A.S.G.A.P INDIGENOUS ORCHID STUDY GROUP **ISSN 1036-9651**

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Some of our members were involved in organising and working at the 38th Tropical North Queensland Orchid Conference held in Atherton in early June. It was good to see them and what a marvellous job they did. I enjoyed the conference very much and no doubt learned a few things, but it is disappointing to see that native species excite so little interest. Of course, many are not in flower at this time of the year and because of size and growth habit some cannot be transported for competition or display purposes. As I mentioned in Newsletter 40 I wrote a piece for the booklet given to registrants. Here it is:

ASGAP INDIGENOUS ORCHID STUDY GROUP

Leadership of the Indigenous Orchid Study Group of the Association of the Societies for Growing Plants, an Australia-wide organisation, moved to Babinda in Far North Queensland in 1995 when Don and Pauline Lawie became Group leaders.

Don and I left New Guinea in 1970 to settle in Babinda, his home town. To me at that time orchids were the expensive corsage a bloke bought when trying to impress a girl, or the things of great interest to Andreé Millar.

As a pharmaceutical chemist, Don had close contact with the hospital staff. Doctor Alan Briggs had quite a few orchids in his back yard – I'm sure some were payment for services rendered – and he took pleasure in showing off their flowers; we took pleasure in viewing them. When one of the nurses, Olga Radnitsky, presented me with a huge vase of Vandas, I was more than impressed and she became a friend for life. Nurse Olga had an eclectic collection in a small shade house. It took just the slightest hint of interest to trigger an invitation to visit, and I was given the occasional plant with plenty of advice as to its requirements. Other local collectors at the time were Billy Fels, Jimmy Sheehan and of course Jack Wilkie. Jack's involvement with orchids is well known.

We, our four children, and our few orchids moved to East Russell at the end of 1976. They were mostly plants Alan Briggs had extracted from his consignment to Brisbane on relocation; he had watered his plants well beforehand and they were way over-weight.

Seeing orchids in their natural habitat along the Russell River and the adjacent mountains which we explored whenever possible fuelled my interest. There was so much more to orchids than the big showy flowers epitomised by the corsages. Don concentrated on trees and joined the Society for Growing Australian Plants. Through SGAP excursions we started exploring outside our own backyard. On these trips I soon realised that when anyone found an orchid the call went our for "Len", so I stuck pretty close to "Len" to learn whatever I could. One of the first things I learned was that Len was keen to help anyone who showed an interest. It took me a bit longer to find out that I had started an apprenticeship with one of the best in the business, Len Lawler.

Len didn't pass out information easily. He made us all work for it by casually making suggestions as to how we might look at a plant. He built our confidence very subtly by never contradicting us, using expressions such as, "I think it might be ..." If Len was not on a particular trip, the orchid ID mantle fell onto Mary Gandini, who was, and is, also very generous in sharing her considerable knowledge.

Dockrill and *Jones* appeared on our book shelves beside the tree books. Don's interest in orchids expanded and we started buying plants. In an attempt to learn more we applied to join the ASGAP Indigenous Orchid Study Group, which at that time was led by Len Butt. Our membership was refused on the grounds that the Study Group was to be disbanded due to Len's failing health. With a great leap of faith Don decided we could lead the Study Group, after being assured we need not be experts to collect, collate and disseminate information. As leaders we composed our first newsletter in September 1995. This, together with all ASGAP study group newsletters, is archived in the Library at the Australian National Botanic Gardens.

As the name suggests, the Indigenous Orchid Study Group covers all aspects of native orchids. Because of the diverse habitats and the ephemeral nature of some species, it's not possible to conduct far-reaching research, but the Study Group does raise the profile of orchids among growers of Australian plants. Having the leadership of the group in Far North Queensland has definitely increased awareness of all things orchidaceous among many people here. Our neighbours over a wide area all grow orchids. They are also quite enthusiastic about what we consider to be the best result of our Study Group involvement – the growing of seedlings, flask grown from local seed, of *Dendrobium nindii* plants for their eventual re-establishment right up and down the Russell River Valley.

Don and I, whether deservedly or not, have become known as the local "orchid people" to whom specimens are brought for identification. (Where would we be without our books?) We are still not experts, but we have learned a fair bit about our local native orchids. We have developed an appreciation of all orchids and are delighted to be part of the orchid confraternity of Far North Queensland.

Bruce Gray, whose name will be familiar to you all, gave his permission for the following to be reprinted. This is an outline of Bruce's lecture to the conference. I thought many of you may find the statistics useful in that you can compare your particular climate and what you know grows in your own area to the information given for particular species, e.g. if *Bulbophyllum baileyi* and *B. schillerianum* grow well for me, then it is highly likely that any other rain forest species which grow between 0-800m (maybe a little higher) will grow well for me if I take into consideration our extremely wet conditions.

Native Orchids of the Cool Tropics

The area between Townsville in the south and Cooktown in the north, from the coast to the western side of the ranges is known as the Wet Tropics. This area also has the highest mountains in the state with large areas over 1000m altitude and several peaks of 1400m or higher. Rainfall, although seasonal, is high and the higher mountains like Thornton Peak and Mt Bellenden Ker have annual rainfalls over 4000mm. Within the Wet Tropics the natural vegetation varies from mangroves, tea tree swamps, lowland rain forest, melaleuca and eucalypt woodland, to mountain rain forest and wet sclerophyll forest to the west of the ranges where the rainfall, and forest diversity falls off sharply. These conditions provide a unique botanical situation and ensure a proliferation of plant species, including orchids, and more than 200 species occur in the area.

Atherton, the business centre for the rich and beautiful Atherton Tableland is at an elevation of about 800m and has an average rainfall of 1300mm, which is distributed through the year, although the largest falls are in summer and autumn. The tableland areas are much cooler than on the coastal lowlands and temperatures as low as 0°C to – 3°C degrees are experienced most years, with a record minimum of –7°C being recorded once. The higher areas around Herberton and Ravenshoe can experience much lower temperatures. These lows are of short duration and the temperature rises quickly after daylight. Summer temperatures in the shade rarely reach 35°C.

Although much of the tableland has been cleared for agriculture or grazing, most of the forest on the surrounding ranges is comparatively untouched and harbours a wealth of orchid species both epiphytic and terrestrial. Over 80 epiphytic and 40 terrestrial species occur in these cool tropical areas over 700m. The higher mountains with Mt Finnigan, just south of Cooktown, the Windsor and Carbine Tablelands, Mt Bartle

Frere and Mt Bellenden Ker, the Lamb and Herberton Ranges near Atherton, the Evelyn Tableland, and the Kirrima and Paluma Ranges to the south, are the richest areas with the most diversification. In addition most of these areas have one or more unique species.

More that 35 species are endemic within this cool tropics area above 700m. This is caused primarily by the much lower and dry corridors that occur north of about Cooktown to the southern end of the McIlwraith Range, and in the south from about Townsville to the Clark Range, northwest of Mackay. These corridors are much drier and support only small and disjunct areas of depauperate closed forests.

There are several species like *Sarcochilus falcatus, S. Cecilia, Dendrobium aemulum, D. gracilicaule* and *Cymbidium suave* that are common in the south and have their northern limit here. Species like *Dendrobium jonesii, Cadetia taylori*, and most *Eria* species occur here and further north to the McIllwraith and Iron Range areas, and sometimes on into PNG or South-East Asia. Genera with southern affinities like *Corybas, Diuris, Pterostylis* and *Sarcochilus* usually occur above 700 m, and species of genera with northern affinities like *Habenaria* do not have any species that occur above 700 m in this area.

The following table contains the species that occur above 700 m between Cooktown and Townsville and indicates if they are endemic to this area; are usually epiphytic, are terrestrial or lithophytic; and if they occur in rain forest or open forest.

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Bruce Gray
Atherton

Table 1. List of species orchids of the Cool Wet Tropics.

Species	Endemic to region (E)	Epiphytic (E); Lithophytic (L); Terrestrial (T)	Rainforest (RF) or Open Forest (OF)	Elevation range (m)
Acianthus borealis		T	OF	600-1200
Acianthus sublestus		T	RF	900-1300
Aneoctochilus yatesiae	E	T	RF	500-1200
Arthrochilus oreophyllus	E	T	OF	800-1400
Bulbophyllum baileyi		E-L	RF	0-800
Bulbophyllum boonjee	E	E	RF	650-1200
Bulbophyllum bowkettiae		E-L	RF-OF	600-1200
Bulbophyllum evasum	E	E	RF	1000-1600
Bulbophyllum gadgarrense	E	E	RF	600-1400
Bulbophyllum grandimesense	E	E	RF	600-800
Bulbophyllum johnsonii	E	E-L	RF-OF	600-1400
Bulbophyllum lageniforme	E	E	RF	1000-1600
Bulbophyllum lewisense	E	E	RF	1000-1250
Bulbophyllum lilianae	E	E	RF	900-1600
Bulbophyllum macphersonii		E-L	RF	500-1400
Bulbophyllum nematopodum	E	E	RF	400-1200

Species	Endemic to region (E)	Epiphytic (E); Lithophytic (L); Terrestrial (T)	Rainforest (RF) or Open Forest (OF)	Elevation range (m)
Bulbophyllum newportii	E	E-L	RF-OF	600-1200
Bulbophyllum radicans		E	RF	0-1200
Bulbophyllum schillerianum		E	RF	0-1250
Bulbophyllum sladeanum	E	E	RF	600-1300
Bulbophyllum wadsworthii		E-L	RF	700-1600
Bulbophyllum windsorense	E	E	RF	1000-1200
Bulbophyllum wolfei	E	E	RF	1000-1200
Cadetia taylori		E-L	RF	0-1600
Caladenia carnea		T	OF	900-1300
Calanthe triplicata		T	RF	500-1200
Calochilus holtzei		T	OF	0-1000
Cheirostylis ovata		T	RF-OF	0-1000
Chiloglottis longiclavata	E	T	RF-OF	1000-1500
Corybas abellianus	E	T	RF	800-1100
Corybas barbarae		T	OF	900-1300
Corybas fimbriatus		T	OF	1000-1300
Corybas cerasinus		T	OF	400-1000
Cymbidium madidum		E	RF-OF	0-1400
Cymbidium suave		E	OF	600-1300
Dendrobium adae	E	E-L	RF	700-1600
Dendrobium aemulum		E	OF	700-1200
Dendrobium agrostophyllum	E	E-L	RF-OF	650-1600
Dendrobium cacatua	E	E	RF	900-1200
Dendrobium callitrophilum	E	E	RF-OF	900-1200
Dendrobium canaliculatum		E	OF	0-1000
Dendrobium capitisyork		E	RF	0-900
Dendrobium carrii	E	E	RF	900-1600
Dendrobium fellowsii	E	E	RF-OF	600-1200
Dendrobium finniganense	E	L-T	RF	900-1100
Dendrobium fleckeri	E	E-L	RF	900-1600
Dendrobium gracilicaule		E-L	RF-OF	500-1400
Dendrobium jonesii		E-L	RF-OF	10-1650
Dendrobium lichenastrum		E-L	RF-OF	0-1400
Dendrobium monophyllum		E-L	RF-OF	400-1000
Dendrobium prenticei		E-L	RF-OF	0-1400
Dendrobium smillieae		E-L	RF-OF	0-700
Dendrobium speciosum var. *curvicaule*		E-L	RF-OF	0-1300
Dendrobium speciosum var. *pedunculatum*	E	L	OF	850-1200
Dendrobium toressae	E	E-L	RF-OF	10-1100
Dipodium elegantulum		T	OF	50-1100
Dipodium ensifolium	E	T	OF	10-1650

Species	Endemic to region (E)	Epiphytic (E); Lithophytic (L); Terrestrial (T)	Rainforest (RF) or Open Forest (OF)	Elevation range (m)
Dipodium variegatum		T	OF	700-1200
Diuris luteola		T	OF	900-1200
Diuris oporina	E	T	OF	700-1200
Dockrillia bowmanii		E	RF	0-800
Dockrillia brevicauda	E	E-L	RF	900-1100
Dockrillia calamiformis		E-L	RF-OF	0-1400
Dockrillia linguiformis		E-L	RF	0-1400
Dockrillia nugentii		E-L	OF	600-1000
Drymoanthus minutus	E	E	RF	100-850
Epipogium roseum		T	RF-OF	50-1200
Eria eriaeoides		E	RF	0-900
Eria fitzalanii		E-L	RF-OF	0-900
Eria irukandjiana		E	RF-OF	200-1000
Eria kingii		E-L	RF-OF	0-900
Eria queenslandica		E-L	RF	600-1000
Eulophia zollingeri		T	RF	400-800
Gastridium baileyi		E	RF	0-900
Gastrodia urceolata	E	T	OF	900-1200
Genoplesium alticolum		T	OF	600-1000
Geodorum densiflorum		T	OF	0-1100
Goodyera viridiflora		T	RF	700-1300
Liparis angustilabris		E-L	RF	200-1100
Liparis bracteata	E	E-L	RF	900-1600
Liparis fleckeri	E	E-L	RF	900-1600
Liparis habenarina		T	OF	600-1200
Liparis nugentiae		E-L	RF	600-1400
Liparis simmondsii		T	RF	400-1200
Malaxis latifolia		T	RF-OF	0-1200
Microtis parviflora		T	OF	900-1300
Microtis unifolia		T	OF	900-1200
Mobilabium hamatum	E	E	RF	600-1300
Nervilia plicata		T	RF-OF	0-1100
Oberonia complanata		E-L	RF	0-900
Oberonia titania		E	RF	0-1400
Octarrhena pusilla	E	E-L	RF	700-1400
Peristeranthus hillii		E	RF	600-1100
Phaius tancarvilleae		T	OF	0-1100
Pholidota imbricata		E-L	RF	0-900
Pterostylis erassiuscula		E	RF-OF	700-1400
Plectorrhiza brevilabris		E	RF	400-1200
Plectorrhiza tridentata		E	RF	400-1000
Pomatocalpa macphersonii		E	RF	0-700
Pseudovanilla foliata		T	RF	0-1200

Species	Endemic to region (E)	Epiphytic (E); Lithophytic (L); Terrestrial (T)	Rainforest (RF) or Open Forest (OF)	Elevation range (m)
Pterostylis acuminata		T	OF	650-800
Pterostylis aquilonia	E	T	OF	900-1200
Pterostylis depauperata	E	T	OF	700-1400
Pterostylis hildae		T	RF-OF	750-850
Pterostylis nutans		T	RF-OF	700-900
Pterostylis parviflora		T	OF	750-1200
Pterostylis procera		T	OF	750-1250
Pterostylis stricta		T	RF-OF	900-1250
Pterostylis taurus		T	OF	900-1200
Rhinerrhiza divitiflora		T	RF-OF	600-1200
Sarcochilus borealis	E	E	RF	900-1300
Sarcochilus ceciliae var. *roseus*	E	L	OF	900-1300
Sarcochilus falcatus		E	RF	700-1400
Sarcochilus serrulatus	E	E	RF	900-1600
Spiranthes sinensis		T	OF	600-1000
Taeniophyllum confertum		E	RF	500-900
Taeniophyllum lobatum		E	RF	1000-1250
Taeniophyllum muelleri		E	RF	200-1200
Taeniophyllum sp. Triangular Roots	E	E	RF	0-750
Thelymitra nuda		T	OF	100-1300
Thelymitra pauciflora		T	OF	900-1500
Tuberolabium papuanum		E	RF	100-700
Zeuxine oblonga		T	RF-OF	0-1400
Zeuxine polygonoides		T	RF	600-800

Our last newsletter may have been thought provoking; it certainly was not response provoking except for Doreen – thank you, Doreen - who wrote: 'Your questionnaire will spur me on to observe more intensely when I can'. She has also decided to follow a friend's theory, that if a plant is growing well it will flower well, and use Campbell's B all the time. We will get further opinions on this as time goes on. Doreen despairs of her *D. kingianum* ever flowering too. 'I tried it in all places but not a single flower. Also have a small *D. kingianum* "Bardoo Rose" which is seen in magnificent flower in magazines but it is not thriving. Serves us right for growing it out of its element maybe!' Doreen adds that one Atherton grower has flowered it. Further that discussion between growers concludes that *D. canaliculatum* is "difficult to grow in captivity".

I am aware that several Australian native plants have become weeds when grown in areas outside their original distribution, both in Australia and overseas. The question this newsletter is: Is anyone aware of a native orchid species which has become a weed anywhere in Australia?

SUBSCRIPTIONS are now due and the enclosed form will show your financial status. ☺☺