

## Musings on The Cooktown Orchid, *Dendrobium bigibbum*

By Jeff Glover

The Cooktown Orchid is so synonymous with Queensland as the state's floral emblem it is even an 'anti-fatigue trivia' question at various sites on the Bruce Highway that runs along the coast from Brisbane to Cairns. It is widely regarded as Australia's most attractive endemic orchid. For many people the very name 'Cooktown Orchid' invokes images of tropical rainforests running down to seas filled with coral, and beaches with waving palm trees. However, this is not so, it is instead mostly found in the very different biographical zone of the open forests of Cape York Peninsular, rather than growing in the renowned Wet Tropics to the south of Cooktown as is widely believed. (Lavarack and Gray, 1992).



**Trivia sign on the Bruce Highway**

This is directly a result of these climatic conditions. Having received abundant water from the monsoon in Summer; once in flower, and then hopefully pollinated, its seeds are later dispersed in the favourable wet and hot season and so the cycle continues again next Summer.

A check on Orchidwiz version 3X shows it has 279 primary hybrids and 3884 progenies. As a result, it goes without saying that one would be hard pressed to find a phalaenathe dendrobium that would not have *Dendrobium bigibbum* in its family tree. Interestingly, in the Geographical Distribution note on this USA derived database, Hawaii is also listed along with Australia (Queensland) and New Guinea as endemic regions. This reminds me of the spiel of a tour guide when I was once visiting Hawaii pontificating about the Hawaiian Macadamia Nut (Queensland Nut) which according to him, was also apparently endemic to Hawaii.

As a result, growing on the tip and the western dry side of the peninsular its hosts are the trees of the remnant patches of scrubs and monsoon forests, not tropical palms and other rainforest trees as some expect. It also occasionally can be found growing on rock faces that are shaded from the extremes of the afternoon sun. The distinct either, dry and hot, then wet and hot, seasons for this region has ramifications for collector cultivation; particularly for those wishing to grow it in the cooler, wetter in Winter southern states. It must have a dry rest period to be successfully grown in cool wet climates. When considering this climatic growth pattern an understanding can also be formed as to why it and its huge number of progeny flower in Autumn rather than in Spring as do the majority of other flowering orchids.

This orchid is highly variable in variety and form, there are also recognized sub-varieties and sub-species (ssp.) and historical synonyms still in use; a veritable taxonomists nightmare. Without delving too far in to this botanist's minefield, it is safe also to say that alba forms are far from uncommon and the very 'light blue' form 'coerulea' is also often seen in cultivation in Queensland. In addition, there is the question of *Dendrobium phalaenopsis* which was once regarded as a synonym for biggibum; nomenclature that can still be found in use. However, it is now



*Den. biggibum fma. alba* (owner T Dean)

formally regarded as a separate species. As well, by human intervention through line breeding, many plants have been derived in this manner and the resultant flowers look in my opinion like the equivalent of some outcomes of human cosmetic surgery. Just like the original surgery patient, 'Line Bred' forms are altered so much in shape that they look nothing like the original species and are more akin to multi-level hybrids. Similarly, bicolor, striped and flared supposed 'Cooktown Orchids' are now exhibited at shows, and in my experience are one sure way to get into a 'robust discussion' if doubt is cast upon their authenticity. I heard one wag say that the 'flared' version was endemic to Phuket and found growing wild in Thai restaurants! Lamentably, such is the popularity of this little 'Aussie Gem', every orchid breeder world-wide over the past 5 decades has wanted a piece of the action leading to much confusion as to just what now is the real McCoy.



*Dendrobium biggibum* var *biggibum* displaying a white tip. (Lavarack & Gray, 1992)

It is generally accepted that there are three distinct varieties that vary enough in structural form that warrant this distinction. *Dendrobium biggibum* var. *superbum* is the more abundant and with the largest flowers and longest canes. While the northern form *Dendrobium biggibum* var. *biggibum* has smaller flowers and often displays a white spot on the labellum (Lavarack and Gray, 1992). The third recognized variety *Dendrobium biggibum* var. *compactum*, or better known by the colloquial sobriquet of 'Dwarf Cooktown Orchid', is found growing in the coastal ranges south of Mossman, Far Nth Qld. In the past this was the most contested as to whether it was a distinct variety, or just the result of different growing conditions and other environmental factors. However, over the years it was found that it still maintains its dwarf habit in cultivation while others found further north and

in the western ranges of the Cape York Peninsular do not. Therefore, this cultural exhibition strongly lends to the argument that it is indeed structurally different and is likewise, genetically distinct to the extent to warrant this classification. (Lavarack and Gray, 1992). In addition, to 'muddy the waters further', as previously noted, alba forms occur in all varieties, so it is entirely feasible and proven to have a plant with the nomenclature of *Dendrobium bigibbum* var. *compactum* fma. *alba*, in other words a white Dwarf Cooktown Orchid.

Yet another feature of this endearing 'Aussie Wonder' is its propensity for not only breeding in artificial conditions, but its natural partnership with what could be regarded as the 'Aussie Battler' of orchids', *Dendrobium discolor*, also known as the 'Golden Orchid'. This species is found growing in many diverse locations such as, from mangrove swamps to open forests, ranging to the tip of Cape York to Central Queensland. It is very hardy, has long lasting flowers and produces many root – laden plantlets from its robust canes and can form huge clumps on trees and rock faces when these adhere to the hosts' surface. When found growing together they give us the beautiful botanical gift of the natural hybrid *Dendrobium X superbiens*, known colloquially as 'Curley Pink'. In its natural situation It is



**A modern phalaenanth Den. hybrid derived from the Cooktown Orchid**

produced from insect cross pollination and wind borne seed dispersal. Like most hybrids it gains the best from both parents, in this case, the colour from *Dendrobium bigibbum* and the robustness, flower longevity, and 'twisted' flower structure from *Dendrobium discolor*.

Once established It can be quite prolific thanks to its plantlet producing propensity also inherited from *discolour* and is found growing in many gardens throughout Queensland on host trees such as Palms and Frangipani. The latter are perfect host as they tend to defoliate to some extent in Winter in central and southern Queensland locations, and then provide a full canopy in Summer that gives protection from



**Den. Curly Pink in the author's garden showing a seed pod and plantlet (kiekie), far right.**

the harsh sun and heat. Many of the plantlets are given away, and on reflection this probably was my first knowledge of orchids as a child. We had a huge frangipani tree in our back yard which always seemed to have the pink flowers of the orchids mingled with the white and yellow of the frangipani. Looking back, it truly was a beautiful tropical image that lingers in my memory; one which was replicated for others many times by the gift of plantlets to neighbours and friends by my mother; who later told me our crop of Curley Pink was started from my Nanna, who not surprisingly also had a Frangipani in her yard covered in Curley Pink. Naturally, I have it in my garden, and yes, on Frangipani and Palms trees. It truly is the orchid- gift that keeps on giving.

As Australians and Queenslanders we certainly can be proud of our Cooktown Orchid's contribution to the Orchid World. It's beautiful colours, varietal range, shape, hardiness and fertility are a source of admiration world-wide. Especially, when coming from a continent not thought of as being a home to beautiful exotic endemic orchids. We may not have the abundant genera and species of Asia and the Americas, but in *Dendrobium biggibum* we do have one of the best. There would be many an overseas flower industry that would not be in existence if it was not for the presence of this little Aussie Breeder.

If you would like to see more of what Queensland has to offer in colours other than the Maroon of football fame, keep a place on your calendar for September 14-15, 2019 as the Rockhampton Orchid Society will be hosting the 10th. Sub-Tropical Orchid Council Conference and Show, in Rockhampton, Australia's first tropical City and The Beef and Barra Capital situated on the Tropic of Capricorn by the mighty Fitzroy River. Details and updates will be appearing in Orchid Australia from now on and also on the Rockhampton Orchid Society Inc. website [www.rockhamptonorchidsociety.com.au](http://www.rockhamptonorchidsociety.com.au) We hope you can join us; you may not be able to see a Cooktown orchid in the wild; but I know there are many gardens where a Curley Pink may be on offer.



The trivia answer sign.

Sources Cited: *Australian Tropical Orchids*. Bill Lavarack & Bruce Gray. 1992, Firth & Firth Books., Malanda, Qld. Australia.

Sources Consulted: *Growing Australian Orchids*. A.M. Brombery & B. Maloney. 1998, Kangaroo Press Pty. Ltd, East Roseville, Australia.