## What's in a Name?

Whenever we buy and grow orchids it helps if we can obtain information about that particular plant(s), or about the group of related orchids. At the very least we should ascertain the cultural needs. Orchids within each group - Cymbidiums, Cattleyas, Native Orchids, Softcane Dendrobiums, Hardcane Dendrobiums, etc., etc. - have similar needs. But not all orchids have the same cultural requirements and even within some groups different orchids do need to be treated differently. So, how do we find out about what is special about different orchids?

Just knowing the correct name attributed to an orchid, means that we can ascertain the species that comprise its genetic makeup and this, in turn, can tell us about specific cultural needs, e.g. don't water them at particular times, what type of fertilising to give them, what potting media to use, what is the growing seasons, light and temperature requirements, etc. All these aspects can vary. In other words, the name tells us much more about an orchid that just what to call it. It helps us learn how to best grow that orchid and, combined with some trial and error, what plants we can grow best. Some good growers concentrate on growing certain groups of orchids. This allows those growers to apply a single cultural program to all their orchids. On the other hand, someone who was growing Cymbidiums, Australian Natives, Softcane Dendrobiums and Catasetums would likely struggle to achieve good results unless they apply different cultural practises to each group.

Understanding the names on the plant labels is important to understand what plants one has and what is likely to breed with what. There are other reasons too. For Show benching, name tags can tell growers what section their plants must be exhibited in. Correct labels are important for judging purposes - Judges need to be able to verify that plants are correctly entered, e.g. species orchids must be entered in a Species Class and are rarely judged against hybrids. In some Australian States, any un-named orchid (including those labelled as 'Unknown', 'No Id' or carrying a 'made-up' name) may not be entered in a show or will not be judged. Fortunately this is not the case in NSW. In addition, a correct label tells growers about parentage.

The origins of the names of species and hybrids differ. During the late 1700s, a Swedish botanist (Carl Linneaeus) developed a system for classifying all living things that allotted a specific name to each naturally occurring group of plants, animals, birds, insects, etc. That name is made up of two terms: the 1st is a noun that indicates the collective name ('genus') linking allies (a group of similar objects). The 2nd term (the 'specific epithet') is an adjective that describes the particular species. Both terms always have Latin endings, even though in some cases the words themselves are not Latin but derived from the Greek, English or some other language. Under internationally agreed naming rules, no other orchid can have exactly the same name and unless it is another member of the same species. All allied <u>species</u> carry the same **genus name** (the 1st term) but each different species has a unique **specific epithet** (the 2<sup>nd</sup> term), e.g. *Cymbidium suave, Cym. madidum, Cym. devonianum, Cym. atropurpuretum*; or *Dendrobium kingianum, D. bigibbum, D. speciosum, D. gracilicaule, D. teretifolium, D. discolor, D. ruppiosum*, etc. Some of these plants have different cultural needs.

Now, where a naturally occurring but distinctive form, or population, of a plant species exists, it can be given a **varietal epithet** (a 3<sup>rd</sup> term). This is also written in *lower case italics* but is preceded by the abbreviation var. (for variety) or subsp. (for subspecies). For example, there are 3 naturally occurring forms of *Dendrobium bigibbum* [Note: *Den. phalaenopsis\** is a synonym and, as such, should not be used]. The 3 forms of *bigibbum* are *D. bigibbum var. bigibbum; D. bigibbum* var. *compactum* and *D. bigibbum* var. *superbum*. The natural distribution of each of these varieties overlap, resulting in natural interbreeding and colour variation. In addition, breeders actually mix the varieties and the intergrades in their breeding programs as they search for better shape, more flowers and different colour combinations. So, unless you have a special reason for distinguishing a variety, then it is best to treat your *bigibbums* as *bigibbums* only - it may still have a distinguishing clonal name (\* see below).

Lots of species do have distinct varieties. For example, *Cattleya purpurata* has 11 varieties and *Cattleya* intermedia has 10 - in Brazil, some shows specifically cater only for forms of *C. purpurata* - which is the national flower. *Two C. intermedia* forms are the purple flowered *C. intermedia* var. *orlata* and the white flowered *C. intermedia* var. *amethystina*. Of the 270+ awards given world-wide to plants of *Cattleya intermedia*, 87 Awards were given to var. *orlata* and 13 to var. *amethystina*. Now, an awarded individual plant is given a distinct **clonal name**. [When written, clonal names are not italicised, may use capital letters and are placed within 'single' quotation marks.] Some Australian clonal names for var. *orlata* clonal names, are 'Graeme', 'Aiden', 'Courtney-Alexandria'; and Australian clonal names for var. *amethystina*, include 'Aranbeem', 'Leah' and 'Leonie. Thus, you may see plants labelled as *C. intermedia* var. *orlata* 'Graeme' or *C. intermedia* var. *amethystina* 'Aranbeem'. These names mean that it is either the actual awarded plant OR a division or mericlone of the awarded plant.

A similar binomial system and clonal names applies to hybrid orchids but instead of having a specific epithet, specific hybrid names are termed grexes. A grex name is <u>never</u> *italicised*, so labels like *Cym*. Black Stump 'Come In Spinner' FCC/AOC, *Cym*. Black Stump '63 Not Out' AM/AOC and *Cym*. Black Stump 'Howzat' are simply different clones of *Cym*. Black Stump.

*Cym.* Black Stump was bred by Ray Clement (of Tinonee Orchids). 'Come In Spinner' received an Award of Merit in 2008 and an FCC in 2015 and '63 Not Out' received an AM in 2015. Since the parents of Black Stump are *Cym.* Australian Midnight 'Tinonee' and *Cym.* Cricket, Black Stump carries genetic material from 4 Cymbidium species because the parents of Australian Midnight were *Cym. atropurpureum* and *Cym. canaliculatum* and the parents of Cricket were *Cym. devonianum* x *Cym. madidum.* Now, since two of these species are Australian in origin and the other 2 are from SE Asia, it is cannot be benched as an Australian Native Hybrid. Whereas, a hybrid whose parentage comprised only *Cym. suave* and *Cym. madidum* (= *Cym.* Kuranda) is an Australian Native Hybrid and should be benched as an Other Australian Hybrid Class rather than in an Under 60mm (or Miniature) Cymbidium Class.

Considering that we know from the label that *Cym*. Black Stump 'Come In Spinner' received an FCC - the highest possible award - and *Cym*. Black Stump '63 Not Out' gained an AM, we should expect that all plants of *Cym*. Black Stump have the potential to compete well at orchid shows and any *Cym*. Black Stump, such as 'Howzat' could be a show bench quality orchid. And, furthermore, we can also expect any plants labelled Black Stump 'Come In Spinner' to produce excellent flowering, if grown well.

## The value of having correctly named orchids? Imagine a plant labelled as - (1)

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"Phalaenopsis NoID"; or
(2) a plant with a label like the photo; or
(3) labelled as "Lc. Fishie
Hoki AM/AOC."

These labels tell us nothing about the history, parentage, cultural needs or value as a display or show plant. In terms of communicating information about the plants, the labels are worthless in such forms.

For (1) - we can assume nothing more about "Phalaenopsis NoID" except that it is a Phalaenopsis. Is it an Exhibition, Miniature or Novelty. Is it like to be a Show Quality plant? Is it worth the asking price? Such questions can only be determined if it is in flower? But, questions like 'Is it a species or a hybrid?' or 'How should it be grown' can't be answered with certainty.

For (2) – put simply, this label is a mess although experienced native growers will see clues about its' parentage, with some juggling of the writing. All labels and anything written on them is affected by ultraviolet rays of the sun, causing them to fade and even collapse. My guess is that this label became faded just enough to allow the grower to guess the original name. It should read *D. gracilicaule* x *D. speciosum* var. *curvicaule* 'Daylight Moon' - the latter was bred by Tony Blewitt, a grower from the Kempsey region. This hybrid is *Dendrobium* gracillimum - sometimes this may be written as

*Dendrobium* x gracillimum where the "x" indicates that it is a naturally occurring hybrid. However, the plant cannot be a natural hybrid because we know one of it's parents was bred by Tony Blewitt.

For (3), with the exception of "AM", every aspect of this label name is **INCORRECT**! As an orchid name, 'Fishie Hoki' does not exist. Again this is the victim of a faded name tag. The correct plant name is *Rlc*. **Toshie Aoki AM/AOS** - the abbreviation "Rlc." tells us that this plant is a hybrid between the genus Rhyncholaelia and Cattleya. "Blc." is a synonym for "Rlc". "Blc." [previously meant a hybrid cross between the closely-related genera - Brassovola x Laelia x Cattleya.] Now, if Steve Clemesha was still alive, he would tell us that any plants labelled "Blc." should be changed to "Rlc" because some years back orchid taxonomists decided that the genus Brassovola and Laelia should be combined. Steve would also observe that it took taxonomists over 100 years to agree that in the 1880s Friedrich Richard Rudolf Schlechte correctly pointed out that these 2 genera were actually members of one genus, Rhyncholaelia!

Now, *Rlc*. Toshie Aoki has never been awarded in Australia, so the suffix "AM/AOC" has to be wrong. 'AOC' refers to the Australian Orchid Council. Toshie Aoki was awarded in the USA and the awarding entity is the America Orchid Society (AOS). This means that a more correct name would be *Rlc*. Toshie Aoki AM/AOS [NB: the full stop shown at the end of the name under label (3) is unnecessary.] However, a further problem is that there is no clonal name attached to this plant which it should have if it is an awarded plant.

Rlc. Toshie Aoki was bred by Masatoshi Miyamoto, a Hawaiian master grower who specialised in producing Cattleyas which flowered in Yellow or Art/Autumn shades. Rlc. Toshie Aoki was registered by the RHS on 1 January 1980 and between 1981 and 2018 plants named *Rlc.* Toshie Aoki were awarded 26 times, but only 9 plants actually received an AM (Award of Merit) from the AOS. When I saw the purported "Lc. Fishie Hoki AM/AOC." in flower it had gold petals and sepals and a deep red labellum. Yet, of the 9 AM awarded plants, it could only have been one of the clones 'Goldrush', 'Pokai' or 'Robin' - none of the other six AM awarded plants have completely yellow petals. We will probably never know which one it is/was because this information was lost when the label faded. [NB: Only individual clones of any plant (species or hybrid) can receive an award which ensures that only the particular plant, divisions or mericlones benefit from the award granted.]

The names applied to clones – in the above example, 'Goldrush', 'Pokai' or 'Robin' - are termed cultivar epithets. This identifies the particular clone/cultivar (and any and all divisions or propagations/mericlones thereof).

Orchid breeders do not have to name every hybrid they breed - most produce lots of new crosses every year and it would amount to a lot of money if they registered every new cross. Typically, breeders only register their best plants - those they consider commercially valuable either as breeding stock or plants they want to mericlone.

To help us know the currently accepted name of all orchids, the Royal Horticultural Society (based in Kew, England) has established science-based registers for species and hybrid plants. For orchids, current species names can be found in the Monocots Checklist and current hybrid names in the Orchid Hybrid Register. These are online databases that are regularly updated - other online databases are likely to be less accurate. RHS registration ensures that there is a permanent and readily accessible record of all recognised species and hybrids.

To create a new and recognised grex &/or new genus, one has to apply to the Royal Horticultural Society (RHS). The cost is about 20 pounds sterling.

Usually, only taxonomists bring about changes in species or genus names but any individual can register a new hybrid meaning that name changes are inevitable. Any individual can also append a 'special' clonal name to a plant that they own which lacks a current name. All awarded orchids must be given a clonal name. I have numerous plants in my orchid collection that have been bred by orchid breeders with the plants being only identify based on the parents used. Some example are –

1. *Den. bigibbum* 'Samford Good Guy x #10'- this is a cross between 2 different clones of 1 species. It remains a species but because I own it I could give it a single clonal name of my choosing. If this clone was 'Samford Good Guy' only, I could not re-name it because it would already has a name. A clonal name does not need to be registered.

Some people use the same clonal name for 'special' plants, e.g. Bob Saunders, from Casino, has named a number of his special clones 'Camaroo', after the Street in which he lives, and Aranbeem Orchids has used the clonal name 'Aranbeem' for a number of their plants. 'Aranbeem' being derived from the name of the owners.

- 2. Den. Alstonville Delux x Dal's Delux. Because this hybrid does not have a grex name, I have the opportunity, if I wish, to name it. I could call it "Barbara Kae" (in lieu of "Alstonville Deluxe x Dal's Deluxe"). and I could also allocate a clonal name, such as 'Stunner'. I would have to register the grex (see below) to do so.
- 3. Another plant I have is labelled Rth. Free Spirit 'Ray Wicks' x C. Angel Flare 'Cynthia' HCC/AOC [Rth. stands for Rhyncattleanthe. It was previously a Potinara but was transferred to a new genus to reflect a more recent taxonomic correction.] In 2015, Rosella Orchids (Grafton) registered the hybrid name as Rth. Rosella's Free Angel.

The impact of such renaming means that every other orchid with the same breeding anywhere in the world, should correctly carry the new grex name. All plants of Den. Alstonville Delux x Dal's Delux should then be labelled as Dendrobium Barbara Kae though only my own plant would be labelled as Dendrobium Barbara Kae 'Stunner'; Ed Pearce made mention at Coffs meetings that a Coelogne hybrid was named after him by his father under this system.