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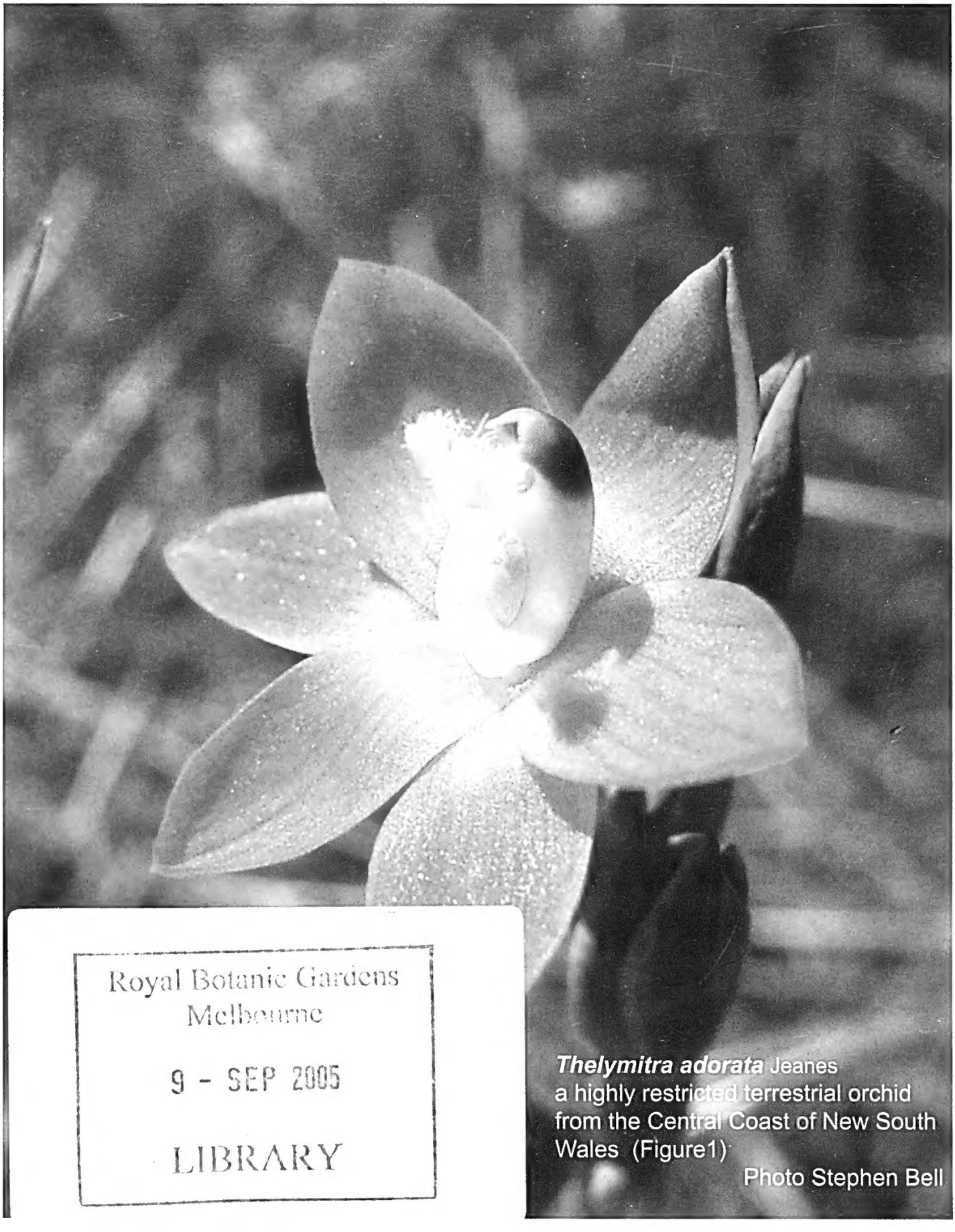

Thelymitra adorata Jeanes
a highly restricted terrestrial orchid from the Central Coast of New South Wales (Figure1)
Photo Stephen Bell

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Features

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6th ANOS Conference and Show

In September 2004, at a meeting of ANOS Inc. held in conjunction with the 5th ANOS Conference in Campbelltown, it was decided to accept a proposal from the ANOS (Qld) Kabi Group Inc. to host the 6th ANOS Conference and Show in Brisbane in 2007.

Consequently the Kabi Group appointed a subcommittee to organize this event and it has had several meetings at which the following decisions were taken:

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1. The dates of the event will be :
Wednesday the 29th of August to Sunday the 2nd of September 2007.

2. The **venue** chosen is:
Riverglenn Conference Centre, Indooroopilly
This centre will be booked as exclusive use for the event and has excellent facilities for the Show, The Conference, the Cocktail Party, the Dinner, Vendor stands etc.

Additionally there is on-site accommodation (single rooms only) available at well below commercial rates for bed and breakfast.

Indooroopilly is a suburb located about 10 minutes drive west of Brisbane CBD. Riverglenn has good public transport to it and excellent parking areas within its spacious grounds.

3. The 6th ANOS Conference **logo** will be:
An artistic representation of *Pterostylis grandiflora*, a magnificent terrestrial species found in abundance in SE Qld. It should be in flower at around the time of the Conference. The artwork has been prepared and a letterhead designed.

4. **Registration fees** have been discussed, and every indication is that these will be most reasonable, commensurate with past events even allowing for inflation. The committee's aim is to make the event both memorable and affordable for all ANOS members.

A variety of packages will be offered incorporating such options as single or double, with or without dinner, cocktail party, accommodation etc.

The intention is to release further details of these once prices and funding details are locked in and a reasonably accurate cost can be calculated. It is anticipated that this will occur in about March 2006.

Visit our website at http://www.anos.org.au/conference for further information as it becomes available. To be included in an email list to receive updates about this event please send a message to: **agroffen@gil.com.au**

VALE:- Joan Frances Male.

Joan passed away suddenly and unexpectedly at her home on 7th June at 10.30 pm from heart failure. At the time of her death she was Secretary of the ANOS Northern Regional Judging Panel and Show Organiser for the ANOS Kabi Group. This would be enough for most people but Joan also found time in her busy life to serve as a member of the North Moreton Qld Orchid Council Judging Panel, as Assistant Registrar of both the Sub-Tropical Orchid Council Judging Panel and the Central AOC Judging Panel and as Show Organiser for the Caboolture Orchid Society.

She was born in Barcaldine, Qld, in December 1936 and died aged just 68. Joan leaves behind Jim, her husband of almost 50 years, 6 children and 9 grandchildren.

Her funeral was attended by about 300 people, many of whom were members of the various orchid societies to which she had dedicated a great part of her life.

Joan was held in high regard by all who knew her. She will be sorely missed and remembered with fondness by us all. I'm sure members of all ANOS groups will join me in extending our sympathies to Jim and his family. **RIP.**

It's a tiny Globe!

J Nuss
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Hidden Valley is only about twenty kilometres, as the crow flies, from the rain forests of Paluma and Mt Spec. Unlike these areas it is hot in summer, cold in winter and almost always dry. It is rocky, hilly, hard country where prospectors have scratched, scraped and moved on. It would be no surprise to see Ned Kelly himself totter threateningly from behind a tired gum tree. Names of features express the head scratching of its European visitors – Zig Zag Station, Puzzle Creek, Goanna Mine, Deception Creek, Sunset Gap, Mount Zero. These names tease and entice.
Bushwalking activities in the area are limited by the availability of water. And so it was at 3.00pm on the afternoon of June 2005, that three wise men lowered their packs beside a deep pool in the remote gorge south of Hidden Valley. Prominent on the rocky slopes were a number of patient Hoop Pine trees. At the bases of many slopes were fallen branches. On one of them were three strings of small green knobs. Large numbers of strings of brown, shrivelled knobs covered most of one side of the branch. No flowers were present. A hand lens enabled orchid roots and tiny spiked leaves to be seen on the tops of the green knobs. Clearly, puzzlingly, this was one of two tiny bulbophyllums.

According to Dockrill, Jones, Bishop and Nicholls, *Bulbophyllum globuliforme* and *B. minutissimum* occur in northern New South Wales and South Queensland. In *The Orchadian* of March 1994, Gerry Walsh lists *B. minutissimum* as being found in the Calliope Range of South Queensland. He

also describes finding in that same area *B. globuliforme*, some 375 kilometres north of its previously recorded range. The Hidden Valley area is approximately 800 kilometres north of the Calliope Range. This Hidden Valley plant is yet to be reliably identified, but whether it is *B. globuliforme* or *B. minutissimum*, the find would represent a substantial extension of its range. Otherwise it is a new species or a hoax.

Other orchids found in the vicinity were *Dendrobium speciosum*, *D. linguiforme*, *D. teretifolium* (*D. fusciculatum*), *D. discolour*, *Sarcochilus ceciliae*, *Geodorum densiflorum* and a *Pterostylis* species.

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Bulbophyllum globuliforme, Hidden Valley North Queensland. Photo Bill Lavarack

Thelymitra adorata Jeanes ms (Orchidaceae): population size and habitat of a highly restricted terrestrial orchid from the Central Coast of New South Wales

a 222458

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Abstract

Population size and habitat details are provided for a new species, *Thelymitra adorata* Jeanes ms, found within Wyong Shire, on the Central Coast of New South Wales. This currently unpublished taxon has been recorded in only six locations, all of which lie on private lands within a radius of 2 km of one another in Wyong, with one outlying population 5km away. Five of the six populations are now extinct or presumed extinct. A total of 212 flowering specimens have been recorded at the six sites since their discovery in 1998. At the single extant population, eight sub-populations totalling 170 plants were present in 2003, all within areas of locally disturbed Dooralong Spotted Gum Ironbark Forest. Existing threats to this and other potential populations are outlined, and an assessment of conservation status made. Note is also made of a golden variant of *Calochilus robertsonii* Benth. present in the same vicinity.

Introduction

As part of vegetation surveys being undertaken for a proposed development near Wyong on the NSW Central Coast, a new population of the currently unpublished *Thelymitra adorata* Jeanes ms was discovered. The area under study [location suppressed for conservation purposes] was considered as potential habitat for a newly recognised species of *Thelymitra* by one of us (BB), due to its proximity to other known locations supporting similar vegetation. Previously, Wyong Shire Council had commissioned a Shire-wide survey of terrestrial orchids (Gunninah Environmental Consultants 2000), however that study concentrated only on formally described species, and hence a number of potentially distinct taxa, including *Thelymitra adorata*, were not investigated.

Thelymitra adorata was originally located in 1998 by BB during the orchid investigations of a proposed development estate, in Wyong Shire. The first specimens found were subsequently dug up and removed from the site by persons unknown. Further plants were found on the verge of stage 1 of the development, and reported to the developers and construction crew, Wyong Shire Council, National Parks and Wildlife Service, and the plant research division of the CSIRO. In late September 1999, this colony was destroyed by un-necessary leveling in the front of a designated wildlife corridor. In 2000, a further plant was located in an area due for eventual development. In 2001, twenty more plants were located at another development area in Wyong, as well as six additional plants at Warnervale, in an area also proposed for development.

Prior to September 2003, a total of five populations of the taxon were known, although three of these were destroyed through development. One of the three sub-populations found in 2003 was destroyed by council drainage works in early 2004, another did not flower due to drought conditions, and the third is on a roadside verge and requires constant supervision to prevent its deliberate or accidental removal.

This paper briefly describes the results of a survey of this taxon at what is currently

known as its largest extant population.

Taxonomy

Thelymitra adorata is a terrestrial species only recently informally recognised as distinct from other taxa within the *Thelymitra aristata* Lindl. complex (Figures 1 & 2). It has been described by J. Jeanes (National Herbarium of Victoria), and will be published in the near future. *Thelymitra adorata* is closely related to *T. aristata* but that species has a flatter, more strap-like post-anther lobe that lacks an obvious apical split, and the anther is inserted more towards the base of the column and is mostly obscured behind the stigma. *Thelymitra planicola* Jeanes is also similar to *T. adorata,* but the post-anther lobe of the former is entire-to-shallowly bi-lobed but not deeply split at the apex (J. Jeanes, pers. comm.).

Evidently, identification of *T. adorata* is heavily reliant on careful examination of the column within the flower structure, and hence it is imperative that flowering specimens are available. To date, flowering has been recorded in September and October. In general habit, the species is more robust than the co-occurring *Thelymitra pauciflora* R.Br. or *Thelymitra angustifolia* R.Br. There are currently only a few populations of this species known, most of which are under severe threat from urban expansion or grazing activities, and all occur within Wyong Shire.

Survey method

Forming part of more general vegetation surveys being undertaken for a proposed development, targeted meanders were undertaken by us in September and October 2003. All orchid species flowering during this period were noted, and all *Thelymitra* located were examined using a hand lens. Specimens of *T. adorata* were individually counted and tallied for each sub-population encountered.

Population size and habitat

During the course of survey, eight sub-populations of *T. adorata* were located on the site. The total population of *T. adorata* was 170 plants, spread unevenly across these eight sub-populations. Each sub-population varied in size from 1 to over 110 plants. One sub-population adjacent to an existing road consisted of at least 113 plants (in 2003), and is the largest currently known population (Figure 3). Collectively, these populations of 170 plants is considered highly significant, as the only other populations known support a combined total of 11 plants, and are considered essentially extinct due to continued grazing and development pressure.

Of the eight sub-populations, four occur within a previously cleared corridor associated with the construction of a fence, while three others occur either in the drainage culverts along both sides (but mostly the western side) of an existing road, or in areas of other localised disturbance. It is evident that all populations have taken advantage of additional light generated through minor clearing activities.

The broader habitat in which this population of *T. adorata* occurs has been described regionally as Dooralong Spotted Gum Ironbark Forest (Bell 2002), and supports an open forest of Spotted gum (*Corymbia maculata*) and Ironbark (*Eucalyptus paniculata*), with an open-to-dense shrub layer of *Melaleuca nodosa* over a grassy ground layer of species such as *Microlaena stipoides* var. *stipoides*, *Themeda australis*, *Entolasia stricta, Dichondra repens, Echinopogon ovatus, Arthropodium minus, Oplismenus imbecillis, Caladenia catenata* and *Goodenia heterophylla* var. *heterophylla*. This vegetation type is highly fragmented within Wyong Shire, and it may be difficult for substantial additional populations to be found on secure tenure, as most is in private ownership. Less than 2200ha of this vegetation type remains within Wyong Shire (Bell 2002).

Conservation and threats

While not currently listed on the NSW *Threatened Species Conservation Act*

Figure 3 *Thelymitra adorata* : location of the largest population adjacent to an existing road and within the grassy drainage culvert Photograph: S. Bell

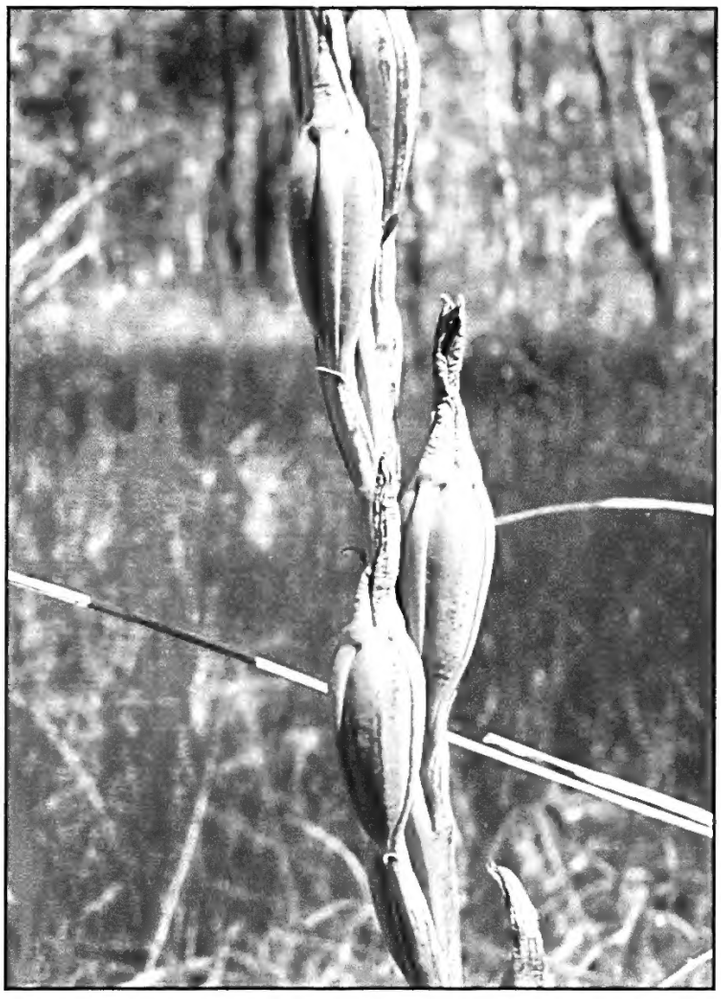

Figure 2 *Thelymitra adorata* developing capsules (Photograph: S. Bell).

Figure 4 *Calochilus robertsonii*, golden variant (Photograph: B. Branwhite).

1995, T. adorata warrants nomination. Publication of the species descriptions is not expected within the coming 12 months, at which time all known populations may be extinct. Given the restricted range of the species, and the threats operating on it, a conservation risk code of 2E (following Briggs & Leigh 1996) has been suggested (J. Jeanes, pers. comm.). The current land owners of the site have been made aware of the populations and their significance, and have been requested to manage the site accordingly. Disappointingly, the large population adjacent to the existing road had been slashed between the initial detection (26 September 2003) and the second survey (17 October 2003).

All known sites of *T. adorata* are threatened by fragmentation of habitat, increasing urbanisation and associated development, cattle and horse grazing, illegal collecting, and competition from invasive weed species. Five populations previously known by us are now extinct as a result of some or all of these threats. The largest known population described here is threatened through invasion of weed species such as Whisky Grass (*Andropogon virginicus*), Cobbler's Pegs (*Bidens pilosa*) and Asparagus Weed (*Myrsiphyllum asparagoides*), as well as provision and maintenance of road and services infrastructure.

Table 1 summarises the status of all known populations of *T. adorata*

Table 1 Summary of known populations of *Thelymitra 'adorata'*.

Pop. No.	Broad location	*Date of record*	No. of plants	Land tenure	Current status
1	Wyong	1998	10	Private	Extinct - plants illegally removed
2	Wyong	Sept. 1999	6	Private?	Extinct - population destroyed through earthwork activity, despite its presence on the edge of a wildlife corridor
3	Wyong	2000	1	Private	Potentially extinct, not seen in 2004 - within a proposed development area
4	Wyong	2001	20	Private	Potentially extinct, not seen in 2004 - within a proposed development area and grazed by cows
5	Warnervale	2001	6	Private	Potentially extinct, not seen in 2004 - within a proposed development area
6	Wyong	Sept. 2003	170	Council	Habitat still present December 2004, although one sub-population destroyed through earthworks. Only thirty-three plants flowering in the larger roadside verge site September 2004

In addition, an unusual and previously unknown variant of *Calochilus robertsonii* Benth. has also been found within the area populated by *T. adorata* (Figure 4). This golden variety is known from scattered populations and individual plants within a 2 kilometre radius from one another, and mostly within proposed development areas. Like *T. adorata*, it also appears highly restricted, and is threatened by the same processes affecting that species.

Acknowledgements
Thanks to Jeffrey Jeanes for discussions on this and other orchid taxa, particularly with BB, and for his review of the manuscript.

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A new *Dendrobium* SW. of section *Grastidium* Blume from New Guinea.

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ABSTRACT.
Dendrobium lanuginosum Ormd. is described as new, it is a New Guinean species referrable to section *Grastidium.* Some minor supplementary notes based on an analysis of original literature and in some cases holotypes are supplied on other taxa in the same section.

Dendrobium sect. *Grastidium* is a widely diffused group, currently with about 180-190 species distributed from Sri Lanka to Tahiti. New Guinea is the centre of diversity with about 124-130 recorded species which occur from sea level right up to the alpine zone at around 3000m.

Section *Grastidium* was first proposed by Blume in his "Clavis Generum Orchidearum Javanicarum" which was published in June 1825 with the first two plates of the Tabellen (figure atlas of the "Bijdragen"). Later (September to December 1825) Blume raised sect. *Grastidium* to generic level along with all his other new *Dendrobium* sections (see Ormerod 2002a).

Recently Clements & Jones (1997) provided the only modern account of the group, which they treated at the generic level. They enumerate 192 species of *Grastidium sensu stricto* and place *Dendrobium insigne* (Blume) Rchb.f. ex Miq. in a monospecific subgenus *Dichopus.* Incidentally, the new combination *Grastidium insigne* (Blume) M.A. Clem. & D. L. Jones may be invalid since a typographical error gives an incorrect bibliographic citation for the basionym.

In addition to the taxa listed by Clements & Jones (1997) I would add *D. adamsii* A.D. Hawkes from Ponape and three New Guinean species, namely *D. curvisepalum* Ridl., *D. hastilabium* Krzl. and *D. montis-sellae* Krzl. Also overlooked was *D. patentifiliforme* Hosokawa from Palau; it is a synonym of the earlier *D. implicatum* Fukuyama.
I would delete four taxa from the list of Clements & Jones (1997), namely *D. kandarianum* Krzl. [= *Eria kandariana* (Krzl.) Schltr.], *D. leontoglossum* (Ridl.) Schltr. [= *Cadetia triquetra* (Ridl.) Schltr., see Ormerod 2002b], *D. leptocladum* Hayata [belongs to an undescribed section, resembling species in the polyphyletic sect. *Calcarifera* J.J.Sm.] and *D. suaveolens* Krzl. [= *Eria soronensis* Schltr.]. It is also likely that the Sumatran *D. korinchense* Ridl. will be removed from sect. *Grastidium* to the genus *Eria* Lindl., unfortunately the type cannot be located.

Finally, I would like to note the following nomenclatural issues:
1). *D. angraecifolium* Schltr. - this name has been treated as a synonym of *D. branderhorstii* J.J.Sm. due to the supposed existence of an earlier "*D. angraecifolium* Finet, 1903". The latter name does not exist and thus *D. angraecifolium* Schltr. should be reinstated over *D. branderhorstii* J.J.Sm.

2). *Grastidium crassifolium* (Schltr.) "Rauschert" - this combination was not made by Rauschert (1983) as cited by Clements & Jones (1997), and it should instead be credited to the latter authors.

3). *Dendrobium ingratum* J.J.Sm. - this taxon was published in February 1912 and was reduced to synonymy of *D. kenejianum* Schltr. (published October 1912) by Clements & Jones (1997). Naturally then *D. ingratum* should be reinstated over *D.*

kenejianum since it has priority.

Dendrobium lanuginosum Ormd., sp. nov.

Type: Indonesia - Papua Prov., 4km SW of Bernhard Camp, Idenberg River, 850m, March 1939, *Brass 13450* (holotype: AMES!).

*Affinis D. juniperinum Schltr. sed caulibus triplo longioribus (160 vs. 40-50cm), floribus duplo longioribus (1.9-2.1 vs. 1cm) et lobis lateralibus labello oblongo-ellipticis (non triangulis) differt.*Epiphytic herb. Stem rigid, terete, profusely branching near apex, primary stem to 160cm long, 0.25cm thick, internodes to 4.1cm long, brachlets to 9cm long, leafy. Leaves narrowly lanceolate, semirigid, apex inequally bidentate, 20-30mm long, 1.5-3mm wide; leaf sheaths striate. Inflorescence 2-flowered; peduncular sheaths semicircular, 1mm long; peduncle 5mm long. Pedicellate ovary terete, slightly widened apically, 17mm long. Flowers glabrous, white with a brownish-white lip. Dorsal sepal oblong-lanceolate, subobtuse, 21mm long, 5-6mm wide. Lateral sepals obliquely ovate-elliptic, acute, median nerve carinate externally near apex, 20mm long, 9mm wide. Petals oblong-elliptic, subobtuse, 19mm long, 6mm wide. Labellum trilobed, 14-15mm long, ca. 12mm wide; hypochile 8mm long medially, ca. 12mm wide, with a single thick truncate median keel 8mm long, free part of sidelobes obliquely oblong-elliptic, obtuse, inner margins minutely irregularly erose, inner surface sparsely, finely and shortly pubescent; midlobe suborbicular, shallowly concave and glabrous near the bidentate apex, margins serrate in lower half and becoming erose toward the apex, medially with a superdensely and finely woolly band of pubescence, 6mm long and wide. Column subconical, 3.5mm long, stelidia bidentate; columnfoot 6mm long, forming with the lateral sepals a mentum 6mm long.

Distribution: Indonesia (Papua Prov.).

Notes: This species is closely related to *D. juniperinum* Schltr. with which it shares an unusual feature for sect. *Grastidium*, namely the dense branching of the stems near the apex. This gives the plants an aspect strongly reminiscent of some species of *Glomera* Blume and *Glossorhyncha* Ridl. *Dendrobium lanuginosum* is distinguished from *D. juniperinum* by its thrice longer stems, twice as long flowers, and its labellum which has oblong-elliptic (not triangular) sidelobes.

There is in AMES a second West Papuan collection [*Eyma 4804*] from the mountains around the Wissel Lakes area that was collected in high altitude (ca. 3000m) heath vegetation and which closely resembles *D. lanuginosum*. Unfortunately the specimen only has buds and thus cannot be determined with confidence to specific level.

Acknowledgements.

I wish to thank herbarium and library staff at AMES for their help during my visits.

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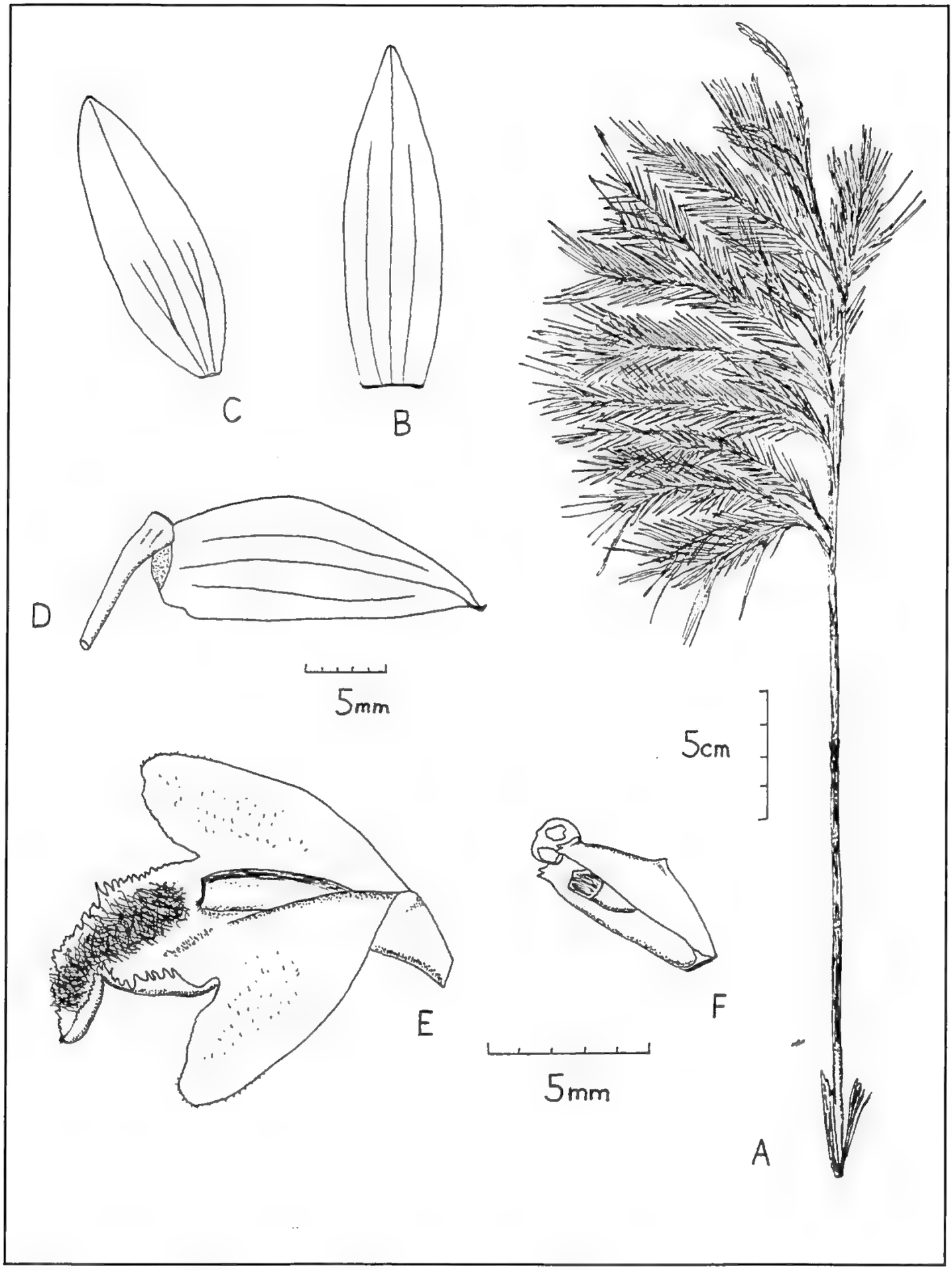

Dendrobium lanuginosum - A. Apical part of stem; B. dorsal sepal; C. petal; D. lateral sepal with mentum and part of the pedicellate ovary; E. labellum; F. column. A, BCD and EF to respective scales. Drawn from holotype.

Dendrobium linguiforme Sw.

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A touch of history on *Dendrobium linguiforme* coined by the Swedish botanist Olaf Swartz in 1800. The name comes from *linguae* meaning tongue and from *formae* meaning form or shape, which refers to the plant of course and not to the flowers which determined the genus *Dendrobium*. *Dendrobium linguiforme* was not in the list of the nineteen species of *Dendrobium* which established the genus in 1799, also by Olaf Swartz.

According to Walter T. Upton the plant was presumably collected by Surgeon-General John White on the shores of Port Jackson (Sydney), growing on rocks. I wonder when this collector first saw the plant, not in flower; whether he thought he was looking at a small succulent with its leaves as disguise. The common name is tongue orchid, not much different to the correct botanical name. The name *Dendrobium linguiforme* held good for 196 years and in our orchid shows was benched under the *Dendrobium* Rhizobium section.

In 1996 Clements et Jones raised *Dockrillia* Brieger in their publication *Lasianthera*. Friedrich Brieger published works in 1981 breaking up *Dendrobium* into 44 genera *Dockrillia* being one of them. A name fairly well accepted by orchid growers, but not so much by taxonomists. *Dockrillia linguiformis* being the type species for the genus *Dockrillia*.

Dockrillia linguiformis (Sw.) Brieger
Synonym: *Dendrobium linguiforme* Sw.

The basic plant consists of roots attached to a rhizome with leaves, so to a casual observer it seems that if you have seen one plant, you have seen them all. For a lack of another botanical name we refer to these leaves as leaves, which they are clearly not. They function as normal leaves do but also as pseudobulbs to store moisture and nutrients, in other words they are succulent as in a cactus. The leaves vary in colour. The normal leaf is a deep green but changes to almost purple under different climatic conditions. Too much hot sun or drought will do it, they are also rough to the touch.

The shape of the leaves vary considerably in the different plant types. Generally they are mostly oblong but can be close to round. The side of the leaf closest to the rhizome is always concave whereby the other side, furthest away from the rhizome, can be concave, but never as much as the one nearest the rhizome. They can be straight on this side or even convex. The new leaves appear as a butt from the underside of the junction between the old leaf and the rhizome, as the new leaf grows so does the rhizome. The length of the rhizome in between leaves varies from 5 - 25 mm and is about 3 - 5 mm in diameter. The bracts on the rhizome appear at more or less regular intervals and the new leaf is covered up to half its length in a bract. The rhizome is generally straight with a small kink where the leaf is attached. The roots arise from the underside of the rhizome and spread out sidewise to keep the rhizome flat on its host, it being a tree or rock.

The sought after part, the inflorescence arises on the upper side of the junction between leaf and rhizome and varies considerably between the different types. It has a very wide distribution, from 1.5 m above high water mark near estuaries to 1100 m in the mountains from east Sydney

to 250 km inland to Coolah, and from the south of New South Wales, Narooma north to the Burdekin River in north east Queensland. The plant is mat forming and can grow into huge clumps and under favourable conditions can cover a whole rock face or a whole tree. Its favourite tree is the sheoak and rocks which are usually conglomerate. I have seen it in Gloucester, in the Watagans and at Mount Alum near Bulahdelah growing on this type of rock. I have also seen it growing on sheoak near Monkerai. It covered the outer branches, but never low enough for me to reach. It must know its enemies, namely kangaroos and wallabies. (Draw your own conclusions)

In bush house cultivation, because of limited space being available, we have to mount it on something smaller than a tree or rock, and the rhizomes will in time criss cross each other and the plant can become several layers thick. The leaves are on average 8 mm apart on the rhizome and are about 10 mm wide to 25 mm long and 4 mm thick. They are channelled; usually three ridges and are smooth to the touch. The inflorescence is from 80 – 100 mm long and is straight up and down or sideways, in other words straight in all directions unless disturbed.

I have a clone in my collection, when flowered to its full potential (two years ago) looked like a soccer ball, as it was mounted on a chunk of tree fern. The wood borers have demolished the tree fern since then and I have mounted it to the outside of a wire basket filled with broken terracotta. When in flower it has 8 - 10 white flowers on an inflorescence. The flowers are upside down (non resupinate), 20 - 25 mm in diameter, spidery and don't open widely. The pointed labellum is curved almost into a full circle and striated with various amounts of purple. The callus on the labellum is bright yellow. Flowering time is September. There is another form according to Gerry Walsh which flowers in late October.

Dockrillia nugentii

Synonym: *Dendrobium linguiforme* Sw. var. *nugentii*, was named by F.M. Bailey in 1902 after L.J. Nugent. This is now a different species since the naming of *Dockrillia* in 1996, but I think it is just a variety of *D. linguiformis.*

The leaves of this plant are bigger than *D. linguiformis.* They are about 12 mm wide, 30 mm long and 9 mm thick, are oblong and end in a sharp point. They are channelled and are rough to the touch. This is the size they grow to in my collection.

There is another form of *D. nugentii* whereby the leaves are not pointed but rounded and are also slightly larger. This type is the same as *D. nugentii* "Jeffrey" AM/ANOS 1998 and Grand Champion at the Conference in Campbelltown 2004, belonging to Fred Fear. Since F. Fear's plant is a superior clone, I will go back to describing the average plant.

The inflorescence is about 150 mm long and tends to grow towards the light. It carries from 10 - 15 white flowers upside down (non resupinate). The segments of the flowers are wider than the type form and are wide open; they do not have a spidery appearance. The labellum is not curled under as much as in other forms, it is slightly striated, with three prominent yellow calli. Flowering time is in September. The distribution is north east Queensland in the highlands and lowlands from Townsville to north of Cooktown.

There is another form I would like to mention which needs a closer look at. The leaves are bigger than in all other forms and smooth to the touch. They are channelled, often four ridges and appear to be more round, are 22 mm wide, 40 mm long and 11 mm thick. The plant in my collection

originated from the Eungella Range north west of Mackay.

There is a good photo of this type in the *Australian Orchid Review*, Dec. 1992 for a Photo competition entered into and won by Mrs. J. Parke of Auckland, New Zealand. The name of this clone is *Dendrobium linguiforme* "Buffy".

The inflorescence of this form arises from the same point than all other forms but comes out straight for the first 25 mm and then arches down gracefully. It is from 180 mm to 220 mm long and carries up to thirty five mostly white flowers, upside down (non resupinate).

The flowers open widely in warm weather with fine segments. They are also bigger than in the other forms, up to 30 mm across. Flowering time is September to October.

I have seen this form in Ted Gregory's collection whereby the flower segments from tip to about half way were light yellow. This form in, my opinion, is a very fine orchid.

Dendrobium linguiforme var. *huntianum*
This form was named *D. linguiforme* Sw. var. *huntianum* by the Reverent H.M.R. Rupp in 1942, Australian Orchid Review. 7:40.
This does not seem to be a recognized variety, so it remains as *Dendrobium linguiforme* or *Dockrillia linguiformis*.

According to Ken Russell of Dungog, it grows on the mountains west of the Great Dividing Range, west of Ipswich on the Hoagarth Range in Queensland. He assured me that he himself has seen it there. The late W. Skillicorn had a clone from a mountain east of Scone, New South Wales but west of the Great Dividing Range. It resembles my plant which I describe below:
The leaves of *D. linguiforme* var. *huntianum* are bigger than *D. linguiforme*. They are 11 mm wide, 40 mm long and 8 mm thick, channelled with three ridges and rough to the touch. The inflorescence is about 150 mm long, with often more than thirty white flowers which are upside down (non resupinate) and smaller than the type form, about half the size 12 mm, but the segments are wider and the flowers are cupped. The labellum is curved but not as much as *D. linguiforme*. Flowering time is early July, at least under conditions in my shade house.

In Summary
As I have said before, to most people if you have seen one, you have seen them all. But at a closer inspection, one will find a lot of differences in the various types of plants and flowers, and I don't think I have seen them all.

I think there are as many differences in the *Dockrillia linguiformis* as in the *Dendrobium speciosum* complex.

As is often demonstrated a mature plant of *Dockrillia linguiformis* in full flower makes a wonderful display in our shows or just at home for the orchid buffs that grow them. I would like to stress that these are observations from plants in my collection and grown under my conditions. I don't claim to be a botanist, taxonomist or of any other scientific background. I am just an orchid buff enjoying and growing them. I feel the name change to *Dockrillia* is warranted and I agree with it.

References:
Dendrobium Orchids of Australia. Walter T. Upton 1989
I would also like to thank Ken Russell and Gerry Walsh for their helpful advice.

-oOo-

Dockrillia linguiformis, growing insitu at Mt Alum

Dockrillia linguiformis, yellow form growing in Ted Gregorys' collection.

Photos Matt Hochguertel

ANOS Newcastle, Central Coast Groups.
Lend a hand to the Anvil Hill Project Watch, Denman

Sue and Doug Herd
ANOS Newcastle Group
July 2005

Centennial Coal holds a lease to mine for coal in the area of Anvil Hill and part of the Wybong Valley. Concerned locals in the area have approached the mining company to ask them to declare as nature reserve areas within the lease not intended for mining. This will link in with adjacent areas which are already reserved. As part of this process, it was decided to conduct a detailed assessment of a local property which is on the edge of the area intended for mining. The flora and fauna survey was conducted in an area of approximately 140 ha. below a large outcrop known as The Limb of Addy.

An Envirofund grant was obtained from the Australian Government for the purpose of engaging consultants to audit the area for flora, fauna, and signs of aboriginal use of the area and to accurately determine the boundaries. It was also for the purpose of supporting the complementary activities of a number of special interest groups, eg ANOS, SOFAR (Society for Frogs and Reptiles), FATS (Frog and Tadpole Society), HBOG (Hunter Bird Observers Group), etc. who were there to survey the representatives of their particular interest. In addition, there were representatives from NPWS, Local Council, Australian Museum as well as individuals without specific affiliations, but with skills to offer the project.

A number of weekend camps were conducted during 2004, mainly on long weekends. These site camps were very well organized by members of the Anvil Hill Project Watch. Traditional country hospitality abounded and participators had a most enjoyable time, while assisting to gather much valuable information for the environmental audit.

The area surveyed is known as part of the Wybong Upland, located in the Central Hunter Valley, Near Denman, New South Wales. Rugged sandstone escarpments are surrounded by a large area of relatively undisturbed remnant vegetation. The survey has revealed a very high species diversity with both flora and fauna showing elements of the lower Hunter and the Western Slopes. Numerous threatened species were discovered. The vegetation consists of regenerating Slaty Box Woodland. Adjacent woodland contains Cypress Pine, *Callitris endlicheri,* Bulloak, *Allocasuarina leuhmannii*, Narrow Leaved Ironbark, *Eucalyptus crebra,* on slopes to the north and north west. Paperbark, *Melaleuca decora*, occurs along the intergrade between the two canopy associations.

At first glance this appears to be a most unlikely area for orchids of any type. The area is very dry and is marginal for any agriculture, even after the construction of berms to direct the meager rainfall into dams. The area has not been burnt for at least forty years.

Patient searching of identified likely areas has yielded some interesting results. During the first half of 2004 very little rain fell. However, with the breaking of the rainfall pattern in September, ground orchids began to appear.

The first discovered in late April, 2004 was *Pterostylis* sp. aff. *revoluta* (Inland). These were well past their prime. Just enough of the flowers remained to identify them. They were under Callitris and Ironbark in the northern section of the survey area.

The next discoveries were made during the long weekend in October, 2004 *Pterostylis bicolor* in flower very close to the campsite, on the edge of an ephemeral creek.

The greatest excitement was generated by the discovery of a single specimen of *Diuris tricolor* in grassland/open woodland. This species is listed under the Environmental Protection Biodiversity & Conservation Act 1999 as vulnerable. Ms. Christine Phelps, Coordinator of The Anvil Hill Project Watch made this discovery, with the representatives of ANOS Newcastle and ANOS Central Coast . Mr Bill Holzinger also assisted with the search. During a walk to the slope below the sandstone outcrops *Cymbidium canaliculatum* was found growing in a stump. This plant was not very large, but had been flowering regularly for many years.

In 2005 the search resumed for orchids at Wybong. Mr Bill Holzinger found a very small area where moisture drains near the base of the escarpment. In this area maidenhair fern flourished and several more terrestrial orchid species as well.

Eriochilus autumnalis was in flower at the end of March. Also in flower was *Pterostylis* aff. *obtusa.* This plant seemed larger than others of this genus previously seen. There were very few plants in this tiny habitat. Also present were many *Acianthus* leaves. Although some were in bud, it was too early to identify them. Other rosettes were noticed on a higher area. One of these has been caged to protect it from grazing animals, allowing the possibility of identifying it when it does flower later in the year.

Although seven species of orchid in this area does not seem very many, we went into this project with low expectations, so are pleasantly surprised with the outcome. It is intended that the occasional surveying will continue. If the area were burnt, even greater numbers and varieties would surface.
So, watch this space!

The orchid names in this report are according to :
Bishop,Tony . Field Guide to the Orchids of New South Wales and Victoria
1996 University of New South Wales Press.

-oOo-

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Diuris tricolor , Wybong, NSW

Eriochilus autumnalis

Cymbidium canaliculatum. Old flower stems and this years in bud.

Pterostylis aff. *obtusa*

Pterostylis bicolor

Successful orchid hunters at Wybong, admiring *Diuris tricolor*. Left to Right. Christine Phelps (Anvil Hill Project Watch), Mike Fish and Alan Dash (ANOS Central Coast), Doug Herd and Peter Presland, (ANOS Newcastle). Photos Sue Herd

Open Days, Orchid Fairs, Shows, can we get enough of them?

Peter Eygelshoven
13 Weeroona Ave
Elanora Heights, 2101.

It seems every time we turn around we have an Open Day, Orchid Fair, Show, Auction or something that we are able to attend. Why are these events so well patronised when there are so many of them? The reasons are probably as many as there are orchids available at these gatherings. Not only does the entire orchid fraternity descend by the thousands to these occasions but the public also visit in large numbers. Each year we travel hundreds of kilometres to get to one, several or every event possible.

I'm sure there is a wonderful symbiotic relationship between the growers and the nurserymen. We are all looking for that rare or unusual orchid that no one else has. We're looking for that new hybrid which will not only win a champion medal for us, but also gain envy from other growers. The nurserymen do the same, trying to find or breed an orchid which we all want to have for these same reasons. Having the nurserymen together in one place, selling their latest orchid finds or newest hybrids, gives us a first hand opportunity to compare orchids and prices between the nurseries, in the same place and at the same time. These days with mail order catalogues and websites on computers it is hard to compare plants between each nursery. Many other products that are essential for growing orchids are also available, as well as books and other related merchandise.

Many orchid groups organise bus trips and friends car-pool together to travel the sometimes long distances to an event. Here is where I think the most apparant if not the most obvious, reason is found. Above the bargains we get, above the many orchids we buy and above the satisfaction of finding an illusive orchid to grow, the social side to an orchid event of any kind is probably, above everything else, what we really enjoy. To show or brag about the new purchase, to discuss the latest cultural technique, to catch up with friends we saw last year or at the last event is probably the thing we bring home with us and appreciate the most (at least it should be). There are always small groups of growers talking, discussing and reminiscing about the last orchid Open Day, or the next Auction or Orchid Fair they will go to. Often there is a bushwalk, barbeque, dinner or afternoon tea to enjoy and socialise at.

It's quite obvious that these events grow larger each year as many more orchid enthusiasts realise how wonderful it is to get together and experience the social world of the orchid fraternity.

-oOo-

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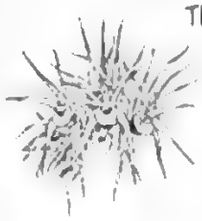

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Mingara Orchid Fair 2005 Photo Peter Eygelshoven

Bushwalk and barbeque Tinonee Open Day 2004 Photo Bill Dobson

Bushwalk Tinonee Open Day 2005

Bushwalk Tinonee Open Day 2005 Photos BillDobson

There are fairies at the bottom of our garden.

The Wild Family –
Text by Alex and Helene
Photographs by Montgomery

The genus *Oberonia* was named by John Lindley in 1830, honouring Oberon, King of the Fairies. There are more than 330 species of *Oberonia* distributed throughout the tropical regions of the world, including four species found in Australia's northern rainforests.

These orchids grow epiphytically in small clumps of flattened, overlapping leaves that look remarkably like the leaves of an iris, only very much smaller. Plants produce slender terminal racemes that can carry hundreds of tiny flowers that are often arranged in whorls.

According to David L. Jones in his excellent *Native Orchids of Australia*, members of this genus are easy to grow provided their very fine root systems are not overwatered or smothered in a too-fine potting mix. Although plants can be grown in pots, Jones advises that mounts of weathered hardwood, cork or treefern, etc., are preferable and they should be hung in cool, humid, airy positions.

O. complanata (syn. *O. muelleriana*) is distributed along Australia's eastern seaboard from Lismore in New South Wales to the Iron Range in Queensland and also New Guinea and Polynesia. This species does not appear to be fussy about its habitat as it has been found in mangroves, coastal scrubs, humid gorges, moist areas within open forests, on the coastal fringes and in the mountains and tablelands to about 1000m altitude. The leaves are yellowish-green and the pin-head sized flowers are greenish or cream with a fringed or toothed labellum. You will need a magnifying glass if you are to appreciate the subtle beauty of these diminutive flowers.

As our *O. complanata* is a recent acquisition, Alex has not yet fine-tuned its cultural requirements in Victoria. At the moment, the plant is in a hanging squat pot of Perlite® with a coarse gravel topping

O. titania, which is named after Titania (Queen of the Fairies), is an epiphyte (and occasionally a lithophyte) distributed from the Hastings River in north-eastern New South Wales to the Iron Range in north-eastern Queensland. It too is found in an extensive range of habitats - rainforest gullies, littoral rainforest gorges in open forest, monsoonal rainforest thickets and mangroves.

The flattened grey-green or pinkish leaves form spreading clumps, and the rusty-red flowers are even smaller than those of *O. complanata* so, again, you will need a magnifying glass to study the floral features.

Alex has been growing this species for over three years now, and we are pleased to report that it is thriving on a fence paling and carpet underlay mount. The plant has already increased in size and, each autumn since it has been in our possession, it has produced

several arching racemes, each about 7cm to 9cm long, and thousands of flowers. It is growing under 50 percent shadecloth and Alex adds a second layer of shadecloth for the summer months. He waters and fertilises it with everything else.

The dainty Fairy Bells (*Sarcochilus ceciliae*) would have to be one of the prettiest species to grace the display benches. Named in honour of Cecilia Viennot van Maseyk, *S. ceciliae* is a lithophyte that lives amongst leaf litter accumulation within rainforests and other moist, humid situations. This species forms small but dense clumps that may spread into colonies that can be found from quite shady positions to exposed, sunny sites. The range of distribution is from the Hastings River in central-eastern New South Wales to the Atherton Tableland in north-eastern Queensland.

Like many other growers, we killed a few of these plants in our early growing days. When we joined the A.N.O.S. Victorian Group over 25 years ago, *S. ceciliae* was not often benched, and many who were growing it struggled to keep their plants alive. However, thanks to our members who have always generously shared information, we seem to have cracked the *S. ceciliae* code.

These days' growers have given up the plant jammed into a pot of pinebark mix because that method wasn't working. We now grow *S. ceciliae* in saucers of coarse, chunky material such as small rocks and pebbles, in mesh pots, or on mounts of various sorts. No longer do we half-bury our plants in the mix, rather we place the crown high on a mound and allow the roots to wander where they will. Drainage is excellent and we provide bright light, humidity and lots of air movement.

Although we have plenty of *S. ceciliae* plants in our own collection, we have featured Daryl William's pink flowered form that demonstrates just how successful this species can be when mounted on a rock, and Phil Colquhoun's "difficult" albino form that he is growing to perfection in a mesh pot.
Liparis coelogynoides, the Fairy Tree Orchid, is the smallest of the Australian *Liparis*. It forms compact clumps of yellowish pseudobulbs and yellowish green leaves. Arching or pendulous racemes of up to 20 pale, gossamer-thin flowers appear during the summer months. This widespread epiphyte or lithophyte is found on cliff faces in rainforests, humid gullies and along stream banks between Newcastle in north-eastern New South Wales and the Bunya Mountains in south-eastern Queensland.

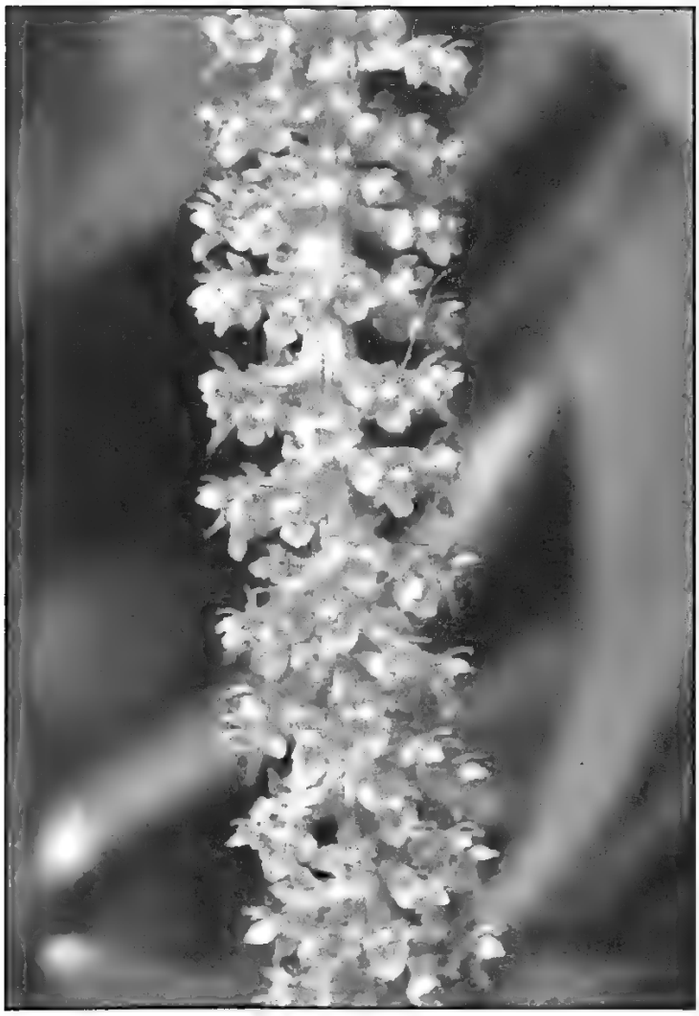
Liparis are generally very easy orchids to grow and are ideal for beginners. We have a couple of *L. coelogynoides* mounted onto black treefern and several other plants in squat pots with a Perlite® and chopped sphagnum mix. It may be worth noting that our potted plants are growing a little more vigorously than our mounted ones. Our Fairy Tree Orchids receive fairly bright light and plenty of air movement.
As you can see, there really are fairies living in our garden!

-oOo-

Oberonia titania (*Oberonia palmicola*)

Oberonia complanata (syn. *O. muelleriana*)

Photos Montgomery Wild



Oberonia titania (*Oberonia palmicola*) (close-up)

Oberonia complanata (syn. *O. muelleriana*) (close-up)

Sarcochilus ceciliae grown by Daryl Williams

Photos Montgomery Wild

Orchid Shows and Events.

The Combined Orchid Societies T.O.S. - D.D.O.A. - NOSTI
Winter Show Toowoomba 2005
5th-6th August 9am-5pm.
7th August 9am-4pm
@ Walsh's Seeds & Garden Centre
881 Ruthven St.
Toowoomba 4350

NOSTI Spring Show September 2005
10th September 9am-5pm.
11th September 9am-4pm
@ Our Saviour's Lutheran Church Hall
cnr. West & Alderley Sts
Toowoomba 4350

10th Anniversary Sarcochilus Show Festival 2005
22nd October 9am-5pm.
23rd October 9am-4pm
@ Walsh's Seeds & Garden Centre
881 Ruthven St. Toowoomba 4350

ANOS Central Coast Shows, 2005.

Spring Show
8th September - 11th September
Australian Springtime Flora Festival
Mount Penang Parklands,
Kariong New South Wales

Sarcochilus Show
22nd &23rd October
Bushlands Garden & Aquarium Centre
445 The Entrance Road
Erina Heights, New South Wales

Secretary ANOS Central Coast Group
Michael Fish
PO Box 3010 Erina NSW, 2250
02 4343 1809

ANOS Newcastle Group Spring Show
27th - 28th August
Club Macquarie
458 Lake Road Argenton

ANOS Warringah Group Spring Show
10th - 11th September
Forestville Memorial Hall,
Starkey St, Forestville

ANOS Port Hacking Group Spring Show
Sunday 11th September
Scout Hall, Old Bush Rd, Yarrawarrah

ANOS Port Hacking Group Sarcochilus Show
Sunday 23rd October
Scout Hall, Old Bush Rd, Yarrawarrah

ANOS Illawarra Group Spring Show
17th -18th September
Old Courthouse, Cliff Rd, Wollongong

ANOS Illawarra Group Sarcochilus Show
15th - 16th October
Old Courthouse, Cliff Rd, Wollongong

ANOS Sydney Group Spring Show
17th -18th September
Eastwood Shopping Centre

ANOS Sydney Group Sarcochilus Show
Sunday 30th October
Baulkham Hills Community Centre
Connie Ave, Baulkham Hills

ANOS Geelong Group Annual Spring Sarcochlus Show
5th - 6th November, 2005
The Masonic Centre
Regent St, Belmont Geelong
Melways page 451 H 10

Devonport Orchid Society's Sarcochilus Show 2005
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Devonport Showgroud, Gunn St Entrance
Contact Secretary
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Miscellaneous Nomenclatural Notes and Changes in Australian, New Guinea and New Zealand Orchidaceae

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Abstract

Sullivania F.Muell. is an earlier valid name for *Paracaleana, Cestichis* is reinstated and applied to the Australian and New Guinea epiphytic species of *Liparis*, *Myrmechila* is a new segregate genus from *Chiloglottis*, *Spilorchis* is a new genus for *Bulbophyllum weinthalii,* two new subgenera are described in *Jonesiopsis*, new combinations are made for natural hybrids in *Arachnorchis* and *Jonesiopsis*, new combinations are made in *Arachnorchis*, *Bryobium*, *Corunastylis*, *Diteilis*, *Empusa*, *Petalochilus*, *Prasophyllum* and *Thelychiton*.

Introduction

Ongoing morphological studies, examination of historical documents and molecular studies into various groups continues to reveal new information about Australasian Orchidaceae. Nomenclatural adjustments resulting from these studies are dealt with in this paper.

Typification of *Caladenia* R.Br.: Hopper and Brown (2004) were highly critical of aspects of our research into the Caladeniinae (Jones *et al.* 2001). Central to this criticism was our recognition of *Caladenia flava* R.Br. as the generic type of *Caladenia* based on a paper by Pfitzer (1889). By recognising Pfitzer's choice of *C. flava* as the type, previous choices made by other authors were superfluous, namely *C. catenata* (Sm.) Druce by Hallé (1977) (overlooked by Hopper and Brown 2004), and *C. carnea* R.Br. by Clements (1989).

Pfitzer was the first author to designate, inadvertently or otherwise, many types for taxa in the family Orchidaceae, including *Caladenia*. In the case of *Caladenia*, he recognised five sections and nominated a single species for the first four of these as a representative or typical species for each taxon:

(i) Sect. *Leptoceras* R.Br. - *C.menziesii* R.Br;

(ii) Sect. *Phlebochilus* Benth. - *C. multiclavia* Rchb.f.;

(iii) Sect. *Calonema* Lindl. - *C. patersonii* R.Br.;

and (iv) Sect. Eucaladenia Lindl. - *C. flava* R.Br.

For (v) Sect. *Pentisia* Lindl. he refers to *C. dimorpha* Fitzg. having a retractable labellum like that of *Pterostylis* but failed to specifically nominate a typical representative species for the group.

By the nomination of a single representative or typical species, which is repeated throughout the entire text, Pfitzer has effectively lectotypied many taxa in this publication (L. Adams and A. Orchard, pers. comm.).

Hopper and Brown argued against the interpretation of *C. flava* as the type of *Caladenia* on the basis that, amongst other things, Pfitzer did not explicitely use the term "type" (*typus*) or an equivalant in the text as required by Art 7.11 of the ICBN (2000). However, a study of Pfitzer's text reveals a number of significant factors. Firstly, Pfitzer, who studied plant morphology, based his classification of the family Orchidaceae principally on accounts by other authors including notable orchid botanists such as Lindley (1830-40), Fitzgerald (1875-1893), Reichenbach (1861) and Bentham (1873). An overall result was that there was very little deviation from the fundamental structure of preceding systems of orchid classification. Secondly, Pfitzer's paper pre-dates any formal use of the "type" concept in the ICBN. Finally, and most importantly,

by the citation of a single species as an example for many of the taxa throughout the text, Pfitzer was by this act "effectively lectotypifying" these taxa.

In the case of *Caladenia*, the species chosen by Pfitzer for sections within the genus are logical in an historical context. The choice of *C. flava*, which was cited as representative of Sect. IV. *Eucaladenia*, was logical and appropriate according to the articles of the ICBN for the following reasons:-

a). historically *C. flava* was included within Brown's original concept of *Caladenia* section *Caladenia*,

b) Lindley (1840) when re-defining *Caladenia* narrowed the circumscription of "*Eucaladenia*" to include those species with sepals and petals approximately equal in size, not drawn out, and with a tripartite labellum having rows of calli. This treatment includes *C. flava* which Lindley refers to among the most striking of species from the region. He also describes *C. marginata, C. ochreata, C. unquiculata, C. mollis, C. elongata, C. reptans* and *C. sericea* and included these in his concept, and

c) Bentham (1873) upon whom Pfitzer relied heavily, treated *C. flava* first in his key and in his treatment of *Caladenia* section *Eucaladenia*.

Since Pfitzer's choice, inadvertent or otherwise, of *C. flava* as the type of *Eucaladenia* fits within and is not in conflict with Brown's original protologue, the choice should stand. Furthermore, Pfitzer's action renders superfluous the later choices of *C. catenata* (Hallé 1977) and *C. carnea* (Clements 1989).

TAXONOMY

1. *Arachnorchis* D.L.Jones et M.A.Clem., *Orchadian* 13(9): 392 (Oct. 2001). Type species: *Caladenia patersonii* R.Br.

New Combination:

Arachnorchis graniticola (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. et stat. nov.*** Basionyn: *Caladenia hoffmanii* Hopper et A.P.Br. subsp. *graniticola* Hopper et A.P.Br., N*uytsia* 14(1/2): 92 (2001).

Natural Hybrids - New Combinations:

Arachnorchis* X *aestantha (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., **comb. nov**. Basionym *Caladenia* X *aestantha* Hopper et A.P.Br. *Nuytsia* 14(1/2): 286 (2001).

Arachnorchis* X *cala (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., **comb. nov**. Basionym *Caladenia* X *cala* Hopper et A.P.Br. *Nuytsia* 14(1/2): 286-287 (2001).

Arachnorchis* X *coactescens (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., **comb. nov**. Basionym *Caladenia* X *coactescens* Hopper et A.P.Br. *Nuytsia* 14(1/2): 287 (2001).

***Arachnorchis* X exserta** (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., **comb. nov**. Basionym *Caladenia* X *exserta* Hopper et A.P.Br. *Nuytsia* 14(1/2): 291-292 (2001).

Arachnorchis* X *hypata (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., **comb. nov**. Basionym *Caladenia* X *hypata* Hopper et A.P.Br. *Nuytsia* 14(1/2): 295 (2001).

Arachnorchis* X *suffusa (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov**. Basionym *Caladenia* X *suffusa* Hopper & A.P.Br. *Nuytsia* 14(1/2): 300 (2001).

2. *Jonesiopsis* D.L.Szlachetko ex D.L.Jones et M.A.Clem., *Orchadian* 14(4): 179 (June 2003). Type species: *Jonesiopsis* [*Jonesyella*] *multiclavia* (Rchb.f.) Szlach.

Although the name *Jonesiopsis* was originally published with type species and combinations cited using the name "*Jonesyella*" (Szlachetko 2001a), according to Article 32.5 and 32.6 of ICBN (Grueter *et al*. 2000), the name "*Jonesyella*" is treated as a typographical error for *Jonesiopsis* which is therefore valid for the purposes of publication and use. Szlachetko must have recognised that there was a potential nomenclatural problem because he attempted to correct his mistake by remaking the combination using the correct spelling for the genus *Jonesiopsis* not "*Jonesyella*" (although even in this second attempt to rectify the situation he misspelt the name as "*Jonesiella*") (Szlachetko 2001c).

In describing *Jonesiopsis* Szlachetko chose [*Jonesyella*] *multiclavia* (Rchb.f.) Szlach.

(*Caladenia multiclavia* Rchb.f.) as the type. On the same page Szlachetko also raised *Caladenia* R.Br. sect. *Phlebochilus* Benth. (1873) to generic status, *viz Phlebochilus* (Benth.) Szlach. although he did not cite a type. Jones *et al.* (2001) considered there were two problems with this proposal:

(i) use of the phrase "*stat. & comb. nov.*" and,

(ii) the non citation of a type.

Misuse of a phrase "*stat. & comb. nov.*" instead of "*gen. et stat. nov.*" for what clearly is a "mononomial" generic name rather than "binomial" whilst grammatically incorrect is not considered grounds for the non-recognition or acceptance of a the name of a taxon. However, we considered the non citation of a type grounds for treating the newly recognised genus *Phlebochilus* as invalidly published, based on Article 37.1 of ICBN where it states that "Publication on or after 1 January 1958 of the name of a new taxon of the rank of genus or below is valid only when the type of the name is indicated...". On consultation with R.Brummit and K.Challis at Kew (pers. comm.) they considered this article was irrelevant because *Phlebochilus* was not a "new taxon" rather it was a taxon in which the rank or status had been changed. Furthermore, there is no requirement in the ICBN for an author making a new combination to cite the type or types of that taxon.

In creating the genera *Jonesiopsis* and *Phlebochilus* Szlachetko failed to recognise that both genera were based on the same type species, *C. multiclavia* Rchb.f. Therefore both generic names are invalid according to ICBN, Art. 34.2, because Szlachetko inadvertently published two different generic names based on the same type in the same publication (actually on the same page).

The name *Jonesiopsis* was validated by Jones and Clements (2003) by their choice of it over *Phlebochilus* which they treated at subgeneric status within *Jonesiopsis,* but incorrectly cited *C. cairnsiana* F.Muell. *fide* Hopper and Brown (2001) as the type, based on an earlier assessment of the taxon (Hopper and Brown, 2000). Acceptance of Pfitzer's choice of *C. multiclavia* as the type for *Caladenia* sect. *Phlebochilus*, for similar reasons to those identified for *C. flava*, means it has priority over any later typification. The choice of the type also means that *Phlebochilus* must be reduced to synonymy under *Jonesiopsis* and a new name chosen for that taxon.

Jonesiopsis Szlach. ex D.L.Jones et M.A.Clem.

A genus of 3 subgenera (2 newly described here):

Jonesiopsis Szlach. ex D.L.Jones et M.A.Clem. subgen. ***Jonesiopsis***, *Orchadian* 14(4); 179 (June 2003).

Phlebochilus (Benth.) Szlach., *Polish Bot. J.* 46(1): 14 (28 Feb. 2001), *nom. inval.* Type species: *Caladenia multiclavia* Rchb.f., *fide* Pfitzer (1889)

Jonesiopsis Szlach. subgen. *Phlebochilus* (Benth.) D.L.Jones et M.A.Clem., *Orchadian* 14(4); 179 (June 2003), *inval.* Basionym: *Caladenia* R.Br. sect. *Phlebochilus* Benth., *Fl. Austral.* 6: 377 (1873). Type species: *Caladenia multiclavia* Rchb.f., *fide* Pfitzer (1889), non *C. cairnsiana* F.Muell, *fide* Hopper et A.P.Br. (2000).

Jonesiopsis Szlach. ex D.L.Jones et M.A.Clem. subg. ***Aphronorchis*, subg. nov.**; affinis subgenus *Jonesiopsis*, sed sepalis brevibus decurvis; labello transversaliter cordato, apice brevi glandulari et callis liberis erectis stipitatis in fascia centrala angusta, differt. Type species: *Caladenia roei* Benth., *here designated.* (Greek *aphro*, crazy, silly, fool, *orchis*, an orchid - reference to the vernacular "Clown Orchids"). Differs by flowers with short decurved sepals, a transversely cordate labellum with a short glandular apex and labellum calli being free, erect and stalked, in a narrow central band.

Jonesiopsis Szlach. ex D.L.Jones et M.A.Clem. subgen. ***Longifilarum* subgen. nov.**; affinis subgenus *Jonesiopsis*, sed tepalis apicibus filamentosis et glandibus lineari-teretibus; et labello callis prostratis incudiformis bifaris, differt. Type species:

Caladenia filamentosa R.Br., *here designated.* (Latin *longus*, long, *filum*, thread). Differs by flowers with filamentous tips on the sepals and petals, linear-terete osmophore glands and the labellum calli being prostrate, anvil-shaped and in two rows.

Natural Hybrids - New Combinations:

Jonesiopsis* X *ericksoniae (Nicholls) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia* X *ericksoniae* Nicholls, *Victorian Naturalist* 66: 214, f. E (1950).

Jonesiopsis X exoleta (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia* X *exoleta* Hopper et A.P.Br., *Nuytsia* 14(1/2): 292, 295, f. 74A (24 Sept. 2001).

Jonesiopsis* X *lavandulacea (R.S.Rogers) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia* X *lavandulacea* R.S.Rogers, *Trans. & Proc. Roy. Soc. South Australia* 51: 11 (1927).

Jonesiopsis* X *resupina (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia* X *resupina* Hopper et A.P.Br., *Nuytsia* 14(1/2): 299, f. 75B, 77B (24 Sept. 2001).

Jonesiopsis* X *tryphera (Hopper et A.P.Br.)D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia* X *tryphera* Hopper et A.P.Br., *Nuytsia* 14(1/2): 302, f. 78C, 78B (24 Sept. 2001).

3. *Petalochilus* R.S.Rogers, *J. Bot.* 62: 65 (1924). Type: *Petalochilus calyciformis* R.S.Rogers, *fide* Jones et Clements (2001).

Petalochilus porphyreus (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia porphyrea* D.L.Jones, *Orchadian* 14(8): *Suppl.* xv (2004).

4. *Sullivania* F.Muell., *J. Proc. Roy. Soc. New South Wales* 15: 229 (1882). Type species: *Caleya sullivanii* F.Muell., *here designated.*

Paracaleana Blaxell, *Contr. New South Wales Natl. Herb.* 4: 281(1972). Type species: *Caleana minor* R.Br., *fide* Blaxell (1972), ***syn. nov.*** *Sullivania* is an overlooked name for *Paracaleana* that was legally published in 1882. Although the description is very brief there can be little doubt as to what von Mueller's intention was when he named this genus, an interpretation confirmed by K. Challis of Kew and Gea Zijlstra of Utrecht (pers. comm.). This is despite the fact that he changed his mind less than a year later by describing the particular species involved as *Caleya sullivanii* F.Muell. which is now treated as an abnormal spelling of *Caleana sullivanii* and as a taxonomic synonym of *Caleana minor*. *Sullivania* O.Varol, *J. Micropalaeontol.* 11: 144 (Dec 1992) is a Fossil-Prymnesiophyceae-Coccolithaceae and a later homonym of *Sullivania* F.Muell. Fossil species described using this name have since been changed possibly as a result it being a later homonym of *Sullivania* F.Muell. Consideration was given to submitting a proposal for the conservation of *Paracaleana* over *Sullivania* but the fact that this is only a small group of orchids of no commercial importance weighs heavily against such a move. *Sullivania* is presently interpreted as a genus of two subgenera.

New Combinations:

subgen. ***Sullivania***

Sullivania minor (R.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caleana minor* R.Br., *Prod.* 329 (1810).

subgen. ***Tanychila*** (D.L.Jones et M.A.Clem.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Paracaleana* Blaxell subgen. *Tanychila* D.L.Jones et M.A.Clem., *Orchadian* 13(10): 458 (2002). Type species: *Paracaleana nigrita* (J.Drummond ex Lindl.) Blaxell.

Sullivania disjuncta (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Paracaleana disjuncta* D.L.Jones, Orchadian 14(5): 226-228, f. (2003).

Sullivania nigrita (J.Drummond ex Lindl.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caleana nigrita* J.Drummond ex Lindl. in Edwards', Bot. Reg. 1-23: Swan Riv. Append. liv (1840).

5. *Myrmechila* D.L.Jones et M.A.Clem.;

affinis *Chiloglottis* R.Br., sed habitu florescentia vernali; floribus erectis ad suberectos; osmophoris sepalinis perbrevis; et labellis obtrullatis, differt. Type species: *Chiloglottis formicifera* Fitzg., *here designated*.

Molecular studies supported by morphology show that *Chiloglottis* consists of three major groups. *Simpliglottis* has already been described (Szlachetko 2001a) and recognised by other authors (Jeanes 2002). *Myrmechila* is erected here to cater for the spring flowering species with erect to suberect flowers, very short sepaline osmophores and obtrullate labella, which are equally distinct from *Chiloglottis* and *Simpliglottis*.

Etymology: Greek *myrmex*, ant and *cheilos*, lip, in reference to the ant-like arrangement of the labellum calli.

New Combinations:

Myrmechila formicifera (Fitzg.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Chiloglottis formicifera* Fitzg., *Austral. orch.* 1(3): [t.9] (1877).

Myrmechila platyptera (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Chiloglottis platyptera* D.L.Jones, *Austral. Orch. Res.*. 2: 39, f.48 (1991).

Myrmechila trapeziformis (Fitzg.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Chiloglottis formicifera* Fitzg., *Austral. orch.* 1(3): [t.9] (1877).

Myrmechila trullata (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Chiloglottis trullata* D.L.Jones, *Austral. Orch. Res.*. 2: 42, f.52 (1991).

Myrmechila truncata (D.L.Jones et M.A.Clem.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Chiloglottis truncata* D.L.Jones et M.A.Clem., *Proc. Roy. Soc. Queensland*. 98: 124, f.2 (1987).

6. *Spilorchis* D.L.Jones et M.A.Clem., **gen. nov**.; affinis *Bulbophyllum* Thouars, sed pseudobulbis juvenis tegmine leniter fibroso; folio singulari; inflorescentia 1-flora; tepalis textibus crassis et ceraseis; et labello crasso, succulento, differt. Type species: *Bulbophyllum weinthalii* R.S.Rogers, *here designated*.

We recently transferred *Bulbophyllum weinthalii* to *Adelopetalum* (Clements and Jones 2002) but further studies showed that it has little affinity with that genus and it is here placed in the new genus *Spilorchis*. The genus is distinguished by soft fibrous lanose sheaths on young pseudobulbs, single leaf on each pseudobulb, 1-flowered inflorescence and flowers with thick textured waxy tepals and a very thick fleshy labellum. We await the results of broader molecular analyses of the subtribe to determine the true affinities of the new genus.

Etymology: Greek *spilos*, spotted, stained, marked and *Orchis*, another genus of Orchidaceae but also applied generally to orchids; reference to prominent floral markings.

New Combinations:

Spilorchis weinthalii (R.S.Rogers) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Bulbophyllum weinthalii* R.S.Rogers, *Trans. & Proc. Roy. Soc. South Australia* 57: 95-6 (1933).

Spilorchis weinthalii (R.S.Rogers) D.L.Jones et M.A.Clem. subsp. ***striatum*** (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Bulbophyllum weinthalii* R.S.Rogers subsp. *striatum* D.L.Jones, *Orchadian* 13(7): 313 (2001).

7. *Corunastylis* Fitzg., *Austral. orch.*, 2(3): [t.1] (1888). Type species: *Corunastylis apostasioides* Fitzg.

New Combination:

Corunastylis densa (Fitzg.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Prasophyllum densum* Fitzg., *J. Bot.* 23: 135 (1885).

8. *Cestichis* Thouars ex Pfitzer, *Entwurf Natürl. Anordn. Orchid.* 56 (1887). Type species: *Malaxis caespitosa* Thouars [*Cestichis caespitosa* (Thouars) Ames], *here designated*.

Cestichis Thouars, *Orch. Afr.* t. 90 (1822), *nom. illeg.*, *fide* Rasmussen et Rasmussen (1975).

Liparis L.C.Rich. sect. *Coriifoliae* Ridl., *J.Linn.Soc., Bot.* 22: 257 (1887). Type species: *non designatus*.

Liparis L.C.Rich. subgen. *Cestichis* (Thouars ex Pfitzer) Schltr. sect. *Hologlossum* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 1: 199, 208 (1 Dec.1911). Type species: *Liparis caespitosa* (Thouars) Lindl., *here designated.*

Molecular studies of the Malaxideae show that floral morphology in this group is conservative and vegetative characters are of greater significance in the classification of the group (Cameron 2005). In an earlier treatment we reinstated the genera *Diteilis* and *Empusa* for the Australian terrestrial species (Jones and Clements 2004) and here we reinstate *Cestichis* for the epiphytic species with conduplicate leaves. The choice of the type for *Cestichis* is self-evident because the plate of *Malaxis caespitosa* is the original source of the generic name.

The name *Cestichis*, which is a compound derived from a combination of the generic name *Stichorchis* and the specific epithet of *Malaxis caespitosa*, is invalid in its original form but was validated inadvertantly by Pfitzer (1889) when he defined the genus in his treatment of *Liparis*. The status of *Cestichis*, overlooked by most authors prior to this treatment, has been confirmed by K.Challis of Kew (pers. comm.). *Cestichis* comprises several sections, two of which have Australian and New Guinea representatives.

New Combinations:

Cestichis* sect. *Cestichis Pseudobulbs short, ovoid to conical; labellum lateral margins entire.

Cestichis angustilabris (F.Muell.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Sturmia angustilabris* F.Muell., *Fragm.* 4: 164 (1864).

Cestichis bracteata (T.E.Hunt) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis bracteata* T.E.Hunt, *North Queensland Naturalist* 14(81): 9, f. (1946).

Cestichis coelogynoides (F.Muell.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Sturmia coelogynoides* F.Muell., *Fragm.* 2: 71 (1860).

Cestichis fleckeri (Nicholls.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis fleckeri* Nicholls, *North Queensland Naturalist* 6(53): 1, f. (1938).

Cestichis nugentiae (F.M.Bailey) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis nugentiae* F.M.Bailey, *Bot. Bull. Dept. Agric.* Queensland 14: 11 (1896).

Cestichis reflexa (R.Br.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Cymbidium reflexum* R.Br., *Prod.* 331 (1810).

Cestichis swenssonii (F.M.Bailey) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis swenssonii* F.M.Bailey, *Queensland Agric. J.* 16(9): 564 (1906).

Cestichis aaronii (P.J.Cribb et B.Lewis) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis aaronii P.J.Cribb et B.Lewis*, Orchid Rev. 97(1150): 251 (1989).

Cestichis acaulis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis acaulis Schltr.* in K.Schum. et Laut., Nachtr. Fl. Deutsch. Südsee 102 (1905).

Cestichis alpina (P.Royen) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis alpina P.Royen*, Alp. Fl. New Guinea 2: 700 (1979).

Cestichis altigena (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis altigena Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 192 (1911).

Cestichis arachnites (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis arachnites Schltr.* , Repert. Spec. Nov. Regni Veg. Beih.1: 192 (1911).

Cestichis brachystele (Ridl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis brachystele Ridl.*, Trans. Linn. Soc., Bot. 9: 162 (1916).

Cestichis brevicaulis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis brevicaulis Schltr.*, Repert. Spec. Nov. Regni Veg. Beih.1: 202 (1911).

Cestichis calcarea (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis calcarea Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 194 (1911).

Cestichis caricifolia (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis caricifolia Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 188 (1911).

Cestichis chlorantha (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis chlorantha Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 201 (1911).

Cestichis cinnabarina (J.J.Sm.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis cinnabarina J.J.Sm.*, Bull. Dep. Agric. Indes Neerl. 19: 26 (1908).

Cestichis congesta (Ridl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis congesta Ridl.*, Trans. Linn Soc., Bot. 9: 163 (1916).

Cestichis cymbidiifolia (J.J.Sm.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis cymbidiifolia J.J.Sm.*, Bull. Dep. Agric. Indes Neerl. 19: 27 (1908).

Cestichis cyperifolia (Ridl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis cyperifolia Ridl.*, Trans. Linn Soc., Bot. 9: 162 (1916).

Cestichis dolichobulba (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis dolichobulbon Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 190 (1911).

Cestichis elegans (Lindl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis elegans Lindl.*, Gen. Sp. Orch. Pl. 30 (1830).

Cestichis elliptica (Wight) M.A.Clem. et D.L.Jones, ***comb. nov***. Basionym: *Liparis elliptica* Wight, Icon. Pl. Ind. Orient 5: t. 1735 (1852).

Cestichis exilis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis exilis J.J.Sm.*, Bull. Dep. Agric. Indes Neerl. 19: 27 (1908).

Cestichis flabellata (J.J.Sm.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis flabellata J.J.Sm.*, Bull. Dep. Agric. Indes Neerl. 19: 27 (1908).

Cestichis genychila (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis genychila Schltr.* in K.Schum. et Laut., Nachtr. Fl. Deutsch. Südsee 103 (1905).

Cestichis gibbsiae (J.J.Sm.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis gibbsiae J.J.Sm.* in L.S.Gibbs, Phytogeogr. & Fl. Arfak Mts. 112 (1917).

Cestichis imperatifolia (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis imperatifolia Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 187 (1911).

Cestichis kempfii (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis kempfii Schltr.*, Repert. Spec. Nov. Regni Veg. 16: 110 (1919).

Cestichis kempteriana (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis kempteriana Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 208 (1911).

Cestichis latibasis (J.J.Sm.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis latibasis J.J.Sm.*, Repert. Spec. Nov. Regni Veg. 11: 556 (1913).

Cestichis leptopus (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis leptopus Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 196 (1911).

Cestichis major (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis major Schltr.* in K.Schum. et Laut., Nachtr. Fl. Deutsch. Südsee 104 (1905).

Cestichis mapaniifolia (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis mapaniifolia Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 189 (1911).

Cestichis ovalis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis ovalis Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 202 (1911).

Cestichis pedicellaris (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis pedicellaris Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 191 (1911).

Cestichis platychila (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis platychila Schltr.* in K.Schum. et Laut., Nachtr. Fl. Deutsch. Südsee 105 (1905).

Cestichis pullei (J.J.Sm.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis pullei J.J.Sm.*, Bull. Jard. Bot. Buitenz. (ser. 2), 13: 56 (1914).

Cestichis schistochila (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis schistochila Schltr.*, Repert. Spec. Nov. Regni Veg. 3: 80 (1906).

Cestichis scleriifolia (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis scleriifolia Schltr.*, Bot. Syst. Jahrb. 58: 66 (1922).

Cestichis similis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis*

similis Schltr., Repert. Spec. Nov. Regni Veg. Beih. 1: 197 (1911).

Cestichis sympodialis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis sympodialis Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 193 (1911).

Cestichis torricellensis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis torricellensis Schltr.* in K.Schum. et Laut., Nachtr. Fl. Deutsch. Südsee 107 (1905).

Cestichis truncicola (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis truncicola Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 199 (1911).

Cestichis werneri (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis werneri Schltr.*, Repert. Spec. Nov. Regni Veg. 10: 250 (1911).

Cestichis Thouars ex Pfitzer section ***Blepharoglossum*** (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis* L.C.Rich. subgen. *Cestichis* (Thouars ex Pfitzer) Schltr. sect. *Blepharoglossum* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 1: 199, 203 (1 Dec.1911). Type species: *Liparis parviflora* Lindl., *here designated.* Differs by elongate lageniform pseudobulbs, small flowers and labellum lateral margins minutely serrulate-denticulate.

Cestichis condylobulbon (Rchb.f.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis condylobulbon* Rchb.f., *Hamb. Gartenz* 18: 34 (1862).

Cestichis elegans (Lindl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis elegans* Lindl., Gen. Sp. Orch. Pl. 30 (1830).

Cestichis indifferens (J.J.Sm.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis indifferens* J.J.Sm., Repert. Spec. Nov. Regni Veg. 12: 24 (1913).

Cestichis insectifera (Ridl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: Orchidaceae Liparis insectifera Ridl., Trans. Linn. Soc., Bot. 9: 163 (1916).

Cestichis merapiensis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis merapiensis* Schltr., Bot. Jahrb. Syst. 45: Beibl. 104, 16 (1911).

Cestichis latifolia (Blume) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Malaxis latifolia* Blume, Bijdr. 393 (1825).

Cestichis microblepharon (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis microblepharon Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 205 (1911).

Cestichis orbiculata (L.O.Williams) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis orbiculata* L.O.Williams, Amer. Orch. Soc. Bull. 10: 201 (1941).

Cestichis parviflora (Blume) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Malaxis parviflora* Blume, Bijdr. 392 (1825).

Cestichis persimilis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis persimilis Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 206 (1911).

Cestichis serrulata (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis serrulata Schltr.* in K.Schum. et Laut., Nachtr. Fl. Deutsch. Südsee 106 (1905).

Cestichis spectabilis (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis spectabilis Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 204 (1911).

Cestichis stenostachya (Schltr.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis stenostachya Schltr.*, Repert. Spec. Nov. Regni Veg. Beih. 1: 20

9. *Diteilis* Raf., Herb. Raf. 73 (1833). Type species: *Diteilis nepalensis* Raf., *nom. illeg.* (*Liparis bituberculata* (Hook.) Lindl.) .

New Combinations:

Diteilis elata (Lindl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis elata* Lindl. in Edwards', Bot. Reg. 14: t. 1175 (1828).

Diteilis formosana (F.Muell.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis formosana* Rchb.f., Gard. Chron. 1: 394 (1880).

Diteilis layardii (F.Muell.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis layardii* F.Muell., Wing's South. Sci. Rec. (new ser.), 1 (Dec. 1885); Bot. Centralbl. 26: 87 (1886).

Diteilis nervosa (Thunb.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Ophrys nervosa* Thunb., Fl. Jap. 27 (1784).

Diteilis nigra (Seidenf.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis nigra* Seidenf., Bot. Tidsskr. 65: 129 (1969).
Diteilis prianganensis (Blume) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis prianganensis* J.J.Sm., Bull. Jard. Bot. Buitenz. (ser. 2), 9: 43 (1913).
Diteilis rheedii (Blume) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Malaxis rheedii* Blume, Bijdr. 389 (1825).
Diteilis sootenzanensis (Fukuyama) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis sootenzanensis* Fukuyama, Ann. Rep. Taihoku Bot. Gard. 3: 84 (1933).
Diteilis walkeriae (Graham) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis walkeriae* Graham, Edinb. N. Phil. J. 194 (Jan. 1836).
Diteilis wightiana (Thwaites) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis wightiana* Thwaites, Enum. Pl. Zeyl. 295 (1861).
Diteilis wrayi (Hook.f.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis wrayi* Hook.f., Fl. Brit. Ind. 6: 181 (1890).

10. *Empusa* Lindl. in Edwards', Bot. Reg. 10: sub *t. 825* (1 Sept.1824). Type species: *Empusa paradoxa* Lindl.
Empusa disepala (Rchb.f.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis disepala* Rchb.f., Linnaea 41: 97 (1877).
Empusa ferruginea (Lindl.) M.A.Clem. et D.L.Jones, ***comb. nov.*** Basionym: *Liparis ferruginea* Lindl., Gard. Chron. 55 (1848).

11. *Prasophyllum* R.Br., Prodr. 317 (1810). Type species *P. australe* R.Br.
Prasophyllum hectori (Buchanan) Molloy, D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Gastrodia hectori* Buchanan, *Trans. & Proc. New Zealand Inst.* 19: 214 (1887).

12. *Thelychiton* Endl., *Prod. Fl. Norf.* 32 (1833). Type species: *T. macropus* Endl.
Thelychiton howeanus (Maiden) M.A.Clem. et D.L.Jones, **comb. nov.** Basionym: *Dendrobium gracilicaule* F.Muell. var. *howeanum* Maiden, *Proc. Linn. Soc. NSW* 24: 382 (1889).

13. *Bryobium* Lindl., *Nat. Syst.* (ed. 2) 446 (1836), *nom. nud.*; Edwards, *Bot. Reg.* 24, Misc. 79 (1838). Type species: *Bryobium pubescens* Lindl.
Bryobium intermedium (Dockr.) D.L.Jones et M.A.Clem., **comb. nov**. Basionym: *Eria intermedia* Dockr., *Austral. Pl.* 3: 120-121.

Acknowledgements
We thank Laurie Adams for the Latin diagnoses, Laurie Adams, Tony Orchard, Katherine Challis, Gea Zijlstra, Richard Brummit for discussions and taxonomic interpretations, Karina Richards for technical assistance and Ish Sharma for DNA analysis. We also express appreciation to Ken Cameron for sharing the results of his molecular study into the Malaxideae.

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Rhizanthella slateri update

Some recent developments in regard to the Bulahdelah population of *Rhizanthella slateri*, here's an update:

(1) Apparently the Bulahdelah population of *Rhizanthella slateri* has been nominated as an endangered population under the New South Wales Threatened Species Conservation Act 1995. The New South Wales Scientific Committee have made a preliminary determination to support the nomination. The SC's determination was placed on public exhibition on 3 June 2005 at http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Preliminary+determinations+by+date and submissions closed 29 July 2005. It is intriguing the Scientific Committee have chosen to state the size of the known population at Bulahdelah - this is apparently the first time this information has been placed in the public domain.

(2) Apparently *Rhizanthella slateri* has been nominated as a threatened species under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. The Commonwealth Threatened Species Scientific Committee has made a preliminary determination to support the nomination. The nomination was placed on public exhibition on 30 June 2005 at http://www.deh.gov.au/biodiversity/threatened/nominations/open-flora.html, and submissions close 30 August 2005.

(3) The Nature Conservation Council of New South Wales, the peak umbrella organisation for 130 environment and conservation groups in New South Wales, has chosen to mount a campaign against the 'Option E' realignment of the Pacific Highway at Bulahdelah, see http://www.nccnsw.org.au/bushland/projects/PoliciesandLegislation/pachwy.html

ANOS members can play an important role in conserving known populations of *Rhizanthella slateri*. For example, the Commonwealth Threatened Species Scientific Committee are inviting submissions. It is intriguing the EPBC nomination is for listing as a vulnerable species - ANOS thinks it should be listed as endangered (giving it a higher level of protection)?

Also, are any members of ANOS aware of threats to populations of *Rhizanthella slateri*? What about the known populations at Nowra - have they been destroyed? Have any other populations been destroyed?

It is not unreasonable to suggest Option E at Bulahdelah is not a foregone conclusion. It is not unreasonable to suggest some people at the Commonwealth Department of the Environment and Heritage (Federal Government) might have concerns about potentially destroying the largest known population of two nationally significant species (*Rhizanthella slateri* and *Cryptostylis hunteriana*).

These developments need to be taken with some enthusiasum and people need to voice their concerns along with ANOS Inc. Let the authorities known we do care and visit these web-addresses and respond!

Peter.

Retiring Conservation Officer.

Alan Dash, after 15 years as the Conservation Officer for the Australasian Native Orchid Society Inc., decided to retire at this year's Annual General Meeting. Alan was at the forefront in developing the conservation committee which kept all the ANOS Groups in touch with matters and developments on issues regarding the conservation of our native orchids.

The National Parks and Wildlife Service consulted Alan and other members of ANOS when drafting the new legislation for the selling of native orchids and has, for many years contacted Alan for information.

ANOS Council appreciates the work, time and effort that Alan has given over the past 15 years. Alan Stephenson of Nowra has stepped in to take over the position of Conservation Officer from Alan Dash.

ANOS Judges New South Wales Panel Social Day.

The ANOS Judges gathered at the home of Darryl and Alison Smedley for a barbeque. Their busy schedule at shows leaves little time for socialising. Occasionally they have a day where they can get together and socialise without the pressure of judging. Some special guests were also invited, Wal and Jill Upton, Ruth Rudkin and myself included. The day was enjoyed by all, as the food, drink and company made for a very relaxed and social time.

Peter Eygelshoven

Above:
Newly appointed Associate Judges for the New South Wales Judging Panel:

Left to right:
Bill Olsen (Sydney Group)
Mike Fish (Central Coast Group)
Roslyn Capell (Warringah Group}
Elvi Hochguertel (Newcastle Group)
Matt Hochguertel (Newcastle Group)
Peter Presland (Newcastle Group)
Bill Dobson (Warringah Group)

Right:
Our hosts for the day Daryl and Alison Smedley.

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- **ANOS Central Coast**, P.O. Box 3010, Erina 2250. ☎(02) 4343-1809. Meetings 8pm, 2nd Wed. each month. Temple Kiely Visitors Centre, Department of Agriculture Station, Research Rd., Narara.
- **ANOS Far North Coast**, P.O. Box 949, Ballina 2478. ☎(02) 6686-6303. Meetings 7.30pm, 3rd Fri. each month. C.W.A. Room, River Street, Ballina.
- **ANOS Illawarra**, 2 Wiford St, Corrimal, 2518. ☎(02) 4284-8308. Meetings 7pm, 2nd Tue. each month. Legacy House, 96 Market St., Wollongong.
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- **ANOS Townsville**, 92 Curie St, Wulguru, 4811. ☎(07) 4778-4311. Meetings 8pm, 1st Tue. each month. Townsville Orchid Society Hall, Pioneer Park (opp. Willows Shopping Centre), Thuringowa..
- **Native Orchid Society of Toowoomba**, P.O. Box 2141,Toowoomba 4350. Meetings 7.30pm, 1st Fri. each month. Luthern Church Hall, Cnr. West and Alderly Sts, Toowoomba.

VICTORIA

- **ANOS Geelong**, Unit2, 2 Elizabeth St., Belmont 3216. ☎(03) 5243-4286. Meetings 8pm, 2nd Wed. each month. Uniting Church Hall, Moorabool St., South Geelong.
- **ANOS Victoria**, P.O. Box 354, Glen Waverley 3150. ☎(03) 9874-5343. Meetings 8pm, 1st Fri. each month. Demonstration Hall, Burnley Horticultural College, Swan St., Burnley.

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- **Native Orchid Society of South Australia**, P.O. Box 565, Unley 5061. ☎(08) 8356-7356. Meetings 8pm, 4th Tue. each month. St. Matthews Hall, 67 Bridge St., Kensington.

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- **ANOS Western Australia**, 95A Ewen St., Scarborough 6019. ☎(08) 9341-6709. Meetings 8pm, 2nd Mon. each month. Wilson Community Hall, Braibrise Rd., Wilson.

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- **ANOS New Zealand**, Margaret Phair, 21 Paparoa Rd, Howick, Auckland, New Zealand.
- **ANOG**, 51A Glenharrow Ave., Christchurch, New Zealand. ☎(03) 342-7474.
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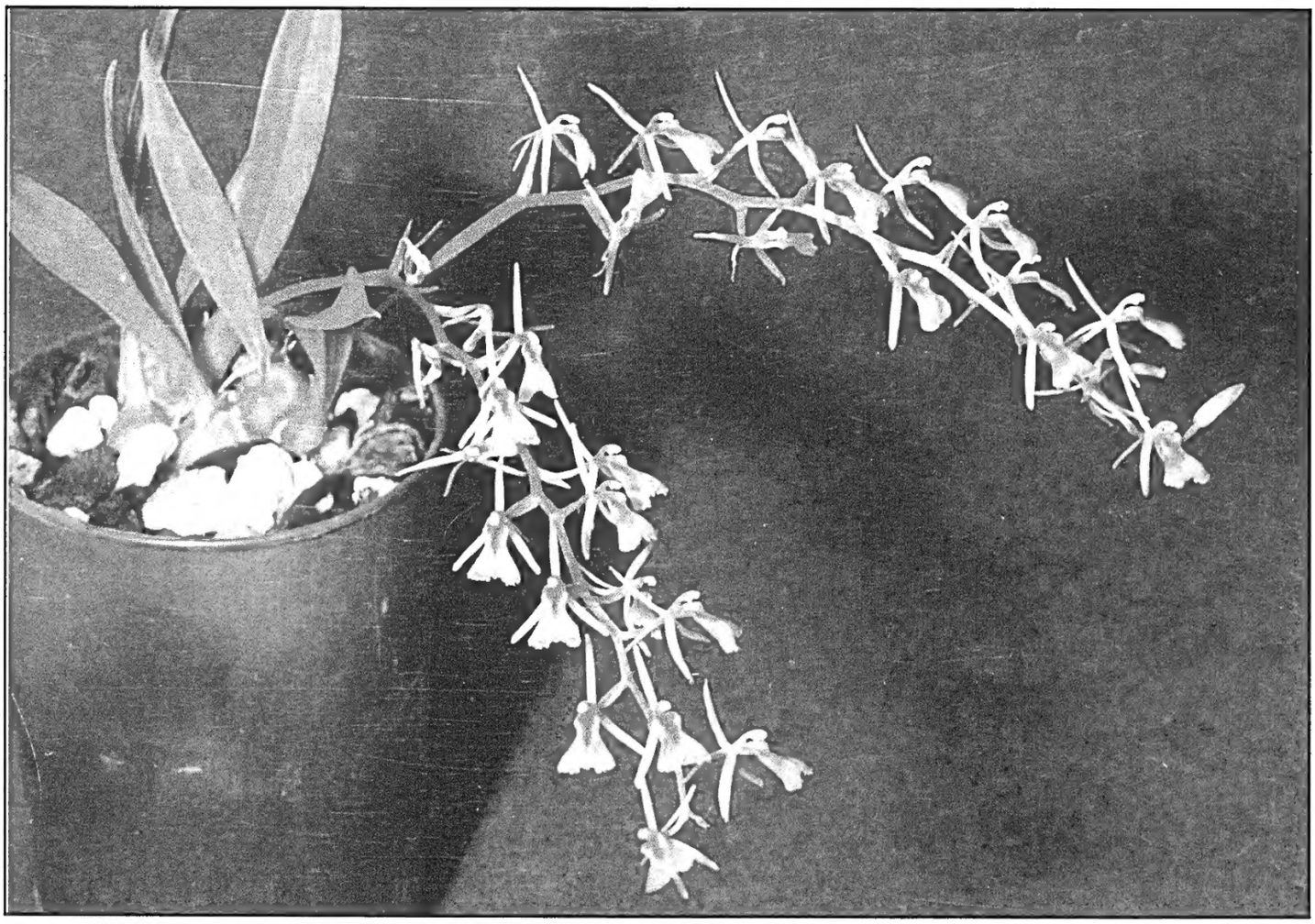

Liparis coelogynoides, the Fairy Tree Orchid

Liparis coelogynoides, the Fairy Tree Orchid (close-up)

Photos Montgomery Wild