Plant Label, versus 'Official' Plant Name

Over the past 20-25 years, there have been a lot of name changes in the orchid world. As a result, many labels (even those in plants shipping from the major nurseries today), no longer carry the **currently correct** name.

For most of us, there is nothing wrong with using one of the older names, as long as it was at one point the correct name for the plant. If it becomes necessary, we can work our way forwards from there.

There are, however, 3 scenarios, where we must use the **currently** correct name for our plants:

1. **Entering plants for ribbon judging in a show.**
2. **If we enter the plant for AOS judging.**
3. **If we register a new hybrid with the RHS.**

Taxonomy 101: All living organisms have been assigned two latinized names. The basic rules for plant names are very simple:

Species: ***Genus*** name capitalized/italicized (family name)
species name lower case/italicized (given name)
Example: ***Cattleya dowiana***

Hybrid: ***Genus*** name capitalized & italicized
Epithet* capitalized, but NOT italicized
Example: ***Cattleya* Circle of Life**

* = *The RHS considers all plants with the same parents to be the same Grex, and thus, they all carry the same epithet (hybrid name)*

It is common to abbreviate the Genus name, according to an official list of abbreviations.

In taxonomy, the first published name in a scientific publication takes precedence. In the 19th century, some publications were rather obscure, and original names were easily overlooked. For example:

C. tigrina
(Achille Richard, 1848)
Portefeuillie des horticulteurs

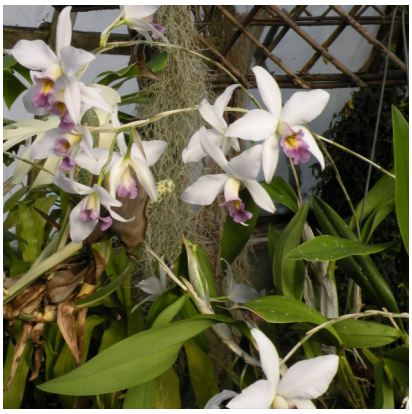
C. leopoldii
(M . Verschaffelt, 1855)
L'illustration horticole
Vol II p. 68, 1855

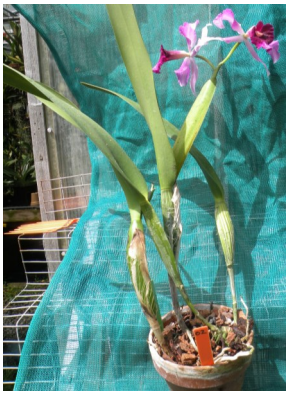
These are actually the same species. Thus, all the ***Cattleya leopoldii*** sold over the years (and still today), should be re-labelled as ***Cattleya tigrina*.**

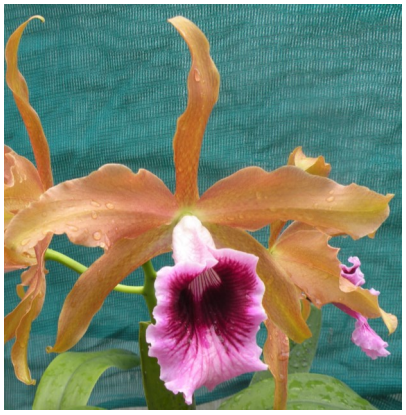
The early botanists did not have DNA analysis available to provide a definitive answer as to how closely two newly discovered plant species are related, so they used their best judgment to establish genus criteria - based on what they could see and measure. Some of their choices were very logical, such as:

4 pollinia	=>	Cattleya
8 pollinia	=>	Laelia
Small plant/orange flowers	=>	Sophronitis

However, as more species were discovered, in some cases it led to 'odd' bedfellows. In the Laelia genus, compare ***Laelia anceps*** (right) from Mexico, with Laelia purpurata (below left) and Laelia tenebrosa (below right) from Brazil. The latter two species clearly resemble many of the unifoliate Cattleyas.







And both are again quite distinctly different from the so-called rupiculous Laelias.

However, taxonomy is not static. It is an ongoing process, and improvements are continuously being proposed. The scientific community does not readily accept all proposals; some take a long time before they are accepted, and others are never accepted. The best example of this is found in the genus **Brassavola.**

All the Brassavolas have cream or pale green colored flowers, and are fragrant at night. These are easy identifiers for the members of this genus.

B. digbyana was originally described by Lindley in 1846. In 1918 Schlechter proposed that it, and B. glauca, be moved, due to differences in the lip structure. That proposal languished and was debated for a while; eventually it was accepted by the RHS - **in 2007**.

Since B. digbyana (now ***Rhyncholaelia digbyana***) was used extensively in early breeding to introduce fragrance and frilly lips, this impacted on a huge number of hybrids registered over the preceding 150 years. But, the story neither starts nor ends here.

In 2003 the RHS accepted that the multifloral Cattleyas from Central America (*C. aurantiaca, C. bowringiana* & *C. skinneri* [+ *C. deckeri*?]) be moved out of Cattleya, and into a genus named ***Guarianthe***.

Then the large Brazilian *Laelias* were moved into ***Sophronitis***. This was not universally accepted, in particular in Brazil.

Finally, after more complete DNA analysis, all Brazilian *Laelias* (incl. the rupicolous types) and *Sophronitis* were transferred to ***Cattleya***.

These revisions, and others in related genera, have led to wholesale changes in the Cattleya group hybrid names.

Orchids are unique in the way even remotely related species can interbreed, and produce fertile offspring.. Taking the Cattleya family as an example, we started with 6+ genera in most breeding programs.

Brassavola	(B.)
Broughtonia	(Bro.)
Cattleya	(C.)
Epidendrum	(Epi.)
Laelia	(L.)
Sophronitis	(S.)
Schomburghia	(Schom.)

In the early breeding, genus names were joined and contracted, when intergeneric hybrids were created:

B. x C. = Brassocattleya

C. x L. = Laeliocattleya

C. x L. x S. = Sophrolaeliocattleya

These longer genus designations became cumbersome (did not fit on plant labels), so artificial genus names were invented to describe plants with 4 or more genera in the makeup). These artificial genera always end in **ARA**. The one most commonly seen is:

POTINARA (abbreviated POT) = **B.** x **C.** x **L.** x **S.**

This solution (later applied to hybrids with only 3 genera in the makeup) worked well for a while, though you sometimes needed a dictionary to decipher each genus included in the acronym.

Label, versus 'Official' Plant Name

LC: Now straight Cattleya, ***unless:***

- L = one of the Mexican Laelias.
- It is based on Guarianthe species
- Incl. both C. & Gua. (= Cattlianthe)

BLC: Multiple choices:

- B changes to Rl. if based on digbyana or glauca. Otherwise it remains a B.
- L disappears, unless it is based on a Mexican Laelia (anceps, albida, etc.)
- C remains for Cattleya only, but changes if Guarianthe or C. + Gua.

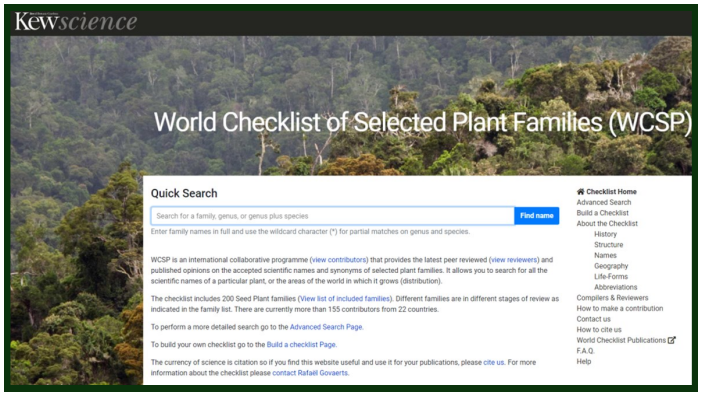
POT Is no longer valid, since Sophronitis no longer exists as a genus.

Most are now RLC, though both Mexican Laelias and Guarianthes appear in some former POTs. The genus changes accordingly.

It is time consuming to drill down into orchid family trees, which can stretch back 12-18 generations. The most practical tool is OrchidWIZ, but you can also use the free RHS database.

To check the correct genus for a species:

Google **Kew list of Monocots.** When you click on the link, you get a screen with a field, where you type in the name that you have. Click on FIND NAME.



The next screen will either confirm the name, or give you a list of synonyms, where the accepted name is in bold type. If none of the names are in bold type, click on any synonym, the correct name will pop up on the next screen.

To check the correct genus for a species:

Google **RHS Grex search**. When you click on the link, you will reach a screen that gives you 2 choices:

1. Parentage Search.
2. Grex Name Search.

Go to #2 at the bottom of the page. Leave the Genus field blank (or enter % as the wild card sign). Then enter the hybrid name in the Grex field, and press enter.

Normally you will get a result, with the correct current genus for that hybrid. On occasion you will get 'There are no matches with your search selection'.

That indicates that the name entered is not correct. It could be lack of a special character, or a misspelling. Try entering a partial name and see what hits you get; you might need a bit of creativity in these cases.

If you want to use this database to check whether an unnamed cross has been registered, you have to use the first part of the search engine:

I. First, verify the genus for each parent.

II. If you get no result for (A x B), also try (B x A).

All of the changes so far have been fairly logical. We might not agree with them, but we can understand why somebody else might. However, some of these changes have had unintended consequences for hybrid names, since:

- The RHS Registrar does not allow registration of duplicate names within a genus.
- Due to the multiple genus changes, many early hybrids have changed genus, which has led to some unintended duplications. These are now being clarified with the year of registration added to the name to clearly identify which plant is being discussed.
- For example, a total of 5 different Cattleya hybrids have been registered with the name 'Doris'. Originally they all had different genus ID:

  - ***C.* Doris (1894)**, formerly ***Lc.* Doris**
    (*C. trianae* x *L. harpophylla*)
  - ***C.* Doris (1903)**
    (*C. gaskelliana* x *C. guttata*)
  - ***C.* Doris (1904)**, formerly ***Sc.* Doris**
    (*C. dowiana* x *S. coccinea*)
  - ***Rlc.* Doris (1915)**, formerly ***Bc.* Doris**
    (Bc. Madame Charles Maron x C. Lord Rothschild)
  - **Rlc. Doris (1921)**, formerly ***Blc.* Doris**
    (*Bc. Digbyano-Mossiae* x *Lc. Fascinator*)

The many changes in recent years are driven by two different motives:

I. A desire to clean up the imperfections of the original genus assignments. While laudable, I feel that some of these botanists are getting carried away.

II. Getting definitive answers from DNA.

Either way, this process is a reflection of the continuing debate between 'lumpers' (those who want all related species in a single genus), and 'splitters' (those who want to use the tiniest differences to set up a separate genus). At the moment the 'lumpers' carry more weight, but I wouldn't be surprised to see the pendulum swing in the opposite direction in a few years.

Personally, I wish they would leave the basic structure alone, unless there are some very compelling reasons to effect a change.

Be aware that there are similar wholesale changes:

- in the Oncidium/Odontoglossum alliance, where Odontoglossums were transferred to Oncidium, and certain Oncidium were moved to Oncostele.
- in the Vanda/Phalaenopsis alliance, where:
  - All Ascocentrum species, *Christensonia vietnamica* & *Neofinetia falcata* have been moved into ***Vanda***.
  - *Doritis pulcherrima* & *Sedirea japonica* have been moved into ***Phalaenopsis***.

Whether the subject is the Cattleya group, or the Vandaceous group, 'lumping' wreaks havoc on some distinctions important to growers, such as:

- **Mature plant size**
- **Temperature requirements**
- **Light requirements**

When you lump plants with unique requirements together, after they have been considered distinct and separate for 100-150 years, it creates mass confusion amongst both commercial and hobby growers.

Vanda tricolor, ***Vanda*** (Neofinetia) ***falcata*** & ***Vanda*** (Ascocentrum) ***aurantiacum*** in proportional sizes for perspective.

January, 2021