

All living organisms have been assigned two latinized names, identifying the genus (family) and individual species. For plants the rules are:

- Genus⁽¹⁾ : Capitalized & in italics
- Natural species : Lower case & in italics.
- Natural hybrids : preceded by an X, non-italics
- Man made hybrids: Grex name is capitalized, non-italics.
Grex names must be registered with the Royal Horticultural Society in the UK to be official.

(1) Since orchids have few genetic barriers, both intra- & inter-generic hybrids are readily created, in nurseries as well as in nature.

- When 2-3 genera are involved, a contraction of their genus names is used. For example:
(*Cattleya labiata* x *Laelia anceps*)
= **Laeliocattleya Liptonii**, which is abbreviated as **Lc Liptonii**
- When 4 (sometimes only 3) genera are involved, an artificial genus name is created. Artificial genus names always end with 'ara':
(*Aeridovanda* Blue Chips [= *Aerides leeana* x *V. coerulea*] x *Rhynchostylis coelestis*)
= **Perreiraara Blue Charm** (abbreviated Prra)

If the grower has assigned a **varietal name** to a specific plant with identifiable traits, it is written in quotation marks. Such names are not registered, unless the plant subsequently earns a flower quality award.

If the plant has garnered a flower quality award, it is identified in all capital letters:

Cattleya labiata 'September Mist' AM/AOS

Rlc George King 'Simple Justice' HCC/AOS
(Rlc = *Rhyncholaeliocattleya*)

Flower quality awards can be granted by several organizations. Those most commonly encountered are:

AOS	American Orchid Society	(US)
RHS	Royal Horticultural Society	(UK)
CSA	Cymbidium Society of America	(US)

Other societies granting quality awards are found in Australia, Germany, Japan & Taiwan, and perhaps elsewhere. There are two scales of awards:

AOS	RHS	CSA
High Class Certificate	n/a	Bronze Medal
Award of Merit	same	Silver Medal
First Class Certificate	same	Gold Medal

* * * * *

All of the above is quite logical. However, unfortunately there are several flies in this ointment, which lead to name changes.

◆ The first name to appear in print in a scientific paper is the valid name.

- ◆ In the 18th & 19th centuries, many plants were discovered almost simultaneously by multiple botanists, so competing names were published.

We are still finding earlier names for plants in obscure journals. They take precedence over the names used for 100-150 years or more.

The original names were assigned based on observable similarities and differences. Many followed very simple rules. With modern DNA analysis, it has become apparent that many of the old rules and distinctions were not valid. Thus, species are being reclassified (some-times more than once), as additional analysis becomes available.

This has led to wholesale changes in many genera, especially in the *Cattleya* and *Oncidium*/*Odontoglossum* complexes. And, these changes apply not only to the species, but also to all the hybrids descending from those species.

Going back some 20 years or so, we had:

C.	<i>Cattleya</i>	(with 4 pollinia)	
L.	<i>Laelia</i>	(with 8 pollinia)	
S.	<i>Sophronitis</i>		
B.	<i>Brassavola</i>		
Bc.	<i>Brassocattleya</i>		= (C x B)
Lc.	<i>Laeliocattleya</i>		= (C x L)
Slc.	<i>Sophrholaeliocattleya</i>		= (C x L x S)
Blc.	<i>Brassolaeliocattleya</i>		= (C x L x B)
Pot.	<i>Potinara</i> (artificial genus)		= (C x L x S x B)

There were some additional variations, which included *Epidendrum*, *Broughtonia* and other genera, but the above were the most common.

- First **B. digbyana** (common in hybrids) and **B. glauca** were transferred to *Rhyncholaelia*. That voided most of the **Blc.** and **Pot.** designations. Only hybrids based on other *Brassavola* species, such as *B. nodosa*, remained intact.
- Then the multifloral *Cattleyas* from Central America were split out and transferred to *Guarianthe* (*Gua. aurantiaca*, *bowringiana*, *deckeri* & *skinneri*)
- Then, most of the Brazilian *Laelias* were transferred into *Sophronitis*. That voided most of the **Lc.** and **Slc.** designations, unless the hybrid was based on either a rupicolous or Mexican *Laelia*.
- Finally, all *Sophronitis* were transferred into *Cattleya*. This voided all **Sc.**, **Slc.**, and any remaining **Pot.** designations.

To complicate matters further, some of these changes impacted hybrids registered a long time ago, resulting in duplicate names today:

1898	(<i>C. mossiae</i> x <i>C. warscewiczii</i>)	= C. Enid
1920	(C. Enid x <i>S. coccinea</i>)	= Sc. Enid

With *sophonitis* now being a *Cattleya*, the second hybrid is also *C. Enid* today. This is currently resolved by adding the year of the original registration to the name.

It is impossible for commercial growers to replace the labels on 10,000 or 100,000 plants, so most growers still use the obsolete genus designations. In other words, almost all plants we buy today have incorrect names on the labels, for the purpose of registering the plant for an orchid exhibit, or for use in further breeding.

There are orchid databases, where you can look up the current names for your plants (OrchidWiz, Orchids+ and probably others). If you do not wish to make an investment in such a database, you can use the public database from the Royal Horticultural Society in the UK. The link is:

<http://apps.rhs.org.uk/horticulturaldatabase/orchidregister/orchidregister.asp>

The upper part of the screen = **Parentage search**. This section allows you to check whether a unnamed hybrid might have been registered since you purchased the plant. In Parentage Search, the RHS considers reciprocal crosses to be the same *Grex* (hybrid):

- *P. callosum* x *P. lawrenceanum* = *P. Maudiae*
- *P. lawrenceanum* x *P. callosum* = *P. Maudiae*

However, the RHS program only searches for the way you typed in the names. If you get no result for A x B, you must also try B x A.

Caution: you probably have to check the names of the parents first, as the breeder probably used old genus designations on the label. Example:

- (*C. labiata* x *C. bowringiana*) = no matches
- (*C. bowringiana* x *C. labiata*) = no matches
- (*C. labiata* x *Gua. bowringiana*) = no matches
- (*Gua. Bowringiana* x *C. labiata*) = **4 hits**

It was registered 4 times between 1897 and 1901. As only the earliest registration is valid, this is ***Cattlianthe Portia***, and all the other names are synonyms.

Grex name search is in the lower half of the screen. Here you can check the current genus, Enter a percentage sign (%) as a wild card in genus field, and then the known grex name in that field. Do not include variety names in this search.

First example, when you enter **% Portia**, you get 17 hits.

- Some are outside of the *Cattleya* family, and can be ignored.
- One is a *Rhyncattlianthe*, but the *Grex* name is longer.
- 11 are *Cattlianthes*. 10 of those *Grex* names are longer, so have our result in ***Cattlianthe Portia***.

The grex name search can also be used to check on genus affiliation for species, but it is not perfect when used this way.

Also be aware, that the latin species designation changes with the spelling of the genus. When a species is transferred from one genus to another, the ending of the species epithet (name) might change, if the new genus is spelled differently.

A couple of examples:

Ascocentrum miniaturum
=> Vanda miniata

- When searching on **Ascocentrum miniaturum**, you get 1 hit. When you open that, we are told that it is a synonym and that the current name is **Vanda miniata**.
- When searching on **% miniaturum**, you get the same results.



Epidendrum vitellinum
=> Encyclia vitellina

Encyclia vitellina
=> Prosthechea vitelliana

- When searching on **Epidendrum vitellinum**, you get 1 hit. When you open that, we are told that it is a synonym, but we are not getting the current name.
- When searching on **% vitellinum**, you get two hits. One is a longer name (*vitellinum* hybrid). When we click on *Epidendrum vitellinum*, we get the same result as above.
- When searching on **Encyclia vitellina**, you get 1 hit. When you open that, we are told that it is a synonym, but we are not getting the current name.
- When searching on **% vitellina**, you get 5 hits. We can ignore the *Bifrenaria* and the two *Cattleya* hybrids.
 - When we open the *Encyclia* option, we get same result as above.
 - When we open the *Prosthechea* option, we are told that this name is not a synonym, but that the *Epidendrum* name is.



These notes are explaining the general principles of taxonomy, and main issues caused by name changes. There are many areas impacted, and we will probably see more changes in the years to come. If you are uncertain of the heritage or type of a plant you are considering buying, please ask the vendor for clarification.

December, 2017