

May-June, 2012

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Jacksonville Shell Club (JSC) May and June meetings

In May the JSC will meet on Thursday the 24 at 7:00pm at the Southeast Branch Public Library. Charlotte Thorpe will present her underwater photos of marine animals that live in 1' to 70' of water. The program will include tropical fish, coral, mollusks, and other sea life. Harry will present the Shell-of-the-month, *Conus geographus* Linnaeus, 1758. He will tell us about this large conesnail and its medical implications.

We will next meet on June 28, the usual fourth Thursday at the usual time and place (see above). President Brian Marshall will report on his inventory of the marine mollusks of St. Augustine Inlet. For about four years Brian has been studying and collecting the malacofauna of the inlet area, which includes an assortment of microhabitats. Because of its accessibility, relative freedom from pollution, the number of collectors over time (well over a century), he has a prodigious story to tell. Although currently a good bit short of completion, Brian's work promises to be a prodigious ongoing project. He'll liberally illustrate his presentation with photographs of some of the charismatic denizens of his study area. Appropriately, Wendy Eash will discuss the shell-of-the month, *Cerithiopsis aimen* Rolán and Espinosa, 1995, which she found on one of her experimental "settlement plates" deployed in estuarine waters not far from the inlet. Wendy is the only one ever to find this species, heretofore known only from Cuba, living in the coastal waters of the continental USA.

SHELLERS' JAMBOREE

YES!! Plans are being made for Suncoast Conchologists Shellers' Jamboree, to be held this year in Clearwater, May 26-27, 2012, Saturday and Sunday of Memorial Day weekend. We hope you and your shelling friends will make plans to join us for our two day mini-convention featuring, of course—Shells, Shells, and more Shells! Co-Chairmen of this week-end for shell-lovers everywhere are Mary Ellen Akers, Carolyn Petrikin, and Sharlene Totten. This will be the 10th Jamboree, a popular Suncoast Conchologists tradition, first held in May, 1989. Highlights of this well-known event will include:

A Shellers' Flea Market Programs Shell Measuring Happy Hour Parade of Snails Lunches, Dinner and Banquet Shell ID Shell Art and Craft Show Raffle Silent Auctions Single-Specimen Shell Show Door Prizes Verbal Auction And—Fun—Fun—Fun!!

You won't want to miss this jam-packed shellers' weekend. Information and registration forms may be printed off this website or email jamboree2012@aol.com if you wish to receive a Snail-Mail copy or for any questions.



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This club meets each month at the Southeast Branch of the Jacksonville Public Library, 10599 Deerwood Park Blvd,, Jacksonville, Florida. Please address any correspondence to the club's address above. The *Shell-O-Gram* is issued bimonthly and mailed to all regular members. Annual membership dues are \$15.00 individual and \$20.00 family (domestic) and \$25.00 (foreign). Lifetime membership is available. Please send checks for dues to the above address and made out to the Jacksonville Shell Club. We encourage members to submit articles for this publication. Closing date for article submission is two weeks prior to the first of each month of publication. Articles may be republished provided full credit is given the author and this newsletter and one copy of the complete publication in which the article appears.

President's Message:

Hi JSC Members,

It is that time of the year again where the sensation that the Shell Show is right around the corner is a reality. We are making much progress in the various preparations needed and much of our remaining effort moving forward needs to be placed on publicity. For anyone that can assist in this area, please contact Charlotte or myself. I look forward to seeing everyone at the next meeting! Brian

SHELLING IN THE REPUBLIC OF PANAMA WITH MEMBERS OF THE NORTH CAROLINA SHELL CLUB

This was a well-planned one week trip with three members of the North Carolina shell club and myself, Char Thorpe. Making up our four- some included Everett Long, Ed Shuler, and Jeannette Tysor from the North Carolina Shell Club. We had planned for our search, and could hardly wait to walk the mud/rocks on minus-low tides. In Panama the low tides drop about 22-25 feet, so that meant we could walk 1 mile offshore to areas usually covered with 20+ feet of water. The plan was to find shells for the 2014 COA Convention being held in Wilmington, NC on August 11-15.

We stayed with Silvard Kool and his wife Barbara at Playa Coronado. We highly recommend anyone visiting Panama to make reservations with Silvard. Go to: http://www.flipkey.com/coronado-beach-condo-rentals/p294028/



We couldn't have found a nicer place, or anyone as knowledgeable and ready to go shelling . Silvard is an International Concert Pianist, Composer, Recording Artist, and Professor of Marine Biology.

Everett and Ed were staying in a Studio room with a nice kitchen and Jeannette and I had the Suite. The suite has a living room with large TV, beautiful kitchen, separate bedroom and a very modern shower.

In photo is Everett (small figure on left) at dawn heading out to search for shells We went to lots of different areas but the best

shells were "right in front of the house."

Another Panamic find: Julia thecaphora (Carpenter, 1857)

i¿A bivalved gastropod¿i



San Agustinillo, Oaxaca, Mexico. Both specimens depicted above are views of the interior and exterior of a single valve and measure about 3 mm. Hinged pair is 2.5 mm. Collected by JSC member David Kirsh of Durham NC in April, 2011.

A note about the nomenclatorial and taxonomic history of Julia thecaphora

This species was regarded as a pelecypod for most of the century following its description. However, the solitary specimen Rev. Philip Carpenter had before him, a right valve, was originally assigned to the univalve genus *Smaragdinella* A. Adams and Reeve, 1848 [Type species: *Bulla viridis* Quoy and Gaimard, 1832 (= *Bulla calyculata* Broderip and G.B. Sowerby I, 1829)] as evidenced in the original description (Carpenter, 1857: 533) [**Fig. 1**] and its drawing by the author [**Fig. 2**].¹ The hinge process of this specimen, which Carpenter likened to as a "theca" [Greek theikos, meaning sheath], is apparently homologous to the "calycula" [diminutive of Greek kalyx, little cup] of the univalve shells of that genus as exemplified by the type species [**Fig. 3**], and recapitulated in its specific epithet.

Interestingly, as noted in his original description (q.v.), Carpenter borrowed the word "*Thecaphora*," from a manuscript name penned by naturalist Thomas Nuttall, who was almost certainly referring to the hinge process of a right valve of





what was to become the congeneric Julia exquisita Gould, 1862 (see figure and references below) found on an Hawaiian shore. Thus, while Carpenter regarded the "theca" as evidence of a gastropod affinity, Gould, being provided with a left valve as well as a right, considered it a familiar



part of a pelecypod hinge apparatus. Different strokes for different folks.

¹All sixty plates of these drawings languished in the archives of the U.S. National Museum for over a century until being organized and published (Brann, 1966), from which **Fig. 2** is taken.

Another note: on Juliidae E.A. Smith, 1885 (1871)

Prasina borbonica Deshayes, 1863 is the basis for the genus *Prasina* Deshayes, 1863 (monotypy) and the family Prasinidae Stoliczka, 1871. Juliidae E.A. Smith, 1885 is based on *Julia* Gould, 1862a¹ [Type species: *J. exquisita* Gould, 1862a^{1 2} (monotypy), a subjective synonym of *P. borbonica*; see Kay (1968)] post-dates Prasinidae, yet the valid family name is Juliidae.

Why is that you might ask. Well over a century ago workers such as Dall recognized the synonymy of *Julia* and *Prasina* (and/or their type species) and began to employ *Julia* (and often Juliidae), based on the priority of its type species, instead of the earlier synonym Prasinidae. Although the type genus of the family is clearly *Julia*, the valid family name does <u>not</u> necessarily have to be formed from the same stem as its type genus (Article 40.1 of *The Code* [ICZN, 1999]). Based on this provision, Prasinidae seems to have a lock on the correct family name for this group of bivalved

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sacoglossans (Gastropoda: Opisthobranchia). However, as we have witnessed many times, the ICZN allows certain exceptions. Article 40.2 reads "If, however, a family-group name was replaced before 1961 because of the synonymy of its type genus, the substitute name is to be maintained if it is in prevailing usage." Not only that, the substitute enjoys the same priority as the replaced name (Article 40.2.1)

For nearly a century members of the family were regarded as bivalves. After living juliids were collected on the *Caulerpa* in Japan, it became apparent that these mollusks are in fact unusual sacoglossan opisthobranch gastropods with a two-part shell. Observations on the referent living juliid, *Tamanovalva limax* Kawaguti and Baba, 1959, revolutionized our understanding of the group (Kay, 1968), which reaches back to the Eocene (Burn, 1998). The latter reference gives a nice summary of the biology of the group.

¹ Original descriptions, as reproduced in Gould, 1862b (241), are shown below. ² Lectotype Cornell University Paleontology Department 17774 *fide* Johnson (1964: pl. 43, figs. 3, 5) likewise below.

Genus JULIA. T. equivalvis, valdè inæquilateralis; umbonibus eminentibus, compressis, incurvatis; areolâ cordiformi valdè impressâ: cardo utrâque valvâ sistens dente unico subcochleari, dextro post sinistrum aptante, et rimâ transversâ anticè limitato; sinistro ab umbone fissurâ sejuncto: ligamentum marginale: cicatrix unica, subcentralis, tripartita.

This curious genus bears no resemblance to any one yet described, unless it be to Reniella Swains., which has been pronounced to be the early stage of Vulsella. It is very difficult to assign it a place; but it must at present be associated with Vulsella and Pedum, though externally it has the texture, polish and ornamentation of the Veneridæ. The delicate fissures issuing at the hinge indicate the possession of a byssus. Further observations must solve our doubts.

JULIA EXQUISITA. T. parva, ovata, anticè insigniter rostrata, ossea, polita, concentricè undulata, smaragdina ubique fusco radiatim punctata et interdum albo articulata; margine postero-dorsali latè arcuato; m. ventrali instricta: intus margaritacea, radiatim exilissimè striata; margine everso, tenuissimè crenulato. Long. 5; lat. 4; alt. 4 millim.

Inhabits Sandwich Islands. Rev. Mr. Johnson.

A beautiful little shell, colored like Smaragdinella from the same islands. The sudden and profound depression in front of the beaks is quite striking, and thus produces a very pointed somewhat upturned anterior end. A single valve looks much like some of the Bullidæ, *Chelidonura*, for instance.



Selected references:

Brann, D.C., 1966. *Illustrations to "Catalogue of the collection of Mazatlan shells" by Philip P. Carpenter*. Paleontological Research Institution, Ithaca, NY. (1)-111 + 60 plates. 1 April.

Burn, R., 1998. Family Juliidae. Pp. 964-966 in Beesley, P.L., G.J.B. Ross, and A. Wells [eds.]. *Mollusca: the Southern Synthesis. Fauna of Australia. Vol. 5 part B*. CSIRO, Melbourne. i-vii + 565-1234.

Carpenter, P.P., 1857. Catalogue of the collection of Mazatlan shells in the British Museum collected by Frederick Reigen, described by Philip P. Carpenter. British Museum, London (i)-xii + (1)- 552. After April 21.

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Gould, A.A., 1862a. Descriptions of new genera and species of shells. *Proceedings of the Boston Society of Natural History 8*: 280-284. Feb. <<u>http://www.biodiversitylibrary.org/item/37036#page/293/mode/1up</u>>.

Gould, A.A., 1862b. *Otia Conchologica: Descriptions of Shells and Mollusks from 1839 to 1862*. (i)-(iv) + (1)-256. After Feb.

ICZN (International Commission for Zoological Nomenclature), 1999. *International code of zoological nomenclature fourth edition*. International Trust for Zoological Nomenclature, London. pp. 1-306 + i-xxix. <<u>http://www.nhm.ac.uk/hosted-sites/iczn/code/index.jsp</u>>.

Johnson, R.I., 1964. The Recent Mollusca of Augustus Addison Gould. *United States National Museum Bulletin 239:* 1-182 + pls. 1-45.

Kawaguti S. and K. Baba, 1959. A preliminary note on a two-valved sacoglossan gastropod, *Tamanovalva limax*, n. gen., n. sp., from Tamano, Japan. *Biological Journal Okayama University* 5(3-4): 177-184.

Kay, E.A., 1968. A review of the bivalved gastropods and a discussion of evolution within the Sacoglossa. *Symposium Zoological Society of London 22*: 109-134, seven figures.

Acknowledgments: The photographs of *Julia thecaphora* were taken by David Kirsh. Figure 3 is borrowed from Femorale (Jose and Markus Coltro) <<u>www.femorale.com</u>>. Bill Frank edited all the figures.

We also did quite well shelling at Venado Beach or its new name "Veracruz Beach." It was where we were able to walk a mile



offshore to shell. I also bought some shells from locals that collect the live animals for food. One day Barbara bought some "oysters" from the local collectors that were actually mollusks that we call chamas. Barbara covered the "oysters" with bread crumbs and fried them and served them with a dipping sauce. Boy - were they good! Venado Beach had changed a lot since my last visit about 15 years ago. There were not as many shells as I remembered. However, we searched and did end up with a pretty remarkable collection.

Left: is *Jenneria pustulata* (Lightfoot, 1786), which cannot be confused with any other living species. The dorsum is covered with bright orange pustules, each of which is encircled by a dark -colored ring. Length about 25mm and found under a rock that had a 2 inch space for it to hide.



We spent each day traveling to a different area to search for shells in the mud and under rocks - and goodness there are lot of rocks. After a while you have to give your back a rest from all the lifting.

Left: Also found was *Lima pacifica* d'Orbigny, 1846 under a rock in front of Silvard's house.

We also found Murex, Bursa, cones, and many other shells in that location - right out our front door.

Each day we had wonderful tides. Starting at 7:00am the first day, and adding 45 minutes for each day gave us great shelling in the mornings. We went out two nights to shell but climbing

over the slippery rocks with a bucket and light was just dangerous - several of us fell and had scrapes and bruises. So much for night shelling - works great on mud flats but not for climbing over rocks.

On **right** is *Vitularia salebrosa* (King and Broderip, 1832) a great shell that grows to about 60mm. The rich terra-cotta color of this shell and the several large denticles on the inside of the outer lip is a good identification guide.

Below is *Cypraea (Pseudozonaria) robertsi* (Hidalgo, 1906) a very common cowrie in Panama. It seems like every rock we turned had a couple of the pretty little cowries under it. These cowries grow to a length of an inch, they are most abundant in



photo of Venado beach with the large hill on Venado Island. We walked all the way out to this island on the minus low tide. At high tide it has 20-25' of water all around the island. **Below on right** (left to right) Ed Shuller, Jeannette Tysor, and Everett Long showing their shells after collecting on the beach.



Panama, but also range from Nicaragua to Peru and the Galapagos Islands.

Panama is a beautiful country. It has a rain forest, waterfalls, lush grass and trees up in the mountains, and, of course, the wonderful beaches. In Silvard's yard were beautiful flowers and an almond tree, a cashew (poisonous) tree, and mango trees. We even saw an iguana sunning its self in the flower garden. Below is one of the many Hibiscus flowers that are popular and growing everywhere.

Below on left is a







Corrigenda/addenda to Crosby Sanctuary report by Harry G. Lee

In my report on the malacofauna of the Duval Audubon Society's Crosby Sanctuary (Lee, 2010), there is a misidentification of a small clam. A close review of the specimen identified as *Pisidium nitidum* (Jenyns, 1832) Shiny Peaclam is actually *P. punctiferum* (Guppy, 1867), which happens to be a non-native species (Mackie, 2007) reported earlier from St. Johns Co. (Lee, 1979). I have no legitimate Florida *P. nitidum* in my collection, and I'm unable to find any published record thereof, e.g., Heard (1979). Regrettably, the deletion of this record reduces our NE Florida aquatic mollusk checklist by one to 67 species (57 native and 10 introduced); see <http://www.jaxshells.org/northeas.htm>.

To mitigate the disappointment, I am happy to report that the occurrence of *Sphaerium occidentale* (Lewis, 1856) Herrington Peaclam in the Crosby Sanctuary and elsewhere in our area (Lee, 1979¹; Lee, unpublished²) are apparently the only Florida occurrences of this species other than a single site on the Chipola River in Jackson Co. (Heard 1979; Lee Collection).

¹ based on two lots in Lee Collection: Clay Co. SR 21 ~ 16 km NNE Keystone Heights, roadside ditch.H. Lee! 16 April, 1977; St. Johns Co., near left bank Trout Creek at CR 16A ~ 2.2 km E CR 13. H. Lee! 2 October, 1977.

² One lot in the Lee Collection: USA: Florida: Duval Co., Jacksonville, Bennett Branch, box culvert N Bowden Rd.
~ 50 m. W Southpoint Blvd. in stream drift. B. Frank! 1 November, 2005.

Heard, W.H., 1979. Identification manual of the freshwater clams of Florida. *Florida Department of Environmental Regulation Technical Series* 4(2): 1-83.

Lee, H.G., 1979. Checklist of aquatic mollusks – Jacksonville area. Shell-O-Gram 20(11): 3. November.

Lee, H.G., 2011. The Mollusca of the Crosby Sanctuary, Clay Co., Florida. Shell-O-Gram 51(6): 3-7. November.

Mackie, G.L., 2007. Biology of freshwater corbiculiid and sphaeriid clams of North America. *Ohio Biological Survey Bulletin New Series* 15(3): ix + 1-436.

WELCOME NEW MEMBER:

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SHELL SHOW IS RIGHT AROUND THE CORNER...

We will need volunteers to help out at the Show. All jobs have been filled but more workers will be needed in some areas. We'll need help in the Shell Shore; for set-up and break-down of Show; and Billie will need lots of volunteers to bring food for the lunches. Please call her at: (904) 241-3755 to see what you can bring - so that we will not end up with 7 bowls of potato salad. All help is appreciated - so if you decide to volunteer please call Charlotte at 246-0874. Thanks!