NEW ZEALAND NATIVE ORCHID GROUP Newsletter no.8 December 1983

Dear Member,

The following advertisement has been placed in the newsletters of the 40 New Zealand orchid societies:

Wee are able to offer up to 25 different New Zealand native orchids. Our list includes the blue $\underline{\text{Thelymitra}}$ and our endangered evergreen $\underline{\text{Cryptostylis subulata}}$ as well as our own $\underline{\text{Dendrobium}}$ and other beautiful hanging species.

Send stamped addressed envelope to:
 House of Orchids,
 145 Manuka Road,
 Glenfield, Auckland 10.

This has obviously caused several comments, I for one am aghast, and even the N.Z. branch of the World Wildlife Fund and our Nature Conservation Council have become involved. I have first hand information of one Commercial orchid grower who bought 100 Thelymitra from the advertiser, for resale, together with several other species - including Bulbophyllum tuberculatum (which is hardly common!), so obviously these plants are being collected on a large scale. No-one has yet succeeded in growing our native orchids from seed, so those plants are obviously being collected in large numbers from the wild. I do not have accurate v/hya and wherefores of where they are being collected from, if from National Parks, Forest Parks or Crown Land, it is illegal, leaving only private farm land as the main source, - and as for endangered species - illegal from anywhere!

Incidentally, the advertising blurb doesn't even give cultural advice in at least an attempt to try and perpetuate these plants in cultivation. Presumably if people are keen enough after their first acquisitions die they will go back for more - all to the good of the advertiser's finances! To quote further:

Thelymitra - We believe every hobbyist should have a clump of these. (They can't identify the various blue species!)

Cryptostylis subulata - until recently this orchid was found in only one small location in New Zealand (it is now known from two!) and must still be regarded as being on our endangered list (no wonder!)

Earina autumnalis is the rarer of the two Earinas (not in Wellington)

Dendrobium cunninghamii - This orchid is becoming increasingly difficult to obtain (not surprising!

Prices vary from \$4.50 to #14.00 for terrestrials, and from #9.50 to #26.50 (D. cunninghamii) for epiphytes!

There is no legal way of stopping people selling our native orchids if legally collected, but 2 main things worry me. Firstly several of us know that the vast majority of these plants sold will not survive in cultivation, and secondly, once these plants are offered for sale, other unscrupulous people are also going to jump on the band-wagon to make a quick dollar - or several dollars if the going prices are anything to judge by. It would be so easy to go into the hills anywhere and dig up plants for a quick sale.

Some members have already contacted me, but if anyone can come up with further suggestions, please let me know. I will include in this newsletter, a relevant article on the situation in Australia, which could obviously apply just as easily to New Zealand at some future date.

Dorothy Cooper, 14 Avalon Crescent, Lower Hutt.

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Remarkable Metamorphosis of <u>Thelymitra pauciflora</u> Cheesem. (not of R.Br.) E.D.Hatch

The plant which we in New Zealand have, since Cheeseman's paper in Trans.N. Z. Inst. 4 8:1916, p.214, been accustomed to call <u>Th. pauciflora</u>; a 'plant with blue flowers, a deeply cleft, bright yellow mid-lobe to the column-wings and sparse white tuffs (which do not overlap) of lateral cilia;' is actually an unstable epharmone of <u>Th. longifolia</u> Forst., and will, under suitable conditions, revert to the <u>latter species</u>.

At the beginning of 1982 I was asked to send tubers of the Auckland form of Th. pauciflora to Botany Division, Christchurch, for chromosome counting. Accordingly in April 1982 I brought in a clump of roadside plants, just beginning to show their leaves, planted them info a single 150mm clay pot, marked with an aluminium label stamped with the number 15, and wrote the details into my card system. There were no other Thelymitras in the coolhouse at that time, so that there was absolutely no possibility of a mix-up. In October 1982 these plants came into flower, typical (NZ) pauciflora, blue flowers, cleft yellow mid-lobe etc. I lifted two plants from the pot, and despatched them, tubers and flowers together, to Christchurch. I left the remaining 5 plants in the pot, still with their no.15 label. They died off for the summer and came up again in April 1983 with the same leaf form as before. They appeared to be thriving and in due season developed flower spikes, which opened on 15 October 1983 as normal Th. longifolia; white flowers, brown cucullate mid-lobe with truncate yellow tip and overlapping, dense white tufts of lateral cilia. The no.15 label still firmly in place.

My coolhouse is dug into a slope and below ground level at one end. It also has a built-in fish pond and waterfall which tend to make it damp and humid. The lighting is indirect and registers only 61% of the outside light value. I am inclined to credit (blame?) the reversion to these conditions, but whatever factors triggered off the change, the change ..itself is beyond dispute.

It is fortunate for taxonomy, since we are dealing with the type of the genus, that the climax-form of the series is still Th. longifolia. Forst., a robust but not necessarily tall plant, with white flowers and the characteristic longifolia column, and a flat, deflexed, ribbed leaf up to 25mm wide by 360mm long. Small plants may be found in both forms, with narrow-erect sheathing leaves and sometimes only a single flower. The blue flowered pauciflora form doss not (in Auckland) seem to develop beyond the semi-erect, sheathing leaf stage.

I would suggest deleting $\underline{\text{Th. pauciflora}}$ from the New Zealand orchid flora and amending the description of $\underline{\text{Th. longifolia}}$ to include the alternative column-form. The complex in the broad sense is notoriously variable in colour and minor form, and these variations have been discussed in detail by Dr.Moore in Flora N.Z. 2:1970,p,130.

This discovery drew my attention to 2 other Auckland species which are associated with the <u>longifolia</u> complex, <u>T .intermedia</u> and <u>T. aemula</u>. In colony of 10 flowering plants of <u>Th. intermedia</u> which I staked for reference, I lifted 2 of the plants, sent to Christchurch for chromosome counting and kept the other in cultivation. On 1 November 1983 the potted plant flowered as $\underline{\text{Th.}}$ aemula. I immediately rushed out to the coast to look at my marked colony.

Every flower on each of the 8 plants had the <u>aemula</u> column-structure, Vegetatively they hadn't changed at all. The earlier and valid name <u>intermedia</u> Bergg, 1878, belongs in this case to the unstable form, while the climax form, <u>aemula</u> Cheesem, 191, is the synonym. (See also Moore, <u>Flora of N.Z</u>. under $\underline{\text{T.}}$ intermedia- Ed)

I have no idea of the relationship between this 2-form group and the larger longifolia complex, if indeed they are related. It will be interesting to see if any other New Zealand species prove to be unstable.

It is possible that the extremely damp, warm and humid spring of 1983 had some bearing on the changes but this is mere supposition.

Further to Hatch's most interesting article, while doing the research for my book, I found it extremely difficult to tie down some specimens of $\underline{\mathsf{T.}}$ longifolia~pauciflora type, to one species or the other. Some specimens in the Wellington area seem to have characters of each, and plants in Cobb Valley, North-west Nelson I couldn't definitely put in either species. The original manuscript went into long detail over this, but on the advice of referees, I left it all out — to look into at some future date as the whole complex seemed very complicated. Although some plants in the Wellington area can definitely be called $\underline{\mathsf{T.}}$ longifolia, even from the leaf alone, others occur with a wide variety of leaf forms, and I always hesitate before calling a plant $\underline{\mathsf{T.}}$ pauciflora on leaf-form alone, — waiting for the flowers seemed more certainy — nice to have some of the mystery cleared!

Dorothy Cooper



CONSERVATION

WHERE DO THEY COME FROM? - Some questions and. Answers

By Gerry Walsh

(Adapted from an article in 'The Orchadian, June 1983)

Virtually 100 per cent of all the native orchids on sale in N.S.W. are plants that originally came from wild sources. Laboratory raised plants of straight species have never been made commercially available, although desirable forms of some species do occasionally appear in very limited numbers in specialist native orchid nurseries. Most outlets for anyone wanting a native orchid, rely solely on plants from private property, state forests cr casualties from civil projects such as road building and dam construction.

The various statr authorities issue licenses to collectors to permit them them to remove such plants. In N.S.W, the main authorities are the National Parts and Wildlife Service and the Forestry Commission. These Government Departments also collect royalties on each plant removed. As I see it the royalties are necessary to pay the wages of the people who collect the royalties. These same people also monitor the number of plants removed and the method of their disposal. This monitoring of statistics then allows the authorities to calculate how many plants can be removed - in the future. This figure established, the royalties per plant can then be decided upon. Presumably the royalties would be high enough to cover the budgeted wages of people who do all this mind-boggling calculus.

When some serious thought is given to the subject, a lot of questions arise which have no logical answers.

I can see merit in the licensing system when applied to epiphytic orchids. As long as we have a logging industry there will always be orchid casualties. It is totally senseless to let them rot on the forest floor when there are people who are willing to care for them.

Now what about lithophytlc species? How do the authorities justify allowing 'protected plants' such as these, to be collected under licence? Take Sarcochilus fitzgeraldii for a start. This species grows only in very rugged, very steep, and usually isolated ravines. Not even an insane axeman would attempt to fell a tree in such places for the tree could not be retrieved. And no roads would be built in such terrain. Man does not interfere with this orchid's territory except for the wanderings of bush walkers and orchid enthusiasts. Yet during the past 13 months, this species has been freely advertised in a well known national gardening magazine by two native plant dealers. How does the Government Department that issued a licence for the collection of the species justify its actions? Being a rock dweller, S.fitzgeraldii does not suffer any damage from the logging industry. And one road, if it did cross a suitable gorge, would not damage sufficient specimens to supply two dealers with enough plants to advertise it nationally. Certainly such gorges are not used for agricultural purposes, so that rules out land clearing as a reason.

The probable explanation is that a licensed collector has added fitzperaldi to the list of epiphytic orchids intended to be collected from a forestry area that has been logged. Unless the examiner of the application form is familiar with his orchids, he could easily put his rubber stamp to it and make it official. I know of two instances where this has happened with other species.

There are other species in the same boat, all lithophytes that would not be affected if every tree over them was removed, most will grow in very strong light, and many thrive in full sun. To be fair, some of these orchids must occasionally get in the way of bulldozers, out nowhere near the quantity that is sold in this State, and with "protected plant" stuck on them as well. Where do they come from?

I have reached two solid conclusions. Firstly, the ideals and intentions of the 'Protected Plants' legislation are basically sound and desirable, but the way I see it the system fails at the administration level. By this I simply mean chat the rules of the game are not being properly applied or policed by the referee. There are two main theatres of concern. The first is the apparent lack of knowledge possessed by some members of the two Government organisations that issue the licences to collectors. The second is the lack of follow-up after the licence has been issued. Most of the rangers I have met have a sound knowledge of the trees and animals in their care. But I have met only one ranger who had a good knowledge of all the native orchids in his domain. (Instances are quoted where rangers were not qualified to process licence applications or to supervise the use of licences, as two Dendrobium species concerned could not possibly have occurred where the respective licences said they did).

The author then goes on to discuss ways in which this licensing system fails, and suggests some possible solutions, but the whole subject is obviously an extremely complex one, and would need much investigation before introducing to New Zealand.

He ends by saying: What about a hobbyist who collects a few plants on the weekend? This is a problem I have attempted to deal with in another article for 'The Orchadian' (see Dec.1982). Without going into it too deeply, I believe the hobbyist can compensate for his sins if he wants to. He doesn't do much damage compared with the professional. The professional plunderer can never compensate for his sins nor can the "pusher" who knowingly sells illegally collected plants through retail outlets.

Financial gain is at the root of all the evil and the people who seek the money ore the perpetrators of this evil. The perpetrators are never satisfied. They continue their activity to keep their wallets plump.

Do you know of any native orchid drawings?

I am gathering material for a book of important illustrations of New Zealand native orchids. I have canvassed the major museums and art galleries with considerable success, but am now anxious to trace works in private hands. If you have, or know of, paintings or drawings of native orchids that you feel may be of botanical, historical or artistic merit, please write, with a description (and a slide if possible) to:

Dr Ian St George, The Gardens Medical Centre, 26 Bank Street, Dunedin.
