



Conus marmoreus Linne

THE MALACOLOGICAL SOCIETY OF AUSTRALASIA Inc. VICTORIAN BRANCH BULLETIN

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EDITORS Val & Don Cram. Tel. No. 9792 9163

ADDRESS: 6 Southdean Street, Dandenong, Vic. 3175

EMAIL: donald.cram@bigpond.com

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NOTICE OF MEETING

The next meeting of the Branch will be held on the 16th October at the Melbourne Camera Club Building, cnr. Dorcas & Ferrars Sts South Melbourne at 8pm. Members are invited to bring along items of interest, shells, live shell images, trip and research reports. This can be another sell and swap night.

The November meeting will be on the 20th and will be a member's night. This will be the last meeting of the year and we thank all who have sent in articles throughout the year.

Raffles and supper as usual.

Due to the editor's being on holidays there was no Bulletin produced for August/September

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 mentioned in this issue prior to 169 can be obtained from the editors in PDF form on request.

Secretary / Treasurer Michael Lyons Tel. No. 9894 1526

DON McMICHAEL

This note is to record the death of Don McMichael CBE on 10th June 2017 at the age of 85. Don was born in Queensland and studied zoology at Sydney University where he graduated with first class honours in 1952. From there he studied Australian freshwater mussels for his doctorate at Harvard.

Don had worked for the Australian Museum in Sydney from 1948 and after graduation, he returned to the museum in 1955, where he was appointed Curator of Molluscs in 1955. In due course he became Deputy Director and left in 1967 to become the first Director of the Australian Conservation Foundation. After other senior positions in the NSW Public Service, he became the inaugural Director of the National Museum prior to its construction in Canberra.

Don published several papers and books on marine and freshwater molluscs. His collaboration with Tom Iredale resulted in the Reference List of the Marine Mollusca of New South Wales in 1962. This remains the most recent checklist of NSW molluscs.

For further information about Don's life, there are several lengthy articles on the internet.

Alan Monger

A record of *Toledonia warenella* Golding 2010 (Heterobranchia: Diaphanidae) from Woolgoolga, New South Wales.

Recently, during a short trip to northern New South Wales, I collected about half a small cup of shell sand from the lower littoral shoreline at Woolgoolga, on the northern aspect of the headland. This yielded several pleasing finds, amongst which was a single example of an unusual, dead, 1.3mm long shell (shown in Figure 1). This initially reminded me, in shape at least, of *Leucotina micra* (Pritchard & Gatliff, 1900) (Heterobranchia, Amathinidae), shown in Figure 2. The latter, also illustrated by Beechey (2017) and Grove & de Little (2017, as *Odostomia micra* (Pritchard & Gatliff, 1900), Heterobranchia: Pyramidellidae), is, however, a translucent white shell with pitted spiral sculpture, whereas the Woolgoolga shell is smooth under light stereomicroscopy, and translucent brown in colour, with a colourless spiral band on the last whorl.

On describing the specimen over the phone to Lynton Stephens, he thought that it might be a diaphanid which he had also previously collected in northern New South Wales. With this clue, a search of the literature yielded the identity – it was *Toledonia warenella*, a species described only recently (in 2010) by Rosemary Golding, whose records all hailed from New South Wales (to my knowledge, it is not known from outside that state). Under SEM, the protoconch has fine spiral sculpture and the teleoconch is smooth, the animal is white, has a radula formula of 0.1.1.1.0 and lacks both a gill and an operculum (Golding, 2010). Histological sections were prepared of whole, formalin-preserved animals and Golding (2010) used one of these series, amounting to 295 slides, to produce a very detailed 3-dimensional computer-generated reconstruction of its internal anatomy.

Although it was exciting to find this species in shell sand, to see it alive would be incomparably better. If there is a 'next time', some algal washings might need to be in order!

(Post-script: I could not find any mention of *Turbonilla micra* Pritchard and Gatliff, 1900 in WoRMS (2017). Interestingly, Macpherson and Gabriel (1962) also do not mention it, even though the type locality is off Rhyll, Phillip Island (Pritchard and Gatliff, 1900: 135). Grove and de Little (2017) do not give reasons for placing it in *Odostomia*. Beechey (2017) concurs with May and Macpherson (1954) in placing it in *Leucotina* and provides a reference justifying *Leucotina* belonging in Amathinidae, but the literature needs to be dug into so as to clarify whether *Turbonilla micra* was itself studied as part of this consideration.)

Figure1: *Toledonia warenella* Golding, 2010, from Woolgoolga headland (northern aspect), New South Wales, Tuesday 11 July, 2017. Shell length 1.3 mm. (In the collection of the author).

Figure 2: *Leucotina micra* (Pritchard & Gatliff, 1900) from lower littoral shell sand, San Remo Back beach, San Remo, Victoria, Thursday 25 August, 2016. Shell length 1.9 mm. (In the collection of the author).

References:

Beechey, D (2017). *Leucotina micra* (Pritchard & Gatliff, 1900) in: Seashells of New South Wales (web-site, release 22, 14 April, 2017), available at

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Golding, RE (2010). Anatomy in *Toledonia warenella* n. sp. (Gastropoda: Opisthobranchia: Diaphanidae) visualized by three-dimensional reconstruction. *Invertebrate Biology* 129 (2): 151-164.

Grove, SJ and de Little, R. (2017). *Odostomia micra* (Pritchard and Gatliff, 1900) in: A Guide to the Seashells and other Marine Molluscs of Tasmania (web-site and database), available at <http://www.molluscsoftasmania.net/Species%20pages/Odostomia%20micra.html> (accessed on 23/09/2017).

May, WL and Macpherson, JH (1958). *An illustrated index of Tasmanian shells* (with 50 plates and 1086 species). Government Printer, Tasmania.

Macpherson, JH and Gabriel, CJ (1962). *Marine molluscs of Victoria*. Melbourne University Press, Parkville.

Pritchard, GB and Gatliff, JH (1900). Article VII. On some new species of Victorian mollusca, No.4. *Proceedings of the Royal Society of Victoria*, Volume XIII (New series), Part 1: 131-138, Pl. XXI, Fig.1.

WoRMS (2017). World Register of Marine Species. On-line resource, available at <http://www.marinespecies.org/index.php> (accessed on 23/09/2017)

Platon Vafiadis



Figure1: *Toledonia warenella* Golding, 2010

Figure 2: *Leucotina micra* (Pritchard & Gatliff, 1900)

The Natural History Museum London: revisit.

In October 1980 my good friend and mentor the late Dr. Brian Smith arranged with Dr. John Taylor a visit to this institution as part of my initial studies of the genus *Notocypraea*. The purpose of the visit was to study and photograph the type specimens of these enigmatic southern Australian cowries, that at the time were much misunderstood by both collectors and academics. At the time I donated 15 specimens of *Notocypraea* and 12 radular slides mounted in Euparal matched and numbered to the shells. Although it was only a very short visit, for many years after curators Kathie Way and more recently Andreia Salvador have been most helpful with information and rare literature for which I have been most grateful.

The Natural History Museum UK, previously (The British Museum of Natural History) situated in Cromwell Road South Kensington London houses what many believe is the finest historical collection of shells in the world, due to the exploring and colonising voyages by Great Britain during the nineteenth century. Specimens from these voyages and the collections of many eminent conchologists and private collectors preserved there were in many cases the original specimens from which many of our species here in Australia were described. Lovell Reeve for example used specimens from the private collection of Thomas Lombe Taylor for illustration and description in his *Conchologia Iconica*. This vast collection donated to the museum after Taylor's death by his widow contained 127 types described and figured by both Reeve and Sowerby^{3rd}. For those interested in historical collections housed at the museum, *A History of Shell Collecting* by Peter Dance is essential reading.

As the *Notocypraea* project is nearing completion Val and I, after a holiday trip to England and Ireland in July this year, were able to spend two days at the museum as guests of the Andreia Salvador who is now the Curator of Marine Mollusca, as Kathie Way has retired after 50 years at the museum. My main reason for the visit was of course to photograph and study type specimens of *Notocypraea* and any related specimens. The results will be published in a pending combined paper with a leading geneticist which will also include genetic studies on *Cypraeovula*.

Although it is now possible with digital photography to produce accurate and lifelike images of a shell and handwritten labels, it cannot replace the charm of having a 150 year old specimen in your hand, or seeing a handwritten label written by J.E.Gray. The modern practice of printing labels with very little detail and without the collectors name in my opinion reduces the historical value of the specimen. I must admit of late I have succumbed to this, but have always added locality collectors name and date of collection.

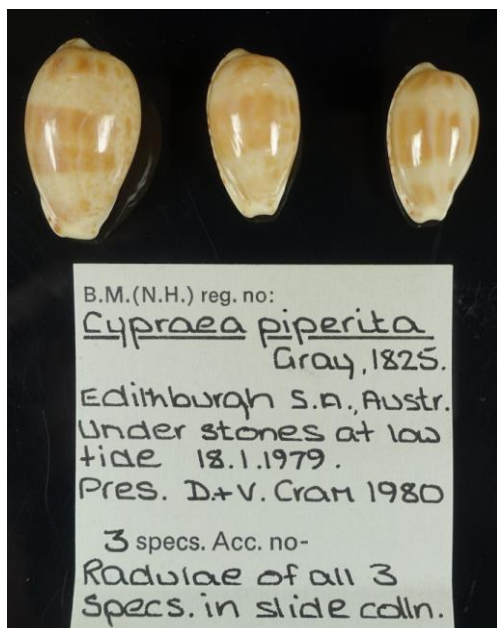
Of particular interest was to find the specimens donated in 1980, which were confirmation of my article in *Australian Shell News* 1973 4: 6-7,12 where I had repeated and confirmed the radular studies of R.J.Griffiths first published in his 1962 review of the genus. All were found with their original labels with numbered slips in the shells with duly acknowledged museum labels relating to the radular slides stored in the vast slide collection. The lot included four *angustata* and two matching radular mounts : 3 *piperita* & 3 RM: 6 *comptonii* & 5 RM: 1 *comptonii casta* and 1 *declivis* with mounts. It is good to know they have always been available for any researcher who wishes to access them. A disc of all issues of the Victorian Branch Bulletin's from 1-289 was gladly accepted by Andreia, as well as some other literature they did not have.

We again met Dr. John Taylor, although retired still works there researching bivalves with Emily Glover and Dr. Susanne Williams who completed her PhD at James Cook University in 1997 and has been a researcher and Head of Invertebrates Division, Department of Life Sciences since 2003.

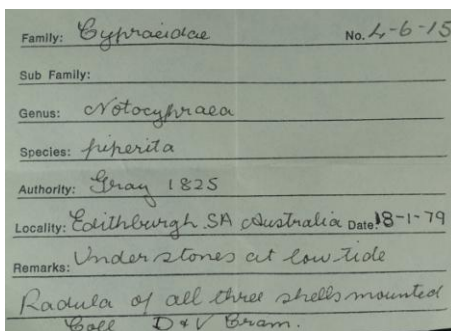
The museum is truly a research institution which is supportive of bona fide researchers with the intention of publishing and I am most appreciative of the welcome we received.

When we first arrived at the museum there was a long line of people waiting to visit the public areas and entry is free. We were able to spend about two hours there on the last day of our visit. The highlights were the 25.2 metre skeleton of the blue whale recently erected in Hinze Hall replacing the dinosaur previously featured there. Treasures in the Cadogan gallery, 22 objects selected each chosen for scientific, historical and cultural importance. These included a moon rock, a Dodo, Darwin's pigeons, butterflies collected by Alfred Russell Wallace, Sir Hans Sloan's beautifully carved nautilus shell and an Emperor penguin egg collected by Robert Scott during his Antarctic expedition.

Don Cram



Three specimens of *N. piperita* with their label and matching radular slides



June meeting report

Simon Wilson showed video footage of the locations and habitats he was exploring on a recent trip to southern Tasmania, including footage of descending into 15 metres of water off Port Arthur. Simon also showed images of *Umbilia armeniaca* 'andreyi' from south of Augusta, Western Australia; *Notocypraea angustata* from Castle Rock; *Notocypraea comptonii* and *N. piperita* from Stony Point and *N. declivis* and *N. subcarnea* from southern Tasmania.

Angus Hawke brought in recent acquisitions to his collection including magnificent examples of *Conus vicweei* from Thailand, *Morum bruuni*, a superb rostrated, niger specimen of *Cypraea mappa*, a pair of giant *Epitonium scalare* as well as a number of interesting *Zoila* cowries.

August meeting report

Don Cram reported on his stay with Fran and Brian Jolly in Somerset. Fran is the daughter of Lt.Col.R.J. Griffiths whose life and pioneering work on *Notocypraea* was recently written up by Don and published in *American Conchologist*. He also played a video given to him by Fran of her father's war diary which was featured on British television in 1995, the 50th anniversary of the end of the war in Europe.

Platon Vafiadis showed images taken from a trip in January to Woolgoolga in NSW. Platon had images of soft corals in rockpools, scenic shots looking out to the Solitary Islands, images of Woolgoolga Headland and images of Humpback Whales breaching. Platon showed images of the kangaroos that inhabit nearby Look At Me Now Headland. At Arrawarra Headland Platon was able to photograph some invertebrate life inhabiting the surrounding rockpools including: An unidentified nudibranch, *Cryptoplax* sp., *Eurytrochus strangei*, *Nerita* sp., *Peristernia brazieri*, *Pyrene scripta*, *Pyrene testudinaria*, *Chiton* sp., *Spurilla brazieri*, *Astridium tentoriiformis*, *Cronia aurantiaca*, *Jorunna* sp., *Turbo militaris*, *Tugali parmephoidea*, *Turbo undulatus* and others.

Simon Wilson showed some interesting specimens of *Notocypraea piperita* collected from Parry Beach which is located to the west of Denmark, Western Australia. Simon also showed a beach collected volute found at Duke of Orleans Bay, Western Australia, that Simon has identified as *Cymbiola irvinae*. From Moreton Bay in Queensland a spectacular example of *Cypraea cribraria* and a uniquely patterned *Notocypraea piperita* from Westernport Bay.

Angus Hawke showed ROV collected shells from Western Australia including *Amoria undulata* with very narrow apertures and very much thickened lips, *Bursa humilis*, *Notovoluta pseudolirata*, a 'dwarf' *Ericusa papillosa*, an unidentified *Conus* and an unidentified *Fusinus*.

Michael Lyons

Tantalizing evidence of *Lunella (Turbo) torquata* (Gmelin,1791) living in Victorian waters.

The beach at Waratah Bay needs no introduction to Victorian members. Located 185KM east of Melbourne and consisting of a fine sand grained, gently sloping beach, this site has long been a favorite hunting ground of mine.

Over many years this beach has provided its share of excitement and disappointments. For example, on 18th April 1999 I experienced an amazing ‘wash in’ of shells and other marine debris along an approximately 100 metre stretch of beach. Amongst a huge amount of kelp holdfasts, Port Jackson shark eggs, driftwood and sponges were hundreds of shells, many in live condition. On this occasion, I collected many spectacular examples of shells such as *Semiassis semigranosa*, *Cassis pyrum*, *Astele armillata*, *Cancellaria undulata* and *C. granosa*, *Chicoreus denudatus*, *Turbo gruneri*, *Lunella undulata*, *Amoria undulata*, *Phasianotrochus eximius*, *Prothalotia lehmeni*, *Spondylus tenellus*, *Bassina disjecta*, *Placamen placida*, amongst others.

There have been other occasions in 1991 and 1992 where I have collected specimens of *Argonauta nodosus*. Not all trips are profitable and there have been many occasions where I have not collected a thing.

My most recent trip was on 25th April 2017. As usual I parked my car at the car park located approximately 2km east of the Waratah Bay township and commenced walking in an easterly direction until I reached the surf club at Sandy Point, before retracing my steps back to my car. By the time I reached my starting point, the light was fading, however, I elected to walk a short distance to the west. Here there was evidence of a recent wash in of shells; at the hightide mark, there was a thin band of shells stretching as far as the eye could see.

The usual species were present and I secured some nice *Tucetona flabellata*, *Crasstella kingicola*, *Dosinia caerulea*, *Astele armillata* and a lovely large valve of *Semipallium aktinos*. However, what was of real interest, amongst the numerous dead *Lunella undulata* was a specimen of a long dead *Lunella torquata*. A bit further on a smaller example in somewhat ‘fresher’ condition was located and later still I found a third long dead specimen. The shell in the “fresher” condition had retained some external sculpture and colouration and some lustre to its nacreous interior. I was quite excited by these finds as, although subfossil examples are not uncommon in Victoria, whether this species is extant in Victorian waters is a riddle in need of an answer.

On his seashellsofnsw.org.au website, Beechy gives the following distribution; “endemic to Australia with an eastern and a southern population. In the east, it occurs from Brunswick Heads to Green Cape, NSW, and in the south from eastern SA to Port Gregory, WA. The range was apparently continuous in the recent geological past, as the species occurs in good condition, sometimes with the operculum in place, in quaternary fossil beds in Victoria (Macpherson and Gabriel, 1962)”.

Trawling through Victorian Branch Bulletins, there are some records of shells and opercula from Victorian waters; Don Cram reported obtaining two specimens that were recovered from craypots set at 20 fathoms off Pyramid Rock, Phillip Island in VBB 163:7 and figured them in VBB 288: 6. Robert Burn showed 3 opercula collected as fossils from Barwon Heads at the February 1984 Branch meeting as reported in VBB 113:2. However, there have been no reports of living examples.

The apparent ‘freshness’ of the shells I collected has me wondering if this species is living in the waters of Waratah Bay and I hope to mount a scuba diving expedition in the near future to find out.

Michael Lyons



Figure 1 *Lunella torquata* from Waratah Bay. Left 35mm; right 45mm



Figure 2 *Lunella torquata* from Waratah Bay. Detail of sculpture