

Conus marmoreus Linne

THE MALACOLOGICAL SOCIETY OF AUSTRALASIA Inc. VICTORIAN BRANCH BULLETIN

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APRIL/MAY2021

NOTICE OF MEETING

The next meeting will be held on Tuesday 20th April at the Melbourne Camera Club Building, cnr. Dorcas & Ferrars Sts South Melbourne at 8pm.

This will be our first meeting since February last year and will be a members night as the February meeting this year was cancelled due to COVID-19 restrictions.

Proposed meeting dates for the rest of the year.

June 15th

August 17th

October 19th

November 16th

Currently Branch Bulletin issues from VBB169- 288 can be accessed via the Society's website which includes an index 1-276 . http://www.malsocaus.org/?page_id=91

Bulletins prior to 169 and after 289 can be obtained from the editors in PDF form on request.

Secretary / Treasurer Michael Lyons Tel. No. 0428 600 615

Bursatella hirsuta

Bursatella hirsuta Nimbs & Wilson, 2020 is the name for the seahare hitherto listed from Victoria as *Bursatella* sp.1 and *Bursatella* sp. R81 (Burn, 2006, 2015). Two sightings are known to me of this species from Port Phillip Bay, Victoria: in May 2006 it was photographed at Blairgowrie marina and in March 2019, at nearby Old Dromana pier (see figure).

Bursatella hirsuta is distinguished from all (except one) Victorian seahares by the dense mat of short cylindrical papillae covering the whole dorsal body, plus a few large contractile dendritic (tree-like) papillae. It probably does not grow to more than 100mm in length. *B. hirsuta* is known from south – western Western Australia, the Gulfs of South Australia and Port Phillip Bay.

The only other *Bursatella* reported from Victoria is the wide-spread tropical and warm temperate *B. leachii*. Museums Victoria has one preserved specimen from Westernport Bay, collected prior to 1960. Otherwise, I have observed only once (March 1990), among short algae growing on the seawall below the camping ground at Mallacoota, far eastern Victoria. Dozens of specimens were seen but none collected (as Margaret and I were there for a wedding, not a collecting trip). *B. leachii* is a slightly bigger species without the coverage of short cylindrical papillae, but with more and bigger contractile dendritic papillae. There are also internal differences that separate the two species.



Bursatella hirsuta Old Dromana Pier, Port Phillip Bay, Victoria. 3 March 2019. Photograph: Sandy Webb & Nick Ollif

Robert Burn

References

- Burn, R. 2006. A checklist and bibliography of the Opisthobranchia (Mollusca: Gastropoda) of Victoria and the Bass Strait area, south-eastern Australia. *Museum Victoria Science Reports* 10: 1-42.
- Burn, R. 2015. *Nudibranchs and Related Molluscs: Museum Victoria Field Guides* Museum Victoria, Melbourne.
- Nimbs, M.J. & Wilson, N.G. 2020. Description of a new species of *Bursatella* Blainville, 1817 (Gastropoda, Aplysiida, Aplysiidae) from southern Australia. *Molluscan Research* 40 (4): 369-378.

Diving at Point Franklin

Dive Log 2021 No 5 No 560 time 572.11

Point Franklin Portsea 12.03.2021

Western end Rubble Grounds

Shore Michael Simon Angus

70Entry approx 2020 80min max depth 16m Viz 10m

T 18-19

Perfect conditions to start off, warm with flat seas no wind and a long walk along the sand to test fitness and then a walk around to the east of the point. We surface swam out in a delightful 19deg but there were quite a few boats around in the fading light so decided safer to descend into about 5m and then head out N.

Visibility was excellent in excess 10m but a fair bit of surge above 10m and a moderate current. We reached the rubble ground quickly and spent about 30mins exploring and keeping in contact. I picked up a nice dead *Dosinia victoriae* and again saw multiple dead *Acrosterigma cygnorum* and several live ones sitting on the surface. Simon photographed *Pleuroploca australasiae* finishing one off. I saw a lovely red *Gena impertusa* out in the open and photographed a live *Tawera lagopus* trying to bury in sand.

We all maintained contact until air started getting close to 100 bar then Angus and I headed back SE. My best find at 16m and at the end of a sand trail was *Rhyssoplax bednalli*.



Tawera lagopus (Lamarck, 1818)



Rhyssoplax bednalli (Pilsbury, 1895)



Neviaspirata (Lamarck, 1843)

Angus found *Typhis yatesi* in what looked very promising territory. I collected a *Calliostoma hedleyi* but couldn't get a good photograph.

Ascending along sand to about 11m I found and photographed a brilliant purple juvenile *Neviaspirata* and collected a pair of *Pecten fumatus* with nice colour patterns as well as an unusually patterned dead juvenile and normal pattern *Phasianella australis*.

We spent a little while in shallower water but by this stage the flood had become unexpectedly strong and was pushing us strongly east even in 3-4 m. On surfacing we were right on the point and conditions had chopped up making the exit a little tricky. Overall a great dive.

Geoff Macaulay

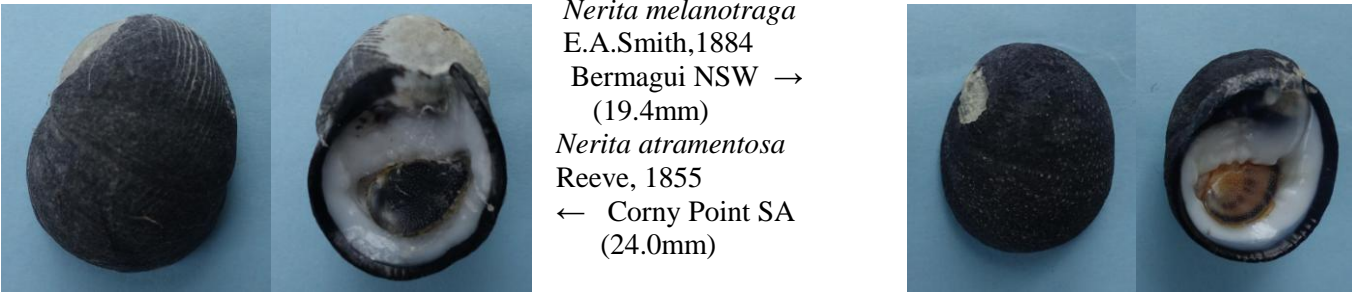
The radulae of Neritidae

The family Neritidae include marine, estuarine and fresh water species and are common world wide. Marine species are herbivorous and live intertidally, often near the high tide zone, browsing on algae from the rocks on which they live. Although so common and easily collected very little has been written or published on their interesting and unusual radular form.

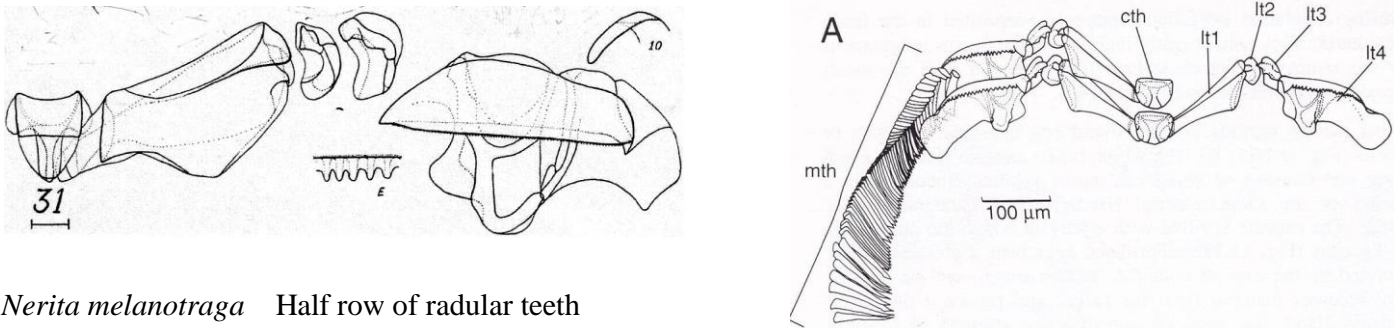
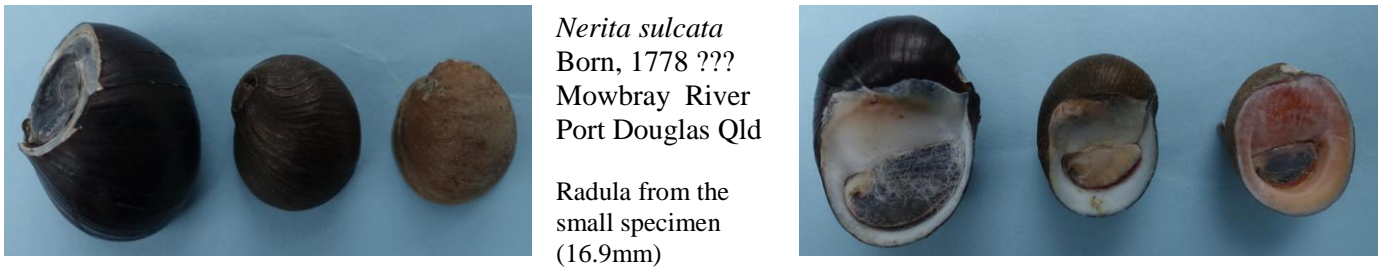
A recent interesting research article in the *Malacological Society of Australasia Newsletter* (No.176) by Joan Hales on our two local species, *Nerita atramentosa* and *Nerita melanotruga*, prompted me to extract and study the radulae of these two species from specimens I had preserved. In addition to this, the radula of a preserved specimen of the freshwater species *Nerita sulcata* from the Mowbray River, Port Douglas was examined for comparison purposes. An optical microscopy (OM) image from my collection of *Nerita polita* was recently featured in Tom Eichhorst’s 2016 book, *Neritidae of the World*.

The Nerite radula is classed as rhipidoglossate, which is generally characterized by a central tooth flanked by a varying number of similar lateral teeth, with numerous brush like marginal teeth. Mounted specimens of Neritidae when viewed directly(OM), radular mounts show only a small, single cusp central tooth, a large elongated plate like first lateral and a large disc shaped second lateral, followed by the typical numerous brush like marginals.

For any detailed description or image of a Nerite radula, I had to go back to a 1923 paper by H.Burrington Baker, where he described and illustrated by line drawings the radulae of 43 world wide species, number 31 of which was *N. melanotruga* from Victoria. These drawings revealed two additional small lateral teeth tucked in and hidden behind the second and fourth lateral. By placing the stained radula in a temporary mountant without a cover slip and prising the radula apart with a small brush, the two additional lateral teeth were exposed. Cover slips were then added to all three temporary mounts, photographed and then permanently sealed in Aquamount.

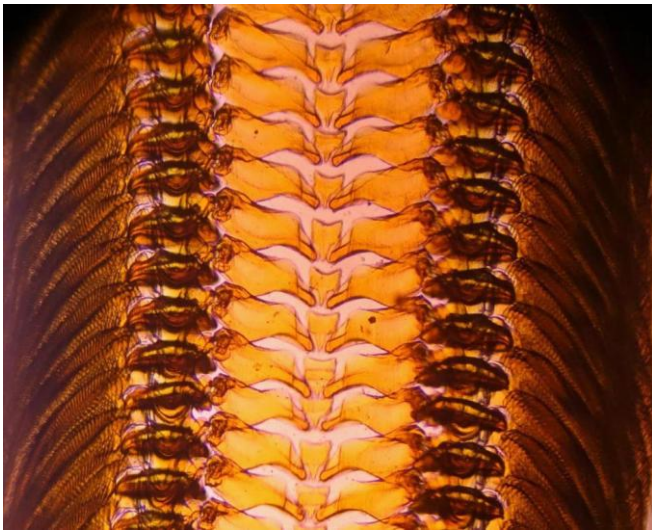


Although separated by DNA studies, the identity of the two species can only be determined by operculum colour, black for *atramentosa*, brown for *melanotruga* (Joan Hales pers.comm.)

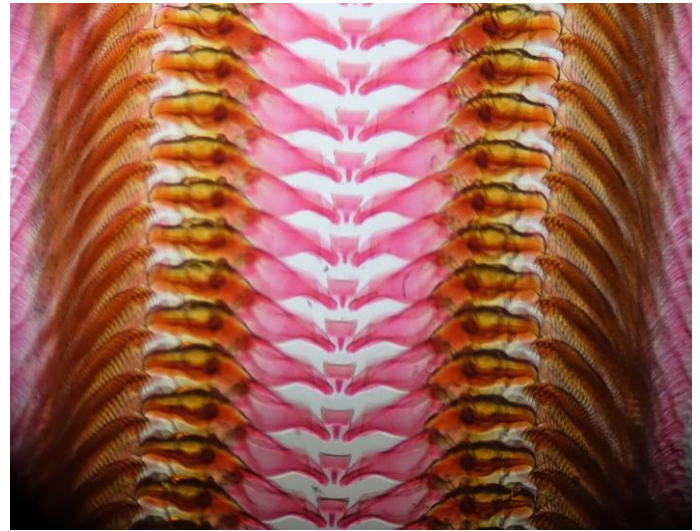


Neritina virginea reclivata (Say 1822)

After Baker 1923. Baker’s original tooth terminology modified in *Mollusca : The Southern Synthesis* Vol.5 p. 698. cth = central tooth: lt 1- 2- 3- 4 = lateral teeth: mth = marginal teeth .



Nerita melanotranga Bermagui NSW
Total radular width (1.9mm) Stain - Eosin-Y
Viewed directly :Magnification 60x Note: It 1 tucked hard against It 4, obscuring It 2 and It 3.



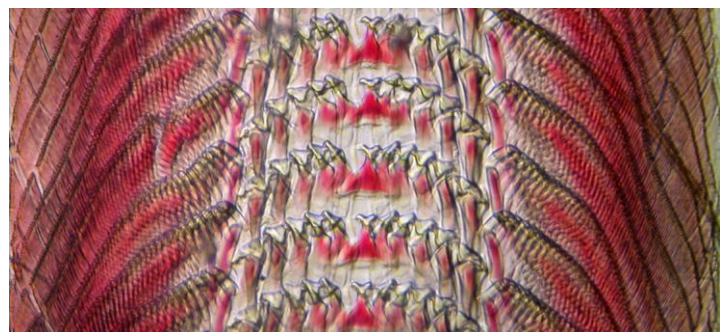
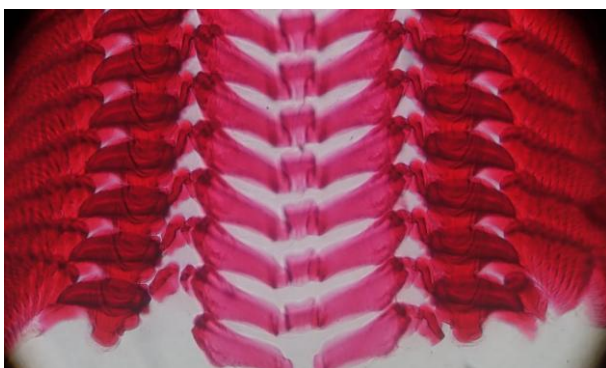
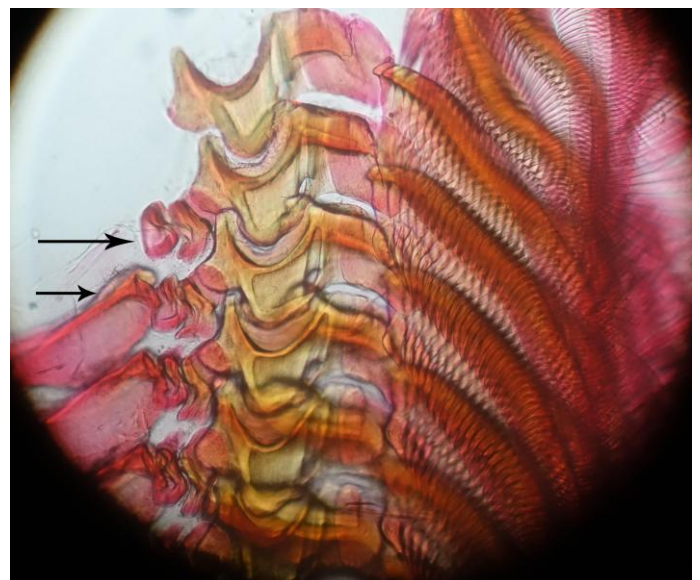
Nerita atramentosa Corny Point Sth Australia
Total radular width (2.05mm) Stain- Lignin Pink
Viewed directly :Magnification 60x Note: It 1 tucked hard against It 4, obscuring It 2 and It 3.

Several teeth of *Nerita atramentosa* removed exposing the hidden 2nd and 3^d lateral teeth : top arrow.
Note the accuracy of Baker's drawing of these two teeth.

Lower arrow : end of first lateral showing cusps for scraping.

The first four 4th lateral teeth have been tipped over showing the base construction of this very large tooth illustrated so accurately by Baker.

Baker did not illustrate any of his specimens.
His featured radula of *N.melanotranga* was from a specimen from Victoria and could well have been *N. atramentosa* , No radular differences between the two closely related species was found.



Radula of *N.sulcata* (1.04mm wide) 2nd & 3^d laterals showing. Radula of the trochid *Austrocochlea adelaidae* for comparison.

The rhipidoglossate radular form is represented in all Archaeogastropoda with exception of the Limpets.
If an engineer were to assess the design of the radulae of both the Trochid and the Nerite as a tool for scraping, surely the trochid would be chosen. Such is the wonder of nature.

Don Cram

References

- Baker, H.B. (1923) Notes on the radulae of Neritidae. *Proceedings of the Academy of Natural Sciences of Philadelphia* 75:1 17-178
Hales, T.J. (2021) The family Neritidae in Southern Australia. *The Malacological Society of Australasia Newsletter* No.176:8-9

Magnavictoria and more names for Coral Sea volutes

Cymbiola perplicata (Hedley, 1902) and *C. thatcheri* (McCoy, 1868) are two volute treasures restricted much to the Coral Sea area of northern-eastern Australia. In September 2020, Guido Poppe and Sheila Tagaro, in the Philippine conchological journal *Visaya*, separated these two species from the remainder of the genus by describing the new sub genus *Magnavictoria*, with *perplicata* as the type species.

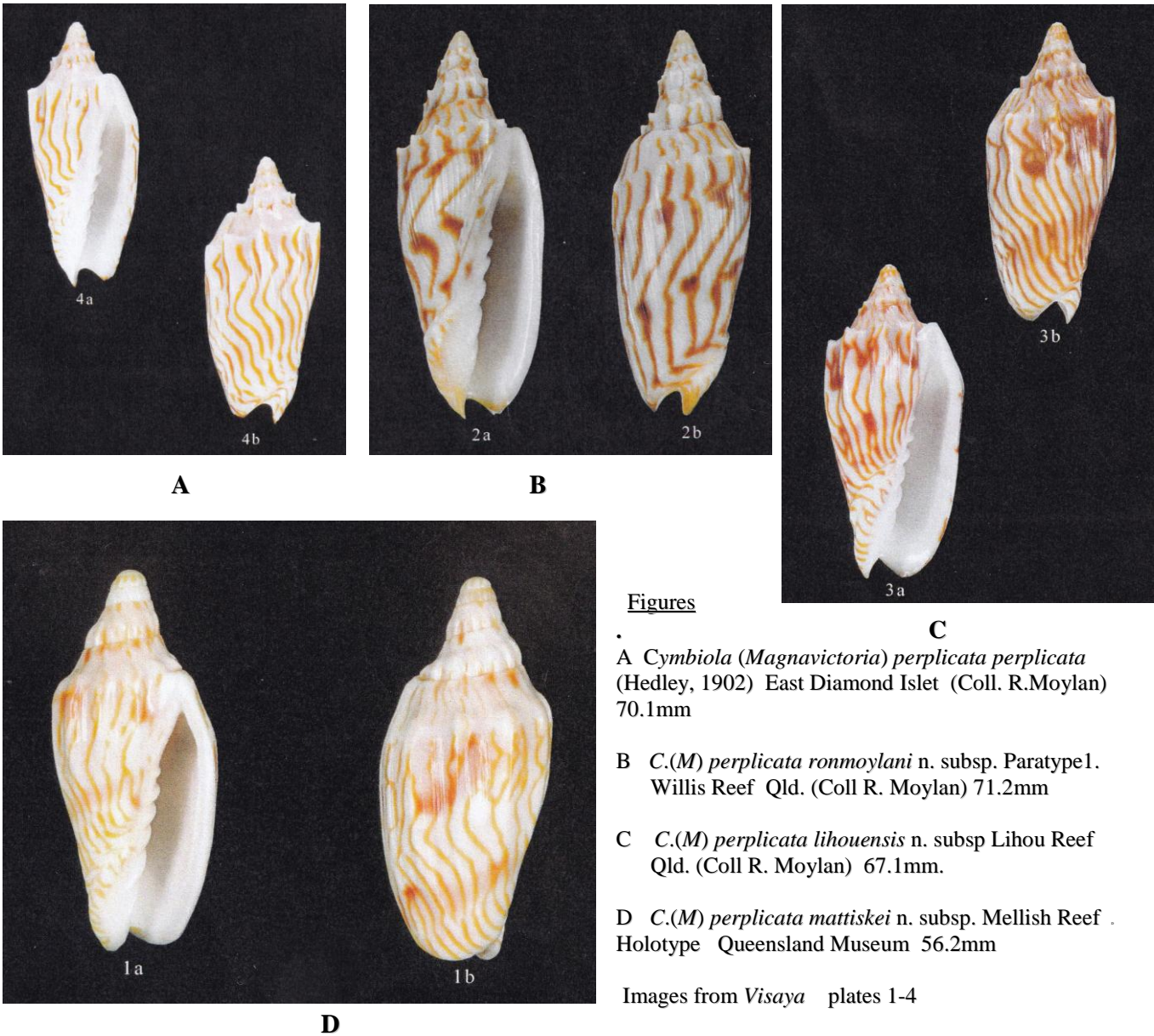
At the same time, they have separated *perplicata* into four subspecies, largely dependent upon which Coral Sea islands or reefs the specimens had been collected. The nominal sub species *perplicata perplicata* is restricted to the Diamond Islets. Their new subspecies *perplicata ronmoylani* comes from Willis Island (approximately 200km north of Diamond Islets), *perplicata lihouensis* from Lihou Reef (a little east of Diamond Islets) and *perplicata mattsiskei* from Mellish Reef (about 300km east of Diamond Islets and surrounded by deeper water. The subspecies *perplicata*, *ronmoylani* and *lihouensis* are very much the same with sharp spines on the shoulders of the whorls and red colour lines patterning the shells. Only *mattsiskei* stands apart and even then not greatly; the shoulder spines are blunt and smooth, and the colour lines pale orange.

A lot more research is needed to confirm the long time approval of persons other than collectors of rare shells. As usual with this journal, the photography is outstanding and the colour printing is magnificent. The front cover image, repeated at smaller size in the article, of a crawling *lihouensis* is truly beautiful.

Reference

Poppe, G.T. & Tagaro, S.P. 2020. Description of a new subgenus and three new subspecies in the family Volutidae. *Visaya* 5 (4) : 5-19.

Robert Burn



Figures

- A *Cymbiola (Magnavictoria) perplicata perplicata* (Hedley, 1902) East Diamond Islet (Coll. R.Moylan) 70.1mm
- B *C.(M) perplicata ronmoylani* n. subsp. Paratype1. Willis Reef Qld. (Coll R. Moylan) 71.2mm
- C *C.(M) perplicata lihouensis* n. subsp Lihou Reef Qld. (Coll R. Moylan) 67.1mm.
- D *C.(M) perplicata mattsiskei* n. subsp. Mellish Reef . Holotype Queensland Museum 56.2mm

Images from *Visaya* plates 1-4