



*THE
CONE
COLLECTOR*

#15 - October 2010



THE
CONE
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Editor

António Monteiro

Layout

André Poremski

Contributor

Carlos Afonso

David P. Berschauer

Marco Bettocchi

Gianluca Boningsegni

Walter Cernohorsky

Teena Daymond

Remy Devorsine

Bill Fenzan

Mike Filmer

Julian Joseph

Giancarlo Paganelli

Rick McCarthy

David Pirinhas

Serge Rolland

Lyle Therriault

John K. Tucker

On the Cover:

Conus magnificus

(Reeve, 1843) Image courtesy
of Serge Rolland

*Note from
the Editor*

The current issue of TCC follows in the aftermath of the 1st International Cone Meeting, held in Stuttgart (Germany) in the first weekend of October. It was a great success – of which you will read more inside. We will certainly be having a second one in the not too distant future. Of that you will be fully informed, of course.

In the meantime, we have not been idle and neither have our several contributors, which means that once again we have prepared for you a varied issue covering many different topics of interest to Cone collectors and researchers.

I am naturally very thankful to all those who send in their articles, notes, comments, photos, etc.; without them, we would have no magazine at all! We are all greatly indebted to André Poremski too, for his brilliant work with the graphic display of each new issue. But most of all I am thankful to our all readers, whose enthusiasm and support have made TCC what it is today: a publication of high standards worth reading and waiting for.

As always, I have tried to include something for everyone, from the beginner collector to the serious researcher. Of whether or not we have succeeded, you must be the judge.

I wish everybody a pleasant reading and keep sending in your contributions!

A.M.

Who's Who in Cones: Lyle Therriault

I still have the fondest memory of my very first seashell. I began to collect them in 1975 when my grandfather gave me an enormous pink Queen Conch shell that he gave me upon his return from Myrtle Beach, South Carolina, where at the time he frequently vacationed from Lunenburg, Massachusetts...my hometown. That particular shell to this day was so different from the normal specimens of queen conch in that it was a brilliant pink color, with heavy ribbing along the dorsum and a thick lip that curled inward back towards the ventrum. I can only assume it was purchased at a local gift shop, but that shell began the fascination that continues to this day.

Shortly after in my then very young years, I saw in encyclopedias and books that there were many different types of shells. Some were ovate and shiny, some were spiraled and dull. It didn't matter, I was enthralled by them all. When I was young at this age, my family used to take trips to the Cape Cod region, as we lived in Massachusetts. I remember vividly scouring the beaches, rock and nooks and crannies looking for shells. I found clams, whelks, sand dollars and skate eggs. I filled buckets with pieces of broken shells and analyzed them for hours. When I began getting more knowledgeable about seashells in general, I would spend hours at the library looking through identification books such as the *Compendium of Seashells*. Where I lived I knew I would not be able to find many of the shells in this book, but I wanted too very much. As a teenager, with limited resources (there was no internet back then! How I still love books) I found creative ways to collect shells from the world over. I began to tell people I collected them, and soon enough the word

spread amongst adults (at the time) that I was searching for them. A friend of mine in school, his father served in the air force overseas in Hawaii and Guam. He gave me a small bucket of shells and a large spider conch. In the bucket were species of miters, cowries and other common shells from the area. They were all new to me so I was thrilled to have them. As I mentioned, as a teen we often traveled to Cape Cod.



We always seemed to cross over the Cape Cod canal and along that highway rests a gift shop that played a role in my love of shells. One time, on a fishing trip to the canal, my father noticed a gift shop that advertised it sold shells. We pulled in and amongst the debris and clutter of typical tourist fanfare and large baskets of tourist type seashells, sat a small glass case. It was no bigger than a small cooler that one would use to carry drinks in. But inside, on its two small glass shelves, sat many an intricate shell, even more intricate than I had seen in many books. Remembering back, there was a lovely dark orange *Conus princeps*

with jet black markings (I still have this shell because I bought it with money I earned with my teen odd jobs), various murex, a gigantic thorny oyster (*S. princeps*) and other fascinating, colorful, spiny and otherwise gorgeous shells I had seen to date. That first time I visited, I bought the *Conus princeps*, I believe at the time it was like 8 dollars. That translated into about 80 returnable glass bottles at the time in the early 80's.

I continued to stop at this particular gift shop each time we visited the area. Soon enough, the shells and the case eventually disappeared, and were replaced by something new and uninteresting. The gift shop is still

there if I am not mistaken, and probably has some old, dusty and bleached out conch shells still sitting in the same spot that they did 20-25 years ago.

On another trip to this area, when I was around 16 or so, my father and I went to Woods Hole, MA., where the Oceanography Institute is located. We did a little fishing and on the way back I visited my first real shell shop, where there was nothing BUT shells everywhere! My Dad spent about 15 dollars and I walked out of there with a BAGFUL of shells, like olives, turrids, cowries and etc. I was absolutely amazed at what they had in there. I still do not know who had that shell shop, and when we returned the next year it was gone. It was in Falmouth, MA., right on the main road through the area.

This same year, I entered my then small shell collection (maybe 200 specimens) in the annual school science fair. My father had built very nice pine cases for my shells, with a top that lifted up, the inside done in red velvet. It was sleek and fashionable at the time. I won 2nd place in that fair, and an honorable mention in best display.

As I got older, my scientific knowledge of shells was expanding. I was out on my own, doing typical stupid things that most older teenagers do, eventually moved away from MA., and settled in Kansas. There, my collection became bigger, and I was corresponding with other collectors/dealers for the first time, such as the Coltro's and Panamic Specimen Shells (my first mail order shells).

Around 1999, I had decided to move again, back towards the East Coast. By this time I had amassed a fairly large collection of worldwide shells. When I moved, I ended up losing a lot of them in the move itself. Looking back, most of them were common, so they were easily replaceable. When I reached North Carolina at the end of 1999, I had been on the internet for about 5 years. In this short time span, the knowledge of shells

acquired from online resources was enormous, and continues to be to this day. What a fantastic opportunity to add to my collections! And I did....more so than I could house. By the end of 2002, my collection had grown to a number between 10 and 12 thousand specimens. I added nearly every shell I could put my hands on, and purchased many online. I made friends with a couple here in NC that lived in the Philippines for half the year, and I bought countless shells from them for next to nothing. When I began to run out of useful living space, I knew I had to make a decision.

And thus, my love for *Conus* was born. I had always leaned towards them and *Cypraea* in my collections. When I looked around, I could see that many people already had outstanding collections of *Cypraea*, but at the time there were not many *Conus* specialists. So, naturally, I set out to collect solely *Conus*. I whittled away my collections family by family. I sold many shells on eBay, and I sold intact sets of families to individuals. One person bought all of my *Cypraea* as a complete set, all 600 specimens of them!



Since then, I have amassed a very large collection of *Conidae*. Currently that number is over 5000 specimens. I also have obtained through the years several hundred fossil *Conidae* that I study. I enjoy collecting color forms, unique specimens and also *Conus* on stamps. With the purchase of a house three years ago, I now have a separate room for all my shell-related activi-

Errata to John Tucker's article "Danker L. N. Vink's The *Conidae* of the Western Atlantic"

ties. I have also housed my collections in map drawers which I have stumbled upon through the years as well. I work for a real estate management company, where I manage a small residential community on my own (I even do my own maintenance!). I enjoy my career very much, and will likely continue in this field as long as there is a need for it. In my spare (rare!) time, I enjoy fishing, gardening, music, traveling, photography and creating artwork in all kinds of media.



I look forward to continuing to contribute to the *Conidae* World. I have written several small articles, and I look forward to completing several more I am currently working on. I also look forward to contributing some artwork to TCC as well as corresponding with other cone collectors. I am readily available via email, and I welcome those in the area to stop by and view my collections. Happy Shelling my friends!

We have received the following note from Walter Cernohorsky:

I have read with great interest Tucker's lengthy article on Vink's treatment of *Conidae*.

On page 12, when discussing the species *Conus floridanus* (Gabb), the following statement appeared:

"When Vink wrote part VII he retained *G. floridanus* because he was operating under the premise that an appeal would be made to the ICZN by Walter Cernohorsky (1986) to suppress *anabathrum* in favour of *floridanus*. This appeal WAS NEVER MADE and *anabathrum* has largely replaced *floridanus*."

This statement is an error: I did indeed apply to the ICZN for retention of the better known name *Conus floridanus*, and my application was published in 1987, and assigned case No. 2563. The Commission ruled on my application but unfortunately through a majority vote the Commission accepted as the valid name *Conus anabathrum* Gabb, 1869 in Opinion 1539 published in 1989, and placed this name on the Official List of valid Names in Zoology.

Your magazine is interesting reading indeed.

With kind regards,
Walter O. Cernohorsky

Both the author and the editor thank Walter Cernohorsky heartily for this correction. In the meantime, a number of typos were found in the captions of the figures, so please correct the following:

- Fig. 23. *largilliarti* should be *largillierti*
- Fig. 34 *flavescens cerrutti* should be *flavescens cerutti*
- Fig. 42 *pseudoaurantius* should be *pseudaurantius*
- Fig. 79 *psuedocardinalis* should be *pseudocardinalis*
- Fig. 81 *macginty* should be *mcgintyi*

West African

Corner: Carlos M. L. Afonso & David Pirinhas

Conus (Varioconus) aemulus Reeve, 1844 from Baía de Luanda, Angola

From March to August 2009 David explored many locations in Luanda Bay (Ilha do Mussulo, Morro dos Veados, Km 26, Benfica, Museu da Escravatura, Futungo, Cacuaco, Corimba, Samba), and during this period several specimens of *Conus aemulus* were collected. Last December 2009, when he visited me in Portugal, we were able to look and discuss about this species and its populations in this geographical area. Pattern and color variation within the species was quite incredible and I immediately said that we had to share some images of this remarkable Cone with the TCC community.

Lately, *Conus aemulus* has not received the same attention as other Cone species found along the Angolan coast. Since the death, in the mid 90s, of Francisco (Xico) Fernandes, an avid West African shell collector and diver, fresh live-taken specimens had simply been absent. This absence might be the answer to a lack of interest of Cone collectors in this long forgotten species. This way, we hope to delight you with an extremely variable, exceptional and beautiful species with an endless array of color and pattern variation.



Figure 1 - *Conus aemulus* in natural condition, uncleaned and heavily incrustated with *Crepidula porcellana* (Linnaeus, 1758) and *Ostrea* sp.



Figure 2 - 1: Futungo, 47,68 mm; 2: Km 26, 49,66 mm; 3: Futungo, 44,26 mm; 4: Museu da Escravatura, 43,51 mm; 5: Benfica, 50,67 mm, w/perio; 6: Morro dos Veados, 33,38 mm; 7: Samba, 55,18 mm, w/perio; 8: Cacucaco, 41,94 mm; 9: Corimba, 47,36 mm; 10: Morro dos Veados, 41,92 mm; 11: Benfica, 49,57 mm; 12: Km 26, 44,35 mm

Who is the author?

Comments on TCC #14

Some readers have sent in the following question:

In recent publications (such as T&M, 2008) one often finds “*Conidae* Fleming, 1822” instead of “*Conidae* Rafinesque, 1815” (as used in RKK, 1995; M&T, 2004; etc.). Which designation is correct?

We have asked John Tucker to reply to this and here is his explanation, for which we thank him:

See Alan Kohn's 1992 (page 5) for an explanation why the author of *Conidae* is Fleming 1822 and not Rafinesque, 1815. Rafinesque's name was actually *Conulia* based on his *Conulus*, which is a junior synonym of *Conus* Linnaeus. Since the family name *Conidae* was generally accepted, it was maintained (Code Article 40). Thus *Conidae* cannot be attributed to Rafinesque because he did not describe a name that transform to *Conidae*. Instead if you want to credit Rafinesque, the family name would have to be *Conuliidae*, I think. In other words, use Fleming and cite Alan's book for basis if needed.

From Rick McCarthy

I would like to add my opinion concerning a letter published in the last issue. Someone had written that they were concerned that TCC might get too scientifically oriented and might lose its appeal to novices or hobby collectors. I believe that (for me) the appeal of TCC is the broad range of levels that are offered in the articles. I thoroughly enjoy the articles written by beginners and laymen as well as the articles written by academics and experienced students of Malacology. I think that most would agree that TCC stands strong and informative in its current format.

The Editor replies:

Thanks, Rick. It is good to see that Brian's thoughts have elicited a number of responses. It is always good to have feedback from readers, so that we can guide the newsletter along lines that will please everybody.

From Mike Filmer

Thanks again for the great *Cone Collector* – now indispensable to us all.

The following for the next issue:

- 1) The cone featured by Jon Singleton as possibly *C. virgo* (page 13 no.48) is yet another form of *C. furvus* Reeve, 1843.
- 2) About *C. mucronatus*: as has been said before a confusing group needing further study. I've included here more pictures.
 - A) *C. mucronatus* **Fig. 1** (41.0 x 17.9 mm) & **Fig. 2** (39.7 x 17.3 mm) found in 15 – 20 meters by SCUBA by A. Howell, on 12/08/2008, off Port Vila, Efate, Vanuatu (purchased from dealer).

- B) *C. mucronatus* **Fig. 3** (39.8 x 18.4 mm) & **Fig. 4** (38.7 x 18.20 mm) dredged in 100 feet in Havannah Harbour, Efate Island, Vanuatu. (purchased from Hannah Dale collection in 1987). These two specimens were figured (3 & 4) in the article describing *C. mucronatus* *ssp segondensis* by W. J. Fenzan (*Vita Malacologia* 6 p.11) 2008. They might be the same as *C. sutanorcum* Moolenbeek, Röckel & Bouchet, 2008.
- C) *C. mucronatus* **Fig. 5** (32.0 x 14.6 mm) & **Fig. 6** (28.3 x 12.9 mm) Taken in tangle nets by local fishermen in 150 meters off Balicasag Island, Bohol, Philippines. (purchased from dealer in April 2000). This is probably *C. segondensis*.
- D) *C. mucronatus* **Fig. 7** (42.2 x 18.9 mm) & **Fig. 8** (34.4 x 15.4 mm) Habitat unknown, from Punta Engano, Cebu, Philippines, (purchased from dealer in August 1977)
- E) *C. mucronatus* *ss segondensis* Fenzan, 2008 **Fig. 9** (25.2 x 12.6 mm) & **Fig. 10** (25.4 x 12.2 mm) buried in silty sand and mud in 85 – 100 feet by SCUBA at night by Carl Erlich in Segond Channel, Luganville, Espiritu Santo Island, Vanuatu, December 2005-January 2006. (Gift from Bill Fenzan).

interest to fellow collectors.

- 3) Like yourself, Bill Fenzan & Gavin Malcolm I do not agree with the remarks of Brian Hammond concerning either the John Tucker article on *C. anemone* (which by the way was not at all a “scientific” article but one concerning the distribution of this species in Australia) or the critiques on the Poppe book (if these are not done collectors could easily perpetuate identification errors).

Figures on the following page...

I have many specimens of the better known form from Honiara, Guadalcanal, Solomons, Rabaul New Britain PNG and Cebu Philippines. I have not yet had the time to study this complex which certainly needs more research but it is my present suspicion that there are two species here – *C. mucronatus* Reeve, 1843 and *C. segondensis* Fenzan, 2008 which because it also found in the Philippines cannot be only a subspecies. Of course I might be quite wrong with my un-researched suspicion. At least I thought the pictures might be of



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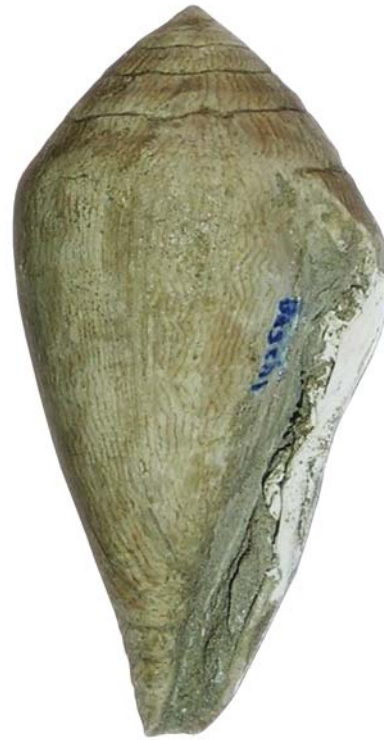
Fossil Cones

Gianluca Boningsegni

Here is a gallery of Italian fossil Cones, owned by Gianluca Boningsegni. These specimens come from Pliocene sites in Umbria and Toscana (the area searched lies between Orvieto, Corvara, Camorrena, Baschi. Fabbro, Pietrafitta, Linari, Val d'Elsa and the Province of Siena).

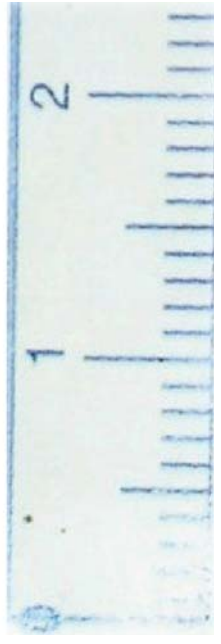
Some of the specimens still show traces of the original coloration, which actually makes naming the different species a bit tougher.

We do thank Gianluca for his kind permission to publish these photos in TCC.













Fossil Cones continued...











About *Conus queketti*

Rick McCarthy

It is with great interest that I have been following the thread of articles and notes regarding the “mysterious” *Conus queketti*. I have been seriously collecting *Conus* since 1978 and have always been drawn to the species that are elusive or problematical. In the years that have passed since I began collecting, I have witnessed much information come to light regarding species that were at one time shrouded in mystery. *Conus selenae* from Brazil is a fine example. When I began studying *Conus*, *C. selenae* was rarely available and, on the rare occasion one could find a specimen available, it was always expensive. The habitat had never been discovered and live collected specimens were virtually unknown. Now the habitat has been discovered and beautiful, colorful live-taken specimens are readily available.

In my studies over the past decades I had never heard of or encountered *Conus queketti* either in person, in photographs or in literature. My first exposure to any mention of this species was a specimen that showed up on a popular internet auction site a few years ago. I won the specimen from the internet auction which prompted me to do a little research. I was able to locate several photos of specimens on the internet. The specimens were always dead collected and there was virtually no information on this species other than that it appeared in all cases to be considered a synonym of *C. imperialis*. This spurred a deep interest in trying to decipher whether this is, in fact, a form of *C. imperialis* or does it deserve to be considered a valid species.

At the time I was aware of no live-collected specimens and I began seeing a few more dead specimens appearing for sale on the internet. I purchased every one that I could afford in an attempt to accumulate more information and knowledge of this species. I put the word out with a shell dealer friend in South Africa that I was searching for *C. queketti* specimens and asked if he ever received them from any of his suppliers there. He said that he wasn't aware of the species and had never had one offered to him. I explained that I was very interested in purchasing some, especially if he could lo-

cate a source for a live collected specimen. I mentioned that, if a live specimen were to be found, I would really like to purchase it with the animal still intact. I was hopeful that if we could locate a live specimen and extract and study the radula, we may be able to compare it to a *C. imperialis* radula and determine once and for all that *C. queketti* is in fact, a valid species.

A matter of weeks went by and I received an email from my friend explaining that he had a fresh dead (crabbed) collected *C. queketti* for me if I was still interested. I explained that I certainly was and we promptly completed the transaction. Over the next several months a few more *C. queketti* purchases were made. In October of 2008 I received an email from my South African contact stating that he had a live collected specimen with the animal preserved in alcohol! I was elated! I made the purchase and eagerly awaited the arrival of the specimen.

In the mean time I contacted Mr. Emilio Rolán of the Museo de Historia Natural of Santiago de Compostela, who I knew to be extremely knowledgeable and experienced in the research of *Conus* radula. I asked if he would consider extracting and examining the radula of this *C. queketti* specimen in order to aid me in my quest. He graciously agreed to assist me in this endeavor and as soon as the shell arrived to me, I mailed it to him in Spain.

During the trip from South Africa to the U.S. the alcohol had evaporated and the “body” of the cone had dried up severely. When I explained that to Mr. Rolán, he assured me that it shouldn't be a problem to extract the radula regardless of the dried condition of the animal. After a couple of weeks anxiously awaiting word from Mr. Rolán I received an email from him stating that he was not able to extract the radula, nor was he able to identify any of the anatomical features of the *Conus* “animal”. It was his opinion that perhaps the “animal” was, in fact, not the soft parts of the cone, but possibly that of some other organism that had oc-

cupied the fresh dead shell of the *Conus*. He offered to try again if I was able to obtain another live taken *C. queketti*. Well, with this disappointing news, it was “back to the drawing board” and the hopes of acquiring a live collected specimen.

In March 2009 I was once again notified that my friend had obtained two live collected *C. queketti* with animal intact! I eagerly purchased them and, upon their arrival, immediately mailed them to Mr. Rolán once again. This time Mr. Rolán was able to extract the radular teeth and he was able to illustrate them, photograph them through SEM, and compare the results with the known examples of *Conus imperialis* radular teeth (see plates following article). His conclusion is that the teeth of *C. queketti* and *C. imperialis* are very similar in structure and that there is no difference that would lead us to use the tooth morphology as a distinguishing feature to differentiate between the two species. He did mention that this is not conclusive evidence that *C. queketti* and *C. imperialis* are synonymous and that there are other avenues to pursue when attempting to differentiate between similar species. He also pointed out that there are examples of different species having similar radulae if they have descended from a common ancestor.

This evidence, not surprisingly, appears to suggest a close relationship between *C. queketti* and *C. imperialis*. I would be most interested in hearing from anyone that might have knowledge of “normal” *C. imperialis* or *C. imperialis fuscatus* being found in the same areas that the *C. queketti* variety inhabits. There seems to be some confusion as to whether any forms of *C. imperialis* (other than *C. queketti*) are even found in this part of South Africa. It was initially my speculation that *C. queketti* might be a deeper water form of the local *C. imperialis* or *C. fuscatus* that might occur more intertidally.

Initially all of the specimens and photos of *C. queketti* that I had seen were of a pale straw coloration, which

I attributed to fading, as it appeared that all the specimens I had seen were dead collected. My theory was proven inaccurate when I received my first pair of live collected specimens. They were also of the “faded” light straw coloration. I have since received specimens that are snow white with an underlying pattern of white dashes and dots visible only upon very close inspection (similar to the specimen belonging to Felix Lorenz figured on page 31 of TCC #13). I also have a few live collected specimens that are considerably darker with more distinct pattern (see accompanying plates).

In conclusion, it was my hope that through examination and comparison of the radular teeth of *C. queketti* and *C. imperialis*, we would conclusively be able to confirm that *C. queketti* is definitely a valid species. Due to the similarities of radular teeth, we cannot conclude that *C. queketti* and *C. imperialis* are separate species. Considering the consistent visual differences in shape, color and pattern between *C. queketti* and *C. imperialis*, I would go as far as to suggest that perhaps the former might be considered, at the least, a form or variety of *C. imperialis* until further evidence is uncovered to definitively solve the mystery.

I would like to thank Brian Hayes of Algoa Bay Specimen Shells for obtaining the specimens for me, Brad Wilson for photographing the shells, Emilio Rolán and the Museo de Historia Natural of Santiago de Compostela for extracting, illustrating and photographing the radular tooth.. Also many thanks to António Montiero and the staff of *The Cone Collector* for providing a forum through which we can disseminate information and increase our knowledge regarding this fascinating family of mollusks that fuels our collecting passion.



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Fig. 1

Conus queketti w/lop

35.3 mm

Dived on reef in 30 m

Natal, South Africa

Fig. 2

Conus queketti

33.4 mm

Dived at 30 m

Park Rynie, Natal, South Africa



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Fig. 3

Conus queketti w/lop

53.1 mm

Dredged in 80-100 m

Park Rynie, Natal, South Africa

Uncleaned with periostracum



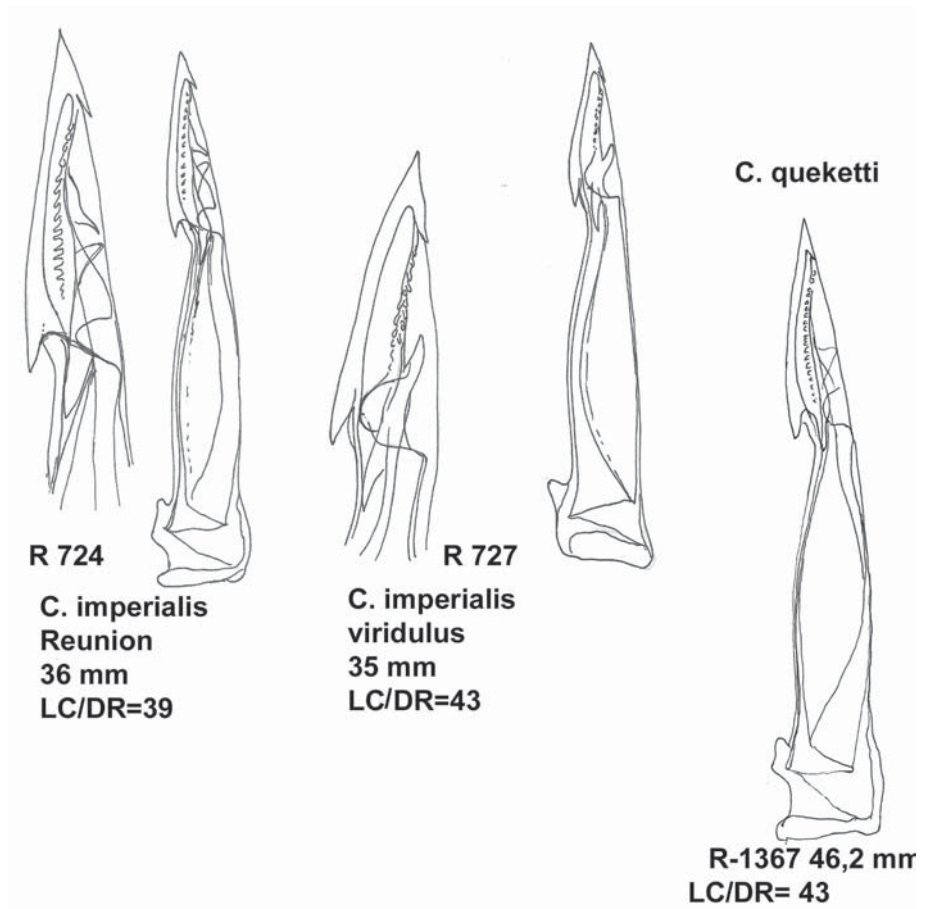
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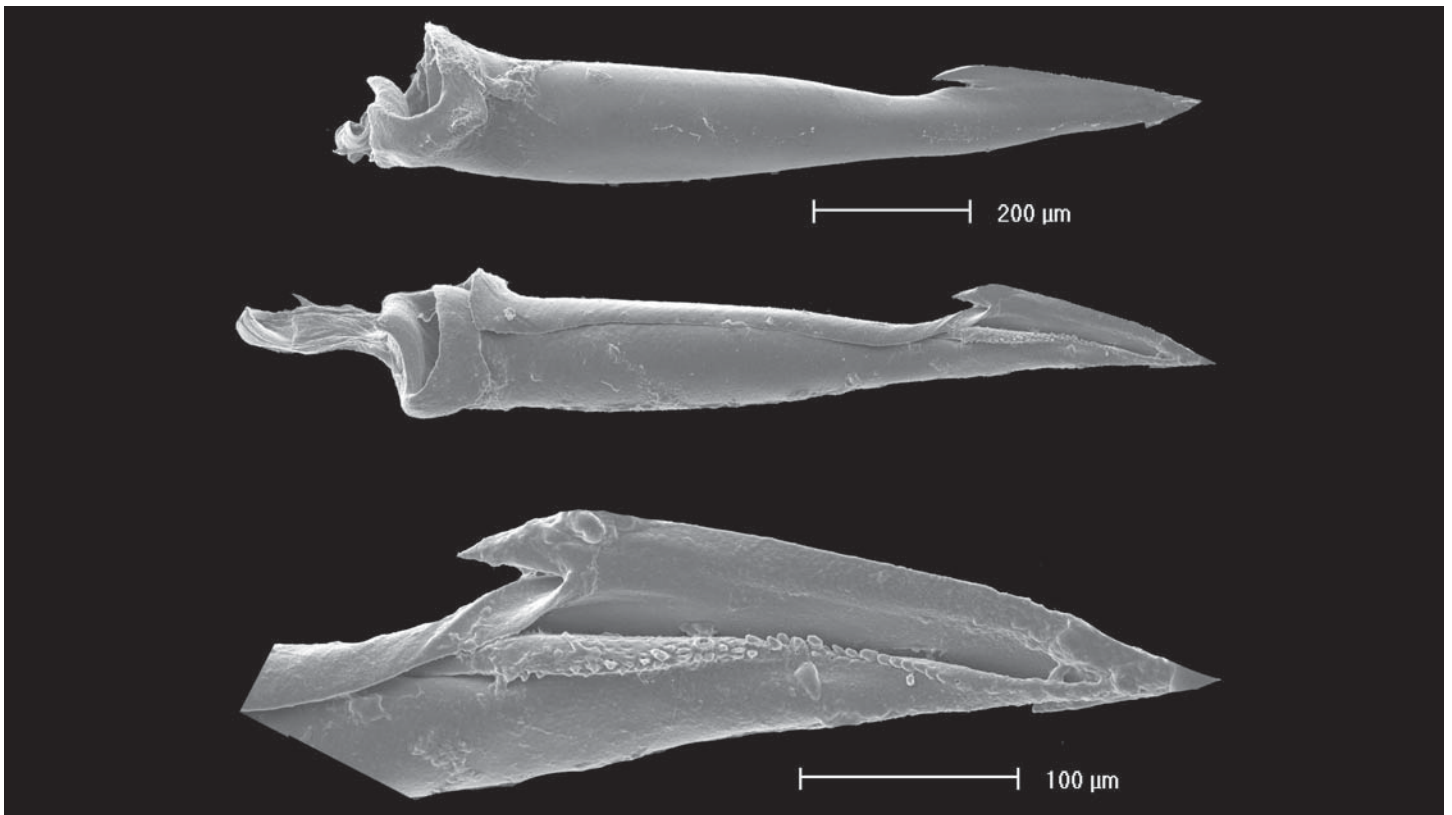
About Conus queketti continued...

Radular teeth of *Conus imperialis* :

See Peile, 1939 and
Kohn, Nybakken and van Moll, 1972



Radular teeth of *Conus queketti* :



Cones from New Caledonia

Serge Rolland

I photographed all of these specimens in situ. *Conus magnificus* (featured on the front cover of this TCC issue) was hiding under a slab of dead coral on the reef at Népouï, *Conus marmoreus* f. *suffusus* was found hunting at night in the lagoon at Bourail, and I found

Conus ammiralis buried in gray, coarse sand at Voh. I hope you will enjoy them. I love to photograph live cones; trying to highlight their natural beauty. A live shell crawling on the bottom is a thousand times more beautiful than a dead shell.



About Newly Described Taxa

Giancarlo Paganelli

Since the publication of the *Manual of the Living Conidae*, 15 years ago, more than 125 new taxa of *Conus* (I cannot tell the exact number), species, subspecies and formae too, were described. No doubt some of them are really good species or ssp.. It nearly seems that lately a craving for describing has infected some authors (often dealers or collectors). Every little deviance or difference from the holotype of previous well-known species is emphasized and becomes the opportunity for introducing a new taxon; perhaps to go down in history of Malacology or only as a way for somebody to show off by an own original work. I have no idea of that.

These descriptions, in many cases, only refer to simple phenotypic variations and not really to new species. Besides, many descriptions are based on only one or a few specimens forgetting that a species is a well localized population and not a single (or a few) found specimen.

In my opinion a species (or a ssp.) would be very easily recognizable compared to other good species. These new descriptions can often cause confusion in collectors and are not a good service to conchology indeed. Many times, then, these new phenon are hard to find and, when you find them, they are offered at very high prices and this is not what we, plain collectors, need. Sometimes I also wonder what authority some Journals have to publish new taxa descriptions and who the members of scientific committee that ratify them are.

I hope the authors will carefully read the interesting 1980's article by Dr. Alan Kohn "Conus Descriptions Aren't Improving".

I think that it is right to report these new descriptions on TCC, but without relying too much on them.

Obviously these notes are not meant to be a reproach to anybody; they only reflect my personal opinion.

Comment from the Editor:

While heartily agreeing with Giancarlo about the need – already stressed by Kohn, in the paper he mentions, as well as by others – of making descriptions better and essentially less subjective, I should point out that when we list newly described taxa in each issue of TCC this newsletter makes absolutely no assessment of the quality of each description or of the taxonomical validity of each new name. The list of new taxa is presented only as a guide for our readers, so that everybody can keep up with the news, look for the pertinent papers and of course make their one mind.

Club Conisti Italiani

Marco Bettocchi

The Club Conisti Italiani (Italian Cone Collectors' Club) has been recently founded. Its aim is to put all the Italian collectors interested in the family *Conidae* in touch with one another. One of the purposes of the club consists is the exchange of ideas and opinions and also in the organization of meetings that will allow debate and comparison of information. Anyone interested in joining the group, please look for the Club on Facebook.

New Taxa

Conus glorioceanus Poppe & Tagaro, 2009

2009 saw the the description of an outstanding new species: *Conus glorioceanus* Poppe & Tagaro, 2009. It is usual nowadays to have new taxa based on a single specimen, but the authors felt that *C. glorioceanus* was distinct enough from any known species to warrant a publication.

Very recently, a second specimen has been found. I am very grateful to Guido Poppe and his staff for supplying a photo of this second *C. glorioceanus* for publication in TCC. It undoubtedly remains one of the rarest Cone species presently known.



This specimen measures 41.1 mm and was found last April in Mindanao, Philippines (between Recodo, Zamboanga City and Perlas Island), at 80-150 metres deep.

3 New Species Related to *C. praezellens*

The paper “Defining a clade by morphological, molecular, and toxinological criteria: distinctive forms related to *Conus praezellens* A. Adams, 1854 (*Gastropoda: Conidae*)”, by Jason S. Biggs, Maren Watkins and Baldomero M. Olivera was published in *The Nautilus*, 124(1):1-19.

Three new species are described therein:

Conus andremenezi Biggs, Watkins & Olivera 2010

Conus miniexcelsus Biggs, Watkins & Olivera 2010

Conus rizali Biggs, Watkins & Olivera 2010

All of the three new species have their type locations in the Philippines, although their geographical range may extend to other regions (*C. andremenezi*: from the Central to Northern Philippines, probably to Vietnam and possibly much further West; *C. miniexcelsus*: Central Philippines to Japan; *C. rizali*: Philippines).



Conus andremenezi Olivera & Biggs, 2010

32.9 mm - Dredged 80/100 metres in sandy coral rubble off Aliguay Island, Sulu Sea.

Photo: Emmanuel Guillot de Suduiraut



Conus andremenezi Olivera & Biggs, 2010
57.0 mm - Philippines

Photo: Paul Kersten



Conus miniexcelsus Biggs, Watkins & Olivera 2010
28.0 mm - Philippines

Photo: Paul Kersten

Dendroconus royaikeni Veldsman, 2010

In issue # 66 of *Malacologia* (February, 2010) appeared a paper by Stephan G. Veldsman entitled "A new species of *Dendroconus* from KwaZulu-Natal, South Africa".



Holotype *D. royaikeni* Veldsman, 2010



D. royaikeni Veldsman, 2010 (paratypes)

Named after Roy Aiken, the new taxon is compared with several other South African species.

I thank Tiziano Cossignani for his permission to reproduce photos from the original publication.

2 New Species From Southern Madagascar

In issue # 68 of *Malacologia* (July, 2010) appeared a paper by Luigi Bozzetti entitled “Two new species of *Conidae* (*Gastropoda: Prosobranchia: Conidae*) from Southern Madagascar”.

In this paper, the following new species were described:

a) *Endemoconus bonfigliolii* Bozzetti, 2010



Holotype and one neotype of *E. bonfigliolii* Bozzetti, 2010

The new taxon, named after Mauro Bonfiglioli, from Correggio, Italy, is compared with *E. lozeti* Richard, 1980.

b) *Textilia lucasi* Bozzetti, 2010



Holotype and paratype 1 of *T. lucasi* Bozzetti, 2010

The new taxon, named after Lucas Gregorio – the author’s grandson – is compared with *T. solangeae* Bozzetti, 2004 and *T. chiapponorum* Lorenz, 2004.

I thank Luigi Bozzetti for all the above photos.

A New *Pseudoconorbis* Species

In *Miscellanea Malacologica* 4(3) (August, 2010) appeared an article by John K. Tucker and Peter Stahlschmidt, entitled “A second species of *Pseudoconorbis* (*Gastropoda: Conoidea*) from India”.

The paper concerns the new taxon *Pseudoconorbis traceyi* Tucker & Stahlschmidt, 2010, named after Steve Tracey, is compared with *P. coromandelicus* E. A. Smith, 1894.

I thank John Tucker for the accompanying photos.



P. coromandelicus E. A. Smith, 1894



Holotype of *P. traceyi* Tucker & Stahlschmidt, 2010

What is *Artemidiconus*?

John K. Tucker

In our classification of the Conoideans, we (Tucker & Tenorio, 2009) placed the genus *Artemidiconus* in the Family *Conorbiidae* Powell, 1942. This may have surprised some because the type species, *A. selenae* (van Mol et al., 1967), looks like a perfectly respectable cone shell.

Tucker & Tenorio (2009) diagnosed the *Conorbiidae* as shells with the inner whorls resorbed, nodules are not present (at least on the early whorls, later whorls may have a row of pustules), the radula is a simple tube with a basal spur, various internal folds are absent, and terminating cusps and serrations are absent. Shell resorption is an important trait and has not been demonstrated for *A. selenae*. Unfortunately many x-ray machines do not have very good resolution. This makes small shells like most specimens of *A. selenae* difficult to get decent images of. I happen to have a larger topotypic specimen of *A. selenae* (Fig. 1). X-rays of this specimen (Fig. 2) demonstrate this little species does resorb its inner whorls like a good conacean. It shares this derived state with other genera of *Conorbiidae* (*Conorbis* and *Benthofascis*).

Acknowledgements

Joe Twigo made the x-ray for me.

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Figures

1. JKT 1751 *Artemidiconus selenae* (Van Mol, Tursch & Kempf, 1967), 14.5 mm, ex pisces Fortaleza, Ceara, Brazil, (fish was *Amphichthys cryptodentus*)
2. X-ray of the specimen in Fig. 1



1



2

Strange specimens of *Conus gauguini* Richard & Salvat, 1973

Günther Herndl, from Vienna, Austria, has recently sent photos of two truly extraordinary specimens in his collection. They are clearly *Conus gauguini* Richard & Salvat, 1973, but they lack the usual purple pigmentation (except for very tiny and dim spots). These specimens are ex-John Jackson collection and are supposed to have been collected by John Jackson himself, while diving south of Nuku Hiva, Marquesas Islands.

They are clearly not subfossils and do not seem to have been tampered with in any way. It should be noted that they were acquired by Günther through a well-known reputable dealer. They maintain dark markings on the shoulder and spire. It is particularly curious that not a single freakish specimen but two were found! We would certainly welcome comments from our readers about these and in particular it would be very interesting to find out any other similar specimens housed in collections.

The specimens measure 59.1 mm and 59.4 mm (the higher spired one).



An outstanding *Conus pergrandis*

This a truly outstanding specimen of *Conus pergrandis* Iredale, 1937 and from a rather unusual location too: it was trawled at a depth of 160 metres in South Queensland waters in February 2008.

It measures 190 mm and is currently in the collection of Teena Daymond.

We thank Teena for giving permission to publish the photos and also Remy Devorsine for supplying all information.



A Trip to La Rochelle to Study Cones

Bill Fenzan

In two previous reports (Fenzan, 2008; Fenzan, 2010), I described museums with large cone collections where specimens may be studied to learn more about variation of species. Both of these museums, the Zoological Museum of the University of Amsterdam (ZMUA) and the Staatliches Museum für Naturkunde Stuttgart (SMNS), are well-known to both cone collectors and researchers.

Another museum with a large cone collection is the Muséum d'Histoire Naturelle de La Rochelle (figure 1). This museum is not as easily recognized by cone collectors as the repository of a large cone collection because it has only recently acquired most of its cone specimens. Even so, the museum staff has made considerable progress in using their cone collections effectively in several public exhibits, and for the establishment of an active education program.



Figure 1. Muséum d'Histoire Naturelle de La Rochelle

The museum was founded in the early 19th century by the local natural history society after it had acquired the natural history collections of Clément Lafaille. According to the museum website (<http://www.museum-larochelle.fr/en.html>) at least some of the Lafaille collection was assembled in the 18th century. On the ground floor of the public display gallery some of this material is shown as it would have been during this time period.



Figure 2. Views of an 18th century collection room

Over the years, the society acquired other collections from local residents. Included in these collections were those of Jean René Constant Quoy and Joseph Paul Gaimard, naturalists on several expeditions of discovery during the early 19th century. Although most of the official material from these expeditions went to Paris, some of the material from these expeditions was in the private effects of the expedition naturalists. These materials, including some shells, are on display in rooms similar to museum galleries in the mid-19th century.



Figure 3. Museum gallery similar to one from the 19th century.

In addition to historical material and museum architecture resembling that of an earlier era, the museum also has many modern collections and galleries. One of these includes a worldwide cone collection mounted on a large map covering an entire wall. Other displays in the room showcase the study of cones and illustrate aspects of shell morphology and biology of the animals.

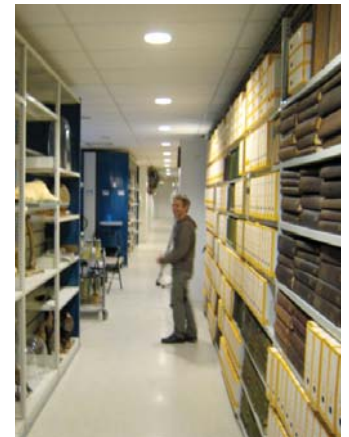


Figure 4. Displays in the public cone room of the museum.

Even though the public display of cones is impressive, the largest collections, including most of the cones, are preserved in climate-controlled storage facilities underground between the public galleries and the administration/library building.



Figure 5. Views of the collection storage area underground.



Cone collections stored in this area include a reference collection, which is used by museum staff to assist in identification of specimens. It includes one example of each species in the general cone collection as a species representative. A collection of juvenile cones is maintained separately for assisting in the identification of small specimens believed to be juveniles. Finally, the general collection of cones is stored in this area as well. It contains shells from throughout the range of most cone species described, so it is an excellent tool for learning about variation. Figure 6 shows the current storage system for the general collection.



Figure 6. Dr. Georges Richard using the general cone collection.

The staff of the Museum were very helpful. Dr. Georges Richard (Figure 6) was my host. He is a well-known cone researcher and author. The Chief Curator (Conservateur) of the Muséum d'Histoire Naturelle de La Rochelle is Mrs. Michèle Dunand. The collection manager is Mr. Guillaume Baron, and the curator of the cone collection is Mr. Michaël Rabiller.

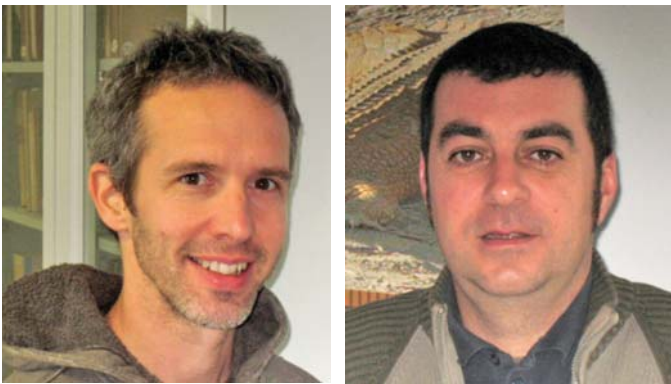


Figure 7. Guillaume Baron (Left) and Michaël Rabiller (Right)

On the following page are some photos of specimens in the cone reference collection (plates 1-5). This is only a small sample of the many cones in the museum collection. It was very enjoyable to study them and take a few photographs. If a visit to this museum sounds like

it would be of interest, I encourage you to contact the friendly staff there and make an appointment to see this fabulous cone collection.

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(Natural History Museum La Rochelle website)

Plate 1



Conus auratinus da Motta, 1982
69.4 mm - Tuamotu Archipelago



Conus arangoi Sarasua, 1977
31.3 mm - Cuba (ex Sarasua)



Conus cf. cuneatus Sowerby iii, 1873
19.7 mm - Abu Dhabi, Persian Gulf



Conus nocturnus "S" Lightfoot, 1786
60.0 mm - Ceram, Indonesia

Plate 2



Conus hennequini Petuch, 1993
21.1 mm - St. Lucia, West Indies



Conus cf. lacteus Lamarck, 1810
34.4 mm - Ceram, Indonesia



Conus jucundus Sowerby iii, 1887
31.2 mm - Anse Colombier,
St. Barthelemy



Conus cardinalis Hwass, 1792
17.7 mm - Guadeloupe, West Indies

Plate 3



Conus marielae Rehder & Wilson, 1975
41.8 mm - Nuka Hiva, Marquesas



Conus luteus Sowerby i & ii, 1833
32.2 mm - Takapoto, Tuamoutu



Conus loyaltiensis Rockel & Moolenbeek, 1995
23.2 mm - Loyalty Islands



Conus nobilis Linneaus, 1758
37.9 mm - Java, Indonesia

Plate 4



Conus raoulensis Powell, 1958
23.3 mm - Sunday I., Kermadec Islands



Conus cf. riosi Petuch, 1986
41.3 mm - Martinique, West Indies



Conus vaubani Rockel & Moolenbeek, 1995
22.1 mm - New Caledonia



Conus tuberculosus Tomlin, 1937
19.9 mm - Ryukyu Islands, Japan

Plate 5



Conus gauguini Richard & Salvat, 1973
71.8 mm - Nuka Hiva I., Marquesas



Conus lani Crandall, 1979
52.5 mm - Balut I., Mindanao, Philippines



Conus mazei Deshayes, 1874
44.9 mm - Marie Galante, French Antilles



Conus adamsonii Broderip, 1836
37.1 mm - Rurutu I., Austral Islands

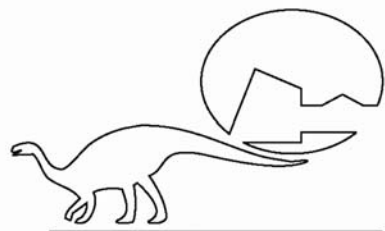


The 1st International Cone Meeting

António Monteiro

The 1st International Cone Meeting that took place in Stuttgart, Germany, from 1 to 3 October 2010, was a big success. In all, we managed to bring together more than fifty attendees, both collectors and researchers; over 15 different countries were represented, which in itself clearly reveals the great interest that everybody felt for the event.

The members of the Organizing Committee (in alphabetical order, Bill Fenzan, Klaus Groh, Paul Kersten, António Monteiro, Hans-Jörg Niederhöfer and Manuel Jimenez Tenorio) heartily thank all participants and especially all those who presented talks. Without the enthusiasm of everybody we certainly couldn't have made it.



**STAATLICHES
MUSEUM FÜR
NATURKUNDE
STUTT GART**

Forschungsmuseum
Am Löwentor und
Schloss Rosenstein

As was widely publicized, the meeting took place at the Staatliches Museum für Naturkunde, in Stuttgart. The museum is very well situated, in a beautiful park and within easy reach by subway from the hotel where most of the attendees stayed; the hotel itself was quite comfortable, with ample dining facilities of which many of us took advantage.

From the point of view of the general public, the section of the museum where the meeting took place is dedicated to palaeontology, presenting many fine exhibits in permanent display. It also houses a number of important collections, made by such well known names as Dieter Röckel, A. J. (Bob) da Motta, Dietmar Greifeneder, H. Nordsieck, etc.



Entrance to the Museum

We must thank our host, Hans-Jörg Niderhöfer and all the staff from the museum not only for having us there but for providing to our every need with exemplary efficiency.



Hans-Jörg Niderhöfer and the staff from the museum

The only thing that really didn't go according to plan was the absence of our guest of honour, Dieter Röckel. Only a few days before the meeting, Dieter had some health problems that, although fortunately not too serious, prevented him from attending. That notwithstanding, he was still the guest of honour and I had the pleasure of introducing him, in the following terms:

As has been mentioned in our program, we have invited Dr. Dieter Röckel to be the Guest of Honour in this meeting.

Dieter has been a good personal friend of mine – just as, I am sure, of many others here gathered – for many years. He was an enthusiastic collector (his collection is currently housed in this very museum) and a serious student of the taxonomy of Cones. He published many papers and described a vast number of species. I was privileged to work with him occasionally and we co-authored (also with Emilio Rolán) the first revision of Cape Verde Cones.

Dr. Dieter Röckel, doubling as an advanced Cone collector and a researcher, neatly embodied the spirit that presides at our bulletin and current organization. For this reason he would be an obvious choice for Guest of Honour in this meeting that moreover takes place in his own country.

Unfortunately, I must explain that a health problem – not too serious, we hope – has prevented Dieter from being with us here today. Never mind, he is still our Guest of Honour in absentia. We had prepared a little memento that we would present to him personally, should he be present. As it is, we will of course make sure he gets it with the shortest possible delay.

Dieter Röckel was born in 1922 in Eberbach, near Heidelberg. He studied Law and headed the legal department of a big pharmaceutical company in Darmstadt. He retired in 1986 and returned to Eberbach with his wife Else.

His research led him to describe a total of 55 new species of Cones, either alone or with co-authors. His papers reach a total of 128. Dieter Röckel's work on Cones culminated with the co-authorship – with Alan J. Kohn and Werner Corner – of the well known Manual of the Living Conidae, of which the first volume has appeared in 1995.

Dieter Röckel's collection is currently housed at this very museum, as we all know.

As an advanced collector, an enlightened and thoroughly enthusiastic amateur, Dieter Röckel embodies the spirit that presided to the foundation of our magazine *The Cone Collector*. For all these reasons, he well deserves to be the Guest of Honour in this meeting.

Unable to be present, Dr. Dieter Röckel sent us a letter, which as translated from the German original and read to the audience:

Dear friends,

It has touched me deeply that you have invited me as a Guest of Honour for this historical meeting. My sincere thanks to the organizers, especially António Monteiro and the host Hans-Jörg Niderhöfer, for organizing the meeting, facing so many time consuming difficulties.

I deeply regret that I am not able to attend, but sincerely want to convey a few words of greeting.

I would like to refer to the beginning of my interest in shells, back in the 70s. At that time, I started to collect marine shells, beginning with a few specimens that I saw in the window of a small handcraft shop. Such masterpieces had never captured my attention before and only step by step did I recognize that there must exist a vast number of such shells in an unbelievable richness of forms and colours. All of them I collected with great passion. But when even the tiniest space in my house was crowded, I understood that I had to restrict my interest to a single group of shells and give away all the rest. So I arrived at Cones, which had always fascinated me the most.

By chance, I heard that other collectors of approximately the same age had just founded the German Club Conchylia and I joined them directly. Even my wife immediately shared my passion and for decades she took over the editing of the Club's journal.

But back to Cones now.

In the 70s, a wealth of shells, mainly from Thailand and the Philippines, arrived at the market. A good Italian friend recommended that I subscribe to Hawaiian Shell News and soon I started to write short articles myself. However, my English being terrible, I accepted the offer of the Editor, Elmer Leehman, who was of German origin, to revise my texts.

A globalization of Cone collectors was just starting worldwide I had established many contacts, letters and parcels filled my letterbox and visitors from all over the world – from America, Africa, Asia and Australia – came and enlarged my knowledge. It was thus that I got in touch with the well known Cone specialist Bob da Motta. We visited several museums together to study type material and our friendship lasted, even though we often had different opinions.

I have much to thank my Iberian friends António Monteiro and Emilio Rolán, who made me aware of the importance of the radula for taxonomical purposes. I am also thankful to many who paved the way for my progress in the study of Cones, namely Robert Moolenbeek, Mike Filmer and Gabriella Raybaudi.

Someone I really wanted to emulate was Prof. Alan Kohn, who trusted me enough to take over the scientific and linguistic treatment of our Cone book, for which I will always be thankful.

But all of that now belongs to a different era, as new scientific approaches have led to breathtaking changes in our taxonomical concepts. I cannot be a judge of that, because it's nearly 20 years ago that I gave my collection to the Stuttgart Museum, under the supervision of Hans-Jörg Niederhöfer. I think that it was an ideal place to put it, alongside with the da Motta collection, to help to solve problems of today and to enable future research.

I wish all of you an intensive exchange of views, with the aim to find common answers and solutions for the problems that are currently being discussed. I presume that there will still be enough room left for Cone research for the future generations and I wish that all of you will return home with the feeling that it was worth coming to Stuttgart.

D.R.
October, 2010

We had prepared for Dr. Dieter Röckel a modest souvenir in the form of a metal engraved plaque with the inscription "To Dr. Dieter Röckel, on the occasion of the 1st International Cone Meeting, acknowledging his outstanding role and his unfailing interest in the study of Cones, which inspired generations of collectors". This was later sent to Dieter and much appreciated by him.

Registration of participants began early on Friday, the 1st October, as each in turn arrived at the museum, following the very detailed instructions that Bill Fenzan had prepared. During the day there was plenty of time for everybody to meet and talk informally and it was a good opportunity for many of us to find old friends once again or else to put faces to well known names.



From left to right: António Monteiro, Alan J. Kohn, Thomas Duda Jr, Baldomero (Toto) Olivera

The organizers kept busy, making sure that everything was ready, that everybody was there and being properly taken care of and that no detail was overlooked for the official sessions that would take place in the following days. The program was checked and a few last minute modifications in the order of presentations were made, to accommodate different times of arrival of some of our speakers. At the same time, the tables for the mini-bourse, which opened at 16:00 hours, were being prepared; we had a total of six tables with specimens offered for sale, plus three others with publications (one belonging to ConchBooks, one to the Cone Snail Genome Project for Health = CONCO and one to the German Club Conchylia).

On Saturday morning the 1st International Cone Meeting had its official opening, by the Director of the Museum, Prof. Dr. Johanna Eder. After her kind words of welcome, we got into full speed with a succession of talks of the highest quality and interest. It is only fair to say that no one could really ask for more, the only problem being that the high standard set will be tough to maintain in future opportunities!

In an event of this kind it is particularly hard to have any a priori guarantees of success. No matter how care-

fully we organize things, no matter how much interest the whole project awakens in potential participants, there is always a certain possibility that something will go wrong at the last minute, or that the final result does not live up to everybody's expectations. However, we began to feel at ease immediately on Saturday afternoon, when several of those present began asking us where and when the second meeting would be taking place. Now, that is surely a sign of success if there ever was one!

Our goals for this meeting were multiple. We wanted to hear some of the top experts in the field speak about their research, we wanted to learn from them; we wanted to exchange information about Cones; we wanted to profit from the mini-bourse to get some new species for our collections; we wanted to meet people with similar interests. But above all that we wanted to spend a pleasant weekend and generally have a good time. And that we certainly did!



A view of the audience

Besides the talks, we had the identification workshop. Ten mystery specimens from the museum's collections were subjected to the scrutiny of a number of teams, who tried their best to come up with reasonable identifications.

International Cone Meeting continued...



Two of the teams working in the identification workshop

The results will be brought to our readers' attention at a later date. Suffice it to say for now that if in certain cases the different teams seemed to converge on their opinions, in others they arrived at vastly different conclusions. That only shows how hard the problems posed by the chosen specimens actually were.

Another high point of the event was the official dinner. Everybody was in high spirits and conversation flowed easily, under an overall climate of good friendship and communion of interests. Shortly before dessert, a surprise was reserved for participants, as two specimens

had been offered to be given to two lucky winners among those present: Paulo Granja, well known Portuguese dealer offered a *Conus pennaceus bazarutensis* Fernandes & Monteiro, 1988, and Reto Stöcklin, from the CONCO project, offered a *Conus consors* Sowerby, 1833. Everybody's names went into a nice metal box topped with a snail and an impromptu draw was organized. Luck determined that the *consors* went to Guido Poppe and the *bazarutensis* to Bill Cargile; both lucky winners were of course quite pleased.

On Sunday morning the sessions went on, according to the program, with more outstanding talks. After lunch – or even slightly before that – it was time for many of us to pack and prepare to leave. Cars, trains and planes awaited and Monday would mean work for most. We said our goodbyes feeling that we had accomplished something of importance, of historical significance even, to use the word Dieter Röckel had used in his address. We parted with the certainty that we must do it again. It's merely a matter of choosing the right timing and the appropriate place. We hope to see even more of you there and then.

António Monteiro



A Big *boeticus*

Mike Filmer

While I was in the museum in Amsterdam I came across a very large specimen of *C. boeticus* from Vietnam; it came from Dr. Thach from Nha Trang in Vietnam and measures 42.35 x 20.45 mm. This is significantly larger than any I mentioned in my article in *Visaya*(*). I attach pictures.

(*) – R. M. (Mike) Filmer, “A Taxonomic Review of the *Conus boeticus* Reeve Complex (Gastropoda – Conidae)”, *Visaya*, Vol. 2, No. 6 (January 2010)



Still More New Cone species! – A Collector’s Thoughts

Marco Bettocchi

The Cone Collector is currently considered a very good magazine, of great interest for all Cone collectors, particularly since it is aimed mainly (though not exclusively) to collectors. I have emphasized the target users of the magazine on purpose, as they include both those who have dedicated decades to this family, and those who have done so only since recently.

The way I see it, a journal of such importance should have the task, among others, of supplying collectors of all levels (beginners, medium, advanced, specialist) with tools for the assessment of things.

In recent years we have witnessed the description of many new taxa, which should reflect the existence of as many new species of Cones. If the descriptions are presented by malacologists who have studied *Conidae* for a long time, we can be sure that such work has been made with the sole purpose of the advancement of scientific research.

But what are we to think of those descriptions that are made by ad hoc authors and published in journals of no significant malacological importance? And, which is more, without the control of referees?

How many forms and varieties are passed off as “valid species” simply because if they were described in an appropriate manner, they would fail to enter the bibliography? There is in fact room for suspecting that such works are occasionally done having in mind no more than personal gain (since they can be used to boost the market) or winning a place in the history of Malacology, rather than the primary purpose of scientific research.

Now, how can the simple collector get some defences?

If we think of a long-time collector, he will probably read the descriptions, make his own overall assessment and then eventually end it with a good laugh, filing the new taxon among the “joke taxa”.

But what about a neophyte? What means does he have to make his assessment? Practically none and he must therefore accept as valid what is presented to him, without knowing whether it is serious or not.

It is fine that *The Cone Collector* keeps us updated on any news about Cones, including the description of new taxa. But could we not also begin to make some judgments of the merits of all that revolves around the world of *Conidae*?

The stated purpose should be to limit the level of confusion generated by these casual descriptions, giving the collectors a “conistic” panorama that is closer to science and farther away from the market.

The Editor replies:

I obviously agree – as I am sure many do too – with several of Marco’s opinions and concerns.

The discussion about the possibility of describing new taxa in a vast array of publications, many (most?) of which are not protected by a body of referees that assure readers of the quality of the published works, has been going on for ever... or so it seems!

However, we must remember that validity of publication is set by the International Commission on Zoological Nomenclature (ICZN) through a rather complicated set of rules published in its well known Code. There is little any of us can do to change those rules and any drastic change would undoubtedly bring havoc to nomenclature. Even as we are complaining of the lack of referees in magazines accepting publication of descriptions of new taxa (and let’s not forget that the ICZN has been known to accept the validity of the most unlikely publications, even when names were introduced unwittingly, almost by accident – a good example of this is the acceptance of names used in the famous “Shell Cards” published in the 70s by Sally D. Kaicher), the possibility of allowing for descriptions in

electronic publications is being seriously discussed!

I am fully aware of the fact that a number of recent descriptions of “new” species have not met minimal quality standards and that the new names are doomed to end up in synonymy, once a revision is made. It would be tempting to say “I will not publish this in TCC, because it’s not good enough or because what is described as a new species is a mere form of something else”; but where would one draw the line?

It certainly isn’t TCC’s vocation to filter recently published papers, nor to assess their intrinsic quality. Our aim is to inform our readers of what is being done and published in the world of Cones and let each one make their own mind about what different authors have to offer.

A Stepped *Pionoconus fulmen*

Following the article by Giancarlo Paganelli on stepped specimens (which in turn followed Jon Singleton's note on the same subject), we got a new example sent by Julian Joseph:

A stepped *Pionoconus fulmen* Reeve, 1843. According to the data label, it is from a depth of 30-50 meters, off Sakai, Minabe, Wakayama Prefecture, Japan. Its length is 70 mm, maximum width 33 mm. It's quite a nice specimen, especially as the lip does not appear to have been filed.



Technology and the Fall of the Mono-Generic Family

David P. Berschauer

First and foremost I am a shell collector and not a professional taxonomist. I am and have always been attracted to the aesthetic beauty of shells - their shapes, textures, and colors. I began collecting shells as a young boy almost 40 years ago, when I innocently picked up a shell on the beach in Santa Barbara, California. Shortly thereafter I got my first shell book, *Seashells of North America*, by R. Tucker Abbott (1968). I was hooked, and began self collecting shells in earnest. This led me to pursue undergraduate and post-graduate studies in biology, ecology, marine zoology, ecology and evolutionary biology, marine field biology, and genetics. I changed career paths in the mid 1980s so that I did not inadvertently kill my love of shells and my passion for collecting. I saw that the pursuit of science for its own ends was blocking me and keeping me from pursuing what had began as a beloved hobby. That said, my shell collection has grown by leaps and bounds in the last 25 years. I enjoy my shell collection on a frequent basis, when time permits me the leisure.

Although I consider shell collecting a hobby, my wife and teenage children call my collection a "museum." I have what is commonly called a reference or research collection, with over 120 drawers covering some 165 or more families of mollusks. The family *Conidae* has always been one of my favorites, harkening back to the first *Conus californicus* Reeve, 1844, which I collected on the beach in Santa Barbara in the late 1960s. Try as one might I have not been able to keep my interest in science for its own sake from spilling over to my shell collection; probably because I spent a few years performing "1099" research studies at the UCI Museum of Natural History (affectionately known as "the dead bird museum") working under the guidance of the Curator Gordon Marsh, on their Malacology collection. One of my pet peeves over these decades (particularly with the *Conidae*) has been the preference of many of the experts in the field of retaining archaic genera to describe all of the species in a large and diverse family.

The description of new species, the identification of

specimens, and the curating of museum collections has proceeded relatively unchanged for more than 250 years, using 18th century techniques based primarily on the morphology (shape, texture, and growth patterns) of shells themselves. This is largely in part due to the fact that shells are the exoskeletons of mollusks (the soft parts are rarely retained), often collected by people other than those who are later tasked with identifying them and integrating them into a collection.

Shell collecting also grew out of a pastime of wealthy people who kept curio cabinets and often hired others to collect the shells, identify them, arrange them in an aesthetically pleasing manner and illustrate their collections for their self-aggrandizement. The science part of shell collecting grew out of this social setting. Over the past two hundred or more years there has been little funding for pure scientific research in the fields of zoology and systematics, therefore it makes sense that little has changed in hundreds of years. It is certainly not deemed a crucial field of study in most universities, by the public at large, or by many scientists. In fact it is increasingly difficult for a student to even find a basic zoology class, let alone one specializing in the study of mollusks. Is it any surprise then that private collectors, shell dealers, and a few lone scientists are leading the way in expanding our knowledge of this fascinating and stunningly beautiful and diverse family?

As a collector I rely on the publications of others, most notably experts in the field of malacology who write popular books used by both professionals and hobbyists alike. On occasion I have been known to haunt the aisles of the university's biological science library looking for a journal article, but this is the exception not the norm some 25 years after I intentionally left the field. Shell dealers have pushed the outer limits of our hobby for the past four or five decades, by finding and selling uncommon to rare choice specimens to collectors worldwide. This has benefited all of us, and perhaps sadly great classic rarities like *Conus gloriamaris* Chemnitz, 1777 are now relatively easy to acquire. It

has been said by some that shell dealers have a vested interest in new species being named - that they are advocates of splitting species and genera for their own financial gain. Others steadfastly refuse to recognize new species and genera, keeping to older taxonomy. This divide, between the so called "splitters" and "lumpers", who are experts in the field of malacology, is an intellectual hurdle for us mere collectors. Who should we believe and follow? It stands to reason that technology and science will provide the answers, and what we need is to understand the basis for the taxonomic divisions rather than blindly believe and follow someone else's lead. This does not mean that we all have to become scientists in order to arrange our shell collections, but it does mean that our hobby necessarily includes some level of intellectual pursuit. Many shell collectors own, or have access to, *A Classification of the Living Mollusca*, by Kay Vaught (1989). Since this book's publication many private collections have been rearranged on a physical level with orders, families, and genera to follow the systematic arrangement laid out therein.

Over the past few decades families of shells with one genus (i.e. mono-generic families) have fallen by the wayside, as science has shown evolutionary, biogeographical, physiological, and genetic differences between species which justify breaking up a large family of shells into more than one genus. The *Muricidae* was one of the first families to have its single largest genus (*Murex*) broken up. Private collectors followed suit and reorganized their collections accordingly. More recently the family *Cypraeidae* (an enormous mono-generic family) was divided into over a dozen subfamilies and three dozen genera based in large part on mitochondrial DNA studies conducted by Dr. Chris P. Meyer at the University of Florida. (Meyer, C. 2004. "Toward comprehensiveness: increased molecular sampling within *Cypraeidae* and its phylogenetic implications". *Malacologia*. 46(1): 127-156.) This too has become widely accepted.

Despite the efforts of professionals over hundreds of

years the family *Conidae* has steadfastly refused to break up into more than a single genus. *Cone Shells: A Synopsis of the living Conidae*, by Jerry G. Walls (1979) was the first recent major attempt to revise the family. On the issue of genera in the family Jerry Walls stated: "Although many subgenera or genera have been devised for the cones, only the single genus *Conus*, with no subgenera, is recognized here. There are certainly very characteristic species groups present in *Conus*, but these commonly have nebulous boundaries that shade into related species groups ad infinitum. Subgenera commonly can only be applied to adult shells, with juveniles falling into different subgenera..." (at p. 31)

Until very recently the last brave soul to attempt a systematic revision of the *Conidae* was the venerable A.J. da Motta, *A Systematic Classification of the Gastropod Family Conidae at the Generic Level* (1991); sadly this great work was not widely accepted as a means of dividing this enormous mono-generic family. The last comprehensive popular book to treat the family *Conidae* as a whole was: *Manual of the Living Conidae*, by Rockel, Korn & Kohn (1995); known as "RKK". Only one genus was used for the entire family, *Conus*, in RKK as there was still insufficient data to explain the diversity of the family.

In light of Meyers work it has been hoped by many that mDNA testing would apply equally well to the family *Conidae* to finally work out the taxonomy that has "kept armies of malacologists happily employed for over two centuries now." (quotation from Bruce Neville in his book review entitled "*Systematic Classification of Recent and Fossil Conoidean Gastropods*", by John K. Tucker and Manuel J. Tenorio, ConchBooks, 2009: a review", published in *American Conchologist*, Vol. 38, No. 1, March 2010).

Nevertheless, it seems that mDNA testing alone has been insufficient to work out the systematics in the family *Conidae*. (Alan Kohn, personal communication.) Many well respected shell dealers too have stayed

away from the foray and refused to break up the genus *Conus* (by some accounts 700 plus species). Schooner Specimen Shells, in its Notes for Checklist of Living *Conidae* states: "Many schemes have been devised to split this 700+ species family into a number of different genera - indeed, you will note below that not a few cones were assigned to various genera in their initial. That said, as Paul Callomon (pers. Comm.) points out, none of these proposals are entirely satisfactory: each use different criterion for their sundry divisions: shell morphology, reproductive details, gastronomic preferences and radulae...we thought it preferable to maintain the standard convention of treating the family as being mono-generic for the time being, given the general lack of disagreement on this point. Nevertheless, we include the genus names under which each species was originally described, for the sake of 'taxonomic accuracy'." (web citation: <http://www.schnr-specimen-shells.com/Notes.html>) The *Conus* Biodiversity Website (<http://biology.burke.washington.edu/conus/>) by Alan J. Kohn and Trevor Anderson, notes that there are more than 500 recognized extant species of *Conus*, out of 3,253 species names published between 1758 and 2009; nevertheless only the genus *Conus* is recognized for the entire family. Is DNA barcoding the answer?

In a recent published interview in *The Cone Collector*, Alan J. Kohn indicated that there is a complicated taxonomic problem which has not been solved yet, stating: "Many attempts have been made to subdivide the genus, starting with Linnaeus ... [the] problem is that the schemes of different authors have been based mainly on single character sets: shell shape, shell sculpture, shell color pattern, radular teeth, or DNA sequences. Each basis gives rise to different logical but conflicting schemes. Because the generic/infrageneric classification is not yet resolved, it seems most rational to continue to consider all the species in a single genus. Of course these data also show that some species are more closely related than others, and some day a bright student may show that one scheme for subdividing the genus should be accepted because it explains most of the data on

diversity and leaves out the fewest. This is of course how theories become accepted in all of science, and systematics is no exception." (*The Cone Collector*, No. 11, July 2009, "Interview with Prof Alan Kohn", by David Toutou, at p. 29.) This of course begs the question, is *Systematic Classification of Recent and Fossil Conoidean Gastropods*, by John K. Tucker and Manuel J. Tenorio, the seminal work that we have all been waiting for? Are these authors the "bright student" whom Dr. Kohn alludes to?

This new classification scheme for the *Conidae* appears to have been accepted and embraced by at least some members of the shell collecting community. One major website has used the Tucker & Tenorio scheme to subdivide the superfamily *Conoidea*, and the family *Conidae*, and has rearranged its entire website to fit the Tucker & Tenorio systematics: Hardy's Internet Guide to Marine Gastropods (web citation: http://www.gastropods.com/Taxon_pages/SuperFamily_CONOIDEA.shtml) World renowned malacologist Guido T. Poppe has weighed in on this debate, stating: "Like many other families the "*Conidae*" have been mistreated and we find shells such as *Conus marmoreus*, *Conus bullatus* and *Conus articulatus* in the same genus. A quite unbelievable situation in the 21st century. The more so, after a clear cut out of groups emerging from the tremendous work on radulae by Gabriella [Raybaudi] and Emilio Rolan in *Argonauta*." (*The Cone Collector* No. 11, July 2009, Guido T. Poppe, *Conidae in the Philippine Marine Mollusks Volume II* (*), at p. 58.)

What is Dr. Alan J. Kohn's position on the Tucker & Tenorio scheme? Is Dr. Kohn merely being a "lumper" and/or are John K. Tucker and Manuel J. Tenorio merely being "splitters"? Worse yet, do Turrids really belong in the *Conidae*? Do we as cone collectors really care who is right in the end? Ultimately the detailed scientific analysis required by modern systematics is simply beyond what we aesthetic collectors need to be involved with. The questions of who is right and who is wrong will sort themselves out as they always do in

science, often at glacial pace. We can rest assured that the mono-generic family with *Conus* as its sole genus will fall – it's just a matter of time and science. So how to arrange your own collection – your guess is as good as mine.

Some Notes on *C. episcopatus*

Mike Filmer

This is a short article on *C. episcopatus* following David Toutou's interesting article on page 7 of *The Cone Collector* no.13.

Like David I have been fascinated by this species for very many years. In fact, I first had discussions with Bob da Motta in the late 1970's about this and what was then called *C. episcopus* Hwass, 1792. At that time, we were beginning to think that this was a different species. I have 80 specimens in my collection from the following countries – Seychelles; Mozambique; Madagascar; Kenya; Tanzania; Comores; Red Sea; Maldives; Thailand; Indonesia; Philippines; China; Marshall Islands; Papua New Guinea; New Britain; Vanuatu; Solomons; Cook Islands and Samoa. In a number of these places I have collected the species myself – always, for me (I do not dive), in shallow water, under coral slabs or small to medium sized rocks often found in pairs and as David says never buried.

For the information of your readers I attached photographs of a few interesting specimens from some of the above locations. I agree with David that specimens from the South West Pacific do tend to be narrower and have higher spires. However both forms seem to occur in South East Asia.

Figures

- 1) South West Thailand. 84.5 x 39.0 mm. Under rocks, 1 meter, Raya Island, off Phuket Thailand. (specimen does not have tiny tents)
- 2) Samar Philippines. 84.5 x 36.4 mm. Habitat unknown, Palapag, East Samar, Philippines ex dealer. (specimen has the larger tents similar to specimens from the Western Indian Ocean and a few tiny tents).
- 3) Hainan China. 75.4 x 36.0 mm. In sand, under slabs low tide, Hainan Island South China, ex da Motta. (specimen does not have tiny tents).
- 4) Moluccas Indonesia. 78.0 x 34.6 mm. Habitat unknown, Ambon, Moluccas, Indonesia ex dealer. (specimen does not have tiny tents but another specimen does have a few).
- 5) Samarai PNG. 71.2 x 32.0 mm. Habitat unknown, Samarai Papua New Guinea ex dealer. (specimen does have tiny tents).
- 6) Kwajalien Marshalls. 71.0 x 32.0 mm. in sand, under rocks, 5 meters, Kwajalien Atoll, Marshall Islands ex dealer. (specimen has a few tiny tents).
- 7) Tulear Madagascar. 83.3 x 39.10 mm. Habitat unknown, Tulear S.W. Madagascar ex dealer. (specimen has huge white tents and some tiny ones).
- 8) Tulear Madagascar. 2. 70.3 x 34.2 mm. Habitat unknown, Tulear S.W. Madagascar ex dealer. (specimen does not have tiny tents).
- 9) Sanala Mozambique. 64.0 x 27.5 mm. in sand, under rocks, shallow water, Sanala Mozambique ex da Motta. (specimen has a very few tiny tents on basal part).



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Note on C. episcopatus continued...



7



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

