

# The New Zealand Native Orchid Journal





Fourth journey August to October 1846: camping places, out ○ and ○ back

# The type locality Ian St George

## *Corybas oblongus* from the Seventy Mile Bush

## *Corysanthes* “*aestivalis*” from the Waimarino Plain

### *Corybas oblongus*

On 22 December 1846 William Colenso wrote to the Hookers at Kew, from “Waitangi, Hawke’s Bay,” with a collection of specimens numbered 661–905. They arrived at Kew in 1847.

No. 748 was an “Orchis – all I could find in fl. perhaps an *Acianthus* and nr. *A. rivularis*, among fern – interior.”

Colenso had been shown *Acianthus* (*Corybas*) *rivularis* near Kerikeri by Allan Cunningham, and recognised the similarity.

His word “interior” might not tell us much but (1) Colenso usually gave plants from the same locality adjacent numbers, (2) several of the plants in this list can only have been collected during his fourth (August to October 1846) journey down the coast and around to Wellington, and back up the Wairarapa and Hawke’s Bay to the Waitangi mission station (see map opposite), (3) Colenso used the word “interior” in reference to anywhere inland, (4) *Corybas oblongus* flowers October to December.

He collected the preceding plant in his list, that numbered 747 (from “wet plains near Patangata—interior”); no. 749 from Te Kaikokirikiri (Masterton), and most of the adjacent-numbered plants along his route from Masterton to Patangata. Almost certainly his orchid numbered 748 was from that Seventy Mile Bush region. His journal records that he reached Te Hautotara on 1 October and was home by the 7th.

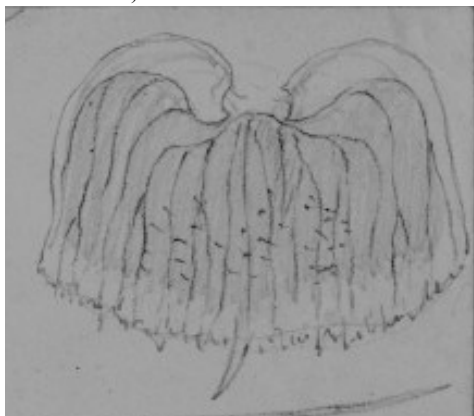
This is important only because this orchid is the type of *Nematoceras oblonga*. The sheet at Kew is a mess (p.5), with specimens sent by five collectors from different localities, at least one of them *Corybas acuminatus*, as well as a sketch by JD Hooker and various notes. Brian Molloy

has designated Colenso’s specimens “b” as the lectotype.

Hooker went on to publish a formal description in 1853 in his *Flora of New Zealand*, with lithography by WH Fitch based on his own sketches (next 2 pages).

The plant then went through the run of name changes for our spider orchids—*Corysanthes oblonga*, *Corybas oblongus*, *Singularibas oblongus* and back to *Corybas*.

Variations in structure suggest more than one entity in *C. oblongus*. There is certainly a white form, and although it may be an example of hypopigmentation, it has a generally coarser appearance in photographs I have seen. Some appear to lack any calli on the labellar midlobe, others showing a range from fine bristles to a patch of fingerlike calli. Both Hooker and Fitch showed dots suggesting bristles on the lamina of the labellum, though Hooker did not mention them in his description (detail of Hooker’s sketch below).







▲ WH Fitch's coloured lithograph of *Nematoceras oblonga* from *Flora Novae Zelandiae*, 1853.

1. *Nematoceras oblonga*, Hook. fil.; folio sessili ovato-oblongo apiculato, scapo ex axilla folii orto, bractea ovario aequilonga, flore parvo, sepalis lateralibus labello quadruplo longioribus, petalis sepalis brevioribus, labello late quadrato cucullato marginibus incurvis apice truncato ciliato-dentato, columna subelongata arcuata. TAB. LVII. B.

HAB. Northern Island, *Cunningham, Bidgerley, etc.* Mountains of the interior, *Colenso*. Auckland, *Sinclair*.

*Root* covered with thick woolly fibres. *Stem*  $\frac{1}{2}$ –2 inches. *Leaf* ovato-oblong, sessile, with an apiculus, sometimes cordate at the base,  $\frac{3}{4}$ –1 $\frac{1}{2}$  inch long. *Scapes* short. *Bract* as long as the ovary, leafy, scuminate. *Lateral sepals*  $\frac{3}{4}$ –1 inch. *Lip*  $\frac{1}{2}$  inch, broadly reniform, cordate when spread out, deep blood-red purple, with transparent edges, margin in front sharply toothed, tip subulate. *Column* curved.—PLATE LVII. B. Fig 1, Flower; 2, lip; 3, the same spread open; 4, column —all magnified.

▲ JD Hooker's formal description of *Nematoceras oblonga* from *Flora Novae Zelandiae*, 1853.

The Type sheet at Kew, the middle group comprising Colenso's lectotype at middle right, Edgerley's lectoparatype at middle left, Hookers sketch top left, other collections top right and bottom left. ►



ROYAL BOTANIC GARDENS KEW  
K000942576

*Coryanthe albigata* (D. Hook.) H.C. Keule.  
This is the specimen immediately cited by Hooker in his paper on *Nematocera* published in 1847. The latter is a *Nematocera* species.  
DET. H.C. Keule. 16/3/1983



Capt. Hamilton  
Buckland  
(for Capt. Hooker)

*Coryanthe albigata* (D. Hooker) H.C. Keule.  
Labeled on sheet after specimen on 16/3/1983  
DET. H.C. Keule



*Nela*  
St. Francis  
1181

*Nematocera albigata*  
D.D. Hook.  
= *Coryanthe albigata* (D.D. Hook.) H.C. Keule.  
It is difficult to tell exactly these specimens referable to the Edgely collection and those of Charles Johnson because they represent in many instances the best of the latter collection.  
DET. H.C. Keule. 16/3/1983

**Lectotype.**  
**HERB. KEW.**  
Colours Specimens 4  
D.D. Hooker 30.9.1841

ROYAL BOTANIC GARDENS KEW  
K000942577

**LECTO PLAGI TYPE**  
*Nematocera albigata* (D.D. Hooker) H.C. Keule.  
= *Coryanthe albigata* (D.D. Hooker) H.C. Keule.  
D.D. Hooker 30.9.1841



*Acrostichum revolutum*

N. Lealand  
Colours.

ROYAL BOTANIC GARDENS KEW  
K000942578

748  
1847

ROYAL BOTANIC GARDENS KEW  
K000942579

*Nematocera albigata* D.D. Hook.  
= *Coryanthe albigata* (D.D. Hook.) H.C. Keule.  
DET. H.C. Keule. 16/3/1983

**Syntypes**  
**HERB. KEW.**

*Coryanthe albigata* Hf.

*Nematocera albigata* Hf.  
*Nematocera albigata* Hf.

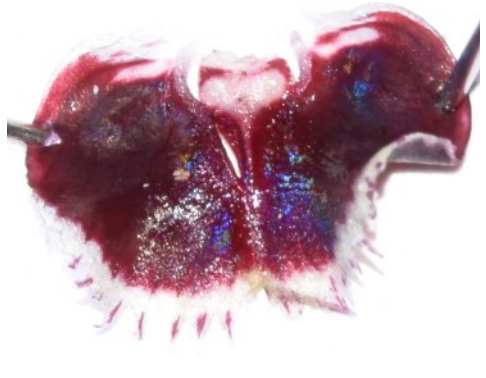
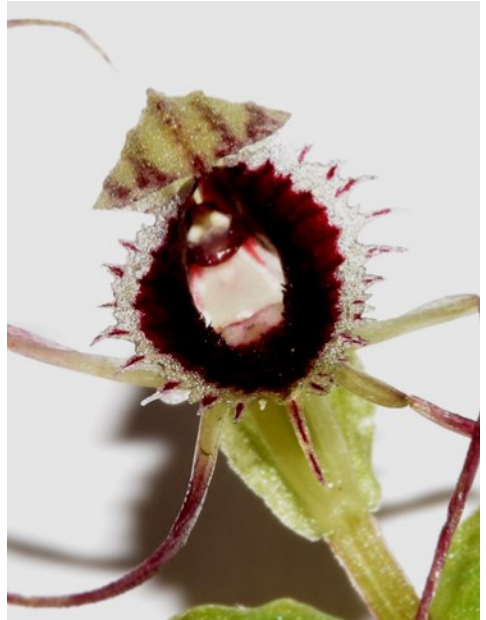
ROYAL BOTANIC GARDENS KEW  
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1187



On 15 December 2015 Cheryl Dawson kindly sent a couple of *Corybas oblongus* from the Ruahine foothills, an area close to where Colenso must have collected the plant 170 years and two months earlier.



Images of *Corybas oblongus* from near its type locality in Central Hawke’s Bay, showing few hairs.

One of them is shown in the photographs here. The view at upper right, through to the back of the labellum, suggests only a couple of short lateral calli, and indeed, when the labellum is pinned out open (hard to do and even harder to photograph), there is no sign of the central mat of labellar calli seen in some plants.

**“*Corysanthes aestivalis*”**

In 1928 HB Matthews wrote a longhand description of “*Corysanthes aestivalis*” (from “river banks, Waimarino” flowering in December and January), including the words, “there is a spatulate gland in front of the column, the adjoining lamina for half way up the





▲ Labellum from a Taranaki plant showing a patch of hairs. Eric Scanlen's superb photograph from the Far North shows the column & labellar hairs in focus ►



orifice more or less papillose". He concluded with, "A handsome little plant differing from *C. oblonga* in many respects and worthy of specific rank." In a letter to Cheeseman of 5 February 1920 he had reported on a collecting trip when he spent time on the "Waimarino Plains" and found "a form of *Corysanthes oblonga*", presumably this.

Matthews's orchid therefore was a high altitude, late flowering plant, with a more or less "papillose" inner half of the labellar lamina (disc). Nothing else in Matthews's description identifies his "many" differences from *C. oblongus*—whose leaves can be oblong, cordate, ovate or orbicular with venation varying from none to heavy and leaf colour from green to maroon. The labellar fringe varies from short & coarse to long and fine. Some have round, some oval, labellar openings.

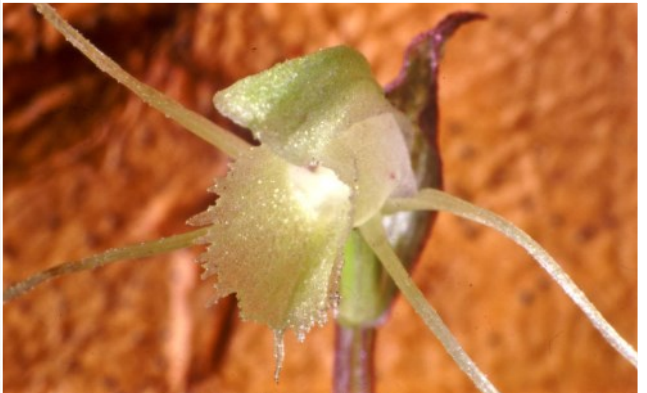


A form of *Corybas oblongus* photographed by Brian Otto near Horopito, on the Waimarino Plain, on 13 December 2015.

The white forms do not all lack red pigment: some have red dots on the flower itself, others have red markings on stems and leaves. They are not albinos.

Whether the calli on the labellum are variable within a single species (Matthews's "more or less" might include "not at all"), or whether their presence signifies a different species which hybridises to create intermediate forms, remains to be determined.

Overleaf— a selection of photographs from around New Zealand—thanks to the photographers ►









Two prints from HB Matthews's glass negatives at Te Papa: *Corysanthes "aestivalis"*.  
The detail of the flower in the penultimate row shows the "papillose" labellum disc.







# Notes

## Add *Corybas dienemus* to your NZ list

Some years ago Pat Enright discovered, on the Puffer Track, Kaitoke, Taranaki, a colony of tiny plants, apparently in the *Corybas rivularis* group, flowering in midoctober, with flowers whose dorsal sepal was upturned. It looked like *Corybas* “restarea” but was smaller. Carlos Lehnebach and Brian Tyler found another colony at Otaki Forks.

Carlos explored the colonies, compared flowers with Tasmanian specimens of Macquarie Island *Corybas dienemus* (including DNA and morphology) and concluded this was the same plant: therefore a new discovery for New Zealand—not a new species, as the Macquarie plants (see p.14) almost certainly originated in NZ.

“*C. dienemus* is actually nested within NZ species in the phylogeny,” Carlos explains. He noted on dissecting flowers that, as with *Corybas orbiculatus*, the stigma lacks a rostellum and that the close proximity of the pollinia to the upturned stigma made self-pollination very likely.

Recently Pat Enright found another small colony, off the Rimutaka Hill road, just a few kilometres as the crow flies from the first, flowering midoctober. All three colonies are in trackside seepage.

This is montane here but must grow elsewhere, perhaps at lower altitude in the south. I think I may have seen it 25 years ago in the sandhills by Cathedral Caves in the Catlins. Have you seen it?





The column of *Corybas dienemus* ▲  
(Photograph by Carlos Lehnebach)

Pollinia are in contact with the up-turned stigma of this very upright column. There is no rostellum.



▲ ▼ Photographs by Pat Enright



*Corybas dienemus* from Macquarie Island, grown in a refrigerated sea container at the Royal Tasmanian Botanical Gardens. Photograph by Peter Fehre: reproduced with permission.

## The New Zealand Native Orchid Journal

The main aim of the **New Zealand Native Orchid Group** is informing people about native orchids, so we permit others to copy material published here, provided the source and author are acknowledged. Authors should note this as a condition of acceptance of their work. The *Journal* is published quarterly from February, and deadline for copy is the first of the month beforehand. We like copy to be typed or sent on disk or by email.

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THE EDITOR and EDITORIAL BOARD AND MAY NOT SHARE AUTHORS' OPINIONS .



Graeme Jane emailed, "We often talk of pollinators for orchids but don't often think of the extended battle. It was only after we had taken the first photo and zoomed in for quality control that we spotted this beastie, obviously waiting for its lunch to arrive. It is very well camouflaged against the flower! Gael of course had left the camera behind that day so the photos are courtesy of Bruce Hawkes. The plant is *Diuris corymbosa* and the photo was taken near Mandurah WA in September while were visiting."



Matt Ward photographed these near Horopito in early November and sought identification from members at YahooGroups. Some said *P. australis* and *P. paludosus* but others disagreed



22nd World Orchid Conference, Guayaquil Convention Center, Ecuador,  
8–12 November 2017: <http://www.woc22.com>



◀ Mike Lusk photographed “A curly sepalled *Pterostylis* of the *montana* agg. from the east side of the Kaweka range. There were other colonies of *P. montana* along a stretch of track in kanuka forest but only a few flowers....”

... and Pat Enright photographed this rather similar plant in the Wairapa in early November....







.... and Pat Enright sent, from the same Wairarapa site, on the same day, this set of photographs of *Pterostylis montana* sensu Moore. The upright flowers with their prominent stigma signify self-pollinating. The short flat lateral sepals and the bronze-green colour are typical of plants I have seen in the Wairarapa, Otago and Stewart Island. The two shots of plants with longer sepals may be different—*Ed.*







◀Pat Enright photographed *Corybas walliae* in the Tauherenikau, southern Wairarapa, 16 September 2016. Carlos Lehnebach identified the plant, whose “sepals and petals are generally distinctly longer and the flower overall more robust than *C. vitreus* or *C. trilobus* s.s.”

In late October Kathy Warburton went for a short walk up the Blackcleugh forest track and found orchids in flower growing beside the stream, almost at the waters edge. She noted the long narrow up turned tip on the pale, almost transparent dorsal sepal, and the dark red labellum: “My first thought was a *Corybas iridescens* variant, but could this one be something else?” Mark Moorhouse replied, “This is an unnamed *C. iridescens* look-alike which is quite widespread. It's common on the West Coast between Punakaiki and Charleston and sometimes shares habitat with *C. hatchii* which, under our current nomenclature is what these are. *C. iridescens* MUST have a callus in the throat to be that species. I can't see one there.” ▼





◀ Tim Funnell found *Gastrodia sesamoides* in his Opotiki native garden.

On 23 November Cheryl Dawson emailed, “We went for a walk up the Tunipo trig track up past Apiti on the western side of the Ruahines (where) up in the leatherwood there were also quite large numbers of what I guess to be

*Pterostylis venosa*”. ▼  
It’s the type locality for the synonymous *P. confertifolia*—Ed.



◀ On 26 November Kathy Warburton visited Sligo Creek Dunedin and found a *Corybas* “on the track in the open just above the Manuka line at 536m elevation. They were hiding under dead flax and *Astelia*.” They have the long leafstem of *Corybas* reaching up to the light; this one looks like the southern form of *C. confusus*—Ed.



# The Column Eric Scanlen

## *Caladenia* aff. *atrochila* for *C.* “nitidoa rosea”/“speckles”

Whilst proofreading *Journal* 142, the Column came across *Caladenia fuscata* [1] in the Editor’s annual list of NZ orchids. The Column himself had started the thought that this Aussie orchid could occur in NZ, in order to put a name to one he had found in the far north in 1996. The Editor then countered that *C. fuscata* had forward pointing side lobes to the labellum which were different, as we find is the midlobe to the labellum, with wholly, yellow toothed margins. However, there was nothing else at the time that came close to what

turned out to be Henry Blencowe (Blen) Matthews’ *C.* “nitidoa rosea” [2]. So *C.* aff. *fuscata* got into the 2001 *Field Guide*, despite its toothed midlobe instead of basal marginal calli and despite its pointed side-lobes. But Blen’s work surfaced in *Matthews & Son on orchids* in 2006, so the Column dropped *C.* aff. *fuscata* in favour of the well described, in manuscript, *C.* “nitidoa rosea”. But the Editor preferred either *C.* aff. *fuscata* or *Petalochilus* aff. *fuscatus* in the annual list. Thus one or other persisted until the “affinis” or “aff.” also got dropped. So the Column decided to look for something better.

The North-western Tasmanian *Caladenia atrochila*, D.L. Jones, **Fig. 1**, may have had its dust-like seeds caught in a willy-willy, taken up



↑ **Fig. 1**, *Caladenia atrochila* from Corrine & Jak Denny showing the dark red inner column, two basal marginal calli to the midlobe on this specimen and note the greenish outer tepal colouring.



↑ **Fig 2**, *C.* “nitidoa-rosea” Shenstone Block, Te Pahi, 18 Oct 96, showing four pairs of basal marginal calli to the midlobe and a speckled red inner column.



↑ Fig. 3, *C. "nitidoo-rosea"*, mid Shenstone Track, 22 Oct 1996. The Column was concentrating then on macro photos of flowers only, so the plant being attacked by taihoa (*Casytha paniculata*) a pesky sap-sucking parasite, is responsible this time, for a whole plant pic.

Fig. 4, *C. "nitidoo rosea"* by Kevin Matthews showing the greenish outer tepals of some northland specimens. Note the three basal, marginal, pairs of calli to the midlobe.



into the eastward flowing jet stream and delivered to the north of NZ, how many million years ago? Blen found it, or its twin, **Fig. 2**, flowering in “northern counties in vicinity of kauri trees.” and saw it as a new species. **Fig. 3**, is a complete specimen. The Column has found a variant as far south as Waikuku Lodge in the Aorangis and it has shown up elsewhere in the N.I, meaning that it has needed several millennia to spread so far. Kevin Matthews’ **Fig. 4** shows another flower, here flaunting the greenish backs to the tepals, which occur on some specimens. Blen’s c. 1928 MS description wasn’t published because he went blind with cataracts, but it reads:

*Caladenia nitidoo rosea* sp. Nov.

Slender or rather stout, 10-25 cm high. Leaf shortly sheathing below ground surface, linear-acute or acuminate, 1-3 mm wide, rather thick, channelled, glabrous or with distant back and marginal hairs; usually longer than the scape. Stem brown or reddish with an acuminate bract half way, moderately hairy, those on the ovary and back of segments glandular and short. Bud with a basal cleft on each side. Flowers 1-2, colour light or dark glazed pink, subtended by a lanceolate bract partly embracing the ovary, when expanded 14mm in diameter. Dorsal sepal 8 mm much exceeding the anther, oblong-acuminate, concave and slightly recurved. Lateral sepals, and petals free, hairy towards base, narrow-oblong-lanceolate, slightly concave, about 8mm long. Labellum on a short curved claw, 3 lobed, wide and erect above base, lateral lobes falcate-oblong, erect almost embracing the column; anterior lobe rather long, lanceolate, decurved and recurved, yellow with 3-4 stalked calli on either side and margined to near the tip with short blunt calli. Lamina traversed by a central gland crossed at the base by two rows of 3-4 club-headed large calli with double rows of stalked calli between the lateral lobes, the latter crossed by six purple or magenta bars; all calli dark yellow except where crossed magenta. Column curved, 5 mm high, winged from base to below anther, and crossed by five irregular magenta bars; wings widest at top. Anther conical, glandular with short purple hairs. Stigma prominent. Pollinia brown-yellow.

Northern Counties in vicinity of Kauri trees. flowering October-November, H.B. Matthews.



*The Orchids of Tasmania* [3] describes *C. atrochila*, Type from Callaghans Scrub, 1997—some 69 years after Blen’s ever so similar find—and it reads much the same, but in more modern wording. Differences include the dark red inner column of *C. atrochila* (hence the “common” name, dark heart fingers) and the dark red (not white to pink) legs of the disc calli. However, Blen’s 3–4 stalked calli, on either side of the anterior lobe of the labellum—a significant identifier—are matched by D.L Jones’ midlobe with 2–4 pairs of basal marginal calli. The Column has umpteen photos of Northland’s *C. “nitidoa rosea”* with 3–4 pairs of basal calli, and at least two pix, **Fig. 5**, of a specimen with only two pairs of marginal calli, from Te Hapua Rd, 6 Nov. 2000. So Blen seems to have missed that uncommon form, which does live here, and it tends to align our *C. “nitidoa rosea”* more closely with Tassie’s *C. atrochila*.

So *C. “nitidoa rosea”* has at least 2–4 pairs of basal marginal calli to the labellum midlobe, but notice on **Fig. 2**, the speckled inner dorsal sepal. Enter *C. “speckles”*, **Fig. 6**, Allan Ducker’s find from the Shenstone Block, of 25 Oct. 2001. It too was speckled inside the dorsal sepal, hence the tag-name, and it looked distinct because it had only one pair of basal marginal calli to the midlobe. Otherwise, it is much the same as the rest of *C. “nitidoa rosea”*. Farewell *C. “speckles”*! It has to be just another form of *C. “nitidoa rosea”*.

Thus Blen’s *C. “nitidoa rosea”* would seem actually to have 1–4 basal marginal calli to the midlobe, an increase from his 3–4. However, 3–4 are the ones usually found and specimens with 1–2 pairs are definitely uncommon.

Do we have *Caladenia atrochila*? Quite possibly, but *C. aff. atrochila* would be safer, in this modern technological age, with chromosomes and DNA—plus a range of other traits will have to match before we can be sure. Are there any volunteers? Meanwhile the Column is happy to call *C. “nitidoa rosea”*, *Caladenia aff. atrochila*.

**Acknowledgements:** Many thanks to those mentioned in the text, especially Ian St George and Kevin Matthews for assisting in preparation of the document.



↑ **Fig. 5, C. “nitidoa-rosea”** Te Hapua Road-side, Waitiki Landing, 6-11-00. Notice that only two pairs of basal marginal calli adorn the labellum midlobe. Blen described 3-4 pairs but D.L. Jones has 2-4 pairs on *C. atrochila*.

↓ **Fig. 6, C. “speckles”** has a solitary pair of basal marginal calli to the yellow midlobe, its only notable difference from *C. “nitidoa-rosea”*. Note the red inner column with white patches.



**References**

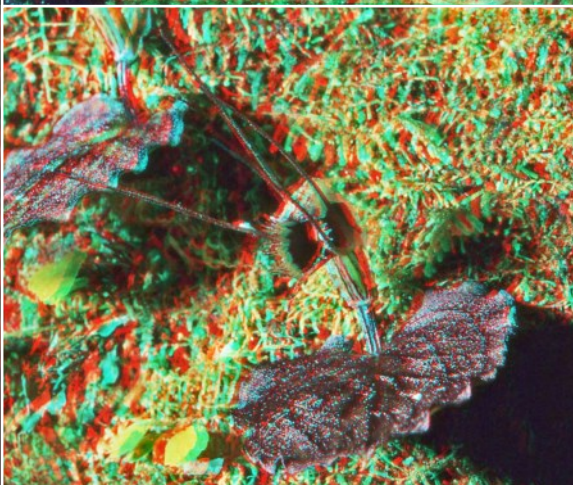
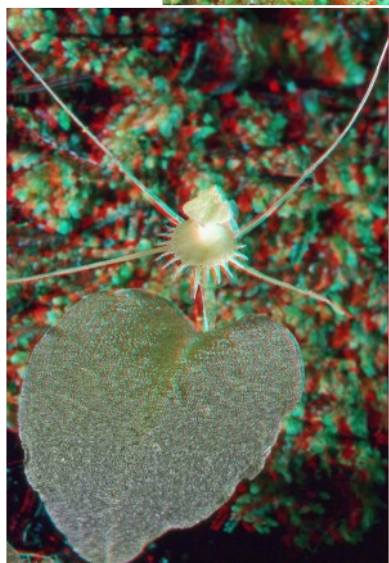
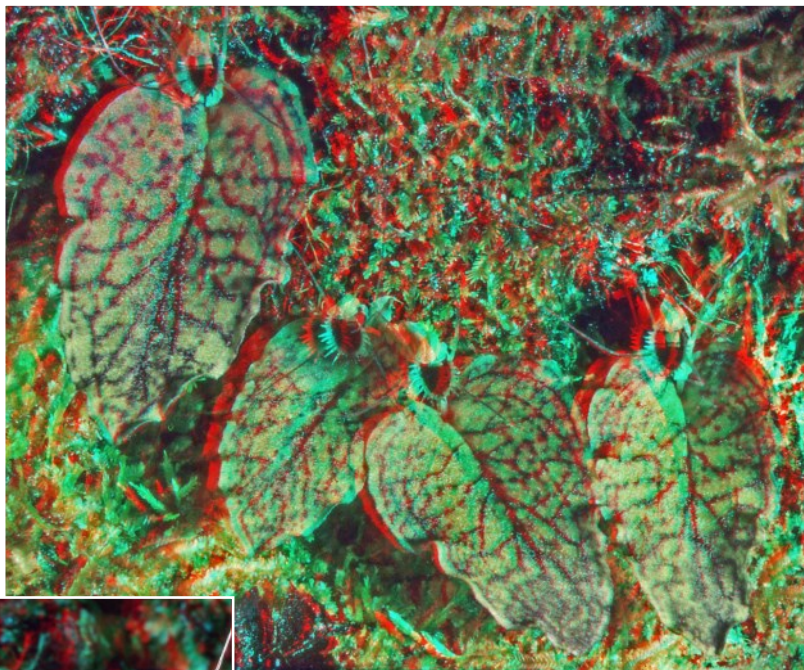
1. Backhouse G. & Jeanes J. *The Orchids of Victoria*, Melbourne University Press. 1996, p81.
2. Scanlen, E.A, Matthews & Son on Orchids, *NZNOG Historic Series* No. 14, 2006.
3. Jones, David et al, *The Orchids of Tasmania*, The Melbourne University Press, 1999, p61.

# Orchids in 3D Eric Scanlen

**Top:** *Corybas oblongus*,  
Webbs track,  
10 November  
2000.

**Below left:**  
*Corybas*  
“Greymouth”  
1 December  
2002.

**Below right:**  
*Corybas oblongus*,  
Puffer track,  
1 December  
2012.



Use your red and cyan glasses to view: the editor has a supply if you have lost yours....



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**The type locality:** Ian St George

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