July 1998

THE SYDNEY SHELLER

Newsletter of the Shell Club of Sydney
NSW Branch, The Malacological Society of Australasia Limited ACN 067 894 848
Dedicated to the investigation and preservation of Molluscan Fauna and their environment.

Next Meeting:

Date: **22nd August 98**
(normally 4th Saturday)

Location: **Ashley Miskelly's Home**
9 Kirkwood Ave
Blackheath NSW 2785
Ph 02 47877404
(Normally Taronga Zoo)
(via staff car park)

Time: **2.00pm**

Seminar Topic: **Look at Ashley's Private Collection**

Contributions:

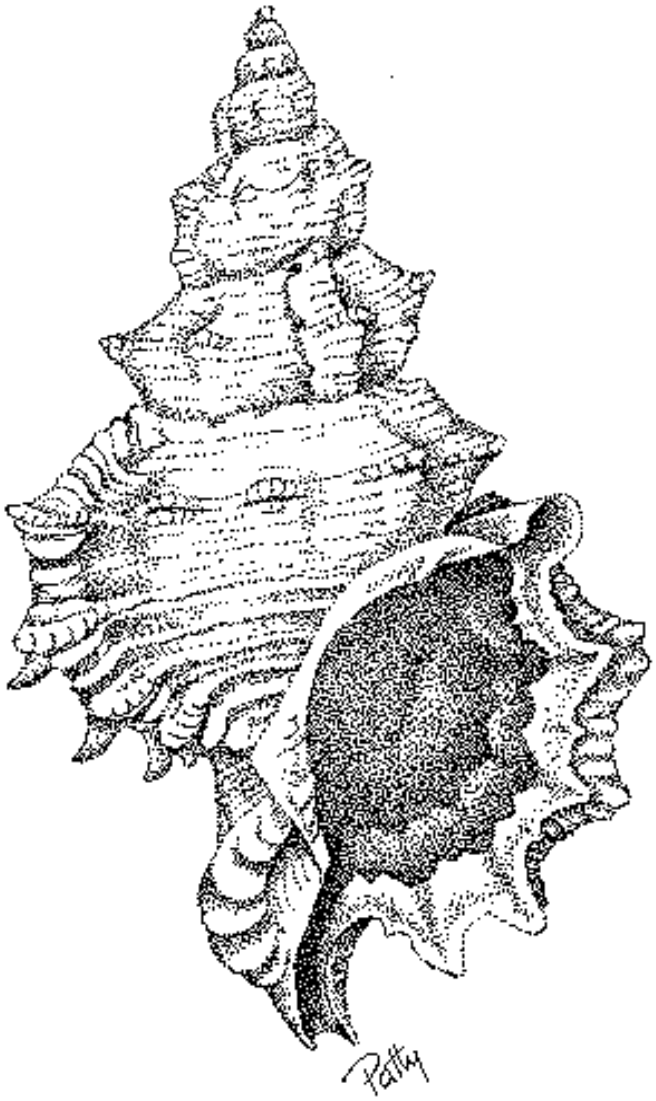
Please send contributions to:
Steve Dean
166 Narrabeen Park Parade,
Mona Vale NSW 2103
Photos, and disc files of articles by mail, or preferably by email to
steve@easy.com.au

If you cannot get your text onto disc, then **Karen Wadwell** may be prepared to type it for you - send material to:
1/7-9 Severn St
Maroubra NSW 2035

Office - Bearers:

President: Des Beechey
Vice Pres: Patty Jansen
Secretary: Chris Barnes
Treasurer: John Dunkerley
Field Trips: Ashley Miskelly
Sheller Editor: Steve Dean

The newly formed Executive Management Committee:
Des Beechey, Chris Barnes, Steve Dean and Ashley Miskelly



Bursa oyamae (from Townsville)
Courtesy Patty Jansen

Some of the topics inside:

New Sheller Format:

As you can see, with a change of editor there has been a change in format for this Newsletter, and this will continue to evolve.

Some members have suggested that the Newsletter be printed less often, bi-monthly or even quarterly, resulting in more articles per issue. If you have an opinion on this let Steve Dean know over the next month - a sort of informal vote. (In any case if there are not enough good articles for an individual issue then publishing will be deferred).

If members with failing eye sight find this format difficult to read, larger typing with only two columns may be possible. Please indicate if you have such a concern.

Seminar Presentations for 1998-1999

Month	Meeting Organizer	Presentations (topics to be confirmed)
July 98	Patty Jansen	Bruce Livett cone specialist re poison study
August 98	Ashley Miskelly	Visit to Ashleys mountain collection
September 98	Stephanie Clark	Chris Barnes Tasmania trip
October 98	Ron Moylan	Shell Show
November 98	Michael Keats	TBA
December 98	Christmas Party	N/A
January 99	Ernie Uhle	Des Beechey North Australia collecting trip
February 99	Steve Dean	John Dunkerley
March 99	John Dunkerley	Ron Moylan
April 99	Chris Barnes	Patty Jansen
May 99	Des Beechey	Ashley Miskelly

New Club Structure:

The following club organisational structure was presented by **Des Beechey** as his platform when standing for president of the Club in June. Des' proposals were accepted, and he was elected with unanimous support.

COMMITTEE
Club to be managed by an Executive Committee of 3-4 people that meets on an evening once every 2-3 months. The Secretary to handle all correspondence and other administrative matters.

MEETING ORGANISER
One person, different each month, to organise and chair meeting. Duties include:

- make sure room is unlocked and locked
- furniture is set up
- equipment (slide projector, over head projector, etc) available for presenter
- refreshment are provided (either personally or by someone else)
- chair meeting
- Put up notices so visitors can find room

- Organise the people to present field trip reports, new acquisition reports, book/magazine reviews

MEETING FORMAT

- 30 minutes Field trip reports, New shell acquisition reports, Book and magazine reviews.
- 15 minutes Administrative notices from the committee.
- 45 min. to 1 hour Speaker
- Followed by refreshments.

SEMINAR PRESENTATIONS
Listed members will give one high quality, well prepared 45 minute talk this coming year, and be prepared to do similar talks in future years. Talks to be illustrated by slides, overhead projector transparencies, charts or video, and specimens.

- Listed people, allocated to talk:
  Chris Barnes, Ron Moylan, John Dunkerley, Dr Patty Jansen, Des Beechey, Ron Moylan
  Ashley Miskelly

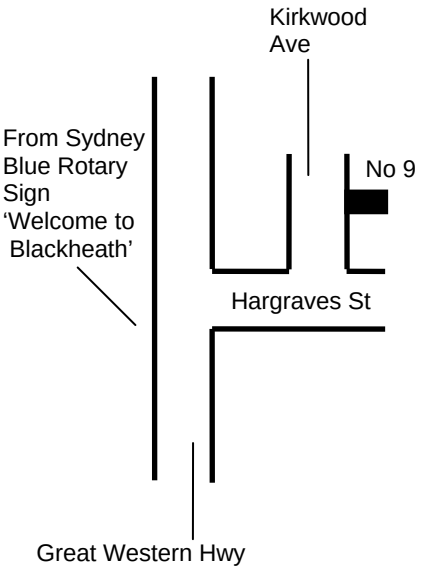
- Listed people yet to be allocated, and yet to agree topic:
  Michael Keats - Strange Molluscs from Sydney Harbour (Iredale paper on the topic)
  Michael Shea - Common land snails of NSW - where to find them and how to identify them.
  Bob Reed - Mitres

- One or two visiting speakers

EQUIPMENT
The Club buy an overhead projector, and consider a video microscope.

EDITOR'S NOTE
It is highly desirable if each Monthly Seminar Presenter could provide a written summary of their presentation (on disk) for inclusion in these newsletters - for the benefit of those that cannot make the meeting.

August Meeting Map:



9 Kirkwood Ave
Blackheath 2785
Ph 02 47877404

The Malacological Society Code of Ethics:

The Malacological Society of Australasia Limited considers the preservation and conservation of the fauna of Australasia as one of the Society's most important goals. In keeping with this goal, the Council has

established a code of ethics to guide the members of the Society in their collecting pursuits. By introducing a code of ethics the Council wishes to demonstrate that The Malacological Society of Australasia is a responsible body of naturalists who have a positive role to play in the preservation of Australasia's living resources.

1. CAUSE MINIMAL DISTURBANCE TO HABITATS

Habitat destruction is the most potent threat to molluscs (and other biota). Although other factors (e.g. pollution and land clearing) cause habitat destruction on a large scale, collectors can have significant impacts on local areas if they do not observe some simple rules:-

- Always carefully replace any log, rock, coral boulder etcetera, immediately after inspecting the underside for molluscs. Try to disturb as few habitats (e.g. boulders, vegetation) as possible because the simple act of lifting a rock or log may destroy animals.
- Always observe the laws regulating access to sites (e.g. reserves and parks). These rules have been established to protect habitats and their constituent communities.

2. COLLECT THE MINIMUM NUMBER OF SPECIMENS NECESSARY

Indiscriminate collecting can have devastating effects on local populations of molluscs. In keeping with this, the members should:-

- Abide by local, national and international laws governing species and habitats at all times.
- Never collect more specimens that are strictly required for study and if possible collect empty shells.
- Never collect individuals that are involved in reproductive behaviour (e.g. egg guarding, breeding aggregations).
- Try to avoid the collection of juveniles or living individuals with damaged shells. In the first case, these have yet to breed and in the second case, damaged shells if left alive can add to the pool of animals available for reproducing but are usually of little value to collectors.
- Photography should be considered as an alternative wherever possible (especially for larger species).

Natal Museum (South Africa):

A museum saved from the chopping block

Dick Kilburn and
Dai Herbert
Natal Museum

The following Internet success story came in (courtesy Patty Jansen) from the Mollusca listserver, which is an international Internet discussion group of scientists and affiliates in the field of molluscs:

BACKGROUND:

Approximately a year ago we sent out an appeal under the heading "Crisis at Natal Museum". In this we pointed out that the government department under which the museum falls intended to devolve the institution to the KwaZulu Department of Education & Culture, a provincial body to which we not only had little relevance, but which was already about US$100 million in the red. If this happened, we believed that research at the Natal Museum would be doomed and the very survival of the institution under severe threat. In desperation, we appealed to overseas colleagues to write letters of protest not only to our national Department of Arts, Culture, Science and Technology, but (to prevent them from simply being ignored) also to the Department of Environmental Affairs, the State President's Office and the various South African embassies abroad.

CONSEQUENCES:

The response was overwhelming - to us working in semi-isolation down here near the tip of Africa, it was unbelievably gratifying to receive copies of letters of protest from practically every country where molluscs are studied (in fact these letters are still arriving!). There is every reason to believe that the sheer volume of messages received, halted the process in its tracks and forced the officials to contemplate alternatives.

The government's response was the appointment of an independent 4-person commission, which spent a week investigating the past and potential future role of the Natal Museum. The commission proved to be impartial and completely open to our arguments (and to the mountains of reports and statistics with which we presented them). Although we have only very recently been allowed to see their report, it is overwhelmingly supportive, and in full agreement that provincialisation was not a practical option for us.

OUTCOME:

Although the final agreement has yet to be signed, we have been informed that WE ARE TO REMAIN NATIONALLY FUNDED. We will have to liaise more closely with the province, and the institution will have to be transformed in various ways (which will include changing our name), but basic running costs will be met by central government. Whilst this will not solve many of our financial difficulties, it should provide a much greater level of security for the collections and staff. Research funding remains an uncertain issue - it appears that for this we will have to make project-based applications to a block fund in competition with other national museums and similar organisations. Several other potentially problematic issues such as publication of the Annals of the Natal Museum, remain to be clarified.

TO ALL THOSE WHO WROTE ON OUR BEHALF WE WOULD LIKE TO EXPRESS OUR HEART FELT GRATITUDE AND APPRECIATION. WE FIRMLY BELIEVE THAT IT WAS YOUR SUPPORT THAT SAVED US.

The Fossil Shells of The Cadell Marl Lens

By Michael Keats

There are many Nirvanas for fossil collectors in Australia. One of the most famous is the Cadell Marl Lens in South Australia about 8 kilometres south of Morgan on the Murray River.

In the cliffs at this point, the Morgan Limestone, a cream coloured richly bryozoal formation, is interrupted by a

highly fossiliferous blue grey sandy marl occurring as a lens 300 metres long and up to 8 metres thick. This is the famous Cadell Marl Lens (Middle Miocene [balcombian]).

This lens is the classical "Gastropod Bed" from which Tate (1885) collected most of the marine species which he described from the Murray River Cliffs.

The dominant mollusc is *Turritella murrayana,* a gastropod. Other macro-molluscs include:-

Bivalves: *Cucullaea corioensis, Limopsis maccoyi, Glycymeris convexa, Antigonia dimorphylla, Corbula ephamilla*

Gastropods: *Turritella murrayana, Turritella aricula, Columbarium spiniferum, Charonia radialis, Charonia tortiostris, Argobuccinum pratti, Peristerina altifrons, Peristerina murrayana, Volutospina antiscalaris.*

Good friends, Chris Ah Yee and Janice Krause of Hamilton, Victoria, visited the site in June 1997 and returned with a better than average collection of the macro-molluscs. Being primarily interested in fossil echinoids, they forwarded the molluscs to me to add to my growing collection of Tertiary molluscs from around South Eastern Australia.

(See photo, last page)

In addition to the "Tate List" above, I received Fasciolariids, Marginellids, Naticids, Ancillids, Turrids, Carditids, Limids, a fragment of Cypraea, several Dentalliums and Solitary Corals. By accident a Vermitid attached to a Turritella murrayana arrived as well.

Turbinellidae - An attractive Shell Family

by Ulrich Knodel

***Vasum caestus* (Broderip, 1833)**

syn:
Turbinella ardeola VALENCIENNES 1832 (nom. oblitum)
Vasum coestus "Reeve" ABBOTT 1950 (sic)
Vasum muricatum coestus (BRODERIP 1833)

The "Panamanian vase" is reported to be common but nevertheless it is not often found in dealers lists. The shell is usually 50 - 80 mm high and typically vasiform with a row of strong knobs on the shoulder, two spiral rows of smaller but prominent knobs near the siphonal end and a strong spiral cord (or more cords) between these two knobby rows. The spire is slender and rather high erected.

The habitat is intertidal to roundabout 11 fathoms. This species has been known recent from the Gulf of California to Peru, with the Bay of Caracas, Ecuador, as type locality. It is too known since the Pleistocene from fossil beds in Mexico, Ecuador and Peru. It based on *Vasum* ***haitense*** (middle Miocene); the extinct *Vasum* ***pufferi*** from Pliocene is closely related.

ABBOTT, 1950 has written in his remarks about *V. muricatum* :
"We have noted no specimens from the Western Atlantic which have not 5 plicae on the columella. This species is represented in the Panamic province by the sub species coestrus Reeve. Our series of Eastern Pacific specimens is small, but it appears that coestus may have 5 or 4 plicae on the columella at the same locality. Pacific specimens tend to have heavier spiral cords on the centre of the body whorl."

ABBOTT, 1974 has listed (in "American Seashells") caestus (with coestus as a misspelling) as a sub species of **muricatum:** " The subspecies coestrus….occurs from the Gulf of California to Panama, and it differs only in having 4 (rarely 5) columellar folds and in having heavier spiral cords."

VOKES, 1966 has written:
"Discussion: … Considering the conservative nature of the genus Vasum as a whole the differences between *V.* ***caestus*** and *V.* ***muricatum*** are impressive. The most important difference is in the heavy spiral ribs on the body whorl. In *V.* ***muricatum*** there are six, but in *V.* ***caestus*** there are only four. The ribs in *V.* ***caestus*** are in addition, much heavier… the periostracum is darker brown in colour and much thicker. Another difference, not always

constant, is the number of columellar plications. In *V.* ***muricatum*** there are always five; three stronger with two weaker ones between. In *V.* ***caestus*** there are usually only four, but sometimes a weaker fifth one is intercalated between the posterior two in the fashion of *V.* ***muricatum*** .

The juvenile of *V.* ***caestus*** bears remarkable resemblance to the ancestral *V.* ***humerosum*** as can be seen from the figure given by Emerson (1964, fig.4). If ontogeny has anything to do with phylogeny then it would appear that *V.* ***caestus*** is even more closely related to the ancestral line than is *V.* ***muricatum*** ."

The Amber Shells Of New Zealand

By Michael Keats

In the village of Matakohe on the North Island of New Zealand is a Museum. Yawn - so what?! This Museum is different and very special. Housed in it are the treasures of the New Zealand kauri timber industry as it was in the boom days of the 19th century. To do it justice, a full day visit is required.

One of the fascinating by-products of kauri timber trees is the exuded gum, which over thousands of years and subsequent burial, has been altered until it resembles amber. It has all the features of amber glorious colours, trapped insects and spiders, takes a high polish and can be worked into all kinds of designs for jewellery and other purposes.

The Matakohe Museum boasts arguably the finest kauri gum collection in the world. There are sculptures of life-sized busts of distinguished New Zealanders, model ships and carved reproductions of New Zealand shells! After two hours in the "gum" room, I was spellbound. There is something about the fire and light play in amber which makes it like no other substance.

The closest would be Australian opal, but then opal is special in an entirely different way.

The attached photograph *(on the last page)* is a taste of the gum collection. If you are taking a short trip to the North Island of New Zealand, allow time to visit Matakohe - it is truly a great experience!

Book Review

Fauna of Australia vol. 5: Mollusca: The Southern Synthesis

Edited by Pamela L.. Beesley, Graham J.B. Ross and Alice Wells, January 1998
ISBN 0 643 05756 0, 1250 pages, 2 volumes (not sold separately), b/w line drawings, black and white, SEM and colour photos, 219 x 302 mm.

Published by CSIRO Publishing, P.O. Box 1139, Collingwood Vic 3066, Australia (A$295 Australia and New Zealand, US$295 + US$8 rest of the world)

Have you ever wondered why the Mitridae and Costellariidae are two separate families? Or wanted to have some background information on the Vitrinellidae? Or wanted to know what key publications exist on the Rissoidae? Or you may want to know more about the reproductive organs of gastropods, rocky shore ecology, or you may want to have an up-to-date systematic list of the mollusca.

This is the work to answer all your questions! Although the title suggests that the work is limited to Australia, this is really not the case, because much of the information is of a very general nature. This work summarises the current state of knowledge on the taxonomy, anatomy, biology and ecology of the families of molluscs that are known to occur in Australia. Most of these families of course have members in other parts of the world as well.

Over 70 authors from different disciplines within the molluscan science, and 15 artists have contributed to this mammoth work, which has been years in the making. No effort has been spared to uncover anything that has been written about the molluscan families in the book.

The resulting work is two big, heavy volumes packed with information. After some very interesting chapters about the history of malacology in Australia, and its major contributors, and the ecology of shore life, the book presents a systematic account of

the families of molluscs known to occur in Australia. Family descriptions include many exquisite line drawings of shells, or animals. The work does not present any new research, but gives a very thorough overview of what has been published, and this of course extends to work done outside Australia. Other than illustrate what has been done, this work also highlights gaps in our current knowledge, of which there are many.

Unless you are a professional molluscan taxonomist, you will find many families in the book that you have never heard of. Some of these are re-groupings of older families, and include larger and well-known species. It is the first time, for example, that I have seen Nacellidae as a family for the limpets of the genus Cellana. The book also maintains the Nassariidae, Fasciolariidae and Melongenidae in separate families, rather than to join them with the Buccinidae as has been the trend in recent years.

Mollusca: the Southern Synthesis is not an identification tool. The discussion of taxonomy stops at genus level. You may just be able to identify a species or two from the examples. Many people have expressed regret at this fact, but to produce a similar work to species level would have been impossible.

There are over 2000 species recorded from Sydney alone. The micromolluscs from northern Australia are still largely uncharted territory. However, that said, I do think that this series illustrates the rather worrying trend of professional taxonomists to move into studying the higher taxonomy, sometimes leaving the mundane job of describing new species to amateurs.

Don't buy this work for the colour pictures. Although each volume has a well-designed middle section with great photographs of live animals, the bulk of the work is illustrated with exquisite black and white line drawings, which show much more detail than a photograph ever could.

Unfortunately, it doesn't come cheap, and the price is probably the major drawback for those interested in this book. But we will have to live with the fact that to produce such a work for such a limited audience brings with it a high cost per book. But students, professional malacologists, university libraries, and the serious amateur malacologists have simply got to buy this book.

Northern Species Migrating South?

Or are we now discovering the True Geographic Ranges of many species?

By Michael Keats

Members and in particular diver members are making more and more discoveries locally of what have been regarded as “tropical species”.

These occurrences have occurred in Port Stephens, Sydney Harbour and Botany Bay.

Some of the more remarkable visitors include *Strombus vomer* Roding, 1798 in 12m off Bottle and Glass Rocks in Sydney Harbour; *Astele speciosium* (Adams, 1855) at Chinaman’s Beach - washed up fresh dead; *Terebra bernadi* (Deshayes, 1857) and *Terebra amoena* , Deshayes, 1859, both from 15m at Bottle and Glass Rocks.

A little further north in Port Stephens in 20m of water, three pairs of bivalves collected by Ashley Miskelly would seem to provide further evidence of the southern species boundary being drawn too far north.

Bivalve authority, Kevin Lamprell, has confirmed that these three species are *Decatopecten strangei* (Reeve, 1841); *Globovenus capricornea* (Hedley, 1908) and *Acrosterigma vertebrata* (Jonas, 1844).

Ernie Uhle’s favourite diving spot, Botany Bay, to the south of Sydney, has yielded 28 species of Cypraea, many of which have been in the past, infrequent visitors to Long Reef when conditions were right, but now seem to be well established in Botany Bay.

This news is of importance in many respects. Firstly it would seem to confirm that the warm coastal current is more persistent consistently than it has been in the past and as a corollary, the water temperature is remaining warm throughout the winter each year. Secondly drawing lines on maps designating areas as reserves or whatever for species protection is flawed to say the least. Thirdly the capacity of nature to colonise species whenever and wherever conditions are favourable is undiminished.

Amber Shells of New Zealand

Sydney Harbour and Botany Bay have both been subject to speculation that they contain “subfossil” or remnant species. *Mitra solida* Reeve,1844 is a classic example. Many specimens from the dredging work of the “Triton” and similar vessels have been named as possible living species but as yet a live specimen from these areas is yet to make it to the Australian Museum collection.

The debate will undoubtedly rage for many years to come. In the meantime every documented find adds to our knowledge.

Janice Krause at the Outcrop of the Cadell Marl Lens