

## The Genus *Phalaenopsis*

Species of *Phalaenopsis* are found throughout tropical Asia and the larger islands of the Pacific Ocean. They reach the westernmost limit in Sri Lanka and South India and their easternmost limit in Papua New Guinea and adjacent Australia. In the north they occur in southern China (Yunnan), Taiwan and the Philippines.

The subgenera of *Phalaenopsis* have distinct geographic distributions. The subgenera *Aphyllae*, *Parishianae* and *Proboscidioides* are Himalayan with centers of diversity in southern China, India to northern Vietnam, and Myanmar to Thailand, respectively. Subgenus *Polychilos* has a few species as far west as northeast India but it is primarily centered in southeast Asia, with at least two separate radiations in Indonesia and the Philippines; the Philippine species form a closely interrelated complex. Finally, subgenus *Phalaenopsis* is centered in the Philippines with two extensions to Taiwan (*P. Aphrodite* subsp. *Formosana* and Taiwanese plants of *P. equestris*) and one wide-ranging species found from Indonesia to Australia but actually rather in the Philippines proper (*P. amabilis*). (Christenson, 2001).

Plants of *Phalaenopsis* are monopodial, and they have short stems with extremely short internodes. The length of the stem and internodes is a characteristic of light requirement. Plants with small stems and short internode need low levels of lights whereas monopodial orchids like *Vandas* with long stem and long internodes require high light levels.

Roots in *Phalaenopsis* can be aerial, prostrate epiphytic, and substrate. Aerial roots usually are cylindrical and unbranched, unless they get physical damage. They have pigmented tip and they may be either green or purple. Epiphytic roots are typically flattened and ribbon-like. Substrate roots are typically cylindrical, larger in diameter than the corresponding aerial roots, and usually lacking pigment in the root tips

*Phalaenopsis* leaves are succulent. Plants of subgenera *Aphyllae*, *Parishianae*, and *Proboscidioides* are normally deciduous in nature, where they experienced dry season, they shed they leaves to avoid excessive dehydration.

There are some leaves pigmentation on some members of the genus *Phalaenopsis*. In subgenus *Parishinae* the upper leaf surface is dark bluish green and often prismatic. In some species of subgenus *Phalaenopsis*, the leaves are overlain with a silver sheen and richly marked with darker purple spots.

The inflorescence of *Phalaenopsis* ranges from short, few-flowered racemes to long-scapose racemes, to variously branched panicles.

Flowers are resupinate, sepals and petals are usually more or less similar in size, shape and coloration. The dorsal sepal is erect and uppermost in the flowers.

The lip of flowers is always three-lobed. The lateral lobes may be subparallel (subgenus *Polychilos*) or curved to forma cylindrical chamber (Sections *Phalaenopsis* and *Stauroglottis*).

Toward the base of the lip, between the lateral lobes, there are one to three set of calli.

Species of Subgenus *Phalaenopsis*, Section *Phalaenopsis* and some hybrids used in hybridization, awards by number and types.

Names	Progeny F1/Total	Gen.	FCC	AM	HCC	JC	AD	AQ	CC	CCE	CCM	CHM	CBM	CBR	Total
Phalaenopsis amabilis	483/33257			20	11	4		1			8	1			45
Phalaenopsis philippinensis	113/192			4	5	1				1	1				12
Phalaenopsis sanderiana	117/27201		1	3							1		1		6
Phalaenopsis schilleriana	255/29795			20	13			1	2	4	11				51
Phalaenopsis stuartiana	399/28217			12	14						5	2			33
Phalaenopsis aphrodite	62/33353			13	8			1		2	12	1		1	38
Phal. Orchid World	22/25	2	1	54	45						3				103
Phal. Sweet Memory	39/54	2		18	17						4				39
Phal. Maraklee	22/22	2		18	20	JC					3				41
Phal. Sogo Yukidian	167/542	5		4	1					6	1				12
Phal. Doris	262/32093	2	2	14	12						1				29
Phal. Leopard Prince	242/837	7	1	4	6						1				12
Phal. Grace Palm	141/26391	3		9	16						2				27
Phal. Abendrot	229/4504	5	1	6	9										16
Phal. Misty Green	103/4709	7		12	16										28
Phal. Brother Lawrence	108/920	2		10	14	1		1			1				27
Phal. Chian Xen Pearl	174/1042	7		5	4										9
Phal. Golden Buddha	309/2503	7		2	4										6
Phal. Abendrot	229/4504	6	1	6	9										16
Phal. Golden Peoker	218/4087	7		4	2	2					1				9