Region

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

Newsletter 18 November, 1996

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One of the rewards of becoming SGAP Study Group Leaders is that we receive the quarterly journals of most SGAP State branches. These journals are filled with news of the activities of the various SGAP groups, and go a long way to reassure us that there are people out there who care for our native plants, and who are actively working to present them to the public in an attractive manner. It is fascinating to read of the problems faced and surmounted by people living in climates that are so very different from our own, and in this regard I find the South Australian journal perhaps the most interesting. It would be great if 'somebody' could extract the most useful articles published in a year and compile them into an Australia-wide annual for dissemination to all SGAP members. The big stopper here is, of course, the cost of printing and postage, even if volunteers did all the work. As an indication of the cost, the A.S.G.A.P. newsletter, which I assume is posted to all branches, costs $260 per issue for printing and postage alone.

In comparison with that figure, our modest study group newsletter is quite inexpensive, but our costs have still exceeded our income via subs in the time that we have been leaders. As you will see by the financial report in this issue, we are in a comfortable fiscal position, but only due to the very substantial sum bequeathed to us by the Group's founder, Len Butt. At the time of writing, after five months of the financial year has gone by, we have received subs from only five individual members, five branches, three regions and ASGAP, so we have reduced our mailing list. We cannot squander Len's carefully accumulated funds indefinitely to provide a newsletter for those who do not consider it worth paying $5 per year. Please, readers, if you no longer wish to receive this letter tell us, and we will reduce our expenses accordingly. If you would like to tell us why, our shoulders are broad enough to bear criticism. If you do want the Group to continue to operate, send along your $5 quick smart, no delay.

Please note that our address is P.O. Box 230, Babinda, 4861. There has been an unfortunate transposition of our box number and a number of state journals have published it as 320, resulting in much ire from the holder of that box; so please send your money along to Box 230, Babinda, 4861.

Len Butt retained the leadership of the Palm and Cycad Study Group when he passed the Orchid Group on to us. In the latest edition, Len mentions that his health continues to deteriorate and that he is no longer capable of travel, thus curtailing his expected 'gallop' in the North this year. Our admiration for Len is strong, and in his indomitable fashion he refuses to allow mere physical frailty to subdue him. He has made an excellent suggestion for the members of the Palm and Cycad Group which I would like to copy for our members. Len has said that he can no longer do all the writing and he has decreed that as a condition of membership of his Group, each member has to write an article for the newsletter of at least 200 words each year. What do Orchid Study Group members think of that? I have never

contributed to the Palm Group, as I joined to learn not to parade my small knowledge, but Len's challenge has given me cause to sit down and think that there must be something in my palm and cycad experiences that may be worth sharing with others.

The same thoughts must pertain to many of our Orchid Group members. You are all SGAP members, and you all have an interest in native orchids, so we all have much in common. We do receive a number of very interesting and rewarding personal letters from members, but to date have not felt that they should be printed for the world to read without specific permission. When next you write to us (soon, we hope, and with a $5 cheque attached), please tell us whether you are willing for us to publish your letter, even if in part only, with your name and town attached as a by-line. If you prefer anonymity we will respect that. We don't expect an article that would earn you a Ph.D. in orchidology, merely your own observations as to how native orchids grow either in your garden or in the bush in your area. Tell us a bit about your climate, and then over a period of time we will have a record of how orchids grow in many different parts of our widely varying country. We'd love to hear from you.

A quote from the A.S.G.A.P. Newsletter of October, 1996: "I believe that we should all join one or more study groups and write to their editors about our observations, successes and failures. Being a study group leader is not a one-person show. It requires all members of the group to participate so that our knowledge is enhanced and we can grow native plants more successfully."

I think that that puts it very well, but please don't feel threatened or coerced if you just wish to receive the newsletter and not respond. (That is what I intended doing when I applied to join. Pauline.) As long as you pay your sub, the choice is yours.

PTEROSTYLIS - THE GREENHOOD ORCHIDS

The first time I saw a greenhood orchid, I didn't really know what I was looking at. The Cairns and Tableland branches of SGAP had combined fo a field trip in the Herberton ranges, on the crest of the Great Divide, about halfway between Atherton and Herberton townships. According to my altimeter, we were walking at about 970 metres. The date was 7th May, 1995, a cool horizontal mist was blowing intermittently, and to we people from the steamy lowland swamps it was a brisk, invigorating day for a long walk. As usual, we were led by Tony Irvine from CSIRO Atherton and Tablelands SGAP.

Tony had passed the lead to Len Lawler to show us some of his favourite orchid patches. We were walking in open eucalypt forest, in the battle zone where the adjoining rainforest was making a determined advance on the open woodland and thus opening up many different niche types of habitat for plants. Len led us up a small creek gully, currently dry, but covered in leaf litter and small logs. He pointed to the ground and said that there were dozens of greenhoods. I looked and couldn't see anything that looked like an orchid. My eyes were searching for something like the six foot pseudobulbs of the golden orchids that are so common at home, not the tiny rosettes of unremarkable leaves that Len was indicating. Then, a half forgotten illustration in a book came to mind - Greenhoods; Ah, yes! - and

my eyes saw the nodding hoods of the flowering plants up to about 15 cm high and cleverly camouflaged against the leaf litter background. These were Pterostylis stricta, and they were indeed in profusion, growing in a well defined area all up the creek gully. Also present were Acianthus borealis, the mosquito orchid, with tiny inflorences looking very much like an alighting mosquito.

We saw a total of 11 species of orchid that day as we walked to a height of 1,250 metres and lunched on the headwaters of the Walsh River, which would eventually make their way to the Mitchell River and the Gulf of Carpentaria. Of course, orchid gazing was just a sideline of the day, but what a productive and interesting sideline it was. Another species of greenhood was sighted, Pterostylis depauperata, the species name giving a strong clue as to the type of terrain it favours.

These little orchids were noted and stored away somewhere in my grey matter, and then recalled by an article in the Canberra Region SGAP journal for September, 1996. This quoted an article from a Wildlife Magazine, which in turn was quoting from an Australian Geographic. I dug up the relevant issue, No. 40, and read the article first hand. That led me to David Jones Native Orchids of Australia and then to Alick Dockrill's Australian Indigenous Orchids, to Lavarack and Gray's Australian Tropical Orchids, then back to my field notebook to refresh my memory as to just what I had seen and so casually stored away.

The genus Pterostylis (subtribe Pterostylidinae) is a truly Australian one, with most of the reported 120 species occurring throughout Australia, ranging from Tropical North Queensland to Western Australia, with a maximum concentration on South Eastern Australia. Some species are found in New Zealand and New Caledonia, and also on the high ranges of New Guinea.

Pterostylis is a terrestrial orchid which flourishes and flowers in the wetter part of the year in its chosen habitat. During the dry season it sheds its leaves and stems and shrinks back to an underground organ awaiting the next rainy season to repeat its life cycle. It is generally a small plant with its rosettes of stalked small leaves close to the ground, and flowering stalks less than 30 cm in height. What it lacks in size it makes up for in spread, and some species are strong colonisers, as we observed in the Herberton ranges. Interestingly, in some species, a plant may reproduce either sexually by flowering, or vegetatively by producing extra tubers via a stolonic growth from the main rosette.

The sexual reproduction system is the one that contributes the distinctive shape of the orchid's hood, or galea. This is formed by the joining of the top (dorsal) two petals and the dorsal sepal. This is complemented by the remaining sepals which are joined along some of the length to produce a clearly identifiable structure. The remaining petal, the labellum, is very strongly differentiated and works in conjunction with the column to ensure that pollination is carried out by the chosen insect. These are usually small gnats and perhaps small flies, and even mosquitos are used by some greenhoods. The flower is reported to exude a pheronome which dupes the male of the species into thinking he has found the Gina Lollobrigida of the gnat race, and he flies to the source of attraction - the flower's column. As he alights on the labellum, his weight triggers a reflexive response and the labellum closes behind him, trapping him inside the orchid's hood.

He is not permanently trapped, however, for even in the throes of his frustrated ecstasy he can see light shining through a lighter part of the hood and, being an insect, he makes his way towards it. The light leads him to a narrow opening and safety in the outside world. During his passage, the flower has processed him by dabbing his back with a spot of sticky goo, and then attaching one of its four pollinia to the goo. Our gallant gnat flies off to be ensnared by another greenhood flower. (Don't men ever learn???) There he deposits his pollen load during his new rite of passage, thus fertilising a flower in an area well away from the pollen donor, and possibly shaking his head and wondering what it's all about!!

The original flower resets its labellum in about half an hour, ensuring that it is unlikely to receive its own pollinia. It then awaits a loaded gnat to close the whole cycle.

Pterostylis are generally found in open forest country, in leaf litter which retains moisture for some time, such as the dry creek gully shown us by Len. They also appear on rainforest margins but not in rainforest itself, since year round moisture would tend to rot the tubers. They ar reported to be easy to grow and do well and multiply in a pot which is watered in such a way as to mimic the natural cycle of the plant. I don't remember seeing them for sale anywhere, but perhaps, as with the Pterostylis stricta of the Herberton range, I wasn't looking with the right eyes. I'll certainly enquire at Lonne's next time I'm in Cairns, and see whether I can grow this high altitude orchid in the lowlands.

Now a few pars on bits picked up here and there:

Mr. John Moss was guest speaker at a Cairns meeting. He brought along some beautiful orchids and good ideas. He told us to remember that orchids don't have teeth, and to give weak liquid fertiliser, a little and often. He didn't much like slow release fertiliser, particularly disliked pelletised chook manure, and tried to cover up his plants at the mere mention of Phostrogen, as he'd only seen it in slow release form. He also said there were as many types of potting mix as there are orchid growers and the only thing they had in common was that he had seen prize winning orchids in all of them. He recommended that, just for fun, we try propagation by mixing seed into a saturated sugar solution and tip it somewhere suitable, but not to get too excited as the success rate would probably be one in a million.

The following paragraph appeared in The Bulletin of August 15, 1896: "Joseph Chamberlain and Miss Helen Gould are the two leading orchid fanciers and purchasers in Europe. South America is the great field for orchids, but there's many an orchid-hunter who would make a handsome thing by turning his attention to the scrubs of North Queensland, where gorgeous specimens are to be found in abundance."

Fortunately, we live in an area where there are still many "gorgeous specimens" in abundance.

Another par read in the Sunday Mail was a tip, and a good one, to hold one hand underneath dendrobium beetles when we try to squash them, as they always drop straight to the ground if we don't manage to catch them.

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

Indigenous Orchid Study Group — Financial Statement 1995/96

To Income:

30/10/95 Transferred from Len Butt	$361.54	
Subscriptions received 95/96	105.00	
96/97	25.00	
Bank Interest	1.44	
TOTAL INCOME:		492.98

To Expenses:

Stationery	36.35	
Printing	37.30	
Photocopying of line drawing	5.00	
Copying photograph	4.15	
Postage	98.80	
TOTAL EXPENSES:		181.60
BALANCE AT 30/6/96		$311.38

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