

Vol. 41, No. 4, Dec 2013

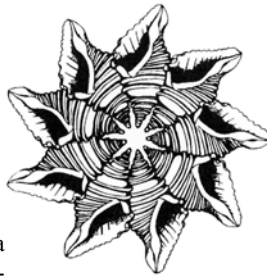
thomas@nerite.com www.conchologistsofamerica.org

*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.

## OFFICERS

President: José Leal  
3075 Sanibel-Captiva Road  
Sanibel, FL 33957-1580  
(239) 395-2233  
jleal@shellmuseum.org

Treasurer: Steven Coker  
332 Banyan St.  
Lake Jackson, TX 77566  
(979) 297-0852  
shellman7000@sbcglobal.net

Membership: Doris Underwood  
7529 Ensemble Lane  
Melbourne, FL 32940-2603  
(321) 622-4372  
dunderwood13@cfl.rr.com

Trustee: Bill Lyons  
4227 Porpoise Drive SE  
St. Petersburg, FL 33705-4328  
(727) 895-6202  
w.lyons9@knology.net

Web Page Coordinator:  
José Coltro  
C.X.P. 15011  
Sao Paulo, SP 01599-970  
Brasil  
55-11-5081-7261  
jose@femorale.com

Convention Coordinator:  
Anne Joffe  
1163 Kittiwake Circle  
Sanibel, FL 33957-3605

Member at Large:  
Jim Brunner  
2511 Parkwood Drive  
Panama City, FL 32405-4444  
jili@knology.net

Member at Large:  
Doug Wolfe  
109 Shore Dr., Shell Landing  
Beaufort, NC 28516-7861  
(252) 728-3501  
dawolfe@ec.rr.com

Vice President: Harry G. Lee  
4132 Ortega Forest Dr.  
Jacksonville, FL 32210

Secretary: Phyllis Gray  
1212 S. Eola Drive  
Orlando, FL 32806-2218  
(407) 422-0253  
psgray@mactec.com

COA Awards Chairman:  
Donald Dan  
6704 Overlook Drive  
Ft. Myers, FL 33919  
(239) 481-6704  
donaldan@aol.com

Historian: Karen Vander Ven  
6670 Kinsman Road  
Pittsburgh, PA 15217-1311  
(412) 521-3679  
kvander@pitt.edu

Past President: Alice Monroe  
2468 Timbercrest Circle West  
Clearwater, FL 33763-1626  
(727) 796-5115  
monroea@spcollege.edu

Academic Grants Director:  
Daniel Geiger  
Santa Barbara Mus of Nat History  
Invertebrate Zoology  
2559 Puesta del Sol Road  
Santa Barbara, CA 93105 - USA  
(805) 682 4711 x152  
geiger@vetigastropoda.com

Member at Large:  
Debbie Freeman  
PO Box 339  
Englewood, FL 34295-0339  
(941) 473-3359  
limpet@comcast.net

AMERICAN CONCHOLOGIST, the official publication of the Conchologists of America, Inc., and issued as part of membership dues, is published quarterly in March, June, September, and December, printed by JOHNSON PRESS OF AMERICA, INC. (JPA), 800 N. Court St., P.O. Box 592, Pontiac, IL 61764. All correspondence should go to the Editor. ISSN 1072-2440.

Articles in AMERICAN CONCHOLOGIST may be reproduced with proper credit. We solicit comments, letters, and articles of interest to shell collectors, subject to editing. Opinions expressed in "signed" articles are those of the authors, and are not necessarily the opinions of Conchologists of America. All correspondence pertaining to articles published herein or generated by reproduction of said articles should be directed to the Editor.

MEMBERSHIP is for the calendar year, January-December, late memberships are retroactive to January. 2010 DUES: \$25; postal surcharge: USA none (\$5 additional for USA first class), \$5 for Canada and Mexico (total of \$30), \$15 for all other countries (total of \$40). New members apply to Doris Underwood, Membership Director. Please pay in U.S. dollars (\$), or with a check on a U.S. bank with Transit Enrouting and Account Numbers printed at the bottom, or with money order. Make checks payable to: CONCHOLOGISTS OF AMERICA. Notify Membership Director with change of address.

BACK ISSUES are available from Doris Underwood, Membership Director. Prices: prior to 1999, \$3 each, 2000 to 2008 \$4 each, 2009 to current, \$5 each; postage extra.

Advertising in AMERICAN CONCHOLOGIST is presented as a service to our membership, but does not automatically imply endorsement of the advertisers by the AMERICAN CONCHOLOGIST staff or the Conchologists of America, Inc. Advertising space is available at the following rates: Black & White: 1/2 page, \$600 per year or \$200 per issue; 1/4 page, \$300 per year or \$100 per issue; 1/8 page, \$150 per year or \$50 per issue. Color: 1/2 page, \$1050 per year or \$350 per issue; 1/4 page, \$525 per year or \$175 per issue; 1/8 page, \$262.50 per year or \$87.50 per issue. Deadlines are as follows: #1 Jan 15, #2 Apr 1, #3 July 11, #4 Oct 1. High-resolution digital images, slides, or prints may be changed every issue. Copy changes \$25. Send advertising copy to the editor, Tom Eichhorst, 4528 Quartz Dr. N.E., Rio Rancho, NM 87124-4908, USA, email: thomas@nerite.com. Payments should be made to: Betty Lipe, 11771 96th Place, Seminole, FL 33772, USA. Make checks (in US dollars on a US bank) payable to Conchologists of America.

Editor:  
Tom Eichhorst  
4528 Quartz Dr. N.E.  
Rio Rancho, NM 87124-4908  
(505) 896-0904  
thomas@nerite.com

Advertising Director:  
Betty Lipe  
11771 96th Place  
Seminole, FL 33772-2235  
blipe@tampabay.rr.com

Staff: Lynn & Richard Scheu

COA Webmaster:  
Carlos Henckes

## EDITORIAL BOARD

Donald Dan	José H. Leal	Bruce Neville
Emilio Garcia	Harry G. Lee	G. Thomas Watters

Visit the COA website: <http://conchologistsofamerica.org>.  
Subscribe to Conch-L, the COA listserv (owned and operated by the University of Georgia) at: [listserv@listserv.uga.edu](mailto:listserv@listserv.uga.edu)  
Instructions for joining Conch-L are on the COA web site.

## In This Issue

Editor's comments -----	3
<b>On the generic placement and identity of <i>Timbellus phaneus</i> (Dall, 1889) and <i>T. havanensis</i> (E. H. Vokes, 1970) (Gastropoda: Muricidae)</b> by Emilio F. García -----	4
Snail House -----	7
<b><i>Turritella lyonsi</i> found off the Louisiana coast</b> by Emilio F. García -----	8
<b>The <i>Harpago</i> complex: a collector's guide</b> by Andre Meredith -----	10
<b>"Illustrated Catalog of the Living Cone Shells" - book review</b> by Tom Eichhorst -----	16
Dealer Directory -----	17
<b>SCUM XVII: Southern California Unified Malacologists</b> by Lindsey T. Groves -----	20
<b>Mind your mangroves! A shelling trip to Puerto Rico</b> by Karen VanderVen -----	23
COA Award winners -----	28
<b>2014 shell shows &amp; related events (January – August)</b> by Donald Dan -----	29
<b>Oldest animal on earth</b> by Tom Eichhorst -----	30
<b>Size Matters! I</b> by Moshe Erlendur Okon -----	30
<b>2014 COA Convention: Wilmington, N.C.</b> -----	32
In Memoriam -----	35

**Front Cover:** *Hexaplex cichoreum* (Gmelin, 1791), the endive murex, 117 mm, the Philippines. This unusual specimen has 10 varices rather than the typical six or even seven per whorl. This species can have short or long spines and endless variations of pattern with white, brown, and black predominating. The aperture is often tinged with pink, more rarely orange as in this specimen.

**Back Cover:** landsnails of the genus *Asperitas* from Indonesia, as photographed by Nuimal Bahar. Shells in this colorful group display any number of colors, often on a single specimen that has colors gradually changing from spire to aperture.

**Editor's comments:** We start with the cover this time. This *Hexaplex cichoreum* is a rather fancy specimen of an extremely variable species. This one seems to have outdone itself, however. The genus *Hexaplex* is named for the six varices or costae on each whorl of the shell. This specimen has 10 varices on the final whorl. It was purchased from the C&S Shell Cabinet Auction at [www.shellcabinet.com](http://www.shellcabinet.com) in November 2013. The image below is from C&S.



We have two short articles from Emilio García and a fun travel piece by Karen VanderVen, both long time contributors to this magazine - thank you both. We also welcome a new author; Andre Meredith from South Africa, discusses the genus *Harpago*. Then a name we have not seen for a while, Moshe Erlendur Okon, is back, this time with what promises to be a continuing series of short articles on world record shells. Lindsey T. Groves updates everyone on the annual meeting of SCUM, and Donald Dan provides us with the shell show schedule for 2014. We recognize and congratulate some winners of the COA Award, including a couple who are well-known to COA members (Jim & Linda Brunner) and a new face from Britain (Simon Taylor). There are two short pieces of interest. The first is an unusual "shell house" in Mexico, and the second is a report on the longest lived mollusk and maybe longest lived animal in the world. Finally a few words about what promises to be a really exciting 2014 COA Convention in Wilmington, North Carolina. That finishes off 2013, any submissions to start off 2014 would be **most** welcome.

*Tom Eichhorst*

# On the generic placement and identity of *Timbellus phaneus* (Dall, 1889) and *T. havanensis* (E. H. Vokes, 1970) (Gastropoda: Muricidae)

Emilio F. García

This little project began when Frank Frumar, a well-known collector who specializes in Gulf of Mexico gastropods, offered me some specimens of “*Pterynotus*” *phaneus* that he had dredged southwest of Key West, Florida, in 2006. During our phone conversation when the offer was made, Frank warned me that he was not sure of his identification and that they might be *T. havanensis*. That is when I decided to take a closer look at the literature and at the specimens available to me.

*Timbellus phaneus* and *T. havanensis* are rare in collections because of their deep-water habitat (ca. 300-500 m). Although these species may not be in everyone’s cabinet, I thought they might be of interest to the readers of *American Conchologist* because of their exquisite elegant beauty and their sometimes-confusing similarity.

These two species have in the past been placed in a group of *Pterynotus s.l.* with thin delicate shells and less scabrous surface ornamentation. De Gregorio (1885, p. 275) proposed the subgenus *Timbellus* for this group without assigning a type. Vokes (1964:14) did so later, designating *Murex latifolius* Bellardi, 1872, as the type species. Vokes noted this taxon was “very close” to *Murex tristichus* Dall; however, she considered *Timbellus* and other proposed taxa to be “too closely related to *Murex pinnatus* [the type species of *Pterynotus s.s.*] to be supraspecifically differentiated” (1964:14). This conclusion was also reached by Harasewych & Jensen (1979:4) and reiterated by Vokes (1992:9).

In 2010 Barco *et al.* published the results of their extensive phylogenetic studies in the Muricidae, stating that “*Pterynotus* appears to be polyphyletic” (2010: 1037). Barco *et al.* had managed to do molecular work on *Pterynotus fulgens* Houart, 1988, an Indo-Pacific species that falls in the *latifolius/phaneus/havanensis* group. They concluded that “Supported by the position of *P. fulgens* in our topologies, we advance the hypothesis that at least two unrelated lineages have commonly been included in *Pterynotus*: a first group closely related to *Pterytmachia*, includes *P. elongatus* and all the species with a sculptural pattern similar to the type species (*P. pinnatus*); and a second group including *P. fulgens* and probably some Western [*sic*] Atlantic species (R. Houart, unpublished data).” This second group is De Gregorio’s *Timbellus*.

That the group of winged murices might be polyphyletic is not hard to accept, given the prevalence of wings

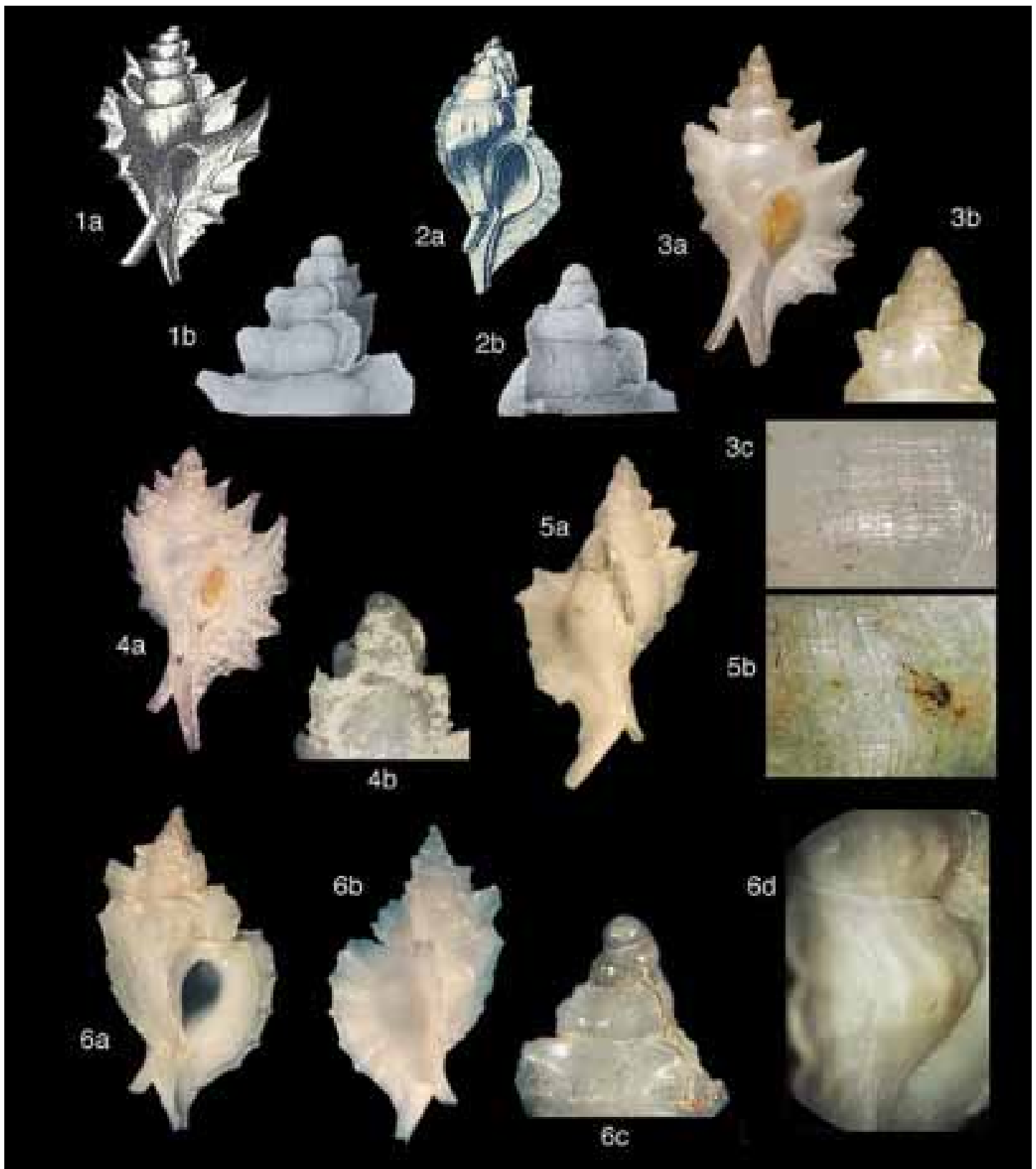
in the family Muricidae as a whole. Consider the convergence of *Pteropurpura* and *Ceratostoma* (in the Ocenebriinae) and *Siratus alabaster* and *S. beauii* in the Muricinae. It seems that wings, like spines, are evolutionarily a good idea.

Merle *et al.* (2011), based on the differences first elaborated by Harasewych & Jensen (1979) and Vokes (1992), elevated *Timbellus* to the generic level and placed five “species groups” in that genus; two of these refer exclusively to fossil and/or Indo-Pacific taxa and are not treated here. The species group *latifolius/phaneus/havanensis/fulgens*, which conform to the original characters of *Timbellus*, as defined by De Gregorio, is their species group 1; the two other Recent species groups are represented by *Timbellus phyllopterus* (Group 2) and *T. guesti* (Group 5).

The authors explain the congeneric grouping of *phaneus/phyllopterus/guesti* under *Timbellus* as follows: “The three species groups display some differences with the “species group of *P. phaneus*,” but they are minor and, for instance, do not suggest the need of subgeneric distinction. For these reasons we place ...[these] species groups in the genus *Timbellus*” (2011:118).

The electronic database WoRMS (Appeltans *et al.*, 2011), following Merle *et al.*, assigns 7 worldwide muricid species to *Pterynotus (s.s.)*, with 8 species assigned to the subgenus *Pterytmachia* and 24 to *Timbellus*. As one looks through the lists, however, one wonders how can *Murex latifolius* Bellardi, the type species of *Timbellus* and “very close to *M. tristichus* Dall” (Vokes, 1964:15) be congeneric with *Timbellus miyokoe* (Kosuge, 1979); or how the latter is now separated from its former congener *Pterynotus loebbeckei* (Kobelt, 1979). Barco *et al.* suggest that *Pterynotus* “appears to be polyphyletic” and that there are “at least two” unrelated lineages, but do these groups, other than Group 1 (*Timbellus s.s.*) and perhaps Group 5 (*T. guesti* species group) all belong to the same lineage? Taking into account that the placement of all species in *Timbellus* is based mostly on a non-scabrous shell morphology and that the placing in supraspecific taxa is so subjective, one has to wonder.

Recently, Houart (2012) examined material from the western Pacific and placed nine species in the genus *Timbellus*. These species conform to the original interpretation of *Timbellus* (Merle *et al.*’s group 1) as perceived by De Gregorio, Vokes, and Harasewych & Jensen, but also include taxa in the *Timbellus guesti* species group of which the well-



1 a-b. *Timbellus havanensis* (Vokes, 1970), holotype of *P. tristichus* (Dall, 1889), off Havana, Cuba, 444-823 m, 15.5 mm. 2 a-b. *Timbellus phaneus* (Dall, 1890), holotype, off St. Augustine, Florida, 794 m, 16.9 mm. 3 a-c. *Timbellus havanensis* (Vokes, 1970), dredged SW of Key West, Florida, 229 m, 16.6 mm. 4 a-b. *Timbellus havanensis* (Vokes, 1970), dredged SW of Key West, Florida, 229 m, 14.9 mm. 5 a-b. *Timbellus phaneus* (Dall 1889), dredged SW of Key West, Florida, 274 m, 18.7 mm. 6 a-d. *Timbellus phaneus* (Dall 1889), dredged south of Marquesas Keys, Florida, 198 m, 20.4 mm.

known western Pacific species *Timbellus vespertilio* forms part.

If one considers the DNA evidence of Barco *et al.* in regards to “*Pterynotus*” *fulgens* Houart, another member of this narrowly defined Group 1, there seems to be enough evidence to use *Timbellus* as a valid, separate genus, which is why I use it here for *Timbellus phaneus* and *T. havanensis*.

And now species-level specifics. Please note that supraspecific names used below are those originally used by the respective authors but that they have now been placed in *Timbellus*.

In his “Blake” report (1889), Dall consecutively describes two muricid species as *Murex (Pteronotus) phaneus* (p. 291) and *M. (Pteronotus) tristichus* (p. 292). He illustrates *M. (P.) tristichus* with a fine image (reproduced in fig. 1a) but the illustration of *M. (P.) phaneus* does not appear until 1890 (reproduced in fig. 2a). Vokes found *Murex (P.) tristichus* to be preoccupied by *Murex tristichus* Beyrich, and re-named it *Pterynotus havanensis* (1970:13).

In 1893 Katharine Bush described, in the Bulletin of the Museum of Comparative Zoology, from a single specimen, a small muricid similar to the two species described by Dall; she named it *Murex (Pteronotus) pygmaeus*. Once again Vokes (1970:14) realized that this name was preoccupied by *Muricites pygmaeus* Schlotheim and re-named it *Pterynotus bushae*.

In 1979 Harasewych & Jensen published a review of the subgenus *Pterynotus s.s.* in the western Atlantic, proposing that *Pterynotus triptichus* and *P. pygmaeus* (and therefore *P. havanensis* and *P. bushae*) were junior synonyms of *P. phaneus*, a conclusion that had been reached earlier by Abbott (1974) and Radwin & D’Attilio (1976).

Vokes (1992), in later reviewing this synonymy, states: “I accept the synonymy of *P. bushae* and *P. phaneus*; however, there is a fundamental difference between these two and the third species, *P. havanensis*, in that the early teleoconch whorls in the latter have six lamellar varices per whorl ...in contrast to only three in the others. Also, the shell ornamentation is more pronounced in *P. phaneus/bushae*.” With permission of the author I have copied in the plate her splendid images of the protoconch of the holotypes of *Pterynotus havanensis* (fig. 1b) and *P. phaneus* (fig. 2b). I am also showing in the plate images of some of the specimens in my collection representing both taxa.

Figures 3a and 4a show two specimens of *Timbellus havanensis* dredged by Frank Frumar off Key West Florida, with their respective early teleoconch whorls (figs. 3b, 4b) sporting the extra lamellar varices indicated by Vokes. Figures 6a-6b show a specimen of *Timbellus phaneus*, its early teleoconch whorls (6c) showing only three varices.

In his original description Dall lists as a significant difference between his two taxa the three intervarical nodes that appear in *T. phaneus*. The specimen of *phaneus* illus-

trated in the Plate (figs. 6a, 6b, 6d) shows this intervarical ornamentation, but this character is variable and may not show at all in some specimens. It is more accurate to say that *phaneus* has a stronger intervarical axial and spiral sculpture, particularly on later whorls. Compare the intervarical ornamentation of *T. havanensis* (fig. 3c) and that of an old, dead-collected specimen of *T. phaneus* (fig. 5b) that lacks the “three short little narrow pinched-up riblets” described by Dall (1889:201), but which nevertheless has a significantly stronger axial and spiral sculpture.

Although *Timbellus phaneus* and *T. havanensis* have similar profiles as juveniles, adult *T. phaneus* (with about 6 teleoconch whorls) have a tendency to have more rounded, less pointed varices. Compare profiles of *T. havanensis* (figs. 1a, 3a, 4a) with those of *T. phaneus* (figs 2a, 6a). Varices in specimen 5a are damaged. It is shown here to demonstrate the consistency of surface ornamentation even in eroded specimens.

*Pterynotus emilyae* Espinosa, Ortea, & Fernández-Garcés, 2007, is probably a junior synonym of *Timbellus phaneus*. The newer taxon is known only from the holotype and a fragment of a second specimen. The holotype measures 5.4 mm, has a teleoconch of only 3.5 whorls, and has almost translucent varices. The protoconch of one whorl described by the authors seems to be the only difference between *emyliae* and a juvenile *T. phaneus*.

My thanks to Dr. Emily Vokes, Professor Emerita, Tulane University, for reading the manuscript and making important suggestions, and for allowing me to reproduce her images. I also thank Frank Frumar, of Kirkwood, Missouri, for inducing me to start this project and for providing specimens.

#### References:

**Abbott, R. T. 1974.** American Seashells, 2nd ed. [viii] + 663 pp., 24 pls. Van Nostrand Reinhold: New York.

**Bush, K. J. 1893.** Report on the Mollusca dredged by the “Blake” in 1880, including descriptions of several new species. *Bulletin of the Museum of Comparative Zoology* 23: 199-244, pls. 1-2.

**Dall, W. H. 1889.** Reports on the results of dredgings, under the supervision of Alexander Agassiz, in the Gulf of Mexico (1877-78) and in the Caribbean Sea (1879-80), by the U. S. Coast Survey Steamer “Blake.” *Bulletin of the Museum of Comparative Zoology* 18: 1-492, pls. 10-40.

**Dall, W. H. 1890.** Scientific results of explorations by the U. S. Fish Commission Steamer “Albatross.” No. VII.--Preliminary report on the collection of Mollusca and Brachiopoda obtained in 1887-'88. *Proceedings of the United States National Museum* 12(773): 219-362, pls. 5-14.

**De Gregorio, A. 1885.** Continuazione degli studi su talune conchiglie mediterranee vivente e fossile. *Bullettino della Società Malacologica Italiana*, 11:27-203.

**Espinosa, J., J. Ortea, R. Fernández-Garcés and L. Moro. 2007.** Adiciones a la fauna de moluscos marinos de la península de Guanahacabibes (I), con la descripción de nuevas especies. *Avicennia* 19: 63-88, 41 figs.

**Harasewych, M. G. and R. H. Jensen. 1979.** Review of the subgenus *Pterynotus* (Gastropoda: Muricidae) in the Western Atlantic. *Nemouria* 22: 1-16, 19 text figs.

**Houart, R. 2012.** The *Timbellus richeri* complex (Gastropoda: Muricidae) in the southwest Pacific. *Novapex* 13(3-4): 91-101, figs. 1-46, 1 table.

**Merle, D., B. Garrigues and J. P. Pointier. 2011.** Fossil and Recent Muricidae of the world. Part I Muricinae. 648 pp, 182 pls. ConchBooks: Hackenheim.

**Radwin, G. E. and A. D'Attilio. 1976.** Murex Shells of the World. 284 pp., 32 pls. Stanford University Press: Stanford.

**Vokes, E. H. 1964.** Supraspecific groups in the subfamilies Muricinae and Tritonaliinae (Gastropoda: Muricidae). *Malacologia* 2(1):1-41, 3 pls.

**Vokes, E. H. 1970.** Cenozoic Muricidae of the Western Atlantic. Part V--*Pterynotus* and *Poirieria*. *Tulane Studies in Geology* 3: 1-50, pls. 1-7, 1 text fig.

**Vokes, E. H. 1992.** Cenozoic Muricidae of the Western Atlantic region. Part IX - *Pterynotus*, *Poirieria*, *Aspella*, *Dermomurex*, *Calotrophon*, *Acantholabia*, and *Attiliosa*; additions and corrections. *Tulane Studies in Geology and Paleontology* 25: 1-108, pls. 1-20, 10 text figs.

**WoRMS Editorial Board (2013).** World Register of Marine Species. Available from <http://www.marinespecies.org> at VLIZ. Accessed 9 Sep 2013.

Emilio F. García  
115 Oak Crest Dr.  
Lafayette, LA 70503  
Efg2112@louisiana.edu

## Snail House

originally presented by the Sanibel Shell Club newsletter, *The Junonia*



This unique dwelling was designed by Javier Senosian of Mexico City, and is purportedly owned by Magail and Fernando Mayorga (despite Internet sites listing the home as a Mumbai, India, dwelling).



# *Turritella lyonsi* found off the Louisiana coast

Emilio F. García

In June, 2005, during a cruise to Bahía de Campeche in the southern Gulf of Mexico, an undescribed species of *Turritella* was dredged in 28 to 48 m of water, in mud. Although there were a number of specimens in that one haul, this was the only instance, out of more than 100 stations, in which this species was dredged. The species was eventually named *Turritella lyonsi* García, 2006.

With the data at hand and dealing with a species with a paucispiral protoconch of only two whorls, I presumed that *T. lyonsi* would be restricted in its habitat; and that was the status quo until a cruise on the R/V Pelican off Louisiana this past October, when a haul done in 189 m of water on a mud bottom produced a single specimen of this species (figure 1).

And now one has to wonder... . When one consistently finds in dredging operations many juvenile *Turritella exoleta* (Linnaeus, 1758) and innumerable early whorls of *Vermicularia knorrii* (Deshayes, 1843), one's little gray cells sort of give up on shells of that size and shape. So, I am not exactly sure why I decided to pick that particular specimen and take it to the lab to look at it under my visor. And then... voilà. Well, not really. I knew what it wasn't, but not what it was, since at that moment *T. lyonsi* was far from my thoughts. Only when I got to the university lab and looked at the specimen under the microscope did the "voilà" moment occur. And yes, we do have a microscope on the ship, but it is always in use by my "non-molluscan" colleagues; besides, there are enough exciting moments on board and it is nice to bank some for later.

And after the "voilàs" came the "what ifs:" What if there were more specimens of *T. lyonsi* in that haul; what if in all these years of dredging I failed to recognize the species mixed in with other look-alikes; you know, like not seeing the tree for the forest. I'd like to think that, just as this specimen attracted my attention this time, other specimens of *T. lyonsi* would have done the same in the past. That's what I would like to think, but I wonder.

The station at which this Louisiana specimen was dredged is some 400 miles north of the type locality of *T. lyonsi* in Campeche (see map), and the two localities bridge abyssal depths. It does not seem plausible that, with a protoconch of only two whorls, *T. lyonsi* would produce veligers that could cross that distance. And the other option is that the species lives deep enough, is inconspicuous enough, and is small enough for it not to have been reported from the more accessible collecting areas in the Gulf coast.

These are the same conjectures I had regarding another, generally similar species from the northern Gulf: *Terebra mugridgeae* García, 1999 (see García, 2002:7). If one is not paying close attention one may take this small, incon-



Map of the Gulf of Mexico showing the two stations where *Turritella lyonsi* was found.

spicuous, mud-dwelling species for a number of other Gulf of Mexico *Terebra*. And this species, with a multispiral protoconch of four whorls, should certainly have the capability of inhabiting appropriate muddy habitats around the Gulf. Perhaps we need to add this predilection for muddy niches to the list of reasons why both the *Terebra* and the *Turritella* have been hidden from discovery for so long.

And the moral of this story is: don't take any shell for granted. The diamond is in the details. The *Turritella lyonsi* specimen was collected during operations of GoMRI-112-8 Project #674GRI-1.

## References:

- García, E. F. 1999.** Three new gastropod species from the New World. *Apex* 14(3-4):59-65.
- García, E.F. 2002.** More discoveries from a collecting expedition off the Louisiana coast. *American Conchologist* 30(1):6-8
- García, E. F. 2006.** Six new species of mollusks (Gastropoda: Cerithioidea, Buccinoidea, Muricoidea) from Bahía de Campeche, southwestern Gulf of Mexico. *Novapex* 7(4): 77-89.

Emilio F. García  
115 Oak Crest Dr.  
Lafayette, LA 70503  
Efg2112@louisiana.edu



*Turritella lyonsi* García, 2006. Louisiana: 27°57.919'N, 91°14.501'W to 27°58.670'N, 91°16.150'W; 189 m, in mud, 13.1 mm.

# The *Harpago* complex: a collector's guide

Andre Meredith (photos by the author)

## Introduction

The *Harpago* complex is a group of three distinct species of marine gastropods within the family Strombidae. Genus *Harpago* is one of several genera within this fascinating family. Although fairly common, all three species are worthy of attention and exhibit strong features and bold characters. While the relative size, mass, and decorative flair of *Harpago chiragra* (Linnaeus, 1758), in particular, have given it a prominent place on many collector mantel-pieces, the other two should not be forgotten.

Many would argue that the species within this genus border on bland and uninteresting, their relative abundance often being cited as reason for the aforementioned mind-set. This, however, could not be further from the truth. Although *Harpago chiragra* and *Harpago arthriticus* (Röding, 1798) are regarded as common, the true joy in collecting this genus is in finding spectacular specimens – a feat not easily accomplished. Finding specimens resplendent with intense dorsal coloration and patterning, vibrant aperture coloration and texture, perfect digitations and spires, graceful ornamentation, or uncommon sizes (both small and large) is a challenge and a reward when such is found. In addition, the relative scarcity and added gracefulness of *Harpago rugosus* (G.B. Sowerby II, 1842), makes this species a prize worthy of seeking out.

An additional challenge is collecting specimens of the more common varieties from various locations or collecting aberrant specimens exhibiting some special flair. An added boon of collecting a species regarded as fairly common is the associated relatively low cost of acquisition. It is not difficult to build up a large collection of specimens from this genus over a relatively short period of time – notably adding from various specimens from around the world to make the collection all the more interesting.

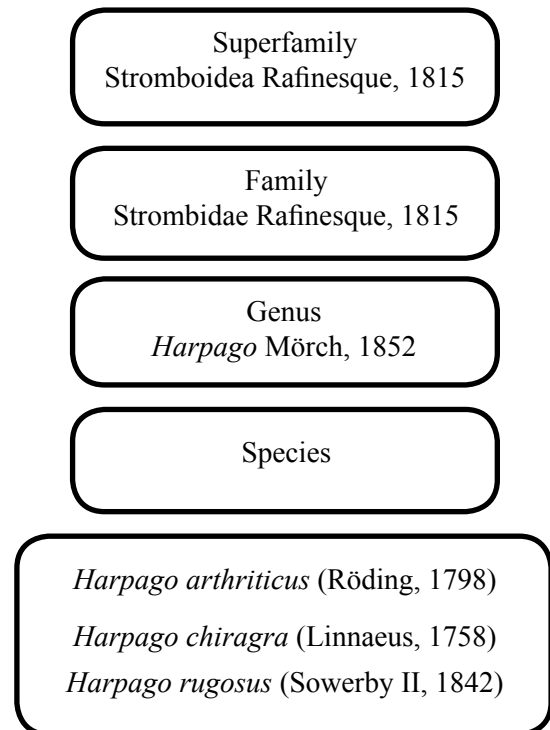
The purpose of this guide is twofold: to inspire collectors to see the true beauty and desirability of the species within the *Harpago* complex and to help more easily differentiate and identify these three species.

## Nomenclature

The following diagram provides a visual layout of the nomenclature associated with the *Harpago* complex. The genus contains three distinct species: *Harpago arthriticus* (Röding, 1798), *Harpago chiragra* (Linnaeus, 1758) and *Harpago rugosus* (G.B. Sowerby II, 1842). The type species for the genus *Harpago* is *Lambis harpago* Röding, 1798, now accepted as *Harpago chiragra* (Röding, 1798).

An interesting fact about *H. rugosus* is that up until a few years ago it was thought that true *rugosus* and the male

form of *H. chiragra* were one and the same. It was thought to be a “form” of *H. chiragra*, and was known as “*Harpago chiragra* f. *rugosa*.” It is now known that there are actually two distinct species: the smaller male of *H. chiragra*, as well as the species *H. rugosus*. Although both have similarities, there are distinct features separating them. *H. arthriticus* was also once thought to be only a “form” of *H. chiragra* (“*Harpago chiragra* f. *arthritica*”), but it has also been accepted as a separate species in itself.



The following synonyms are associated with the *Harpago* complex:

- Harpago arthriticus* (Röding, 1798)
- Harpago arthritica* (incorrect gender ending)
- Lambis arthritica* Röding, 1798 (original combination)
- Lambis chiragra arthritica* (Röding, 1798)
- Strombus divergens* Perry, 1811
- Strombus nigricans* Perry, 1811
- Harpago chiragra* (Linnaeus, 1758)
- Strombus chiragra* Linnaeus, 1758 (original combination)
- Lambis chiragra* (Linnaeus, 1758)
- Lambis harpago* Röding, 1798
- Lambis undulata* Röding, 1798
- Pterocera kochii* Freyer, 1855

*Harpago rugosus* (G.B. Sowerby II, 1842)

*Harpago rugosa* (incorrect gender ending)

*Pterocera rugosa* G.B. Sowerby II, 1842

*Lambis rugosa* (G.B. Sowerby II, 1842)

Besides the many aberrant forms found, in particular associated with *H. chiragra*, the genus produces one very interesting (but exceptionally rare) recognised hybrid: *H. chiragra* X *Lambis lambis*. Other hybrids may exist, although unrecognised (e.g. a report of a hybrid between *H. chiragra* X *H. rugosus*).

### Descriptions

***Harpago arthriticus* (Röding, 1798)** - Shell (including digitations) 120 to 190 mm (5 to 7 inches) in length with 5 labial digitations and with its siphonal canal turned to the left. Large “stromboid notch” located between the 4<sup>th</sup> and 5<sup>th</sup> labial digitations. Similar to *H. chiragra*, but instead of having a deep depression at the upper end of the aperture, there is an arching broadly rounded, slightly depressed shelf projecting from the upper part of the parietal wall. The color of the inside of the outer lip is usually yellowish or pinkish yellow with splotches of purplish underlying the white spiral lirae. The columella is brownish purple with strong whitish spiral lirae which tend to parallel the 4 spiral cords on the parietal wall. On the dorsum of the body whorl, the top spiral cord bears 7 to 9 evenly-sized, rounded nodules. Periostracum thin, varnish-like, and translucent-yellowish.

M/F: There are no significant, officially-reported differences between the shells of the males and females.

***Harpago chiragra* (Linnaeus, 1758)** - Shell large, 150 to 250 mm (6 to 10 inches) in length, massive, with 5 large labial digitations and with the siphonal canal turned to the left. Large “stromboid” notch located between the 4<sup>th</sup> and 5<sup>th</sup> labial digitations. Total number of whorls is 10 to 11. Spire whorls concave, bordered above and below by two raised spiral cords, between which runs the finely indented suture. Spiral sculpture of numerous, small threads and, on the body whorl, of 4 or 5 large spiral cords. The upper cord at the shoulder bears 6 to 7 large knobs of which the last two are the largest and are welded together in the female shell. The lowest fourth cord is the weakest, but it extends onto the dorsal side of the 5<sup>th</sup> labial digitation and there forms a raised ridge. Color of outer shell whitish to cream with crowded, zigzag streaks of light- or purple-brown. Color of deep interior of aperture is white. Throat of aperture somewhat constricted, flushed with rose and bearing short, white, raised, spiral lirae. Parietal wall slightly glazed, cream with brown axial streaks. Lower columella area made into a raised shield which is smoothish, cream, and tinted with rose. At the upper or posterior end of the throat of the aperture there is an elongate, concave, greatly depressed, whitish lobe attached to the inner parietal wall. Specimens from Sri Lanka (Cey-

lon) usually have a brown or purple-brown stain over all of the apertural area. Periostracum moderately thin, brown, axially striate, but usually worn off on the dorsal sides of the digitations and body whorl. Operculum chitinous, dark-brown, fusiform, with about 16 fine serrations on one side (commonly worn away), usually filling the constricted throat of the aperture and with a muscle attachment scar that is half the area of the entire operculum.

M/F: Females typically larger and last two knobs of shoulder larger than the others and welded together.

***Harpago rugosus* (G.B. Sowerby II, 1842)** - Closely resembles *H. arthriticus*. The principal difference between *H. rugosus* and *H. chiragra* consists of the comparative smoothness and flatness of the inner lip and the strong downward curve of the posterior canal, which reaches the angle of the body whorl in *H. chiragra*. *H. rugosus* is thick, sub-oval, spirally striated, with four tuberculated ribs on the body whorl. Shoulder with 4 to 6 rather evenly-sized small knobs. The digitations are thick and curved, the posterior terminal digitation, although somewhat recurved, is not bent downwards over the spire, as in *H. chiragra*. The aperture is wide and very deep, with the interior strongly plicated and transversely sulcated with black interstices; the inner lip is sulcated in the same manner. The general color of the shell is light brown mottled with darker touches and blackish stripes on the terminations of the digitations. The aperture is more or less strongly tinted with rose colour with the black striped grooves covering a larger portion of the interior in one variety than in the other. Operculum and periostracum like those in *H. arthriticus*.

M/F: There are no significant, officially-reported differences between the shells of the males and females.

### Size Variations

The shells of *H. chiragra* display a wide size variation, while the size differences in shells of *H. arthriticus* and *H. rugosus* are far smaller.

***Harpago arthriticus* (Röding, 1798)** - Adult sizes generally vary between 110 and 190mm. The current declared World Record Size for this species is 264mm – although this is debatable and is in all probability an incorrectly identified *H. chiragra* from Kenya, which is an area commonly associated with both species.

***Harpago chiragra* (Linnaeus, 1758)** - Approximately 90% of the shells range in size between 85 and 260mm. Shells of *H. chiragra* grow to giant proportions, both in length and mass, off the west coast of Australia. Monster shells, measuring in excess of 340mm, have been found in this location. The current declared World Record Size for this species is a 343.5mm from Western Australia.

***Harpago rugosus* (Sowerby II, 1842)** - Sizes generally vary between 120 and 170mm. The current declared World Record Size for this species is 186.5mm.

**Habitat**

The molluscs of the *Harpago* complex are herbivores and graze on algae and marine plant life. They are generally found at relatively shallow depths (ranging between 4 and 10 feet) and many have been found just below the low tide mark.

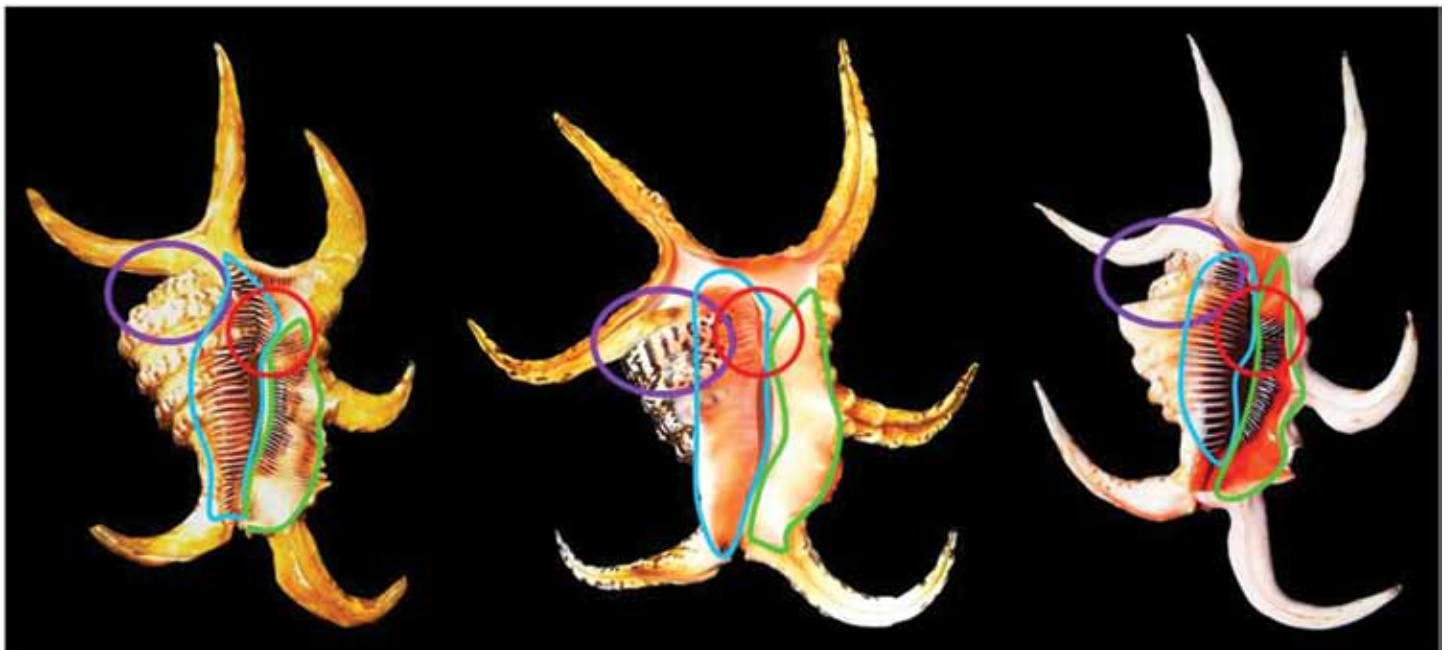
The terrain where these molluscs feed varies widely, and has been described in various passages of literature as follows:

- On seaward reef flats
- In sand between rocks and coral heads
- In tide pools
- Among masses of coral
- Algal covered reefs
- On sand or rubble
- Flat, offshore reefs covered with algae and marine grass
- Weed-covered, stony reefs
- Among coral and gravel

From the above, it is apparent that they love coral reefs, or flat patches of sand and rubble, as long as it is close by algae and marine plant life.



**Size variation in *H. chiragra*.** On the left is a 305mm giant from Exmouth Gulf, Western Australia, and on the right is a 98mm dwarf from Olango Island, Philippines.



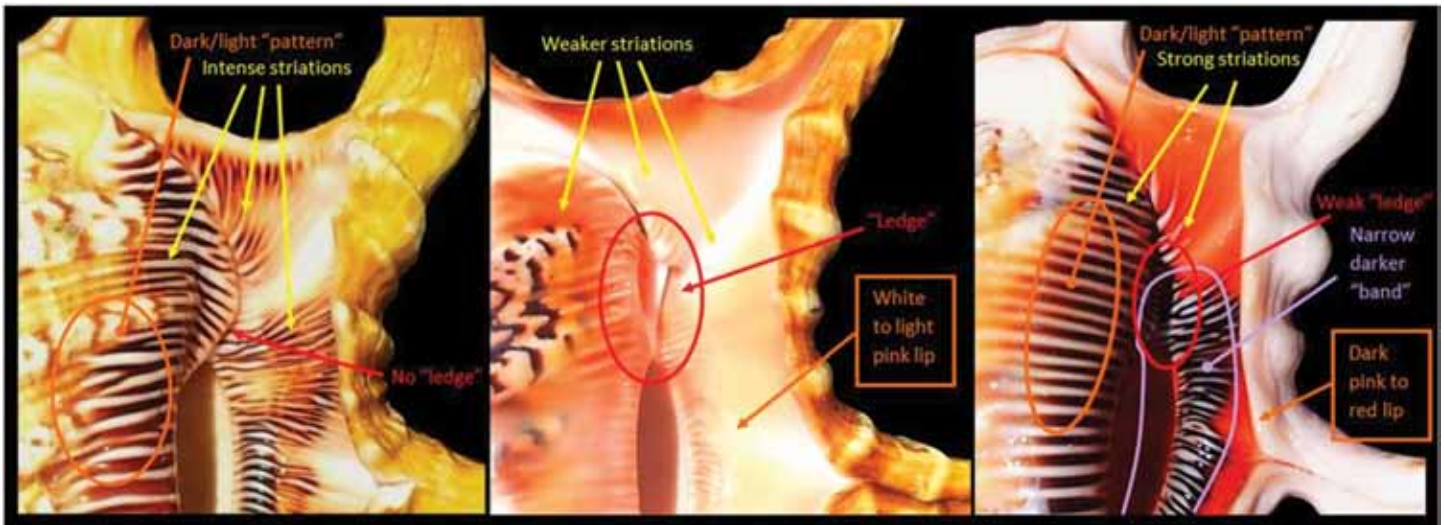
*Harpago arthriticus*

*Harpago chiragra*

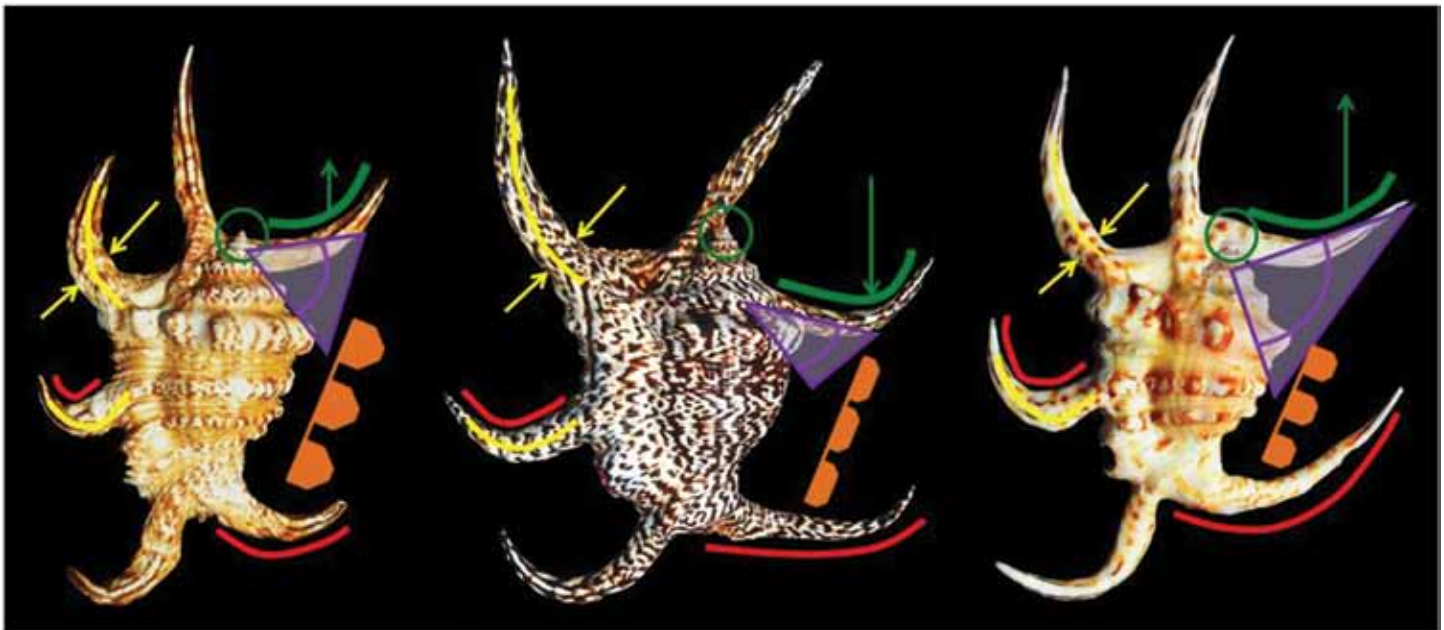
*Harpago rugosus*

**Aperture features**

First digitation/body whorl relationship  
 Columellar features  
 Lip features  
 Posterior aperture contour



Aperture features: posterior contour (detail)



*Harpago arthriticus*

*Harpago chiragra*

*Harpago rugosus*

Dorsum features

- Relative digitation thickness/length ratio
- Relative curvature of digitations
- Relative roughness of dorsal features
- Digitation curvature and spire location
- Angle between dorsum and first digit

Locations

*Harpago* species are found across a wide area of our oceans. In some places, *H. arthriticus* and *H. chiragra* co-exist (northern and central Indian Ocean, Philippines), while in other areas only one species is found. *H. rugosus* seems to be isolated and located in the south-west to central Pacific. Regardless of specifics, all three species seem to be confined to the tropics and sub-tropics.

The following lists provide a rough breakdown of where the various species are most commonly found. A visual location map has been prepared showing where specific specimens have been found. The dots simply indicate approximate locations where specimens have been found.

***Harpago arthriticus* (Röding, 1798)**

## Western to Central Indian Ocean

Northern Kwa-Zulu Natal  
Mozambique  
Tanzania  
Kenya  
Zanzibar  
Somalia  
Madagascar  
Mauritius  
Reunion Island  
Comoros Islands  
Seychelles Islands  
Maldives

## Philippines

## Northern/Eastern Indian Ocean

Sri Lanka  
India  
Indonesia  
Malaysia  
Thailand  
Cambodia  
Burma

***Harpago chiragra* (Linnaeus, 1758)**

## Western Indian Ocean

Madagascar (uncommon)

## Northern/Eastern Indian Ocean &amp;

## South China Sea

Sri Lanka  
India  
Indonesia  
Malaysia  
Thailand

Cambodia  
Vietnam  
Malaysia  
Singapore  
Burma  
Western Australia

## Philippines

Western Pacific (except regions listed for *H. rugosus*)

Papua New Guinea  
Japan  
Australian East Coast up to Great Barrier Reef  
Philippine Sea  
Marianas  
Ryukyu Islands  
Guam

## Central Pacific

Marshall Islands

***Harpago rugosus* (Sowerby II, 1842)**

## Coral Sea

Great Barrier Reef outward

New Caledonia  
Vanuatu  
Tahiti  
Solomon Islands

## Central Pacific

Line Islands  
French Polynesia  
Micronesia  
Society Islands  
Kiribati  
Pitcairn Islands

## References

**Abbott, R.T.** 1961. *Indo-Pacific Mollusca*. Vol. 1, no.3. 28 September 1961.

**Bouchet, P.** (2013). *Harpago* Mörch, 1852. World Register of Marine Species accessed on 29 Oct 2013 at <http://www.marinespecies.org/aphia.php?p=taxdetails&id=531658> on 29 Oct 2013.

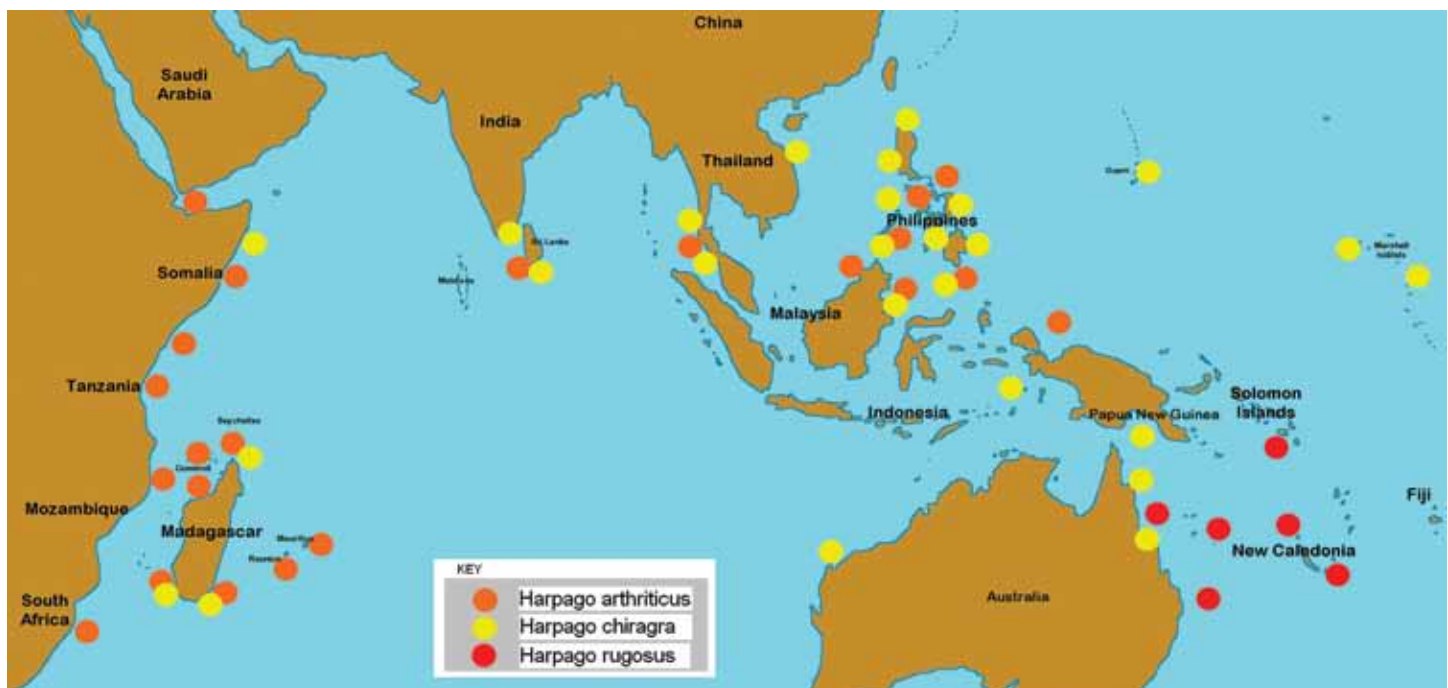
**Ulrich Wieneke, Han Stoutjesdijk, Philippe Simonet & Virgilio Liverani (Eds.)**, "*Harpago*". In: *Gastropoda Stromboidea*. modified: 18 Sep 2013, 03:43 PM, URL:<http://www.stromboidea.de/?n=Species.Harpago>

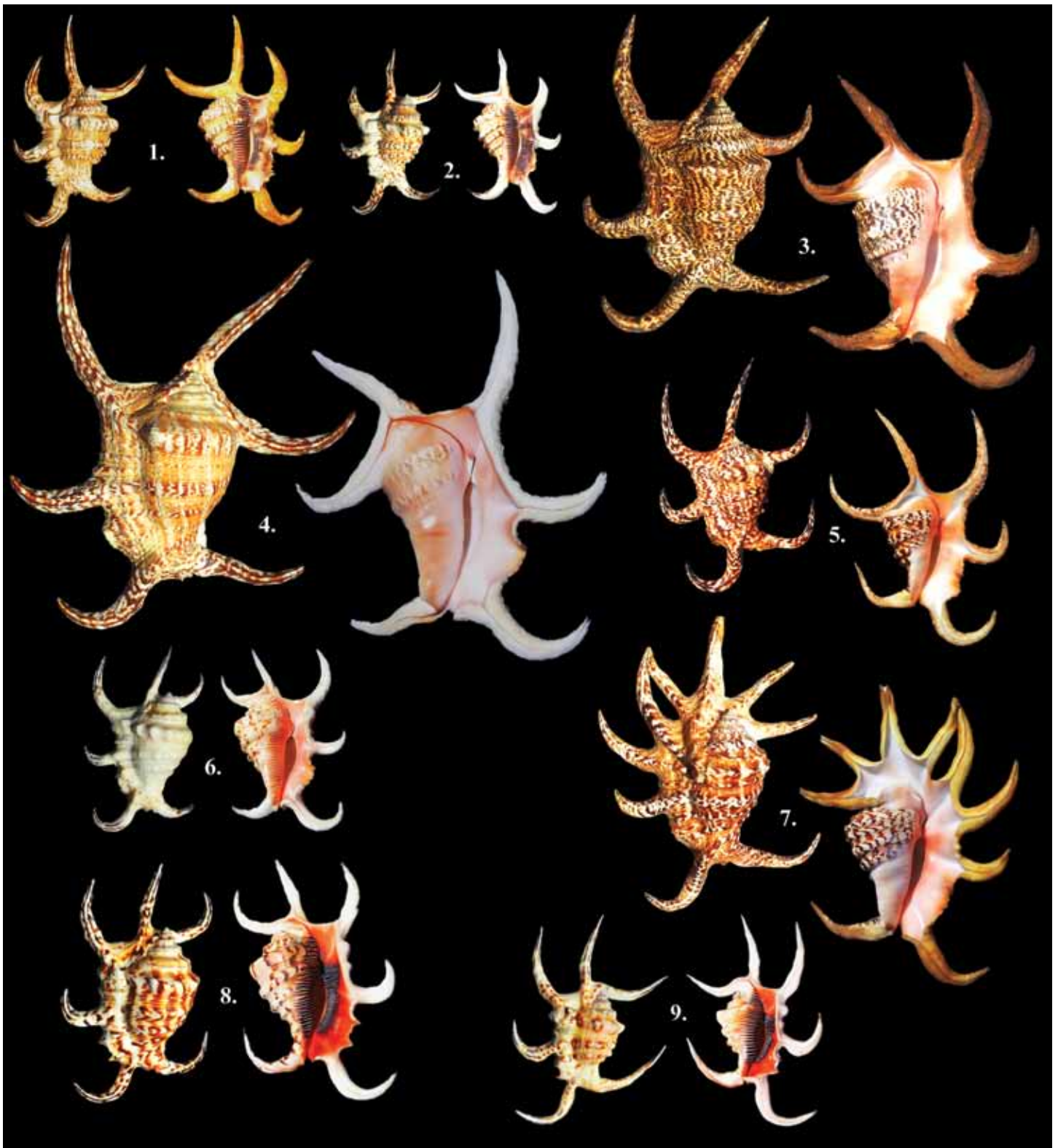
**Hardy, E.** "*Strombidae (Harpago)*". Accessed through: Hardy's Internet Guide to Marine Gastropods, accessed Sep 2013 at [http://www.gastropods.com/Taxon\\_pages/Family\\_STROMBIDAE.shtml](http://www.gastropods.com/Taxon_pages/Family_STROMBIDAE.shtml)

**Quiquandon, P.** *Registry of World Record Size Shells*. accessed Sep 2013 at <http://www.wrs-shells.com>.

**Poppe, G.M. and P.** "*Strombidae (Harpago)*". In: *Conchology Inc Shell Encyclopaedia*. accessed Sep 2013 at <http://www.conchology.be/?t=65&family=STROMBIDAE&p=2>

**Andre Meredith**  
Lammergeyer Street 115  
Thatchfield Close  
Rua Vista X9  
Centurion  
0157  
South Africa  
[andrepm32@gmail.com](mailto:andrepm32@gmail.com)





1. *H. arthriticus* (143 mm), yellow periostracum, Zanzibar Island, Tanzania. 2. *H. arthriticus* (107 mm), dwarf form typical of northwest Mauritius. 3. *H. chiragra* (256 mm), thick brown periostracum, Balabac Island, Philippines. 4. *H. chiragra* (305 mm), giant specimen from an area where it is uncommon, Diego Suarez, Madagascar. 5. *H. chiragra* (188 mm), typical form from Bantayan Island, Philippines. 6. *H. chiragra* (111 mm), dwarf with white dorsum, Palawan, Philippines. 7. *H. chiragra* (230 mm), aberrant form with nine digits. 8. *H. rugosus* (155 mm), stocky body, Coral Sea. 9. *H. rugosus* (148 mm), thin, smaller body form, Coral Sea. All images are of specimens from the author's collection.

# Illustrated Catalog of the Living Cone Shells

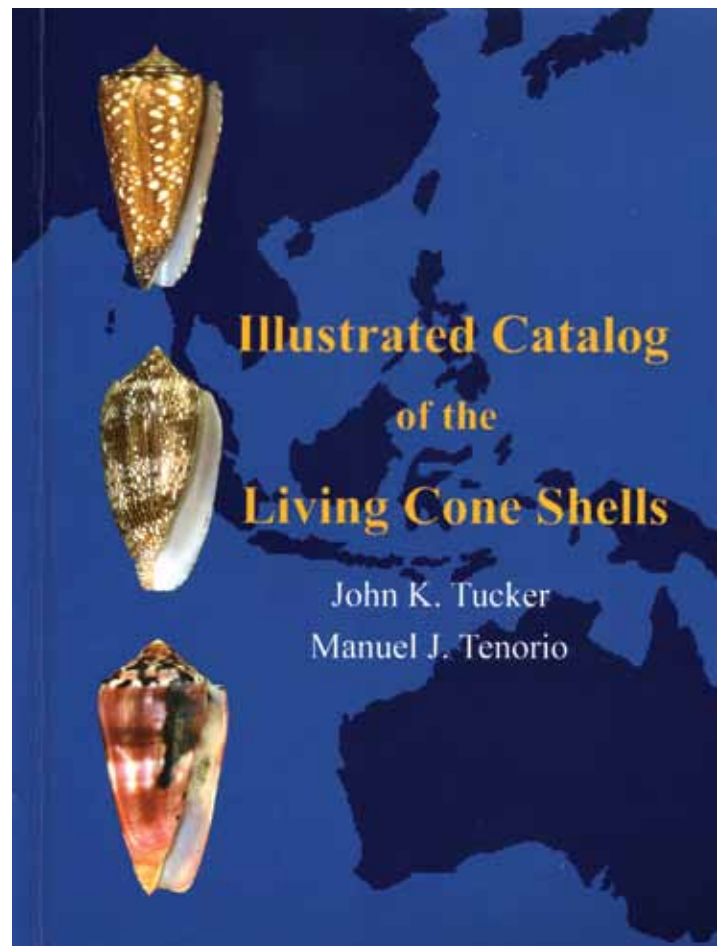
by John K. Tucker & Manuel J. Tenorio

2013, MdM Publishing, Wellington FL, ISBN 978-0-9847140-2-5 in hardcover laminated board case binding, 8½ by 11 inches (21.6 by 29.7cm), 517 pp., species illustrated in high resolution color photographs, about \$180

The last worldwide cone book was “Cone Shells, A synopsis of the living Conidae” by Jerry Walls [1973]. Although this book is now dated, it remains a valuable and easy to use reference. The publication of the “Manuel of Living Conidae - vol. 1” by Röckel, Korn, and Kohn (1995), was hailed by cone experts and collectors for its breadth and depth of coverage of Indo-Pacific cones. It became an instant “classic” and well-deserves its excellent reputation. The problem is that volume II was never written. To get the full spectrum of coverage of worldwide cones a dedicated cone collector needs to add “A Conchological Iconography, vol. X (West Africa & Mediterranean)” by Monteiro, Tenorio, and Poppe (2004); “A Conchological Iconography, vol. XV (South Africa) by Tenorio & Monteiro (2008); and “The Cone Shells of Florida” by Tucker (2012); which still leaves out most of the western Atlantic. With the publication of the “Illustrated Catalog of the Living Cone Shells,” we now have a single volume, up-to-date reference for worldwide Conidae.

In this newest tome, Tucker and Tenorio list 743 valid names of extant Conidae, 1210 synonyms, 3 families, 4 subfamilies, and ...wait for it...119 genera (of which 5 are extinct, leaving 114 Recent cone genera). The authors are aware of the negative reaction of many shell collectors to this new taxonomy (an updated version of the taxonomy they first presented in 2009), but most cone collectors knew the genus *Conus* was a 250-year-old dumping ground for almost all mollusks with cone-shaped shells. The authors incorporated radular characteristics (illustrated for each genus) and, when available, DNA sequencing to provide what they believe is the most thorough and up-to-date classification of this important molluscan family.

Enough about all of the new genera. Do not let this dissuade you from purchasing this important book. When Walls published his cone book [1973], he stated there were “about 300 species.” Twenty-some years later when the Röckel, Korn, and Kohn (1995) book was published, there were about 400 recognized species of cones worldwide. There are now, according to the authors, 743 valid cone species. Each of these is presented here in full color, high resolution photographs with both the dorsal and ventral view shown for each shell. The book contains over 1,960 species names listed in alphabetical order. If the species name is



considered valid, it is listed in **bold-face type** and accompanied by a clear and detailed image. If the name is considered a synonym, or a *nomen dubium*, or unavailable, or anything other than valid, it is shown in regular-face type. A geographical subspecies is also listed in regular-face type. This determination of valid or not is termed by the authors as “likely to be.” In other words, to the best of their information at this time. After the species name, the author and date of description are listed, as well as the publication in which the description appeared. They also list the type locality (as originally described), synonyms, known geographical range, and the present assigned genus.

Not everyone will agree with the taxonomy laid out by Tucker and Tenorio, but this timely and much-needed work provides a solid basis for future taxonomic work on Conidae. For the collector, it provides a single source for the names becoming more commonly used in Conidae and a modern resource for worldwide cone shells. The entries are concise and easy to use (once the explanation is read on pages 7 & 8), the data provided are valuable, and the images are well-executed and large enough to really be of use. I like this book and, if you collect cones, you will find it a worthy addition to your shell library.

Tom Eichhorst  
thomas@nerite.com



**ALGOA BAY SPECIMEN SHELLS**  
**Brian Hayes**  
 In the shell business for 20 years !  
 919 - 931 - 6197 ( cell )  
 PO BOX 97564 NORTHTRIDGE RALEIGH NC 27624 USA

<http://www.algoabayshells.co.za/>  
[brian@algoabayusa.com](mailto:brian@algoabayusa.com)

**Donation to the Conchologists of America;  
 Shell collection for sale**



Large collection located in New England, especially rich in Mitroidea, Muricidae, Conidae, and Volutidae, is available in toto or by family. Many other marine shell families. Many self-collected. Involving almost 100 years of work.

This collection is being donated to the COA for the benefit of education and grants programs.

Contact Edward Nieburger, The Shell Gallery; [enieburger@hotmail.com](mailto:enieburger@hotmail.com), or call 978-475-8437

**\*SHELL COLLECTIONS WANTED\***

And also other Marine Life collections  
 We will find good homes for your shells...many of which will be placed in a Shell Museum of education for children and others.  
 Call for a price evaluation...  
 Phone Brian at: (919) 931-6197



**www.shellsfromchina.com**  
 updated every week with new specimens arrived

He Jing 0086-21-67737531  
[shellsfromchina@hotmail.com](mailto:shellsfromchina@hotmail.com)

**Books for Sale on Shells**  
 Mollusca, Paleontology,  
 and Geology


Contact us to receive occasional emailings of new items for sale. Our stock can also be viewed on **www.molluskbooks.com**

Books bought; single items to complete libraries

Christopher Garvie  
 1475 County Road 258  
 Liberty Hill, Texas 78642  
[clgarvie@molluskbooks.com](mailto:clgarvie@molluskbooks.com)  
 Tel. 512-778-9735


**Keys Shells**  
*We Buy Shell Collections*

**www.keysshells.com**  
**Don@keysshells.com**  
**305.744.0043**



**Displays at Most Shell Shows**  
[donaldan@aol.com](mailto:donaldan@aol.com)

**Donald Dan**  
**Shells for the Discriminating Collector**  
 6704 Overlook Drive  
 Ft. Myers, FL 33919  
 By appointment (239) 481-6704  
 Inquiries welcome — no list



**MDM SHELL BOOKS**  
**MDMSHELLBOOKS.COM**

The finest selection of books and publications on shells and shell collecting from around the world!

(561)790-0097 - [mdmbooks@gmail.com](mailto:mdmbooks@gmail.com)  
 11924 Forest Hill Blvd Ste 22 Wellington, FL. 33414

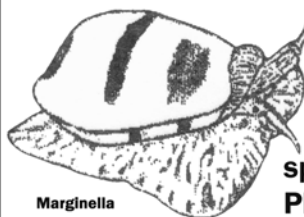
# SHELL BOOKS

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>

# www.theshellstore.com



Marginella

The Shell Store  
348 Corey Ave  
St. Pete Beach, FL 33706

[specimen@theshellstore.com](mailto:specimen@theshellstore.com)  
Phone: (727) 360-0586  
Fax: (727) 360-3668

**Specimen shells, Craft shells, Craft supplies  
and Instruction books, Home decorating**

# PHILLIP CLOVER

Dealer in  
Specimen  
Since 1960



Worldwide  
Sea Shells  
Specializing

In Ancilla, Cancillaria, Conus, Cypraea,  
Marginella, Mitra, Latiaxis, Morum, Typhis,

Voluta and Out-of-Print Shell Books

PH/FAX# 707-996-6960 Free lists

Email: [clovershells@juno.com](mailto:clovershells@juno.com)

P.O. Box 339 - Glen Ellen, CA 95442

# VIETNAMESE SHELLS

Dr THACH (Kurodai Shop)  
Specimen and Commercial Shells

Free price list on request

Fax: 0084 58 824 120

E-mail: [kurodash@dng.vnn.vn](mailto:kurodash@dng.vnn.vn)



267 Thong Nhat, Nha Trang, Vietnam

*Fulgoraria ericarum, Lyria kurodai*  
*Conus pergrandis, Babylonia feicheni*

RICK & CHERYL NEGUS



## RICK NEGUS SPECIMEN SHELLS

Quality Seashells

Reasonable Prices

760 434-9808 home  
760 521-8215 cell  
[rnegus@roadrunner.com](mailto:rnegus@roadrunner.com)  
[www.californiashells.com](http://www.californiashells.com)

Panamic & Worldwide Specialist  
Uncommon / Rare in Stock  
Want Lists Filled  
E-Bay Dealer TICKKERS

"When in Carlsbad, CA, please visit my store."

## WORLDWIDE SPECIMEN SHELLS



Your One Stop Marine & Land Shell Connection

[www.worldwideconchology.com](http://www.worldwideconchology.com)

*Shells of Scientific Value and Aesthetic Beauty*

Richard L. Goldberg  
P.O. Box 6088  
Columbia, MD 21045, U.S.A.

telephone: (443) 535-0427  
email: [worldwide@rcn.com](mailto:worldwide@rcn.com)  
Our 31st Year

## SHOWCASE SHELLS HAS A NEW LOCATION!!

Still the Finest Selection of World Class Specimen Shells and Exotic Corals.

### THE SEA SHELL COMPANY

and  
SHOWCASE SHELLS

4461 Bonita Beach Road  
Bonita Springs, FL 34134

Tele: 1-239-390-1815  
[scshells@gte.net](mailto:scshells@gte.net)

Just south of Sanibel  
on Bonita Beach Road



# American CONCHOLOGIST

Calendar membership (Jan - Dec) = \$25 (USA)

Postal surcharges: + \$5 for USA first class,

Canada & Mexico + \$5, other nations + \$15

New members apply to Doris Underwood, Membership Director

7529 Ensemble Lane  
Melbourne, FL 32940-2603

USA  
[dunderwood13@cfl.rr.com](mailto:dunderwood13@cfl.rr.com)






Quarterly Journal of the Conchologists of America, Inc.



## Club Conchylia

e.V.  
German Shell Collector's Club

Our journals:

-  Conchylia
-  Mitteilungen
-  Acta Conchyliorum

Yearly subscription rate: 40.- €

Visit our site:

[www.club-conchylia.de](http://www.club-conchylia.de)

Further informations:

Klaus Kittel  
Sonnenrain 10  
D-97859 Wiesthal  
e-mail: klaus\_kittel@hotmail.com



## Molluscan Research

[www.publish.csiro.au/journals/mr](http://www.publish.csiro.au/journals/mr)



A major journal for the publication of research articles and reviews in all branches of malacology, with an emphasis on the Australasian, Indo-West Pacific and South East Asian regions: • molluscan biology • physiology • systematics • morphology • ecology • research with conservation or economic significance

*Molluscan Research* welcomes the submission of papers presenting original and significant research. All papers are refereed by at least two reviewers. Manuscripts should be submitted to the Managing Editor, who, in conjunction with the Associate Editors, selects referees and is responsible for acceptance decisions.

**As an author you can expect:**

- Expert refereeing by at least two reviewers
- 25 FREE reprints
- Wide circulation
- Online availability of all papers from 2002
- Abstracting by major biological indexing services

**Visit the website for:**

- Information for Authors
- Table of contents and abstracts
- Papers in press
- Subscription information and ordering
- Link to the Malacological Society of Australasia

**Molluscan Research is for:**

- professional malacologists
- biologists
- conservationists
- conchologists
- amateurs
- students
- those interested in any aspect of the Mollusca

**Managing Editor**

Dr W.F. Ponder, Australian Museum, Sydney

**Associate Editors**

Mr B. A. Marshall, Te Papa Tongarewa, Museum of New Zealand, Wellington  
Professor B. Morton, University of Hong Kong  
Dr W.B. Rudman, Australian Museum, Sydney  
Dr J. Stanisic, Queensland Museum, Brisbane

**Send your submissions to:**

Dr W. F. Ponder  
Australian Museum  
6 College Street  
Sydney NSW 2010, Australia  
Phone: +61 (0)2 9320 6120  
Fax: +61 (0)2 9320 6050  
Email: [winstonp@austmus.gov.au](mailto:winstonp@austmus.gov.au)



**To order a subscription**

Visit the website:  
[www.publish.csiro.au/journals/mr](http://www.publish.csiro.au/journals/mr)  
or email: [publishing.sales@csiro.au](mailto:publishing.sales@csiro.au)

Personal subscriptions are available direct from the *Malacological Society of Australasia*:  
[www.amonline.net.au/malsoc](http://www.amonline.net.au/malsoc)



PO Box 1139, Collingwood VIC 3066, AUSTRALIA  
Fax: (+61 3) 9662 7666 Phone: (+61 3) 9662 7555  
Email: [publishing.sales@csiro.au](mailto:publishing.sales@csiro.au) Web: [www.publish.csiro.au](http://www.publish.csiro.au)

SEP02

# NOVAPEX

Quarterly devoted  
to Malacology  
Edited by the  
**Société Belge de Malacologie**  
[Belgian Malacological Society]  
Founded in 1966

Rue de Hermalle 113  
B-4680 Oupeye – Belgium

Subscription (yearly)  
Belgium: 43 EURO  
Other countries: 58 EURO

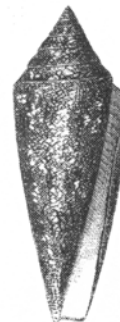
contact: [vilvens.claude@skynet.be](mailto:vilvens.claude@skynet.be)  
Web site: <http://www.societe-belge-de-malacologie.be/>

## GLORIA MARIS

A magazine dedicated to the study of shells.

Edited by the Belgian Society for Conchology,  
organizers of the Belgian Shellshow

Subscription: Belgium: €30 - The Netherlands: €33  
Other countries: €40



Members account manager: J. Wuyts Koningsarendlaan 82 B 2100 Belgium  
tel.: 32 3 324 99 14 e-mail: [wuyts.jean@pi.be](mailto:wuyts.jean@pi.be)

## Donation to the Conchologists of America; Shell collection for sale



Large collection located in New England, especially rich in Mitroidea, Muricidae, Conidae, and Volutidae, is available in toto or by family. Many other marine shell families. Many self-collected. Involving almost 100 years of work.



This collection is being donated to the COA for the benefit of education and grants programs.

Contact Edward Nieburger, The Shell Gallery; [enieburger@hotmail.com](mailto:enieburger@hotmail.com), or call 978-475-8437

Advertising space is available at the following rates:  
Black & White: 1/2 page, \$600 per year or \$200 per issue;  
1/4 page, \$300 per year or \$100 per issue; 1/8 page, \$150  
per year or \$50 per issue. Color: 1/2 page, \$1050 per  
year or \$350 per issue; 1/4 page, \$525 per year or \$175  
per issue; 1/8 page, \$262.50 per year or \$87.50 per issue.

# SCUM XVII: Southern California Unified Malacologists

Lindsey T. Groves

The 17<sup>th</sup> annual gathering of Southern California Unified Malacologists (SCUM) was held in the Times Mirror Room of the Natural History Museum of Los Angeles County (NHMLAC) and attended by thirty-six professional, amateur, and student malacologists and paleontologists on Saturday, January 19<sup>th</sup>, 2013. This informal group continues to meet on an annual basis to facilitate contact and keep attendees informed of research activities and opportunities. In keeping these gatherings informal, there are no dues, officers, or publications. It is hoped that the continuing success of informal groups such as SCUM, Bay Area Malacologists (BAM), Mid-Atlantic Malacologists (MAM), Ohio Valley Unified Malacologists (OVUM), and Florida Unified Malacologists (FUM) will encourage more regional groups of malacologists and paleontologists to meet in a likewise manner.

SCUM XVII co-hosts Lindsey Groves and Mary Stecheson greeted pre-meeting attendees with a variety of pastries, fresh fruit, coffee, tea, and juices. At 9:00 AM Lindsey Groves welcomed the group and made several announcements. He encouraged members to tour several museum galleries opened since the last SCUM gathering at NHMLAC (2008) during the lunch break. Free vintage t-shirts, mugs, and abstract volumes from past Western Society of Malacologists meetings were made available.

In continuing SCUM tradition, all present were given the opportunity to introduce themselves and give a short update about current mollusk related activities. Most presentations were informal but fifteen attendees gave more detailed talks. It was particularly refreshing to have nine students in attendance this year and five of them from Cal Poly Pomona gave presentations on their research. Of particular interest was a presentation by biological consultant Emile Fiesler (BioVeda) who summarized the invertebrate fauna present in Madrona Marsh Preserve in Torrance, CA, a nearly 44 acre preserve surrounded by urban buildup. For SCUM he emphasized eight species of gastropods including two aquatic species *Physella virgata* and *Planorbella tenuis*, two non-native slugs *Lehmanna valentiana* and *Deroceras invadens*, two native snails *Catinella rehderi* and *Nearctula rowelli*, and two non-native snails *Rumina decollata* and *Vallona excentrica*. A noticeable absence of the ubiquitous *Cornu aspersa* in the preserve, but common across the boundary streets, begs the question ... why didn't *Cornu aspersa* cross the road? A timely report by Leslie Harris (NHMLAC Polychaetes Collection Manager) on several docks that were torn loose by the tsunamis that followed the M<sub>w</sub> 9.0 Tohoku earthquake that ravaged northern Japan on 13 March 2011 and washed ashore in Oregon and Washington, focused on the hitch-hiking invertebrates. Particularly interesting was the commensal hydrozoan *Eutima* sp. found inside living *Mytilus* sp. Phil Liff-Grieff (Pacific

Conchological Club) reported on fossil micromollusks from raised reefs of the Waimanalo Formation near Kahe Beach Park on the Waianae Coast of 'Oahu, Hawai'i. He referred to the list of fossil mollusks published by L.T. Groves (2008) in Mike Sevem's book on the seashells of Hawai'i and that it is already in need of revision ... particularly the family Triphoridae. Phil also talked about a micro digital scanner that he uses for photography of micro specimens called the *Dino-lite* Digital Microscope. It has a few problems with depth-of-field but for identification purposes it is a handy tool for the micro mollusk enthusiast. Jennifer Alexander, Jennifer Burdan, Samantha Cooke, Jessica Goodheart, and Jermaine Mahguib (all students at CPP under the guidance of Ángel Valdés) presented progress reports of their research. Current Western Society of Malacologists President Wendy Enright reported on *Philine* collected at the city of San Diego sewer outfalls and encouraged SCUM participants to attend the upcoming WSM meeting in San Diego. As always Doug Eernisse (CSUF) reported on the myriad of projects he has in progress singly and with co-authors both professional and students. SCUM XVIII will be hosted by George L. Kennedy at the City of San Diego Biological Laboratories in January of 2014.

## SCUM XVII participants and their respective interests and activities:

**Candice Aguirre** (Cal. St. Univ., Fullerton): Graduate student researching *Fissurella* in southern California.

**Jennifer Alexander** (Cal. Poly. Pomona): Presented update on her graduate research on *Aplysia dactylomela* in the Mediterranean and Hawai'i.

**Jennifer Berdan** (Cal. Poly. Pomona): Presented *Aliens, parasites and biotic resistance: Studying the potential spread of H. japonica in southern California*. In particular, why this invasive species has not reached southern California.

**Hans Bertsch** (San Diego Shell Club): Presented *Four Journeys: Una Cabalgata en Búsqueda de nudibranchios* where he discussed: 1) two unnamed species of *Marionia* known in the eastern Pacific, 2) problems within the species *Tritonia* (?) *papalotla*, 3) provincial and community comparisons of nudibranch feeding biogeography, and 4) additional unnamed species of *Rostanga*, *Facelina*, and *Cuthona* from the eastern Pacific.

**Rosa Campay** (Imperial Beach, CA): Attended SCUM with husband Hans Bertsch. Copies of *Sea of Cortez marine invertebrates*, 2<sup>nd</sup> edition (revised) by the late Alex Kerstitch and Hans Bertsch were available for sale.

**Sarah Cary**: Current interest in invertebrates and searching for a graduate program to enter and conduct research.



**Top row: (l to r):** Scott Rugh, Phil Liff-Grieff, Emile Fiesler, James Verhoff, Chuck Powell, Doug Eernisse, Jermaine Mahguib, Hans Bertsch, George Kennedy.

**3<sup>rd</sup> row: (l to r)** Pat LaFollette, Bryan White, Paul Tuskes, Leslie Harris, Bob Moore, Mary Stecheson, Jim McLean, Jessica Goodheart, Ángel Valdés, Jennifer Alexander.

**2<sup>nd</sup> row: (l to r)** Lawrence Moser, Bob Stanton, Kari Eckdahl, Zofia Ksiazkiewicz, Wendy Enright, Jennifer Berdan, Samantha Cooke.

**Front row: (l to r)** Kathy Kalohi, Candice Aguirre, Rosa Campay, Sarah Cary, Allison Sholly.

**Seated/Kneeling (l to r):** Lindsey Groves, Shawn Wiedrick. **Present but not in photo:** Daniel Geiger and Ian Christianscher.

**Ian Christianscher:** Attended with Sarah Cary, no report.

**Samantha Cooke** (Cal. Poly. Pomona): Presented *The movement of Haminoea japonica based on oceanic temperatures*, and how and where this invasive species reached Washington, California, and Europe.

**Kari Eckdahl** (Cal. St. Univ., Fullerton): Graduate student with Doug Eernisse researching limpets of southern California.

**Doug Eernisse** (Cal. St. Univ., Fullerton): Teaching duties and research projects with professional and grad student colleagues: calcite eyes in chitons, Paleozoic chitons, possible invasive species from Japanese docks in Oregon and Washington, and sequencing samples for new species of *Cahuillus* (Helminthoglyptidae) with Lance Gilbertson.

**Wendy Enright** (San Diego): Western Society of Malacologists President, conducts offshore marine faunal surveys for San Diego Marine Biology Labs. Presented *Philine in the city: The rise and fall of Philine auriformis in San Diego* and how its introduction affected local faunas.

**Emile Fiesler** (Bio Veyda): Conducts biological surveys with an emphasis on Mollusks and Arthropods. Presented *Gastropods of Madrona Marsh Preserve, Torrance, CA*.

**Daniel Geiger** (Santa Barbara Mus. Nat. Hist.): Full-time curator, Invertebrate Zoology, SBNHM. Completed a major publication, *Monograph of the little slit shells* (superfamily Scissurelloidea), covering living and fossil species. Daniel had copies for purchase along with his revised monograph on abalone (with Buzz Owen), and the recent books by E.V. Coan & P. Valentich-Scott on Panamic bivalves.

**Lance Gilbertson** (Newport Beach, CA): Research Associate at Nat. Hist. Mus., L.A. Co., researches terrestrial mollusks of the Southwest. Published a paper with Doug Eernisse (CSUF) on a new species of *Cahuillus* (Helminthoglyptidae) from the Mojave Desert, using molecular techniques.

**Jessica Goodhart** (Cal Poly Pomona): Reported on participation in *Expedition Papua New-Guinea 2012-2013*, with the Paris Museum, particularly within the Madang Lagoon, rich in species but not exceptional given its location in the "Coral Triangle." Numerous species normally common in the West Pacific are inexplicably absent. She continues her research on the genus *Pleurobranchus* (Pleurobranchidae).

**Lindsey Groves** (Nat. Hist. Mus. L.A. Co.): Collection manager at NHMLAC, recently published describing a new species of Cretaceous *Bernaya* (Cypraeidae) from the Santa Ana Mountains, Orange Co., CA, with Harry Filkorn (Pierce College) and John Alderson (LACMIP). He also identified fossil mollusks for two papers with Daniel Muhs (USGS Denver) on terrace chronology on San Nicolas Id., CA, and possible terraces on Santa Catalina Id., CA. He documented the presence of the introduced species *Polygyra cereolus* into southern California from Florida with Phil Liff-Grieff.

**Leslie Harris** (Nat. Hist. Mus. L.A. Co., Polychaetes): Presented *Hitchhiking aliens: Unexpected consequences of the Japanese tsunami* and in particular the hydrozoan *Eutima* sp. living within the valves of *Mytilus* spp.

**Kathy Kalohi** (Pac. Conch. Club): Current Pacific Conchological Club Treasurer, shell and fossil collector, and diver.

**Zofia Ksiazkiewicz** (Polish Academy of Science): Current PhD candidate and researches micro land snails of wetlands of western Poland.

**George Kennedy** (Brain F. Smith & Associates): Conducts paleo-monitoring in San Diego County and researches marine terraces, including some on the Camp Pendleton Marine Base in northern San Diego County.

**Pat LaFollette** (Nat. Hist. Mus. L.A. Co.): Continues with rearrangement of the Pyramidellidae in the NHMLAC malacology collection. Beginning to research bivalve ectoparasitic pyramidellids; some seem to be host specific. Works with Pleistocene micros from Lake Cahuilla sediments and Miocene/Pliocene Imperial and Brawley formations in the Whitewater Canyon area of Riverside County.

**Phil Liff-Grieff** (Pac. Conch. Club): Landsnail collector with interest in island biogeography. Recently renewed an interest in microgastropods from the Pleistocene Waimanalo Formation of 'Oahu, Hawai'i.

**Jim McLean** (Nat. Hist. Mus. L.A. Co.): Jim continues on his eagerly anticipated volumes on North Pacific shelled gastropods. His monograph of worldwide Liotiidae is nearly complete. Published on new species and genera of a new subfamily (Liotipomatinae) within the family Colloniidae.

**Jermaine Mahguib** (Cal. Poly. Pomona): Presented *The funny dorids: A proposed investigation of a possible new species investigation using additional gene sequences to*

*determine undescribed species.* Funny dorids are a subgroup of the genus *Doris* known as *Doriopsis*.

**Bob Moore** (Nat. Hist. Mus. L.A. Co., Malacology): Volunteer in Malacology section and avid shell collector curating material collected by Curator Emeritus James McLean in South Africa.

**Lawrence Moser** (Pac. Conch. Club): General shell collector and Vice-President of the Pacific Conchological Club.

**Chuck Powell, II** (U.S. Geological Survey): Currently working on deepwater faunas from Pliocene deposits off San Clemente Is., CA, and middle Miocene limestone strata in Orange County, CA.

**Scott Rugh** (Escondido, CA): Currently identifying fossils from the Susan Kidwell (Univ. Chicago) collection donated to the Anza Borrego Desert Museum in Borrego Springs, CA

**Allison Sholly** (Cal Poly Pomona): New grad student at Cal Poly Pomona.

**Robert Stanton** (Nat. Hist. Mus. L.A. Co., Invert. Paleontology): Studying Miocene mollusks from limestone strata within the Conejo Volcanics of the Santa Monica Mountains with John Alderson (also NHMLAC, IP) and Pennsylvanian sponges of the genus *Chaetetes* from Texas.

**Mary Stecheson** (Nat. Hist. Mus. L.A. Co., Invertebrate Paleontology): Current Collection of Invertebrate Paleontology at NHMLAC and preparing for major move of the IP collection to another off-site facility in Carson, CA.

**Paul Tuskes** (San Diego Shell Club): Recently completed molluscan survey of Misson Bay, San Diego, by habitat, which will be published in *The Festivus* (SD Shell Club) that included 187 species. Presented *Opisthobranchs of Mission Bay* and in particular the bubble shell *Bulla gouldiana* and its natural history, reproduction, growth, and predation.

**Ángel Valdés** (Cal Poly Pomona): Teaches Evolutionary Biology and continues phylogenetic research on Caribbean and Panamic opisthobranch gastropods.

**James Verhoff** (CH2M Hill): Conducts salvage paleontological locally and first time SCUM attendee.

**Bryan White** (Cal. St. Univ., Fullerton): Graduate student of Doug Eernisse.

**Shawn Wiedrick** (Pac. Conch. Club): President of the PCC and interested in all areas of shell collecting. Volunteers at Nat. Hist. Mus. of L.A. Co. identifying Indo-Pacific micro-turrids. Discussed recent collecting trip to Costa Rica and will report on findings at future SCUM gathering, his construction of shell cabinets that dominate his apartment, and figuring micro species omitted by Keen (1971).

**Lindsey T. Groves**  
**Natural History Museum of Los Angeles County**  
**Malacology Section**  
**900 Exposition Blvd**  
**Los Angeles, CA 90007**  
**lgroves@nhm.org**

# Mind your mangroves! A shelling trip to Puerto Rico

Karen VanderVen



**Mangrove islets are the preferred habitat of some interesting mollusks, but require some specialized skills when collecting shells. Photo by Randy Allamand.**

Oh, the things shellers will do to add new and elusive specimens to their collections! They may hike miles on beaches, sift through bushels of sand, crawl while under water around walls, wrecks, and reefs, prowl and paw in odorous dumps, and turn over and back hundreds of rocks.

A recent small expedition to La Parguera on the southwestern Puerto Rico coast, introduced this group to still another approach to obtaining shells: swimming deep into the dark recesses of mangroves: rooted and dense clusters of small trees that live in swampy, muddy tropical waters. To some people this may sound like as much fun as a day at the alligator petting zoo. To these shellers, however, this was another marvelous adventure and opportunity to search for coveted mollusk species.

Organized and led by Randy Allamand, the trip's shellers were: Rex Stilwill, Marc Nathanson, and Karen VanderVen. Randy, knowledgeable from previous trips, filled us in before the trip about the special shells that we might find. Top of the list was, of course, the mangrove-dwelling Caribbean murex, *Chicoreus brevifrons* (Lamarck, 1822). Highly spinose, in varying shades on the cream - tan - brown - black spectrum, these would be prizes. Would we find any? It would not be easy.

Also on the "hope we'd find" list of special shells of

the area were rooster tail conchs, *Lobatus gallus* (Linnaeus, 1758); large star shells, *Lithopoma phoebia* (Röding, 1798); West Indian fighting conchs, *Strombus pugilis* (Linnaeus, 1758) that were particularly colorful; Atlantic thorny oyster, *Spondylus americanus* (Hermann, 1781); and the always desirable sunrise tellins, *Tellina radiata* (Linnaeus, 1758).

Soon we were settled into a charming and comfortable house built over the water, which was one of a whole line of colorful dwellings along the coastline. A spacious front porch allowed for drying shells and dive equipment, and served as a dock where a boat could pull right up. So next day, Carmen Painter, well known as a Puerto Rican shell guide, glided her boat right to our porch to take us out to a variety of shelling spots with which, due to her years of living in and shelling and diving in the area, she was extensively familiar. Carmen also owns a shell shop in town and we were to enjoy several interesting productive visits there.

### *To the Mangroves Borne*

"The day" we had been waiting for came: when we'd head into the mangrove islands that dotted the offshore territory for the elusive murexes. We came to an incredible spot inside a large lagoon fringed by mangrove patches – no



Some of the species we expected to find on this trip: (clockwise from upper right) three specimens of *Chicoreus brevifrons* (Caribbean murex), two specimens of *Lithopoma phoebia* (star shell), and two specimens of *Strombus pugilis* (West Indian fighting conch). Photo by Randy Allamand.

signs of civilization in sight. We decided that one half the group would snorkel the shore on one side and the other half, the other side.

Carmen gave us careful instructions and a demonstration. We were warned that any touching of the bottom would stir up silt that would render the surrounding area invisible for a while, so we wanted to be spaced apart. Luckily there was plenty of territory - miles of it, for everybody. We would swim into the mangroves and look for oyster clumps that had fallen into the mushy soft silt below us. We would then pick them up, and like turning the pages of a book, examine them inside where hopefully a murex would be nestled. We could also pat the bottom to feel for telltale spines or even carefully dig in the silt a bit. Then the process would be repeated, over and over. It was best not to wear gloves, since it would be harder to feel the hidden spines.

Carmen helped us get started by going into the tangle and coming out with several small specimens right off the bat. She handed me the larger size shell to get me started and I was on my own. In and out, in and out, I swam. Nothing. Voices echoed across the lagoon trumpeting that they had begun finding the shells. I decided to be patient and to polish my technique. This was to go even deeper into the mangrove cluster, where it would actually be dark, and once there approach the clumps in a way that the area would not be clouded up until several clumps could be examined, with each layer pulled away to see what might be hiding in it. Since there was no sunlight, it was prudent to take a promising clump in hand, then back out through the tangles



We approach what appears to be an impenetrable wall of mangroves. Photo by author.



The closer we get the thicker and more impenetrable the mangroves appear. Photo by author.



Here it is, now to dive in, push through the roots, and find those shells. Photo by author.



*Lithopoma phoebia* (star shell). Photo by Marc Nathanson.



*Chicoreus brevifrons* (Caribbean murex). Photo by Marc Nathanson.



The colorful *Trachycardium magnum* (magnum cockle). Photo by Marc Nathanson.



Color variation of *Chicoreus brevifrons* (Caribbean murex). Photo by Marc Nathanson.



*Tellina radiata* (sunrise tellin). Photo by author.



El Yunque rain forest. Landsnails anyone? Photo by Marc Nathanson.



Randy Allamand (left) and Rex Stilwill (right) with some brightly colored strombs: *Lobatus gigas* (queen conch) and *Lobatus gallus* (rooster tail conch). Photo by author.



The always elegant *Spondylus americanus*, welcome in any sheller's collection. Photo by Marc Nathanson.



Two *Strombus pugilis* (West Indian fighting conch) with a rich golden coloration. Photo by Marc Nathanson.

into the light where it could be examined more carefully.

At one point while out in the lagoon I looked all around and could see neither the boat nor the other shellers, at the moment deep in the mangroves. It was an incredible feeling. Who would have ever imagined being alone in the middle of a large mangrove island-studded tropical lagoon?

You know the feeling of sheer elation when you've looked futilely for what seems hours on end and find nothing, and then suddenly a sought after shell suddenly pops into view. I finally began to find the murexes. With persistence I found as many of them as I felt I could manage. Everybody returned to the boat full of excitement at their finds and

spread them out for all to see. I looked at my hands, streaked with mud and with little cuts from the oysters and lamented with a smile that I guess I wouldn't be getting that hand-model job.

#### *Reach for the Stars*

The next day Carmen ferried us to a spot where beautiful round star shells had been found. Once again we rolled over the side, this time in about 4-6 feet of water, looking down at sand patches and an occasional group of rocks and coral mounds. After a while I suddenly saw a star shape outlined against a rock and jackknifed on down for it. I was thrilled, and even more so when I spotted another. These were not those tiny little specimens we've found in the Bahamas, stuck to pieces of grass. My largest is almost 2" across and has cleaned up to be a beautiful gold and cream. We all found a star or two (Marc had also found one on our first scuba dive) and in addition Rex brought in a perfect, brightly striped *Tellina radiata*.

We proceeded to another spot where previously these tellins had been found. Here and there tempting single valves glittered in the sand. I picked them all up in the eternal hope there'd be some matches, and will wonders never cease – I actually came up with two complete pairs. Randy slipped me a pretty yellow pair he'd found.

#### *Apples and Oranges*

Before the trip came to an end, we visited any number of other offshore spots. In one, apple murex, *Phyllonotus pomum* (Gmelin, 1791) were abundant. Pretty as they are, most shellers don't get excited about them and neither did we. The same was true of some attractively patterned bubble shells, *Bulla striata* (Bruguière, 1792), found on a night dive.

The *Strombus pugilis* were different. They were highly desired for their bright orange dorsa, their shiny apertures, and spinose spires. We made two stops for them, based on Carmen's sense of where they had been the last time she had taken a group out. "I can't promise they'll be here," she said, but once again she was right on target. They were abundantly nestled in and amongst some unpromising, seemingly lifeless, sand humps. They were covered with sand but made a pucker so that we could spot them. In fact they were so abundant that we were able to pick and choose. One of Randy's specimens had somewhat flattened spines like paddles, suggesting the "sloani" variant of this species.

#### *Queens for a Day*

Shell collectors still prize the famous queen conch (*Lobatus gigas*, Linnaeus, 1758). Collecting them in Puerto Rico is permissible. We all gasped in admiration when we saw the large perfect specimens with bright pink and orange apertures and widely flaring lips brought up by Rex and

Randy, those found by Rex tucked into a patch of gorgonia. Rex increased the number of species of *Strombus* found by “lucking into” a colony of milk conch, *Lobatus costatus* (Gmelin, 1791).

There were other interesting finds. All shellers prize the angular triton, *Cymatium femorale* (Linnaeus, 1758). Rex, Carmen, and Randy all retrieved sizable live specimens on their travels around the flats. Marc picked up a huge, but encrusted triton, *Charonia variegata* (Lamarck, 1816), on one of our scuba dives, which ended up left behind. This find reminded me of shelling an off-shore reef on Union Island in the lower Caribbean. I spotted a large indentation housing a large triton. The shell practically leaped out at me. While it was alive, full of encrustations and pits, it had seen better days. Back it went. It hit me that the poor triton had probably been found, found wanting as a specimen for a collection, and immediately replaced by shellers on previous trips.

To add variety to the *Chicoreus brevifrons* finds, we were able to add “reef” specimens found in the oceanic shallows. These were simply lying on the bottom and are white with slender dark bands around the dorsa, rather than the tan, brown and black of the mangrove shells.

#### *Good Things Come in Pairs*

While snorkeling yielded more prized specimens than diving, we all found *Spondylus americanus* (Hermann, 1781) on our scuba dives. Marc’s was particularly colorful and spinose. Randy brought up a *Spondylus ictericus* (Reeve, 1856). My best find diving was a fine scallop, *Caribachlamys imbricata* (Gmelin, 1791). Rex retrieved two pair of *Pecten ornata* Lamarck, 1819, from under a rock slab. Other bivalves taken included beautiful cockle species: *Trachycardium magnum* (Linnaeus, 1758) in a variety of colors; bright yellow *Trachycardium muricatum* (Linnaeus, 1758), *Papyridea soleniformis* (Bruguière, 1789), and colorful egg cockles (*Laevicardium serratum* (Linnaeus, 1758)). In addition were *Semele proficua* (Conrad, 1841), *Glycymeris decussata* (Linnaeus, 1758), the king Venus (*Lirophora paphia* (Linnaeus, 1767)), and a beautiful lady-in-waiting Venus (*Chionopsis intapurpurea* (Conrad 1849)).

Besides the shells that were the focal point of the trip, there were other finds, such as tree snails and tide pool shells, that extended and enriched our experience. Some shellers don’t consider a trip complete without a search for land snails. Marc, accompanied by his wife Suzie, spent a day in the famous El Yunque rain forest, east of San Juan, where he photographed the endemic tree snail *Caracolus caracolla* (Montfort, 1810) in its natural habitat along with the breathtaking natural scenery. In central San Juan, Randy and Karen explored a little tide pool on a heavily populated tourist beach while waiting for Rex to join them for the two-hour mountainous drive southwest to La Parguera.

Amazingly there was considerable small shell life, including 2 columbellid species, *Columbella mercatoria* (Linnaeus, 1758) and *Nitidella nitida* (Lamarck, 1822).

#### *Therein Lies a Tail*

Carmen brought a group of clean and colorful rooster tail conchs, found by local fishermen, for us to admire. We were able to purchase some of these and I brought three beauties home myself. We were still eager to perform our personal search. We looked for the ‘tails’ on our off-shore travels, but Carmen herself was the only person to find one, which like the triton, had seen better days.

All in all we were so thrilled with our other finds that rather than a disappointment it served as an enticement to return. I always say, “You never want to find *everything* on a trip,” because then you might not want to go back. Beautiful Puerto Rico, with its colorful terrain and diverse shelling spots, is definitely worth a return visit.

#### References:

- Mikkelson, P. and Bieler, R. 2008.** Seashells of Southern Florida. Bivalves. Princeton University Press, Princeton, NJ.
- Warmke, G. and Abbott, T. 1962.** Caribbean seashells. A guide to the marine mollusks of Puerto Rico and other West Indian islands, Bermuda and the lower Florida Keys. Dover Publications, New York.
- Redfern, C. 2001.** Bahamian seashells. A thousand species from Abaco, Bahamas. Bahamianseashells.com, Inc. Boca Raton, Florida.



**A closing view out our front porch with the moon over a mangrove islet. Photo by author.**

Karen VanderVen  
6670 Kinsman Road  
Pittsburgh, PA  
15217-1311  
kvander@pitt.edu

## 2013 North Carolina Shell Show

27-29 September 2013



## 2013 British Shell Collector's Club Shell Show

26 October 2013



**Winners of the COA Award, Linda and Jim Brunner of Panama City, Florida. Their display was titled "The Seashells of Northwest Florida," and was displayed in 16 cases spread over 32 feet.**

As in previous years, this year's shell show was held at the Cape Fear Museum in Wilmington, North Carolina (a spot visitors will want to check out during the 2014 COA convention). The show ran from Friday to Sunday, 27 to 29 September 2013. We had lots of visitors and everyone seemed to be quite impressed with the quality and quantity of shells on display. There was a total of 247 feet of shell display. This year's winners of the COA Award were Linda and Jim Brunner of Panama City, Florida (members of COA and the Gulf Coast Shell Club). The display by Linda and Jim was titled "The Seashells of Northwest Florida," and was displayed in 16 cases spread over 32 feet. This same display won the DuPont Trophy at a previous show. Shell show judges were Richard Goldberg and Dr. Art Bogen. The show Chairman was John Timmerman. Other awards included the DuPont Trophy to Vicky Wall for "The Family Personidae," the Hugh Porter Award to Anne Foglemen and Doug White for "The Intriguing Saga of *Hyotissa mcgintyi*," and the Deon & Dottie Weber Environmental Awareness Trophy to Sheila Nugent for "Apple Snails Love Cape Coral." Vicky Wall also won Best Shell of the Show with a *Distorsionella lewisi* (Beu, 1978) and Cathy Young won Best Self-collected Shell with a fossil *Melania sylvaerupis* (Horns, 1899).

The North Carolina Shell Club meets four weekends per year. Meeting locations change each quarter and some are out of state. The meeting location is announced in the club newsletter prior to each meeting. Programs on Friday and Saturday nights feature speakers.



**Winner of the COA Award, Simon Taylor, with a display titled "*Haliotis rufescens* Swainson, 1822." Photo by Rob Rodolico.**

The 2013 British Shell Collector's Club Shell Show was held on 26 October 2013 at Theydon Bois, near London. The show is a popular event and always well attended. This year exhibitors were limited to four feet of exhibit space, ensuring space for a maximum number of participants. The COA Award was won by Simon Taylor with a display titled, "*Haliotis rufescens* Swainson, 1822." Simon's display included numerous large adult specimens, a wild growth series, some farmed specimens, some natural variations, and an adult hybrid specimen. He also had room for a shell that showed the damage from sea otter predation. There was accompanying text detailing the history of the population of the species and its current protection in parts of its range.

The British Shell Collector's Club was founded in 1972 and held its first shell show in 1976. The club encourages good environmental practices when collecting shells and actively fosters scientific study of mollusks as well as encouraging an exchange of information and specimens, collecting for study and display, and related shell activities like: shell art, shell stamps, and shell pins. Club membership is approximately 240. The club publication is the *Palidula*. [www.britishshellclub.org](http://www.britishshellclub.org)

# 2014 shell shows & related events (January – August)

Following information is subject to change. Please verify with individual organization.

## Jan. 11-12, 2014

**SPACE COAST SEASHELL FESTIVAL**, Melbourne, FL  
The Melbourne Auditorium, 625 E. Hibiscus Blvd.  
Alan Gettleman, 2225 Tanglewood Lane, Merritt Is., FL 32953-4287  
E-mail: lychee@cfl.rr.com Tel. (321) 454-3239

## Jan. 18-19, 2014

**49<sup>th</sup> ANNUAL BROWARD SHELL SHOW**, Pompano Beach, FL  
Emma Lou Olson Civic Center, 1801 Northeast 6th Street  
Alice Pace, 7405 SW 128 Ct., Miami, FL 33183  
E-mail: alicepace90@att.net Tel. (305) 301-1296 (Cell)

## Feb. 8 - 9, 2014

**10<sup>th</sup> AUSTRALIAN INTERNATIONAL SHELL SHOW**, Sydney, Australia  
Balgowlah RSL Memorial Club, 30-38 Ethel St., Seaforth, NSW  
Steve Dean, 166 Narabeen Pk Pde, Mona Vale, NSW 2103  
E-mail: shellshow@sydneyshellclub.net Tel. (941) 362-3302

## Feb. 14-16, 2014

**51<sup>st</sup> ANNUAL SARASOTA SHELL SHOW**, Palmetto, FL  
Bradenton Area Convention Center, 1 Haben Blvd.  
Donna Cassin, 3432 Highlands Bridge Rd., Sarasota, FL 34235  
E-mail: dcassin941@gmail.com Tel. (941) 362-3302

## Feb. 22-23, 2014

**ST. PETERSBURG SEA SHELL SHOW**, Seminole, FL  
Seminole Recreation Center, 9100 113<sup>th</sup> St. N., Seminole, FL  
Bob & Betty Lipe, 348 Corey Avenue, St. Pete Beach, FL 33706  
E-mail: blipe@tampabay.rr.com Tel. (727) 391-2197 (Evening)  
*Exhibit form available at web site: <http://www.stpeteshellclub.org>*

## Mar. 6 - 8, 2014

**77<sup>th</sup> SANIBEL SHELL FESTIVAL**, Sanibel, FL  
Sanibel Community Center, 2173 Periwinkle Way  
Anne Joffe, 1163 Kittiwake Circle, Sanibel, FL 33957  
E-mail: sanibelchiton@aol.com Tel. (239) 472-3151

## Mar. 15-16, 2014

**XXV PARIS INTERNATIONAL SHELL SHOW**, Paris, France  
Espace Charenton, 327 rue de Charenton, 75012 Paris  
Perrine Dardart, 8, Rue des Tilleuls, 02190 Pignicourt, France  
E-mail: perrine.dardart@gmail.com Tel. 33 (3) 23-22-46-41

## Mar. 13-15, 2014

**MARCO IS. SHELL CLUB SHOW XXXIV**, Marco Is., FL  
United Church of Marco Island, 320 North Barfield  
Jae Kellogg, 1402 N. Collier Blvd., Slip D-6, Marco Island, FL 34145  
E-mail: pjsailkw@gmail.com Tel. (239) 253-8483

## Apr. 26, 2014

**BRITISH SHELL COLLECTOR'S CLUB CONVENTION**, Essex, England  
Theydon Bois Community Centre, Essex  
John Whicher, Higher Marsh Farm, Henstridge, Somerset BA8 0TQ, UK  
Email: john@whicher.plus.com Tel. 44 (196) 336 3715

## May 17-18, 2014

**XXIV BELGIUM INTERNATIONAL SHELL SHOW**, Antwerp, Belgium  
"Extra Time" Sports Hall, Louisalei 24, Hoboken  
Charles Krijnen, Burgemeester Jansenstraat 10, NL-5037 NC Tilburg, Nederland  
E-mail: bvc.shellshow@planet.nl Tel. 31 (13) 463 0607  
Website: [www.bvc-gloriamaris.be/beurs\\_e.htm](http://www.bvc-gloriamaris.be/beurs_e.htm)

## Jun. 23-27, 2014

**AMERICAN MALACOLOGICAL SOCIETY MEETING**, Mexico City, Mexico  
Participation at the *Mollusca 2014: The Meeting of the Americas* in Mexico City  
Web site: [www.malacological.org](http://www.malacological.org)

## Jul. 5 - 6, 2014 (Subject to confirmation)

**TOWNSVILLE SHELL SHOW**, Townsville, Queensland, Australia  
Orchid Society Hall in Kirwan  
Glenda Rowse, 19 Farrell Street, Kirwan 4814, Qld, Australia  
Tel. 61 (7) 4773-2817

## Jul. 12-13, 2014

**KEPPEL BAY SHELL SHOW**, Yeppoon, Queensland, Australia  
Gus Moore Pavilion at the Yeppoon Show Ground  
Jean M. Offord, 277 McDougall St., N. Rockhampton, Qld. 4701, Australia  
Tel. 61 (7) 4928-3509

**NORTH FLORIDA SUMMER SHELLABRATION** co-sponsored by two shell clubs: **Back-to-back shell shows with in-between shelling excursions**

## July 11-13, 2014

**JACKSONVILLE SHELL SHOW**, Jacksonville, FL  
Morocco Shrine Auditorium, 3800 S. St. Johns Bluff Road  
Charlotte Thorpe, 1010 N. 24<sup>th</sup> St., Jacksonville Beach, FL 32250  
E-mail: challoyd@bellsouth.net Tel. (904) 246-0874

## July 19-20, 2014

**GULF COAST SHELL SHOW**, Panama City Beach, FL  
City of Panama City Beach Senior Center, 423 Lyndell Lane  
Jim Brunner, 2511 Parkwood Drive, Panama City, FL 32405  
Email: jili@knology.net Tel. (850) 215-2086

Aug. 11-15, 2014

COA ANNUAL CONVENTION, Wilmington, NC  
Hilton Wilmington Riverside, 301 North Water Street  
Ed Shuller, 409 S. Carroll St., Apex, NC 27539  
E-mail: edshuller@mindspring.com Tel. (919) 362-5833  
Website: www.conchologistsofamerica.com

Aug. 22-Sept. 1, 2014

OREGON SHELL SHOW, Salem, OR  
regon State Fair Grounds – Jackman-Long Bldg.,  
2330 17<sup>th</sup> Street NE  
John Mellott, 1310 Crowley Avenue SE, Salem, OR 97302  
E-mail: retheresa@comcast.net Tel. (503) 363-5017

**Information Source:**

**DONALD DAN**

COA Awards Chairman  
6704 Overlook Drive  
Ft. Myers, FL 33919  
U.S.A.  
SH-DATE1.2014 Tel. Voice & Fax (239) 481-6704  
E-mail: donaldan@aol.com

# Size Matters!

## I

### Moshe Erlendur Okon

The Mollusca are the second largest phylum after the Arthropoda (insects, arachnids, and crustaceans). There are well over 100,000 species (although the exact number is not unanimously agreed upon). Mollusks are found in the seas (from shallow water to very deep); in lakes, rivers, fresh or brackish water ponds; and on land (in a variety of different climates and conditions). While many are only a few millimeters large (affectionately known as ‘micros’), others can reach over 1 meter (such as the giant clam *Tridacna gigas*). An extinct ammonite species, *Parapuzosia seppenradensis* was even larger – two meters in diameter!

When examining a shell, we don’t often give much attention to its size, unless it is especially large in absolute terms (e.g. certain *Melo* species that can exceed 200 mm) or in terms relative to that particular species (e.g. a 60 mm *Liguus*). Size, however, is a vital datum, and a species’s size range or a specimen’s actual size is almost always provided with other data (such as family and genus, the person who named it, geographic range and location, habitat, rarity, collector, etc.).

It is important to bear in mind that certain mollusks continue growing throughout their entire lives, albeit sometimes at a slower pace after they reach maturity, while others reach their final size and then cease growing. In the latter group there are also species that change their morphology once they mature (such as *Cypraea* or *Strombus*) and with them it is easier to discern both dwarfs and giants.

There are several factors that may affect the size of mollusks (individuals or populations), such as: genetics, environment, geography, and also disease or parasitic infestations. In this new series of short articles, different matters of size will be dealt with and in each article very large or small shells will be illustrated, accompanied by some information about the species and the collector who owns the illustrated specimens.

Shells of world record size are a category of their own. A publication dealt with them in the past, and nowadays there is a website devoted to them: www.wrs-shells.com. Whether the issue is a competitive one of ‘mine is bigger’ or an important source for knowledge, a few millimeters can make a big difference in the price and value of a shell.

Please feel free to contact me at mosherlend@gmail.com with suggestions or if you have any particular shells of unique size in your collections that you wish to share.

## Oldest animal on earth

Some years back (2006) we reported about the oldest living animal on earth, the ocean quahog, *Arctica islandica* (Linnaeus, 1767), with an established record age of 405 years for a specimen found in deep waters off Island. Well, not so fast! It seems further research shows this same shell to log in at an incredible 507 years. Researchers used sclerochronology, the study of astronomical cycles recorded in hard animal tissue, such as bones or shells - they counted shell growth rings like you would tree rings. The researchers confirmed the age of the shell with a form of Carbon-14 dating. In the midst of all this there are naysayers who point to *Scolymastra joubini*, a glass sponge (class Hexactinellida) with an estimated age of 15,000 to 23,000 years. On the other end of the scale is the very common and familiar coquina clam, *Donax variabilis* Say, 1822, that lives for only four or five months.



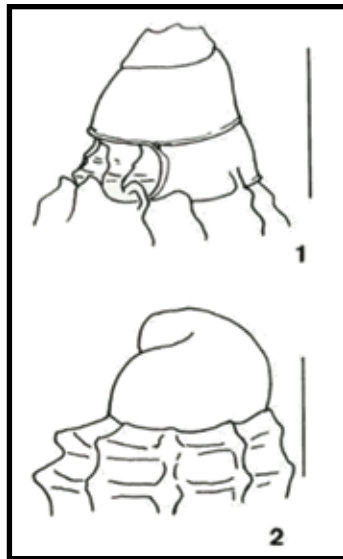
*A. islandica* from Wikipedia.com, photo by Manfred Heyde.

*Ptery-marchia elatica*

Houart, 2000

In 2000 Roland Houart named this new Muricid from the Gulf of Aqaba (also called the Gulf of Eilat, after Israel's most southern city). Until then, shells belonging to this population were considered to be an orange-colored form of the West Pacific *Ptery-marchia* (or *Ptery-notus*) *triptera* (Born, 1778).

Apart from color, *P. elatica* differs from *P. triptera* in being more angulate and having a rounded protoconch of 1.5 whorls compared to the conical protoconch of *P. triptera* of 3+ whorls [fig. 1]. This is due to its lecithotrophic development (larvae provided with a



**Fig. 1 (from the original description of *P. elatica*):** 1. Protoconch of *P. triptera* (Born, 1778) (first whorls broken off – scale bar 0.5 mm); 2. Protoconch of *P. elatica* Houart, 2000 (scale bar 0.5 mm).

source of nutrition to use during their dispersal, usually a yolk sac) as opposed to the planktotrophic development *P. triptera* (larva actively feed while in the water column). The maximal size given for the new species is 58 mm.

The large shell illustrated [1. in fig. 2] is probably a world record size at 66.35 mm. It was collected while SCUBA diving at night at about 20 meters on a sandy bottom, and is from the type locality. A 53.50 mm specimen is also shown. The curious and very dark 45.25 mm specimen is from Eritrea, further south in the Red Sea. These shells are in the collection of Gil Davidovitz, a PhD candidate in marine biology and a shell & antiquities collector.

Reference:

**Houart, R. (2000).** Description of *Ptery-marchia elatica* n.sp. (Gastropoda: Muricidae) from the Gulf of Aqaba. *Novapex* 1 (2000): pp. 21-24.

Moshe Erlendur Okon  
mosherlend@gmail.com



**Fig. 2 *Ptery-marchia elatica* Houart, 2000.** 1. is from the Gulf of Aqaba and probably the world record largest size for this species at 66.35 mm. 2. is from the same locality and is a more typical 53.50 mm. 3. is an unusually dark specimen, 45.25 mm from Eritrea, further south in the Red Sea. All are in the collection of Gil Davidovitz.

# 2014 COA Convention: Wilmington, N.C.

11-15 August 2013  
(9-10 Aug are extra event and excursion days)



From Wilmington's historic downtown district and the Riverwalk winding along the storied Cape Fear River to the nearby island beaches of Carolina, Kure, and Wrightsville, this corner of North Carolina charms visitors and residents alike. In 2014 Wilmington "whelkomes" shell enthusiasts from around the world.



**Wilmington Riverside Hilton Hotel**

At the up-river end of the Riverwalk, the Hilton Wilmington Riverside Hotel will be home to the Conchologists of America annual convention. On Saturday and Sunday, August 9 and 10 we have pre-conference tours. The conference convenes Monday morning and concludes with the Bourse on Thursday and Friday.

At a price of \$114 per night (parking included) plus tax, the Hilton offers the choice of two rooming options: a standard room in the convention hotel or a 1-bedroom condo



**Riverview Suites**

with kitchen in the Riverview Suites a short block from the hotel.

The banks of the river embrace antebellum architecture and moss-draped live oaks that line the 230-block National Register Historic District. Within walking distance of the hotel are boutiques, eclectic shops, and over 50 restaurants and pubs. The Castle Street Art & Antique District is nearby.

If time allows you can enjoy theater productions at Thalian Hall, the oldest community theater in the US, celebrating its 225<sup>th</sup> Anniversary in 2013. Stroll along brick



**Historic Downtown**

lined streets where you may hear the sounds of live music, eat at one of the waterfront restaurants, or simply sit along the water's edge and enjoy the view. Take a water taxi to the Battleship North Carolina berthed across the river. The Cape Fear Museum, home of the North Carolina Shell Show, is a 20 minute walk from the hotel and houses an excellent exhibit featuring the history of the Lower Cape Fear Region. Don't want to walk? A free trolley circles the downtown area. Or try a pedicab.

Come early and join in our exciting tours:

### Saturday

**DIVE TRIP** - Divers will depart Wrightsville Beach in the morning for a 28 mile offshore trip. They will make two dives; one on a shipwreck and another on a ledge. They may find *Cassis madagascariensis*, *Nodipecten fragosus*, *Cymatium parthenopeum*, and *Babelomurex mansfieldi*.



**North Carolina Aquarium**

**FT. FISHER/NC AQUARIUM** - During the Civil War Fort Fisher protected the entrance to the Cape Fear River and Wilmington, a major port serving the Confederacy. It was the last Atlantic port open when captured by Union forces in

early 1865. After a talk and tour led by Park Rangers, lunch (not included) will be at a nearby Air Force Recreational area before going on to the NC Aquarium. We will see the exhibits as typical visitors and then have a special "behind the tanks" tour.



**Bellamy Mansion**

**MANSIONS TOUR** - At noon begins the tour of 3 homes in the Historic District representing three periods in American architecture and history. The Georgian style Burgwyn-Wright House (1770) was built just prior to the Revolutionary War. During the War it was occupied briefly by Lord Cornwallis and is where he made his fateful decision to march north to Yorktown. Next is the Bellamy Mansion, one of North Carolina's most spectacular examples of antebellum architecture, built on the eve of the Civil War. The mansion and urban slave quarter complex is a museum that focuses on history and the design arts. Last is the Lattimer House, built in 1852 in the Italianate style; it is preserved today as a house museum exemplary of upper-class life in Wilmington during the Victorian period.

**ECO RIVER CRUISE** - After your busy Saturday of tours or travel, relax with friends aboard the catamaran "Wilmington." The boat will leave from the Hotel dock for an evening eco tour up the Cape Fear River to one of its black water tributaries. Capt. Doug will describe plants and wildlife, some common, some rare, that live here. We may see bobcat, river otter, or black bear, and songbirds such as the prothonotary warbler or the yellow-throated vireo. During the trip we will be served gourmet sandwiches from popular Wilmington micro-brewery, the Front St. Brewery, along with snacks, sides, and desserts. There is an on-board cash bar. The boat will return to Wilmington at sundown, making a circle of the waterfront to give us a fantastic view of the lights on shore before letting us off at the Hotel.



“Wilmington” catamaran- nature cruise



Henrietta III - dinner cruise

### Sunday

**AIRLIE GARDENS/CAMERON ART MUSEUM** - In the morning we head for Airlie Gardens with its breathtaking combination of formal gardens, wildlife, historic structures, walking trails, sculptures, views of Bradley Creek, 10-acres of freshwater lakes, more than 100,000 azaleas, and the grandeur of the 467-year-old Airlie Oak. Then on to the Cameron Art Museum for lunch (not included) in the highly acclaimed CAM Cafe followed by a visit to the galleries featuring exhibits of historical and contemporary significance.

**BOB JENKINS WALKING TOUR** - For those not interested in gardens and art, the man everyone in Wilmington knows by his straw hat and walking cane will meet us at the hotel at 9am. Bob Jenkins has been leading walking tours of Wilmington for many years and is recognized as the best historical teacher in town. He begins at the Hotel with an overview of Wilmington’s past before heading out the door. Be prepared for a unique experience. Bob scurries along sidewalks, darts through fences and cuts across back yards, all the while delivering a running commentary with enthusiasm and charisma.

**HENRIETTA III DINNER CRUISE** - Wrapping up the weekend events is an elegant dining cruise aboard the “Henrietta III.” The boat begins loading at 5pm at its berth a quarter mile along the Riverwalk from the hotel. For those who do not care to walk, transportation will be provided. We have a private deck with a capacity of 120. The delicious “Southern Buffet” includes baked chicken and sliced beef with all the trimmings. Our dining room has a Cash Bar.

Make plans to join old friends and new acquaintances for the weekend activities and to kick-off the week ahead.

**HILTON WILMINGTON RIVERSIDE:** To make a reservation at the Hilton Wilmington Riverside for days within the convention period; Aug. 8-16, 2014; you may call the local reservation number 910-763-5900 or use the on-line link: [http://www.hilton.com/en/hi/groups/personalized/I/ILMNCHF-COA-20140808/index.jhtml?WT.mc\\_id=POG](http://www.hilton.com/en/hi/groups/personalized/I/ILMNCHF-COA-20140808/index.jhtml?WT.mc_id=POG) Group Code: COA Group Name: Conchologists of America

**RIVERVIEW SUITES:** To make a reservation at the Riverview Suites call Stuart Capps, the Hilton Sales Manager handling our account, and he will assist you. Mr. Capps direct line is 910-343-6172. **DO NOT USE ON-LINE RESERVATION OR STANDARD TELEPHONE RESERVATION LINES.** To see the Riverview Suites: <http://www.riverviewsuiteswilmington.com/>

Deadline for Room Reservations at the Convention Rate:  
July 12, 2014

**Contributions to Oral Auction, Silent Auction, raffle and door prizes welcomed.**

We are still in need of shells and shell related items. Donations should include pertinent data. Donations are tax deductible and help support COA grants and research. Send donations to:

Everett Long  
422 Shoreline Dr.  
Cedar Point, NC 28584  
[nlong3@earthlink.net](mailto:nlong3@earthlink.net)

### Thanks to Our Most Recent Donors:

Sue Hobbs -- Sue Hobbs Specimen Shells  
Rich Goldberg -- Worldwide Specimen Shells  
Houston Conchological Society

Bill Fenzan  
John Schreck  
Everett Long  
Vicky Wall

Dora Zimmerman  
Ruth Drye  
John Timmerman  
Doug Wolfe

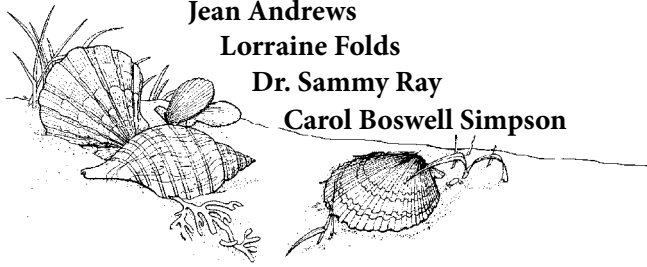
## In memoriam:

Jean Andrews

Lorraine Folds

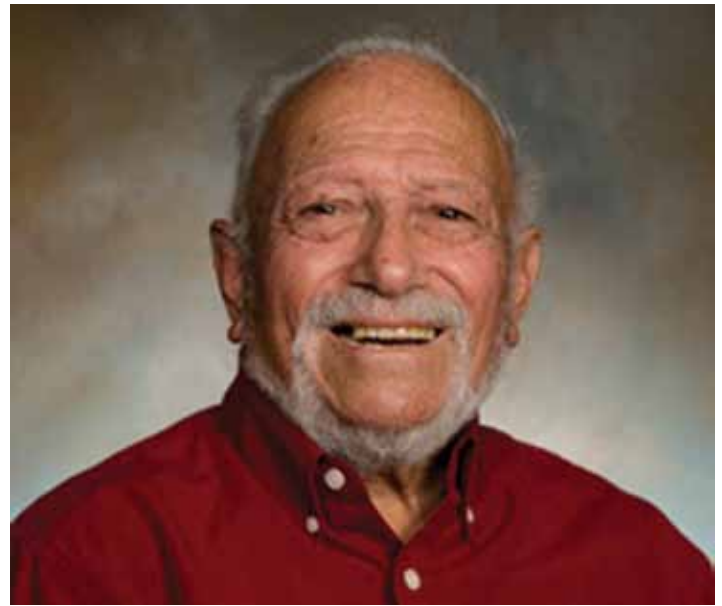
Dr. Sammy Ray

Carol Boswell Simpson



**Carol Boswell Simpson** (left) was the founder of The Palmetto Shell Club in Columbia, South Carolina, and probably most responsible for the club's success, growth, and popularity among the state's shell enthusiasts. She started the shell club in 1987 and within a year listed 55 members. Carol went on a number of shell collecting trips and became quite an expert in the shell family Epitoniidae. She joked about her little white shells, but was first in line at COA events if there was the possibility of a "new ep." She was also a published author with at least one article in a 1998 issue of *American Conchologist*. The photo above was a shell club event at Carol's house on Lake Murray, South Carolina. From left are: Carol Simpson, Fred Mersbach, John Turner, Marie Savage (behind John), Lala Paddock, Harold Brown & Connie Mersbach.

**Lorraine Folds** lived in Toronto, Ontario, Canada and was a member of COA. She was the Client Services Representative for the National Ambulatory Care System (NACRS) at the Canadian Institute of Health Information (CIHI). Between her job and life in Toronto, largest city in Canada and capital of Ontario, she didn't have much time for shells, but she kept in touch with *American Conchologist* and several shell friends.



**Dr. Sammy Ray**, a world-renowned marine biologist and one of the founders of Texas A&M University, Galveston, was deeply involved in oyster natural history and propagation. His research into oyster disease and prevention did much to help turn that portion of the seafood industry around. When not teaching or conducting research, he was the Director of Sea Camp, a hands-on learning adventure for children ages 10-16, sponsored by Texas A&M University that allows young students five days of hands-on research on Galveston Island. Dr. Ray served during WWII and garnered numerous academic honors over the years.



**Jean Andrews** was a force of nature in the Florida shell club scene. Shell club president, many times the shell club show chairperson, and avid collector, She went on many shell collecting expeditions with Archie Jones in the Everglades and, when not hunting *Liguus*, she collected other shells in Florida, Hawaii, and on trips to Costa Rica. She and her late husband Jim became fascinated with *Liguus* and bought the late Archie Jones collection. After Jim died in 2004, Jean donated her large *Liguus* collection to the Florida Atlantic University. She was also very interested in shell craft and art and had a number of shell motif items she constructed through the years.

