

The
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Zealand

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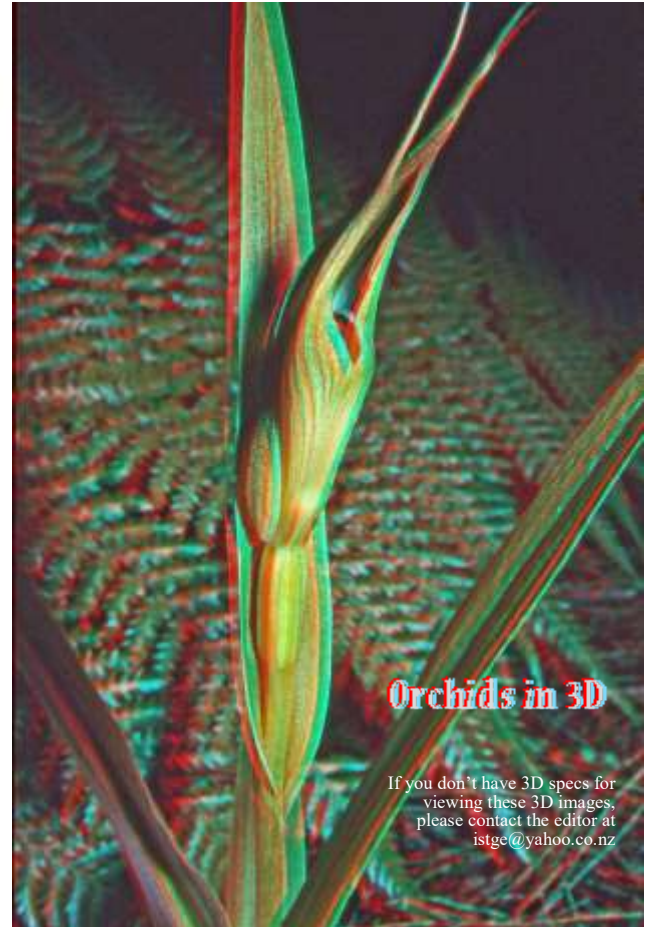
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Orchids in 3D

If you don't have 3D specs for viewing these 3D images, please contact the editor at istge@yahoo.co.nz

From the Chair: Gael Donaghy



Kia ora tatou

This year is the 40th year of the existence of NZNOG, and to celebrate Ian has written a brief history of the group, included as a supplement to this issue of the journal. It has resonated with me as Ian describes how he was mentored by people who helped him develop his interest, and I went down a rabbit hole finding and reading all the old correspondence I had with members of the orchid group. I remember hesitatingly writing those letters (yes – those

old-fashioned hand-written things that you put in an envelope) to the knowledgeable ones (Dan Hatch, Bruce Irwin, Eric Scanlen, Brian Molloy) and getting quick and encouraging replies back. I have a really nice email from Ian from the early 1990s proudly printed out and glued in my first orchid journal.

And just as Ian and I have been mentored, we need to look forward and mentor others to grow their interests and so there are others to take our places when the time comes. And the time has come for Ian to declare that Journal 170 (Aug 2023) will be the 150th journal he has edited, and he is retiring from the editorship. This is an amazing record of Ian's dedication to NZ native orchids and represents many many hours of work, first with a typewriter, then with a computer, and later with the help of desktop publishing software. This took me down a second rabbit hole, as I read through the intersection between when Dorothy Cooper handed over the work of the newsletter to Ian (her last one was Newsletter 20, Dec, 1986) to see what "flavour" Ian brought to it. I think most importantly he brought an historical lens to the work of identifying orchids, with great information of the early collectors and botanists, how they worked in the days when

communication was difficult, and how this led to the first confusion of names of various plants. In #34, June, 1990, Ian announced that ... "(t)he Newsletter is now renamed the *New Zealand Native Orchid Group Journal*, to recognise its increasing status as the vehicle for original papers on native orchids, as well as the newsletter carrying news and views for the Group". I joined in 1996, and still have all my journals, including the early ones, with all the coloured photos cut out and stuck in their rightful places!

So after long and hard thinking I have come up with a job description: NZNOG needs someone or a small group of people, with the following:

- desktop publishing skills
- time to produce 4 journals each year
- the confidence to tap people on the shoulders for contributions
- says what s/he means, doesn't play politics
- young enough to do a decent shift. I don't expect we will ever get anyone who will produce anything like 150 Journals again, but you can take that as a challenge. It will take a number of journals to learn the job. There is no age limit, however – you decide on this aspect!

Please consider making a contribution in any way you can to our journal by contributing

- to the editing
- observations and photos
- ideas about what you would like to see in the Journal.

DATES FOR YOUR DIARY

2022 AGM and Field Days 30 September – 2 October

I am trying to get the Karangahake venue for this event again this year. There is a snag however, as the current owners are in the situation of not being able to confirm our booking for a couple of weeks. They are in negotiation with buyers for the place, and the current owners do not know whether the new owners are going to continue to run the place as an accommodation venue. If we can't get this venue, we have an alternative at Waihi Beach we could use.

Tag-along Tour 2022 – Nelson area, arrival 31 October, first day in the field 1 November, last day in the field 7 November

Gael Donaghy is organising the schedule and accommodation and Mark Moorhouse is organising the days in the field. When we know who is interested we may be able to share some vehicles to minimise cost and impact. A tag-along tour is based on everyone organising their own accommodation and travel, and meeting each day at a given point and time to look at the orchids at each chosen site. Nelson is my happy place for orchids with many species flowering around this time of year.

Accommodation

Nelson – nights of 31 October – 2 November: Wakatu Lodge (backpackers in old nurses home – has good big lounge area) or Tahunanui Motor Camp (has a range of accommodation from motel units to tourists cabins).

Cobb Valley – nights of 3 & 4 November. There are old NZED houses we can hire there. We would need to take our food and sleeping bags and pillow cases with us if we stayed here. I know we would be well rewarded for our efforts to do so.

Collingwood – nights of 5 & 6 November. Collingwood Motor Camp has a range of accommodation from cabins, tourist flats to motels, and there are other motels nearby.

Nelson – night of 7 November

Please register your interest in the tag-along tour with Gael – gaeldonaghy@gmail.com

Original papers

Second record of *Taeniophyllum northlandicum* In New Zealand

By Bill Campbell

On Tuesday 21 December 2021 I became aware that what appeared to be a *Taeniophyllum* species had been observed somewhere in Northland. This was documented on the Native Orchid Facebook page <https://www.facebook.com/groups/774564432616525/search/?q=Taeniophyllum> and by the observer on iNaturalist <https://www.inaturalist.org/observations/103382277>.

The posted images closely matched those for *Taeniophyllum northlandicum* (originally considered to be *T. norfolkianum*), which had been recorded only once previously from the original discovery site on farmland near Waipu in Northland.

I was able to make contact with the property owner/observer via iNaturalist messaging and quickly ascertained that the observation had been made at a locality only 20 minutes from my home. Cutting a long story short, I was able to arrange to visit the property the same day and get to view the plants on their host species.

It is well documented that the sole known host species at the Waipu site is gorse (*Ulex europaeus*), so it was somewhat of a surprise to find that the host species on this occasion was feijoa (*Acca sellowiana*).

The site was a small orchard on a 24 hectare lifestyle at Peria, near Kaitiāia. Apart from a small cleared area around two houses on the property the bulk of the land is covered in regenerating and mature native forest, protected by a QEII covenant.

Taeniophyllum northlandicum was observed on two feijoa trees in the orchard at the time of my visit and a subsequent search by the property owner later the same day resulted in further discoveries on another feijoa and also a southern magnolia (*Magnolia grandiflora*).

Brief searches were made of other species in the vicinity, including kanuka (*Kunzea linearis*) and a juvenile pohutukawa (*Metrosideros excelsa*), but no other plants were able to be located. It is intended that a more detailed survey will be carried out at about the same time later this year when the plants will be at their most conspicuous. Being so small, one can imagine that the plants will be almost impossible to see when not flowering/fruitleting.

This was an intriguing find, more so given that *Taeniophyllum northlandicum* was described as an endemic species by Rice in 2019. Here we have an endemic species that so far has been recorded only growing on species that are relatively new additions to the NZ flora. Given its very small size, it is quite possible that this species is more widespread and it may well be growing on native species, with similar bark features to the currently known hosts.

Matt Renner, who was associated with the original discovery, has suggested via personal communication that the New Zealand entity may be an undescribed *Taeniophyllum* known from New South Wales, Australia, that has somehow managed to find its own way here, as orchids tend to do from time to time. Only further study and genetic analysis will tell us what it is we actually do have here in New Zealand.

Figures: Fruiting *Taeniophyllum northlandicum* on feijoa
21 December 2021: photographs by Bill Campbell.



Prasophyllum hectorii at Erua

By Bill Campbell

On Tuesday 4 January 2022 I called in to Erua Road, Erua, to try to relocate some plants of *Thelymitra formosa* I had observed there a number of years previously, but which had eluded me on every subsequent visit. In the past I have focused on one side of the road only but apart from *Thelymitra cyanea*, which is common, there are usually not a lot of orchids to be seen.

On this visit *Thelymitra cyanea* numbers were well down on other years and the only other orchid I saw on that side of the road was a single specimen of *Orthoceras novae-zeelandiae*.

Given the lack of orchids I decided to have a quick look on the other side of the road, where the wetland habitat is more accessible. *Thelymitra cyanea* was present and it was only a few minutes before I came across a healthy population of *Prasophyllum hectorii*, made obvious from a distance by the distinctive flower scapes.

I counted in excess of 30 flowering plants in just a few minutes and a subsequent visitor to the location counted more than 50 plants over a wider area. More extensive searching (I was pushed for time by that stage) may establish that the colony is significantly larger.

All of the plants observed were in obvious depressions that were sparsely vegetated by a single rush

species. This is obviously the preferred habitat, so any further searching should focus on such habitat. The largest of the depressions would have been less than 10 square metres, making the search areas quite compact.

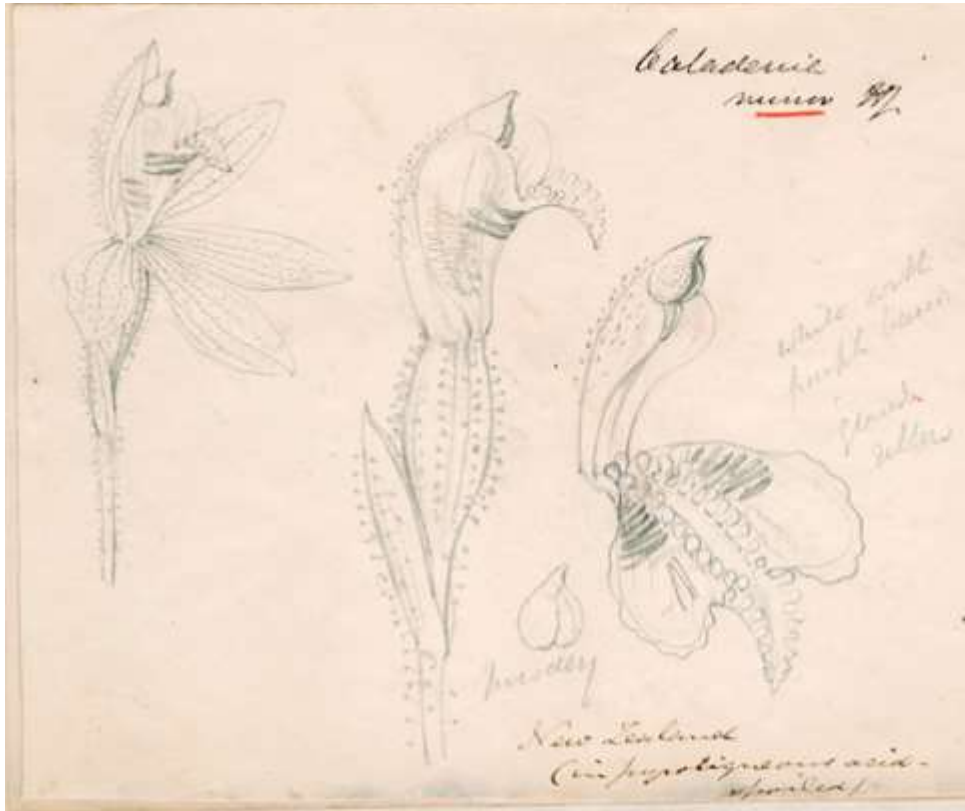
Although *P. hectorii* is documented as being present in the central plateau area, a search of iNaturalist failed to find any observations recorded from that area. This suggests that *P. hectorii* is not often encountered, as one would expect any observations, particularly of flowering plants, to be posted online. It is flowering at a time when many people are out and about on holiday, so it should be observed if present. Mapping its distribution in the central North Island may be a summer camp project for the future.

Figures: *Prasophyllum hectorii* in flower, Erua Road, 4 January 2022. Photographs by Bill Campbell.





The inbox



Caladenia minor again!

JD Hooker's original drawing (from which WH Fitch's lithograph was clearly copied) is stuck onto a sheet with an isotype of *Caladenia lyallii* sent from Otago by David Lyall. Hooker has noted the colour of the labellum for Fitch: "white with purple bands, glands yellow". In ink at the bottom, "New Zealand (in pyroligneous acid – spoiled)".

Probably, then, this was from Colenso who sent, in his first letter to WJ Hooker, "two Boxes: – one, containing several of the Orchideæ of N. Zealand, in diluted Py. acid...".

The specimen was spoiled by the acid, so Fitch probably relied entirely on Hooker's sketch rather than drawing directly onto the lithographic stone from the plant itself, which was his preferred method.



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The NZNOG Journal of September 1997: number 64

Do you wish you could remember when an article or an image was published in the journal? Soon it will be easy. Thanks to Graeme Jane who scanned and tidied every issue, all the journals will be available in one searchable folder, to be available online from the Group's website.

Pam Hyde photographed a honey bee and a dumbledore visiting *Earina autumnnalis* in the hills behind Eastbourne, Wellington on 1 March 2022.

Are they post-colonisation pollinators? they often visit this orchid, attracted perhaps by the fragrance, but I have never seen one bearing pollinia.



Facebook: if you click on <https://www.facebook.com/groups/774564432616525/about/> you will see a wonderful collection of photographs of NZ orchids. The Facebook group has 1500 members, is independent from the NZNOG and is doing great work familiarising people with our orchids. Congratulations to the organiser! Social media can do good! Here is a selection of **December orchids**....



◀ On 19 December Julien Atkinson, Peria, Northland, posted this image of “a native orchid growing on my feijoa. *Taeniophyllum northlandicum* maybe?” Indeed. See Bill Campbell, p.4.

▼ On 7 December Sharon Heatherbell posted images from the Chathams of *Thelymitra nervosa*, this plant showing one “conjoined twin” flower among normal others, suggesting the cause of the deformity was restricted.



▼ On 10 December Sylvia James posted this photograph of *Aporostylis bifolia* with a strikingly colourful column and labellum, from Denniston.





◀ Cara-Lisa Schloots photographed this ***Corybas* aff. *rivularis*** at Treble Cone, Wanaka, on 21 December. Posted to *iNaturalist*. Perhaps *C. hatchii*?*

“johnb-nz” photographed this ***Corybas* aff. *rivularis*** at Dusky Sound on 11 November. Posted to *iNaturalist*. * ▼

◀◀ A native bee (*Leioproctus* sp.?) on ***Thelymitra hatchii***. Photos by “synch_” at Pureora Forest Park 19 December 2021, posted to *iNaturalist*.



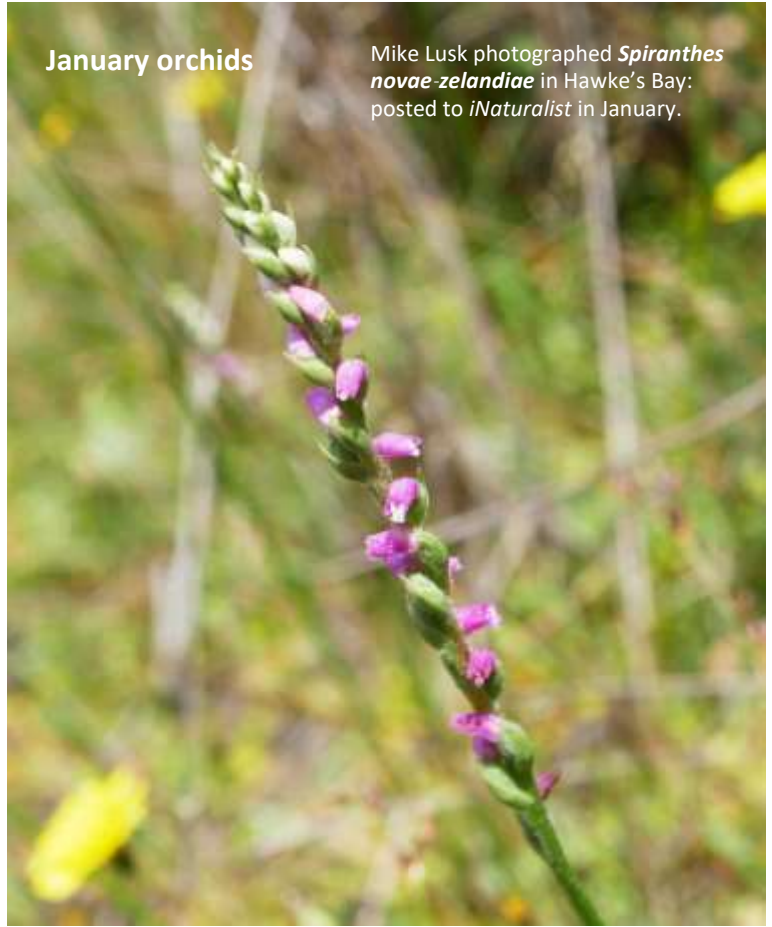
** Both are very late flowering for the group—Ed.*

Caladenia chlorostyla, photo by
Rebecca Bowater, 20 December.



January orchids

Mike Lusk photographed *Spiranthes
novae-zelandiae* in Hawke's Bay:
posted to *iNaturalist* in January.





Nadine Campbell posted this on Facebook: *Thelymitra cyanea* at St James Walkway, 15 January.



Kirsty Williams posted this pink *Thelymitra cyanea* from Denniston to Facebook on 18 January.

Matt Ward posted
Prasophyllum hectorii
to iNaturalist.
Erua, January
(see Bill Campbell's
paper in this issue).



On the way to Elfin Bay from Glenorchy on 19 January we passed through Kinloch. In the next patch of bush and before the first ford were *Gastrodia cunninghamii* ▶, that obligate seifer, with an up-pointing fruit from every last flower and *G. molloyi* ▶▶ in greater numbers than I have seen it elsewhere, in yellow/brown flower, with a distinctly floral fragrance, almost (but not quite) like roses—Ed.



On a north facing grassy slope at the Skippers Saddle up the Coronet Peak road on 20 January were *Prasophyllum colensoi* and a stunted *Thelymitra* aff. *longifolia* in fruit, as well as *Microtis* “B” ▶ in flower. It is much smaller and later than the November flowering *M. unifolia* of the N Is and northern S Is, though anatomically similar. I have seen it in Otago, Canterbury and the Wairarapa—and photos of it from other South and Stewart Island sites on *iNaturalist*. Is this a distinct Southern entity, or is *Microtis unifolia* simply smaller and later in the cooler regions?—Ed.



January 21st saw us driving through the Nevis, 80km from Garston to Cromwell, a pretty rough back country road through the Hector mountains and on down into the Nevis valley: 20 or so fords. The orchids (other than *Microtis* “B”) were in fruit: dwarf *Thelymitra* aff. *longifolia*. *T. hatchii*—and *Prasophyllum colensoi* as plentiful as I have ever seen it, ranging from 7cm pale few-flowered plants to robust multi-flowered purple stemmed plants 30cm tall with 10mm diameter stems: all in fruit. Best time to catch flowering? about Christmas. These alpine herbfields look like good *Waireia* habitat, but we didn't see any and it's not on the local plant list, (which has only *Corybas macranthus*, *C. trilobus*, *Microtis unifolia*, *Prasophyllum colensoi* and *Thelymitra longifolia*).

Thirty years ago I was thrilled to spot a single *Gastrodia minor* on the Twelve Mile track, Queens-town. Since then I have seen more, but never so plentifully as this year. On 24 January they were in seed ▲, sometimes needing a second look to distinguish them from the slender dark stems of *Thelymitra* “*fusca*” ►. Are they more plentiful? or has my vision improved? —Ed.



▲ You can buy the updated 2021 edition of the NZNOG *Pocket Guide* for \$30+ postage from GaelDonaghy@gmail.com



The track from the Queenstown/ Glenorchy road up to Lake Dispute was a long hot climb in the 25 January sun and though all the orchids were in fruit or seed, there were plenty of them, many clearly identifiable: *Corybas* aff. *trilobus*, *Gastrodia minor*, *Microtis* aff. *unifolia*,

Pterostyles banksii, *australis*, aff. *montana*, *Thelymitrae formosa*, *colensoi*, “*fusca*”, **aff. *longifolia*** ▲ —Ed.

Out towards Grahame Sydney’s Hawkdun Range from St Bathans is the Oteake Conservation Park, a big area of Otago in the Waitaki district. We were up there on 29 January when the temperature was 31 degC and the grass crunched drily underfoot. Among the grasses, tussocks and *Bulbinella* were orchids, the same three as in the other Otago herbfields: *Microtis*, *Prasophyllum* and *Thelymitra*, now brown, their capsules dehisced—Ed.



A perfect picture of self-pollination ▲: detail of a photograph of *Thelymitra pulchella*, showing the two remarkably intact pollinia dislodged from the now empty anther cap and stuck on the upper part of the stigma, the flower starting to close. At Denniston, by Kirsty Williams, 18 January and posted to *Facebook*.



◀ *Caladenia pusilla* photographed in October 2021 by David Horsell at Glencoe, lower southeast South Australia, and featured on the cover of the *NOSSA Journal* February 2022.

Orchids of South Australia by Bates and Weber (1990) says of *Caladenia pusilla* – “Very deep-red forms occur near Glencoe in the Lower South East”. *Clearly they do; we call this Caladenia minor in New Zealand, but I have never seen it so intensely coloured—Ed.*



Drymoanthus flavus at ground level on a wind-felled branch, photographed by Noelyn Hung at Tautuku in the Catlins ►



iNaturalist and the native orchid *Facebook* page were replete with photographs of *Earina autumnnalis* in the weeks leading up to the autumn equinox on 21 March, but none were so perfectly illustrated as these from Nelson, photographed by Rebecca Bowater on 5 March.



The Type locality. 1: *Pterostyllis cardiostigma* at Day's Bay

I heard people say, back in 1983 when Dorothy Cooper wrote about her new *Pterostyllis*, that everyone had seen it but had thought it was just a *P. banksii* in bud. She described and illustrated it as

Pterostyllis cardiostigma D.Cooper sp.nov. – a new species of Orchidaceae from Wellington. *NZJBot* 1983 21 (1): 97-100. <https://www.tandfonline.com/doi/pdf/10.1080/0028825X.1983.10428528>

She summarised her paper for the *NZNOJ Newsletter* [No.6, June 1983],

This species is distinguished from other species of the genus by its characteristic heart-shaped stigma, red markings, and upright habit of both the leaves and flower.

Plants are 6-35 (40)cm tall, internodes are very short, stem is thickish, the lower portion is covered by pink to red overlapping leaf sheaths with darker red stripes. There are 5-7 sessile leaves, often very upright, especially in young plants. Leaves are 8-23cm by 1-2cm, with a red midrib; they are slightly grooved above and have a prominent keel below. Lateral yellow veins are often prominent. The flower is tall and narrow, the dorsal sepal is 7cm long, has a red tip, is vertical in the lower half, and in its upper half is steeply inclined or very occasionally more horizontal. Lateral sepals diverge at a very narrow angle and the long red caudae over-



Dorothy Cooper

top the hood by 2cm. Petals are slightly shorter than the dorsal sepal, and the tips are red. The labellum is long and triangular, arched in the upper third. The distal part is red and there is a darker red dorsal median ridge. It is grooved beneath. The stigma is heart-shaped and very prominent.

The species has been found in the eastern hills of Wellington, and in the southern Tararuas. There is an unconfirmed report of it from the eastern Tararuas. It grows about 30m higher than the *P.banksii* zone in Wellington, and main populations range from 60m above sea level to the ridge crest at 300m.

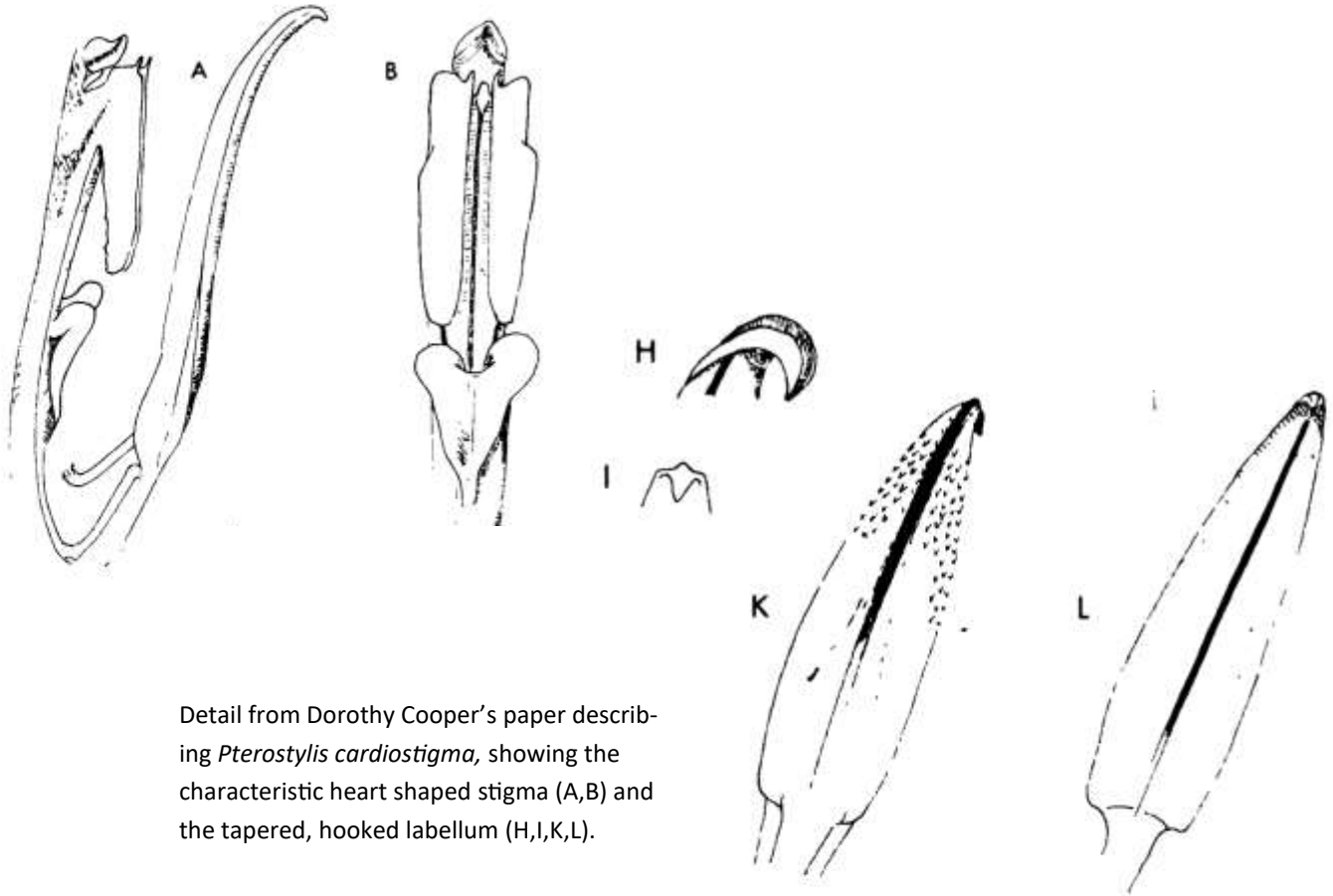
The main flowering period is from early October to late November.

Anyone who thinks they can extend the range of this new species, please contact me.

The type specimen was collected on 21 October 1980 at Day's Bay, Wellington and is in the Allan Herbarium at Lincoln (2 pages over). There is a duplicate, collected at the same time and place, at Te Papa.

Many, in time, could and did extend the range of this new species, shown at right from the most recent edition of the Group's *Pocket Guide*.





Detail from Dorothy Cooper's paper describing *Pterostylis cardiostigma*, showing the characteristic heart shaped stigma (A,B) and the tapered, hooked labellum (H,I,K,L).



Pterostylis cardiostigma, Day's Bay, 14 December 2003.

The Type locality. 2: *Acianthus sinclairii* from the Wairarapa coast

Allan Cunningham ► first recorded the plant we know as *Acianthus sinclairii* when he visited the Bay of Islands in April 1838. He sent a handwritten document to William Colenso, headed “Memorandum of Orchideous Plants at present known to be indigenous to the Northern Island of New Zealand,” [transcribed in *NZNOJ* 78, 2001], signed A.C. and dated September 1838, nine months before his death. He would have been familiar with the Australian *A. fornicatus* described by Robert Brown in 1810 and thought this the same. He explained to the young botanical tyro, Colenso,



Acianthus fornicatus; flowers in racemes, the awns of the outer leaves of the flower 1/4th the length of the flower itself; with the labellum or lip longitudinally papillose (pimpled) and the column supporting the sexual organs included within the flower. R.Br. Prodr.

Colenso took notice, for among the first specimens he sent on 14 February 1840 to WJ Hooker was “*Acianthus fornicatus* A.C.” in acid [letter transcribed in *Colenso’s Collections*, 2009].

It was only after Colenso found further specimens in 1847, however, that doubts about its identity were raised. In his “Memoranda concerning certain Botanical Specimens, put up for Sir. W. J. Hooker, September, 1847,” Colenso included a memo on his no. 1135,

1135. *Acianthus*, n. sp., detected on the E. Coast, in a gully between Oroī, and Huariki villages nr. Cape Palliser.

Autumnal species. *A. foliobractus*, (Ms.) W.C. Bracts large cordate bi-nerved.

(*Specimen sheet overleaf*).

He thought it differed from the Bay of Islands plants that Cunningham thought were *A. fornicatus* in having large leafy cordate bracts. He may have been referring to the floral bracts or the leaf.

Colenso had first visited the southern Wairarapa coast in March 1845, describing “Huariki, a nice little village sheltered with stunted trees” and “Oroī, a small village yet larger than Huariki:” on a broad grassy flat sheltered by a still extensive karaka grove, about two miles south of the present Tora station.

On 6 May 1847 Colenso’s journal records “left Oroī, and travelling steadily in 4 hours reached Huariki” – that is the only opportunity he had to collect the specimen. His plea that Hooker name it “*Acianthus foliobractus*” was of course, as always, ignored.

He sent further specimens, no. 1480 from Tangoio (“*Acianthus*... compare with 1135”); no. 2025 (“*Acianthus saxatilis*, W.C., on rocks among moss, Turakirae, flowering in April & May; flowers much larger and leaves more membranaceous than in *A. folio-bractus*”); no. 2026 (“*Acianthus folio-bractus?* – glen, nr. Oroī”).

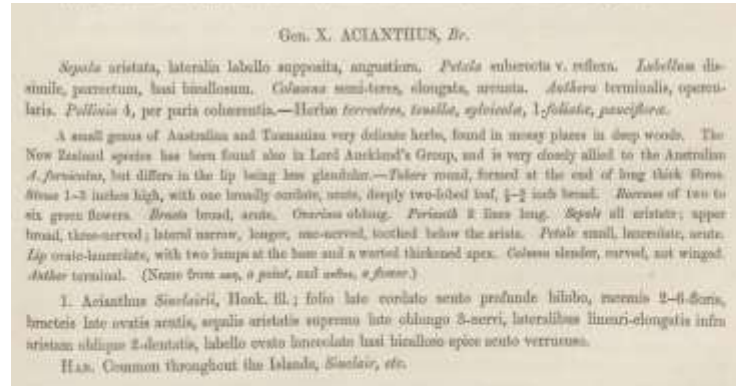
All were identified by JD Hooker as *Acianthus sinclairii*, the plant he would describe formally [*Flora Novae Zelandiae* 1853].

In that description he wrote that the plants were collected by “*Sinclair, etc*”. Andrew Sinclair arrived in NZ in October 1841 and was drowned in 1861; there are no specimens of *Acianthus sinclairii* collected by Sinclair at Kew now.

Brian Molloy designated Colenso’s no. 1135 as a lectotype and no. 1480 a lectoparatype.



Specimen sheet from RBG Kew: Colenso's no 1135, from "a gully between Oroi, and Huariki villages".



JD Hooker's [description](#) of *Acianthus sinclairii*: *Flora Novae Zelandiae* (1853).





Cheeseman described the fertilisation of *Acianthus sinclairii* to the members of the Auckland Institute on 1 June 1874. You can read it [here](#). In 1946 Hatch regarded it as a variety of *Acianthus fornicatus* (var. *sinclairii*) and Moore followed suit in 1970. Molloy and colleagues reinstated *A. sinclairii*.

What's there now?

Pat Enright and I drove down the Tora road to the coast on 15 May 2021 and with the land owners' permission walked up the Pukemuri stream near Te Oroi.

An interesting place, out there on the wild Wairarapa coast, but a seriously degraded stream, oversown with stock feed plants, chewed down as if by a weedeater, the water green with excrement from cattle, deer, goats, sheep (whose occasional decaying bodies filled the air with the nauseating scent of death); signs of pigs too. Pretty ugly. We walked, climbed, boulder-hopped and took frequent side-trips into gullies, a couple of miles upstream to an impassable waterfall, but found no sign of *Acianthus sinclairii*.

It's clearly a different place from when Colenso was there in 1847: only his old karaka trees remain. ◀ (At Oroi on 28 February 1845 Colenso wrote, "A boy fell from a high karaka tree this afternoon, and was supposed at first to be dead; visited him & administered medicine & tea, in course of the night he recovered").

To compensate for my disappointment, I took the opportunity of Bill Campbell's visit down our way to go with him to Airlie road, Plimmerton the following week: green and dark maroon leaved *Acianthus sinclairii* were in full flower. ▶▶▶

