those plants bearing greenish white flowers with purple suffusion restricted to the lateral sepals, the bases of the dorsal sepals and petals, and the lip and column. These are unlike the true *Phalaenopsis violacea* from Sumatra and the Malay peninsula, which bear flowers completely suffused with purple (often with greenish tips to the sepals and petals).

General Description:

This species is an epiphyte. Its leaves are three to several, elliptic-obovate, rounded, acute, waxy, shiny, pale green and are 20 to 25 cm long by 7 to 12 cm wide. Inflorescences are rigid, arching racemes, shorter than the leaves and often resting upon them, the floral bracts are ovate, acute, concave, fleshy, bilaterally compressed, to 7 mm long. The flowers are very fragrant, sequentially produced with one or two flowers open at a time, greenish white to greenish yellow, the basal inner edges of the lateral sepals intensely saturated purple, the base of the sepals and petals with purple suffusions and fine spotting, the lip purple with yellow lateral lobes. The dorsal sepal is elliptic-lanceolate, acuminate-carinate, concave below the apex, keeled along the back from 3.6 cm long to 1.5 cm wide. The lateral sepals sub falcate, obliquely elliptic-ovate, acuminate-carinate, keeled along the back 3.5 cm long by 1.7 cm wide. Petals are obliquely ovate, acute to subacute and 3 cm long by 1.7 cm wide. The lip is three-lobed to 2.8 cm long and 2.3 cm across the expanded lateral lobes. The lateral lobes are oblong-ovate, truncate with an irregular margin, the posterior corner of the apex with a recurved lanceolate tip, the midlobe elliptic-obovate, obtuse, with an acute, carinate-triangular keel extending beyond the apex from below, with a dorsal keel extending to a raised, glabrous subapical mound. The callus is biseriate, the posterior callus a glandular field terminating deeply bifid with narrowly linear divisions. The column is nearly straight to 1.5 cm long with the pedicel and ovary at 2.6 cm long.

Botanical Varieties (if any)

Phalaenopsis violacea var. *murtoniana* (Rchb.f.) 1878

Phalaenopsis violacea var. *punctata* (Rchb.f.) 1884

Phalaenopsis violacea var. *chloracea* (Rchb.f.) 1884
Phalaenopsis violacea var. *bowringiana* (Rchb.f.) 1884
Phalaenopsis violacea var. *bellina* (Rchb.f.) 1884

Synonyms/Forms:

Phalaenopsis bellina f. *alba* Christenson 2001
Phalaenopsis bellina f. *bowringiana* (Rchb.f.) Christenson 1995
Phalaenopsis bellina f. *murtoniana* (Rchb.f.) Christenson 1995
Phalaenopsis bellina f. *punctata* (Rchb.f.) Christenson 1995

Awards:

This species has been awarded by the AOS 115 times over the period 1977 through 2021 (FCC-14; AM-63; AQ-3; HCC-29; JC-1; CBM-1; CCE-2; CCM-1; CHM-1).

Hybrids:

This species is very important in hybridizing, contributing thick substance, and attractive flower color, compact growing habit, and sometimes fragrance to its offspring. On the negative side, crosses of this species have reduced flower counts, and its difficult and slow growing. It also tends to spread its spots and bars, creating a blended and sometimes solid color effect, which can be negative or positive, depending on the breeder's objectives.

Phalaenopsis bellina has 169 First Generation offspring, and Total Progeny of 716 (through the 5th generation). This species has also been involved in creating Primary Hybrids 36 times as both the seed and pollen parent.

Phalaenopsis Samera was registered in 2003 by M. Liu and is a cross of *Phal. bellina* x *Phal. violacea*. The hybrid has 51 First Generation offspring, and 101 total progeny. The hybrid has been awarded by AOS 25 times (AM-13; HCC-12).



Phalaenopsis Samera
'Anthony'

References:

Christenson, Eric, *Phalaenopsis, a Monograph*, Timber Press, Inc., 2001

Frownie, Steven A., *Moth Orchids – The Complete Guide to Phalaenopsis*, Timber Press, 2008

Orchids Plus 1.4

OrchidWiz 5.1