

GUIDELINES FOR JUDGING AUSTRALIAN NATIVE DENDROBIUMS

1 INTRODUCTION

- 1.1 Judging Australian Native *Dendrobium* orchid species and hybrids requires application of the same Principal and Basic Criteria that apply to the judging of all orchid species and hybrids, modified to take into account the particular characteristics of the type of Australian Native *Dendrobium* orchid being judged.
- 1.2 It bears repeating that for an orchid to be granted an Australian Orchid Council quality award, it must be considered sufficiently superior to other cultivars of its kind, so as to warrant special recognition. The cultivar should be outstanding for its kind irrespective of its intrinsic appeal. The award granted will reflect its quality. The quality of the hybrid or line-bred species should be an improvement on at least one of its parents. Orchids which represent an advance along some line of breeding and having flower quality worthy of recognition should be assessed with appropriate reference to the parentage to assess that advance.

2 SPECIES

- 2.1 A native orchid species is one found growing on the Australian mainland, Tasmania, or any coastal island under the political control of an Australian state, but does not include natural hybrids.
- 2.2 According to Kew's World Checklist, there are currently 67 *Dendrobium* species endemic to Australia. That number varies from time to time depending on taxonomic changes¹ (which might not be accepted by all botanists), and the occasional discovery². The majority of those 67 species are in cultivation and are regularly encountered on orchid show benches, and orchid judges need to be familiar with them. Most of the species in cultivation are in the sections *Dendrocoryne*, *Phalaenantha*, *Rhizobium* and *Spatulata*, and many of those species have been used widely in hybridising so there is a need to know them for that reason, too. Breeding with Australian Native orchids is still developmental, often involving crossing back to a species, so a knowledge of the species and what may be expected of their progeny is required.
- 2.3 Of the 67 species that occur naturally in Australia, 32 have a range that extends into New Guinea and sometimes much further. Where a species naturally occurs both within and outside Australia, a plant of that species shall be regarded as an Australian Native orchid species unless its provenance (or the provenance of one of its ancestors in the case of a line bred species) is known to be outside Australia.³

¹ The genera *Cadetia*, *Flickingeria* and *Grastidium* were recently replaced into *Dendrobium*.

² The North Queensland species *D. callitrophillum* and *D. finniganense* were only described in 1989 and 1992 respectively.

³ A schedule is included at the end of this chapter, prepared from information on Kew's World Checklist, listing *Dendrobium* species endemic to Australia, including varieties and subspecies recognised by Kew, their range, whether that species has received an AOC award, and indicating the species with which AOC judges should be familiar because they are commonly cultivated or because of their significance in hybridising.

2.4 Although judges who live in sub-tropical and tropical regions will see the warm-growing species more frequently than their southern counterparts, and, likewise, those in cooler areas will see more cool-growing species, all judges should be familiar with the following:

- Section
Dendrocoryne: *D. adae*, *D. aemulum*, *D. falcorostrum*, *D. finniganense*, *D. fleckeri*, *D. gracilicaule*, *D. jonesii*, *D. kingianum*, *D. moorei*, *D. speciosum* (including the particular features of var. *curvicaule*, var. *grandiflorum*, var. *hillii*, var. *pedunculatum* and var. *speciosum*), *D. tetragonum* (including the differences between var. *cacatua*, var. *melaleucaphilum*, subsp. *giganteum*, and subsp. *tetragonum*).
- Section *Rhizobium*: *D. bowmanii*, *D. calamiforme*, *D. cucumerinum*, *D. dolichophyllum*, *D. linguiforme*, *D. nugentii*, *D. pugioniforme*, *D. racemosum*, *D. rigidum*, *D. schoeninum*, *D. striolatum*, *D. teretifolium*, *D. wassellii*.
- Section *Spatulata*: *D. antennatum*, *D. canaliculatum*, *D. carronii*, *D. discolor*, *D. johannis*, *D. nindii*, *D. trilamellatum*.
- Section
Phalaenanthe: *D. bigibbum* (including the differences between var. *bigibbum* and var. *superbum*), *D. dicuphum*.
- Miscellaneous sections: *D. monophyllum*, *D. schneiderae*, *D. taylorii*, *D. fellowsii*, *D. bifalce*, *D. lichenastrum*, *D. toressae*, *D. malbrownii*, *D. smilliae*, *D. agrostophyllum*.

3 HYBRIDS

- 3.1 There is significant diversity of form between the different sections in *Dendrobium* and there is a similarly diverse range of hybrids, most hybridising having been between species with the same section. There was a trend for Hot/Cold breeding between the *Dendrocoryne* and *Phalaenanthe* sections in the last decades of the 20th Century.
- 3.2 The section *Rhizobium* species were known as Dockrillias for a time, but have now been placed back within *Dendrobium*. There has been a fair amount of hybridising using these species but it has generally been limited to that section.
- 3.3 Species of the sections *Phalaenanthe* and *Spatulata* tend to breed with each other readily and have been used in hybridising for many decades. There are Australian Native orchid species in the background of many exotic hard cane dendrobiums.
- 3.4 Hybridising with Australian Native dendrobiums is still developmental and the range varies from time to time according to the directions taken by breeders, but at the present time Australian Native *Dendrobium* hybrids generally tend to fall into the following four groups, and those groups will be discussed in more detail below. The groups are:

3.4.1 *Dendrocoryne*, including Hot/Cold

Intra-*Dendrocoryne* hybrids form the largest group although it merges with the Hot/Cold group due to the introduction of *D. bigibbum* into this line of breeding in the latter quarter of the 20th century. Due to their use in further breeding with *Dendrocoryne* species, there are now numerous hybrids in which the signs of the *D. bigibbum* ancestor are barely discernible. There are exceptions though such as the primary hybrid *D. Warringah* (*D. bigibbum* x *D. speciosum*), where the influence of *D. bigibbum* is still apparent.

3.4.2 *Phalaenanthe*

3.4.3 *Spatulata*

3.4.4 Miscellaneous

3.5 The genus is large and diverse and each type has distinctive characteristics and there are further comments in the discussion about specific categories, but, in general, **the following criteria apply to all hybrids:**

- Shape:**
- a) The flowers should be of optimum shape for the style of the hybrid being judged.
 - b) Flowers should be bilaterally symmetrical in form, unless it is the nature of the type to not be symmetrical, such as section *Spatulata* hybrids, in which case credit shall be given to plants with flowers that approach bilateral symmetry.
 - c) Segments should be broad for the hybrid, and free from furling, reflexing, and other distortions, unless this is the nature of the kind.
- Colour and texture:**
- a) Colour should be clear, glistening, and well defined, with regard to what can be reasonably expected for the kind. Texture should be lustrous and without blemish.
 - b) Markings on the segments need not be identical on each flower, however a measure of uniformity is to be expected. The overall appearance should be one of balance.
 - c) The colour along the inflorescence shall be reasonably uniform. Substantial variation shall be penalised.
- Size:** Should be within the range of what could be reasonably expect from the parentage, and should be consistent along the inflorescence.
- Stem Habit & Arrangement:** Flowers should be well displayed on an adequate, self-supporting inflorescence, according to what can reasonably be expected from the parentage.
- Substance:** The flowers should be of good substance, firm and fresh.

Floriferousness: Floriferousness shall be assessed from two perspectives. The exhibit shall carry a good floral display in proportion to the size of the plant. It should also carry an above-average number of flowers on each inflorescence, bearing in mind the floriferousness of the species in its breeding.

4 Section *Dendrocoryne* Hybrids (including Hot/Cold)

4.1 Even within this section there is considerable diversity of flower shape. Some general trends and styles can be identified, but these can change as new hybridisers enter the field and take breeding in a different direction, e.g. the significant impact of the introduction of *D. bigibbum* into this line.

4.2 The styles vary and will continue to vary as hybridising advances. At the moment, three distinctive styles can be identified, and some sub-groups within those styles.

4.2.1 Starry shape

4.2.1.1 **Starry with strong *D. tetragonum* influence** – very long, narrow segments, and petals much narrower than sepals. For example, *D. Hilda Poxon* (*D. speciosum* x *D. tetragonum*); *D. Warrior* (*D. Hilda Poxon* x *D. Ku-Ring-Gai*).

Comment: The segments of these flower can be very long and filamentous and move out of place in a strong breeze. However, though there may be some movement, the substance of good examples of this type is sufficient to hold the flowers' general shape well during transport and the petals should not droop forward. Similarly, the dorsal sepal should remain vertical and the lateral sepals should not cross. Judges should, nevertheless, bear in mind the frailty of these thin segments and not unduly penalise a plant for an inherent characteristic which is part of its charm.

4.2.1.2 **Starry, other** - an increasingly large group which is very popular. It involves a number of different species in addition to *D. tetragonum* and those other species have reduced the influence of *D. tetragonum* on shape. These hybrids tend to be similar in general shape, with flowers widely open and flat, with the petals on same plane as the sepals and not projecting forward. The segments are pointed due to the influence of *D. tetragonum*. The lateral sepals tend to be widely spaced, likely due to the combined influence of *D. tetragonum* and *D. kingianum*, which species also, along with *D. bigibbum* if it is in the breeding, show their influence in the colour of the flowers. *D. bigibbum* can also influence the shape of the petals to make them lanceolate. Examples are *D. Class* (*D. Lorikeet* x *delicatum*); *D. Jayden* (*D. Elegant Heart* x *D. speciosum*), and *D. Jesmond Star* (*D. Jesmond Treasure* x *D. speciosum*).

This group is increasing as hybridists cross diverse types back on to *D. speciosum*, producing some very popular hybrids. E.g. *D. Avril's Gold* (*D. Aussie Child* x *D. speciosum*), *D. Cosmic Gold* (*D. Avril's Gold* x *D. speciosum*), *D. Midas Touch* (*D. Avril's Gold* x *D. Yondi Tina*); *D. Australian Artist* (*D. speciosum* x *D. Cobber*).

Newcomer *D. Dingadee* (*D. Dunokayla* x *D. Amber Banks*) would probably also be included in this group because of its pointed segments, but it has been placed in the *D. Kayla* group due to the absence of *D. tetragonum* in its breeding.

Note the labellum of this group is likely to be wider if *D. falcorostrum* is a recent ancestor than if *D. speciosum* is a parent.

Comment:

- a) The petals and sepals shall be flat and evenly spaced and should be held on the one plane and the petals should not fall forward and destroy the flat form of the flower.
- b) The labellum shall be well displayed and of a size to balance the other segments.
- c) The lateral sepals should be straight or form a pleasing outward and downward-projecting arc, and they should not roll back under the flower in a circular line.
- d) Reflexing or twisting or furling of the distal end of the segments is a fault.

4.2.1.3 ***D. Peewee Shape*** – these are the large-flowered, Hot/Cold hybrids that have a large heart-shaped labellum, petals lanceolate. For example, *D. Peewee* (*D. bigibbum* x *D. tetragonum*); *D. Elegant Heart* (*D. Peewee* x *D. speciosum*); *D. Brinawa Sunset* (*D. Peewee* x *D. falcorostrum*). *D. Jayden* could be included here. They are often not as floriferous as other types.

The **Comments** set out above for other starry shaped hybrids apply to this shape too.

4.2.2 ***D. kingianum* shape**

Triangular, chunky, relatively small flowers, petals often much narrower than sepals and lateral sepals often very broad at base, and flowers fairly flat across the bottom due to the wide angle between the lateral sepals.

Comment: Line breeding with *D. kingianum* has made the sepals flatter and less cuppy and reduced the tendency for the petals to fall forward and petals falling forward significantly is not acceptable in modern hybrids. The degree of penalty will depend on the extent to which the petals deviate from the vertical.

Examples of this style: *D. Tyabb* (*D. Cobber* x *D. Victorian Flare*); *D. King-Wong* (*D. kingianum* x *D. Wonga*); *D. Flinders* (*D. Lawrose* x *D. Cobber*), *D. Jonathan's Glory* (*D. Colonial Surprise* x *D. Kingrose*); *D. Victorian Bride* (*D. Rutherford Blushing Bride* x *D. Aussie Victory*).

4.2.3 *D. Kayla* shape

Basically a mix of *D. speciosum*, *D. fleckeri* and *D. jonesii* and/or *D. falcorostrum*, sometimes with *D. kingianum* and/or *D. gracilicaule*, but not involving *D. tetragonum*. The flowers tend to be smaller and chunkier than the starry types, with segments of roughly equal length and width and rounded at the end, not pointed, and with a broad, rounded labellum, and, due to the absence of *D. tetragonum* and *D. kingianum* not being significant contributor, the lateral sepals do not splay. E.g. *D. Kayla* (*D. Lynette Banks* x *D. Tweed*), *D. Jesmond Gem* (*D. Yondi* x *D. speciosum*), *D. Dunokayla* (*D. Kayla* x *D. speciosum*) *D. Bandon Grove* (*D. Karsun* x *D. Dunokayla*); *D. Finale* (*D. Karsun* x *D. Tweed*); *D. Wysper* (*D. Wykar* x *D. speciosum*).

D. Dingadee (*D. Dunokayla* x *D. Amber Banks*) is included in this group as it otherwise qualifies despite its segments tending to be pointed at the tips.

Due to the species in their background, the flowers are usually white or cream.

Comment: Excessively cupped flowers shall be penalised.

- 4.3 **All styles are equal** and judges need to bear in mind the species in the particular hybrid's background and assess each hybrid on its merits, having regard to its ancestry, and not on how much it is similar to or different from another hybrid with a different ancestry.

4.4 Section *Dendrocoryne* species frequently used in hybridising:

D. falcorostrum



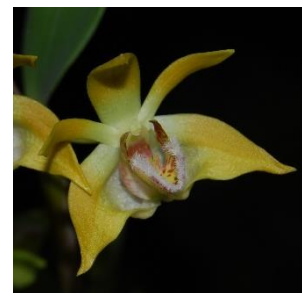
D. falcorostrum

Shape of the petals and sepals and labellum, and sparkling texture, tend to be inherited, as well as habit of inflorescence. Petals and sepals are roughly equal in size and shape, and are flat and open, and the labellum is broad with a distinctive upright point at the tip which tends to be inherited as a point at the end of the labellum.

E.g. *D. Star of Gold* (*D. falcorostrum* x *D. tetragonum*); *D. Star of Riverdene* (*D. Star of Gold* x *D. speciosum*); *D. Yondi Tina* (*D. Nerang* x *D. Star of Gold*). This species is the reason flowers of *D. Midas Touch* (*D. Avril's Gold* x *D. Yondi Tina*) are often more open and flatter than *D. Cosmic Gold* (*D. Avril's Gold* x *D. speciosum*) and have broader labellums.

D. fleckeri

Low flower count tends to be inherited but so does its unusual and attractive coppery orange colour which can continue to influence hybrids with a distinctive cast to their colour for a few generations. Labellum shape may be passed on. E.g. *D. Colonial Bullion* (*D. Eureka* x *D. Sunglow*); *D. Andrew's Summit* (*D. Colonial Summit* x *D. Andrew Persson*); *D. Noah* (*D. Sun Star* x *D. Yondi*); *D. Dingadee* (*D. Dunokayla* x *D. Amber Banks*).

*D. fleckeri**D. gracilicaule****D. gracilicaule***

Dominant for shape, size and colour, in plant and flower form. Slender pseudobulbs, hanging flowers, cuppy shape of flower. May pass on pale green colour if other parent not dominant for colour. Examples: *D. Golden Cascades* (*D. gracilicaule* x *D. jonesii*); *D. Harold Hirsch* (*D. x suffusum* x *D. speciosum*)

D. jonesii

Starry shape, open flowers (but can be sensitive to temperature and only open fully in warm, sunny, days); petals and sepals about equal in length and (to a lesser extent) width, broad labellum. Also can pass on floriferousness, e.g. *D. x ruppium*. This species is in the background of many popular modern hybrids.

*D. jonesii****D. kingianum****D. kingianum*

Very dominant in size, shape, and colour (except albino forms) and plant size.

Comment: There has been a considerable amount of line breeding with this species which has increased flower size and opened up the flowers, significantly reducing the tendency for the petals to fall forward, and petals that fall forward significantly should be regarded as a fault in the species and also in its hybrids.

***D. speciosum* complex**

This species' floriferousness, shape, and habit of inflorescence are desirable and sought in hybridising, and may be passed on. One undesirable characteristic that may be inherited is a narrow labellum, particularly if *D. speciosum* var. *speciosum* is the variety used.



D. speciosum var. *speciosum*



D. speciosum var. *curvicaule* 'Daylight Moon'
FCC/AOC 2001 (NSW); AM/ANOS 2014



D. speciosum var. *hillii* 'Samford Snowdrift'



D. speciosum var. *grandiflorum* ('Creek Aureum'
x 'Will's Gold')

***D. tetragonum* complex**

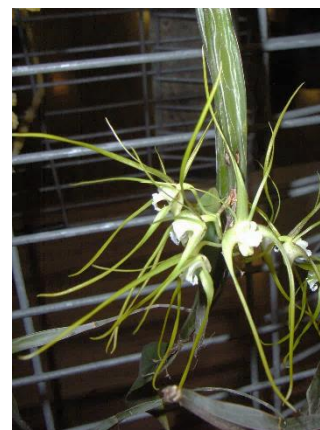


D. tetragonum ssp. *giganteum*

Very dominant in shape and size, and also colour except with *D. kingianum* or *D. bigibbum*, though even then distribution of colour along margins of petals and sepals may be inherited. Often passes on weak inflorescence and/or pendulous or arching habit, and reduces flower count.



D. tetragonum var. *melaleucaphilum*



D. tetragonum var. *cacatua*



D. tetragonum ssp. *tetragonum*

5 Phalaenanthe Hybrids

- 5.1 A small group since there are only two endemic species in this section. Complicated by the fact that taxonomic opinion as to the status of *D. affine* and *D. dicuphum* varies from time to time. *D. dicuphum* is the name currently accepted by Kew for the Australian species, but in the past *D. affine* has been accepted as conspecific with *D. dicuphum* and the latter reduced to synonymy, but at the moment the name *D. affine* is restricted to a species from Lesser Sunda Is. to New Guinea, and the Australian Native species is *D. dicuphum*. Judges should be aware of taxonomic controversies of this nature.
- 5.2 The same factors that apply to judging exotic *Phalaenanthe* Dendrobiums apply, modified to take into account what may be expected of the particular hybrid having regard to its parentage.
- 5.3 The flower should be circular (or more oval in appropriate cases) in form, with the sepals wide and evenly spaced with the dorsal erect. Petals should be broad and rounded, spaced evenly and overlapping the sepals. The labellum should be laterally symmetrical and not project forward or turn under at the tip. It should be of sufficient size to balance the flower. the flowers should display themselves fully and arrange themselves evenly along an untwisted stem, well displayed and without overlapping or bunching.

5.4 The species:

D. bigibbum is dominant for flower colour in hybridising, whether as the “Hot” contributor in Hot/Cold breeding, or when used with section *Spatulata* species.



D. bigibbum var. *superbum* 'Anzac Dawn'
HCC/AOC 2000 (Qld)



D. bigibbum var. *bigibbum*

D. dicuphum



D. dicuphum (as *D. affine*)
'Graham' HCC/AOC 2002 (Qld)

The distinctive colour combination can be seen in progeny of this species with section *Dendrocoryne* species if the other parent not dominant for colour. Not much used in hybridising but *D. dicuphum* is in the breeding of *D. Lady Gem* (*D. Lady Constance* x *D. White Gem*) and in its progeny *D. Asternova Cascade* (*D. Topaz Dream* x *D. Lady Gem*).

5.5 *D. Fantasy Land* line

- 5.5.1 The main line of Australian Native *Phalaenanthe* hybrids, and one which is currently very popular, includes some persistent influence from the *Spatulata* species *D. canaliculatum*. However, by *D. Topaz Dream* (*D. Fantasy Land* x *D. bigibbum*), the flower shape is essentially *Phalaenanthe* shape, though more oval than round.
- 5.5.2 It is noteworthy that even as far down the line as *D. Pearl Vera* (*D. Topaz Dream* x *D. bigibbum*) the influence of *D. canaliculatum* has kept plant size compact and flower size limited, with flowers generally being only between 40mm and 45mm wide despite the large amount of *D. bigibbum* in their breeding. This small size of plant and flower is characteristic of the *D. Fantasy Land* breeding line and should not be penalised.
- 5.5.3 The influence of *D. canaliculatum* can also be seen in habit of inflorescence in that the inflorescences tend to be relatively long and upright or only slightly arching, and the flowers will often not be presented in a neat line along either side of the inflorescences but rather tend to be distributed around the raceme. The flowers should, however, be well displayed in an attractive manner, and evenly spaced and not overlapping excessively or bunched.

- 5.6 To be considered worthy of a quality award, a plant should have a minimum of seven (7) fully open flowers on the inflorescence being judged, and on the majority of inflorescences if more than two.

6 *Rhizobium*

- 6.1 Hybrids within this terete-leaved section are very popular but judging them is complicated by the fact that that in the early years of hybridising with these species, the dark brown/red New Guinea species *D. fuliginosum* was treated as a variety of *D. teretifolium* (known as *D. teretifolium* 'Black Pam' at the time) and used extensively, and it can be impossible to tell from its appearance whether a particular hybrid that has *D. teretifolium* in its ancestry is an Australian Native hybrid or exotic hybrid. *D. fuliginosum* introduced some very attractive colours into its progeny and those colourful hybrids are particularly popular, but they are not Australian Natives.



D. fuliginosum

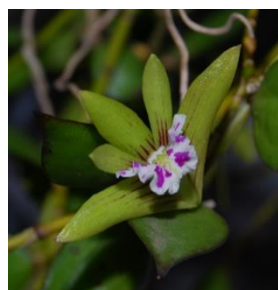
- 6.2 Hybrids that do not contain *D. teretifolium* do not pose the same challenge, but there are not many at present as most of the new hybrids claim *D. fuliginosum* in their background.

6.3 Characteristics and species:

- 6.3.1 The individual inflorescences of these hybrids often do not contain many flowers as the species themselves often do not carry many flowers per inflorescence, but the plants can, depending on species, carry many inflorescences, presenting a very attractive exhibit when they do so.
- 6.3.2 The shape of flowers of hybrids between plants of this section are generally midway between the parents. Segments should be broad and flat for the species or for what can be expected from a hybrid having regard to its parentage.
- 6.3.3 The species *D. bowmanii*, *D. mortii*, *D. pugioniforme*, and *D. schoeninum* have all been used in hybridising. They are quite colourful, being clear pale to mid-green with vibrant purple stripes on the white labellum, but they often only have only a single flower per inflorescence. These are all small flowers, 20-25mm wide.



D. bowmanii



D. pugioniforme



D. schoeninum

- 6.3.4 ***D. striolatum*** is a similar shape to the above species but, other than the albino form, its colour tends to be a greyed yellow/green, and it has fine red/purple stripes on the petals and sepals. An attractive mustard-yellow form occurs in Tasmania. This species has a particularly fine, large, frilled, white labellum, especially evident in *D. striolatum* 'Ruffles' FCC/AOC 2014 (NSW), and has been used much in breeding as that large labellum tends to be passed on to its progeny. This species, too, only bears 1-2 flowers per inflorescence, however a well grown plant can bear many inflorescences. While most Australian Native species in this section have a wide geographical range that extends from NSW into Queensland, or occur only in Queensland, this species extends only as far north as the Hunter River in NSW, and does not flower well in warmer regions. (*D. striolatum* is the only Australian Native Dendrobium species that has a range extending into Tasmania.)



D. striolatum - albino form without striping

- 6.3.5 **The *D. teretifolium* group**, including *D. fairfaxii* and *D. dolichophyllum*, are larger flowers but they have long, narrow, attenuated, petals and sepals. They can be up to 60mm wide or larger, depending on how open the petals open. These large flowers should have symmetrical and straight, or slightly curved, petals and sepals.

Comment:

- a) The long, filamentous, segments move easily in the wind, or when being bounced around in a car being transported to a show, and judges should bear in mind the frailty of these thin segments when assessing a plant and not unduly penalise the exhibit for an inherent characteristic which is part of its charm.
- a) Species in this group have labellums that furl or roll and this is not a fault provided it is typical for the species and is consistent among the flowers on the plant.



D. dolichophyllum 'Megs' HCC/AOC 2014 (NSW)

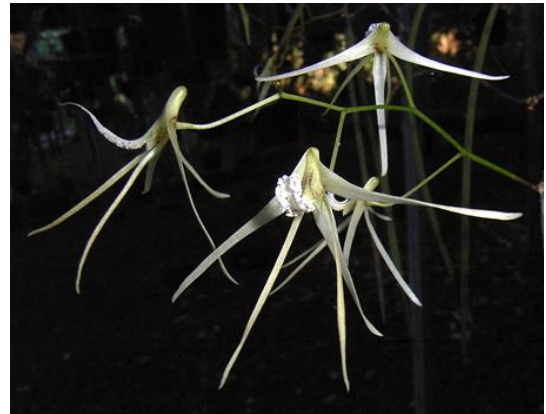
D. dolichophyllum is being used in hybridising for its size and the attractive red/purple striping around the centre of the flower and on the labellum.

Example: *D. Anthedon Splendour* (*D. dolichophyllum* x *D. teretifolium*); *D. Fiona Louise* (*D. dolichophyllum* x *D. pugioniforme*).

D. teretifolium

This species can have up to 16 flowers per inflorescence, but usually fewer. The plant may, however, have very many inflorescences that can give the appearance of a cloud or bridal veil of white, and several cultural certificates have been awarded for this species.

Examples of *D. teretifolium* hybrids: *D. Goose Bumps* (*D. teretifolium* x *D. cucumerinum*); *D. New Age* (*D. teretifolium* x *D. fairfaxii*).



D. teretifolium

6.3.6 ***D. cucumerinum***



D. cucumerinum

25mm flowers on short raceme and short peduncle, usually 4-5 flowers but up to 12. Note the distinctive curved shape of the lateral sepals.

D. Goose Bumps (*D. teretifolium* x *D. cucumerinum*); *D. Burle* (*D. cucumerinum* x *D. schoeninum*).

6.3.7 ***D. linguiforme* & *D. nugentii***

D. linguiforme is a floriferous species with up to 20 flowers - to 30mm wide - per raceme, and a well grown plant can produce many inflorescences. *D. linguiforme* has been crossed with the floriferous *D. teretifolium* to make the popular hybrid *D. Virginia Jupp*, and with the few-flowered but broad-segmented *D. rigidum* to make *D. Numbat*.

D. nugentii has only recently been split from *D. linguiforme* and it is possible that some hybrids described as having *D. linguiforme* as one parent actually involved *D. nugentii*. The flowers of both species are similar in shape although the petals and sepals are shorter and broader, being less than 20mm wide, and the flowers are more tidily presented around the inflorescence and more evenly spaced, often occurring on only one side of the raceme. It is similarly floriferous.

D. nugentii has been registered as a parent for some hybrids, e.g. *D. Anthedon* (*D. nugentii* x *D. racemosum*).



D. nugentii

6.3.8 ***D. racemosum***

A species with erect racemes bearing 8-15 cream to pale yellow flowers, 20mm-25mm wide, with a mauve anther. The petals and sepals recurve with age and this is not a fault.

Examples of hybrids:

D. Anthedon (*D. nugentii* x *D. racemosum*);

D. Maddison (*D. racemosum* x *D. rigidum*);

D. Anthedon Ladies (*D. racemosum* x *D. schoeninum*).



D. racemosum

6.3.8 ***D. rigidum***

This species has flowers about 15mm wide and up to 7 per inflorescence. It has been used in hybridising, e.g. *D. Numbat* (*D. linguiforme* x *D. rigidum*), and *D. Maddison* (*D. racemosum* x *D. rigidum*).



D. rigidum

7 *Spatulata*

- 7.1 A significant group in sub-tropical and tropical regions, e.g. *D. Gloucester Sands* (*D. discolor* x *D. canaliculatum*); *D. Peter Petersen* (*D. discolor* x *D. nindii*) and *D. Cherub* (*D. Peter Peterson* x *D. carronii*).
- 7.2 Many of the species in this section have petals and sepals that twist, to a greater or lesser degree, and they must be judged according to what can be expected of them, and their hybrids must be judged according to what may reasonably be expected bearing in mind their parentage. These types will not be symmetrical in the sense expected of a section *Dendrocoryne* species or hybrid.
- 7.3 In species which have sepals that furl backwards or twist, the furling or twisting of each segment on a flower should be similar, and that furling or twisting should be consistent from flower to flower on the inflorescence, and on all the inflorescences on the plant. The dorsal sepal should not fall forward over the flower but should stand upright or roll backwards, depending on the type.
- 7.4 In some plants of *D. trilamellatum* and *D. johannis* the right lateral sepal will not twist evenly but will have a kink and the twisting following the kink will often twist back the other way, resulting in a “broken leg” appearance which destroys the flower’s symmetry. This is fairly common but it is undesirable and should be penalised, even if the same twisting pattern occurs on each flower.
- 7.5 Colour harmony and brilliance is important with this section, always bearing in mind what can be expected for the species or from the parentage of a hybrid.
- 7.6 The labellum should be well displayed and complementary to the flower as a whole, again subject to what can be expected for the species or hybrid in question.
- 7.7 Quilling of sepals or petals is a major fault.
- 7.8 **Section *Spatulata* species in hybridising:**

D. antennatum

Most hybrids are within its own section and the flowers are usually midway between the parents. E.g. *D. Lowana Nioka* (*D. antennatum* x *D. canaliculatum*); *D. Verninha* (*D. antennatum* x *D. discolor*).



D. antennatum

D. carronii*D. carronii*

Reduces plant size considerably and can pass on distinctive maroon/brown colour and yellow/green labellum. E.g. *D. Cherub* (*D. Peter Petersen* x *D. carronii*), which has received a number of awards.

D. canaliculatum

A very floriferous species with numerous upright racemes. Several colour forms in addition to the commonly seen southern form shown in the photograph. This species may improve flower count. It is dominant for plant size and may reduce plant size considerably when crossed with a plant with large pseudobulbs.

*D. canaliculatum*

The flowers of this species tend to be very flat across the bottom because the lateral sepals extend outwards on a horizontal line rather than being angled downwards. This characteristic is often inherited in hybrids which have *D. canaliculatum* as a parent.

Examples of *D. canaliculatum* hybrids: *D. Gloucester Sands* (*D. discolor* x *D. canaliculatum*); *D. Rachelle Simpson* (*D. discolor* x *D. johannis*).

D. discolor

The specific epithet meaning “of different colours” is appropriate for this floriferous species, which also varies considerably in flower form. Colour is not dominant though the albino trait may be inherited if *D. discolor* var. *broomfieldii* is used as the parent. Large-stemmed trait not dominant when crossed with a species with small pseudobulbs.

*D. discolor*

Look for broad segments and consistency in the amount of twisting of the segments and the amount of undulation on the edges of the segments.

There are a number of different forms of this species but in general the side lobes of the labellum should be broad and spread out widely in a pleasing manner and all parts of the labellum should be symmetrical.

Examples of *D. discolor* hybrids: *D. Gloucester Sands* (*D. discolor* x *D. canaliculatum*), *D. Rosalind Choon Lin* (*D. discolor* x *D. trilamellatum*); *D. Valda* (*D. discolor* x *D. carronii*).

D. johannis

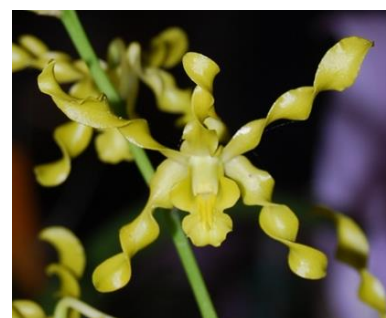
Labellum shape tends to be passed on to progeny, and maybe colour. E.g. *D. Johulatum* (*D. johannis* x *D. discolor*)



D. johannis



D. Johulatum with "broken leg"



D. Johulatum without "broken leg".

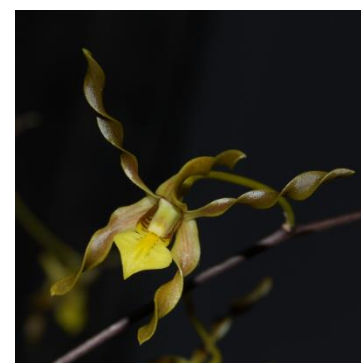
D. nindii

Flowers white or pale lilac with large, open, labellum. Difficult to grow outside its natural climate. Dominant in plant habit and flower shape, including broad side lobes of labellum. E.g. *D. Peter Petersen* (*D. discolor* x *D. nindii*).

D. trilamellatum

Flowers yellow/brown with yellow labellum. Petals and sepals twisted. Petals spread widely. Dominant for lip shape. If the right lateral sepal is bent, that undesirable trait can be passed on, as with *D. johannis*

E.g. *D. Rosalind Choon Lin* (*D. discolor* x *D. trilamellatum*); *D. Goldmine* (*D. trilamellatum* x *D. canaliculatum*).



D. trilamellatum

8 Miscellaneous:

With all the hybrids in these categories, flower shape is about mid-way between the parents, and *D. bigibbum* colour dominates in hybrids that involve that species.

- 8.1 **Intermediate - *Phalaenanthe/Spatulata***; e.g. *D. Mini Gem* (*D. bigibbum* x *D. carronii*); *D. Rosy Tips* (*D. bigibbum* x *D. canaliculatum*); *D. Albertine* (*D. bigibbum* x *D. antennatum*); *D. David Baver* (*D. johannis* x *D. bigibbum*); *D. × superbiens* (*D. bigibbum* x *D. discolor*); *D. Rosy Curls* (*D. Rosy Tips* x *D. discolor*).

Comment: The comments re shape at 8.2 below apply to these hybrids, too.

- 8.2 **Hot/Cold – *Dendrocoryne/Spatulata***; e.g. *D. Memoria Lloyd Bradford* (*D. canaliculatum* x *D. speciosum*); *D. Our Native* (*D. speciosum* x *D. johannis*); *D. Native Gold* (*D. trilamellatum* x *D. speciosum*); *D. Alick Dockrill* (*D. Maron* x *D. speciosum*).

Comment: It is important for judges to remember that these flowers may be wavy. That is not a fault as long as the waviness is pleasing to the eye and the degree of waviness of each segment on a flower is similar and the waviness is consistent on all flowers on the inflorescence and on all inflorescences on the plant.

- 8.3 **Other intersectional crosses**, e.g. *D. Sweet Bernadette* (*D. bigibbum* x *D. monophyllum*); *D. Pink Ballerina* (*D. agrostophyllum* x *D. bigibbum*); *D. Pauline Maria* (*D. canaliculatum* x *D. fellowsii*); *D. Edda* (*D. bifalce* x *D. tetragonum*); *D. Berry* (*D. Rosy Tips* x *D. kingianum*).

D. bifalce

Not used much but its distinctive and popular hybrids tend to inherit the striping on the petals and sepals, which can be even more prominent in its progeny than the species itself, and also its general labellum shape and the particularly large side lobes.



D. bifalce

ROSLYN CAPELL

March 2016

LIST OF DENDROBIUM SPECIES WHICH OCCUR IN AUSTRALIA, ACCORDING TO KEW'S WORLD CHECKLIST AS AT 14.2.16

	Section	Species	Variety	Subspecies	Number of AOC Award/s	Judges Need to Know	Range, According to Kew's World Checklist	
1	<i>Australorchis</i>	<i>carrii</i>					Queensland	
2		<i>monophyllum</i>				Y	E. Australia	
3		<i>schneiderae</i>				Y	E. Australia	
			<i>major</i>				NE. Queensland	
			<i>schneiderae</i>				E. Australia	
4	<i>Cadetia</i>	<i>collinsii</i>					Queensland (Cape York Pen.)	
5		<i>funiforme</i> [syn. <i>Cadetia wariana</i>]					New Guinea to Queensland	
6		<i>maidenianum</i>					NE. Queensland	
7		<i>taylorii</i>				Y	NE. Queensland	
8	<i>Conostalix</i>	<i>lobbii</i>					Indo-China to N. Australia	
9	<i>Dendrobium</i>	<i>macrostachyum</i> [syn. <i>stuartii</i>]					Tropical Asia to N. Queensland	
10	<i>Dendrocoryne</i>	<i>adae</i>				Y	N. Queensland	
11		<i>aemulum</i>			1	Y	E. Australia, New Caledonia	
12		<i>biconvexum</i> [syn. <i>Thelychiton biconvexus</i>]					Queensland	
13		<i>callitrophilum</i>					N. Queensland	
14		<i>falcorostrum</i>			4	Y	SE. Queensland to Central Eastern NSW	
15		<i>finniganense</i>			1	Y	N. Queensland	
16		<i>fleckeri</i>			1	Y	N. Queensland	
17		<i>gracilicaule</i>				Y	S. Qld to NSW & SW Pacific	
			<i>gracilicaule</i>				S. Qld to NSW	
			<i>howeanum</i>				Lord Howe Island to SW Pacific	
18		<i>jonesii</i> [syn. <i>ruppianum</i>]			3	Y	Queensland	
			<i>Jonesii</i>					Queensland
			<i>magnificum</i>					Queensland
19		<i>kingianum</i>			Many	Y	E. Australia	
				<i>carnarvonense</i>				Queensland
				<i>kingianum</i>				E. Australia

	Section	Species	Variety	Subspecies	Number of AOC Award/s	Judges Need to Know	Range, According to Kew's World Checklist
				<i>pulcherrimum</i>			NSW
20		<i>macropus</i>					Norfolk Island
21		<i>moorei</i>					Lord Howe Island
22		<i>speciosum</i>			Many	Y	New Guinea to E. & SE. Australia
			<i>blackdownense</i>				Queensland
			<i>boreale</i>				Queensland
			<i>capricornicum</i>				SE. Queensland
			<i>carnarvonense</i>				Queensland
			<i>curvicaule</i>				E. Queensland
			<i>grandiflorum</i>				SE. Queensland
			<i>hillii</i>				SE. Queensland to CE. NSW
			<i>pedunculatum</i>				New Guinea to NE. Queensland
			<i>speciosum</i>				SE. Australia
23		<i>tetragonum</i>			4	Y	E. Australia
			<i>cacatua</i>				Queensland
				<i>cataractarum</i>			Queensland
				<i>giganteum</i>			NE. Queensland
			<i>melaleucaphilum</i>				E. Australia
			<i>serpentis</i>				Queensland
				<i>tetragonum</i> [syn var. <i>hayesianum</i>]			E. Queensland to NE. NSW
24	<i>Dichopus</i>	<i>insigne</i>					Maluku to Solomon Is., Qld (Torres Strait Is.)
			<i>insigne</i>				Maluku to Solomon Is., Qld (Torres Strait Is.)
25	<i>Diplocaulobium</i>	<i>glabrum</i>					New Guinea to N. Queensland
26		<i>masonii</i>					New Guinea to N. Queensland
27	<i>Eleutheroglossum</i>	<i>fellowsii</i>				Y	Queensland
28	<i>Flickingeria</i>	<i>clementsii</i>					Queensland
29		<i>comatum</i>					E. & S. Taiwan, Malesia to W. Pacific (Incl. Qld)

	Section	Species	Variety	Subspecies	Number of AOC Award/s	Judges Need to Know	Range, According to Kew's World Checklist
30		<i>convexum</i>					Indo-China to N. Queensland
31	<i>Grastidium</i>	<i>baileyi</i>					Queensland
32		<i>cancroides</i>					Queensland
33		<i>pruinatum</i> [syn. <i>luteochilum</i>]					C. Malesia to N. & NE. Queensland
34		<i>tozerense</i>					Queensland (Cape York Pen.)
35	<i>Latouria</i>	<i>bifalce</i>			1	Y	Lesser Sunda Is. to Solomon Is. (Incl. Queensland)
36	<i>Lichenastrum</i>	<i>lichenastrum</i> [syn. <i>prenticei</i>]				Y	N. & C. Queensland
37		<i>toressae</i>				Y	Queensland
38	<i>Monanthus</i>	<i>malbrownii</i>					Queensland (Cape York Pen.)
39	<i>Pedilonum</i>	<i>smillieae</i>				Y	C. Malesia to N. Queensland
40	<i>Phalaenanthe</i>	<i>bigibbum</i>			Many	Y	S. New Guinea to Qld. (N. & W. Cape York Pen.)
		<i>bigibbum</i>					S. New Guinea to Qld. (N. & W. Cape York Pen.)
			<i>compactum</i>				Queensland (SE. Cape York Pen.)
		<i>superbum</i> [syn. <i>phalaenopsis</i>]					Queensland (C. & S. Cape York Pen.)
41		<i>dicuphum</i>			2	Y	N. WA to N. Territory (incl. Melville I)
42	<i>Rhizobium</i>	<i>bowmanii</i>			3	Y	E. Australia, New Caledonia
43		<i>brevicaudum</i>					Queensland
44		<i>calamiforme</i> [syn. <i>teretifolium</i> var. <i>fasciculatum</i> ; syn. <i>baseyanum</i>]			2	Y	NE. Queensland
45		<i>cucumerinum</i>			3	Y	E. Australia
46		<i>dolichophyllum</i> [syn. <i>teretifolium</i> var. <i>aureum</i>]			1	Y	E. Queensland to NE NSW
47		<i>fairfaxii</i> [syn. <i>teretifolium</i> var. <i>farfaxii</i>]					NSW (Dorrigo Plateau to Blue Mountains)
48		<i>linguiforme</i>			2	Y	E. Australia, New Caledonia
		<i>huntianum</i>					E. Queensland to NE. NSW
		<i>linguiforme</i>					E. Australia, New Caledonia
49		<i>mortii</i> [syn. <i>tenuissimum</i>]			1	Y	E. Australia, New Caledonia
50		<i>nugentii</i>			1	Y	NE. Queensland
51		<i>pugioniforme</i>				Y	E. Australia

	Section	Species	Variety	Subspecies	Number of AOC Award/s	Judges Need to Know	Range, According to Kew's World Checklist
52		<i>racemosum</i> [syn. <i>beckleri</i> var. <i>racemosum</i>]					Queensland
53		<i>rigidum</i>				Y	New Guinea to N. Queensland
54		<i>schoeninum</i> [syn. <i>beckleri</i>]			1	Y	E. Australia
55		<i>striolatum</i>			Several	Y	SE. Australia
56		<i>teretifolium</i>			Many	Y	SE. Queensland to E. NSW
57		<i>wassellii</i>				Y	Queensland (Cape York Pen.)
58	<i>Rhopalanthe</i>	<i>litorale</i>					New Guinea to Queensland
59	<i>Spatulata</i>	<i>antennatum</i>				Y	Maluku to Solomon Is. (Incl. Queensland)
60		<i>canaliculatum</i>				Y	New Guinea to N. Australia
	<i>canaliculatum</i> [syn. var. <i>tattonianum</i> ; var. <i>nigrescens</i> , var. <i>pallidum</i>]				1	Y	New Guinea to N. Queensland
	<i>foelschei</i>						N. Australia
61		<i>carronii</i>				Y	PNG to N. Queensland
62		<i>discolor</i>					Sulawesi to Queensland
	<i>broomfieldii</i>						Queensland
			<i>discolour</i>				Sulawesi to Queensland
	<i>fimbrilabium</i>						Queensland
	<i>fuscum</i>						Queensland
			<i>incurvata</i>				PNG to Queensland
63		<i>johannis</i>				Y	S. New Guinea to Queensland
64		<i>mirbelianum</i>				Y	Sulawesi to Solomon Is.
65		<i>nindii</i> [syn. <i>ionoglossum</i> ; syn. <i>toftii</i>]			1	Y	New Guinea to Queensland
66		<i>trilamellatum</i> [syn. <i>semifuscum</i>]				Y	S. New Guinea to N. Australia
67	<i>Trachyrhizum</i>	<i>agrostophyllum</i>				Y	Queensland