Coordinator

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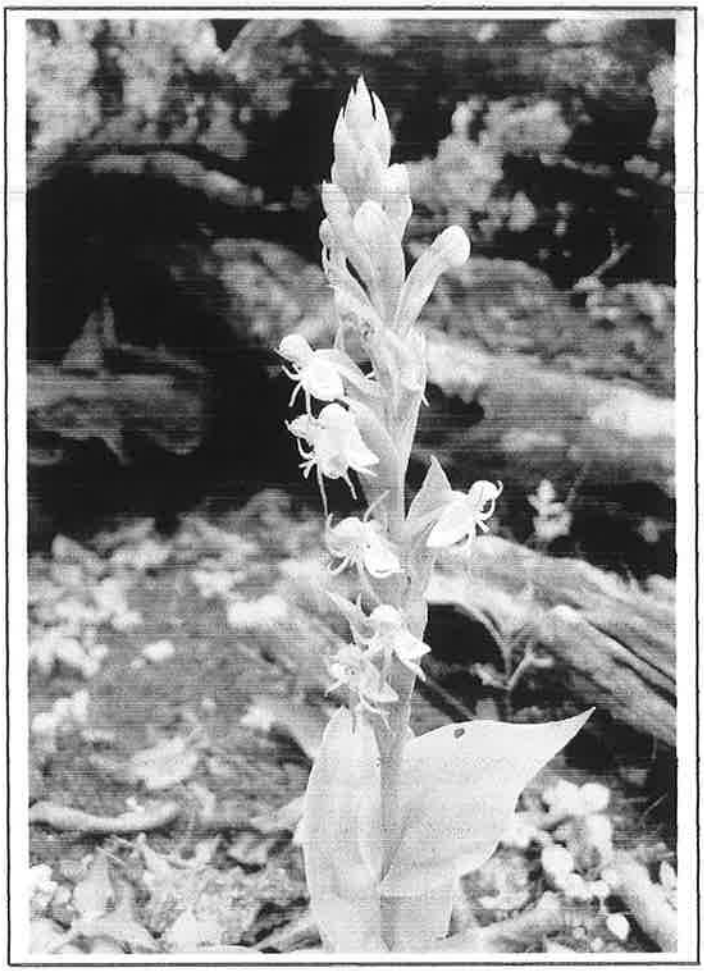
HABENARIA HYMENOPHYLLIA

Mary Gandini has provided the following article and the excellent photograph.

A new site for *Habenaria hymenophylla*

On an outing with Tablelands SGAP to the Forty-mile Scrub, the identity of what looked like a ground orchid, found on a previous excursion, was revealed. The orchid had just reached flowering stage and several flowers were open. Len Lawler's instant ID was *Habenaria hymenophylla.* Closer examination with a hand lens and comparison with diagrams in Dockrill's book confirmed this. The floral key in this book also arrived at this species. We were thus satisfied with our conclusion. Some flowers were placed in preserving fluid so that they could be examined further. This orchid has not been recorded at this site before.



As there were just two plants a search was made to locate more. In all 14 specimens were located. Not a huge number; but if a thorough search were made it is highly likely that others could be located. The Scrub has had very good rain this year after several very dry seasons. If more good rain occurs next year it is hoped that the population will expand considerably.

Habenaria hymenophylla is a leafy plant with broad, alternate, glabrous, dark green leaves with a few sheathing bracts on the lower stem. The flowers are white with green tinges and each emerges from a green bract. The labellum is trilobed and the petals are bilobed, making the flower spidery. The tuberoids were not inspected.

It is reported to occur between the Fitzroy and Herbert rivers as well as on Cape York Peninsula and in the Darwin area.

Refer to Dockrill for the complete description and a colour photo.

FORTY MILE SCRUB

This large remnant of dry rainforest gained its name due to its situation, 40 miles from Mount Garnet and also 40 miles from Mount Surprise, on the road which joins the Cairns Hinterland to either Normanton or Hughenden, at the base of the Cape York Peninsula in North Queensland.

The identifying factor for rainforest in the tropics and sub-tropics is the presence of vines/lianes. (In temperate/cold climates, tree ferns are the key plant). Vines are profuse in the Forty Mile, but the canopy is not always closed. Numerous emergent trees such as Burdekin Plum and White Cedar, *Ficus Obliqua* and *Ailanthus trephiza* are deciduous in the cool, dry season mid-year and climbers and epiphytes get a strong dose of sunlight at this time. The Scrub is at an altitude of 740 metres, with an average rainfall of 880 mm. It constitutes a notable watershed - rain to the east drains into the Burdekin River/Coral Sea, and to the west to the Gulf of Carpentaria. The ground is covered with rocks, which prevent any significant grass growth and thus effectively fire-proof the area. The rocks are covered with lichens and mosses and epiphytes are profuse.

Growth of mosses and epiphytes is made possible by a quirk of Geography: although the nature of the ground precludes moisture retention, the hydrophiles are well served by updraughts of moisture laden air which blows in a steady stream towards the Scrub along the funnel-shaped Herbert River Gorge and ultimately from the Coral Sea some 180 km away in a direct line. A distinctive feature of the Scrub is the presence of hundreds of giant Bottle Trees (*Brachychiton australis*). These are very receptive to the orchid species *Dendrobium monophyllum* (Buttercup Orchid), which can colonise a large area of the upper parts of a Bottle Tree and when in flower present a beautiful show of pale yellow flowers.

Other orchids noted in the Scrub are *Dendrobium bowmanii* - a small, "pencil" type orchid - which flowers several time a year and has a penchant for growing on vines and small twigs which die before the orchid does, causing it to fall to the ground and join the gene pool.

Dendrobium linguiforme, the Tongue Orchid, so named because of its shape, is another coloniser on tree trunks, and presents crystal-white flowers in profusion in the dry winter period, July-September.

Saccolabiopsis armitii flowers at about the same time and is a tiny orchid which also favours fragile twigs but can be found in large numbers on small tree trunks. Their flowers, which open sequentially, last a long time but are so tiny that a lens is required to appreciate their perfect orchid beauty.

Sarchochilus minutiflos (the specific name gives a strong clue to flower size!) is a small pendulous epiphyte with racemes to 6 cm long holding two to eight white flowers from November to January - we have not yet been fortunate enough to see this plant in flower.

The giant of the Orchidaceae family in the Scrub is the ubiquitous *Cymbidium canaliculatum*, with old clumps a metre or more in diameter on the larger trees.

It will be noted that all the above orchids are epiphytes, and now the eagle-eyed orchid people of SGAP have positively identified the first terrestrial orchid of the Scrub, as reported above by Mary.

DENDROBIUM NINDII

The natural range of *D nindii* commences in the Innisfail district, about 40 km south of our home, and goes north to Papua, where it grows in great numbers in climatic areas similar to ours. *D nindii* thrives in lowland tropical swampy areas where the air is constantly humid and hot. The plant is very similar in appearance to the locally common *D discolor* - the Golden Orchid – but the stems of *D nindii* are darker in colour and the leaves more elliptical in shape. A mature plant has stems up to two metres in length and the flowers are a lilac colour, typical dendrobium shape.

Our home plant has been attempting to flower since January and currently has just eleven gravid buds which will open before end of March. This is the third inflorescence this year; the others have all been monstered by insects or weather and the flowers aborted. The current inflorescence has suffered considerable bud drop but we hope the survivors will remain.

Why are we so keen on *D nindii?* It is a challenge to successfully grow and flower it, even here in its native habitat. It has an interesting history: the first plant named was found on 2 October 1873 during the first exploration of the Johnstone River (subsequent site of Innisfail township) by Sub-Inspector Johnstone and an independent explorer, Mr Nind. Johnstone describes the area: "New beauties arrest the eye at every step.... tree ferns, zamias, cycads, staghorns, bird's nest ferns in profusion, and orchids of many kinds in all shades of green clinging to the branches above our heads". (That's a fair description of our backyard). "Nearer the head of boat navigation Mr Nind discovered a new orchid, with a stem some seven feet long."

We can not describe the orchid better than Andree Millar, doyen of New Guinea orchids, who wrote: "This is the orchidist's dream, a large plant with large flowers to match. In the right situation the canes may reach to three metres but more usually they grow to one metre. I have collected plants on the Bensbach River on the border with Irian Jaya, with 25 flowers, each 4 cm across on a sturdy stem.... this is undoubtedly one of our most magnificent Dendrobiums but in PNG and Australia its habitats are under pressure."

The last statement is borne out by the comment of a neighbour who, on viewing our first *nindii* flowers, said " That's a Tofty! Dad used to bring those flowers home to Mum". ("Dad" was a timber miller, and logs going to the mill commonly carried various orchids; the orchid plants were destroyed, but the miller rescued the beautiful blooms for his wife).

Our searches up the Russell River have revealed some orchids that may be Nindiis, but we have yet to see one in flower in situ. They have been relentlessly "collected" and all thus taken will die unless a very knowledgeable and dedicated orchidist takes charge. Ironically, such a person would not be party to the depredation of the wild population.

And so to our activities: we still hope to bring enough of our seedling plants to a growth stage where we can give them to various residents of the Lower Russell River, to be grown to maturity, to flower, and then cast their seed to the breezes and repopulate the area in which they were once so plentiful.

Can you blame us for our dedication to this plant?

D NINDII DEFLASKED

(From Pauline) Under the heading "Deflasking Orchid Seedlings" in our Newsletter 33, we started a report on our dream of re-establishing "one of Australia's most attractive", the "spectacular", *Dendrobium nindii* orchid along the Russell River valley in which we live. We have now reached the stage where I think it is time for the penultimate report:

We collected a seed pod from a *Dendrobium nindii* plant growing in a neighbour's property on 7 September 1999 and Len Lawler called on a friend to germinate the seed for us. On 16 November 2000 Len brought six daughter flasks to our place where he, Doreen Sabien and Don and I deflasked them. Five flasks held well grown seedlings, but the sixth was a replacement for one flask attacked by mould and these seedlings were younger and rather scrawny. The plants were deflasked into 3½" community pots, one pot for each flask.

As novices in this operation we did not find it easy to wash off the agar growing medium and immerse the whole in Envy anti-fungal solution without disturbing the roots too much, nor to judge just where to place the plants into the 2-4mm sterilised quinkan. I tackled the weaklings; the raft came apart and, as was subsequently proven, I planted some of them too deep and some sitting on the top of the medium.

As the wet lowlands is the home of *D nindii,* the community pots were left in my care with the injunction to not water them for a week. In very hot weather - the temperature reached 34°C in my shadehouse - I just could not do it; I misted the plants and damped the top of the quinkan. On the sixth day I soaked all the pots in water for 15 minutes or so then, tipping the pots at an angle, drained them thoroughly. Within a fortnight the plants which were too deep had rotted, but some of the larger ones were sporting new shoots. I continued to water the plants by immersion, commenced fertilising with a weak high nitrogen solution and gradually introduced the plants to the morning sun filtered through trees. So far so good.

In mid January it was overcast. We went away for a couple of days and the sun moved north so it was no longer filtered and cooked some plants. In another drama I fell and fractured my wrist. I took all the pots to my greenhouse where they sulked for three weeks and more died of fungus before I brought them back to the house. Typical February and March weather alternated between hot and dry and torrential rain; in spite of being advised to put them out onto trees, I left it till early April. By mid April 72 little plants were secured with panty-hose ties onto six palm trees of three different species, around the house. They were on their own.

The plants received the same amount of "care" as all our other orchids on trees – sometimes watered, sometimes fertilised, and sometimes neglected when we had house guests or were off on a trip; we were away for five weeks during September/October. By the end of November 2001, the count was down to 41. Now, March 2005, there are only 21 left; the plants range in size from tiddlers to plants with pseudobulbs 20cm long. The largest plants are all on one Alexandra palm (*Archontophoenix alexandrae*). Plants were tied to three Alexandras a metre apart; the best plants are on the tree with fairly good shade provided by other shrubs. They have not suffered as much as the more exposed plants, have grown a new stem each year and are big enough to leave home. We don't expect flowers this year.

Len has collected one plant – he would not take one of the best ones of course – and we will soon start to distribute the others as they become large enough. If we finish up with ten good productive plants, we'll consider the effort well worthwhile. When I get another seed pod of a *D nindii* – or any other orchid which has suffered over-collection – we'll start all over again.

DIURIS CHRYSEOPSIS/PEDUNCULATA

Our featured illustration this issue is one of the Donkey Orchids, drawn for us by Kate Vlcek. Kate and Simon are now living in Ballarat, but were in central Victoria at the time the drawing was made. Kate's description:

"This drawing is of a *Diuris* (probably *chryseopsis* or *pedunculata*) commonly called Golden Moths. This particular specimen was found at Mt. Beckworth near Clunes in Victoria (approx 40 kms north of Ballarat) where they are quite common, flowering in late September.

The flowers are usually smaller, paler yellow and have a more 'closed' look than most other *Diuris* species that are found in the area, and also seem to be more abundant where they occur, sometimes in their hundreds. As with many other terrestrial species, their tubers were a source of food for the Kooris.

"*Diuris* have leaves with a tufted, grass-like appearance and are commonly called Donkey Orchids due to the way that the petals often stick up and out on either side of the centre of the flower. They hybridise naturally in the wild (which I've noticed at Mt Beckworth) which can add to the difficulty of identification. They are possible to grow, but uncommon in cultivation. Some growers find them more difficult than others. I've had very little experience growing them, having only just acquired my first specimens. I've noticed they prefer an open, sunnier position such as a grassy open woodland or grassland situation, rather than a more closed canopy. I've also found them growing on the side of the road or highway occasionally."

(From Don): This orchid is illustrated on page 107 of David and Barbara Jones' *Native Orchids of Southern Australia*, and they certainly look a little different from my idea of a standard type of *Diuris*. I've only ever seen one in flower, amongst *Xanthorrhea* trees in open forest on the Herberton Range, west of Cairns. A single plant with two little buttercup-yellow flowers, a jewel in the drab landscape. A field of hundreds of Golden Moths would be a sight to see.

Thanks again to Kate for providing her wonderful illustrations, and also for her in-situ descriptions. We are always very keen to receive such material from members, particularly those outwith the Wet Tropics. If any readers have experience in growing any species of *Diuris* - either in pots or ground - we would like to hear of your successes or otherwise.

The orchid sleuths of the Far North have been out searching again. After a tip off they found quite a few plants of another Habenaria. The identity of the species is still in question, but we hope to have a report for our newsletter in June.

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