NEW ZEALAND NATIVE ORCHID CROUP Newsletter No 4 December 1982

PLEASE RENEW YOUR SUBSCRIPTION FOR NEXT YEAR \$3.50

Dear Member,

Well we have completed our first year with over 100 members and four newsletters Please give some thought as to wneru you think the Group should go from here and let me know your ideas. As membership subscriptions are now due for next year perhaps you could enclose with your sub, a note of your thoughts as to whether we stay as an informal independent group, become affiliated to the N.Z. Orchid Council, I know a lot of you aren't growers of tropical orchids, or become a branch of the

Australasian Native Orchid Society (ANCOS) which would mean adopting rules and constitutions for a formal society.

Have a good summer studying our orchids and please let us know of your discoveries so everyone can learn that bit more. See you next year, Merry Christmas and a Happy New Year.

Dorothy Cooper, 14 Avalon Crescent, Lower Hutt.

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NOTES ON BULBOPHYLLUM TUBERCULATUM

Michael Pratt, Wanganui.

On the 26th April 1981 while searching for B. pygmaeum in a 3 acre patch of native bush situated in a valley at Okoia, near Wanganui, I came across a very old Tawa tree from which a largo branch had fallen in a recent strong wind. On the outer section of the branch were numerous plants of B. tubercuatum. They were growing in humus about 1mm thick and the tight cotton-like rhizomes, up to 1 mm thick, spread around the whole branch. Other orchids growing with it were Drymoanthus adversus and Earina mucronata along with Pyrrosia serpens, a common epiphytic fern.

The plants, in full bloom, formed mats 20cm across with old dead pseudobulbs In the centre and fresh new ones around the outside. Pseudobulbs grow tightly together and sometimes on top of each other. Flower spikes which arise from the base of the pseudobulb, were numerous and consisted of up to 5 flowers per spike. Most were white with a bright red labellum with a central yellow stripe. However, a number of the flowers were purple-tinged, probably because of the poor light conditions as the branch had fallen into the undergrowth. As well as the new flower stalks, old stalks from the previous year bearing fruits were present. Although each stalk bears a number of flowers, most stalks had only 1 seed, capsule, The flower is 3 mm long (excluding the ovary). The labellum is 2mm long and is red to orange with a bright yellow central stripe. The column is 1mm high and is of n green colour with a circular to oval stigma. The dorsal sepal is about 4mm long and is of a transparent white streaked with red. The petals are also a transparent white and are 2mm long. The lateral sepals are 4mm long and are the same colour as the dorsal sepal.

The thick leaves are $15-20\,\mathrm{mm}$ long, the upperside is green and the underside a purely-green colour.

The pseudobulbs grow up to 10mm high, are a dark green to reddish brown, and are often covered with white spots which are swollen cells. The capsule or fruit is 5mm long and is of a reddish colour, splitting down the sides to release many fine yellow seeds.

We have now found about 4 places in the Wanganui district where there has been B. tuberculatum. However, most of these plants are on fallen dead trees and thus die; we know of only one tree where the orchid is present in large numbers. It seems to prefer Tawa or Hinau trees, and flowers April-May. mostly April.

Jean Jenks

Acianthus fornicatus: winter flowering, mossy areas.

A. reniformis: often found under coral lichen.
Adenochilus gracilis: in beech forests
Aporostylis bifolia: in moist, mossy locations.
Bulbophyllum pygmaeum: growing on rocks
Caladenia catenata: yellow/green, white, mauve and brown varieties,

C. lyallii: some below bush line(these seem to be smaller clones than those above bushline and are similar to Nth Island forms-Ed.)
Chiloglottis cornuta:flowers Oet-Jan.
Corybas aconitiflorus: some large colonies under manuka.

<u>C. orbiculatus</u>: both red and green, red lack the long sepals.

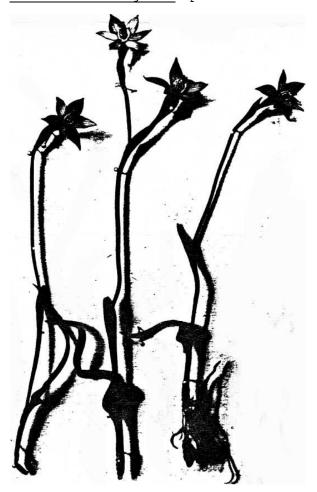
C. macranthus: not plentiful.

C. oblongus: isolated clumps.

C. rivularis: not abundant.

<u>C. trilobus</u>: plentiful in beech areas.
<u>Calochilus robertsonii</u>: two different locations.

Dendrobium cunninghamii: plentiful.



<u>Drymoanthus adversus</u>: growing on trees and rocks.

Earina autumnalis, E. mucronata and other epiphytes growing together (except B.tuberculatum) Gastrodia cunninghamii

Microtis unifolia; everywhere, even in our lawn.

Orthoceras strictum:various colourf Prasophyllum colensoi:easily overlooked in grass.

Pterostylls alobula; often with

P.trullifolia.

P.areolata:scattered locations.

P.australis:only a few.

P.banksil.

P.plumosa:isolated plants.

P.foliata; few locations.

P.graminea; usually growing in grass.

P.irsoniana: one main sighting in bush.

P.montana: two different locations

P.oliveri:three different areas with large plants.

P.trullifolia:isolated sightings.

P.venosa:only above bush-line.

P.sp.

Thel.vmitra carnea:plentiful on pakihi.

T.dentata; one area found.

T, decora: not plentiful.

T.hatchil:large plants at one location.

T.formosarnot common.

T.ixioides:common in pakihi areas.

T.pauciflora:abundant.

T.pulchella; white and blue flowers.

T.longifolia:plentiful.

T.venosa: few pink forms.

How does this list compare with your area?

The specimens on the left are:

Thelymitra matthewsil Cheesem.
(from old photographs by
H.B.Matthews - courtesy E.D.Hatch).

This species is now listed as probably extinct by David Given.

THE BEGINNINGS OF PTEROSTYLIS

E D. Hatch, Laingholm

<u>Pterostylis</u>, like so many things in this part of the world, began, with Captain Cook and the voyage of the Endeavour On 8 November 1769 the 'immortal Banks and Solander' found <u>P.banksii</u> on the banks of the Purangi River at Whitianga, and Solander described it briefly in the <u>Primitiae Florae</u> under the MS name <u>Arethusa tetmpetala</u> His comment, being comment interpreted runs - 'In New Zealand, in shady places near Opuragi. 'this differs from the Australian plant in having several stem-leaves, often a span long'. (My span is 8" - 200mm!).

In May 1770, having crossed ihe Tasman, they collected <u>Pt.revoluta</u> from Botany Bay, on the coast of New South Wales (There is a B & S7 specimen sheet of <u>revoluta</u> in the Sydney National Herbarium). It has been supposed, that they also collected <u>Pt.acuminata</u>, which certainly grew at Kurnell where Cook landed. Parkinson made a sketch of <u>revoluta</u> showing a flowering plant with an abnormal basal rosette of leaves.

Dryander (who was Banks's librarian after Solander's death) suggested that this rosette belonged to <u>acuminata</u> and that Parkinson had mixed the two species into his drawing. But the normal <u>acuminata</u> rosette surrounds the stem (that is the stem grows from the centre of the rosette), while the rosette in the drawing springs from one side of the stem as a bud from the node. I believe that this drawing of Parkinson's, while showing an unusual form of <u>revoluta</u>, does not prove that the expedition collected <u>acuminata</u>. This is borne out by Nicholls (Austr.Orch.1951 .t.81 - letter- press) who records specimens of <u>revoluta</u> with a lateral rosette of leaves at the base of the stem and another in the axil of the floral bract.

In 1792, in April, Labillardiere collected Pt. alata at Recherche Bay in Tasmania, and this was published, described and illustrated in Nov. Holl. Pl. Spec.2:1 806, p.59.t.21 0 as Disperis alata. In 1810 Swartz (in Mag. Ges. Naturf.4 1810.p.S84 t.3) redescribed Labillardiere's material as Diplodium australe, and this species remained outside Pterostylis until Lindley (Gen. et. Spec. Orch 1840 p. 388) brought it in as Pt. paecox.

The genus <u>Pterostylis</u> was meanwhile described by Robert Brown (Prodr.1810.p.326) based upon the 17 species collected by him during Flinder's <u>Investigator</u> expedition to Australia in 1801-3. The generic type is <u>Pt. curta</u>. Brown's name was conserved against the <u>Diplodium</u> of Swartz (presumably to prevent confusion with <u>Dipodium</u> R.Br. Prodr.1810. p.330), and from then on it was merely a matter of adding or subtracting names as species were discovered, denounced or reconsidered. Three of Brown's species, <u>mutica</u>, <u>nana</u> and <u>nutans</u> were later found in New Zealand.

The first species to be described from New Zealand was once again Pt.banksii. It was found by Allan Cunningham on the Kawakawa River in the Bay of Islands in 1826, named by Robert Brown and described by Cunningham in the Botanlcal Magazine 59:1832.t.3172.

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THELYMITRA

Dorothy Cooper

Having just been on a field trip where we spent a lot of time trying to identify unopened Thelymitras from their leaves, I thought I would try to make a chart of important characteristics of the species for identification. Remember that in many species colour does not develop in the flowers until shortly before opening - T. pulchella has cream unstriped flowers when you prise open an immature bud but develops its blue stripes and even later the blue tones of petals and sepals just before opening. Details of the column also vary greatly between immature and mature specimens.

Blue flowers:

with stripes: T. dentata, matthewsii, pulchella, T. venosa,

with spots: <u>T. decora</u>, <u>ixioides</u>.

No stripes or spots: <u>formosa</u>, <u>hatchii</u>, <u>intermedia</u>.

with spots: no strip

<u>Pink-mauve</u>: <u>T. pauciflora</u>: could possibly be pink forms of:

pulchella, dentata, hatchii, intermedia, venosa.

Cream-pink: T. carnea.

White: T. longifolia; could possibly be venosa. pulchella. dentata.

Other characteristics:

 $\underline{\text{T. carnea}}$: narrow leaf almost terete, no stripes or spots, high post-anther lobe, no

cilia.

T. decora: leaf fleshy U-shaped and may have ridges on back; spots on petals; column

arms terete, white cilia; U-shape top to column either dark purple or

yellow, column has lateral horns.

T. dentata: thick leaf wide shallow V shape tall column with hooded post-anther lobe,

yellow cilia forming dense brush often brown on tips; denticulations at

base of column arms, often lateral horns on column.

T. formosa: leaf wide, thick, V shape with rolled in edges and marked keel; high side

lobule, low post-anther lobe; column arms pink or yellow with yellow or

white cilia around edge.

T. hatchii: leaf deep or flat V;

top of column truncate; cilia white, pink or yellow,

T.intermedia: strap-like leaf, white cilia.

T. ixioides: channelled leaf usually narrows abruptly; column arms held stiffly out,

with pink or white marginal cilia;

T. longifolia: leaf varies in shape, usually pale green and limp;

can be narrow V, wide V, or irregular strap shape; top of column not

bisected deeply, cilia white.

T. matthewsii: leaf spirally twisted around stem, no post-anther lobe, no cilia.

T. pauciflora: leaf form varies, narrow U or V, or wider shallow V;

top of column deeply bisected, white cilia;

whole plant often has pinkish tinge.

T. pulchella: leaf thick, fleshy and V-shaped with thickened margins, slight ribbing on

back; column arm flattened with seaweed-like filaments, no c111a.

T. venosa: narrow leaf, trefoil-shaped in cross-section;

column arms ribbon-like, no post-anther lobe, no cilia.
