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American CONCHOLOGIST

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CONCHOLOGISTS OF AMERICA, INC.

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

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In This Issue

Edotor's comments: In *American Conchologist* Supplement 1, Jan 2017, an earlier draft version of the caption for the back cover was inadvertently used. Here is the corrected caption with the changes in **bold**.

Back cover: Some of the 36 marine molluscan species banned from collection, possession, or trade in the Philippines (see: p. 12 and http://www.conchology.be/?t=1000). Names (as listed by Philippine authorities) left to right: top row - *Amusium obliteratum*, *Barnea manilensis*, *Bolma girgylus*, *Cypraea aurantium*, *Cypraea beckii*. Second row - *Cypraea childreni*, *Cypraea guttata*, *Cypraea katsuae*, *Cypraea leucodon*, *Cypraea mariae*. Third row - *Cypraea martini*, *Cypraea porteri*, *Cypraea saulae*, *Cypraea teramachii*, *Cypraea valentia*. **Forth row** - *Cypraecassis rufa*, *Hippopus hippopus*, *Malluvium lissum*, *Morum grande*, *Morum kurzi*. **Fifth row** - ***Phalium coronadoi wyvillei***, *Phalium glabratum*, *Phenacovolva dancei*, *Strombus thersites*, *Tibia martini*, *Tridacna crocea*. **Sixth row** - *Tridacna gigas*, *Tridacna maxima*, *Trochus niloticus*, *Turbo marmoratus*, *Varicospira crispata*. Not shown are *Clypeomorus adunca*, *Eufistulina mumiae*, *Separatista blainvilleana*, and *Tridacna squamosa*. Images from femorale.com and the editor.

Register now for the 2017 Key West COA Convention

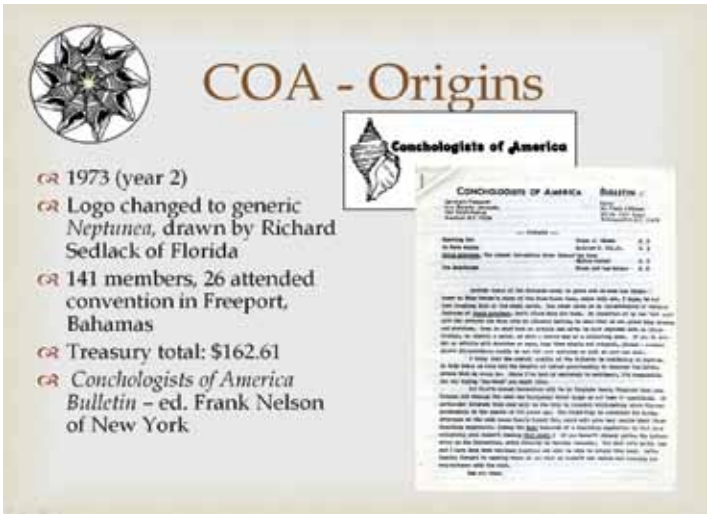
The COA convention is really the place to immerse yourself in all things conchological. Old friends, new friends, educational presentations, exciting auctions, and a bourse with shells from around the world – some priced for pocket change, others for more than your car. Registrations forms online at: conchologistsofamerica.org

Front cover: *Calpurnus verrucosus* (Linnaeus, 1758), approximately 25mm, photographed at night on reef sand, Ambon, Indonesia, 2016, by Charles Rawlings. Collectors are more accustomed to this ovulid shell as it appears here.

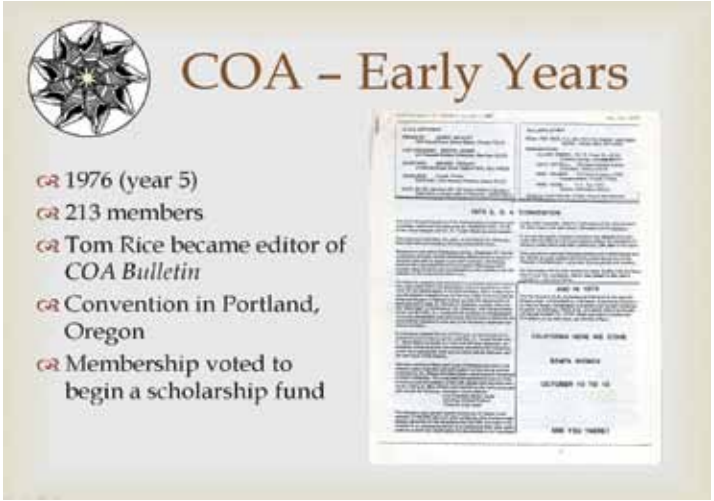
Back cover: *Conus vittatus* Hwass in Bruguière, 1792, photographed in 2016 during a night dive off Isla San Jose, Pacific Panama, by COA member Charles Rawlings. This species occurs from southern Baja California, south to northern Peru. While relatively common, the majority of specimens available to the collector are colored in various shades of brown. The red coloration is uncommon.

Conchologists of America: 45 years old

1. Traditional "amateur activities" such as collecting, exchanging, and travelogue-type presentations were originally at the forefront of the American Malacological Union (AMU, founded in 1931), now the American Malacological Society (AMS), but an increasing focus on academic science over the decades generated dissatisfaction in many members. In 1972, eight enthusiastic shell collectors met in Newport Inn, Rhode Island, at the invitation of John Paduano. This small group founded Conchologists of America, emphasizing all of the things that AMS seemed to have abandoned, including a constitutionally mandated "emphasis … on CONCHOLOGY rather than Malacology." Dues were set at $2 and the queen conch, *Strombus gigas* Linnaeus, 1758 (now *Lobatus gigas*), was chosen for the organization's logo. Bette Rachlin was chosen as president. Some of you may recognize a young and bearded Bob Janowsky in the middle.

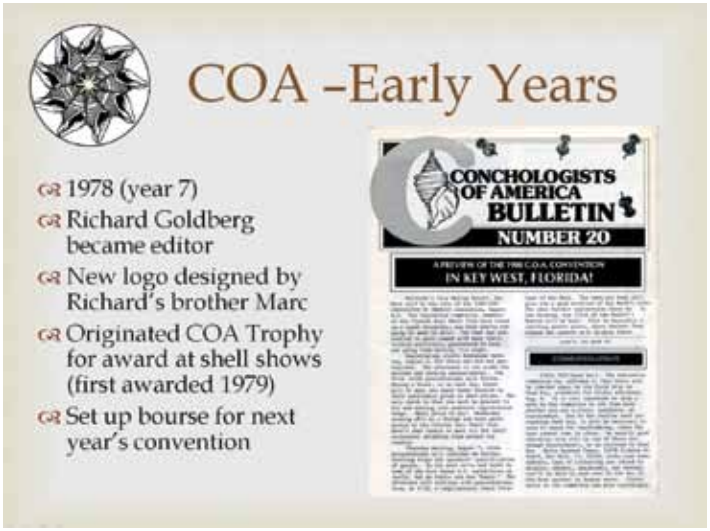


2. By the second year, 1973, the logo had been changed to a generic *Neptunea*, there was $162.61 in the treasury, and a total of 141 members. The convention was originally scheduled on a cruise ship, but it blew up and 26 members then attended the new convention site in Freeport, Bahamas. It was here that the constitution and by-laws were accepted, dues were increased to $3 a year, and the members decided the organization would publish the *Conchologists of America Bulletin*. The first editor was Frank Nelson of New York. He set the guidelines that there would be no poems, no shell craft articles, and no naming of new species. The first COA shell auction was held, bringing in $185.50.

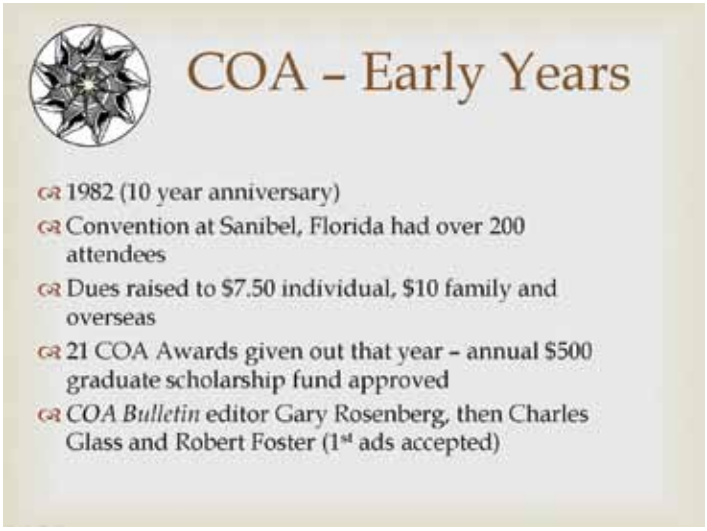


3. In the fifth year, 1976, membership increased to 213 and the convention was held in Portland, Oregon. The annual shell auction earned $839.25 in 1974, $680.50 in 1975, and $1,100 in 1976. Members voted to establish a scholarship fund (note: not a grant fund for research) using excess COA funds as available. The new COA logo first appeared in *COA Bulletin* number six. At the end of the year, Frank Nelson resigned as editor and Tom Rice picked up the job. Keep in mind he was also putting out *Of Sea And Shore*, a solo operation.

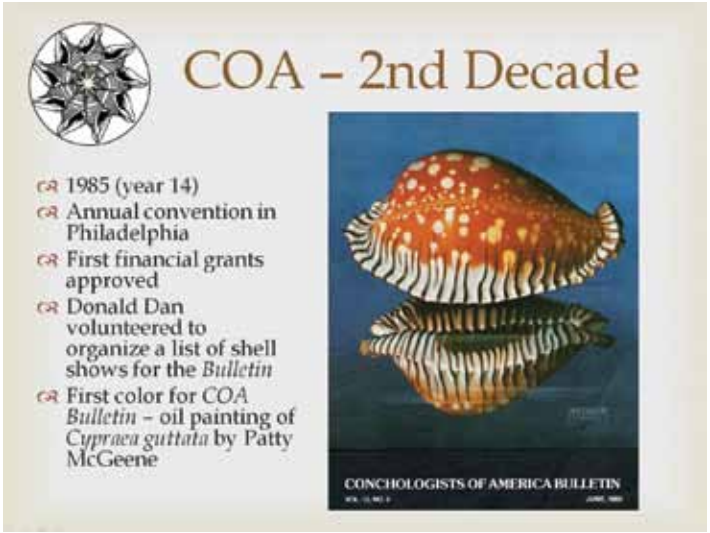
4. Two years later, 1978, Richard Goldberg became editor and had his brother Marc design a new logo for the *COA Bulletin*. The convention was held on Long Island, New York, and members (now totaling 280 with 57 attending the convention) voted to establish a COA Trophy to be presented at shell shows. The award originally came with a gift certificate for shells, books, or shell magazine subscriptions, but this feature was later dropped. Attending shell dealers had been selling and trading shells from their rooms, but Marty Gill did not have a room that year, so he set up in the hotel lobby. Richard Goldberg and Phil Clover soon followed suit. This proved extremely popular with the members and Marty Lerner proposed setting up a separate room just for shell sales. The COA bourse was born.

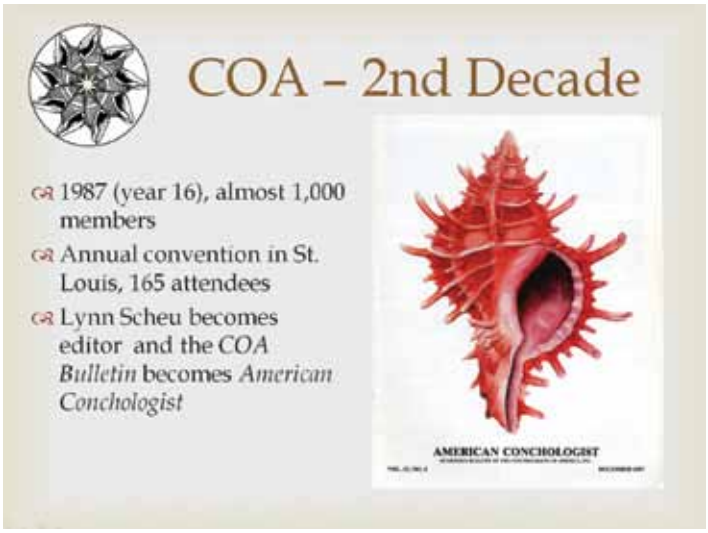


5. COA's ten-year anniversary was 1982 and the annual convention was held on Sanibel Island, Florida. Over 200 members attended, dues were increased, and a $500 scholarship was approved for that year. The annual auction brought in $2,663. There were 21 COA Awards given out in 1982. Gary Rosenberg served as editor of the *COA Bulletin* for a single issue and then the job was picked up by Charles Glass and Robert Foster. They changed to a 'volume and issue number' for the publication and accepted the first ads.

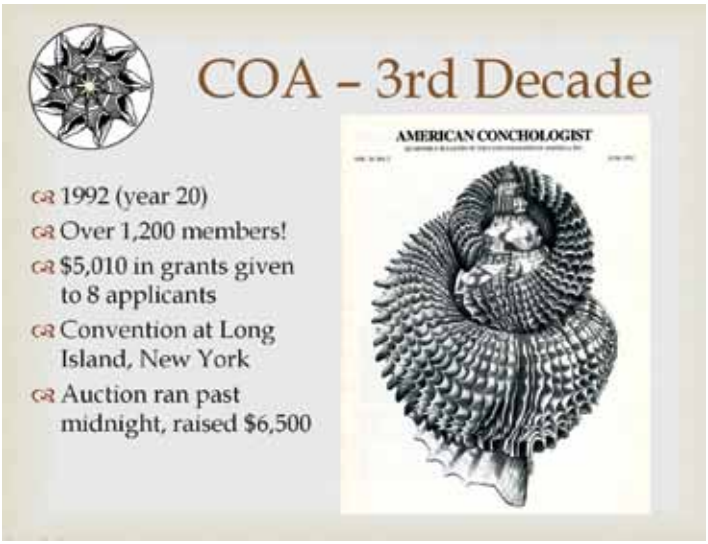


6. The year 1985 is of note for a number of reasons. The convention was held in Philadelphia, Pennsylvania (helping celebrate the Philadelphia Shell Club's 30th anniversary), and the first financial grants for molluscan-related research were approved. There were now over two dozen shell clubs as members of COA and keeping track of the various shell shows was becoming difficult. The answer? Find someone to tackle the difficult and thankless task of tracking the shell show schedule and providing same for publication in the *COA Bulletin*. Donald Dan volunteered for this onerous task and he has done it ever since. This year was also the first use of color in the *COA Bulletin*, a reproduction of an oil painting of *Cypraea guttata* Gmelin, 1791 (now *Perisserosa guttata*), by Patty McGeene.

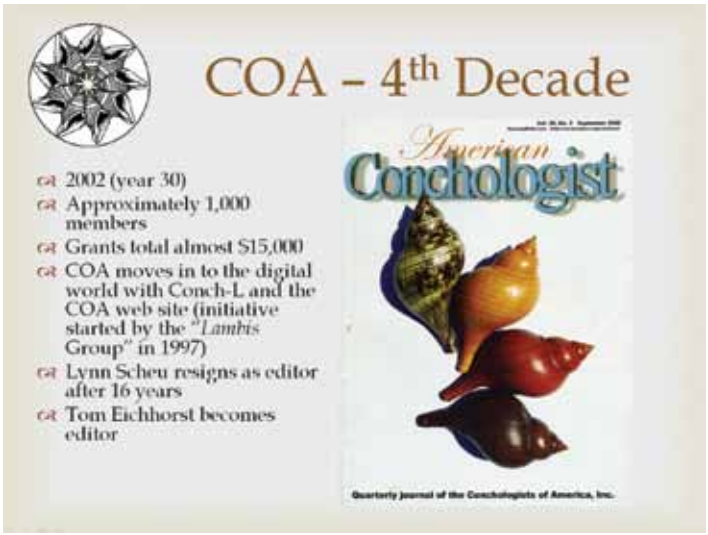




7. Two years later and COA was up to almost 1,000 members. The 1987 convention was held in St. Louis, Missouri, with 165 attendees. Dues had been increased the previous year and the annual auction continued to boost COA funds. Three grants were awarded. Charles Glass and Robert Foster had polished the *COA Bulletin* into a quality publication, but were ready to quit. In stepped Lynn Scheu, who then served as editor for the next 16 years! She also (not without some heated discussion) changed the name to *American Conchologist*.

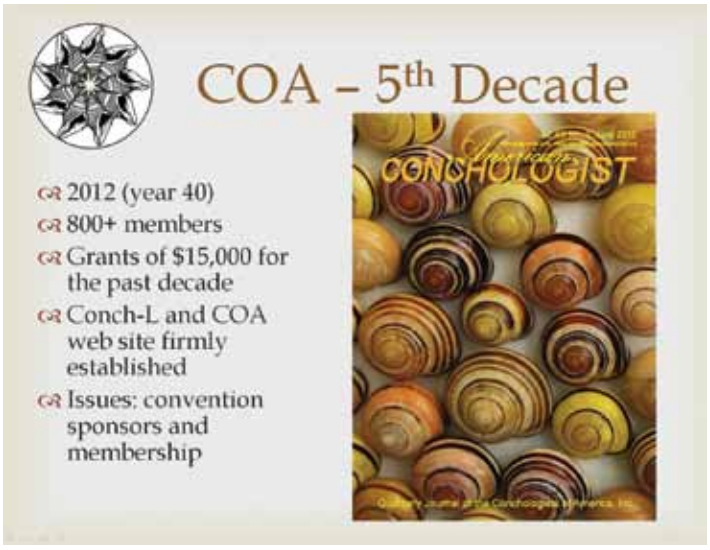


8. The 20th anniversary convention of COA in 1992 was held on Long Island, New York. COA had finally topped the 1,000 membership level (actually done in 1989) and grant monies totaled $5,010 for eight applicants. The auction that year ran until well past midnight and brought in $6,500. The cover art on the June 1992 issue is by John Timmerman and one can see some relationship between this style and the present COA logo (created by John in 1995). At the end of this decade, Lynn Scheu upgraded our publication from a quarterly bulletin to a quarterly journal.



9. The 30th anniversary convention was in Sarasota, Florida, in 2002. There were approximately 1,000 members and the grant monies were approaching $15,000 per year. COA was now into the digital world thanks to the *Lambis* Group (Linda Brunner, John Caldera, Amy Edwards, Richard Goldberg, Gary Rosenberg, Lynn Scheu, and Debbie Wills). These folks cranked up Conch-L and the COA web site in 1997. This was accomplished despite some strong and stubborn opposition. By the 2002 convention, both of these "computer nonsense" programs were established and growing aspects of COA. Also this year Lynn Scheu stepped down as editor. Tom Eichhorst of New Mexico (a well-known shelling state) became the new editor.

10. The 40th anniversary COA convention in 2012 was held in Philadelphia, Pennsylvania, in conjunction with the annual AMS convention. COA membership was about 800 (our membership average age increased while member numbers declined) and research grants of $15,000 had been given each year for the past decade. Conch-L and the COA web site were firmly established and mature aspects of COA, but the organization faced challenges of declining membership and lack of club sponsors for annual conventions. The annual conventions of COA served a number of functions through the years, but maybe the most important was social networking. Even though the modern digital information age has made such networking possible from the palm of your hand with real-time links around the globe, the COA convention remains a key event. Thankfully, Anne Joffe stepped into the role of convention coordinator and ensured the smooth running of each convention as well as scheduling future conventions.



11. The 45th anniversary COA convention in 2017 is in Key West, Florida. Our membership is just under 800 while our research grants now total more than $20,000 each year. Today's COA is a vibrant organization dedicated to shell collecting, molluscan knowledge and research, and conservation. We still face the dual concerns of aging membership and declining membership rolls. Additionally, there continue to be issues with shelling restrictions as well as varied interpretations and applications of import and export regulations. So if you think there were changes in the last 45 years, just wait to see what happens in the next 45.

COA annual conventions

1972 – Rhode Island
1973 – Bahamas
1974 – Seattle, Washington
1975 – Virginea Beach, Virginea
1976 – Portland, Oregon
1977 – Fort Lauderdale, Florida
1978 – Long Island, New York
1979 – Santa Monica, California
1980 – Key West, Florida
1981 – San Francisco, California
1982 – Sanibel Island, Florida
1983 – Sarasota, Florida
1984 – St. Petersburg, Florida
1985 – Philadelphia, Pennsylvania
1986 – Fort Lauderdale, Florida
1987 – St. Louis, Missouri
1988 – Fort Myers, Florida
1989 – San Diego, California
1990 – Melbourne, Florida
1991 – Long Island, New York
1992 – Jacksonville, Florida
1993 – Panama City, Florida
1994 – Corpus Christi, Texas
1995 – San Diego, California
1996 – St. Petersburg, Florida
1997 – Captiva Island, Florida
1998 – Orlando, Florida
1999 – Louisville, Kentucky
2000 – Houston, Texas
2001 – Port Canaveral, Florida
2002 – Sarasota, Florida
2003 – Tacoma, Washington
2004 – Tampa, Florida
2005 – Punta Rassa, Florida
2006 – Mobile, Alabama
2007 – Portland, Oregon
2008 – San Antonio, Texas
2009 – Clearwater, Florida
2010 – Boston, Massachusetts
2011 – Cape Canaveral, Florida
2012 – Philadelphia, Pennsylvania
2013 – Sarasota, Florida
2014 – Wilmington, North Carolina
2015 – Weston, Florida
2016 – Chicago, Illinois
2017 – Key West, Florida

The history of a shell: *Phenacovolva lenoreae*

Jerry G. Walls

When collectors see the scientific name of a shell, they tend to think of it as just two Latinized words, sometimes followed by the name of the author and the date the shell was described. The name appears to be just a name – a handle with which to hold the idea of what makes that particular shell different from the next one in the drawer. Names are much more than that, however, and every shell, no matter how insignificant or expensive, has a history behind its name. Some histories are more interesting than others – some are simple, and some are complex. One such relatively complex history applies to a little false cowry (Ovulidae) I described some 35+ years ago, *Phenacovolva (Subsimnia) lenoreae* Cardin & Walls.

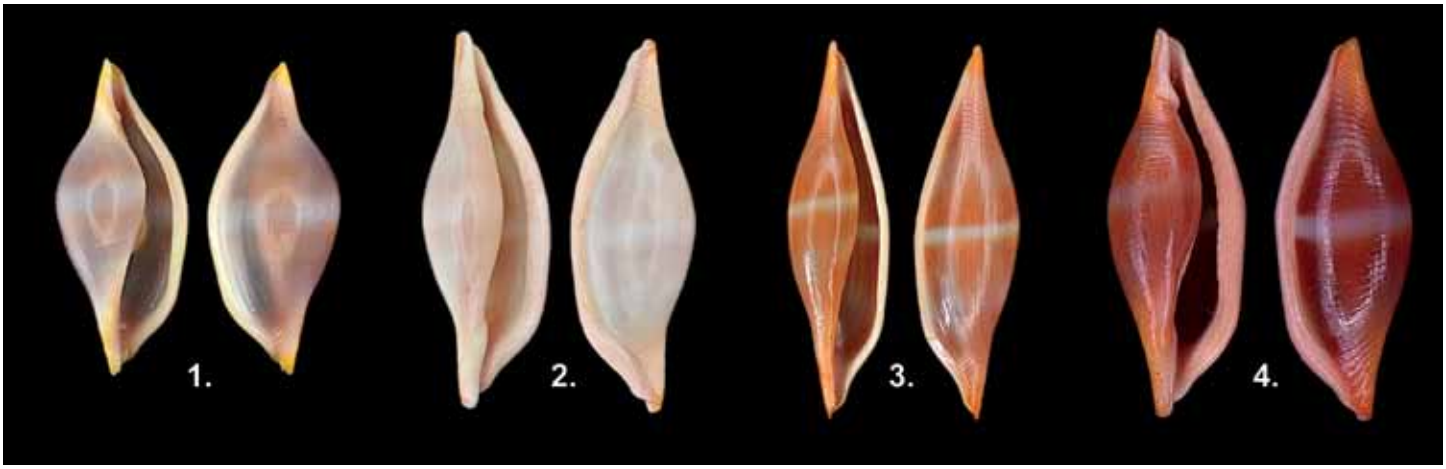
***Phenacovolva* (*Subsimnia*) *lenoreae* Cardin & Walls, 1980 16mm, Ecuador. Image courtesy of Femorale (www.femorale.com).**

History

When I started working on my cone shell book (Walls, 1979), I also started self-publishing a little journal called *The Pariah*. Primitive by today's standards, *The Pariah* served its purpose of allowing me to briefly describe and validate new species of cones before publication of my book, which seemed to be continually delayed. All the new species described in the journal are cones except for one false cowry.

Early in 1980, Charles Cardin, a collector and dealer friend who had been helping me with specimens for the cone book and other things, sent me a handful (32 beached specimens) of a colorful little false cowry that had been sent to him by Terry Hammes from the Perlas Islands, Pacific Panama. Charles was interested in false cowries and thought the species was new, but he wanted a quick description (remember — dealers sell shells, and to sell a shell you need a name) and wasn't that familiar with descriptive procedures. Thus *The Pariah* came to mind. The shells looked new to me, too, so I agreed to coauthor a description, with the species to be named for Charles's daughter, Lenore Jannette Cardin. No problem, I was closing down *The Pariah* anyway, because the cone book was published, so it wouldn't hurt to have just one more description in it. I provided the description, comparisons, and publication; Charles provided the specimens. The holotype went to the Delaware Museum; I kept a couple of paratypes that were later given to a Dutch museum, and Charles kept the rest, which I assume eventually were sold. Story finished.

Not quite. A couple of years later, Bertsch and Bibbey (1982) described a new (and quite different) false cowry from Pacific Panama also collected by Terry Hammes, *Xandarovula hammesi*. At the end of the paper is the mention of the first eastern Pacific record of the wide-ranging Indo-Pacific false cowry, *Phenacovolva brevirostris* Schumacher, from western Panama, based on an identification by Bill Old of the American Museum. The photo of this specimen that appears in the paper is definitely *Phenacovolva lenoreae*. A paragraph obviously inserted into the paper at the last minute mentions that the relationship between *P. brevirostris*



The variable and wide-ranging Indo-Pacific *Phenacovolva brevirostris* (Schumacher, 1817), 16-25mm, mistaken for *Phenacovolva lenoreae* by Bertsch and Bibbey (1982). Specimens 1-2 are from the Philippines. Specimens 3-4 are from Japan. Images courtesy of Femorale (www.femorale.com).

***Phenacovolva lenoreae*, 16-20mm, specimens 1-4 are all from Ecuador, show little variablity, and are readily distinquishable from, although similar to, *Phenacovolva brevirostris*. Images courtesy of Femorale (www.femorale.com).**

and *P. lenoreae* should be examined further. The original description of *P. lenoreae* is not cited, which makes me think the authors had not seen it.

As far as I can tell, *P. lenoreae* is barely mentioned in the scientific literature again for over 30 years (Liltved, 1989, does mention the *P. brevirostris* misidentification), though it is a fairly expensive staple on the lists of several dealers around the world. Almost all specimens sold today come from Ecuador, live-taken material said to be from over 20 meters depth, so the range appears to be restricted to the area between Pacific Panama and Ecuador. The host soft coral, gorgonian, or sea fan, is not recorded in the literature and I've not seen a photo of a living animal. To the best of my knowledge, there has been no molecular genetics or anatomical work on the species — the same as could be said for over 90% of all described gastropods.

Relationships

Now the problems begin. When I described *P. lenoreae*, almost all the literature available was based on Crawford Cate's 1973 revision of the family Ovulidae and his many papers describing new genera and species. Any careful reading of Cate's work indicated that he was oversplitting the species and genera of the family, perhaps because most of his descriptions were based on single specimens often from uncertain localities. His 1975 key to the genera made things even worse, as it was impossible to assign almost any unknown specimen to the correct genus. These shells are much more variable than Cate ever thought, and the "generic" characters are at best vague and misleading. In the original description of *P. lenoreae*, I had suggested that the closest relationships of the species might lie not with *P. brevirostris*, an obvious choice from the Indo-Pacific, but instead with the poorly known *Neosimnia bella-maris* Berry, 1946, from the entrance to San Diego Bay, California. Cate (1969 and 1973) published photos of the holotype and referred specimens of that species, and there were considerable similarities between the two species, though the posterior terminals and the sculpture as well as the coloration were obviously different.

***Simnia barbarensis* (Dall, 1892), 26mm and *Simnia loebbeckeana* (Weinkauff, 1881), 15mm, are both found off California. Both are valid species now considered senior synonyms (in part) for *Neosimnia bellamaris* Berry, 1946 (*nomen dubium*), a species determined to be unrecognizable by Lorenz and Fehse (2009). Images from Wikipedia.com**

I was thus not exactly surprised when a recent visit to WoRMS (World Register of Marine Species, www.marinespecies.org) presented *P. lenoreae* as a valid species with *N. bellamaris* (the currently corrected spelling) listed as a *nomen dubium* (doubtful species) in its synonymy. This action perhaps comes from the treatment of the two species in the fantastic ovulid book by Lorenz and Fehse (2009), where Berry's *bellamaris* is considered to be unrecognizable and based on an eroded specimen. Actually, work by McLean in McLean and Gosliner (1996) presents enough evidence to show that *bellamaris* almost certainly is an uncomfortably close relative of *Simnia loebbeckeana* Weinkauff or *Simnia barbarensis* Dall, both from southern California, as is *bellamaris*. Berry's *bellamaris* has even been officially synonymized with *Simnia loebbeckeana* (a species that appears quite distinct from *P. lenoreae*) by Dolin and Ledon (2002), so that should end that part of the problem — but it probably won't.

[As an aside, try to basically ignore the various generic assignments — *Simnia, Neosimnia, Subsimnia, Phenacovolva, Xandarovula,* etc. — used for the very similar shells we are discussing. They are involved in a complicated nomenclatural mess concerning type specimens of old European species, fossils, and many misleading Cate generic names. To get a taste of the problem, read the introduction to Fehse (2001) for the convolutions involving just one group of eastern Pacific false cowries. For convenience, I'm just putting *lenoreae* in *Phenacovolva* Iredale, 1930, but the oldest name for the group probably is *Simnia* Risso, 1826. Interestingly and confusingly, *Simnia* and *Phenacovolva* currently are in different subfamilies as indicated by molecular genetics studies, though their shells seem impossible to assign to genus.]

I think I was wrong when I looked for the closest relatives of *P. lenoreae* in the eastern Pacific. They really are in the Indo-Pacific and they probably really are similar to *P. brevirostris* Schumacher and its many variations that have been described as full species. A reading through the generic discussion of *Phenacovolva* in Lorenz & Fehse (2009: 122) and a glance through their plates (166-188) show just how variable these snails really are and how it is almost impossible to isolate any particular variant to give it a name. The variation extends into at least the genus *Crenavolva*, where (with the exception of obvious teeth on the labrum) several species also bear a strong resemblance to *P. lenoreae*. Internet dealers, for instance, currently are selling a Philippine *Phenacovolva/Crenavolva* species that from photos appears identical to *P. lenoreae*, though there may be differences in the lip. Additional small differences in the posterior terminals and color pattern seem to make *P .lenoreae* distinct from similar Indo-Pacific forms such as *P. barbieri* Lorenz & Fehse and *P. insculpta* Odhner, but I bet it would be difficult to separate individual specimens with no locality data from a variety of other "species" falling into genera of what are recognized as three subfamilies in Lorenz & Fehse (2009).

Temporary Conclusion to the Story

What to make of all this? Basically, the situation has not changed much since 1980. Genera and species of false cowries based on shells are overlapping highly artificial constructs that probably bear no real information on relationships. *Phenacovolva lenoreae* possibly is the eastern end of a group of populations or species related to the variable and widespread *P. brevirostris*. Shells from Panama to Ecuador (at least the ones that reach the market) appear very consistent in shape, size, and color pattern, and they appear distinct from at least most other populations of *Phenacovolva* and conchologically similar genera in the Indo-Pacific. I would suggest collectors continue using the name *P. lenoreae* until anatomical and molecular studies clear up the mess of this family — may we all live so long.

I applaud Lorenz and Fehse for making a first attempt at a reasonable review of the Ovulidae, but as they themselves imply, it will be a long time before we can know exactly what to call the different genera and species of false cowries.

Indo-Pacific ovulids similar to *Phenacovolva lenoreae* in size, shape, strucure, color, and pattern. 1-2: *Phenacovolva barbieri* Lorenz & Fehse, 2009, 24-26mm; 3-4: *Phenacovolva brevirostris* (Schumacher, 1817), 26mm; and 5-6: *Phenacovolva insculpta* (Odhner, 1919), 22-24mm. Differences among these species and with *Phenacovolva lenoreae* are subtle but distinctive. Images courtesy of Femorale (www.femorale.com).

So there you have almost 2,000 words on a 20mm shell that would never make headlines anywhere, but is not atypical of the story of almost all gastropod species of sea, land, and freshwater. Each species has its own problems and typically many different possible solutions. The history of each species is constantly changing and subject to many interpretations, something that should be kept in mind next time you type out a label for a new specimen.

Acknowledgements

My heart-felt thanks to the great people at the Biodiversity Heritage Library (Harvard MCZ) for making available online so many journals and papers that in the past would have taken months to find. Thanks also to the Interlibrary Loan Services at LSU Alexandria for obtaining papers from journals presently NOT available through www.biodiversitylibrary.org. Full citations for all the genera and species mentioned here can be found in the ovulid book. I also have great respect for Felix Lorenz, Dirk Fehse, and the late Crawford Cate, for having the courage to actually work with this complicated and frustrating family. Not many conchologists, including this one, would have had the guts to put out ideas that they know will be shot down probably sooner than later.

Literature Cited

Berry, S. S. 1946. A new Californian *Neosimnia*. *Journal of Conchology*, 22(8): 190-193.

Bertsch, H. & L. J. Bibbey. 1982. A new tropical eastern Pacific Ovulidae (Gastropoda): *Xandarovula hammesi*. *The Nautilus*, 96(2): 42-45.

Cardin, C. & J. G. Walls. 1980. A new false cowry from Pacific Panama (Ovulidae: Simniini). *The Pariah*, No. 8: 1-2.

Cate, C. N. 1969. A revision of the eastern Pacific Ovulidae. *The Veliger*, 12(1): 95-102.

Cate, C. N. 1973. A systematic revision of the Recent cypraeid family Ovulidae. *The Veliger*, Supplement 15. (Available online through www.biodiversitylibrary.org, as are other *Veliger* citations.)

Cate, C. N. 1975. The Ovulidae: A key to the genera, and other pertinent notes. *The Veliger*, 16(3): 307-313.

Dolin, L. & D. Ledon. 2002. Nouveaux taxons et discussion de la systematique des genres correspondants d'Ovulidae (Mollusca, Caenogastropoda) de l'Eocene inferieur de Gan (France). *Geodiversitas*, 24(2): 329-347.

Fehse, D. 2001. Contributions to the knowledge of the Ovulidae (Gastropoda: Cypraeoidea). IX. The genus *Neosimnia* Fischer, 1884 from the West American coast. *La Conchiglia*, XXXIII (No. 301): 23-31.

Liltved, W. R. 1989. *Cowries and Their Relatives of Southern Africa*. G. Verhoef, Seacomber Publ.; Cape Town, South Africa.

Lorenz, F. & D. Fehse. 2009. *The Living Ovulidae*. ConchBooks; Hackenheim, Germany.

McLean, J. H. *in* McLean, J. H. & T. M. Gosliner. 1996. *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Vol. 9. The Mollusca — Pt. 2*. Santa Barbara Museum of Natural History; Santa Barbara, CA.

Walls, J. G. 1979. *Cone Shells*. T.F.H. Publications; Neptune, NJ.

Jerry G. Walls
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2017 SHELL SHOWS & RELATED EVENTS

(January – August)

Information is subject to change. Please verify with individual organizations.

Jan. 14-15, 2017
52nd 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)

Jan. 21-22, 2017
SPACE COAST SEASHELL FESTIVAL, Melbourne, FL
New venue: Eau Gallie Civic Center, 1515 Highland Avenue
Alan Gettleman, 2225 Tanglewood Lane, Merritt Is., FL 32953-4287
E-mail: lychee@cfl.rr.com Tel. (321) 536-2896

Feb. 3 - 5, 2017
54th 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. 11-12, 2017
AUSTRALIA NATIONAL SHELL SHOW, Sydney, Australia
Balgowlah RSL Memorial Club, 30 - 38 Ethel Street, Seaforth, NSW 2092
E-mail: shellshow@sydneyshellclub.net

Feb. 18 , 2017
FUM (FLORIDA UNITED MALACOLOGISTS), Deland, FL
Allen Hall, Stetson University, Deland, FL
Sims Kline
E-mail: skline@stetson.edu Tel. (386) 747-7321

Feb. 24-25 , 2017
ST. PETERSBURG SHELL SHOW, Seminole, FL
Seminole Recreation Center, 9100 113th St. N., Seminole, FL
John Jacobs, 202 Soldier Court , Seffner , FL 33584
E-mail: johncheryl@earthlink.net Tel. (813) 309-2608 (evening)
Exhibit form available at web site: http://www.stpeteshellclub.org

Mar. 2 - 4, 2017
80th SANIBEL SHELL SHOW, Sanibel, FL
Sanibel Community Center, 2173 Periwinkle Way
Mary Burton, 558 Foxcreek Drive, Lehigh Acres, FL 33974
E-mail: marybsanibel@hotmail.com Tel. (239) 395-3626
Website: www.thesanibelcaptivashellclub.com

Mar. 9-11, 2017
MARCO ISLAND SHELL CLUB SHOW XXXV, 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

Mar. 11-12, 2017
XXIX 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

Apr. 29, 2017
BRITISH SHELL COLLECTOR'S CLUB CONVENTION, Essex, England
Theydon Bois Community Centre, Essex
Deborah Rolfe, 15 Dene Holm Road, Northfleet, Kent DA11 8LF, UK
Email: deborah@deborahrolfe.orangehome.co.uk Tel. 44 1474 567 827

May 20-21, 2017
XXVII 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

Jun. 10-11, 2017
GULF COAST SHELL SHOW, Panama City Beach, FL
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

Jul. 1 - 2, 2017
TOWNSVILLE SHELL SHOW, Townsville, Queensland, Australia
Orchid Society Hall in Kirwan
Jack Worsfold
Email: jnw_48@yahoo.com.au

Jul. 8 - 9, 2017
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

Jul. 16-21, 2017
AMERICAN MALACOLOGICAL SOCIETY ANNUAL MEETING, Newark, DE
University of Delaware, Newark
E-mail: akittle@delmnh.org
http://www.delmnh.org/ams2017/

Aug. 15-19, 2017
CONCHOLOGISTS OF AMERICA ANNUAL CONVENTION, Key West, FL
Double Tree by Hilton – Grand Key Resort, 3990 S. Roosevelt Blvd.
Greg Curry Tel. (305) 797-6458 E-mail: beechnutkw@aol.com
(or) Ed Shuller Tel. (919) 812-1810
E-mail: eshuller@mindspring.com

Aug. 26-27, 2017
2nd ANNUAL WEST COAST SHELL SHOW, San Diego, CA
Casa Del Prado Rm. 101, 1650 El Prado, Balboa Park
David P. Berschauer
Tel. (949) 422-6585
E-mail: shellcollection@hotmail.com

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E-mail: donaldan@aol.com
2016-10-31

Pond snail chirality

Tom Eichhorst

It appears that the lowly pond snail, *Lymnaea stagnalis* (Linnaeus, 1758), has been a key figure in recent gene research. As originally reported in *Current Biology* (and then further discussed in Smithsonian.com and in *National Geographic*), researchers have discovered a gene in the pond snail that seems to determine chirality or asymmetry. As most shell collectors know, gastropod shells are either dextral (right-handed) or sinistral (left-handed). That is, when the shell is viewed with the spire upwards and the aperture facing the viewer, the aperture or opening will be on the viewer's right in a dextral shell and on the viewer's left in a sinistral shell. The vast majority (95%+) of marine gastropod species are right-handed or dextral, as are most freshwater species. Landsnails, while still favoring a dextral structure, are more evenly split in right and left-handedness.

Scientists hope this breakthrough will help in the understanding of asymmetry in other animals, where the exterior is symmetrical while the asymmetry is on the inside (the human heart is offset to the left while the liver is more to the right). In shelled gastropods, asymmetry is readily observable with the exterior shell. In the research on pond snails scientists found a single gene, formin, that when mutated caused the normally dextral shell to develop as a sinistral shell. The changes were observed in extremely early embryonic development and seem to be expressed through the maternal genes only. A downside to all of this is that the snails did not survive and the mutated gene did not cause a change in chirality in tested landsnails (*Euhadra* sp. and *Partula* sp.). Still, this is another step in our understanding of nature. (Image from Wikipedia.com).

Davison, Angus, Jennifer M. Holden, Harriet F. Johnson, Georgios D. Koutsovoulos, M. Maureen Liu, Paco Hulpiau, Frans Van Roy, Christopher M. Wade, Ruby Banerjee, Fengtang Yang, Satoshi Chiba, John W. Davey, Daniel J. Jackson, Michael Levin, Mark L. Blaxter. 2016. Formin Is Associated with Left-Right Asymmetry in the Pond Snail and the Frog, *Current Biology* 26(5): 654–660, 7 March 2016. also available online at: http://www.cell.com/current-biology/fulltext/S0960-9822(16)00056-7

Maya, Wei-Haas. 2016. Snail Shells Add a New Twist to the Mystery of Animal Asymmetries, online at: Smithsonian.com, uploaded 25 February 2016.

Shea, Rachael Hatigan. 2016. Snail shells reveal secret to asymmetry, National Geographic 230(5): 18.

You can get to Key West from just about anywhere.

Heterobranch sea slugs of Bocas del Toro, Panama

Jessica Goodheart

Heterobranch sea slugs are present in a variety of habitats, from coastal reefs to vast areas of the open ocean. Some groups of heterobranch sea slugs are broadly known popularly, such as nudibranchs (popular with underwater photographers due to their bright color patterns) and sacoglossans (known for their ability to sequester functional chloroplasts from their algal prey). Research has not, however, been limited to these popular groups. Many other groups of heterobranch sea slugs, including Pleurobranchomorpha, Pteropoda, Anaspidea, and Siphonarioidea have also been subjects of research during recent years.

My PhD research in particular is focused on the specific heterobranch slug group Cladobranchia (an infraorder of nudibranchs), and the evolution of nematocyst sequestration within this group (nematocysts are the stinging organelles cnidarians like jellyfish use for defense and prey capture). In the summer of 2015, I

Figure 1. The cladobranch *Berghia rissodominguezi* Muniain & Ortea, 1999, from Bocas del Toro, Panama.

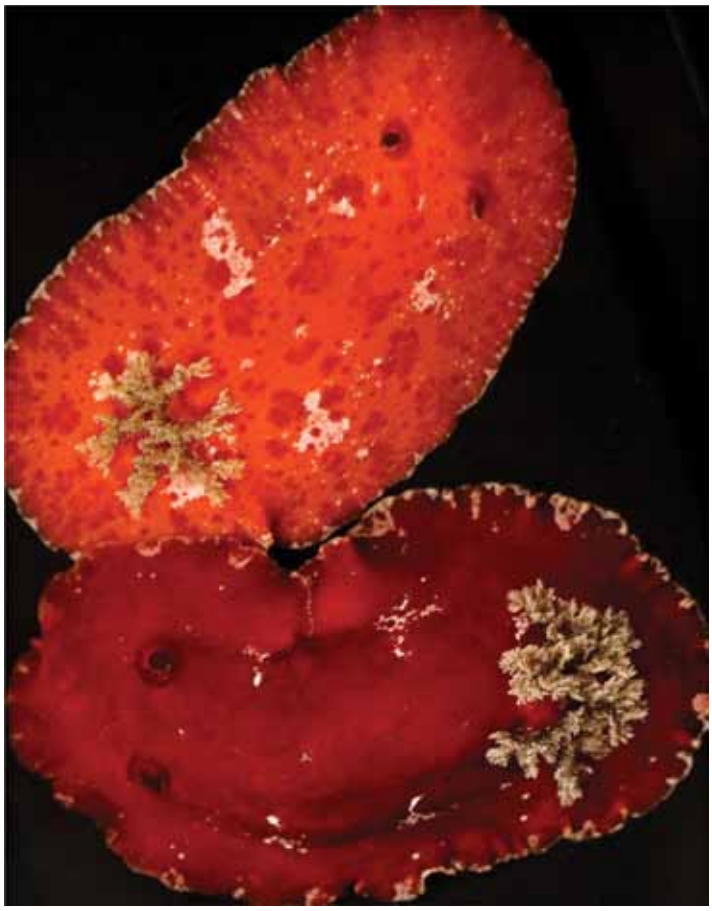

Figure 2. Two specimens of *Platydoris angustipes* (Mörch, 1863), from Bocas del Toro.

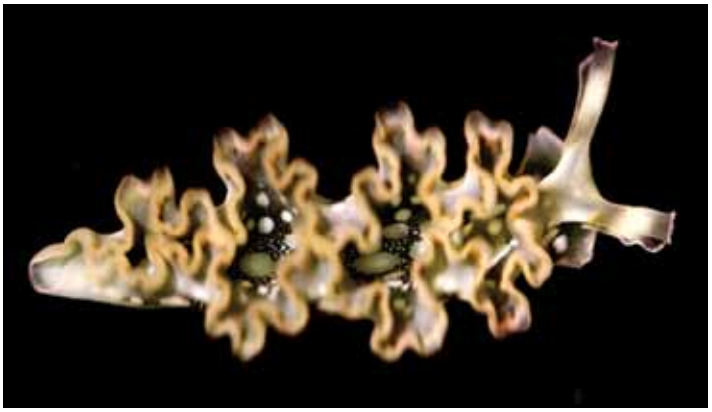

Figure 3. *Elysia crispata* Mörch, 1863, from Bocas del Toro.

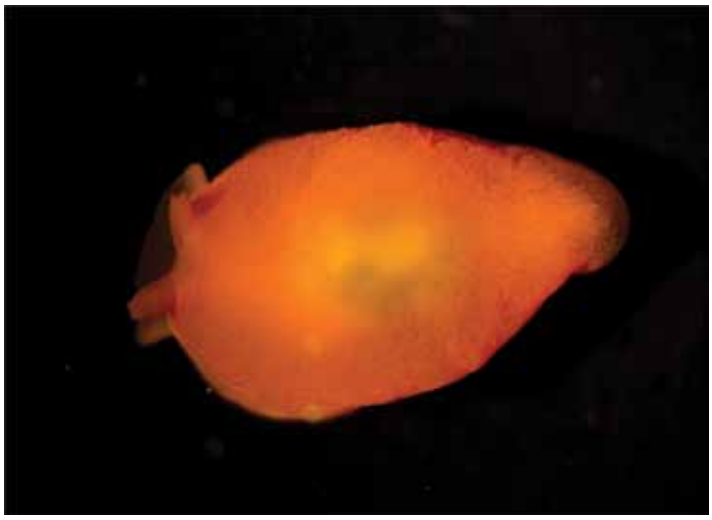

Figure 4. *Berthellina quadridens* (Mörch, 1863), from Bocas del Toro.

traveled to Bocas del Toro, Panama, to collect nudibranch specimens. My field work was possible thanks to the generosity of the Conchologists of America and other sponsors. In addition to my collecting activities, I participated in a workshop at the Smithsonian Tropical Research Institute (STRI), Bocas del Toro Research Station, that was focused on sea slug taxonomy. This workshop was focused on the collection, identification, and taxonomy of heterobranch sea slugs over the course of two weeks. During this workshop, it became apparent that the current field guides for the Caribbean, and especially the Bocas del Toro area, were outdated and lacking in certain types of information necessary for proper identification.

Only one guide existed for the Caribbean as of last year (Valdés et al., 2006), and while quite thorough, there were few details on which taxa included in the book were present in the Bocas del Toro area. In any case, most of the information on species from Bocas in this guide was taken from a previous publication (Collin et al. 2005). To make matters worse, heterobranch sea slug systematics and taxonomy has dramatically changed in the past decade, making much of the information contained in those guides outdated. Given this lack of current information, added to the fact that the areas near Bocas del Toro are frequently used in studies by researchers that pass through the research station, it was clear to us that an updated guide to the heterobranch sea slug taxa in Bocas was sorely needed.

To address this need, we (meaning the 13 students and 3 instructors for the course) published an article in *Marine Biodiversity Records* entitled, "Identification guide to the heterobranch sea slugs (Mollusca: Gastropoda) from Bocas del Toro, Panama" (Goodheart et al. 2016). In this publication, we increased the known heterobranch sea slug species in Bocas del Toro from 19 to 82, a greater than 400% increase in the known taxa for the area. Also, more than 80% of the species included in our guide are members of Nudibranchia and Sacoglossa, which are by far the most abundant groups of heterobranch sea slugs in the Caribbean.

Species collected during this work include common species present in much of the Caribbean, such as *Elysia crispata* (Figure 3)*, Dendrodoris krebsii* (Mörch, 1863), and *Tritonia hamnerorum* Gosliner & Ghiselin, 1987, as well as very rare species like *Doriprismatica sedna* (Ev. Marcus & Er. Marcus, 1967), and *Nanuca sebastiani* Er. Marcus 1957. In addition, we managed to collect specimens from 5 different major heterobranch groups, including Pleurobranchomorpha, Cephalaspidea, Anaspidea, Nudibranchia, and Sacoglossa. In this publication, we also provide summarized descriptions and illustrations for described species. For most species the habitat information (substrate or food source on which specimens were found), and in some cases brief descriptions of the egg masses, are also included. Overall, the remarkable increases in diversity obtained during this study strongly suggests that the distribution of species within the Caribbean is still poorly known (at least in regards to some localities), and more surveys need to be conducted.

This work provides a great example of what can be accomplished with a group of dedicated people that are searching for specific types of animals, even over a short period of time. It also highlights the need for more range information and published species records when fieldwork is completed. In any case, the results of this study provide useful information for scientists, and hopefully citizen scientists, that work on the heterobranch sea slugs in Bocas del Toro, Panama.

Collin R., M.C. Díaz, J. Norenburg, R.M. Rocha, J.A. Sánchez, A. Schulze, M. Schwartz & A. Valdés. 2005. Photographic identification guide to some common marine invertebrates of Bocas del Toro, Panama. *Caribbean Journal of Science* 41: 638–707.

Goodheart J.A., R.A. Ellingson, X.G. Vital, H.C. Galvão-Filho, J.B. McCarthy, S.M. Medrano, V.J. Bhave, K. García-Méndez, L.M. Jiménez, G. López, C.A. Hoover, J.D. Awbrey, J.M. De Jesus, W. Gowacki, P.J. Krug & Á. **Valdés. 2016.** Identification guide to the heterobranch sea slugs (Mollusca: Gastropoda) from Bocas del Toro, Panama. *Marine Biodiversity Record* 9: 56. also available online at: https://mbr.biomedcentral.com/articles/10.1186/s41200-016-0048-z

Valdés Á, J. Hamann, D.W. Behrens & A. DuPont. 2006. *Caribbean Sea Slugs*. Sea Challengers Natural History Books, Gig Harbor, Washington, USA.

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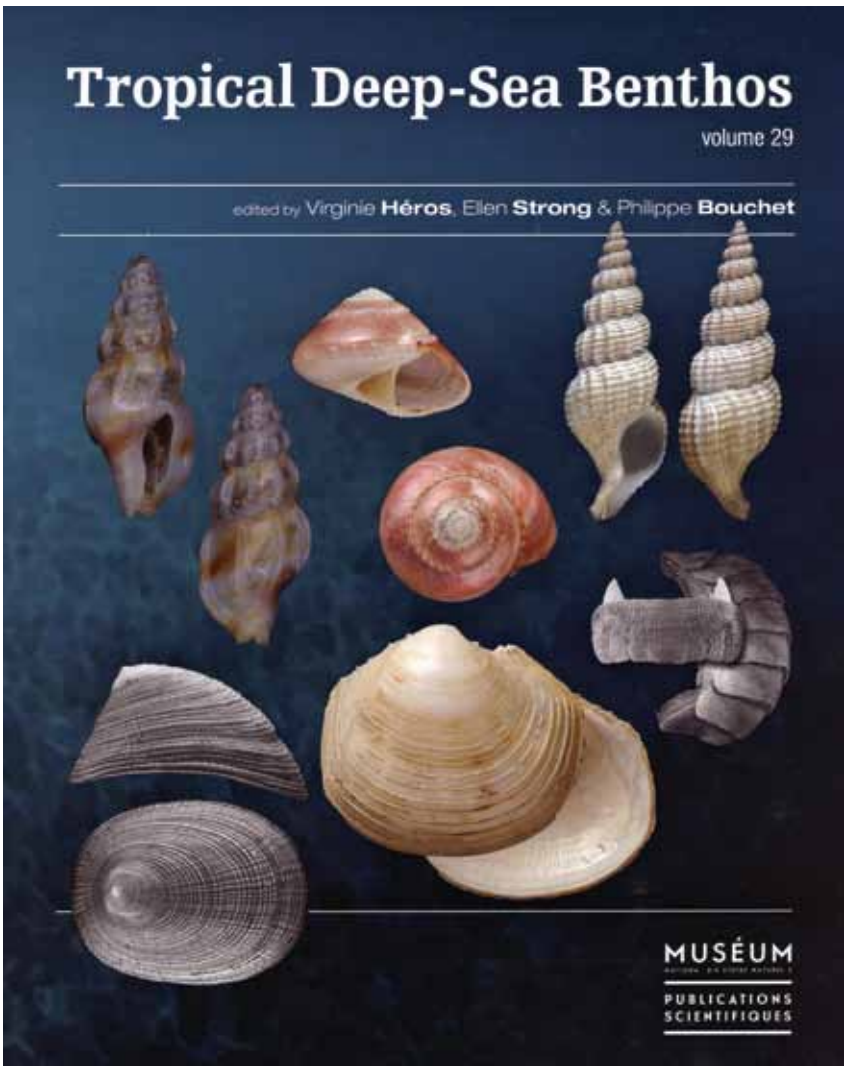
Tropical Deep-Sea Benthos, Vol. 29

(edited) by V. Héros, E. Strong & P. Bouchet



2016, Publications Scientifiques du Muséum, Paris, ISBN 978-2-85653-774-9 in hardcover with accompanying DVD, aprox. 8.5 x 11 inches, 463 pp., 555 figs., numerous high resolution color plates and SEM photographs, 86.00 € (about $92.00 plus shipping)

The ConchBooks (www.conchbooks.de, book ID 40595) advertisement for this book says, "The deep benthos of tropical seas is one of the last frontiers of biodiversity exploration, and a major reservoir of species still unknown to science. The French National Museum of Natural History (MNHN) and Institute for Research for Development (IRD) are conducting an unprecedented series of research cruises in the South and West Pacific, totaling so far over 5,000 deep-water sampling stations in remote and seldom-visited island groups. The *Tropical Deep-Sea Benthos* series, a continuation of the former *Résultats des Campagnes Musorstom*, showcases some of the biodiversity discovered through contributions from experts worldwide. The present volume includes six major taxonomic papers from experts of polyplacophoran, bivalve and gastropod molluscs, together documenting 213 species – 137 of which are new to science – and highlighting the extraordinary biodiversity of the South and West Pacific, in particular the Philippines, Papua New Guinea and New Caledonia. An introductory chapter highlights the role of citizen scientists in describing the molluscan diversity of the world, who are responsible for 57% of the new species descriptions, and the present volume is no exception." This clearly, and rather succinctly, covers this publication. This overview is then followed by a bibliographic listing of the seven papers contained in the book (reproduced below).

Bouchet, Ph., S. Bary, V. Héros & G. Marani. How many species of molluscs are there in the world's oceans, and who is going to describe them?

Sirenko, B. New, rare bathyal leptochitons (Mollusca, Polyplacophora) from the South and West Pacific.

Glover, E.A. & J.D. Taylor. Lucinidae of the Philippines: highest known diversity and ubiquity of chemosymbiotic bivalves from intertidal to bathyal depths (Mollusca: Bivalvia).

Marshall, B.A., N. Puillandre, J. Lambourdiere, A. Couloux & S. Samadi. Deep-sea wood-eating limpets of the genus *Pectinodonta* Dall, 1882 (Mollusca: Gastropoda: Patellogastropoda: Pectinodontidae) from the tropical West Pacific.

Vilvens, C. & S.T. Williams. New genus and new species of Solariellidae (Gastropoda: Trochoidea) from New Caledonia, Fiji, Vanuatu, Solomon Islands, Philippines, Papua New Guinea and French Polynesia.

Monsecour, K. & D. Monsecour. Deep-water Columbellidae (Mollusca: Gastropoda) from New Caledonia.

Fraussen, K. & P. Stahlschmidt. The extensive Indo-Pacific deep-water radiation of *Manaria* E. A. Smith, 1906 (Gastropoda: Buccinidae) and related genera, with descriptions of 21 new species.

As can be seen from the cover, this is a handsomely illustrated volume and with 137 newly described species, plus descriptions and images of lots of other mollusks not typically found on dealer shell lists; it is a fascinating read. If any bivalve collector reading this thinks they have a collection with a solid representation of Lucinidae, then read the article by Glover and Taylor. I think most will be amazed at the number of species in this family. Each of these well-selected pieces offers insights into the fascinating realm of deep-sea fauna. Sirenko describes deep-sea chitons, a group most of us thought limited to intertidal rocks. Marshall et al. describe new deep-sea wood-eating limpets accompanied with some fascinating SEM images. Vilvens & Williams describe some new Solariellidae. Monsecour & Monsecour describe deep-water columbellids and Fraussen & Stahlschmidt describe new buccinids. A decade or so ago a lot of this would have been interesting but of little use to the average collector. Today, however, with fishing expeditions trawling ever deeper, these shells are showing up on Internet auction sites and dealer lists.

So, lots of new species, great photographs, deep-sea mysteries -- anything else of interest? Read the first article by Philippe Bouchet et al. He is senior professor and head of the Malacology Laboratory and Taxonomy Collections Unit of the Muséum national d'Histoire naturelle in Paris. He is also a Commissioner of the International Commission on Zoological Nomenclature (ICZN, http://iczn.org/) and Chief Taxonomic Editor of the World Register of Marine Species (WoRMS, http://www.marinespecies.org/). Philippe Bouchet, along with co-authors Sophie Bary, Virginie Héros & Gilberto Marani, provide the reader with the history, the present state, and the probable future of molluscan taxonomy - how many species have been named, how many remain to be named, and who is doing the naming. Of interest (spoiler alert), they determine that some 50,000 species of mollusks have been named and that there are probably another 150,000 remaining unnamed! They also demonstrate that the number of new species named increases each year and that over half are now named by "citizen scientists," rather than professional malacologists. This paper is available as a PDF at: https://www.researchgate.net/publication/308902446_How_many_species_of_molluscs_are_there_in_the_world%27s_oceans_and_who_is_going_to_describe_them

This book has a wealth of information and is certainly affordable and deserving of a place on the conchologist's shelf.

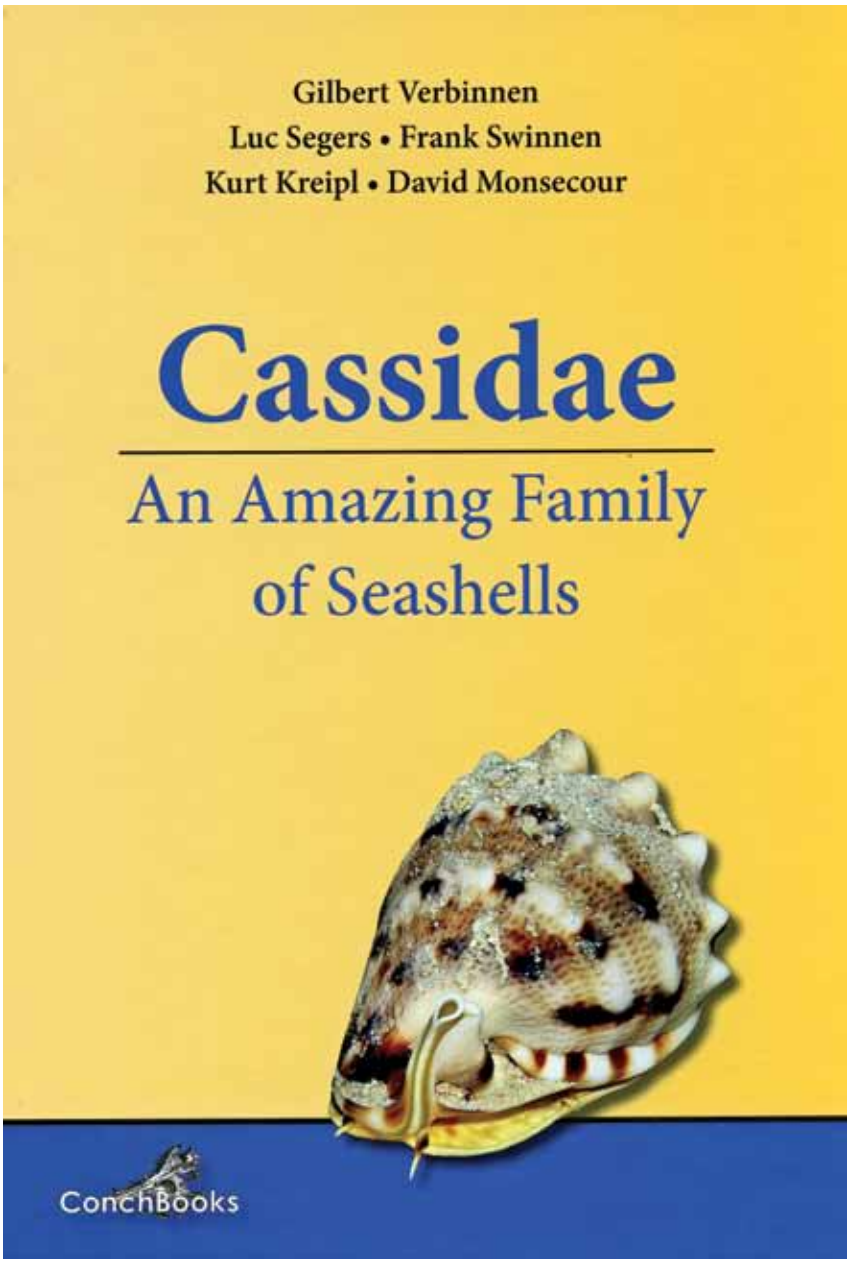
Thomas E. Eichhorst
thomas@nerite.com

Austrotrophon catalinensis **(I. Oldroyd, 1927), 55mm, California. Never really common, this is now a rare shell in collections as much of the home range of this species has been closed to collecting.**

This is a bronze sculpture (one of nine planned in the series) based on *Cassis madagascariensis* Lamarck, 1822. It measures 16 inches in length and weighs a whopping 18 kilos (39.6 lbs). The artist lives and works in Worcestershire, England, and has priced this piece at £3,990 (about $5,000) including shipping. Inquiries can be made at: kccdesigns@aol.co.uk

Cassidae: An Amazing Family of Seashells

by Gilbert Verbinnen, Luc Segers, Frank Swinnen, Kurt Kreipl & David Monsecour



2016, ConchBooks, Harxheim, Germany, ISBN 978-3-939767-72-5 in hardcover approx. 8.5 x 11 inches, 251 pp, 131 full page high resolution color plates, and numerous smaller B&W images, about 86.00 €. Available from MDM Shell Books (www.mdm-shellbooks.com) & ConchBooks (www.conch-books.de).

The authors state, "...this book is strictly conchological and ... was compiled for the use of those who wish to acquire an elementary acquaintance with the subject, as well as for authors and others who (eager to extend their knowledge and to pursue their researches) require a book of reference containing a general outline of what has been done by those who have trodden the same path before." What this means for the reader is a superior reference book on this variable and fascinating family. The text is concise, the taxonomy is as recent as can be found, and the color plates are clear with apertural and dorsal shell views and most often several specimens illustrated to clearly demonstrate variability. Each shell is well described in the text portion with a B&W image for reference and a clearly stated distribution. Most species write ups also include a "note," with interesting facts about the species, such as its history or taxonomic issues. The book is arranged alphabetically by genus and then within each genus is an alphabetical listing by species. Each genus and subgenus is described as a lead-in to the species descriptions. Color plates are grouped together after the species write ups. Each plate is numbered and also has the page number of the species write up. Synonyms are provided as is a separate listing of type specimens and type locality data (also an easy reference to the correct scientific name).

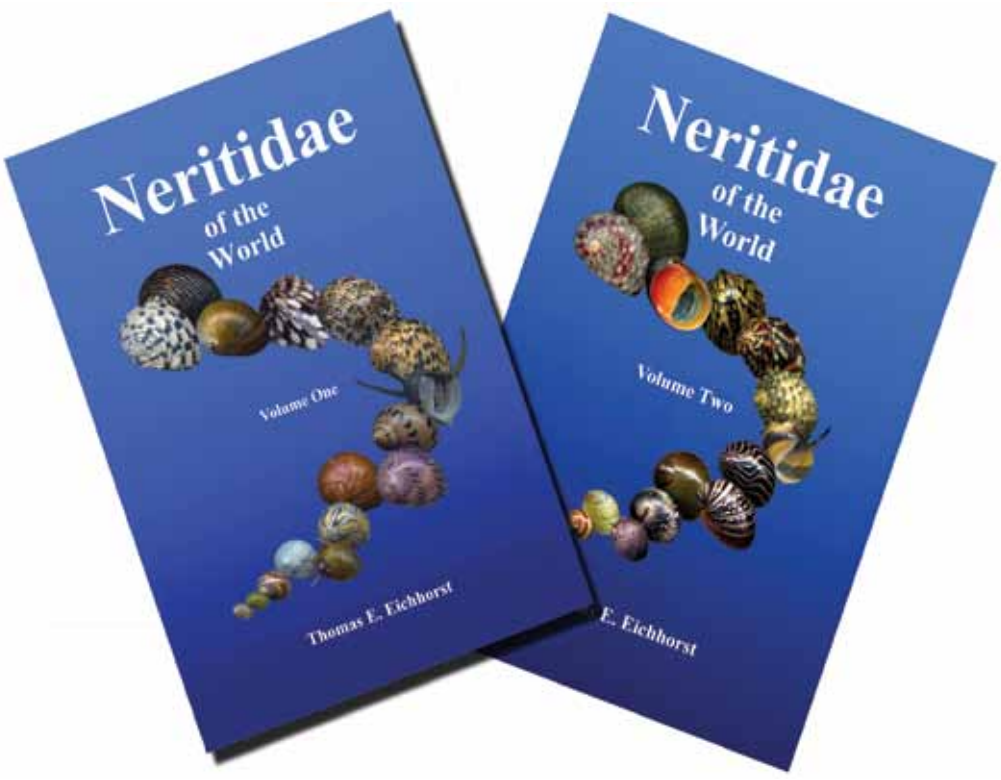
Cassids are a collector favorite, but proper identification can be difficult. The two previous works by Kurt Kreipl (*Recent Cassidae*, 1997 and *Cassidae*, 2008) are excellent works, but recent name changes and species discoveries demanded an update, and this volume does that quite well. The authors do not agree with some recently described species, but for the most part these are illustrated as synonyms and the reader can decide what course to follow. I have both of Kurt Kreipl's previous cassid books in my shell library and frankly questioned the need for yet another. Thankfully, I decided the price was certainly reasonable and went ahead and ordered a copy. It was a good decision and this newest book will now be my go-to volume for Cassidae. Thanks to the authors for a superb book and congratulations.

Thomas E. Eichhorst
thomas@nerite.com

Neritidae of the World - Volumes One & Two

by Thomas E. Eichhorst

Vol 1: ISBN 9783939767701, vol 2: ISBN 978 3 939767763, published in 2016 by ConchBooks, Hackenheim, Germany, hardcover in laminated boards, A4 size 21 by 29.5 cm. (about 8 by 11.75 inches). Vol 1 with 694 pages, 198 full-page color photographic plates as well as many other photos and SEM scans of the shells and their parts and other photos in color to help with shell identification. Vol 2 with 672 pages, 150 full-page color photographic plates as well as numerous other color photos, maps, charts, b&w photos throughout the book. Contains updates and corrections for the first volume. Each vol $179.95 from MDM Shell Books (www.mdmshellbooks.com). Also available on Amazon.com and for 148.00 € from ConchBooks (www.conchbooks.de).



Although the nerites, like many other families of shells found in shallow often intertidal water, are given little if any attention by the majority of shell collectors, this book may well be the one that will lead more of us to understand the beauty and the complexity of these shells. While most of the books we have and use cover some shells in this family, this is the first time to my knowledge that information about the entire and rather complex family can be found in a single book. The nerites you thought were just intertidal dwellers are also found miles inland in fresh water, in trees like landsnails, in coral reefs, in isolated desert pools, and in deep water. To simply say that this is a superb book does not do it proper justice. It is nothing less than a comprehensive look and study of these shells that have been the focus of the author's work for a great many years. We owe Tom Eichhorst a tremendous "thank you" and I hope that the second volume in this set will be on the way shortly.

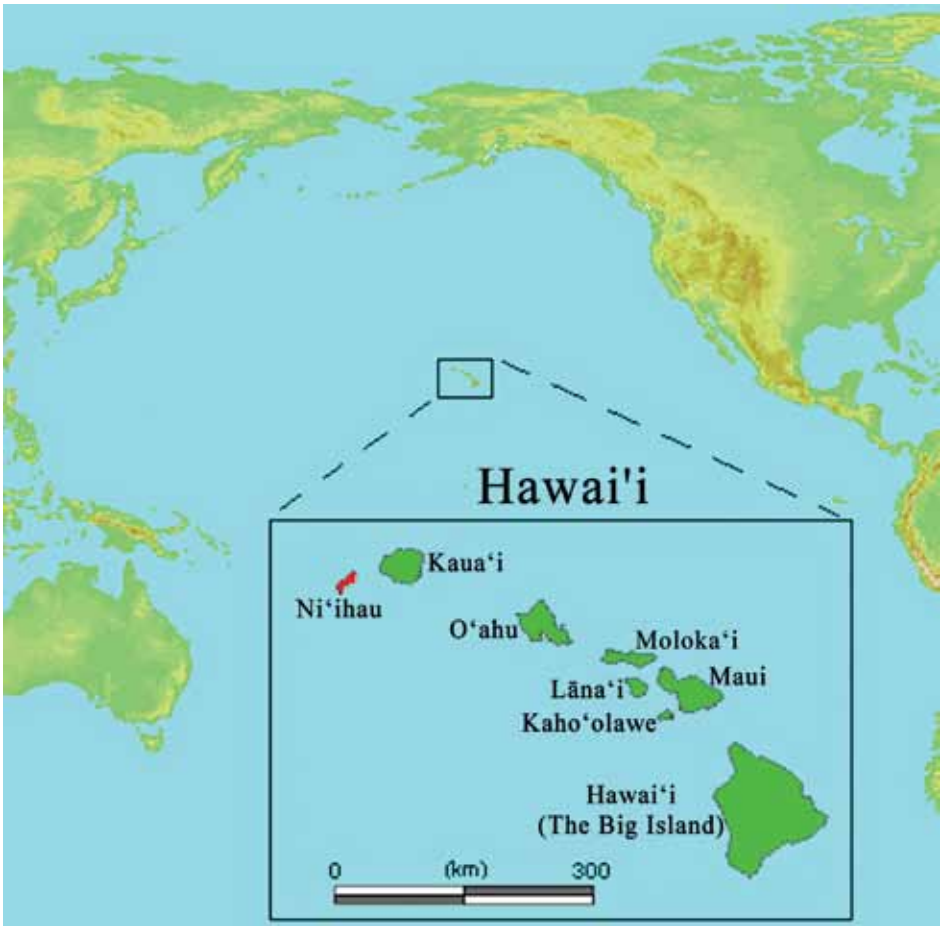
There is very little that I can say about this second volume other that you can take all the good comments you have heard about it, and the capsule reviews that I did for volume one, and double them. This is simply an amazing set of books and it reflects the author's long years of study and love of these shells that he shares with us in these books. In the two volume set we are presented with more than 300 species of these shells, over a dozen newly described, and a few reclassified. Many of the shells are familiar to us and many we have never seen before. Many have not been illustrated for over 100 years! Many of the species are quite variable and we get a good look at the variations that can occur. The photographs are superb and the descriptive material is complete, unlike so many other publications today that are almost devoid of description. If you love shells or if you study shells, you'll want to have this set of books on your reference shelf. Nerite shells are often not very popular with shell collectors because while there are maybe 50 that are commonly found on dealer lists, there are another 250 that until now were almost impossible to properly identify. Just thumbing through the plates in these books may very well reverse your opinion about this family. The second volume also covers several families closely related to Neritidae, including: Helicinidae, Hydrocenidae, Neritiliidae, Phenacolepadidae, and Titiscanidae. The two volumes total 1366 pages, with 348 full-page color plates and hundreds of other color images!

We have only about 10 copies of this book available now that we brought in by airmail. The bulk of our order for this title will be coming by sea freight and will probably not arrive until May 2017. So if you want a copy quickly, don't wait, place your order now.

Bob Janowsky
mail@mdmbooks.com

The *Lei Pupu o Ni'ihau*

Betty Ruggeri (photo by Nick Ruggeri unless otherwise indicated)



Less than one hundred square miles in area, Ni'ihau is one of the smallest islands of the Hawaiian chain. Image from Wikipedia.com.

Looking out from the observation point at Spouting Horn on Kauai Island, Hawai'i, you can get a good view of the shoreline feature that gives this spot its name. Sometimes, when the swell is right, the blowhole is downright impressive and sometimes, looking further out, you can see a dark smudge, a denser looking bit on the horizon. This is the fabled island of Ni'ihau, lying nearly twenty miles off Kauai's southwest coast.

Variously described as "mysterious," or "forbidden," this tiny member of the Hawaiian chain remains as a monument to "the old days." Purchased from the Hawaiian king (Kamehameha V) by Elizabeth Sinclair in 1864, the island has remained in private ownership and has traditionally been a place where the traditional Hawaiian life-style is still followed.

On Ni'ihau, there are no power plants, as we know them; solar energy supplies what electricity there is, which isn't much. There is no running water. Rainwater catchment provides fresh water, but sometimes not enough, as the mountains of Kauai block the path of the moisture-laden trade winds. During some droughts, the entire population of Ni'ihau has been forced to emigrate to its larger neighbor, Kauai. There are no cars on little Ni'ihau, no trucks, no hotels. A Naval installation on the coastal cliffs provides 80% of the island's income.

Could we live this way? As it happens, many of the locals have not been able to cope with the primitive conditions. The population has been steadily shrinking, from the original few hundred to fewer than one hundred residents, as the younger generation looks for better paying jobs and amenities on the other islands.

Between 1986 and 1992, the island became more accessible. Strictly guided tours and safaris became available, although in the absence of overnight accommodations they were necessarily brief.

Prior to its privatization, Ni'ihau was respected for making the finest reed mats in the islands. Today the location is well known – in some circles, almost revered – as the source of one singular product, the *lei pupu o Ni'ihau*, or shell lei, still crafted by some of Ni'ihau's few remaining residents. The creation of a Ni'ihau lei is truly a labor of love, sometimes requiring a year or more to complete, and every lei is unique. Ni'ihau leis are works of art, legally protected against counterfeiting since 2004.

In order to create a *lei pupu*, the artist must gather great quantities of tiny shells in good enough condition to be used, which may take weeks or months (a single strand may require more than two hundred individual shells). Next the usable shells are sorted by color, according to the pattern in the mind of the worker.

The majority of Ni'ihau leis are composed, at least in part, of the minute shell of *Colonista verruca*. In order to string the shells, two openings must be found or created in each tiny shell. Sometimes a natural drill hole is in the correct position, but usually the artist must carefully drill the shell to create the second opening. The shell structure of some species lends itself to an alternative method of forming the hole for the string. The tip of the spire can be filed down until the string can be passed through to the aperture.

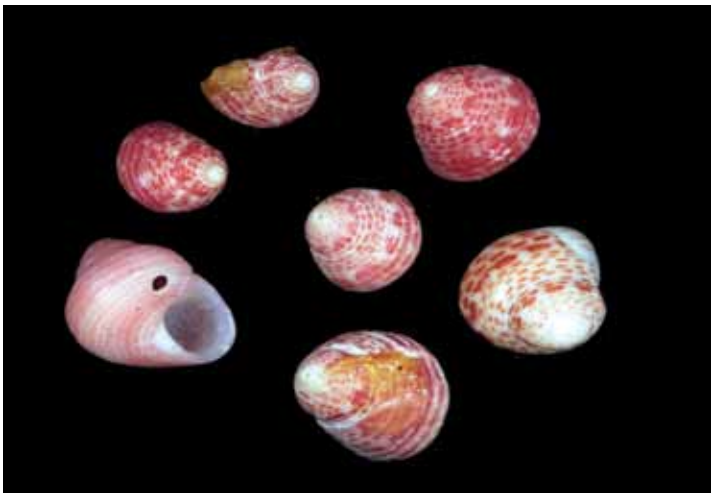
Small cowry shells, such as *Monetaria annulus* (Linnaeus, 1758), are "pre-structured" for ease of stringing. Traditionally the "string" was passed through the shell from end to end and held in place with a tuft of fiber or bit of fabric. Besides the abundant *Monetaria annulus*, many other small cowries are used: *Purpuradusta fimbriata* (Gmelin, 1791), *Luria isabella* (Linnaeus, 1758), or *Monetaria moneta* (Linnaeus, 1758), all lend themselves to use in leis. Visitors to Hawai'i often come home with "airport leis" of *Monetaria annulus*, but these are a far cry from the intricate art of Ni'ihau. The ventral surface of the shell is usually drilled for use in mass-market stringing.

However they have been prepared, the shells are finally strung in the pattern imagined by the artist. Originally, pieces were strung on natural fibers; more recently, man-made "fibers," similar to monofilament fishing line, have been used. Various stringing styles are found: single, double, triple, and even quadruple strands may be variously looped and twisted together. The color patterns achieved depend on the natural color of the shells, not artificial pigments.

Three small molluscan species make up the bulk of the finest *lei pupu*. *Momi* are the shells of a small columbellid, *Euplica varians*. The shells occur in a variety of forms, from pure white, through a host of spots, lines, and squiggles in shades of brown; some are so heavily patterned as to appear nearly dark brown. A second columbellid, *Mitrella margarita* (Reeve, 1859), also provides various patterns in shades of brown. These are called *laiki*, or "rice shells."

Shades of red and pink are often required by a Ni'ihau design. Such colors are available in the minute turbinid, *Collonista verruca*, which is sometimes found

Each strand in this elegant lei is made up of hundreds of the tiniest shells used, all sorted by color. Photo by Pat Whitaker.



The majority of Ni'ihau leis are composed, at least in part, of the minute shell of *Collonista verruca* (Gould, 1845).

Since the apex of the nearly white shell at lower left is visible, it must have had a convenient drill hole on the side of the spire. The other three have been filed.

The various colors of kahelelani enable the artist to create patterns such as this.

This *kahelelani* earring contains sixty-five individual shells (yes, as a matter of fact, I did count them).

A small specimen of *Cellana exarata* (Reeve, 1854), the common opihi, sometimes used as a fabric decoration.

This section of a "mass-market" *momi* lei shows the variability of *Euplica varians* (G.B. Sowerby I, 1832).

This elegant Ni'ihau lei is made of matched white momi shells. The clasp shells are *Nucleolaria granulata* (Pease, 1862).

in great numbers in beach drift. These *kahelelani* shells are among the tiniest used in the construction of leis. Incidentally, *kahelelani* shells are named for Kahelelani, one of the *alii nui,* the ruling nobles of Ni'ihau.

Kahelelani are nearly spherical, with an average diameter of about five millimeters, making them some of the most difficult shells with which to work. In order to use such a shell in a lei, a second hole must be created opposite the natural aperture, by drilling or filing. The thought of doing this, after so much time has been expended in gathering the shells in the first place, is absolutely terrifying! Actually, many shells shatter in the process, requiring even more collecting and sorting.

Many more species of small shells are used in the construction of leis, from the relatively large *Turbo sandwicensis* (Pease, 1861), to fragile juveniles of the ribbed limpet, *Cellana exarata.* Valves of small pectinids, such as *Chlamys* and *Haumea*, are used to decorate belts and hatbands.

Disks formed from the posterior section of *Conus sponsalis* shells are frequently found in beach drift. These can be used as accents or even as the sole species in a lei. Even though most of the leis are made only from shells, other materials are sometimes used, as in the case of the scallop-

In this example, sections of *Conus sponsalis* Hwass in Bruguière, 1792 form the "endpoints" of the lei, next to the commercial clasp.

Momi in ivory-white and multicolor versions, *kahelelani* in their loveliest colors. Cone tops and cowries make up this lei.

View of the rugged cliffs of windward Ni'ihau (the north-eastern shore). Image from Wikipedia.com.

The red jungle fowl are an invasive species that is abundant on Kauai. And they start crowing at four in the morning!

studded hatbands mentioned earlier. Shells such as limpets can be attached to decorative ribbons. Occasionally, fabric is incorporated into the structure of a lei.

Faced with so many possibilities, a Ni'ihau shell-worker may have some difficulty deciding exactly what shells to use. One possible solution for the confused artist? Use them all!

The number of new Ni'ihau leis being made is decreasing, as fewer and fewer of the original artists remain on the island, but there are still a great many available. The shops at Spouting Horn still carry some leis, but not nearly as many as they did thirty years ago. The Hawaiian Trading Post in Lawai (up the road from Poipu on Kauai Island) has an excellent collection of spectacular ceremonial leis, which are not for sale, as well as a few smaller examples that are for sale. The ubiquitous Hawaiian chains, such as Long's Drugstores and Hilo Hatties have some nice leis, but most of them are not genuine *lei pupu o Ni'ihau*.

According to my highly reliable sources, the best place to find Ni'ihau jewelry these days is on line. Would you believe Ebay? Still a trip to Kauai, or even to Ni'ihau itself, would be fun. Even if you don't find the lei of your dreams, you'll be certain to encounter flocks of red jungle fowl (chickens). At Spouting Horn, they're more plentiful than either the Ni'ihau or the customers.

I am deeply indebted to Sue Hobbs and Pat Whitaker for sharing their treasures, as well as their treasure-trove of information. Without them this article would have been impossible. And without Regis D'Angiolini's initial suggestion, I never would have thought of it.

Betty Ruggeri
nbruggeri@verizon.net

Broward Shell Show – 14-15 Jan 2017

The scientific show area in at the Emma Lou Olson Civic Center, giving an idea of the expanse of the show this year.

Once again, the Broward Shell Club held a fantastic shell show at the Emma Lou Olson Civic Center, Pompano Beach, FL. This year there were 28 scientific exhibits covering a record 332 feet of exhibit space! The Chairperson was Alice Pace, who reported, "We had good attendance at the show both days. We stay open on Saturday until 6pm and even after 5pm we had a number people. On Sunday when we closed at 4pm, there were so many people I was concerned we wouldn't be able to get them to leave! The show, again this year, was a great success." The scientific judges were José Leal and Rich Kirk. The artistic judges were Mary Burton and Shannon Webster.

(Left): Doug Thompson with the COA Award for his display, "Self-Collected NW FL Deep Water Specimens." Doug's display featured specimens collected in the waters off Florida, at depths from 70 to 130 feet deep. His display had 12 cases spanning 23 feet.

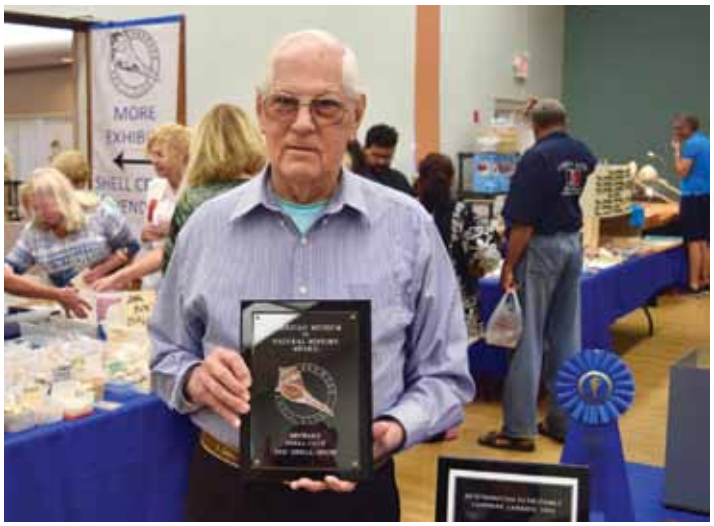
(Left): Robert & Alice Pace with their DuPont Trophy for their display titled, "2016 COA Field Trip at End of Convention Land & Freshwater Collecting," in the category "Land or Freshwater Shells Any Manner."

2017 SHELL SHOW AWARDS – SCIENTIFIC DIVISION

AMERICAN MUSEUM OF NATURAL HISTORY AWARD
Martin Tremor, Jr. & Conrad Forler – "For The Love of Cockles"
Category: One Family Minor Any Manner

CONCHOLOGISTS OF AMERICA AWARD
Doug Thompson – "Self-Collected NW FL Deep Water Specimens"
Category: One Region Self-Collected

Gene Everson with his award for "Best of the Best." His display was "World-Wide Self-Collected."



Martin Tremor with the American Museum of Natural History Award for his and Conrad Forler's display titled "For The Love of Cockles."

THE DuPONT AWARD
Robert & Alice Pace – "2016 COA Field Trip at End of Convention Land & Freshwater Collecting"
Category: Land or Freshwater Shells Any Manner

"BEST OF THE BEST"
Gene Everson – "World Wide Self-Collected"
Category: Best of the Best

LEN HILL MEMORIAL
Doug Thompson – "Self-Collected Florida Lion's Paws"
Category: One Species – Any Manner

SHELL OF SHOW – Self-Collected
Linda Zylman – *Tridacna maxima*
Category: Single Shell Self Collected WorldWide

SHELL OF SHOW – Any Manner
Gene Everson – *Mantellina translucens*
Category: Single Shell FL/Caribbean Any Manner

JIM VUNKANNON MEMORIAL FLORIDA/CARIBBEAN TROPHY
Doug Thompson – "Self-Collected Florida *Spondylus*"
Category: Florida/Caribbean Self-Collected

GERRIT De GRAFF MEMORIAL
Allen Bennett – *Phyllonotus eversoni*
Category: Super 10

NEIL HEPLER MEMORIAL TROPHY FOR EDUCATIONAL EXCELLENCE
Tom Ball – "Cuban Land Shells"
Category: Land or Freshwater Shells Any Manner

BETTY HAMANN FOSSIL TROPHY
Robert & Alice Pace – "Broward Shell Club Field Trip Fossil Shell Collecting"
Category:Fossils

BEST STUDENT EXHIBIT SCIENTIFIC
Amelia Vasques – "High Tide Pride"
Category: Student – Grades 7 – 12 Any Manner

EXHIBITOR'S CHOICE AWARD
Doug Thompson – "Self-Collected Florida Lions's Paws"
Category: One Species – Any Manner

Scientific Judges José Leal (left) & Rich Kirk (right). Show Chair Alice Pace (middle) presented them appreciation awards.

Artistic Judges Mary Burton (middle) & Shannon Webster with appreciation awards presented by Show Chair Alice Pace (left).

Sarasota Shell Show - 3-5 Feb 2017

Ron & Mary Jo Bopp with their COA Award for their display of "Caloosahatchee Formation in Florida."

The 54th annual Sarasota Shell Club Shell Show was held on February 3-5, 2017, at the Bradenton Area Convention Center, Palmetto, Florida (above). This venue is quite spacious and this was needed as there were over 523 feet of scientific show displays featuring plenty for club members and the general audience to examine and enjoy. Shell Show Chairs were Nancy Marini and Donna Cassin. Awards Chair was Ron Bopp. Shell Show Judges were Rich Kirk and Gary Schmelz for the scientific division and Clark & Pam Rambo for the artistic division. The show was a great success and had a record number of scientific displays. Overall (Scientific & Artistic) the judges gave out 40 Blue Ribbons and 35 Red Ribbons, plus the named trophies and awards. The awards banquet was held Friday night so that winners could have their awards on display during the next day's show.

Part of the display, "Caloosahatchee Formation in Florida" by Ron & Mary Jo Bopp with their COA Award and blue ribbon.

Conrad Forler (left) & Martin Tremor (right) were awarded the DuPont Trophy and the Mote Gold Trophy for their display titled, "For the Love of Those Cockles."

Robert & Alice Pace with their Hertwick Fossil Award for their display titled, "Broward Shell Club Field Trip."

Greg Curry won the Small Scientific Award for his display of the "Genus *Livonia*." The award is being presented by Show Co-Chair Nancy Marini.

Harry Berryman took home the Most Beautiful Exhibit Award for his educational display, "Mollusks and Their Influence on Religion."

Awards Chair Ron Bopp stands ready with the show awards, trophies, and ribbons.

Doug Thompson displays the Sarasota Shell Club Member's Award for "Self-collected Lions Paws."

Shell Show Judges (left to right) were Clark Rambo, Pam Rambo & Gary Schmelz. Rick Kirk is not shown.

Good Work Ultimately Reaps Its (His) Reward

Harry Lee

This is an updated version of an article posted on the Jacksonville Shell Club web site (www.jaxshells.org). It is reprinted here in response to an email by COA President Harry Lee to Matt Blaine.

"Dear Matt,

I enjoyed reading your article in *American Conchologist*, "Surf and Turf Puerto Rican Style." Since I spent the summer of 1964 collecting the island, there was an element of sentimentality in revisiting some of your stop-overs.

I'd like to point out that your Fig. 24 is almost certainly not *Cymatium femorale* but rather *C. raderi*, a valid species, which had been historically dismissed as a synonym of the former and, after its description, still not fully appreciated taxonomically and zoogeographically.

I reviewed this predicament at <http://www.jaxshells.org/bobwork.htm>.

Harry Lee"

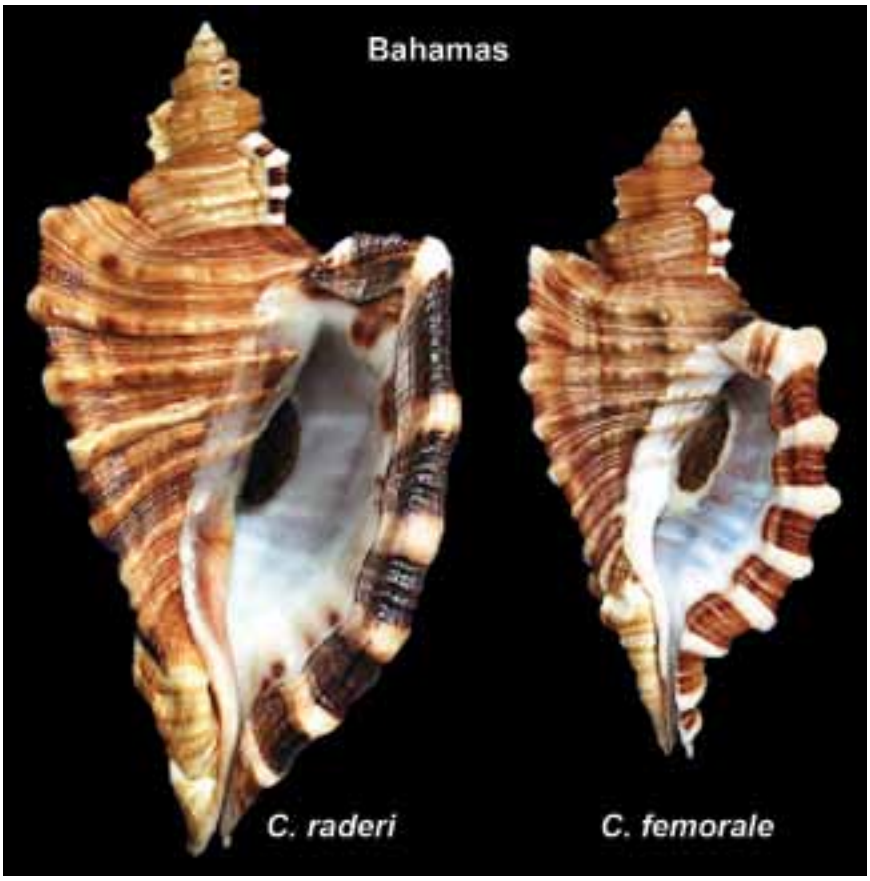


Fig. 1 *Cymatium raderi* (209.5mm) collected by Jim Miller in the Bahamas in 2003 next to Cymatium femorale (160mm) from Grand Bahama Island.

In 2003 Jim Miller shelled the island of Eleuthera, Bahamas, which he shared through a lavishly-illustrated report for *American Conchologist*. Probably the most noteworthy find on the trip was live 8.25 inch *Cymatium raderi* (D'Attilio and Myers, 1984) taken while at snorkeling depth (Fig. 1, left of a 160mm *C. femorale* from Grand Bahama Is.). He wrote: "Naturally, like everyone else, I thought of *C. raderi* as a species found much farther south, and all the specimens I have ever seen have been collected in Brazil." Jim's observation allows us to look closely at the taxonomy and underappreciated biologic potential of this snail and its relatives.

In the original description of *C. raderi,* D'Attilio and Myers (1984) identified specimens from Honduras (type locality), "Dry Tortugas, collected by shrimpers" and Tobago, as examples of the new taxon. Veteran shellers cast a skeptical eye when the "shrimp fishery" and "Dry Tortugas" are spoken together - a classic in conchological apocrypha. On the other hand, the authors also cited the specimen depicted in pl. 129, fig. 1 of Clench and Turner (1957), from Great Abaco, Bahamas, and captioned "*C. femorale* (Linnaeus, 1758)" as *C. raderi*; they didn't comment on fig. 2, a specimen from Bear Cut, near Miami Florida, collected by Robert Work.

Turn the clock back sixty years, and you might find now-retired University of Miami marine biologist Bob Work (pers. comm., 2005) working the shallows between Virginia Key and Key Biscayne near the spot where the Institution's Rosenstiel School of Marine and Atmospheric Science (then just the Marine Lab) was transplanted from Coral Gables in the summer of 1957. I have first-hand knowledge of that very scenario because I was there for the both collecting and the move, as a "high school summer fellow" at the University, and I frequently associated with Mr. Work. To be fair to the facts, I must admit my role was more idolatrous sycophant/common laborer than scientific colleague. Anyway, Bob still recalls collecting "a few" *Cymatium raderi* in Bear Cut from 1950 to 1960, when they were "not uncommon.... from *Thalassia* on clean sand....very shallow." He thought the truncated and incurved termination of the varices, weaker spiral cords, dentate aperture, reduced intervarical nodes, and the larger maximal size of this taxon set it apart from the shells of *C. femorale*, with which it occurred.

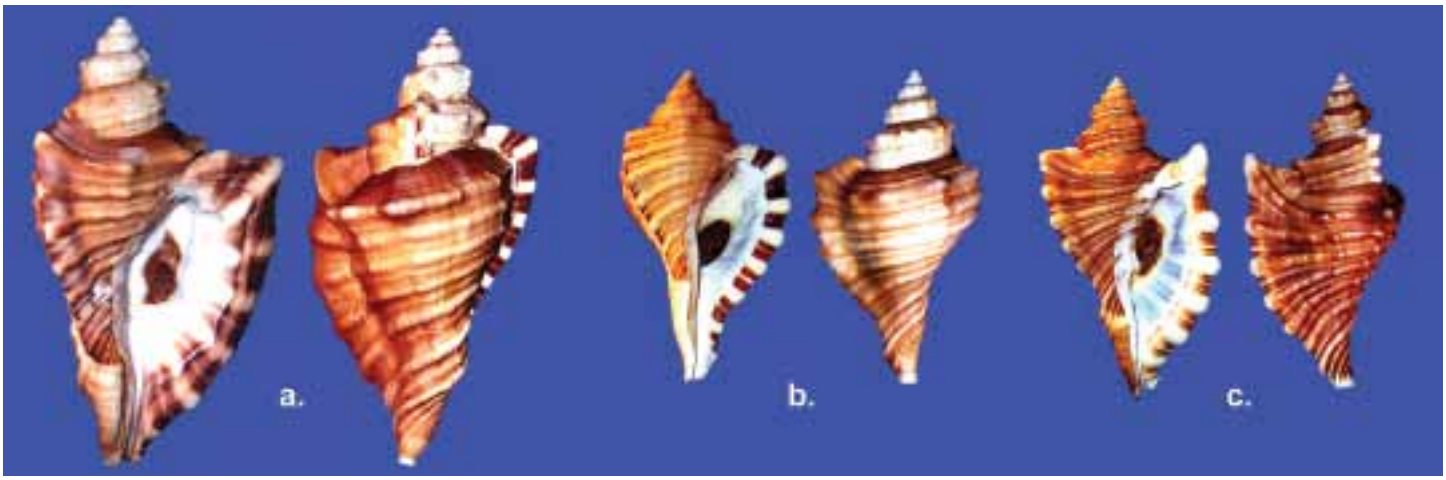


Fig. 2 shows two *C. raderi* and a single *C. femorale*. a. is a large *C. raderi* (146mm: UF 489678), b. is a smaller *C. raderi* (111mm: UF 489672), and c. is a *C. femorale* (112mm long). All three specimens were collected between 1950 and 1960 in Bear Cut, Key Biscayne, FL by Robert Work.

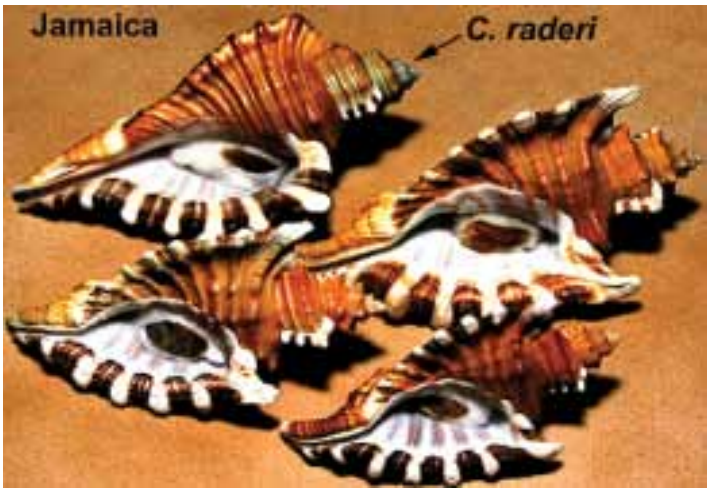


Fig. 3 large *C. raderi* with three *C. femorale*, all collected in Jamaica by Jim Miller.

Fig. 4 (left) *C. raderi* (204mm) from a fish pot in about 400 feet of water off Pigeon Point, northern Tobago, collected and photographed by the late Jane Boyle. It is now at the Florida Museum of Natural History (FLMNH; UF 281489).

As Bill Clench was preparing his Cymatiidae (now Ranellidae) monograph, Bob sent some Bear Cut specimens, which he had then determined to be different from *C. femorale*, along with some typical specimens of the latter, to the Museum of Comparative Zoology (Harvard U.). There Dr. Clench identified all the shells as *C. femorale* and incorporated not only Bob's Bear Cut record but illustrated one of the "different" specimens (Clench and Turner, 1957; pl. 129, fig. 2) as *C. femorale*. Now it is apparent that the figured shell is *C. raderi* not *C. femorale*.

Bob's observation (and tenacity) leaves little doubt that *C. raderi* isn't just "extending" its range; it's been in Florida and the Bahamas for over a half century (and probably eons). Although regional and inclusive taxonomic works [Henning and Hemmen (1993), Camp et al.(1998), Turgeon, Quinn *et al*. (1998), Redfern (2001), and Rosenberg (June 28, 2005)] don't reflect that fact for one explanation or another, there is every reason to think that these "new" observations are accurate - and even expected (see below).

We don't have to look much further to find locality records for *C. raderi* as yet unreported in the literature: (1) In his letter Bob also mentioned that he had recently examined two beach-drift specimens of *C. raderi* from the Paraguana Peninsula, Venezuela.[1] (2) Jim Miller has a specimen of *C. raderi* from Jamaica, with *C. femorale* (fig. 3). (3) Between them, the author and Bill Frank have four specimens measuring from 120 to 175mm taken from a depth of six feet on a rocky reef off Las Salinas, Dominican

[1]*Cymatium* (*C.*) *etcheversi* Macsotay and Villarroel, 2001 (pp. 65-66; pl. 6, figs. 14,15), named from the Margarita Platform off Venezuela, is clearly *C. raderi*. The authors failed to compare the two taxa, but they did acknowledge their new species occurs in Jamaica and South Florida, based on illustrations in Humfrey (1975: pl. 13, fig. 6) and M. Smith (1951: pl. 42, fig. 3). Interestingly, these figures actually depict *C. femorale*!

Fig. 5 two of four specimens of *C. raderi* taken from a depth of six feet on a rocky reef off Las Salinas, Dominican Republic.

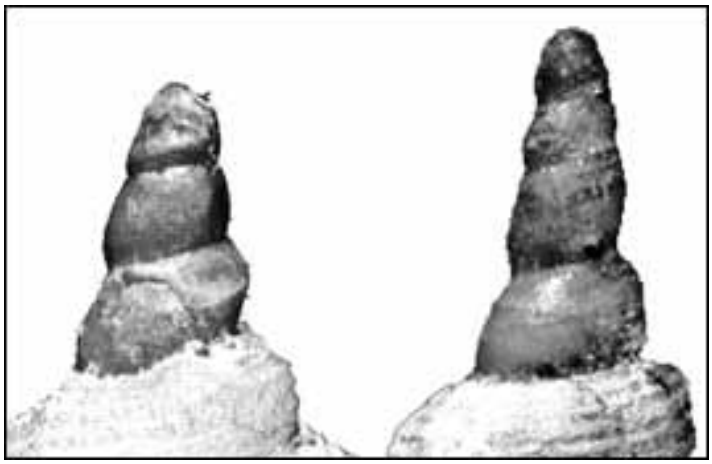


Fig. 6 "*C. femorale*" protoconchs, left: from Clench and Turner, 1947, pl. 129; right: Redfern, 2001, pl. 30, fig. 256B (adjusted to the same apparent magnification).[2]

Republic (Fig. 5). (4) Figure 4 is a 204mm specimen from a fish pot set in about 400 feet of water off Pigeon Point, northern Tobago, collected and photographed by the late Jane Boyle. It is now at the Florida Museum of Natural History (FLMNH; UF 281489).

Given the renowned longevity of triton (and most Tonnoidea) larvae, as reflected in the multispiral protoconch of "*C. femorale*" (fig. 6), one would expect them to have an advantage when it comes to larval dispersal and, consequently, zoogeographic range. There are dozens of cases in point to confirm this cosmopolitan tendency. "Now" C. *raderi*, ranging from southeast Florida and the Bahamas to Brasil (the latter added by Henning and Hemmen, 1993), is only approaching the norm for New World *Cymatium*. Even though we know that seven of our ten Jacksonville ranellid species are well-known to be circumtropical and two others amphi-Atlantic, triton ranges continue to be "extended" on a frequent basis as evidenced by the reports by Gibson-Smith et al. (1970) ["west African" *C. trigonum* in Venezuela], Kalafut (1988) ["west African" *C. tranquebaricum* in the Florida Keys], and Piech (1993) ["Indo-West Pacific" taxa: *C. gallinago* in Brazil; *C. mundum* in the Gulf of Mexico and southeast Florida; *C. pfeifferianum* in the Gulf of Mexico and Brazil, and *C. vespaceum* in Honduras and the Florida Keys], to name six species not (yet) found locally.

Now it is easy to see that new "extended" records are popping up and that tritons have prodigious powers of dispersal, but why do these finds appear to be so novel? There are probably two or three reasons: (1) Tritons are never particularly abundant where they live. Feeding on slow-growing echinoderms, many species cannot achieve robust enough population densities to allow easy collecting. This is likely the case in Abaco (Redfern, 2001). (2) As evidenced by Bob's travail, some tritons are hard to identify and may be concealed by an erroneous label. (3) International maritime commerce may facilitate veliger traffic (bilge stowaways).

[2] These protoconchs appear to differ significantly. Is it possible that two different species are involved, but which is which?

Camp, D. K., W. G. Lyons & T. H. Perkins. 1998. *Checklists of selected shallow-water marine invertebrates of Florida.* Florida Marine Res. Inst. Tech. Rep. TR-3. Florida Deptment of Enviromental Protection, St. Petersburg, Florida. xv + 1-238.

Clench, W. J. & R. D. Turner. 1957. The family Cymatiidae in the western Atlantic. *Johnsonia* 3(36): 189-244. Dec. 20. Online at: <www.biodiversitylibrary.org/page/41113271>.

Gibson-Smith, J., W. Gibson-Smith & F. Gibson-Smith. 1970. Another species of the genus *Cymatium* swims the Atlantic. *Boletín Informativo* 13(9): 262-267. Sept.

Henning, T. & J. Hemmen. 1993. *Ranellidae and Personidae of the world.* Verlag Christa Hemmen, Wiesbaden, Germany. pp. 1-263, incl. 30 pls.

Humfrey, M. 1975. *Sea shells of the West Indies: a guide to the marine mollusks of the Caribbean.* Taplinger Publishing Co., New York. pp. 1-351 + 32 pls.

Kalafut. T. 1988. An occurrence of *Cymatium tranquebaricum* in Florida. *American Conchologist* 16(2): 17. June.

Miller, J. 2003. Eleuthera 2003. *American Conchologist* 31(2): 10-14. June.

Macsotay, O. & R. Campos Villarroel. 2001. *Moluscos representativos de la plataforma de Margarita -Venezuela - descripción de 24 especies nuevas.* Rivolta, Valencia, Venezuela iii + 1-280 incl. 32 pls. July.

Piech, B. J. 1993. New records for ranellid gastropods in the western Atlantic (Ranellidae: Cymatiinae). *The Veliger* 36(1): 88-91. Jan. 4. <www.biodiversitylibrary.org/page/42465692>.

Redfern, C. 2001. *Bahamian seashells a thousand species from Abaco, Bahamas.* Bahamianseashells.com, Inc., Boca Raton, pp. 1-280 + ix + 120 pls.

Rosenberg, G. 2009. *Malacolog 4.1.1: A Database of Western Atlantic Marine Mollusca.* Online at: <www.malacolog.org>.

Smith, M. 1951. *East Coast Marine Shells fourth edition*. Edwards Bros., Ann Arbor, Michigan. vii + 1-314 incl. 77 plates.

Turgeon, D. D., J. F. Quinn, Jr., A. E. Bogan, E. V. Coan, F. G. Hochberg, W. G. Lyons, P. M. Mikkelsen, R. J. Neves, C. F. E. Roper, G. Rosenberg, B. Roth, A. Scheltema, F. G. Thompson, M. Vecchione & J. D. Williams. 1998. *Common and scientific names of aquatic invertebrates from the United States and Canada: mollusks,* 2nd edition. American Fisheries Society, Special Publication 26, Bethesda, Maryland. ix + pp. 1-509 + 16 pls. (unpaginated).

Work, R. 2005. Personal communication, April 19, 2005.

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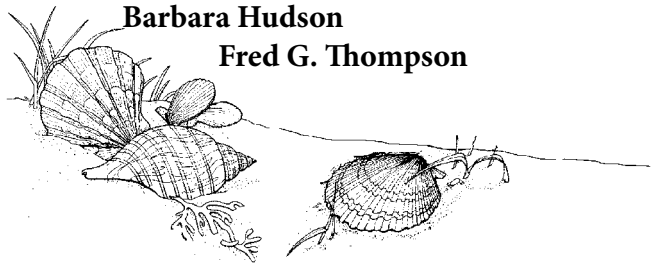
Harry Lee - shells@hglee.com

In memoriam:

Barbara Hudson

Fred G. Thompson



Fred Gilbert Thompson
(November 13, 1934 – December 27, 2016)

Malacology has lost one of its giants. Dr. Fred G. Thompson, Curator Emeritus of Malacology, later Invertebrate Zoology, at the Florida Museum of Natural History (FLMNH), died recently in Ocala, Florida. Fred's work on American Hydrobiidae, particularly of the southeastern states, as well as New World and Paleotropical terrestrial mollusks was pioneering and exemplary. As a curator he was welcoming to the amateur community and always willing to help sort out malacological conundra as well as to demonstrate the use of museum methodologies to allow many of his informal students to optimize use of his and other institutional collections. Members of the Jacksonville Shell Club partook in perhaps half a dozen field trips to the FLMNH beginning in the mid-1970's. Each of us always returned more enlightened and energized to extend our scientific endeavors.

I was fortunate enough to conduct field work in Fred's company both in the Austroriparian province of our country, e.g., the Paint Rock River <http://www.jaxshells.org/freshwat.htm> and its shores, as well as Honduras, Central America. While laboratory procedure, museum collections work, and didactic encounters play an indisputable role in biological studies, the experience of exploration and discovery in coordination with a truly gifted naturalist like Fred Thompson is an indelible intellectual asset always to be treasured. As with many others with whom Fred Thompson's life intersected, I valued his wisdom, intellect, counsel, and good cheer and shall miss him greatly.

Harry Lee

(a more extensive version was published in the *Shell-O-Gram* 58(1), Jan-Feb 2017)

Key West Convention & the Frederic Weiss collection 15-19 Aug 2017

Thomas Eichhorst

Aerial view of Key West looking east. 1. is the historic district, including the so-called "Little White House" used by President Harry Truman, the Key West Aquarium, Mallory Square, and a plethora of shops, bars, and eateries. 2. is the Key West airport. 3. is the Doubletree Resort Hotel (Hilton Grand). The hotel provides a free shuttle to and from both the airport and the downtown area.

By now I would hope that all COA members are aware the annual Conchologists of America convention will revisit the site of our 1980 convention – Key West, Florida. Our visit to the Conch Republic will be at the Doubletree Resort by Hilton Grand. Rates and such are listed under the image of the resort to the right.

The 2017 COA convention in Key West is shaping up to be quite the event. The venue couldn't be better – a top quality hotel set in a unique locality. This event is always first-rate and seems to get even better through the years. This year is no exception. In addition to interesting presentations, meeting old and new acquaintances, a chance to buy quality shells at the world renowned bourse, and fun filled silent and oral auctions of shells and shell related treasures, this year we have an influx of quality shells to the auctions the likes of which we really haven't seen before – the Frederic Weiss collection.

In the last issue (*American Conchologist* 44(4): 3) I wrote a hint about the Frederic Weiss collection. COA member Donald Dan had been working with Emily and Sydney Weiss for some time concerning the disposition of their father's shell collection. After several meetings they agreed to donate the collection (some 13,000 select specimens) to COA under Donald's stewardship. In return, COA agreed to establish an eponymous annual academic grant in memory of Frederic Weiss.

The Weiss family arranged for an independent appraisal of the collection, which was packed up by Donald

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Free parking, free shuttle to airport, free shuttle to downtown Key West, free Wi-Fi, free pool and fitness room

and shipped (U-Haul) to his house. He then unpacked, cataloged, and repacked 28 boxes of larger shells and 150 separate drawers of smaller shells. Like COA did with Ed Nieburger and the Walter Paine collection, top quality shells (approximately 120 lots) were selected by Donald for the 2017 Key West oral auction (expected to more than double the normal proceeds from this auction). There were also numerous lots (hundreds) set aside for disposition by those in charge of the Key West silent auctions. He then set aside over 70 quality lots for the 2018 San Diego auction, with an additional number of lots set aside for review and disposition by those in charge of the San Diego silent auctions. The remaining shells will be sorted for sale. The cabinets were sold immediately as further shipping costs would have been an issue. Initial proceeds from this process have already netted monies for COA grant funds. The next two year's conventions will see this figure rise. The kindness of the Weiss family and dedication and hard work by Donald (800 hours over 4 months and a house full of boxes and shell cabinets) have greatly benefited COA.

Volunteers (left to right) Dave Holzinger, Linda Zylman, and Jeff Oths start loading the truck with shells.

Shells and shell cabinets fill the truck.

Boxes of shells start taking up space at Donald's.

Cataloged shell drawers are marked with a green sticker.

Still space to walk – barely. The Frederic Weiss shells have taken over the room, for the benefit of COA.

Shell collector – Frederic Weiss (1929-2015)

Emily Weiss

My father, Frederic Weiss, was curious about everything. He found wonder in all things and experiences and that curiosity was contagious. My father, graduate of Yale undergrad and Harvard Law, found interests in law and business, and ultimately became the owner of a computer leasing company. Funny to note that computers were not interesting to him, but the business of leasing was. A brilliant and busy mind that needed to be fed, he took on hobbies not by dabbling, instead through complete immersion.

He took on photography as a hobby before I was born, and I grew up with a basement that subbed as a darkroom where he spent hours experimenting with changes in exposure and processing time to produce haunting and powerful images. His images were well received in the field and he acquired many awards and accolades. In fact, one of his images was chosen for Time-Life Books of Photography.

He took an interest in ham radio, and our house soon wore several new antennae and wires wrapping the roof. TVs, phones, and radios in the house all reflected the dots and dashes he furiously tapped out as he aimed to reach folks from Russia to down the road. He received the highest certifications and was able to translate Morse code at a rate that was dizzying.

His love of music took over rooms of our house, first with albums, then cassettes, and finally with CDs. His head would nod to the beat be it Brahms or the Beatles.

And then there were the shells. The shells were started as a way for my Pop and me to spend time together. He and my sister had music, he and I had nature – fishing, dogs, and, he hoped, shells. It started small (as most of you know I suspect) and it grew quickly. We devoted a room in the house to the shells and aptly named it the shell room. Box after box came, each one holding an incredible treasure, sometimes also holding quite an odor as some of those shells came less than clean. We spent many hours in that room.

Over time my interests focused more on things that growing kids focus on – for me it was horses. I still sat in that shell room with my Pop and would open drawer, after drawer, after drawer, in wonder as he rattled off scientific names as well as locations, as I wondered about the behavior of the animal that lived in the shell. His interest continued and grew, and grew, and grew. He made friends around the world and could spend hours turning pages of catalogs, just as, I am sure, you do.

As his health started to fail him, he and my Mom moved permanently to Florida. He knew he ultimately wanted the collection to be donated somewhere and he honored me with the option to keep the collection until the time of donation. When my father passed away in October of 2015, I spent several days opening drawers and finding memories of my Dad and me. The gift he gave me was the memories and the curiosity.

Soon after, I researched for someone to help me value the collection as it was part of his estate. Donald Dan, whom many of you know, was recommended more than once, and it was he that I called. Donald brought back a string of memories of shell magazines and the sense of belonging conchologists had with each other. My Dad so enjoyed speaking to fellow conchologists!

As Donald opened drawers and gasped with excitement, I could feel my Father's curiosity. It was when I was sitting downstairs and heard him exclaim at the top of his quiet voice "Jack Pot" that I knew the collection had a purpose – to assure that others had the opportunity to wonder and be curious about shells through the Conchologist of America.

My family is at peace knowing the collection will not only support an organization to which my Father had a connection but that the collection will not hide in a museum basement. Instead, I know that somewhere, sometime soon, some little girl will be sitting with her mother or father and will peer over with wonder and curiosity as that next shell is unwrapped.

Highlights of the 2017 COA Convention – Key West, FL August 13-14 – Field Trips August 15-19 – Convention & Bourse

By Jeannette Tysor and Ed Shuller

Group photo taken at the 1980 COA Key West convention.

On Sunday and Monday, prior to the convention, six exciting tours are offered, starting with a Sunday morning snorkel trip to an offshore reef. When the morning trip fills, an afternoon trip will be scheduled. The Sunday trip is very popular and is filling up quickly. For those not going on the snorkel trip, a guided nature tour of Big Pine/No Name Key is offered. Cost is only $25 and includes transportation, lunch, and a souvenir booklet compiled by guide Bob Pace. Sunday afternoon you can take the guided Conch Train Tour of Key West, covering more than 100 unusual and historical sites. Sunday night is the Ghost & Gravestones Tour, stopping at different sites to recount acts of treachery, as well as stories of pirates and deadly love. Another snorkel trip is scheduled Monday morning to deeper waters. Monday afternoon there is a tour of the famous Key West Aquarium, the Harry Truman Little White House, and the Shipwreck Historium Museum. Monday night join your friends for a fabulous dinner cruise featuring a delicious Cuban meal (adult drinks included) and live calypso music.

The convention officially begins Tuesday morning at 10:30, with the opening session. One of the highlights of this year's convention will be the key-note speaker, Wolfgang Grulke, author of *Nautilus: Beautiful Survivor*. Mr. Grulke gave up a successful business career to pursue his passion for all things nautilus; traveling the globe studying the living animals, fossils, and nautilus contributions to art and science. Following his presentation, meet Mr. Grulke at the NC Shell Club table where you can purchase his book and have it signed. All proceeds go to nautilus research.

An impressive list of speakers has been assembled for the week. Among them are Paul Callomon, Eugene Coan, Tom Eichhorst, Phil Fallon, José Leal, and Gary Schmelz. The range of topics is wide and interesting.

After lunch on Tuesday, native "Conch" Clinton Curry will present "A History of Key West - Its People and Places." Programs, silent auctions, and door prizes will continue throughout the afternoon.

The Jimmy Buffet-themed welcome party will be held in the pool area. The menu includes hamburgers, hot dogs, and chicken served from a grilling station with conch fritters and lots of side dishes. Drinks are available for purchase at the Tiki Bar. Entertainment will be a steel drum performer. For the first time ever, a special silent auction will be held during the welcome party, with a limited number of exclusive items usually reserved for the oral auction. This auction will last approximately two hours with payment and pick up at the conclusion of the welcome party.

Programs, door prizes, and silent auctions continue on Wednesday and Thursday. Wednesday night will be the much anticipated oral auction, featuring many of the best shells from the Frederic Weiss Collection. The convention concludes with the business meeting Thursday afternoon.

The sun sets on this COA convention with a gala celebration. The Cayo Hueso (Isle of Bones) banquet features Cuban/Caribbean cuisine with conch chowder, crab cakes, conch fritters, Caribbean chicken, pork loin, fried plantain, black beans and rice, and a cash bar. The featured speaker will be Rich Goldberg, who asks the question "What Were You Doing 37 Years Ago This Month? I was in Key West" In 1980 COA was only 8 years old but close to 200 members attended the convention in Key West. Rich will entertain us with stories and pictures from that event. Raffle ticket winners will be drawn, and table prizes and favors given out.

Friday at one o'clock the doors to the Bourse open; closing at 8:00 pm. Saturday hours are 9:00 am to 3:00 pm.

A closing look at COA Chicago - 2016

Photos by Carole Marshall, Lynn Funkhouser, Alice Pace, Sheila Nugent, Robert Gadbois & Rich Goldberg

The Crowne Plaza Hotel in Chicago – home for a week.

Greg Curie of Key West stops by a *T. rex* skull at the Field Museum. Greg is our host for the 2017 COA convention in Key West.

Attendees at the welcome party ate dinner with *T. rex* Sue at the Chicago Museum of Natural History.

(Right & below): Stephanie Clark thanks Andres Bonard for his talk on collecting mollusks in Argentina. One of his slides (right) illustrated a living 80mm *Megalobulimus lorenzianus* (Doring, 1876), with the odd mouth flanges typical of that species.

(Left & above): Jochen Gerber led COA members on a behind-the-scenes tour of Chicago's world famous Field Museum of Natural History. One of the rarer holdings is a muff (above) made from the bysus of *Pinna nobilis* Linnaeus, 1758. This artifact lends a bit of credence to the theory that the "golden fleece" sought by Jason was in fact made of bysus threads.

Patty Humbird and Steven Coker get ready for the annual COA oral auction – lifeblood of our grant program.

Paul Callomon pulled $1,000s from the audience during the oral auction.

G. Thomas Watters (right) with one of his slides (above) on Annulariidae biodiversity on Caribbean islands. His entertaining talk showed some of the 700 species in this family and their amazing sculpture – with differing spines, flanges, frills, and ridges.

Phyllis Gray, Bill & Carol Lyons, Jody & Dave Watts, and Alice & Bob Pace tour Chicago's Shedd Aquarium and pose with a mounted *Arapaima arapaima* Valenciennes, 1847, the world's largest freshwater fish, attaining lengths of almost 10 feet.

Jim & Linda Brunner enjoy the COA banquet, and like other attendees say goodbye to a great convention.

Sunset over Chicago on Lake Michigan.

COA *Neptunea* Award

The plans for the 2017 COA Convention in Key West, FL are being completed as we go to press. There will be many events throughout the week for everyone to enjoy. One of the events on the agenda is the annual COA *Neptunea* Award(s), and it is my privilege to call for nominations for 2017. The consensus of the COA Board is to reopen nominations with a "clean slate" annually. **Nominees not selected in previous years are certainly welcome for consideration if re-nominated - in fact their re-nomination is encouraged.** For the present cycle, nominations will close on June 1, 2017, so as to allow ample time for deliberation before the convention. **Please note that members of the Board of Directors are not eligible to receive the *Neptunea* Award while actively serving on the Board.**

By way of background, the *Neptunea* Award (Brunner, 2000; Lipe, 2000) was established at the midyear (1999-2000) meeting of the COA Board in order to recognize outstanding and distinguished service to conchologists and malacologists in recognition of:

1. Service to the Conchologists of America.

AND/OR
2. Service to the scientific interests of Conchologists of America.

AND/OR

3. Service to the science of Malacology as it applies to conchologists anywhere.

Although notable exceptions have been made, the COA Board, which serves as the jury for the *Neptunea* Award, has traditionally weighed its consideration for award recipients toward (1) amateurs: those not currently pursuing a principal career involving collection, study, or commerce of mollusks, (2) individuals "working behind the scenes" and relatively unrecognized in the COA world, for their contributions, and (3) active members of the COA. Up to three awards have been made at our annual conventions beginning with the Houston event in 2000 (see below). Nomination(s) for the *Neptunea* Award may be made by any COA member, and the format is simple:

Name of nominee:

This person deserves this award because (Here a somewhat detailed paragraph will suffice.)

..... Signed .....

and either snailmail or email that nomination to me, the new COA *Neptunea* Award Coordinator:

Everett Long
422 Shoreline Drive
Swansboro, NC 28584-7204
<nlong3@earthlink.net>

Previous *Neptunea* Award winners:

2000 (Houston, TX): Ross Gunderson, Ben and Josy Wiener, Debbie Wills
2001 (Port Canaveral, FL): Emilio Garcia, Harry Lee, Lynn Scheu
2002 (Sarasota, FL): Richard Petit, Bernard and Phyllis Pipher
2003 (Tacoma, WA) Jim and Linda Brunner, Kevin Lamprell, Doris Underwood
2004 (Tampa, FL): Bobbi Houchin
2005 (Punta Rassa, FL): Richard Forbush, Anne Joffe, William Lyons
2006 (Mobile, AL): Jack Lightbourn, Betty Lipe
2007 (Portland, OR): none given
2008 (San Antonio, TX): Bill Frank, Archie Jones
2009 (Clearwater, FL) none given
2010 (Boston, MA): none given
2011 (Port Canaveral, FL): Alan Gettleman
2012 (Cherry Hill, NJ): Gary Rosenberg, Martin Avery Snyder
2013 (Sarasota, FL): David and Lucille Green, Marlo Krisberg, and Charles Rawlings
2014 (Wilmington, NC): Colin Redfern, Tom Rice
2015 (Weston, FL) John and Cheryl Jacobs; Kevan and Linda Sunderland
2016 (Chicago, IL) Rich Goldberg, Homer Rhode, Charlotte Thorpe

Brunner, L., 2000. The *Neptunea* Award. *American Conchologist 28*(3): 3. Sept.
Lipe, B[etty], 2000. Presidents Message. *American Conchologist 28*(4): 2. Dec.