

Conus marmoreus Linne

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APRIL/MAY 2011

NOTICE OF MEETING

The next meeting of the Branch will be held on the 18th April at the Melbourne Camera Club Building, cnr. Dorcas & Ferrars Sts South Melbourne at 8pm. This will be a members night unless otherwise advised.

The May meeting will be on the 16th. Members are encouraged to bring along presentations or just images on disc or USB as we now have a lap top and data projector of our own.

Raffles & Supper as usual.

Articles are urgent required to enable us to publish at least 6 pages in future bulletins.

Secretary	Michael Lyons	Tel. No. 9894 1526
Chairman	Fred Bunyard	Tel. No. 9439 2147

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An unusual colour form of *Ischnochiton (Ischnoradsia) australis* (Sowerby, 1840) (Polyplacophora: Ischnochitonidae).

At the 'MALSOC' Victorian Branch meeting on Monday 21 March, 2011, Michael Lyons brought in a light bluish chiton found at Kilcunda, Victoria for display and query as to its identity. Except for its lighter colour, it did not look very dissimilar to Edgar's (2008: 262) illustration of the New Zealand green chiton, *Chiton glaucus* Gray, 1828, a species that has been introduced into south-eastern Tasmania but so far not recorded from the Australian mainland.

At Geoff Macaulay's suggestion, we consulted Powell (1979: 27) who described *Chiton glaucus* as being ovate, high arched, with very fine sculpture ("the lateral areas scarcely raised"), prominent girdle scales and somewhat variable colour from dull yellowish to dark green. On comparing Michael's Kilcunda specimen to the illustrations in Powell (1979, Plate 6, Figs. 2-3), Geoff noted in particular that its sculpture was quite strong, and that it was really a colour form of *Ischnochiton australis*. Edgar (2008) also comments that *Chiton glaucus* has a peaked ridge along its midline, a feature that Michael's specimen lacked.

A specimen very similar to Michael's was noted during a recent Marine Research Group (of the FNCV) field excursion to the Mallacoota area in January this year. On 19 January, 2011 several *Ischnochiton australis* were observed on the under-surface of a lower littoral stone at Bastion Point, Mallacoota. One of them, however, stood out conspicuously because of its very exceptional light blue colour. The specimen was not measured or collected, but a close up photograph was taken and, like Michael's specimen, the sculpture, shape and girdle seemed to be consistent with a diagnosis of *Ischnochiton australis*. The field photos below show this specimen together with two typically coloured (dark green) *Ischnochiton australis*, and alone in close-up.



Gowlett-Holmes (2001) lists several synonyms for *Ischnochiton australis*, amongst which is *Ischnochiton evanida* (Sowerby, 1840). Cotton (1964: 54) illustrates the latter, noting that it has finer and more numerous ribs on the anterior valve and lateral areas, and smoother pleural areas. On looking at Edgar's (2008) photograph of *Chiton glaucus*, I did wonder whether it might in fact depict a smooth form of *Ischnochiton australis*, although its sculpture is much finer than Cotton's (1964) picture of *Ischnochiton evanida*, and so Edgar's diagnosis is likely to be correct.

References and further reading:

Cotton BC (1964). *South Australian mollusca: chitons*. Government Printer, Adelaide.

Edgar G (2008). *Australian marine life. The plants and animals of temperate waters*. (2nd edition). New Holland Publishers, Sydney.

Gowlett-Holmes K (2001). Polyplacophora. pp.19-84 in Wells A & Houston WWK (eds). *Zoological Catalogue of Australia*. Vol. 17.2 Mollusca: Aplacophora, Polyplacophora, Scaphopoda, Cephalopoda. Melbourne: CSIRO Publishing, Australia xii 353 pp.

Powell AWB (1979). *New Zealand mollusca. Marine, land and freshwater snails*. Collins, Auckland.

Platon Vafiadis

***Amoria (Cymbiolista)jansae* Van Pel et al**

This note of a new species name sent me to my collection as I have a variety of forms from southern and central Queensland and the Swain Reefs. Two are quite like the pictured form shown for the new name, both are swollen and quite orange-coloured as compared with two more slender cream-coloured specimens of *hunteri*.

The size and colour variations may be due to depth as the *jansae* are all dredged from over 100 fathoms and the two *hunteri* from 20 fathoms. I wonder if this considerable habitat difference merely results in changes more associated with race than species. Our local *Conus anemone* comes to mind, comparing the deeper-water *peronianus* form.

What name do I now put on the four orange-coloured slender forms that are hard to separate from *hunteri* for shape? Anyone?

Jack Austin

November meeting notes: Member's night;

1. Geoff Macaulay displayed slides of landsnails.
2. Simon Wilson showed video, slides and specimens of shells collected at Esperence in Western Australia.
3. Platon Vafiadis spoke about a noxious seaweed eradication attempt in the harbour at Apollo Bay plus pictures were shown of unidentified nudibranchs from Point Lonsdale.
4. Don Cram showed some mussel shells which were the only shells he saw during a recent trip to South America.

February meeting notes: Members night.

1. Don Cram displayed specimens of *Amoria hunteri* and the newly described species, *Amoria jansae*, previously considered a deeper water variant of the former species. Don also displayed a sinistral specimen of *Notocypraea comptoni* collected by Alena Bubenicek from Port MacDonnell in South Australia.
2. Michael Lyons showed finds from over the summer break including the bubble shells *Hydatina physis* and *Bullina lineata* from Tathra; a *Scaeoclamys livida* from Merimbula and a *Cheilea flindersi* collected off the beach at Cleeland Bight on Phillip Island.
3. Simon Wilson showed specimens of *Amoria undulata* from Stony Point in Western Port, one with a pure white aperture and the other with the typical orange coloured aperture. Simon also showed specimens of *Notocypraea declivis*, *Ericusa sowerbyi* and *Umbilia hesitata* from the D'entrecasteaux Channel in Tasmania. Simon reported seeing *U. hesitata* in as shallow as 5 metres of water.
4. Geoff Macaulay showed a partial video of the article about John Stanisic aired on ABC TV's Quantum recently. Geoff also showed recent finds from diving at Stony Point and Portsea including *Cassis pyrum* and *Cancellaria undulata* as well as some large and spectacular land snails from Africa. Geoff also showed some recent book purchases including the 4th volume of *Philippines Marine Molluscs*, Deep water Pyramidelloidea of the Tropical South Pacific amongst others.
5. Platon Vafiadis reported on a recent Marine Research Group visit to Mallacoota. During this trip Gabo Island, Bastion Point and Pebbly Beach were surveyed. Platon showed many spectacular images of Gabo Island and Bastion Point. Platon also showed images of some of the species seen including *Hydatina physis*, *Bullina lineata*, *Charonia lampas* and *Cymatium parthenopeum*.

Michael Lyons

Buried Treasure

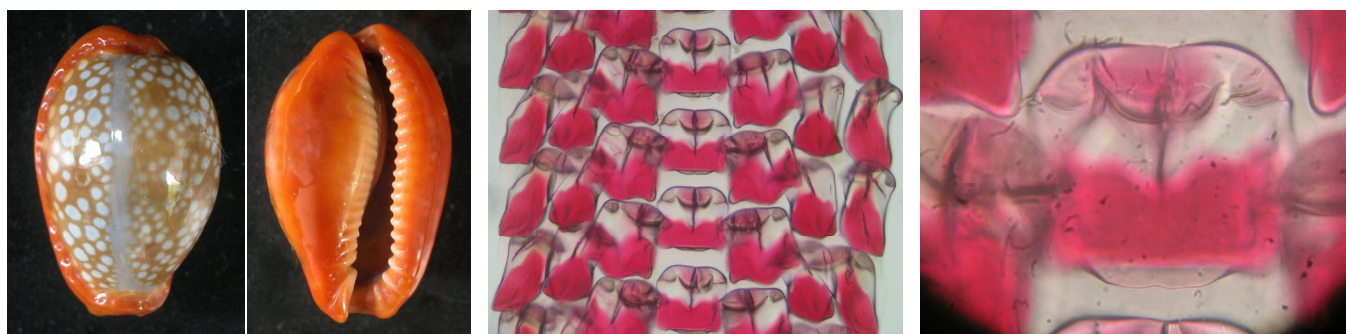
About 3 years ago I obtained from Geoff Macaulay a live taken specimen of *Cypraea citrina* Gray, 1825 from Fort-Dauphin, South east Madagascar. Recently when shifting this shell in my collection I noticed a piece of dried up animal just inside the aperture. After soaking the shell in water for about 24 hours the piece was removed and placed in a 10% solution of sodium hydroxide in a petri dish. After about two days to my surprise an almost complete radula (missing only the nascent teeth) was recovered, which was subsequently cleaned, stained with Lignin Pink, mounted on a slide in polyvinyl lactophenol as a temporary mount and then photographed by a digital camera attached to my microscope.

At the October meeting in 1997 I gave a talk discussing the findings in *An Atlas of Cowry Radulae* by Hugh Bradner & E. Alison Kay, published in *The Festivis*, a publication of the San Diego Shell Club in 1996. In Vic.Br Bull. No.194 Feb./ March 1998 I reported on this talk, discussing and illustrating images of the 13 patterns based primarily on central tooth characteristics, but the form and placement of the lateral and marginal teeth has also been considered. For each pattern a model species was selected, in some cases the type of the genus, in others the oldest name in the group, or in others a matter of convenience. The authors have noted that the patterns which were originally intended to be a convenient means of comparing like with like, are remarkably consistent with M. & F. Shilder's (1971) generic arrangement of cowries.

Cypraea Erosaria citrina is listed among 31 species as having the Erosa pattern, in which radulae are characterized mainly by the central tooth being tricuspid, having no basal denticles, with a dark staining internal bract visible with optical microscopy (OM) near the base of the tooth and a transparent subtending bract also visible with OM extending below the tooth.

The use of (OM) seemed irrelevant when the Scanning Electron microscope (SEM) became popular around 1970, but the authors admit both forms and disadvantages have their advantages. The SEM images show internal tooth details taken from three directions, but do not reveal internal structure. The tooth staining itself, visible with OM, viewed directly above the radula can reveal an internal bract or a different chemical makeup of sections of, or full teeth. The subtending bract present in the Erosa pattern shows clearly with (OM). I have now in my collection about 45 cowry species including 9 of the model species described and illustrated in the *Atlas* all done by the above method.

Although (OM) is clearly not suitable for radular study of micro molluscs or radulae with a multiple or complex tooth structure (Archaeogastropoda or herbivorous land snails for example), but can be most useful for the taenioglossate cowry form (7 teeth per row), or the rachiglossate form found in the Neogastropods, or in carnivorous land snails. The advent of the digital camera has eliminated the costly trial and error procedure using film with results which are almost instantaneous.



Cypraea citrina Fort-Dauphin,
South east Madagascar

Radula (4 rows)

Central tooth clearly showing 3 cusps and the subtending bract with heavily stained internal bract above

<i>Cypraea citrina</i>	Shell Length mm	Radula Length mm	Rows per mm	No of rows	Radula Width	Central Tooth	
						Length	Width
	18.4	12.0	7.2	86	640 (µm)	115 (µm)	125 (µm)

(µm) = microns