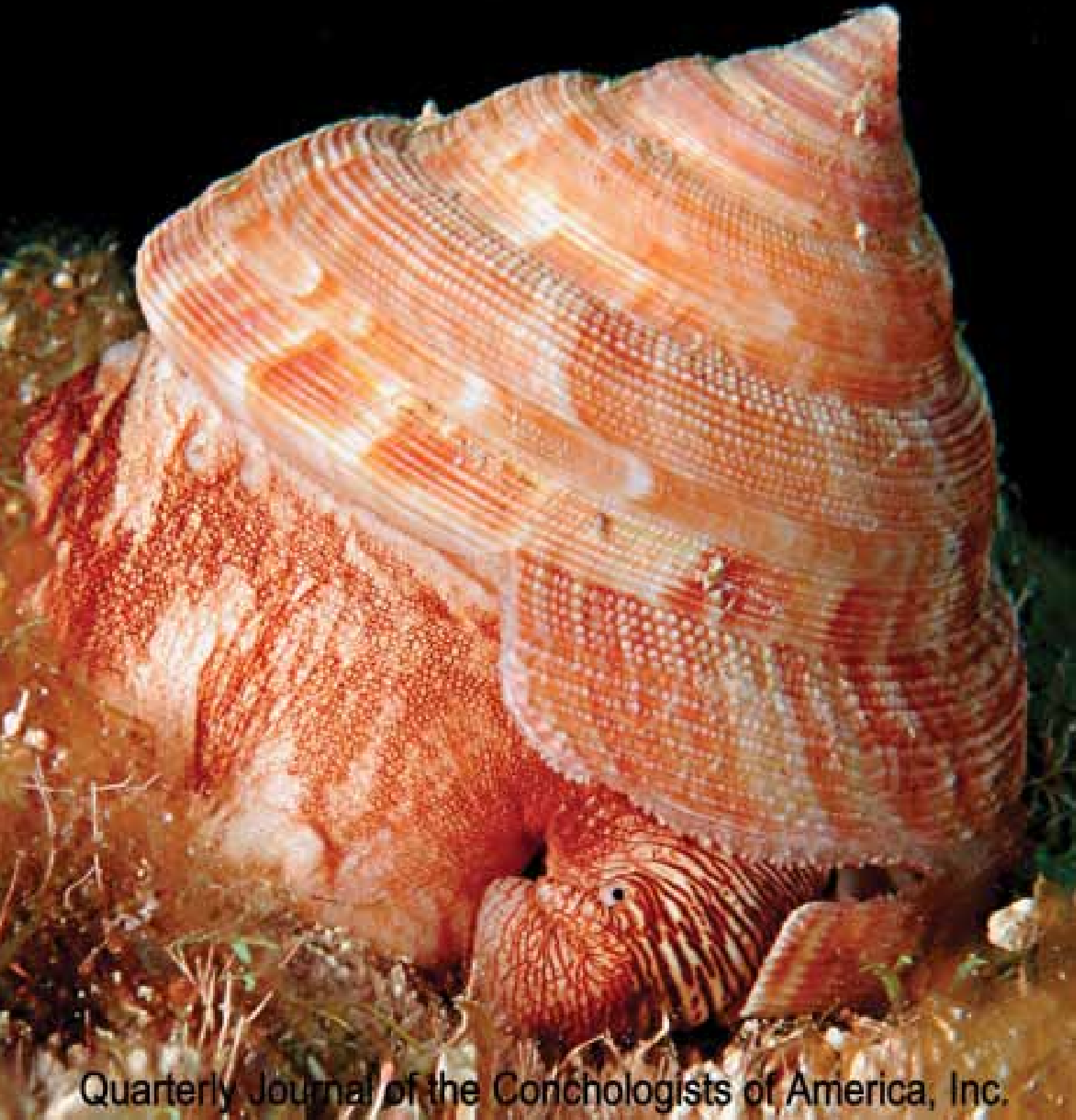


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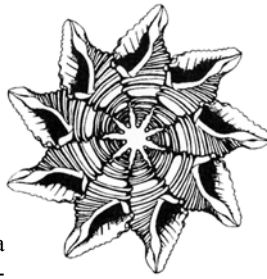
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*American*  
**CONCHOLOGIST**



Quarterly Journal of the Conchologists of America, Inc.

# CONCHOLOGISTS



# OF AMERICA, INC.

In 1972, a group of shell collectors saw the need for a national organization devoted to the interests of shell collectors; to the beauty of shells, to their scientific aspects, and to the collecting and preservation of mollusks. This was the start of COA. Our membership includes novices, advanced collectors, scientists, and shell dealers from around the world. In 1995, COA adopted a conservation resolution: Whereas there are an estimated 100,000 species of living mollusks, many of great economic, ecological, and cultural importance to humans and whereas habitat destruction and commercial fisheries have had serious effects on mollusk populations worldwide, and whereas modern conchology continues the tradition of amateur naturalists exploring and documenting the natural world, be it resolved that the Conchologists of America endorses responsible scientific collecting as a means of monitoring the status of mollusk species and populations and promoting informed decision making in regulatory processes intended to safeguard mollusks and their habitats.

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**Front Cover:** *Petrotrochus quoyanus* (Fischer & Bernardi, 1856) taken at 880 feet in Trujillo Bay, Honduras in 2011. This is probably the first image of the living animal. This species seems limited to the Caribbean and is seldom seen on dealer lists, much less alive and crawling on the substrate. Photograph by Charles Rawlings.

**Back Cover:** An etching of three shells by Chicago COA member Rebecca Gray Smith. This is an intaglio etching plate created by the artist. The intaglio etching process was invented in the 1400s and the plate is usually copper or zinc. Both Rembrandt and Picasso used this medium.

## Editor's comments:

First a couple of corrections from Don Cram concerning his article, "Early taxonomic history of *Notocypraea* Schilder, 1927," in the last issue, Vol. 41, No. 2, June 2013. On page 4, paragraph 1, lines 6 & 7 - the date for Schilder is 1961 (not 1962). Then, on page 6, column 2, 8 lines from the bottom - delete 1925.

And now to this issue. Our front cover is again provided by Charles Rawlings (see his *Neptunea* award on page 21. A very rare photograph of a rare species, *Petrotrochus quoyanus* (Fischer & Bernardi, 1856). The back cover on this issue is the etching plate of three shells by Chicago COA member Rebecca Gray Smith.

Our first article is a fun travelogue by Marcus Coltro to Kiritimati, or Christmas Island. I follow this with a review of a new book on pen shells (Pinnidae), all 55 or more species! Then Roland Houart and Sandro Gori bring us a new color variation in the diminutive *Muricopsis principensis* Rolán & Fernandes, 1991. Kristina Joyce has two interesting tales from Japan. One is an introduction to Mitsuo Chino, President of the Tokyo Malacological Society and the other a bit about the shell collection of His Majesty The Emperor Showa of Japan. We have a report on the very successful Sarasota COA 2013 convention and the awarding of the 2013 *Neptunea* Awards. Then we have an interesting COA grant report by Nicholas Carey that looks at changing habitat and its effects on three chiton species. Gene Everson provides a pictorial review of shell collecting from A to Z, Paul Kanner shows us an interesting find with *Conus adamsonii*, and we have some information about the COA Grant Program and the grants for 2013. Sadly we have to report on three shellers no longer with us, including Sybil Burger with whom I shared many a COA banquet dinner and late evening drink (and shell tales). I threw in a side bar on the taxonomic terms "available" and "valid." Both Harry Lee and Richard Petit have corrected me on the use of these terms in the past and I thought I might as well share my newfound knowledge. Our last pages are a reproduction of the pamphlet provided for the COA 2014 Convention in Wilmington, North Carolina. We will have more information in the next issue or so, but it really does look like it will be a great time.

*Tom Eichhorst*

# Have you heard of Kiritimati?

Marcus Coltro (photos by author)

Have you heard of Kiritimati? It is also known as Christmas Island (do not confuse it with the island of the same name in the Indian Ocean). It is part of the Republic of Kiribati, about 2,000 kilometers South of Hawaii. It is the largest coral atoll in the world, about 150 sq. miles in area (one of 33 atolls and islands in the republic). The British conducted nuclear tests near there in the 1950s and the US conducted a similar test in 1962 (I did not find any glowing shells though).

In their language, Gilbertese, “ti” sounds like “ss” so Kiritimati sounds like Kirissmass, or Christmas! It is the first place in the world where the time zones start the next day, although it is on the same longitude as Hawaii. So when I left Honolulu on Tuesday afternoon I arrived on Kiritimati on Wednesday afternoon, losing one day. On the way back, I left Wednesday morning and arrived at Honolulu one day earlier, Tuesday morning - time travel!

Why Kiribati? The idea of going there was very appealing since there are few or almost no shells from that place in collections (do you have any?). I also found it odd that Bunnie Cook never went there, since it is not very far from Honolulu.

You can get there flying from Fiji or Honolulu. There is one flight per week on Wednesday operated by Air Pacific. Most (if not all) of the tourists are fisherman looking to catch large trevally or kingfish (*Caranx* spp.) and bonefish (*Albula* spp.) found inside the atoll. While searching for information on the Internet I came across a company that offers packages including flights and hotel. They give a brief description of the island and their Q&A section reads, “What to do on the island if you do not fish? Nothing, don’t go.” Well, I was certainly the only person among the tourists that did not bring fishing gear...

The first step was getting a permit to collect shells - a very bureaucratic process, but I finally got it. The flight from Honolulu took 3 hours and arrived at Cassidy “International” airport. I think my office is bigger than the airport. On the same flight I recognized the Spanish accent spoken by several people. They were from Ecuador and were recruited to crew one of several tuna boats that were docked on the island.

After passing through customs (and getting a new exotic stamp on my passport) I looked outside for my



**Approaching Kiribati or Christmas Island from the air. This is the largest coral atoll in the world, one of 33 islands or atolls in the Republic of Kiritimati. With a population of over 100,000, the republic has evidenced concern about climate change and subsequent rising sea levels.**

transportation to the Captain Cook Hotel. There was a “shuttle” waiting where I met two American tourists coming to... fish, of course. The “shuttle” was a truck converted to carry passengers on the back.

The island economy is based on copra (dried coconut pulp). There are about 9,000 inhabitants. Roads are not well maintained, but are ok. I should say “is” ok, since there is only one paved road. It took a few minutes to get to the hotel, which is beachfront (duh, what else on an atoll?). I really did not care much to see my room, so went straight to see the ocean a few meters away. Not the best place to snorkel, lots of waves crashing on the beach.

The room was very satisfactory, two beds, everything clean, a fridge, and air conditioning. The only thing I did not like much was the fact that hot water was scarce. Yes, I like to take hot showers, even in such places. Try snorkeling for 5 or 6 hours and have only a cold shower afterwards, but no problem. Although the room seemed very clean, I always like to use a can of bug spray that lets go all of its contents after you break the seal (a fogger). You just have to leave the room closed for a couple hours and it will be protected for months against roaches and other insects.

It was already dinner time so I went to the restaurant where I met “all” the other four hotel guests. John (a guy



**The beach outside the Captain Cook Hotel. It is difficult to put a high enough price on having such an expanse all to one's self.**



**Another of the island beaches.**

that organizes fishing trips), Bill and Craig (two American fishermen who came with me on the plane), and Kent, a volunteer doctor who comes to the island once per year to help at the local clinic. I was not expecting much for meals and thought it would be a good chance to lose weight. I proved mistaken, as all meals were quite good and I did not lose an ounce. While talking to my new friends I learned some good tips about the island, especially how to move around. I wanted to go to London to snorkel (I never thought I would write such sentence) and had no idea how to get there, since the only rental car from the hotel was already rented. They have a bus on the island, but they told me it is not very reliable and I could wait for hours for it to come. So Kent offered me a ride the next morning when the clinic's driver came to pick him up. So all was set. I could try to go to Paris instead of London, but the roads were closed - yes, besides London there is a Paris (and there is a road between them!). There is also a Poland and a Tennessee (go figure that last one).

I woke up early and got ready to leave, just had to wait for the clinic's driver. Since the island was colonized by the British, they drive on the "wrong" side of the road, I mean, on the left side (the opposite of "right" is "wrong," isn't it?). I asked our driver how many kilometers of distance it was between London and the hotel, to which he replied "30 minutes." And what about distance? "I only know by time." Checking Google Earth, it is about 20km and it did take 30 minutes, as he said.

Ken was nice enough to let me use the clinic's bathroom to gear up and leave my dry stuff while I went snorkeling a few meters away. As Air Pacific was very strict about luggage weight, I could not carry lead weights. So I took a weight belt pocket model, where you can insert lead pellet bags, and used some bags of beach sand (yes, I am a



**The local health clinic, lightly staffed, but certainly not over-crowded.**

modest genius). The water was somewhat murky and the bottom was plain sand with a few grass patches and small stones near the shore. The only places shells could hide were scrambled masses of old electric cables and an old oil pipe, all rusted and broken. Kind of disappointing - not many shells, except for *Cypraea moneta*, *Conus pulicarius*, *Conus lividus*, *Terebra maculata*, *Nerita plicata*, and a few other small shells. And no sharks, even after the locals alerted me before I entered the water. After 5 hours snorkeling I went back to the clinic to get my ride back to the hotel.

I asked Ken why there was no coral in the lagoon and he said the British dredged the atoll decades ago, which destroyed most everything. The only place with life would be Cook Island at the entrance of the atoll, but it is a sanctuary. Looking on Google Earth again, I noticed that Paris, on the

Some of the finds from Kiritimati



*Atrina vexillum* (Born, 1778)



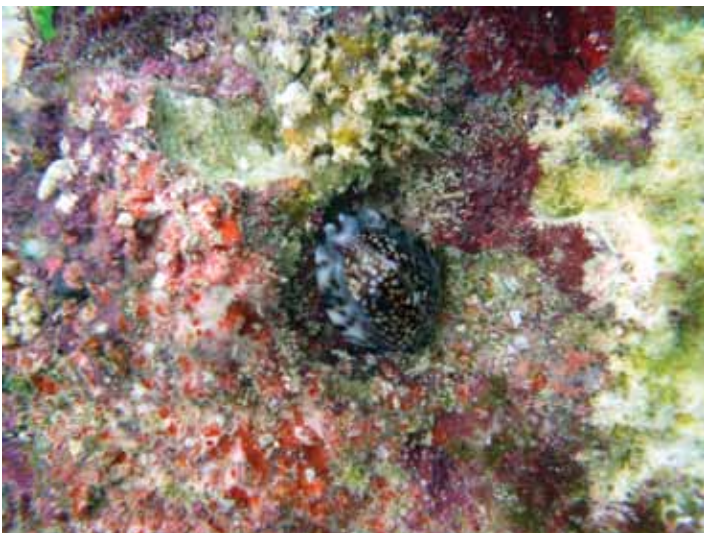
*Conus* egg case



*Cypraea moneta* Linnaeus, 1758



A very colorful hermit crab hangs on in the current.



*Cypraea depressa* Gray, 1824



*Turbo argyrostomus* Linnaeus, 1758



**My weight belt with sand, rather than lead weights costing high airline fees.**



**One of the colorful *Tridacna maxima* Röding, 1798.**

opposite side of the entrance, would most likely be the same as London (another sentence I never thought I would write), so my alternative would be the beach in front of the hotel.

I got up very early next morning and walked on the beach looking for signs of interesting shells along the shore line. I heard people had found beached *Conus adamsoni* there. I saw a local woman coming with a bag in her hands. She asked me what I was doing and I explained I was looking for shells. She then opened the bag and inside were lots of fantastic shells, including some live taken *Conus adamsoni*! I was so thrilled that I could not believe - until I looked at her once again and she turned into Gisele Bundchen! Then I woke up, damn...

In real life, I walked about two kilometers where I saw a place where the reef was a bit further away from the beach and the waves seemed not as bad. It was not very easy to walk the long distances carrying all the gear, especially on soft sand with rubble. I found a spot under some trees where I could gear up and leave my dry clothes, water, and cookies (my lunch), behind the bushes. Not too important as there was no one else on the whole beach and I think I was the only person snorkeling on the whole island after hearing the hotel clerk ask, "Are you going to snorkel with all the sharks?" I really did not care about the sharks, but the waves and the current were awful. I think that was probably one of the most difficult places to collect shells I have ever been. Which may be the reason Bunnie Cook did not go there, despite the short distance from Hawaii.

I had to continuously grab something, a rock, or coral, or stick my knife in the sand in order to stay in place. Even fish were struggling to swim. At least I was finding shells, and the place was much nicer than London, lots of coral and tropical fish. I found *Cypraea depressa*, *Cypraea poraria*, larger *Cypraea moneta*, a few different *Conus*, large *Thais armigera*, a few rare *Latirus amplustre*, *Bursa bufonia*, and several smaller species. I saw many beautiful

live *Tridacna*, but did not collect any, only taking several pictures. By the way, even taking pictures was difficult since most of the time I could not let go with either of my hands. I almost destroyed my camera, now covered with scratches.

As usual, the best shells were near the outside reef where the current was strong. The closer I got, the worse it became. The current was so strong that I almost lost my mask and one of the waves threw me against a coral head. I was very glad I was wearing a 1 mm neoprene wetsuit. The hit was so hard that I almost tore the suit and cut my leg. It would not have been nice to bleed as I saw some sharks in the deeper water behind me. In this rough area I found large *Turbo argyrostomus*, a few *Cypraea caputserpentis*, dark *Cypraea depressa*, and some *Astraea*. I thought about swimming past the reef, but I was not sure how strong the current was and I did not want to go back to Honolulu by sea.

After 6 hours I left the water, much happier than the previous day! But I still had to find an alternative for the following days. I got to the hotel when the sun was setting and I sat for a few minutes on the beach to appreciate the sunset. I did that the whole trip. This change of routine is what keeps me going, from a city with more than 20 million people to a deserted beach! I always make sure to store those moments in my brain so I can use them on a stressful day at the office, or maybe one day mentally teleport back if I acquire supernatural powers. I might not ever get rich selling shells, but the life experience, places I go and people I meet, pays for any trouble along the way. And these paradises make me realize how beautiful life can be.

I got back to my room to take a shower and check my findings. Then went to dinner with my new friends, they were also very excited from their fishing day. They caught several fish and explained to me how it works. They each pay a private guide who stands knee-deep in the water a few meters from the group. When the guide sees a fish they yell "45 yards, 2 o'clock" - meaning the direction and distance



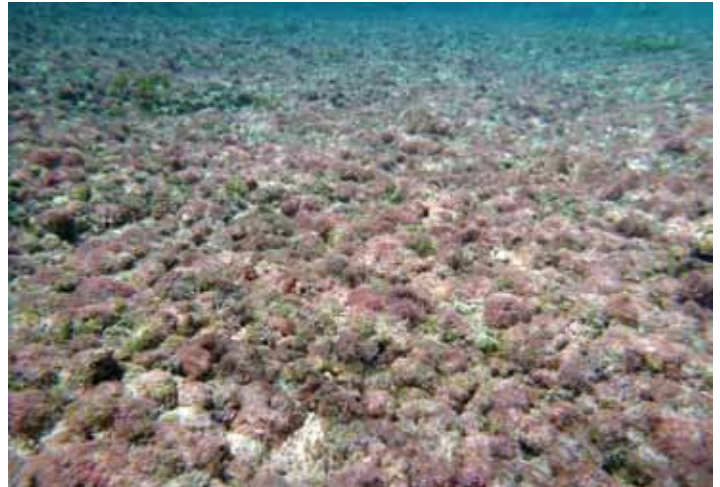
**The outer coral reef had extremely strong currents.**

the fishermen should cast the line to catch the fish. The thing is, they are only allowed to take a picture and then must put the fish back into the water. Nothing can be brought back to the hotel. The meal finally arrived - fresh sashimi tuna and lobsters, what a treat!

The next day I tried to look for land shells on the road opposite the hotel, towards a place called Bathing Lagoon (belongs to the hotel). On the first day Kent drove me there on the way back from the clinic to check on a few bee hives he was farming. He is teaching the locals to farm and produce honey commercially. I knew it would be a long walk, about three km on a deserted road and they told me to take care since there are several small roads and I could get lost if I took a wrong turn. Since I am so smart, intelligent, and have a fantastic sense of direction (lies...), I did not bother to check the map and relied on my memory. The road was flooded in several parts since we had a severe thunderstorm the previous night, but it was walkable. I did not find a single land shell and I guess the reason is the quantity of land crabs of all kinds, sizes, and colors. They probably eat anything they can find, including land shells. I kept walking towards the lagoon anyway. Of course I took a wrong turn and ended far from the lagoon, deep in the island. Since I was not going to find anything, I went back to the hotel and went snorkeling once again at the same spot from the previous day.

I tried to go a bit further from the hotel and found another place that looked ok. The difference was that there were no corals, just a “fluffy” pink bottom. I looked closer and noticed it was made of a gazillion small mussels covered by pink algae. After a few minutes the current was getting bad once again so I moved closer to the previous place where I could find “anchoring” spots to grab and stay in place. I found a few shells and only snorkeled for four hours.

The hotel has several rooms in the main building, also several bungalows on the property. I was in the main building and it was easier to walk to the restaurant and closer to the Wi-Fi hotspot (yes, they had one!). While waiting for dinner I saw the Ecuadorians having snacks and beer in



**A carpet of pink mussels.**

the lobby. I’d talked to them in Spanish and they were very happy to learn that I have been to Ecuador several times and have many friends there, so they invited me to join them for a drink. They were recruited by a big fishing company that hires fisherman from the West Americas, from Mexico, down to Chile. Crews stay onboard the fishing boats from a few months to a couple years. It is a tough life. They only come to land once in a while for a couple days, then go back to the rough sea. They told me the waves sometimes cover the entire boat, like those in the TV series *Deadliest Catch*, where they go to Alaska to fish for crab. And I was whining about snorkeling in rough seas. After (several) beers I ate something and went to bed (and I wonder why I did not lose weight on the trip).

I still had a couple of days to collect shells and the only option was going back to the same places. I tried walking the other direction, but it was even worse. I also wanted to make a night snorkeling excursion, but adding the facts that I spent most of the day snorkeling and that the best collecting place was a bit far to walk at night (no lights whatsoever) I gave up on the idea. Maybe I am getting old...

I saw several beached species on the shoreline that I did not find while snorkeling. They most certainly came from deep water behind the reef. To make a proper collecting trip to this place it would be necessary to have a boat and tanks (I wish Tony McCleery had not sold his sail boat) and more time. One week is not enough.

The flight back to Honolulu left very early and the customs people kept us waiting for a long time at the “International Airport.” The flight was delayed as well. They check every piece of luggage (looking for I don’t know what, as there is nothing to take from the island).

I can say this place is not for the faint-of-heart, due to the tough collecting, but I was able to find enough material to make the trip worthwhile. I also to put a pin on another exotic place on my map!



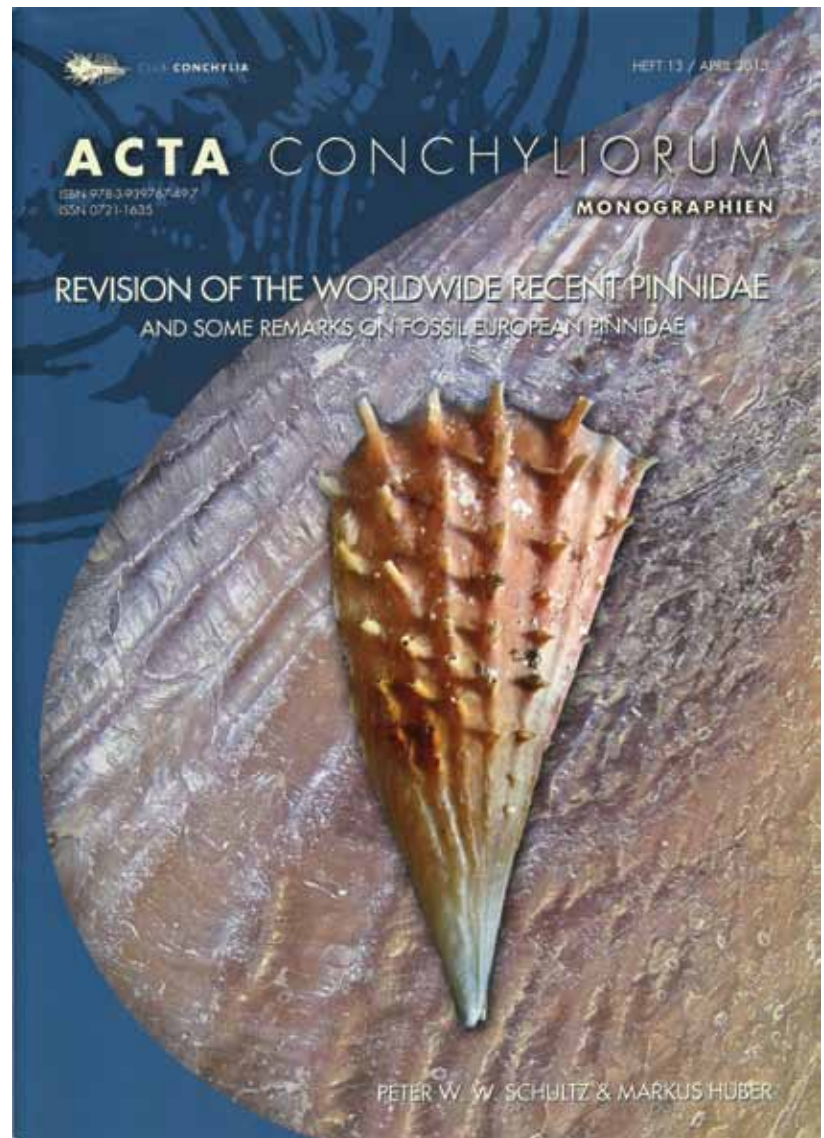
# Revision of the Worldwide Recent Pinnidae and some remarks on fossil European Pinnidae

by Peter W. Schultz & Markus Huber, 2013. ACTA Conchyliorum Monographien, No. 13, Club Conchylia, softbound, 8 1/4 x 11 3/4 in, ISBN 978-3-939767-49-7, 100s of color plates & B & W illustrations, €32.00, Conchbooks (www.conchbooks.de), 164 pages.

## Review by Tom Eichhorst

I would imagine that most of you reading this, if asked about the total number of Pinnidae species, would respond with a number somewhere around a couple of dozen or less. This is understandable as most references (all are general references and not specific to this family) would state something like, "A few species in three genera..." (*A Collector's Guide to Seashells of the World*, Eisenberg, 1981) or "About 25 known species..." (*Compendium of Seashells*, Abbott & Dance, 1990). The exception would be the recent *Compendium of Bivalves*, Huber, 2010, which states, "...more than 50 highly variable species...in need of an in-depth revision." This monograph is that revision.

Schultz and Huber recognize 55 valid pinnid species, plus two that are still questionable, but may be valid. This is a monumental work and the authors present an in-depth discussion of each species, including taxonomic history, type material, synonyms, habitat, range, morphology, comparison to similar species, and general discussion notes. This is accompanied by large, clear, full color photographs of each species (most often from museum collections), plus a number of illustrations from previous references. Fossil history and phylogeny are also covered. For those serious bivalve fanatics, this book includes very specific comments on shell structure, muscle scars, and valve coloration. Finally, as a real bonus for those of us not intimately familiar with pinnids (meaning most collectors), at the end of the book are a couple of identification guides that once you use, you will wonder why they are missing from other shell books.



First is a chart that lists the Recent species along one axis and identifying characteristics along the other axis (e.g. shell outline, color, spines, etc.). This is very useful when comparing two similar species. The next identification aid is, for my purposes anyway, worth the price of the book. Near the end of the book are two color plates showing all of the Recent species. At a glance you can compare and contrast features of a shell in hand with all known species and quickly either identify your shell or narrow the identity down to a couple of similar species. I had a couple of unknown pinnid specimens in my collection and found them in seconds using these plates. A quick flip back to the aforementioned chart confirmed the identification. Paging back to the complete species write up provided lots of details about my "new" acquisitions.

This is obviously the definitive work on this family and a required reference for any collection or research in reference to the Pinnidae. The price is reasonable, buy it, you will be glad you did.

# Color variations in *Muricopsis principensis* Rolán & Fernandes, 1991 (Gastropoda, Muricidae) from Príncipe Island

Roland Houart

Sandro Gori

**Abstract.** A few shells of *Muricopsis principensis* Rolán & Fernandes, 1991, with color variations are illustrated.

**Introduction.** Annobón, São Tomé, and Príncipe Islands are a group of small islands, relict of an ancient volcanic mountain range situated off the west African coast. They have long been known for the high level of endemism in their biota and some taxa are shared in the latter two islands (Houart et al. 2011). Among other taxa, eight new species of *Muricopsis* have been described from this small area (Rolán & Fernandes, 1991; Houart & Rolán, 2001; Houart, 2005, 2012; Houart & Gori, 2008; and Rolán & Gori, 2007). *Muricopsis (Muricopsis) principensis* Rolán & Fernandes, 1991, from Príncipe is a large species, typical for its slender shell with narrow spiral cords, shallow axial sculpture, and black and white color. A few specimens showing nice color variations were recently collected by the junior author. They are commented on and illustrated here.

## Systematics

Family **MURICIDAE** Rafinesque, 1815

Subfamily **MURICOPSINAE** Radwin & D'Attilio, 1971

Genus *Muricopsis* Bucquoy & Dautzenberg, 1882

Subgenus *Muricopsis* Bucquoy & Dautzenberg, 1882

Type species by original designation: *Murex blainvillei* Payraudeau, 1826 (= *Murex cristatus* Brocchi, 1814). Recent; Mediterranean.

***Muricopsis (Muricopsis) principensis* Rolán & Fernandes, 1991 Figs 1-8**

*Muricopsis (Risomurex) principensis* Rolán & Fernandes, 1991: 19, figs 7, 8, 15 & 18.

Type material: holotype 15.05/1112, Museo de Ciencias Naturales de Madrid.

Type locality: Bahia das Agulhas, Príncipe Island.

*Muricopsis (M.) principensis* is a rare species described from and endemic to Príncipe. The type material consists of the holotype and 2 paratypes. The color of the shell in the original material was described as black with the exception of the apex and the base (siphonal canal), which are white.

A few specimens were examined since then and all of them perfectly match the original description. Recently, however, one of us (SG) had the opportunity to collect a few

additional specimens. They are similar to the holotype and the shell morphology of this species seems to be very stable with little variation in shape, size and sculpture, but it seems noteworthy to us to mention and to illustrate some color forms that have not previously been described.

A shell showing the typical color (Figs 1-2) was found together with an almost entirely black specimen, except the apex (Figs 3-4). While uniformly white specimens (Figs 5-6) were collected together with a specimen with a typical white apex and siphonal canal, but of which the main color is light brown instead of black (Figs 7-8). All these specimens were live collected in 2013.

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**Figures** (all coll. S. Gori)

**1-4.** Príncipe Is, Pedra Galé north, under rocks and corals, 10 m, 04 March 2013. **1-2.** 12.2 x 4.9 mm. **3-4.** 13.5 x 5.1 mm.

**5-8.** Príncipe Is, Ilheu dos Mosteiros, 15 m, 25 February 2013. **5-6.** 13.3 x 5.3 mm, **7-8.** 14.3 x 5.4 mm.

# A day with Mitsuo Chino, President of the Tokyo Malacological Society

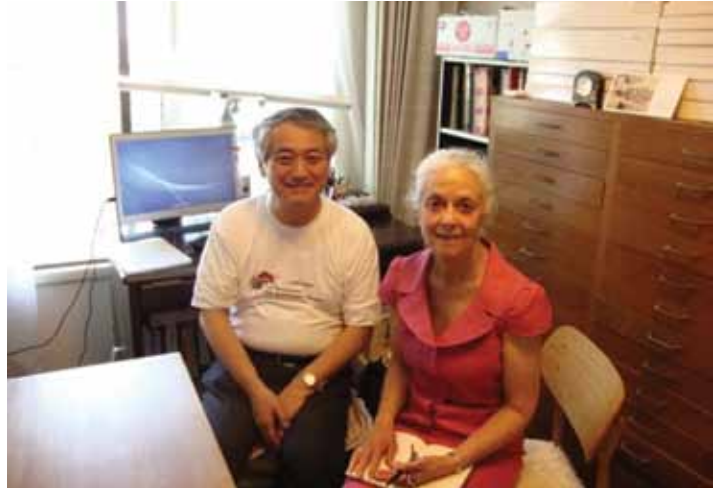
Kristina Joyce

On a Tuesday, June 4, 2013, Kristina and Bill Joyce of the Boston Malacological Club traveled to a suburb near Yokohama, Japan, to meet with Mitsuo Chino, President of the Tokyo Malacological Society; he is also Vice President of the Malacological Society of Japan to represent the non-professional sector for better collaboration between scientists and local shell clubs. Passionate about molluscs, he is fluent in English, lives in a beautiful apartment, and devotes at least one room to molluscs. Larger shells are kept in his parents' home a short distance from the apartment.

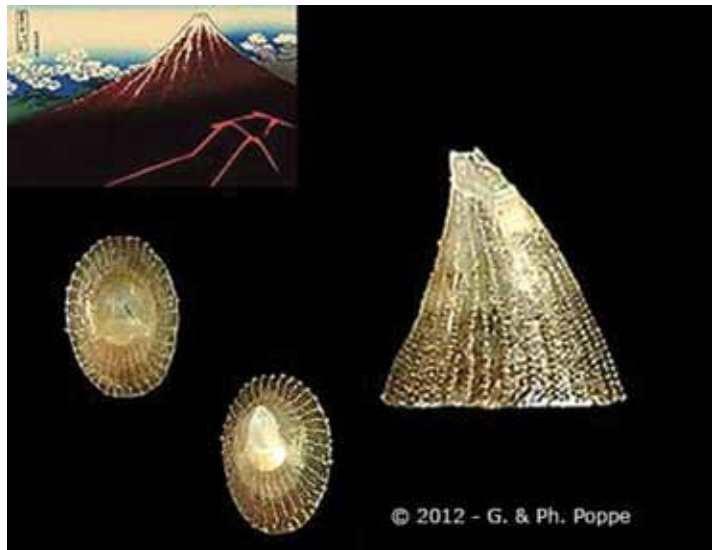
About 10 a.m. the day began with tea and chocolates in the apartment where we talked about the differences and similarities between shell clubs in Boston and Tokyo. Both clubs are interested in their local shells but more so in Japan. Members in Boston do not speak Japanese generally and the same for English in Tokyo. The striking difference was the Japanese club's success in discovering and naming new species. As Mitsuo described the situation, many fisherman (not just in Japan, but worldwide) face a lack of income due to a host of problems. Fishermen will dredge for shells (especially micro shells) to earn additional income. Once the shells are delivered and examined, club members will select the shells to be saved and studied. The fishermen will then dredge for more of these specific shells that are sometimes rare and new species. After many such discoveries, Mitsuo is especially delighted with a 2.2 mm *Cornisepta monsfuji* Chino, 2009, which carries his authorship and resembles a snow covered Mt. Fuji - in Japan an important natural icon, which is now a UNESCO World Heritage Site. This mollusc was collected in deepwater mud off Akune, Kagoshima, Japan, and described in the *Venus* publication of the Japanese Malacological Society. Excellent photography in Japan makes observation of the beauty of small shells possible for a wide audience.

Over a generous tempura lunch at a local restaurant (Mitsuo's treat) conversation continued. He has a wife, Hiromi, two married grown children and five grandchildren, visits his mother in a nursing home, takes care of two family homes, is retired as an auditor from the Japanese insurance industry, and loves to travel, especially to collect molluscs and visit shell shows. He has been to most parts of the globe.

Once back in the apartment, Mitsuo shared books with beautiful color plates such as *World Seashells of Rarity and Beauty* published in 1991 by the National Science Museum in Tokyo; publications such as *Illustrations and annotated checklist of the molluscan specimens contained in the Sakurai Collection in the National Museum of Science and Nature Tokyo*, published in 1995, and many papers from *Visaya* describing some of the new species he has helped

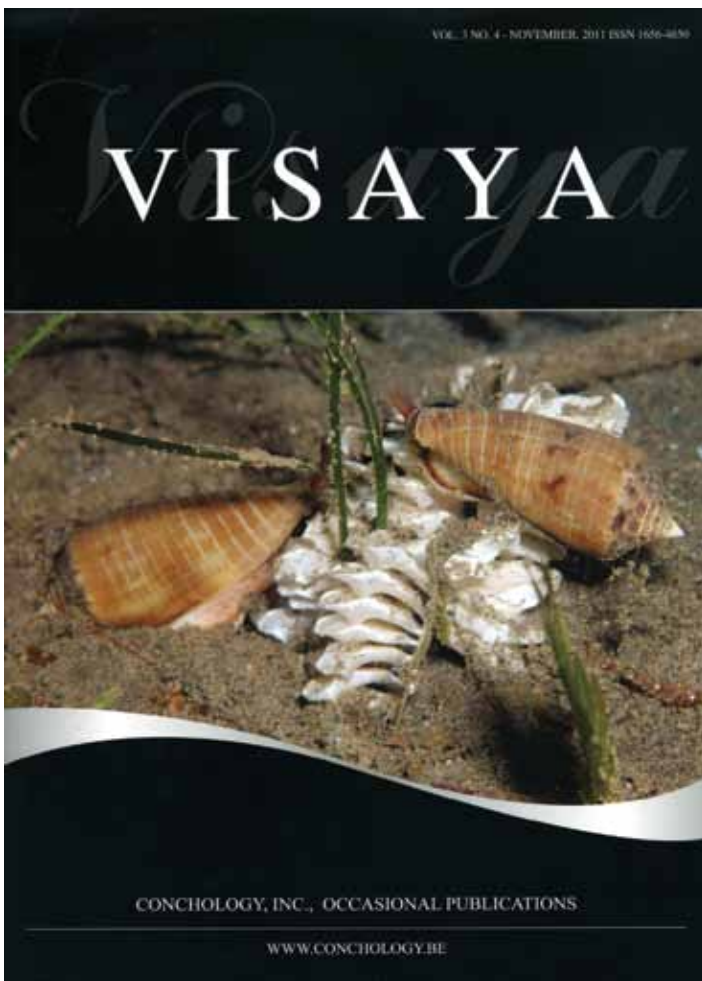


Mitsuo Chino, President of the Tokyo Malacological Society, and the author.



The rare *Cornisepta monsfuji* as shown on the web site [www.conchology.be](http://www.conchology.be). Courtesy of Guido & Philippe Poppe.

describe, such as A New Species of *Conopleura* (Gastropoda – Turridae) from the Philippine Islands, published in *Visaya*, Nov. 2011. Mitsuo also invited viewing of his land, sea, and freshwater shell collections. Especially noteworthy were the *Neptunea* and *Pleurotomaria* which were so beautiful and varied. Exquisite specimens of *Crenovolva (Rotaovula) hi-rohitoi* Cate & Azuma, 1973, dived from 60 meters in Izu, Shizuoka Prefecture, were just visible to the naked eye, but well photographed in a book entirely in Japanese (not trans-



The November 2011 issue of *Visaya* in which *Conopleura latiaxisa* Chino, 2011 is described.



The 1991 *World Seashells of Rarity and Beauty* published in Tokyo.



Mitsuo Chino's specimen racks in his shell room.

For further information about Japanese shells, books, articles, and craft, contact Mitsuo Chino at [mchino@tbj.t-com.ne.jp](mailto:mchino@tbj.t-com.ne.jp). His mailing address is 6-23-18-202, Arima, Miyamae-Ku, Kawasaki, 216-0003, Japan and Tel. & fax 81-44-861-6602.


lated except for the shell nomenclature).

Mitsuo also showed us miniature shell sculptures of flora and fauna made by a friend who would like to market them outside of Japan. The figures are delicate, created without any cutting of the shells, and really enchanting. Examples of past holiday letters that Mitsuo writes every year to his global friends included a note that he has spoken in his club on "How shell lover child becomes adult for joyful shell life." He is now educating his grandchildren with trips to the National Museum of Nature and Science and there is some next generation interest in shells it seems.

This meaningful and informative day concluded with a drive to the train station for Kristina and Bill's return to their hotel in Tokyo. After many thanks and a hope to see Mitsuo in the USA, the Joyces felt privileged with this experience to be part of the world mollusc community.

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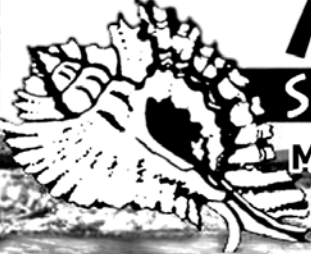
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# The shell collection of His Majesty The Emperor Showa of Japan

Kristina Joyce

The late Emperor Hirohito was born April 29, 1901, died January 7, 1989, and is known in Japan as The Emperor Showa for the era in which he lived. When he was a fifth grade student in 1913 at the Primary School Department of the Peers' School, he saw an enormous collection of shells at a private museum in Kyoto owned by Mr. Yoichiro Hirase, (1859-1925) a pioneer malacologist. This experience led the Emperor to eventually study marine biology and malacology. He carried out his work at the Biological Laboratory, Imperial Household, located in the Imperial Palace (in Tokyo), and in biological field laboratories built for invertebrate study on the grounds of the Imperial Summer Villas at Hayama and Suzaki on Sagami Bay. After his death, his entire collection and library were donated to the National Science Museum (now the National Museum of Nature and Science) and transferred to the Showa Memorial Institute, which was founded in the Tsukuba Branch of the museum in 1993 (four years after his death). [Tsukuba is about an hour and a half by train and bus from Tokyo.] Some facilities and collection rooms in the Tsukuba Branch of the National Museum of Nature and Science are open to the general public on one day of the year. Even then, the Showa Memorial Institute is not open to the public, but only to professional researchers. Dr. Kazunori Hasegawa is Senior Curator of Invertebrates (Mollusca) at the Showa Memorial Institute and is researching small gastropods. See *A Review of Bathyal Shell-bearing Gastropods in Sagami Bay*, Kazunori Hasegawa and Takashi Okutani, Mem. Natl. Mus. Nat. Sci., Tokyo, (47): 97-144, April 15, 2011.\*

The Showa collection is housed in well-designed and kept rooms at the Institute. In one is the drag-net that the emperor employed with a boat in Sagami Bay, an important habitat because of its great diversity of marine fauna. There are various Mollusca with other flora and fauna, photographs, and art displayed in an exhibition room. In the special collections room, types and paratypes of various groups of animals are kept along with the soft parts. Dry shell specimens are preserved in a climate controlled environment, and special cabinets for specimens lock tightly together as a large unit. Once rolled apart, there are drawers with a clear front and inside, each specimen has its own



**The National Museum of Nature and Science in Tokyo, Japan. Opened in 1871, it has had several names over the years (the present name dates from 2007). Much of the Emperor's collection is housed here and accessible by the public. Image from Wikipedia commons.**



**This is a fossil slit shell (Pleurotomariidae) in the museum, both genus and species unknown. Photo by author.**





**Two different sea life displays in the museum. The one on the left (from Wikipedia commons) is quite modern looking with fauna separated into phyla and electronically displayed educational text. The display on the right is a bit dated by modern standards, with portions of the emperor's collection on display. Photo by the author.**

plastic box with computer data. In another area, the wet preservation room for example, nudibranchs have been recorded with hand paintings of original color and pattern, fixed in formalin, and then preserved in alcohol (these specimens are not usable for DNA studies). Also in the facility are the Emperor's books, papers, various publications, and the on-going work of the Institute; all are variously used to discover, describe, and photograph new species of mollusca.

In July, 1971, Drs. Tokubei Kuroda, Tadashige Habe, and Katsura Oyama published *The Sea Shells of Sagami Bay* from the Biological Laboratory in the Imperial Household, based on the collection compiled by the Emperor. This 741 page book with 121 plates (105 in color) describes, in English and Japanese, Mollusca named for the Emperor and also many that he studied. An expensive book (now at least \$300) it is still available in Japan, on the web at Amazon, through inter-library loan, and at Harvard University (from an imperial gift). Inside the volume is the story of the slit shell, a deep water marine gastropod, long believed to be extinct. Beautiful examples of 20 million-year-old fossils (the family name *Pleurotomariidae* was primarily proposed by paleontologists) are on view in the National Museum of Nature and Science in Ueno Park, Tokyo. The slit on the last whorl of the shell is for elimination of waste from the mantle. Since the first more recent Japanese Pleurotomariid was discovered in Sagami Bay in 1887, there are now seven living species known from Japan: *Mikadotrochus hirasei*, *M. beyrichii*, *M. salmiana*, *M. gotoi*, *Entemnotrochus rumphii*, *Bayerotrochus teramachii*, and *B. diluculum*. At the National Museum there was also a temporary exhibit on schistosomiasis, a devastating human disease spread from rice paddies where freshwater snails carry the parasite *Trematode schistosoma*. Photos, mollusk specimens, and descriptions

of the Emperor's work were prominently featured in that exhibit.

The Japanese Imperial tradition of scholarly work is carried on by the eldest son and reigning Emperor, Akihito, an ichthyological researcher who has published more than 30 original articles in scientific journals and described new species. He has specialized in the taxonomy of the family Gobiidae. In 2005, a newly described goby was named *Exyrius akihito* in his honor. Crown Prince Naruhito, eldest son of Akihito, is interested in water policy and is the honorary president of the Third World Water Forum. He also gave the keynote address at the Fourth World Water Forum and a commemorative talk at the First Asia-Pacific Water Summit, "Humans and Water: From Japan to the Asia-Pacific Region."

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\*Additional reading:

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Hasegawa, Kazunori. 2009. *Upper Bathyal Gastropods of the Pacific Coast of Northern Honshu, Japan, Chiefly Collected by R/V Wakataka-maru.* Tokyo: National Museum of Nature and Science. May 2009.

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# COA Convention 2013

Thomas Eichhorst

The 2013 convention of the Conchologists of America in Sarasota, Florida, is now history and for those who were unable to attend, you missed a really great event. I met new friends, touched base with old friends, and shared laughs and shell stories with both. The hard work and long hours put in by members of the Sarasota Shell Club, plus an excellent venue, plus help from quite a few COA volunteers, paid off in a wonderful convention with varied and exciting activities.

Although the actual convention did not begin until the opening ceremony on Wednesday morning, 17 July, there had already been three days of field trips and the welcome dinner on Tuesday evening. Sarasota is a circus town and was the winter home for the Ringling Brothers and Barnum & Bailey Circus from 1927 to 1959, when the circus moved 25 miles south to Venice, Florida. Subsequently, many smaller circuses like Sailor Circus and Circus Sarasota, have called Sarasota home. The town boasts a Circus Museum, a Circus Hall of Fame, and lots of circus-themed events and attractions. Where else would you find a downtown store with a full-sized statue of an Asian elephant at the doorway or a 25-foot statue commemorating the end of WWII? Thus it was no surprise that the welcome dinner featured quite a few COA members in circus regalia and the opening ceremony had a performance by Sailor Circus - jugglers, clowns, and unicycle performers from age 8 to adult.

The opening ceremony was followed by three days of shell programs by both amateur and professional conchologists and malacologists. These programs were interspersed with several silent auctions, workshops, more field trips, shell craft and art displays, and a large table piled with bags of shells for 25 cents a bag. Many of the "cheap shells" were quite common, but there were a few hidden treasures, especially for anyone interested in micro shells. I found four (maybe five) different species of Caecidae and well over two dozen species of Rissoidae.

We were again favored at the Oral Auction by the dulcet tones of COA auctioneers Jim Brunner and Paul Calomon. Over 100 auction items went in just a few hours and more than one person in the audience caught themselves bidding when they meant to scratch an ear. Everyone had a good time and all of the proceeds go toward the COA grant program, which again in 2013 gave away \$15,000 in molluscan-based research grants.

The convention bourse featured over 40 dealers with displays of shells, books, and shell-related items in over 10,000 square feet with bright lights and full tables. There were tens of thousands of quality shells on display with pric-



One of several similar statues sized from life-size (in Oahu, Hawaii) to 25 feet tall (above, in Sarasota) by artist Seward Johnson. The work is based on one of two similar photographs: *V-J Day in Times Square* by Alfred Eisenstaedt or a less well known photograph by Victor Jorgensen (this is the one the artist says he used). The statue is titled with the double entendre "Unconditional Surrender." It was an unexpected surprise located about two blocks from the convention hotel.



A table full of *Cypraea cervus*, now more correctly termed *Macrocypraea cervus* (Linnaeus, 1771), on display at the bourse. These large handsome deer cowries are prized by collectors around the world. They are the largest cowrie (some in excess of 5 inches) and while not rare, they are not easy to collect without SCUBA gear. This along with the color and pattern ensure their popularity.



Chairperson Peggy Williams dressed for the circus. This event worked smoothly because of Peggy, along with Sarasota Shell Club members: Kathie Bishop, Ron Bopp, Donna Cassin, Linda Ervin, Lynn Gaulin, Linda Greiner, Judy Herman, John & Cheryl Jacobs, Duane Kauffmann, Nancy Marini, Sally Peppitoni, Homer Rhode, Dennis Sargent, and Doug Thompson.

es ranging from less than \$1 to at least one *Cypraea* listed at “ten big ones” (\$10,000). There was plenty of material for young collectors just starting out as well as rarities for advanced collectors looking for that special shell.

The closing evening banquet featured a talk by Dr. Henry Chaney (Director of Collections & Research, Santa Barbara Museum of Natural History and past President of COA) titled “The Best Shell Book Ever.” His talk covered a number of shell books spanning the history of shell collecting and finally he presented his selection for the best shell book ever, Tucker Abbott’s “Seashells of the World” (1962). Millions of people, young and old, have poured through this inexpensive, well-illustrated book and marveled at the wonders within. Dr. Chaney had several reasons why he chose this book, but suffice it to say, I would guess that most people reading this have not only read this little “Golden Nature Guide,” but probably still own a copy or two.

The evening ended with the presentation of the COA *Neptunea* Awards for 2013. For service to COA and conchology, the awards were presented by COA Vice President Harry Lee to Dave and Lucille Green, Charles Rawlings, and Marlo Krisberg. Dr. Lee explained the history of the award to the audience and then why each of the awardees’ special contributions were worthy of this award.

So that was the 2013 COA Convention. For those who attended, hopefully this will bring back some fond memories (after all, short term memory is an issue with some of us). For those who did not attend, this is what you missed. Want to get in on the action? Next year’s COA convention is scheduled for 10-16 August 2014 at the Hilton in Wilmington, North Carolina. I hope to see you there.



Bruce Neville from Texas A&M presents “Brachiopods, the Other Bivalves.” Photo Ron Bopp.



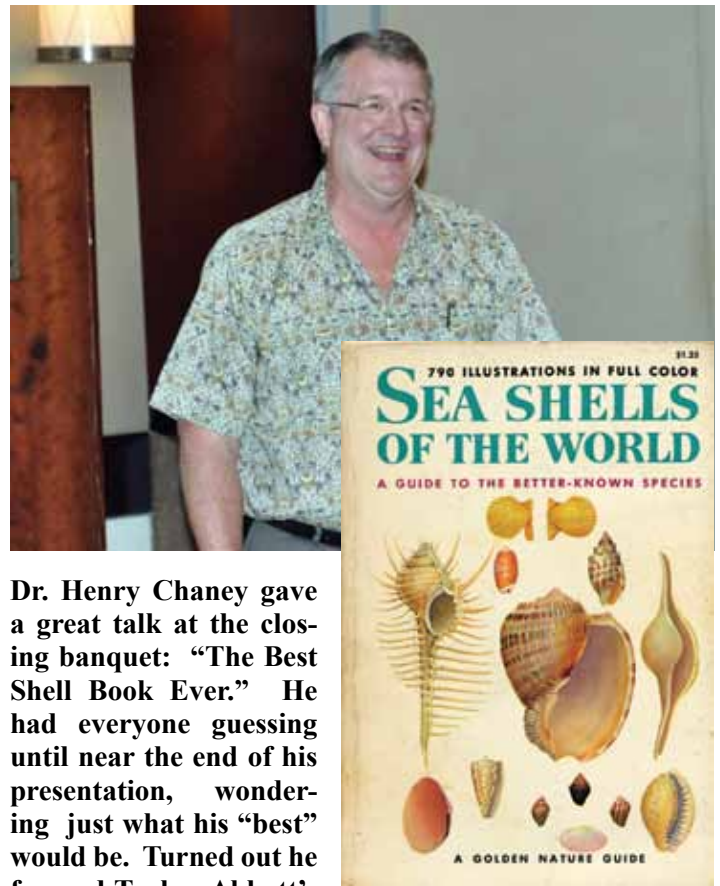
Dennis Sargent (shell book author and photographer) presents “Photographing Shells.” Photo by Ron Bopp.



Fossil shells from the SMR pit were dumped on a parking lot in Cortez on the final Sunday for folks who wanted to shell in comfort. Photo by Ron Bopp.



COA's very own organ grinder, Ron Bopp. Aside from his interest in shells, Ron collects organs from the 19th and early 20th centuries. The organ and Ron are real; the monkey, not so much. Photo by Jo Bopp.



Dr. Henry Chaney gave a great talk at the closing banquet: "The Best Shell Book Ever." He had everyone guessing until near the end of his presentation, wondering just what his "best" would be. Turned out he favored Tucker Abbott's "Seashells of the World" (1962), for a number of reasons. To get to that conclusion, the audience was taken on a fascinating tour of shell books through the ages. Photo by Ron Bopp.



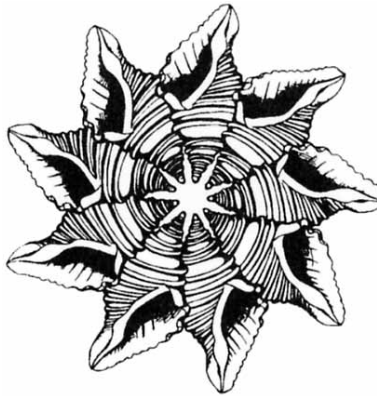
Donald Dan, the impeccably dressed, always with a smile, supporter of COA for decades, COA Awards Chairman. Donald has made sure that shell clubs around the world get the COA Award on time for presentation at each shell show.



Paul Callomon (left) and Jim Brunner (right) were the auctioneers this year, as in quite a few years past. Their experience "working the crowd" proves for an entertaining evening and they always seem to bring in a bit more auction revenue than expected to help COA support the grant program.

## 2013 *Neptunea* Awards

Harry Lee



Charles Rawlings (right, with Harry Lee) - nomination (in part): "Charles provided dozens of quality photographs of shells for use in *American Conchologist*. Many of these photos are of *in situ* specimens and quite a few have been the first such images of a particular species. Charles used many of his images for a book he wrote, "Living Shells" (2010). This is important because often authors will only release images for a fee. Charging a fee is actually quite reasonable as the images cost - the camera and equipment, the trips to exotic locales, and the time involved in collecting, cataloging, and sorting. Yet Charles provides all of his images free of charge to COA and with no restrictions on their use. His has been a valuable, although pretty much unsung, service to COA and I feel he deserves this nomination."



Marlo Krisberg - nomination (in part): "Operating pretty much outside the pale of organized conchology (although a member of the COA), Marlo has single-handedly succeeded in a passionate quest to demystify Florida conchology. His painstaking descriptions and superb photography have illuminated hundreds, maybe thousands, of visitors to his website "Let's Talk Seashells" (LTS). The combination of scientific excellence of this endeavor and its far-from-COA-mainstream-activity combine to make him an ideal candidate for the *Neptunea* Award in the spirit in which it was originally intended." Photo by Alan Gettleman.



Dave & Lucille Green - nomination (in part): "Several times in the past I have nominated Dave & Lucille Green for the *Neptunea* Award for a variety of reasons. Over the years, they have given a huge amount of their time and talents to COA, both upfront helping with conventions and other activities, and behind the scenes working to improve our hobby and organization. So for 2013, I am nominating these most deserving COA members." Photo by Lucy Clampit.

# Size matters: ocean acidification and warming alter metabolic scaling in Polyplacophora

Nicholas Carey (photos by author)

Allometric scaling of metabolic rate with body mass is a long-studied physiological phenomenon, most commonly explained through the famous ‘mouse-to-elephant’ curve. Metabolic rates of organisms decrease proportional to body mass as they get larger. Proposed values for the mass scaling exponent in this equation include  $\frac{2}{3}$  and  $\frac{3}{4}$  [1,2,3]. There is, however, ongoing debate over the models underpinning these values [4,5,6]. Recently it has been suggested that no universal scaling value exists and that the scaling relationship varies systematically with ecology and lifestyle traits of species [7,8]. One of these models, the Metabolic-Level Boundaries (MLB) hypothesis proposes that the value of the allometric scaling exponent shows systematic variation linked to patterns of metabolic rate and activity level. Additional research, including my own [9,10,11], has demonstrated not only that scaling of metabolism is a variable physiological parameter, but that it may be plastic to environmental factors, such as the changes in temperature and pH expected under future climate warming and ocean acidification.

I am interested in metabolic scaling in the Polyplacophora. Chitons are a common component of marine communities and found worldwide, but their ecology and physiology are relatively understudied in comparison to other molluscan groups. The fauna in the eastern Pacific is particularly diverse, and species here display huge differences in body size. Some of the largest chiton species are found here, including *Katharina tunicata* (Wood, 1815), and the giant chiton *Cryptochiton stelleri* (Middendorff, 1847), colloquially known as the ‘wandering meatloaf’.

During the summer of 2012 I conducted research, partly funded by a research grant from the Conchologists of America, at Friday Harbor Labs, University of Washington. This work looked at how different temperatures and seawater pH might affect the metabolic rates and the scaling of those rates with body mass in three chiton species; *Katharina tunicata*, *Mopalia muscosa* (Gould, 1846), and *Tonicella lineata* (Wood, 1815). These three chitons are common among the fauna of the eastern Pacific and have been shown in my previous work to have different metabolic

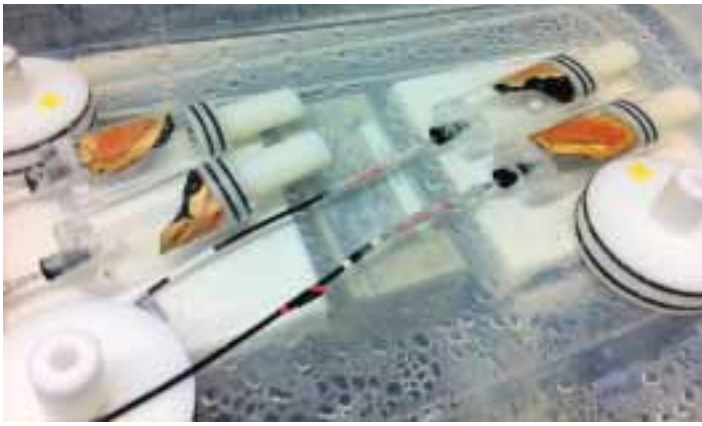


Two of the subject chitons in this study: *Katharina tunicata* (Wood, 1815) (left) and *Tonicella lineata* (Wood, 1815) (right). The black, mantle-covered *Katharina tunicata* on the left (commonly called the black Katy chiton, black leather chiton, black chiton, or leather chiton) is certainly easy to distinguish from the brightly colored *Tonicella lineata* on the right (commonly called the lined chiton).

scaling values that can be linked to lifestyles and metabolic rates [11]. The three species are also often found occurring together on the same substrates, but inhabit different niches by employing different feeding and activity strategies. The aims of the study were to;

1. explore the synergistic and antagonistic effects of temperature and pH on basal metabolism and allometric scaling of metabolic rates;
2. explicitly test one prediction of the MLB hypothesis: that as temperatures rise, will the value of the metabolic scaling exponent (*b*) decrease?

I collected full ontogenetic series of all three species, from individuals a few mm long to fully grown adults over 10 cm long (in *K. tunicata*). Groups of approximately 30 of each species (ca. 540 specimens in total) were acclimated over a period of one week to one of six different treatments; three temperatures and two levels of pH in a factorial design. Specimens were then examined for basal metabolic rates using optical oxygen probes. As expected higher tem-



*Katharina tunicata* in preparation for basal metabolic measurement.



The *Mopalia muscosa* (Gould, 1846) collected for this experiment. Shell sizes in this sample range from approximately 5 mm to over 60 mm.

peratures caused increased metabolic rates in all three species. In addition, the value of the metabolic scaling exponent  $b$  decreased with increasing temperature in control pH, as predicted by the MLB hypothesis. In low pH, however, there was no clear trend in changes to the value of  $b$ . In fact, acidified conditions had variable effects on metabolic rates between species, and even within species at different temperatures. Low pH had no effect on metabolism in *T. lineata*, but it caused variable effects on metabolism in *M. muscosa* and *K. tunicata* at different temperatures: metabolic depression in low temperatures, but elevated metabolism at the medium temperature. These changes to metabolism were also associated with changes to the value of the scaling exponent. This is an indicator of a factor relatively overlooked in studies such as this, that the effects of stressors may not be equal across all body sizes of an organism. Larger individuals of *M. muscosa* and *K. tunicata* were more affected by low pH than smaller individuals. This evidence that  $b$  values are plastic and may be altered under changing environmental conditions demonstrates that species' responses to stressors may differ across postlarval ontogeny. Even among closely-

related molluscan species, the responses to ocean acidification and temperature may be variable and idiosyncratic, and the synergistic effects of multiple stressors may be unpredictable.

The completed work is currently in review in *Proceedings of the Royal Society B*, and will also constitute a chapter of my PhD thesis.

Nicholas Carey  
Queen's University Belfast Marine Laboratory  
Northern Ireland.

### Acknowledgements

Funding for this project was provided in part by a Conchologists of America Academic Research Grant, and a Melbourne R. Carriker award from the American Malacological Society. My PhD is funded by a Northern Ireland Department of Education and Learning scholarship. I would like to thank Dr. Emily Carrington for the use of the Friday Harbor Ocean Acidification Laboratory. Thanks to the FHL Inverts course (summer 2012) for help with specimen collection. I would especially like to thank my supervisor Dr. Julia Sigwart.

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# Shell collecting as seen by Gene Everson

Thomas Eichhorst

Gene Everson has graced the pages of this publication many times, usually because he has won yet another shell show award. In fact, a count showed that he has won the COA Award 40 times! A recent shell show display by Gene was again a winner, but this time I thought it would be better to show his display, rather than another picture of a smiling Gene holding his COA Award. This most recent winning display was 34 feet in length with 15 cases. The main reason I chose to show this display is its subject - shell collecting. Gene laid out in 34 feet a shell collecting primer, educational for beginners and just plain fun for the more advanced shell collector.

Gene has a BA in biology from the University of Louisville and began shell collecting in 1966. He entered his first shell show in 1973 and continues to present superb displays of a myriad of subjects. Whether his display is of a particular molluscan family, a genus, or a specific geographical area, the display is always first rate with eye-catching cases, correct nomenclature, clear graphics, and an overall artistic presentation.

Of his latest display, Gene states: "I tried to include in this exhibit everything a new sheller needs to know to get started in the hobby:

- where to find shells - from dealer shell lists & internet sites to different habitats for self-collecting;
- information about snorkeling & diving, including examples of equipment, & shells that can be found;
- information about trapping, trawling, hand dredging, submersibles, & scallop dumps;
- information about cleaning and saving the periostracum, operculum & byssus, & storage (with examples or photos of cabinets, plastic bags & boxes);
- information about exhibiting, including: labeling; single, double, & triple matting; contrasting colors with the background material; required data; quality of specimens; examples of graphics that may be used; examples of citing references, classification & taxonomy."



Large colorful posters provide a general background for the shell collecting hobby as reflected in the display cases. Clockwise from upper left: 1. an overview and some benefits of shell collecting as a hobby, 2. different methods for collecting shells, 3. some shell collecting areas of the world, and 4. some cultural highlights of such areas.







**Cataloging a shell collection.**



**Shells available through different collecting methods.**



**Shells available by snorkeling and the associated gear.**



**Shells available by SCUBA and the associated gear.**



**Shells available by trapping and other methods, and the associated gear.**



**Shells available by dredging and trawling, and the associated gear.**



Different shell habitats, from sand to rock to coral.



Cleaning shells and the associated equipment.



More on cleaning shells with before and after examples.



Preparation and storage of shells after cleaning.



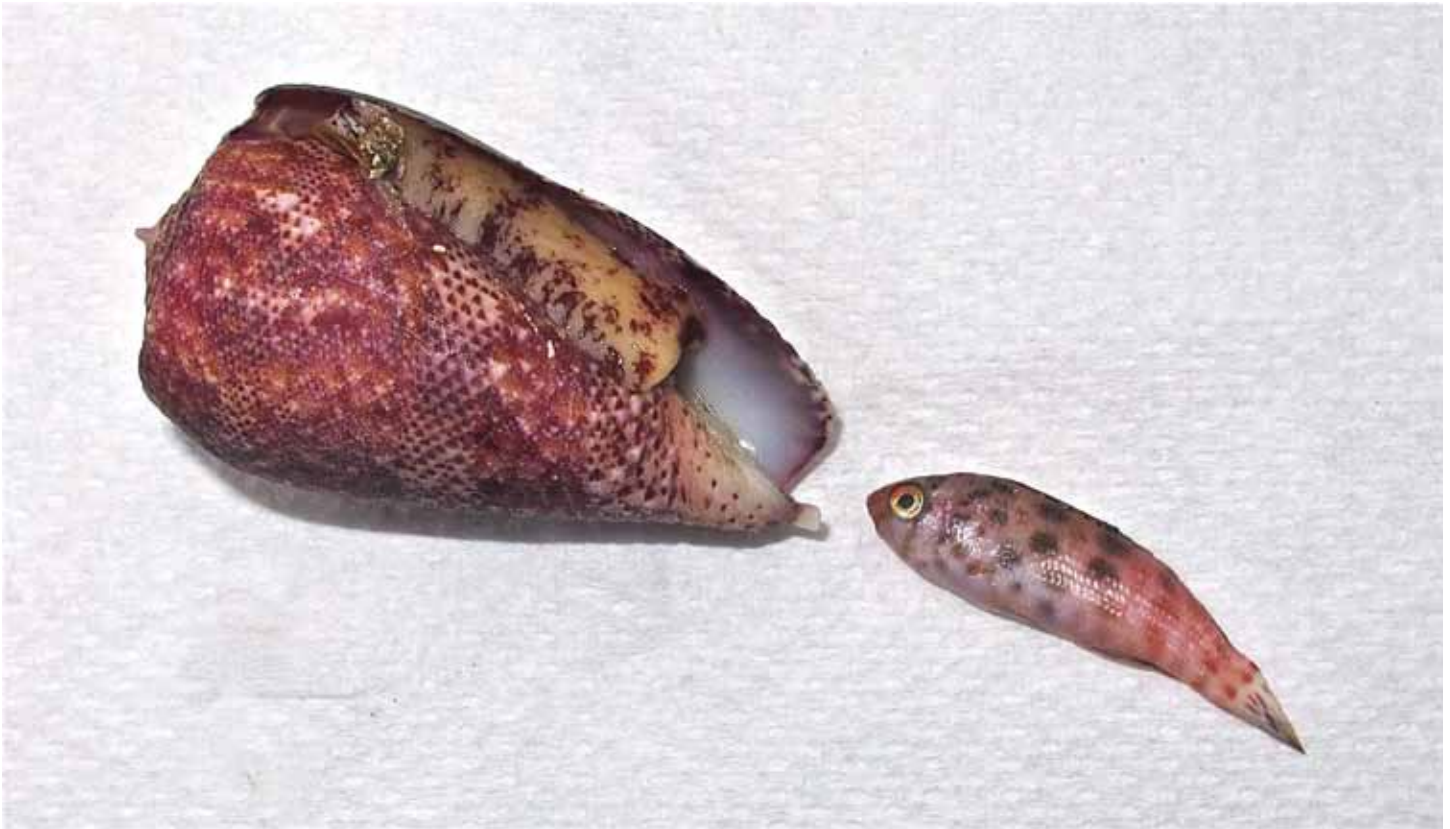
Some guidelines for exhibiting shells.



The importance of up-to-date references. Obviously, "the best shell book ever" is a bit dated in this instance.

# An interesting find

Paul Kanner



Marty Beals, Harry Bedell, Julian Lee and I made a trip to Nuka Hiva, Marquesas Islands, French Polynesia, last January. Our host and guide was Xavier Curvat who has a small dive operation. For me, the most memorable thing about the trip was a first hand observance of *Conus adamsonii* Broderip, 1836. The specimen illustrated above was collected by Xavier on a night dive and given to me. While examining the live shell it appeared to be shedding part of its foot. This was not the case. I continued to observe this as the *C. adamsonii* regurgitated a small fish that was the same color as the animal. It was obvious that this cone had hunted and eaten just before it was collected. I retained the shell and preserved the little fish in a vial of formaldehyde.

## SHELL BOOKS

The malacological library of Richard E. Petit is being sold.  
Lists are posted on <http://conchologia.com>.

Also on that web site are issues of *Conchologia Ingrata*,  
which can be downloaded without charge.

Most issues are either about books or are reviews of books.

Richard E. Petit  
806 Saint Charles Road  
North Myrtle Beach, SC 29582 [r.e.petit@att.net](mailto:r.e.petit@att.net)  
<http://conchologia.com>

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# COA GRANT DONATION PROGRAM

## 2013 EDITION

### SUPPORT OUR GRANT PROGRAM

- HAVE A GRANT IN YOUR NAME -  
SINGLE DONATION OF \$1,000.00 OR MORE

- HAVE YOUR NAME ON A PERPETUAL GRANT -  
DONATION OF \$10,000 OR MORE AS AN ENDOWMENT

Pursuant to the COA objectives, academic grants are given to numerous molluscan related research projects on an annual basis through a well-established grant review process. Most grants go to graduate students. For the current year 2013, eleven grants totaling \$15,000.00, were approved (please see details inside.) Current grant money is largely drawn from COA operating income. Due to the fluctuating nature of our annual income, there is a need to expand our donation program to insure continued growth. To facilitate individual and group giving, a range of funding programs is made available by COA. Among other options, donors have the privilege to name grants of their choice.

► SHELL CLUB DONATIONS ARE MOST WELCOME ◀

#### HERE IS YOUR CONTACT:

**DONALD DAN, Endowments Committee Chairman**  
6704 Overlook Drive, Ft Myers, FL 33919, USA  
Tel.: (239) 481-6704 • e-mail: donaldan@aol.com

## GRANTS AND DONATION GUIDELINES

COA's Grants are processed through a committee of three professional malacologists. This committee actively solicits and reviews grant applications. Selected applications are then presented annually to the COA's Board of Directors for approval. Individuals and groups, including shell clubs, can participate in this process through donations to COA:

### GIFTS BELOW \$1,000

All donations below \$1,000, whether from organizations or individuals will be directed to COA's Walter Sage Fund, an established perpetual endowment, income from which is distributed for Board approved grants.

### GIFTS ABOVE \$1,000

For gifts of \$1,000 or more, a donor has the option of specifying the money be entered into the Walter Sage Fund or be included in the general grant budget, in total or in part. The donor also has the option of naming a grant for that particular sum that is included in the general grant budget.

### GIFTS ABOVE \$10,000

A further option is to establish a named endowment by giving a sum of \$10,000 or more. This amount may be given as a lump sum, or over period of up to ten years, with a minimum initial gift of at least \$1,000. If someone wishes to start a named endowment but does not reach the \$10,000 level within ten years, including accrued interest, the money will revert to the Walter Sage Fund.

Once an endowed fund has reached \$10,000, COA will use half of the income to award grants, and reinvest the other half of the income to grow that endowment. As a conservative assumption, consider that a \$10,000 fund earns 5% interest. The annual income will be \$500, half of which can go to grant, and half of which is reinvested in the fund. This \$10,000 endowment could therefore generate a \$500 grant fund every other year, with incremental growth thereafter.

COA's by-laws have rules for the investment of funds controlled by the organization. Endowed funds will be pooled for investment purposes, but the principal and interest of each fund will be tracked separately. Donors may suggest that money be given to specific research or types of research. COA will try to match grants to the stated interests, but cannot guarantee exact match.

COA has a 501-C3 non-profit tax status, TAX ID: 112541695 US donors may claim tax deduction on money given to COA. Additional reading on our Grant Program is available on COA's web site at <http://www.conchologistsofamerica.org>

## 2013 COA GRANT AWARDS

RECIPIENT	PROJECT TITLE	INSTITUTION	STUDENT	FUNDED AMOUNT
DOUGHERTY, Lindsey***	Mechanisms and behavior of flashing in <i>Ctenodes ales</i> : "disco clams"	University of California, Berkeley, CA, USA	Yes, PhD	\$ 1,320.00
FRITTS-PENNIMAN, Allison	Genomic signatures of ecological speciation in a coral-associated nudibranch	University of California, Los Angeles, CA, USA	Yes, PhD	\$ 700.00
JOHANNES, Edward	Phylogenetic analysis of <i>Juga an Pristinicola</i> in the Puget Sound Basin, Washington	Non-academic affiliation	Amateur	\$ 1,500.00
JUDGE, Jenna*	The effects of substrate diversity on deep-sea wood fall community diversity: a focus on the molluscs	University of California, Berkeley, CA, USA	Yes, PhD	\$ 1,300.00
LEE, Colin****	Neurobiology of satiation in <i>Melibe leonina</i>	University of New Hampshire, USA	Yes, MSc	\$ 1,300.00
LEUNG, Kelley	The conservation status and phylogeography of Hawaiian Helicinidae: A diversity assessment	University of Hawaii, Manao, USA	Yes, MS	\$ 1,500.00
MOTA, Ellori	Population structure and ecological aspects of the heavily exploited gastropoda, <i>Cassia tuberosa</i> , in a Brazilian no-take marine protected areas (MPA's) and fished areas: implication to MPA effectiveness	Universitat Estadual da Paraiba, Brazil	Yes, MSc	\$ 1,440.00
STUMP, Andrew	Detection of freshwater mussels using environmental DNA and next generation sequencing technology	Eastern Kentucky University, USA	Yes, MSc	\$ 1,500.00
TEICHBOLTZ, Paula	Consequences of developmental mode polymorphism on gene flow and population structure in the pyramidellid pyramidellid snail <i>Boonea impressa</i>	University of Michigan, USA	Yes, PhD	\$ 1,500.00
WEBSTER, Nicole**	Rib formation in <i>Nucella ostrina</i> : mantle morphology	University of Alberta, Canada	Yes, PhD	\$ 1,490.00
YOUNG, Bonnie	Systematics and life history of invasive <i>Euglandina rosea</i> (Spiraxidae) on Oahu: implications for control	University of Hawaii, Manao, USA	Yes, MSc	\$ 1,450.00
			TOTAL	\$ <u>15,000.00</u>

#### SPECIAL AWARDS:

\* Paul & Heather Johnson Award

\*\* Clench & Turner Memorial Award (Boston Malacological Society)

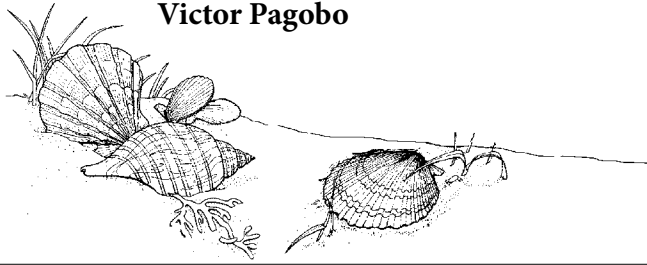
\*\*\* Jacksonville Shell Club Award

\*\*\*\* Doris Underwood Award

ACADEMIC GRANTS COMMITTEE: Daniel Geiger (Chairman), Paula Mikkelsen, Tim Pierce

**In Memoriam:**

Sybil B. Burger  
 Dr Dick Kilburn  
 Victor Pagobo



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**Sybil B. Burger** with Texan shelling friends, from left to right: Jean Dickman, Sybil Burger, Rozelle Wilson, and Cynthia Beck. Sybil literally traveled the world in search of new and exciting shells (and maybe some adventure).

Sybil started shell collecting after a trip to Galveston, Texas. By the time I met her she was a resident of Albuquerque, New Mexico, and had traveled to every continent in the world - including Antarctica. Early on she volunteered at the Rio Grande Zoo and thus her children were not at all surprised when they came home from school to find a new addition to the household that required bottle feeding and constant care. Such additions included young leopards, a tiger, and a baby cougar. Later she served as a docent at the New Mexico Museum of Natural History. No more great cats, but fascinating behind the scenes visits for her children.

Sybil attended COA conventions until her health prevented such activity. At these conventions the Albuquerque shellers were Sybil, Pat Burke, Bruce Neville, and me. At the bar in the evenings, Pat drank her bourbon straight, Sybil with a touch of ice, and both Bruce and I with plenty of water. Sybil was funny, opinionated, honest, forthright, and good company. She will be missed by all of us who knew her.

Tom Eichhorst

## “Available” vs. “Valid”

A recent paper in *American Conchologist* referred to both the “official list” and the “Official Index of Rejected and Invalid Specific Names in Zoology.” The difference in capitalization was obviously accidental as there are two different lists. From various conversations and correspondence it is obvious that there is confusion among many collectors about the nomenclatural meanings of “available” and “valid,” which are at the core of these two lists whose existence and use may not be clear to those not intimate with the International Code of Zoological Nomenclature.

In zoological nomenclature a name that is **available** is one legitimately introduced into the literature and as such may be used as the [valid] name for a species. A **valid** name is the correct name, in an author’s judgment, for a species. A name may be available, having been properly described, but is invalid when treated as a junior synonym. When placed in synonymy, however, a name remains available and may be removed from synonymy and used as valid at any time an author considers it to not be a synonym.

A name may be unavailable by virtue of being a junior homonym or other reason (pre-Linnean, *nomen nudum*, etc.) including declaration by the International Commission on Zoological Nomenclature. A name that is objectively invalid may be made valid only by action of the Commission.

At the risk of added confusion, it can be stated that availability is objective (must meet certain criteria) while validity is subjective (systematist’s opinion). In any case, using the two terms interchangeably is always incorrect and should be avoided.

# COA 2014 August 11-15, 2014 Wilmington, NC Donations Needed

The 2014 Convention is in need of shells and shell related items that can be used for raffle items, silent auctions, or door prizes, as well as specimen-grade shells for the oral auction. Shell donations should include pertinent data (name and locality.) Donations are tax deductible and help support CIA grants and research. Shell contributions and other items should be sent to:

Everett Long  
422 Shoreline Dr.  
Cedar Point, NC 28584  
nlong3@earthlink.net

Financial donations are accepted as well and help offset the expense of awards and other convention necessities. Categories for financial donations are:

Ocracoke \$10-99  
Hatteras \$100-199  
Cape Lookout \$200+

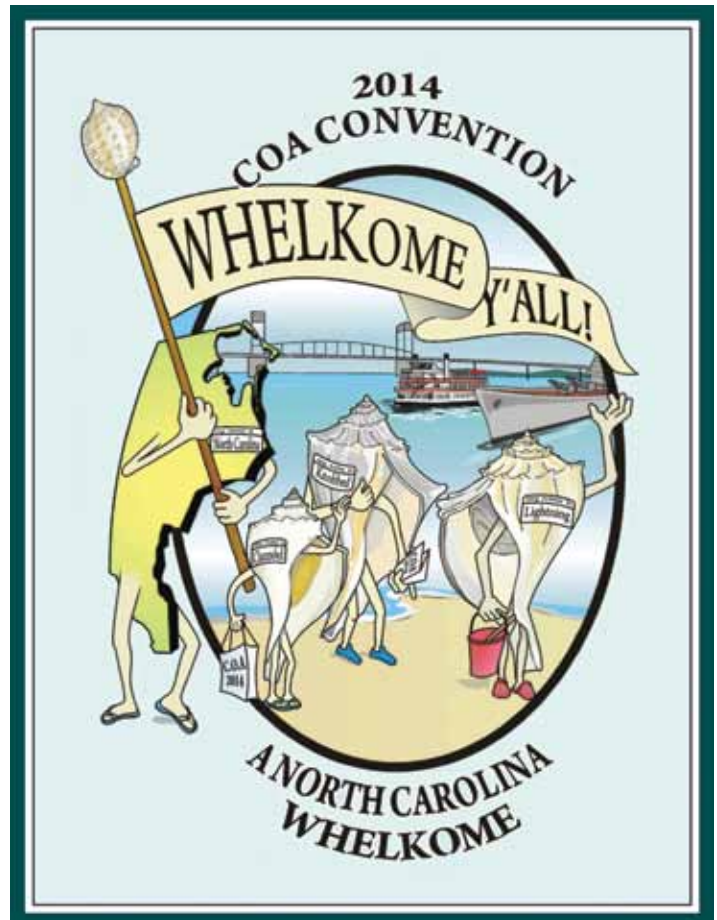
Financial contributions should be sent to:

Jeannette Tysor  
5100 Yates Mill Pond Rd  
Raleigh, NC 27606  
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At the recent COA Convention in Sarasota a number of vendors and individuals generously donated shells and other items for the 2014 event.

Thank you to:

Warren Graff	Boston Malacological Club
Vic Dungog	Vic-Mar Shells
Brian Hayes	Algoa Bay Specimen Shells
Maria Demertzis	Aegean Shells
Jim Cordy	Astronaut Trail Shell Club
Rick Negus	Rick Negus Specimen Shells
Ed, Gayle & Branden Nieburger	Boston Malacological Club
Bob & Betty Lipe	The Shell Store
Jeff & Elizabeth Whyman	Whyman Studios
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Don & Jean Pisor	Don Pisor Specimen Shells
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Our convention rate is \$114 (plus 13% tax) for 2 in a room; \$10 for each additional adult. The guaranteed rate is good from August 7 through the night of August 18, 2014. Complimentary overnight parking is included. This special rate only applies to reservations made no later than Saturday, July 12, 2014.

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Reservations may be made after Sept. 1, 2013 at the numbers above or on-line at [www.wilmingtonhilton.com](http://www.wilmingtonhilton.com). Mention the Conchologists of America to receive the special rate.



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Cedar Point, NC 28584

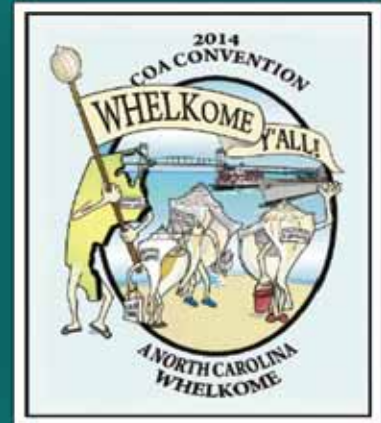
Registration Forms: Future posting of 2014 COA convention registration forms will be on [www.conchologistsofamerica.com](http://www.conchologistsofamerica.com)

Semicassis



In 1965 members of the NC Shell Club who were descendants of the early Scot settlers banded together to support the Scotch Bonnet as the State Shell.

COA 2014 WILMINGTON, NC



August 11-15, 2014

With field trips August 9 and 10

Hosted by the

North Carolina Shell Club

TENTATIVE SCHEDULE

- Sat. 09 Field Trips  
Dive Trip  
Mansions Tour  
Fort Fisher/Aquarium  
Eco/Picnic Cruise - evening
- Sun. 10 Field Trips  
Bob Jenkins History Tour  
Airlie Gardens/Art Museum  
Henrietta Dinner Cruise
- Mon. 11 Registration  
Silent Auction  
Opening Ceremonies  
Programs  
Welcome Party
- Tues. 12 Silent Auctions  
Programs  
Oral Auction
- Wed. 13 Silent Auctions  
Programs  
Banquet
- Thur. 14 Bourse
- Fri. 15 Bourse

EVENING CRUISES

Saturday



Evening eco tour of the Black River with Capt. Doug. On-board picnic.

Sunday



Dinner cruise on the Henrietta.

TOURS & FIELD TRIPS



DIVE one of the many wrecks in the Graveyard of the Atlantic.

HISTORY

Learn of Wilmington's past on a tour with renowned local historian Bob Jenkins.



Burgwin-Wright House (1770)

OLD HOMES

Tour 3 notable mansions built between 1770 and 1861.

AIRLIE GARDENS and the CAMERON ART MUSEUM



The butterfly house at Airlie



AQUARIUM/FORT FISHER

A State aquarium is located near the Civil War historic site of Fort Fisher, protector of the last Atlantic port open to the Confederacy.

MINI SHELL SHOW

MINI SHELL SHOW  
Enter a single or small group of shells, picture or craft



Trophy

CATEGORIES

- Best *Neptunia lyrata*
- A Single Beach Collected Shell
- A shell or small group from the Carolinian Province
- A Single Salt Water Shell from any Ocean
- A Freshwater Shell
- The Most Bizarre Freak Shell
- A Sailors Valentine under 10 inches
- Shell Photograph
- Craft Using Shells (not a Sailor's Valentine)
- Art Depicting Shells

WELCOME PARTY

The North Carolina State Shell, the Scotch Bonnet, was chosen to honor the strong Scots-Irish heritage of the State and particularly of the Wilmington - Cape Fear River valley area where so many settled.



So pack your plaids - kilts, skirts, sashes, scarfs, knee socks, caps, ties or anything else for the Monday night Welcome Party and

Let's Have

A Scotch Bonnet Fling

Prizes will be given for best costume.

See YOU Monday night.

The Carolina Tartan is the official State Tartan of both North and South Carolina

