July - August 2001

SYDNEY SHELLER

Newsletter of the Shell Club of Sydney
NSW Branch, The Malacological Society of Australasia Limited ACN 067 894 848

Shell Club of Sydney Mission Statement:

To appreciate, understand and preserve shells and their environment and to share this with others.

Next Meeting:

22nd Sept 2001
(Normally 4th Saturday)

Ryde Eastwood Leagues Club
117 Ryedale Rd
West Ryde, Sydney

1.30 for 2.00pm

Seminar: Favourite Shell
All Members

Contributions:

Please send contributions to:
Steve Dean
166 Narrabeen Park Parade,
Mona Vale NSW 2103
Text in electronic form only. Photos, and discs by mail, or preferably by email to **steve@dean.as**

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

Office - Bearers:

President:	Patty Jansen
Vice Pres:	Maureen Anderson
Secretary:	Chris & Karen Barnes
Treasurer:	John Franklin
Sheller Editor:	Steve Dean
Raffles:	Maureen Anderson

(The executive plans the field trips)

Keppel Bay Shell Show 2001

Townsville Shell Show 2001

Courtesy Maureen Anderson

Some of the topics inside:

Want your own copies?

The Sydney Sheller is provided to Sydney Shell Club Members.

Anyone can be a member.
Membership runs from July.
AU$25 per year.

Includes Sheller folded & Aust. postage
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A4 envelope non-folded, add **$18** per year

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To subscribe/become a member send payment and your details to our treasurer:

John Franklin
51 Grandview Grove
Seaforth, NSW
Australia 2092

Note: The Sydney Shell Club is a branch of the Malacological Society of Australasia (MSA) It is preferred that you are also a member of the MSA. MSA membership can be organised through Des Beechey
Des@phm.gov.au
26 Malga Ave
Roseville Chase NSW 2069

News, & Small articles:

Wanted: classifieds for this section. Electronic contributions to Steve Dean, or if typing is required to Karen Barnes.

Rare Snails Returned

A rare snail presumed extinct in the 1980s ***Notopala sublineata hanleyi*** was found and has been returned to the river Murray after a breeding program by Adelaide University.

Over the past few decades 18 snail species have disappeared from the Murray because of changes in the ecosystem. They were an important link in the food chain.

Haliotis divers may monitor Oceans

The Inaugural National Abalone Convention in Adelaide is a gathering of the Australian Abalone industry.

One of the proposals being considered is to get abalone divers to report on the marine environment to Government, oceanographers and other scientists.

Australian Abalone divers spend over 100,000 hours underwater. As a result they are well place to monitor changes to the underwater environment, and because of their industry they have an incentive to report problems or negative trends.

Shell Club June Minutes

23/06/2001.

Meeting opened by P. Jansen at 2:26pm.

New Shells

Ron Moylan had acquired some Cypraeidae from southern NSW. He inquired if anyone among the group had an example of ***C. hartsmithi*** Schider 1967 to compare them with.

Field Trip Reports

C. Barnes reported collecting a beached Architechtonicid from Malabar, ***Psilaxis radiatus*** (Röding, 1798)
M. Keats mentioned that it was Biodiversity Month.
Michael is getting some plan filing cabinets put together. Anyone interested in getting some should contact him.

New Books

P. Jansen passed around copies of "Molluscs Magallanicos" by Daniel Oscar Forcelli and "Common Seashells of New Zealand", by Brian Parkinson.

General Business

M. Keats reported that an E- Council for the MSA has been proposed. This will expand active membership across South East Asia. Currently there are approximately 390 members in total, 180 of these in Australia.
The Editor of "Molluscan Research" has resigned. Winston Ponder and Annie Kiddal are covering editorial tasks temporarily.
Steve Dean asked for an Assistant Editor to help with the mail out of the "Sydney Sheller".
Kath McCamley volunteered to fill the position.

Presentation

M. Keats gave a presentation on Trigs Beach Western Australia, just north of Perth.
Michael had received a large collection from Bep Schekkerman. Bep had collected at Trigs Beach for over 10 years. The material was a diverse mix of tropical, subtropical and more temperate species. Michael stated that the beach wasn't a lot to look at, as it was divided in two by a sandbank, yet storms and weather patterns had allowed the accumulation of the variety of species over time. Two of the major influences on available species were the Roaring Forties and the Leeuwin Current. Michael demonstrated these natural phenomenon with overheads of weather patterns downloaded from the Internet. During the discussion, which followed the presentation, it was mentioned that this current flowing down the Western Australian coast was not dissimilar to what we experience in Eastern Australia.

Meeting closed at 3.15pm
C. & K. Barnes
Secretary

Minutes of The AGM of the NSW Branch of the Malacological Society of Australasia Limited ACN 067 894 848 held in a Meeting Room at Ryde Eastwood Leagues Club on 23/06/2001.

The meeting was opened by the president, P. Jansen at 2:00pm.
It was unanimously agreed that all office bearers would continue their duties unopposed for the next financial year, except for the treasurers position which was accepted by John Franklin, as Peter Pienaar was unavailable this year.

Note:- Treasurers report to be published in the Sydney Sheller.

Note:-The March 2002 meeting will hopefully be moved to a week before or after the Brisbane Shell Show, as the two clash and the branch meeting would be almost a no show. Chris Barnes to discuss possible date change with RELC management. Relocation, if approved will be advised in the Sydney Sheller

Proposed Presentation Schedule 2001/2002

Month/Year	Meeting Speaker	Proposed Subject
July 2001	Members	5 min talks
August 2001	C. Barnes	Update Little Bay cowries
September 2001	Members	Favourite Shell
October 2001	Ron Moylan	Annual Shell Show
November 2001	Members	Sinistral Shells
December 2001	N/A	Christmas
January 2002	Bring Shell Books	Shell Identification
February 2002	TBA	TBA
March 2002	TBA	TBA
April 2002	TBA	TBA
May 2002	TBA	TBA

Meeting closed at 2.25pm

Malacology - Research the past and the future

John Franklin

It is generally accepted that the middle of the nineteenth century was the starting point for a revolution in conchology and natural history. Prior to this period the crowning jewel in eighteenth century natural science was the development of the binominal system for naming organisms, the generic name – specific name concept by Carl Linnaeus in his Systema Naturae.

By the eighteen twenties the typical attitude to conchology seems to have been

"Shells form a link in the great chain of nature, and constitute a department of rational inquiry worthy of the researches of men of science; and when we consider the wonderful diversity of singular and beautiful forms which they present to our notice, they cannot fail to invite the attention of the most common observer. Conchology, indeed, is a study peculiarly adapted to recreate the senses, and insensibly to lead us to the contemplation of the glory of God in creation." (Outlines of Conchology, Times Telescope, 1822).

From about the 1850's there commenced an era of Governments sending ships to sea not for war, but on natural history expeditions. Some of these expeditions conducted dredging of the sea depths, unearthing many species previously unknown. Not only have the names of ships for example, Porcupine, Coquille, Bonite, Beagle, Samarang and Challenger; been written into history but many of these were accompanied by such now famous people as Adams, Quoy, Gaimard and Darwin, just to name a few.

Conchologists were now not only concerned with habitat, feeding habits etc. but they made drawings of the live animal and recorded the results of their investigations in books.

The resulting enquiry into the soft body of molluscs led to the development of malacology as a science.

When considering the future role of Conchology, perhaps the above quote dealing with "singular and beautiful forms" is an excellent starting point. To these concepts must be added other facets of the science, for example, the study of feeding habits, habitat, geographic distribution, comparative analysis of species, observations of live animals, drawings and photography.

Furthermore with the development of Marine Reserves and the appearance of "no collecting" notices in New South Wales, for the future it may well be that both Conchology and Malacology scientists will have to address the current restrictive legislation and its effect on their respective sciences.

Sydney Shell Club Annual Shell Show
Saturday 27th October 2001
Categories for Shell Displays:

No.	Category	No, of Specimens in Display	Size Range
1	Shells from one locality/country	20 max	Any size
2	Marginellidae Worldwide	20 max	Any size
3	Cypraea worldwide	15 max	Above 50mm
4	Cypraea worldwide	15 max	Below 50mm
5	Micro Shells worldwide	20 max	Below 10mm
6	Mitridae worldwide	15 max	Above 20mm
7	Strombidae worldwide	10 max	Above 50mm
8	Conidae worldwide	15 max	Above 60mm
9	Muricidae worldwide	12 max	Any size
10	Volutidaea	12 max	Above 50mm
11	Shell of the show – Must be part of an exhibited shell display in any of the above categories, Any size		

Entry Fee: $3.00 per entry, exhibitors may enter up to 3 entries per category.
Non-Entry Penalty: $5.00 per person.

JUDGING:

Judges will consider, where applicable:-

*Quality and perfection of specimens
*Correct identification and number in display.
*Quality of display, aesthetic appeal.
*Where specific sizes are nominated specimens must be mature.

The Molluscan Fauna of Trigg's Beach WA

Text of Michael Keats club meeting presentation

Background and history

Bep Shekkerman a long time shelling friend, correspondent and ardent naturalist made me a very special gift when I visited her some 3 years ago at her home in Innaloo, a northern suburb of Perth.

Previously she lived just inland from Trigg's Beach on the coast a few kilometres north of Perth city. Most of you would be on location if I said it was a stones throw north of Scarborough Beach. Scarborough is where Alan Bond built a huge hotel on the beach so that a commanding view was available to watch the famous Americas cup race held in Western Australia.

When Bep lived nearby Trigg's Beach (which she did for more than 10 years – 1980's to 1990's), the temptation to go and shell was ever present. Bep, being the active collector she is succumbed to the temptation often! This provided opportunity to collect across all four seasons, all weather conditions, high and low tides and the vagaries of El Nino and La Nina.

The special gift that Bep gave to me was the complete collection of her collecting efforts at Trigg's Beach over that 10 years! Even though it is a spectacular array I would hesitate to say it is comprehensive.

The shear quantity, diversity and variety of material that washed up and was collected by Bep has been huge. Sorting it and identifying it still goes on! What I will show you today is only a part of the 'Trigg's Beach" collection.

What I want to share with you today is some of the magic of this locality and the excitement of finding species beyond their accepted normal distribution range. Bep gained the excitement by doing the collecting in all kinds of weather. I gained the excitement by seeking to identify shells, which are way outside their accepted habitat boundaries.

Location

Looking at the map of the Coast around Trigg's Beach and not knowing the area, the first time visitor would be unlikely to pinpoint Trigg's as a likely spot to collect. Superficially the coast appears more or less as a straight line with little in the way of features to create significant diversity of habitat. It is a classic case of go and sample before you make a judgement.

Trigg's Beach is divided into Trigg's North and Trigg's South by significant rocky outcrops. There is also an 'island" (Trigg's Island) which is very close to the shore. The term 'island' is used somewhat loosely and really only applies at a time of very high seas! The beach area between the rocky outcrops acts as a natural collecting spot for tidal debris and shells.

The decaying Pleistocene limestone strata make for a great array of habitat as well as local spectacular stacks and caves.

This part of the Western Australian coast is subjected to the mixing of two major ocean currents. These are the 'warm' Leeuwin current and the 'cold' Western Australian current. The resultant meeting and complex mixing of the two currents gives rise to layering and mixing in the water, with warmer (lighter) water sitting on top of the colder (heavier) water.

In times of the El Nino and the converse La Nina, the relative strength and influence of the warm and cold currents waxes and wanes. As a consequence the water temperatures vary markedly and the veliger animals they support also changes. Viable habitats for species also change.

Researcher David Griffin of the CSIRO Has produced some fascinating work on the currents and associated phenomena in relation to the larvae of the WA Rock Lobster. His work and that of his colleagues on the key factors for larvae distribution and survival are an exact parallel for molluscs, which have a veliger stage in their development.

I will now read some quotes from CSIRO marine research as it appears on the CSIRO web site:
http://www.marine.csiro.au/~griffin/WACD/index.htm
One of the more fascinating data maps shows the key position of Perth and indeed Trigg's Beach, not only for 'drifters" but also for Chlorophyll, an essential source of food for the larvae.

The research work is presented as a series of movies showing the ocean surface environmental data. The site is well worth a visit

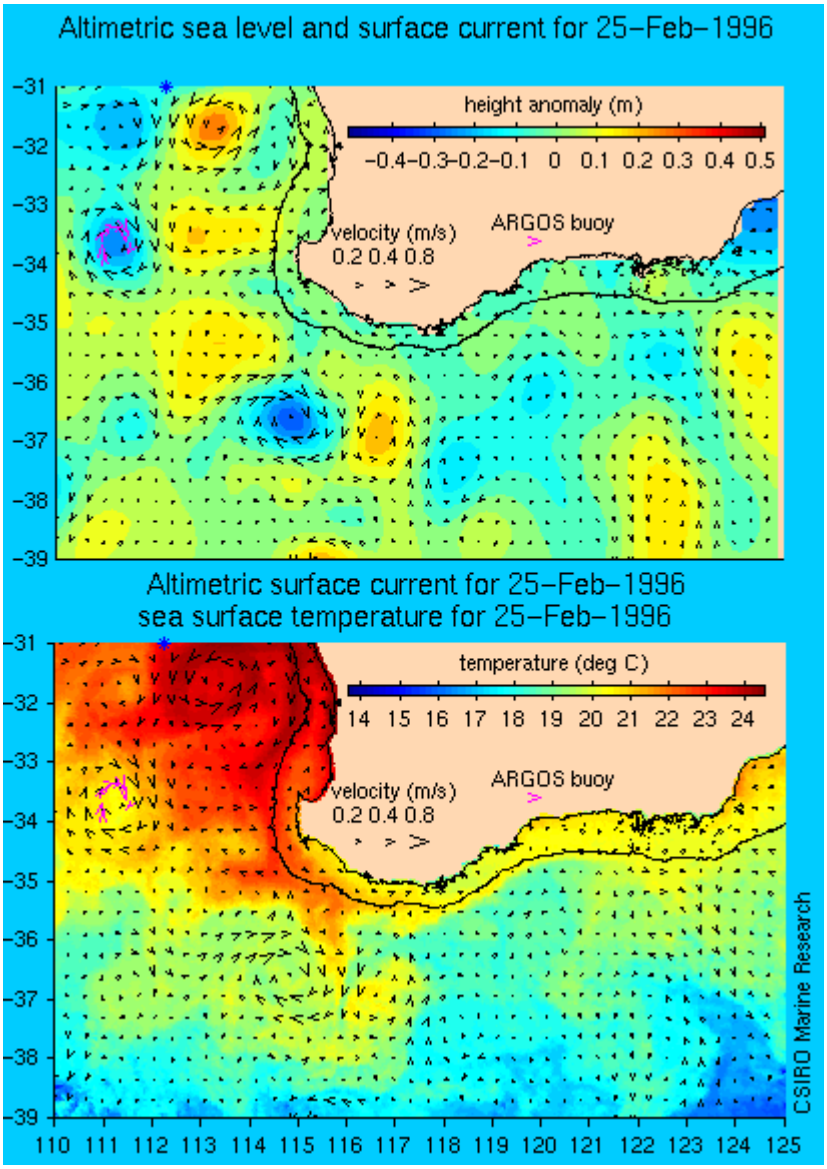
During the times when the Leeuwin (warm) current and current eddies extend south the number and diversity of species of tropical origin surviving, reproducing and dying increases. The converse is true when the cold Western Australian current dominates. The unique geology and geography of Trigg's Beach and Island provides a diversity of habitats which captures dead and dying molluscs and sweeps them into the natural catchments which the rocky outcrops and associated rock platforms and pools provide.

In doing my research for this presentation I was also struck by the words of an unknown author of the Western Australian Branch of the MSA who documented a field trip to Cape Peron on 29th October 1988. Whilst Cape Peron is to the South of Perth the commentary is still relevant, particularly in light of the knowledge we now have of the ocean currents, temperatures and food supplies off the W.A. coast

In part this is what that field report had to say
"… The rock outcrops ……and the islands and rock stacks offshore are eroded by wave action to form narrow intertidal rock platforms and sub-tidal reefs.
"The erosion of these Pleistocene sandy limestones produces the submarine and terrestrial sandy substrates adjoining them. Movement of this sand by wave action is retarded by the presence of sea grass meadows, but some sorting of sand does occur to produce areas of different grain size in inshore areas…..
"……the identification of dead shells from the beach drift demonstrated a greater diversity than was apparent from the live animals seen during the survey. This indicates an ephemeral occurrence of some species and / or the lack of sampling of infaunal and otherwise cryptic species. The inclusion of dead shells in the survey allowed a wider coverage in microhabitat and time.
" … The assumption is made that shells are not transported far after death. This belief is supported by the experience of some of the participants who had a long experience of this area….

The Fauna

The fauna that I have identified so far is an eclectic mix of species of the tropical north and species of the temperate south. Whilst Trigg's Beach is not unique in this mix it seems that the interaction of all the varying factors enable at least the temporary extension of many species ranges. There is a similar phenomenon with Sydney Harbour that has a well-documented listing of 'tropical wanderers'



The above picture and the following text are from the referenced CSIRO web site. On this site the pictures are shown in movie form showing the transitions over time. For more discussion of the Leeuwin current, see the CSIRO web site.

The top panel above is a colour-coded map of tidal-residual sea level. The scale shows that bright red, for example, means the sea level is 0.4m higher than the tidal prediction. Black arrow heads show the ocean current velocities. Closely spaced purple arrow heads show the positions and velocities of Argos satellite-tracked free-drifting buoys, at 12-hour intervals over a 5-day period. In the bottom panel, the current velocities and drifter trajectories are repeated from the left panel, but the sea level map is replaced by a map of the sea surface temperature composited over a 10-day period.

Think of the top panel as a coloured-in weather map of the ocean. In the same way that meteorologists can determine the winds from maps of atmospheric pressure, oceanographers can determine the surface current from a map of sea level. In September 1992, a satellite was launched with a radar altimeter that measured sea level accurately enough for this to be done. The arrow heads show the geosotrophic current going clockwise around a sea level depression, and anticlockwise around a high. The current is fastest where the sea level changes abruptly, for the same reason that winds are strongest where the isobars on a weather map are close together. The accuracy of the satellite 'altimetric' current can be gauged by comparing its estimates with the trajectories of the drifting buoys. The drifter going around an eddy at 33° 30'S, 111°E, for example, agrees with the satellite estimate. A quantitative comparison of the drifter velocities with altimetric estimates shows that the typical difference is 0.25m/s, or half a knot. Most of that is because an altimeter can only measure sea level directly under itself. The Topex/Poseidon altimeter takes 10 days to complete a global grid of lines 250km apart, by which time the ocean has changed somewhat. The fairly wide spacing of the satellite tracks makes it impossible to see all the detail of the sea surface, so the maps are smoother than reality, and currents often weaker. The relative error (error divided by the speed) is least where the current is strong: drifter speeds of 1.5m/s (3 knots) are quite accurately estimated by altimetry. The bottom panel will be more familiar, since satellites measuring sea surface temperature have been flying since the 1980s. The AVHRR is a scanning instrument, so each overpass of the satellite returns a 2000km-wide swath of data. However, it cannot see through cloud, so again, it ends up taking typically 10 days to piece together a complete map.

The surface temperature maps, in conjunction with the sea level maps, provide the information needed to initialise hydro-dynamic models of the ocean circulation, in much the same way that numerical weather forecasting models need atmospheric pressure and temperature data in order to produce accurate forecasts.

The temperature data show the Leeuwin current bringing warm water southwards down the WA continental slope. The Current meanders and sheds eddies along the way, dissipating some of its flow, but much continues around Cape Leeuwin into the Great Australian Bight.

My Trip to Yeppoon and Townsville Shell Shows

By Maureen Anderson

Firstly, I would like to tell our readers how Noel and I arrived at Yeppoon. We flew to Brisbane , then once we collected our baggage, we took the escalator up to the next landing at the airport and caught the Air train which was there waiting for us, to go to Roma Street station in Brisbane.

At Roma St, we boarded the high speed Tilt Train to Rockhampton. It was sheer luxury. To us, it was the fastest way to travel the Queensland coastline. The train is outfitted with the latest in audio and video entertainment. Individual headsets, seat controls, passenger travel information and trolley meal service were provided to each passenger. We travelled Business Class and we thought it was worth every cent. The girls serving us were great and we could not fault the meals. We had a T.V. in front of us, which showed two movies. The trip took seven hours and I fully recommend it to everyone. Bookings are essential.

On arrival at Rockhampton, we hired a car to travel to Yeppoon and Townsville.

We finally arrived on the Saturday morning of the Keppel Bay Shell Show. The hall looked wonderful. The tables were decorated with hanging tea towels showing shells and marine life on them.

The exhibits were wonderful too. The show was a credit to everyone. I was very impressed with the stamp exhibit depicting shells accompanied by the illustrated shell.

As well as the competitive entries there were shell displays, which consisted of the following categories:

1. Educational table
2. The Life Cycle of Shells
3. Shell of the Show
4. Visiting Exhibitors
5. Juniors Shell Craft
6. Juniors- General Collection Over 10 years and Under 10 years.

The committee had organised a reasonably priced Arts and Craft Stall, which also sold home made cakes, fresh fruit, jams and pickles. There was also a table set up with Papertole. Food, tea and coffee were readily available.

As I passed around the room and chatted with the various dealers I knew, I couldn't help but notice the quality of the shells, which were extremely good.

There were a few Dealer stalls selling shells including Ron Moylan from the Sydney Club.

Raffles were run over the whole weekend.

We also met the delightful Ena Coucom and she supplied me with a ***Cypraea coucomi*** shell.

The next event was the Saturday night Shell Show dinner held at the Happy Sun Restaurant. The food was good and the company great! There was a good multi draw with excellent prizes.

We were both back again on the Sunday of the Shell show.

On Monday we attended the field trip to Great Keppel Island. The company was good and Jean Offord made a very large fruit cake, which was enjoyed by all with a cup or tea or coffee. Thanks Jean!

At low tide I could view clumps of coral and I found a ***Conus spectrum,*** (50mm) just coming out of a sandy rubble patch and further on I found two heart urchins ***Lovenia elongata*** and ***Mauretia planulata*****.**

We had lunch and stayed around the Monkey Bay side of the island. On our way back to Yeppoon, we had more of Jean's cake and coffee.
Noel and I would like to thank Molly and Ted Sheehan and Irene and Arthur Prowse for inviting us into their homes to view their large and wonderful shell collections. I know we have forged a lasting friendship with them. We also had the pleasure of meeting Allan Limpus and his wife Joan with whom we enjoyed many a chat on shells.

_____

So then we said goodbye to Yeppoon and headed up the Bruce Highway to Townsville.

The weather was becoming warmer as we drove further north. Sugar cane farms were everywhere and the cane trains were very busy carrying the harvested cane. The countryside was very dry and hot.

We arrived in Townsville on the Friday in time for the shell show. The show was held at the Gutheringa Bowling Club. The room looked stunning with all the tables set up for display of shell exhibits or shells for sale.

The quality of the shells was excellent. Some of the competitive shell displays were:

1. Mixed families
2. General collections
3. Novice Section
4. Shells on Orange Background (general collection)
5. White shells
6. Variation of a species
7. Personal favourites
8. Feature Display
9. Shell of the Show.

There was also a juniors section.

Afternoon tea, coffee and biscuits were available. Dinner was a smorgasbord, enjoyed by all. There was an excellent multidraw raffle with prizes that just kept coming. Supper was provided by the Shell Club after the raffle and this was most enjoyable.

The presentation of trophies was also held on the Saturday night.
Unfortunately, we could not stay for Sunday as we were flying back home to Sydney

3-D Shell Image

Taken from a recent Sydney News Paper.
This is a good three-dimensional image.
Only the Cone, Olive, two of the Limpets and the Mitre are plain on the background.
The other 5 shell species and the starfish are arranged in several different layers above the page.

If you have not learnt how to see 3-D trick images, use the following tips:

- View from directly in front, eyes30cm to 50cm from the page (Just over 1 foot)
- Stare for a while and relax your eyes. (Sometimes helps to be tired)
- Imagine you are looking at something 20cm beyond the page. (Some people find this easier to do by starting with the page much closer to their eyes – too close to focus, then slowly moving it further back to get the image to appear.)
- When the 3D image starts to appear you will get a shock and your eyes will automatically focus back onto the page rather than beyond it and the 3-D effect will disappear.
- Try a few more times and it will stay.
- Once the 3-D image is visible, keep your eyes relaxed and look at the different 3-D layers to see how many there are. Shortly the full effect of the image will become completely clear.

Good Luck – Steve Dean