

Some Thoughts on *Dendrobium Speciosum* J.E. Smith

by Ted Gregory

One of the first things I discovered on moving to Queensland was that, if I mentioned "speciosum", people would just look at me as if I was showing off my Latin; but say "King Orchid" and everyone gets the message immediately. Many nicknames are rather inappropriate, but if ever an orchid was suited by such a name, surely it must be *Dendrobium speciosum*, for nobody who has seen a cliff face covered by this plant when in full flower would say that it was anything but a king among plants.

For the sheer effect these massed displays on rocks take some beating, but I remember one Cordaroy beech that was host to over seventy adult *D. speciosum*, and countless *D. gracilicaule*, x *gracillimum* and *Sarcochilus falcatus*. This superb tree stood for centuries in the head of a gully only to fall to the chainsaw when the beef boom was at its peak. Now this glorious rainforest is replaced by a tangle of tobacco bush and lantana.

Dendrobium speciosum must be just about the most widespread of any of our Australian native orchids; being found almost the full length of the Great Dividing Range, from well down in Victoria to far northern Queensland. Growing anywhere from the seashore to the top of this range, and in some cases creeping across the top into the inland.

At various stages *D. speciosum* was divided into many sub-varieties which have now come to be regarded as just localised forms of the same orchid except for the following: *D. speciosum*, *D. speciosum* var. *hillii*, and the form "compactum" from the Atherton Tableland. I will deal briefly with each form in the order in which I mentioned them.

The standard form of *D. speciosum* var. *speciosum* is a very robust plant that will grow into huge masses over the years. I remember years ago in the New South Wales, Illawarra region, seeing whole rock-faces just carpeted with these plants. It is a very slow orchid to mature, I have had seedlings take up to twelve years and more to become adult and flower. On this the type form the canes are very heavily built and normally from twelve to eighteen inches in length, with some over three inches thick at the base, tapering fairly quickly to the top. This form is mainly a rock dweller, although it is not uncommon on trees. Some of the rock-dwelling forms have very curved canes, whereas the epiphytes seem to grow much straighter.

The leaves of this form are very heavy and in a good season they are often over three-eighths of an inch thick when they mature. They are rich green in colour, even in full sun, and have quite a waxy sheen to them. They are normally from six to eight inches long and about half this in width. There are usually four or five of these leaves at the top of each cane, but this can vary from two to eight, depending on the health of the plant.

The flower spikes are produced from eyes at the head of the canes, there usually being an eye between each pair of leaves and two at the apex of each cane. It is one of the marvels of this plant that the same eyes will produce spikes for years. The spikes are normally about a foot long but on some clones will be nearly as long again, and will carry from twenty to sixty flowers. These flowers are heavy textured, starchy and generally about an inch and a quarter to an inch and a half wide, though an odd superb clone will nearly double this.

The flowers are normally a rich, creamy yellow with a very potent musky scent. In some areas of the Illawarra and Hawkesbury escarpments this scent could be overpowering on a warm spring evening. Also the Hawkesbury form at times was quite buff-coloured with a very big flower.

This speciosum is the form that extends from Victoria to about Alum Mountain near Bulahdelah in New South Wales, where this type reaches its full glory. It was never as dense here as further south, but the individual clones were magnificent, with a lot of them having a beautiful deep golden coloured flower.

***D. speciosum* Sm. var. *hillii* (Hook.f.)F.M. Bail.**

From here northward *D. speciosum* var. *hillii* appears to take over and completely replace straight speciosum for the rest of the length of Australia. Var. *hillii* is generally a more lanky grower, with canes that will grow to well over a metre in length, with leaves that are more slender; in fact the plants are more slender all over. Even though the plant is quite different, I find that the biggest difference is in the flowers themselves. The racemes are up to two feet in length at times with just a mass of flowers on them, up to almost two hundred at times. These flowers are quite often not much more than half the size of straight speciosum.

Colour-wise, there appears to be more variation in var. *hillii* too, with a range from pure white to light cream and a deep gold thrown in. Pure whites were fairly rare in straight speciosum but are quite common in var. *hillii*.

I guess it is just nature at work and the different terrain, for as we move north we go out of the sandstone country into more of a rainforest environment. Hence we find our "rocklily" growing more on the trees and less on the rocks. Another feature of var. *hillii* is its habit of throwing up masses of roots vertically into the air. I guess this has to do with the more humid environment in which var. *hillii* normally grows. Straight *speciosum* may do this in the wild, but I have not been fortunate enough to see it to any great extent, although it will do it at times in the bushhouse, particularly if the plant happens to be in a compost that is a bit on the wet side.

Another observation is that in my experience all forms of *D. speciosum* will send up a tremendous amount of new growth one season and then flower rather poorly the following; yet the next season will be exactly the opposite, with only a few growths and a million flowers. In my years with orchid shows in the Manning/Hastings area this has been really noticeable: that they absolutely dominate the show one-year and then become quite scarce the following year. I hope other Orchadians will come forward and comment on things like this, as no one in one lifetime has much chance of covering any orchid completely; especially one with the range of *D. speciosum*.

***D. speciosum*, "compactum" form.**

And last, but not least of the forms I mentioned at the beginning, is the variety "compactum" from the Atherton Tableland area of Queensland. This type is extremely interesting, both in habit of growth and form of flower. Some clones of this form have canes up to one foot long, which is more or less standard *speciosum* size, but the canes are slightly different in shape, being more bottle-shaped than var. *speciosum* or var. *hillii* which seem to taper fairly evenly from base to leaf.

At the other end of the scale are clones that have canes of no more than three inches in length, looking rather like patches of potatoes with leaves on, or, if you are lucky, flowers as well.

The leaves of this form are also different, being more or less oval, with the size in keeping with the rest of the plant.

However, it is the flower of "compactum" that interests me more than any other aspect of this type. The racemes on some forms are very long, up to two feet, which looks incredible on a plant that is so compact in every other regard. Whereas other forms of *D. speciosum* carry flowers on the full length of the spike, this type only has flowers on the outer half of the spike. Also the flowers are much rounder in the segments than the average straight *speciosum* of my experience, and these flowers also seem to open much flatter. The size is considerably smaller than the flower of the southern *speciosum*, running at a little over an inch on the plants that I grow.

The colour range is more or less average for *speciosum* from deep cream to the purest white, in fact I have one clone that is absolutely white, or "concolor", as they say in the cymbidium world.

Breeding and the "red factor".

We have started to do a bit of breeding with these "compactums" in the hope of finding that fabled red factor that we hear of now and again but have never been able to pin-point. My biggest problem was in acquiring enough clones to make comparisons worthwhile as one cannot make comparisons on one or two clones. However, we now have about twenty different clones going and hope to learn a lot from them over the next few years.

I have quite a few crosses of these "compactums" going just out of curiosity; just with *D. kingianum*, seeing if we can trace the strength of the red factor. One of the strangest things to show so far in the seedlings is the fact that seedlings of the pure white, that I mentioned above, were a striking red colour before they even left the bottles. Whether this means anything or not I guess we must wait and see, but the colour in those seedlings surely is interesting. The seedlings of a cream "compactum" used with the same *D. kingianum* show virtually no colour at all in the plants themselves. If one of these clones does carry a red factor, perhaps one of these days we will see that pure *D. X delicatum* that has eluded me for quite some time now.

D. speciosum is such a huge grower and free flowerer that I think we must see great advances in hybridising with it over the rest of this century. The great pity is that it seems to impart its initial slowness of growth to most its progeny. But it also imparts vigour, and once its crosses approach maturity, they really move.

Personally, I think that in these hybrids will be our commercial flower, except of course for the *D. bigibbum* hybrids which have been famous for years. Perhaps one of these days someone will cross *D. speciosum* and *D. bigibbum*, and just imagine the result! The vigour of *speciosum* and the flowers of *D. bigibbum*! Enough make any orchid grower's mind boggle. But this is not as far fetched as it may seem to anyone who has seen the results of *D. speciosum* X *D. Hastings* or *D. speciosum* X *D. fleckeri*, to mention a couple that come to mind as I write this.

Vandalism.

One of the tragedies of orchids in this country is the fact that the big and showy ones have been more or less wiped out by vandals in certain areas of our best bushland. I know of areas where *D. kingianum* and "rocklilies" grew together in profusion when I was a youngster, and as a result *D. X delicatum* was not uncommon. But people have wiped out the *D. speciosum* in some of these areas, so there goes all chance of ever finding *D. X delicatum* in those parts again. Hopefully one of these days we will be able to restore the *D. speciosum* in these areas and be able to sit back and let nature do her own thing once again. Even though we can never replace the rainforests and big scrubs, I can see no reason why we cannot set aside areas of escarpment country and restock it to its former glory. Just imagine a gorge of the Hawkesbury in the glory it had fifty years ago! Perhaps one day we will have human beings without itchy fingers.

Culture.

I must take my hat off to *speciosum*, as it must surely be one of the toughest orchids known to mankind to kill, as I have seen it survive where no other plant would have a chance. To grow it in captivity and do it justice requires a bit of common sense, just as any other plant does. The main thing is the same as with all Australian dendrobiums, and that is perfect drainage. Any mixture that will give this and not break down quickly will do well. *D. speciosum* is so tough that it will grow in almost anything, but I still like that terracotta pot, if possible. If sandstone is obtainable, lumps of this in a container will suffice; in fact I saw a show won by a plant that had just been jammed into an empty terracotta pot. In case the judges' ears pricked, it had been jammed in two years before!

D. speciosum will also grow extremely well strapped to a tree or stump or just set on rocks in the backyard. In fact it will often do best in these situations as it loves strong light, and in full sun it seldom has the fungus problems that it can have when grown in a shadehouse.

But I do wish that the people who grow them on trees or in their yards would make some effort to control the dendrobium beetle on them. I do think that these people are one of the reasons why the beetle has got to be such a problem at the moment. Talking of the beetle reminds me of Lansdowne Press's superb reproduction of R.D. FitzGerald's works: When my young son was looking through them he thought the illustration of *D. speciosum* with the beetle on it was fabulous. And, just quietly, so did his dad! I am a bit of a romancer, and just to touch these volumes, and to see and smell them, is to step back into a golden age. Makes me wonder just how much are we missing in this modern age when pride of workmanship is a dirty word and we are all controlled by the square box. This may sound a bit of a rash statement but it will be interesting to see how the human race is doing at the end of this century, as well as our orchids.

Another thought that comes to mind concerning *D. speciosum* is the huge amount of seedpods that I have seen on it in some seasons and then one will go for years and hardly see a pod in the wild. Is this due to a shortage of pollinators or does it need an optimum season before *D. speciosum* will carry pods to maturity ?

We all know that the dendrobium beetle plays havoc with the pods of all cool dendrobiums, so I guess this little beastie may also be a pollinator as well. Mother Nature has used this system before as one of her ways of making sure that any one type of plant does not become too dominant and choke out some of its weaker relatives.

Natural and Man-made Hybrids.

D. speciosum has had quite an influence on our native orchid scene: firstly in the wild with its two beautiful natural hybrids, *D. X gracillimum* and *D. X delicatum*. Both of these were not uncommon in areas where both parents were reasonably common.

To my knowledge, *D. X delicatum* was naturally made with both var. *speciosum* and var. *hillii* as one parent, and this is fairly easily seen in the cane length and shape of most clones. This is also borne out in the man-made crosses of this type.

With *D. X gracillimum* however, to my knowledge only var. *hillii* has been a natural parent, and this is easily seen in the natural crosses that I have seen when they are compared with the man-made hybrids using *D. speciosum*. The "man-mades" are much stouter in the canes, and the leaves are also thicker and waxier.

I guess the aim in using var. *speciosum* in the manmade cross was to obtain a larger flower on a more compact plant. This worked on the plant side, but not so well on the flower end of the business, with most of the "manmades" being inferior in flower size and spike habit as well. Quite a few growers now have *D. X gracillimum* with var. *hillii* as one parent and it would be interesting to see how they turn out, and it should make the difference between the parents more clearly known. To make matters more complicated, we have a batch of seedlings here of the "selfing" of a natural *D. X gracillimum* that seems contented to stay like a baby *speciosum*, staying very short and fat just like pure *speciosums*. Perhaps they will make up their minds one-day, but it will be worth watching just to see what happens to them.

As a final thought, these selfings should help to prove one of my old arguments as to whether this cross has

selfed quite frequently in the wild, as these *D. X gracillimums* were once common in some areas, with some areas having types that were very much alike.

D. speciosum has had a big influence on our hybridising as is commonly known these days; to the extent that I will not dwell on this at the moment, but will close with the hope that more and different crosses will be made in the future with this King of our cool growing Dendrobiums.

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