Species Data Sheet

Cattleya milleri (Blumensch. ex Pabst) Van den Berg, Neodiversity 3: 9 (2008)

[KAT-lee-a mil-LAR-ee]

Recently ‘found’, 1960, in Brazil as a miniature sized, warm to cool growing "rupicolous" lithophyte on iron ore outcroppings in Minas Gerais or on the base of Vellozia shrubs at elevations of 2500 to 4300 feet (800 to 1300 m). The clusterd red pseudobulbs are up to 2.5” (6 cm) high, widest at the base, and bear a stiff, somewhat narrow 4.0” (10 cm) ovate-oblong, keeled, rigid leaf with a sharp tip. The leaf is borne at an angle to the pseudobulb, not in line with it, and the foliage of most plants has a deep maroon flush, particularly on the backs of the leaves. The blood- or range-red starry flowers approach 2.0” (5.0 cm) in diameter, blooming in late spring and early summer (May through July) on a erect, 12 to 18" [30 to 50 cm] long, several to many flowered (approximately 6 to 12 flowers at the same time), racemose inflorescence with successive opening flowers, held well above the leaves. The lip is usually yellow with cinnabar-colored veining and varying width picotee.

Cattleya milleri
‘Phyllis’ AM/AOS
May 2010, NS 5.0 x 5.0 cm

There are two color types, one group has narrower sepals and petals, slightly larger flowers and an orange-red color. The other group has slightly smaller flowers with wider sepals and petals and their color is a more blood-red.

Synonyms:

Laelia milleri

Varieties / forms:

None.

Awards:

Cattleya mossiae has received 12 AOS awards asn shown in table below:

	FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBM	TOTAL
AOS		3	4			3	1			**12**
Year(s) Awarded		1972-2010	2003-2009			1971-2004	2007			

Breeding Characteristics:

Cattleya milleri is presently the second most popular species to breed for red cattleyas behind Cattleya coccinea and interest is increasing. The advantages of using C. milleri for red flowers are the multi-floral habit and long inflorescences. The disadvantages would be the stellate flower shape and small flower size.

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

C. milleri	1950	1960	1970	1980	1990	2000	2010	Total
Register Crosses	0	12	71	188	203	402	302	**1178**
Assoc. Awards	0	49	54	91	102	200	55	**551**
Register F1 Crosses	0	12	21	25	16	14	10	**98**
Assoc. F1 Awards	0	49	17	15	9	5	4	**99**
Register F2 Crosses	0	0	50	110	92	81	46	**379**
Assoc. F2 Crosses	0	0	37	70	60	80	17	**264**
Register F3 Crosses	0	0	0	52	83	155	112	**402**
Assoc. F3 Crosses	0	0	0	6	27	36	18	**87**

As shown in the above table interest in Cattleya milleri hybridization started as soon as it discovered in 1960 and has been relative constant to growing since. Judges really liked the initial crosses but interest has been waning since the first 20 years in regards to the F1 crosses. There has definitely been appeal to judges for the F2 generation based on the number of awards received, but there appears to be a drop-off from F3 on.

Name	Parent	Parent	Year	F1 Offspr	Total Offspr	Originator	AOS Awards									
							FCC	AM	HCC	JC	AQ	CCE	CCM	CHM	CBR	Total
C. milleri				98	1178			3	4			1	3		1	12
C. Tropical Glow	C. milleri	C. Hawaiian Glow	1979	10	275	Mackinney's			1							1
C. Tropical Chip	C. Tropical Glow	C. Cherry Chip	1985	6	205	K. Ejiri		1	4							5
Rlc. Tzeng-Wen Beauty	C. Tropical Chip	Rlc. Sunset Bay (Miyamoto)	1997	117	193	Wong Ching-Tien										0
Rlc. Chyong Guu Linnet	Rlc. Haw Yuan Beauty	Rlc. Tzeng-Wen Beauty	2002	1	1	C. F. Tsao			3							3
Rlc. Shin Shiang Diamond	Rlc. Kat E-Sun	Rlc. Tzeng-Wen Beauty	2003	11	11	S. Shiang			1							1
C. Tropical Pointer	C. Tropic Glow	C. intermedia	1981	13	23	K. Ejiri		3	6				1			10
Bc. Richard Mueller	B. nodosa	C. milleri	1965	75	174	J. Redlinger		1	3				2			6
Rby. Golden Tang	Rlc. Waikiki Gold	Bc. Richard Mueller	1989	38	41	H & R Nurseries		10	10							20
Bc. Rustic Spots	Bc. Richard Mueller	C. Landate	2000	4	4	H & R Nurseries		5	8							13
Bc. Yellow Bird	B. nodosa	Bc. Richard Mueller	1990	7	7	H & R Nurseries		4	2			1	7			14
Bc. Hoku Gem	C. Tangerine Jewel	Bc. Richard Mueller	2012	8	8	R. & M. Gerber		5	2				1			8
Ctt. Rojo	Gur. aurantiaca	C. milleri	1965	75	151	Rod McLellan Co.		1	7				5			13
Ctt. Rocket Burst	Ctt. Rajah's Ruby	Ctt. Rojo	1977	23	29	Rod McLellan Co.			7							7
Ctt. Blazing Treat	Ctt. Rojo	Ctt. Trick or Treat	1998	21	21	Hossier			1							1
Lcn. Newberry Lava Burst	Ctt. Rojo	L. undulata	2005	-	-	Carter & Holmes		9	3		1	2	3			18
C. Jinn	C. coccinea	C. milleri	1966	62	235	M. Spencer		4	3	1			4			12
C. Wendy's Valentine	C. Jinn	C. Paprika	1979	72	126	R. Takase		1	3							4
C. Wendy's Redstone	C. Precious	C. Wendy's Valentine	1994	8	22	Carmela			2							2
Rlc. Hawaiian Prominence	Rlc. Hisako Akatsuka	C. Wendy's Redstone	2000	6	11	Carmela		2								2
Rlc. Smantha Duncan	C. Little Precious	Rlc. Hawaiian Prominence	2006	5	5	Hawaii Hybrids		1	1							2
C. Zip	C. tenebrosa	C. milleri	1965	33	56	Rod McLellan Co.		1	1				2			4
C. Pink Favourite	C. milleri	C. walkeriana	1980	26	29	W. K. Nakamoto		1	3							4
C. Seagulls Milarina	C. milleri	C. cinnabarina	1982	1	27	Seagulls L. O.										0
C. Koolau Seagulls	C. Wilber Chang	C. Seagulls Milarina	1984	21	26	W. A. Chang		2	2							4

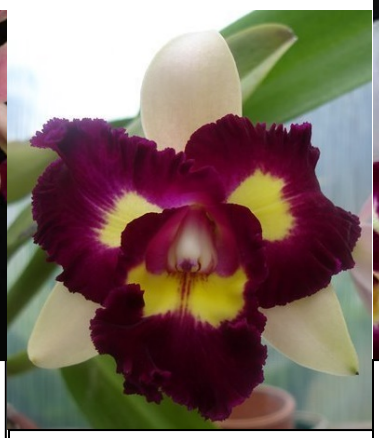
The above Table has the top 11 grexes for number of F1 progeny (highlighted yellow, criteria more than 20) and awards (highlighted light blue, criteria more than 10) according to OrchidWiz 4.2, update March 2018. The grexes that are highlighted in dark red exceed the criteria for both number of F1 progeny and awards. The grexes that are not highlighted are included in the table for heritage completeness.

There are clearly four major breeding lines and the following section will be grouped accordingly.

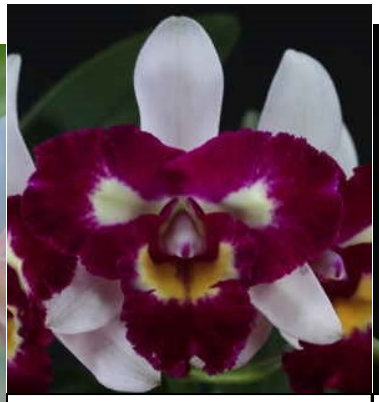
‘Major’ Hybrids (By key F1 Grex):

Cattleya Tropical Glow [no photo available] (C. milleri x C. Hawaiian Glow), 1979, MacKinney’s, 10 F1 and 275 total progeny, no AOS awards. Some of the major progeny: **C. Tropical Pointer** (C. Tropical Glow x C. intermedia), 1981, K. Ejiri, 13 F1 and 23 total progeny, 10 AOS awards (3 AMs, 6 HCCs, and 1 CCM); **Rlc. Tzeng-Wen Beauty** (C. Tropical Chip x Rlc. Sunset Bay [Miyamoto]), 1997, Wong Ching-Tien, 117 F1 and 193 total progeny, no AOS awards; **Rlc. Chyong Guu Linnet** (Rlc. Haw Yuan Beauty x Rlc. Tzeng-Wen Beauty), 2002, C. F. Tsao, 1 F1 progeny, 3 AM/AOS awards; **Rlc. Shin Shiang Diamond** (Rlc. Kat E-Sun x Rlc. Tzeng-Wen Beauty), 2003, S. Shiang, 11 F1 progeny, 1 AM/AOS award. These have been major breeding lines in Asia

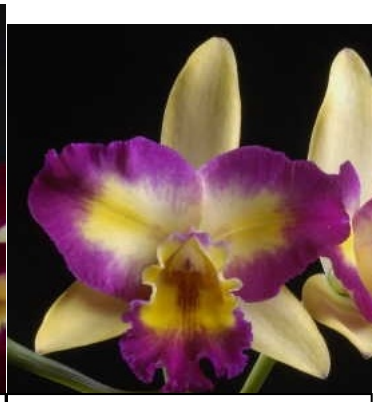
C. Tropical Pointer
‘KaSaMi’ AM/AOS
May 2008, NS 8.5 x 8.4 cm



Rlc. Tzeng-Wen Beauty



Rlc. Chyong Guu Linnet
‘Phoenix’ AM/AOS
Mar 2009, NS 8.0 x 9.0 cm



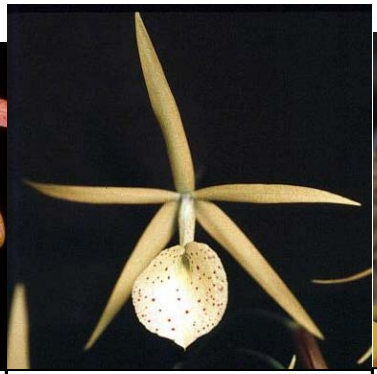
Rlc. Shin Shiang Diamond
‘Tai Young #1’ HCC/AOS
Apr 2007, NS 7.9 x 9.4 cm

Brassocattleya Richard Mueller (B. nodosa x C. milleri), 1965, J. Redlinger, 75 F1 and 174 total progeny, 6 AOS awards (1 AM, 3 HCCs, 2 CCMs). Some of the major progeny: **Rby. Golden Tang** (Rlc. Waikiki Gold x Bc. Richard Mueller), 1989, H & R Nurseries, 38 F1 and 41 total progeny, 20 AOS awards (10 AMs, 10 HCCs); **Bc. Rustic Spots** (Bc. Richard Mueller x C. Landate), 2000, H & R Nurseries, 4 F1 progeny, 13 AOS awards (5 AMs, 8 HCCs); **Bc. Yellow Bird** (B. nodosa x Bc. Richard Mueller), 1990, H & R Nurseries, 7 F1 progeny, 14 AOS awards (4 AMs, 2 HCCs, 1 CCE, 7 CCMs); **Bc. Hoku Gem** (C. Tangerine Jewel x Bc. Richard Mueller), 2012, R. & M. Gerber, 8 F1 progeny, 8 AOS awards (5 AMs, 2 HCCs, 1 CCM).

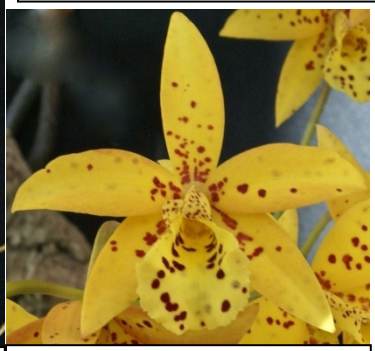
Bc. Richard Mueller
‘Summerfield Orchids’ AM/AOS
Apr 2000, NS 9.2 x 9.5 cm

Bby. Golden Tang
‘Linwood’ AM/AOS
Apr 2016, NS 11.2 x 10.5 cm

Bc. Rustic Spots
‘Whisper Clusterfire’ AM/AOS
Oct 2014, NS 8.8 x 8.0 cm



Bc. Yellow Bird
‘Jajobean’ AM/AOS
Jan 1998, NS 10.0 x 9.0 cm



Bc. Hoku Gem
‘War Eagle’ AM/AOS
Nov 2015, NS 7.7 x 7.7 cm

Cattlianthe Rojo (Gur. aurantiaca x C. milleri), 1965, Rod McLellan Co., 75 F1 and 151 total progeny, 13 AOS awards (1 AM, 7 HCCs, 5 CCMs). Some of the major progeny: **Ctt. Rocket Burst** (Ctt. Rajah's Ruby x Ctt. Rojo), 1977, Rod McLellan Co., 23 F1 and 29 total progeny, 7 HCC/AOS awards; **Ctt. Blazing Treat** (Ctt. Rojo x Ctt. Trick or Treat), 1998, 21 F1 progeny, 1 HCC/AOS award; **Lcn. Newberry Lava Burst** (Ctt. Rojo x L undulata)**,** 2005, Carter & Holmes, no progeny, 18 AOS awards (9 AMs, 3 HCCs, 1 AQ, 2 CCEs, 3 CCMs).

Ctt. Rocket Burst
'Adiana' HCC/AOS
May 1993, NS 9.1 x 8.9 cm

Ctt. Blazing Treat

Lcn. Newberry Lava Burst
'Sandhills Ruby' AM/AOS
Apr 2011, NS 7.1 x 7.5 cm

Ctt. Rojo
'Alis de Tiraboschi' AM/AOS
Feb 1995, NS 6.1 x 5.9 cm

Cattleya Jinn (C. coccinea x C. milleri), 1966, M. Spencer, 62 F1 and 235 total progeny, 12 AOS awards (4 AMs, 3 HCCs, 1 JC, 4 CCMs). Some of the major progeny: **C. Wendy's Valentine** (C. Jinn x C. Paprika), 1979, R. Takase, 72 F1 and 126 total progeny, 4 AOS awards (1 AM, 3 HCCs); **Rlc. Samantha Duncan** (C. Little Precious x Rlc. Hawaiian Prominence), 2006, Hawaii Hybrids, 5 F1 progeny, 2 AOS awards (1 AM, 1 HCC).

C. Wendy's Valentine
'June' AM/AOS
Mar 1988, NS 10.0 cm

C. Samantha Duncan
'Orange Tart' AM/AOS
Aug 2009, NS 8.7 x 9.4 cm

Cattleya Jinn
'Little Red Riding Hood' AM/AOS
Feb 2018, NS 6.2 x 5.6 cm

2016-2018 registration and AOS Quality Awardees (not included prior, highest point if more than one):

Rlc. Budai Win Eyes
'SK1' AM/AOS
Mar 2017, NS 6.5 x 7.0 cm
(C. Jungle Eyes x
Rlc. Budai Win)

Lc. Redland Ruby
'Amy' AM/AOS
Feb 2017, NS 5.8 x 6.5 cm
(C. milleri x
L. undulata)

Rlc. Ruby Sunset
'Fireball Vision' AM/AOS
Jan 2016, NS 8.9 x 8.9 cm
(Rlc. Rubescence x
C. Tropical Sunset)

Lcn. Henry Brogdon
'Wyatt James' HCC/AOS
Apr 2016, NS 7.5 x 8.1 cm
(Lcn. Chianti Star x
Ctt. Geneva Alexander)

C. Rockette's Life
'OK' AM/AOS
Feb 2016, NS 8.1 x 8.3 cm
(C. Rockette x
C. Circle of Life)

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Species Data Sheet

Cattleya cernua (Lindley) Van den Berg, Neodiversity 5: 13 (2010)

[KAT-lee-a cer-NEW-ah]

Cattleya cernua was the type species of the genus Sophronitis prior to it be moved into the genus cattleya. It was distinct from the other Sophronitis species in many ways, with some of them being; purple column wings, up to six flowers on one inflorescences, short nodding racemes, tendency for a dual row of pseudobulbs, and warm to intermedia growing conditions.

Cattleya cernua
'Cream Soda' AM/AOS
Oct 2017, NS 3.8 x 3.6 cm

Cattleya cernua is a miniature sized, south eastern Brazil species that can be found as far inland as Bolivia / Paraguay, growing epiphytically and occasionally lithophytically as a warm growing with densely clustered, sub cylindric or ovoid pseudobulb with 2 or 3 basal nodes and carrying a single, broadly ovate or elliptic-ovate, obtuse or minutely apiculate grey-green leathery leaf that is somewhat folded up along the channeled midrib. The blooms on a terminal, erect, 1" to 2" [2 to 5 cm] long, few [4 to 10] flowered inflorescence with nodding flowers occurring in the spring. The cinnabar red flowers measure about 1.5-2.0 cm across with petals about 5-6 mm broad and 10-12 mm long. The lip is 6-7 mm wide x 8-10 mm long, rather rigid, pointed, and concave without noticeable side lobes – rather like a pointed scoop. The paler column is always noticed because of its intensely purple wings at the tip. Mount this species on cork and give hot to warm temperatures, bright light, high humidity, and year-round water with less in cooler weather. This species is found at sea level on rocky slopes or trees often so close to the sea that a slight salt spray can reach them as well as in seaside mangrove hammocks and then as one goes inland on the littoral plain to the coastal foothills can be found high above the canopy in lowland trees with full sun and a constant breeze so as to keep them dry even though they are in rainforest conditions. Temp can range from 50 to 110 degrees.

Cattleya cernua (aurea)
'GT' BM/JOGA
Nov 2007, NS 3.0 x 2.0 cm

Synonyms:

Sophronitis cernua

Varieties / forms:

Cattleya cernua var. alagoensis – Variety differs in that the size of the plant is a factor of two smaller and the flowers are 50% smaller.

Cattleya cernua var. albiflora – Flowers white, only reported in 1907, not seen since.

Cattleya cernua var. endsfeldzii – Flowers size is similar to type but are yellow, salmon or cinnabar, occasionally red-vermilion-carmine; labellum crest lilac-spotted.

Cattleya cernua var. **aurea** – Yellow flowers

According to Fowlie (Ecological forms), the pale, more faded clones coming from near the seacoast are referred to as var. littoranea; var. **mineira** is used for inland forms with more carmine-colored flowers.

AOS reckonized award winning varieties are bold and underlined above.

Cattleya cernua (mineira)
'Cecile-Amelia' HCC/AOS
Oct 1996, NS 3.3 x 2.5 cm

Awards:

	FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBM	TOTAL
AOS		16	11		2	7	2			**39**
Year(s) Awarded		1967-2017	1983-2015		1981-1992	1971-2017	1983-2008			

Although not used much in breeding Cattleya cernua has received many awards, but not many for the various varieties that exist.

Breeding Characteristics:

Cattleya cernua has NOT been used very much in hybridization. Since the plants are easy to grow, bloom profusely, and are VERY small, I suspect that we have just started seeing these plants being used in hybridization. The following table provides information on the breeding that has been done.

C. cernua	<1960	1960	1970	1980	1990	2000	2010	Total
Register Crosses	1	2	5	23	7	30	19	**87**
Assoc. Awards	0	0	14	25	1	12	2	**54**
Register F1 Crosses	1	1	5	19	5	18	12	**61**
Assoc. F1 Awards	0	0	14	21	1	11	2	**49**
Register F2 Crosses	0	1	0	4	2	11	5	**23**
Assoc. F2 Crosses	0	0	0	4	0	1	0	**5**

From the above table, the first hybrid was registered in 1913 and then there was a break of 51 years till the next hybrid was registered. Per OrchidWiz 4.1, update March 2018, no grex has received 10 or more awards or has more than 5 progeny. Clearly the right cross has either not been made yet or C. cernua is not a good parent, not sure which.

'Major' Hybrids (By Decade, Based on Progeny / Awards received):

Cattleya Cheerio (C. cernua x C. rupestris), 1976, R. Pabst, 1 F1 progeny, 5 AOS awards (3 AMs, 2 HCCs). No major progeny.

Cattlianthe [Ctt.] Jeanne Wilson (Ctt. Kauai Starbright x C. cernua), 1987, R. Takafuji, no progeny, 6 AOS awards (4 AMs, 2 HCCs).

Cattleya Sato (C. cernua x C. Orpetii), 1986, M. Sato, no progeny, 5 AOS awards (1 AM, 3 HCCs, 1 JC).

Cattleya Sparklet (C. Jinn x C. cernua), 1975, R. Pabst, 4 F1 and 5 total progeny, 4 AOS awards (1 AM, 3 HCCs). No major progeny.

C. Cherrio
'Linwood' AM/AOS
Apr 1996, NS 3.7 x 3.3 cm

Ctt. Jeanne Wilson
'H & R' AM/AOS
Jan 1990, NS 5.7 x 5.9 cm

C. Sato
'Bryon' AM/AOS
Jan 1997, NS 7.9 x 6.9 cm

C. Sparklet
'Tiny Embers' AM/AOS
Oct 1983, NS 3.9 cm

Cattleya Pre-School (C. Precious Stones x C. cernua), 1981, Stewart Inc., 4 F1 progeny, 4 AOS awards (1 AM, 3 HCCs). Major progeny: **Gct. Toddler** see below.

Cattleya Kevin Hipkins (C. California Apricot x C. cernua), 1988, Fordyce, 2 F1 progeny, 4 AOS awards (1 FCC, 1 AM, 2 HCCs). No major progeny.

Guaricattonia [Gct.] Toddler (C. Pre-School x Grt. Why Not), 1984, Stewart Inc., no progeny, 4 AOS awards (3 AMs, 1 HCC).

C. Kevin Hipkins
'Orange Cascade' FCC/AOS
Mar 1991, NS 9.6 x 8.5 cm

C. Pre-School
'Summit Tangerine' AM/AOS
Sep 2015, NS 4.7 x 4.3 cm

Gct. Toddler
'Lava Sparks' AM/AOS
Apr 1996, NS 4.8 x 4.3 cm

2010-2018 registration and AOS Quality Awardees:

C. Mini Fantasy
'Syzygy' AM/AOS
Jan 2018, NS 5.8 x 4.9 cm
(C. Angel's Fantasy x C. cernua)

C. Kathy Figiel
'KG's Different Drummer' HCC/AOS
Jan 2011, NS 3.9 x 3.8 cm
(Ctna. aclandiae x C. cernua)

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