

Phalaenopsis Section Polychilos (Christenson)

(Breda) Blume & Rchb.f., *Hamburger Garten-Blumenzeitung* 16: 116 (1860)

Type: *Phalaenopsis* [Phal.] *cornu-cervi*

[fal-en-OP-sis kor-new-SIR-vee]

Characteristic Summary

The Polychilos section of the Polychilos subgenus comprises species with a



Phal. *cornu-cervi*, lip detail
Note 'knees' on column



fleshy flattened rachis (terete in Phal. *mannii*), non-fragrant flowers produced singly in succession over long periods of time, petals conspicuously narrower than the sepals, a triseriate (with three sharp teeth pointing forward) callus, a slightly saccate lip base created by folding, the lip mid-lobe transversely anchoriform or lunate, the lip base continuous with the column foot, and a pair of fleshy knee-like projections at the base of the column. The flowers of this section do not exhibit post-pollination chlorophylly.

The flat, sheet-like triseriate callus is

located in the center of the lip, terminating in two narrow, elongate teeth, like the forked tongue of a snake. This callus plate may have lateral teeth as well, but these are variable, and individual flowers may often have one lateral tooth on one side and not tooth or two lateral teeth on the other side. Finally, an erect, terminal, bilaterally flattened, tooth-like callus stand between the elongate teeth of the central plate.

There are presently four species that compose the Polychilos Section of the Polychilos subgenus (presently these species and all of the prior Polychilos subgenus are in the Polychilos section, *Phalaenopsis* subgenus). The plants are distributed in India to Southeast Asia, Indonesia, Borneo, and the Philippines with Phal. *cornu-cervi* having the widest distribution. The plants are epiphytic.

Two of the species of this section, Phal. *mannii* and Phal. *cornu-cervi*, are clearly recognized species with Phal. *cornu-cervi* describe as 'highly variable,' a hybrid swarm or complexes of superficially similar valid species with clearly defined morphological differences. The other two species, Phal. *borneensis* and Phal. *pantherina*, are VERY similar to Phal. *cornu-cervi*, in fact Kew does not recognized Phal. *borneensis* as a species. The major difference of Phal. *borneensis* and Phal. *pantherina* from Phal. *cornu-cervi* is the width of the lip mid-lobe Phal. *cornu-cervi* being less than 0.9 cm and for Phal. *borneensis* and Phal. *pantherina*, being up to 1.2 cm.

The table below is a summary of the four species that are in Polychilos Section, all agreed to at the WOC2014 but only three agreed to by Kew.



Phal. *cornu-cervi*
'Breezy Hill' CCM/AOS
Jul 2012, NS 3.0 x 4.5 cm
56 Flwrs, 14 Bud, 10 Inflor.

Species marked with a * are used the most in hybridization				Progeny		AOS Awards										Breeding Comments
Kew Name	Habitat, Country	Temp.	Season	F1/Total	FCC	AM	HCC	JC	AD	AQ	CCE	CCM	CHM	CBR	Total	
Phalaenopsis borneensis	Borneo														0	Large flower form of Phal. cornu-cervi, broad (1.2 cm) flat lip midlobe wide
Phalaenopsis cornu-cervi	India to Philippines, Indonesia	Warm to Hot	Summer - Fall	113/454	2	35	28	4			1	20	4	1	95	Yellow, greenish, or cream colored pigments, sometimes barring, does not improve flower form.
Phalaenopsis manni	India to Southeast Asia	Warm to Hot	Spring	173/1519		18	6	3		1	1	4	2	1	36	convex and twisting flower parts, fading yellow color, green color
Phalaenopsis pantherina	Borneo		Summer - Fall	18/35		2							1	1	4	

Key: Cold – 50 to 58F at night; Cold to cool – 50 to 66F at night; Cool – 58 to 66F at night; Cool to warm – 58 to 75F at night; Cool to Hot – 58 to 85F at night; Warm – 66 to 75F at night; Warm to Hot – 66 to 85F at night; Hot – 75 to 85F at night

Breeding:

The first thing to note from the above table is that Polychilos Section species only two have a significant number of progeny. The species with the most progeny is Phal. manni, 1519 total progeny, while the species Phal. cornu-cervi has the most AOS awards. But has breeding been uniform over time for the entire section and is any one species used much more in breeding today. To address this issue, the following table was generated with registration per decade.

Polychilos Section	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Reg	0	1	1	0	1	2	1	6	126	170	267	295	346	687	123	2026
Assc Awds	0	0	3	0	0	0	0	38	67	36	101	83	123	71	2	524
F1	0	1	1	0	1	2	1	4	62	44	43	21	53	65	5	303
AA	0	0	3	0	0	0	0	36	47	18	13	3	10	19	0	149
F2	0	0	0	0	0	0	0	2	55	94	90	64	47	88	13	453
AA	0	0	0	0	0	0	0	2	18	17	6	18	11	6	0	78
F3	0	0	0	0	0	0	0	0	9	29	100	39	92	123	20	412
AA	0	0	0	0	0	0	0	0	2	1	19	5	35	11	2	75

In reviewing the above F1 and F2 registration information, two things stick out. The first item is that the first hybrid was registered in 1898, Phal. Stuartiano-Mannii (Phal. manni x Phal. stuartiana), by Veitch.

The second item is that the table clearly shows when looking at the total registration data little interest in hybridizing with Polychilos section species until mid 1950's and breeding with progeny from this section has yet to slow down since. However, looking at the individual generations there was an earlier peak (1960s for F1, 1970s for F2, and 1980s for F3), follow by a low (1990s for F1 and F3, 2000s for F2), follow by current peaking interest. This section is clearly of interest to today's hybridizers. This raises the question related to the current breeding peak with Polychilos Section species, is this second peak a current fad or has new breeding stock been found. To address this question the following table was generated on F1 registrations for each species.

F1																
Polychilos Sect	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Phal. cornu-cervi																
Reg	0	0	0	0	0	0	0	0	1	17	21	16	15	36	6	112
Phal. manni																
Reg	0	1	1	0	0	2	0	3	51	24	24	15	24	25	3	173
Phal. pantherina																
Reg	0	0	0	0	0	0	0	0	0	5	6	0	3	4	0	18

Looking at the species individually, there does appear to be a renewed interest in breeding with Phal. cornu-cervi. Details as to why this increased interest will be discussed in the next section on Phal. cornucervi, but it is related to wide spread distribution of a recently found, and not formally recognized, form, Phal. cornu-cervi f. chattaladae a solid dark red form.

Pictures of the four species and lip details are shown below:



Phal. borneensis
'Iowa' AM/AOS
Sep 2018, NS 4.5 x 5.3 cm
17 Flwrs, 13 Buds, 7 Inflor.

Phal. cornu-cervi
'Breezy Hill' CCM/AOS
Jul 2012, NS 3.0 x 4.5 cm
56 Flwrs, 14 Bud, 10 Inflor.

Phal. mannii
'Max Thompson' AM/AOS
Apr 2021, NS 4.2 x 5.7 cm
9 Flwrs, 22 Buds, 2 Inflor.

Phal. pantherina
'Fco Katiana' AM/AOS
Sep 2019, NS 4.0 x 5.3 cm
3 Flwrs, 0 Buds, 2 Inflor.



Hybrids (Most F1, for each species, F3 or lower):

Phal. Corona (Phal. cornu-cervi x Phal. amboinensis), 1973, Shaffer's, 30 F1 and 45 total progeny, 12 AOS awards (1 FCC, 8 AMs, 2 HCCs, 1 CCM). Major progeny: Phal. Corona de Oro (Phal. Misty Green x Phal. Corona), Coqui, 6 F1 progeny, 3 AM/AOS awards.

Phal. Mambo (Phal. amboinensis x Phal. mannii), 1965, Fredrick L. Thornton, 113 F1 and 477 total progeny, 13 AOS awards (2 AMs, 2 CCMs, 9 HCCs). Major progeny: Phal. Caribbean Sunset (Phal. Cassandra x Phal. Mambo), 1970, Fredrick L. Thornton, 38 F1 and 147 total progeny, no awards; Phal. Sierra Gold (Phal. Deventerian x Phal. Mambo), 1979, Rex D. Smith, 14 F1 and 31 total progeny, 8 AOS awards (1 FCC, 2 AMs, 4 HCCs, 1 CCM).

Phal. Doris Blomquist (Phal. sumatrana x Phal. amboinensis), 1965, Fredrick L. Thornton, 35 F1 and 227 total progeny, 9 AOS awards (3 AMs, 5 HCCs, 1 CCM). Major progeny: Phal. KS Super Zebra, see below; Phal. Star of Florida (Phal. Princess Kaiulani x Phal. Amotrana), 1967, Fredrick L. Thornton, 32 F1 and 172 total progeny, 2 CCM/AOS awards.



Phal. Corona
'Red Kitsune' AM/AOS
Dec 2020, NS 4.7 x 6.0 cm
4 Flwrs, 0 Buds, 2 Inflor.



Phal. Mambo
'SYK' AM/AOS
Mar 2016, NS 4.8 x 4.8 cm
13 Flrs, 0 Buds, 4 Inflor.



Phal. Doris Blomquist
'Sky Island' CCM/AOS
Apr 1994, NS 5.6 x 6.5 cm
53 Flwrs, 25 Buds, 12 Inflor.

Hybrids (Most awards, for each species, F3 or lower):

Phal. Valentinii (Phal. cornu-cervi x Phal. violacea), 1959, hort., 28 F1 and 114 total progeny, 9 AOS awards (3 AMs, 4 HCCs, 2 CCMs). Major progeny: Phal. Carolina Red Zeller (Phal. venosa x Phal. Arthur Zeller), 1992, Lenette, 16 F1 and 19 total progeny, no awards; Phal. Ann Krull (Phal. Alida x Phal. Royal Satin), 1986, J. Ewing, 3 F1 progeny, 11 AOS awards (6 AMs, 5 HCCs)

Phal. Golden Chief (Phal. Chieftain x Phal. mannii), 1958, L. C. Vaughn, 10 F1 and 12 total progeny, 16 AOS awards (5 AMs, 10 HCCs, 1 AQ). No major progeny



Phal. Valentinii
'Perla' AM/AOS
Oct 2020, NS 4.2 x 4.1 cm
1 Flwr, 1 Bud, 1 Inflor.



Phal. Golden Chief
'Longwood Gardens' AD/AOS
Apr 1980, NS 7.0 cm
29 Flwrs, 6 Buds, 2 Inflor.



Phal. Jiaho Panthers
'Jia Ho' AM/AOS
Mar 2014, NS 4.5 x 4.0 cm
5 Flwrs, 4 Buds, 2 Inflor.

Phal. Jiaho Panthers (Phal. mannii x Phal. pantherina), 2015, Jia Ho Orchids, no progeny, 2 AOS awards (1 AM, 1 CCM). No major progeny.

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www.orchidspecies.com

<http://apps.kew.org/wcsp/qsearch.do>

<https://secure.aos.org/aqplus/SearchAwards.aspx>

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OrchidWiz Database x7.3, update: June 2021

Christenson, E.; *Phalaenopsis – A Monograph*, 2001

Frowine, S. A.; *Moth Orchids – The Complete Guide to Phalaenopsis*, 2008

Species Data Sheet

Phalaenopsis cornu-cervi

(Breda) Blume & Rchb.f., Hamburger Garten-Blumenzeitung 16: 116 (1860)

[fal-en-OP-sis kor-new-SIR-vee]

Phalaenopsis [Phal.] cornu-cervi is found in India, Myanmar,



Phal. cornu-cervi, lip detail
Note 'knees' on column



Thailand, Laos, Vietnam, Nicobar Islands, Malaysia, Java, Borneo, Sumatra, and the Philippines in exposed lowland locations on stunted vegetation in fairly exposed areas or in dense riverine or lowland forests with heavy dews high up in the canopy at elevations of 200 to 1000 meters. It is a small sized, hot to warm growing epiphyte or lithophyte with a

short stem enveloped by imbricating leaf bases carrying

fleshy, oblong-ligulate to

oblong-oblancoate, obtuse leaves. Blooms occur on a lateral, 4 to 18" [9 to 42 cm] long, rachis branched and flattened, racemose or

paniculate, many [7 to 12] flowered inflorescence with small bracts arranged in two rows, and having fragrant, long-lasting, fleshy flowers. The flattened, flexuous, winged inflorescence with ovate cucullate bracts has sequential flowers that can reappear at a later time, so, keep the inflorescence as long as it is green. It can bloom at any time of year but especially from spring till autumn. Typical flower natural spread is 1 to 2" [3 to 5 cm]. The sepals and petals are translucent yellow with redish brown spots and transverse bars, the lip midlobe clear whitish yellow to pale yellow. The lip is tri-lobed, to 0.8 x 1 cm, the lateral lobes erect, the midlobe highly variable, transverse, +/- crescent-shaped, obtuse, the central triseriate callus a bifid plate plate with long primary filiform divisions, often with a pair of smaller divisions to either side, the anterior callus a suberect bilaterally flattened tooth that separates the divisions of the entral allus. The column is somewhat arching yellow apically.

This species can be mounted or potted with coarse free draining medium with semi-shade, high humidity, with a distinct dry spell in winter, and hot to cool temperatures.

The species is highly variable, see below. Despite concerted research efforts, no discernible pattern of variation has emerged to explain the remarkable variaion seen in this species.

Judge using the Phalaenopsis scale.



Phal. cornu-cervi
'Breezy Hill' CCM/AOS
Jul 2012, NS 3.0 x 4.5 cm
56 Flwrs, 14 Bud, 10 Inflor.

Synonyms / Varieties / forms:

Synonyms:

Polychilos cornu-cervi Breda, Gen. Sp. Orchid. Asclep. 1: t. 1 (1828).

Varieties / forms: Currently no varieties or forms are reckoned by the RHS, but the general public still uses some if not all of the following forms. But before discussing the various forms what is a 'typical' Phal. cornu-cervi. The above botanical description of Phal. cornu-cervi states 'The sepals and petals are translucent yellow with redish brown spots and transverse bars, the lip midlobe clear whitish yellow to pale yellow.' I take this description to describe the typical form of Phal. cornu-cervi, see in-situ photo at right from OrchidWiz with flower enlargement.

Some observations / comments is translucent yellow is in the left lateral sepal, clearly being able to detect the leaf behind the sepal, I suspect the back lighting has enhanced the red of the redish brown spots



Phal. cornu-cervi
In-situ, typical?



Phal. cornu-cervi f. flava
'Orchidphile' AM/AOS
Oct 2009, NS 3.2 x 5.0 cm
12 Flwrs, 0 Buds, 3 Inflor.

(blotches) and transverse bars, and the lip appears white but that is against the existing background.

With this forming a descriptive Phal. cornu-cervi baseline, will now review the various forms.

f. flava – this anthocyanin-free form of Phal cornu-cervi bears pure yellow flowers without any spots or bars on the sepals and petals, 16 AOS awards have been awarded to Phal. cornu-cervi f. flava cultivars from 1977 to 2019.

f. chattaladae – Sepals and petals completely lacking dots, bands or blotches and on both sides (see flower in background in 'Crownfox' photo), even to the margin, uniformly blood-red. Native to the Khun Tan area of Northern Thailand. 29 AOS awards have been awarded to Phal. cornu-cervi f. chattaladae cultivars from 2007 to 2019.



Phal. cornu-cervi f. chattaladae
'Crownfox' FCC/AOS
Mar 2021, NS 4.2 x 4.7 cm
7 Flwrs, 6 Buds, 7 Inflor.

This form, f. chattaladae, is a major reason for increased interest in Phal. cornu-cervi breeding and awards.

f. borneensis – (Note: Not reconized by Kew as a species or a form. Per Fighetti [Orchids, June 2015, pg. 353] states change to elevate to species agreed upon at the WOC2014. AOS database is using Phal. cornu-cervi f. borneensis as the current way to identify until something is done by Kew.) Flower description: produced sequentially, with spreading segments, yellow-green, with transverse brown spots. Known as a large flower form of Phal. cornu-cervi. Phal. cornu-cervi f. borneensis is similar to Phal. pantherina in having a broad lip midlobe up to 1.2 cm wide, well above the maximum size seen in Phal. cornu-cervi. It is instantly separable from Phal. pantherina by its flat midlob, which lacks a raised pad of tissue on the upper surface and is without an trichomes.



Phal. cornu-cervi f. borneensis
'Iowa' AM/AOS
Sep 2018, NS 4.5 x 5.3 cm
17 Flwrs, 13 Buds, 7 Inflor.



Phal. cornu-cervi var. rubescens
 'Paraiso Tropical I' AM/AOS
 May 2012, NS 3.0 x 4.1 cm
 9 Flwrs, 4 Buds, 3 Inflor.

f. sanguinea (aka. **var. rubescens**) – Christenson considers Phal. cornu-cervi var. rebescens to be an invalid name (not a synonym, “nom. nud.”) for Phal. cornu-cervi f. sanguinea. The AOS database has no awards for f. sanguinea, but var. rubescens cultivars have received five AOS awards from 2005 to 2012. This form is characterised by a nearly red flower brought about by the coalescing of red spots and bars. The pattern is still visible and a yellow picotee is still evident (most prominent distally on the lateral sepals but can be seen on the petals and dorsal sepal in most cases). Note: the green color on the lateral sepals in the

flower to the right, unlike f. chattaladae which is solid red on both sides to the margins.

f. thalebanni – This was an initial forma name for what is now f. chattaladae. David Grove in an article (Orchids, Aug 2006) points out why this initial description is in error. Based on this

article and the fact that the AOS database does not include any awarded f. thalebanni (at least one attempt was made and the cultivar was identified as var. rubescens), I conclude that this f. is an ‘out-of-date’ form name and should not be used.

Awards:

Below are AOS awards that Phal. cornu-cervi and its various currently accepted forms have received:

AOS Awards	FCC	AM	HCC	AQ	AD	JC	CCE	CCM	CHM	CBM	TOTAL
Phal. cornu-cervi		12	15			3	1	13	1		45
Year(s) Awarded		1978-2018	1998-2016			1979-2005	2019	1967-2018	2007		1967-2018
Phal. cornu-cervi f. flava		7	3			1		3		1	15
Year(s) Awarded		1977-2009	2008-2016			2014		2006-2014		1977	1977-2016
Phal. cornu-cervi f. chattaladae	3	12	9				1	3	1		29
Year(s) Awarded	2012-2021	2006-2016	2012-2018				2018	2016-2018	2008		2006-2021
Phal. cornu-cervi f. borneensis		2	1					1	1		5
Year(s) Awarded		2006-2018	2018					2006	1998		1998-2018
Phal. cornu-cervi var. rubescens		4							1		5
Year(s) Awarded		2010-2012							2005		2005-2012
Total	3	37	28			4	2	20	4	1	99
Year(s) Awarded	2012-2021	1978-2018	1998-2018			1979-2014	2018-2019	1967-2018	1998-2008	1977	

This species has received a relatively large, 99, awards since the first award in 1967. But the majority of the awards (82) have been since 2000 with roughly half of these awards to the ‘non-pattern’ cultivars such as f. flava, f. chattaladae, and var. rubescens.

Breeding Characteristics:

There are presently 459 progeny associated with Phal. cornu-cervi and the number has been exploding during the 2010's in all generations. To this day, Phal. cornu-cervi progeny can be showstoppers, when a well grown plant is shown. The table below list the Phal. cornu-cervi progeny registered per decade and awards associated with the grex (per OrchidWiz 7.3).

<u>cornu-cervi</u>	<u>1910</u>	<u>1920</u>	<u>1930</u>	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>Total</u>
Reg	0	1	0	1	1	12	32	55	83	87	155	32	459
Assc Awds	0	0	0	0	14	15	13	71	32	14	15	0	174
F1	0	1	0	1	1	11	15	13	6	26	36	2	112
AA	0	0	0	0	14	14	13	4	2	5	8	0	60
F2	0	0	0	0	0	1	17	21	16	15	36	6	112
AA	0	0	0	0	0	1	0	0	4	4	1	0	10
F3	0	0	0	0	0	0	0	11	4	16	41	10	82
AA	0	0	0	0	0	0	0	6	0	5	4	0	15

From this table you can see that the progeny of Phal. cornu-cervi are exploding, with almost 60% of all progeny being registered since 2000. Historically, Phal. cornu-cervi is added to a breeding line for its yellow, greenish, or cream colored pigments and sometimes barring. It does not improve flower form. But with the recent finding of Phal. cornu-cervi f. chattaladae the belief is that red progeny are sure to follow.

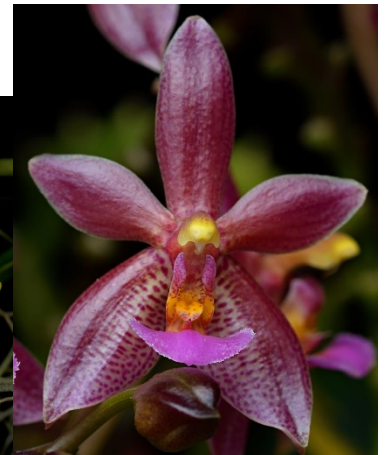
Hybrids (top three in awards and progeny, third generation or less):

Phalaenopsis [Phal.] Corona (Phal. cornu-cervi x Phal. amboinensis), 1973, Shaffer's, 30 F1 and 45 total progeny, 12 AOS awards (1 FCC, 8 AMs, 2 HCC, 1 CCM). Major progeny: **Phal. Corona De Oro** (Phal. Misty Green x Phal. Corona), 1992, Coqui, 6 F1 progeny, 3 AM/AOS awards.

Phalaenopsis [Phal.] Valentinii (Phal. cornu-cervi x Phal. violaea), 1959, horticultural, 28 F1 and 114 total progeny, 10 AOS awards (4 AMs, 4 HCCs, 2 CCMs). Major progeny: **Phal. Carolina Red Zeller** (Phal. venosa x Phal. Arthur Zeller), 1992, Lenette, 19 F1 and 19 total progeny, no awards; **Phal. Ann Krull** (Phal. Alida x Phal. Royal Satin), 1986, J. Ewing, 11 AOS awards (6 AMs, 5 HCCs).

Phalaenopsis [Phal.] Yaphon Evergreen (Phal. Chang Maw Evergreen x Phal. Ho's Kuangfeng Glory), 2002, Tin-Fan Ho, 8 F1 and 84 total progeny, 1 HCC/AOS award. Major progeny: **Phal. KS Evergreen** (Phal. Yaphon Evergreen x Phal. KS Green Star), 2011, Kung Sir Orchids, 7 F1 and 11 total progeny, 1 HCC/AOS award.

Phalaenopsis [Phal.] Cornustris (Phal. equestris x Phal. cornu-cervi), 1967, H. Wallbrunn, 4 F1 and 7 total progeny, 7 AOS awards (3 AMs, 2 HCCs, JC, CCM). No major progeny.



<p>Phal. Corona 'Krull-Smith' AM/AOS Mar 2020, NS 4.1 x 4.7 cm 11 Flws, 6 Buds, 5 Inflor.</p>	<p>Phal. Valentinii 'Perla' AM/AOS Oct 2020, NS 4.2 x 4.1 cm 1 Flwr, 1 Bud, 1 Inflor.</p>	<p>Phal. Yaphon Evergreen 'Yaphon' HCC/AOS Jun 2014, NS 3.6 x 4.1 cm 4 Flwrs, 1 Bud, 4 Inflor.</p>	<p>Phal. Cornustris 'Queen of Spades' AM/AOS Jun 2019, NS 2.8 x 3.3 cm 17 Flwrs, 8 Buds, 6 Inflor.</p>
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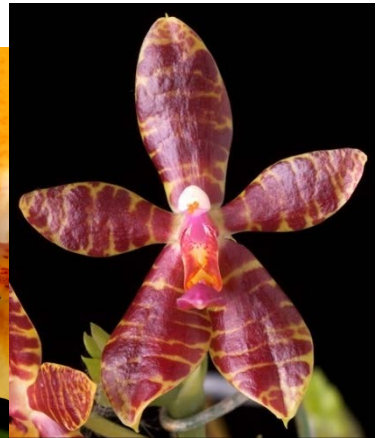
Hybrids (Recently registered and awarded):

Phalaenopsis [Phal.] Bredren's Cutie Pie (Phal. Tying Shin Golden Eagle x Phal. cornu-cervi), 2017, Bredren Orchids, no progeny, 1 HCC/AOS award.

Phalaenopsis [Phal.] Roman's Golden Star (Phal. Mambo x Phal. cornu-cervi), 2015, R. E. Garcia, no progeny, 1 AM/AOS award.

Phalaenopsis [Phal.] Meidarland Yellow Ribbon (Phal. Liu's Gold Coin x Phal. Mituo Shin Perfume), 2015, Nan-Huei Su, no progeny, 1 AM/AOS award.

Phalaenopsis [Phal.] CTL Macu CornuQueen (Phal. maculata x Phal. CTL Cornu Queen, 2015, C-H. Kuo, no progeny, 1 HCC/AOS award.



<p>Phal. Bredren's Cutie Pie 'Bredren' HCC/AOS Aug 2017, NS 4.0 x 4.4 cm 5 Flws, 3 Buds, 1 Inflor.</p>	<p>Phal. Roman's Golden Star 'Irma Saldana' AM/AOS Jul 2015, NS 4.0 x 5.6 cm 3 Flwrs, 1 Bud, 1 Inflor.</p>	<p>Phal. Meidarland Yellow Ribbon 'MD' AM/AOS Mar 2016, NS 3.0x 3.5 cm 13 Flwrs, 0 Buds, 1 Inflor.</p>	<p>Phal. CTL Macu CornuQueen 'Memoria Hank Horton' HCC/AOS Sep 2015, NS 3.4 x 3.9 cm 3 Flwrs, 1 Bud, 2 Inflor.</p>
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Species Data Sheet

Phalaenopsis pantherina, Rchb.f., Bot. Zeitung (Berlin) 22: 298 (1864)

[fal-en-OP-sis kor-new-SIR-vee]

Phalaenopsis [Phal.] pantherina is found in Borneo in lowland to mixed montane forests in the canopy of tall trees from sealevel to 800



Phal. pantherina, lip detail
Note central pad bearing sparse trichomes



meters (0 to 2600 ft.). It is a small sized, hot to warm growing epiphyte with extremely thick, white roots and a short stem that is leafy throughout carrying oblong to narrowly oblong-elliptic, pale green leaves. Blooms in the winter and summer on a basal, to 8 to 18" [20 to 45 cm] long, racemose or few branched, terete, fleshy, strongly flattened, few flowered inflorescence and carries successively single over long periods of time, somewhat sweetly fragrant, waxy flowers. Typical

flower natural spread is 2 to 2.4" [5 to 6 cm]. The sepals and petals are translucent yellow with redish brown spots and +/- transverse bars, column somewhat arching, base dark red, apex yellow, the lip white. The lip is trilobed, to 1.5 long x 1.2 wide cm, the lateral lobes erect, the midlobe lunate, with a fleshy central pad bearing sparse trichomes. The callus triseriate, the central callus plate-like, deeply bifid, usually with a smaller tooth to each side, the apical callus an erect bilaterally compressed tooth held between the bifid arms of the central callus.

Phal. pantherina has been rarely collected either for botany or horticulture. It is readily distinguished from related species by the large white lip midlobe, which bears on its upper surface a central raised keel with sparse trichomes. Phal. pantherina is often confused with Phal. borneensis due to similar large lip midlobe. The lip midlobe of Phal. borneensis is usually ivory-white to pale yellow, not the stark white of Phal. pantherina.

Judge using the Phalaenopsis scale.

Synonyms / Varieties / forms:

Synonyms:

Synonyms Phalaenopsis cornu-cervi var. pantherina (Rchb.f.) O.Gruss & M.Wolff 2007
Polychilos pantherina (Rchb. f.) Shim 1982

Varieties / forms: Currently no varieties or forms are reckoned by the RHS, but breeders have identified one.

f. flava – This anthocyanin-free form of Phal pantherina, yellow-green flowers with just a hint of spots or bars on the sepals and petals, no awards for Phal. pantherina f. flava.



Phal. pantherina
'Fco Katiana' AM/AOS
Sep 2019, NS 4.0 x 5.3 cm
3 Flwrs, 0 Buds, 2 Inflor.



Phal. pantherina f. flava

Awards:

Below are AOS awards that *Phal. pantherina* have received:

<i>pantherina</i>	FCC	AM	HCC	AQ	AD	JC	CCE	CCM	CHM	CBM	TOTAL
Awards		2							1	1	4
Year(s) Awarded		2018-2019							1997	1980	1980-2019

This species has received a relatively few, 4, awards since the first award in 1980. But the two quality awards were awarded in 2018 and 2019.

Breeding Characteristics:

As commented above this species is not common in general collections and consequently there are VERY few progeny, 18 F1 and 35 total progeny. The table below list the *Phal. pantherina* progeny registered per decade and awards associated with the grex (per OrchidWiz 7.3).

<i>pantherina</i>	1960	1970	1980	1990	2000	2010	2020	Total
Reg	0	7	13	4	3	5	3	35
Assc Awds	0	1	0	0	0	2	0	3
F1	0	5	6	0	3	4	0	18
AA	0	1	0	0	0	2	0	3
F2	0	2	6	2	0	1	3	14
AA	0	0	0	0	0	0	0	0
F3	0	0	1	2	0	0	0	3
AA	0	0	0	0	0	0	0	0

From this table you can see that the use of *Phal. pantherina* in breeding has been limited, with over half of all progeny registered in the first two decades of breeding. There appears to be some renewed interest in breeding with *Phal. pantherina* in the last ten years, as well as receiving some awards, but time will tell. With the limited breeding, it appears that flower shape and blooming pattern are dominate.

Hybrids (All awarded grexes and all hybrids with photos):

Phalaenopsis [Phal.] Doris Blomquist (*Phal. pantherina* x *Phal. amboinensis*), 1975, A. Kolopaking, 5 F1 progeny, 1 CCM/AOS awards. No major progeny.

Phalaenopsis [Phal.] Jiaho Panthers (*Phal. mannii* x *Phal. pantherina*), 2015, Jia Ho Orchids, no progeny, 2 AOS awards (1 AMs, 1 CCMs).



Phal. Jiaho Panthers
'Jia Ho' AM/AOS
Mar 2014, NS 4.5 x 4.0 cm
5 Flws, 4 Buds, 2 Inflor.



Phal. Doris Blomquist
'Sky Island' CCM/AOS
Apr 1994, NS 5.6 x 6.5 cm
53 Flws, 25 Buds, 12 Inflor.

Phalaenopsis [Phal.] Professor Asmino (Phal. pantherina x Phal. Star of Rio), 1972, Liem Khe Wie, 3 F1 and 6 total progeny, no awards. No major progeny.

Phalaenopsis [Phal.] Datu Chan San-Chang (Phal. violacea x Phal. pantherina), 2000, Tham Chee Keong, 1 F1 progeny, no awards. No major progeny.

Phalaenopsis [Phal.] Sri Rejeki (Phal. Elaine-Liem x Phal. Professor Asmino), 1975, A. Kolopaking, 1 F1 progeny, no awards. No major progeny.



Phal. Professor Asmino



Phal. Datu Chan San-Chang



Phal. Sri Rejeki

References:

www.orchidspecies.com

<http://apps.kew.org/wcsp/qsearch.do>

<https://secure.aos.org/aqplus/SearchAwards.aspx>

<http://www.phals.net/>

OrchidWiz Database x7.3, update: June 2021

Christenson, E.; *Phalaenopsis – A Monograph*, 2001

Frowine, S. A.; *Moth Orchids – The Complete Guide to Phalaenopsis*, 2008

Terminology –X–

xanthinus, -a, -um (zan-THYE-nus) Yellow or yellowish. (1) Of the 74 references all but one referenced a plant name / form / variety.

Masdevallia angulifera – “... awarded for xanthina color; ...”

xanthodon (ZAN-thoh-dun) With yellow teeth.

xantholeucus, -a, -um (zan-tho-LEW-kuss) Yellowish white.

xanthophlebius, -a, -um (zan-tho-FLEE-bi-us) Having yellow veins.

xanthophyllus, -a, -um (zan-tho-FILL-us) With yellow leaves.

xaxim (SHAH-sheem) Brazilian word for tree fern and also for its fiber.

xerophyte (ZERO-fyte) A plant very resistant to drought or lives in very dry places.

xiphifolius, -a, -um (ziff-i-FOH-li-us) Having swordlike leaves.

xylem (ZYE-lem) A plant tissue consisting of tracheid, vessels, parenchyma cells and fibers making up the wood and functioning as a part of the vascular tissue to conduct water.



Award Descriptions (September 2020)



Phal. Professor Asmino – Quality Award Description

(Phal. pantherina x Phal. Star of Rio)

Three stellate flat flowers and two buds on two inflorescences; sepals and petals white, centrally overlaid light lime green, basal halo marron blotches, sparsely spotted marron marginally; lip tri-lobed, white, marron blotches basally, sidelobes erect, yellow basally, midlobe hastata, white, light yellow basally, callus yellow; column and anther cap white; substance firm; texture diamond dust.



Phal. Pylo's Neon – Quality Award Description

(Phal. Pylo's Green Gelb x Phal. Dragon Tree Eagle)

Two full flat flowers and two buds on two inflorescences up to 10 cm length; sepals lanceolate, yellow-orange; dorsal sepal lightly overlaid red basal half; lateral sepals superior half, lightly overlaid red basal half, inferior half heavily overlaid dark red basal three-quarters; petals ovate, basal light red to white halo; lip tri-lobe, white, sidelobes erect, light fuchsia overlay distally, bright yellow-orange centrally, stippled light red basally, mid-lobe lanceolate, broad magenta picotee; column and anther cap cream; substance heavy; texture matte.



Phal. Pylo's Ruby Stars – Cultural Award Description

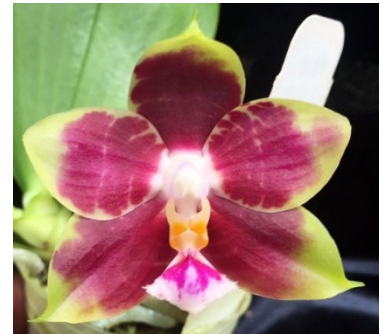
(Phal. Su's Milk Puff x Phal. cornu-cervi)

Twenty-three stellate flowers and four buds on twelve inflorescences up to 23 cm long on a robust clean plant 10 in (25 cm) in diameter in a 5 in (12 cm) plastic pot; sepals and petals chartreuse, heavily overlaid marron occasionally showing base color on distal margins; lip tri-lobed, side lobes erect, white, yellow basally mid-lobe hastata, stem orange stripped red, magenta centrally, white distally, callus yellow; column and anther cap yellow; substance firm; texture matte.

Phal. Pylo's Passion Dream – Quality Award Description

(Phal. Hannover Passion x Phal. Joy Dreamy Jade)

Two slightly cupped flowers on one 10-cm inflorescence; sepals, lanceolate, chartreuse, very heavily barred marron, white basally; petals, lanceolate-ovate, heavily barred marron, white basally forming halo around column; lip tri-lobe, white, side-lobes erect, overlaid creamy-yellow, mid-lobe quadrata, overlaid magenta basally; column and anther cap, white; substance hard; texture matte.



Phal. Mituo Coral Queen – Quality Award Description

(Phal. Cituo Coral Mambonosa x Phal. LD's Bear Queen)

Three slightly cupped full flowers on two inflorescences; sepals and petals lanceolate-ovate, light red, white halo basally, very heavily barred marron; lip tri-lobe, white, side-lobes erect, yellow, mid-lobe, lanceolate, magenta, callus light yellow; column and anther cap white; substance hard; texture waxy.