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Cover: Thelymitra cyanea, Tongariro National Park (shot on film)—Kate Battersby

Orchids in 3D: Thelymitra cyanea, Horopito—Eric Scanlen

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From the Chair: Gael Donaghy

Back home – and the orchid spring is here!

As soon as we got over the jet lag we went to see how the local orchids were coming on. We checked the Kaimai Range and Sailor's Grave Track. There were many *Corybas acuminatus* in bud, a few *C. oblongus* and *Cyrtostylis oblonga* just starting to show tiny flower stems. *Acianthus sinclairii* was in early flower. The Kauri greenhood *Pterostylis brumalis* seems to have very small flowers this year at Sailors Grave, but there were plenty of them. *P. agathicola* was up but not yet in bud. A surprise was to find tufts of *Orthoceras novae-zeelandiae* – very early as it doesn't flower until summer. We checked Whakamārama for *Corybas sanctigeorgianus* but there were no leaves evident. Overall the season looks promising.

I have been kept busy this month organising the AGM and Tagalong. This year I have relied on local knowledge of members who live around the Wairarapa to find places to visit. The NZNOG has had an AGM at Petone in 2018 and at Dannevirke in 2019, and the orchids were good in spring there. This year we are targeting later species, hoping to find a range of *Thelymitra* in flower! The biggest hurdle has been finding affordable accommodation, and the stop-overs have changed as I have found some areas only seem to have expensive places to stay.

Keep in mind that you can join the Tagalong for as long or short a time as you like, or take some time out.

Another complicating factor for the AGM / Tagalong that Mark has reminded me about is the unreliability of the ferries! Last year a committee member arrived in Wellington to find his sailing had been cancelled, and the next possible crossing for him was three or four days later. I do hope we can get our South Island members across Cook Strait.

On the back cover of this journal there is an outline of the Tagalong (I'm up to V3 now). It may change as I wait on replies from accommodation options. I will provide final details of the Tagalong on the Facebook page by the end of July. Arrangements for the AGM are final (after 10 emails and phone calls). I hope to see at least some of you there. The Facebook page may be a good place to find others to share travel and accommodation arrangements!

Something I have enjoyed this past week are the articles on Australian orchids on the ABC (Australian Broadcasting Corporation) website. The Australian Native Orchid Society (ANOS) is very active in orchid conservation, and seems to have the ear of the broadcaster. This week's article about the Charming Spider Orchid shows many of the threats facing native orchids in their country, and the threats are similar to those here. Additional articles include one about the "orchid whisperer". This person wonders if orchids put out a pheromone that drives her to rescue them, and to drive for hours between isolated populations to introduce more genetic variety.

https://www.abc.net.au/news/2024-07-07/native-charming-spider-orchid-evolution-conservation/104054088

The inbox

Pterostylis trullifolia

Mary-Jean Paterson

May 2024 | Queen Charlotte Sound

The Sinclair specimen

Georgina Upson

Among the eight collections at Kew held under the J.D. Hooker concept of *Caladenia minor* there is a sheet of three collections (https://data.kew.org/records/occurrences/6ea48246-1ca7-403e-8a55-117834fcf473):

> K000079098 W. Colenso *C. variegata* collected 1887 identified as *Caladenia minor* by Clements 1987, confirmed as Isolectotype of *C. variegata* by Molloy 1991.
>
> K000859093 T.S. Ralph unidentifiable collected 1849/50.
>
> K000859094 A. Sinclair collected prior to March 1861 noted as sp. nov. by Clements 1987.

There have been lines penciled onto the sheet dividing collections and spirit collections which may have occurred when Molloy visited in 1991.

Drawn into the Sinclair area there is, on the far left, a large flowered specimen, placed above Sinclair's name, and two very much shorter, finer, smaller flowered plants that seem significantly different tucked into available space on its right hand side. Clements noted on 21/9/1987 "Caladenia sp. nov. (Sinclair specimen)" apparently taking the collection to consist only of a single specimen. This must have been something that was new to him that he had not encountered before or something that he had seen but was yet to be described. It is this large specimen that is of particular interest **(Fig.1).**

It is a single flowered *Caladenia* with a long narrow leaf, a robust tall pedicel *c.* 20 cm long and a flower that is 20 mm or more broad. It is noticeably larger than Colenso's adjoining collection of *C. variegata*, larger also than all other Kew collections of *C. minor* which today we know to include *C. alata, C. minor* and *C. chlorostyla*. Low resolution imagery allows only for describing the flower rather in the manner of the story of the blind men describing the elephant. The tepals are *c.* 10 mm or slightly more long and neither particularly broad nor narrow. They may also be densely glandular externally, darker on external surface, lighter internally. There are some dark markings on what appears to be the lamina that could be red bars, calli or both. The midlobe appears to have three long fingerlike projections from the margin basally, or perhaps these could be long calli. The labellum appears to be of similar colour to the tepals which are not dark. The specimen provides no date or location that may assist in identification.

Fig.1 Sinclair's *Caladenia*

During Sinclair's naval career as ship's surgeon he collected many zoological and botanical specimens from various parts of the world, and becoming a respected collector. He visited the Bay of Islands in 1841 joining Colenso and Hooker on forays. After his naval career finished he returned to New Zealand and reluctantly served as Colonial Secretary based in Auckland until he retired in 1856 before returning to Britain. During his Auckland years he continued to go on botanical forays in his spare time.

He returned to New Zealand in June 1858 to collect material for J. D. Hookers 1864-67 Handbook of New Zealand flora. Probably late 1858-59 he and Sir David Monro, naval surgeon, pastoralist and long time fellow member involved in New Zealand governance matters collected, notably in the alpine areas of the region. A number of specimens are named after either Munro or Sinclair. Much of 1860 Sinclair spent in the North Island returning for a short foray in January 1861 where they travelled via "big bush" as far south as Tarndale (Molesworth Station), collecting a *Celmisia*, *Hebe cupressoides*, and *Haastia sinclairii* before returning to Nelson. On 8 February he sailed South to join Haast and they left to map the Rangitata river to its sources where Sinclair drowned 23 March 1861.

What could the specimen possibly be? See **Figs 2-4.**

Fig.2 Left to right, *Caladenia chlorostyla*, *C.* "bacon creek" and two forms of *C. lyallii.*

Size seems to rule out *C. alata, C. minor, C. chlorostyla* and *C. variegata*. Too large for *C. nothofageti* and with *C. bartlettii*, very similar to *C. variegata*, already known and described if not fully validated, there remain only three known species.

If it was *C. lyallii* it should have been identifiable by Clements although the smaller "iwitahi" and in particular the white unbarred type may possibly have been considered new. *C.* "iwitahi" is typically shorter however these must remain potential contenders. The distribution of these plants seems somewhat restricted, notably "iwitahi white", reducing collection opportunities.

Fig.3 *Caladenia* "bacon creek" (left) and *C. chlorostyla* (right)

Fig.4 *Caladenia* "iwitahi" (left) and *C.* "bacon creek" (right)

C. atradenia is a stronger possibility which could have been collected both in the northern regions and around Nelson province.

That leaves *C.* "bacon creek", which, while extremely rare, has been known from the "Big Bush" area in recent times and flowers Nov/Dec which correlates to Sinclair's time of travel south.

Nothing can be sufficiently discerned that speaks of any particular species from this tantalizing glimpse. Could it be something yet to be rediscovered, extinct or was it even collected in New Zealand? I believe that this overlooked specimen is worthy of some further investigation.

[Ed. See below and on page 8 for supplementary images provided by the author]

Caladenia "bacon creek"

Caladenia atradenia

Caladenia "iwitahi"

Caladenia "iwitahi white"

The inbox

Thelymitra hatchii (left) and *T. cyanea* (right), Tongariro National Park, January 2024 (Photographed on film, Kate Battersby)

Notes

A response to "Alpine and subantarctic Corybas", Journal 173

On a December 2023 Heritage Expedition, Christopher Stephens ran into another member of the New Zealand Native Orchid Group, who passed on a list of orchid locations in the Subantarctics for further investigation, including the burgundy coloured *Corybas* on Mt Honey (Motu Ihupuku / Campbell Island) seen in 2020 and as mentioned in an article by Jane & Donaghy (2024).

Corybas from Mt Honey seen by Jane & Donaghy (2024)

Christopher was able to visit the location and photograph a number of *Corybas* flowers and leaves. His observations can be viewed on iNaturalist.

◄ *These tiny Corybas leaves, but no flowers, were found in shady locations among snow tussock and ferns.*

Corybas from Mt Honey.

Corybas trilobus agg. from Mt Honey, leaf inset at top right.

Corybas trilobus agg. from Mt Honey. Plants further downslope differed from those further uphill by the area of yellow on the labellum being much broader, there being more obvious vertical purple stripes, and a green dorsal sepal as opposed to more flecked.

Corybas trilobus aggregate from Mt Honey.

Corybas trilobus agg. flower from Mt Honey.

▲*Corybas trilobus* agg. from Mt Honey. These flowers at about 150 m a.s.l. were in much better condition than those closer to sea level, where most plants only had leaves. Peak flowering may be late November—early December. Flowers were almost completely buried in *Dracophyllum* needles, And in some cases hidden under their own leaves. More tiny leaves were observed in tussock and under ferns up to 300 m a.s.l.

References

Jane, G. & Donaghy, G. (2024) Alpine and subantarctic Corybas, *New Zealand Native Orchid Journal,* 173, 4-8.

The inbox

Acianthus sinclairii

Rebecca Bowater

June 2024 | Waimārama Brook Sanctuary, Nelson

Regional threat classifications for Otago orchids

Cara-Lisa Schloots

Drymoanthus flavus (Regionally Threatened—Regionally Vulnerable) with significant browse, growing in the Taiari / Taieri River Valley, Otago.

Otago Regional Council (ORC) has this year released a report detailing the regional threat classification for all vascular plants found within the Otago region. The Otago region is very floristically diverse, and 47 species of orchid are included in this assessment.

Regional threat classifications provide additional detail that is missed in national threat classifications. This includes criteria such as natural limits for species distributions (current and historic), where species only breed within the region, or the type locality of a species is from the region. Auckland Council, Greater Wellington Regional Council and ORC are the only councils which have so far released regional threat classifications for plants.

The report classifies one orchid species (*Gastrodia cooperae* / Potato orchid) as Regionally Critical, four as Regionally Vulnerable, two as Regionally Naturally Uncommon, and nine species as Regionally Data Deficient. Two species, *Corybas* aff. *trilobus* (b) (CHR 534742; Trotters Gorge) / Spider orchid and *Earina aestivalis* / Bamboo orchid are considered taxonomically indeterminate on top of their regional threat classification. No species are considered to be endemic to Otago.

G. cooperae is classified as both nationally and regionally critical. First described in 2016, *G. cooperae* is only known from a small number of sites in the Central North Island, Wairarapa, north-west Nelson, Otago, and Rakiura / Stewart Island where it has been found in kānuka and tawhairauriki / black beech forest. There are historic records of this species at additional sites in the North Island, however it now appears to have gone extinct at some of these locations.

Chiloglottis valida / Large bird orchid has a classification of Regionally Vulnerable and a national classification of Non-resident Native—Vagrant. Vagrant species are defined as naturally present at a site, but populations are sporadic or temporary. *C. valida* was first described in Australia in 1991, and is the largest species within the genus. In the Otago region, it occupies a very small overall area, but the population does appear to be increasing. Most populations of this species only reproduce vegetatively, and it is thought that it does not have a pollinator in Aotearoa. Occasionally plants do set seed, but it is considered a threat to the species that the majority of plants are vegetative clones.

Drymoanthus flavus / Spotted fleshy tree orchid is an epiphytic orchid threatened largely by plant collectors. It is classified as At Risk—Declining nationally, but raised to Regionally Threatened—Regionally Vulnerable within Otago. Otago is its national stronghold, with 1000—5000 individuals (>20% of the national population) within the region, although this is believed to be declining. The Type Locality for *D. flavus* was collected from Otago.

Pterostylis tanypoda / Swan greenhood is a tiny inconspicuous plant 2—10 cm tall classified as nationally At Risk—Declining because its typical grassland habitat has been heavily modified and reduced in extent. This is also true within the Otago region, and with only a small overall area, habitat fragmentation and declining populations it receives a classification of Regionally Threatened—Regionally Vulnerable.

Pterostylis tristis is very similar to *P. tanypoda,* but with browner coloration, and an inward pointing callus at the base of the labellum. Considered At Risk—Declining nationally, *P. tristis* is classified as Regionally Threatened—Regionally Vulnerable in Otago. It inhabits similar habitats to *P. tanypoda* and its habitats have been similarly reduced and populations are declining.

Pterostylis tanypoda (Regionally Threatened—Regionally Vulnerable), growing in the Dunstan Mountains, Otago.

Table 1 shows Regionally Threatened, At Risk and Data Deficient orchid species, as well as a list of orchid species not included in the threat classification despite there being records within the Otago region (based off the New Zealand Native Orchid Group website and iNaturalist records). Based on these combined numbers there are 60 native orchid species present within the Otago region. Three of these unmentioned species are of particular interest as they are classified as either At Risk—Declining or Data Deficient at a national scale. These species are *Spiranthes novae-zelandiae* / Ladies tresses, *Corybas papillosus* / Spider orchid and *Corybas sulcatus* / Grooved helmet orchid.

Spiranthes australis is a very uncommon and remarkably inconspicuous wetland species, despite its distinctive spirally arranged pink flowers. Classified as Nationally At Risk—Declining, this species has been identified as Regionally Critical in both the Tāmaki Makaurau / Auckland and Wellington Regional Threat Classifications, largely due to the nationwide loss of wetland habitats. *S. australis* has been recorded in the Waitaki Valley in North Otago (iNaturalist), and would potentially receive a similar Regional Threat Status in Otago if assessed.

Corybas papillosus is superficially similar to *C. macranthus* but has a papillose upper leaf surface. This species is distributed along the Otago coast around Ōtepoti / Dunedin (New Zealand Native Orchid Group, 2024), but was not included in the Otago threat classification report. There is little information on this species available.

Pterostylis tristis (Regionally Threatened—Regionally Vulnerable), growing in the Dunstan Mountains, Otago.

Corybas sulcatus has been recorded just outside Ōtepoti / Dunedin (iNaturalist). This species typically occurs on Campbell Island, Chatham Islands, and isolated locations on the North and South Islands. There is very little available information on this species, and it was not included in the Otago threat classifications.

With nine species classified as Data Deficient within the Otago region there is considerable scope for orchid enthusiasts to contribute to future updates of the Otago threat classification. Gathering more information on these species within the region will be extremely helpful for informing conservation and management strategies, and may turn up new species not previously recorded in the region.

On iNaturalist, Otago is comparatively poorly represented, with the second lowest number of orchid observations of any region in the South Island (2,102 observations across 31,241 km^2), only coming in higher than Marlborough (946 observations across 12,484 km^2). There is work to do to improve our overall understanding of orchid populations within the Otago region.

The Otago report acknowledges that some taxa will be missed, and this is indeed inevitable with such a large piece of work compiling information and knowledge from a wide variety of sources. The New Zealand Native orchid group website is also missing a number of the species mentioned as being present within Otago.

For the full report please see Jarvie, S., Barkla, J., Rance, B., Rogers, G., Ewans, R. Thorsen, M. (2024) Regional Conservation Status of Indigenous Vascular Plants in Otago. *Otago Regional Council, Otago Threat Classification Series, 2024/3.*

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New Zealand Native Orchid Group (2024) New Zealand Native Orchids. *https://www.nativeorchids.co.nz/*

New Zealand Plant Conservation Network (2024) All mentioned species. https://www.nzpcn.org.nz/

Simpkins, E., Woolly, J., de Lange, P., Kilgour, C., Cameron, E. & Melzer, S. (2023) Conservation status of vascular plant species in Tāmaki Makaurau / Auckland. *Auckland Council technical report, TR2022/19.*

Aporostylis bifolia (not included in the report) in Te Awa Whakatipu / Dart Valley, Otago.

Table 1: *Orchids with a regional conservation status other than Not Threatened for the Otago region. National threat classifications are shown in brackets and grey font next to each species.*

Regionally Threatened—Regionally Critical
Gastrodia cooperae Lehnebach & J.R.Rolfe (Threatened—Nationally Critical)
Regionally Threatened—Regionally Vulnerable
Chiloglottis valida D.L.Jones (Non-resident native—Vagrant)
Drymoanthus flavus St George & Molloy (At Risk—Declining)
Pterostylis tanypoda D.L.Jones, Molloy & M.A.Clem. (At Risk—Declining)
Pterostylis tristis Colenso (At Risk—Declining)
Regionally At Risk—Regionally Naturally Uncommon
Corybas aff. *trilobus* (b) (CHR 534742; Trotters Gorge) (At Risk—Naturally Uncommon)
Corybas cryptanthus Hatch (At Risk—Naturally Uncommon)
Regionally Data Deficient
Acianthus sinclairii Hook.f. (Not Threatened)
Corybas acuminatus M.A.Clem. & Hatch (Not Threatened)
Drymoanthus adversus (Hook.f.) Dockrill (Not Threatened)
Earina aestivalis Cheeseman (Not Threatened)
Gastrodia minor Petrie (Not Threatened)
Pterostylis auriculata Colenso (At Risk—Naturally Uncommon)
Pterostylis foliata Hook.f. (At Risk—Naturally Uncommon)
Thelymitra colensoi Hook.f. (Data Deficient)
Thelymitra formosa Colenso (At Risk—Naturally Uncommon)
Species with records in Otago but not included in this report (* indicates no official threat status)
Aporostylis bifolia (Hook.f.) Rupp & Hatch (Not Threatened)
Caladenia aff. *variegata* *
Caladenia minor agg. *
Corunastylis nuda (Hook.f.) D.L.Jones & M.A.Clem. (At Risk—Naturally Uncommon)
Corybas hypogaeus (Colenso) Lehnebach (At Risk—Naturally Uncommon)
Corybas papillosus (Colenso) Lehnebach (Data Deficient)
Corybas rivularis (A.Cunn.) Rchb.f. (At Risk—Naturally Uncommon)
Corybas sulcatus (M.A.Clem. & D.L.Jones) G.N.Backh. (Data Deficient)
Corybas vitreus Lehnebach (Not Threatened)
Pterostylis patens Colenso (Not Threatened)
Spiranthes australis (R.Br.) Lindl. (At Risk—Declining)
Thelymitra purpureofusca *
Townsonia deflexa Cheeseman (At Risk—Naturally Uncommon)

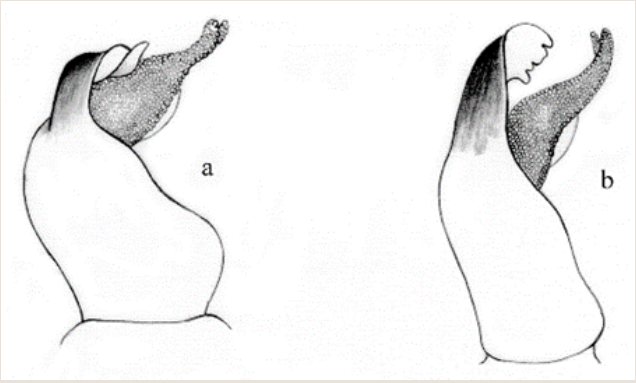
The Type Locality

Thelymitra venosa var. *cedricsmithii* Hatch from Ruapehu

Ian St George

The plants we now include in *Thelymitra cyanea* have been called many things. For an articulate, detailed and well referenced account, see Jeanes (2012) where Jeanes began, with admirable restraint, "Historically there has been some confusion about the correct application of names and the interpretation of species within the *T. venosa* complex."

Indeed there has. For a long time everything was *T. venosa,* but nowadays *T. venosa* is regarded as a rare plant of the Sydney sandstone, with flowers up to 50 mm across, their column arms tightly curled. The rest were lumped into *T.* cyanea.



The columns of Thelymitra venosa (a) and T. cyanea (b).

(Jeanes, 2012).

Different forms

Dan Hatch remarked in 1946, after he had been examining local orchids while in military training at Waiouru,

> In *Th. uniflora* (the name used then) the lateral lobes of the column-wing are spirally involute *(= curved spirally)* and entire *(= smooth and undivided)*; whereas in *Th. cyanea* (he was referring to the Tasmanian species) the lobes are not involute and are irregularly bifid (Hatch, 1946).

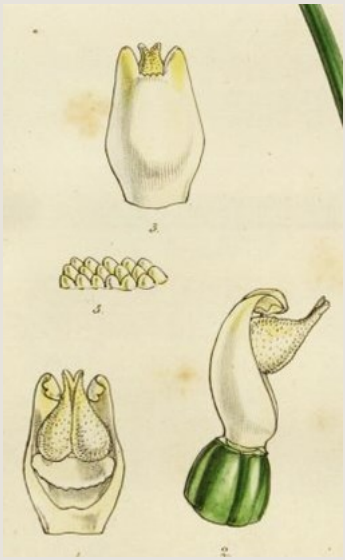
Note, he said "spirally involute" which suggests a tapering helix, or ram's horn shape.

From left to right, twist, helix, tapering helix, ram's horn

In 1952 Hatch considered we had three distinct forms and he gave them varietal rank: *Thelymitra venosa* var. *typica*, var. *cyanea* and var. *cedricsmithii* (Hatch, 1951). We should ignore the nomenclatural niggles that followed and should ask, was he right? Do we have three varieties of *Thelymitra cyanea* in New Zealand?

Hatch's key relied largely on the column-wings to separate the three, with just a nod to labellar shape. All three varieties had "lateral lobes primary, simple, without appendages."

1. those with (lateral) "lobes acuminate, hardly involute, recumbent, bifid" were *cyanea,* the column illustrated in the Walter Hood Fitch engraving of drawings by William Archer and Fitch in *Flora Tasmaniae*————————————**Fig. 1 ►**



2. those with "lobes erect, entire, higher than anther, labellum crenulate and repand" were *typica.*

3. those with "lobes erect, entire, shorter than anther, labellum sepaloid" were *cedricsmithii,* the column illustrated in the John Nugent Fitch engraving of drawings by Matilda Smith in Cheeseman's *Illustrations*————————**Fig. 2 ►**

Hatch was saying the column arms of the Ruapehu plant shown in Cheeseman (**Fig.2**) were quite unlike those of the Tasmanian *T. cyanea* (**Fig.1**). His drawings are shown in **Fig.3**.

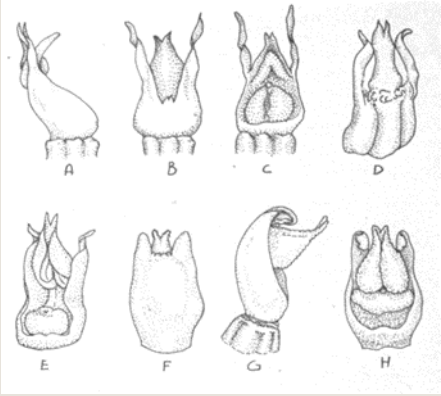


Fig.3. *Hatch's illustrations of columns: A, B, C: typica (upright spiral lobes overtop anther). D, E: cedricsmithii ("after Smith"; upright spiral lobes shorter than anther). F, G, H: cyanea ("after Hooker"; short lobes curl forward).*

Then in 1947 (Cedric) Smith suggested the Rakiura / Stewart Island form was in fact *T. cyanea*; the specimens he sent to Hatch matched Tasmanian *T. cyanea* and were, again, "quite unlike" the Ruapehu plants, which were thus left without a specific name (the type of *T. uniflora,* Hatch found, also matched *T. cyanea*). Hatch proposed the name *cedricsmithii* for the Ruapehu plants, which he regarded as a variety rather than a distinct species.

"The earlier writers, following Lindley, had used the bifid tips of the column-wings, or their absence, as major specific characteristics," but Hatch made longitudinal studies of the development of the column-wings and observed that in *cyanea* the tips, while bifid in bud, changed shape to become irregularly bifid or almost entirely acuminate. Similarly in *typica* and *cedricsmithii* the tips were "almost invariably acuminate at maturity".

So sharp points on the column arms did not separate his varieties.

Auckland Museum has three sheets with specimens determined by Hatch as *"Thelymitra venosa* var. *cedricsmithii* Hh. *nom. nov."* They were collected by HB Matthews from the Ruapehu region, one in January 1921 (AK124472) and two (AK25880 and AK25882) in January 1945; there is also an HB Matthews photograph (AK25879) from plants collected at Ohaupaupau, no date given (Ewen Cameron, *pers. com.,* **Fig. 4**).

A type specimen for *cedricsmithii* has not been identified, though Hatch made it clear he was discussing plants from Ruapehu. These three may have been his models.

Cedric Smith

He "gratefully dedicated the Ruapehu variety to Mr Cedric Smith, of Stewart Island, whose enthusiastic assistance has proved invaluable". Smith, who was injured in WW1, had retired to Rakiura / Stewart Island on a full war pension. There he and his wife Elsie Smith collected and studied natural history specimens. He founded and became the first director of the Rakiura Museum. Elsie Smith also painted Rakiura / Stewart Island orchids (her watercolours are reproduced in NZNOG *Historical Series* No. 18).

Invercargill teacher and trained artist Dorothy Jenkin retired in 1952 and moved to Rakiura / Stewart Island. During the 1960s she produced a series of watercolours of orchids for Cedric Smith, a task she said provided much pleasure and excitement. Her watercolours are among the treasures in the Rakiura Museum at Oban and were reproduced in No. 20 of the NZNOG's *Historical Series*.

Cedric Smith was from Rakiura / Stewart Island but *cedricsmithii* from Ruapehu.

And now?

The New Zealand Plant Conservation Network describes the *Thelymitra cyanea* column with "column arms yellow more or less erect, ribbon-like, flattened, and twisted inwards one to one-and-a-half times in a loose spiral, apex unevenly lobed without cilia." We say, in the *Pocket guide,* "Column arms yellow, strongly curled like ram's horns."

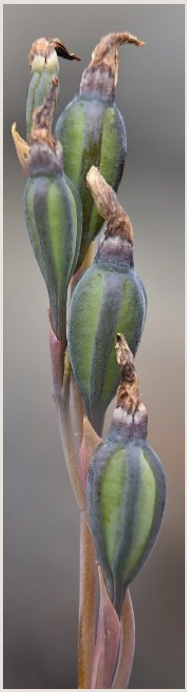
I looked over 191 photographs of New Zealand plants labelled *Thelymitra cyanea* on *iNaturalist.* Most of those with clear images of the column showed column arms flat, ribbonlike

Fig.4. *Detail from HB Matthews photograph (AK25879) of plants collected at Ohaupaupau, showing columns dissected out, some with column arms apparently corkscrewed (top middle and middle left) and one with column arms curled inward (lowermost).*

and “volute”, curled inward (**Fig.5**). Some were bent inward but hardly curled. I cant say I saw any images of plants with upright helical or twisted column arms. My own photos were similar.

So *are* Ruapehu plants different? HB Matthews’s photograph from Ohaupaupau (**Fig.4**) shows a number of columns, and where the column arms can be seen clearly they are straight and upright, though one is curled inward. None appear upright and helical or twisted (St George & Scanlen, 2008).

I had walked along the Silica Rapids track at Whakapapa on 6 February 2016, looking out for the subalpine bogs where *T. cyanea* grows. At first I thought, struck by the beauty of the fruit, that I was too late for the flowers, but a few hung on. They had short, forward column arms, barely curled.



Conclusion

Do we have three varieties of *Thelymitra cyanea* in New Zealand?

Both *typica* and *cedricsmithii* had upright helical column arms which differed merely in their length. *Typica* had a “crenulate and repand” labellum (crenulate = having a finely scalloped or notched outline or edge; repand = having a slightly undulating margin. Hmm, so… both?). *Cedricsmithii’s* labellum was “sepaloid” (sepaloid = like a sepal, but whose sepal? perhaps one lacking a wavy edge?). *T. cyanea* labella are very variable and I think Hatch was struggling here, so let’s drop *typica.* As a name it was illegal, as a concept, dubious.

Fig.5. *Detail from photographs of Thelymitra cyanea posted on iNaturalist, showing column arms curled inward and forward.*

That leaves two, so we should ask, *is "Thelymitra cyanea var. cedricsmithii" sufficiently different from "Thelymitra cyanea var. cyanea" to warrant recognition?*

If *iNaturalist* photographs are an unbiassed sample, most of our plants are certainly "var. *cyanea*" with its column arms curled in and forward in a horizontal rams horn. The other variety, with its column arms upright—if the Ruapehu plants in Matthews's photograph and those I have seen are typical—has very similar column arms, only upright and straight or curled. It is easy to imagine that sometimes they form an upright tapering helix, a vertical rams horn if you like. The anatomy is otherwise the same.

Do we have two varieties of *Thelymitra cyanea* in New Zealand? The differences are comparative: length and degree and direction of twist. It depends on your threshold for splitting. I'm a lumper so I think not.

References

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Hatch, E.D. (1946) List of orchid species common to Australia and New Zealand. *Trans. Proc. Roy. Soc. N.Z.*76: 58. https://paperspast.natlib.govt.nz/periodicals/TPRSNZ1946-76.2.9.3.

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Upcoming Events

6 October-9 October
New Zealand Plant Conservation Network
New Zealand Plant Conservation Network Conference, Whangārei

25—28 October 2024
Nelson Botanical Society
Labour Weekend Camp to D'Urville Island

16 November 2024
Auckland Botanical Society
Field Trip: Orchid Ridge, Conical Peak Road, Warkworth

25 November-29 November 2024
New Zealand Ecological Society
New Zealand Ecological Society Conference, Rotorua

30 November 2024
New Zealand Native Orchid Group
NZNOG Annual General Meeting and field days, Petone.

31 November-8 December 2024
New Zealand Native Orchid Group
NZNOG Tagalong, Tararua, Ruahine and Kaweka Ranges

6 December-8 December 2024
Orchid Council of New Zealand
Native Orchid Reserve Working Bee, Iwitahi

14 December 2024
Canterbury Botanical Society / New Zealand Native Orchid Group
Field Trip: Orchids of Arthur's Pass, a day trip led by the New Zealand Native Orchid Group.

13—16 December 2024
Nelson Botanical Society
Camp to Marlborough—Alpine

Do you know about an upcoming event that the NZNOG may be interested in? Let me know by email: caralisa95@gmail.com

The inbox

Editor's top picks from recent iNaturalist observations

Genevieve Early
April 2024 | Buller District | iNaturalist

▼ *Pterostylis agathicola*

Corybas cheesemanii ▲

Marley Ford
July 2024 | Whangārei | iNaturalist

2024 AGM and Tagalong

Annual General Meeting

Friday 29 November—Monday 2 December

Petone: Graeme and Gael have booked into the Wellington Top 10 Holiday Park for 4 nights. The Top 10 has a range of accommodation options available. **The AGM will be held in the Top 10 meeting room on Saturday 30 November from 4:30—6:30 pm.** Please email Gael (gaeldonaghy@gmail.com) with any items you would like to have discussed at the AGM. Field trips will be held on Saturday, Sunday and Monday. ***These details are finalised so you can make bookings when you are ready.***

Tagalong

Tuesday 3 December—Thursday 5 December

Masterton: Travel to Masterton on Tuesday. Mawley Holiday Park has a variety of accommodation options. We will eat at the Masterton RSA on Wednesday and Thursday (it is not open on Tuesday).

Friday 6 December—Sunday 8 December

Dannevirke: Travel to Dannevirke on Friday. We will eat at the RSA / Citizens Club. Accommodation is either at the Camping Ground or in Motels.

Gael will add Tagalong updates to the Facebook page so please do not book accommodation etc. yet. A trip schedule is being prepared for each day, but will be weather dependent. If you do not use Facebook please email Gael and she will keep you updated via email.

Pterostylis paludosa at last years Tagalong on the West Coast.