The Genus Aerangis
(A.Rich.) T.Durand & Schinz, Consp. Fl. Afric. 5: 50 (1894)
Type: Aerangis [Aergs.] brachycarpa [ay-er-RANG-giss bra-chi-CAR-pa?]
(Also referred to as Aergs. flabellifolia)

Aerangis is a genus with 53 species spread through Africa, Madagascar and the Comoros Islands. They commonly grow as epiphytes on trunks or branches of trees or as lithophytes on rocks and among boulders, usually where forest or scrub have been cleared. The stems are short in some species, so that the plant appears to consist only of a fan of leaves. In others, the stems are more or less elongated, 10-80 cm long, depending on the species and the age of the plant. The leaves vary in size and shape but are nearly always flat, bibbed at the tip, dark green or grayish green in color, and rather thick so that they appear fleshy or leathery.

Aerangis brachycarpa
'Joanna' CHM/AOS
Oct 2006, NS 6.0 x 23.0 cm
2006 Fred Hillerman Award Winner

The inflorescence may be one or few-flowered, but in most species it is a more or less elongated raceme with many flowers. In well-grown plants, several inflorescences are borne at the same time, and there are many attractive white, yellow, ochre, pinkish, or greenish as a rule long-lasting flowers with some having a sweet scent in the evening and they all have a long spur.

The flowers usually resemble a six-pointed star when they first open, with rather similar sepals, petals, and lip. In some species, the lateral sepals and petals soon become completely reflexed. At this stage, their structure is easiest to see in sideview, and they sometimes have been described as reminiscent in appearance of a flock of birds in flight. The lip may be similar to the other floral parts but is often larger, flat, and with a narrow opening to a long, slender spur. The relatively short column is usually narrowed toward the base and enlarged at the level of the broad stigmatic surface. The two pollinia are hidden under a movable anther cap and are supported on a single narrow stalk and viscidium which lie on top of the narrow, drawn-out rostellum.

There is one species, Aergs. hologlottis, which has been collected along the coast of eastern Africa and in Sri Lanka. However, in Sri Lanka it has been collected only from the Royal Botanic Garden in Peradeniya, so it may have been introduced there. No species have been reported, as yet, from any of the other islands in the western Indian Ocean — Seychelles, Mauritius, or Reunion.

Common Name or Meaning – refers to the long lip spur.

Generally, you would point scale using the general point scale.

Table of species, top 5 progeny and 9 awards (OrchidWiz – Sep 2019 update)

Species marked with a * are used the most in hybridization				Progeny	AOS Awards										
Kew Name	**Habitat, Country**	**Temperature**	**Season**	**F1/Total**	**FCC**	**AM**	**HCC**	**JC**	**AD**	**AQ**	**CCE**	**CCM**	**CHM**	**CBR**	**Total**
Aerangis articulata	Comoros, Madagascar	Warm to Hot	Fall	9/11		8	1					2		3	14
Aerangis biloba	West tropical Africa	Warm to Hot	Fall-Winter	7/7		2	3				1	7		1	14
Aerangis citrata	Madagascar	Cool to Hot	Winter-Spring	6/6		1	2				2	7		1	13
Aerangis ellisii	Madagascar	Cool to Warm	Fall	2/3		2	2					1	3		8
Aerangis fastuosa	Madagascar	Warm	Spring	8/9		2	1					3	1	1	8
Aerangis hariotiana	Comoros	Warm	Spring	0/0			1				2	8		1	12
Aerangis hyaloides	Madagascar	Warm to Hot	Winter	2/2			2					5		1	8
Aerangis kotschyana*	Trop. Africa to KwaZulu-Natal	Warm to Hot	Fall-Winter	13/16			3					3		1	7
Aerangis luteoalba*	WC. & E. Trop. Africa to Ethiopia	Cool to Warm	Spring	13/13	2	13	6	2				9		3	35
Aerangis mystacidii	SW. Tanzania to S. Africa	Cool to Hot	Fall	7/7				1				2	2		5
Aerangis somalensis	SW. Ethiopia to Limpopo	Cool to Warm	Winter	6/6									1		1
Aerangis stylosa	Comoros, Madagascar	Warm	Spring-Summer	2/2		1	1					3		1	6

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

The genus Aerangis has not been hybridized much with only with 48 intrageneric hybrids and 15 intergeneric hybrids. The most awarded hybrid being Aerangis Elro (Aergs. ellisii x Aergs. modesta), 2009, HQ Orchids, 1 primary progeny, 7 AOS awards (4 AMs, 2 HCCs, 1 CCE). No hybrid has more than 1 progeny.

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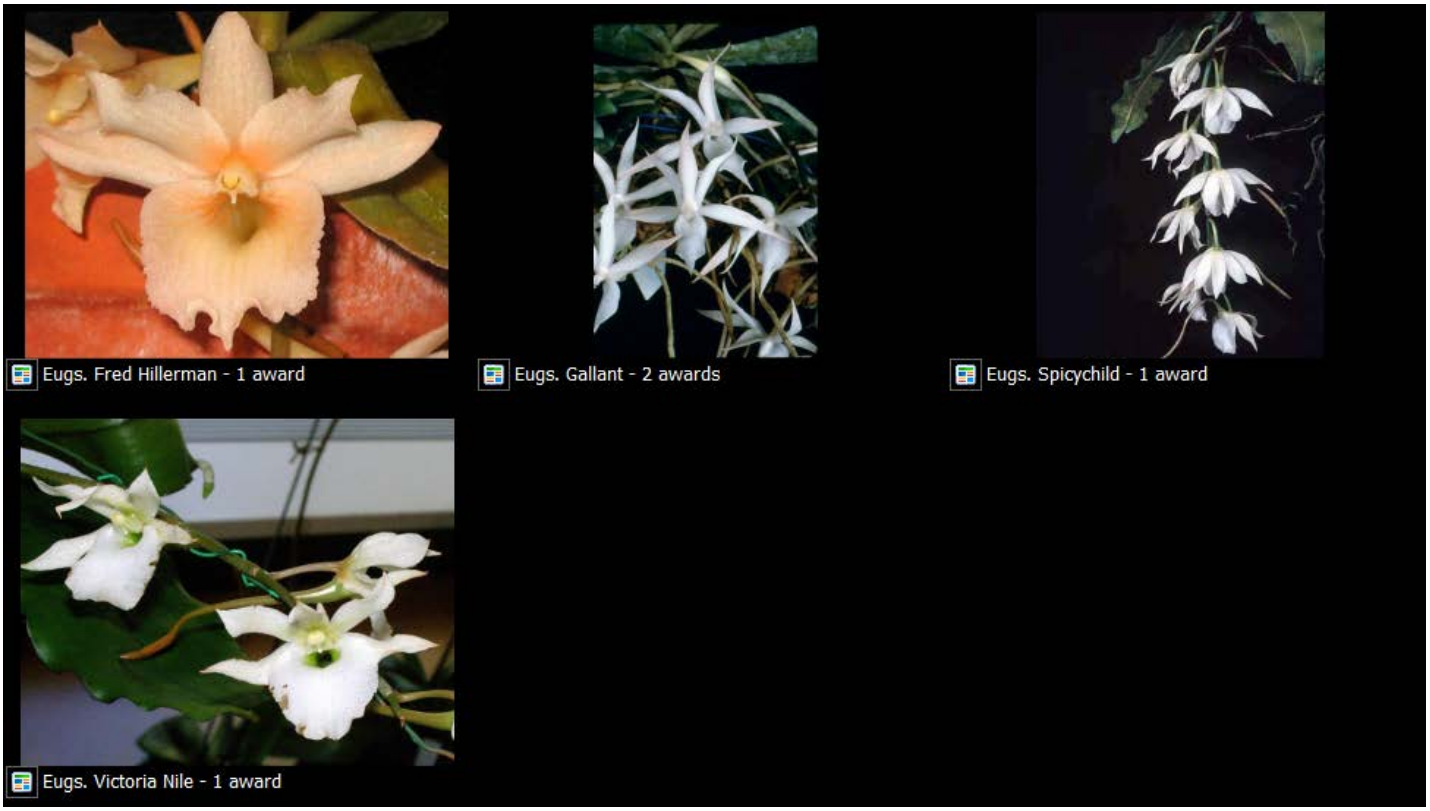
Interesting Tidbits

The Table below list the intergeneric crosses made with Aerangis and the number of cross that exist:

Aergs Contained in 7 Genera:					
#	Composition	Name	Abbrev.	Members	Flowers
2	Aergs x Echn	Euryangis	Eugs	8	8.3
2	Aergs x Aerth	Aeranganthes	Argt	2	
2	Aergs x Ame	Amesangis	Am	1	
2	Aergs x Angcm	Angrangis	Angrs	1	
2	Aergs x Dpthe	Diaphanangis	Dpgs	1	13.0
2	Aergs x Jum	Jumangis	Jag	1	
2	Aergs x Rhip	Rhipidangis	Rdg	1	

As the table above points out, there's been limited intergeneric breeding with Aerangis with a total of 7 genera. The genus Euryangis (Aerangis x Eurychone) having the most grexes, eight, with five grexes receiving an award. The most awarded grex Euryangis Gallant (Eurychone galeandrae x Aerangis grandiflora) receiving 2 AOS awards (1 AM and 1 HCCs). Pictures of some of the resulting crosses is shown be and one can see that the shape and color of Angraecum appear to be dominate.



Species Data Sheet

Aerangis citrata (Thouars) Schltr., Orchideen Beschreib. Kult. Zücht.: 598 (1914)

[ay-er-RANG-giss si-TRAH-ta]

Found as an fan-shaped miniature (less than 4" total) epiphyte along the eastern coast of northern Madagascar and in many undisturbed areas of rain forest inland and up to altitudes of 1,500 meters (4900 ft.) above sea level. It occurs among mosses on small branches and on the trunks of smaller trees where it appreciates the shade, breeze, as well as cool to hot temperatures. The plants are anchored by numerous rather thin, almost wiry roots. Many epiphytes have thick, worm-like roots, so the small diameter of the roots of this species are auseful field character in recognizing and naming the plants. A short stem carrys to 9, elliptic, rather thin dark green leaves — thinner than any other species in the genus. Old inflorescences, which often persist on the plant long after the flowers have fallen, are nearly always straight or straight near the base and slightly zigzag in the upper part.

Aerangis citrata
'Carol Weeks' HCC/AOS
Mar 2015, NS 2.0 x 2.3 cm

When in flower, spring, summer, and fall, this species is recognized easily by its long pendant inflorescence, 16" long (40 cm), of closely spaced 12 to 30, fragrant [lemon], waxy, small flowers all held in the same plane. They are white, cream-colored, or even yellowish in different clones and vary considerably in size. The large-flowered pale yellow clones are probably the most appealing. Individually, the flowers can be identified quickly, whatever their color, by the very small dorsal sepal that points forward over the column and by the broad petals and lip.

Judge using the General scale.

Aerangis citrata
'Jeff's' CCE/AOS
Mar 2018, NS 1.7 x 1.9 cm

Synonyms / Varieties / forms:

Synonyms - None

There are no officially recognized varieties or forms. Although first described as an Angraecum, it was transferred to the genus Aerangisin 1914 by Rudolf Schlechter. In the literature, it never has been confused with any other species, nor has it received any other specific epithet. However, in herbaria — and occasionally in orchid collections — it sometimes has been confused (when not in flower) with Aerangis macrocentra.

Aerangis citrata
'Sicily' AM/AOS
Mar 1973, NS 2.7 cm

Awards:

Below are AOS awards for Aerangis citrata:

	FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBM	TOTAL
AOS		1	2			7	2		1	**20**
Year(s) Awarded		1973	2009-2015			1967-2013	2004-2018		1966	

This species has received 13 awards since initially being shown in 1966 with 3 being for flower quality.

Breeding Characteristics:

Since most Angraecums are white stellate flowers it is difficult to tell breeding characteristics from pictures and I was NOT able to find anything written on breeding characteristics. Only pictures of two of the six progeny was available to me with VERY limited conclusions, if correct, reached.

Interest in breeding with Angraecum citrata started in 1941 when the first cross was registered. This was followed by a cross registered in the 1980s, 1990s, and 2000s. Two successful crosses have been registered since 2010 with both crosses being awarded. The first cross was with the larger, fuller, less floriferous Aerangis fastuosa with the second cross being the prior cross made back crossed with Aerangis citrate. Based on these two awarded crosses, it appears that Aerangis contributes floriferous and is not dominate in flower shape.

No inter-genera hybrids.

'Major' Hybrids:

Aerangis James G. Coyner 'Little Snow Gems', AM/AOS Mar 2015, 2.9 x 3.1 cm

Aerangis [Aergs.] James G. Coyner (Aergs. citrata x Aergs. fastuosa), 2013, C. Lewis, 1 F1 progeny, 3 AOS awards (1 AM, 1 HCC, 1 CCE).

Aerangis Zipper (Aergs. James G. Goyner x Aergs. citrata), 2014, L. Belew, no progeny, 3 AOS awards (1 AM, 1 HCC, 1 CCM).

Aerangis Zipper 'Pearl' AM/AOS Mar 2014, NS 3.0 x 3.0 cm

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The Genus Rhynchostylis
(L.) Blume, Bijdr. Fl. Ned. Ind.: 286 (1825)
Type: Rhynchostylis [Rhy.] retusa [rink-oh-STYE-liss re-TEW-sah]

Rhynchostylis is a genus with 5 species (two identified since 2013 and not widely known / used in cultivation yet) are found from India subcontinent southeast to the Philippines. They commonly grow as epiphytes on trunks or branches of deciduous trees, open scrub and trees, teak plantations, or occasionally as lithophytes on limestone. All species of the genus are large or medium-sized monopodial plants characterized by thick, stiff, leathery leaves, stout, thick roots and many-flowered inflorescence, either pendulous or erect.

Rhynchostylis retusa
'Crownfox Delicado' AM/AOS
Jun 2016, NS 2.6 x 2.5 cm
(Approx. 133 flowers on a 43 cm pendent inflorescence)

Rhynchostylis is closely related to Aerides and Vanda. It is similar to Vandas, in that Rhynchostylis have short, stout columns. While it is similar to Aerides, in that Rhynchostylis have densely many flowered, usually lateral pendent racemes of anthocyanin-pigmented flowers and have been called "fox tail" or "fox brush" orchids. Rhynchostylis fundamentally differs from Aerides and Vanda by having one-lobed, rather than three-lobed, labella and they prefer indirect light. In addition, the two cleft pollinia of Rhynchostylis are borne on long , slender stipes.

Rhynchostylis flowers are known for their strong and pleasant sweet / spicy / soapy scent (apparently the scent very dependent the nose), although one of the recently identified species has no scent. The white, pink and lilac flowers have large spurs (decurved in Rhynchostylis coelestis) associated with differentially marked labella ("landing platforms") suggesting bee pollination. Sepals and petals similar, spreading, sepals wider than petals, lateral sepals often wider than dorsal sepal. The lip is immobile and merges onto the base of the column with the basal part forming a deep, wide sac or spur. The laterally compressed spur is directed backwards and the lip has no sidelobes or calli. Column with a column foot; anther cap beaked; rostellum beaked.

Common Name or Meaning – refers to the beak-like viscidium.

They like wood slat basket culture with little or no potting material and will grow massive fleshy roots entangled throughout the basket if given uniform water and fertilizer.

Generally, you would point scale using the general point scale.

Table of species, top 5 progeny and 9 awards (OrchidWiz – Sep 2019 update)

Species marked with a * are used the most in hybridization					Progeny	AOS Awards										
Kew Name	**Habitat, Country**	**Habitate, Geographically**	**Temp.**	**Season**	**F1/Total**	**FCC**	**AM**	**HCC**	**JC**	**AD**	**AQ**	**CCE**	**CCM**	**CHM**	**CBR**	**Total**
Rhynchostylis coelestis*	Southeast Asia	Found in semi-deciduous and deciduous dry lowland forests and savanna-like woodlands at elevations of sea-level to 1200 meters	Warm	Summer-Fall	158/637	1	30	12	4		2	1	9	1	3	63
Rhynchostylis cymifera	India	grows in the deciduous forests (altitude ± 1200 m).		Spring-Summer	0/0											0
Rhynchostylis gigantea	S. China to Southeast Asia	Occurs in semi-deciduous and deciduous dry lowland forests and savanna-like woodlands at elevations of sea-level to 700 meters	Warm to Hot	Winter	172/227	7	95	42	9	1	2	4	19	1	4	184
Rhynchostylis retusa	China to Tropical Asia	Found at elevations of 1000-4900 ft. (300-1500 m). They are particularly common in planted teak forests wherever the dry season is not too long.	Warm to Hot	Summer-Fall	40/50		9	4					4		2	19
Rhynchostylis rieferi	Philippines			Summer	0/0											0

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

The genus Rhynchostylis has not been hybridized much intra-genera with only with 8 registered hybrids but has been used extensively in inter-genera breeding with over 900 registered hybrids. In regard to intra-genera breeding the most any hybrid has been used is two F1 and five total progeny, while awards have been slightly better with two grexes receiving awards, one with 11 awards. Based on this VERY small sample and the large variability of the three key species, the major differences between the three species: Rhy. coelestis has an upright inflorescences while the other two have pendent inflorescences, the number of flowers per inflorescences Rhy. retusa has the most with up to 150 flowers while the other two are around 50 flowers, flower size is the largest with Rhy. gigantea. Rhy. gigantea is the most awarded Rhynchostylis with 184 AOS awards, which includes 7 FCC/AOS the two most recently received in 2018. Several hybrids have received over 25 AOS awards, but the two are most noteworthy in regards to the most flower quality awards are Vandachostylis Colmarie with 25 flower quality awards and Vandachoistylis Precious also with 25 flower quality awards (including one FCC).

‘Major’ Hybrid (Intra-genera, there are only Eight):

Rhynchostylis Chorchalood (Rhy. gigantea x Rhy. retusa), 1970, Yaemboonchoo, 2 F1 and 5 total progeny, 7 AOS awards (1 AM, 3 HCCs, 1 CCE, 2 CCMs). Of the five progeny only one has received any awards and two have been used in breeding, major progeny: **Rhy. Kultana** (Rhy. Chorchalood x Rhy. gigantea), 1989, Kultana, 1 F1 progeny, no AOS awards.

Rhynchostylis Chorchalood ‘Sweet Martha’ AM/AOS Feb 2002, NS 3.6 x 2.6 cm

‘Major’ Hybrids (Inter-genera, Top five genera based on number of members):

Van. Five Friendships
‘Sweetheart’ FCC/AOS
Aug 1998, NS 2.4 x 2.1 cm

Van. Pine Rivers
‘Claudia’ AM/AOS
Mar 2019, NS 4.5 x 4.0 cm

Perreiraara Bangkok Sunset
‘Karina’ AM/AOS
Jun 2018, NS 3.3 x 3.8 cm

Vandachostylis (Rhynchostylis x Vanda) – 533 members, many grexes have been used for breeding (17 grexes with 10 or more F1 progeny) and have received awards (19 grexes with 10 or more awards). The two grexes used the most in breeding as well as the two that have received the most awards are:
Vandachostylis [Van.] Five Friendships (Van. Seng x Van. Prapin), 1990, Suksamran, 28 F1 and 51 total progeny, 4 AOS awards (1 FCC, 2 HCCs, 1 CCM). Major progeny: **Van. Five Friendships Pretty** (Van. Five Friendships x Rhy. coelestis), 1994, 10 F1 and 11 total progeny, 1 AM/AOS award; **Van. Crownfox Magic** (V. Tubtim Velvet x Van. Five Friendships), 1998, R. F. Orchids, 2 F1 progeny, 9 AOS awards (5 AMs, 4 HCCs).

Vandachostylis [Van.] Lou Sneary (V. falcata x Rhy. coelestis), 1970, Hajime Ono, 24 F1 and 27 total progeny, 29 AOS awards (7 AMs, 4 HCCs, 3 JCs, 1 AQ, 14 CCMs). Major progeny; **Van. Fuchs Ocean Spray** (Van. Lou Sneary x Rhy. coelestis), 1992, R. F. Orchids, 1 F1 progeny, 6 HCC/AOS awards.

Vandachostylis [Van.] Pine Rivers (V. Peggy Foo x Rhy. coelestis), 1989, M. & J. Rivers, 19 F1 and 20 total progeny, 23 AOS awards (15 AMs, 7 HCCs, 1 CCM). Major progeny: **Perreiraara Mu Qi Malisa Wendy** (Van. Pine Rivers x Aer. lawrenceae), 2014, A. Hongsilp, no progeny, 2 AOS awards (1 AM, 1 HCC).

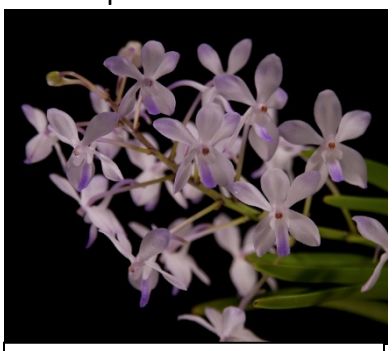
Rhynchonopsis (Phalaenopsis x Rhynchostylis) – 46 members, limited breeding, 6 grexes, one grex has received the most awards by far:

Rhynchonopsis [Rhnps.] Suree (Rhnps. Lanna Thai x Rhy. gigantea), 1976, Yen Orchids, 4 F1 and 6 total progeny, 26 AOS awards (17 AMs, 5 HCCs, 1 JC, 3 CCMs)

Perreiraara (Aerides x Rhynchostylis x Vanda) – 46 members, one grex has most progeny and most awards:
Perreiraara [Prra.] Bangkok Sunset (Vanachostylis Thai Noi x Aerides houlletiana), 1973, C. Suddhipaca, 14 F1 progeny, 13 AOS awards (9 AMs, 4 HCCs).

Vanchoanthe (Papilionanthe x Rhynchostylis x Vanda) – 34 members, limited breeding, 6 grexes, and awards (2 grexes):

Vanchoanthe [Vct.] Herbert Kurihara (Pda Winifred Kurihara x Rhy. coelestis), 1973, H. K. Nitta, 1 F1 and 6 total progeny, 4 AOS Awards (3 AMs, 1 HCC).



Van. Lou Sneary
‘McLellan M2598’ AM/AOS
Oct 2013, NS 3.6 x 4.0 cm

Rhnps. Suree
‘Placer Plum’ AM/AOS
Dec 1995, NS 5.0 x 5.2 cm

Vct. Herbert Kurihara
‘Kazuto Nitta’ AM/AOS
Nov 1987, NS 6.0 cm

Renanstylis Queen Emma
'Floranor' AM/AOS
Apr 1980, NS 5.5 cm

Renanstylis (Renanthera x Rhynchostylis) – 31 members with 12 grexes either having progeny and/or awards. There are three significant grexes:

Renanstylis [Rnst.] Queen Emma (Ren. storiei x Rhy. gigantea), 1961, O. Kirsch, 8 F1 and 9 total progeny, 20 AOS awards (11 AMs, 6 HCCs, 1 JC, 2 CCMs). Three of the progeny have received awards, only one un-awarded grex has any progeny.

Renanstylis Bangkok Beauty (Rnst. Asimah x Ren. Bangkok Flame), 2010, Kirk Hoo, 1 F1 progeny, 8 AM/AOS awards.

Renanstylis Asimah (Ren. Nancy Chandler x Rhy. gigantea), 1970, Kranji, 6 F1 and 7 total progeny, 4 AOS awards (2 AMs, 2 HCCs). Major progeny: **Renanstylis Bangkok Beauty**, see above**.**

Rnst. Bangkok Beauty
'Peter Lin' AM/AOS
Aug 2013, NS 5.3 x 6.9 cm

Rnst. Asimah
'Pink Delight' AM/AOS
Apr 1998, NS 4.2 x 5.1 cm

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Interesting Tidbits

The Table below list the top 16, based on number of members, intergeneric crosses made with Rhynchostylis and the number of crosses that exist:

Rhy Contained in 60 Genera:						
#	Composition	Name	Abbrev.	Members	Flowers	Nat.Spr
2	Rhy x V	Vandachostylis	Van	532	24.1	4.4
2	Phal x Rhy	Rhynchonopsis	Rhnps	46	22.9	4.1
3	Aer x Rhy x V	Perreiraara	Prra	46	35.2	3.7
3	Ple x Rhy x V	Vanchoanthe	Vct	34	14.5	5.2
2	Ren x Rhy	Renanstylis	Rnst	31	73.6	4.8
2	Aer x Rhy	Rhynchorides	Rhrds	26	38.3	3.1
3	Ren x Rhy x V	Joannara	Jnna	21	36.8	4.5
3	Pps x Rhy x V	Sweetara	Sw	18	11.3	5.3
3	Phal x Rhy x V	Yapara	Yap	15	15.5	4.2
2	Arach x Rhy	Arachnostylis	Arnst	9	23.6	4.6
2	Holc x Rhy	Holcostylis	Hoc	8	15.5	3.7
3	Arach x Ren x Rhy	Chuanyenara	Chnya	8	79.6	4.4
3	Arach x Rhy x V	Ramasamyara	Rmsya	8	15.9	8.1
2	Ple x Rhy	Rhynchanthe	Ryh	7		
3	Holc x Rhy x V	Holcovanstylis	Hvs	6	10.7	3.8
2	Rhy x Sarco	Sartylis	Srts	5	22.6	3.1

Hoc. M S Sunlight 'Diamond Orchids II' AM/AOS Jan 2019, NS 3.1 x 3.0 cm

Waironara Tango Fire 'Ruby's Fire' AM/AOS May 2019, NS 3.7 x 3.6 cm

As the table above points out, there's been extensive use of Rhynchostylis in intergeneric breeding with over 60 genera generated. The five genera with the most members were discussed in the main body, what I am trying to capture here are potential 'up and coming' genera that have caught the judges' eye.

Holcostylis [Hoc.] (Holcoglossum x Rhynchostylis), 8 members, first member registered in 2012, 4 members have received awards, two members have progeny.

Sartylis [Srts.] (Rhynchostylis x Sarcochilus), 5 members, first member registered in 1973 (not new but has caught the judges' eye, most recent award 2011), 4 members have received awards, 1 member has progeny.

Srts. Toowoomba Sparkle 'Coconut Ice' AM/AOS Apr 2011, NS 3.1 x 2.9 cm

Waironara [Wrna.] (Aerides x Renanthera x Rhynchostylis x Vanda), 2 members, first member registered in 2018, 1 member has received 5 awards, no member has any progeny.

Species Data Sheet

Rhynchostylis gigantea (Thouars) Schltr., Orchideen Beschreib. Kult. Zücht.: 598 (1914)

[ay-er-RANG-giss si-TRAH-ta]

Rhynchostylis gigantea
'Frank Smith' FCC/AOS
Jan 2020, NS 4.0 x 4.0 cm

This species occurs Southeast Asia, Hainan China, Borneo, and the Philippines in semi-deciduous and deciduous dry lowland forests and savana-like woodlands at elevations of sealevel to 700 meters. It is a medium sized (can in 20 years live up to its specific epithet, attaining a height of more than 3 feet (0.9 m) and a width of more than 18 inches (45 cm), but will bloom for the first time at 2 inches (5 cm) tall and 3 inches (7.5 cm) across), monopodial, warm to hot growing, vandanaceous epiphyte with a stout stem carrying very thick, channeled, acute lobed apically leaves. A plant is easily recognized even when not in bloom by the broad leathery leaves striped by lighter geen veins and it stout roots that can be 1.2-1.8 cm in diameter. The 2 to six arching, to 15" [37 cm] long, racemose, densely many flowered inflorescence, which appear in autumn and winter, have sweetly citrus scented blooms that last for about two weeks. The relatively large inidividual flowers are normally white with purple-spotted segments and a purple lip arranged closely and neatly in the typical forms. They need ample bright light, good air movement, even watering and fertilizer through out the year.

Judge using the General scale.

Synonyms / Varieties / forms:

Synonyms – None (in recent times)

Numerous color forms have been found in nature and have been developed in cultivation.

The subspecies violacea is similarly colored, but seldom seen in cultivation as its color is considered less distinctive (no photo available).

Rhynchostylis gigantea f. alba
'Memoria Martha Di Paola Merlo' AM/AOS
Jan 2019, NS 3.3 x 3.0 cm

Pure white (abla) forms of Rhy. gigantea have been known since the 19th century. Until recently, white forms of the species have often been called variety petotiana, a horticultural name that has no nomenclatural validity. Unlike the white forms of many other species, the white form of Rhy. gigantea is as vigorous or more vigorous than the typical color forms.

Rhynchostylis gigantea (Sagarik's strain)
'Ruby Chun Gem' HCC/AOS
Feb 2015, NS 3.0 x 2.7 cm

Like other spotted species, Rhy. gigantea can produce individuals in which the spotting is so dense that the flowers are totally saturated with color. Red forms have long been in cultivation, but the consistent propagation of the red forms was elusive as selfings yielded nearly all spotted color forms. Professor Rapee Sagarik in Thailand solved the problem of producing consistent reds by sib crossing rather than selfing red forms. The earliest reds in widespread cultivation bore the appellation 'Sagarik's Strain'.

Exceptionally heavily spotted but not solid red clones also emerged from the early breeding of reds. These were considered in the 1960s inferior and rejected. In the late 1980s and early 1990s these heavily spotted types with contrasting white markings gained an appreciation of their own aesthetic. Heavily marked flowers with contrasting white can be produced by crossing spotted forms to reds or sibbing two heavily spotted forms. The range of color produced is a charming variation of a theme of red and white.

In the late 1980s another color form of Rhy. gigantea emerged in Thailand — orange! The first generation of this color form was primarily endearing for its novelty. The never-before-seen flowers of dull pinkish orange fascinated those familiar with the other color forms. Although definitely different, the color was hardly beautiful.

In a perfect illustration of one of Darwin's arguments for natural selection bringing great change over long time, over a short time artificial selection has greatly improved the color of these new orange flowers. We now are seeing clear peachy orange flowers of appealing hues. The form of the flowers has improved markedly as well. A new flower has emerged in a short 20 years.

Rhynchostylis gigantea
'Claire de Lune' FCC/AOS
Feb 2015, NS 3.5 x 3.4 cm
Color: Bright orange over cream

Rhynchostylis gigantea
'Melissa' JC/AOS
Feb 1990, NS 3.4 cm
Color: White with yellow pinkish

Rhynchostylis gigantea
'Peachie Keen' JC/AOS
Jan 1994, NS 2.8 x 2.6 cm
Color: Pink suffusion over white

The photos to the left are the first two cultivars of Rhy. gigantea that received AOS awards the mentioned either peach, pink, or yellow pinkish in either the AOS description or in the cultivar name.

Notice how the color saturation, form, and size has improved over the 25 years since the 'orange' color form was first introduced to the recently awarded cultivar 'Claire de Lune' above.

Awards:

Below are AOS awards for Rhynchostylis gigantea:

	FCC	AM	HCC	AQ	AD	JC	AQ	CCM	CCE	CHM	CBM	TOTAL
AOS	10	99	43	2	1	9	2	21	4	1	4	**194**
Year(s) Awarded	1987-2020	1965-2019	1975-2018	1965-1994	1993	1973-2000	1964-1994	1960-2020	2014-2015	1998	1961-1977	

This species has received 194 awards since initially being shown in 1960 with 10 being for FCCs, the highest flower quality award from AOS. Clearly a plant when in bloom does catch the eye of not only general public but also that of judges.

Breeding Characteristics:

Although there has been relatively limited breeding with Rhynchostylis gigantea, what breeding that has been done has distinctly been successful as can be seen by the table below. Key attributes associated with Rhy. gigantea are a short arching / pendent inflorescences, large flower size, low flower count excellent arrangement of flowers on the inflorescences, heavy substance, flower longevity, color, fragrance, relatively small plant size (as compared to vandas), and all of the flowers open simultaneously.

	1940	1950	1960	1970	1980	1990	2000	2010	Total
Reg	0	3	13	46	27	30	35	75	229
Assc Awds	0	1	35	131	13	97	34	47	358
F1	0	3	13	40	20	19	21	58	174
AA	0	1	35	131	13	89	18	19	306
F2	0	0	0	6	7	11	13	15	52
AA	0	0	0	0	0	8	16	28	52
F3	0	0	0	0	0	0	1	2	3
AA	0	0	0	0	0	0	0	0	0

Interest in breeding with Rynchostylis gigantea started in 1958 when the first cross was registered peaked in the 1970's and again currently, 2010s, with 75 registered crosses, 58 being primary hybrids.

Most of the breeding has been inter-genera.

Rhynchostylis Chorchalood 'Sweet Martha', AM/AOS Feb 2002, 3.6 x 2.6 cm

'Major' Hybrids (Intra-genera):

Of the 229 total Rhy. gigantea progeny as of Sept. 2019 registration data on 7 intra-genera. Only one of these is significant.

Rhynchostylis [Rhy.] Chorchalood (Rhy. gigantea x Rhy. retusa), 1970, Yaemboonchoo, 2 F1 and 5 total progeny, 7 AOS awards (1 AM, 3 HCCs, 1 CCE, 2 CCMs).

'Major' Hybrids (Inter-genera, highest number of awards, highest number of progeny):

Rhynchonopsis Suree 'Placer Plum', AM/AOS Dec. 1995, 5.0 x 5.2 cm

Rhynchonopsis [Rhnps.] Suree (Rhnps. Lanna Thai x Rhy. gigantea), 1976, Yen Orchids, 4 F1 and 6 total progeny, 26 AOS awards (17 AMs, 5 HCCs, 1 JC, 3 CCMs). No major progeny.

Vandachostylis [Van.] Colmarie (Van. Sri-Siam x Rhy. gigantea), 1994, Kultana, 4 F1 and 5 total progeny, 26 AOS awards (20 AMs, 5 HCCs, 1 CCM).

Vandachostylis Colmarie 'Valley Isle' AM/AOS Jan 2019, NS 4.4 x 3.9 cm

Renanstylis Queen Emma
'Floranor' AM/AOS
Apr 1980, NS 5.5 cm

Renanstylis Azimah
'Pink Delight' AM/AOS
Apr 1998, NS 4.2 x 5.1 cm

Renanstylis [Rnst.] Queen Emma (Ren. storiei x Rhy. gigantea), 1961, O. Kirsch, 8 F1 and 9 total progeny, 20 AOS awards (11 AMs, 6 HCCs, 1 JC, 2 CCMs). No major progeny.

Vandachostylis [Van.] Crownfox Red Gem (Rhy. gigantea x V. Red Gem), 1998, R. F. Orchids, 7 F1 and 8 total progeny, 8 AOS awards (5 AM, 3 HCCs). Major progeny: **Van. Roll on Red** (Van. Crownfox Red Gem x V. Peggy Foo), 2004, Brighton Orchids, 1 F1 progeny, 8 AOS awards (5 AMs, 3 HCCs)

Renanstylis [Rnst.] Azimah (Ren. Nancy Chandler x Rhy. gigantea), 1970, Kranji, 6 F1 and 7 total progeny, 4 AOS awards (2 AMs, 2 HCCs). Major progeny: **Rnst. Bangkok Beauty** (Rnst. Azimah x Ren Bangkok Flame), 2010, V. Jiravongkhajorn, 1 F1 progeny, 8 AM/AOS awards.

Vandachostylis [Van.] Sagarik Wine (V. denisoniana x Rhy. gigantea), 1970, W. P. Orchid, 6 F1 progeny, 2 AOS awards (1 AM, 1 HCC). No major progeny.

Vandachostylis [Van.] Sri-Siam (V. tessellate x Rhy. gigantea), 1978, T. Orchids, 6 F1 and 10 total progeny, 9 AOS awards (3 AMs, 4 HCCs, 2 JCs). Major progeny: **Van. Colmarie** (Van. Sri−Siam x Rhy. gigantea), 1994, Kultana, 4 F1 and 5 total progeny, 26 AOS awards (20 AMs, 5 HCCs, 1 CCM)

Vandachostylis Crownfox Red Gem
'Strawberry Syrup' AM/AOS
Mar 2014, NS 4.4 x 4.3 cm

Vandachostylis Sagarik Wine
'Rainbow' AM/AOS
Apr 1972, NS 4.1 cm

Vandachostylis Sri-Siam
'Zouri Browne' AM/AOS
Feb 2013, NS 4.7 x 4.6 cm

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Award Descriptions (Mar 2020)

Aerangis [Aergs.] Fast Joint – Quality Award Description
(Phal. pulcherrima x Rhy. retusa)
Two stellate cupped white flowers on a 4 in (10 cm) inflorescence, spur 4.3 in (11 cm) long; sepals and petals lanceolate; lip white, light green basally, lanceolate, margin dark brown basally; column and anther cap white; substance firm; texture waxy.

Rhynchostylis [Rhy.] Silvia – Quality Award Description
(Rhy. Hirota x Rhy. gigantea)
Eighty-three flowers and thirteen fully form buds on two inflorescences; base color white; sepals randomly blotched bright purple; petals randomly blotched bright purple, convalescing distally; lip white, midlobe overlaid bright purple; column cream; anther cap golden purple; substance firm; texture waxy.

Renanstylis [Rnst.] Gleneyrie – Cultural Award Description
(Ren. monachica x Rhy. gigantea)
Two hundred ninety-six well arranged stellate flowers and one hundred seventy-four buds on six inflorescences presented on a clean robust plant with three keikis in 15 in (38 cm) wood slat basket; sepals and petals yellow, blotched crimson with light orange centers; petals slightly narrower; lateral sepals wider distally; lip yellow, lightly spotted crimson; column creamy yellow spotted light red distally; anther cap yellow, lower margin crimson; substance firm; texture matte.

Vandachostylis [Van.] Prapin White – Quality Award Description
(Van. Prapin x V.Viroonchan Gold)
Fourty-three full round flowers on one inflorescence; dorsal sepal white, distally centrally very light lime green overlay; lateral sepals white, inferior overlaid light lime green; lip white, midlobe overlaid dark purple; column white; anther cap orange brown; substance firm; texture matte.

Rhynchonopsis [Rhnps.] Leong Pak-Lin – Quality Award Description
(Phal. pulcherrima x Rhy. retusa)
Twenty round full flowers and Twelve buds on two up to 14 in. (36 cm) inflorescences; sepals and petals white blushed light purple, dorsal sepal and petals heavier blushed; lip white, midlobe overlaid light purple; column white, anther cap light creamy yellow; substance firm; texture matte.

The Genus Papilionanthe
(Roxb.) Schltr., Orchis 9: 78 (1915)
Type: Papilionanthe [Ple.] teres [pah-pill-ee-oh-NAN-thee THE-reez]

Papilionanthe teres

Papilionanthe is a genus with 10 species (plus one natural hybrid) are found from India subcontinent southeast to Vietnam, Sumatra, and Borneo. They commonly grow as terrestrial in open swamps or epiphytic in forests at 0-8000 ft (0–2400 m). All species of the genus are monopodial, terete-leafed species with a spur on the labellum and a short, fat, non-pyramidal column with a prominant foot. They are characterized by their thin stems with alternate terete leaves. These leaves, either straight or re-curved, are up to 8 inches (20cm) long and their leaf bases clasp the stem. Aerial roots arise from the nodes and are usually at right angles to the leaves. The short inflorescence also arises from a node but is opposite the leaf. It can be up to I2 inches (30 cm) long and bear from a few to 20 flowers, which may be small or up to 4 inches (10 cm) in diameter (P. teres). The base flower colors are lavender and white.

Papilionanthe flowers are attractive and showy. The sepals and petals are often alike in shape and color, but the petals may be broader, sometimes twisted, have more wavy margins and may be more deeply colored. The three-lobed spurred lip may have a deeply cleft midlobe and the smaller side lobes may lie parallel to or enclose the column.

Papilionanthe is probably best known for its primary hybrid Papilionanthe Miss Joaquim (Ple. teres x Ple. hookeriana), the major lei flower of Hawaii, and as a full-sun garden flower throughout tropical and sub-tropical countries.

Culture: They do best with humid, well watered, hot to cool conditions year round and basket culture to accomodate the aerial roots. Temperature: 60 to 65 F (night)for best growth; Light: Full sun for best growth and flowering (at least four hours a day); Humidity: 40 to 60 percent; Media: Tree fern or bark totems, can be grown in ground beds or containers with a rich organic medium;

Generally, you would point scale using the general point scale.

Common Name or Meaning refers to the similarity of the flower to a butterfly. From the Latin words papilio (butterfly) and anthe (flower) to describe the colorful butterfly 1ike flowers of this plant.

Table of species

Kew Name	Habitat, Country	Habitate, Geographically	Temp	Season	F1/Total	FCC	AM	HCC	JC	AD	AQ	CCE	CCM	CHM	CBR	Total
Papilionanthe biswasiana	China to N. Thailand	In forests on tree trunks at elevations of 1700 to 1900 meters.	Cool	Spring-Summer	1/1			1								1
Papilionanthe greenii	Bhutan															0
Papilionanthe hookeriana	Indo-China to Sumata / Borneo	In fully exposed positions in low-lying swampy areas, in open scrub of low forest, and in thick low jungle not more than 5 feet high.	Hot	Year round	31/608											0
Papilionanthe pedunculata	Indo-China	found near Dalat at 4250 ft. (1300 m)	Cool to warm		4/4											0
Papilionanthe sillemiana	Myanmar															0
Papilionanthe subulata	India, Sri Lanka		Cool	Winter-Spring												0
*Papilionanthe teres	Nepal to Indo-China	Plants normally grow at 800-2800 ft. (250-850 m).	Cool to warm	Spring-Summer	110/1095			2								2
Papilionanthe tricuspidata	Lesser Sunda Island	found at 2950 ft. (900 m)	Warm to hot	Spring-Summer	5/7									1		1
Papilionanthe uniflora	C. & E. Himalaya to Assam	Found on emergent tree canopy of south-facing wet temperate forest at 5000-7850 ft (1525-2400 m).	Cool	Summer-Fall												0
Papilionanthe vandarum	India to SC. China	grows in the subtropical zone at 3950-5600 ft. (1200-1700 m)	Cool to warm	Winter-Spring	7/13		1							1		2

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

The genus Papilionanthe has limited hybridization intra-genera with only with 34 registered hybrids but has been used extensively in inter-genera breeding with over 1150 registered hybrids. Papilionanthe teres is by far the most used species when breeding with the genus. In regard to intra-genera breeding has had one major grex with several additional pretty good grexes. It appears that the potentially major reasons breeding characteristics are: heat tolerant, rambling growth habit, few number of flowers per inflorescence, light lavender to pink flower color, and twisted petals.

Papilionanthe Miss Joaquim

'Major' Hybrids (Intra-genera):

Papilionanthe Miss Joaquim (Ple. hookeriana x Ple. teres), 1893, Joaquim, 103 F1 and 509 total progeny, 2 AOS awards (1 AM, 1 HCC). Major progeny: **Papilionanda [Pda.] Mevr. L. Velthuis** see below; **Ple. Poepoe**, see below; **Ple. Cooperi**, see below; **Pda. Leilani** (Pda. Nora Potter x V. sanderiana), 1954, Woodlawn, 5 F1 progeny, 5 AOS awards (4 AMs, 1 HCC).

Papilionanthe Cooperi
'White Wings #1'

Papilionanthe Cooperi (Ple. hookeriana x Ple. Miss Joaquim), 1893, C. B. Cooper, 27 F1 and 129 total progeny, no awards. Major progeny: **Ple. Poepoe**, see below; **Pda. Ruby Prince** (Pda. Ruby x Ple. Cooperi), 1951, Singapore Botanical Gardens, 14 F1 and 16 total progeny, no AOS awards.

Papilionanthe Poepoe (Ple. teres x Ple. Cooperi), 1948, Shipman, 38 F1 and 52 total progeny, 1 CCE/AOS award. No major progeny.

Papilionanthe Poepoe
'Diana' CCE/AOS
Mar 2017, NS 7.2 x 7.2 cm

'Major' Hybrids (Inter-genera, Top five genera based on number of members):

Papilionanda (Papilionanthe x Vanda) – 932 members, many grexes have been used for breeding (17 grexes with 10 or more F1 progeny) but only a few have received a lot of awards (2 grexes with 10 or more awards). Three of the grexes below were used the most in breeding, the other received the most awards are:

Pda. Josephine van Brero

Papilionanda [Pda.] Josephine van Brero (V. insignis x Ple. teres), 1936, van Brero, 180 F1 and 378 total progeny, no awards. Major progeny: **Papilionanda Tan Chay Yan** (V. dearei x Pda. Josephine van Brero), 1952, Robert Tan, 22 F1 and 125 total progeny, 2 AOS awards (1 AM, 1 HCC); **Papilionanda [Pda.] Mimi Palmer** see below.

Papilionanda Mevr. L. Velthuis
'Orchidglade' AM/AOS
May 1991, NS 9.1 x 7.8 cm

Papilionanda [Pda.] Mevr. L. Velthuis (Ple. Miss Joaquim x V. sanderiana), 1945, Chevalier, 80 F1 and 117 total progeny, 4 AOS awards (2 AMs, 2 HCCs). Major progeny: **Pda. Nora Potter** (V. coerulea x Pda. Mevr. L. Velthuis), 1949, 15 F1 and 20 total progeny, 2 AOS awards (1 AM, 1 CCM); **Pda. Leilani** (Pda. Nora Potter x V. sanderiana), 1954, Woodlawn, 5 F1 progeny, 5 AOS awards (4 AMs, 1 HCC).

Pda. Mimi Palmer
'Garrett's Supper Mimi' AM/AOS
Oct 2019, NS 6.2 x 6.2 cm

Papilionanda [Pda.] Mimi Palmer (Pda. Tan Chay Yan x V. tessellata), 1963, Gem Nursery, 60 F1 and 100 total progeny, 5 AOS awards (2 AMs, 3 HCCs). Major progeny: **Pda. Arjuna** (Pda. Mimi Palmer x V. tessellata), 1982, F. Bangerter, 11 F1 and 14 total progeny, 6 AOS awards (4 AMs, 2 HCCs); **Pda. Corneels Cilliers** (Pda. Mimi Palmer x V. Doctor Anek), 2008, Kultana, no progeny, 8 AOS awards (6 AMs, 2 HCCs).

Papilionanda [Pda.] Nellie Morley (Pda. Emma van Deventer x V. sanderiana), 1952, Morley, 20 F1 and 41 total progeny, 58 AOS awards (24 AMs, 34 HCCs). Major progeny: **Perreiraara Mu Qi Malisa Wendy** (Van. Pine Rivers x Aer. lawrenceae), 2014, A. Hongsilp, no progeny, 2 AOS awards (1 AM, 1 HCC).

Vanchoanthe (Papilionanthe x Rhynchostylis x Vanda) – 34 members, limited breeding, 6 grexes, two grexes have received the awards:

Va nchoanthe [Vct.] Herbert Kurihara (Pda. Winifred Kurihara x Rhy. coelestis), 1973, H. K. Nitta, 1 F1 and 6 total progeny, 4 AOS awards (3 AMs, 1 HCC), no major progeny.

Pda. Nellie Morley
'Toyomi Nonaka' AM/AOS
Jul 1975, NS 10.0 cm

Vct. Herbert Kurihara
'Kazuto Nitta' AM/AOS
Nov 1987, NS 6.0 cm

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