# The Genus Encyclia (Hooker, Bot. Mag. 55: t. 2831 [1828])

Type: Encyclia viridiflora [en-SEE-clee-ah vi-rid-i-FLOR-a]

There are 183 species and 16 natural hybrids (OrchidWiz [update Sep 2017]) that are mostly epiphytes that can be separated into two subgenera (not widely accepted but culturally convenient). Members of the subgenus Encyclia are principally found in seasonally dry forest at elevations from sea level to 1000 meters, while members of the subgenus Osmophytum are found in wet forest from sea level to 3,000 meters. Encyclias are distributed throughout the tropical Americas (including the West Indies, see distribution map below) with the center of distribution being in Mexico. These plants are highly variable, clump-forming, evergreen with the genus characterized by the presence of pseudobulbs; the apical inflorescence; the flowers not exceeding four centimeters in diameter; the lip free from the column for most of its length; the column without a foot; and the four hard pollinia attached to caudicles. The slender, often multibranched, numerous to few-flowered inflorescence, borne from the stem tip, has showy, wonderfully fragrant flowers found in a wide range of colors and shades of yellow, brown, green or rare pink. The flowers have similar sepals and petals. The widely varied, entire or trilobed lip encircles the stout or slender, footless column, but is never fully attached.

These plants are best mounted on branches or tree fern plaques and generally do best in intermediate conditions. Encyclia is part of the Cattleya alliance and is often used in Cattleya alliance breeding.

<u>CAUTION!!!!!!!</u> Encyclia is an amorphous genus that has many species that move back and forth from species status to synonyms or varieties of others!!! This also affects the species count, so don't be fooled into thinking that almost all the Encyclia species are listed.

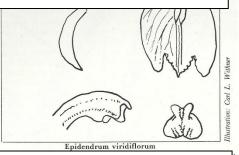
Common Name or Meaning refers to the side lobes of the lip surrounding the column

Point Scale using the Cattleya point scale.





Encyclia viridiflora



Flower dissection of the type specimen of *Encyclia viridiflora* (Kew), the type species for the genus *Encyclia*. Note the lack of sinus between the lateral lobes and the midlobe of the lip; the lack of a forcipate basal callus; the small, narrow, curved column with a slightly winged edge and small auricle:

Table of top species used in hybridization or receiving awards (~10 highest, OrchidWiz – Sep 2017 update)

Species marked with a * ar	re used the most in hybridiz	ation		Progeny						\wa					
Kew Name	Habitat, Country	Temp.	<u>Season</u>	F1/Total	<u>FCC</u>	<u>AM</u>	<u>HCC</u>	<u>JC</u>	<u>AD</u>	<u>AQ</u>	<u>CCE</u>	ССМ	СНМ	<u>CBR</u>	Total
Encyclia adenocaula	Mexico	Cool to warm	May-Aug	43/85		3	6	1				2			12
Encyclia alata*	Mexico to Panama	Cool to warm	Apr-Aug	92/194		15	20	6			2	8	2		53
Encyclia ambigua	Mexico to Nicaragua	Cool to warm	May-Aug	6/6		2						2	1	2	7
Encyclia bractescens	Mexico to Honduras	Warm to hot	Mar-Jun	12/14		3					3	7		1	14
Encyclia cordigera*	Mexico to Colombia	Warm to hot	Feb-Jul	197/318	2	22	10	5				13	2	2	56
Encyclia correllii	Bahamas to Turks and Caicos Islands	Hot	Summer	47/63											0
Encyclia diota	Mexico to Nicaragua	Cool to warm	May-Jun	5/5			2	1			1	1	1	2	8
Encyclia diurna	Costa Rica to Brazil	Warm to hot	May-Jun	12/47			1						1		2
Encyclia flava	Paraguay to Guyana	Warm	May-Jul	0/0									1	1	2
Encyclia guatemalensis	Mexico to Honduras	Warm to hot	May-Jul	17/17		2								1	3
Encyclia incumbens	Mexico to Honduras	Warm to hot	Apr-Jul	24/45				1				1	1		3
Encyclia maderoi	Colombia	Warm	Feb-Apr	0/0								2		1	3
Encyclia mooreana	El Salvador to Panama	Cool to warm	May-Aug	14/26		2	5					1	2	1	11
Encyclia patens	Brazil	Cool to warm	Year-round	1/1		1						1		1	3
Encyclia phoenicea*	Cuba, Cayman Is.	Warm to hot	Jun-Sep	89/214		4	6	1				1	1		13
Encyclia plicata	Bahamas, Cuba	Cool to warm	Jul-Sep	42/63		2	3					1	1	1	8
Encyclia profusa	Colombia	Warm to hot	Apr-Jun	7/7			1						1		2
Encyclia randii	Brazil, Paraguay, Peru	Hot	May-Aug	26/34		3	2						1	1	7
Encyclia replicata	Venezuela to Ecuador	Cool to warm	Winter	4/4		1						1	1		3
Encyclia rufa	Florida, Bahamas, Cuba, Turks-Caicos Is.	Cool to warm	Apr-Jun	17/36				1				2	1	1	5
Encyclia tampensis*	Florida, Bahamas	Cool to warm	Jun-Jul	156/224		13	7	2			1	13		1	37
	Species	with 2017 AOS A	wards, Species	not mentio	ned a	bove									
Encyclia asperula	Mexico to Honduras	Warm to hot	Jan-Mar	0/0							1	1	1	1	4
Encyclia howardii	Cuba	Warm to hot	Jun-Jul	7/12		2	1					1			4
Encyclia advena	Brazil	Cool to warm	Aug-Sep	7/7		2								1	3
Encyclia moebusii	Cuba	Warm to hot	Aug-Oct	1/1		2							1		3
Encyclia navarroi	Cuba	Warm to hot	Jul-Sep	1/1									1		1
Encyclia osmantha	Brazil, Venezuela	Cool to warm	May-Sep	8/8			1							2	3
Encyclia oxypetala	Cuba	Hot	Spr-Sum	0/0										1	1

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 85F at night; Warm -66 to 75F at night; Warm to Hot -66 to 85F at night; Hot -75 to 85F at night

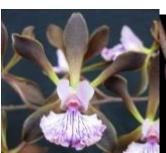
Of the 183 presently known species only 74 (~40%) have been used in hybridization. **Encyclia cordigera** has been used the most (large heavy substance flower with dark purple lip), 318 total progeny, in hybridization and has also received the most awards, including 2 FCCs. Significant hybridization contributions have also been made by **E. alata** (194 total progeny), **E. phoenicea** (214 total progeny), and **E. tampensis** (224 total progeny). NOTE: In the above table, total progeny includes to ALL crosses (includes intergeneric). Of these three, **E. phoenicea** has been awarded the least.

	<1930	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s
Registered in decade			1	3	18	5	21	16	21	45
Associated awards			0	9	22	1	36	28	11	13

As of the Sep 2017 edition of OrchidWiz there are 241 Encyclia hybrids with 130 being primary hybrids (54%). The above table shows the interest in breeding Encyclias based on registration and associated awards of Encyclia primary (F1) hybrids as of September 2017 edition of OrchidWiz. Clearly there has been an ebb and flow in F1 registration with a recent increase.

### **Primary Crosses**

The most successful (number of progeny and/or awards, OrchidWiz, Sep 2017 edition) F1 crosses are: **E. Orchid Jungle** (E. alata x E. phoenicea), 1984, 35 progeny, 27 awards; **E. Rioclarense** (E. cordigera x E. randii), 1994, 6 progeny, 15 awards; **E. Borincana** (E. alata x E. bractescens), 2010, no progeny, 11 awards, **E Atroniceum** (E. cordigera x E. phoenicea), 1960, 10 progeny, 1 award; **E. Bees' Knees** (E. alata x E. diurnal), 1979, 10 progeny, 1 award.



Encyclia Orchid Jungle 'Losgar', AM/AOS Jul 2017, NS 3.9 cm



Encyclia Rioclarense 'Arnie', AM/AOS May 2016, NS 6.5 cm



Encyclia Borincana 'CofO Chocolate Star', AM/AOS May 2016, NS 4.5 cm



Encyclia Atroniceum 'Nittany June', AM/AOS Jul 2017, NS 3.9 x 5.6 cm



Encyclia Bees' Knees

# Second and higher generation crosses

The most successful (number of progeny and/or awards, OrchidWiz, Sep 2017 edition) second and

higher generation hybrids are: **E. Brownie** (E. Betty May x E. oncidioides), 1956, 16 total progeny, 1 award; **E. Thomas Fennell** (E. Orchid Jungle x E. plicata), 1993, 10 total progeny, 5 awards.



Encyclia Thomas Fennell 'Hamlyn', AM/AOS Jun 2011, NS 4.4 cm



Catyclia Purple Glory 'Russel's Child', AM/AOS Jun 2006, NS 8.1 cm

### **Intergeneric Crosses**

There have been 51 genera created by intergeneric breeding with Encyclia, with the main breeding trait of Encyclia being; easy of culture, floriferous, flower color intensity. Some of the most successful (number of progeny and/or awards, OrchidWiz, Sep 2017 edition) intergeneric crosses are:

**Catyclia Purple Glory** (E. adenocaula x C. violacea), 1962, 29 total progeny, 6 awards;

**Catyclia Florida** (C. dowiana x E. cordigera), 1965, 2 total progeny, 9 awards;

**Enanthleya Joseph Romans** (Ctt. Portia x E. phoenicea), 1979, 5 total progeny, 7 awards;

Enanthleya Charlie Brown (Ctt. Rojo x E. cordigera), 1976, 1 progeny, 8 awards;

**Enanthleya Pixie Charm** (Ctt. Pixie x E. alata), 2001, no progeny, 10 awards; **Enanthleya Banana Split** (Ctt. Pixie x E. cordigera), 2006, no progeny, 9 awards;



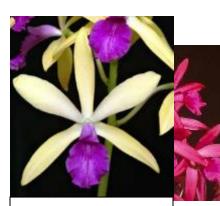
Enanthleya Joseph Romans 'Yussi Nicole', AM/AOS Sep 2007, NS 8.0 cm



Enanthleya Pixie Charm 'Stony Brook', AM/AOS May 2017, NS 6.0 cm

Guaricyclia Rosita (E. phoenicea x Gur. bowringiana), 1962, 6 total progeny, 8 awards; Guarianthe Epiorange (E. alata x Gur. aurantiaca), 1967, 2 total progeny, 8 awards; Guaricyclia

Enanthleya Charlie Brown 'MVO', AM/AOS May 2003, NS 7.0 cm



Catyclia Florida

'Alice', HCC/AOS

May 1971, NS 9.5 cm

Enanthleya Banana Split 'GANDS', AM/AOS Apr 2010, NS 7.5 cm

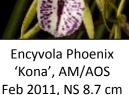
Kyoguchi (Gur. aurantiaca

x E. incumbens), 1980, 14 total progeny, 6 awards; **Epicyclia Mabel Kanda** (E. cordigera x Epi. paniculatum), 1959, 7 total progeny, 9 awards; **Encyvola Phoenix** (B. nodosa x E. phoenicea), 1960, 23 total progeny, 4 awards.



Guaricyclia Kyoguchi Diamond Orchids', AM/AOS Mar 2011, NS 5.0 cm

Epicyclia Mabel Kanda 'Enzobean', AM/AOS Apr 2015, NS 4.1 cm



Guaricyclia Epiorange 'Merita', AM/AOS Apr 1996, NS 5.1 cm

# **Encyclia AM/AOS Award winners in 2017**



E. Crownfox Chocolate Star 'Athena' AM/AOS Jun 2017, NS 5.2 cm (E. guatemalensis x E. Judy Russ)



E. phoenicea 'Odom's Orchids Blessing' AM/AOS Aug 2017, NS 4.9 cm



Encyclia bractescens 'Jennifer' AM/AOS Apr 2017, NS 5.2 cm



E. alata 'Robert' AM/AOS Jul 2017, NS 4.8 cm

No Photo



E. Randy Jamaican 'Odom's Orchids Splash' AM/AOS Jun 2017, NS 5.1 cm (E. Orchid Jungle x E. randii)



E. tampensis 'Peggy's Delight' AM/AOS Jun 2017, NS 3.6 cm



E. Crownfox Chocolate Star 'Crownfox' AM/AOS May 2017, NS 4.1 cm (E. guatemalensis x E. Judy Russ)



E. howardii

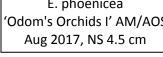
'Hamlyn's Chiquita' AM/AOS

E. moebusii (Alba) 'Hamlyn's Albino Bambino' AM/AOS Oct 2017, NS 4.2 cm

> E. phoenicea 'Odom's Orchids I' AM/AOS Aug 2017, NS 4.5 cm



E. howardii 'Seagrove Flirt' AM/AOS Jun 2017, NS 3.6 cm





E. megalantha 'Natural World' AM/AOS Jul 2017, NS 3.6 cm

> E. Shinfong Flag 'Ong' AM/AOS Mar 2017, NS 4.1 cm (E. Rioclarense x E. cordigera)



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Dressler, R. L.; Pollard, G. E.; The Genus Encyclia in Mexico, 1976

AOS Bulletin, Jul 1980, Encyclia viridiflora – The First Encyclia (Or How It All Began), Withner, C. L.; V. 49, pp. 756-760

# **Interesting Tidbits**

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



As the table above points out, there have been 51 intergeneric genera involving Encyclia with over 890 grexes, more than double the entire Encyclia family. The intergeneric genera with the largest number of members is Catyclia (Cattleya x Encyclia) with 407 members, clearly the largest intergeneric genera with Encyclia and almost as many members as Encyclia (440 species and hybrids). What is impressive about the crosses involved with Encyclia are the number of flowers on an inflorescence (from Encyclia) and the size of the flowers (from the other species).

#### **Encyclia floral variation:**

Floral variation in a single specimen of Encyclia chloroleuca, flowering on 26 January 2003 (A), 11 June 2003 (B), and 3 March 2004 (C). Scale bar = 1 cm. (Pupulin, F. and Bogarin, D., *Of Greenish Encyclia: Natural Variation, Taxonomy, Cleistogamy, and a comment on DNA Barcoding*, Lankesteriana 11(3): 325—336. 2011)

# **Species Data Sheet**

Encyclia phoenicea (Lindl.) Neumann, Rev. Hort. (Paris), sér. 2, 4: 137 (1846)

[en-SEE-clee-ah fee-NISH-ee-ah]

Encyclia phoenicea is well named because of its large, dark, leathery-fleshy, maroon-purple sepals and petals. The rich color obviously reminded Lindley of Phoenician purple, characteristic of royal robes in early Roman times, dyed by a rare preparation from a mollusk. The stellate flowers have spatulate light green to chartreuse sepals and petals that are from overlaid brown to oxblood to solid distally, and the large lips vary from white to a clear, bright violet color with darker venation of the same color. A fine specimen can produce flowers with a natural spread ranging from 4.0 to 4.9 cm horizontal by 4.7 to 6.0 cm vertical. The lip width can vary between 2.0 to 3.0 cm and the midlobe has a wavy margin and a slight notch at the tip.

Some clones have lips that are nearly flat, but there is a general tendency for the lips to curl under around their edges or fold down along the midline. (Key judging criteria!!?) In some forms this can be too pronounced for horticultural accolades. The flowers have a wonderful, strong fragrance of vanilla and chocolate, so that if you are a chocoholic, it will set you on edge.

The species has been well sought after and has been a popular plant for collections as well as for hybridizing.

It is necessary to grow these Bahamian-Cuban species almost as xerophytes. They like to be mounted bare-root on slabs of cork, or put in baskets with osmunda, and hung in the brightest part of the greenhouse, surviving mostly upon humidity and occasional fertilizing. Dietrich (1979) reported that they are found growing on Thrinax palms in the coastal areas. It is advisable not to water them excessively, keeping them on the dry side in the winter when the plants are dormant. The roots need to be open and exposed to hang down from the slab or basket in which the plants are grown.

# **Synonyms:**

Epidendrum phoeniceum

Epidendrum brevifolium (per OrchidWiz) – Still being work??

- But per Kew Monocat list Epi. brefifolium is a synonym for Encyclia pyriformis (per Kew Monocat list)
- Per orchidspecies.com, Encyclia brevifolia (syn. Epidendrum brevifolium) "Often cited as a synonym
  of E. pyriformis but this species is most similar to E. phoenicea but this one has much shorter leaves
  and fewer flowers as well as consistently being found on a different host, within the leaf bases of
  Acoelorrhaphe wrightii."

The plants of Encyclia phoenicea have been confused in the herbarium and in nature with those of E. plieata, a related species found in both the Bahamas and in Cuba. Confirmed Encyclia phoenicea specimens herbaria are found only from Cuba, including the Isle of Pines. Although the species is reported from the Bahamas and the Caymans, no herbarium records to vouch for those two localities have been found. Finding E. phoenicea



Encyclia phoenicea 'Odom's Orchids Blessing' AM/AOS Aug 2017, NS 4.9 x 5.6 cm



Encyclia phoenicea 'Angel Blanco' JC/AOS Jul 2011, NS 4.5 x 4.2 cm

in the Caymans or the Bahamas would be logical, however, as these islands were once geologically connected to Cuba.

The whiter-lipped types have also resulted in confusions with Encyclia cordigera from Mexico, Central America, and northern South America. The lips of E. cordigera, however, have a different shape. Also, the sepals and petals are curled forward at their apices in a typical fashion that is a dominant trait even in hybrids. Additionally, the columns of E. cordigera lack auricles (a small earlike appendage or lobe); those of E. phoenicea have quadrate auricles. So far as can be determine, plants of E. cordigera, like those of E. tampensis, are not native to Cuba, and it is a mistake to say they are found there.

#### Varieties / forms:

No official varieties or forms, but an alba form recently received a JC/AOS (see 'Angel Blanco' prior page).

#### **Awards:**

	FCC	AM	HCC	AQ	JC	CCM	CCE	СНМ	CBM	TOTAL
AOS		5	6		1	1		1		14
Year(s) Awarded		1987- 2017	1965- 2017		2011	1965		1979		

Of the top four Encyclias used in hybridization, E. phoenicea has received the least awards by about a factor of one third, but it has recently seen an increase in awards.

# **Breeding Characteristics:**

The plants of Encyclia phoenicea are summer flowering in collections, most blossoms appearing in June or July. The flowers last a good month or more as they open successively in a typical raceme. The species is a good parent for hybrids. It contributes to heat tolerance, long-lasting sprays of flowers, a good fragrance, intensification of color in the sepals and petals, and well-rounded lips, though they may be somewhat reflexed along the midline for a generation or two of hybridizing.

	Registi	ration Year	Range					
Encyclia phoenicea	-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2017
Crosses Registered	0	1	23	20	30	27	47	51
Awards to Crosses Regtr		0	24	8	54	20	23	21
F1 Progeny to Crosses Regtr		0	36	5	52	24	17	2

# **Recent Award Winners:**



Rhyncatclia Rossy Ochoa 'PAOS Festival 2017' HCC/AOS Apr 2017, NS 10.0 x 11.0 cm (Rlc. Waianae Leopard x E. Ginger Snap)



Encylaelia Atlanta Roman Candle 'MVO Sweetheart' AM/AOS Aug 2014, NS 7.0 x 5.9 cm (E. phoenicea x L. splendida)



Enanthleya Purple Martins 'Arnie' HCC/AOS Jun 2016, NS 5.6 x 6.0 cm



Encyclia SunCoast Dark Mystery
'Florida SunCoast' HCC/AOS
May 2015, NS 3.1 x 3.4 cm
(E. Thomas Fennell x
E. dickinsoniana)

# 'Major' Hybrids:

Encyclia Orchid Jungle (E. alata x E. phoenicea), 1984, Fennell, 35 F1 and 60 total progeny, 27 AOS awards (18 AMs, 6 HCCs, 2 AQs, 4 CCMs). Major progeny: E. Thomas Fennell, see below; E. Sietetrescuartos, see below; E. Randy Jamaican (E. Orchid Jungle x E. randii), 2011, no progeny, 4 AOS awards (3 AMs, 1 HCC).

<u>Encyclia Atroniceum</u> (E. cordigera x E. phoenicea), 1960, Jones & Scully, 10 F1 and 30 total progeny, 1 AM/AOS awards. Major progeny: E. Nursery Rhyme (E. Atroniceum x E. cordigera), 1997, 5 F1 and 6 total progeny, 3 AM/AOS awards.

<u>Encyclia Thomas Fennell</u> (E. Orchid Jungle x E. plicata), 1993, Motes, 5 F1 and 10 total progeny, 5 AOS awards (2 AMs, 3 HCCs). No major progeny.

<u>Encyclia Sietetrescuartos</u> (E. Orchid Jungle x E. Jungle Fox), 1995, Fennell, 5 F1 and 10 total progeny, 2 HCC/AOS awards.



Encyclia Orchid Jungle 'Fandango', AM/AOS May 2011, NS 5.2 x 4.9 cm



Encyclia Atroniceum



Encyclia Thomas Fennell 'Hamlyn', AM/AOS Jun 2011, NS 4.4 x 5.3 cm



Encyclia Sietetrescuartos 'Soroa Coquette', HCC/AOS Jun 1999, NS 4.2 x 5.3 cm

# 'Major' Intergeneric Hybrids:

Encyvola Phoenix (B. nodosa x E. phoenicea), 1960, O. Kirsch, 14 F1 and 23 total progeny, 4 AOS awards (3 AMs, 1 CCM). Major progeny: **Guarvolclia Fairy Tales** (Eyv. Phoenix x Gur. aurantiaca), 1983, Richella, no progeny, 4 AOS awards (1 AM, 2 HCCs); **Encyleyvola Grapelade** (Eyv. Phoenix x C. schilleriana (1857)), 1991, E.B. Horton, no progeny, 4 AOS awards (1 AM, 3 HCCs); **Encyvola Vivian German** (Eyv. Phoenix x E. phoenicea), 1981, J. German, 4 F1 and 5 total progeny.

<u>Enanthleya Joseph Romans</u> (Ctt. Portia x E. phoenicea), 1979, McKeral's, 5 F1 progeny, 5 AOS awards (3 AMs, 1 HCC, 1 CCM). No major progeny.

<u>Guaricyclia Rosita</u> (E. phoenicea x Gur. bowringiana), 1962, Mr./Mrs. W. Osment, 5 F1 and 6 total progeny, 7 AOS awards (3 AMs, 3 HCCs, 1 JC). Major progeny: **Guaricyclia Honey** (Gcy. Rosita x Gur. aurantiaca), 1982, Bumble Bee, 1 F1 progeny, 5 AOS awards (2 AMs, 3 HCCs).



Encyvola Phoenix 'Rick's Reward' AM/AOS Apr 2016, NS 9.2 x 8.1 cm



Enanthleya Joseph Romans 'Yussi Nicole' AM/AOS Sep 2007, NS 8.0 x 7.6 cm



Guaricyclia Rosita
'Richie Roth', AM/AOS
Jul 1967, NS?x?cm

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www.orchidspecies.com

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# **Species Data Sheet**

Encyclia incumbens Lindley, Edwards's Bot. Reg. 26(Misc.): 45 (1840) [en-SEE-clee-ah in-KUM-benz]

The epiphytic Encyclia incumbens is found in oak and pine-oak forests from 800 to 1,600 meters in Guatemala and Mexico: Chiapas (see map below). The clustered pseudobulbs are conic-ovoid (3-9 cm long, 2-5 cm wide) with 1-2 leaves. Inflorescence 40-90 cm long; a showy nodding panicle with many simultaneous flowers. Flowers have characteristic sweet fragrance, flower color variable, sepals and petals can be cream, pale yellow, yellowish green, pale brown, or reddish brown, sometimes tesselate with brown or purplish. Lip cream or yellow with warty brown or red-brown verrucose veins, especially on lateral lobes. Sepals (12-21 mm x 2.5-5.5 mm) spreading to reflexed, oblanceolate, obtuse-subacute, lateral sepals oblique. Petals (13- 18 mm x 4.5-8.5 mm) slightly arcuate downwards, long clawed, the blade oblanceolate-spathulate, obtuse-rounded. Lip (11-15 mm long) trilobed, the lateral lobes parallel to the column, triangular-oblong, rounded; midlobe (7-11 mm wide) ovate to transversely elliptic, rounded, pleated. Column wingless, pollinarium with 4 obovoid pollinia and caudicles.



(Three color forms)

The flower parts are thin-textured but remain in bloom for two weeks or so.

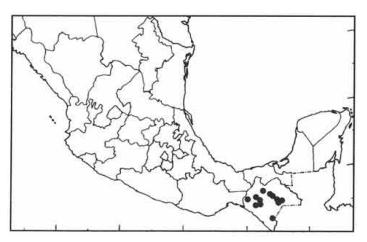
Horticulturists prefer the green clones to the tan. The pseudobulbs are often round and shining, although the shape can vary. The lip shape also varies from circular-ovate to shovelshaped with a bluntly pointed apex. It is an easily grown and favorite species, and a few hybrids have been produced. The 'Hamilton Peak' for most common time of flowering is from May until July.



Veitch (A Manual

NOTES - This species is highly variable in color, as was noted by of Orchidaceous Plants part 6: 86. 1890). Some plants have flowers as brown as E. candollei, while others have flowers which are cream or pale yellow, and quite pretty as well as fragrant.

ECOLOGY: It has two major different color forms, and apparently the populations are mostly composed either



of cream- or brownish-colored flowers, but not of both of them. However, there are numerous intermediate plants, which are too difficult to assign to one form or to another, and no obvious separation exists to recognize two different taxa.

RECOGNITION: This handsome species can be recognized by the paniculate inflorescence usually bearing many flowers. The petals and column are arcuate, the latter somewhat sigmoid in profile. It is closely related to Encyclia candollei (Lindl.) Schltr. from eastern Mexico, with narrower, smaller, segments, the lip less definitely 3-lobed, tubular, with porrect lateral

lobes, and lacking the minutely warty veins of the midlobe.

CONSERVATION STATUS: Not threatened. Very common, although it is collected in some quantities, especially the cream-colored form, to be sold in the local markets. This form is also often cultivated and it has been occasionally used to form hybrids.

#### **Synonyms:**

Epidendrum aromaticum Bateman. Homonym in Chicago Natural History Museum (Field Museum). 1838. Orch. Mex. and Guat., t. 10.

Epidendrum incumbens Lindley. 1840. Bot. Reg. 26:45, Misc. 84.

Encyclia aromatica (Bateman) Schlechter. 1914. Die Orchideen, p. 208.

The earliest name for this species, Epidendrum incumbens, was not noticed for many years until the article by Mabberley was published in 1984 in Taxon. The Latin incumbens means "folded inward" and likely refers to the lip of the flower around the column.

This species is widely known as Encyclia aromatica (Bateman) Schltr., but this name is based on Epidendrum aromaticum Bateman, which was illegitimate at the time of its publication because it was anteceded by E. aromaticum (Sw.) J.Parm.

RECOGNITION - This species is very closely related to E. candollei, much more closely so than some of the species which have been confused in the literature. In fact, this could very well be considered a subspecies of E. candollei, but there is yery little real intergradation.

#### Varieties / forms:

None

#### Awards:

	FCC	AM	HCC	AQ	JC	CCM	CCE	СНМ	CBM	TOTAL
AOS					1	1		1		39
Year(s) Awarded					1995	2010		1983		

The JC "for extraordinary floriferousness on one inflorescence with 16 lateral branches all of which rebranched" and in the award description "Three hundred fifty typically formed and colored flowers densely arranged on one 98 cm, arched inflorescence"

# **Breeding Characteristics:**

I was not able to find any hybridization information on Encyclia incumbens. There have been 46 crosses registered with E. incumbens heritage, six (all described below) of the crosses received awards, one FCC/AOS. Based on the six crosses that have received awards it appears that number of flowers, enhanced color, and a darker / patterned lip are some of the traits that are passed on.



Encyclia incumbens 'Martha's' JC/AOS Apr 1995, NS 3.2 cm

	Encyclia incumbens
	Crosses Registered
	Awards to Crosses Regtr
	F1 Progeny to Crosses Regtr
	-11.1
	70000
100	
1	100

Registr	ation Year	Range					
-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2017
0	0	5	2	4	7	11	17
		3	0	6	1	2	4
		5	0	14	2	1	1

# 'Major' Hybrids:

E. Rhody (E. incumbens x E. pyriformis), 1965, W.W.G. Moir, 1 F1 progeny, 3 AOS awards (1 FCC, 1 AM, 1 JC). No major progeny.

E. Anza (E. incumbens x E. cordigera), 1960, Rod McLellan Co., 4 F1 progeny, no awards. No major progeny.

> **Encyclia Rhody** 'Kym' FCC/AOS Feb 1972, NS 5.7 cm

# 'Major'

# **Intergeneric Hybrids:**

Guaricyclia Kyoguchi (Gur. aurantiaca x E. incumbens), 1980, A. Onishi, 14 F1 progeny, 4 AOS awards (1 AM, 3 HCCs). Major progeny: Enanthleya Magic Wand (Ctt. Trick or Treat x Gcy Kyoguchi), Suwada Orchids, 2010, no progeny, 3 HCC/AOS awards; Guarvolclia Valle Turabo (Bsn. Sunny Delight x Gcy. Kyoguchi), F. Clarke, no progeny, 1 HCC/AOS award.

Enanthleya Highland Canary (Ctt. Trick or Treat x E. incumbens), 2001, B. Schwartz, no progeny, 2 HCC/AOS awards.

Catyclia Cinnamatica (C. cinnabarina x E. incumbens), 1997, Rex Foster, no progeny, 1 HCC/AOS award.



**Enanthleya Magic Wand** 'Super Orange' HCC/AOS Mar 2017, NS 6.0 x 6.0 cm



Guarvolclia Valle Turabo Jan 2016, NS 5.0 x 5.0 cm

# **References:**

www.orchidspecies.com

'LeMar' HCC/AOS May 2015, NS 5.4 x 5.4 cm



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Encyclia Anza



Guaricyclia Kyoguchi 'Diamond Orchids' AM/AOS Mar 2017, NS 5.0 x 4.6 cm

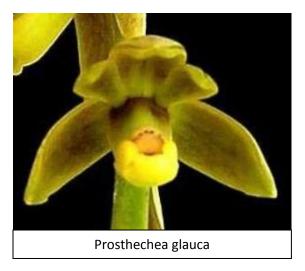


# The Genus Prosthechea, Knowles & Westcott, Fl. Cab. 2: 111 (1838) Type: Prosthechea [Psh.] glauca [pros-the-KEY-a GLAW-ka]

One hundred twenty-seven species and two natural hybrid sympodial epiphytes or lithophytes are found in seasonally dry, low to upper elevations, pine-oak forests and scrub of the southeastern



United States (southern Florida), the Bahamas, Cuba to Trinidad, the Guianas, Venezuela, southern Mexico to Bolivia and Brazil, see map (shaded area is area of distribution). These plants have flattened, spindle-shaped, clustered to well-spaced, compressed, ovoid, distinctly grooved pseudobulbs, each with a solitary to several, thinly leathery, strap-like leaves. The short, simple to branched, numerous to few-flowered



inflorescence, sub tended by a leaf bract at the base, has green-yellow to green, rigid, long-lived, sometimes fragrant flowers with similar sepals and petals. The cup-shaped, trilobed lip, joined to about half of the column, is usually uppermost, and has a thick, basal callus. The flowers have a short, wingless, footless

Table: Characters distinguishing Prosthechea, Encyclia, and Dimena.

NOTE. Most of these species were formerly included in the genera Encyclia and Epidendrum. Even though the flowers of the species within the genus are quite astonishingly different, the analysis of there DNA shows they are related and this is very well supported by similarities of plant morphology.

Common Name or Meaning – Prosthechea is from prostheke (Greek, appendage), in reference to the appendage of tissue on the back of the column of Prosthechea gluaca.

Point Scale using the General point scale and sometimes the Cattleya scale.

#### Table of top species used in hybridization or receiving awards (~7 highest, OrchidWiz – Dec 2017 update)

Species marked with a * are	used the most in hybridizati	on		Progeny						AOS	Awar	ds			
Kew Name	Habitat, Country	Temperature		F1/Total	FCC	AM	НСС	JC	AD	AQ	CCE	ССМ	СНМ	CBR	Total
Prosthechea abbreviata	Mexico to Columbia	Cool to warm	Mar	1/1			1					3	1	1	6
Prosthechea baculus	Mexico to Columbia, Brazil	Warm	Spring-Summer	6/6		2						4	1		7
Prosthechea boothiana	Florida to Dominican Republic, Mexico to Guatemala, Belize	Cool to warm	Year-round	2/2							1	3	1		5
Prosthechea brassavolae	Mexico to Panama			3/3		2	3							1	6
Prosthechea citrina	Mexico	Cool to warm   Spring-Summer		27/31	8	24	12	2				5			51
Prosthechea cochleata	Florida to Dominican Republic, Mexico to Ecuador, French Guiana	Cool to warm	Year-round	32/35	1	17	9	1		1		4	1	3	37
Prosthechea fragrans	Caribean Islands, Mexico to Northern Brazil	Cool to warm	Year-round	12/22			1	1				6	2	1	11
Prosthechea ionocentra	Costa Rica to Ecuador	Cool to warm	Year-round	1/1		1	2							2	5
Prosthechea mariae*	Mexico	Cool to warm	Summer	111/199		14	10				1	6			31
Prosthechea prismatocarpa	Costa Rica to Panama	Cool to warm	Summer-Fall	24/26	2	4	3	1				7			17
Prosthechea radiata	Mexico to Costa Rica	Cool to warm	Summer-Fall	31/39		7	11				1	19	1		39
Prosthechea vespa	Nicaragua to Brazil, Bolivar, West Indies	Cool to warm	Spring-Fall	0/0			1					3	1	1	6
Prosthechea vitellina	Mexico to Honduras	Cool	Summer-Fall	59/78		11	6				1	4			22

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

Of the 127 presently known species only 26 (~20%) have been used in hybridization. **Prosthechea mariae** has been hybridized the most (large, 7.9 cm average natural spread, green sepals and petals with a large white lip) with 199 total progeny and has received the fourth most awards. Significant hybridization contributions have also been made by **Psh. vitellina** (78 total progeny) and **Psh. citrina** has been the most awarded species with 51 AOS awards with **8 FCC/AOS awards**. NOTE: In the above table, total progeny includes to ALL crosses (includes intergeneric).

F1 Prosthechea	<1930	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s
Registered in decade	1				6	6	1	5	7	7
Associated awards	0				4	7	0	5	3	0

As of the Dec 2017 edition of OrchidWiz there are 37 Prosthechea hybrids with 33 being primary hybrids (54%) and 391 intergeneric hybrids. The above table shows the interest in breeding Prosthecheas based on registration and associated awards of Prosthechea primary (F1) hybrids (intergeneric hybrids not included) as of December 2017 edition of OrchidWiz. Clearly there has been an ebb and flow in F1 registration with a recent increase.

#### **Primary Crosses**

The most successful (number of progeny and/or awards, OrchidWiz, Sep 2017 edition) F1 crosses are: **Psh. Green Hornet** (Psh. cochleata x Psh. trulla), 1995, 2 F1 progeny, 3 AOS awards (1 AM, 1 HCC, 1 CCM); **Psh. Bob Freeman** (Psh. prismatocarpa x Psh. tripunctata), 2004, 2 F1 progeny, 1 AM/AOS award; **Psh. Marina** (Psh. mariae x Psh. citrina), 1970, 1 F1 progeny, 1 HCC/AOS award; **Psh. Elfin** (Psh. cochleata x Psh. prismatocarpa), 1967, no progeny, 1 HCC/AOS award; **Psh. Hilda** (Psh. citrina x Psh. vitellina), 1978, no progeny, 3 AOS awards (1 AM, 1 JC, 1 CCM).



Psh. Green Hornet 'Wedding Day', AM/AOS Jul 2011, NS 11.3 x 6.0 cm



Psh. Bob Freeman 'Maureen's Favorite', AM/AOS Jun 2004, NS 3.8 x 2.9 cm



Psh. Marina 'Gundlach', HCC/AOS Jun 1980, NS 10.0 cm



Psh. Elfin 'Valley Isle', HCC/AOS Jun 2007, NS 5.0 x 5.0 cm



Psh. Hilda 'Lucy', AM/AOS Jul 1980, NS 6.0 cm

#### Second and

#### higher generation crosses

There are NO significant second or higher generation crosses.

#### **Intergeneric Crosses**

There have been 41 genera created by intergeneric breeding with Prosthechea, with the main breeding being with:

- Cattleyas Cattleychea [Ctyh.] 166 hybrids, mostly for green sepals and petals and a colored, usually white, lip
- Rhyncholaeliocattleyas [Rlc.] Prosrhyncholeya [Pry.] 42 hybrids, mostly for green or yellow sepals and petals, and a colored, usually white lip
- Encyclias Prosyclia [Prc.] 30 registered hybrids
- Cattlianthe [Ctt.] Proguarleya [Pgy.] 29 registered hybrids

Some of the intergeneric crosses are:

## Cattleychea [Ctyh.]:

Cattleychea Vienna Woods (C. guttata x Psh. mariae), 1961, Bracey, 12 F1 and 31 total progeny, no awards. Major progeny: Cattleychea Siam Jade (C. Penny Kuroda x Ctyh. Vienna Woods), 1986, 11 F1 progeny, 4 AOS awards (1 AM, 3 HCCs); Cattleychea Merry Green (Ctyh. Vienna Woods x C. Ann Follis), 1997, no progeny, no AOS awards; Cattleychea Saengsri Fantasy (Ctyh. Vienna Woods x C. Thospol Spot), 1986, 1 F1 progeny, 3 HCC/AOS awards; Cattleychea Netrasiri Fine-Green (C. Baby Kay x Cthy. Vienna Woods), 1984, 4 F1 and 6 total progeny, 2 AOS awards (1 AM, 1 HCC).



Cattleychea Siam Jade 'Fuchs Key Lime', AM/AOS Jan 1992, NS 9.6 x 9.7 cm



Cattleychea Merry Green 'Emerald', TRO/TOGA May 2007, NS 12.5 x 11.2 cm



Cattleychea Saengsri Fantasy 'Tropic I', HCC/AOS Nov 1996, NS 8.5 x 9.1 cm



Cattleychea Netrasiri Fine-Green 'Key Lime', AM/AOS May 1991, NS 9.5 cm

Cattleychea Mae Bly (Psh. Mariae x C. Ann Follis), 1967, Fredrick L. Thornton, 4 F1 and 5 total progeny, 21 AOS awards (9 AMs, 7 HCCs, 2 CCMs);

Cattleychea Lime Sherbet (C. forbesii x Psh. mariae), 1968, W.W.G. Moir, 7 F1 and 9 total progeny, 1 HCC/AOS award; Cattleychea Lemon Twist (C. granulosa x Psh. vitellina), 1963, Rod McLellan Co., 6 F1 and 10 total progeny, 3 AOS awards (2 AMs, 1 HCC);

Cattleychea Westconnett Gold (Psh. mariae x C. milleri), 1977, J. McClain, 4 F1 progeny, 1 HCC/AOS award. Major progeny Procycleya Little Nuggets (Ctyh. Westconnett Gold x E. tampensis), 1990, Carter & Holmes, no progeny, 2 HCC/AOS awards; Prosrhyncholeya Marmalade see next group.



Cattleychea Mae Bly 'Bielecki's Delight', AM/AOS Dec 2014, NS 12.0 x 13.0 cm



Cattleychea Lime Sherbet 'Dot Maples', HCC/AOS Aug 1990, NS 10.4 cm



Cattleychea Lemon Twist 'Nancy', AM/AOS Dec 1983, NS 7.7 cm



Cattleychea Westconnett Gold 'Mendenhall', HCC/AOS Jul 1983, NS 4.8 cm

## **Prosrhyncholeya**

## [Pry.], Prosyclia [Prc.], Proguarleya [Pgy.]:

Prosrhyncholeya Orchidom Green Glade (Rlc. Victor Umi Peltier x Rct. Jim Wallace), 2003, no progeny, 4 AM/AOS awards; Prosrhyncholeya Marmalade (Rlc. Toshie Aoki x Cthy. Westconnett Gold), 2002, Carter & Holmes, no progeny, 3 AOS awards (2 AMs, 1 HCC); Prosyclia Memoria Young C. Lott (E. tampensis x Psh. mariae), 1958, no progeny, 3 AOS awards (1 AM, 1 AD, 1 CCM); Proguarleya Lemon Trick (Ctyh. Lemon Twist x Ctt. Trick or Treat), 2004, 1 F1 and 2 total progeny, 1 HCC/AOS award; Proguarleya Caribbean Jewel (Ctt. Cynthia Martel Utuado x Psh. radiata), 2005, no progeny, 2 HCC/AOS awards.



'Jolly Green', AM/AOS



Pry. Orchidom Green Glade Prosrhyncholeya Marmalade Prc. Memoria Young C. Lott 'Lydia Merkle', AM/AOS Sep 2014, NS 15.1x14.7 cm Mar 2011, NS 11.1 x 11.3 cm



'Pinnacle', AM/AOS Apr 1989, NS 4.0 x 5.1 cm



Pgy. Lemon Trick 'Dogashima', HCC/AOS Aug 2005, NS 7.3 cm



Pgy. Caribbean Jewel 'El Vigia', HCC/AOS Jun 2010, NS 2.0x1.7 cm

# Guarianthe [Grc.], Procycleya [Pcc.], Procatavola [Pcv.], Ryhnchothechea [Rct.]

**Guarianth Frances Dyer** (Gur. Bowringiana x Psh. Fragrans), 1955, Rudolph, 9 F1 and 10 total progeny, 8 AOS awards (2 AMs, 1 AD, 2 HCCs, 3 CCMs). Major progeny: **Lovelessara Central America** (Grc. Frances Dyer x Rth. Plentiful), 1969, W. W. G. Moir, no progeny, 2 AOS awards (1 AM, 1 AD).

**Procycleya Little Nuggets** (Ctyh. Westconnett Gold x E. tampensis), 1990, Carter & Holmes, no progeny, 2 HCC/AOS awards.

**Procatavola Walnut Valley Lime Stars** (Ctyh. Lime Stars x B. Little Stars), 2008, H & R Nurseries, 2 F1 progeny, 6 AOS awards (4 AMs, 2 HCCs).

Rhynchothechea Jim Wallace (Psh. mariae x Rl. digbyana), 1966, Crestwood, 3 F1 progeny, 4 AOS awards (3 AMs, 1 HCC). Major progeny: Prosrhyncholeya Orchidom Green Glade (Rlc. Victor Umi Peltier x Rct. Jim Wallace), 2003, R. B. Cole, no progeny, 4 AM/AOS awards.



Procycleya Little Nuggets 'Mendenhall' HCC/AOS Jun 1989, NS 5.0 cm



Guarianthe Frances Dyer 'Foxes Plum' AM/AOS Apr 1992, NS 6.2 cm



Pcv. Walnut Valley Lime Stars 'Diana' AM/AOS Nov 2014, NS 11.8 x 12.2 cm



Rct. Jim Wallace 'Maples' AM/AOS Mar 1989, NS 17.0 cm

# Prosthechea and progeny genera (three or more members) Quality Award winners in 2017

# References:



Prosthechea cochleata 'Green Giant' AM/AOS Aug 2017, NS 5.7 x 8.2 cm



Prosthechea mariae 'Gabriel Amaru' AM/AOS Jul 2017, NS 8.2 x 5.3 cm



Procatavola Golden Peacock 'Orange Beauty' HCC/AOS Apr 2017, NS 8.6 x 7.9 cm

www.orchidspecies.com http://apps.kew.org/wcsp/qsearch.do

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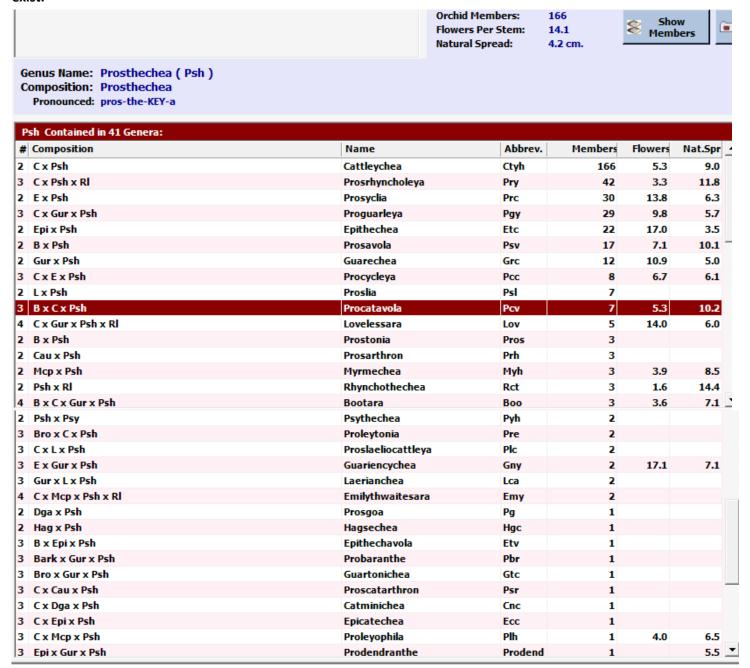
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# **Interesting Tidbits**

Table below list the names of the existing intergeneric cross made with Prosthechea and the number of cross that exist:



There has been significant intergeneric crossing with this species as discussed in the main text and will not be repeated here except to point out the above list is not complete in regards to the intergeneric species that have been created to date.

# **Species Data Sheet**

Prosthechea cochleata W.E.Higgins, Phytologia 82: 377 (1997 publ. 1998)

{W.E. Higgins identified the need for the new genus Prosthechea prior names:

Anacheillium cochleatum, (L.) Hoffing, Verz. Orchi.; 21, 1842 Encyclia cochleata (L.) Dressler, Brittonia 13: 264 (1961)

Epidendrum cochleatum L., Sp. Pl. ed. 2: 1351 (1763)}

[pros-the-KEY-a kok-lee-AH-ta]

A rather common epiphytic, Prosthechea cochleata is found in a wide variety of forests ranging from tropical rain to mountain rain to tropical semi-deciduous and warm oak, at altitudes from sea level to near 2000 meters from Florida throughout the Antilles, Mexico to Ecuador. The ovoid to oblong pseudobulbs (3.5-16 x 1.5-5 cm) with 2-3 elliptic, acute leaves (11-30 x 1.2-6.5 cm) at the pseudobulbs apex. Inflorescence (to 50 cm long) terminal, erect, with 3-20 successive flowers emerging from a protective sheath between the uppermost leaves. Flowers showy, nonresupinate, pale green to yellowish-green, with the lip tinged and veined with dark (sometimes blackish) purple, especially on the distal half of the dorsal surface. Sepals (2.6-5.9 x 0.35-0.65 cm) and petals (2.0-4.4 x 0.2-0.4 cm) strongly reflexed, narrowly lanceolate, acuminate, somewhat twisted. Lip (1.1-1.8 x 1.8-3.0 cm) united with the basal one third of the column, entire, broadly cordiform, concave, acute. Callus of two or three basal keels. Column short, wider shortly above the middle, tridentate at the apex. Pollinia 4. Capsule ellipsoid, strongly 3-winged, pedicellate.



<u>Distribution:</u> In Florida there occurs Prosthechea cochleata var. triandra, which consistently differs from the typical variety in having two supra-numerary anther caps, each with an additional pair of pollinia, and the flowers being always self-pollinated. (Usually found in Florida on trees 3 to 6 feet [0.9 to 1.8 meters] above the high-water mark in a swamp / standing water.)

**<u>Ecology:</u>** Flowering throughout the year.

**Recognition:** Prosthechea cochleata is recognized by the non-resupinate flowers with narrow, reflexed, twisted sepals and petals, and by the concave, shell-like, broadly cordiform lip, tinged and veined with dark

(sometimes blackish) purple.

Is the national flower of Belize.

<u>Conservation Status</u>: Not endangered. This species is widely distributed and usually forms large populations, thriving in a great variety of ecological conditions. Collection pressure is moderate.

### **Synonyms:**

Anacheillium cochleatum, (L.) Hoffing, Verz. Orchi.; 21, 1842 Encyclia cochleata (L.) Dressler, Brittonia 13: 264 (1961) Epidendrum cochleatum L., Sp. Pl. ed. 2: 1351 (1763)

Varieties / forms:

Prosthechea cochleata var. alba 'Napa Valley', HCC/AOS Oct 2003, NS 7.9 x 7.0 cm

Prosthechea cochleata var. alba, Prosthechea cochleata f. albidoflava: Sepals and petals ivory chartreuse, lip ivory suffused at apex light green. Per Kew Monocat list, this is a synonym for Prosthechea cochleata var. triandra.

Prosthechea cochleata var. triandra: See comment above in distribution, plus is usually a less robust plant with smaller flowers. (Florida, Dominican Republic, and Puerto Rico.

#### Awards:

	FCC	AM	HCC	AQ	JC	CCM	CCE	СНМ	CBM	TOTAL
AOS	1	18	9	1	1	4		1	3	38
Year(s) Awarded	2015	1965-2017	1989-2016	2004	1970	1976-2007		1981	1964-1977	

The JC "or the unusual color of the sepal and petals, as well as the lip; inside upper lip striated with wine-red; inside lower lip light green, with lower half of back of lip wine-red, upper half cream."

The FCC "flower count, presentation of flowers and size of flowers merit elevation from prior AM of 84 points in 2013."

#### **Breeding Characteristics:**

I was not able to find any hybridization information on Prosthechea cochleata, but did observe that only two crosses were non- resupinate, there for it appears that the shape is recessive as is the color but it does appear to add floral size. Based on this information it appears that only size is a dominate floral characteristic. There have been 35 crosses registered with Psh. cochleata heritage, seven (all described below) of the crosses received awards.

	Registr	ation Year	Range					
Encyclia incumbens	-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2017
Crosses Registered	2	0	9	4	2	8	8	2
Awards to Crosses Regtr			8	0	0	6	1	0
F1 Progeny of Crosses Regtr	0		0	0	0	4	0	0

### 'Major' Hybrids:

**Psh. Elfin** (Psh. cochleata x Psh. prismatocarpa), 1967, L. DeGarmo, no progeny, 3 AOS awards (1 FCC, 1 AM, 1 JC).

**Psh. Green Hornet** (Psh. cochleata x Psh. trulla), 1995, H & R Nurseries, 2 F1 progeny, 3 AOS awards (1 AM, 1 HCC, 1 CCM). No major progeny.



Prosthechea Elfin 'Valley Isle' HCC/AOS Jun 2007, NS 5.0 x 5.0 cm



Prosthechea Green Hornet 'Wedding Day' AM/AOS Jul 2011, NS 11.3 x 6.0 cm

# 'Major' Intergeneric Hybrids, Prosyclia [Prc.], Prosavola [Psv.], Bootara [Boo.]:

Prosyclia Saucy Tongue (Psh. cochleata x E. cordigera), 1963, Rivermont, no progeny, 1 AM/AOS award.

Prosyclia Tapaste (E. phoenicea x Psh. cochleata), 1960, Mr/Mrs W.Osment, no progeny, 2 JC/AOS awards (both commended for color, dark burgundy).

Prosavola Coral Drop Utuado (B. nodosa x Psh. cochleata), 1996, Orchids by Eli, 2 F1 progeny, 2 AOS awards (1 AM, 1 HCC). Major progeny: Bootara Golden Star (Ctt. Gold Digger x Psv. Coral Drop Utuado), 2006, Orchids by Eli, no progeny, 1 CCM/AOS award.

Prosavola Anya Gloudon (B. subulifolia x Psh. cochleata), 1998, A. Gloudon, no progeny, 1 JC/AOS award (commended for unusual wine-red color).



Prosavola Coral Drop Utuado 'Machiavelli' AM/AOS Jun 2015, NS 12.0 x 11.8 cm



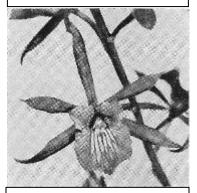
Bootara Golden Star 'HJF's Candle Flames' CCM/AOS Jan 2016, NS 5.0 x 5.0 cm



Prosavola Anya Gloudon 'Faith' JC/AOS Mar 2004, NS 8.6 x 8.1 cm



Prosyclia Saucy Tongue 'Crestwood' AM/AOS Mar 1970, NS 8.3 cm



Prosyclia Tapaste 'Harriet' JC/AOS Nov 1966

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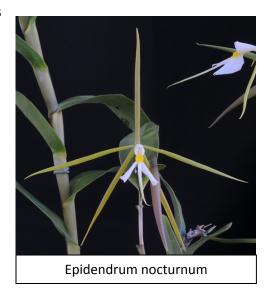
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Orchids, Aug 2013, Orchid of the Month: Prosthechea - Topsy-Turvy Taxonomy, Mirenda, T.; V. 82, pp. 462-464 AOS Bulletin, Feb 1967, AOS Awards, pg. 152

# Genus Epidendrum, Linnaeus, Species Plantarum ed. 2: 1347 (1763), nom. cons. Type: Epidendrum [Epi.] nocturnum [eh-pi-DEN-drum NOK-tur-num]

One thousand six hundred and forty-three species and nine natural hybrids (OrchidWiz 4.1, update Dec 2017) make up the genus Epidendrum. They are mostly sympodial epiphytes, but also includes terrestrials and uncommon lithophytes found in wet to dry, low to mid elevations, with a wide range of habitats but always with very good drainage. These species are exclusively American, ranging from North America to northern Argentina with centers of development in Mexico, the Andes and Brazil usually growing in full sunlight. These slender, erect, hanging to creeping plants have thin, cane-like (most species) to reed-stemmed, thickened, simple to branching stems with narrow, fleshy to leathery leaves. With few exceptions the numerous to few-flowered inflorescence is terminal, simple or profusely branched, and bears from one to numerous flowers which vary from excessively small to quite large, opening successively or simultaneously. The smooth or thickened (hardened), entire or trilobed lip is united to the straight or slightly arched footless column. Some of the



recognizing genus features are a slit rostellum, the semiliquid viscidium produced thereof, most species have the lip united to the column, for forming a nectary tube that penetrates the pedicel and most species have four pollinia.

NOTE. At one time most of the species of *Encyclia* and *Prosthechea* were included in *Epidendrum*. The name *Epidendrum* was used by early botanist and writers to place and describe many of the newly discovered epiphyte type plants.

Eric Hagsater and et.al. have taxomony divided the genus Epidendrum into around 100 groups and subgroups. These groups are provisional and have not been formally described as yet, and in them many but not all of the species are listed in these groups.

Common Name or Meaning – Greek for upon and a tree. Refers to the growth habit of most species of the genus that grow upon other plants. Originally considered to be parasitic, but later shown that they are not.

Point Scale using the General point scale and sometimes the Cattleya scale.

Table of top species used in hybridization or receiving awards (~7 highest, OrchidWiz – Dec 2017 update)

Spe	ecies marked with a	* are used the r	most in hybridizatio	n		Progeny				,	٩OS	Aw	ards				
Kew Name	Group	Subgroup	Habitat, Country	Temp	Season	F1/Total	FCC	<u>AM</u>	нсс	<u>JC</u>	AD	AQ	CCE	ССМ	СНМ	CBR	<u>Total</u>
Epidendrum centropetalum	Oerstedella	Centropetalum	Mexico to Panama	Warm	Winter	0/0			1				2	7			10
Epidendrum ciliare	Coilostylis		Mexico to Peru, Antillies	Cool to Warm	Yearround	53/54	3	7	6	2			3	24			45
Epidendrum cinnabarinum*			Brazil, Venezuela	Cool to Warm	Summer	48/413		1									1
Epidendrum cristatum	Cristatum	Cristatum	Mexico to Peru	Cool to Warm	Summer	7/7		4	3	1			1	5		1	15
Epidendrum ilense	Jatunsachuanum		Ecuador	Warm	Yearround	29/33		1	1								2
Epidendrum jamiesonis	Secundum	Elongatum	Ecuador	Cold to Cool	Winter- Spring	6/421											0
Epidendrum magnoliae	Magnoliae	Magnoliae	North Carolina to Mexico	Cool to Warm	Summer- Fall	54/59								4			4
Epidendrum medusae	Nanodes		Ecuador	Cool to Warm	Summer	3/3		2	3				1	7		1	14
Epidendrum parkinsonianum	Coilostylis		Mexico to Panama	Cool to Warm	Winter- Summer	17/17		2	6	2			3	15		2	30
Epidendrum peperomia	Porpax		Mexico to Peru, Brazil	Cool to Warm	Fall	1/1			1					1			2
Epidendrum porpax	Porpax		Mexico to Venezuela	Cool to Warm	Fall- Winter	8/8		1	1	1			2	14	1	1	21
Epidendrum pseudepidendrum	Pseudepidendrum		Costa Rica to Panama	Warm to Hot	Spring	56/115		7						4	1		12
Epidendrum radicans*	Secundum	Calanthum	Mexico to Colombia, Cuba	Cool to Warm	Winter- Spring	50/463				1				1			2
Epidendrum secundum	Secundum	Secundum	Bolivia-Guyana, Antilles, Brazil	Cool to Warm	Yearround	24/172		2						2		1	5
Epidendrum stamfordianum	Psilanthemum		Mexico to Colombia	Warm	Winter- Spring	54/63		18	10	4		1		19	2	3	57

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 85F at night; Warm -66 to 75F at night; Warm to Hot -66 to 85F at night; Hot -75 to 85F at night

Of the 1643 presently known species only 84 (~5%) have been used in hybridization. **Epidendrum radicans** has been hybridized the most with 463 total progeny but it has received only two AOS awards (1 JC and 1 CCM) whereas **Epidendrum stamfordianum** has the most AOS awards with 57 (18 AMs, 10 HCCs, 4 JCs, 1 AQ, 19 CCMs, 2 CHMs, 3 CBMs) and has been used in hybridization (54 F1 progeny, 17 crosses awarded with 64 awards) but with limited success (63 total progeny) nothing past 2<sup>nd</sup> generation (2 hybrids receiving one award each). Significant hybridization contributions have also been made by **Epi. cinnabarinum** (48 F1 and 413 total progeny) and Epi. **jamiesonis** (6 F1 and 421 total progeny). It is also worth noting that **Epi. ciliare** has received the second most AOS awards (45) which includes **3 FCC/AOS awards**. **NOTE**: In the above table, total progeny includes to ALL crosses (includes intergeneric).

F1 Epidendrum	<193	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s
	0									
Registered in decade	13	0	4	8	13	16	9	19	27	22
Associated awards	1		0	1	6	6	3	17	12	2
Associated F1 progeny	44		6	2	19	11	3	16	3	1

As of the Dec 2017 edition of OrchidWiz there are 568 Epidendrum hybrids with 131 being primary hybrids (23%) and 459 intergeneric hybrids. The above table shows the interest in breeding Epidendurm based on registration and associated awards of Epidendrum primary (F1) hybrids (intergeneric hybrids not included) as of December 2017 edition of OrchidWiz. Clearly there is an increase in activity associated with Epidendrums from a breeding point of view.

#### **Crosses (top five awardees)**

Epi. Hokulea (Epi. Joseph Lii x Epi. cinnabarinum), 1986, Puanani, 26 F1 and 59 total progeny, 18 AOS awards (1 FCC [no photograph available], 8 AM, 5 HCC, 4 CCM). Major progeny: Epi. Pacific Sizzle see below.

Epi. Joseph Lii (Epi. Orange Glow x Epi. cinnabarinum), 1983, 16 F1 and 349 total progeny, 8 AOS awards (4 AMs, 1 CCM, 3 HCCs). Major progeny: Epi. Hokulea see above; Epi. Sun Valley see below; Epi. Pacific Girl see below.

Epi. Annelie Wans (Epi. ilense x Epi. stamfordianum), 1992, H. Vissers, no progeny, 3 AOS awards (3 AMs, 4 HCCs).

Epi. Pacific Classic (Epi. Pacific Girl x Epi. Pacific Glory), 2008, no progeny, 7 AOS awards (1 AM, 6 HCCs).

Epi. Pacific Sizzle (Epi. Pacific Girl x Epi. Hokulea), 2004, Cal-Orchid, 6 F1 and 16 total progeny, 4 AOS awards (2 AMs, 2 HCCs). No major progeny



Epi. Hokulea 'Super Red', AM/AOS



Epi. Joseph Lii 'Ruby', AM/AOS



Epi. Annelie Wans 'Westfield', AM/AOS



Epi. Pacific Classic 'Duke', AM/AOS Apr 2004, NS 4.4 x 4.7 cm|Mar 2006, NS 4.8 x 4.7 cm|Apr 2002, NS 4.0 x 5.6 cm|Mar 2007, NS 4.5 x 4.0 cm|Apr 2015, NS 4.8 x 4.0 cm



Epi. Pacific Sizzle 'Waterford', AM/AOS

## Crosses (top F1 progeny, excluding award winners above)

Epi. O'Brienianum (Epi. jamiesonis x Epi. radicans), 1888, Veitch, 37 F1 and 417 total progeny, no awards. Major progeny: Epi. Hokulea see above; Epi. Joseph Lii see above; Epi. Sun Valley see below; Epi. Pacific Girl see below.

Epi. Sun Valley (Epi. Orange Glow x Epi. Joseph Glow), 1993, M. Inamine, 25 F1 and 212 total progeny, no awards. Major progeny: Epi. Pacific Classic see above; Epi. Pacific Sizzle see above; Epi. Pacific Girl see below; Epi. Eagle Valley (Epi. King Valley x Epi. Sun Valley), 1996, M. Inamine, 12 F1 and 141 total progeny, no awards.

Epi. Pacific Girl (Epi. Eagle Valley x Epi. Star Valley), 2001, Cal-Orchid, 22 F1 and 54 total progeny, 2 AOS awards (1 AM, 1 HCC). Major progeny: Epi. Pacific Classic see above; Epi. Pacific Sizzle see above; Epi. Pacific Glory (Epi. Pacific Ember x Epi. Pacific Girl), 2004, Cal-Orchid, 8 F1 and 9 total progeny, 2 AOS awards (1 AM, 1 HCC).

Epi. Orange Glow (Epi. O'Brienianum x Epi. cinnabarinum), 1953, 21 F1 and 368 total progeny, no awards. Major progeny: Epi. Hokulea see above; Epi. Sun Valley see above; Epi. Pacific Girl see above.

Epi. Joseph Glow (Epi. Orange Glow x Epi. Joseph Lii), 1991, M. Inamine, 17 F1 and 277 total progeny, 2 AM/AOS awards.

Major progeny: Epi. Sun Valley see above; above.



Epi. O'Brienianum



Epi. Sun Valley



Intergeneric Crosses

Epi. Pacific Girl 'Primavera', AM/AOS Mar 2003, NS 4.4 x 3.8cm



Epi. Orange Glow



There have been 52 genera created by intergeneric breeding with Epidendrum, with the main breeding being with:

- Cattleyas Epicattleya [Epc.] 185 hybrids
- Cattlianthe [Ctt.] Epicatanthe [Ett.] 41 hybrids
- Encyclias Epicyclia [Epy.] 36 registered hybrids

Some of the intergeneric crosses are:

#### Epicattleya [Epc.], Epicatanthe [Ett.]:

<u>Epicattleya René Marqués</u> (Epi. pseudepidendrum x C. Claesiana), 1979, W.S.Murray, 13 F1 and 20 total progeny, 9 AOS awards (3 AMs, 4 HCCs, 2 CCM). Major progeny: **Epc. Dato Low Tuck Kwong** (Epc. René Marqués x C. Wailea), 2010, Ching-Tien Wong, 4 F1 progeny, 1 AM/AOS award.

**Epicattleya Fireball** (C. Lutata x Epi. cinnabarinum), 1976, 4 F1 and 18 total progeny, 5 AOS awards (4 AMs, 1 CCM). **Epicatanthe Volcano Trick** (Ctt. Trick or Treat x Epi. stamfordianum), 2004, no progeny, 14 AOS awards (8 AMs, 6 HCCs). **Epicatanthe Don Herman** (Ctt. Gold Digger x Epi. stamfordianum), 1996, 3 F1 progeny,

9 AOS awards (4 AMs, 3 HCCs, 1 JC, 1 AD)



Epicattleya René Marqués 'Tyler', AM/AOS Feb 2016, NS 7.5 x 7.9 cm



Epicattleya Fireball 'Memoria Lloyd Taylor', AM/AOS May 2007, NS 12.5 x 11.2 cm



Epicatanthe Volcano Trick 'Orange Delight', AM/AOS Sep 2015, NS 5.0 x 4.8 cm



Epicatanthe Don Herman 'Orange Profusion', AM/AOS Apr 2005, NS 6.0 x 6.5 cm

### Epicyclia [Epy.], Bardendrum [Bard.], Brassoepidendrum [Bepi.]:

<u>Epicyclia Mabel Kanda</u> (E. cordigera x Epi. paniculatum), 1959, Shimamoto, 7 F1 progeny, 9 AOS awards (4 AMs, 4 HCCs, 1 CCM). Major progeny: **Epy. Serena O'Neill** see below.

**Epicyclia Serena O'Neill** (Epy. Mabel Kanda x E. cordigera), 2006, no progeny, 5 AOS awards (3 AMs, 2 HCCs). **Bardendrum Nanboh Pixy** (Bard. Terusan x Bark. scandens), 2001, 2 F1 and 3 total progeny, 4 AOS awards (1 AM, 3 HCCs, 1 JC).

Brassoepidendrum Pseudosa (B. nodosa x Epi. pseudepidendrum), 1974, 7 F1 and 8 total progeny, 1 AM/AOS award.



Epicyclia Mabel Kanda 'Enzobean', AM/AOS Apr 2015, NS 4.1 x 4.1 cm



Epicyclia Serena O'Neill 'Valley Isle', AM/AOS May 2014, NS 4.0 x 4.5 cm



Bard. Nanboh Pixy 'Elsie', AM/AOS Jan 2008, NS 3.4 x 4.2 cm



Bepi. Pseudosa 'Hutch', AM/AOS Feb 1978, NS 6.7 cm

# Epidendrum and progeny genera (3+ members, AM+) 2017 Quality Awardees



Epi. Bridal Showers 'Everglades' AM/AOS Jun 2017, NS 3.4 x 3.6 cm (Epi. stamfordianum x Epi. bracteolatum)



Epi. Llama del Bosque 'Carlos Magdiel' AM/AOS Feb 2017, NS 4.8 x 4.8 cm (Epi. Pacific Thrill x Epi. Pacific Volcano)



Epi. Pacific Tomato
'Cartago' AM/AOS
Feb 2017, NS 4.3 x 4.0 cm
(Epi. Pacific Volcano x



Epi. Pacific Islander 'Mango' AM/AOS Jul 2017, NS 4.4 x 5.0 cm (Epi. Pacific Peacock x Epi. Pacific Redhots)



Epi. melanoporphyreum 'Hangry Birds' AM/AOS Jul 2017, NS 4.0 x 3.6 cm



Epi. melanoporphyreum 'Diamond Orchids' AM/AOS Mar 2017, NS 2.5 x 2.9 cm



Epi. peperomia 'Natural World' AM/AOS Oct 2017, NS 2.8 x 3.6 cm



Epi. wallisii 'Cali Bianchi-1711' AM/AOS Nov 2017, NS 3.5 x 3.5 cm



Epi. Pacific Trek 'Cantelope' AM/AOS Jul 2017, NS 4.7 x 4.8 cm

Epi. wallisii 'Francini Camila' AM/AOS Mar 2017, NS 3.1 x 3.9 cm



Epi. orbiculatum 'Monika' CBR/AOS Aug 2017, NS 2.4 x 3.1 cm

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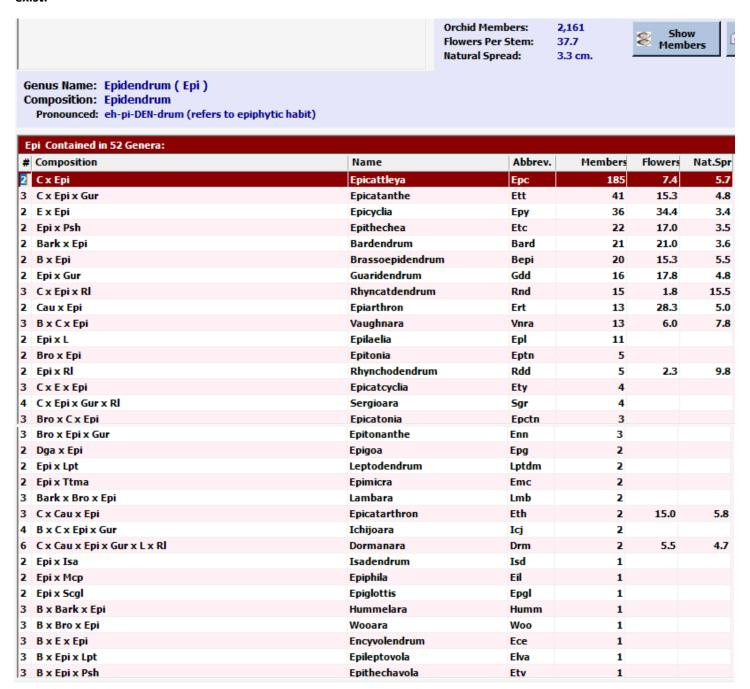
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# **Interesting Tidbits**

Table below list the names of the existing intergeneric cross made with Epidendrum and the number of cross that exist:



There has been significant intergeneric crossing with this species as discussed in the main text and will not be repeated here except to point out the above list is not complete in regards to the intergeneric species that have been created to date.



## **Award Descriptions**

# Encyclia [E.] Dave's Delectable Deliration – Quality Award Description (E. dichroma x E. phoenicea)

Nineteen stellate flowers on an arching inflorescence; sepals and petals light pink with red violet veining becoming heavily overlaid distally, sepals and petals spathulate, petals narrower basally and wider distally than petals; lip light pink, tri-lobed, side-lobes surround column flare distally, mid-lobe fan shaped, heavily veined burgundy, thin light pink petticoat on slightly ruffled edge; column light pink, anther cap dark yellow;

substance firm; texture crystalline.

#### Catyclia [Cty.] Brazilian Rubies - Quality Award

#### Description

(C. tenebrosa x E. randii)

Four stellate flowers on an inflorescence; sepals and petals creamy-green heavily speckled and veined brick; lip light pink, tri-lobed, side lobes cover lower half of column and then flares, suffuse red basally diffusing distally, heavy burgundy veining that enhances the mid-lobe basally; column and anther cap cream; substance firm; texture crystalline.



#### **Epicyclia Belmont – Cultural Award Description**

(Epi. paniculatum x E. tampensis)

One hundred and Ninety-three stellate chartreuse flowers and sixteen buds on ten erect inflorescences, blemish free foliage in a 6 inch [15 cm] clay pot; sepals and petals spathulate, petals narrower than petals; lip white, four-lobed with deep notches defining the side lobes, magenta blotches concentrated in vein shape centrally; column white overlaid green basally with a few random magenta blotches; anther cap creamy-yellow; substance firm; texture matte.

# **Prosthechea Expectation – Quality Award Description** (Psh. cochleata x Psh. fragrans)

Five stellate light lime green flowers on one arching inflorescence; sepals and petals lanceolate and recurved, large dark purple blotch basally; lip creamy lime green, triangular with moderate dark purple veining; column lime green, yellow lime green distally with two parallel lines along the top; anther cap yellow lime green; substance firm; texture matte.



# Epithechea [Etc.] Orange Blaze – Quality Award Description

(Etc. Morning Star x Epi. cinnabarinum)

Seven stellate orange red flowers and five buds on an erect inflorescence; sepals and petals lanceolate; lip yellow orange, intracule to column, bell shaped with two notches forming three equal seqments along the lip edge, overlaid with an orange glow, two keels that attach to column to form an entrance for pollinator; column yellow orange with an orange red overlay; anther cap light yellow khaki; substance firm; texture matte.