

Vol. 42, No. 1, March 2014

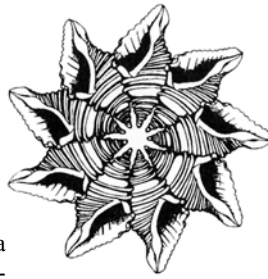
thomasg@netlife.com www.conchologistsofamerica.org

American
CONCHOLOGIST



Quarterly Journal of the Conchologists of America, Inc.

CONCHOLOGISTS



OF AMERICA, INC.

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

OFFICERS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Staff: Lynn & Richard Scheu

COA Webmaster:
Carlos Henckes

EDITORIAL BOARD

Donald Dan	José H. Leal	Bruce Neville
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José Leal, President
Conchologists of America (COA)

Dear José:

A nominating committee was constituted by COA Vice-President Harry G. Lee MD at the 2013 Sarasota COA convention and consists of Alan Gettleman, Chair, of Florida, Lucy Clampit of Texas, and Everett Long of North Carolina. The following individuals were contacted by members of the committee and have agreed to be nominated for COA elected offices to be voted upon at the 2014 Wilmington, North Carolina COA Convention:

President, José Leal, PhD
Vice-President, Harry G. Lee, MD
Treasurer, Steven Coker
Secretary, Phyllis Gray
Trustee, Bill Lyons

We are pleased the slate offered are talented and dedicated individuals who are already serving as COA Officers, and represents considerable management and conchological experience.

Thank you.

Sincerely,

Alan Gettleman, Chair

Front Cover: *Ficus ventricosa* (G.B. Sowerby I, 1825) on Isla Gubernadora, Panama. Sometimes called the swollen fig shell, this distinctive species is found from the Pacific coast of Mexico to Peru. Fossil specimens of a *Ficus ventricosa*-like fig shell have been found as far back as the late Oligocene (33.9-23 mya) in the Gatun Lake area of Panama.* Photograph courtesy of Simon’s Speciality Shells, Ltd (<http://www.simons-specimen-shells.com/>). Simon says the photo was taken at night as the *F. ventricosa* ‘popped’ out of the sand as the tide was turning.

Back Cover: Freshwater gastropods by Nuimal Bahar. This is a group often overlooked by collectors, and yet there are plenty of interesting species to be found in the world’s freshwater streams, lakes, and rivers.

* Woodring, W.P. 1957. Geology and Paleontology of Canal Zone and Adjoining Parts of Panama, *Geological Survey Professional Paper* 306-A, US Printing Office, Wash. D.C.

WALTER'S STORY

WALTER PAINE DONATES LIFE-LONG SHELL COLLECTION TO COA

By Edward and Gayle Nieburger

With immeasurable help from Editor-in-chief W. C. Paine

At the end of a mile long dirt road on the side of a hill sits a large white house surrounded by over three hundred acres of conserved land teeming with wildlife that recognize this area as a safe haven. 213 Palmer Road, Enfield, is located in Grafton County, New Hampshire, about fifty miles north of Concord, the state capital. Enfield was named in 1761 by settlers from Enfield, Connecticut, and became the site of a Shaker Community in the early 1800's. It is the heart of the Upper Valley region of New Hampshire and Vermont, and has benefitted from the fast moving waters of the Mascoma River. The house was built in 1803 by Benjamin Choate and his wife Mehitable, who lie nearby under a double headstone in a small well-kept graveyard. For the last forty years Walter Cabot Paine and his wife Barbara have treasured this location and protected its wildlife inhabitants.

At only ninety years of age, Walter's life has been a full one. He has managed to be the editor/publisher of a daily newspaper, a writer, a conchologist, an entomologist, a museum co-founder and board chair, a curator, a fund raiser for non-profit organizations, a philanthropist, a life-long sailor, and a licensed skipper. In his spare time, he enjoys building furniture in his workshop, skiing, hiking, and other outdoor activities.

Walter was born on May 9, 1923, in Chestnut Hill, Massachusetts, and grew up in the family home at 325 Heath Street in Chestnut Hill. Walter describes the house as "deceptively large: lengthy but much of it only one room wide." He was the eldest son of Richard Cushing Paine (1893-1966) and Ellen Peabody Eliot (1894-1987). He was named for his Uncle Walter, his dad's elder brother, who died tragically in a freak automobile accident shortly after graduating from Harvard. Walter's sister, Sheila Paine, was born in May of 1927. Another sister, Silvia Paine Constable and her twin, Richard Cushing Paine, were born on December 23, 1928. Richard became a collector of automobiles, especially brass-era cars, housed in his Seal Cove Auto Museum on Mt. Desert Island, Maine. After his death in 2007, a large part of his extensive collection was auctioned by Bonham's, at Maine's Owl's Head Museum. Walter's youngest brother, Charles William Eliot Paine, a noted horticulturist, directed the Cleveland Botanical Gardens from 1970-1983 and the Holden Arboretum from 1983-1995.

When these younger siblings came along, Walter was moved up to the third floor of the Chestnut Hill home where there was a spare room for his growing interest in nature. Here he discovered that night creatures were signifi-



Walter Paine and a few of his expertly curated shells.

cantly different from those seen by day. Placing a light in an open window, he learned, would attract all sorts of new insects. Unfortunately, one night he forgot to close the door to his sanctum. Instantly, all sorts of flying creatures, including a bat, invaded his parents' bedroom, to their great annoyance. Walter was busy wondering how the bat could fly so fast indoors without hitting anything. Looking back, he says such nocturnal adventures were what fired his life-long curiosity about nature.

The family property had a barn that Walter's rabbit, "Whiskers," shared with some lambs, Rhode Island red hens, and a goat called "Greenhorn" from his constant butting against his green-painted enclosure. The property as a whole became Walter's "magic kingdom" where the

real world often merged with the imaginary. He became a quiet, tireless observer, often oblivious of time. Early on, he learned not to intrude upon creatures' lives, but to allow them to gradually become accustomed to his presence. He still recalls the "shame and sorrow" of taking an innocent squirrel's life with a BB gun.

Walter is a direct descendant of Robert Treat Paine (1731-1814), a signer of the Declaration of Independence as a Representative from Massachusetts, who is buried in Boston's Granary Burying Ground with Paul Revere and other notables. Walter's maternal great-grandfather was Charles William Eliot (1834-1926), the longest serving President of Harvard University, who instituted the elective system and changed Harvard into a research institution. His son (Walter's maternal grandfather) was Charles Eliot, a noted landscape architect who assisted Frederick Law Olmstead with the design and creation of public reservations around Boston and in other cities. Walter's father, Richard Cushing Paine, financier and philanthropist, was a founding partner of State Street Research Investment Trust, the country's second incorporated mutual fund.

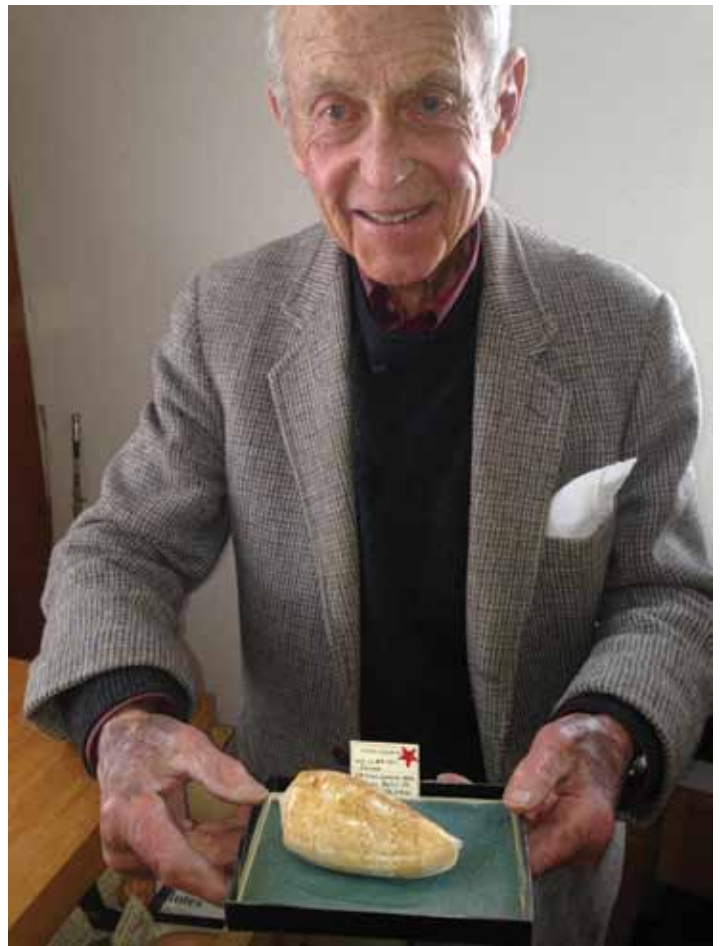
When the children were young, the Paine family summered at Manchester-by-the-Sea, on the North Shore of Massachusetts. Later, summers were spent in a cottage only a few feet from the sea at Seal Cove, West Tremont, Maine, on the southwest side of Mount Desert Island known as the "quiet side." It was during these summers that Walter began to explore life in and around the tide pools on Maine's rocky shores.

When he was twelve years old, Walter developed a kidney ailment. The family decided that the warm climate at his grandfather's house at Boca Grande, Florida, might do him some good. This was to be the start of something big! One night, as Walter was investigating the beach, he noticed someone with a light slowly walking towards him. Coming closer, he realized that the person was a stout lady who paused, from time to time, to pick up something with what looked like a bent spoon attached to a pole.

"So," she said, "I see that you too are looking for shells. I am Mrs. Crowninshield. Who are you?"

By a happy chance, Walter had met Louise Evelina Dupont Crowninshield, (August 3, 1877-July 11, 1958), the daughter of Henry A. DuPont and granddaughter of Eleuthere Irenee DuPont, the founder of the DuPont deNemours Company, and wife of Francis Boardman Crowninshield, a renowned yachtsman and member of the Boston Crowninshield family. Louise was born and raised at Winterthur, the family estate in Delaware. Although the Crowninshields had no children, her fondness for them was well known. Walter has fond memories of her kindness to him, especially because she gave him a beautiful *Junonia*, washed in after a storm. Still in his collection, it was the beginning of a lifetime passion. Mrs. Crowninshield introduced young Walter to shell collecting and, possibly at that impressionable age, to something about kindness and generosity as well.

Walter attended schools in Brookline, Massachu-



Walter Paine and a truly spectacular *Conus cervus* Lamarck, 1822.

sets, until his early teens, when he was packed off for six years of boarding school. After that, he spent a year and a half at St. John's College in Annapolis, Maryland, before being called to active duty with the Army Air Corps. Brief though it was, Walter credits his time at St. John's with its all-required curriculum based on close reading of the Great Books of Western Civilization, as having taught him, (as he puts it) "Not *what* to think but *how* to think" about any given question. After St. John's, Walter served from 1944 to 1947 as a member of a gun crew aboard an aircraft repair ship attached to the 20th Air Force in the Southwest Pacific. Always one to take advantage of opportunities, Walter joined his buddies on shore leave, diving for cowries to make trinkets for the girls back home and learning the basics of SCUBA. Returning to the United States, he decided that, instead of finishing at St. John's, he would enter Harvard with advance standing and live at home, to be close to his family after such a long absence. Graduating with honors, he attended Columbia for graduate study in government and, newly married, he and his first wife settled into a New York apartment.

"In those days, I was always writing something," Walter recalls, "and had begun to seriously consider writing as a career." In one war-time letter home, he had described

how his ship managed to survive a particularly vicious typhoon off Okinawa. Believing it worthy, his father sent it to Ed Weeks, editor of *The Atlantic Monthly*, who published it. On the strength of that, Walter sought editor Weeks's advice. "You can write," Weeks told him "but you need the discipline of writing for a newspaper." This prompted a long and seemingly hopeless job search, until he reached Baltimore where, by a stroke of luck, the *Baltimore Sun* had just said goodbye to an editorial writer. Walter was given a chance to try out for the job and, to his surprise, was hired.

After three years, Walter decided to partner with another newsman, James D. Ewing, and go in search of a small daily newspaper that they could acquire. When nothing desirable turned up, after searching as far as the West Coast, the pair returned to New Hampshire where, owing to a death, the *Keene Evening Sentinel*, an old and respected daily, was rumored to be for sale. After some months of dickering, it was. Pooling their resources, Walter and Jim acquired it. It soon became apparent, despite their liking for each other, that their management styles differed. Leaving Jim to run the *Sentinel*, Walter left to find another opportunity. He found one not far from Keene: the *Valley News* in Lebanon, New Hampshire, circulation 3,000, back then the nation's youngest daily, covering the Upper Valley region of New Hampshire and Vermont. The paper was hemorrhaging red ink and the owner wanted out. In a leap of faith, Walter bought it, despite the departing publisher's unnerving assurance that, should the paper go under, he had "designed the building for easy conversion to an automobile showroom"!

Walter credits the paper's eventual survival to three things. First, he was able to come up with enough cash to cover annual losses. Second, he "beefed up" sports coverage, a common interest among readers in the thirty plus communities served by the paper on both sides of the river. And finally, the coming of Interstates 89 and 91, intersecting at White River Junction, soon attracted "big box" stores and ever increasing revenue from local advertising. Of the three, Walter believes the "open sesame" was the paper's heavy emphasis on covering sports. Each of the thirty-odd towns in the valley had its own sports team, and every parent wanted recognition for their child's accomplishments.

Over the succeeding years, circulation grew to 17,000, all the while being in competition, and sometimes in conflict, with the famous William Loeb of the much larger Manchester *Union-Leader*, to the south. Eighteen years after identifying the *Valley News*, as "The Newspaper of the Upper Valley," Walter realized that his concept of the Upper Valley as a region had become a reality. Dozens of regional businesses and institutions adopted the description "Upper Valley." In 1971, the first phone book for the "Upper Valley" came out, with just eight Upper Valley listings. Twenty years later the telephone book had almost a hundred and counting. Clearly the region's firm sense of place owes something to Walter's vision.

Walter spent twenty-four lively years as Editor-in-Chief and Publisher. Among other things, he mounted an

investigation into the accountability and practices of Lebanon's selectmen, which led voters to "throw the rascals out" and adopt a town council form of government. He retired in 1980, when the paper was sold to a small chain, Newspapers of New England.

Walter transitioned from his major career in newspapering to that of Museum Founder, Director, and Curator. His active interest in natural science overlapped his final seven years with the *Valley News*. One day, while trying to net some beetles on his lunch hour, Bob Chaffee, retiring director of the Dartmouth Science Museum, pursued him to voice his concern about the college's extensive natural science collections, then moldering away in the bowels of several campus buildings. Chaffee persuaded Walter to help him form a group to find a good use for them, possibly in the public schools. Walter ran with the idea, most likely because he knew the collections included a large number of mollusks! He assembled a small group of individuals interested in natural science to negotiate with the college. Happily, Dartmouth agreed to relinquish the collections to a volunteer group prepared to house and display them in an old Hanover bowling alley, where volunteers were soon busy making educational kits for circulation among public school science classes. With Bob's help, Walter recruited a board of individuals interested in science and Walter agreed to become chairman. One day, as Walter and Bob stood outside the new "museum," Bob asked "What shall we call it?" "Suddenly it came to me," Paine remembers, "why not call it the Montshire Museum of Science, based on the last syllables of VerMONT and New HampSHIRE?" "You've got it" Chaffee replied grinning. After several years, the bowling alley museum was overrun with visitors and obviously more spacious quarters were urgently needed. If a newspaper could succeed in two states, divided by a major river, Walter reasoned, why not a regional museum?

He envisioned a place where young and old could touch, feel, and learn about nature just as he had by being able to physically experience it. A visit to the "Exploratorium" in San Francisco confirmed the popularity of hands-on experience. Testing the idea with local leaders of hi-tech industry back home drew a positive response, encouraging Walter to spearhead a campaign that raised \$4.2 million to construct an inviting, barn-like building, filled with intriguing interactive exhibits for all ages.

As it happened, a hundred acre parcel of farmland, a perfect riverside site for the new museum, became available in Norwich, Vermont, just across the river from Dartmouth and very near the bridge to Hanover, New Hampshire. Today Montshire is a runaway success with 150,000 visitors last year, many of them from out of state. It has become one of the region's major attractions and is considered one of the anchor institutions of the Upper Valley. The name "Montshire" has proven so popular that it has been copied by multiple businesses in the area including, much to Walter's amusement, the water-treatment facility! Walter served as Chairman of the Board for sixteen years while helping to cu-



Walter is Chairman Emeritus of the Montshire Museum of Science, Norwich, Vermont. He was also key in its founding, funding, and success.

rate the beetle and mollusk collections. He is now Chairman Emeritus.

In July of 1979, Walter entered his 44' sailboat, *ALITA*, in a transatlantic race from Marblehead, Massachusetts, to Cork, Ireland, jointly sponsored by The Irish Cruising Club and the Cruising Club of America, of which he is a member.

"After close study of the monthly oceanographic charts," Walter recalls, "we decided to position *ALITA* as far to the Northeast as possible, where we would be most likely to catch the strongest following wind enroute to the infamous Fastnet Rock, a lighthouse marking the entrance to the Irish Channel."

"One doesn't forget the penetrating cold, the dungeon fog, and the awkward layers of clothing (in July!) off Cape Race," Walter recalls. "We were pushing *ALITA* hard downwind, safely south of the charted line, warning mariners of possible floating ice, when a large and smelly Russian fish-processing vessel suddenly popped from the dense fog. Hefty, female fish cutters lined her rails, shouting and waving in their babushkas, as we swept by."

Walter kept *ALITA* close to her top speed for most of the 3,000 plus miles to the Fastnet Rock where, maddeningly, the wind died, leaving her to struggle slowly up-channel to the finish line at Cork, escorted by a pod of small whales.

"We were very discouraged," he recalls, "having come so far, so fast. But in the end, we were delighted to learn that we were still first to finish in our class and a close second on "corrected time" (a method of making allowance for differences in boat size and age, intended to give all participants an equal chance).

"It was a great experience," says Walter, "and an outstanding performance by boat and crew, followed by a memorable cruise-in-company with warm and wonderfully



The *MITRA*, Walter's 42,000 lb, 46 foot means of trawling, collecting, sorting, and cleaning in comfort and safety for 22 years. Taken at Sanibel, Florida, 1992.



A trawl haul on the *MITRA* off Boca Grande, Florida, 1972. Despite appearances, the net contains shells other than *Strombus pugilis* Linnaeus, 1758.

hospitable Irish and British sailors along Ireland's picturesque but hazardous west coast."

Roughly half of Walter's shell-collection is self-collected. The rest were either purchased or traded with other enthusiasts on Pacific shelling trips. Walter has live-collected in Hawaii, the Fijis, the Marianas, Okinawa, the Solomons, Australia, Bermuda, Costa Rica, Spain, the Channel Islands, as well as the United States.

In 1984, Walter says, "having sold my sailboat, I decided to have a boat built that could be cruised by Barbara and myself and would also serve as an offshore research vessel, specifically equipped to trawl and dredge for mollusks." He had a boat built in Manset, Maine, by his friend Lee S. Wilbur, based on a proven offshore hull design, the Jarvis Newman 46 footer. Walter named the new boat *MITRA* after his favorite group of shells. With her hefty 42,000 lb. displacement, *MITRA* readily carried the



Walter collecting miters at low tide in the Solomons.

weight of a crow's nest for shallow water piloting and whale watching, a hydraulic A-frame to handle a dredge or trawl, a two-man wash table with changeable screens, and a small lab, equipped with freezer and aquarium, for onboard study. Walter adds, "Dredging is a slow, tedious business; we lost a dredge off the Tortugas, but still managed to bring home a number of smaller uncommon species. I gave whatever we found to my crew of shell enthusiasts in recognition of their hard work. The large trawl, much easier to manhandle than a 90lb dredge, proved very productive, especially in water under 100 feet, as for example, off Sanibel, where one haul produced a fine growth series of *Strombus pugilis* Linnaeus, 1758 and two *Mitra florida* (Gould, 1856) – one live and one dead."

"With 1000 gallons of fuel, a powerful Diesel and a water maker," Walter says, "I figured MITRA would take us to wherever and back in safety and comfort, thanks especially to her excellent double bed!" He describes this double bed as the most comfortable he has ever slept on. He had Barbara sleep on the inside so she would not roll out. The MITRA was used for twenty-two years, logging thousands of miles between Gray River, Newfoundland, and the Dry Tortugas, Florida, with Walter as her 100 ton licensed skipper. For their final cruise, Walter and Barbara completed a leisurely circumnavigation of New England, via the St. Lawrence River and Great Lakes, down through New York's system of locks and canals, thence to the Hudson River and back to Maine by sea.

In the fall of 2006, Walter sold MITRA to Walt and Kip Jones who had her rebuilt by Wilbur Yachts to face her next adventure, an east-west transit of the Northwest Passage that connects the Atlantic and Pacific Oceans. Renamed GERALDINE, her bow was reinforced with stainless steel to deal with surface ice. Her lab was converted into an area with a freezer and washer/dryer. She had a four hundred gallon water maker, a large furnace and defrost system, and new electronics. The Northwest Passage was first traversed in a three-year voyage by Danish Captain Roald Amundsen from 1903-1906 after many years of failed attempts. Af-

ter three and a half months and 7,666.4 nautical miles, the Jones' Family and GERALDINE made it to the West Coast, an outstanding achievement for a small boat, aided in part, by a softening of the ice from rising ambient temperatures.

In addition to his amazing shell-collection, Walter has maintained a keen interest in insects, especially Coleoptera (beetles). Some of these are on display at the Montshire Museum. The remaining collection, stored in 24 pest-proof drawers, has been given to the museum for research purposes.

Walter's curatorial skills show most clearly in his carefully organized cabinet drawers, where each specimen has a uniform identification card, with name, date, and place of collection firmly attached to each tray. It is much the same with his extensive collection of beetles, now over fifty years old. He learned early on to make labels resembling those he saw at the Boston Museum of Natural History. Friends of his parents often brought him back specimens from their travels. Particularly noteworthy was world-renowned herpetologist Dr. Tom Barbour (1884-1946) from Harvard's Museum of Comparative Zoology. He brought back colorful tree snails from Cuba and some weird insects from his tropical travels. Often, having downed a fulsome dinner and several glasses of wine, he would patiently puff his way up two flights of stairs to show young Walter the right way to mount, label, and conserve the critters he had collected. "Mother always looked a bit concerned when Barbour was coming to dinner," Walter recalls. "She worried about which dining room chair was most likely to support our large and demonstrative friend." Included in the shell collection are *Cypraea aurantium*, *Harpa costata*, *Lambis violacea*, *Strombus taurus*, *Eudolium bairdii*, and from the famous Riley Black dredgings, *Paziella pazi*. Self-collected specimens include *Purpura persica* from Apra Harbor, Guam, Mariana Islands, Southwest Pacific; *Purpura planospira* (eye of Judas) from Pacific Panama; and a fine, as yet unidentified, miter from the Solomons.

In May 1988, Walter was invited by his sailing friend, George Nichols, M.D., to join a research expedition to the Marquesas aboard RAMBLER II, a three-masted auxiliary schooner, in the capacity of reserve captain. As Walter says, "It was the chance of a lifetime, especially because several researchers from the Smithsonian were going along. Unfortunately, the sailing date was changed, and I couldn't make the trip. I lent them a small dredge, however, with instructions, and some strong advice about keeping good data. Some months later, I received a large box, together with a letter saying, 'sorry we lost your dredge, but we hope you'll like the enclosed results from diving among the islands.'" Inside were a great many shells in whirl packs, each with good data referenced to a more detailed notebook. I am happy that these specimens, from truly remote places, are included in my gift to COA."

In September of 1993, Walter had the rare opportunity to go down in the Smithsonian submersible, "Johnson Sea Link II," out of Harbor Branch, Florida, to San Salvador,



Walter and Ed (one of your authors) in Walter's shell room, looking over material to be donated to COA.

Bahamas, with Jerry Harasewych, to collect slit shells. With pilot and photographer also on board, they were successful during several dives per day and by night, over a two-day period off Egg Island, Bahamas. From the examples collected, it seemed that the varied color of the shells was the effect of diet. Walter added *Entemnotrochus adansonianus* (Crosse & Fischer, 1861) and two beautiful specimens of the rare slit shell *Bayerotrochus midas* (F.M. Bayer, 1965) to his collection from this wonderful opportunity.

Walter describes the deep-water experience as “altogether magical; gradually you leave the world you know to enter another, where it is very cold, very dark, and one has brief but startling glimpses of some very eerie creatures which appear to be ‘communicating’ with intermittent flashes of self-generated light. When the sub switches on its powerful lights, the picture changes, revealing steep canyon walls clothed in parti-colored algae under a soft rain of detritus from the world above and where, here and there, one can make out the exciting outline of a slit shell.” In addition to the remarkable shells, Walter has an ordinary styrofoam cup that was fastened to the sub's exterior for the dive. When the sub resurfaced, the cup was reduced to mini-size by 1112.52 pounds per square inch pressure at a depth of 2500 feet!

In addition to his other attributes, Walter has written for diverse publications including *The Atlantic Monthly*, *Harvard Magazine* (poetry), *Sail*, *Boston Globe*, and *Christian Science Monitor*. My favorite is his memoir: *Cousin John: The Story of a Boy and a Small Smart Pig* (Bunker Hill Publishing Company, December 15, 2012, Illustrated by Bert Dodson). This delightful story was written for his grandchildren, but readers of any age would enjoy it. Unlike the cool relationship Walter's dad had with his own father, he tried to build a warmer one with his “naturalist” son by bringing home a “runt” pig as a gift for Walter's tenth birthday. Together, they named him “Cousin John.” CJ soon became a constant companion on Walter's excursions, and, as Walter says, “I learned how smart pigs really are.”

Walter has been broadly involved in the develop-



Walter and Barbara have downsized from their home on over three hundred acres of conserved land.

ment and integration of the Upper Valley. In addition to his years as founding chairman of the Montshire Museum of Science, he has served on the governing boards of the United Way, Hitchcock Foundation, Vital Communities, Ellis Phillips Foundation, and more recently as Vice President and Treasurer of the Lebanon Public Libraries Foundation, the funding arm of the new Kilton Library. He walked up and down West Lebanon's Main Street urging merchants to support the new library, despite the recession. He established a fund at the New Hampshire Charitable Foundation, which provides unrestricted dollars for statewide projects. He also served eight years as the Vermont Governor's appointee to the Board of the University of Vermont, where he chaired the Education Committee. In 1991, he received the Granite State Award for Outstanding Public Service from the New Hampshire University System. This was followed, in 2009, by the Elizabeth McLane Bradley Award for his service with non-profits in the Upper Valley.

Walter says that “public service continues to be its own reward and my greatest satisfaction.” In donating his remarkable shell collection to COA, he hopes that “it will increase the amount of support available to students and researchers in the intriguing realm of conchology.” On behalf of COA, we thank him for this most generous gift.

Walter is the father of five grown children and grandfather of eight grandchildren scattered across the country. He and his wife, Barbara, have moved down the hill to a recently completed single-floor, state-of-the-art home with cork floors and radiant heat, across the road from a large pond where they can continue to observe and protect the wildlife. When we were told they were moving to smaller quarters, we erroneously thought that meant some sort of senior housing. It was Barbara who set us straight: “not for me --- ever,” she said. Bravo to a remarkable and determined couple! May they have many more years of health and happiness in their cozy quarters!

The authors thank Harry Lee and Tom Eichhorst for their assistance in proof-reading.

Some of the COA auction shells, all but the

Clockwise from upper left: *Strombus goliath*, *Conus excelsus*,
Chicoreus ramosus (donated by Sue Hobbs), & *Lyria cloveriana*.



Chicoreus ramosus are from Walter Paine

Clockwise from upper left: *Conus nobilis victor*, *Conus granulatus*, *Mitra inquinata*, *Conus nocturnus*, *Conus thailandis*, & *Lambis violacea*. Photographs by John Timmerman.



The protoconch and early teleoconch whorls of *Cerithiopsis greenii* (C. B. Adams, 1839) (Mollusca, Cerithiopsidae)

Marlo F. Krisberg and Harry G. Lee

Recently Rolán, Lee, Krisberg, & Fernández-Garcés (2012) published a review of the brownish *Cerithiopsis* in the Caribbean and adjacent regions that focused on the protoconch and initial teleoconch whorls to distinguish among species. Since the lectotype of *Cerithiopsis greenii* (C. B. Adams, 1839) is decollate, the authors relied upon a specimen with a complete protoconch collected in 2010 from Weekapaug Point, Rhode Island, located about 65 km from Adams's type locality (Dartmouth Harbor, Massachusetts, USA) that they believed was indeed Adams's taxon. They presented SEM images of the Weekapaug specimen with descriptive comments of the protoconch and early teleoconch whorls. At the time the review was published, there remained some doubt in one author's mind (Krisberg) that the lectotype and the Weekapaug specimen were the same taxon. The doubt arose from Adams's description to the effect that the first teleoconch whorl displayed only two elevated spiral lines, whereas the SEM images of the Weekapaug specimen clearly show three. The purpose of this paper is to recount the subsequent research to resolve this discrepancy and validate that the Weekapaug specimen conforms exactly to the lectotype regarding the key sculptural characters of the first teleoconch whorls and, therefore, can be confidently relied upon to form the basis of a more comprehensive description of *Cerithiopsis greenii* (C. B. Adams, 1839).

Cerithiopsis greenii (C. B. Adams, 1839) was described from "several specimens" from "seaweed ... rinsed in a bucket of water." The seaweed was "obtained ... in the harbor of Dartmouth" on Aug. 29, 1838. Adams's description was apparently derived from this group of syntypes. Clench & Turner (1950) [hereafter C&T] confirmed that, "When several specimens of a species were involved, (Adams) drew upon all of them for his diagnoses" and he did not "set aside the specimen ... to be the holotype ... to represent the species." Regarding specifically the material Adams collected and described as *C. greenii*, he indicated that the several specimens were divided between the "Cabinet of the Boston Society of Natural History, and my own." The Boston Society of Natural History eventually became The Museum of Science (Boston), which to our knowledge does not have a mollusk collection, and we could not find records of them having had Adams's material or disposition of it. C&T indicate that Adams's "collection, which was at his alma mater, Amherst College, for nearly ninety years, was

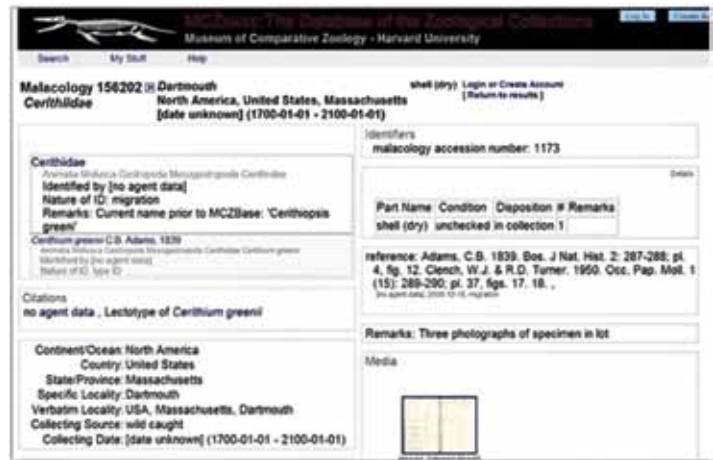


Fig. 1 - Lectotype specimen record, *Cerithiopsis greenii*.

deposited in the Museum of Comparative Zoology in 1942." In preparing their 1950 paper, C&T relied upon Adams's collection at the Museum of Comparative Zoology (MCZ), where William Clench was at the time Curator of Mollusks, and material not extant in the Adams collection, which at that time resided at the United States National Museum (the Smithsonian Institution). As part of their effort, for many species, C&T designated a specimen from Adams's type series to be a lectotype. In the case of *C. greenii*, Adams appears to have relied upon a type series he divided between the "Cabinet of the Boston Society of Natural History and his own collection, with only a single specimen remaining in his collection when it was deposited in the MCZ. This specimen is the lectotype of *C. greenii* designated and photographed by C&T (see Fig. 1 - a screen shot of the MCZ record extant on October 31, 2013). It is C&T's black and white photographs noted in the "Remarks" section of the MCZ record that have been presented by so many workers to illustrate *C. greenii* (see Fig. 2, with permission Museum of Comparative Zoology, Harvard University - ©President and Fellows of Harvard College).

So, with the publication of C&T we had Adams's original description of *C. greenii*, his drawing and C&T's photos of the lectotype, which was decollate.

Cerithiopsis is a rather speciose genus along the US Atlantic coastline, and many of the species have very, very similar sculpture subsequent to the first two teleoconch whorls, especially given the within-species variations that



Fig. 2 - Clench & Turner photos of lectotype, *C. greenii*.

can occur. For this reason, distinguishing *Cerithiopsis* requires detailed knowledge of the sculpture of the protoconch and first two teleoconch whorls. In the absence of type material that can be examined to verify or question Adams's description of the "apical [sic]" whorls (protoconch) of *C. greenii* as "nearly white and pearly," we have to accept this description of such a key character as accurate and question any shell that lacks such a protoconch as being conspecific. We accepted the task of locating specimens from the type or a proximate locality that matched this character. As part of this effort, we also reviewed popular presentations of "*C. greenii*" published subsequent to C&T to see if they presented illustrations or descriptions consistent with Adams.

Abbott (1974) presented a *C. greenii* with C&T's photo of the lectotype, but a description that is inconsistent with Adams's in several respects. Abbott described his taxon as "glossy-brown" (vs Adams's "blackish red"), "9 whorls" (vs Adams's "about twelve," although Adams appeared to have included the protoconch whorls in his count and Abbott probably did not), and protoconch "translucent-brown" (vs Adams's "nearly white and pearly"). Abbott reported his taxon as "Common in shallow water" with a range that includes "both sides of Florida." Despite extensive collections throughout Florida over the past few decades, we have not been able to document specimens from Florida that conform to Adams's description, particularly regarding the protoconch and first teleoconch whorl, which are the essential characters in distinguishing *Cerithiopsis*.

Rehder (1981) presented a *C. greenii* with a photo of three specimens without collection data. The specimens in the photo resemble the lectotype of *C. greenii*, but

lack sufficient detail to clearly distinguish the protoconchs, except that they clearly are not "nearly white," but translucent brown to dark brown. Rehder's description ignores the protoconch and indicates the color to be "shiny brown" as opposed to dark brown or blackish red, which would be closer to Adams's taxon. Rehder's taxon (which he placed in Florida as did Abbott) may be the same as Abbott's, but we doubt either is Adams's *C. greenii*.

Rolán and Espinosa (1995) (R&E) presented a review of brown *Cerithiopsis* of Cuba that included many U.S. Atlantic coast species. They reported a taxon as *Cerithiopsis* cf. *greenii*, shells of which "agree with the characters mentioned in the original description" and "is closer to that of the original figure, but they differ slightly from the lectotype..." Because the lectotype differed from the Cuban specimens by being "lighter in color and has the lower series of nodules larger," and the inability to compare protoconchs (the lectotype is decollate), R&E could not conclude the two were conspecific. R&E's paper is also mentioned because it illustrates the difficulties when an original description is based upon syntypes (generalized descriptions of characters varying among several specimens) rather than a single specimen representing the most typical characters. These difficulties are aggravated when a lectotype is designated that may vary in characters (or have missing parts) from the generalized or typical characters described in the original description. In the case of *C. greenii* the protoconch is illustrative. For *Cerithiopsis*, the features of the protoconch are absolutely essential in distinguishing among species. Adams reported that the material he used to describe his taxon were "several specimens" from "seaweed ... rinsed in a bucket of water." It is clear his specimens were live collected and not beach shells. Since he collected and described his material within several months, it is unlikely the color of the protoconchs would have changed significantly. Adams reported the "apical [sic]" whorls as "nearly white and pearly." R&E commented that the protoconchs of the beach shells they collected "might be seen as being nearly white and pearly." R&E reported that the decollate lectotype retained a "small part of the protoconch" and was a "light brown colour." It should be noted here that Adam J. Baldinger, Curatorial Associate/Collection Manager, Malacology Department, Museum of Comparative Zoology, Harvard University, examined the records with the lectotype for us and confirmed that the photos utilized were black and whites and, based upon the hand writing on the back of the photos, were taken by Ruth Turner. Therefore, since R&E reported a light brown color for the remaining portion of the protoconch, we have to conclude that their observations about the lectotype were based upon examination of the actual type specimen. R&E indicated that while most of the shells in their material had the protoconch totally or partially broken, "the visible part ... is light brown." They did not report the color of the en-

tire protoconch of their specimens. Since Adams used the plural in describing the apical whorls of *C. greenii*, could it be that the upper ones were “nearly white,” the final one or final portion of it was light brown, and he did not make this fine a distinction in his description? A change in color on the final protoconch whorl occurs in other brown *Cerithiopsis* along the Atlantic coast (Rolán & Espinosa, 1995). There is just no way to know for sure if the lectotype is typical for Adams’s taxon regarding the protoconch or if it was atypical with the last whorl being light brown. Another difficulty with Adams’s description as compared to the lectotype was also noted by R&E. Adams commented regarding the teleoconch that it had “three revolving elevated lines” with granules, where the granules on the lower line were rather large and those on the upper line “less than the middle series; the upper series nearer to the middle one, and **obsolete on the upper whorls; the lower series appearing first in the progress of growth** (emphasis added).” This language is interpreted to mean Adams discerned only two nodose spiral cords on the first, or first and second teleoconch whorls. In describing their taxon, R&E emphasized the difference in size of the spiral nodules and did not specifically address the number of spiral cords on the critical first two teleoconch whorls. In comparing their taxon to the lectotype of *C. greenii* and other similar *Cerithiopsis*, however, R&E implied there were three on the lectotype with the words “... the lectotype of *C. greenii* shows the middle and upper spiral cords to be closer together on the early whorls.” Unfortunately, R&E used the term “early whorls” and did not specifically identify the critical first or first two teleoconch whorls. At this point in the story, we agree with R&E and doubt their specimens are conspecific with *C. greenii*.

Redfern (2001) presented specimens from Abaco, Bahamas, he labeled as *C. greenii* with “a pale brown protoconch.” Otherwise, the description of his specimens closely fits Adams’s taxon. Redfern commented, “other workers have questioned the range of true *C. greenii*, which was described from Massachusetts, and this name is applied very tentatively to Bahamian material.” We share Redfern’s doubts that his specimens are Adams’s *C. greenii*.

Tunnell, Andrews, Barrera & Moretzsohn (2010) presented a taxon as *C. greenii*. Its “brownish” protoconch and the disparity of description with the photo (described as having two cords on first teleoconch whorl, but the photo appears to show three) makes us lack confidence that the use of the label *C. greenii* was appropriate. We doubt that Tunnell, Andrews, Barrera & Moretzsohn’s taxon is Adams’s *C. greenii*.

L. Perry (1940: 129; pl. 27, fig. 190) shows a shell, presumably from southwest Florida, sculptured with fine, closely-spaced granules and only the final (dark) protoconch whorl persistent. The detail of the earliest teleoconch is not evident, but the three spiral rows of beads are mutually equidistant on the last three whorls, the beads of each are of es-



Fig. 3 - Specimens of *C. greenii* from Weekapaug.



Fig. 4 - Close up view of the protoconchs on specimens of *C. greenii* from Weekapaug.

entially the same size. Given the protoconch coloration and the marked sculptural differences, we conclude that is not *Cerithiopsis greenii* (C. B. Adams), Perry’s identification notwithstanding.

We note that De Jong & Coomans (1988), reporting on Gastropods from Curacao, Aruba and Bonaire, Lyons (1989), reporting on Mollusks from the middle eastern Florida coast, Lee (2009), reporting on mollusks from north-eastern Florida, and Zang (2011), who treated the marine shells of Antigua and Barbuda, did not report taxa as, or being similar to, *C. greenii*.

Rolán, Lee, Krisberg & Fernández-Garcés (2012) published a review of all the then named brownish *Cerithi-*

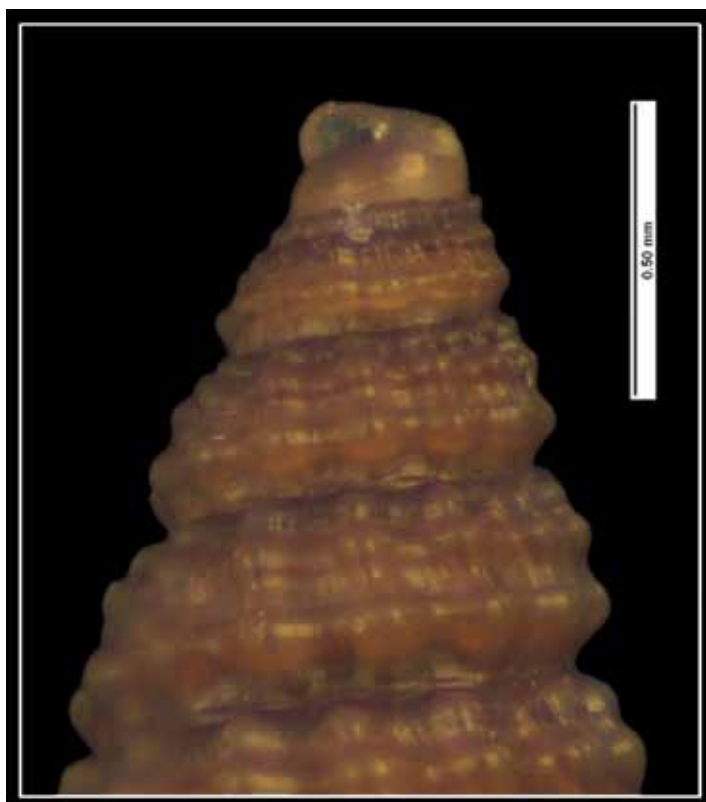


Fig. 5 - *C. greenii* lectotype (MCZ). Photo by Jennifer Lenihan, courtesy of Malacology Department, Museum of Comparative Zoology, Harvard University.

opsis from the NE USA to Brazil, including specimens considered to be the true *C. greenii*. To our knowledge, prior to this time, there had not been a successful effort to collect specimens from the type or a proximate locality and to accurately validate, document and illustrate specimens that matched Adams's description, particularly with "apical [sic]" whorls "nearly white and pearly." Fortunately, Lee had secured a substantial lot of *Cerithiopsis* specimens collected in September of 2010 from Weekapaug Point, Rhode Island, located about 65 km from the type locality (Dartmouth Harbor, Massachusetts, USA). The specimens in the lot very closely fit Adams's description of *C. greenii*, including all those with complete protoconchs that were "nearly white and pearly" (Figs. 3 and 4). The only discrepancy was that the Weekapaug specimens have three spiral cords on the first and second teleoconch whorls versus Adams's description of only two revolving elevated lines on the upper whorls. We also had R&E's intimation that the lectotype had three. We use the word "intimation" because Rolán indicated in personal correspondence (Nov 2013) that he could not locate his pertinent notes and could not definitively recall if his 1995 report implying three spiral cords on "the early whorls" of the lectotype indeed included the first teleoconch whorl. The R&E findings regarding the number of cords on the early whorls and our interpretation of C&T's photos gave us sufficient confidence that Adams may have erred, and we were satisfied that the Weekapaug specimens



Fig. 6 - Lectotype of *C. greenii* (left) compared directly with Weekapaug specimen.



Fig. 7 - Views of protoconchs of three specimens of *C. greenii* from Weekapaug.

were indeed Adams's taxon, and that *C. greenii* is a valid species distinguishable from those similar specimens with light brown protoconchs from Florida and south reported by others. Krisberg, however, had reservations and sought to confirm the characters on the first few whorls of the lectotype in order to erase any doubt. Adam J. Baldinger, Curatorial Associate/Collection Manager, Malacology Department, Museum of Comparative Zoology, Harvard University, was contacted, and he agreed to provide new photos of the lectotype for our analysis. Photos taken by Ms. Jennifer Lenihan were provided, one of which is presented in Figure 5 with permission of the Museum of Comparative Zoology, Harvard University - ©President and Fellows of Harvard College. The photo of the first two teleoconch whorls (Fig. 5) confirms R&E's observation that there are three spiral cords on each with, as Adams described, "the upper series nearer to the middle one." This confirmation that Adams erred in his observation and that his taxon does indeed have three spiral cords beginning on the first teleoconch whorls eliminated any doubt that the Weekapaug specimens were indeed

Adams's *C. greenii*. Figure 6 provides a direct comparison of a Weekapaug specimen with the lectotype showing essentially identical sculpture on the first three teleoconch whorls, including the same color emphasis and "rather broad, impressed (suture), divided by a revolving black ridge, which is obsolete between the upper whorl..."

With confidence that the Weekapaug specimens are indeed Adams's *C. greenii*, and our closer examination of the lectotype, we have corrected Adams's error regarding the sculpture on the "upper whorls" and can expand the description of the protoconch. Figure 6 presents a direct comparison of the decollate lectotype of *C. greenii* to a Weekapaug specimen with a complete protoconch. Figure 7 presents several more photos of the protoconchs of the Weekapaug specimens. The protoconch of *C. greenii* consists of 4 to 4½ smooth, "nearly white and pearly" whorls. The tip of the protoconch has a reddish brown coloration, and the final protoconch whorl may be colored with light brown or reddish brown.

Based upon a review of the literature cited and our own collections, we can find no evidence for the occurrence of *C. greenii* in the SE USA or Caribbean waters and suspect it to be limited to a portion of the NE coast of the USA and possibly adjacent Canadian waters.

Acknowledgements

Adam J. Baldinger, Curatorial Associate/Collection Manager, Malacology Department, Museum of Comparative Zoology, Harvard University, provided up-to-date information on the lectotype records, and Ms. Jennifer Lenihan, Assistant to Mr. Baldinger, took the photo of the early whorls of the lectotype. Dr. James T. Carlton and R. Rock-Blake of Williams College, Mystic, Connecticut, collected the Weekapaug specimens and shared them with us. We thank them all for making this analysis and improved understanding of *C. greenii* possible.

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Marlo F. Krisberg
marlo@cfl.rr.com

Harry G. Lee
hglee2@mindspring.com



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Neptunea Award

Many of us are beginning plans for the 2014 COA Convention in Wilmington, NC. One of the many events on the agenda is the annual COA *Neptunea* Award(s), and it is once again my privilege to call for nominations.

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, 2014 so as to allow ample time for deliberation before the convention.

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 involving 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 the COA *Neptunea* Award Coordinator.

[currently Harry G. Lee / 4132 Ortega Forest Drive / Jacksonville, FL 32210 / shells@hglee.com]


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

Brunner, L., 2000. The *Neptunea* Award. *American Conchologist* 28(3): 3. Sept.

Lipe, B[etty], 2000. Presidents Message. *American Conchologist* 28(4): 2. Dec.

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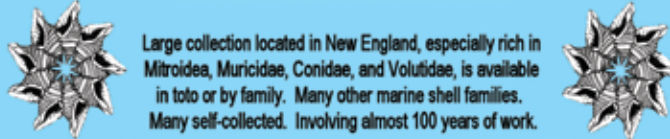
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GLORIA MARIS

A magazine dedicated to the study of shells.

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

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

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



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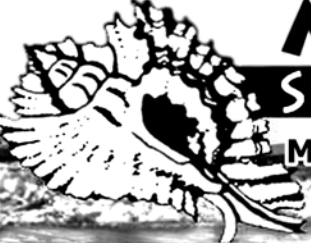
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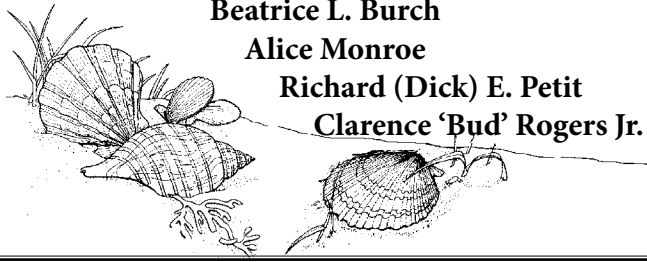
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Our 31st Year

In Memoriam:**Dr. Roland Corey Anderson****Beatrice L. Burch****Alice Monroe****Richard (Dick) E. Petit****Clarence 'Bud' Rogers Jr.**

Dr. Roland C. Anderson (1946-2014) was the son of a sea captain and grew up on the Kitsap Peninsula (across Puget Sound, west of Seattle). He became an avid naturalist and scuba diver, becoming fascinated with malacology - observing and studying octopi in the wild and in captivity for more than 30 years. Dr. Anderson received his undergraduate degree in biology from University of Washington, and his PhD in Marine Biology from Greenwich University. He served as a biologist at the Seattle Aquarium, retiring in 2009 after 31 years. He was an internationally recognized authority on cephalopods and author or co-author of more than 200 articles in scientific journals, including the book, "Octopus: The Ocean's Intelligent Invertebrate." He served as president for the Western Society of Malacologists, president of the American Malacological Society, a guest-editor for the journal, "Diseases of Aquatic Organisms," and was an avid member of the Pacific Northwest Shell Club. His wit and good nature will be missed, his practical jokes, maybe not so much. Dr. Anderson's ashes were scattered at sea.



Beatrice L. Burch (1917-2013) was born to Edith May and John Henry LaRue. Her parent's honeymoon in 1900 was to the Grand Canyon, where her mother then spent the next three years photographing the scenery of the canyon. This seems to have set the stage for Beatrice's interest in zoology and the natural world. She received her BA at the University of California, Los Angeles, in 1939, and her MS at the University of California, Berkeley, in 1941. While at Berkeley, her zoology professor told her to "look up and marry Tom Burch. The result was a wedding on Valentine's Day, 14 February 1942, a happy marriage for 72 years, with two wonderful children and a variety of assignments with her husband in the US Public Health Service to Guatemala, Liberia,

Venezuela, Mexico, Maryland, Arizona, and Hawaii. While in the Washington DC area, she became Chief of Laboratory for testing Salk Polio Vaccine at National Institutes of Health (1955-1960). Then she worked as a Zoologist at the Smithsonian Institution (1960-1965), where she set up the Smithsonian's Oceanic Sorting Center making marine animal collections available to scientists all over the world. She was the first woman to be sent to the Antarctic for the Smithsonian Institution to collect marine invertebrates - twice! She became an Instructor in Museum Methods at Arizona State University in Tempe, Arizona (1965-1970) and later in Hawaii she did environmental research for Hawaiian Electric Company and Chevron Oil, set up the Naval Oceanographic data center, and did shipboard collecting trips on the University research ship, NOAA vessels, and was chief scientist on several National Marine Fisheries vessels. She was a Zoologist at Bishop Museum in Honolulu (1980 -2001) before moving to Bremerton, Washington, to be near her children and their families.

Alice Monroe (1957-2013) was born in Jackson, Tennessee, and earned her bachelor's degree from Duke University and master's from the University of South Florida. Her work towards a doctorate was cut short when she had to help care for her ailing father. She moved to Florida and along with her family duties she began her life-long interest in shells. Alice spent years as a counselor and eventually a director of youth camps in Wisconsin. She enjoyed working with high school and young college age kids and more than once commented on the joy of making something a student thought "too complex" into an understandable concept. A note for a resumé found by her family stated, "My life's goal is to distinguish myself as an educator with the unique ability to communicate seemingly complex material with elegant simplicity." In Florida this teaching desire brought her to the St. Petersburg Junior College. When it became a four-year institution, St. Petersburg College, Clearwater, she moved up to an associate professorship in biology. Of course, we knew she loved to teach because of the many varied and interesting programs she presented over the years at different COA conventions. She would take a complex subject like the chemistry of shell color and pattern and make it understandable. Alice helped out at shell shows, taught at local shell clubs, and won many awards for her shell displays. She was fascinated by the really unusual or fake shell. She was also willing to wear some unbelievably silly costumes to bring humor and fun to the opening ceremonies at our conventions. Alice was buried at sea, of course. She will be missed.





Richard (Dick) E. Petit (1931-2013) was born in Sumter, South Carolina, to James Thomas and Kate Parket Petit. He attended Clemson University and enlisted in the US Army, serving in Korea and Japan in the 1950s. In 1956 he and his

wife Elizabeth moved to North Myrtle Beach where he began a career in the insurance and real estate. His passion, however, was conchology or malacology - he could argue the case either way. He purchased a shell book dealership in 1965 and was soon the most knowledgeable and respected dealer of used shell books and periodicals. Shell collectors around the world looked forward to his catalogs in the mail. His shell family of choice was Cancellariidae, the nutmegs, but perhaps his most valuable works were his reports on the early luminaries of malacology. His works on the G.B. Sowerbys, Lowell Augustus Reeve, John Edward Gray, and others, not only shed light on the lives of these individuals, but more importantly answered many questions about their collected works. On the Internet, Dick authored *Conchologia Ingrata*, a website where critical works could be published on line. Dick was an elected fellow of the Linnaean Society of London and a life member of MENSA. Dick was a long-time supporter of COA and of this publication, offering critique and suggestion, and always willing to do his best to help improve our product. Dick leaves his wife of 57 years, Elizabeth, his daughter, Elizabeth, and a sister, Jennie, and brother, James.



Clarence 'Bud' Rogers Jr. (1927-2013) started shell collecting in the 1970's when work related trips to the Philippines introduced him to the beauty of sea-shells. He was instantly hooked and swapped clothing out of his luggage for *Charonia trito-*

nis and *Cypraea tigris*, as well as various *Murex*, *Voluta* and *Tridacna*. He earned a Masters Degree in Electrical Engineering from the University of Akron in Ohio and served

as an officer in the US Navy after WWII. Bud worked for Goodrich, Uniroyal, and Michelin Tire Companies and has several tire machine patents in his name. He was cofounder of Monitor Systems Engineering Corporation. Early in his career Bud and his colleagues at Goodyear Aerospace and NASA wrote a proposal to test the effects of space on early satellites and astronomical physics theory. The group received support and spent time building a mobile radio telescope satellite observatory.

Bud's wife, Ruth, took to shells as well and realized that it simply became a 'way of life.' In retrospect, Ruth could not imagine life without shells as they were the vector for so many good friends, memories and wonderful adventures. Bud became a member of the Cleveland Shell Club in 1991 and served as an officer for many years. He shared his knowledge and passion with fellow collectors and became a friend to many, opening his home and sharing his collection with CSC members. He traveled in search of shells and was often found in Florida at his winter home in Bonita Springs. Though fishing was a daily event, he often traveled to nearby shoals and the Florida Keys to collect shells. While in Florida, Bud became a regular at many of the south Florida shell shows. He even had a stint as a shell dealer. Bud competed and won awards at many shows. His interest in shells grew and at 65 he decided to get certified in scuba diving.

Bud's collection grew with the acquisition of the John Sennott collection and the June Huie collection, among others. He also became the recipient of a portion of the Harvey Bullis collection. This included a selection of Caribbean *Fusinus* and marked the start of two decades of focus on *Fusinus*, including a friendship and collaboration with Roland Hadorn of Switzerland, a *Fusinus* specialist. They published "Revision of recent *Fusinus* (Gastropoda: Fasciolaridae) from tropical western Atlantic, with description of six new species," in *Argonauta* in May 2000. Their revision included naming several species including: *Fusinus josei*, *F. marcusi*, and *F. coltrorum* in honor of the Coltro brothers of Brazil, as well as *Fusinus blakensis* and *F. harveyi*. In 1999 Roland published in *Vita Marina* a description of *Fusinus rogersi* to recognize Bud's contributions to Conchology and Malacology.

Bud's careers, hobby and life experiences took him to the Bahamas, Canada, Colombia, Cuba, France, Greece, Haiti, Honduras, Indonesia, Italy, Japan, Marshall Islands, Mediterranean Sea, Mexico, Philippines, Portugal, St. Vincent, Trieste, Turkey, and Venezuela - an impressive life of world travel. He was a dear friend, a mentor, a generous dealer and customer, a scientific contributor to the shell community, and an enthusiastic collecting 'buddy' always willing to go on the hunt. The conchology world will miss you, Bud. Sail on, sailor boy.

Louie Rundo
rundo@bbhcsd.org

2014 COA Convention

**A North Carolina WHELKome
Convention August 11 to 15, 2014**

**Tours & Dinner Cruises August 9 & 10
Wilmington, NC**

By Jeannette Tysor & Ed Shuller

The Convention Hotel is the **Hilton Wilmington Riverside** on the Cape Fear River boardwalk. Room rates are \$114 per night (parking included) plus 13% tax. The rate is good for 3 days on both ends of the convention period. A limited number of one bedroom condos are available at the same rate in the **Riverview Suites**, a short block from the Hilton. Deadline for reservations at the convention rate is July 12, 2014. Group Code: COA. Group Name: Conchologists of America.

Hotel Reservations

Hilton Wilmington Riverside: Local reservation number - 910-763-5900, or on line at - <http://www.hilton.com/en/hi/groups/personalized/I/ILMNCHF-COA-20140808/index.jhtml?WT.mc id=POG>

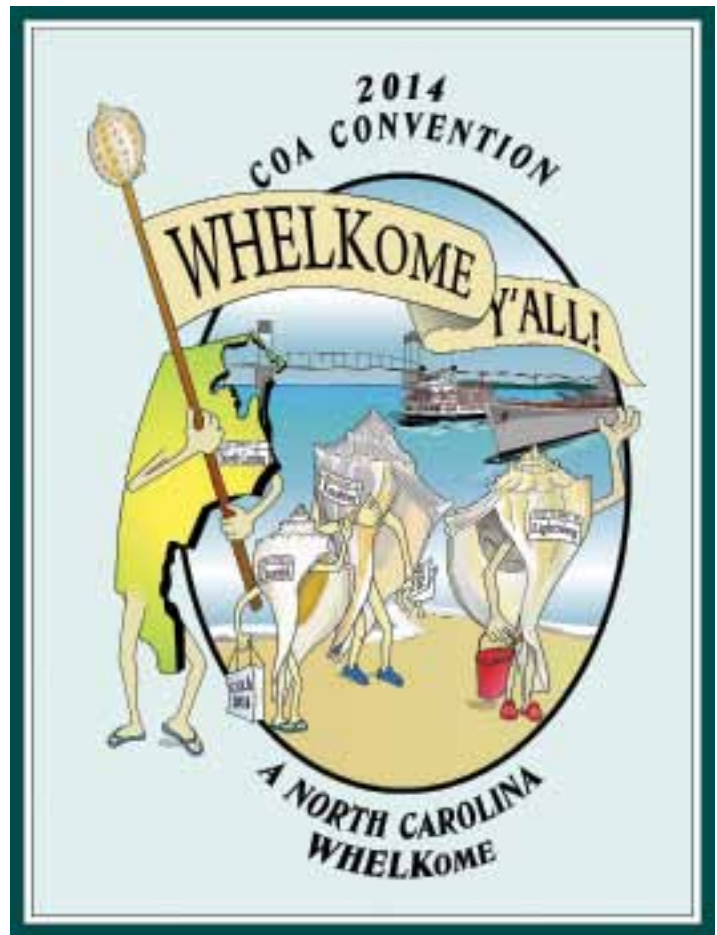
Riverview Suites: Local reservation number: 910-772-9988

For the Convention room rate **do not** use the Hilton Worldwide Reservation number.

Wilmington's history began prior to the American Revolution. Come early and enjoy discovering one of the South's earliest towns.

Saturday, Aug. 9: Dive trip, tour historic mansions, tour Civil War Ft. Fisher and NC Aquarium. In the evening relax aboard the catamaran *Wilmington* for an eco-tour of the Cape Fear River and a black water tributary with on-board picnic and cash bar.

Sunday, Aug. 10: Airlie Gardens and Cameron Art Museum and Bob Jenkins historical walking tour. The weekend highlight will be an elegant dinner cruise aboard the *Henrietta III*. Enjoy a delicious Southern buffet on our private deck. Cash bar.



Above: the Hilton Wilmington Riverside.

Below: the catamaran tour boat *Wilmington*.





Enjoy an elegant dinner cruise aboard the *Henrietta III*.

Programs

We have an outstanding lineup of programs and speakers. Programs will include a mini-symposium on the molluscan diversity of North Carolina. Presentations will cover the terrestrial mollusks, freshwater mollusks, paleo-marine mollusks, and the Recent species found in the marine molluscan communities offshore in the convergent Virginian, Carolinian, and Caribbean Provinces. Other programs will provide updates on specific taxonomic groups including the Strombidae and Fascioliariidae, and depict fascinating collecting experiences and specimens from around the globe. Our program chairman is still seeking a few more speakers to fill out the program. If you are interested in making a presentation, contact Doug Wolfe with your proposed title and a synopsis of the content. Presentations are restricted to 25 minutes maximum. email: dawolfe@ec.rr.com telephone: 252-728-3501



Poster Session

Want to be an informal presenter at COA 2014? If so, you can be one of our Poster Presenters on Wednesday. Describe your research or mollusk related subject on a large poster board and display it in the general meeting room that day. Attendees will be able to peruse the presentations during breaks, lunch, and after the close of the business meeting. During viewing opportunities you should be available by your poster for discussion. Set up will be 8 AM



to 9 AM Wednesday; take down by 4 PM that afternoon. No audiovisual equipment allowed. If you have handouts, bring a sufficient supply. To reserve your space contact Douglas Wolfe at dawolfe@ec.rr.com, (252) 728-3501. Deadline: July 1, 2014.

Welcome Party

Come prepared for a fun-filled Monday evening at our “Scotch Bonnet” Fling! *Semicassis granulata* was chosen as the official NC State Shell to honor the strong Scots-Irish heritage of the state, particularly of the Wilmington-Cape Fear River valley area where so many people settled. A Southern Comfort Buffet will be provided with BBQ and southern fried chicken. Cash bar. **Wear your kilts, skirts, sashes, knee socks, ties, or anything plaid for the Welcome Party. Special prizes will be awarded - don't miss it!**



Banquet

For the first time ever, the banquet is included in your full registration fee. We anticipate a large crowd at the North Carolina lighthouse-themed banquet on Wednesday evening. You have four delicious meals to choose from: fish, chicken, beef, or vegetarian. Cash bar. An entertaining program is planned with after-dinner speaker, presentation of Mini Shell Show trophies and drawing for raffle prizes. There will be favors and door prizes. Come join all your friends for a festive evening of food and fellowship. For information contact Hazel Andress at hcaadress@triad.rr.com, (336) 449-6313.



Auctions

ORAL: The Tuesday night oral auction will feature the most desirable selection of specimen shells, books, and other items in years. Highlighting the offerings are a selection of 40 items from the Walter Paine collection (see page 4). Among these are a number of rare, hard-to-find shells including: *Conus deburghiae*, *Conus excelsus*, *Conus granulatus*, *Conus*



thailandis, *Conus nobilis victor*, a very nice *Strombus goliath*, and a beautiful example of the volute *Livonia nodiplicata*. Other offerings include outstanding examples of *Entemnotrochus rumphii* and *Nodipecten magnificus*, a pair of lamps, each containing more than 50 *Scaphella dorni*, (not specimen quality) and a collection of North Carolina gastropods (horseconchs, whelks and tulips). Check the COA website for additional announcements.

SILENT: There will be five silent auction sessions. The quality and variety of material received so far promises something for everyone. All it takes is the winning bid.

Mini Shell Show

Participate in the Mini Shell Show. With 10 categories from shells to crafts, there is a niche for everyone. Enter 1 or all 10. Exhibits must be small so you should have no problem bringing them. Fill out the Mini Shell Show entry form and return it with your registration. A trophy will be awarded in all 10 categories and presented at the Banquet. For information contact John Timmerman at njredstone2gr@hotmail.com, (910) 452-0943 (home). Deadline: July 31, 2014.



Bourse

Leaving the best for last, we will have scores of dealers in over 10,000 square feet of floor space with shells and shell related items from around the world. The bourse will be from 1:00 PM to 7:00 PM on Thursday the 14th and 9:00 AM to 3:00 PM on Friday the 15th. Prices will undoubtedly range from less than \$1 to shells worth more than the average car in the driveway.



COA 2014 Convention Schedule

Sat 09

6:30 AM to 3:00 PM - Dive trip - Limit 18, 2 dives, gear available for rent

9:00 AM to 4:00 PM - Ft. Fisher/NC Aquarium tour

11:30 AM to 3:00 PM - Mansions tour

5:30 AM to 9:30 AM - Black River eco-tour and picnic on the catamaran *Wilmington*

Sun 10

9:00 AM to 3:30 PM - Airlie Gardens and Cameron Art Museum tour

9:00 AM to 11:00 PM - Bob Jenkins historical walking tour

1:00 PM to 5:00 PM - Registration

5:30 PM to 8:00 PM - Dinner cruise on the *Henrietta*

Mon 11

8:00 AM to 10:15 AM - Registration

9:15 AM to 5:00 AM - Silent Auction 1

10:15 AM - Opening Ceremonies

11:00 AM to 4:30 PM - Programs, with break for lunch

6:00 PM to 9:00 PM - Welcome Party: "A Scotch Bonnet Fling"

Tues 12

7:00 AM to 8:45 AM - Mini Shell Show set-up, viewing

9:00 AM to 5:00 PM

7:30 AM to 8:45 AM - Club Tables

8:00 AM to 1:15 PM - Silent Auction 2

9:15 AM to 4:30 PM - Programs, with break for lunch

2:45 PM to 5:00 PM - Silent Auction 3

6:00 PM to 10:00 PM - Oral Auction

Wed 13

8:00 AM to 1:15 PM - Silent Auction 4

8:00 AM to 9:00 AM - Poster set-up

9:00 AM to 1:30 PM - Mini Shell Show, pick up exhibits
3:15 PM to 4:00 PM

9:15 AM to 3:15 PM - Programs and business meeting, with break for lunch

10:15 AM to 4:00 PM - Poster sessions during breaks

3:15 PM to 4:15 PM - Silent Auction 5

6:00 PM to 10:00 PM - Banquet

Thur 14

7:00 AM to 8:45 AM - Club rep meeting (continental breakfast)

7:30 AM to 12:30 PM - Bourse set-up

9:00 AM to 12:00 AM - 25¢ to \$1 sale

1:00 PM to 7:00 PM - Bourse

Fri 15

9:00 AM to 3:00 PM - Bourse

Thanks to Our Most Recent Donors:

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Contributions to Oral Auction, Silent Auction, raffle and door prizes are still most welcome.

For information contact Everett Long:
nlong3@earthlink.net (252) 723-9600.

Consider a Cash Contribution at the Ocracoke, Cape Hatteras, or Cape Lookout level.



See ya'll in Wilmington, August 9 – 15

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Quarterly Journal of the Conchologists of America, Inc.

It happened again!

Paul Kanner

This December 2013 I returned to Nuka Hiva, Marquesas (French - Îles Marquises), French Polynesia. My dive buddies this time were Marty Beals, Harry Bell, Carl Ehrlich, and Dave Lum. This was my second visit this year. I was there in January. On both trips our host and guide was Xavier Curvat of Marquisis Dives. On our last visit I observed a *Conus adamsonii* regurgitating a small fish after being collected on a night dive. The image of the shell and little fish were published in *American Conchologist* (Vol.41, No.3, Sept. 2013). Well it happened again. This time it was a *Conus bullatus*. We took a small aquarium with us to observe and photograph live specimens. We collected a *Conus bullatus* on a night dive returned from a night dive and I put it in the little aquarium to watch. As it was crawling around, it hesitated, extended its stomach, and regurgitated a little fish. I didn't have my camera ready but was able to get off a quick shot of the shell and fish just after it was spit out. The accompanying images are of the *C. bullatus* and fish in the aquarium and an image of both after being removed from the aquarium. The little fish was identified as a *Pseudanthius* species. I retained the fish in a small vile of alcohol along with the *Conus bullatus*.

Paul Kanner
paulkanner@yahoo.com



34th Astronaut Trail Shell Club Seashell Festival

11-12 Jan 2014



The attendees at the 34th Astronaut Trail Shell Club Seashell Festival had some exciting times this year - not all related to shell displays and camaraderie. An exhibitor from Boynton Beach was prevented from attending by a flood resulting from 18 inches of rain (this is normally the Florida dry season). Another reported windows shaking in Key West from the earthquake that hit Cuba the day before the show. Sheila Nugent (winner of the COA Award) braved snow, ice, blocked roads, and generally miserable conditions travelling to the show from New England. For those who did attend, it was a great show.

Show judges this year included Dr. Harry Lee of Jacksonville, FL (his 12th time as judge for this event), and Bob Janowsky of Wellington, FL (an original member of COA). Artistic judges were Ruth Abramson of Jacksonville, FL, and Anne Joffe of Sanibel, FL. Anne served previously as a scientific judge and in 2013 won the COA Award for her display at the Astronaut Trail Shell Club Seashell Festival

Results

SCIENTIFIC:

- One Minor Family: 1st Ribbon, Norm Terry, Port St. Lucie, FL, Ranellidae.
- One Genus: 1st Ribbon, Gregory Curry, Sr., Key West, FL, Genus *Athleta*.
- One Species: 1st Ribbon, Charles Barr, Boca Grande, FL, *Canarium urceus*.
- One Geographical Area: 1st Ribbon, Harry Berryman, North Port, FL. Seldom Seen Cones of Cape Verde.
- Self Collected Single Specimen: 1st Ribbon, Gene Everson, Louisville, KY. 2nd Ribbon, BJ Shouppé, Palm Bay, FL *Vokesinotus lepidotus*.
- Single Specimen - Any Manner: 1st Ribbon, Gregory Curry, Sr., Key West, FL. *Tenebricola cukri*. 2nd Ribbon, Gene Everson, Louisville, KY, *Crassiborgia hediae*. 3rd Ribbon, Gene Everson, Louisville, KY, *Turbo (Bolma) johnstoni*.
- Educational: 1st Ribbon and CONCHOLGISTS OF AMERICAN AWARD, Sheila Nugent, N. Waterboro, ME, "Native Americans: The First Shell Collectors of North America."
- Self Collected: Jim Cordy, Merritt Island, FL, 1st Ribbon, "Shells of Guaymas-San Carlos, Mexico." 2nd Ribbon, Charles Barr, Boca Grande, FL, *Mazatlantica cosentini*.
- Fossil: Dr. Ron Bopp, Bradenton, FL, 1st Ribbon and DU PONT TROPHY, "Alum Bluff Group." 2nd Ribbon, Italian Fossil *Xenophora*, Doris Underwood, Melbourne, FL.
- Land and/or Fresh Water Shells: 1st Ribbon, and ATSC R. Tucker Abbott Trophy-Best Self Collected Sheila Nugent, N. Waterboro, ME, "Red Truck Adventures Seeking Maine Fresh Water Mussels."
- Sea Life Exhibit: 1st Ribbon, Phyllis Gray, Orlando, FL, "Seabeans Reprised."

- Shoreline: 1st Ribbon, Eleanor Hillman, Indiatlantic, FL, Shoreline.

- Masters Award: Gene Everson, Louisville, KY, MASTERS AWARD "The Shell Collector's Hobby."

- Shell of the Show: Exhibit 8, Single Specimen—Any Manner, Gregory Curry, Sr., Key West, FL *Tenebricola cukri*.

- Florida Self Collected Shell of Show: Exhibit 12 Fossil, Dr. Ron Bopp, *Aurinia mutabilis*.

- Self Collected Shell of Show: Exhibit 8, Single Specimen - Any Manner, Gene Everson, Louisville, KY, *Conus theodorei*.

ARTISTIC:

Division 22: The Ultimate Arts and Craft Award. Charles Barr, Boca Grande, FL, Silver King.

Division 23: Shell arts and Crafts all work done by exhibitor - Pictures constructed of shells, sea life: 1st Ribbon, Charles Barr, Boca Grande, FL, Dandelion and Judges Commendation. 2nd Ribbon, Roger & Carolen Bailey, Melbourne FL. "Deadly Creatures of the Sea." 3rd Ribbon, Margaret V. Goembel, Vero Beach, FL, Lanai #1.

23 C Pictures (Paintings, sketches of mollusks or sea life: 1st Ribbon. Charles Barr, Boca Grande, FL, Lion Lips. 2nd Ribbon, Charles Barr, Boca Grande, FL, Big Eye.

- Shell Mirrors: 1st Ribbon, Charles Barr, Boca Grande, FL, Fight Club. 2nd Ribbon, Charles Barr, Boca Grande, FL

- Shell Wreath: 1st Ribbon, Roger & Carolen Bailey, Melbourne, FL.

- Holiday Motif: 1st Ribbon, Vicky Reiordan, Satellite Beach, FL, White Christmas Tree. 2nd Ribbon, Annie Willem, Vero Beach, FL, Snowflake.

- Shell Trays and Boxes: Lu An Lorensen, Vero Beach, FL, "Kleenex Box with stained glass."

- Double Valentine: 1st Ribbon and Judges Commendation Ribbon, Hans Hoppenbrouwers, Provincetown, RI.

- 2nd Ribbon, Wendy Marshall, Yarmouth Port, MA, "My Little Valentine."

- Novelties: 1st Ribbon, Rosie Garrison, Vero Beach, FL, "Shell Hats and Hairdos."

- Needlework: 1st Ribbon, Linda Koestel, Apopka, FL, "Knitted Lace Shawl."

- Miscellaneous: 1st Ribbon and ATSC ARTS & CRAFTS TROPHY Shell Table, Debbie Freeman, Englewood, FL

- Photos: 1st Ribbon, Sheila Nugent, N. Waterboro, ME, "Mussels in a Stream", 2nd Ribbon, Margaret V. Goembel, Vero Beach, FL.

Division 24: Collectible and Antique - not the work of the exhibitor but must be owned by the exhibitor.

- Jewelry: 1st Ribbon and ATSC COLLECTIBLE OR ANTIQUE TROPHY. "Mother of Pearl." Gloria Tinker, Cocoa Beach, FL. 2nd Ribbon. Gloria Tinker, Cocoa Beach, FL Shell Jewelry 1940-1950's.

- Ceramics/China: 1st Ribbon, BJ Shouppé, Palm Bay, FL. Glass Star Fish Collection.

- Miscellaneous: 1st Ribbon, Charles Barr, Boca Grande, FL, Chess Pieces. 2nd Ribbon, Sheila Nugent, North Waterboro, ME, Banjara Indian People Cowry. 3rd Ribbon, Eleanor Hillman, Figurines with shells.

(excerpted from *The Capsule*, Jan 2014)



Dr. Harry Lee presents the Du Pont Trophy to Dr. Ron Bopp for his fossil display, "Alum Bluff Group." He also won a 1st ribbon for this display.



Judge Harry Lee presents the COA Award to Sheila Nugent for her display: "Native Americans: The First Shell Collectors of North America." She also won the 1st Ribbon and ATSC R. Tucker Abbott Trophy for the Best Self Collected Shell Display ("Red Truck Adventures Seeking Maine Freshwater Mussels") and an artistic 1st ribbon for "Mussels in a Stream".



Gloria Tinker (a first time exhibitor) won 1st Ribbon and ATSC COLLECTIBLE OR ANTIQUE TROPHY for "Shell Jewelry of the 1940s and 1950s."



Scientific judges Bob Janowsky (in Day-Glo orange) and Harry Lee (in Yule-Tide red) present the Master's Award to Gene Everson for "The Shell Collector's Hobby." He also won Self Collected - Any Manner (*Conus theodori*) and Self Collected - Single Specimen (*Vokesinotus lepidotus*).



This massive (22+ lbs) Italian Fossil *Xenophora* garnered Doris Underwood a Judge's Commendation and a 2nd place ribbon.

2014 Broward Shell Show

Nancy Galdo

The well-attended 2014 Broward Shell Show, held on January 18-19, 2014, was an excellent show featuring 292 feet of Scientific Exhibits! Our membership increased by 23 members and many newcomers attended, discovering the wonder of shells for the first time! Thanks and appreciation go to the Scientific Judges, Jerry Harasewych, Edward Petuch, and Wayne Harland, as well as Artistic Judges, Anne Joffe and Jae Kellogg. A special thank you to Shell Show Chairperson, Alice Pace and her production assistant, Bob Pace, for a job well done. Kudos and thanks go to all the exhibitors, dealers, and club members participating in our beloved Shell Show!

Congratulations to the trophy winners, especially to Sheila Nugent who won the COA Award with her "Red Truck Adventures Seeking Maine Freshwater Mussels." Her unique exhibit is the culmination of the events of several summers in Maine, searching for the 10 species of freshwater mussels reported to be found in that area.

2014 Broward Shell Show Award winners

SCIENTIFIC:

- American Museum of Natural History Award - Tom Grace, "Family Calliostomatidae - Pacific/Pacific Rim Region" (Superfamily One Region Any Manner)
- Conchologists of America Award - Sheila Nugent, "Red Truck Adventures Seeking Maine Freshwater Mussels," (Land/Fresh Water Shells Any Manner)
- The Du Pont Award - Norman Terry, "Family Ranellidae" (One Family, Minor, Any Manner)
- "Best of the Best" - Gene Everson, "The Shell Collecting Hobby"
- Len Hill Memorial - Pat & Bob Linn, "Tibias of the World" (Super 10)
- Shell of Show - Gene Everson, *Conus theodorei* (Single Shell FL/Carib. Self Collected)
- Shell of Show - Greg Curry, Sr., *Tenebricola cukri* (Single Shell Worldwide Any Manner)
- Jim Vunkannon Memorial Florida/Caribbean Trophy - Linda Shockley, "Marco Island Area Bivalves" (Beach Shells Self Collected)
- Gerrit de Graff Memorial - Amy Tripp, "Double-Row Spined *Busyson* in Lighting Whelks" (One Species Any Manner)
- Neil Helper Memorial Trophy for Educational Excellence - Harry Berryman, "Seldom Seen Cones of Cape Verde" (One Region Any Manner)
- Betty Hamann Fossil Trophy - Greg Curry, Sr., "*Athleta spinos* in Genus *Athleta*" (One Genus Any Manner)
- Best Student Exhibit, Scientific - Marissa Linn, "Equestrian Conch (Horse Conch)" (Student 7-12 Grade Any Manner)

- Best Sea Life - Phyllis Gray, "Sea Beans Reprised" (Sea Life)
- Exhibitor's Choice Award - Linda Shockley, "Marco Island Area Bivalves" (Beach Shells Self Collected)

ARTISTIC:

- Best Student Exhibitor Trophy (Artistic) - Marissa Linn, "Greeting With Echinoderms" (Hobbyist Student Grades 7-12)
- Best in Show Trophy (Hobbyist) - Pat Linn, "Whelks in the Round" (Hobbyist Décor Wall Hung Only)
- Best in Show Trophy (Professional) - Marci Chamberlain, "Princess Periwinkle" (Professional Special)
- Best in Show Trophy (Sailor's Valentine) - Hans Hoppenbouwers, "Flora" (Hobbyist Sailor's Valentine - Single Octagonal Case)
- Best Tabletop Shell Craft - Marci Chamberlain, "Princess Periwinkle" (Professional Special)
- Best Wall Hung Shell Craft - Heather Strawbridge, "Coquina Garden" (Professional Mirror)
- Fay Mucha Memorial Best Collectibles - Sheila Nugent, "Banjara Pot-Ring Cowrie Headdresses" (Collectibles)
- Exhibitor's Choice Award - Marci Chamberlain, "Princess Periwinkle" (Professional Special)

Nancy Galdo
nancy@gmail.com



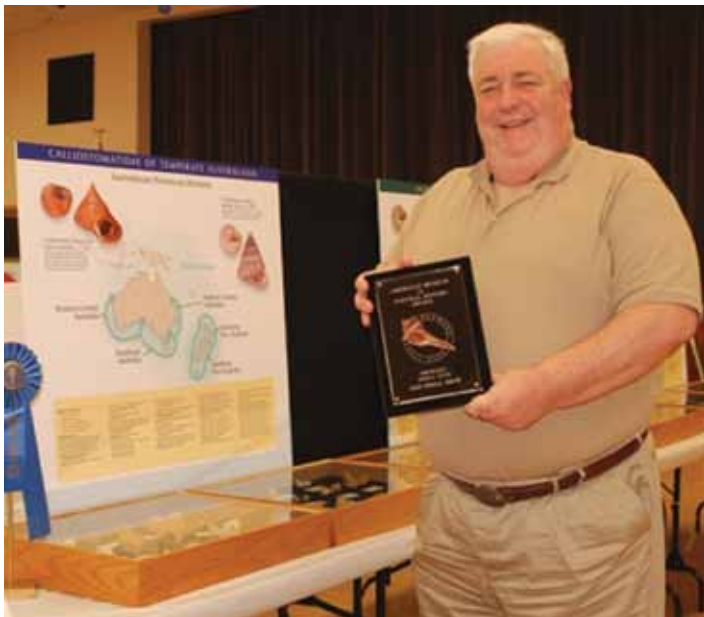
Shell of Show - Greg Curry, Sr.,
Tenebricola cukri



Conchologists of America Award winner Sheila Nugent for her display “Red Truck Adventures Seeking Maine Freshwater Mussels.”



Norman Terry won the Du Pont Award for his presentation of the “Family Ranellidae.” One of the more spectacular members of that family, *Charonia tritonis* can be seen behind him.



Tom Grace (former COA President) was awarded the American Museum of Natural History Award for his “Family Calliostomatidae - Pacific/Pacific Rim Region.”



Gene Everson won “Best of the Best” for his display titled “The Shell Collecting Hobby.” His display of the ins and outs of shell collecting was featured in the September 2013 issue of American Conchologist.

Sarasota Shell Club Shell Show

14-16 Feb 2014

The Sarasota Shell Club (SSC) started off 2014 with a great shell show - lots of participants and some really fantastic displays. The highlights are shown here in images.



COA Award: "Meet Mr. and Mrs. Cockle & Family"; Martin Tremor & Conrad Forler.



SSC's Charles & Violet Hetweck Fossil Trophy: Ron Bopp "Alum Bluff Group."



SSC's Best Small Scientific: Harry Barryman (right) for "Seldom Seen Cones of Cape Verde." Standing with him is award sponsor, Bruce Paulsen. Harry also won the Mote Gold Award for his display "Philippine Cones."



SSC's Best Self-Collected Trophy: Sally Peppitoni "Palma Sola Causeway."



SSC's Members Trophy; Dwayne Kaufmann; "Identification of Small Gastropods."



Our very capable judges (left to right): Bill Jordon, Audrey O'Donnell, Harry Lee, and Anne Joffe.



Best of Art with Shell Motif: Pat Linn "Whelks in the Round."



The Terri Gosselin Excellence in Shell Flower Making: Fran Schlusemann "Copper Pot Purple White."

St. Petersburg Shell Club Shell Show 22-23 Feb 2014



The attendees numbered more than 550 this year at the St. Petersburg Shell Show. There was a total of 220 feet of scientific display cases and at least that much in the artistic category. Our scientific judges were Bill Lyons and Wayne Harland, and they had an impressive display of superb exhibits to examine and evaluate. The Shell Show Chair was Betty Lipe (who has not yet learned to say "No," to volunteer requests - thankfully, as she runs the advertising for this magazine and has for many years. Thanks Betty!).

The COA Award was won this year by Wayne and Patty Humbird from Lake Jackson, Texas. Their display was titled, "Memories of Panama," and was exhibited in 12 cases. Greg Curry won the Du Pont Trophy for his display, "Genus *Athleta*." Harry Berryman was awarded the National Museum of Natural History Award for "Samples of Philippine Cones." Martin Tremor and Conrad Furler won the Florida Museum of Natural History Award for "Meet Mr. & Mrs. Cockle & Family." Greg Curry had the Shell of the Show (any manner) with *Tenebricola cukri* and Carolyn Petrikin had Shell of the Show (self-collected) with a record-sized *Mercenaria campechiensis*. Sandy Boddy won 1st Place In Beachlife for her "Horseshoe Crabs" and a first place for her "Seashells on Stamps." Bob and Pat Linn won took a second place ribbon for "Tibias of the World." Dorothy Hanssler



Patty and Wayne Humbird brought that special Texas flair to their display, "Memories of Panama," and it won them the COA Award.

took a 2nd place ribbon for "Florida Bivalves." Other awards included Charles Barr for Best Scientific Exhibit, and Judges Special Ribbons to Harry Berryman, Patty Humbird, and Jeannette Tysor.

(excerpted from *Tidelines*, March 2014)

The Hebrew Volute *Voluta ebraea* Linnaeus, 1758

Martin E. Tremor, Jr.

(reprinted with permission from *Tidelines*, Nov 2013)

A truly magnificent mollusk by any standard, the Hebrew volute is an endemic species of Brazil. This sea snail is found only along the north and northeastern Brazilian coast. The shell length of this species may reach and exceed 200 mm up to 220 mm, although lengths from 100 mm to 150 mm are more common. *Voluta ebraea* has a somewhat robust and solid shell, with a slightly elongate contour. It is colored cream externally, with a complex series of darker-reddish brown markings and lines that are said to resemble Hebraic figures. The interior of the shell can vary in color from pale to strong orange. The protoconch is rounded and presents two whorls. The shell as a whole has seven slightly convex whorls. These whorls (including the body whorl) are ornamented by several posteriorly oriented sharp spines. The outer lip is thick and the aperture is relatively long and narrow. As is the case in other volutes, the columella presents an array of strong oblique columellar folds (also known as plicae, 9 to 11 of them in this species), which are more conspicuous anteriorly. The corneous, claw-like operculum partially covers the shell aperture. Sexual dimorphism can be observed in the shells of this species: the shells of the males tend to be more elongate with a smoother outer surface, whereas the shells of the females are generally wider and more nodulose. The angle of the spire also differs between males and females.

The animal of the Hebrew volute has a pale ivory colored body, ornamented by numerous irregular and intertwined thin dark-red to brown colored lines, and several small spots of the same color along the sides of the foot. Some of the most distinctive external features are its very large foot and a long siphon. This species presents a radula composed of a single row of rachidian or central teeth. Each one of these teeth exhibits several smaller acute denticles or cusps. The radula is considered to be similar, though larger, than that of the music volute, *Voluta musica* Linnaeus, 1758, a similar but distinct species.

This beautiful volute dwells on sandy bottoms, among coral and rocks, and usually shows a preference for sandy substrata. It may be found from shallow water to depths around 40 - 70 meters and is commonly taken by shrimp trawlers.

As is the case in several other volutids, the Hebrew volute is carnivorous and predatory. It is known to feed on the cardiid bivalve *Trachycardium muricatum* (Linnaeus, 1758), the yellow cockle. The Hebrew volute is also known to be a the prey of a fish, the Bocon toadfish, *Amphichthys cryptocentrus* (Valenciennes, 1837).

Though little is known about the conservation status of this species, it is believed that both over-fishing and over-exploitation are having a negative effect on its natural



populations. Being a creature of the shallow waters tends to facilitate its harvesting by the locals. Thus it is currently not observed in many areas where it was previously numerous. It is also not uncommon for Hebrew volutes to be accidentally caught in bottom gill fishing nets and traps set by commercial fishing boats. Adding to the conservation problem is the so called "imposex phenomenon" which has been observed in *Voluta ebraea*. The development of masculine sexual organs in the females exposed to organic tin compounds, such as tributyltin (TBT), may have several negative consequences for entire populations of this species, from sterilization of individuals to the complete extinction of those populations. Such compounds are biocide and antifouling agents commonly mixed in paints to prevent marine encrustations on boats and ships. Therefore it is not uncommon for high concentrations of such compounds to be present in the sea water near shipyards and docking areas, consequently exposing the nearby marine life to its deleterious effects.

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Voluta ebraea in its natural habitat. Photo courtesy of Thelma Lúcia Pereira Dias.

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Size matters! II

Moshe Erlendur Okon

As mentioned in Part I (American Conchologist vol. 41, no. 4, Dec 2013, page 30), certain mollusks continue growing throughout their lives, while others reach their final size and then cease growing. One example of the latter group is the family Cypraeidae, the cowries. So, what does 'big' or 'small' actually mean when discussing such a group? Is a 60 mm *Macrocypraea cervus* 'big' and is a 15 mm *Purpuradusta minoridens* 'small'? Perhaps some information on the growth of cowries and guidelines regarding size could be of use.

When a young cowrie hatches from its egg, it either settles down immediately on the sea bottom (direct development), or floats freely for a period of time – hours to days (veliger stage) – before settling (see Lorenz & Hubert, 2000). Once the young cowrie has settled, it begins forming its juvenile bulla shell. This bulla, resembling an olive shell, grows for several weeks to months until the cowrie reaches its final size, and only then does the outer lip turn inward, extremities are produced, the base thickens, teeth are formed, and the characteristic colors and pattern laid.

Once the cowrie has reached its adult size, it will no longer grow in length, but can increase its volume, weight, and callosity. This is unlike other gastropod families (Conidae, for instance) in which the shell can continue growing in size by adding whorls for the entire life of the animal, albeit at a slower pace once maturity is reached. Therefore, an adult live taken 60 mm *Cypraea tigris*, for example, would not have grown further, and may have even been much older than an 80 mm specimen taken alongside. Cowries can live for several years after reaching their adult stage (see Burgess, 1985).

As with the human race, individuals of a cowrie species are normally distributed on a Gaussian curve. This means that about 70% of the shells of a species will be within the range of their average length + the standard deviation (S). 95% of them can be expected to be within the range of their average length + 2S, and 2.5% are at the dwarf or giant extremities, meaning their average shell length + 3S (see Heiman, 2010).

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

Erosaria miliaris (Gmelin, 1791)

The cowrie I chose is *Erosaria miliaris* (Gmelin, 1791), or *Naria miliaris*, if we go by a recent convincing article (Bergonzoni, 2012). This common cowrie is found in the West Pacific (mostly Japan to Indonesia) but has been reported from as far west as Thailand. Its average length is 36 mm, with a standard deviation of 7 mm.



Fig. 1: The bulla stage of *Erosaria spurca* (L., 1758) 18 mm, collected in rock pools at Blata Steps, limits of Bahrija, Malta, where it is very common. Image courtesy of Constantine Mifsud.

The shell is pyriform, the base and teeth are white and the extremities often sharply rostrated. The dorsum is pale green to yellow and freckled with white spots (hence the name, derived from *millet*). The animal is usually black or dark colored and the mantle has long and branched papillae.

The two specimens illustrated here are from my personal collection. The small one is from Java, Indonesia, and the large from Manila Bay, Philippines. Although they do not represent the utmost extremities of this species, they are certainly indicative of the size range, the length of the smaller one being 40% that of the larger.

* An earlier version of this article was published in Beautifulcowries Magazine No. 3 May 2013.

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Fig. 2: *Erosaria miliaris*, small 21 mm, large 52 mm. Both are adult.

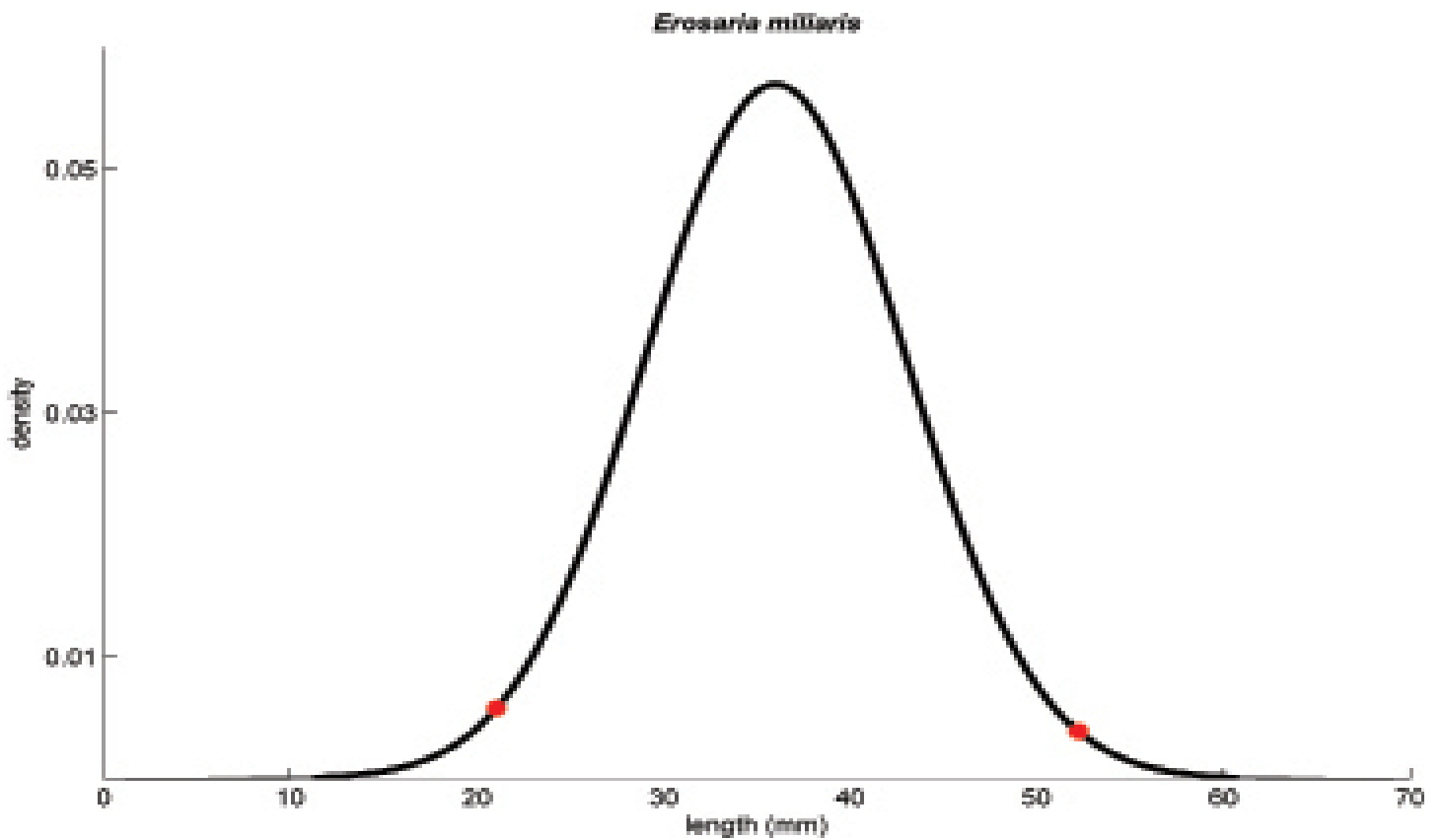


Fig. 3: Size distribution of *Erosaria miliaris* in mm based on data from several publications. The two red dots indicate the sizes of the illustrated specimens in figure 2.

