

Species Data Sheet

Cattleya bicalhoi (Reichenbach f.) Van den Berg, Neodiversity 3: 4 (2008)

[KAT-lee-a bye-KAL-hoe-ee]

An endemic Brazilian, dwarf, unifoliate, intermediate growing epiphyte occurring at elevations of 3,000 to 4300 feet (900 - 1300 meters) in the Organ Mountains in indirect light on lichen-encrusted trees along river banks. The cylindrical pseudobulbs are 1 – 3 inches (3 – 7 cm) long bearing a single fleshy leaf up to 4 inches (10 cm) long. Single flowers are borne on 1 inch (3 cm) inflorescences from summer to autumn. The rosy-pink to dark mauve flowers has strongly reflexed sepals and petals with a large trumpet-shaped obscurely three-lobed lip, with the lateral lobes meeting above the column. The edges of the lip are frilled, and turn outward. The throat is white with a few obscure calli and several (5 to 7) prominent velvety red-purple veins, the rest of the lip is dark rose-purple. The flower is best describe with a quote from C. Withner “Almost invariably the shape of the flowers is poor by judging standards: they don’t open widely, the petals droop, the varous parts tend to reflex, and the flowers hang down from their stalks. Their attraction comes from the color and form of trhe lip.”



Cattleya bicalhoi
'Santa Barbara' HCC/AOS
Sep 2003, NS 6.5 x 6.6 cm

Synonyms:

Cattleya bicalhoi is member of what was once called the hydrolaelias. This group (section) has recently been taxonomy beem moved around a lot recently, initially and most commonly known as a Laelia.

Laelia dayana

Hadrolaelia dayana

Sophronitis dayana

Varieties / forms:

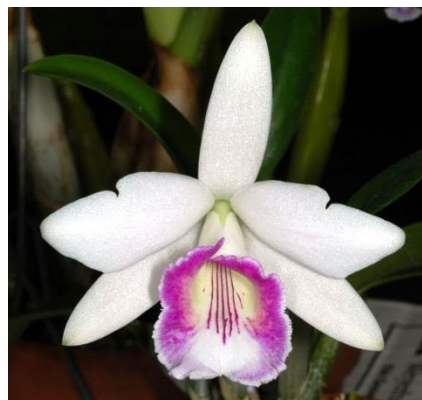
No varieties or forms have been awarded by the AOS but there are coerulea forms, a reported alba form, semi-alba forms (my conclusion)



Cattleya bicalhoi f. coerulea



Cattleya bicalhoi



Cattleya bicalhoi

Awards:

Cattleya bicalhoi has only recently received any AOS awards with a total of seven, 3 quality and 4 cultural. Below are AOS awards for C. bicalhoi:

	FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBM	TOTAL
AOS		1	2			2		2		7
Year(s) Awarded		1985	2003-2013			2003-2010		1998-2013		

Breeding Characteristics:

Cattleya bicalhoi has a total of 124 progeny, based on this limited heritage the traits associated with it are the dark lip, cupping, tendency to have dropping petals, and a dwarf growth habit.

An indication of interest in breeding with C. mossiae is shown in the following table:

	Registration Decade														
	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	Total
C. bicalhoi															
Register Crosses	3	11	27	33	11	5	1	0	0	0	1	13	9	10	124
Assoc. Awards	0	0	2	1	0	0	0	0	0	0	0	0	1	0	4
Register F1 Crosses	3	11	11	4	0	0	0	0	0	0	1	9	5	4	48
Assoc. F1 Awards	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
Register F2 Crosses	0	0	16	21	6	2	0	0	0	0	0	4	3	4	56
Assoc. F2 Crosses	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Register F3 Crosses	0	0	0	8	4	1	1	0	0	0	0	0	1	2	17
Assoc. F3 Crosses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

As shown in the above table hybridization interest in Cattleya bicalhoi has two periods. The first period was from 1887 to 1944 then no registered crosses until 1988, that is a break of no registered crosses of 44 years. I'm guessing that the initial interest was in the beautiful lip. Present interest is related to mini-cats with beautiful lips and blue varieties. Was not able to find any hybridization information, but since the total awards for all C. bicalhoi progeny is only four, it appears not to be a good parent by existing judging criteria.

'Major' Hybrids (and select, that have pictures):



C. Danae
'Chaudron-Elisabeth' BM/DOG
Nov 2012

Cattleya Ingramii (C. dowiana x C. bicalhoi), 1892, Ingram, 21 F1 and 26 total progeny, no awards. No major progeny. No photo available.

Cattleya Iona (1899) (C. bicalhoi x C. tenebrosa), 1899, Charlesworth Ltd., 9 F1 and 12 total progeny, no awards. No major progeny. No photo available.

Cattleya Danae (C. loddigesii x C. Laeta), 1908, Sir George Holford, 7 F1 and 9 total progeny, no AOS awards. No major progeny.

Cattleya Laeta (C. bicalhoi x C. coccinea), 1894, Veitch, 4 F1 and 15 total progeny, no awards. Some of the major progeny: **C. Danae**, see above.

Cattlianthe [Ctt.] Aloha Bleu (Ctt. Babe Bleu x C. bicalhoi), 1993, J. Woltmon, 3 F1 progeny, no awards. No major progeny.

Cattleya Susanna (C. bicalhoi x C. pumila), 1912, Eustace Clark, 1 F1 progeny, 1 HCC/AOS award. No major progeny.

Cattleya Mark The Shark (C. bicalhoi x C. dormaniana), 2002, R. W. Bussey Jr., no progeny, no AOS awards.



Cattleya Laeta



Ctt. Aloha Bleu
'Brazilian Sky'



C. Susanna
'JoeBoy' HCC/AOS
Oct 2012, NS 10.8 x 11.1 cm



C. Mark The Shark
'Ruby' HCC/SAOC
Mar 2002, NS 8.2 cm

References:

www.orchidspecies.com

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

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Species Data Sheet

Cattleya wallisii (Linden) Rollisson, Nursery Cat. (Rollisson) 1875-1876: 11 (1875)

[KAT-lee-a wal-LIS-ee-eye]

Cattleya wallisii is found in Brazil in the hot, steaming jungles of the Amazon Basin. It is as a relatively small plant, with only 5- or 6 -inch- (12.5- to 15-cm-) tall smooth, cylindrical pseudobulbs carrying a single apical, rigid, leathery, erect leaf that blooms in the summer. The terminal, short inflorescence carries 1 to few [3] medium-sized, traditional-shaped 4- to 4 1/2 -inch (10- to 11.5-cm) fragrant flowers that traditionally does not open well. The flower has a distinct lip pattern that could not be mistaken for any other species. *Cattleya wallisii* has a wide range of color forms and is has some of the longest-lasting flowers in the whole *Cattleya* genus.

There is a greater occurrence of white clones in this species than in any other *Cattleya* species. They are so distinctly numerous as to be common, likely accounting for one of its early names, *C. virginalis*.

Cattleya wallisii was the darling of the 1870s, its popularity continued for more than two decades. Linden made so much money on the species that he often featured it in beautiful color lithographs in his magnificent book *Lindenia*.

As the years went by, however, the abundant large-flowered giants of the *Cattleya* genus like *C. labiata*, *C. warscewiczii*, *C. mossiae* and *C. trianaei* slowly eclipsed the more modest, diminutive beauty of *C. wallisii* and, by the early 1900s, *C. wallisii* had become a rare plant in cultivation. Although a few plants were imported during the 1940s, the species largely disappeared from hobby and commercial greenhouses in the United States and Europe after that.

Synonyms:

Cattleya eldorado

Cattleya virginalis



Cattleya wallisii
'Mt. Ito' AM/AOS
Nov 2016, NS 11.5 x 12.9 cm



Cattleya wallisii
'Dr. Fernando Matos' HCC/AOS
Mar 2010, NS 12.2 x 15.0 cm

Varieties / forms:

- C. wallisii var. ornata – Very dark purple sepals and petals with a large dark purple blotch covering the end of each petal.
- C. wallisii var. splendens – Superior form; sepals and petals clear rose, the latter much broader and serrated at the edges, labellum large. Throat rich deep orange, midlobe medially covered by a circle of white, distally rich violet-purple, extending to the front and around the whole margin, where it is finely saw-toothed.
- C. wallisii var. virginalis – Large flowers pure white spotted only golden yellow in the throat of labellum; floriferous, producing five flowers per inflorescence.
- C. wallisii (semi-alba type) – White sepals and petals; lip white, yellow throat, distally rich purple.
- C. wallisii (flammea type) – semi-alba form and color with splashes of purple distally on the sepals and petals. Several awards received recently.



Semi-alba type C. wallisii



Semi-alba flammea type C. wallisii
'Fairy', AM/AOS
Sep 2017, NS 12.9 x 12.2 cm



C. wallisii var. virginalis
'Pine Crest', CBM/AOS
Oct 1966

Awards:

	FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBM	TOTAL
AOS		4	4						1	8
Year(s) Awarded		2009-2016	2010-2015						1966	

It is interesting that C. wallisii has only recently been receiving awards and that the awards have been mostly to the flammea type, six of the eight awardees were flammea type.



C. Iridescens 'Splendens'
AM/RHS, Sep 1909



C. Iridescens 'Aurifera'
AM/RHS, Sep 1914

Breeding Characteristics:

Initial glance at *Cattleya wallisii* registration data would seem to indicate that it has been used quite a bit in breeding, but when one looks at the generation data it takes on a different indication.

	Registration Decade														
<i>C. wallisii</i>	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	Total
Register Crosses	1	9	14	16	34	30	82	182	423	618	1270	1322	2777	2044	8822
Assoc. Awards	0	1	1	1	0	3	23	100	255	281	470	636	847	216	2834
Register F1 Crosses	1	9	13	14	0	0	4	3	1	0	0	0	1	2	48
Assoc. F1 Awards	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
Register F2 Crosses	0	0	0	2	31	14	1	0	3	0	0	1	2	2	56
Assoc. F2 Awards	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Register F3 Crosses	0	0	0	8	4	1	1	0	0	0	0	0	1	2	17
Assoc. F3 Awards	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Register F4 Crosses	0	0	0	8	4	1	1	0	0	0	0	0	1	2	17
Assoc. F4 Awards	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

From the above table, there has been almost 9,000 hybrids made with *C. wallisii* as a parent, but through the first four generation no more than 56 at each generation (second generation). By the fifth generation *C. wallisii* contributes roughly 3% to the gene pool. Looking closer at the data, *C. Iridescons* is the only hybrid that has significant progeny. To confirm this the following two tables were generated. The first is registration data for *C. Iridescons* progeny and the second is *C. wallisii* registration data minus *C. Iridescons* registration data.

	Registration Decade														
<i>C. Iridescons</i>	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	Total
Register Crosses	0	0	1	8	28	27	77	179	421	618	1270	1321	2772	2038	8760
Assoc. Awards	0	0	1	1	0	3	23	100	255	281	470	636	847	216	2833
Register F1 Crosses	0	0	0	8	4	0	0	0	2	0	0	0	0	0	14
Assoc. F1 Awards	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Register F2 Crosses	0	0	0	0	21	12	4	3	1	2	1	0	2	1	47
Assoc. F2 Awards	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Register F3 Crosses	0	0	0	0	2	8	19	13	4	0	1	2	3	0	52
Assoc. F3 Awards	0	0	0	0	0	1	2	8	0	0	0	0	0	0	11
Register F4 Crosses	0	0	1	0	1	7	39	64	113	68	27	10	10	0	340
Assoc. F4 Awards	0	0	1	0	0	2	17	31	35	17	0	1	0	0	104

Clearly *C. Iridescons* is the *C. wallisii* progeny with the most progeny, 8760 of the 8822 *C. wallisii* progeny. And the same can be said for the associated awards, 2833 of the 2834 *C. wallisii* progeny. Another observation is that hybridization did not really take off until the fourth generation, VERY little genetic contribution from *C. wallisii*. Due to the limited *C. wallisii* breeding in this line it will not be reported on either in this report or a building block report. A building block is appropriate but NOT associated with *C. wallisii*.

Question: What progeny information is left after removal of *C. Iridescons* progeny information? The answer is in the following table.

	Registration Decade														
C. wallisii-C. Iridescons	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	Total
Register Crosses	1	9	13	8	6	3	5	3	2	0	0	1	5	6	62
Assoc. Awards	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Register F1 Crosses	1	8	9	5	0	0	4	3	1	0	0	0	1	2	34
Assoc. F1 Awards	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Register F2 Crosses	0	1	4	3	6	2	1	0	1	0	0	1	2	2	23
Assoc. F2 Awards	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Register F3 Crosses	0	0	0	0	0	1	0	0	0	0	0	0	1	2	4
Assoc. F3 Awards	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

There has been limited breeding with *C. wallisii*, with the peak occurring in 1900s and 50% of the registered crosses occurring prior to 1920. Also, the judges do not appear to think highly of *C. wallisii* progeny with only one award granted. The other item to point out, high-lighted by the F1 registered crosses, is that there appears to be three periods of breeding with *C. wallisii*, initial 1890-1920 (most intense) followed by 1940-1960 and the most recent period of 1990 to present. The most recent interest I suspect is related to latest interest in minicats. Time will tell whether any successful crosses result from the latest line of breeding.

I was not able to find any *Cattleya wallisii* progeny information but was able to find the following information about *C. wallisii* which may be passed on to the progeny: fragrant flowers, traditionally does not open well, distinct lip pattern that could not be mistaken for any other species, wide range of color forms, and long-lasting flowers.

'Major' Hybrids:

As detailed in the breeding section, there are NO major hybrids with *C. wallisii* except *C. Iridescons*. I looked at *C. wallisii* crosses (without *C. Iridescons*) since 1960 and no photos were available. The only awarded (non-AOS) cross was to *C. Brymeriana* (1986) (*C. wallisii* x *C. violacea*), 1896, S. Low, 5 F1 progeny, in 2015.

References:

www.orchidspecies.com

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

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

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C. Brymeriana (1896)

Award Descriptions (August Report)



Cattlianthe [Ctt.] Aloha Bleu – Quality Award Description

(Ctt. Bebe Bleu x C. bicalhoi)

Two stellate flat flowers on one inflorescence; sepals and petals white lightly blushed-veined lavender-blue; lip enclosed white lightly blushed lavender-blue, dark lavender-blue collar and veins in the throat; column and anther white; substance firm; texture diamond dust.

Laeliocattleya [Lc.] Mishima Bouquet – Quality Award Description

(Lc. Mishima Purple x C. bicalhoi)

Four stellate cupped flowers and one bud on one inflorescence; sepals and petals white lightly veined rose-pink; lip broadly ruffled rose-pink transitioning to very dark rose basally; column and anther cap dark rose, pollina light rose pink; substance very good; texture matte.



Cattlianthe [Ctt.] Cosmic Horizon – Cultural Award Description

(C. loddigesii x Ctt. Aloha Bleu)

Fifteen flat stellate flowers on eight inflorescences presented on a robust plant with blemish-free light-green foliage in a 6 inch [15 cm] clay pot; sepals white, centrally lightly striped light violet; petals white suffused light violet; lip entire, broadly ruffled dark purple picotee, apex light violet, centrally creamy yellow, purple longitudinal veins fading centrally; substance good; texture satin.

Cattleya Brymeriana (1896) – Quality Award Description

(C. wallisii x C. violacea)

Two stellate light lavender flowers on one inflorescence; lip entire, broad rose lavender picotee, white throat, yellow keels; column and anther cap white; substance firm; texture crystalline.



Cattleya Maroniae – Quality Award Description

(C. wallisii x C. labiata)

Three stellate light lavender flowers on one inflorescence; petals slightly ruffled; lip sinuate, light lavender, distally dark lavender, throat yellow, light lavender veins; column and anther cap light lavender; substance very good; texture glistening.