

THE NEW ZEALAND
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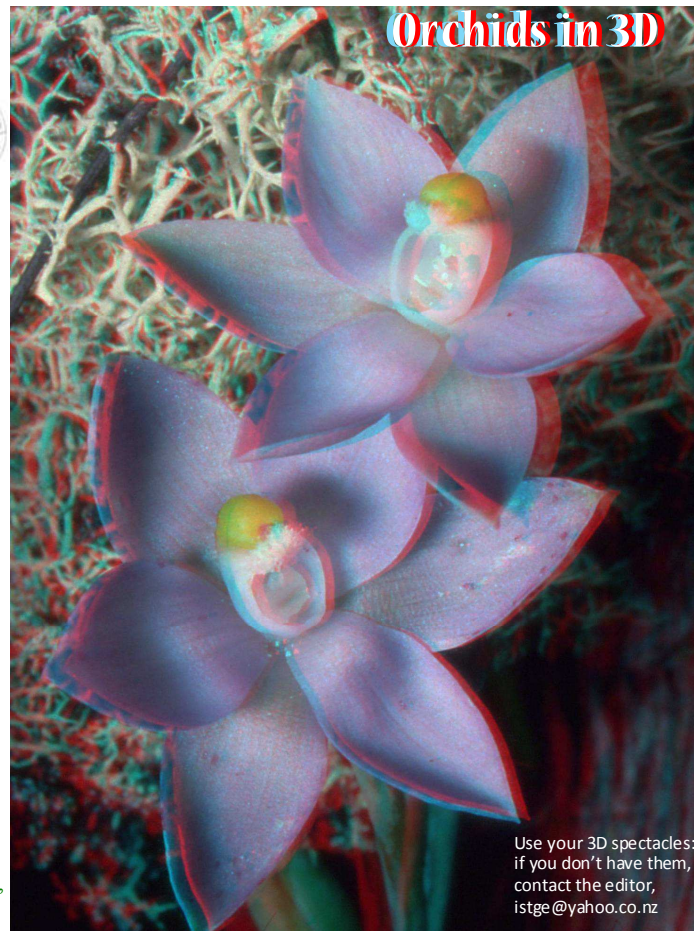
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Orchids in 3D



Use your 3D spectacles:
if you don't have them,
contact the editor,
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FROM THE CHAIR



Gael Donaghy

Happy New Year everyone! May it be filled with lots of walks in wild, and not so wild, places with lots of orchid finds. You never know what you will spot if you are observant – we saw a beautiful mushroom pink/ cream coloured *Gastrodia* in someone's beautifully manicured garden recently (27 November).

The AGM, held at the Hauhora Fishing Club in Pukenui at the end of October, was a great success, thanks to all the work Bill Campbell put in. Even the weather was cooperative! I saw plants in flower (or almost in flower) I knew existed but hadn't seen before – like the green form of *Calochilus herbaceus* on the Sod Wall track. We were rewarded at Kaimaumu by some lovely specimens of *Cryptostylis subulata* in peak flower. *Thelymitra* "ough leaf" was persuaded to open on the Te Paki Trig track.

At the AGM, the group returned its office bearers, except for the position of Treasurer, which David McConachie has kindly accepted – a job which will be made a bit easier by the fact that NZNOG is enabled to do internet banking. Our heartfelt thanks go to Judith and Brian Tyler for the work they have put in over many years in this often invisible but always important role.

We decided on a one-off student grant to assist with orchid research (\$2000). This will be re-evaluated at the next AGM.

Ian's suggestion that the group help with the digitisation of the NZNOG journal was discussed and

supported, with Graeme and David offering to help with the scanning process. This will form a valuable resource for members and researchers alike.

The venue for the next AGM was discussed, with suggestions of the Catlins, Borland Lodge, Stewart Island, Chatham Islands and Central North Island. To make it more accessible for the greatest number of people it was decided that Te Aroha, at the base of the Kaimai Forest Park, would be our base. We didn't set a date as we have to research whether it is better to go in the *Corybas* season, or later to catch the *Thelymitras* and *Calochilus*, etc. Graeme and I have been to the Visitor Centre at Te Aroha to suss it out; there is a range of accommodation, eating places, and a hall for our meeting, so it is suitable from that aspect.

As a native of the far south, I welcome any opportunity to get down there. In 2019 we attended a Bryophyte workshop, but I spent a lot more time looking at orchids than I did looking at mosses! I think a spring trip for those who want to attend would be a good idea (after all the suggestions above) – maybe what the Aussies call a "tag-along" trip. This means we book our own accommodation, organise our own meals, but tag along with the leader to go to different spots. To make it worthwhile for the distance for us, I think it would need to be 5–6 days long. There are plenty of places to go, from Te Waewae Bay, Bluff Hill, Sandy Point, Forest Hill, Southern Hokonuis through to the Catlins.

A southern excursion

By Gael Donaghy & Graeme Jane

We had intended to take a commercial tour from Dusky Sound to Puysegur Point (so could boast I had been to the four corners of New Zealand) in July but the pandemic intervened and the trip was rescheduled for October. So we decided to extend it and include a few days around Queenstown and join Nelson BotSoc in Charleston afterwards, also spending a few days working our way up the West Coast.

We arrived in Queenstown on 5 October and over the next 6 days took our guidance for places to explore from Ian St George. Our first loop took us up Tobins Track and back down the Arrow River with no orchids on the first leg apart from *Microtis* and *Thelymitra* both well off flowering. On the return down river we spotted a *Corybas*, previously identified in summer as probably *C. macran-*

thus in a dry site, now a seepage, only 15 minutes from Arrowtown. It was in bud and declared to be definitely NOT *C. macranthus* so we scheduled for a second look on our return in 2 weeks

Next day it was off to Bobs Cove where we had seen lots of *Corybas* leaves in the summer. Even on the short loop the plants were numerous but disappointingly mostly well past flowering. It was not until we headed towards 12 Mile we struck some flowers of *C. trilobus* ss (Fig. 1). Rewarded, we proceeded a little further before retreating and trying our luck with the Mt Crighton loop. Again *C. trilobus* was quite common along the western part of the loop to the Moke Lake turnoff. At the Maori Gully bridge on a waterfall face *C. orbiculatus* was in late bud. We missed checking a couple of Ian's records as we had not read his notes before we left that day. On the return loop (mostly new track) we saw only the odd *Thelymitra*.

The next foray was to Mt Alfred and the start of the Routeburn Track. The former was difficult to locate at the best of times but now closed and signs removed so we missed it completely. We then decided to try the Lake Sylvan track—that was a bit of a youyang with only *Thelymitra* leaves (as we had been warned) so it was on to the start of the Routeburn and the short nature walk. Here we soon found a *Corybas* buried in the moss (*C. hypogaeus*? Fig. 2) and not far on *C. vitreus*, both in flower. The latter was quite common round the loop.

On 11 October the boat trip began and our first landing was at the start/end of the Dusky Track at Supper



Cove. Here, hardly off the boat we found *Thelymitra pulchella* in advanced bud then *Corbas trilobus* ss on the way to the hut and *C. acuminatus* nearby: very dark coloured, stripy and with a huge fine dorsal sepal well exceeding the leaf in length (**Fig. 3**). Although we plodded on for 40 min or so, few orchids were seen other than *C. acuminatus*, *C. oblongus* in bud and the three common epiphytic species, *Dendrobium cunninghamii*, *Earina autumnalis* and *E mucronata*.

Our next landing was on Anchor Island at Luncheon Cove for a loop walk. Again the three epiphytic species were present along with *Bulbophyllum pygmaeum* and *Corybas oblongus*, the latter most in flower. A second landing that day was to Pigeon Island at Richard Henry's cottage site where there was a huge population of *C. trilobus* ss, mostly well finished, in the former kakapo holding pen! There were also early rosettes of *Pterostylis australis*, *C. acuminatus* in flower and a patch of *C. oblongus* in flower.

The next day it was off to Astronomer's Point to find lots of *Corybas trilobus*, *C. acuminatus* and odd *C. oblongus* as well as *Pterostylis banksii* in bud. The next day on to Lee Bay, South Port purportedly for a beach cleanup but we did stray inland especially at the eastern end. There *C. vitreus* was quite common with the odd *Earina mucronata*. Then it was on to Puysegur Point landing at Stores Bay and the 2 km walk to the light. Rosettes of *Pterostylis australis* and buds of probably *C. orbiculatus* were present in the short turf at the boatshed. Along the track we soon found *C. vitreus* and *C. orbiculatus* in flower and further along some probable *C. macranthus* and of course *Microtis unifolia* and the odd *Thelymitra* leaf. As we approached the Puysegur light the kamahi forest changed to tall manuka with a dense litter layer that tempted a look for *C. cheesemani* and we were soon rewarded.

The next day was a helicopter flight to West Arm Manapouri then

bus back to Queenstown. Our only foray was around the Helipad at West Arm Manapouri, rewarded with abundant crinkly rosette leaves, probable of *Pterostylis australis*. On the morning of the 18th we made the short trip up the Arrow River to find the *Corybas* in the seepage we had seen earlier. It was just in flower and definitely *C. orbiculatus*. In the afternoon, to stretch our legs, we headed from Bobs Cove again to check out some orchids that Gael's sister had spotted near the former hotel site, towards the 12 Mile. But before we reached that spot we detoured to Picnic Point and stumbled on a large population of previously unrecorded *Chiloglottis valida* (**Fig. 4**). Is this the "Fiordland" record in the Flora? Dozens of plants were in full flower in two strips, one of 10 m and another of 6 m some 20 m apart along the track edge. The habitat was a rather dry scrubby area amongst *Hieracium*, bracken and mingimingi—scarcely a likely place for a *Chiloglottis*. Other orchids in leaf were several different *Thelymitras*, and what looked like a *Caladenia lyallii* in bud.

The following day we began our drive north up the West Coast. The first significant stop was at the Makarora nature walk where we soon found *Corybas* "Trotters" in flower (**Fig. 5**) then lots of *C. trilobus* ss mostly well over but the odd very large flower still sound. Then a stop at the Haast Summit on the Davis Flat track was rewarded with only a few leaves of *Adenochilus* and *Chiloglottis cornuta* in bud. At the Fantail falls nothing was found but at the Roaring Billy Falls *C. "Trotters"* was in flower in several places as well as an abundance of the three main epiphytic orchids.

The next day a brief stop just past Lake Moeraki on the Paringa-Haast stock track *P. australis* was in leaf and the occasional *Corybas oblongus* in flower. Then, just as we were retreating, an unusual *Pterostylis*, 2 plants the size of *P. montana* but more like a *P. graminea* (see paper in this issue). Next stop was at Lake Matheson for lunch alongside the river. Here we spotted large numbers of *P. banksii* in full

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flower with laterals well turned back and many *C. trilobus* now well over. Then along the track lots more *P. banksii* with *C. acuminatus*, *C. oblongus* and large patch of the Paringa *Pterostylis* which were carefully recorded.

On to Franz and first the Sentinel Rock track with lots of *P. australis* and *P. banksii*, early leaves of *C.* “whiskers” on a wet rock wall, then lots of *C. hatchii* with one in flower. Finally to Douglas walk to the Robert Point bridge with one *P. australis* in full flower, many *C. hatchii* in flower (some woggy, **Fig. 6**), some very pale, then lots of *C. acuminatus* with many flowers. Also a few *C. oblongus* in early bud then over the bridge to record more *C. hatchii*. A very busy day.

Next day at Harihari the Wilberg Walk we were rewarded with only the occasional *Pterostylis banksii* with recurved sepals. Next stop at Ross for Water Race Track had a few patches of *Corybas oblongus* now in flower but no *C. trilobus*, one lot of *C. acuminatus* and odd *P. banksii* again with recurved lateral sepals. At the Hokitika Gorge a

full loop over new bridge found only the occasional *P. banksii* and three plants with one in flower of the Paringa *Pterostylis*.

At Woods Creek the next day to re-visit *Pterostylis* “domesticus”, our first find was *Corybas acuminatus* then *C. hatchii* just over, in several wet places. Finally *P.* “domesticus” (clearly now a *P. auriculata*, **Fig.7**) before the creek then a scattering of *P. banksii* the odd one in flower. On a visit for lunch at Nelson Creek, the orchid search was ruined by recent (and regular) use of a weed eater. Then on to Coal Creek Falls with a time limit of an hour (dinner at Charleston called). Not much was seen for a start, only the odd *C. acuminatus* in leaf. Then by the first major creek *P. montana*, 3 was in flower with *C. obscurus*/ “Trotters” and *C. hatchii* for some distance from the creek. As we turned and retreated we saw a scattering of *P banksii* and at a small waterfall, probable *C.* “whiskers” high up and inaccessible.



The next three days were around Charleston in mediocre weather. On the Tiropahi track we saw just the occasional *Corybas acuminatus*, *C. hatchii*, *C.* “whiskers”, *C.* “Trotters” and *Pterostylis banksii* in the first two kilometres explored. The Argyle Track was explored in drizzle turning to rain seeing only *Pterostylis banksii* and *Corybas oblongus*, both in flower until the open pakihī. At the former sluicing site *Thelymitra nervosa* was encouraged to open and a spent flower of *Caladenia atradenia* was able to be revealed. Several other *Thelymitra* were suggested from the leaves including *T. carnea* and *T. pulchella*. After the rain eased the Nile River tramway was explored from the end of Darkies Terrace Road for 1 km. Here *C.* “whiskers” with still an odd flower was abundant (Fig. 8) but *C. hatchii* was now over and *C. oblongus* had only one in flower and a few in leaf. Then as we returned along the river track amongst tree



ferns we found *C.* “Trotters” and *C. trilobus* ss. Scattered *Pterostylis banksii* in leaf and one *P. irsoniana* in good flower were also noted. Plants of *P. paludosus* from a terrace near the lodge were shown to us that evening.

En route to Christchurch we had a brief stop, between showers, at Murray Creek, Reefton. There was nothing from the start till the track was near the main creek where a few seepages were present. There *Corybas* “whiskers” and *C. hatchii* were both in flower with the odd *Pterostylis banksii*. The excursion ended with a walk up Chatterton Stream at Hanmer. Persistence in heading through the km or so of pines in drizzle was rewarded with some nice kanuka and mountain beech with numerous flowers of *Corybas hatchii*, *C.* “whiskers”, *Pterostylis banksii* and buds of a *Thelymitra* or two.

I visited **Bob's Cove and Picnic Point** on 30 November, when the *Chiloglottis valida* was still in full flower – a most impressive colony (1). Also flowering were *Prasophyllum colensoi* (green form: 2), *Thelymitra nervosa* (in the south it is often spotless, its column almost approaching that of *T. hatchii*), *T. purpureofusca* (green form), *T. "fusca"* (the tiny beech forest *thelymitra* with almost black stems and wiry bronze leaves: 3), *T. alba* and *T. longifolia* s.s. Slender, early-flowering *T. colensoi* with its red stems and leaves was in fruit (4). *Corybas* "Trotters" had occasional fruiting stems and up to 4.5cm leaves (5). A *Microtis* in the track's herbicide zone had its flowers facing the stem rather than outwards – a deformity I have seen before at roadsides where sprays have been used (6). *Caladenia* with red and with green stems were in fruit—Ed.



Pterostylis from South Westland

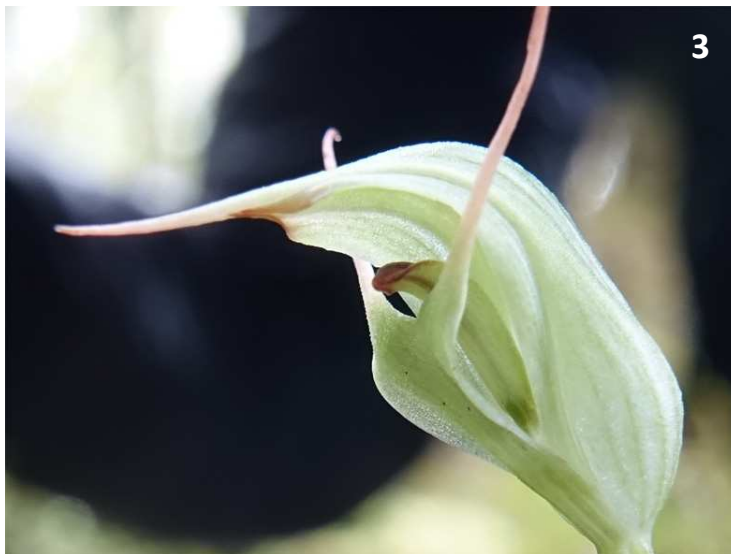
By Gael Donaghy & Graeme Jane

On a recent trip up the West Coast a different *Pterostylis* was found in three localities and in each case no other *Pterostylis* species were present nearby and only *P. banksii* or *P. australis* were found in the locality. The first locality was near Lake Moeraki on the start of the Paringa–Haast stock track (43.775709S, 169.358255E). The site was at the edge of an opening created by a recent slip on a narrow ridge in silver beech/kamahi forest. It was on the bank above the track edge amongst grazed, short herbs and grasses. Only two plants were seen in an hour's walk. The second locality was on the Lake Matheson Track at Fox Glacier (43.444135S, 169.969140E). This was a single population of about 30 plants, one of which was dissected in situ. The plants were alongside the track in gently rolling kamahi/podocarp forest amongst tree ferns and in litter. The third locality was at the Hokitika Gorge Track (42.956049, 171.018266). Only 3 plants were seen along loop track over 2 hours. They were in kamahi podocarp forest, at the crown of the 1.5–2 m vertical bank, at the edge of a *Blechnum novae-zelandiae* sward that had been cleared back for track maintenance.

The plants were 10–25 cm tall (Fig. 1) and flowers about the size of *Pterostylis montana*. Leaves were quite narrow and not strongly flared at the base. The flower was more or less erect and had quite narrow stripes. Lateral sepals were quite fine and rolled and the dorsal sepal was much longer than the



lateral petals which were quite tapered and flared. The junction of the sepals was quite rounded, with a rather wide gape, more like *P. irsoniana* than flattened and boxy as in *P. montana*, *P. auriculata* or *P. cernua*. The area at the sepal junction was also covered with dense short hairs or papillae. The labellum hangs out from the sepals and was quite narrow, not twisted at the tip and weakly curled over. The raised midrib stopped before the tip creating a winged tip. The dissection (Fig. 2) revealed a red midrib to the labellum with a small knob



course. It does not have the very broad leaf with an almost auriculate leaf base nor the nodding flower or twisted labellum of *P. auriculata*.

It does not appear to be a hybrid as similar plants were found at three widely separated localities and none of the potential parents were present at the localities. It could be part of geographic cline in variation of *P. cermua* but differs in many features. It is also similar to *P. auriculata* though that species is mainly recorded from Southland. For us the area is not well explored for orchids and more observations are required to locate other, and hopefully, larger populations.



just below the tip (Fig. 3) and a slightly raised part near the base of the midrib ridge. The tail of the labellum was quite sharply turned up and angular as in *P. montana* and terminated in very stout processes, almost spines. The stigma was quite short, stout and rounded. The top of the column wings was quite arched with prominent stout horns and a quite angular inner edge.

The plant seems to have some characters of *P. auriculata*, *P. montana* or *P. cermua* but is much more slender in leaf and flower and does not have the flat lateral sepals or angular features of the junction of the sepals. It has many features of *P. cermua* but is much finer in character than photos we have of that species from the type locality and near Hokitika Race-

Sweating the small stuff with *Microtis unifolia*

By Georgina Upson.

Down among the blades of seeding grasses lies nestled a colony of *Microtis unifolia* alongside a vibrant diverse community of insect life. Here and there one finds flower buds that have been devoured mainly at the floral spike tips. The occasional yellow spot betrays the fact that pollen has been transported from its place inside the flowers. The bud chewing is probably explained by the grass hoppers that frequent the area or perhaps some small moth caterpillar.

Microtis flowers have two large calli at the base of the labellum. Between these and at their base there appears to be a nectary of sorts which is what all insects that interact with the flowers are attracted to.

Miniscule, or larger flies which included a damsel fly that dwarfed the flower spike, simply use the flowers as a resting site while going about their pursuits. Others (2–3mm) of a number of species are distinctly interested in getting a tippie if possible. One species have suitors who wave their forelegs in carefully choreographed semaphore apparently to good effect. Another is a Sciarid fungus gnat from a genus that has no cilia on its wing veins. Females with heavily distended abdomens full of eggs are found but as not all fungus gnat adults feed the ultimate purpose of this interest is not entirely clear. It seems that none of these flies are quite large enough to move pollen around, at least none were observed to.

With attractive flowers, spiders were quick to seize the opportunity and lurch. Some hiding among the flowers trying to look like an accoutrement while others were actively roaming, with some success. A rare ant or mite cruised around, maybe in the hope of finding the occasional aphid sipping sap from a stem but with different goals in mind. Speaking of suckers there was a larger brown character feeding from flowers. It likes to drink through such a long straw that it could readily be ruled out as a pollinator. I digress.



There are some relative heavyweights that interact with flowers (4–6mm). A few years ago I photographed what I took to be small solitary bees that worked the flowers very actively indeed. I saw none carrying any pollen but they seemed potential pollinators. Present in good numbers two or even three worked a flower spike simultaneously. This year there was no sign of these bees. What I did find was an obvious ichneumonoid wasp with its extremely long ovipositor. This is a pollinator species with a good percentage carrying pollen around on their heads. They very actively move around from plant to plant and feed on nectar with little difficulty despite their extra load. I became suspicious regarding the identity of my two species when the wing patterns appeared rather too similar, wondering if these could, in fact, be male and female specimens of one species. Since then I have found a single deceased “bee” with the remnants of pollen attached to the head and under examination have concluded that they are one and the same. Ichneumon wasps lay their eggs in the likes of caterpillars, beetle larvae or weevils.

This brings us to the other heavyweight species and these are engineered specifically for the pollinator job. Beetles. These carry up to three or four of their dayglow packages around at a time on their heads. The majority of beetles present on any one day were carrying pollen.

Are the Ichneumons there in order to target the beetles while *M. unifolia* benefits both ways but it needs to have that selfing backup just in case one species gets the better of the other? Why did I see only males one year and females this. Do females murder their lovers? Questions that maybe someone can answer.



A record of *Corybas* aff. *sulcatus*

By Matt Ward

Recently I took myself on an “Orchid Fever” motivated tour of the northern South Island in pursuit of the two diminutive *Pterostylis* species, *P. tanyпода* and *P. tristis*. My trip would encompass areas near Hanmer Springs, and St Arnaud. I took advice from David Lyttle and Mark Moorhouse as to potential sites that might reveal either of the two species sought (I am trying to meet all our native orchids...). After having no luck in the first two days near Hanmer, I had a couple of hours to kill whilst waiting for a tyre repair, so I decided to try an area in Jacks Pass, where I had spotted a carpark and what looked like a D.O.C. sign the day before.

I took the track to Dunblane, heading west from the Jack’s Pass carpark. The track sides were littered with *Caladenia lyalli*, and yet to flower *Thelymitra* species. The day was overcast, windy, and warm, so tramping along at orchid speed made the slope and conditions seem manageable. Starting from 820m limited the likelihood of finding many Orchidaceae, yet potentially might yield the treasures I sought. At about 1000m I had to cross an exposed saddle which was downright scary, I had to hold on to my spectacles so



they were not blown from my face. It was shortly after this that I decided I had best think about heading back down, it had been 2½ hours ascent after all. Having decided to head down soon, I reverted to my usual North Island orchid hunting in scrubby habitat technique—look for a south facing slope of sorts. So as I headed off track. I noticed what looked like the origin of an ephemeral snowmelt stream and as I approached I could hear waterflow but well below the surface plane.

I decided to have a hunt around below the *Celmisia traversii*, *Celmisia semicordata*, *Astelia nervosa* and various rushes, and ferns. Amazingly I found some *Pterostylis* specimens yet to flower, and numerous *Corybas* leaves. The *Corybas* leaves did not seem to have any flowers present so I immediately thought late flowering *C. macranthus*, or finished *C. iridescens*, but no flower buds or seed capsules could be found. I kept hunting and to my amazement I found a flower. The flower of course is easily recognisable as a member of the *C. trilobus* aggregate, so I initially thought it likely to be the recently and aptly named *C. confusus*, because of the leaf shape. As I recalled the lateral sepals and petals also matched, being maroon in colour, the dorsal sepal being solid dark maroon, however, did not ring true to my memory—hmmm will have to look at a computer later to see what I have.

About ten days later when at home adding my botanical finds to the *iNaturalist* site, I finally had a good look at the pictures I had taken of the alpine *Corybas* I had found. It was not *C. confusus* after all, far too many characters not fitting the description. Then it dawned on me: I had read a short note on the NZPCN species profile for *C. sulcatus* when dreaming about finding this species one day to tick off my list, “*Plants on the Chatham Islands also approach it but seem much larger, and these plants are loosely linked to forms found in the South Island.*”

After looking further into the species quite a few characters lined up, hence the suggestion of *Corybas* aff. *sulcatus* from the pictures featured. Leaf 17 x 19mm; Lateral sepals 30mm long; Petals 12.6mm long; Dorsal sepal 6.1mm wide, dark red, apex retuse; Labellum mostly hidden by dorsal sepal (I had to tilt flower to achieve pics), 7.1mm wide, mostly dark red, margins incurved, central section pale yellow, deep central groove and hairs present on lower third, apex apiculate. The dorsal sepal did appear to be smoother in appearance than those of pictures from Macquarie Island. The habitat also seemed to be like that described by Clements & Jones, 2007, yet in my experience a common habitat to many *Corybas* spp.

Many features align with the *C. sulcatus*, suggesting they may be related or the same entity, more investigation would need to be done to conclude.

Not being a collecting type botanist, I did not collect any material which could be DNA measured/recorded—potentially a mistake... next time.

References

- de Lange, P.J. 2020. *Corybas sulcatus* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/corybas-sulcatus/> (16th December 2020)
- Clements, M., & Jones, D. 2007. A new species of Nematoceras and characterisation of *N. dienenum* (Orchidaceae), both from subantarctic Macquarie Island. *Telopea*, 11, 405-411.
- Government of Tasmania. *Corybas sulcatus*—Threatened Species Section—Department of Primary Industries, Parks, Water and Environment. 8 pages.
- NZNOG Website 2020. *Corybas sulcatus*—Species Description http://www.nativeorchids.co.nz/Spider_Orchids3_LR.htm (16th December 2020).

1. Both of the Macquarie island orchids have now been found in New Zealand: *Corybas dienemus* and *Corybas sulcatus*

In 1993 the Australian orchidologist David Jones described *Corybas dienemus* from Macquarie, the Australian subantarctic island [1]. At the 18th World Orchid Conference in Dijon in 2005 Mark Clements and his colleagues described a second Macquarie orchid, *Corybas sulcatus* [2]; Clements and Jones later described it formally [3].

Each was a *Nematoceras*, with long filiform petals and lateral sepals, the form of *Corybas* common in New Zealand, but absent from the Australian mainland. Selkirk had noted the Macquarie flora was established after long-distance oceanic dispersal of seeds carried by ocean currents, winds or seabirds [in 2].

It seemed likely the Macquarie orchids had originated in New Zealand and therefore also likely they still existed here but had been overlooked. There are less than 250 *C. sulcatus* plants on Macquarie [4], so their discovery in New Zealand or elsewhere would be important.

Corybas dienemus

Indeed, in 1985 (while resting in a designated area) Bruce Irwin found a colony of a new *Corybas* off the Desert road below Ruapehu and tagged it *Corybas* “rest area”. He found it again in the Rangitaua wetland in 1992 [5].

Then Pat Enright found a colony of an unusual *Corybas* in the Tararua near Wellington and Bruce recognised it was the same as his plant.

Bruce’s original colony was buried by the 1996 Ruapehu eruptions, which produced more than seven million tonnes of ash, contaminating water supplies, destroying crops, killing livestock, damaging the turbines at the Rangipo power station and closing airports as far away as Auckland and Wellington.

In 2017 Carlos Lehnebach identified the Tararua entity as *C. dienemus*. It is now known from several colonies around Wellington and must be more widespread, most likely to the south, perhaps at altitude.



Corybas dienemus, Tararua

Corybas sulcatus

In September 2007 botanist Peter Heenan photographed a plant on the Chathams that was similar to the Macquarie species, but larger [6]. In January 2020 Rowan Hindmarsh-Walls reported plants closely matching *Corybas sulcatus* from the Auckland Islands [7] and in November 2020 Matt Ward found it in the central South Island [8], both reported on *iNaturalist*.

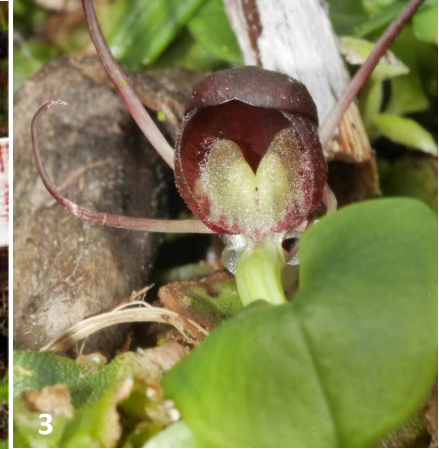
Peter de Lange noted, “Plants on the Chatham Islands also approach (*Corybas sulcatus*) but seem much larger, and these plants are loosely linked to forms found in the South Island.... the relationship of *C. sulcatus* to similar plants on the Chatham, Antipodes, Campbell and Auckland Islands needs critical investigation.... [9].

Among similar plants found in the South Island are *Corybas* “Hump” and *C.* “trinicholls” (see next page).

References

1. Jones DL 1993. *Corybas dienemus* D.L. Jones sp. Nov. *Flora of Australia* 50: 572.
2. Mackenzie A et al 2005. Australia’s subantarctic orchids. Proc. 18th World Orchid Conference March 11–20, 2005, Dijon, France.
3. Clements MA, Jones DL 2006. A new species of *Nematoceras* and characterization of *N. dienemus* (Orchidaceae), both from subantarctic Macquarie Island. *Telopea* 11: 406–408.
4. “*Nematoceras sulcatum* – grooved helmet-orchid.” Tasmanian Threatened Species Listing Statement. Department of Primary Industries, Parks, Water and Environment, Tasmania. 2010.
5. Tyler B, St George I. *Bruce Irwin’s drawings of orchids*. NZNOG.
6. <https://www.nzpcn.org.nz/flora/species/corybas-sulcatus/>
7. Rowan Hindmarsh Walls. <https://www.inaturalist.org/observations/38521607>.
8. Ward M 2020. NZ Native Orchid Journal 160: 14.
9. de Lange PJ 2020. *Corybas sulcatus* Fact Sheet. New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/corybas-sulcatus/> (accessed 7 December 2020).

1. *Corybas sulcatus* on Macquarie Island, Tasmania Parks & Wildlife Service, Noel Carmichael. 2. Chatham Island, Peter Heenan. 3. Hurunui, Matt Ward. 4. Auckland Islands, Rowan Hindmarsh-Walls.





Graeme Jane and Gael Donaghy's "Corybas Hump" from the Hump Ridge track in Southland [1, 2: J152, May 2019] and Kathy Warburton's "Corybas trinicholls" from Nicholls Creek near Dunedin [3: J141, August 2016] appear similar to *C. sulcatus* and will reward further study.

2. *Thelymitra* *concinna* Col.

Is it *T. pulchella*, or the right name for *T. hatchii*, or is it a genuine species?



Colenso described it from a single specimen sent from Mohaka by Augustus Hamilton; his specific name referred to the “reddish” cilia.

Lucy Moore couldn’t find Colenso’s specimen but thought the description fitted *T. pulchella* and authorities since then have included it as a synonym of *T. pulchella*.

Meantime a pink-ciliated *Thelymitra* was found and said to be a colour form of *T. hatchii*. Their columns are similar in shape if not in colour.

There is a specimen labelled by Colenso “Thelymitra. Hamⁿ.” at Te Papa and in my opinion it is the Type of *T. concinna*. Its column closely resembles that of the pink-ciliated plant identified as *T. hatchii*.

If this is the Type of *T. concinna*—and if the pink-ciliated plant we know is the same—and if it is just a colour form of *T. hatchii*—then the name *T. concinna* would have precedence and should replace *T. hatchii*.



But I don’t think *T. concinna* is *T. hatchii*. “Plant small, stem 4½ inches high, slender,” wrote Colenso and indeed, plants I have seen are much more slender than the robust and upright *T. hatchii*. That at left from the Sounds was 7cm tall. I think Colenso was right (again) and *T. concinna* is a genuine species.

Details and outlines from the specimen in Herb. Colenso, labelled in his hand “Thelymitra, Hamⁿ.” (Augustus Hamilton found it at Mohaka and sent it to Colenso) ▼



3. *Thelymitra* "fusca"

A tag for the tiny beech forest plant with almost black stems and wiry bronze leaves: (1) Twelve Mile track, Queenstown, 5 December...



... and by the **Wharfdale track** near Oxford on a 25°C still humid day, many *T. "fusca"* had their tiny blue-grey flowers open (2, 3). The column is 3mm, with dense white cilia hiding a deeply cleft top ▼.



NOTES



▲ *Pterostylis foliata*, photo by Rosalie Lawrence. Mount Lofty Ranges SA, September 2020. From *Wild Orchid Watch*.

Hmm. The same as ours?—Ed. ►



Have you seen this? ▲►

This member of the *Corybas trilobus* complex was flowering in abundance at Rewanui, Wairarapa, on 26 August 2007, but I haven't seen it since. It has recently been found elsewhere.

Note the large flower with the big dorsal sepal and its simian ridge—Ed.





Photo by Phil Bendle: creative commons.

Long time member and host of past Taranaki NZNOG field days **John Dodunski** was featured on TVNZ's "Good Sorts" just before "Country Calendar" on 11 October—aptly recognising his work on orchid and bush conservation. John has consistently argued for preservation by cultivation followed by replanting in the wild and has a finely developed skill for growing and propagating native orchids. It is a pleasure to see an area near New Plymouth named "Dodunski Bush".

Dorothy Jenkin's Stewart Island Orchids

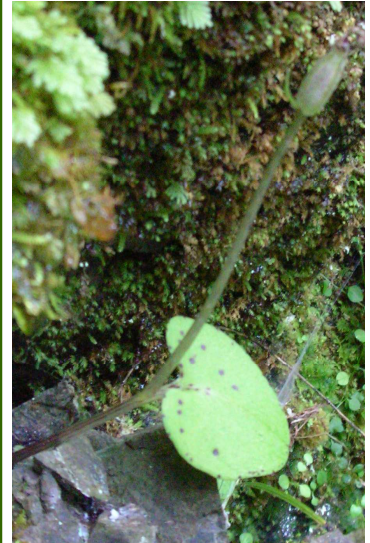
—watercolours c. 1960 by this trained artist.



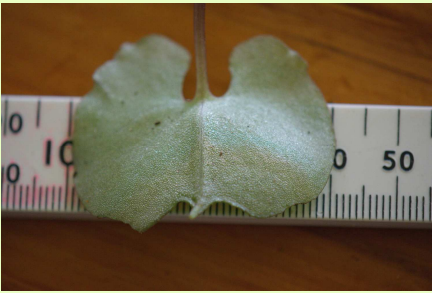
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Those who attended the 2019 AGM in Dannevirke will recall the excursion to the **Coppermine track** in rain on 8 December. On a bank 100m or so up the track was a large leaved *Corybas* whose identity we pondered, it being flowerless at the time. A return trip on 13 November 2020 left me no further ahead as the plants were in fruit ▼ —Ed.



Pat Enright notes, of *Corybas vitreus* in the Taranaki, "The leaves are variable in size and shape and far exceed the measurements listed for this species at least in width. I measured one to see how wide it was and got 38.1 mm (it was exactly 1.5 inches) as opposed to a max of 19.6 in the description. This colony is just above sea level. Only one I saw was in seed." ▼▼



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Rebecca Bowater “was up at **Lake Rotoiti** (*the South Island one—Ed.*) on 27 November and saw this clump of *Pterostylis graminea* and noticed that it had very bronze leaves which I haven't seen before. *Chiloglottis cornuta* had an insect on it and the *Adenochilus gracilis* was just starting to flower.” (See *this page and the next two*).





Caladenia lyallii at Rotoiti, late November 2020—Rebecca Bowater



Photographs by Rebecca Bowater from page 24 ▲▼



Co-founder (with Dorothy Cooper) of the Group, **Gordon Sylvester**, having regained his mobility after a recent setback, emailed mid-november, "Had my first successful orchid outing last weekend". He recorded, at **Arnold Dam Walkway**: *Corybas trilobus* finished flowering, *Aporostylis bifolia* leaves only, *Pterostylis graminea*, *Pt. cernua* a new record. **Loop walk Charleston**: *Microtis* sps, *Thelymitra* sps. **Nile River**: *Earina mucronata*, *Earina autumnalis*, *Dendrobium cunninghamii*, *Corybas hatchii*, *Corybas trilobus*, *Corybas acuminatus*, *Pterostylis* sps in flower – looks like a stunted *banksii* – colours all wrong, *Pterostylis graminea* type II, *Pterostylis* "peninsula".



◀ At **Arthur's Pass** *Pterostylis oliveri* was a complex of curves on 10 December—Ed.

The Orchid Council has a Summer Scholarship with Waikato University, the student's main task being to prepare a digital map of the orchid species and their location in the **Iwitahi Native Orchid Reserve**.
Bravo!

On the track between Te Anau outlet and Rainbow Reach, an occasional *Adenochilus gracilis* had an open labellum (1); a trackside *Corybas* of the *C. trilobus* group exhibited its kidney-shaped nonflowering leaf contrasting with the shovel-shaped leaf of a plant bearing fruit (2); the local *Aporostylis bifolia* showed its exceptionally long narrow leaves (150mm: 3, 4); and (overleaf) *Pterostylis australis* paraded its large flowers and leaves—Ed.



Rüpp & Hatch wrote in the original description of *Aporostylis bifolia*, "The habit is usually subrosulate and the leaves ovate-orbicular, but when growing in a tall sub-association the leaves tend to become erect and are much longer and narrower. With maturity the elongation of the stem causes the upper leaf to rise away from the lower." The Manapouri plants are associating with tall timber but the leaves lie flat. Plants in similar forest habitats elsewhere have standard ovate-orbicular leaves.



▲ a kidney ▲ a shovel



Pterostylis australis,
Rainbow Reach, Manapouri,
3 December.

That's a one foot rule.
It's probably a valuable antique—Ed.

This leaf was 240x22mm



On the **Twelve Mile** track between **Queenstown and Glenorchy** 5 December.

Sometimes pterostylises in the *P. montana* complex leave me wondering if NZ has just one big hybrid swarm. But on 5 December there were three distinct entities in flower up the Twelve Mile. I had only seen *Pterostylis auriculata* in the Catlins and on Ulva island before now, but these (1) appear the same. *Pterostylis* aff. *montana* assumed a range of sizes, from dwarf to quite robust (2). The third entity is a plant I reported last year and it dawns on me that they appear identical to the Ruahine and Tararua montane species that matches Colenso's *Pterostylis subsimilis* (3, 4)—Ed.



Three views of one *Caladenia*, trackside **between the Twelve Mile delta and Bob's Cove**, Queenstown, 6 December.

This is Matthews's *Caladenia* "nitidoa-rosea", which, as Georgina Upson pointed out, was the plant Hatch described as *Caladenia bartlettii*. We should therefore adjust our thinking about that specific name.

Also present, *Aporostylis bifolia*; *Thelymitrae longifolia* s.l., *pulchella*, *purpureofusca*, "fusca", *colensoi*; *Pterostylis* aff. *montana*; *Microtis* sp.; *Prasophyllum colensoi*.

It was a long 11.5km on the **Queen Charlotte walkway** from Punga Cove to Furneaux Lodge on 12 December and most of the orchids were in fruit, but several in flower brightened our weary day: *Thelymitrae colensoi*, *alba*, *longifolia*, *hatchii*, *concinna*, *pauciflora*, *purpureofusca* & “*fusca*”; *Pterostyles banksii*, *cardiostigma*, *montana*, *irsoniana*, *graminea*; *Caladeniae variegata*, *bartlettii*; *Corybas macranthus* & *oblongus*; *Orthoceras* (both colour forms); *Microtes unifolia* & *parviflora*. *Earina autumnalis*. We were looking for *Thelymitra brevifolia* but didn't find it—Ed.



- ◀ Green *Orthoceras*.
- ▼ *Thelymitra* aff. *longifolia*.





Adenochilus gracilis, Routeburn 1 December 2020—Ed.