Conus marmoreus Linne

THE MALACOLOGICAL SOCIETY
OF AUSTRALASIA Inc.
VICTORIAN BRANCH BULLETIN

(Mailed to financial members of the Society within Victoria)

Price 50¢

EDITOR Val Cram. Tel. No. 9792 9163
ADDRESS: 6 Southdean Street, Dandenong, Vic. 3175
EMAIL: donald.cram@bigpond.com

VIC. BR. BULL. NO. 255 AUGUST/SEPTEMBER 2010

NOTICE OF MEETING

The next meeting of the Branch will be held on the 16th of August at the Melbourne Camera Club Building, cnr. Dorcas & Ferrars Sts South Melbourne at 8pm. This will be a members night.

The September meeting will be on the 20th of September and will also be a members night unless advised otherwise.

Raffles & Supper as usual.

Articles are still needed for the next Bulletin. Please send before the 20th of September.
Thanks to those who have contributed to this issue.

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

Printed courtesy of Steve Herberts Office, Parliamentary Member for Eltham

***Buccinulum bednalli* (Sowerby 1895).**

As reported in the Vic.Br.Bull. No.241 and 242, I collected a specimen of *Buccinulum bednalli* from beneath a rock in 18 metres of water at Castle Rock located in Bass Strait just west of Port Phillip Heads. At the time this was a new record for Victoria - the species previously being known from South Australia to South West Western Australia.

On a night dive with Geoff Macaulay on 22/05/2010 to "Cottage by the Sea", a well known dive site located within the bay at Queenscliff; I secured two additional live specimens as well as sighting a third. All three shells were found in crevices in reef in 3-6 metres of water. The first specimen caught my eye by its rather long siphon and was actively crawling. Had I not seen the siphon I perhaps would not have given the shell a second look, dismissing it as a *Sassi verrucosa*, a similar looking shell when observed in the field.
Shells were 16.9mm 15.8mm. There are no records of this species in Tasmania. Comparing finds after the dive Geoff revealed he had collected 2 dead specimens.

Michael Lyons

Molluscan Notes

Alocospira marginata

Alocospira marginata is an attractive shell that can generally be found crawling on sand at night. I have found it to be reasonably common at Portsea during the hours of darkness. During daylight hours however it becomes much more difficult to find which makes two recent finds on successive daylight hour shelling trips quite exciting.

The first specimen was found in 10 metres of water north west of the pier at Portsea. This shell is 31mm long, pale orange with a broken brown band beneath the suture. It was found ploughing through the sand with part of the shell visible above the sand.

The second specimen was found at Point Grossard at Ventnor during a low tide over Easter. Remarkably this shell was found crawling amongst sand and rock that was left exposed by the falling tide. This shell is smaller (26mm), a much more intense orange in colour with a continuous brown band beneath the suture and a shorter spire.

Green *Notocypraea angustata*.

I wonder what causes certain individuals of *Notocypraea angustata* to apparently incorporate green algae into their shells. Shells with this affliction can be found at many locations including Port MacDonnell but I have found the incidence at Cyril's Headland at Flinders to be quite high. Out of 14 specimens seen within a range of 100 or so metres 2 have been completely green and 2 have a definite green tinge to them as though they are in the process of turning green.

Pterynotus triformis

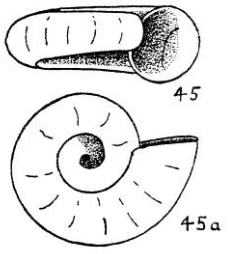
Pterynotus triformis is a common shell in Port Phillip and Westernport Bays. It comes in a wide range of colour forms including black, orange, brown, white and yellow. The shell is quite distinctive and over the years I have accumulated quite a few in my collection. One small specimen I have does not look to me like the typical *triformis*. It was collected off Portsea "from sponge garden in 12 metres on 17/02/2007" looking at some measurements makes me think that this could possibly be a different species. The spire is 1/3rd the length of the shell (*triformis* spire normally ½ the length); width of the shell 2/3rd the length of the shell (*triformis* ½ the length of the shell); there is one shoulder tubercle (*triformis* has 2 or 3); the shell appears fully mature at 31mm (similar sized *triformis* has weaker varices and the anterior siphonal canal is open); surface of shell appears scabrous (*triformis* texture smoother).
The shell looks closer to *P. undosus*
Reference: Vokes, E.H. 1993. Review of the muricine subgenus *Pterynotus* (*Pterochelus*) in Australia. *Journal of the Malacological Society of Australia* 14: 83-105

Michael Lyons

A note on *Omalogyra liliputia* (Laseron, 1954) (OMALOGYRIDAE)

Omalogyra liliputia (Laseron, 1954) is Victoria's smallest gastropod, with a shell diameter in the order of 0.5mm. Owing to absolute constraints on the lower size limit of a eukaryotic cell, organ formation (and thus the possibility of existence) would become rapidly compromised at progressive orders of magnitude below this size.

Thanks to outstanding field and lab work by Joan Hales, who earlier this year procured specimens from coralline algae growing along the lower littoral rocks at the channel edge at Inverloch, Victoria, many of us were afforded an opportunity to see this extraordinary species for the first time, and alive at that! Joan also kindly gave me some dry specimens from Inverloch, which were displayed in the meeting and caused considerable eye-strain as members tried to find them in the vial!



These are Laseron's original figures, the shell and animal are also illustrated in Ponder & de Keyzer (1998), who provide a very good overview of the family.

References:

Laseron CF (1954). Revision of the Lotiidae of New South Wales. *The Australian Zoologist* 12: 1-25.

Ponder WF, de Keyzer RG (1998). Superfamily Omlogyroidea, Pp. 864-5 *in* Beesley PL, Ross GJB & Wells, A (eds). *Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5.* CSIRO Publishing: Melbourne, Part B viii 565-1234pp.

Platon Vafiadis

May Meeting Report

Simon Wilson reported on a solo night dive beneath Stony Point jetty where he found specimens of *Notocypraea comptoni, N. piperita, Sassia subdistorta* and *Conus anemone*. Later that evening he dived with fellow member Geoff Macaulay where they observed *Calliostoma allporti* on its host sponge. Simon also showed a pale *Notocypraea comptoni* from Port MacDonnell.

Michael Lyons showed some specimens of *Cabestana tabulata* showing differences in size between those found in sheltered bays that are large to those from shallow ocean reefs that are small.

Geoff Macaulay showed a *Conus anemone* collected dead from Stony Point and a new book, Mattheus Marinus Schepman (1847-1919) and his Contributions to Malacology

Michael Lyons

June Meeting Report This was a night when several speakers brought in and spoke on three of their favorite shells.

Chris Bunyard brought in and spoke on

Phyllonotus regius (Swainson, 1821) a common but beautiful Muricid taken at low tide in mud on the Pacific side of the Panama Canal.

Purpura planospira (Lamarck, 1822) a rare Thaid from the Galapagos Islands.

Glossus humanus (Linne, 1758) an unusual but common bivalve from San Carlos Spain. A popular shell that is also used as a food.

Simon Wilson showed variations in patterns of three species. *Zoila venusta , Amoria undulata a*nd *Notocypraea piperita.*

Lynton Stephens showed specimerns of *Philippia* (*Psilarus*) *oxytropis* A.Adams, 1854 (Sundial shells) he collected at Bermagui NSW, also a specimen of *Zoila rosselli* he had recently aquired.

Platon Vafiadis brought in specimens of Victoria's smallest mollusk *Omalogyra liliputia* (Laseron, 1954) collected off lower littoral algae from edge of rocks by Joan Hales in March 2010. Article included in this bulletin.

Geoff Macaulay brought in a tray of several species of land snails from the family Placostylidae from the Solomon Islands, He also showed a recent book purchase *Land Snails on the Solomon Islands* Placostylidae.

Michael Lyons showed and spoke on
Lyria mitraeformis Lamark 1804. Although common in South Australia, this shell is very difficult to find live in Victoria. Specimens in his own collection come from Rapid Bay and Edithburgh in South Australia and Shoreham, Portsea and Queenscliff in Victoria. The specimens from Queenscliff tend to have a "rusty" overglaze.

Conus anemone Lamark 1810. This shell is extremely variable throughout its range with many forms. In his collection he has almost white specimens (*singletoni* form) from the Mornington Peninsula, orange flamed (*remo* form) collected from Port Fairy, blue-grey with brown markings from Port Phillip Bay (including a large 68mm specimen from Portsea) and some nice orange with brown markings specimens taken from Stony Point Jetty.

Vexillum (*Pusia*) *australe* Swainson 1820. He has found this mitre shell to be rather uncommon. The "diagnostic" encircling light coloured band is not always present as an all black specimen from Queenscliff shows. He also has a 40mm specimen collected from 12 metres of water off Portsea.

Don Cram showed and spoke on three self collected shells.

Lambis chiagra (Linne, 1758). Live collected on Kasola Island, Western Solomons near Ghizo Island in August 1989. This island, also known as Kennedy Island or Plum Pudding Island is where John F. Kennedy and the surviving members of patrol torpedo boat PT109 swam to after being sunk in a collision with a Japanese destroyer in August 1943. After a brief stop at the island we moved on to close by Olasana Island, where the survivors swam to and were finally rescued . We spent a few hours there and collected some interesting shells.

Cypraea helvola Linne 1758. We live collected this shell one kilometer east of the true international date line on the island of Taveuni Fiji in July 1996. This line for practical purposes has now been taken just east of the island. In early missionary days working on the Sabbath was forbidden, but plantation owners got around this by having plantations on both sides of the line. I have a radula mounted from this specimen.

Pterynotus bednalli (Brazier, 1877) Live collected at East Arm Darwin, while shelling with Jack Austin around midnight on 27/7/1982. It was quite an experience for us using Tilley lamps, but for Jack who was working in Darwin at the time and had to go to work the next day, it was part of his normal routine.

Don Cram

Can anybody help?

Jonathan Fell, from Collector's Corner, has been contacted from overseas by someone who is doing DNA research. They are chasing freshly preserved specimens of *Bankivia fasciata* and/or *Leiopyrga lineolaria.* If anyone can help with live collected examples of these species please contact Jonathan. The researcher has rather specific requirements for preservation.

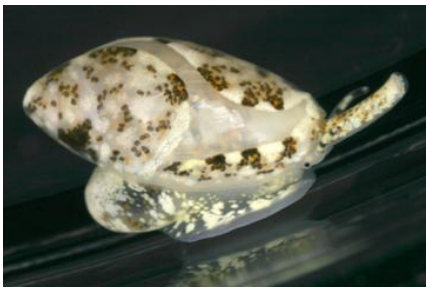
Michael Lyons

Asphyxiation as a function of the molluscan foot.

During a trip earlier in the year to the Cape Otway region with the Marine Research Group of the FNCV, several specimens of the marginellid *Mesoginella pygmaeoides* (Singleton, 1937) were collected from among sand at Point Franklin on the 6th April, 2010. This locality lies just east of Cape Otway.

Features of the living animal of *Mesoginella pygmaeoides* were first discussed by Burn (1958). Whilst under observation in a petri dish, a sub-adult specimen (shell length approximately 5.5 – 6.0 mm) was observed to approach a microgastropod (*Fossarina petterdi*) also in the dish, and proceeded to smother it using its broad foot. The subdued prey was then held tucked up in the posterior aspect of the foot, on the right side, whilst the *M. pygmaeoides* otherwise actively glided around the dish, the rapidity and fluency of its motion not hindered by its load. Over an hour later the marginellid become quiescent and settled in the angle formed by the petri dish floor and its wall, covering its shell with its mantle, but all the while snugly retaining hold of its prey in its foot 'pouch'. It seemed to be saving its prize for a subsequent feast. The photographs below show this specimen, before and also after having captured the *F. petterdi.*





Robert Burn (personal communication) noted that marginellids carry their prey down below the sand surface where they can quietly partake of their meal. Coleman (2003: 42) illustrated the beautiful *Serrata mustelina* dragging a captured microgastropod using its posterior foot. Generally, however, Ponder (1998) notes that the feeding habits of marginellids are not well known, so field observations are needed to contribute knowledge to this area.

Beyond marginellids, the use of the foot to capture and smother prey is known in other gastropod families such as the Naticidae (Kabat, 1998), Harpidae (Smith, 1998) and Volutidae (Darragh & Ponder, 1998). Coleman (2002) shows some pictorial examples involving *Harpa articularis* (p. 117), *Melo amphora* (p. 25) and *Melo miltonis* (p. 136). At Toora in Corner Inlet on the 6th March, 2010, again during a Marine Research Group field trip, Robert Burn observed *Polinices sordidus* carrying a captured mussel (*Xenostrobus inconstans*) with its posterior foot, presumably looking for a quiet spot to consume it (shown, somewhat out of focus, in the photograph below).

In summary, then, the molluscan foot is a very versatile structure. Its potential uses (see also Alison Kay & Wells, 1998), realised of course to different degrees across various molluscan families, can be broadly summarised as follows:

- Crawling / locomotion
- Adhesion
- Burrowing
- Reproduction (eg. in cephalopods, where the foot is highly modified to form arms)
- Brooding
- Capturing and subduing prey
- Swimming / drifting in currents
- Defence (including camouflage and shedding sections of it to detract predator attention)

References:

Burn R (1958). Molluscan field notes, Part 1. *Victorian Naturalist*, 75: 97-99.

Coleman N (2003). *2003 seashells: catalogue of Indo-Pacific mollusca*. Neville Coleman's Underwater Geographic Pty Ltd, Springwood, Queensland.

Darragh TA and Ponder WF (1998). Family Volutidae. Pp. 833-5, *in* Beesley PL, Ross GJB & Wells, A (eds). *Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5.* CSIRO Publishing: Melbourne, Part B viii 565-1234pp.

Kabat AR (1998). Superfamily Naticoidea. Pp. 790-2, *in* Beesley PL, Ross GJB & Wells, A (eds). *Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5.* CSIRO Publishing: Melbourne, Part B viii 565-1234pp.

Kay EA and Wells FE (1998). Form and function in the gastropod foot. Pp. 574-5, *in* Beesley PL, Ross GJB & Wells, A (eds). *Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5.* CSIRO Publishing: Melbourne, Part B viii 565-1234pp.

Ponder WF (1998). Family Marginellidae. Pp. 838-41, *in* Beesley PL, Ross GJB & Wells, A (eds). *Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5.* CSIRO Publishing: Melbourne, Part B viii 565-1234pp.

Smith BJ (1998). Family Harpidae. Pp. 837-8, *in* Beesley PL, Ross GJB & Wells, A (eds). *Mollusca: The Southern Synthesis. Fauna of Australia. Vol. 5.* CSIRO Publishing: Melbourne, Part B viii 565-1234pp.

Platon Vafiadis

Mysterious bivalve

Back in August 1985 I had a short stay with my grandmother who lived at Kingston Beach, a southern suburb of Hobart, on the shores of the Derwent River estuary. Each morning I would get up and walk the beach that was immediately below her house and see if anything had washed in. One day I found at least 5 live *Fusus novaehollandiae*, none of them very large, which were amongst stones at one end of the beach.

Looking at notes I had taken at the time there was an occasion when I went to the beach and found large beds of shells washed ashore after a storm. I collected many shells live including *Cassis semigranosum, Cabestana spengleri, Tawera galinula, Moaricolpus roseus, Dosinia coerulea, Divalucina cumingi, Callista diemensis* as well as some very large dead *Haliotis ruber* and a couple of fresh dead *Argbuccinum pustulata* amongst others. The identity of one bivalve I collected remained a mystery to me and I could not see an example of it anywhere in any of the books I checked. I remember bringing it to a branch meeting in around 1991 and no one was able to assist in solving the mystery, although Robert Burn suggested it might belong to the genus *Tapes.* After 25 years, and thanks to the wonders of the internet, I have finally solved this riddle and identified the shell as *Venerupis largillierti* Philippi 1849.

This species is believed to have been introduced to Tasmania from New Zealand in the early 1900s. Interestingly this species is not mentioned in May's Checklist of the Mollusca of Tasmania published in 1921 nor in J. Hope McPherson's revision published in 1958.

Michael Lyons
