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Use your 3D spectacles: if you don't have a set, contact the editor.

## From the Chair: Gael Donaghy



Kia ora tatou

My interest in orchids started a long time ago when I was tramping on Stewart Island in the early 1980s. I had always been interested in native plants, and one of my tramping companions offered me some notes about native orchids. These comprised three wax stencil pages, titled "Recording native orchids in Otago and Southland," written by Ian St George, and dated

12 Oct 1982. It describes four orchids that the writer wanted observations about (the two mentioned below, plus *Acianthus viridis* (now *Townsonia deflexa*) and *Corybas cryptanthus*.) I still have it, with my annotations, folded inside my very precious, tatty and pencil-annotated copy of Dorothy Cooper's book.

*Bulbophyllum pygmaeum*—with seedheads, on totara at lookout on Astronomer's Point, Pickersgill Harbour, Dusky Sound, 7 Jan 1987.

*Drymoanthus adversus* on lakeshore on kowhai near Stockyard Cove (n.d.) and in seed mid-Jan, 1995, also on totara in Sandy Point Reserve (near Invercargill) (n.d.).

Once I had Dorothy's book I became hooked and every tramping trip and hunting expedition ended up with specimens in glass jars, waiting for IDs when I got home.

Once I got quite good at identifying orchids with the help of Dorothy, I started noticing that some orchids just didn't fit her descriptions. By now I had moved to Golden Bay in North West Nelson, a place where there were many different taxa. I discovered NZNOG,

joined, and started sending specimens to Bruce Irwin for help with identification.

He was such a great mentor and an inspiration for me as I had no-one else in the area to look for help. Until I met up with Nelson Botanical Society, and Graeme, and started some serious learning about botany. In this area we found a *Pterostylis* not in the book (*Pterostylis alveata*) around Westhaven, and in the Abel Tasman. This latter site had Graeme carrying a ladder a significant distance around the track, much to the amusement of other trampers!

I am still excited about orchids: in January Graeme and I were based at Borland Lodge on a Botanical Society trip, and I had to cadge a lift into Tuatapere to get something for a poisoned thumb, and then wait for several hours to be picked up. I wandered around the town and ended up in The Hump Ridge office. In talking to the person in the office about our two experiences on the walk, and our excitement at finding the strange *Corybas* up there, he said one of the blokes who worked up there was good at finding things and if I could describe it he was sure to find it! After a phone call to Anthony at the Hump Ridge hut, and several emails with spots marked on Google maps, I got an email from him on 18 Jan 2020 saying "Ka boom 2 in flower .... I have another location also, so three locations where I have seen the leaf.... the two in flower are below the rock we call penguin... (your location last sent)". I have put him in touch with Carlos. I think we should thank him with a copy of the *Pocket Guide*!

I'm looking forward to all your company on this exciting journey of adding to the sum of knowledge about NZ native orchids.

## Life Membership for Eric Scanlen

At the 2019 Annual General Meeting held on 7 December 2019 a motion was received and accepted to award Eric Scanlen a Life Membership of the NZ Native Orchid Group Inc.

Eric has been a long term and valuable member of NZNOG with his interest in native orchids and photography. His very informative material in the *Journal* as the Column has helped many people further their knowledge.

For many years he has been proof reader for the journals and was co-author of several *Field Guides*. He also keeps us up to date with the Index for the journals.

He is interested in people and has incredible patience often correcting identifications with new members. Eric continues to be a great advocate of orchid field trips and often takes people out and arranges those trips. On past field trips Eric always made sure there was plenty of food and an interesting menu! He never hesitates to take overseas travellers to view orchids around the Auckland area and has gained many friendships as well as gaining members for the Group.

Eric shows his 3D photography to many groups and has thus given an understanding and a little education on native orchids. This along with his quiet wry sense of humour has indeed encouraged and furthered the interest in budding orchidists. Eric's own keen interest in orchids is also a motivator and magnet for newbies on the orchid block.

Eric's wide knowledge and contributions to orchids both written and photographed has inspired and helped develop those interested in native orchids. He is a very worthy recipient of a Life Membership.

—contributed by Judith Tyler with help from Allan Ducker.



# The 2020 AGM & Field Days Northland 16-18 October

The Houhora Big Game & Sports Fishing Club will cater for us on Friday and Saturday evening from a blackboard menu and they will also provide a meeting venue.

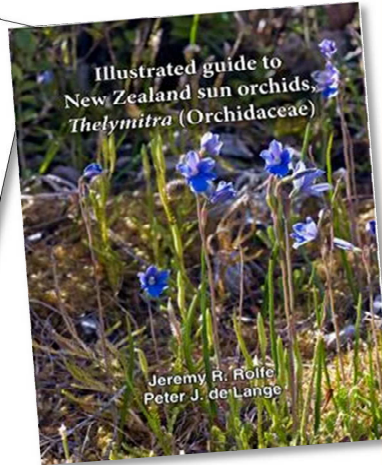
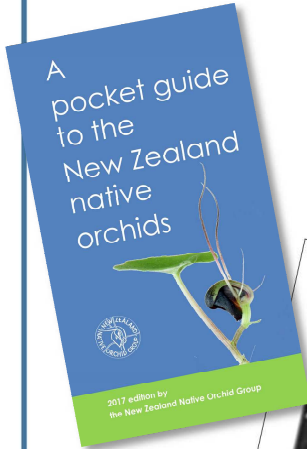
There will be less traffic, people and pressure on accommodation if we go for the weekend before Labour Weekend. That shouldn't affect what we are likely to see.

There's plenty of accommodation in the area, ranging from holiday parks through to motels and hotels, along with holiday homes that are available for rent short term. But do make early reservations.

Bill Campbell will prepare a final notice to go out with the August journal.

[billcampbell@xtra.co.nz](mailto:billcampbell@xtra.co.nz)

# NZ ORCHID BOOKS!



Order these two from the Group by emailing Brian Tyler: [bandj.tyler@xtra.co.nz](mailto:bandj.tyler@xtra.co.nz)

Order this from Bill Campbell: [mail@nzpcn.org.nz](mailto:mail@nzpcn.org.nz); reduced to clear at \$10. Still a great resource.

Murray Dawson emailed, “Further to your comment ‘Do readers know how we might achieve a discussion group for issues other than orchid IDs?’ —the iNat platform does allow for limited discussion, but constrained to each observation. And of course the inbuilt messaging service for private exchanges.

“There are several good online discussion platforms ranging from Google Groups (which needs Gmail accounts) to Discourse (powerful but paid). However, my advice would be to recommend that NZNOG members use iNat for posting observations that benefit the research community (as you have done) and to consider joining the Facebook group <https://www.facebook.com/groups/774564432616525/> created by Andrew Broome for general discussion of native orchids—so as not to create another duplicate online resource....”

## The New Zealand Native Orchid Journal

The main aim of the New Zealand Native Orchid Group is to improve knowledge about native orchids, so we allow others to copy material published here, provided the source and author are acknowledged. Authors should note this condition of publication. The editor and members of the Group may not share authors' views. **Chair:** Gael Donaghy, 52 Anne Rd, Tauranga, 3110 [GaelDonaghy@gmail.com](mailto:GaelDonaghy@gmail.com). **Secretary:** Pam Shearer, 7 Ring Terrace, St Marys Bay, Auckland [pam@insidetrack.co.nz](mailto:pam@insidetrack.co.nz). **Treasurer:** Judith Tyler, 4 Byrd St, Levin, **Books and publications:** Brian Tyler, 4 Byrd St, Levin, [bandj.tyler@xtra.co.nz](mailto:bandj.tyler@xtra.co.nz). **Webmaster:** Michael Pratt, [www.nativeorchids.co.nz](http://www.nativeorchids.co.nz), [Michael@nativeorchids.co.nz](mailto:Michael@nativeorchids.co.nz). [The **website** posts journals six months after first publication]. **Editor:** Ian St George, 32 Hawkestone St, Thorndon, Wellington 6011 [istge@yahoo.co.nz](mailto:istge@yahoo.co.nz). The **Journal** is published quarterly from February; deadline for copy is the first of the month prior. Please send email or printed copy.

# Original paper

## *A minor* pursuit: by Graeme Jane

Only recently have proper steps been taken to clarify the issues around the identity of *Caladenia minor* (Clements 2019, Upson 2018, 2020). For me the field identity of *Caladenia minor* seems quite confused. Over the years I have sat back and followed the debates on *Caladenia minor* (eg, Scanlen 1999, 2018) and on occasion added my ill-informed comment (eg, Jane 2018) without doing the proper homework.

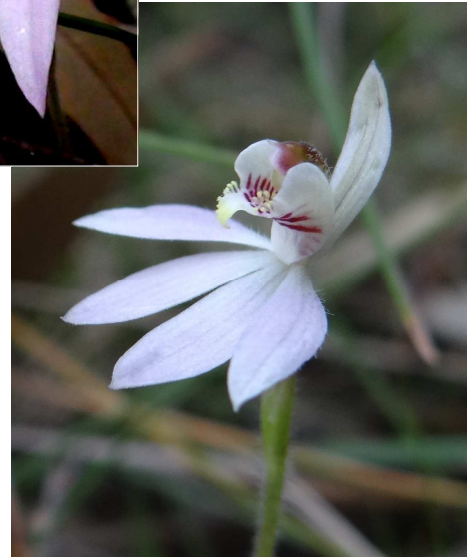
So this time I decided to try to sort out our small caladenia photos and establish how they related to published figures and photos. I started with the type descriptions for New Zealand species, as well as those species for which Australian names have been used in NZ.

*Caladenia minor* was first described and illustrated by Hooker in 1853 but the status and identity of the name have been confused (Scanlen 1999). Cheeseman (1906) placed *C. minor* as a variety of *C. carnea* and Rupp (1945) placed *C. minor* in *C. carnea* var *pygmaea* while Hatch (1949) although accepting the change indicated that there were several distinct jordanans (forms) of *C. carnea* (**Fig. 1**) in New Zealand. Later they were placed in *C. catenata* (**Fig. 2**). Now neither seems appropriate. Little work was done to compare our species with the Australian taxa until Mark Clements examined the types and formally set out his results (Clements 1989). In conjunction with David Jones and Brian Molloy they then added more taxa (Jones et al 1997).



◀ Fig.1: *Caladenia carnea*

▼ Fig.2: *Caladenia catenata*



**Table 1: Type details**

Species:	FG 1996	Type Description	Published	Collector	Collected	Type location	Herb	Det	Date det
<b>alata</b>	23	RBr.	1810	RBr	1802	Tasmania	K	RBr	1810
<b>atradenia</b>	23 (cited)	Jones et. al	1997	J Don	1964	Kerikeri	CHR	Molloy	1991
<b>bartlettii</b>	24 (cited)	Jones et. al	1997	Bartlett	1947	Silverdale	AK	Molloy	1991
<b>chlorostyla</b>	29 (cited)	Jones et. al	1997	Molloy	1992	Tinline Marl.	CHR	Molloy	1992
<b>minor</b>		Hooker	1853	Edgerley etc	1841	Bay of Islands	K	Clements	1987
<b>nothofageti</b>	29 (cited)	Jones et. al	1997	Molloy	1993	Puffer Well.	CHR	Molloy	1993

The type details for New Zealand taxa area are set out above.

Jones et al (1997) specifically cite the relevant figure in the 1996 field guide as noted above (column 1 “FG 1996” above, with listed page number).

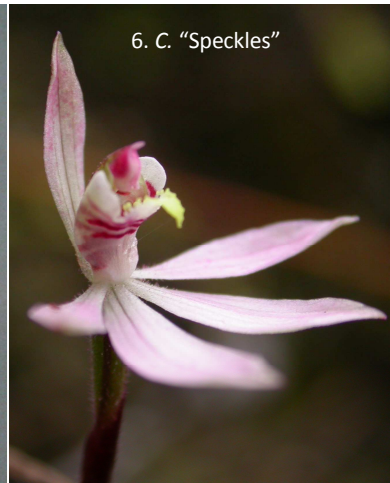
As a next stage I went through our photos and grouped them according to the latest field guide (NZNOG 2017). *Caladenia alata*, *C. atradenia* and *C. nothofageti* all fell into place without difficulty. Within *C. chlorostyla* there were two forms, one of which fitted *C. chlorostyla* (**Fig. 3**) well and one tagged *C. “red stem”* (**Fig. 4**) with a few intermediate forms. Amongst the pink caladenias nothing was clear cut although there were two groups one of which should have included *C. minor*: one containing *C. variegata* (**Fig. 5**) plus one tagged *C. “speckles”* (**Fig. 6**); and one containing *C. bartlettii* (**Fig. 7**) and a range of other forms.



3. *Caladenia chlorostyla*



4. *Caladenia “red stem”*



Next I went through the 5 NZNOG field guides at hand (listed at end) to try to clarify the five taxa. What a mess! There seems to have been a “grab bag” for Australian names. The name *C. minor* has been used for five different taxa in the various field guides and *C. “speckles”* has had three names placed on it, although *C. aff. carnea* was probably legitimate in the 1996 field guide as it was the only formal name in use in NZ for the small caladenias at that time.

**Table 2: Names used in the various field guides (column 1) and matched taxa**

Accepted name	FG 1996	FG 2001	PG1 2015	PG2 2017	Colour FG 2010	Note
<i>alata</i>	<i>alata</i>	<i>alata</i>	<i>alata</i>	<i>alata</i>	<i>alata</i>	
<i>atradenia</i>	<i>aff. iridescens</i>	<i>atradenia</i>	<i>atradenia</i>	<i>atradenia</i>	<i>atradenia</i>	
<i>bartlettii</i>	<i>carnea</i>	<i>bartlettii</i>	<i>bartlettii</i>	<i>bartlettii</i>	<i>bartlettii</i>	(1)
<i>chlorostyla</i>	"green column"	<b>minor 1</b>			<i>chlorostyla</i>	(2)
<i>nothofageti</i>	"white form"	<i>nothofageti</i>	<i>nothofageti</i>	<i>nothofageti</i>	<i>nothofageti</i>	
<i>variegata</i>		<i>variegata</i>	<i>variegata</i>	<i>variegata</i>	<i>variegata</i>	



**Table 2 continued: Other names used**

Accepted name	FG 1996	FG 2001	PG1 2015	PG2 2017	Colour FG 2010	Note
aff bartlettii					aff bartlettii	(3)
aff variegata	aff camea	aff camea			aff variegata	(4)
"kauri mauve"					"kauri mauve"	(4)
"speckles"		aff fuscata	"nitida rosea"	atrochila	"nitida rosea"	(5)
minor 2			<b>minor 2</b>			(6)
minor 3				<b>minor 3</b>		(7)
minor 4					<b>minor 4</b>	(8)
"red stem"					"red stem"	(9)
"green stem"				"green stem"		(10)
pusilla	<b>minor 5</b>		pusilla	pusilla	pusilla	(11)

**Notes for Table 2**

- Hatch says it is *C. "nitidoa-rosea"* of Matthews in his in the type description and Upson (2020) agrees.
- C. chlorostyla* has often been identified with *C. minor* but Clements (2019) is clear that *C. minor* is closer to *C. pusilla* and its allies. Usually includes *C. "red stem"*.
- Apparently an odd form of *C. bartlettii*.
- Essentially a form of *C. variegata*, often the more common one, lacking the extra calli that define that species.
- Quite clearly a distinct taxon with its larger flower, long arcuate petals and quite glandular-ciliate tepal backs, tepal base and column top. It has had many names over the years.
- Possibly close to *C. chlorostyla* but needs to be vouchered for verification and its distribution extended.

- C. chlorostyla*, possibly "green stem" which itself may merely be a hybrid.
- Uncertain—possibly *C. chlorostyla* or "green stem". The photo is inadequate to be certain.
- Possibly just a form of *C. chlorostyla* but it is often quite distinct. It can be found as separate colonies or mixed with *C. chlorostyla* and sometimes with intermediate forms. Tepal backs are a deep maroon which often "bleeds" to give the tepals a pinkish tinge to their inner, white colour. The sepal backs are more glandular hairy than *C. chlorostyla* and the whiteness of the inner surface enhances the prominence of the veins. There is some resemblance to *C. tonelli* of Tasmania.
- Probably a form of *C. chlorostyla* or hybrid with "red stem". There are certainly grades between the two.
- This is a very small flowered taxon and early flowering. The labellum midlobe is narrower than the labellum floor and is bright yellow and only weakly crenate. It appears to belong to the *pusilla* group and may be a taxon shared with Australia.

From this it is clear that two or three taxa require recognition at the species level or at least clarification as to whether they are in fact shared Australian taxa. These are: one currently called *C. “red stem”*, one called *C. “speckles”* and one for which the Australian name *C. pusilla* (cf. Fig. 8, from South Australia) has been used. Several other Australian names have been used for the NZ taxa and perhaps need to be added to any list to clarify identities.

*minor* (Fig. 9) and *C. pusilla* also appeared close. One record from the Bacon Creek remained difficult to place. It appeared to be a pink form of *C. chlorostyla* (cover *Journal* 115). More records of this form need to be found otherwise it may be regarded as just an odd variant or hybrid.

One way to draw the data together is with a key. My principal guide in deriving a key has been the *Caladenia* treatise (Backhouse 2010) supplemented by field guides for Tasmania, New South Wales, South Australia and Victoria (Backhouse et al 2016, Kuitert 2010 and Jones 1998).

► over

**Table 3: The Aussies**

	Author	Note	Date	Type Locality
atrochila	Reichb.	carnea var	1871	Tasmania
carnea	RBr		1810	Port Jackson, NSW
catenata	Smith	Arethusa	1805	Port Jackson, NSW
fuscata	Reichb	carnea var	1871	Australia!
carnea var pygmaea	Rogers	(2 taxa)	1927	Flinders Is, Scott Ck
pusilla *	Curtis	(removed Flinders Is)	1979	Naracoopa, King Is
pygmaea*	Bates	(residual carnea var)	2014	Scott Creek, SA

\**C. carnea* var *pygmaea* type description cited by Rogers consisted of two localities and actually two taxa. The former was separated by Curtis as *C. pusilla*; the latter by Clements (1989) and placed in *C. minor* but Bates (2014) raised it to species. Finally a few other similar taxa that should be considered. *C. carnea* contains a large range of forms from which several recently described taxa have been separated—*C. mentiens* & *C. vulgaris*; *C. tonelli*, & *C. curtisepala*.

One way to link the descriptions and the photos is to build a table of characters to identify key characters that separate the taxa. To supplement this all the photos in the *Journal* from Nos 63 to 155 (1999-2020) were examined. At the end of that stage *C. variegata* and *C. “speckles”* were found to be difficult to separate and *C. bartlettii*, *C.*



8. *C. pusilla*



9. *C. minor*

- |   |               |
|---|---------------|
| 1. Lateral sepals widest near the middle, tapered to an acute tip; sepals glandular but not densely hairy   |               |
| 2. Labellum midlobe tipped orange with a pair of large orange basal calli   | alata         |
| 2. Labellum midlobe and any lateral or lamellar calli tipped yellow   |               |
| 3. Column and body of flower without red bars   |               |
| 4. Flower greater than 35 mm diameter, pink or white  | catenata*     |
| 4. Flower less than 20 mm diameter, greenish to white   | nothofagei    |
| 3. Column and body of flower with red bars  |               |
| 5. Petals greater than 15 mm long   |               |
| 6. Flower usually greater than 20 mm diameter, tepals strongly veined within  | tonelli*      |
| 6. Flower usually less than 20 mm diameter, tepals weakly veined within   | carnea*       |
| 5. Petals less than 15 mm long  |               |
| 7. Petals apple green to white  |               |
| 8. Tepals apple green, lacking the pink flush, gland dotted and sparsely ciliate  | chlorostyla   |
| 8. Tepals bright white, sometimes flushed pink to dull white, conspicuously red glandular hairy   | “red stem”    |
| 7. Petals pale pink;  |               |
| 9. Labellum transverse colour bars broad, with many fused together  | atrochila*    |
| 9. Labellum transverse colour bars well spaced, rarely fused  |               |
| 10. Labellum side lobes broadly rounded, almost vertical, and well forward of the labellum floor at the base  | variegata     |
| 10. Labellum side lobes sharply forward at the top but pulled in at the base  |               |
| 11. Petals and sepals red-brown on the backs  | fuscata*      |
| 11. Petals and sepals red or green on the backs   |               |
| 12. Dorsal sepal quite short compared with other tepals; sepals closely parallel  | curtisepalus* |
| 12. Dorsal sepal not greatly shorter than the other tepals; sepals widely spreading   | “speckles”    |
| 1. Lateral sepals oblong, widest at the outer third of length, obtuse or abruptly to shortly acute (pinched); lateral sepals obviously hairy, especially densely so at the inner base |               |
| 13. Petals greater than 15 mm long; flower greater than 30 mm diameter  | vulgaris*     |
| 13. Petals less than 10 mm long; flower less than 20 cm diameter  |               |
| 14. Dorsal sepal closely shadowing and curving over and about equal or shorter than the column, column hairy, especially on the top   |               |
| 15. Lateral sepals free at the base; labellum midlobe deeply incised throughout   | minor         |
| 15. Lateral sepals fused at least at the base, slender basal calli present but midlobe crenate  |               |
| 16. Flowers < 6 mm across, tepal backs greenish; petals spreading   | pygmaea       |
| 16. Flowers > 8 mm across, tepal backs brownish, striped red; petals narrowly spreading to overlapping  | mentiens      |
| 17. Lateral sepals abruptly acute to acuminate from a broad oblong shape  | pusilla       |
| 17. Lateral sepals rounded  |               |
| 14. Dorsal sepal erect to curving forward over the column, distinctly longer than the column, column top glabrous   | bartlettii    |

In brief, the differences, stepwise, are,

- large pair of orange calli at the base of the midlobe – *C. alata*
- flowers lacking red bars on labellum – *C. nothofageti*
- flowers apple green – *C. chlorostyla*
- flowers white, stem maroon red – *C. “red stem”*
- flowers large, pale salmon, scattered calli often on lamellar lobe, with basal calli but midlobe scarcely indented – *C. variegata*
- flowers large, pale cerise, calli on the margin of the lamellar lobe, tepals concave – *C. “speckles”*
- flowers small, lateral sepals oblong, broadest near the tip, midlobe prominently lobed and/or with marginal calli, usually pale magenta fading to white from mid tepal – *C. minor*
- flowers small, often highly coloured; dorsal sepal much longer than column, erect – *C. bartlettii*
- flowers very small, dorsal sepal scarcely as long as column and appressed over it, usually pale magenta fading to white from mid tepal – possibly *C. pusilla* or *C. mentiensi*

Finally, a few issues remain.

If *C. bartlettii* is the same as *C. “nitidoa-rosea”* and *C. “speckles”* is the same as *C. atrochila* and that is the same as *C. “nitidoa-rosea”*, is *C. bartlettii* the same as *C. atrochila*? I think the answer is no and that that *C. “nitidoa rosea”* has had two different usages. *C. “speckles”* still seems to lack an identity and may be a NZ species, although it is quite difficult to distinguish from *C. variegata* in shape, especially when the latter lacks the “extra” calli on the labellum. Similarly there are issues with *C. pusilla* where in Australia it is very variable and difficult to separate from *C. mentiensi*.

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# The type locality: Ian St George

## *Thelymitra cornuta* Col. from the Kaipara

*Thelymitra cornuta* Col. is a mystery, of which the exasperated Lucy Moore wrote, “No specimens are known and the description was based on a single plant....”

Indeed, in 1887 **William Colenso** described *T. cornuta* and this is what he said [1],

*T. cornuta*, sp. nov.

Tuber 3 inches long, sub ½ inch thick, cylindrical. Stem erect, 17 inches high, rather slender, with 3 membranaceous acuminate acute adpressed bracts. Leaf single near base, lanceolate, 3 inches long, ½ inch wide, stout, thickish, semigrooved, tip sub-acute. Flowers 6, small, rather distant on a 3-inch raceme; pedicels slender, 4–5 lines long; floral bracts shorter than ovary, 6–7 lines long, ovate-acuminate, acute, much veined. Perianth, petals clear pink, sub-rhomboidal, 4 lines long, obtuse with a slight mucro, obsoletely 5-nerved; sepals a little larger than petals, oblong-ovate, concave, dull pink with a green centre; column 2–2 ½ lines long, rather slender, pink, hooded; the hood smooth on the back, the base dark-red; tip bright yellow, emarginate, margins entire or very slightly erose, involute; the lower lateral margins between apex and staminodia produced into 2 little curved pointed horns, one on each side; the two lateral lobes (staminodia) sub-linear-spathulate, erect, bearing a globose bushy tuft of pinkish-white hairs, which rise above the column; hairs wavy, rugulose, obtuse, slightly knobbed at tips, hyaline with mi-

nute circular dots scattered within (not transversely barred, or septate, as in *T. nuda*); anther wholly concealed, erect, orbicular, very apiculate, tip obtuse; rostellum bifid, lobes rounded, margins thickened lacinate and jagged. Ovary long, ¾–1 inch, narrow obovoid, striate, tapering, trilateral; angles obtuse, thickish, and largely rounded.

Hab. Country near Pouto Point, North Kaipara, West Coast, north of Auckland; 1885: Mr. C. P. Winkelmann.

Obs. I. This species differs in several respects, particularly in its column and appendages, from all our known indigenous species; and also from the Australian and Tasmanian ones. It will naturally range under Bentham's section *Cucullaria*, its affinities being with *T. nuda* and its allies. Its flowers are very small for the size of the plant, and its ovary long.

II. In the summer of 1885 I received several specimens of *Thelymitra* from Mr. Winkelmann, but from their being long in transit, partly smashed up in passing through several of our post-offices, and from their succulent nature and close-packing half-rotten, I could make nothing of their flowers; the tubers, however, of some of them were uninjured, and I planted them; one, in particular, being long and slender, I potted. This summer (December, 1886) it produced the specimen here described. I have closely examined three of its flowers in a living state for their internal parts, and find them to correspond closely.

Colenso was so impressed with the hornlike projections on the column that he named the plant for them, though nowadays we would write them off as common features.

What is striking to me is the leaf: “single near base, lanceolate, 3 inches long, ½ inch wide, stout, thickish, semigrooved, tip sub-acute.” There is only one *Thelymitra* with a short leaf like that and it is called, unsurprisingly, *T. brevifolia*, of which Jeanes wrote, “*Thelymitra brevifolia* Jeanes can be identified with a high degree of confidence from mature leaves alone.”

*T. brevifolia* has been found in the northern South Island [2, 3].

Is that what Winkelmann sent from Pouto point? Does *T. brevifolia* grow in Northland?

In 2017 de Lange *et al* listed an “indeterminate entity assessed for the first time” called “*Thelymitra* aff. *brevifolia* (a) (AK 347116; Northland)” which is “data deficient” [3]. This is the plant recorded by Kevin Matthews in his “Far North Diary” in J111, 2009. Kevin’s plants did not have a short leaf and the top of the column is bright orange (Colenso’s plant had a bright yellow column top).

What, then, does *T. brevifolia* look like in Australia?

**Jeffrey Jeanes**’s notes following his original formal description say this...

*Thelymitra brevifolia* is a widespread species that has been confused with *T. pauciflora*. It can be distinguished from all other members of the *T. pauciflora* complex by a combination of characters. The leaf is relatively short, usually less than half the height of the inflorescence, and often as little as a quarter the height of the inflorescence. It is also usually rather broad and flat, ribbed on the back and suffused with purplish markings, often most obvious on the margins and base. There are usually 3 to 10 flowers (but

## *Thelymitra* aff. *brevifolia*



Abel Tasman NP ▲



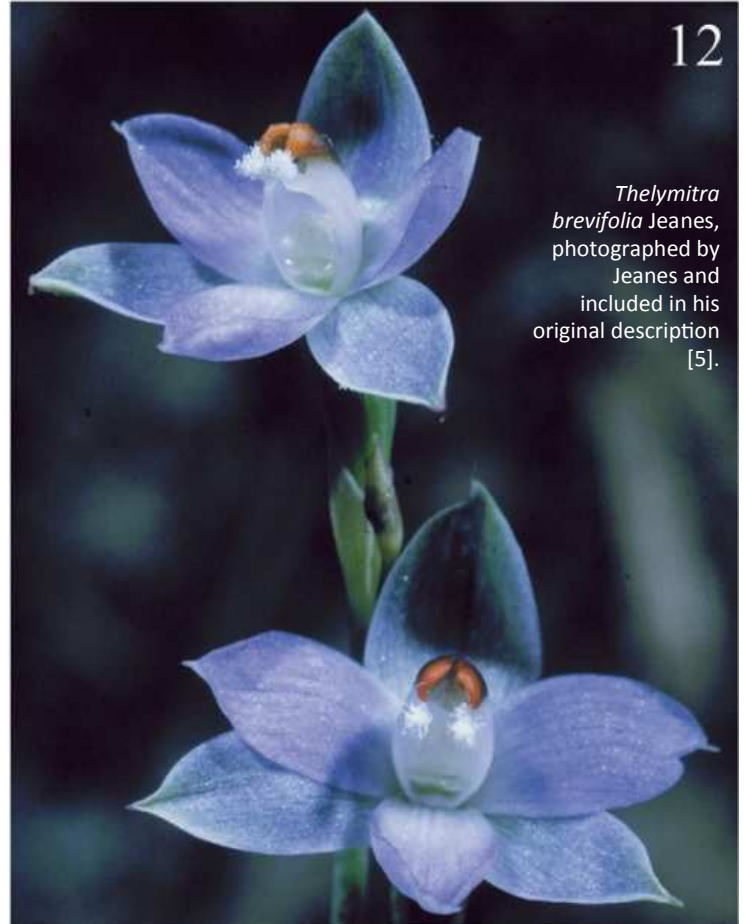
Queen Charlotte ▲▶



... in the Far North ▼▼



*Thelymitra  
brevifolia* Jeanes,  
photographed by  
Jeanes and  
included in his  
original description  
[5].



sometimes as many as 20) that open tardily and are autogamous. The perianth segments are usually up to 10 mm long, often prominently apiculate, purplish in colour, rarely blue, pink or white. The post-anther lobe is not inflated and its apex has a rather rectangular appearance when viewed from the side and is bilobed to varying degrees ranging from shallowly emarginate to deeply and irregularly slit producing two more or less parallel lobes. It is often a distinctive reddish-orange to reddish-brown in colour. The lateral lobes are up to 1 mm long and project forward and upward in a gentle curve. The trichomes on the lateral lobes are white, usually up to 1 mm long and are arranged in small, neat, dense, sub-terminal bundles that embrace the tip of the post-anther lobe. *Thelymitra pauciflora* has a relatively longer, narrower leaf, fewer flowers and an entire to emarginate post-anther lobe on the column [5].

Jeanes observed, “*auxiliary lobes* often present as 2 tiny bumps on the lower apical margin of the post-anther lobe”—Colenso’s *cornua*—horns.

Interpretations of *T. brevifolia* in Australia can be seen by googling the name—a few are shown overleaf: if these are indeed all the same species it is certainly variable.

**Charles Peter Winkelmann** was a Te Aute teacher who went to run the native school at Pouto, later shifting to Waimamaku. The *Cyclopaedia of New Zealand* says of him,

MR. CHARLES PETER WINKELMANN, who was appointed to the Whirinaki Native School in 1897, was born at Bradford, Yorkshire, was at Askern College, near Doncaster, and finished his education under a private tutor. He came out to New Zealand per ship “British Empire” in 1877, intending to engage in sheep farming, but obtained



[https://en.wikipedia.org/wiki/Thelymitra\\_brevifolia](https://en.wikipedia.org/wiki/Thelymitra_brevifolia)



<https://birdsnmore.smugmug.com/Tasmanian-Orchids/Sun-Orchids/i-38cvdrN>



<https://nossa.org.au/2015/09/11/clues-to-orchid-identification-columns/thelymitra-brevifolia/>



<https://birdsnmore.smugmug.com/Tasmanian-Orchids/Sun-Orchids/i-n8FgFrB>



<https://www.flickr.com/photos/>



<https://canberra.naturemapr.org/Community/Sighting/3384869>



an appointment at Te Aute College as assistant master. After five years' service he resigned his position, entered the Native School Department, and was given charge of the school at Kaipara, where he remained seven years, and was subsequently at Waimamaku for a like period. Whirinaki was always considered a troublesome school to manage, and it was not in a peaceful condition when Mr. Winkelmann was asked to take charge of it. However, he has succeeded in overcoming all difficulties and has placed the school on an excellent footing.

Winkelmann's interest in botany was encouraged by William Colenso who was secretary of the Hawke's Bay Philosophical Institute when Winkelmann became a member in 1880 and thereafter he became one of Colenso's band of collectors. He collected *Microtis papillosa* (probably *M. arenaria*) from Northland, as well as other new plants from Great Barrier Island, including a number of new *Gottschea* species, one of which Colenso named *G. Winkelmannii* (it is now regarded as identical to *Schistochila appendiculata*). He had some training in *materia medica* and his wife was a nurse: together they supplied medicines and immunised local Māori and European settlers in their rural Northland communities.

His collection of *Thelymitra cornuta* may have been the first of what we now call *T. brevifolia*.

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2. Upson G 2009. Abel Tasman National Park. *NZNOJ* 112.
3. St George IM 2009. *Thelymitra brevifolia* Jeanes Muelleria 19: 30 (2004): a new orchid for New Zealand. *NZNOJ* 119: 4.
3. De Lange P *et al* 2017. Conservation status of New Zealand indigenous vascular plants, 2017. DoC.
4. Matthews K 2009. Far North Diary. *NZNOJ* 111.
5. Jeanes, Jeffrey A 2004. A revision of the *Thelymitra pauciflora* R.Br. (Orchidaceae) complex in Australia" (PDF). *Muelleria*. 19: 30–33.



MR C. P. WINKELMANN



Little evidence was given on health and dental services available to Te Roroa, but we do know that in the nineteenth and early twentieth centuries they lived beyond the reach of government doctors, that rudimentary medical services were provided by native school teachers, that sickness was prevalent and that many died from measles and, in 1918, influenza.

The Waimamaku Native School records indicate successive teachers administered to Maori children attending the school. One of these teachers, Charles Winkelmann, who developed a considerable reputation as a dispenser of medical services, often ran short of medical supplies provided by the Native Department. In 1890 he informed the department that:

THERE IS NO MEDICAL MAN RESIDING IN THE HOKIANGA DISTRICT and now that I have become known, the Natives all around this settlement come to me for assistance and medicines. I gladly do all I can, and have been able to give great relief to large numbers; during the 'La Grippe' Epidemic many natives would without doubt have died had it not been for the timely aid which I gave them, sacrificing the whole of my spare time to visiting and dispensing medicines.

The number of sick children and adults is considerable and hardly a day passes without my being called out. The Natives quite look upon this work of dispensing as part of my work amongst them... (E14:311-312)

While the department recognised that Winkelmann undoubtedly rendered a "useful service", it was concerned that this would lead to like applications from other teachers. He was told to use medicine for pupils only and more sparingly (E14:310).

A meeting was held by the local people who asked the government to increase the quantity of medicine sent for general use. They further requested that the school master be appointed as dispenser of medicines for people living at Waipoua, Waimamaku, Waiwhatawhata, Roharoa, Pakanae and Motutoa.

In conveying these requests to the Native Minister, Iraia Toi pointed out that 300 or more people lived in these places but for years they had had no medical practitioner. Probably this was why they went to the tohunga. In past years a large number of persons had been ill (and died) through want of medical aid (E14:272-276).

Nothing came of these requests. The Native Department continued to supply medicines to Winkelmann and his successors, but at times the supply was less than that requested. Notwithstanding the department's instructions, the use of schools as dispensaries for the whole community was the only practical way of providing medical assistance in areas without government doctors or nurses.

—<http://www.waitangitribunal.govt.nz/reports/>

## OBITUARY

### MRS. CLARA J. WINKELMANN

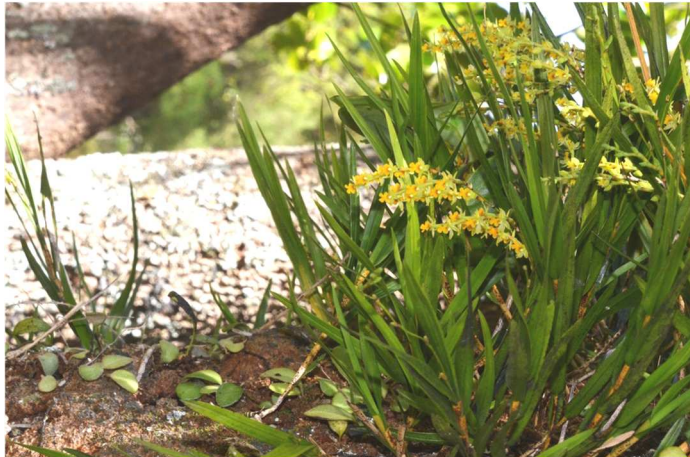
Valuable pioneering work in sparsely-settled areas of the Auckland Province was done over 50 years ago by Mrs. Clara Julia Winkelmann, who died at the residence of her son, Mr. Walter Winkelmann, Milton Road, Mount Eden, on Wednesday. Mrs. Winkelmann, who was 80 years of age, accompanied her husband, the late Mr. C. P. Winkelmann, when he became a native school teacher in the early eighties. In addition to being a native school teacher, Mr. Winkelmann was a chemist, and his work took him to many remote localities. Having had some training in nursing, Mrs. Winkelmann assisted her husband in rendering aid, not only to the Maoris, but to the European settlers when a doctor or a trained nurse was not procurable. In this respect she is gratefully remembered by many early settlers. She was an accomplished sketch artist and a writer of charming verse. She is survived by three sons, Messrs. Arthur C. T. Winkelmann, of Kohimarama, Norman G. Winkelmann, of Gisborne, and Walter H. C. Winkelmann, of Mount Eden. There are several grandchildren.

—New Zealand Herald 28 October 1932

# The inbox

Pat Enright sent photographs (& see cover) of *Earina aestivalis* from Waiorongamai in southern Wairarapa on 6 January.

Peter de Lange has written, “*E. aestivalis* differs (from *E. mucronata*) by its shorter stems, flaring and broader leaf sheaths, and distinctly broader leaves, broad, prominently deeply depressed and channelled midrib, larger oblong to oblong-ovoid dark purple spotting along the stem, larger and fewer flowers, generally longer column, and by its later flowering time (usually late summer, rather than spring to early summer)” (NZPN).





*Earina aestivalis* and  
*E. mucronata* growing together.  
Photo Bill Campbell.

There was some email discussion in January on whether *Earina aestivalis* and *E. mucronata* were really different species.

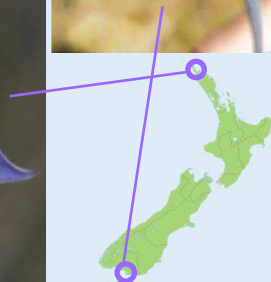
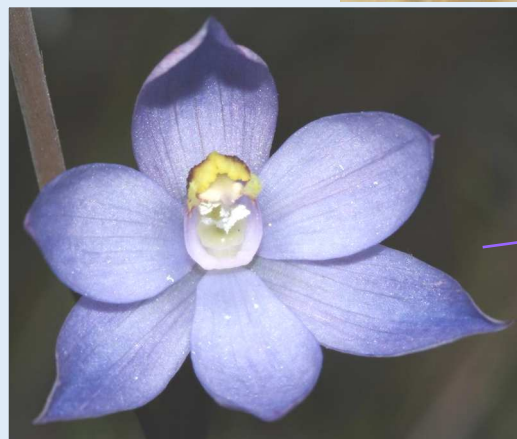
Bill Campbell wrote, “I must admit I too had been rather sceptical about the differentiation between *E. mucronata* and *E. aestivalis*, until I was fortunate enough to see both species growing on the same limb in early December in the South Wairarapa district. The *E. aestivalis* plants were in early bud, while the *E. mucronata* plants had seed capsules.

“When you see the two species side by side the differences between them are patently obvious. Some of the differences are as follows. *E. aestivalis* has distinctly shorter and broader leaves, yellow-green, rather than dark green, foliage, an upright, rather than drooping, growth habit, the spotting on the canes is more intense and blotchy, the flower has a longer column and it is generally a later flowering species. In the northern half of the North Island you’ll be hard pressed to find *E. mucronata* flowering after mid-november and *E. aestivalis* flowering before mid-december. There are numerous *iNaturalist* observations supporting this, along with some misidentifications.”

Brenda Biersteker posted this interesting image on Facebook, of a *Thelymitra* from Waituna bog near Invercargill, flowering mid-January ▶

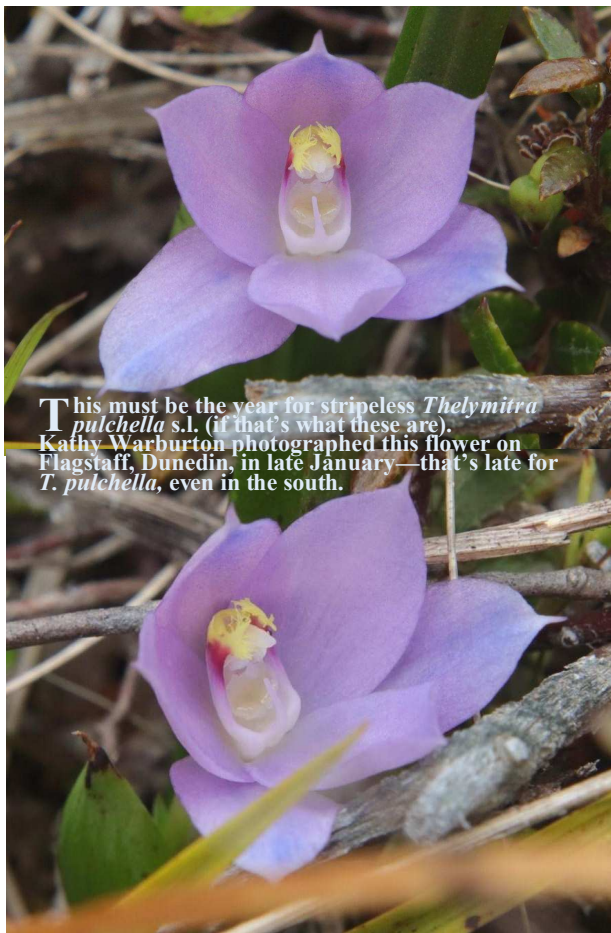
Kevin Matthews has mentioned this stripeless *T. pulchella* s.l. before this and sent a photograph of a plant he found in the Ahipara Gumfields ▼: “They do pop up in localised sites up here and are fragrant,” he emailed.

That would be an extraordinarily bimodal distribution. Have you seen it elsewhere?



Kathy Warburton emailed on 20 January, “I have never found such pale blue *Thelymitras* before” and sent this photograph of a plant “in upper reaches of Nardoo reserve, Lammerlaws” ▼. It is *T. pulchella* with faint stripes on its petals.





This must be the year for stripeless *Thelymitra pulchella* s.l. (if that's what these are). Kathy Warburton photographed this flower on Flagstaff, Dunedin, in late January—that's late for *T. pulchella*, even in the south.



Posted on Picuki.com by an unnamed photographer, this superb shot of a fungus gnat bearing pollinia and visiting *Corybas acuminatus* is unique: the first record of a pollinator for this species.

# The Column: Eric Scanlen

## *Corybas* “pygmy 1” reinstated

Open your *Journal* 154 at page 25. The two photos on the left are both *Corybas* “pygmy 1”, not *C. vitreus*. This correction is necessary, because *C.* “pygmy 1”, as in all the members of the *C.* “pygmy” group, has no visible drain outlet from any gnats’ egg pocket. *C. vitreus* does show the drain outlet, but otherwise they do look similar. I spotted the error in the J154 article, when Ian St George sent me Carlos Lenhebach’s paper on five new species of *Corybas*. Whoever suggested the supposed equality of these two taxa to me? I believed but didn’t check, only to spot the truth much later. The cover of J154 also has Pat Enright’s immaculate photo of *C. vitreus* from the front, clearly showing the “Irwin” drain outlet, midlabellum. The late Bruce Irwin was ever puzzled by this drain outlet in other *Corybas* and mentioned it on his drawings whenever it occurred. Bruce may not have dropped onto the reason for the existence of this brood site deception device in *Corybas*.

Have a look at the front of the labellum, on for instance, *Corybas trilobus*, *C. confusus*, *C. hypogaeus*, *C.* “Rimutaka”, *C.* “tricraig” and *C. vitreus*, to name but a few (but not including any of the *C.* “pygmy”

group, notice) and you will see the characteristic drain hole, midlabellum. Some at least of the *C.* “pygmy” group do have gnats’ egg pockets but don’t appear to have visible drains; e.g. Fig. 3, p. 25 of J154, for *C.* “pygmy 1” but I’m not able to check them all.

The gnats’ egg pocket is the site of the celebrated deception device in many, but not all, *Corybas*. Female fungus gnats mistake the orchid for a toadstool, climb in towards the column and lay their eggs in this handy pocket and elsewhere too—when they are caught short? Good gnats’ egg pockets may need a drain to keep the pocket dry until the eggs hatch? Some of the *C.* “pygmy” group that I have sectioned, do have a gnats’ egg pocket but they vent rearward or upwards, with no noticeable drain, as can be seen in J154, p25, Fig 3. Do please rename Fig. 3 as *C.* “pygmy 1”, not *C. vitreus*. J153 p 9 shows gnat’s eggs in the pocket of *C.* “tricraig” at the late Ian and Trixie Craig’s place, Pollock.

The existence and layout of the gnats’ egg pockets have not yet been clearly documented, but appear to be a defining feature for at least *Corybas* identification. Three examples without drains, showing the variability of gnats’ egg pockets, follow.



Fig. 1, *Corybas rivularis* s.s. from Man-gamuka, 28 Oct. 04, with large open-top gnats’ egg pocket.



Fig. 2. *C. "tribaldi"* from Bald Hill, Longwood Range, 18 Jan. 04 with a tiny open topped pocket.

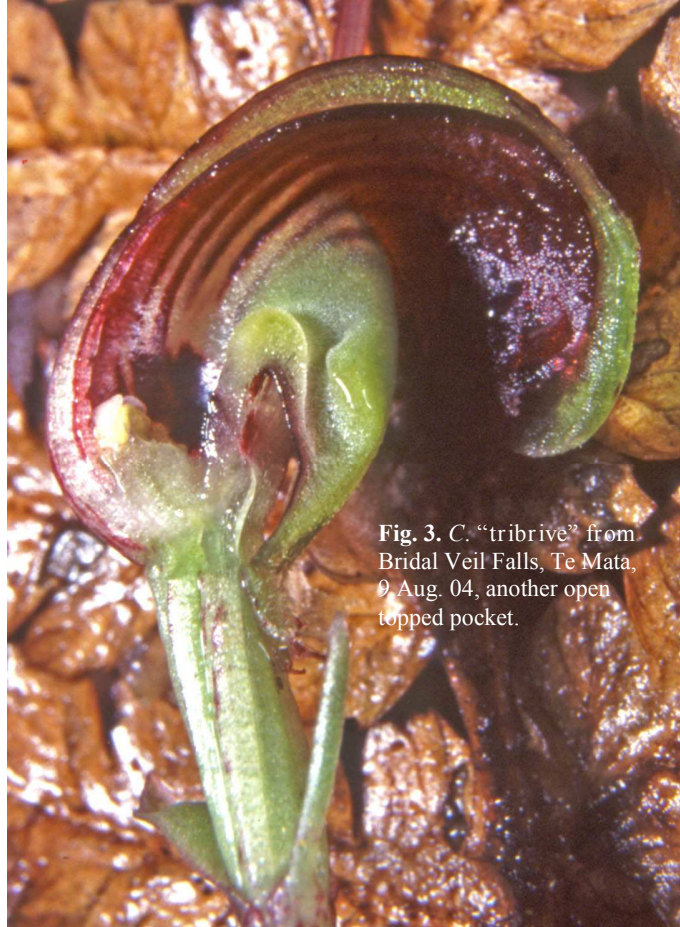


Fig. 3. *C. "tribrive"* from Bridal Veil Falls, Te Mata, 9 Aug. 04, another open topped pocket.