

March 2000

# 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:

**22<sup>nd</sup> April 2000**  
(normally 4<sup>th</sup> Saturday)

**Ryde Eastwood  
Leagues Club**  
117 Ryedale Rd  
West Ryde, Sydney

**1.30 for 2.00pm**

**Seminar: TBA**

## 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](mailto: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: Des Beechey  
Secretary: Chris & Karen Barnes  
Treasurer: Peter Pienaar  
Sheller Editor: Steve Dean  
Raffles: Maureen Anderson  
(The executive plans the field trips)



*Cypraea ziczac* Linnaeus, 1758  
Collected, Sydney, NSW Chris Barnes

## Some of the topics inside:

- News and Classifieds
- *Cypraeidae* of Little Bay (Feb. Seminar)
- Minutes January Meeting
- Shell club promotional flyer
- *Pattelidae*
- *Conus anemone* at Shark Island

## Natural History Books

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**Members News, &  
Buy, Swap & Sell:**

Wanted contributions to this classified  
section of the Sheller. Please get  
electronic contributions to Steve Dean,  
or if typing is required to Karen Barnes  
(See front cover for contact details)

Wanted gossip for this section of the  
Sheller. Tell Steve Dean your news.

Note, This issue is being mailed with the  
April issue as there was no meeting in  
March due to the National Shell Show

Dear Steve,

Just a short note to let you know our  
Club's Buy Swap and Sell is on 6<sup>th</sup> May  
2000 1.30pm at Kuttabul Hall, North of  
Mackay.

Competitions are:

- Variation Chicoreus W.W. (10)
- Large Cypraea over 60mm  
W.W (10)
- 5 Harpa / 5 Babylonia
- 1 Largest Tun

We have usual sausage sizzle at the  
end of the day.

If anyone from your way can make it we  
would love to see them.

Annette Whitney  
Pres. Whitsunday Shell Club  
07 4956 1708

An interesting web site:

<http://www.mov.vic.gov.au/crust/>

This is the site of the Museum of  
Victoria.

From here go to the "Crustacean  
Gallery" for a fascinating journey into all  
kinds of crustaceans, with good  
photographs.

**Sydney Sheller  
Subscriptions**

The Sydney Sheller is provided to  
members of the Sydney Shell Club.

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

Includes Sheller folded & Aust. postage  
(Shellers produced when there are enough  
articles, maximum of 10 issues per year)

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:

Peter Pienaar  
[pienaar@mania.com.au](mailto:pienaar@mania.com.au)  
9/13-15 Chisholm Cres  
Bradbury NSW 2560

Or to the Sheller Editor, Steve Dean

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@pnm.gov.au](mailto:Des@pnm.gov.au)  
26 Malga Ave  
Roseville Chase NSW 2069



*Cypraea caurica**Cypraea flaveola*

## Cypraeidae of Little Bay

By Chris and Karen Barnes

The first shell I ever collected was a very fine fresh dead large specimen of *Cypraea erosa* Linnaeus, 1758. Karen had surprised me with a weekend away for my birthday (Feb 1994) at "Kim's" resort, Toowoan Bay on the central coast. Whilst glancing through a coffee table book I stumbled across an article on shells. The article recommended carefully turning stones at low tide to observe interesting molluscs, so I did and of course still do when I get the opportunity.

The first book I ever purchased on the subject of shells was "What Shell Is That" by Neville Coleman, and I still refer to it today. The second shell book I bought was "A Collector's Guide To Sea Shells Of The World" by Jerome M. Eisenberg. The book contains a listing of Malacological Societies of the world. Karen investigated further and through this process we made contact with Michael Keats and the NSW Branch of The MSA. It does not seem like very

long ago (six years this month) that Karen and I were welcomed as new members and shortly thereafter as office bearers, because they're always in demand.

A number of collectors and authors believe the "Cowries" are "overrated" and "overdone", stating they have vast amounts of material written about them already, hence they're boring. I disagree, the *Cypraeidae* have fascinated me and I would imagine millions of people around the world since long before recorded history. I believe that the beautiful colours and patterns along with their natural highly polished lustrous finish make them desirable to collectors and novices alike. Some of the most wonderful and interesting things about the *Cypraeidae* are the living molluscs, with their mantle lobes completely extended enveloping the shell when active, yet wholly withdrawn into the shell if the mollusc is threatened. Often the contrast between mantle colour and shell colour can be extreme. One example, *Cypraea asellus* Linnaeus 1758, has a jet black mantle with a white shell, crossed by three broad bands on its dorsum, varying in colour from tan to black.



Another example is a specimen of *Cypraea teres* Gmelin, 1791, which I observed on three separate occasions

over a period of one and a half months during visits to Little Bay between 26/12/99 and 06/02/2000. The animal was surprisingly active and yet seemed to stay within a few feet of where it was first observed. Its colour was a translucent, fluorescent orange all over including mantle, siphon and tentacles (plus eye stalks) though its foot was lighter in colour, tending towards white beneath. The papillae were of a medium density on the mantle, their colour was dark green with a yellow/gold dot in the centre (very Australian). The shell had a very light-apricot/cream base, and sides of equal colour with six or seven large dark brown spots. The dorsum was bluish/green with three dark brown widely spaced bands, with many lighter small squiggly lines running the length of the shell. The anterior end callus appears to be a pink/mauve colour. An observation of the location was that the undersides of many of the rocks were covered with various marine growths of an almost identical colour to the cowry. I do not know if the cowry was feeding on these growths or if its colour was an adaptation for camouflage.

For approximately the last eighteen months at various low tides we have made many visits to Little Bay (via Prince Henry Hospital). Over this period we have observed, photographed or collected intertidally twenty- one species of *Cypraeidae* from this site. I believe the variation of species as far south as Sydney is an interesting point, as many authors consider Sydney beyond the currently accepted range of a number of *Cypraeidae*. At previous NSW branch meetings the range of various *Cypraeidae* species was discussed with Stephanie Clark and other experienced shellers. It was indicated that a number of species could be moved down the coast during their veliger stage by the prevailing current. It is believed that these species could survive in the short term, possibly seasonally and not be able to establish or maintain a true breeding population. I can only confirm this view, with my observations, one example is: - *Cypraea arabica* Linnaeus, 1758, on the 28/02/1999 we observed three juvenile specimens and obtained some photographs. Over the next few months these cowries were sighted a number of times up until mid way through the year when I believe they could no longer survive the cold weather. I collected their dead shells among rocks, one juvenile on 14/05/99 and one at sub-adult stage on 08/07/99.

The following table contains the *Cypraeidae* species found over the last 18 months during visits to Little Bay, Sydney, NSW:

Legend :- A=Alive, D= Dead, FD=Fresh Dead

Number	Species	Status	Occurrence	Size
1	<i>Cypraea annulus</i>	A	seasonally common	29mm
2	<i>Cypraea arabica</i>	A	seasonal	55mm
3	<i>Cypraea asellus</i>	A	uncommon	21mm
4	<i>Cypraea caputserpentis</i>	A	common	43mm
5	<i>Cypraea carneola</i>	FD	uncommon	71mm
6	<i>Cypraea caurica</i>	A	uncommon	45mm
7	<i>Cypraea cernica</i>	FD	rare	20mm
8	<i>Cypraea clandestina</i>	A	common	19mm
9	<i>Cypraea erosa</i>	FD	seasonal	41mm
10	<i>Cypraea erroneus</i>	A	common	35mm
11	<i>Cypraea felina</i>	A	uncommon	22mm
12	<i>Cypraea fimbriata</i>	A	rare	12mm
13	<i>Cypraea flaveola</i>	A	moderately common	22mm
14	<i>Cypraea gracilis</i>	D	uncommon	18mm
15	<i>Cypraea humphreysii</i>	A	rare	13mm
16	<i>Cypraea lynx</i>	A	rare	15mm
17	<i>Cypraea moneta</i>	A	seasonally common	29mm
18	<i>Cypraea teres</i>	A	uncommon	35mm
19	<i>Cypraea vitellus</i>	A	common	55mm
20	<i>Cypraea xanthodon</i>	D	uncommon	30mm
21	<i>Cypraea ziczac</i>	FD	rare	21mm

Some of the more unusual specimens collected and or observed are as follows below.

***Cypraea ziczac*** Linnaeus, 1758 collected, Little Bay, Sydney, NSW 14/5/1999 at low tide among rocks (very fresh dead specimen). Barry Wilson in *Australian Marine Shells* vol 1, 1993 gives the species an Australian range between WA and northern NSW. He also mentions at one time Schilder used the subspecies name *vittata* Deshayes, 1831 for east-Aust specimens, and that Iredale (1939) used the subspecies name *signata* to describe a specimen found at the mouth of the Clarence River northern NSW. He stated that both these names could probably be relegated to synonymy.

***Cypraea humphreysii*** Gray, 1825, I have observed and released two separate examples of this species at Little Bay, both times the specimens were juvenile though on the first occasion Karen was with me so we were able to get some photographs.

***Cypraea erroneus*** Linnaeus, 1758, Although a common species at Little Bay, the reason I mention it here is that a specimen was found on the 17/11/1998 sitting on a white circular egg mass beneath a medium sized rock. Unfortunately we did not have the camera with us that day, when we returned a couple of days later they were gone.

***Cypraea carneola*** Linnaeus, 1758, This species is considered moderately common. What makes it interesting in this case is its size, most authors give a size average of 50mm, and a specimen I collected at Little Bay, on the 10/12/1999 measured 71mm and had been killed by an Octopus.

***Cypraea caputserpentis*** Linnaeus, 1758, I believe this species to be the most common, yet one of the most beautiful. At Little Bay it's obvious the Sydney Octopus (*Octopus cyaneus* Gray, 1849) agrees because of the large number of specimens I have seen preyed upon by them. Last weekend whilst shelling at Little Bay, I saw half a dozen octopus in gutters and under

ledges yet the one that interested me most was the one with two freshly drilled ***C. caputserpentis*** shells lying outside its den. Between 09/01/2000 and 24/01/2000 I observed two pair of ***C. caputserpentis*** sitting on greyish egg masses, believe it or not under the same rock. The longer the eggs were there the darker and browner they seemed to get and by 06/02/2000 I believe they'd hatched and gone on their way.

I guess since the first shell I collected was a cowry I'm a one eyed supporter and they'll always be my favourites. Its also strangely true that the more I see of these creatures the more interested I become in their conservation and available knowledge. I had read this sentiment in a number of authors' books, and I now believe it to be true.



## Minutes Summary

22/01/2000. C. & K. Barnes

Meeting opened by P. Jansen at 2:02pm.

Patty apologised to Adrian Browne, in his absence, for not being able to contact him about the changes to the November meeting that was adjourned to Winston Ponder's home for a BBQ Christmas party. Our own Christmas function at Kurnell was not well attended; discussions are needed to decide what people want to attend. Field trips are obviously not exciting enough.

**Field Trip Reports** C. Barnes showed some current acquisitions from Little Bay, Kurnell and a secret North Shore location.

Patty found a *Phyllocoma speciosa* Angus, 1871 at Kurnell.

### **New Acquisitions**

Ron Moylan displayed a live taken *Cypraea leucodon* (Broderip, 1828) from Queensland about 30 km east of Swain's Reef. This is believed to be the first example of this species taken in Australian waters. Ron also displayed a *Cypraea friendii thersites* form *contraria* Iredale, 1935. This shell was taken in 12 m of water in Bass Strait and is usually only found in deep water.

There was also an Australian *Cypraea langfordi* Kuroda, 1938 form *moretonensis* which is worth about \$US3500 due to its rarity. Thanks to Ron for allowing us to observe these magnificent and rare shells.

**Book Reviews** P. Jansen with the latest edition of *La Conchiglia* which contains articles on Liviadae, Triviadae and Colubraria.

A special issue containing *Ryostoma sp*; land snails of south east Asia, Thailand, Malaysia and Cambodia. "*Recent Xenophoridae*" by Kurt Kreigh and Axel Alf from Conch Books is now available with a forward by Winston Ponder. The book costs \$99, has lots of Australian content and full colour photographs including bases of shells for easier identification.

*Conchological Iconography- Strombs* is available. There are over 100 colour plates with variations and different angles, comprehensively covering the Genus through to the mid 1990's. *Vita Marina* December 1999 edition and the newsletter *Spirula*.

### **General Business**

A positive response was received from Tanya Ekert (Functions Manager RELC) about our continued use of the meeting rooms at the club. Michael Keats had a query about membership and purchase of the shell poster from Christopher Lamare and Debbie Riethmueller of Newcastle. Michael proposed that the

information sheet distributed during the Second National Shell Show be updated and sent out as replies to membership enquiries.

Peter Pineaar mentioned his concern that the cost of the Sydney Sheller was reducing the bank balance and although we just broke even in 1999 he would like to see a little more money coming in to keep the branch solvent. Peter moved a motion:

"That the annual subscription be increased to \$25 from the 1st of July 2000." Seconded by Ron Moylan. The meeting voted unanimously in favour of the motion.

Ron mentioned that David Tarrant from Coffs Harbour will be attending the February meeting and would like to see examples of *Cypraeidae* from Sydney. Meeting Dates: It was decided that the March meeting would be cancelled due to the attendance of many of the members at the Third National Shell Show in Adelaide at that date. It was also decided to cancel the December booking with RELC as this is normally the Christmas function.

**Presentations** : Stephanie Clark and Patty Jansen organised a Shell Quiz. Great fun was had by all. Meeting closed at 2:52pm.

## Shell Club Promotional Flyer

### Draft 1 - for discussion, by Michael Keats

#### **The Sydney Shell Club**

The "Sydney Shell Club" (The Malacological Society of Australasia – NSW Branch, ACN 067 894 848) is part of a national society dedicated to fostering the study and appreciation of shells. Shells are found in the sea, in rivers, on land and as fossils.

The membership includes people with a diverse range of interests within the study of shells – ranging from those interested in the beauty of nature to those concerned with exploring the mysteries of mollusc DNA.

#### **Membership**

The membership is balanced between amateur and scientist, which makes for great stimulating and interesting discussions and field activities. Museums and universities are well represented. Scientific members are always willing to share their knowledge with those who want to know more.

At branch level the focus is very much on appreciation and gaining knowledge. A strong commitment to the environment goes with membership. All members want to be able to revisit field sites and observe changes to populations and biodiversity.

#### **Field Trips**

Field activity is the heart and soul of the Club. Members continuously visit and revisit sites, monitoring the changing mollusc fauna. Some collecting of live material takes place but more often photography and dead specimens provide an appropriate record. Field trips are held in coincidence with low tides to maximize the benefit of each visit

Increasingly many old well-documented collections are offered to members from estates and members transferring overseas. A process of recycling material with good data is ongoing.

Diving provides the opportunity to see and collect deep-water species in their natural environment. Diver members are adding to species and distribution knowledge all the time. Photographs of feeding, courtship and reproduction and other data are shared with scientific members.

### **Meetings**

Meetings of the Club (NSW Branch) are held on the 4th Saturday of each month at the Ryde Eastwood RSL Club, Ryedale Road West Ryde. Meetings commence at 2.00 p.m., however the room is usually open from 1.00p.m. so that members can chat and share news before the meeting. The formats of meetings vary, but usually there is a study of a particular Genus or family, which is notified in advance. Members are encouraged to bring to each meeting specimens for identification together with any books or papers that may help

### **Publications**

Publications of the Club include the "Sydney Sheller" which is produced monthly. Content is based on articles written or contributed by members. From the national organization, NSW members receive the quarterly Australian Shell News and once or twice a year a volume of Molluscan Research.

The editors of each publication are always seeking articles. The editor of the Sydney Sheller will accept articles on field trips, unusual finds, species variation, book reviews, comments and items of general interest. Wherever possible material should be sent by email or disk.

All publications are free to members. Back copies of some issues of all publications are available. Nominal charges apply.

### **Markets**

Markets are held informally at the conclusion of each meeting. Members who have specimens to exchange are encouraged to use the meetings as an opportunity to share their finds whilst others expand their collections.

### **Guest Speakers**

Guest speakers and overseas visitors are always welcome. Whilst the program is set well in advance opportunity to share information with visitors is never overlooked.

### **Shell Shows**

Shell Shows are a popular activity. The Club stages an Annual Shell Show each September, where members can display the best of their specimens and research. Competition is keen. The Club hosted the Second Australian National Shell Show in 1998. This event attracted a large audience from around Australia and overseas. The Club has put in a bid to stage the 5th National Shell Show in 2004.

### **Research Support**

Research support is provided to students of Malacology of all ages via the Mollusc Research Awards. Donations to the award fund are tax deductible. The Awards are designed to support amateurs and students undertaking research. Applications are advertised in the ASN each May and grants are allocated in August each year. Anyone can become a contributor to help us all learn more about molluscs.

### **Membership Fees**

Members Fees are in two parts. Becoming a member of the National Organisation is a prerequisite for joining the NSW Club. The total cost of both subscriptions is \$50.00 per annum. Less than \$1 per week. Application forms are available on request.

### **Web Sites**

The MSA National conducts a number of Web sites. The sites is  
<http://www.austmus.gov.au/science/division/invert/mal/malsoc/malsocl.htm>

### **Branch Information**

Correspondence Christopher Barnes (Secretary), Unit 1, 7-9 Severn Street, Maroubra NSW 2035 or Steve Dean (Editor) The Sydney Sheller, 166 Narrabeen Park Parade, Mona Vale NSW 2103 Email [steve@easy.com.au](mailto:steve@easy.com.au)

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*Patella ulyssiponensis* Gmelin, 1791  
Canary Islands, La Palma, Charco Azul.



A tasty meal of limpets in garlic,  
Madeira, Caniçal.



## New Web Site The Patella Site

**This site is dedicated to the members of the molluscan gastropod family *Patellidae*.**

While it is still growing it contains some humorous information and a good amount of explanatory information about *Patellidae* classification and about how specimens live and survive. There is also a place to join add your name to a *Patellidae* specific on-line club. The site advertises Vita Marina and the pictures on the web pages (Some shown here) come from Vita Marina.

The site opens by categorizing groups of people who have an interest in *Patellidae* as follows:

### Collectors

Among collectors the family is known by the colourful, iridescent inner-side of the shell. The colours and patterns are only to be guessed while looking at the corroded, algae and barnacle covered outer sides. As a rule collectors do not need an eagle's eye to collect limpets. The animals are clinging, often with thousands of individuals, to the stones and the rocks, where they are easily collected at low tide. And also the cleaning of the shells does not require a special technique: after a short period of boiling, the animals come loose, and the inner side can be observed. For many collectors this is the starting point of difficulties: the identification and finding the right name.

### 'Connoisseurs'

The second group, consisting of connoisseurs, can't be bothered by that: they prepare the animal in olive oil. Richly covered by garlic the snails end up on a well-provided table. The animals are also eaten raw during lunch at the coast. On the Azores, Madeira and the Canary Islands, collectors will need an eagle's eye for that reason. On places easily accessible the *patellids* are decimated.

### Biologists and ecologists

This latter phenomenon is a source of research for another group, consisting of biologists and ecologists, who carry out research to the state of affairs concerning the populations and effects of mass collecting and pollution.

### Taxonomists

For many years, taxonomists have tried to map the European *Patellidae*. The research is often focussed on morphological characteristics, like the shape of the shell, radula, and genitalia (Fischer-Piette, 1935). For the last few years, more attention has been given to the biological aspects. Genetic and electrophoretic research tries to reveal the relations between species. Only few papers have been published which make an effort to integrate morphological and biological characteristics (Corte-Real, Hawkins & Thorpe, 1996).

On other pages in the site there is more serious information about *Patellids*, for example:

### Habitat

Rocks wooden piles and larger stones are suitable habitats for these grazers, which live on algae. The surface of rocks can be varied: from flat and smooth to capricious and rough.



*Patella tenuis crenata* d'Orbigny, 1840  
from Canary Islands, La Palma, Los  
Cancajos.

*Patellids* live in the littoral and infralittoral zone and prefer shallow water down to six meters. .... The *Patellidae* feed on algae, where they work their way through the algae layer rasping with their radula in a zig-zag like way. ... The animals cover distances of about one and a half meters. Often the animals return to their original resting place. The mechanism by which a limpet returns to its home commonly involves the chemoreceptive retracing of a mucous trail laid by the animal on its outward journey. Homing behaviour is not observed with every individual.

To prevent dehydration the animal depends on its powerful foot, with which it fixes itself to the rocky surface during low tide. The tension required also pulls the mantle, which causes it to change position. As the mantle is responsible for growth of the shell, conical forms arise in specimens living higher in the tidal zone, and more flattened forms with *patellids* who live lower in this area (Powell, 1973). The *patellids* living higher in the tidal zone try to lose superfluous heat by increasing their surface. For that they use the many ribs and ridges on the shell. *Patellids* with a smooth surface live in an environment amidst waves and streaming water. In this, often turbulent, environment high conical shells are not advisable. A more streamlined shape causes less turbulence. Yet the shells do not necessarily need to be smooth all over: research has shown that fine, upright ribs can minimize turbulence (Orton & Southward, 1961; Fretter & Graham, 1994).

Individuals belonging to one species can differ considerably with regards to their environment. This is one of the reasons why shell characteristics cannot be used as a decisive criterion in identification (see: Ecophenotypical variation).

## *Conus anemone* At Shark Island

By Michael Keats

Over the last 5 years I have visited Shark Island (Sydney Harbour) on many occasions in the course of monitoring the mollusc fauna.

On visits which were bucketing with rain I used to walk around the island looking hopefully for a change in the weather but also for photo opportunities.

One of the more fascinating finds is the art deco architecture of some old shelter sheds and toilet blocks. A number of these buildings have been faced with cement render into which has been pressed shells. Given the species used, these were presumably collected from the beaches around the island. Over the years the shells have weathered and bleached and vandals and / or souvenir hunters have left many broken.

Sufficient fragments remain however, of some specimens to easily identify them. A case in point is *Conus anemone*. (Picture on right taken 29<sup>th</sup> June 1999) There are at least 3 specimens in the various shell collages on buildings around the island.

Today in the beach drift and grit it is still possible to pick up fragments of this species, some of similar size to the impressed specimens (some are 70 mm+). I have searched in vain for a complete fresh dead specimen. Diving around the island has also failed to locate any live specimens. They are undoubtedly still about but very reclusive!

One can hope that the NSW National Parks and Wildlife Service will not destroy these quaint old buildings, which can still tell the visitor about some of the past of this island.

