



*THE
CONE
COLLECTOR*

#10 - April 2009



THE CONE COLLECTOR

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On the Cover:

Comus jaspideus Gmelin, 1791
found among fine rubble off
the west coast of Utila Island,
Honduras. Photo by Randy
Allamand of Sebring, Florida.

Note from the editor

I collect shells for pleasure.

I do not make a living out of it, quite the opposite: a part of my hard won salary is occasionally invested in specimens for my collection.

I am not a biologist. I teach Mathematics. I collect shells mainly for their aesthetical value.

This does not mean that I am indifferent to the more scientific aspects of Malacology. Being scientifically minded, I am interested in learning more and more about Molluscs, their behaviour, their biogeography, their evolution and their taxonomy. But I never dispense with the pleasurable and aesthetic qualities of my shell collection.

The Cone Collector will, I hope, reflect much the same spirit. That is why we will publish scientific papers, semi-scientific articles and non-scientific ones, all with the same pleasure. We will gladly present our readers detailed discussions of obscure taxonomic points, but we will also seek photos of particularly beautiful or otherwise exceptional specimens, for the sheer enjoyment of our readers.

I hope that the professional biologist working with Cones, the advanced collector and the beginner alike will find in these pages something of interest, something to enlighten and something to enchant.

This project, launched in October 2006, was from the start an ambitious one. But with the help and enthusiasm of all our readers it has met with success. I trust we will all be able to keep it so.

Many projects and ideas of interest for Cone collectors are being studied. Who knows? Maybe one of these days we can organize a general meeting entirely devoted to Cones and Cone collecting? And how about a badge identifying us as Cone collectors? Or a T-shirt? We will get to all this in due time, I hope.

For now, sit back and enjoy our new issue!

A.M.

Who's Who in Cones: Giancarlo Paganelli

I was born on April 18, 1947 in Ancona (Italy) and have lived in Rimini, a town by the Adriatic Sea, for over 56 years.

I have been interested in Nature and animals since I was a little boy and this was one of the reasons why I got a Master's Degree in Bio-logical Science at Bologna University. Then I taught Mathematics and Sciences in the secondary school until four years ago. Now that I'm retired I can better cultivate my favourite hobbies. Listening to music, chiefly jazz, playing guitar, reading, bicycling, but above all I can dedicate most of my time to my cone collection.

I started collecting shells about forty years ago, chiefly fossil shells in the Apennines. There I found *C. antidiluvianus*, *C. brocchi*, *C. canaliculatus*, *C. virginalis* but I didn't know yet that *Conidae* should become my favourite Family. My interest in cone shells arose about twenty five years ago. At that time I was on a school trip in Verona and in a little shop my attention was drawn by the shape and the colour pattern of a plain *Conus thalassiarthus*, so I realized I liked such shaped shells. Since then I have tried to get more specimens,

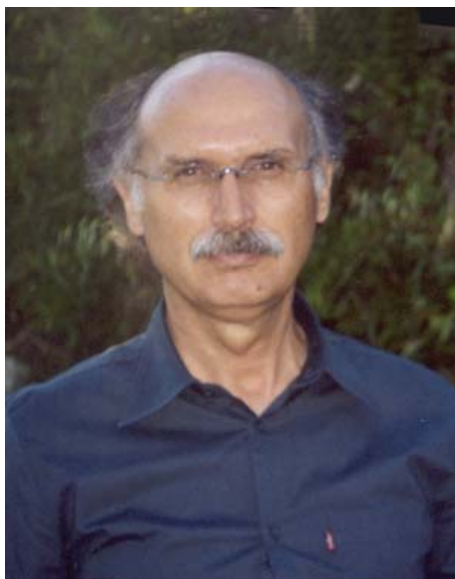
at first in the marketplaces, but not all were so nice, sure enough many had filed lips! Then I got other specimens by exchanges, from dealers in internet, at shell exhibitions, or self collecting by snorkelling.

I collect cones only because in view of the great number of species and the wide intraspecific variability, it is hard enough to have a sufficient knowledge even of one single family! I also have a fair amount of literature on *Conidae* that helps me

to better classify my cones and improves my knowledge. Currently I have roughly 3,900 cones in my collection, 200 of which are fossil, placed in two self-made cabinets.

About ten years ago I thought that sharing my small cone collection, at that time about 200 specimens only, was a good opportunity. So I built my website "coneshell.net" changing the layout many times and trying to get better its look and affordability. Currently more than 2,000 different specimens are online plus many other images for a total of 2,600 or so.

Through my web site I had the opportunity to know many shell-friends with whom I can swap opinions about this fascinating pastime.

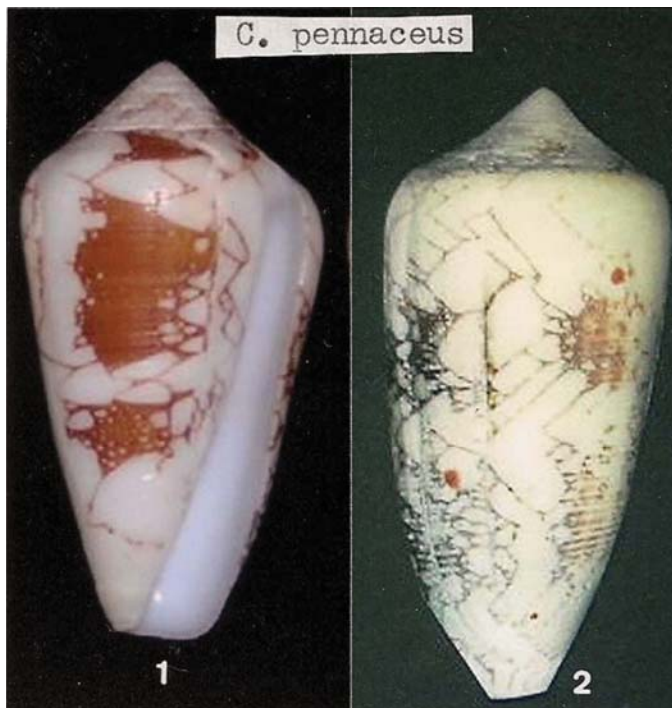


Australian Corner: Jon F. Singleton

Conus pennaceus - 29

Conus pennaceus is likely the most variable species next to the *C. magus* complex. It is common in the Red Sea, the East African coast and the large island of Madagascar. It is found within the central west half of the Indian Ocean, but going eastward it becomes a rarely collected species, with a few odd specimens from Thailand and southern Indonesia. The Philippine Islands are a little better, and I have sighted some 10 specimens. Thence it is a big jump across to the Hawaiian Islands, where *C. pennaceus* again becomes a common species.

The only known specimens from Australian waters are two specimens from the off-shore islands and reefs in the far N. W. of Western Australia. In 1985 I was fortunate in finding a live specimen size 57 mm × 31 mm (see fig. 1) within the lagoon of the Ashmore Reef at a depth of 5 metres. A West Australia Museum expedition the previous year also found a *C. pennaceus* size 74 mm × 35 mm (see fig. 2) at the Scott Reef.



Conus victoriae - 30

Conus victoriae is one of the commonest species endemic to Australian waters. Most collectors have a number of specimens due to their colour and pattern variations. Just why this occurs is not known, but quite variable specimens can be found living together in close proximity, even under the same slab of rock.

My own cabinet contains some 40 specimens of *C. victoriae*, ranging in colours from all white, through all colour and patterns to near all black. If I had to select just one of the odd specimens, I would choose one I collected off Cape Joubert, West Australia, which is about half way between port Hedland and Broome. It is a good sized specimen (50 mm × 28 mm), with a base pattern of pale tan with very small white tents closely packed together. It has a large smoky grey region overlaying the upper half of the body, and a thinner band below. This is overlaid with thin well spaced black dashes.



Excluding the *C. nodulosus*, which I now separate from *victoriae*, the range is from the western side of the N. W. Cape to the Buccaneer Archipelago. It almost certainly

extends further up the West Australia coast to the border, but due to difficult access, I have no records.

It is likely that 99.99% of all *C. victoriae* held in museums and private collections are from West Australia waters. Yet the type locality for this species is some 60 km past the West Australia border, and is “the mouth of the Victoria River”, which is within the Northern Territories. This cone is believed to have been named for the river, rather than the reigning English Queen, for which the river had been named just prior in time.

C. victoriae from the Northern Territories are extremely rare. There are the two possible syntypes within the UCBL, and if any other specimens were taken along with the type material their whereabouts are unknown. A few years ago a Darwin collector found a few dead and strangely patterned cones south of Darwin. These were long dead and could never be certain if they were *victoriae* or *achatinus*.

***Conus aurisiacus* - 31**

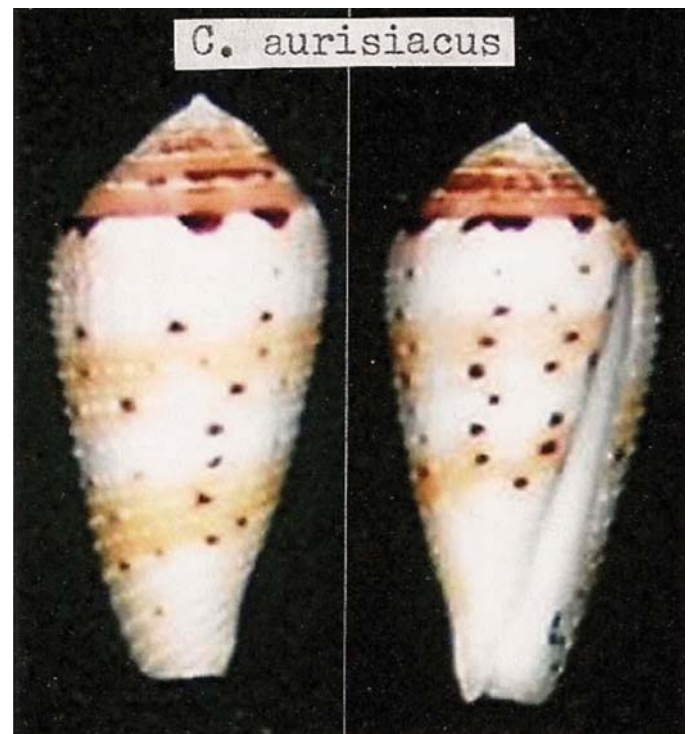
Conus aurisiacus was amongst the earliest species illustrated in the pre-Linnean era. It was called the “Orange Admiral” by Rumphius within his 1705 *Rariteitkamer*

During my earlier years as a serious cone collector it was considered a rare species, only being seen in older collections and museums. Nearly all were just marked Moluccas, and were obviously beach collected shells. However, I did see one which was stated to be from Australia, a locality I considered dubious at that time.

It was not until 1990 that I finally obtained my first *aurisiacus*. This was from the Celebes, where a new diving resort had been opened for divers wishing to partake in an overseas dive vacation. Many fine specimens of *aurisiacus* were found, and were eagerly sought by collectors.

In 1998, a dive and shelling expedition went to the off-shore islands and reefs off the N. W. coast of Australia. A

little dredging was done at a depth of 40 metres, and two specimens of *C. aurisiacus* surfaced in the dredge. One mature specimen was dead and eroded, but the other was a live taken subadult, size 27 mm × 13 mm. I was fortunate in being at the right place and obtained this cone.



Within *The Cone Collector* No. 7, a heavy pustulose specimen of *C. aurisiacus* was illustrated, which was fully adult. This small Australian specimen is also postulated, but likely this is just a subadult stage and disappears with maturity.

***Conus zonatus* - 32**

Conus zonatus to me, is always an impressive species. Its large size and striking black, grey and white patterns make it an eye catcher in any cabinet. the range is just within the central to northern Indian Ocean, with the Indonesian Nusa Tenggara Islands being the eastern limit.

The shell fauna around the off-shore islands and reefs situated off the far N. W. coast of Australia is very different from the mainland coastal fauna, being more Indo-

Pacific. So occasionally a stranger will be found, and one such was a *C. zonatus*. It was found alive on an intertidal sand bank at the Scott Reef in the mid 1980s. This specimen size 62 mm × 32 mm is within a private Queensland collection and remains the sole specimen to be found in Australian waters.



Unfortunately today the costs of organizing expeditions to these far off islands and reefs has increased greatly and I have no knowledge of any visits over the last 15 years.

***Conus sydneyensis* - 33**

The history of *Conus sydneyensis* began in 1866 when Sowerby III named the species from a specimen found off Port Jackson, Sydney, New South Wales. There is no record of what happened to the holotype, but likely it was sold by Sowerby. It is no credit to the Australian malacologists that the species appears to have been totally forgotten about for the next one hundred years! An amazing thing for a shell named for the earliest city of Australia.

It was not until the second half of the 20th century that deep water prawners landed many new shells, from

which several endemic *Conus* were named. One of these was *C. illawarra*, named by Garrard in 1961, and it was still to be another twenty years before it was realized that *C. illawarra* was the long forgotten *C. sydneyensis*.

The whereabouts of the holotype remained in doubt for many years, but despite a small discrepancy in size, a specimen in the Dautzenberg collection housed in the IRSN is now regarded as the holotype, a 21.8 mm × 11.7 mm specimen.

Like other Australian endemics, *C. sydneyensis* shows very little variation in colour and pattern. The habitat is usually around 150 metres in depth. Due to changes in trawling techniques, the by-product of shells has been substantially reduced. I have not heard of any specimens being found over the last twenty-five years.



The illustrated specimens range in length from 26 mm to 28.4 mm.

A difficult group

António Monteiro

I am sure everyone will agree that some Cone groups are easier to identify than others. One of the tough ones can be very broadly referred to as the “*collisus*” group.

We have received from Paul Kersten a number of photos from specimens in his collection. Some are identified, others only tentatively so and still others not at all.

Any opinions and/or comments from our readers will obviously be most welcome. We hope that a fruitful discussion on these pages can help to shed some light on the group as a whole.

Caption

Fig. 1 – *C. andamanensis* (28 mm), Kota, Sabah, Borneo

Fig. 2 – *C. andamanensis* (25 mm), Palawan, Philippines

Fig. 3 – *C. cf. andamanensis* (27 mm), Balabac, Palawan, Philippines

Fig. 4 – *C. collisus* (39 mm), Caridad, Panay, Philippines

Fig. 5 – *C. collisus* (38 mm), Caridad, Panay, Philippines

Fig. 6 – *C. sp.* (35 mm), Siasi, Sulu Sea, Philippines

Fig. 7 – *C. sp.* (32 mm), Palawan, Philippines

Fig. 8 – *C. sp.* (31 mm), Palawan, Philippines

Fig. 9 – *C. sertacinctus* (28 mm), Mikara, Solomons

Fig. 10 – *C. sertacinctus solomonensis* (31 mm), Kakambona,

Gualdalan, Solomons

Fig. 11 – *C. stramineus* (33 mm), Cuyo, Philippines

Fig. 12 – *C. stramineus mulderi* (28 mm), Sorsogon, Philippines

Fig. 13 – *C. zebra* (26 mm), Palawan, Philippines

Fig. 14 – *C. sertacinctus* (30 mm), Marau, Solomon Islands

Fig. 15 – *C. subulatus* (32 mm), Western Thailand

Fig. 16 – *C. cf. andamanensis* (30 mm), Balabac, Palawan, Philippines

Fig. 17 – *C. cf. spectrum* (26 mm), Balabac, Palawan, Philippines

Fig. 18 – *C. cf. sertacinctus* (27 mm), Balabac, Palawan, Philippines

Fig. 19 – *C. zapatensis* (42 mm), Bohol, Philippines





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Seychelles: revisiting a beautiful local variation: *Conus gubernator leehmani* da Motta & Röckel, 1979

David Touitou

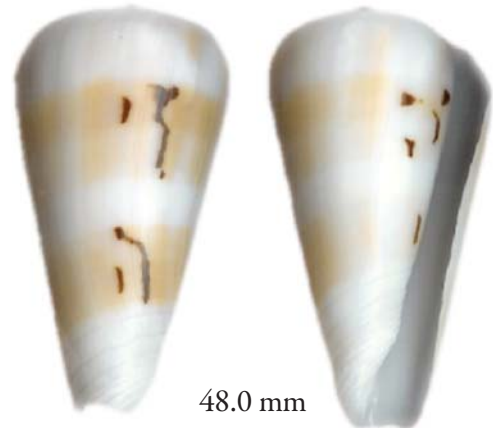
The name *leehmani* is given to a form (or variation) of the species *Conus gubernator* Hwass, 1792, presenting the following characteristics: the background colour is white, or sometimes yellow or pale violet; the pattern is irregular, sparse or even absent, and made of dark blotches or axial lines; spiral banding can appear; the shoulder is wider than in *C. gubernator*, giving the shell a typical stocky profile.

In the Seychelles, *C. gubernator leehmani* can be found, as well as intermediates between this form and classic *C. gubernator*. Since the present variation is found from Reunion Island to India, the Seychelles are well within its range of distribution.

It can be found in depths of only a few metres, deeply buried in fine sand under fragments of dead coral; and it can also be found in deeper waters – so far -17 m is the maximum depth in which I have come across specimens, although in Reunion Island they have been collected at -60 m. It remains a locally uncommon to moderately rare species, despite the fact that sometimes *C. gubernator leehmani* is found in colonies.

Samples of DNA have been extracted from a few specimens and it would be most interesting to compare its sequencing with that from specimens of *C. gubernator* coming from mainland East Africa or Madagascar. Should you live in the area or eventually go there, you may wish to get in touch with Chris Meyer (MeyerC@si.edu), from the National Museum of Natural History, Washington, who will be able to supply the appropriate equipment to collect samples.

Here are a few specimens showing the variability of this form in the Seychelles.





58.9 mm



74.1 mm



59.7 mm



50.7 mm



60.9 mm



49.2 mm



62.0 mm



49.5 mm



51.3 mm



55.9 mm



51.6 mm



57.8 mm



52.0 mm



57.9 mm



52.9 mm

An unusual specimen, but can the location be trusted?

António Monteiro



Very recently, my good friend Armando Verdasca sent me a short message about a small Cone he had just obtained through a well-known Internet shell auction site.

In Armando's own words:

"I bought this specimen in a recent auction and the seller told that it came from Palawan, Philippines. In fact, it resembles a juvenile dead taken *Conus aurantius* or *Conus pseudoaurantius* (or any other from this group) from the Caribbean region but is also remindful of a juvenile *Conus imperialis* or even *Conus cyanostoma f. innotabilis* from S.E. Australia or *Conus exigus* from New Caledonia."

As Mike Filmer noted, another species with which this strange specimen should be compared would be *C. varius* (juvenile).

It later turned out that Felix Lorenz had recently published a photo of a specimen belonging to a possibly new species from the Philippines, which in some respects also resembled Armando's specimen. Felix was of the opinion that his specimen is conspecific with Armando's and added that so far only three such specimens were known.

All in all, we do have a number of problems to solve here:

First, is Lorenz's specimen an unusual specimen of a known species or does it represent a still undescribed new one? Second, is Verdasca's specimen conspecific with Lorenz's or not? Third, if Verdasca's specimen is not the same as Lorenz's, what is it then? And is the location given as "Palawan, Philippines" trustworthy?

As always, we shall eagerly wait for your comments.

A juvenile *Conus bairstowi* Sowerby, 1889

Paul Kersten

For many years, *Conus bairstowi* Sowerby, 1889, from South Africa, was known exclusively from dead collected specimens. Only in recent years were we able to get live taken ones for our collections.

Nevertheless, as happens with many other species, juveniles are not generally known and can be sometimes difficult to identify.



Here is a photo of an 18 mm juvenile *C. bairstowi*, found in the waters of Algoa Bay, at a depth of 80 m. We have no clear indication of whether this pattern is indeed the typical one for a juvenile.

The yellow fellow

Jon Singleton

Back in 1971 I took passage on a small freighter which crossed the Pacific en-route to Australia, but which made many stops at places of great interest to a shell collector. Five days spent in the Marquesas collecting cones and living on mangoes were fruitful in many ways.

One of the local cones I was most eager to find was *Conus marchionatus* of Hinds, 1843, and being on the island of Nuku Hiva was certainly the right place. My success was limited, and by the time I departed I had found just five beach specimens 20 mm to 25 mm in length. Three of these were the expected russet brown, but the other two a pale yellow which was a surprise to myself. These two yellow cones looked a little worn and lacked any lustre. I was unsure if these were faded from the brown, or whether the species produced colour variations. My last evening was spent visiting a local collector who showed me extra large brown *marchionatus* over 50 mm in length. He also had some small yellows, but informed me all were dead collected.

As the years passed I naturally acquired all the new literature published on the cones, but only the usual brown specimens of *C. marchionatus* were illustrated. I had to wait until 2001 for the answer to my thoughts of 30 years ago. An expedition of divers and shellers visited the Marquesas, and an Australian member returned with many fine shells



which I was privileged to view. Amongst the brown *marchionatus* specimens there was one yellow cone complete with the periostracum. It was collected alive at 20 metres depth within the Taiohae Bay, Nuku Hiva, a medium sized cone size 39.5mm × 23.3mm. Naturally this cone has a special place in my "Pacific" drawer in my shell cabinet, and whenever I see it I recall a pleasant time of years ago of Marquesas and mangoes.

The spider technique!

António Monteiro, Rui Mendes
and João Messias

Many years ago, the late Herculano Trovão made a large number of observations of living West African (mainly Cape Verdean) Cones specimens he kept in aquarium and took many photographs illustrating different behaviour such as feeding, moving about, mating, etc.

One of the observations that most intrigued him was that several specimens were able to produce a mucous thread which they used to go from one place to another! Herculano made a few photos of this unexpected behaviour.

Independently, the second author noticed the same phenomenon mentioned for *Litiopa melanostoma* (Rang, 1829) (*Gastropoda, Litiopidae*), and the fact that it had been observed by Trovão in *Conidae* prompted him to make some bibliographic research. He thus found that that peculiar behaviour is by no means unknown for several molluscan families and also in Cones!

For instance, in *Hawaiian Shells News*, January 1976, there is a note signed by Margie Bolton, from Okinawa, which we shall transcribe here:

“I have observed a phenomenon in my salt water aquarium that amazes me. A four-and-a-half-inch *Conus geographus* has been living in the aquarium about three weeks. recently I watched him climb the air tube to the top, using only the anterior tip of his foot to hold on. The upper end of the tube approached a second air tube. The animal formed a bridge of mucus between the two tubes. Then he descended to the aquarium floor, suspended only by the mucus. He didn't fall as I expected he would. The mucus thread seemed much like a spider web. Has anyone else observed such an action, either by a *C. geographus* or any other species?”

We do not know whether or not Margie got any replies to her query, but another reference to the same behaviour in *Conus geographus*, also in aquarium, was found in Watters (1992).

When we come to other families, examples are more or less plentiful. Here are a few examples:

Epheria vincta (Montagu, 1803) (*Littorinidae-Lacuniinae*) – It appears to be able to move in sea currents using a long mucous thread stuck to something on the surface, using superficial tension (Fredriksen, 2003 e Petersen, 2006).

Several *Cerithioidea*, namely in genera *Colina* (*Cerithiidae - Cerithiinae*) and *Ittibittium e Bittiolium* (*Cerithiidae - Bittiinae*) and other species of *Litiopidae* – Because they have a metapodial gland able to produce a mucus thread, they manage to move along masses of algae in their habitat (Houbriek, 1987, 1990, 1993).

Some *Epitoniidae* appear to use mucus threads (either single or twisted threads, depending on the species) to link and protect their eggs (Gittenberger, 2000, 2003).

On the other hand, *Clionidae* use a mucus thread to capture their prey and, just like spiders, they then wrap their catch in mucus to bring it to their mouth (Granhag, 1998).

The capacity of hanging from a mucous thread is quite well documented for tiny *Atlantidae* (Poppe, 2006). Such a behaviour seems to be observed mainly at night, when the animals are less active: if threatened, they get loose from the mucus and sink quickly (at velocities of up to 10 cm/s, which can even be topped by retracting into its keeled shell that presents better hydrodynamics to cut through the water at great speed) (Lalli & Gilmer, 1989).

Some similar references have also been found for fresh water gastropods (e.g. *Deliagina* & Orlovsky, 1990).

To return to Cones: in conversation with the third author, it turned out that Herculano Trovão had in fact begun to prepare a short note about his observations of the use of mucus threads by West African cones. Dated from

1993, this note was never published but Messias had it in his possession together with a photo documenting it.

We are very pleased to be able to present it here, in memory of our departed friend.

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A new way of locomotion for the family *Conidae*

Herculano Trovão (†)

I have the habit of observing regularly the several conus species I keep in my aquarium (the older specimens are there since 1984).

For the first time, in 1988, I noticed a *Conus irregularis* producing a very thin thread of translucent material to get down from a stone to another stone, and reabsorbing the thread afterwards.

On the occasion I took a series of photographs, one published here.

During later observations, I saw other conus species doing the same and repeating the operation more than once, reabsorbing the thread after each occasion.

I have documented this being accomplished by the following species (*):

Conus crotchii, *cuneolus*, *fontonae*, *guinaicus*, *irregularis*, *longilineus*, *mordeirae*, *tabidus*, *ventricosus*

01-Jul-93

*Nomenclature has been updated. A.M.



Vita Malacologica Nr. 6 – Supplement to *Basteria*, Dutch Malacological Society, December 2008.

Price: € 30.00



The sixth issue of *Vita Malacologica* was entirely devoted to Cones. Here is the list of papers included in this publication:

Manuel J. TENORIO, Carlos M. L. AFONSO & Emilio ROLÁN. New endemic species of *Conus* (*Gastropoda: Conidae*) from the Islands of São Nicolau, Santo Antão and Sal in the Cape Verde Archipelago.

Zenaida Gutay Baoanan, Daniel A. Lagunzad, Roberto C. Pagulayan & Lourdes J. Cruz. Anatomy of six Philippine cone snails (*Conus*) (*Gastropoda: Conidae*).

R.G. MOOLENBEEK, D. RÖCKEL & P. BOUCHET. New records and new species of cones from deeper water off Fiji (*Mollusca: Gastropoda: Conidae*).

R. G. MOOLENBEEK. Range extension of *Conus mcbridei* Lorenz, 2005, an overlooked species (*Gastropoda: Conidae*).

R.G. MOOLENBEEK & J. GOUD. A note on *Conus traillii* A. Adams, 1855 and *Lilliconus wallacei* Lorenz & Morrison, 2004 (*Gastropoda: Conidae*).

R.G. MOOLENBEEK, A. ZANDBERGEN & P. BOUCHET. *Conus* (*Mollusca: Gastropoda*) from the Marquesas Archipelago: description of a new endemic offshore fauna.

R.G. MOOLENBEEK. *Plicaustraconus* a new genus in the family *Conidae* (*Mollusca: Gastropoda*).

John K. TUCKER. The identity and systematics of *Conus lightbourni* Petuch, 1986 (*Gastropoda: Conidae*).

William J. FENZAN. Description of *Conus mucronatus segondensis* subsp. nov. from Vanuatu (*Gastropoda: Conidae*).

In these papers, a new genus (*Plicaustraconus* Moolenbeek, 2008) was described, along with a number of new species and subspecies, as follows:

- 🔗 *Conus kersteni* Tenorio, Afonso & Rolán, 2008
- 🔗 *Conus fernandesi* Tenorio, Afonso & Rolán, 2008
- 🔗 *Conus melissae* Tenorio, Afonso & Rolán, 2008
- 🔗 *Conus cakobau* Moolenbeek, Röckel & Bouchet, 2008
- 🔗 *Conus jolivet* Moolenbeek, Röckel & Bouchet, 2008
- 🔗 *Conus fijiulcatus* Moolenbeek, Röckel & Bouchet, 2008
- 🔗 *Conus gigasulcatus* Moolenbeek, Röckel & Bouchet, 2008
- 🔗 *Conus fijiensis* Moolenbeek, Röckel & Bouchet, 2008
- 🔗 *Conus sutanorcum* Moolenbeek, Röckel & Bouchet, 2008
- 🔗 *Conus tiki* Moolenbeek, Zandbergen & Bouchet, 2008
- 🔗 *Conus dieteri* Moolenbeek, Zandbergen & Bouchet, 2008
- 🔗 *Conus pepeiu* Moolenbeek, Zandbergen & Bouchet, 2008
- 🔗 *Conus troendlei* Moolenbeek, Zandbergen & Bouchet, 2008
- 🔗 *Conus hivanus* Moolenbeek, Zandbergen & Bouchet, 2008
- 🔗 *Conus pseudimperialis* Moolenbeek, Zandbergen & Bouchet, 2008
- 🔗 *Conus mucronatus segondensis* Fenzan, 2008



The genus Conus (Mollusca: Neogastropoda) in the Plio-Pleistocene of the Southeastern United States, Jonathan R. Hendricks. *Bulletins of American Paleontology*, no. 375, 2009.

Price: € 50.00



This is a useful booklet for anyone interested in fossil Cones. It has a total of 177 pp. with 4 text-figs, 22 B/W plates and 22 tables. The present work provides a systematic treatment of 82 of the 84 names that have been applied to *Conus* shells from the Plio-Pleistocene fossil records of Virginia, North Carolina, South Carolina, and Florida; 19 of these nominal taxa are accepted as representing distinctive species of Plio-Pleistocene *Conus* from this study area. The investigation also resulted in the description of a new species: *Conus burnetti*. An identification key to these 20 species is provided.

Two names that are likely familiar to collectors of Plio-Pleistocene *Conus* from the United States Coastal Plain, *C. floridanus* Gabb, 1869, and *C. druidi* Olsson, 1967, are synonymized, respectively, with *C. cf. largillierti* Kiener, 1845, and *C. haytensis* G. B. Sowerby II, 1850. All previously described species of sinistral *Conus* are considered to belong to one highly morphologically variable species, *C. adversarius* Conrad, 1840.



Malacologia # 62, Ed. L'informatore Piceno, Museo Malacologico Piceno, Cupra Marittima, Ancona, Italy. January, 2009.

Price: € 25.00.



In the recent issue 62 of *Malacologia* Giovanni Prella published the description of a new species from Tuléar, South-west Madagascar:

🔗 *Conus deprehendens*

The holotype measures 76.4 × 45 mm.



Description d'un nouveau Conus (Gastropoda: Conidae) du Sénégal dans le groupe Conus mediterraneus, Franck Boyer & Jacques Pelorce. *Novapex* 10 (1): 25-32, March 2009.



A new *Conus* species, discovered southwest off the Peninsula of Cap Vert (Centre Senegal), is described as *C. tacomae* sp. nov. The new species is compared with the Mediterranean form *C. desidiosus*, and with the Senegal populations of *C. mediterraneus*, *C. bruguieresi* and *C. echinophilus*. Due to the deep orange chromatism of its soft parts, *C. tacomae* is assumed to hold a rather peripheral status within the *C. mediterraneus* species group, and its similarity with the form *C. desidiosus* is assumed to result from a simple case of convergence.

Conus pennaceus from the Philippines

Giancarlo Paganelli

I always thought that the *C. pennaceus* range was restricted to the entire Indian Ocean and Hawaii until I recently got a specimen from Cagayan de Sulu, South Philippines. I also had confirmation of this range extension by Jim Cootes, António Monteiro and Mike Filmer.

The shell is of medium size, moderately solid with the surface rather glossy. Last whorl ventricosely conical with slightly convex sides. Shoulder rounded. Spire of mod-

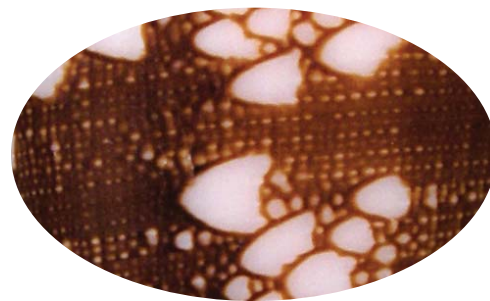
erate height with convex outline, teleoconch domed. Larval whorls and first postnuclear sutural ramps pink. Aperture wider at base than near the shoulder. Ground colour white suffused with pink. Last whorl overlaid with brown reddish fine reticulated colour pattern, leaving many various sized tent-like ground colour markings. Tents are irregularly placed in three spiral bands below shoulder, near centre and at base. Aperture white, orange yellowish inside.



Conus pennaceus, 41.3 mm



Protoconch



Colour pattern

Caribbean Corner: André Poremski

Note on Philippine *C. pennaceus*

I do believe that this is indeed *C. pennaceus*; the proto-conch in particular appears to be quite typical of this species.

This identification was confirmed by Mike Filmer, who wrote: “Although it seems this species is not at all common in the Philippines or elsewhere in South East Asia away from the Indian Ocean, I have one small specimen from Cebu which is very similar and one larger specimen from Bali also very similar.”

Nevertheless, this specimen should also be compared with forms of *C. omaria*, especially the form from Thailand described by da Motta as *C. patonganus*. Any other comments will of course be much appreciated.

A.M.

Diving into the complex

Puns intended...I’m confident that I am joined by many of you in being absolutely perplexed as to how best to organize members of the *C. jaspideus/mindanus* species complex. Having studied examples from over a hundred distinct populations (spanning from Florida to Brazil), with countless more yet to be examined, this group grows more confusing with time. The main question: If I can create a line-up of ten or so specimens, each from a different locality, that show a smooth morphological gradient between *mindanus* to *jaspideus*, where exactly do I draw the line of separation? How dark is that line I draw? In fact, there are many specimens that appear to be perfect hybrids between these two species, “*jaspidanus*” as I like to call them. So, the ongoing challenge is how to apply names to them that a.) convey the population’s affinity to its species type and b.) recognize the uniqueness the population has when compared to others in the group and c.) reflect an identification structure that is meaningful to the shell community.

I am not equipped with enough data to draw a well-grounded argument about where exactly to draw lines of speciation within the complex, however, I have collected and studied enough material to begin making comparisons that, I hope, are useful to others in organizing their own collections. I plan to contribute a series of plates and notes within the Caribbean Corner of TCC that explores the interconnectivity between members of this complex. Who knows, maybe we’ll end up calling all specimens “*C. jaspidanus*” in the end!

Conus mindanus Hwass, 1792 from the Bay Islands of Honduras

On two recent trips to the Bay Islands of Honduras, I was able to find several distinct populations of *Conus mindanus*. My first encounter, Figs. 1-3 was in shallow water off the keys on the west end of Utila Island. Several specimens were found buried in coarse sand among low profile reef structure. In size range, body outline, and pat-

tering, these shells could be compared to the lectotype for *C. pusillus* Lamarck, 1810, the holotype for *C. duwali* Bernardi, 1862 and the lectotype for *C. karinae* Nowell-Usticke, 1968, all three figured on the *Conus Biodiversity Website* (biology.burke.washington.edu/conus).

My second encounter, Figs. 4-6 was in shallow water off the coast of Roatan, Honduras while diving over fine, silty sand and eel grass. These cones are quite striking in color/pattern and texture with far more granulation than those from Utila. I again compare these specimens to *C. pusillus* and even Hwass' lectotype drawing of *C. verrucosus*. Note, the name *verrucosus* is more frequently used in connection with *C. jaspideus* than *C. mindanus*.

Diving deeper, soft coralline sand patches between high profile reefs produced specimens that most confidently represent *C. mindanus mindanus*. Figs. 7-12 were found in similar habitats from off Utila, Roatan, and Morat islands. Each spot seemed to have it's local flavor of *mindanus*, variable between specimens yet distinct enough to match with locality when mixed together.

Caption

- Fig 1 *C. mindanus cf. pusillus* – Utila Cays, 21.2 mm
- Fig 2 *C. mindanus cf. pusillus* – Utila Cays, 18.7 mm
- Fig 3 *C. mindanus cf. pusillus* – Utila Cays, 20.0 mm
- Fig 4 *C. mindanus cf. pusillus* – Roatan, north side, 17.4 mm
- Fig 5 *C. mindanus cf. pusillus* – Roatan, north side, 16.2 mm
- Fig 6 *C. mindanus cf. pusillus* – Roatan, north side, 15.7 mm
- Fig 7 *C. mindanus mindanus* – Utila, south side, 27.0 mm
- Fig 8 *C. mindanus mindanus* – Utila, south side, 25.4 mm
- Fig 9 *C. mindanus mindanus* – Roatan, north side, 28.7 mm
- Fig 10 *C. mindanus mindanus* – Roatan, south side, 24.1 mm
- Fig 11 *C. mindanus mindanus* – Roatan, south side, 24.3 mm
- Fig 12 *C. mindanus mindanus* – Morat, south side, 22.3 mm

The real *C. branhamae* Clench, 1953

I acquired a single specimen labeled “*Conus branhamae*” (Fig. 13) that was collected far closer to the type locality of *C. branhamae*—being off Great Abaco, Bahamas—

than another group of shells (represented by Fig. 14) also labeled “*branhamae*” from Honduras. I am of the opinion that Fig. 14 is not *branhamae*, as so commonly i.d.'ed by dealers, and that it is much closer to *pusillus*. Here is my rational:

1. Out of 48 specimens including Fig 14 examined, the maximum length did not exceed 25 mm, making the holotype a super giant in comparison
2. The population represented by Fig. 14 comes from Honduras, quite some distance away from the type locality
3. None of the specimens examined exactly match the proportions and color/pattern of the holotype, whereas Fig 13 comes much closer.

Caption

- Fig 13 *C. mindanus aff. branhamae* – Puerto Rico, 23.8 mm
- Fig 14 *C. mindanus cf. pusillus* – “Honduras” 17.3 mm

Any thoughts?

Looks like *C. iansa* Petuch, 1979 to me

I recently acquired a curious cone that reminded me of shells that I group together with *C. iansa*. All of these (*C. delucaei*, *bodarti*, *schirrmeisteri* Coltro 2004) are from offshore reefs of Bahia, Brazil whereas this little cone comes from the U.S. Virgin Islands. Quite the separation! Yet, I cannot resist grouping these together based on some striking similarities.

Caption

- Fig 15 *C. cf. iansa* – Little St. James Island, 14.2 mm
- Fig 16 *C. cf. iansa* – Little St. James Island, 14.0 mm
- Fig 17 *C. cf. iansa* – Little St. James Island, 13.8 mm

Are these *C. mindanus*? *C. jaspideus*?



1



4



2



5



3



6





7



10



8



11



9



12





13



15



14



16



17



A few notes on the *Manual of Living Conidae*

Paul Kersten and António Monteiro

As we all agree, the *Manual of the Living Conidae*, by Röckel, Korn and Kohn is invaluable for any Cone collector and it is greatly to be regretted that only the first of three volumes intended was ever completed.

As should be expected, the book, published in 1995 (yes, already fourteen years ago!) in Wiesbaden, Germany, by Verlag Christa Hemmen, is now totally out of print and is eagerly sought after in the secondary market. As a matter of fact, it has been offered on the net by as much as US\$895.00, which is a staggering value for a contemporary book and makes one wish one had purchased more than one copy on publication...

Despite its many qualities, the *Manual* occasionally leaves us with doubts concerning identifications and obviously a few specimens got figured there that had not been described at the time.

Here are a few doubts and notes. This does not pretend to be comprehensive in any sense, and any additions do the list will be most welcome.

a) Plate 46, nr. 26: is this really *C. mucronatus*?

This is quite a confusing group, hence the doubt! And if not *C. mucronatus* Reeve, 1843, then what?

b) Plate 51, nr. 5: is this really *C. pertusus* or in this the *ceciliae* form of *C. capitaneus*?

It certainly looks like a juvenile *C. capitaneus* Linnaeus 1758, but we wonder if the authors would fall into such an obvious trap; it also resembles nr. 2 on the same plate, albeit in a more brownish hue. This specimen must be compared to the one on Pl. 23, nr. 14 and we think there is in fact some difference in shell profile and in the spire. So, our guess is that Pl. 51, nr. 5 is in fact *C. pertusus* Hwass, 1792, in an unusual colouration.

c) Plate 72, nr. 12-13: is this *C. gondwanensis*?

We feel that this identification is quite possible. *C. gondwanensis* Röckel & Moolenbeek, 1995 was probably still undescribed at the time of publication of the book

d) Plate 72, nr. 24-25: is this *C. suduirauti*?

No doubts here, it is obviously *C. suduirauti* Raybaudi, 2004, still undescribed at the time of publication of the book.

e) Plate 72, nr. 26-27: is this *C. estivali*?

It certainly appears to be *C. estivali* Moolenbeek & Richard, 1995 (probably still undescribed at the time of publication).

f) Plate 73, nr. 14-16: is this *C. tirardi*?

This seems to be *C. tirardi* Röckel & Moolenbeek, 1996 indeed, although it is a bit puzzling to include nr. 16 in the same species as nr. 14-15; the whole shell looks vastly different, especially from the shoulder up. A specimen similar to nr. 16 in the second author's collection has been identified by more than one source as *C. tirardi*. It was of course still undescribed at the time of publication of the book.



Röckel's files on Cones available for downloading

Paul Kersten and António Monteiro

We have recently received news from our friend Felix Lorenz to the effect that in the website of the Club Conchylia the complete series of the famous Röckel sheets on *Conidae*, published between 1979 and 1988, is available for viewing, printing and downloading.

These files were prepared by our very good friend Dieter Röckel almost twenty years before publication of the well-known Manual of which he is the first author.

They are written in German but are still able to convey useful information even to non-speakers of that language and besides a short description each species presented is illustrated photographically. The right example (and I am sure that we are breaking no copyright by reproducing it, not only because I have a copy myself but also because they are now available *urbi et orbi* for downloading) will give everybody an idea of the general look and contents of these files.



Among other aspects, this series shows us the state of the art at the time and, as Lorenz rightly noticed, they are very useful “as you can sort them in any way you want and they include most worldwide species, although a lot of them have been given new names in the meantime”.

For all these reasons I do urge every Cone enthusiast to visit Club Conchylia at this address: www.club-conchylia.de. We must of course take this opportunity to underline the fact that this prestigious German organization does publish an excellent magazine, often including articles in English, many of them about Cones, thus offering a good place to publish scientific and semi-scientific papers.



C. tirardi Röckel & Moolenbeek, 1996

Coll. A. Monteiro

g) Plate 73, nr. 29-30: is this *C. sagei*?

This could in fact be *C. sagei* Korn & Raybaudi, 2003, but the location is not exactly what would be expected (the illustrated specimen is from Somalia and *C. sagei* is from the Gulf of Aden, although apparently extending to Tanzania?). We are still not very familiar with *C. sagei* but judging from photos seen the colour and pattern appear somewhat different.

The world of miniconus

Jon Singleton

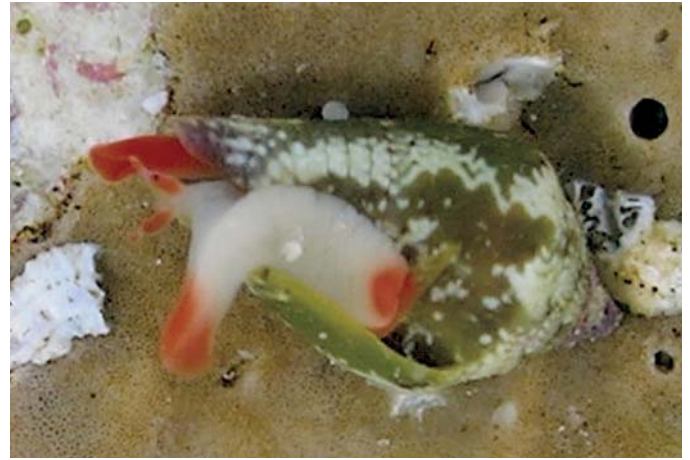
Within my shell cabinet I have what I call my nursery drawer. This is full of small plastic boxes which contain mostly small juvenile cone shells of 15 mm and under in length. Some of these juveniles already possess the colour and pattern of their adult form, so are easily identifiable. However, the majority can vary in colour, pattern and even body sculpture during their transition from juvenile to young adults. This makes identification impossible, unless one has a small growth series of cones.

Another problem with small cones is identifying if they are just juveniles or fully grown at 10 mm in length. Many juveniles do have a very prominent protoconch which is unusually large in proportion to the rest of the cone. Very often the protoconch looks a bit askew, with a distinct lean from the vertical axis.

Within the early nomenclature, there have been a few small cone names entered into the literature, and most have since become known to be synonyms of a previously named adult species, and only a couple retain their full species status.

Over the last decade, a few collectors have started to realize that small cone species of 10 mm or less in length are likely more common than previously believed. The last few years have seen three such species named and described, all being 11 mm and under.

My thanks to Tassie Weinreich for allowing his photographs to be shown within this magazine, and hopefully we may see a selection of juvenile specimens in a future issue.



A well known Australian collector has been studying and photographing micro-shells for a number of years, and has been accumulating a lot of small cones. He dislikes writing articles, but has kindly allowed me to publish some of his excellent photographic work within this magazine.

The group of small cones illustrated here are all the same species and were collected live off the Arlington Reef, some 50 kilometres north-east of Cairns, which is on the northern Queensland coast of Australia. Their habitat is within small holes and cracks within rocks or dead lumps of coral. The collecting technique requires a little patience, manhandling the clump and gently tapping it on to a strong tray which has sides all around, until the small shells start to drop out. One slowly works the clump all around, slowly turning and tapping.

This particular group of cones was collected over several visits, and also from a company licensed to remove material from the region, and transferred to tanks ashore.

The cones range in size from 7 to 10 mm in length, and the well developed spiral profile and protoconch seem to indicate these are not juvenile cones, but fully adult at this size.



Paris, cone capital of the world?

António Monteiro

During the weekend of 14 and 15 March, a large number of shell collectors and shell dealers converged to Paris, France, to participate in the annual Shell Show organized by the Association Française de Conchyliologie. As in previous years, the fair took place at the beautiful Bourse du Commerce, very close to the Louvre Museum.

Many rarities were to be seen (not always, it should be said, at the most affordable prices) and everybody present seemed to be having a good time checking them out, trying to find that something special for each collection, getting acquainted with recently published books or

simply chatting and generally “talking shells.”

A number of Cone collectors were present, as should be expected, and several issues concerning our common interest were abundantly discussed. We even discussed the possibility of organizing, in the not too distant future, some kind of event entirely dedicated to Cones!

We will only have to decide where and when to do it and of course we are counting on everybody to attend. How about it?





Identification needs confirmation

Jon Singleton

Caption

Fig. 1 – Carlos (Camané) Afonso, tidying up his selection of Cape Verde specimens. A good chance to find some special pattern or one of those recently described species.

Fig. 2 – Dinner at a well-known Parisian restaurant on Saturday evening. Clockwise from bottom left corner: R. M. (Mike) Filmer, Manuel (Manolo) Jimenez Tenorio, António Monteiro, Miguel Ángel Verdegay, both Miguel Ángel and Manolo's wives, Gavin Malcolm and Bill Fenzan. Good food and a very good time were had by all.

Fig. 3 – Left to right: Bill Fenzan, Manuel (Manolo) Jimenez Tenorio, Miguel Ángel Verdegay and R. M. (Mike) Filmer. A little pause for the photo and then back to the tables in search of interesting specimens.

The search for shells around the Palawan Island region of the Philippines has brought to light many new discoveries, some of which have been recently named. However it was a surprise to see an attractive small cone collected off Balabac Island, being marketed as *Conus andamanensis*.

C. andamanensis was a species named for its type locality of the Andaman Islands by E. A. Smith, 1878. The holotype is within the BMNH, size 22mm × 11mm. The type still retains much of the periostracum, but on a bare patch the base colour can be seen to be an off-white colour with a few small pink spots. The Philippine specimens appear to match in size and shape, but their dark pink pattern is far denser. However, other specimens of *C. andamanensis* illustrated within the literature show a tan colour with some slightly darker markings of light brown, and their location being the Andaman Sea.

Another well known cone collector expressed his doubts regarding the *andamanensis* name for these Philippine specimens, and likened them to the *C. solomonensis/zebra/nahoniaraensis* group. After doing some comparisons with specimens from my own collection, I tend to agree, although I do not possess a *C. andamanensis* from the Andaman Sea for complete check.



The largest of the illustrated specimens is 26.4mm × 12.3mm.

More on the recent book on Philippine Shells (*Conidae* section by G. Raybaudi)

António Monteiro

This It comes as no surprise that the second volume of *Philippine Marine Molluscs*, by Guido Poppe, which as expected includes a large section on Cones, continues to attract a lot of comments. That only proves that it is in fact an important work, whose merits or otherwise elicit thorough discussion among collectors.

In the previous issue of *The Cone Collector*, I published a short preliminary review of the book, underlining what I considered to be its strong and weak points. In the current issue, Mike Filmer, Bill Fenzan and Gavin Malcolm present a more detailed analysis, in which several opinions expressed by Jon Singleton have also been incorporated.

Other collectors will have more to say and their opinions will of course be most welcome to our pages. Don't hesitate to write!

As an example, Alistair Moncur has pointed out that specimen Nr. 1 on Plate 569, identified as *Conus moncuri* Filmer, 2005 does not look like *C. moncuri* to him; well, obviously Alistair should know best, since he was the one who brought this species to the attention of the shell world and it is named after him!

Jon Singleton has also added other thoughts (besides those combined in the review by Filmer, Fenzan and Malcolm) which we gladly transcribe here:

Comments from Jon Singleton

This book should be considered as just a general shell book, and purely a picture guide to identification. Without doubt the photography is excellent. Another favourable point is the array of colour and pattern variations for most species, and the smaller photos of the living animals on the text page is a nice touch.

I did find the arrangement of the species to be a bit muddled in many places throughout the plates. An example is on the first two plates: normally, one does it

alphabetically, or in groups which usually start with *C. marmoreus*, the prime cone named by Linnaeus; however, the first plate commences with *bandanus*, followed by *marmoreus* and *vidua*, then a return to *bandanus*! Also the "*mozoi*" illustration at the bottom of the plate should be up alongside the *vidua*.

The usage of old synonym names as "form" names is common amongst collectors, but they must have some connection with the species being illustrated. There were a few other synonyms used which should be allowed to fall from usage.

There are some startling misidentifications and the species "rare" classification seemed to be well over-used throughout, even on species many collectors would regard as not uncommon. There are also a few surprising omissions, such as *C. pauperculus* and *zebra* (for other omissions, see Filmer, Fenzan & Malcolm, in this issue of *TCC*), that most cone collectors could readily name. One comment on the credit side is that the illustrations of *C. fischoederi* are the first I had seen since the description some twenty five years ago! By coincidence, the day after I looked at the Lorenz website, and amazingly he illustrated a 26 mm specimen for sale, and the genuine species. Lorenz also stated that the "*pseudo*" *fischoederi* which were marketed by dealers some years back were not the true *fischoederi*, and I agree. He also stated it was being described as a new species. I did buy three of these showing colour variations when they appeared on the market at a shell show. On looking more closely at home and comparing the Röckel & da Motta description, I realized they were not that species. The authors' first sentence stated "body whorl smooth and glossy", which says it all. I call mine *C. metcalfi*.

Back to the book, here are a few quibbles and comments:

PL. 551 – The renaming of *C. subroseus* was valueless, as *C. roseus* was a well known synonym of *C. biliosus*.

PL. 558 – Nice to see the *C. bruuni*, which is a new locality for me for the species [for the use of “*tamikoae*”, see Filmer, Fenzan & Malcolm, in this issue of *TCC*].

PL. 562 – Fig. 1 looks far too smooth bodied for the *ceciliae* form.

PL. 564 – The freak specimens have no place in this book.

PL. 573 – All the old Dautzenberg form names need to drop out of usage as intermediates are common. The only one I retain is the *immaculatusm* which I have not seen from the Philippines.

PL. 579 – Figs. 6 and 7 are the first un-patterned *caracteristicus* I have seen.

PL. 581 – I have problems splitting *loroisii* and *figulinus*, also the aligning of the *insignis* form with *loroisii* instead of *figulinus*.

PL. 609 – Fig. 6 looks a better match for *C. sieboldii*.

PL. 615 – Like most collectors, I have never sighted an actual *C. ikedai*. However, the type and other illustrations I have seen show a much more slender cone with an elongated curved shoulder. I often wonder if *profundorum* is just a synonym of *C. smirna*. the few *smirna* I have sighted are all slim shaped, but *profundorum* ranges from slim to very broad, as seen in these illustrations.

PL. 616 – Interesting to see the mottled yellowish-brown subadult *darkini*, never seen by me before. As for Fig. 7, just pure lust!

PL. 621 – To me, Fig. 8 merges completely with *coelinae*. Giant forms like this occur in Queensland waters, and I have them up to 135 mm in length. These Queensland ones are shallow water, even intertidal. Most have lost the violet anterior marking, but this can happen in normal sized *coelinae*.

PL. 633 – The myth of the yellow *floccatus* being very rare persists, likely with the help of the dealers. In Queensland waters, some one third seems to be yellows.

PL. 636 – As the *duplicatus* type shows what appears to be a conventional *australis* pattern, Figs. 3 and 4 have nothing in common, except shape and sculpture.

PL. 640 – Uncertain about the smooth-bodied Figs. 2, 3 and 4, as the Fig. 5 is the only good match for the *cebuensis* type.

PL. 645 – Fig. 6 looks much broader than the *hamamotoi* type, though a lot closer to the New Caledonian “*hamamotoi*” shown in the RKK Cone Manual.

PL. 646 – Fig. 11 to me is *eugrammatus*, and *C. baileyi* not confirmed as a Philippine species.

PL. 649 – Fig. 10 a bit suspect for *bobolensis*. I have seen many similar sized subadult *bobolensis* from Western Australian waters, and all are slimmer and well-marked with a medium brown pattern.

PL. 655 – The Fig. 1 *tigrinus* name needs to fall from usage, as it cannot be really matched with any *textile* form. Figs. 3 and 4 are not a match for the more elongated *patonganus* type from Thailand; these may possibly be a *pennaceus* form.

PL. 657 – The Fig. 2 text incorrect, as the Mozambican “bluey” textile is not *euetrios*. This error started with the da Motta *textile* complex articles and perpetuated by dealers.

A review of the book *Philippine Marine Mollusks Vol. II – Genus Conus* by G. Raybaudi in G.T. Poppe

R.M. (Mike) Filmer, W. (Bill) J. Fenzan and Gavin Malcolm

General Remarks

This volume is the second of the three volume set of books on Philippine Marine Mollusks. This volume consists of 849 pages including 395 plates covering many families including *Conidae*. Sixteen authors have contributed on different families. This review is limited to the *Conidae* section.

The *Conidae* section consists of 114 pages and the same number of plates. The text is written by Gabriela Raybaudi (Massilia). A well-known researcher and author on this Genus. The photographs are of a very high quality and depict, in most cases, a good range of colours and forms of the species covered. These pictures will be of great assistance to collectors and those studying this Genus in identifying Philippines specimens. Sometimes, within the book, there are so many pictures that a species is confusingly figured in two places which are separated by photos of other species.

While being a valuable contribution to the knowledge of the vast and often confusing *Conidae* population of the Philippine Islands, our greatest disappointment is the lack of a proper text and explanation in nearly every case. It would have added enormously to have had a clear text for each species. For this we must continue to refer to the books of Springsteen and Leobrera, 1986 and Röckel, Kohn and Korn, 1995, both of which do not cover, in their text, the many new species from these Islands, described since they were published. Another concern of ours is the lack of data on the habitats; there are many very good and useful photographs of live shells, presumably in their natural habitats but, although in the book the depth is often given, the nature of the habitat is not mentioned, and this can be a key factor in the determination of a species.

The comments and opinions which follow are intended add to the knowledge and clarification of the status of some species depicted in this great volume.

Specific Comments

Juvenile Specimens. In some cases names given to juveniles of species already named are applied as though they should be used to distinguish these shells as different eg. Page 528. Plate 559, figs 1-2. *C. sulphuratus* Kiener, 1845 is the juvenile form of *C. vexillum* Gmelin, 1791.

Page 506. Plate 548, figs 1-4. *C. bandanus vidua* Reeve, 1843. *C. vidua* is a colour form of *C. bandanus* and not a subspecies as implied, but not explained or justified in this book. The form *C. vidua* is not endemic to Palawan as it occurs in Negros (pl. 548, fig. 3) and also in the Cuyo Islands and Siasi Sulu.

Also Plate 548, fig. 9. *C. bandanus forma equestris* Röding, 1798. This specimen is *C. bandanus forma vidua*; it does not conform to the lectotype nor the Indonesian specimens of *C. equestris* none of which possess the small white tents seen on fig. 9.

Page 508. Plate 549, figs 4 & 5. *C. distans forma chinioi* Shikama, 1970. The first published name for the young *C. distans* is *C. waterhouseae* Brazier, 1896, (figure 1 herein). *C. chinioi* is therefore a junior synonym of *C. waterhouseae*.

Page 514. Plate 552, figs 5-8. In our opinion, these specimens are not *C. nitidus* Reeve 1844 (not 1843) but *C. boeticus* Reeve, 1844. Reeve's figure of *C. nitidus* (pl.47, sp.266) (figure 2 herein) depicts a shell close to *C. boeticus ruppellii* Reeve, 1848 possessing strong brown spiral lines covering the body whorl. No doubt this error occurred because of the fine dots on the figured specimens (*nitidus* in Latin), and because Kiener (1845) illustrated another specimen with fine dots rather than lines and said it was yellow, this figure is of a specimen of *C. boeticus*.

Page 522. Plate 556, figs 11-16. *C. ceylanensis* Hwass, 1792 is, according to most authors, probably not a valid species but a form of *C. musicus* Hwass, 1792., No justi-

fication is provided in this book to establish it as a valid species (a recent DNA analysis (Duda et al, 2008) was inconclusive and suggested that further work is needed).

Page 524. Plate 557, figs 6-9. *C. sazanka* forma *kurzi* Petuch, 1974. These specimens containing brown spots or blotches do not conform with the original description of *C. kurzi* nor do they conform with either the holotype (illustrated but now lost) or the paratype all of which have no markings on them at all, although Petuch does mention some brown dots on the shoulder they are not evident on the types.

Page 526. Plate 558, fig.7. *C. kinoshitai* forma *tamikoana* Shikama, 1979 and *C. bruuni* forma *tamikoae* Shikama, 1973. Shikama first used the name *tamikoana* on the plate of the species described as *C. tamikoae* Shikama, 1973, (pl.1, figs 8 & 9). In a 1979 review of western Pacific shells he again spelt it *tamikoana* and refers to his 1973 text and plate. However *tamikoae* was the first spelling and must be the proper name; “*tamikoana*” becoming a spelling error. Hence despite Shikama’s probable desire to use the name “*tamikoana*” for this species *C. tamikoae* and *C. tamikoana* can only be one and the same shell.

The species *C. tamikoae* has traditionally been linked to *C. kinoshitai* Kuroda, 1956. Shikama, in 1979, describes it as a beautiful yellow form of *C. kinoshitai* illustrated in this book on plate 558, fig. 7.

There are two new proposals made in this book. Firstly that *C. tamikoae* is separated from *C. tamikoana* not possible for the reasons given above. Secondly that *C. tamikoae* is separated from *C. kinoshitai* and is instead a subspecies of *C. bruuni* Powell, 1958. An interesting and possibly correct conclusion, however we remain to be convinced of this. A detailed textual description of the rationale for this proposal might have helped to justify the proposal.

Page 540. Plate 565, fig.5. *C. sugimotonis vicdani* Lan, 1978 but this specimen clearly meets the specifications

of *C. sugimotonis* Kuroda, 1978. In his description of *C. sugimotonis* subspecies *vicdani* Lan distinguishes the two by only two criteria, the lighter weight thinner shell and presence of black spots on ss *vicdani*. We consider *C. vicdani* to be only a form of *C. sugimotonis* as it is not geographically isolated from *C. sugimotonis*.

Page 542. Plate 566, figs 9 & 10. *C. urashimanus* Kuroda & Ito, 1961 is regarded, by most authors, as a form of *C. reclusianus* Bernardi, 1853 a species not mentioned, for some reason, in this book, yet one which occurs not infrequently in the Philippines.

Page 570. Plate 580, fig.3. *C. tessulatus* Born, 1778. We believe that this figure may be *C. suturatus* Reeve, 1844 and not *C. tessulatus*. *C. suturatus* has not been reported previously from the Philippines, however it has been established (Callomon, 2002) that *C. kashiwajimensis* Shikama, 1971 from Japan is a form of *C. suturatus* as was suspected by Shikama. Because *C. suturatus* is now known from Australia to Japan and Hawaii it may well be present in the Philippines.

Page 574. Plate 582, fig. 1. *C. monachus* Linnaeus, 1758. The specimen illustrated is *C. achatinus* Hwass, 1792 and not *C. monachus*. The latter is not mentioned in this book although it probably does occur in the Philippines (see Springsteen & Leobrera 1986). *C. monachus* never has spiral lines on the body whorl as does *C. achatinus*.

Page 574. Plate 582, figs 4-9. *C. striolatus striolatus* Kiener, 1845 is an almost pure white shell with a few fine brown-black dots. *C. striolatus decurtata(us)* Dautzenberg, 1937 is the form represented here. Also the name is a Dautzenberg name and not a Linnean name. Dautzenberg originally called it *C. decurtata* (variety *magus* Linnaeus).

Page 578. Plate 584, figs 1-7. *C. fulmen leobottonii* Lorenz, 2006. A recently discovered species which is, in this book, proposed as a local race (? form) of *C. fulmen* Reeve, 1843. An interesting and possibly correct conclu-

sion. The only difference that we can see between specimens of *C. fulmen* and *C. fulmen leobottonii* is the presence on some specimens of *C. leobottonii* of fine spiral rows of dots and dashes (see figs 4 & 5). There are no specimens of *C. fulmen fulmen* figured or mentioned in this book, although the type locality is given as Capul Island, Philippines. It would be interesting to see pictures of Philippine specimens of *C. fulmen fulmen*.

Page 588. Plate 589, fig.3. *C. tmetus* var. *pilkeyi* Petuch, 1974. *C. tmetus* Tomlin, 1937 is a new name for *C. sulciferus* Adams, 1854 a homonym. *C. tmetus* is considered to be a subspecies of *C. ochroleucus* Gmelin, 1791 whereas *C. pilkeyi* is a synonym of *C. tmetus*. This specimen should therefore correctly be named *C. ochroleucus tmetus* Tomlin, 1937.

Page 594. Plate 592, figs 1 & 2. *C. blanfordianus* Crosse, 1867. There is considerable confusion about the true taxon *C. blanfordianus* and just what it is. *C. zapatosensis* Röckel, 1987 is not mentioned in this book yet it is extremely similar to the specimens figured as *C. blanfordianus* and a number of these shells from the Philippines are now available from dealers. The question is whether *C. zapatosensis* is a synonym of *C. blanfordianus* or a distinct species? We know what shells belong to *C. zapatosensis* because the types are available. But just what shells belong to *C. blanfordianus* is uncertain; the type species is missing. There exist specimens from the Philippines which are less elongated, than those figured and do not contain spiral bands and these specimens may represent the true *C. blanfordianus*. These are not illustrated in this book.

Page 596. Plate 593, figs 9-12. *C. cf. giorossii* Bozzetti, 2005. We believe that these specimens belong to *C. broderipii* Reeve, 1844 a species not mentioned in this book. *C. giorossii* is a much more slender shell of lighter colouring endemic to the Island of Flores in Indonesia, very well described as *C. species* by G. Raybaudi in 1992 (*Gloria Maris*, 31(4/5, pp. 73-77) before L. Bozzetti named and described it. *C. giorossii* is close to the *C. col-*

lisus complex of which *C. broderipii* is also a member.

Page 598. Plate 594, fig.7. *C. filamentosus* Reeve, 1849. The holotype of this species is in the BMNH (figure 3 herein). The species depicted here is *C. spectrum* forma *conspersus* Reeve, 1844. *C. filamentosus* has strong, sharp and well separated spiral grooves from base to shoulder while *C. conspersus* (not mentioned in this book) has very fine brown spiral lines, not grooves, from the base to the shoulder of the body whorl.

Also on this page, figs 1-6. *C. dolium* forma *petergabrieli* Lorenz, 2006. We concur with the conclusion that *C. petergabrieli* is a synonym of *C. dolium* Boivin, 1864. A question remains as to the connection between *C. dolium* and *C. spectrum* Linnaeus, 1758.

Pages 606-614. Plates, 597-602, all figs. *C. magus* Linnaeus, 1758. *C. magus* is morphologically the most variable of all the species in the Genus *Conus* and it has been given numerous names. We have not herein attempted to review this species and give an opinion on the species, subspecies and form names mentioned in this book, or those not mentioned, because it would require an article longer than this one is already. However we are of the opinion that while there are many forms there is only one species. No doubt further studies perhaps including genetic studies will help to clarify the *C. magus* complex.

Page 624. Plate 607, figs 1-2. *C. lictor* Crosse, 1864. Crosse did not describe this species it should be *C. lictor* Boivin, 1864. *C. lictor* is merely a form of *C. striatellus* Link, 1807 and not a separate valid species. No justification is included in this book to alter its status to that of a valid species.

Page 626. Plate 608, fig. 9. *C. rattus* Hwass, 1792. We believe this specimen is a juvenile of *C. moreleti* Crosse, 1858 and not *C. rattus*.

Page 630. Plate 610, fig.1. *C. pergrandis* forma *fletcheri* Petuch & Mendenhall, 1972. It is suggested that *C.*

fletcheri is a young *C. pergrandis* Iredale, 1937 however the holotype measures 105 x 44.5 mm and is certainly not a young shell. It is however covered with spiral grooves such as are shown in figs 3 & 5 in this book.

Page 634. Plate 612, figs 6-8. *C. grohi* Tenorio & Poppe, 2004. We suspect that *C. grohi* may only be a form of *C. spirofilis* Habe & Kosuge, 1970, despite the list of minor differences stated by the original authors. Further research is needed to establish its true status.

Page 638. Plate 614, fig.1. *C. excelsus* forma *nakayasui* Shikama & Habe, 1968. The original description makes no mention of granules or even cords, this figure is therefore only *C. excelsus*.

Page 662. Paragraph one *C. thalassiarachus azona* Wils, 1972 and *C. thalassiarachus depriesteri* Wils, 1972 are both unavailable names (*nomen nuda* described as varieties after 1960). also on Page 664, plate 627, figs 1 & 2, page 666, plate 628, figs 1-6 and page 668, plate 629, figs 1 & 2. These names cannot therefore be used for either subspecies or forms of *C. thalassiarachus*.

Page 668. Plate 629, figs 3-7. *C. thalassiarachus mariei* Jousseume, 1899 the name *C. mariei* is a homonym of another shell (fossil) and cannot be used to represent a form of *C. thalassiarachus* Sowerby, 1834.

Page 670. Plate 630, figs 1-6. *C. cordiger* Sowerby, 1866 is a miss-spelling, it should be *C. cordigera* Sowerby, 1866.

Page 684. Plate 637, fig. 7. *C. kuroharai* Habe, 1965. This white specimen would appear to be the shell recently named *C. quiquandoni* Lorenz & Barbier, 2008. We are of the opinion that *C. quiquandoni* is only a colourless specimen of *C. kuroharai* as, indeed, is discussed in the original description. Therefore we agree with its placement in this book.

Page 694. Plate 642, figs 5-7. *C. richardsae* Korn & Röckel, 1992. Although no justification is given for the

separation of *C. richardsae* from *C. luteus* Sowerby, 1833, we think that *C. richardsae* may well be a valid species and not a subspecies of *C. luteus* Sowerby, 1833. Our reasons for thinking this are: Firstly *C. luteus* is still only known from the South Pacific whereas *C. richardsae* is now known from the Marquesas, (Moolenbeek et al, 2008) an established location for *C. luteus*, as well as the Philippines. Therefore the reference to the allopatric occurrence is now suspect: Secondly the original authors' of *C. richardsae* concluded that the differences between the two shells were not sufficient to regard them as distinct species however it is clear that there were a number of differences particularly the colour difference, *C. luteus* always being yellow, pink or orange while *C. richardsae* is always violet to bluish. In addition *C. richardsae* possesses spiral rows of dashes on the body whorl, these are never present on *C. luteus*: Thirdly there is the slight but noticeable difference in the shape, *C. luteus* being less cylindrical and having a broader shoulder than *C. richardsae*. Both of these species are relatively rare and if more specimens become available the truth about their status will be easier to ascertain.

Page 700. Plate 645, fig.1. *C. suduirauti* G. Raybaudi, 2000 year should be 2004.

Page 706. Plate 648, figs 1-9. *C. praecellens* A. Adams, 1854. A tentative proposal to recognize more than one distinct species in this complex merits some support.

A) *C. praecellens* (fig. 1) appears to match the holotype in the BMNH (figure 4 herein) and is a valid species.

B) *C. sowerbyi* Sowerby, 1857 is an unjustified emendation for *C. sowerbii* Reeve, 1849 hence *C. sowerbyi* is an invalid name. *C. sowerbyi* was itself a new but invalid name for *C. bicolor* Sowerby, 1833 (July) a homonym of *C. bicolor* Sowerby, 1833 (March and May) and was renamed *C. sinensis* Sowerby, 1841. But *C. sinensis* is also a homonym of a Gmelin name and was renamed *C. sowerbii* by Reeve. *C. sowerbii* is itself invalid being a homonym of a previously described fossil cone. As this is the

only one of the four proposed new species which is not illustrated we do not know what shell is intended. If the chain of names is traced back they all refer to the shell figured but not described in the *Conchological Illustrations* (pl.37, fig. 56) as *C. bicolor* Sowerby, 1833 (July), see below.

C) *C. sowerbyi* (? *sowerbii*) variety *subaequalis* Sowerby, 1870. On plate 648, figs 4 & 5 appear to match the rather unclear figure in Sowerby of *C. subaequalis* (figure 5 herein), (the type species is lost) it was described as having a higher spire and less numerous spiral ribs than *C. praecellens*. In both *C. praecellens* and *C. subaequalis* the spiral ribs are flat in outline.

D) *C. bicolor* Sowerby, 1833. Sowerby named three different species *C. bicolor* in 1833. Firstly, in March, (this *C. bicolor* was unnecessarily renamed *C. albomaculatus* by Sowerby in 1841 (this specimen is a synonym of *C. litoglyphus* Hwass, 1792). – Secondly, in May, (this *C. bicolor* (now a homonym) is a juvenile of *C. pulcher* Lightfoot, 1786, which Sowerby recognized in *Thesaurus Conchyliorum* 3 in 1858). Thirdly, in July, his *C. bicolor*, also a homonym (see above) is figure 56 on plate 37 in the *Conchological Illustrations* (representing the holotype, figure 6 herein). it is impossible to discern the sculpture on the body whorl of this figure but the shape and colouring suggest it's relationship to *C. praecellens*. In paragraph one of this book it is suggested that *C. bicolor* is a valid distinct species but in figs 6-9 it is listed as a form of *C. praecellens*. Therefore it is not possible to comprehend whether Raybaudi intended *C. bicolor* to be a valid species or a only a form.

To summarise, *C. praecellens* is a valid species. *C. subaequalis* may well be a valid species extremely close to *C. praecellens*. The shells illustrated (figs 6-9) do appear to be different from *C. praecellens* and from *C. subaequalis* in that they are stouter in shape and have fewer, much more rounded spiral ribs. However to the best of our knowledge there is no name for these shells. We accept Raybaudi's proposal that what has been traditionally

considered one species namely *C. praecellens* is in fact at least two species. More research is needed to establish the facts, create a sensible name structure and clarify the situation.

Page 706. Plate 648, fig.3. *C. gratacapii beatrix* Tenorio & Poppe, 2006. *C. beatrix* was considered to be close to the *C. praecellens* A. Adams, 1853 complex. In this book it is proposed that *C. beatrix* is connected to *C. gratacapii* Pilsbry, 1904 instead of to *C. praecellens*. While there are indeed similarities, it is our opinion that *C. gratacapii* differs from *C. beatrix* by being more elongate, having straighter sides, a less concave spire outline and not having a stepped spire or any tubercles on the early spire whorls. We therefore do not concur with the statement that *C. beatrix* is a subspecies of *C. gratacapii* or indeed even a form of this species. Instead we prefer to leave *C. beatrix* within the *C. praecellens* complex.

Page 714. Plate 652, fig. 2. *C. aulicus* forma *aurantia(us)* Dautzenberg, 1937. *C. aurantia(us)* is a homonym twice over. The representative of the lectotype (pl. 1, fig. 1 in Knorr, 1764) depicts a much broader and distinctly orange coloured shell (hence the name) this specimen in this book does not match *C. aurantia(us)*.

Page 720. Plate 655, figs 3 & 4. *C. convolutus* forma *patonganus* da Motta, 1982. *C. convolutus* Sowerby, 1858 (figure 7 herein) is an elongated high spired shell not similar to *C. patonganus*. Both are however, in our opinion, synonyms (forms) of *C. omaria* Hwass, 1792.

Overall. A book of huge value to all experts, students and collectors of cone shells. Some very interesting new ideas are included. We notice that a few Cone species which are known to occur in the Philippines are not mentioned including *C. artoptus* Sowerby, 1833; *C. balteatus* Sowerby, 1833; *C. broderipii* Reeve, 1844 (see page 596 above); *C. cumingii* Reeve, 1848; *C. longurionis* Kiener, 1845; *C. reclusianus* Bernardi, 1853 (see page 542 above); *C. scalptus* Reeve, 1843; *C. subulatus* Kiener, 1845; *C. teramachii* Kuroda, 1956 and *C. zapatosensis* Röckel, 1987

(see page 594 above)

We hope that the book and our opinions expressed herein will further the knowledge and understanding of this complex and varied Genus. In closing we would like to thank Jon Singleton for his contribution and Eddie Hardy for help with some figures.

Figures



Figure 2
C. nitidus
Figure in Reeve



Figure 5
C. subaequalis
Figure in Sowerby
P.Z.C.



Figure 6
C. bicolor
Figure in Sowerby
C.I.

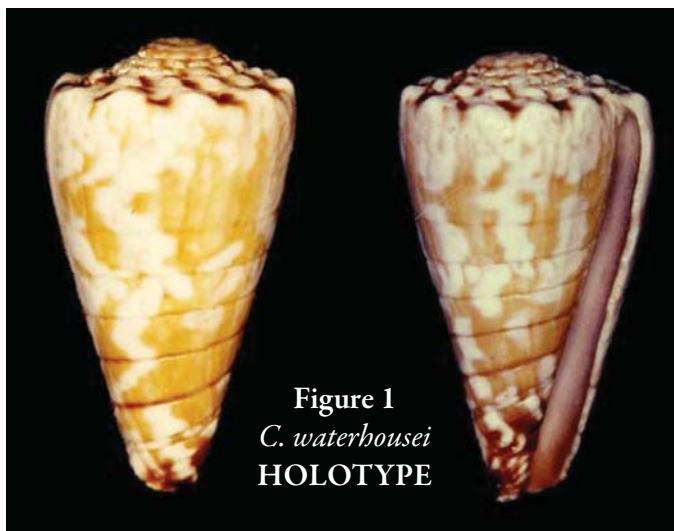


Figure 1
C. waterhousei
HOLOTYPE

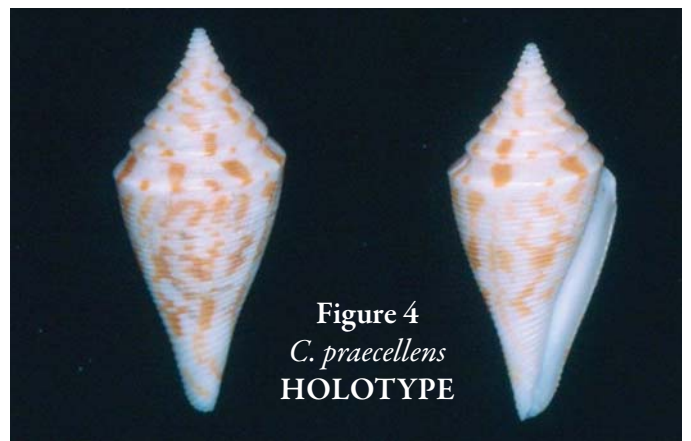


Figure 4
C. praececellens
HOLOTYPE

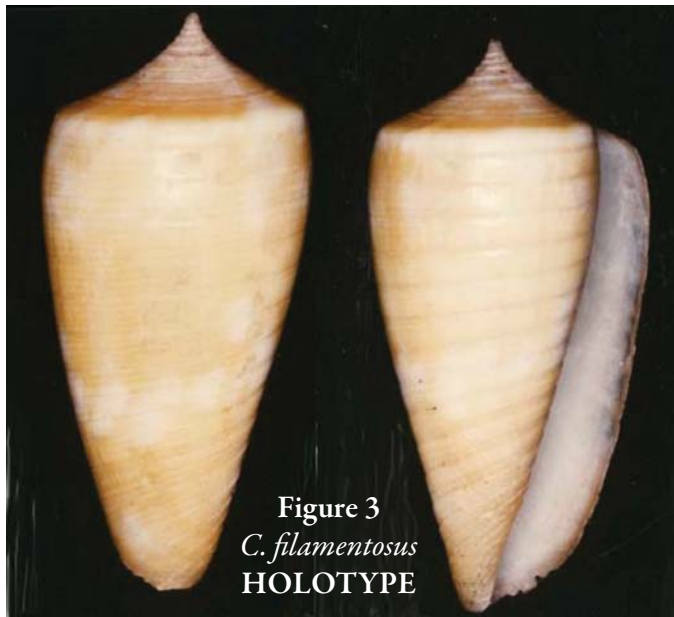


Figure 3
C. filamentosus
HOLOTYPE

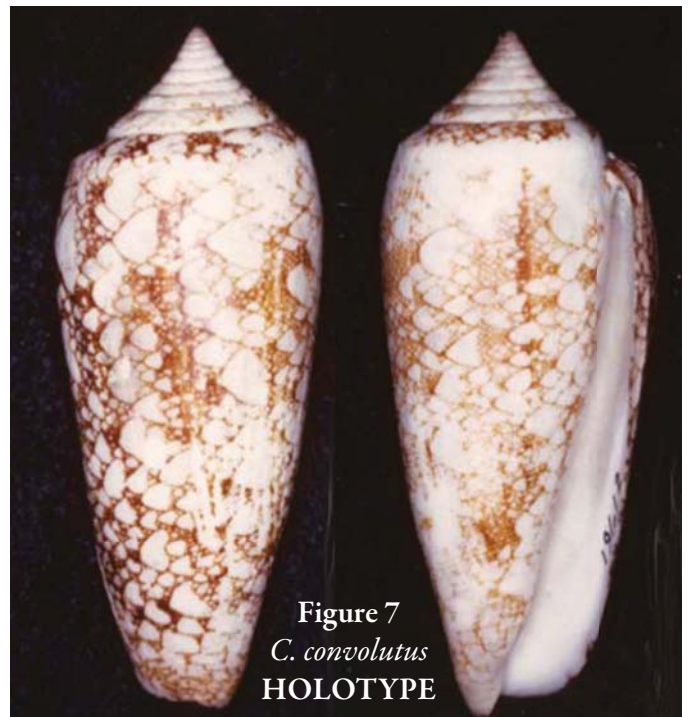


Figure 7
C. convolutus
HOLOTYPE

Most Memorable Shell

My friend John Abba recently asked this simple question: what is the most memorable shell in your collection?

I immediately thought that it would make a nice new column for *The Cone Collector* and of course to set an example, I am willing to tell you about my most memorable acquisition and have asked John to do the same.

So, here we present you with both our tales, in the hope that others will take some time to put pen to paper (or, in most cases, fingers to keyboard) and tell them their own stories along a similar vein! What is your most memorable shell?

Let us hear John first:

My most memorable shell, was a self found one, and – sorry, everybody! – not a cone (maybe my initial question to you, should have mentioned “Most memorable cone”...): it’s a *Cypraea (Lyncina) vitellus* Linne, 1758.

Most memorable, because I was visiting my grandfather, during my summer holidays, at the Seychelles Islands in 1967, after being locked up for a year, in boarding school, in London. Was only 12 years old then, and, just dying for a dip, when I got off the plane, and it was one of the first shells I found snorkelling, at the beach, on the island of Mahe, where my grandfather lived, a few miles out of Victoria.

A week later – after the ants had their “bon appetite” on the decaying animal – I flushed the remaining meat out, and my granddad put tape over it and wrote “*vitellus* 64” on it. Well to be honest I never knew what the additional “64” meant. Never enquired or asked either, but this “64” does pop up from time to time, in shell books...

On returning home, after that summer of 1967, I’ve brought this particular cowry with me, whenever, I ventured out of the Hawaiian Islands during long durations, along with another shell, a *Cypraea granulata*. My luck charm shell... Nearly drowned during that dive when I

found the *Cypraea granulata*. I was 16 then and on that very Saturday a bunch of us school boys decided to take one of my friend’s dad’s outboard out for a few hours, spear fishing and catch a few lobsters, to Bar B Que that Saturday night..

To make a long story short, the rubber “O-ring” connecting the regulator to the aqua lung I was using broke, and I was sucking in water at 40 feet. So off with the weight belt and tank, and up I went... Spent the next half hour vomiting salt water! Lesson learnt: be prepared for the unexpected and always dive with a buddy.

One of my friend’s went down from the boat to tie rope to the aqua lung and weight belt, so we can pull it up the boat. Just a bunch of naughty 16 year olds that took the boat out without father’s permission... My friend’s old man never knew about this. The whole bunch of us could have been lynched alive...

After the scuba gear was retrieved, first thing I looked for was the shell pouch tied to the weight belt and inside, still there, was my *Cypraea granulata*, my lucky charm shell.

But now to Cones...

Most memorable cone find consisted of few *Conus nobilis skinneri* da Motta, 1982. Found a bunch of these myself, way back in 1991, snorkeling on the most Eastern tip of Java Island, overlooking Bali Island in Indonesia.

Most memorable because it was suppose to be a famous shell, at that time, having read and seen so many of them in every cone/shell book, I never expected to find one myself, let alone three! They were out of location and the shells were very small size, below 20 mm. It is written that *Conus nobilis skinneri* are



endemic to Bali Island, and from the ones found, and bought from shell dealers, in Bali, most from the South East corner, but all fairly big size, around 35 - 40 mm plus.

Most memorable dive, on the other hand, in North Eastern Flores Island, in June 2006, resulted in the picture below. *Conus nobilis victor* Broderip, 1842! I brought the cones back home to Hawaii, in 2007, so the picture is an old one.



Well, they were crawling all over, that weekend, in a deserted bay, till I came along. I was on one of my fisherman's boats looking for Sea cucumber. Just the good old snorkelling did the trick, in the evenings, and before day break, in shallow water, from Friday evening till Sunday morning. I also found a few of these cones at the Eastern tip of Flores Island and Lembata Island, sad to say, these beautiful species, that was once considered uncommon to rare, are now considered, common shells.

Believe it or not, a local Indonesian found over a hundred before me. Just getting to these out-of-way locations, 10-15 years ago was a task itself. Transportation in this country has improved a lot since 15 years ago. A little time consuming, but if one can make it to these locations, with a bit of luck, you find a few, if not a whole bunch.

~John Abba

My turn now!

Along some forty years of shell collecting and having begun by collecting every family, both gastropods and bivalves and including land and fresh water as well as marine species, I have certainly come across many specimens that I remember to this day.

My first *Cypraea teulerei* was quite memorable, because it was the first rare shell in my collection at the time I bought it, some 35 years ago; it is not too rare now and I no longer have that specimen, having exchanged or sold everything when I decided to concentrate on Cones (and Pectens). Another memorable acquisition was a huge *Emtremnotrochus rumphii*. It was extremely rare and is now in the collection of my friend Emilio Rolán.

But what about "the most memorable?"

First of all, let me explain that almost all shells in my collection were bought from dealers or exchanged with other collectors. I did collect many shells along the Portuguese coast, but because I do not dive, I only explored rocks at low tide and of course the Portuguese intertidal fauna is not that exciting: some nice limpets, a few *Calliostoma*, things like that... So, my most memorable shell must in fact be my most memorable acquisition. Let me tell you the story:

Some 25 to 30 years ago, *Conus aurisiacus* was - as you know - a great rarity. It was in fact a dream shell, something that was to be seen only in museum collections. Amazingly enough, there was one collector in Lisbon who had one specimen! He was an elderly gentleman called Pierre Delpout.

My old friend Luís, also a keen shell collector, knew Delpout, a charming man, and one evening he took me to his house to see his collection, including the *aurisiacus*: a small specimen, but quite typical! Both Luís and I dreamed of obtaining one for our collections, but of course no hope.

Change of scenery: in those days there was a shop near Lisbon who dealt in shells (as well as in minerals, butterflies, native art, etc.); the owner was an extremely nice man called Manuel Balsa. A number of collectors from Lisbon used to meet there almost every Saturday afternoon. We would phone each other beforehand and ask "are you going to Balsa's today? All right, I'll go too, I will be there at about four", something like that...

One day, in winter, we arranged such a meeting. I went with another friend and Luís Ambar would meet us there. It was about five in the afternoon, so the night had set down and it was pitch black, especially because when we arrived at Balsa's shop there had been a power cut in the area. I had a torchlight in my car and it was the only light available as we entered the shop.

We looked around and in a corner there was a small box with a very large and near perfect (albeit dead collected) *C. aurisiacus*! The friend who went with me (a collector of cowries, with no interest for cones, fortunately...) pointed at it and asked "António, is that what I think it is?" (despite having no interest in cones, he was quite knowledgeable). I said "Yes, it is an *aurisiacus*".

I proceeded to ask Mr. Balsa how much he wanted for the shell, expecting a value well beyond my possibilities. His reply was "anything you care to pay for it...". I couldn't believe my ears!

Now Balsa was a kind man and a good friend, so I would not dream of cheating him, so I said "Mr. Balsa, that is a rare shell, so you must tell me your price". He then explained that he had got it from a lady as part of a larger exchange involving some items of African art and handicraft, so he had paid virtually nothing for it, which meant that anything I would be willing to pay would be all right by him.

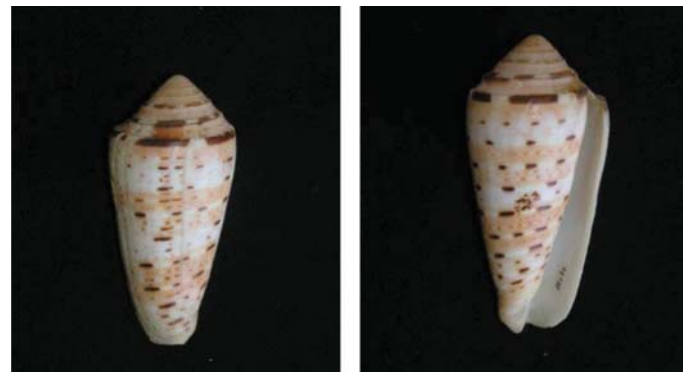
I thought for a moment and offered him 1000 escudos (the Portuguese currency at the time); that would be the equivalent to some 25 to 40 dollars, at the time.

He said "That's too much!"

But I insisted and finally paid him that amount.

As I was leaving the shop with my *aurisiacus*, Luís Ambar arrived. I put my hand in my pocket, took it out and said to Luís: "Look what I've just got!". You should see the look on his face!

C. aurisiacus had been a dream shell for both of us for so long and Luís was so frustrated by having missed it (it would be his if only he had got there before me) that we both believe that that single experience contributed somehow to lessen his interest in shell collecting; a couple of years later he gave up collecting altogether, sold almost his entire collection and kept only about a hundred of his most beautiful specimens in a display cabinet.



Nowadays, *C. aurisiacus* is almost common and I have several specimens in my collection. That first one is no longer in the collection (it was, after all, a dead collected specimen, whereas now I have several live taken ones, with beautiful colours), but I still keep it as a souvenir of this episode.

So, there you have it: my most memorable acquisition. Who will take the floor next?

~António Monteiro

Conus adversarius sinistral fossil complex

Giancarlo Paganelli

I have been interested in shells since about 40 years ago when I went on a trip to collect fossils in the Apennines. There I found my first cones. Fossils always fascinated me because of the way they were made and preserved and for the evidence that they give us on the evolution of the living beings. That's why a sizeable number of fossil cone species, out of more than two hundred thousand taxa described, takes place in my collection.

The shell of cones, like that of most gastropods, has an usually right handed coiling direction; in a few cases, specimens of living cones with left-coiling were found, chiefly *C. furvus*, *C. magus*, *C. ventricosus*, *C. anabathrum*, *C. tinianus*. This character is controlled by a maternal gene and it seems that it gives the animal some advantage toward predators attack. The first known *Conus* species which has only a left-coiling is the fossil *Conus* (*Contraconus*) *adversarius* Conrad, 1840. It was described from a 65 mm (2½ inches) specimen found in the Yorktown Formation, Piacenzian Pliocene, of North Carolina, aged from 1.8 to 2 million years ago. Over the years many other specimens showing a large variability in shape and size were found, and accordingly nine more species were described aged in the time span of 0.8 to 4 mya: *C. tryoni* Heilprin, 1887, *C. lindajoyceae* Petuch, 1991, *C. osceolai* Petuch, 1991, *C. schmidtii* Petuch, 1991, *C. berryi* Petuch, 1994, *C. heilprini* Petuch, 1994, *C. mitchellorum* Petuch, 1994, *C. scotti* Petuch, 1994, *C. petiti* Petuch, 2004. They come from the Southeastern USA fossiliferous beds, Virginia and North Carolina (Yorktown Formation), South Carolina (Waccamaw Fm.), Florida (Caloosahatchee Fm.).

The specimens in my collection are medium to large sized (40 to 140 mm) and solid. Shape of last whorl conical (RD, 0.52-0.65; PMD, 0.84-0.96), with slightly convex to straight outline. Aperture narrow and rather uniform. Shoulder angulate to carinate. Spire very variable, moderately low to height (RSH 0.14-0.26), with straight to slightly concave sides; early postnuclear whorls flat to tuberculate with deep suture. Raised spiral threads on basal third of the body whorl.

C. lindajoyceae is the oldest known contraconus. It comes from the Buckingham Member, Tamiami Fm., Early Middle Pliocene, has a slender shape and a high conic spire with tuberculate postnuclear whorls. *C. adversarius* is found in the Pinecrest Member, Tamiami Fm., Middle Piacenzian Pliocene. *C. tryoni* has the greater size among contracones, inflated last whorl and comes from the Fort Denaud Member, *C. aloosahatchee* Fm., Late Pliocene. *C. osceolai* is from the Fort Deanud Member too, but Earliest Calabrian Pleistocene. *C. petiti* is found in the Waccamaw Fm., Early Pleistocene. *C. scotti* is from the Ayers Landing Member, Caloosahatchee Fm. Latest Calabrian Pleistocene.

The taxonomic status of these species is currently disputed. However, since the beds where these nominal taxa were found are temporally separated by many thousand years it is possible to admit that they are really distinct species.

Particular thanks to Dr. Edward J. Petuch for his helpful personal communications.

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Conus adversarius Complex continued...



C. adversarius



C. lindajoyceae



C. tryoni



C. osceolai



C. petiti



C. scotti

Plate 1
Spires

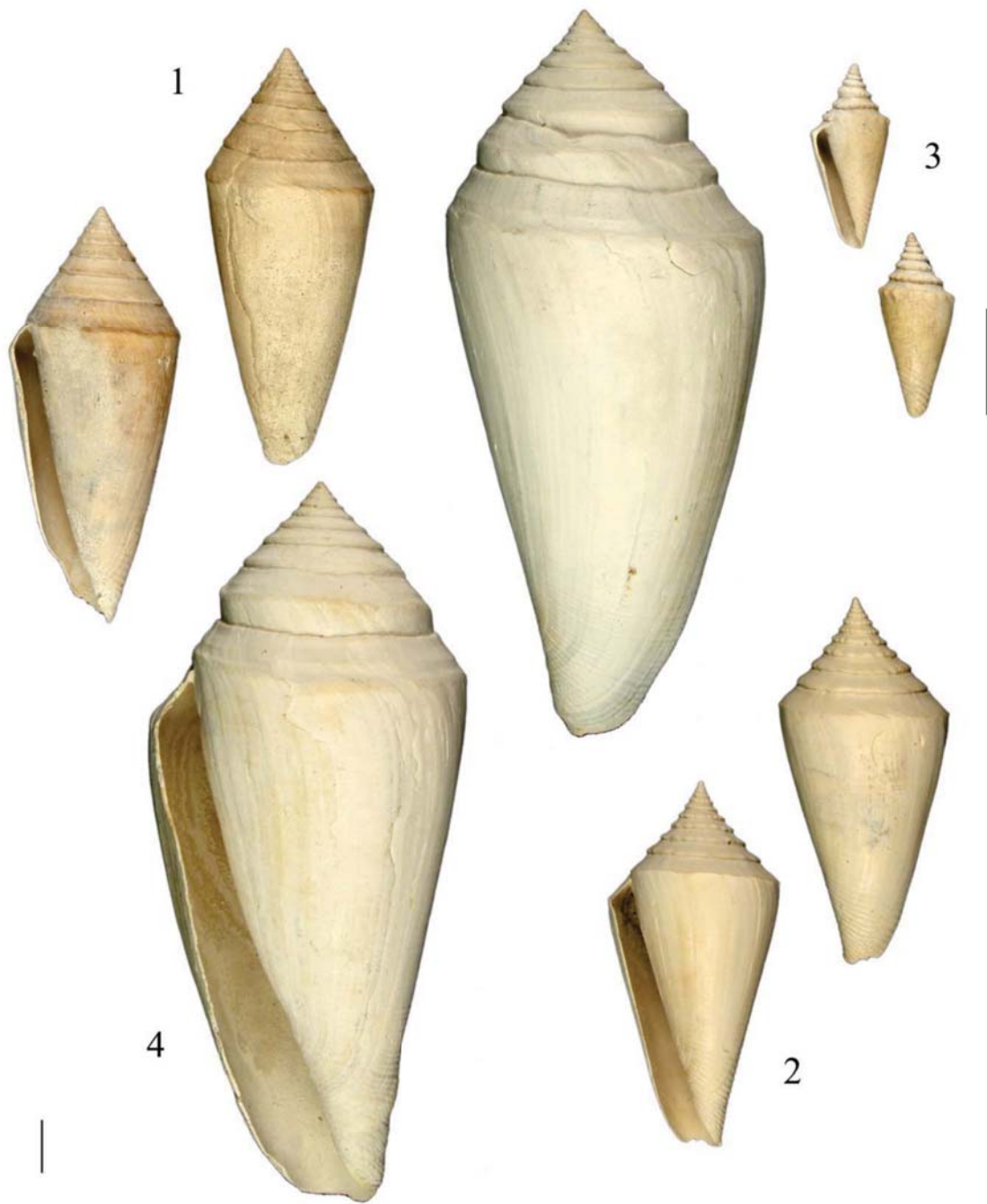


Plate 2

1. *C. lindajoyceae*. Florida, Sarasota, 79.9 mm
2. 3. *C. adversarius*. Florida, Sarasota, 68.9 mm - 18.7 mm (juvenile, 2:1)
4. *C. tryoni*. Florida, Caloosahatchee River, 140.6 mm

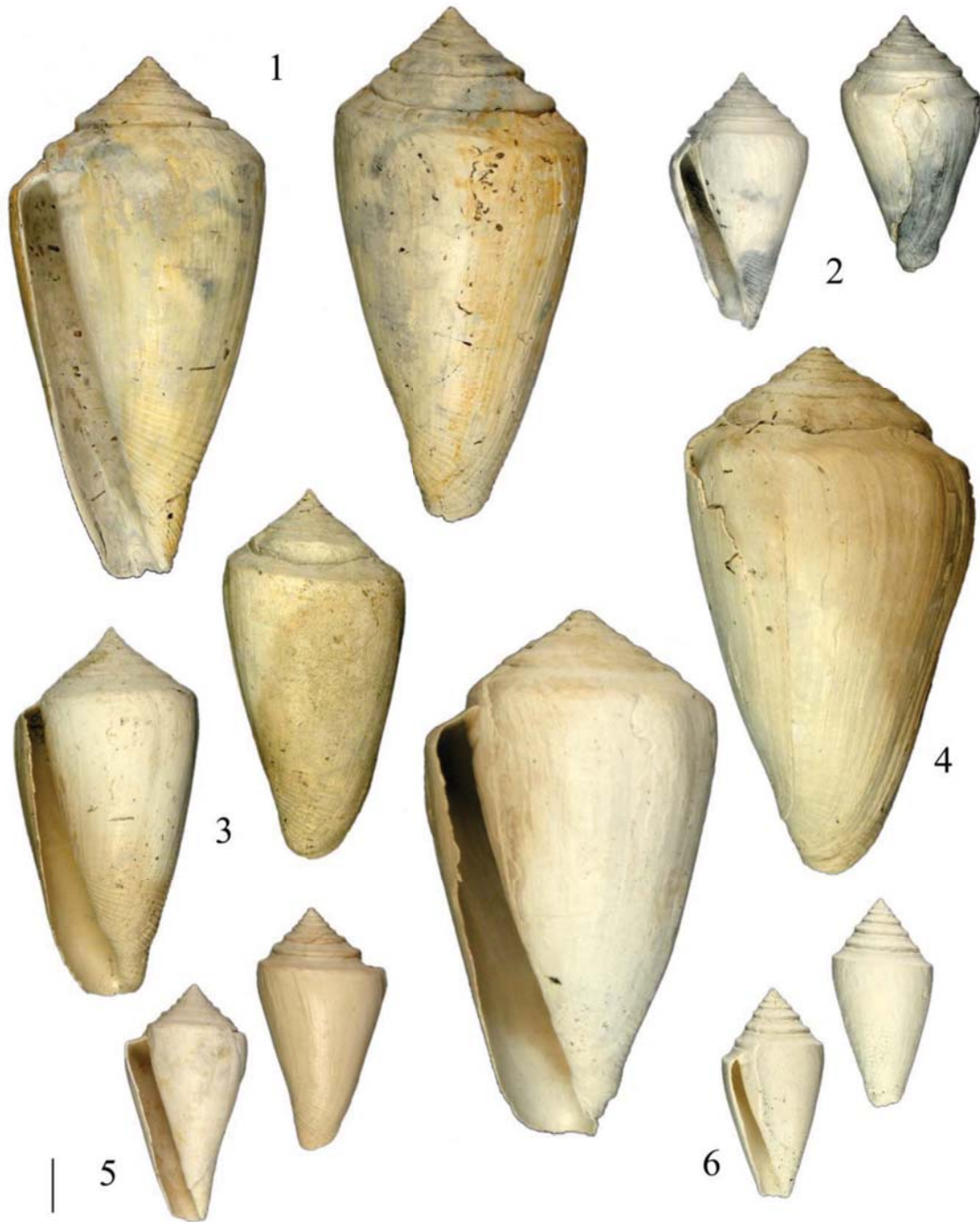


Plate 3

1. *C. adversarius*. Virginia, Chesapeake Bay, 101.1 mm
2. *C. osceolai*. Florida, Clewiston, 46.3 mm
3. 4. *C. petiti*. South Carolina, Waccamaw River, 101.2 mm
5. 6. *C. scotti*. Florida, Clewiston, 47.5 mm - 39.3 mm.

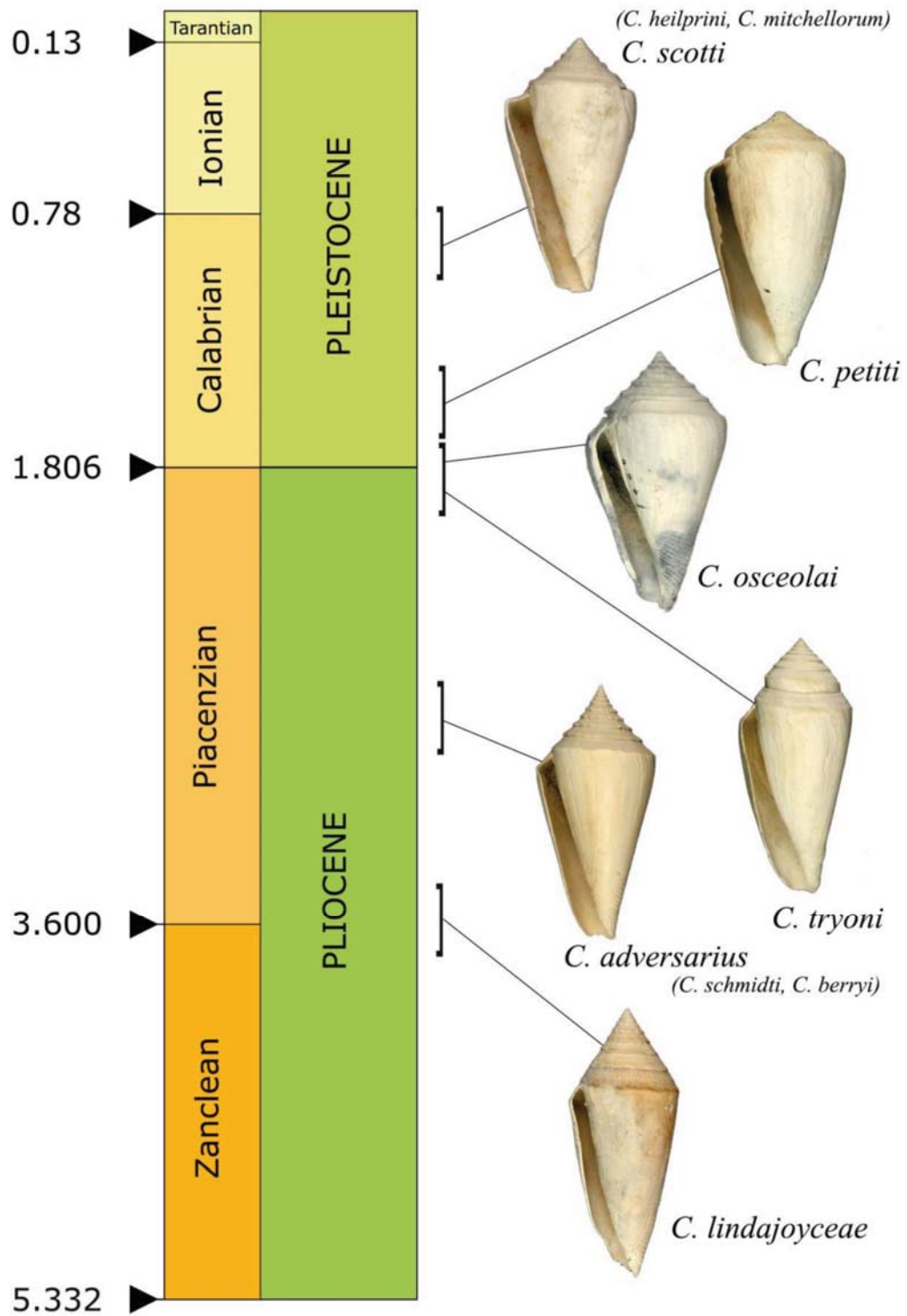


Plate 4

Contraconus species in chronological order

Comments on TCC #9

Comments from Mike Filmer:

Once again a great job – I don't know how we managed in the interval between the demise of *Hawaiian Shell News* and *The Cone Collector*. [Thanks, Mike!! Ed.]

- 1) I was delighted to see that my wonderful friend of thirty years Jon Singleton finally agreed to send you his brief autobiography. [I was very glad that Jon agreed to enter our "Who's Who" section and I am sure everybody was happy to get to know him a little better. Ed.]
- 2) *C. stramineus* is among my present study groups together with *C. spectrum* and *C. collisus*. I am finding many problems of great interest – these include the question as to the status of *C. s. stramineus* and *C. s. mulderi*. Therefore I will not comment further on your article except to say that I agree that specimen 1 is not *C. nahonia-raensis*.
- 3) The age to which cones might live is very interesting and as you say not much written about or discussed because unless we can tag and watch a number of specimens from birth to death in their natural habitat we will never know this.
- 4) I fully agree with John Tucker's views on *C. lindae* – when I wrote my book I had not been able to study specimens of *C. lindae*, which I have now been able to do. My book will be corrected.
- 5) I am very sympathetic with Jon Singleton's views on the status of *C. novaehollandiae*.
- 6) I think you should have made some remarks or comments to explain the presence of the pictures of *C. pseudoimperialis* on page 34 [Just thought that since it is relatively poorly known it would be useful to show a photo... Ed.]

Comments from Gabriella Raybaudi:

Conus sp. cf. "*collisus*", cf. *mulderi*, cf. *sertacinctus*...

Paul, your specimens in the last issue of TCC are, for me, *C. stramineus nisus* (that is *mulderi* now). Ok, I will go back again on the spot in April... and I promise soon after a new article on this group. [Gabriella, I hope that you will consider publishing that article in TCC! Ed.]

We hope to see
your contribution
in the next TCC!

