



Newsletter

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Editor: Ian St George,
45 Cargill St. DUNEDIN.



Guest Editorial

Edwin Daniel Hatch FLS
by Brian Molloy

Readers of this Newsletter will be delighted to learn that Edwin Daniel (Dan) Hatch was elected a Fellow of the Linnaean Society of London (FLS) on 24 May 1988, in the bicentennial year of this prestigious, learned Society. Dan's election to the Fellowship is in recognition of a lifelong study of natural history in general, and the taxonomy of New Zealand native orchids in particular.

Dan Hatch was born in London, England on 14 May 1919 and came to New Zealand with his parents in 1922. Right from his younger days he developed what was to become an abiding enthusiasm for botany, ecology and horticulture, in this he was greatly encouraged by his mentor, James Hunter, a horticulturalist and colleague of the eminent New Zealand botanist, Dr Leonard Cockayne. Although he has had no formal education in botany, Dan Hatch learnt a great deal on the subject in his early years from the knowledge and experience handed on by his mentor, and from his growing collection of floras and other botanical books. Like many orchid enthusiasts, he is largely self-taught.

The Second World War proved to be a significant turning point in his life. From 1941-45 he served in the New Zealand Army and was stationed at the Waiouru Military Camp in central North Island. During his leisure hours when not studying accountancy, his professional occupation, he tramped, cycled (army issue push bike) and botanised in the surrounding hills and mountains, familiarising himself with the plants of the region with the aid of Cheeseman's *Manual of the New Zealand Flora* (1925) and Allan's *Handbook of the Naturalised Flora of New Zealand* (1940). On these forays he collected a wide range of plant material for different specialists and "developed an enduring interest in fossil botany". He also discovered several orchids apparently new to science, and thus began his study of native orchids in earnest.

At that time Cheeseman's *Manual* was the authoritative work on New Zealand native orchids and no further systematic work had been undertaken since its publication in 1925. The then Director of Botany Division DSIR, Dr H.H. Allan, encouraged Dan to take up the study, sending him literature on the subject and the names of useful contacts both in New Zealand and abroad. From that time to the present Dan has been associated with a large number of orchid enthusiasts and others with an interest in botany and natural history. One of his earliest scientific papers, significantly in the *Proceedings of the Linnaean Society of New South Wales* (1946), was published in collaboration with the Rev. H.M.R. Rupp of Sydney, himself a noted orchidologist. This paper dealt with the relationships of the orchid floras of Australia and New Zealand. In the same paper Rupp and Hatch erected a new endemic genus of New Zealand orchids - *Aporostylis* - and described several varieties of species in other genera. This "trans-tasman" connection has been maintained over the years through correspondence with Australian orchid specialists like Dockrill, Nicholls, Rogers, Jones and Clements, to mention but a few. A recent product of this collaboration was published in the *New Zealand Journal of Botany*

(1985) wherein Clements and Hatch have corrected the names of two endemic species of *Corybas*, based on a study of the type material. From 1945-54 Dan Hatch reviewed the native orchids of New Zealand in a comprehensive series of papers, illustrated with line drawings mainly by his father, and published in the *Transactions and Proceedings of the Royal Society of New Zealand*. This was the first substantive review of native orchids since Cheeseman's *Manual* and is perhaps Dan's most notable contribution in this field. In the course of this work he described several new species, including the curious endemic saprophytes, *Corybas cryptanthus* and *Yoania australis*, a dozen or more varieties and forms, and made many important decisions on the use and application of existing orchid names. To commemorate his contribution, a new endemic species of sun orchid, *Thelymitra hatchii*, was named in his honour by Dr Lucy Moore in the *New Zealand Journal of Botany* (1969). The flower of this particular orchid was selected as the emblem for the Second New Zealand International Orchid Conference In 1985. About fifteen years later many, but not all, of the taxonomic and nomenclatural decisions made by Dan Hatch were sustained by Dr Moore in writing the orchid section for Volume II of the *Flora of New Zealand* (1970).

In addition to his twenty or so formal papers, Dan has written over sixty other papers and articles for a variety of magazines, bulletins and newsletters, not only on his favourite subject, native orchids, but on other native plants and New Zealand botanical explorers. His "Brief comment on the orchids of New Zealand" was the first article in the first issue of *The Orchadian* in August 1963. Throughout his life he has given friendly encouragement to others and shown a willingness to communicate knowledge and information gained from a close observation of native plants, both in the field and in cultivation. In the Auckland Institute and Museum where he has spent many hours of study, as well as in other New Zealand institutions of learning, he has deposited a rich legacy of Australasian orchid specimens for the use of present and future generations of orchid enthusiasts.

Though now living in retirement in Laingholm in the Waitakere Ranges in Auckland, Dan Hatch is maintaining an active interest in native orchids. With the help of his forty-five-year-old typewriter, he is still contributing articles to *The Orchadian* and the New Zealand Native Orchid Group *Newsletter*, as well as to other outlets. He is a fine example of a true student of natural history, and a worthy Fellow of the Linnaean Society.

Notes

◆Max Gibbs (Taupo) writes (8 June), "Iwitahi survived 'Bola' but only just and the reserved area had quite a few trees knocked over. There is already a lot of leaf sign for both *Caladenias* and *Thelymitras* under the pines and the *Calochilus robertsonii* are all up about 10cm at the gum trees. The area being cleared by Timberlands has been logged and burnt and is a blackened wasteland. The orchids transplanted from this area appear to be OK so far and some of the potted specimens in my shade house have produced new growth, e.g. *Corybas acuminatus* is confirmed as the plants are through and are sporting flower buds. Last week I had a visitor who brought a small specimen of a native orchid from Pureora Forest. It was a plant of *Drymoanthus adversus* complete with flower spike. He had picked it off a fallen log. It is now attached to a tree fern slab with sundry mosses and small ferns in my shade house In the hope that it will survive."

◆Mark Hanger (Dunedin) writes, "This past summer on my alpine wanderings I have noted a number of orchids at quite high altitudes. At 1260 metres a.s.l. in Doolans Valley, The Remarkables, are *Prasophyllum colensoi* and *Thelymitra*

longifolia in large numbers flowering In early January. At 1100 metres a.s.l. on the summit of the Blue Mountains, Otago, 29 December *T. longifolia*, *T. pauciflora*, and *Aporostylis bifolia* all flowering. At 1500 metres a.s.l. on Mt Patriarch in the Richmond Range near Blenheim, 8 January *Caladenia lyallii*, *P. colensoi* both flowering; *A. bifolia* and *Thelymitra* sp. both in bud. At lower altitudes it was interesting to see *T. longifolia* and *Prasophyllum nudum* growing quite happily on ultramafic rocks on or near the summit of Dunn Mount by Nelson City. Ultramafic rocks are rocks of the so-called mineral belt and are very high in iron and magnesium."

◆Maureen Young (Warkworth) writes, "Just a few examples of host trees of perching orchids; I have really only kept notes on *Drymoanthus adversus*. In Northland I have noted it on tanekaha, nikau, taraire, rimu, kanuka, kauri, rewarewa, kohekohe, totara, puriri, cabbage tree, *Coprosma arborea*, kahikatea and rock. *Bulbophyllum tuberculatum* I have seen on kauri and totara. *B. pygmaeum* on many hosts, but most often on kauri, and once on an old *Pinus radiata* on the edge of Waipoua forest."

◆B Killen of Cambridge writes, "First observations of the new season (5 July 88): (1). From Maungatautiri (about 10km west of Cambridge) a *Corybas* sp., flower almost open. From leaf I am certain it is *C. trilobus*. It is the more pointed leaf variety of trilobus. The habitat of this colony was to the side of a bush track in low light about 200m in the bush from the bushline. The plants were growing in leaf litter with roots not appearing to enter the soil at all. (2). *Acianthus fornicatus*, very common, showing both immature and open flower. Many seed pods were also noted. Observed growing in leaf litter, soil and tree fern. (3). *Earina mucronata*, very common, with flower stems and buds well developed."

◆Dan Hatch (Laingholm) writes of the journal of the Australasian Native Orchid Society, "*Orchadian* - is the name correct? According to the dictionary Orchas - orchadis = an olive with oblong fruits; Orchis - orchis = 1: an olive, 2; a herb (sometimes called *Serapias*) with testiculate tubers. As far as I can ascertain, the genitive singular is confined to botanical Latin and appears to have been first used in 1742 by Hallier in his *stirpium Helvetiae indigenarum* etc. J.R. Forster, writing in 1773, correctly used the nominative plural *Orches*, where today we would write *Orchides*. The adjectival stem is *orchide*. The name would therefore be more appropriately *Orchidean*. cf. the German *Orchideen* and the Brazilian *Orquidea*. As it reads at present the magazine is published by a group of olive enthusiasts - which as Euclid would say - is absurd. (Refs: Lewis and Short - *A Latin dictionary* p 1276. Stearn - *Botanical Latin - caulis* p 80; *cuspis* p 81; footnote p 66. M.E.Hoare - *The Resolution Journal of J.R. Forster* 3: p 422. G.P.de Wolf - *Taxon* 5: (3) May 1956 p 48.)

◆Information wanted. In the National Museum at Wellington is a collection of watercolours of native orchids by Fanny Richardson. My only information about her is that she resigned her membership of the Academy of Fine Arts in 1915 in a letter (held in the Turnbull Library) written from "Mirimar", Fairview Cres, Kilburnie, that a Fanny Richardson (the same one?) married one FE Reynolds and they lived in Mornington, Dunedin, and that the watercolours arrived at the Museum in about 1930. Can anyone help me with more data about her? - Ed.

◆In the Auckland Museum is a collection of watercolours of native orchids by Emily Cheeseman, the sister of Thomas Frederic Cheeseman. I can find little information about her. Can anyone help? - Ed.

◆ANOS (PO Box C106, Clarence St, Sydney) has for sale *The cultivation of Australian native orchids* at AS4.50, *Orchids of Western Australia* at AS6.50, and the ANOS Checklist of Australian native orchid hybrids at AS3.50.

◆ *Forest & Bird* 19: 2: May 1988 page 5 has a good photograph of *Yoania australis*.

◆ Very early notice for those who like to plan well ahead; the 14th World Orchid Conference Is In Glasgow 26 April - 3 May 1993. To be on the mailing list write to: Glasgow Parks and Recreation, 20 Trongate, Glasgow G1 5ES, Scotland, U.K.

◆ A new NZNOG book is In the pipeline, and should be ready by the end of the year. It will be called *New Zealand orchids - cultivation and natural history* and will contain chapters by members of the Group. We plan a "Historical series" of booklets too, with No. 1 a reference list, and reprints of important past publications to follow. Watch this space.

◆ A few copies of NOG Newsletters 1 to 20 are available at \$20 the set, or \$2 each.

Southland native orchid, weekend

Write now to let me know if you will be attending the Longwoods field days on 10 and 11 December, and whether you would like us to make accomodation arrangements for you. It is a fascinating habitat with a wide range of species - Ed.

Mapping

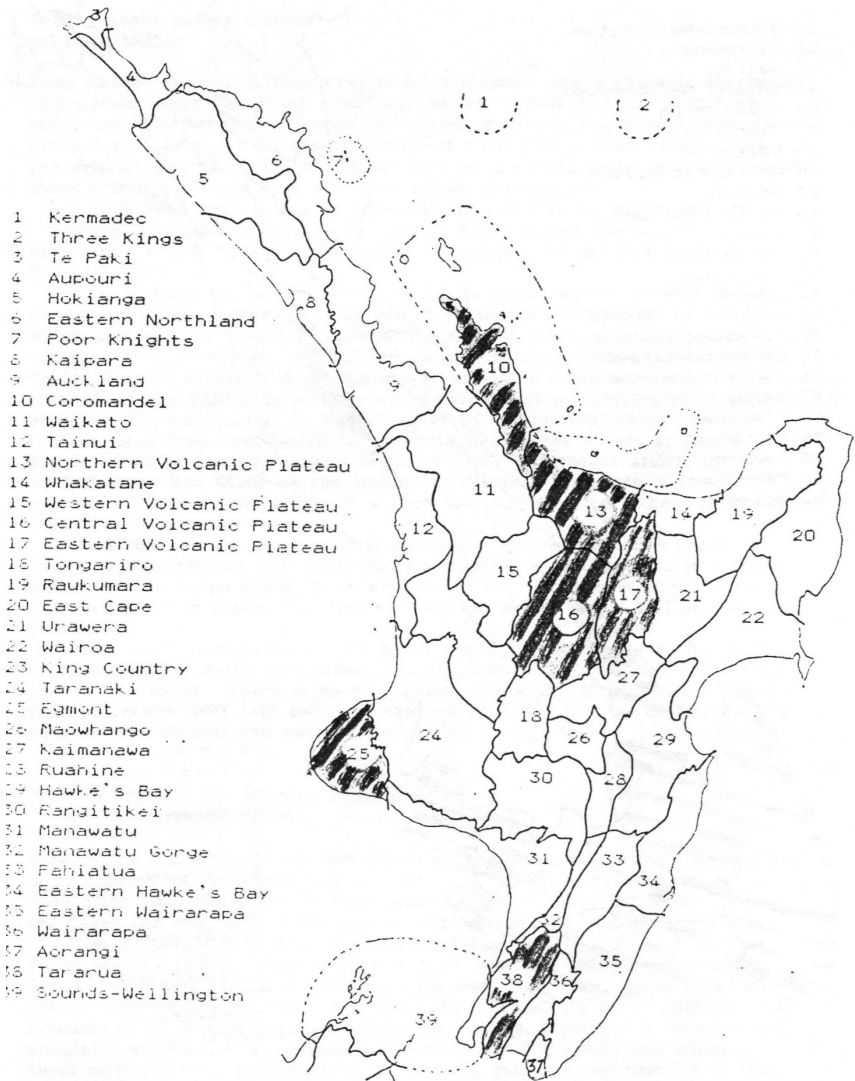
The Ecological Regions and Districts Maps show 79 Regions, but the accompanying booklets include 85 Regions divided into 268 Districts. I showed only 79 Regions in the reduced maps I sent with the last Newsletter. The other numbered Regions are

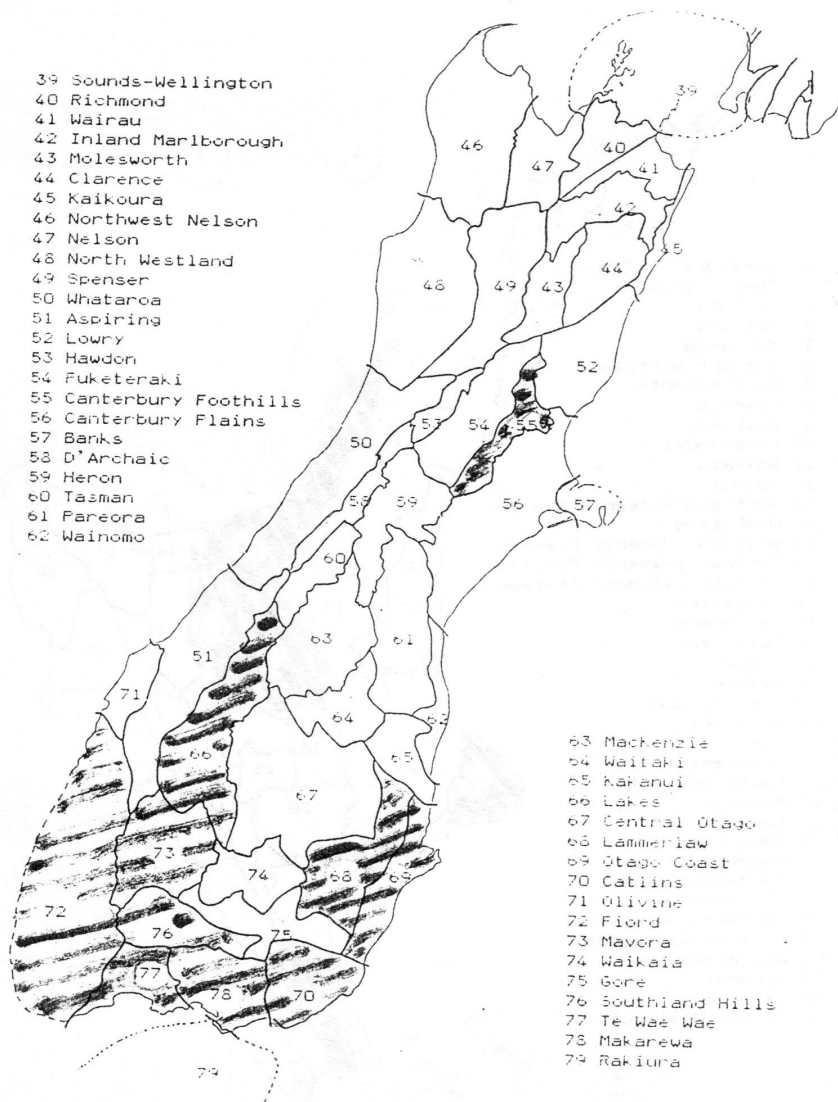
- 80 Chathams
- 81 Bounty Islands
- 82 Antipodes
- 83 Auckland Is.
- 84 Campbell Is.
- 85 Macquarie Is.

The Mapping Scheme allows recording orchid finds from 1982, so I have been going through reports from past issues of the Newsletter, and as far as possible have filled these details in on our maps. But some of the records are not usable because the locations of orchid finds are not accurately defined. As examples, there are very valuable reports of orchids found "within a day's field trip of Upper Moutere" and those found "near Wanganui" - tantalisingly full lists, but without the exact locations, the orchids might have been within any of several neighbouring Ecological Regions. So, even If you have reported orchid finds from your area to the Newsletter before the Mapping Scheme began, please do so again, giving either the name of the location, a map reference, or locating the finds within a particular Region. You will find, as I have, some difficulty in placing specific localities in the reduced maps, so a locality name will do fine.

Meantime several people have already sent in formal Mapping returns, and I have included these in the maps: those for the ubiquitous *Corybas trilobus* are printed with this issue: if you have records from Regions not marked, please let me have them now (with all the orchids you have found).

I will continue to update the maps, and will print a different species map with each issue, so you can see the progress you are making.





Articles

Writing about native orchids

by Brian Molloy

From modest beginnings this *Newsletter* is growing into a valuable source of information, news and views about our native orchids and the people who study and observe them. I hope this trend continues and more writers come forward with items of interest, it matters little how modest or ambitious the articles may be. The important thing is to communicate information and ideas within our community of native orchid enthusiasts.

It is good, too, to see articles and illustrations of native orchids appearing from time to time in *Orchids in New Zealand*, the official publication of the Orchid Council of New Zealand and the New Zealand Orchid Society.

In addition to communicating among ourselves about our own orchids, I believe it is also important to extend this Information transfer to a much wider Australasian audience, especially since we share so many species in common. The *Orchadian*, the official journal of the Australasian Native Orchid Society, offers this opportunity to all of us and I commend it to members of the NZNOG as another vehicle or outlet for writing about native orchids. The new editor, Dr Noel Grundon of Toowoomba, welcomes contributions from New Zealand, and would like to see a regular flow of articles from us on a variety of orchid topics. The recent article in The *Orchadian* by Max Gibbs on the orchids at Iwitahi will create widespread interest I am sure, and I hope it will be the forerunner of others to emanate from New Zealand.

As the New Zealand Editorial Associate of The *Orchadian* I will be happy to help anyone who would like to contribute, but perhaps is a little unsure of how to go about it, or whether or not their material would be acceptable. If in doubt, feel free to write me a note and I will do my best to help.

All these Journals complement one another and I do not believe their editors are flush with material to publish. So the opportunity is there for anyone who is Interested. There is no compulsion whatever. If you choose not to, then so be it. As I said before somewhere else, the pursuit of orchids is a personal experience, and each person is free to choose his or her pathway.

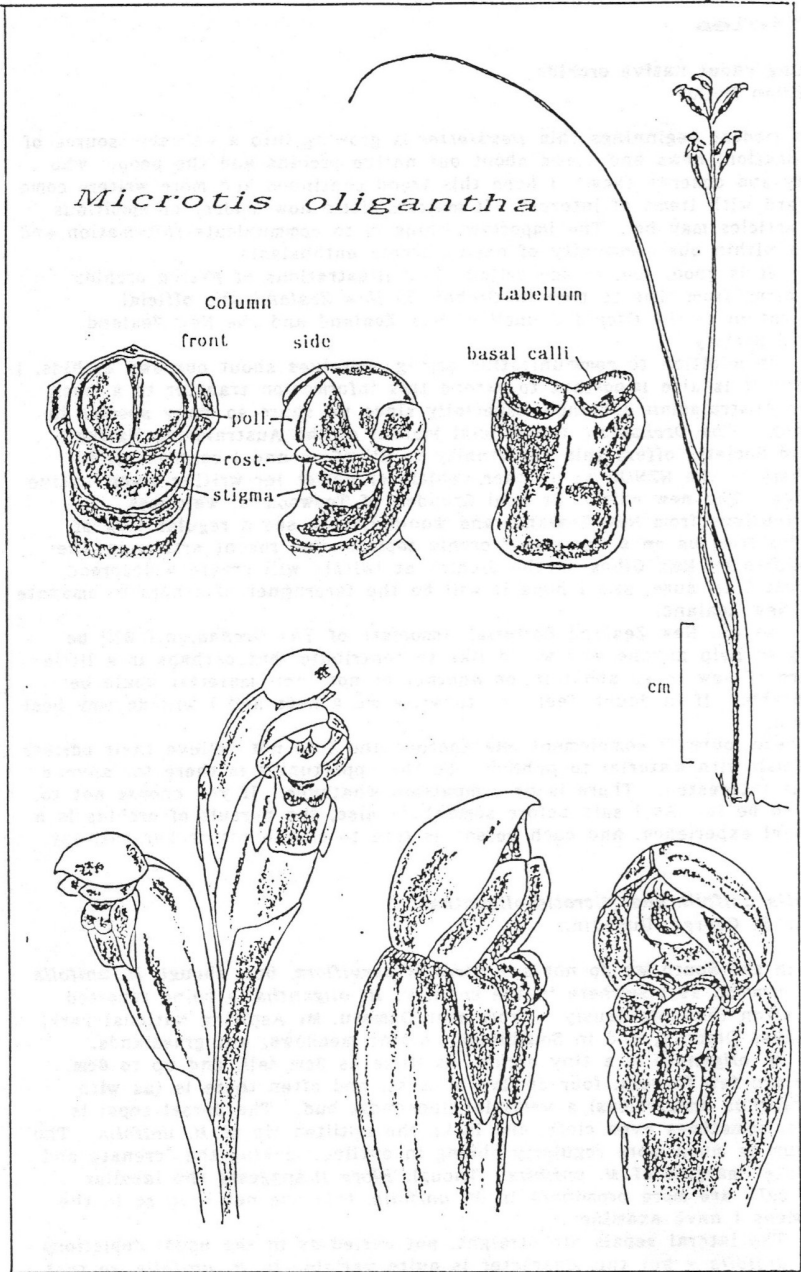
Microtis unifolia* and *Microtis oligantha

by Ian St George, Dunedin.

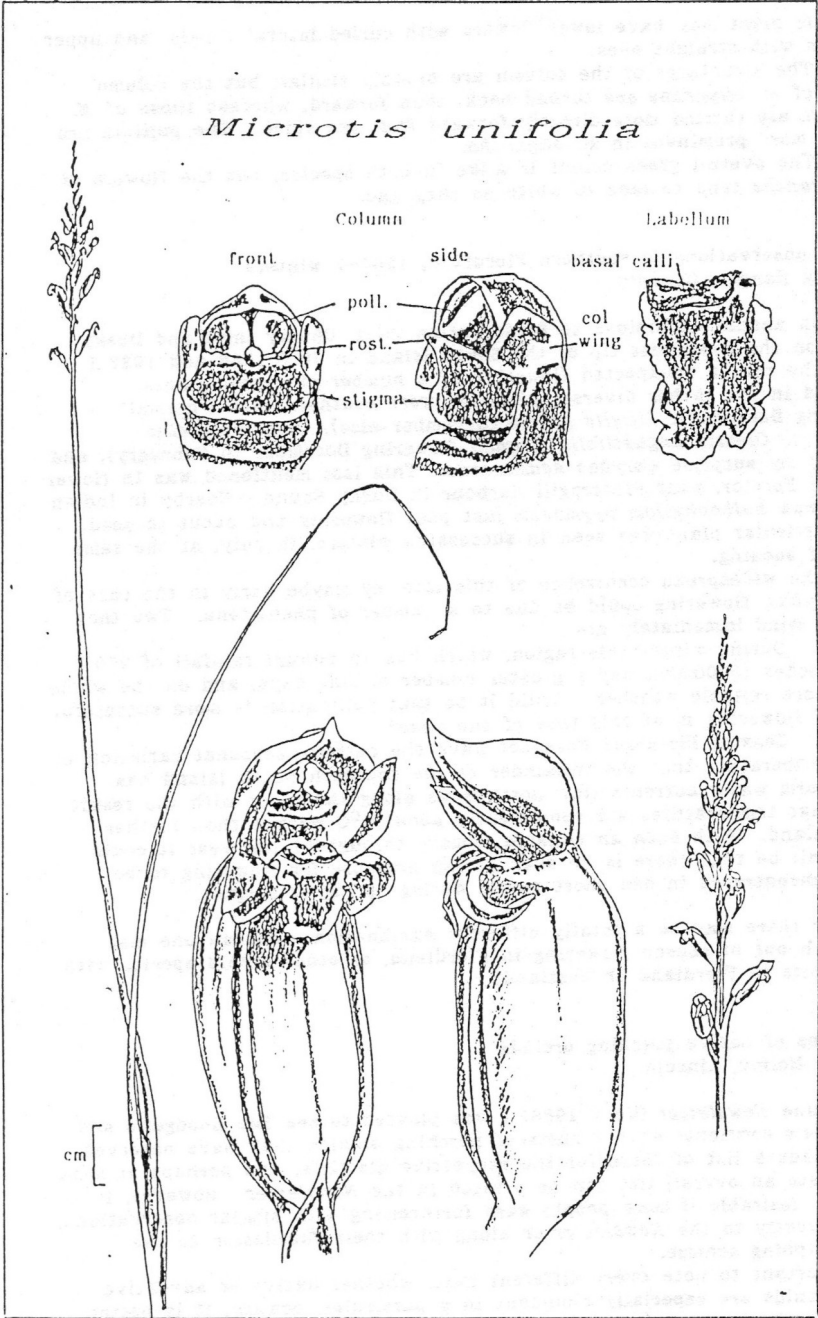
Here in the South we do not see *Microtis parviflora*, but, though *M. unifolia* is as common as elsewhere in the country, *M. oligantha* is being reported more often than previously - from near Oamaru, Mt Aspiring National Park, the Lakes District, and in Southland. Alpine meadows, wet grasslands.

M. oligantha is a tiny orchid, as little as 3cm tall, and up to 6cm. There are few flowers, four or five at most, and often there is (as with *Lyperanthus antarcticus*) a vestigial uppermost bud. The dorsal sepal is obtuse, sometimes even cleft, and lacks the upturned tip of *M. unifolia*. The labellum is much more regularly oblong in outline, lacking the "crenate and undulate" margins of *M. unifolia*. Though *Flora II* suggests the labellar basal calli are more prominent in *M. unifolia*, this has not been so in the specimens I have examined.

The lateral sepals are straight, not curled as in the usual depictions of *M. unifolia* - but this character is quite variable in *M. unifolia*, so that



Microtis unifolia



a single plant may have lower flowers with curled lateral sepals, and upper flowers with straight ones.

The structures of the column are broadly similar, but the column wings of *M. oligantha* are turned back, then forward, whereas those of *M. unifolia* are carried more directly forward from the sides. The pollinia are rather more prominent in *M. oligantha*.

The overall green colour is alike in both species, but the flowers of *M. oligantha* tend to fade to white as they age.

Orchid observations In southern Fiordland, 1986-7 winters by Mark Hanger. Dunedin.

While on annual excursions to Preservation Inlet, Chalky Inlet and Dusky Sound on the southwest tip of the South Island In July 1986 and 1987 I noted the rather unexpected flowering of a number of higher plants. Included in the rather diverse collection were southern rata ("normal" flowering December), *Pimelia gnidia* (December also), *Olearia oporina* (January), *Olearia angustifolia* (normal flowering December to February), and much to my surprise *Corybas acuminatus*. This last mentioned was in flower by Lake Forster, near Pickersgill Harbour In Dusky Sound. Nearby in Indian Island was *Bulbophyllum pygmaeum* just past flowering and about to seed. This particular plant was seen in successive winters, in July, at the same stage of seeding.

The widespread occurrence of this late, or maybe early in the case of the *Corybas*, flowering could be due to a number of phenomena. Two that come to mind immediately are:

1. During winter this region, which has an annual rainfall of 200 inches (5000mm), has a greater number of fine days, and on the whole more reliable weather. Could it be that pollination is more successful if flowering is at this time of the year?
2. Coastal Fiordland does not have the extreme seasonal variation in temperature that the remainder of the southern South Island has. Warm water currents flow northwards along the coast with the result that temperatures are consistently about 6°C warmer than further inland. With such an equable climate throughout the year it could well be that there is no such strong pressure for flowering to be concentrated in one short period during spring or summer.

Or there may be a totally different explanation. Has anyone else seen such out of season flowering In Fiordland, or other orchid species with such habits In Fiordland or Westland?

Host trees of native perching orchids

by Brian Molloy, Lincoln.

In the June Newsletter (No 6 1988) I was pleased to see Bob Goodger's and our editor's comments on the hosts of perching orchids they have observed. I have made a list of these for the respective districts, and perhaps at some future date an overall list can be printed in the Newsletter. However, it would be desirable if more people were forthcoming with similar observations, either directly to the *Newsletter* or along with their submission to the orchid mapping scheme.

It is important to note every different host, whether native or adventive. If the orchids are especially abundant in a particular locality, It is better to list all the hosts and orchids you know for that locality by spending a bit more time

there. It is just as important to record a wide host range as it is a limited one.

The well-known Waikato botanist, the late M.C. Gudem, published a research note on "The occurrence of *Sarcochilus* (= *Drymoanthus*) *adversus* (Hook.f.) in the Waikato basin" in the *Transactions of the Royal Society of N.Z.* 82: 611-612, 1954. He listed 27 native conifers and hardwood trees as hosts, and four adventives - oak, ash, privet and cherry plum. No tree ferns were listed. His comments are worth repeating:

"This epiphytic orchid is found in most parts of the Waikato basin.

Usually it occurs on the edge of the bush, where there is plenty of light and the air is able to circulate rather freely.

"In the bush on the flats it grows mostly on kahikatea, pokaka, titoki, hinau and mahoe. At higher levels it occurs on more kinds of trees and in great numbers. Sometimes one tree carries over fifty plants plainly visible from the ground. At Te Aroha North five plants on one tree carried over thirty-five fruits.

"At Old's Road, near Taupiri, *Sarcochilus* (= *Drymoanthus*) occurs in abundance on *Olearia furfuracea*, *Olearia rani*, *Weinmannia racemosa* and *Knightia excelsa*.

"One plant found on a recently felled tree at Pirongia must have been growing at a height of 75 feet (23m) from the ground.

"In two localities, Pirongia and Karamu, plants with unusually long and thin fruits were found: the leaves were reddish, but healthy.

"After seven years of careful observation, I must conclude that *Sarcochilus* (= *Drymoanthus*) *adversus* is more common in the Waikato basin than in the fifty localities that I have examined in various parts of New Zealand."

Gudem's note is a simple yet valuable record of his observations on the host range of one orchid in one general locality. It is a very useful model that any of us can follow.

Australian Notes

Here are some interesting excerpts from a paper by Bob Bates, in the *Journal of the Native Orchid Society of South Australia* (Vol 12 No 3 May '88). He discusses *Cyrtostylis*, currently called *Acianthus reniformis* in New Zealand, but shortly to have a name change -

"*Cyrtostylis robusta* Jones and Clements was described in 1987. It occurs from southern Western Australia, through South Australia to Victoria, in sandy soils or on limestone as well as in dry Sclerophyll forests and it flowers during winter....

"It can be recognised... by its large yellow-green leaf and the large red-brown flowers with long apiculate labellum. The other *Cyrtostylis* is spring-flowered, has small blue-green leaves and a small flower with short, obtuse or truncate labellum. This species is also common, occurring on shaded slopes and ridges under forest.... (It) has always been known as *Cyrtostylis* or *Acianthus reniformis*, but is this really so?

"Jones and Clements state that *C. reniformis sensu stricto* does not overlap in distribution with *C. robusta*! That can only mean that they do not consider *Cyrtostylis reniformis* to occur in South Australia. The original specimens were collected by Robert Brown at Sydney in May-June 1802.

That is not characteristic of the South Australian forms which flower September-October!.... It appears that there are indeed three species of gnat orchid which were previously included under *Cyrtostylis reniformis*. Indeed Jones and Clements suggest at least five species occur in Australia:

presumably *C. reniformis*, *C. robusta*, *C. aff. reniformis* from the east and *C. tenuissima*, *C. huegelii*, and *C. robusta* from Western Australia."What names are we to use for the late-flowered form of the gnat orchid in South Australia? I suggest we continue to use *C. reniformis sensu lato*, rather than use *C. aff. reniformis*. I would not be surprised if there are eventually six taxa of *Cyrtostylis* in Australia!"

Reference: Jones DL and Clements MA. Reinstatement of the genus *Cyrtostylis*.... *Lindleyana* 2: 156-160.

A.N.O.S. local groups and affiliated societies

If you are planning a trip to Australia and want to see some wild orchids, Affiliation with the Australasian Native Orchid Society means we have contact with sixteen Australian groups and societies, who send us their newsletters.

Queensland

- ◆ANOS Atherton Tableland Group, Hon. Secretary, PO Box 427, Atherton, QLD 4883.
- ◆ANOS Gold Coast Group, Hon. Secretary, PO Box 582, Palm Beach, QLD 4221.
- ◆ANOS Townsville Group, Hon. Secretary, PO Box 326, Townsville, QLD 4810.
- ◆Native Orchid Society of Queensland, Hon. Secretary, PO Box 159, Broadway, QLD 4000.
- ◆Native Orchid Society of Toowoomba, Hon. Secretary, PO Box 5141, Toowoomba, QLD 4350.

New South Wales

- ◆ANOS Far North Coast Group, Hon. Secretary, 2 Main St, Alstonville, NSW 2480.
- ◆ANOS Newcastle Group, Hon. Secretary, 9 Yvonne Close, Belmont North, NSW 2280.
- ◆ANOS Central Coast Group. Hon. Secretary, RMB 5430, The Ridgeway, Holgate, NSW 2250.
- ◆ANOS Warringah Group, Hon. Secretary, PO Box 524, Dee Why NSW 2099.
- ◆ANOS Sydney Group, Hon. Secretary, 61 Waratah Rd, Turramurra NSW 2074.
- ◆ANOS Port Hackling Group, Hon. Secretary, PO Box 369, Gympie NSW 2227.
- ◆Wollongong & District Native Orchid Society, Hon. Secretary, 13 Eleanor Ave, Oak Flats NSW 2529.

Victoria

- ◆ANOS Victorian Group, Hon. Secretary, PO Box 286, Cheltenham VIC 3192.
- ◆ANOS Geelong Group, Hon. Secretary, Lot 2 Newcombe St, Drysdale VIC 3222.

South Australia

- ◆Native Orchid Society of South Australia, Hon. Secretary, PO Box 565, Unley SA 5061.

Western Australia

- ◆Western Australian Native Orchid Society and Conservation Group,

