Conus marmoreus Linne

THE MALACOLOGICAL SOCIETY
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VICTORIAN BRANCH BULLETIN

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VIC. BR. BULL. NO. 248 APRIL/MAY 2009

NOTICE OF MEETING

The next meeting of the Branch will be held on the 20th April at the Melbourne Camera Club Building, cnr. Dorcas & Ferrars Sts South Melbourne at 8pm. This will be a members night.

The May Meeting will be held on the 16th, this will also be a member's night.

Raffle & Supper as usual.

Wanted known:

I am about to start on some research investigating the distribution of *Cabestana spengleri* (Perry 1811).

I would like to hear from any collectors in Australia, New Zealand and elsewhere who have collected *Cabestana spengleri* and its sub species, either as live collected, beach shells and fossil or sub fossil specimens.

Photos would be preferred, but aren't essential, but location data and sizes would be important to this research.

Correspondence should be sent to Eddie Beulke, PO Box 591, Morwell 3840, or Email to eddiebeulke@hotmail.com

Eddie Beulke

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

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February meeting report

This was a members night with several speakers contributing.

Lorna Marrow displayed a tray of shells dredged in Keppel Bay while attending the 2nd Shell convention held in Yeppoon in 1967.

Rodney Marrow spoke on a visit to the Oceanographic Museum in Monaco , a three story high history of marine research aquarium, featuring research, discoveries and the ocean mysteries. Rodney spent several hours there and only managed to see part of it and recommended anyone visiting Monaco to take the time to see it.

Max Marrow spoke on a paper by Guido Poppe posted on the internet on a method of identifying shells known as Image Recognition. The article in full, included in this bulletin was sent in by member Dr Bruce Livett, formally of Melbourne University and well known Conotoxins researcher, who has moved in retirement to the Zebra Rock Gallery at Kununurra WA . Bruce and Dianne Livett invite you to visit their tranquil gallery and restaurant on the upper Ord, to feed the fish, sip a mango smoothy and view items fashioned from 100 million year old unique Kimberley rock.

Lynton Stephens exhibited a live taken specimen of *Xenophora peroniana* (Iredale, 1929) from southern Queensland. The distribution of this species ranges from Southern Queensland to Bass Strait.

Michael Lyons displayed several recently collected specimens. His report on these shells is included in this bulletin.

Geoff Macaulay displayed a collection of about 13 species of Land Snails he collected on a recent visit to Assisi in Italy , several close to the famous Church of St Francis.

NEW TAXONOMIC METHODS IN CONCHOLOGY Guido T. Poppe

Since one year, our company started exploring possibilities for faster determination of postage stamps. The obvious solution was that computers replace the manual searches in catalogues by searches in existing digital databases. The process is called Image Recognition. Existing systems are out of price for small companies but we finally succeeded thanks to the open source community to develop a functioning program.

The thinking that such a system may work for the determination of shells was only one step away, so we tried out existing systems and this with fantastic good results. In seconds only programs now sort out similar looking shells in huge databases. The big advantage is that most systems not only show "similar" specimens, but all shells closely resembling the sought after specimen. So, the IR does not only find correct species, but also shows relations among different mollusks.

There is no doubt that this development in programming will prove to be a great additional tool to the already existing methods of determination and taxonomy. As all methods, it has flaws and the human factor will prove to remain a necessary addition to the machine results. Early taxonomy in malacology was mainly focused on external shapes, later, dissection became important and a whole school dedicated time and effort in looking at radulae. The radula became the uppermost way of classification, sometimes with nice results, sometimes with disastrous results. Today, it's molecular research, which is regarded as the ultimate method, again with nice and disastrous results. IR is the next additional tool and I guess that if we combine all methods, the results will prove to be very good.

Advantages of IR are obvious: hard to make and equally hard to use dichotomic tables are a thing of the past. Tedious measurements of shell shapes become almost without sense: the computers calculate shapes in seconds. However, the systems, in order to work, need huge databases of specimens photographed in the same way as the "search item". Our company has obviously the most extensive databases of shells existing today. They number

about 400 000 specimens of well over 16 000 species. But this is still small compared to the 56 000 known marine species and the almost equally same number of land and freshwater snails. Systems do not yet work properly when black and white and color images are mixed. This is a major problem to solve for the future, as science, how strange it may be in the world of today, still uses black and white printing a lot. This is very upsetting, as even cheap goods are now brought to the public in color: even potatoes are shown in color in small supermarkets. New species do not deserve the same attention today. The interpretation of IR results will still be a matter of experts. Many species have similar or almost similar shapes, even when living on the other side of world. But different animals. In fact, they may even belong to different families. Cases are known where animals from different phyla have similar appearances. A classic example is the young stage of a common Indo-pacific sea cucumber that has virtually the same shape and the same colors as a common sea slug, which again has the same shape and colors as a flatworm. IR will not be able to distinguish such things before a long time.

When in some years from now the IR has become cheap, as most often happens with new technologies, and it is available to Mr. Everybody, the net will be the database to search and it is almost certain that IR will be applied to it. If the scientific world decides and get the means to put all holotypes online, then the science and art of conchology will become much easier for all of us.

You can download at http://www.conchology.be/en/shelltopics/visaya-net/

Recently collected shells

I showed a few of the shells I had collected over the summer months.

From Portsea on sand in 2-5 metres at night the following species were collected; *Cancellaria undulata, Polinices didyma, Mesoginella turbinata, Parviterebra brazieri, Zella beddomei, Alocospira edithae, Hastula brazieri* and *Pervicacia kieneri.*

From reef in deeper water at Portsea a 15cm high *Surpulorbis sipho*, a large *Clathrus minora* from a swimming anemone and a nicely marked *Haliotis rubra* that was collected dead. Also a cowry that resembles a cross between *Notocypraea comptoni* and *Notocypraea piperita*.

I also showed specimens of the small bivalve *Mactra jacksonensis* and commented on some unusual behaviour exhibited by these molluscs - at night in 18 metres of water hundreds of these animals, with their shells slightly agape, suspended in the water column drifting with a gently ebbing tide. Was this a breeding event? On subsequent dives I have not observed this phenomenon.

I also showed 3 small unidentified bivalves (possibly of the genus *Montacuta*) that were collected from the posterior of a large heart urchin, *Brissus agazizzi* in 18 metres of water off Portsea. Any help with identification would be appreciated.
A pair of live collected *Cypraea vitellus* that were found during the day in a rock pool at Merimbula Point, Merimbula NSW – a southerly range extension?

From the Normanville area of South Australia a specimen of *Amoria exoptanda* that was collected at night. I also observed fragments of *A. exoptanda* that perhaps were victims of a predatory ray. I also saw some *Ericusa fulgetrum* that had survived similar attacks but with severely damaged shells.
From the Backstairs Passage area of South Australia a specimen of the unusual bivalve, *Ephippodonta macdougalli.*

Michael Lyons

March meeting report

Our speaker for the evening was Daniel Edinger, a professional shell diver from Western Australia, who specialises in *Zoila*. Daniel is the son of Andrew Edinger who has pioneered the discovery of many rare and exotic *Zoila* forms. Daniel showed spectacular images of living specimens in their natural habitat and spoke at length about many years of diving with his father. He spoke of the thrill of finding new forms and of the dangers of their occupation. He also had a large range of *Zoila* specimens on display and offered for sale.

Report on the August 2008 meeting.

Tonight's speaker was Associate Professor Rob Day from Melbourne University whose topic was "Will the ill wind of abalone disease produce better management by the fishing industry".

Rob began his talk by discussing aspects of abalone biology. Interesting facts included the limited dispersal of abalone larvae with most juveniles settling within 200 metres of where they were hatched and this results in relatively discreet populations on different reefs. An example of this is differing sizes at maturity which poses challenges for policing minimum catch sizes as some areas may have larger abalone that have not reached maturity and should not be fished. Rob showed that a mature abalone has a rounder more domed shell. Abalone fishermen have worked cooperatively to manage the fishery. The abalone virus has affected the western and some central abalone fishing grounds and the fishermen have continued to fish responsibly to ensure that the industry survives. The abalone virus kills 50-95% of abalone on a reef but has not recurred in reefs previously affected.

Michael Lyons

A visit home: C.J. Gabriel, 1907

A little more than a century ago, in 1907, young and aspiring Melbourne conchologist (by profession pharmacist) Charles Gabriel undertook a "grand tour" to England. He took with him Victorian specimens of doubtful identification for comparison with type specimens of species held in the British museum (Natural History), now the Natural History Museum. He made the personal acquaintance of prominent British conchologists such as E.A. Smith at the Natural history Museum, E.R. Sykes, Melvill, Tomlin, Sowerby, Woodward, Ponsonby. All of whom willingly exchanged reprints of their papers for those of his. He visited antiquarian book dealers, and purchased many works of interest to an Australian molluscan worker. He also attended at least one meeting of the Malacological Society of London, that was held on Friday 14th June 1907, an opportunity for him to show off some Victorian shells. The meeting report reads:

The following specimens were exhibited: –

1. *Mitra vincentiana* Verco
2. *M. franciscana* Tenison Woods
3. *M. tasmanica* Tenison Woods
4. *Conus segravei* Gatliff
5. *Typhis yatesi* Crosse
6. *Cancellaria maccoyi* Pritchard & Gatliff
7. *Scala aculeata* Lamarck
8. *Marginella laevigata* Brazier
9. *Calliostoma hedleyi* Pritchard & Gatliff
10. *C. incertum* Reeve
11. *Cypraea angustata* Gmelin
    and varieties ─ *piperita* Gray
    comptoni Gray
    bicolor Gaskoin
    declivis Sowerby
    albata Beddome
12. *Clavagella multangularis* Tate
13. *Chalmys undulatus* Sowerby
14. *Cyclopecten nepeanensis* Pritchard & Gatliff
15. *Modiola arborescens* Chemnitz
16. *M. victoriae* Pritchard & Gatliff
17. *Scala nepeanensis* Gatliff
18. *S. translucida* Gatliff
19. *Daphnella excavata* Gatliff
20. *Ancilla petterdi* Tate
21. *Acanthochites glyptus* Sykes
22. *Mitra rosettae* Angas
23. *Conus anemone* Lamarck (white variety)
24. *Zenatia victoriae* Pritchard & Gatliff

Nos. 1─6 dredged in Western Port Bay; 17─21, Port Phillip Bay; 22─24, Ocean Beach [Sorrento ─Portsea back beach]. Mr. Gabriel also exhibited *Cypraea xanthodon* Gray from Queensland, and *Cypraea decipiens* E.A. Smith from W. Australia.

Many of the names in the above list have changed in 100 years, some subsumed in the synonymy of earlier species, some transferred to another genus and a few misidentifications and removed from our molluscan lists. But a good number remain valid species.

Robert Burn

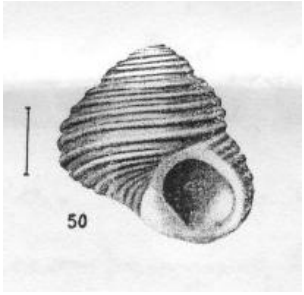
Charles Hedley: some comments

During 1912, Charles Hedley, conchologist of the Australian Museum, Sydney, examined and compared Australian molluscs with type specimens in the Natural History Museum, London. As a result, he was able to correct names that had until then been incorrectly applied to Australian species, and to figure, some for the first time, many species from their type specimens (Hedley, 1913, Studies on Australian Mollusca, Part X1. *Proc.Linn.Soc. NSW* 38 (2): 258-339, pls 16-19).

In this paper, Hedley commented, not always favourably, upon many of the authors who had described and figured, or did not figure, shells supposedly localized from Australia. In some instances, Hedley was most scathing. Of the published figure accompanying the description of *Leptothyra crassilirata* Preston, 1909 from Queensland, he wrote: " The published figure of this species is so vague that it might well represent a finger print from a police record". Both Preston's original figure and Hedley's new figure are shown here.

Arthur Adams was a particular *bête noire* to Hedley, who at several opportunities decried Adams brief latin descriptions, lack of comparative comment and failure to figure the species being described. In the above paper, Hedley wrote (p.328): "Having left his species in the wrong genus, unfigured, unlocalized, known and knowable only to those who saw the type, Arthur Adams fortunately crowned his work by the adoption of a preoccupied name".

Years earlier, in Part V11 (1902:609) of the above series of papers, Hedley wrote of Adams: "Several new Australian *Triphora* unluckily fell into the incompetent hands of Arthur Adams, who in naming them, deliberately omitted all measurements, neglected to figure species, and gave scanty descriptions. Probably he never used a microscope and [E.A.] Smith has observed that he was colour blind".



Hedley's figure

Leptothyra crassilirata
Preston, 1909

Preston's figure

Robert Burn

Distributions of some trochaceans in south-eastern Australia

Clanculus maugeri is a impressive trochid, rather large for the genus, which is illustrated in Macpherson and Gabriel's `Marine Molluscs of Victoria.' In a recent bulletin (#246, Oct/Nov 2008) I reported finding this species at Bermagui in southern NSW but questioned whether it should remain on the Victorian list. Macpherson & Gabriel included it in the book on the basis of a comment by Tenison-Woods, who cited no locality data. Wilson included Victoria in the range, possibly following MMOV. However several experienced collectors I asked all stated that they have never seen it in Victoria.

In the previous article I also noted, with some incredulity, that Des Beechey on his internet site www.seashellsofnsw.org.au gives Westernport Bay as the southernmost end-of-range for this species on the mainland. In an email Des has kindly informed me that his record is based on an Australian Museum specimen collected by Ivan Marrow in 1967 from Somers, which is north-east of Point Leo and Balnarring. This is very surprising however such `extra-limital' records of seashells do occur occasionally. Amongst the trochaceans I can give two other examples, both from Jack Austin who has scrutinised the beaches of Westernport Bay for several decades. *Astele scitulum* is a calliostomatid which is moderately common in NSW and recorded as far south as Mallacoota in eastern Victoria. However many years ago Jack collected one at Cat Bay on Phillip Island. This shell was sent to Robert Burn, who confirmed the identification, however the specimen was crushed

by Australia Post in the return mail. Fortunately Jack subsequently found a second shell at the same locality. Even more unexpectedly Cotton reported collecting six beached specimens in 1934 from Robe, South Australia. Another surprising find by Jack was a specimen of *Phasianotrochus bellulus* in Westernport Bay. This species is normally restricted to WA, SA and the extreme west of Victoria.

Recently I came across a second Victorian record of *Clanculus maugeri*. According to www.ozcam.gov.au the Museum of Victoria holds a specimen dredged from 65 metres of water off Wilson's Promontory in 1981 and identified by Robert Burn. So it seems *C. maugeri* can be retained on the Victorian list after all. It is a striking shell and even in NSW quite uncommon.

Lynton Stephens

M.S.A Victorian Branch Financial Statement 30/01/2009

Balance as at 21/01/2008		$2755.69
Receipts		
Raffles	$119.75	
Shell sales	$37.00	
Subscriptions received	$230.00	
Book sales	$300.00	
Craft shell sales	$404.00	
Donations	$55.00	
Bank Interest	$142.84	
	$1288.59	
		$1288.59
		$4044.28
Expenses		
Postage	$125.35	
Subscriptions out	$140.00	
Subscriptions to other clubs	$113.50	
Room rental	$270.00	
Tea/biscuits	$50.00	
Book Purchases	$300.00	
	$998.85	
		$998.85
Balance as at 30/01/2009		**$3045.43**

Michael Lyons (Hon.Sec/Treasurer)