

# A New Variety of *Dendrobium speciosum* Sm. from Central Queensland

by S.C. Clemesha

## Summary

In this paper *D. speciosum* var. *capricornicum* is described as a new variety. Its relationship to other varieties and its behaviour in cultivation are then discussed.

In *The Orchadian* Vol. 6 No. 11 (March, 1981) I published "A Review of *Dendrobium speciosum* Sm." and on page 255 I discussed small plants from near Rockhampton under the heading "A Dwarf Race" (of *D. speciosum* Sm. var. *grandiflorum* F.M. Bail). Specimen "D" on page 254 illustrated an example of this. For reasons I give later in this paper I now consider this race constitutes a distinct variety as described below.

*Dendrobium speciosum* Sm. var. *capricornicum* S.C. Clemesha var. nov.

Haec varietas *D. specioso* Sm. var. *grandifloro* F.M. Bail. similis sod pseudobulbis brevioribus multo (7-15 cm. x 2-2.5 cm); foliis parvioribus at durioribus 7.12 cm x 2.5- cm; racemis erectioribus; rhachidi podunculo aequanti longitudine; labello maiore ex comparatione 1/3-1/2 longitudinis topalorum osterorum contra labellum var. *grandiflorum* 1/4 longitudinis topolorum caterorum.

## Type

From a plant collected and cultivated by S. Clemesha. This was collected with proper authority near a disused quarry on an old volcanic plug about 8 km inland from Yeppoon, Queensland, in May, 1978. It flowered in cultivation on July 24, 1981. The Type specimen is in the Queensland Herbarium and a specimen taken from the same plant (when it flowered in the following year) is in the National Herbarium of N.S.W.

This variety is similar to *D. speciosum* Sm. var. *grandiflorum* F.M. Bail. but is smaller in all its parts. It is entirely, as far as is known, a rock-growing plant. Pseudobulbs 7-15 cm x 2-2.5 cm, nearly even in diameter throughout or slightly tapered distally and smooth except when old. Leaves 2-4, very hard and more erect than in var. *grandiflorum*, narrow to broadly lanceolate, 7-12 cm x 2.5-3.8 cm. Racemes 1-2 in (cultivated) plants seen, (there were no living flowers on the plants when initially seen in their natural habitat) about 36 cm long, the peduncle making up half of this length. Flowers 35 or more, white with purple markings on the labellum. Lateral sepals 2 cm x 0.5 cm, curved and tapered as in var. *grandiflorum* but shorter and thicker. Dorsal sepals similar in size and shape but less curved and tapered; petals 2 x 0.2 cm; labellum 0.81 cm x 0.5 cm when pressed flat, 3-lobed, mid-lobe 0.5 x 0.5 cm and rather obtuse; column 0.5 cm tall.

## Distribution

I have examined cultivated plants of this variety from the Carnarvon Gorge (sandstone rockfaces in the narrow gorges) and Blackdown Tableland (sandstone rockfaces near creeks and waterfalls) to Rockhampton (rockfaces near Bouldercombe). Yeppoon and Byfield where they occur on rockfaces of ranges and old volcanic plugs. All known habitats are much drier than the habitat of var. *grandiflorum*, except the Byfield Range where the rainfall is almost twice that of Yeppoon. The plants from the Byfield Range, however, differ little, if at all, from those near Rockhampton (i.e. the Type locality, Berserker Range and Yeppoon).

## Notes

The epithet "capricornicum" refers to the Tropic of Capricorn since the entire distribution of the variety is close to that latitude.

The reasons I formerly treated var. *capricornicum* as a dwarf race of var. *grandiflorum* are:

(1) Its flowers resemble that variety.

(2) At the time I prepared my paper I had seen only two specimens - a fine one in cultivation and a specimen in the N.S.W. National Herbarium. Both were from the Blackdown Tableland.

(3) Plants in my cultivated collection, which were unreliably reported to be from near Gladstone, had a habit suggestive of being intermediate between var. *grandiflorum* and var. *capricornicum*. These plants since have flowered and the flowers have been larger than is usual for var. *grandiflorum* and very thick in texture. A characteristic of var. *capricornicum* is that the flowers are smaller.

Var. *capricornicum* and var. *grandiflorum* differ as follows:

**Var. *grandiflorum***

Some commonly 40 or more cm tall, rarely as short as 25 cm but, when so, very robust - about 3 cm thick.

Leaves: Usually larger in proportion to the stems, 15-30 cm long and thin in texture.

Peduncle: Short, only about 1/4 (or less) the total length of the raceme.

Flowers: Cream or yellow; never white. Labellum only about 1/4 the length of the other tepals when pressed flat.

Plant: Moderately shade tolerant as regards flowering.

Habitat: Rainforests and moist open forest on trees and on rocks. Absent from dry areas.

Var. *capricornicum* 7-15 cm tall and 2-2.5 cm thick, never becoming as tall or as thick as even the smallest examples of var. *grandiflorum*.

Leaves: Small in proportion to the stems, 7-12 cm long and very hard and rigid in texture.

Peduncle: Up to half the total length of the raceme. Flowers white except in inland areas where cream or yellow.

Sepals and petals broader (in proportion to their length) than var. *grandiflorum*.

Labellum: When pressed flat 1/3 to 1/2 the length of the other tepals.

Plant: Never flowering when in shade. (in the author's experience, even semi-shade prevents flowering).

Habitat: On rocks in low rainfall areas. Never grows on trees (to the best of the author's knowledge).

The specimens of var. *capricornicum* that I have seen from the inland (Carnarvon and Blackdown Tableland) part of its range differ from those from near Rockhampton in having darker coloured stems, shorter peduncles and cream to yellow flowers which are heavy in texture. These inland plants are much more like var. *capricornicum* than any other variety and I do not think these colour differences are important. They are mentioned in order to provide a more thorough understanding of this variety. The ranges and volcanic plugs on which var. *capricornicum* grows are isolated from each other by stretches of dry, flatter country and this probably accounts for the variation. Comparison with var. *speciosum*

The inland race of var. *capricornicum* and the large-flowered var. *grandiflorum* resemble some examples of var. *speciosum*. This is because they are all rock-growing plants similar in habit. The var. *capricornicum* differs in having much smaller stems and leaves and curved lower sepals. The large-flowered race of var. *grandiflorum* is taller and shows some reduction in leaf size but its flowers are identical morphologically to var. *grandiflorum* except that they are larger and heavier in texture.

**Comparison with var. *pedunculatum***

Var. *capricornicum* has much in common with var. *pedunculatum*. Both are dwarf-growing plants with comparatively small, very hard textured leaves. Both have habitats which are dry and adjacent to the habitat of a larger, related variety. The plants of var. *capricornicum* from near Rockhampton and Yeppoon have a long peduncle though less so than in var. *pedunculatum*. The plants of var. *capricornicum* from the inland part of its range are more pigmented than those of other varieties of *D. speciosum* but to a lesser degree than in var. *pedunculatum*.

The two varieties are separated from each other by about 600 kilometres and they differ as follows:

**Var. *pedunculatum***

Stems tapered, mostly 5-7 cm. tall; but rarely up to 15cm tall.

Peduncle dark, rigid, at least 1/2 the length of the raceme.

Flowers crowded at the top of the raceme.

Sepals much shorter and broader than in var. *capricornicum*.

Pseudobulbs, leaves, and peduncle all heavily pigmented with purple.

**Var. *capricornicum***

Some only slightly if at all tapered and usually taller than in var. *pedunculatum*.

Peduncle green, about 1/3 (in the inland form) up to 1/2 (in the typical form) the length of the total raceme.

Flowers not crowded.

Purple pigment, when present, confined to the stems and leaves. Purple pigment often absent especially in the specimens from the coastal part of its range.

Var. *capricornicum* has been little known outside the general area of its natural habitat but at Rockhampton, orchid enthusiasts have recognised it as distinct from var. *grandiflorum*. Mr W. Houton of Rockhampton gave me a piece of var. *capricornicum* as "*D. speciosum* -the local form. He also mentioned the "big yellow ones" from about Monto (i.e.

180 km south of Rockhampton). I assume these to be var. *grandiflorum*. Mr J. Soley, also of Rockhampton, sent me a piece of var. *capricornicum* as "*D. speciosum* var. *compactum*" and in his letter told me that he used to have a plant of the large yellow variety (var. *grandiflorum*) from the ranges south of Rockhampton (i.e. the ranges near Monto and Miriam Vale - about 150 km south of Rockhampton).

In "The Australian Orchid Review Vol. 35 No. 2 (June, 1970), P. 84, R.G. Cattanack of Rockhampton Botanic Gardens ("Native Orchids of the Rockhampton Area") stated: "On the Berserker Range and on the numerous volcanic plugs towards the coast are *Den. speciosum*, *D. mortii* and *Sarcophilus ceciliae* . . .". Later he stated: "To the south of Rockhampton in the ranges are the most magnificent plants of *Den. speciosum* v. *hillii* [i.e. var. *grandiflorum*] I've ever seen, some completely encircling their host trees and being about 8 feet in diameter . . .". Later still he mentions "*D. speciosum* v. *hillii* (i.e. var. *grandiflorum*) too big to fit in a utility."

### **Cultural Aspects**

*D. speciosum* var. *capricornicum* and the large-flowered race of var. *grandiflorum* are slow to mature from seed; as is var. *speciosum*. Like that variety also, but to a greater degree, they will not flower if grown in too much shade. The var. *capricornicum* under conditions of too much shade fails to produce flower "eyes". If moved into a stronger light it may continue to produce pseudobulbs with no flower "eyes" for at least two more years. A plant I was given two years ago had never flowered since collection in 1970. I have it in strong light and it has made two new pseudobulbs so far, both of which still have no flower "eyes". Shade-grown plants of this variety (like most plants grown in poor light) produce slender pseudobulbs that are slightly shorter than is normal and their leaves are larger and thinner in texture. However in var. *capricornicum* and var. *pedunculatum* this is more pronounced than in other varieties of *D. speciosum*.

I have found that plants of all varieties of *D. speciosum* will, in some years, make no new growth. This happens more commonly with the two dry country varieties. After a dormant year of no vegetative growth they often grow more vigorously than after a year of active growth.

All plants of var. *capricornicum* that I have studied have been sent to me from private collections except where otherwise stated. I have seen enough plants and contacted enough people to ensure the correctness of my records.

### **Conclusion**

In my research on *D. speciosum* I found that all the varieties of it were being grown by orchid growers who recognised them as distinct even though in some cases knowledge of and interest in native orchids was limited. Different names have been applied to the different varieties in different areas as shown by the examples I have indicated under var. *capricornicum*. I hope my three articles have defined the six varieties which can be distinguished according to morphology and habitat.

### **Acknowledgements**

I would like to express my thanks to Mr J. Betts for preparing the Latin description of var. *capricornicum* and the following people for providing me with plants of it from their own collections: Mrs L. Cowan, Mr W. Houton, Mrs G. Parker, Mr W. Rundle and Mr J. Soley.

### **Footnote**

After the 1982 spring flowering season I intend preparing a summary including a table of distinguishing characteristics for all of the six varieties of *Dendrobium speciosum*. I consider this will be a useful ready reference for horticultural purposes. An extension of the range of distribution of var. *hillii* will be reported. To dispel some misconceptions that have come to my notice, the summary paper will also discuss the name of var. *curvicaule* and the persistent misuse of the term - var. *compactum*".

The Orcadian Volume 7, No 5, July 1982