



*THE  
CONE  
COLLECTOR*

*#8 - October 2008*



# THE CONE COLLECTOR

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## On the Cover:

Carlos Afonso, an experienced diver and keen collector of Cape Verde shells, captured this photo of a living specimen of *Conus ateralbus* Kiener, 1845, in its natural habitat. *C. ateralbus* is endemic to Sal Island, in the Cape Verde archipelago. Most specimens display a beautiful pattern of white spots on a black background, but some present a dark to light brown or even yellow background; all-white specimens are also not unknown. The specimen in the photo is of course of a bright yellow colour.

## Note from the editor

I firmly believe that every collector is born a collector. The pleasure of bringing together large numbers of items of some common description is not something that can be acquired or learned from contacts with other, more experienced collectors. Certainly a dormant instinct may be aroused by a visit to a museum or a private collection, but it simply had to be there in the first place.

Books have been written about the collecting compulsion (\*) and they certainly shed some light on the psychology of the collector. Our psychology...

It is, I think, because collecting is the outward expression of a particular frame of mind, much more than a conscious decision, that many collectors do not restrict their interests to a single subject. And I certainly know what I am talking about, since I have always been a rather compulsive collector, having dedicated efforts to stamps, Bank notes, old picture postcards, antique belt buckles, frog and toad figurines and Moorcroft pottery, to name only my main collection themes, apart from seashells. My friends say that I collect... collections!

Nevertheless, collecting shells is quite distinct from collecting stamps or other man-made objects. To collect shells means having and developing an interest for the natural world, an admiration for the harmony and diversity of Nature and a deep respect for our global environment (\*\*). One can learn a lot from any collection, but nothing compares to the pleasure of uncovering – ever so slightly – the mysteries of the natural realm.

Cones are an exemplary theme for a collection, because they are able to satisfy different urges at the same time: they will please and gratify our aesthetic needs, they will challenge our understanding of taxonomy as an attempt to organize an otherwise chaotic picture of the animal kingdom, and they will tell us priceless tales about ecology, biodiversity and conservation.

Because the family is numerous, many problems arise to excite our imagination and fulfil our taste for research. New species are still being found and described almost every other month and successive revisions of the known ones often change the way we think. The validity of some taxa, at the specific or subspecific level is recognized at the same time as others fall into synonymy, giving the entire field of Cone classification a dynamic status that can only please the serious collector.

Let us enjoy!

António Monteiro

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(\*) – See for instance *The Cultures of Collecting*, by John Elsner & Roger Cardinal (ed.) (Reaktion Books, 1994), *On Collecting: An Investigation into Collecting in the European Tradition* (Collecting Cultures), by Susan Pearce (Routledge, 1999) and especially *Collecting – an unruly passion*, by Werner Muensterberger (Thomson Learning, 1996)

(\*\*) – Such feelings are of course not restricted to shell collectors; they are naturally found in entomologists and other collectors of natural items

## Who's Who in Cones: Emilio Rolán Mosquera

I was born on the 19th October, 1935 in A Guarda (Pontevedra), a small fishing village by the Miño River, in front of a very strong violent sea.

From childhood I enjoyed fishing, the beach and the rocks, swimming and Nature, as well as soccer, playing the guitar and table tennis; I began diving very young. Upon finishing my studies of Medicine, I settled as a paediatrician in another village by the sea, Pobra do Caramiñal, in the province of A Coruña.

There I kept practising diving and spear fishing and even did some professional work as a diver. It was also in that same locality that I began collecting shells.

Later, working as a paediatrician in Vigo, I carried on with my collecting, travelling a lot and collecting shells from all my trips. Also with the help of much exchanging, I built up a vast collection that was recently donated to the Museo de Historia Natural "Luis Iglesias", of the University of Santiago de Compostela; in total, the collection comprises an estimated one and a half million specimens, besides a few sub-collections, an extensive library, etc.

In 1978, my first trip to the Cape Verde Islands had a special impact because the book I knew for the area (Burnay & Monteiro, 1977) actually left several shells undetermined and nameless. I kept going there and a few years later (1980) I published my first paper describing three species for the genus *Conus* from Cape Verde. Shortly after, I worked with Dieter Röckel and António Monteiro in a book about the family *Conidae* in the Cape Verde Islands; we were not able at the time to solve all taxonomic problems that we faced, but that book was a platform on which to base future work.

I went back to the archipelago often to collect specimens and I did describe several new species of Cones, as well as new species belonging to other families. As far as Cones were concerned, I began studying their radular teeth anatomy, in order to clarify (also with the help of the morphology of egg capsules and larval shells) the taxonomy of the whole group in the islands. Later on, I applied the same methods and radular observations to Cones from all over the world as well as to other groups. At a point I had at home no less than nine salt water tanks with many living specimens of Cape Verde Cones, from different species, so that I could examine their many different features.

In total I have now described 44 species of *Conus*, mostly from West Africa (Cape Verde and Angola); a few others are currently awaiting publication.

Almost at the same time as *Conidae*, I dedicated myself to the study of *Turridae* and also of micro-molluscs (especially from West Africa and the Caribbean); more recently, with Anselmo Peñas, I have been paying special attention to *Pyramidellidae*.

So far, I have published about 320 scientific papers on Malacology, in which about 550 new species were described. Naturally, I have also published scientific papers on Paediatrics as well as some popular science titles and even a few books having nothing to do with either Medicine or Malacology.

Lastly, I should say that another hobby of mine has always been painting, with a preference for oil painting.



# The '*boivini*' Morphotype in *Conus magus*

John K. Tucker

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The specimen illustrated by and identified as *Conus boivini* Kiener by Luigi Bozzetti (2008) makes a strong case for the hypothesis of Coomans et al., (1982) that the holotype of *Conus boivini* is a teratologic specimen of *Conus gubernator* Hwass. This sort of variant (i.e., depressed sunken spire, spiral grooves on the body near the shoulder angle, and constricted body just anterior to the shoulder angle) is not limited to *C. gubernator*. I acquired a similar '*boivini*' variant specimen (54.8 mm long and 26.8 mm wide) of *C. magus* mixed with a large lot of normal looking *C. magus*. These were all collected in shallow water from Magalawa Island, Zambales, Luzon, Philippines.

This is the first report of such a variant for *C. magus*. Existence of such variants in *C. magus* somewhat complicates equating the holotype of *C. boivini* with *C. gubernator* since this morphology is now known to occur in both species (*C. gubernator* and *C. magus*). However, the glossy texture seen on the holotype of *C. boivini* (Coomans et al., 1982) suggests that it is a specimen of *C. gubernator* and not a specimen of the more roughly textured *C. magus*.

## References:

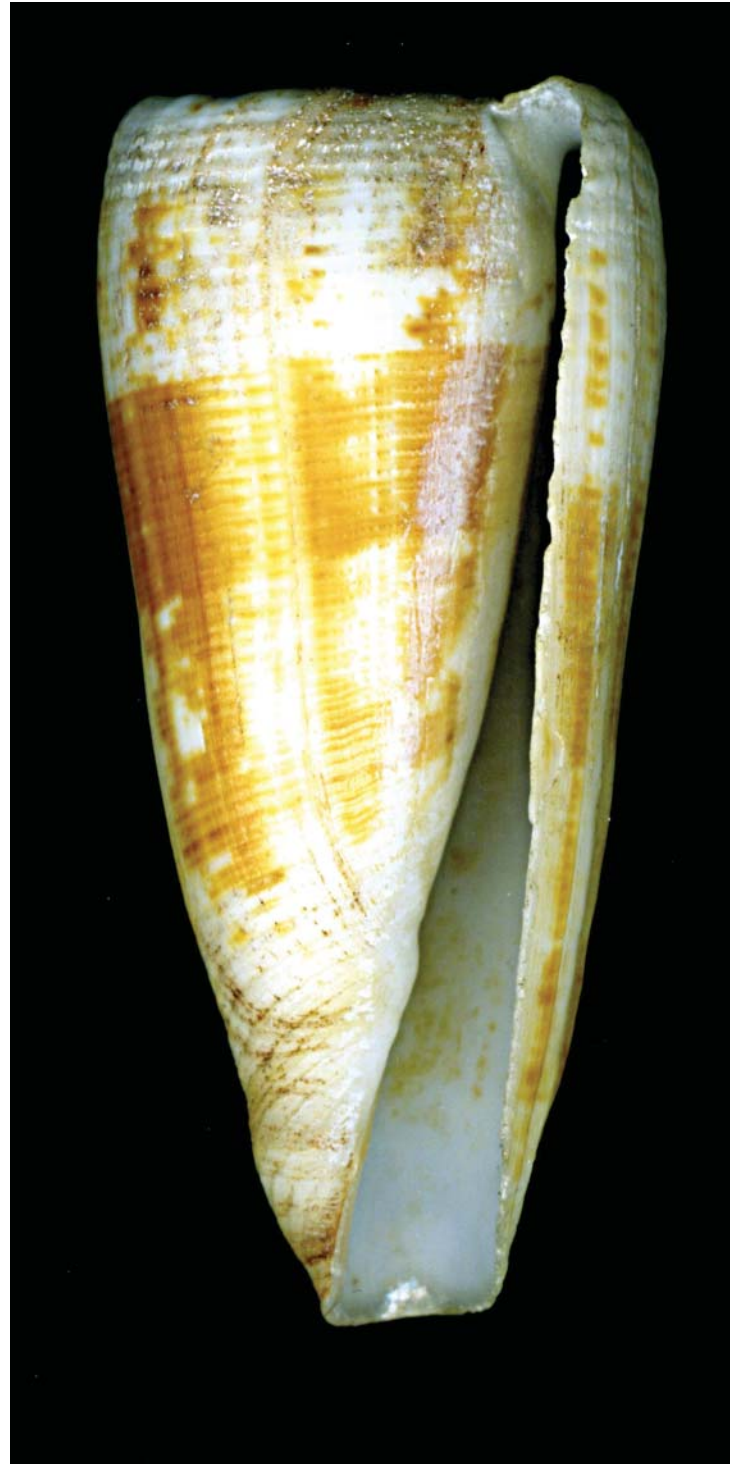
Bozzetti, L. 2008.

Rediscovery of *Conus boivini* in Madagascar. *The Cone Collector* 7:10.

Coomans, H. E., Moolenbeek, R. G., and Wils, E. 1982. Alphabetical revision of the (sub)species in Recent *Conidae* 5. *baccatus* to *byssinus*, including *C. bretteghami* nomen novum. *Basteria* 46:3-67.

## Fig. 1:

*Conus magus* JKT 2508, 54.8 mm long and 26.8 mm wide, collected under rocks 4-6 feet, Magalawa Island, Zambales, Luzon, Philippines.



## *A Couple of Weird Specimens*

Lyle Therriault recently sent in photos of a couple of unusual specimens to share with us all. Thanks, Lyle!



**Fig. 1**

We find an exceptionally high-spired *Conus capitaneus* Linnaeus, 1758 which at the same time presents a quite unusual colouration. It measures 68 mm and was found alive in very deep water in a tangle net (about 350-400 feet deep) in the Philippines.



**Fig. 2**

Shows, on the other hand, a 62 mm *C. tribblei* Walls, 1977. The valleys of each granulation (well, most of them) are touched in brown colouration, giving the shell a spotted or sort of dashed appearance. The dorsum also has some colouration streaks, mostly a yellowy-orange colour and it boasts a nice completely orange aperture. It was also found in very deep water in the Philippines, brought up in tangle nets.

# A Visit to the Netherlands to Study Cones

Bill Fenzan

In August 2008, I flew to the Netherlands from my home in the United States to visit Paul Kersten. We met for the first time at the Antwerp Shell Show last May, but both of us were focused on enjoying the show. Paul mentioned in correspondence after the show that he wished we would have had more opportunity to talk about cones. Since I had been planning a trip to Germany in August, I suggested that this trip could be expanded to allow time for a short visit. Paul liked the idea, so we worked out the details over the summer.

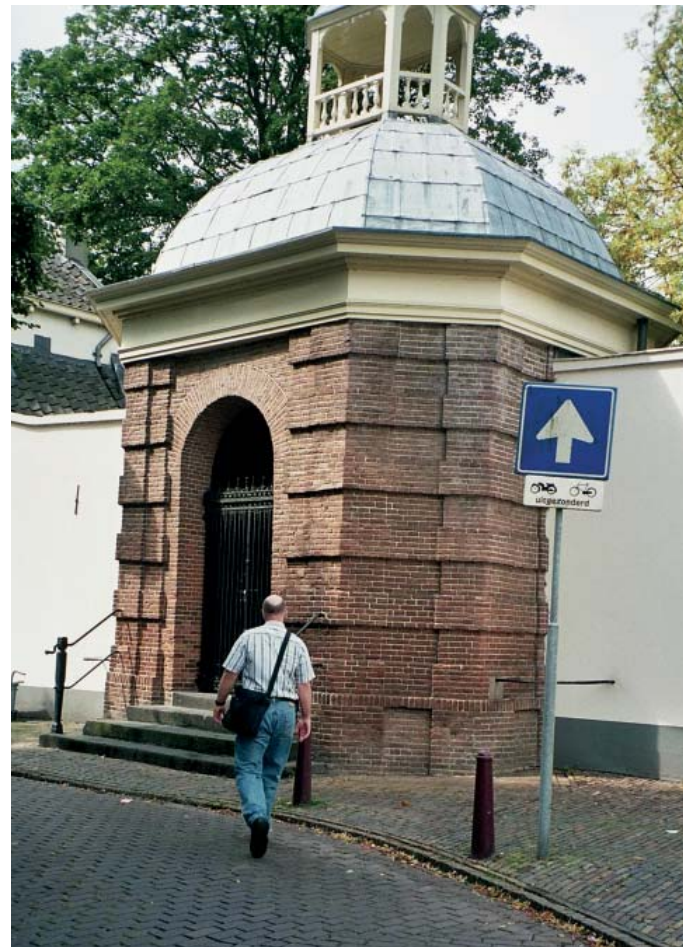
My overnight flight from the United States arrived at Amsterdam's airport early Monday morning on 18 August. After arrival formalities, I bought a ticket to Utrecht and boarded an inter-city train in the station below the airport. Spending my first day in Utrecht was planned to allow recovery from jet-lag and the opportunity to explore a city I had never been to in the Netherlands. Despite the rain, I walked around the city until early evening seeing some of the local sights.

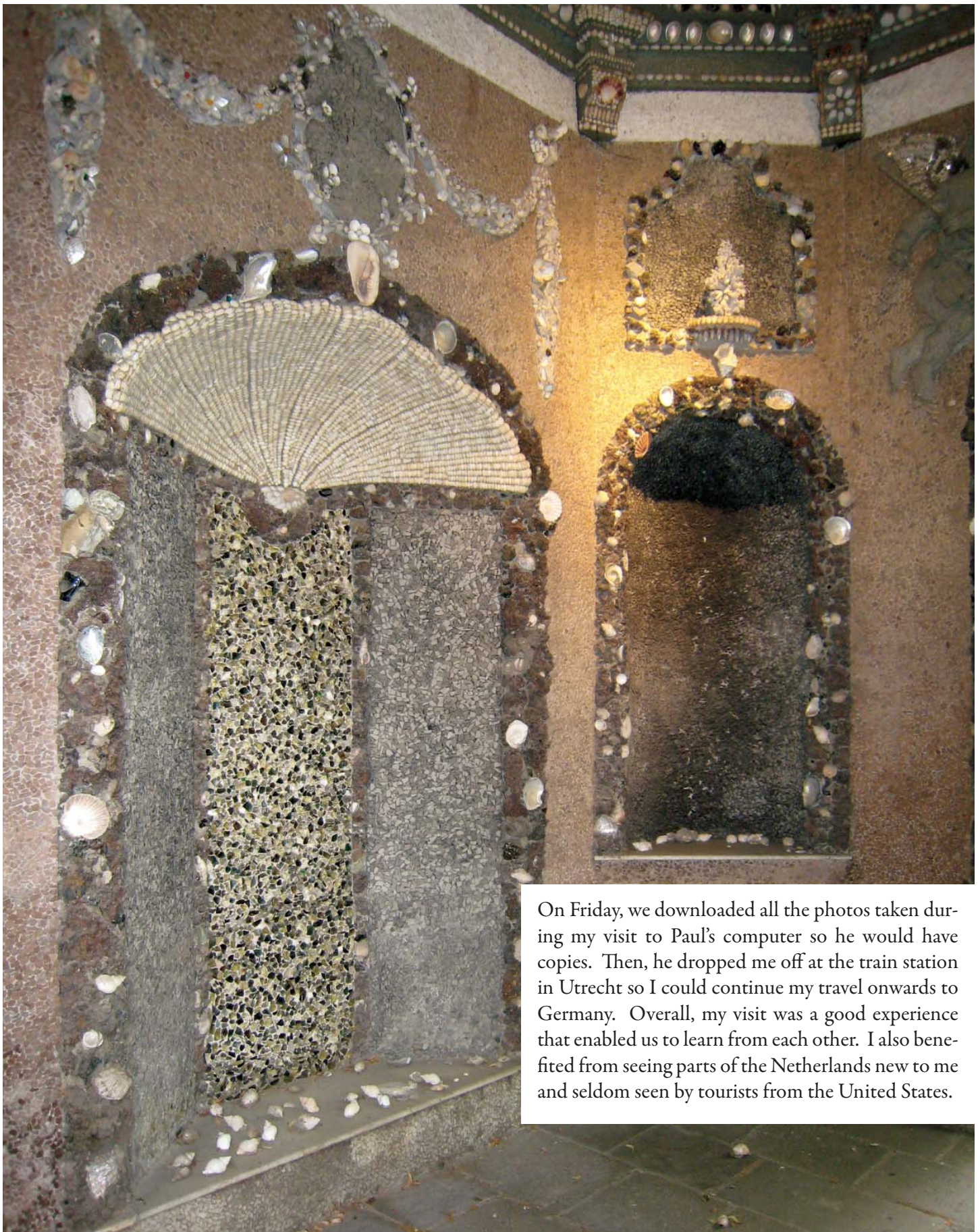
On Tuesday morning, I awoke in my hotel room refreshed and ready to meet Paul for the short drive to his house in the village of Hoornaar south of Utrecht. When we arrived at Paul's house, we quickly headed for the shell room where Paul showed me his cone collection. After seeing everything, I went through each drawer again to photograph interesting specimens. While I was photographing his shells, Paul took a break to look through spare cones I had brought to donate to other local collectors. We spent a pleasant day discussing cones and puzzling over identification of problematic specimens in Paul's collection.

Paul arranged an appointment with Robert Moolenbeek at the Zoological Museum of the University of Amsterdam during our visit to photograph cone types, but this trip could not be made until Thursday. Consequently, we devoted most of Wednesday to a sightseeing trip mostly unrelated to shells. Paul wanted to show me the sights in Zutphen where there were many old buildings, remaining portions of the town wall, and even a shell encrusted

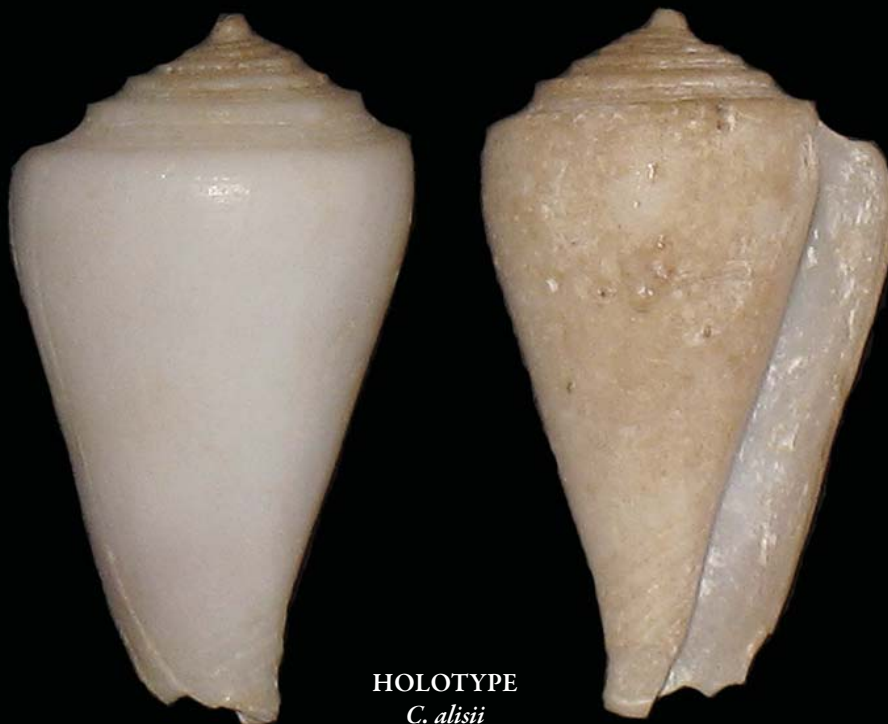
grotto. Though no cones were seen on this trip in the grotto, we had an enjoyable day relaxing and seeing the sights.

Our schedule on Thursday was centered on our trip to photograph some of the cone type specimens stored in the Zoological Museum of the University of Amsterdam. While we were there, we met Robert Moolenbeek and Bram van der Bijl who care for the collections. Peter (aka Piet) van Pel, a noted cone collector who visits the museum regularly to work as a volunteer on Thursdays, was also there when we arrived. We spent quality time viewing and photographing cone type specimens. Some of these pictures are represented on the plates following this article. When we finished our study of the types, we had a little time left to look at cones in the general collection before it was time to head back to Hoornaar.





On Friday, we downloaded all the photos taken during my visit to Paul's computer so he would have copies. Then, he dropped me off at the train station in Utrecht so I could continue my travel onwards to Germany. Overall, my visit was a good experience that enabled us to learn from each other. I also benefited from seeing parts of the Netherlands new to me and seldom seen by tourists from the United States.



HOLOTYPE  
*C. alisii*  
 Modenbeek Rockel Ric, 1995



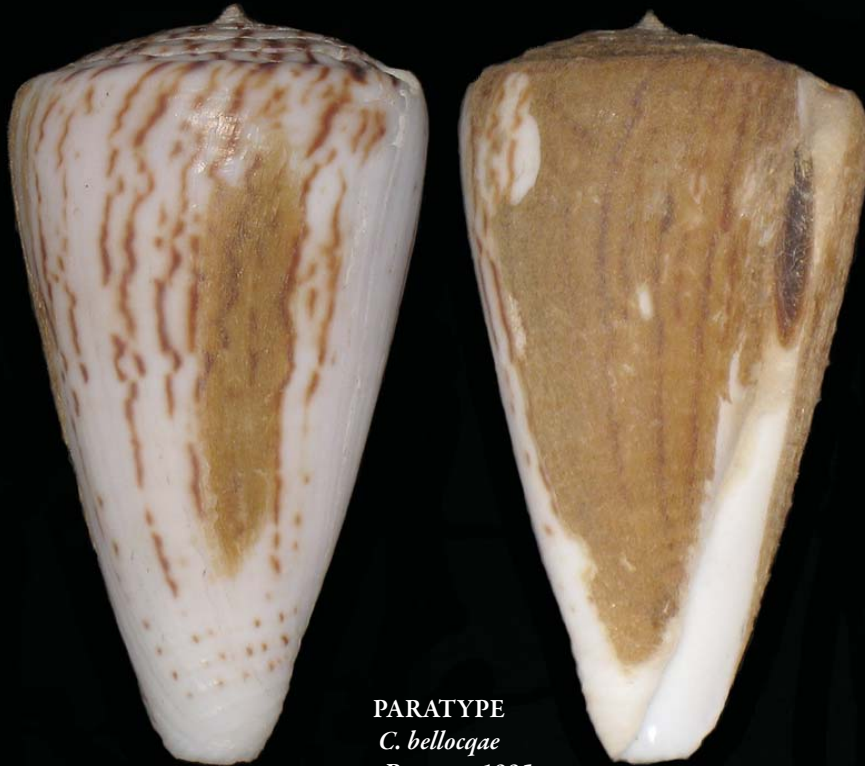
HOLOTYPE  
*C. altispiratus*  
 Sowerby III, 1873



NEOTYPE  
*C. ambiguus*  
Reeve, 1844



HOLOTYPE  
*C. bellocqae*  
van Rossum, 1995



PARATYPE  
*C. bellocqae*  
van Rossum, 1995



PARATYPE  
*C. biraghii congruens*  
Korn, W. & G. Raybaudi Massilia, 1993



PARATYPE

*C. estivali*

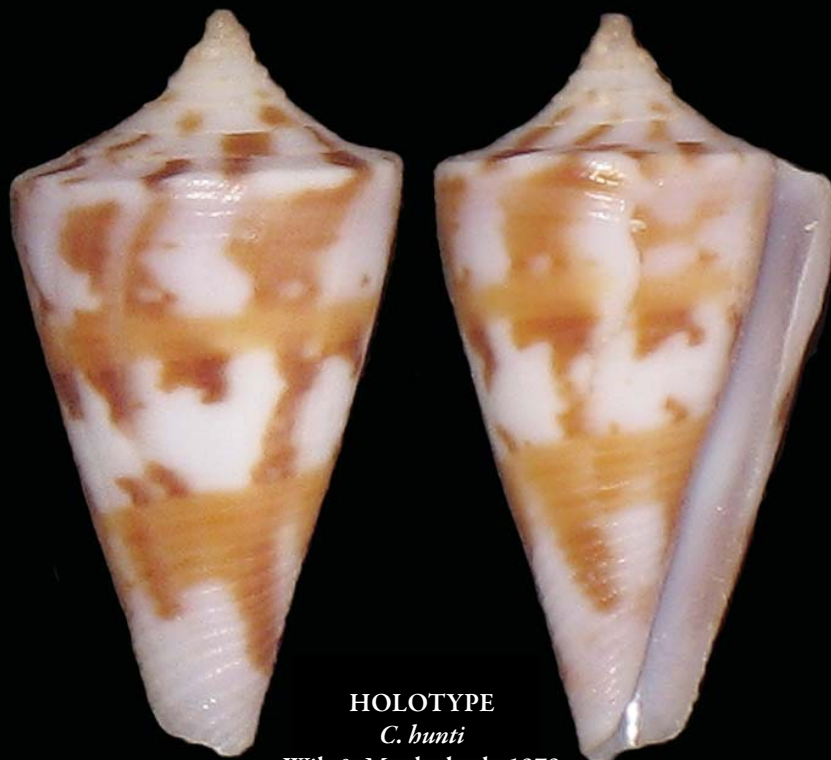
Moolenbeek, R.G. & G. Richard in Röckel, D.,  
G. Richard & R.G. Moolenbeek, 1995



PARATYPE

*C. hamanni*

Fainzilber, M. & H.K. Mienis, 1986



HOLOTYPE  
*C. huntii*  
 Wils & Moolenbeek, 1979



PARATYPE  
*C. korni*  
 G. Raybaudi Massilia, 1993



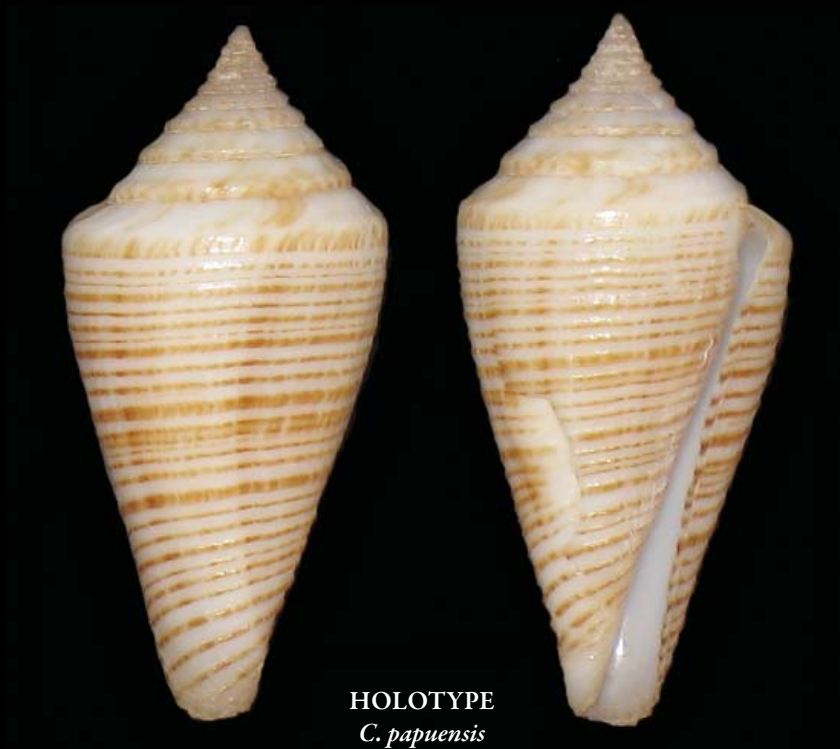
PARATYPE  
*C. loyaltiensis*

Röckel, D. & R.G. Moolenbeek in Röckel, D., G.  
Richard & R.G. Moolenbeek, 1995



PARATYPE  
*C. pacificus*

Moolenbeek, R.G. & D. Röckel, 1996



HOLOTYPE

*C. papuensis*

Coomans, H.E. & R.G. Moolenbeck, 1982



HOLOTYPE

*C. peli*

Moolenbeck, 1996



PARATYPE

*C. tirardi*

Röckel, D. & R.G. Moolenbeek, 1996

## World Record Size Shells

Once again our friend Philippe Quiquandon is able to delight us with high quality photos of outstandingly sized specimens he recently obtained.

These are *Conus dusaveli* (93.2 mm), *C. profundorum* (130.2 mm) and *C. teramachi* Kuroda, 1956 (140.2 mm).

The *C. dusaveli* was captured in the Philippines and is shown with its periostracum still on. Both *C. profundorum* and *C. teramachi* come from South China Sea and have been trawled from a depth of 400 m.

We thank Philippe for his continuing contributions to TCC.

*Conus dusaveli* (93.2 mm):



*C. profundorum* (130.2 mm):



*C. teramachi* Kuroda, 1956 (140.2 mm):



# West African Corner

António Monteiro

## A purplish beauty - 1

Sowerby published the description of *Conus carnalis* in the *Proceedings of the Zoological Society of London* (un-numbered (46), pt. 4: p. 796, pl. 48, fig. 2). The holotype, which measures  $48.1 \times 25.1$  mm, is preserved in the collections of the National Museum of Wales, Cardiff. Its type locality not being known, it was designated as Santa Maria Bay, Angola, by Coomans, Moolenbeek & Wils (1983).



**Fig. 1** *Conus carnalis* Sowerby, 1879 (Namibe, South Angola, 57.7 mm)

The fact that the species is in fact endemic of South Angola determined that no specimens were available to collectors for a long time, to the point that it was virtually forgotten. For instance, Walls (1979), following a more or less general trend, considers it as a synonym of *C. ermineus* Born, 1778. Because of this extended oblivion, the next chapter of this story is not surprising at all.

Back in 1953 was founded in Lisbon the Centro Português de Actividades Subaquáticas (CPAS), mainly a divers' club but with a wide scope of activities generally

related to the sea, including the study and preservation of submarine fauna and flora. In the beginning of the 1970s, a group of divers from CPAS organized a number of diving expeditions to the old West African Portuguese colonies, including Angola. During the expeditions organized in 1970, 1971 and 1972, a relatively large number of malacological specimens were collected and brought back to Lisbon for future study.

Cones were particularly abundant in the samples obtained and they greatly interested one of the participants, Herculano Trovão, an expert diver and former swimming champion, who, it must be said, had never had any special interest in shells before. So, Trovão began to study the specimens preserved in alcohol and after reading a few papers – Nibbaken's 1970 article on radular morphology was of paramount importance for him – he began examining the radular teeth and separating what seemed to be distinct species.



**Fig. 2** *Conus carnalis* Sowerby, 1879 (Namibe, South Angola, 51.9 mm)

Soon it was realized that a few of the recognized species defied identification and it gradually became clear that

a number of new species begged to be described. This Trovão proceeded to do in a series of papers in which he added several species to the *Conidae* fauna of Angola, Cape Verde Islands and Senegal.

Naturally, the larger specimens stuck out and among them a number of pale purple to brownish purple shells in the 30 to 60 mm range. Trovão studied these specimens carefully, using the working designation “lilac cone”, which obviously referred to the colour of the shells. It should be pointed out that this informal designation was repeated by some collectors – and even by one or two dealers who had had access to a limited number of specimens – and in 1978, in an article on West African Cones published in *La Conchiglia* Philip Clover mentioned the name “*Conus lilac* Trovão?” with the indication “MS not published as far as I can learn, see *amethystinus*”. Since the name *Conus lilac* was not accompanied by a description or an illustration, and was not referred to any such elsewhere, Mike Filmer (2001) considered it a *nomen nudum*.

Eventually a description of the species was published in 1975, in the Bulletin of the Centro Português de Actividades Subaquáticas. It was given the new name *Conus amethystinus* Trovão, 1975, also referring to the colour of the majority of specimens (from “amethyst”, a well-known violet variety of quartz).

Because of its overall colouration and lack of pattern, the new species was compared with *C. gernanti* Petuch, 1975 and *C. ambiguus* Reeve, 1844 (the former having been considered as a synonym of the latter in Monteiro, Tenorio & Poppe, 2004). No attempt was made to compare it with *C. carnalis* Sowerby, 1879 because it appeared to be firmly established in the bibliography available that this was a synonym of *C. ermineus* Born, 1778 and the new species was clearly not conspecific with *C. ermineus*. The holotype of *C. amethystinus* is in the malacological collection of the Centro Português de Actividades Subaquáticas.

It should also be noticed that already in his description of *C. amethystinus* Trovão stated that although most specimens showed the indicated purplish colouration, others were known which were “red, brown, orange, yellow and very rarely two of these colours separated longitudinally”; there is also mention of a single all-white specimen. Recent collecting south of Elephants Bay, along the coast of Namibe (South Angola), has indeed produced a number of specimens, some of them of surprisingly bright colours.



**Fig. 3** *Conus carnalis* Sowerby, 1879 (Namibe, South Angola, 32.5 to 55.2 mm)

For some time, there was no question about the validity of the new taxon. Then, of course, someone thought of checking the holotype of *C. carnalis* (something that Walls should have done, but in fact failed to do, when he was preparing his Cone book in 1979; his excuse, of course is that he did not consider his book as a revision of the family, clearly stating that his book was “intended as an introduction to this complex family of snails [*Conidae*], and was in fact “a book for collectors by a collector” whereas “an attempt at a revision of the cones [was] many years in the future”). One of the persons who actually went to the National Museum of Wales, in Cardiff to examine and photograph the holotype was Guilherme Soares, a Portuguese collector and dealer. When he returned to Portugal, there could in fact be no doubt that the name *C. amethystinus* Trovão, 1975 would have to

be dropped and to fall into the synonymy of Sowerby's taxon.

Nowadays, *C. carnalis*, like so many other endemic Angolan cones, is still insufficiently known and specimens are not easy to get, in view of its somewhat restricted geographical distribution and also due to the fact that collecting in the area has been only occasional in the last decades. Nevertheless, a few specimens have indeed surfaced in recent years and among them a huge 70.1 mm specimen – possibly a World record size – caught between Lucira Bay and Bonfim Bay, which I am proud to have in my collection.

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Trovão, H.F.M., 1975. *Contribuição para o estudo dos Moluscos Gasterópodes da família Conidae de Angola – Novas espécies de Conus linné, 1758 de Angola* (Mollusca: Gastropoda). Boletim do Centro Português de Actividades Subaquáticas, IV série – Nº 2, 9-17



**Fig. 4 & 5** *Conus carnalis* Sowerby, 1879 (Between Lucira Bay, and Bonfim Bay, South Angola, 70.1 mm)

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Filmer, R. M., 2001.

*A Catalogue of Nomenclature and Taxonomy in the Living Conidae 1758-1998*. – 388 pp., Leiden (Backhuys Publishers).

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# Lime-Pots: Pre-Columbian Handcrafts for the Consumption of Coca Leaves

Sergio Minelli

The quest for warranties in the afterlife of primitive human groups and the necessity for answers against unexplained events brought as a consequence the appearance of shamans or healers as differentiated individuals inside incipient societies.

Their presence in pre-Columbian Ecuadorian cultures is revealed since initial formative period in cultures as Valdivia, and perpetuating in latter cultures (1). The term “formative “ is applied to the stage of agricultural development since 3000 B.C until 500 B.C.

From ethnographic and historical sources it is known that the shaman in order to communicate into the afterlife, procured to enter into a trance state, through the inhalation or ingestion of botanical drugs.

In the pre-Columbian world, we know of the use of coca, the vine *Banisteriopsis caapi* (Spruce ex. Griseb.) (“ayahuasca”) and the mimosa *Anadenantera sp.* (2).

It is important to state that communication with the supernatural powers, together with the cathartic effects of the ritual found a purpose in the healing of diseases attributed to evil spirits, predict the future and , in occasions , to create maladies or cause harms by spells (1). The use of drugs was also important as anesthetic, to mitigate pain or during surgery interventions (3).

In wars, the use of such was very specific: less food, better endurance capabilities for warriors which had to travel in highland or coastal areas trails.

People used (and indeed still do) coca leaves to mitigate hunger, thirst and weariness during work or travel.

The consumption of coca leaves is unquestionable in the Ecuadorian pre-Columbian cultures from the Valdivia 3 (2900-2600 B.C.) in Real Alto (Peninsula of Santa Elena). The study of dental conditions in burials from this period indicates chewing of coca leaves with lime. In such burial places, miniature (3-4 cm diameter) pottery

jars were found with residues of lime inside them and in most cases with small holes along their rim, to be used as pendants (4).

These containers are known as *llipta* boxes (“llipta” meaning “ashes” in the Quechua language) or lime pots. Lime was put into the mouth by means of a short stick, together with dry coca leaves. By chewing, saliva would hydrate the mixture of leaves and lime, freeing the alkalooids contained in coca. Repetition of the slow process of crushing and grinding during chewing originates the formation of a quid that is kept inside one or both cheeks (5).

A few figurines illustrating the chewing quid have been found since Valdivia 7 (1900-1700 B.C.) (fig.1 – head of man with a quid of coca in his cheek) and they become quite common from 500 B.C. onwards (4).

At the same time we witness the artistic evolution of the lime pots, which become decorated pottery miniatures adopting anthropomorphic or zoomorphic shapes (fig. 2 –ceramic lime pots) and may also be nicely carved from shells.



Fig. 1



Fig. 2

## Australian Corner

Jon Singleton

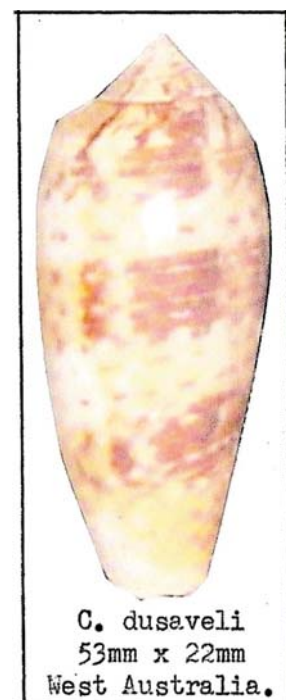
### *Dusaveli* down-under - 21

The Rowley Shoals are situated some 350 kilometres west of Broome, in the N. W. of Australia. The Shoals consist of three oval shaped reefs, the largest being Imperieuse Reef which is near 30 kilometres in length. In July 2007 a research vessel was sampling the seabed at various depths, and a dredge at 100 metres off this reef produced a number of cones. These were *Conus dusaveli* H. Adams, 1872, and a startling and unexpected discovery.

In all, six specimens surfaced, all empty shells, but the best specimen still possessed colour and pattern, though had lost all gloss, and would grade as "fair" on the collectors market. Another was a broken piece, some 40% of a cone, but with colour and pattern in slightly better condition. The remaining four specimens were all long dead and eroded, and could only be identified by the distinctive shape.

The holotype of *C. dusaveli* is a 50.7 mm × 19.7 mm cone, ex pisces, and with a type locality of Mauritius. The type remained the only specimen known for the next 100 years until it was rediscovered off southern Japan. The advent of the tangle net fishing in the Philippines proved the species not to be rare, and range extended to New Caledonia.

The large gap between the type locality and modern discoveries in the Western Pacific has caused some thought that the old type locality might be erroneous. This unexpected find from the eastern Indian Ocean has extended the range nearly 5000 kilometres westwards and makes the Mauritius locality more believable.



The shells most widely used in the manufacturing of lime boxes were *Spondylus princeps* Broderip, 1833 (fig. 3) and both *Conus brunneus* Wood, 1828 and *C. princeps* Linnaeus, 1758. Such handcrafts were perforated, to be worn hanging from the neck and in the case of whole cones, always finished up with a shard of another shell of



Fig. 3



Fig.4



Fig.5

the same species, glued with pitch to close the aperture at its end (fig. 4 – lime pots made from Cones). Lime pots made from the posterior ends of Cone shells, cut at approximately one third of their height, have also been found (fig. 5).

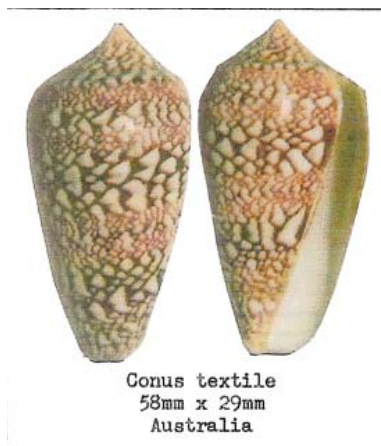
- (1) Miguel Angel Sorroche : *Los Signos del Hombre*
- (2) Karen E. Stothert : *Contribuciones de Olaf Holm*
- (3) J.Herrera Ponton : *La Medicina en la Epoca Precolombina*
- (4) Jorge G. Marcos : *Primer Encuentro de Investigadores de la Costa Ecuatoriana en Europa*
- (5) Francisco Valdez : *Arqueología Ecuatoriana*

## An extraordinary textile - 22

Many years ago I was given a photograph of a very unusual Textile Cone which had been collected off Magnetic Island, which is close inshore to Townsville on the Queensland coast of Australia. Sadly the photo had an overall greenish tinge likely due to over-exposure. When the digital cameras became available, I was able to take an image of the old photo and remove most of the green by adjusting the colour balance prior to printing.

The result was a big improvement. As the photo shows, the unusual tenting arrangement in bands of white on black, and smaller tents on brown, give the cone a striking appearance which I had not seen before,

The specimen, size 58 mm × 29 mm is illustrated below.



Rather amazingly I have seen one other *Conus textile* illustrated which is nearly identical, but found some 4500 kilometres to the east, from Apataki Islands, Tuamotu, French Polynesia. This is a much larger specimen, size 91 mm × 48 mm, illustrated as a *C. species* by J. Lauer within a treatise on the tented cones.

## References:

1991. Lauer, J.

Complexe textile, *Rossiniana* No. 50, Part 18, p. 175.

## A spotlight on *ione* - 23

*Conus ione* is one of the deep water cones which were originally discovered from Japanese waters, but have since proven to be amongst the most wide-ranging species. It ranges from Japan to New Caledonia in the Western Pacific, along northern Australia, and across the Indian Ocean to East Africa.

*C. ione* is an elegantly shaped species, tall and fairly broad-shouldered, a moderately high spiral profile with concave whorls. When found alive, it has a khaki smooth semi-transparent periostracum, and a visible pattern. The base colour is white to pale lavender, either uniform or with small light brown spotting, and sometimes body bands of larger darker brown intermittent blotches. From all the W. Pacific range, the most striking specimens are from New Caledonia. These are slightly darker lavender, and darker brown markings in a denser pattern.

In Australian waters, *C. ione* is not uncommon, and has surfaced from many locations between the N. W. Cape and the far N. W. offshore islands. Living well below safe scuba depths, the only source is from fishing trawlers and research vessels. In the mid 1980s, the deep water scampi trawlers brought up several giant specimens off the N. W. Shelf to the north of Port Hedland, with several exceeding 90 mm in length. Along the Northern Territories, a few specimens have been landed by boats operating to the N. E. of Darwin, in the Arafura Sea. Most of these



northern Australian *C. ione* appear to have a greater width to length ratio than those of the W. Pacific. Rather surprisingly, I have no record of *C. ione* being found in Queensland waters.

Going west across the Indian Ocean, there is a lengthy gap until *C. ione* is found again off Mozambique and South Africa. The absence of this cone from Australia to East Africa is puzzling, but not unique, as *C. teramachii* is another with a similar range and "gap".

The West Pacific specimens illustrated range in length from 56 to 60 mm: fig. 1 from Japan, fig. 2 a Philippine cone, fig. 3 the striking New Caledonia, and fig. 4 a 55 mm specimen from off Durban, South Africa; the Australian specimens show the giant N. E. Shelf form 94.2 mm × 49.4 mm at fig. 5, and an Arafura Sea 57 mm one at fig. 6.

## *Achatinus* in Australia - 24

*Conus achatinus* has a lengthy range, from South Arabia, India and across to the Western Pacific. Although some specialist cone books indicate the species is also found off East Africa, I have never sighted any from that region.

*C. achatinus* is a common intertidal and shallow water species along the N. W. coast of Western Australia. The basic colours are either pale green and white, or shades of grey and white, with the distinctive thin black dashes forming horizontal bands around the main body. The only contrasting West Australian colour is a yellow form which is found around the Dampier Archipelago.

In the Northern Territories, *C. achatinus* is also common within a radius of 50 kilometres around Darwin, again in shallow waters. Here the colour and pattern variations are more extreme, with contrasting specimens being found in the same location. Very likely it extends along the northern coast and close inshore islands, but coastal access is difficult to impossible along large stretches.

Within Queensland waters I have only recorded *C. achatinus* from Cape York and south to Townsville. It is also a seldom-collected species, and I have only sighted about 10 specimens, all dead collected amongst intertidal debris, usually following minor storm activity. These Queensland specimens are mostly a mottled medium brown and white, most lacking the black dashes, but have thin bands of alternating brown and white which are well spaced evenly over the body whorl.

A couple of these dead specimens looked fairly fresh with a good gloss, indicating their habitat is likely well within scuba diving range. It is puzzling why *C. achatinus* is so seldom found in Queensland waters, when it is well established elsewhere in the Western Pacific.

*C. achatinus* plate on following leaf.



The illustrated specimens range in length from 47 to 64 mm. Figs. 1 & 2 are Western Australia, figs. 3 to 8 are Northern Territories, and figs. 9 & 10 are from northern Queensland.

## The Cone from the South - 25

*Conus clarus* is the only Australian endemic cone species that has a habitat confined to the colder waters off the southern coast. The other endemics overlap the *clarus* range, but also extend north into the Pacific and Indian Oceans. The known range of *C. clarus* stretches 2500 kilometres, from West Australia to Victoria.

Over the range, *C. clarus* does show some variation in shape, colour and pattern. The holotype is a broadly ventricose cone, size 26.5 mm × 14 mm, a uniform off-white and has a type locality of just "West Australia". Specimens matching the type are only found off one beach near Albany. These are all-white with a pinkish tinge within the aperture, and illustrated at figs. 1 & 2. A more slender form and slightly higher spire shown in fig. 3 is found either side of Albany. These are usually white, but the odd few in shades of pink. Both of these forms live in shallow water and are often found close in to the coast in just one metre depth. A third form is known from West Australia at the eastern border off Eucla. Here a few

odd specimens were trawled in slightly deeper water, a more chunky form with a pale orange and white pattern, shown in fig. 4. This form is rarely found in West Australia, but is likely the western limit of a similar large form from South Australia.

Going east into South Australia, there is a long 500 kilometres stretch where coastal shelling is near impossible. The best known location is the western side of the Eyre Peninsula where a large well-patterned pale orange and white form is found. These are usually in slightly deeper water than the West Australia forms, but within safe scuba depth. Some are also landed by local fishing trawlers, and this form shown in fig. 5. The fig. 6 shows a specimen with a slightly extruded spire, and these are not uncommon to the region. Further south around the port Lincoln region, the few *C. clarus* found are usually smaller and less colourful to uniform white.

*C. clarus* is also found along the eastern half of the Victoria coastline, with most reported from Western Port Bay, see fig. 6. This location was also the type locality for *C. segravei*, a synonym of *C. clarus*. The type of *C. segravei* is nearly identical to fig. 6, but has a thin white band just below mid-body.



## Little Stranger

Jon Singleton

There is another possible synonym of *C. clarus*, a small species named *C. superstes*. The type material was trawled from a depth of 100 metres off Cape Wiles, South Australia. The length of the type material ranges from 4 to 8.5 mm, all white with a bulbous protoconch which gives the impression of a juvenile specimen.

A general line of thought is that *C. superstes* is just a juvenile *C. clarus*. I have found small West Australia *C. clarus* down to 10 mm in length, but they do not appear to be just larger specimens of *superstes*. However, just one more whorl on an 8 mm *superstes* may make it look very different! I have never been able to obtain small specimens of South Australia *C. clarus* for comparison. I have visited several locations down the western side of the Eyre Peninsula and searched the shallows and shell grit, but not found any *C. clarus*. So the question remains unsolved.

A couple of years ago I was given two small cones which were unidentified, but stated to be from the island of Aruba, Netherlands Antilles. I am hoping one of our readers may have seen them before and can give me some further information.

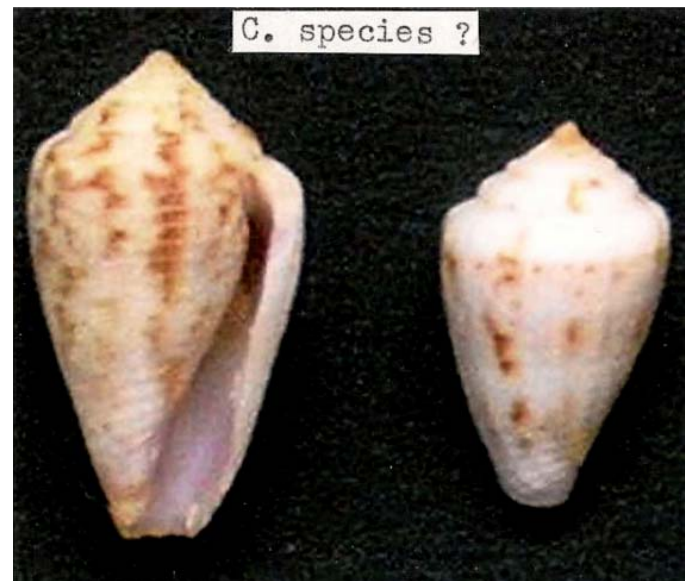
The largest specimen is 16.3 mm × 9.3 mm and is a chunky little cone, heavy for the size, and gives the impression it is fully mature. The main body whorl looks smooth but under magnification shows there are about 15 very fine encircling cords which are evenly spaced. Colour is off-white with irregular brown markings, a rounded shoulder along with convex spiral whorls, the aperture a medium purple throughout.

The closest similar sizes cone I possess with a similar colour and pattern is *C. acutimarginatus* from nearby Venezuela, but these have a much higher elegant stepped spire. Information on Aruba cones is sparse except for *C. curassaviensis*, along with the *C. aurantius* from the neighbouring N. Antilles islands.

## Geographical range of *Conus ciderryi* da Motta, 1985

We have recently received the following note from our dear friend Mike Filmer:

The other day I was at last able to have a look at Okutani's book "Marine Mollusks of Japan" and noticed that under *C. ciderryi* it states that it has been found off the Amami Islands in sand at 128 meters. This is I believe additional information not mentioned in R, K & K and you may like to include it in a future issue of *The Cone Collector*.



# Important Databases for Cone Collectors

António Monteiro

In our era of worldwide instant electronic communication and information sharing, collectors and researchers alike are greatly helped in the pursuit of their interests by databases that supply the details they need. Not so long ago, if for instance one wanted to examine type material deposited in some far away museum, a long and often expensive trip had to be envisaged, or else often lengthy correspondence had to be entertained to get the loan of the necessary specimens. Nowadays, a consult of the Internet may largely avoid that kind of trouble, saving us time and money.

Naturally this is not to say that the study of photos and/or descriptions from a database can totally replace the study of the actual specimens. Nevertheless, much information can in fact be thus obtained.

I am sure that many (most?) of our readers will be aware of the following addresses, but nothing is to be lost by mentioning them here (to use a Latin expression, quod abundat non nocet).

First, let us register the Cone photo database from the Staatliches Museum für Naturkund, in Stuttgart. To access this important source of information, the following link should be used:

<http://www.naturkundemuseum-bw.de/stuttgart/projekte/malako zoologie/tp102.htm>

Note that once you get to the appropriate page you will find three links on the left-hand side frame, which will help your search. These links are as follows:

MitarbeiterInnen Malakologie  
Conusarten aus der Sammlung  
des SMNS  
GLOBCON (Globales Arten-  
register Conus)

As is well known, there are many types in the collections of the Stuttgart Museum, so this is well worth a visit. Equally important is the database of Invertebrate Zoology Type Specimens of the American Museum of Natural History, New York. The Cone section can be accessed through the following link:

[http://research.amnh.org/invertzoo/types\\_db/browse.php?genus\\_id=3280&phylum\\_id=7&class\\_id=21&taxon\\_order\\_id=20&family\\_id=488](http://research.amnh.org/invertzoo/types_db/browse.php?genus_id=3280&phylum_id=7&class_id=21&taxon_order_id=20&family_id=488)

Once again, the overall importance of the collection justifies not one but several visits. Afterwards, do stop at the Academy of Natural Sciences of Philadelphia and take a look. If you begin at <http://clade.ansp.org/malacology/collections> and type “Conus” in the “Taxon Name” box, you will be directly forwarded to a long list of nearly 400 specimens from which much information may be gathered (no photos here, though).

We thank Paul Kersten for this information.

Other important museums and similar scientific institutions worldwide will probably have similar facilities. We will be grateful for a list of those you are familiar with, for inclusion in a future issue of *The Cone Collector*.



And still within the subject of databases, it is interesting to notice that our friends David Toutou's well-known website [www.seashell-collector.com](http://www.seashell-collector.com) currently includes the database of David's self-collected Cone collection (see below an image of what you will find there). Navigation on this site is quite pleasurable and simple, so do give it a try!

# The *crassus* conundrum

Jon Singleton

Although *Conus crassus* was named 150 years ago, the true status of this cone remains an enigma to most collectors like myself. As yet there is no scientific proof either way to decide if it is a full separate species or just a deeper water colour form of *C. eburneus*.

Within the Thesaurus, Sowerby illustrates two specimens on Plate 12, figs. 254 and 255. The former shows a cone with a similar shape to *C. eburneus* and this specimen within the BMNH has since been designated the lectotype. The other illustration is stated within the text by Sowerby to be an "abnormal" specimen, no doubt due to the broad swollen body bulge below the shoulder. This abnormality is not unique, and has been found in many specimens collected over the years. Many modern authors have commented on the swollen body as being a trait of the species.

The other main identification is the reddish brown markings which seem standard on *C. crassus*, and not a colour found on the wide-ranging *C. eburneus*. There have been suggestions that the reddish colour is basically the fading of black markings on long dead eburneus. I did a mini test with two lots of dead collected *eburneus* by burying in both clean sand and a fine silt for a period of two years. I checked at three month intervals, but all remained black even when well eroded. I do feel however that possibly burying in the black volcanic sand could induce a change, and I have seen some striking colour changes in a few cowries which were long buried in New Guinea waters.

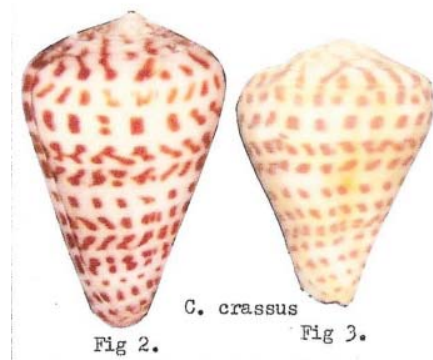
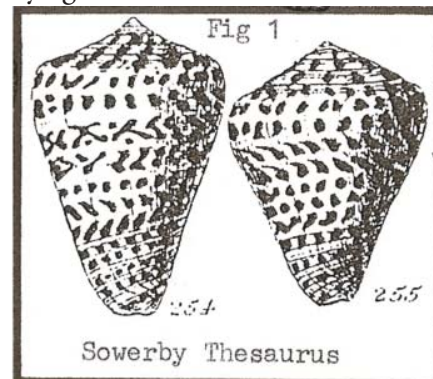
The given range from the references below show that *C. crassus* seems to have a large range from Fiji, Vanuatu, Solomons, New Guinea and Indonesia. This range tends to indicate that *C. crassus* is likely a full species, as an odd form would be confined to a smaller region.

A live-taken specimen was reported from the Solomons and stated to possess a transparent periostracum, but the degree of transparency was not stated. *C. eburneus* has a smooth even light khaki periostracum which obscures

the base colour, but the black markings can be discerned underneath.

As to size, *C. crassus* and *eburneus* are about the same in length. Specimens of *C. eburneus* exceeding 70 mm in length are not uncommon, and a 68 mm *C. crassus* is mentioned within a New Guinea article on the species. The Pisor Registry of World Records lists a 74 mm *C. crassus* from the Philippines, but this locality gives rise to doubts regarding identification.

The illustrations at fig. 1 show the two Sowerby illustrations from the Thesaurus. Fig. 2 is the designated lectotype size 44.2 mm × 28.8 mm. The fig. 3 is a 39.2 mm × 29 mm specimen in my collection, and a good match for the Sowerby fig. 255.



## References:

- 1866. Sowerby, G. B., *Thesaurus Conchyliorum*
- 1968. Cernohorsky, W. O., *Conus crassus*, H. S. N. May.
- 1970. Anonymous. *World Record Rare Cone*, H.S.N. Feb.
- 1972. Cernohorsky, W. O., *Marine Shells of the Pacific*, vol. II.
- 1988. Richards, A., Look-alike Cones of New Guinea, *La Conchiglia* No. 230, Part II.
- 1995. Röckel, D., Korn, W. & Kohn, A. J., *Manual of the Living Conidae*.

# *Jaspidiconus pfluegeri* Petuch, 2004

Paul Kersten

Petuch introduced the new genus *Jaspidiconus* in “Cenozoic Seas – the View from Eastern America” in 2004. The type species is *Jaspidiconus jaspideus* (Gmelin, 1791) (originally “*Conus*” *jaspideus*.)

In the same publication the new species *Jaspidiconus pfluegeri* was described (p. 293, pl. 97, figures F & I. The holotype was deposited in the American Museum of Natural History (AMNH): 25 mm x 13 mm. The type locality of the new species is Lake Worth Lagoon, South East Florida, U.S.A.

According to its description, the new species is found as a fossil but is also still living as relict population endemic to Florida! Petuch compares the new species to similar ones, such as *Conus jaspideus* and *C. duvali*, Bernardi 1862. The new species differs in being larger than *C. jaspideus* and having a higher, more protracted and scalariform

form spire; the body whorl is smoother, less sculptured and more colourful. It is larger than *C. duvali* too. It has a more carinated shoulder and a stepped scalariform shoulder.

However, according to information provided by Mike Filmer, *Jaspidiconus pfluegeri* is a synonym (form) of *Conus jaspideus* (Gmelin, 1791).

We gladly present here the first available digital pictures of this species (Images reproduced Courtesy of the Paleontological Research Institution (PRI); Catalogue Number of Holotype: 308069; Catalogue Number of Paratype: 308070; [www.amnh.org](http://www.amnh.org)).

I wish to thank Dr. Judith Nagel-Myers, Collections Manager from PRI (affiliated with Cornell University) for her kind permission to publish these photos.



HOLOTYPE



PARATYPE

# Live *Conus ventricosus* Gmelin, 1791

Giancarlo Paganelli

Last August I collected a few *Conus ventricosus* at Marina di Pulsano, about 15 km South of Taranto, Ionian Sea. The cones were partially buried in the sand near the reef, about 50 metres offshore and 3-5 metres depth; because of their good camouflage, it was quite difficult to spot them.

It took me very long to collect a few of them so I think they are rather rare in those waters. Curiously two speci-

mens were near sea urchins (do cones feed on them?). Almost all the specimens had the periostracum covered by calcium carbonate incrustations and showed deep scars, evidence of the attack of other animals. The size of the specimens was 43 to 53 mm. I didn't find any juvenile specimens.

I photographed the cones in aquarium with sea water and on a bed of their own sand.



43 mm. Thin and clear periostracum, no scars.



47 mm. Opaque periostracum, collabral growth marks.



53 mm. Opaque periostracum, deep scar.



53 & 41 mm. Opaque periostracum, calcium carbonate incrustations.

## Recently Described Species

*Conus quiquandoni* Lorenz & Barbier, 2008  
(*Malacologia* No. 59: 22)

We thank our good friend Philippe Quiquandon for  
supplying the accompanying photos:



*Conus quiquandoni* Lorenz & Barbier, 2008 - 69.7 mm.



*Conus quiquandoni* Lorenz & Barbier, 2008 - HOLOTYPE



*Conus quiquandoni* Lorenz & Barbier, 2008 - PARATYPE

# *The Cone Collector in the Internet*

It is our aim to make *The Cone Collector* available to the largest possible number of collectors and researchers interested in Cones.

We currently count more than one hundred subscribers who receive all information concerning our bulletin and of course every number, as they are published.

Apart from that, an undetermined number of collectors/researchers may access and even download the issues from several well-known websites. We are of course quite thankful to all our friends who actually volunteered to out TCC on line.

Today, I would like to draw your attention to a new source: my good friend Jacek Glanc, from Poland, has recently sent the following message:

I am happy to be able to notify you that the fantastic, informal newsletter "The Cone Collector" - exclusively dedicated to *Conidae* and Cone - Lovers, is now available on my website "CONCHA" - a meeting point for Polish shell Collectors *www.musze.concha.pl* This is for me great satisfaction and reason to pride!

I am glad to invite everybody to visit my webpage and particularly: "CONCHA - A SHELL LOVERS' WEB CLUB"! Some friends from around the world are always asking me to have an English version of my website to make it easier to navigate. Most of the material is not translated to English yet, but I hope to have it in the future. Thanks for visiting my "CONCHA"!

Best wishes from Poland and Happy Shelling.

Thanks a lot, Jacek, for you kind words about our bulletin. We certainly are happy to greet all Polish shell collectors, especially Cone lovers!!

**We hope to see  
your contribution  
in the next TCC!**





# 2nd SCOTTISH SHELL SHOW

Fairmilehead Parish  
Church

1 Frogston Road West,  
Edinburgh, EH10 7AA



## 21st February 2009



### 9.00 – 16.00

Talk by the well known conchologist  
António Monteiro entitled

***“The Strange Case of the Maths  
Teacher and the Shell Collector .”***

**Will take place at 14.30**

**Come along and see wonderful displays of shells  
from across the world.**

**Talk to enthusiasts and browse among the sales  
tables.**

**Refreshments available**