SHELL·O·GRAM
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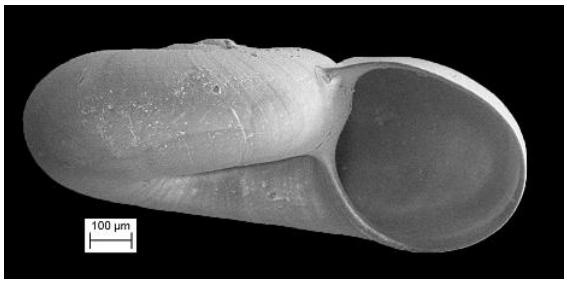
January-February, 2019_____Volume 60 (no. 1)

Upcoming meetings

The **January** meeting of the Jacksonville Shell Club (JSC) will be held at the usual venue, the Southeast Branch of the Jacksonville Public Library <http://www.yelp.com/biz/jacksonville-public-library-southeast-regional-jacksonville>, on the **fourth** Thursday (the **24th**) in Function Room **D** at 7:00 PM. Rick Edwards will share the newly-minted presentation he gives to Guana Tolamato National Marine Estuarine Research Reserve (GTMNERR) monthly beachwalk participants. Rick, usually accompanied by his wife Roz, has been leading these field trips for GTMNERR friends almost every month since they began volunteering for the organization over a decade ago. They've come up with some unusual shells such as the Spectral Bittersweet, *Glycymeris spectralis* (Nicol, 1952) on the **L**. Harry Lee will present the shell-of-the-month, the microsnail genus *Xenoskenea* Warén and Gofas, 1993, heretofore unknown from the western Atlantic but very recently discovered in Florida both living in the Banana River of Brebvard County and as a Pliocene Pinecrest fossil (**above**). This group, originally thought be be exclusively freshwater inhabitants, has an unusual anatomy and growth pattern.



The JSC meeting-after-next will be on the customary fourth Thursday, **February 28**, but we'll try a twist here. Rather than 7:00 PM, we'll convene at **5:00 PM** and in **Room E** (vs. D). Let's see how this works – especially for those who travel from the St. Augustine and Ormond Beach areas. The proceedings will focus on the December 22-23 JSC field trip to the Cedar Keys. The intrepid/freezeproof Paul Jones will head up the discussion. Whet your appetite with a look at his report and images contributed by coexpeditioners in this issue of the *Shell-O-Gram*. Harry Lee will present one of the dovesnails taken by a few of us at the time (**L**). Despite its consistent presence in the Cedar Keys over the years of the JSC visits, the species remains un-named.

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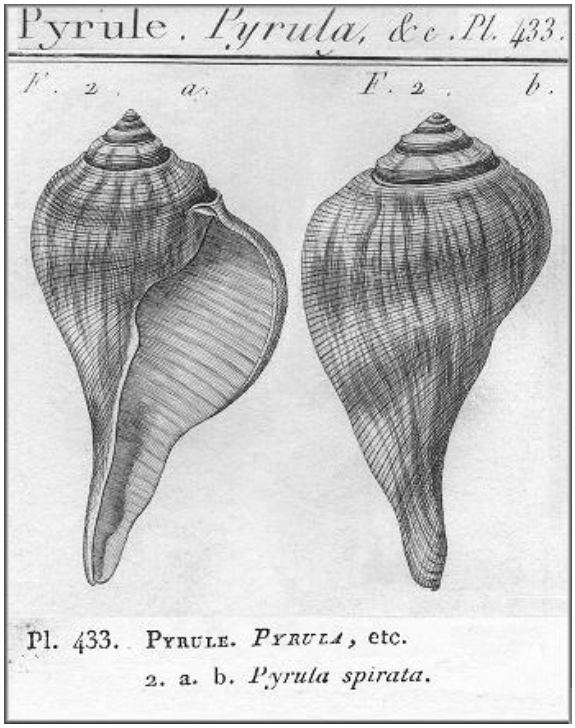
This club meets monthly at the Southeast Branch of the Jacksonville Public Library, 10599 Deerwood Park Blvd,, Jacksonville, Florida <http://jpl.coj.net/lib/branches/se.html>. Please address any correspondence to the club's address above. Annual membership dues are $15.00 individual, $20.00 family (domestic) and $25.00 (overseas). Lifetime membership is available. Please remit payment for dues to the address below and make checks payable to the Jacksonville Shell Club. The club's newsletter and scientific journal, the *Shell-O-Gram* (ISSN 2472-2774) is issued bimonthly and mailed to an average of 15 regular members and friends by specific request and no less than ten scientific institutions with permanent libraries. An electronic (pdf) version, identical except for "live" URL's and color (vs. B&W) images, is issued the next day and sent to about 200 individuals who have demonstrated an interest in malacological research. These pdf's (ISSN 2472-2782) have also been posted to <http://jaxshells.org/letters.htm> since November, 1998. We encourage members and friends to submit articles for publication. Closing date for manuscript submission is two weeks before each month of publication. Articles appearing in the *Shell-O-Gram* may be republished provided credit is given the author and the *Shell-O-Gram*. As a courtesy, the editor and author should receive a copy of the republication. Contents of the *Shell-O-Gram* are intended to enter the permanent scientific record.

Parsing the Pear Whelks, a North American complex complex

by Harry G. Lee



For well over a century most American conchologists were content with the name *Pyrula spirata* Lamarck, 1816b: 8, in that or several other generic combinations as the moniker for a species that resembles the iconotypes (Lamarck, 1816a: pl. 433, figs. 2a, b) shown on the **L** with minimal editing). In fact, that name is applied to a number of specimens comprising an extensive compendium at <http://www.jaxshells.org/busycot3.htm>. If the seeds of uncertainty weren't already sown, they certainly germinated with the work of Solomon Hollister (1958: 99-101), who convincingly demonstrated a dichotomy between the thick, heavy, deeply-grooved Lamarckian taxon, for which he created a lectotype, and *Fulgur pyruloides* Say, 1822, pretty much a consensus synonym until then, a relative lightweight with subdued sculpture. While pointing out the likelihood that Say collected his material in SC, GA, or **east** FL (for an account of the 1816-1817 expedition see <http://jaxshells.org/414x.htm>), Hollister nonetheless used a specimen from Siesta Key, Sarasota County, **west** FL for his neotype since no authentic Say material

could be found – a abiding and pervasive plague for molluscan taxonomists. Hollister pointed out a zoogeographic separation of the two taxa: the Lamarckian entity being limited to the region of Yucatan, and Say's taxon more generally-distributed in the Carolinian Province; he also discussed a certain overlap in conchological characters between the two taxa and advocated only subspecific separation. Hollister created *Pyrofulgur* as a subgenus of *Busycotypus* Wenz, 1843 [Type Species: *Murex canaliculatus* Linnaeus, 1758 by original designation], to accommodate *Pyrula spirata*, but the dichotomy had already been appreciated by Marks (1950), who erected *Fulguropsis* with the same original monotype (for practical purposes anyway). Nominal whelk genus-level taxa have undergone a certain proliferation and "hierarchy creep," a familiar trend in malacology, and these two Pear Whelks are now properly called *Fulguropsis spirata** (Lamarck, 1816) and *F. pyruloides* (Say, 1822) according to WoRMS.

Recent work by Petuch *et al.* (2015) parses *Fulguropsis* much further. The authors distinguish shallow water eastern Gulf of Mexico (GOM) shells from those of the southern Atlantic slope. The former are more "heavily sculptured, with strong spiral cords and ribs on the body whorl and spire," with "a rough, coarsely-textured shell" whereas E GOM shells are "much smoother, with a sculpture made up only of fine spiral threads, and …. a distinct silky texture to the body whorl and spire." Because of Hollister's quirky neotype/type locality designation, the E GOM form fell under the mantle of *F. pyruloides,* and *F. rachelcarsonae* was introduced to accommodate the populations occurring from Cape Hatteras to Broward Co., FL, which includes our area, e.g., Matanzas Inlet, St. Johns Co.

Last month's JSC field trip brought this trans-peninsular dichotomy into relevance since Pear Whelks were found on the flats of the Cedar Keys area in reasonable abundance. As a consequence of Paul Jones's posting on the JSC Facebook page, Dr. Petuch and David Berschauer emended his ID of Cedar Key [**L**; photo by Tammy Myers] and Matanzas Inlet Pear Whelks from *F. spirata* to *F. pyruloides* and *F. rachelcarsonae* respectively. Perhaps Paul and several others n the JSC will take his opportunity to compare our substantial holdings of E and W FL Pear Whelks during an upcoming meeting. Will we, like Hollister found with *F. spirata* and *F. pyruloides*, detect some morphological overlap? Are the two distinguishable with 100%, 75%, or less accuracy? Is the subspecies paradigm more appropriate for these shells, which seem to occur in allopatry? If so, then maybe Paul, in using the senior binomen for the taxon complex, wasn't so far off-base?

* Petuch *et al.* (2015) consistently employ the combination *Fulguropsis spiratus* [sic]. The *Code* (ICZN: Article 30.2.1) mandates the genus be treated as a feminine noun. Similarly, *Busycotypus* is masculine, not neuter as the authors treated it throughout the work.

Hollister, S. C., 1958. A review of the genus *Busycon* and its allies, Pt. 1. *Palaeontographica Americana 4*(28): 1-126. <http://biodiversitylibrary.org/page/10693643>

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. <http://www.nhm.ac.uk/hosted-sites/iczn/code/>

Lamarck, J.-B.P.A. de M. de [ed.], 1816a. *Tableau encyclopédique et méthodique des trois règnes de la nature vers, coquilles, mollusques et polypiers tome secon*d. Agasse, Paris. Planches 391-488. 14 Dec. <http://biodiversitylibrary.org/page/37162176>

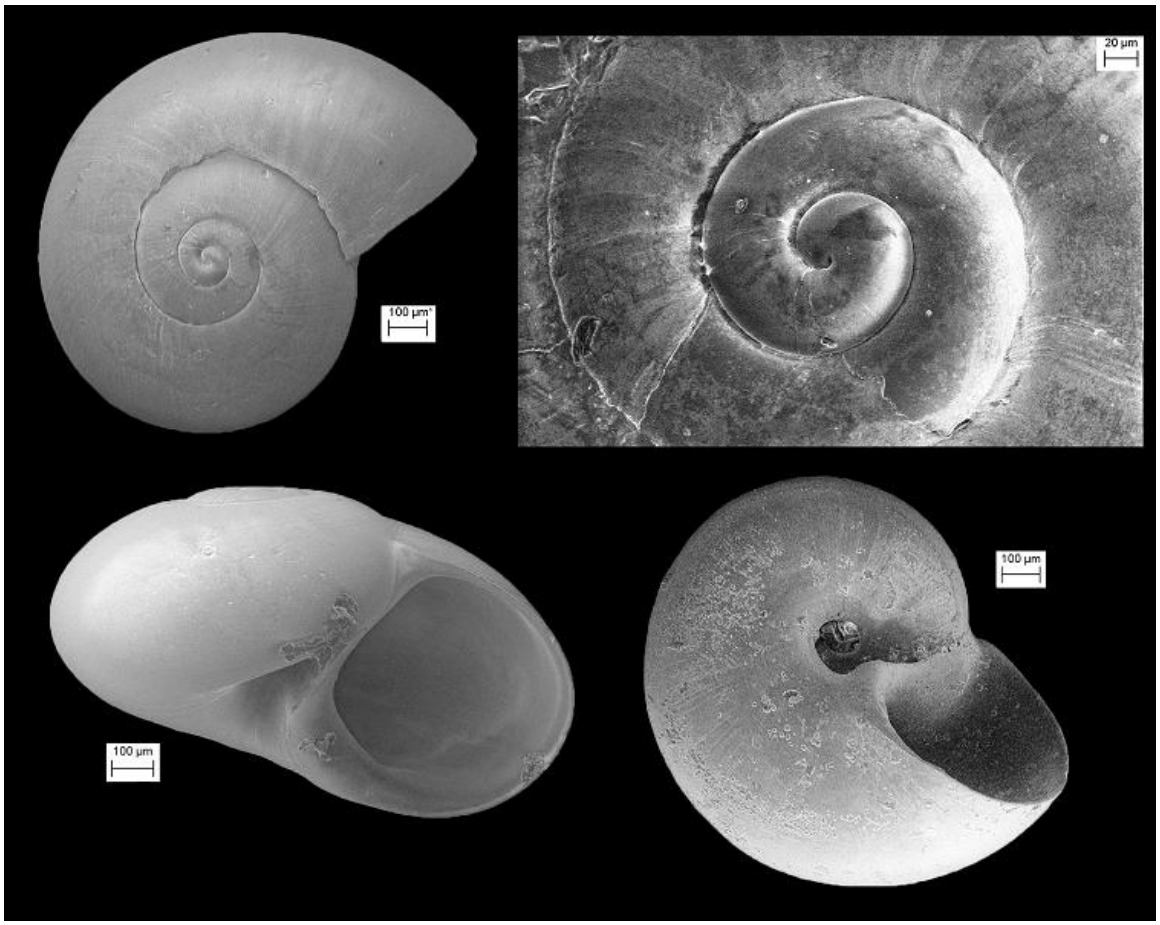
Lamarck J.B., 1816b. Liste des objets représentés dans les planches de cette livraison. In: *Tableau encyclopédique et méthodique des trois règnes de la nature vers, coquilles, mollusques et polypiers tome second. Mollusques et Polypes divers*. Agasse, Paris. 1-16. [Because this section is missing from most copies of the iconography it was reproduced in Petit (2011).]

Marks, E.S., 1950. New Subgenera of *Busycon* Roeding. *The Nautilus 64*(1): 34. July. <https://biodiversitylibrary.org/page/8524295>

Petit, R.E., 2011. Reprint of Lamarck's "Liste des objets." *Conchologia Ingrata 3*: 1-18. 1 Nov. <https://storage.googleapis.com/conchology-general-images/documents/conchologia/3.pdf>

Petuch, E.J., R.F. Myers, and D.P. Berschauer, 2015. *The living and fossil* Busycon *whelks: Iconic mollusks of eastern North America.* San Diego Shell Club. [i] + [i]-viii + 1-[195].

Below is a collage of three specimens of a ~ 1.5 mm Pliocene marine snail of the superfamily Valvatoidea from NE of Sarasota. It's apparently a new species of *Tomura* Pilsbry & McGinty, 1946 showing affinity with its original monotype, *T. bicaudata* Pilsbry & McGinty, 1946. Note the intorted (hyperstrophic) protoconch. SEM performed in collaboration with Dr. Ann Heatherington, Dept. of Geology, University of Florida.



Shelling in Cedar Key, Florida and surrounding Keys, December 2018

by Paul Jones

Several members, friends and guests of the Jacksonville Shell Club made the journey over to one of our favorite shelling haunts on the Gulf of Mexico side of Florida – Cedar Key, the weekend before Christmas. Our mission this time was to take charter boat trips to catch the minus low tides at a couple of the outer islands in the Cedar Key island group and shell in areas not frequented by the masses on Cedar Key itself. Attendees were: Harry Lee, Nancy and Joe Galdo, Tammy and Danny Myers, Rick and William Edwards, Lilian Rodriguez, and yours truly.

At dawn on Saturday, December 22, we gathered at the tour boat docking area to meet Captain Joey Slaughter of Cedar Key Island Tours who embarked us on the quick 5 to 7 minute boat ride over to nearby Atsena Otie Key. The weather that day was cold and very windy, and we all bundled up with several layers of clothes to stay warm. None of us was very affected by the cold winds though, and we quickly fanned out and covered the extensive sand and mud flats exposed on the morning minus tide. After all, there was shelling to do!

We quickly found lots of treasures, both bivalve and gastropod, as soon as we hit the flats. We were stunned by all the large, live *Sinistofulgur sinistrum* (Hollister, 1958) we saw everywhere (some in excess of ten inches) and many *Fulguropsis pyruloides* (Say, 1822) [see article on pp. 2-4] mixed in amongst them. With so many large thriving gastropods, we knew there would be many bivalves to be found and they included huge *Dinocardium robustum* ([Lightfoot], 1786; **L**) and *Mercenaria campechiensis* (Gmelin, 1791). Also seen everywhere popping up out of the sand by the hundreds were the tiny bivalves *Mulinia lateralis* (Say, 1822), also known as Duck Clams.

The two hours we spent on Atsena Otie Key went by in a flash, and we were soon headed back to Cedar Key with buckets well adorned by treasures, large and small, we found on the acres and acres of exposed mud flats of the uninhabited island. We were wet and cold, but happy, and we soon dried off and gathered at Duncan's On the Gulf restaurant in Cedar Key to have the Jacksonville Shell Club Christmas Party for 2018. We all enjoyed superb Gulf seafood and great company.

The day after our Atsena Otie excursion, Rick, William, and I once again met Captain Joey at dawn for another adventure. This time our destination was to the far flung shoal adjacent to Seahorse Key. This shoal is only exposed at the lowest tides and is one of the more remote collecting sites from the town of Cedar Key. The boat ride over took more than twice as long as the one to Atsena Otie Key. Nonetheless, it was more than worth the additional time and distance investment!

The sand and mud flats on the Seahorse Key shoal were even more extensive than the ones at Atsena Otie had

been! We hardly knew where to begin as the vast expanse of searchable area stretched out as far as we could see before us. Soon it became obvious that we had encountered a veritable treasure trove of fresh, empty, paired and hinged bivalves of many species everywhere we looked. All were in virtually perfect condition.

In addition to all the aforementioned species that we saw in such abundance on Atsena Otie Key, we soon found many *Trachycardium egmontianum* (Shuttleworth, 1856; **L**), *Chione elevata* (Say, 1822; **below**), *Stewartia floridana* (Conrad, 1833), and

dozens of beautiful, mottled juvenile specimens of *Mercenaria campechiensis* (Gmelin, 1791), to name a few, on the sandy mud flats and sitting in shallow tidepools. There were also many grassy areas on the shoal as well, and we had a great time finding shell treasures in these areas.

Before we knew it, the tide rolled in, and our time on the shoal was over. We reluctantly returned to Cedar Key, still somewhat stunned by all we saw and collected! We thanked Captain Joey profusely for ferrying us back and forth safely and he even waited for us patiently as we collected on the Seahorse Key shoal. We found that the cost of the trips to be very reasonable as well. We shall soon be booking additional trips with Captain Joey to these amazing shell wonderlands in the Gulf of Mexico!

Membership Dues are payable in September each year.
If you're not paid up, please send in your dues: Individual $15.00; Family $20.00, to
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