

Sept. -Oct. 2022 \_

Volume 63 (no. 5)

### **Upcoming meetings**

The Jacksonville Shell Club, Inc. (JSC) customarily meets on the **fourth** Thursday of each month except for November (a week earlier due to Thanksgiving) and December (traditional Xmas get-together/TBA) in Function Room D of the Southeast Branch, Jax Public Library <<u>https://www.jaxpubliclibrary.org/locations/southeast-</u>



<u>regional</u>. At the time of this *Shell-O-Gram* issue, the library remains open to us despite the continuing COVID-19 pandemic. Of course, everyone in attendance is expected to have been fully vaccinated, be feeling well, and to comply with CDC recommendations for masking and social distancing. Our **September** meeting will convene on the **29th** at 7:00 PM. Paul Jones will present the shell-of-the- month, a tour-de-force review of the Giant Atlantic Cockle, *Dinocardium robustum* ([Lightfoot], 1786). The species reaches 138 mm (Lee, 2009: 34, pls. 1, 7), and big ones like that usually come from St. Johns Co., FL, where Paul spends lots of his time collecting.

Harry Lee will present a program

on living and fossil members of the family Tornidae in Florida-Caribbean waters. Presently there are thirteen genera and about ten times that many species, but it will be shown that there are not only substantial addenda at the species-level as well as removal of some genera to other higher taxa, some phylogenetically remote. Two of the 23 locally-occurring species treated our book (Lee,



2009) are shown here: Parviturboides interruptus L above and Solariorbis infracarinatus above.

Membership Dues are payable in **September** each year. Many of you have complied, but if you're in arrears, please send in your dues: Individual \$15.00; Family \$20.00, to Harry G. Lee, Treasurer, JSC 4132 Ortega Forest Drive Jacksonville, FL 32210-5813

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The club customarily meets monthly at the Southeast Branch of the Jacksonville Public Library, 10599 Deerwood Park Blvd,, Jacksonville, Florida <<u>https://www.jaxpubliclibrary.org/locations/southeast-regional</u>>. 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 about two days later and sent to about 200 individuals who have demonstrated an interest in malacological research and/or Florida mollusks. These pdf's (ISSN 2472-2782) have also been posted to <http://jaxshells.org/letters.htm> since November, 1998. We encourage members and other 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 Shell-O-Gram Editor-in-Chief. As a courtesy, the editor and author should receive a copy of the original and republication version resperctively. Contents of the Shell-O-Gram are intended to enter the permanent scientific record. The club is a chartered corporation in the State of Florida and a non-profit educational organization under the provisions of Section 501(c)(3) of the US IRS Code.



# Upcoming meetings, cont'd.

Because of the planned Jupiter/Peanut Island club field trip spearheaded by Paul Jones (see p. 10), which had to oblige the best low tides, we'll not have our October meeting in the library. While not actively collecting, perhaps the expeditioners will use down time to discuss recent finds, e.g., the slew of un-named species taken from grunge collected on such forays by a few JSC members. One such is the shell on the L, brought back from Kice Island by Paul this April. Only 1.47mm in height, it appears to be a pyram in the genus Ividella, joining a lone W. Atl. congener, I. abbotti, <<u>http://www.jaxshells.org/iva14.htm</u>>. It has already been deposited in the Florida Museum of Natural History, Gainesville as UF IZ 581511 - the catalog metadata immortalizing him as collector.

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# A FL beach spoonclam saga

by Harry G. Lee and Richard Matteson<sup>1</sup>





Beach, S. Hutchinson Island, Martin Co., FL, May, 2022. Images by R.M., photoedits by Bill Frank

These right valves (41.3 mm. on the top and 49.3 mm. on the bottom left) surpass the size (1 1/2 inches) and southern limit of range (North Carolina) provided by Abbott (1974: 561) for Cochlodesma leanum (Conrad, 1831: 263, pl. 11, fig. 11 <<u>https://www.biodiversitylibrary.org/page/24677769</u>>), which living species closely resembles these shells with the conspicuous chondrophore (spoon) in its hinge.

<sup>1</sup> Jensen Beach, FL; website <<u>http://www.mattesonart.com/home.aspx</u>>; South Hutchinson Island, FL Checklist: <<u>http://jaxshells.org/hutch1.htm</u>>.

Of further interest is (1) subsequently even larger specimens among some 20 disarticulated shells (only one was a left valve) collected in the in a short stretch of shoreline; (2) this beach, in the vicinity of 10152 South



Ocean Drive, was "renourished" with offshore sediments the preceding month, and (3) there happens to be a fossil shell rich escarpment just behind the same segment of beach (L).

Based on an assortment of extinct species taken from "wall" [R.M.], our paleoconchological analysis indicates that the feature belongs to the Nashua Formation, of Plio-Pleistocene age (~ 0.8-3 MYA)

Well, it happens that a similar spoonclam, Cochlodesma antiquum (Conrad, 1834), was originally described from the Pliocene Yorktown

Formation, VA, and illustrated four years later (Conrad, 1838: pl. 8, fig. 3 <<u>https://archive.org/details/republicationofc00conr/page/n173/mode/2up</u>>). It appears identical to the larger shells in this collection. This fossil taxon is also represented in the contempo- rary Jackson Bluff Formation (Leon Co., FL) by the synonymous *C. leanum floridanum* Mansfield, 1937 (Campbell, 1993: 51).

Mature specimens of the two spoonclam species differ in size and shape, but the **more elongate-oval juveniles** of the allometric (as demonstrated above) fossil may be impossible to distinguish from the Recent species, which is almost certainly descendant from it and presently considered extinct. Perhaps this evolutionary process falls under the rubric of neoteny <<u>https://en.wikipedia.org/wiki/Neoteny</u>>.

I don't think this find is entirely a fluke as a similar specimen collected on a Sanibel, Florida beach was exhibited at the annual shell show there couple of decades ago [H.G.L.]. To my surprise, the exhibitor was underwhelmed by the significance of the sentinel find and the value of shell show displays such as his.

Such a "Phoenix phenomenon" [H.G.L.] must be considered with beach-stranded shells, even if freshappearing. This principle is further exemplified by local beach finds such as the extinct *Chesapecten* species <<u>http://www.jaxshells.org/foss11.htm</u>> and the distinctive and iconic *Ecphora quadricostata* (Say, 1824) <<u>http://www.jaxshells.org/quadri25.htm</u>>, as well as the regionally-extirpated *Solenosteira cancellaria* (Conrad, 1846) (Lee, 2009: 108, under species 520; 2010: 5) and *Stewartia floridana* (Conrad, 1833) <<u>http://www.jaxshells.org/lucin.htm</u>>.

### Literature cited:

Abbott, R.T., 1974. Second Edition American Seashells. Van Nostrand Reinhold, New York. (i)-(ix) + 663 pp. + 24 pls. with 23 facing plate explanations. [vidi]

Campbell, L.D., 1993. Pliocene mollusks from the Yorktown and Chowan River Formations in Virginia. *Virginia Division of Mineral Resources Publication* 127: 1-259. [*vidi*]

Conrad, T.A., 1831. Description of fifteen new species of Recent, and three of fossil shells, chiefly from the coast of the United *States Journal of the Academy of Natural Sciences of Philadelphia* 6: 256-268, pl. 11 April.

<a>https://www.biodiversitylibrary.org/page/24677674></a>

Conrad, T.A., 1834. Observations on the Tertiary and more recent Formations of a portion of the southern states, [including] appendix. Descriptions of new Tertiary fossils from the southern states. Journal of the Academy of Natural Sciences of Philadelphia 7(1): 116-157. <a>https://www.biodiversitylibrary.org/page/24676770></a>

Conrad, T.A. (1838–1839) Fossils of the Medial Tertiary of the United States. J. Dobson, Philadelphia. 1, i-xvi, 1–32, + covers with text. [text dated Jan. 1838; inside back cover issued later and dated April 16, 1839] [Reprinted by W.H. Dall, 1893] <a href="https://archive.org/details/republicationofc00conr/page/n5/mode/2up">https://archive.org/details/republicationofc00conr/page/n5/mode/2up</a>

Lee, H.G., 2009. Marine Shells of Northeast Florida. Jacksonville Shell Club, Inc. 204 pp. + 19 color plates. 28 May 25. See <http://jaxshells.org/pdfs/flab.pdf>.

Lee, H.G., 2010. East meets West, a look at two Florida malacofaunas. *Shell-O-Gram 51*(1): 3-7. Jan. <http://www.jaxshells.org/pdfs/janfeb10.pdf>.

Mansfield, W.C., 1937. New mollusks of the Choctawhatchee Formation of Florida. Journal of Paleontology *11*(7): 608-612 + pl. 85. [*vidi*]

# Follow-up on a third-generation JSC member's nonpareil volute

Two years back we reported on William (Billy) C. Aley IV's discovery and description of one of the world's most rare and exquisite seashells, Scaphella biminiensis Oleinik, Petuch, & Aley, 2012, At the time no color image of the species was available. Quite recently we received a high-res digital image of the holotype (USNM 1138067) from Smithsonian Curator, Dr. Ellen Strong and are proud to reproduce it **below**.



Billy has kept his hand in malacology, to which his report on applesnail ecology (Aley, 2021) attests, and, like his grandmother, Billie Aley Brown, has been an abiding member-in-good standing of the club – for a halfcentury in Nana's case.

Aley, W. [C. IV], 2021. Recent encounters with apple snails and Snail Kites. Shell-O-Gram 62 (4): 2-5. July. <http://jaxshells.org/pdfs/julaug21.pdf>

[Lee, H.G.], 2020. Rarest of the Western Atlantic Volutes found and named by JSC member. Shell-O-Gram 61(2): 6. March. <<u>http://jaxshells.org</u>/pdfs/marapr20.pdf>

Oleinik, A.E., E.J. Petuch, & W.C. Aley IV, 2012. Bathyal gastropods of the Bimini Chain, Bahamas. Proceedings of the Biological Society of Washington 125(1): 19-53. 1 April. <a href="https://bioone.org/journals/proceedings-of-">https://bioone.org/journals/proceedings-of-</a> the-biological-society-of-washington/volume-125/issue-1/11-26.1/Bathyal-gastropods-of-Bimini-Chain-Bahamas/10.2988/11-26.1.short> [abstract only].

# That 800 lb. gorilla, *Distorsio ridens* (Reeve, 1844); part 1 (of 2)



L is Lovell Reeve's type figure of Triton ridens (plate 12, fig. 46) from Monograph of the genus Triton. Conchologia Iconica 2: pls. 1-20).

The late Hal Lewis (1972) designated a "lectotype" of D. ridens - a specimen in the AMNH (Haines Coll.), and Emerson and Sage (1990a, 1990b) correctly identified that shell with D. clathrata a few years later. The latter authors mentioned D. robinsoni Petuch but dismissed it as a mere form of *D. clathrata* (shorter spire and siphonal canal). In our opinion *D. ridens* is a synonym of *D. robinsoni*, the two are specifically distinct from *D. clathrata*, and the type designation is invalid, e.g. paragraph **C.** on p. 9 of his issue.

After reviewing specimens collected off Caribbean Colombia, where this species is sympatric (? -topic) with D. clathrata, and Brazil, we can see the two taxa are easily distinguished and are distinct species. Where is the shell Reeve used for his drawing? The jury is out on this matter, but we are actively pursuing the issue and hope to clarify that and exemplify the distinction with descriptive comparisons and supportive illustrations. The Shell-O-Gram will endeavor to keep readers posted.

Emerson, W. K. and W. E. Sage, 1990a. Distorsio ridens (Reeve, 1844): a synonym of Distorsio clathrata (Lamarck, 1816) Gastropoda: Personidae. The Nautilus 103(4): 131-135. <a>https://www.biodiversitylibrary.org/page/8278145></a>

Emerson, W. K. and W. E. Sage, 1990b. Addenda to Distorsio ridens (Reeve, 1844): a synonym of Distorsio clathrata (Lamarck, 1816) Gastropoda: Personidae. The Nautilus 104(4): 108-110. <https://www.biodiversitylibrary.org/page/8501215>

Lewis, H., 1972. Notes on the genus Distorsio (Cymatiidae) with descriptions of new species. The Nautilus 86(2-4): 27-50. <https://www.biodiversitylibrary.org/page/8511517>

#### Spoonclam spin-off - or equine hoofbeats; horse vs. zebra?

On page 147 of the prodigious work on Texas seashells (Tunnell et al., 2009: 147) an odd little shell is included among the Hydrobiidae, a fresh to brackish water dwelling group. The two topical figures are copied to the R of the composite below. The species came from "Seven and One Half Fathom Bank." The holostomatous aperture, umbilicus, convex whorls, and tiny nucleus support that familial placement, but the identification given, Talassia sandersoni (Verrill, 1884; below upper L: type after Bush, 1893), a deepwater vanikorid species, seems anomalous. Shells closely resembling this puzzler have been collected in sediments around the FL peninsula (middle three upper row and all three beneath; clockwise from upper L: base of ledge, 24 m, 2 km E Jupiter Inlet April 2021; beach, Kice Island, Collier Co., Paul Jones! May 2022; Jupiter Sound, Martin Co. Rick Edwards! July 2021; renourished shoreline, Palm Beach, FL. Carole Marshall! April, 2021; Fossil bed, N. St. Petersburg, Pinellas Co. C.R. Locklin! 1930's (L to R holotype and two paratypes) suggest a review is in order.



A. E. Verrill-Mollusca of the New England Coast. 241

#### Cingula Sandersoni Verrill, sp. nov.

Shell moderately large for the genus, thin, fragile, long-ovate, with a rather tall, somewhat turreted, acute spire. Whorls six to seven, strongly and evenly convex, separated by a deep, impressed, simple suture. Body-whorl large, rather swollen, well rounded, and constituting more than one-half the length of the shell. Nuclear whorl small, smooth, somewhat prominent, regularly coiled. Base rather strongly produced, destitute of an umbilicus, but sometimes with a slight chink, produced by the everted edge of the inner lip. Aperture pretty regularly ovate, rather broad, obtusely rounded in front, and with the posterior end narrowed and sometimes forming a slight sutural sinus; outer lip thin and regularly curved; inner lip continuous, usually with a thin, free edge along the body-whorl. The sculpture consists of very fine, close revolving lines, visible with a lens, and of still finer, but usually distinct lines of growth, which interrupt, more or less, the spiral lines.

Color white in our specimens, all of which appear to have been dead when dredged.

Length, 4mm; breadth, 2mm; length of body-whorl, 2.5mm; length of aperture, 1.8mm. A large specimen, with broken apex, is 2.7mm broad; length of body-whorl 3.5mm. Most of the specimens are smaller than those measured, and some are more slender in proportion.



Station 2109, off Cape Hatteras, in 142 fathoms, numerous specimens (No. 35,447).

In form, this species resembles C. turricula Lea, but the latter is described and figured as smooth and umbilicated. It is evidently allied to C. aculeus, but differs in its stouter form, deeper suture, and much finer sculpture. The sculpture is somewhat similar to that of C. leptalea, but the latter is very different in the form of the shell and aperture. Dedicated to Mr. Sanderson Smith, by whom it was dredged.

Since living specimens have not come to our attention and the Locklin shells are almost certainly from the Plioearly Pleistocene Caloosahatchee Fm., it appears the species is likely extinct, and that all of the above figures save the Verrill/Bush one depict *Fontigens symmetrica* Pilsbry *in* Olsson & Harbison, 1953: 443, pl. 64, figs. 7.

It turns out that Seven and One Half Fathom Bank is a small topographic prominence located on the continental shelf of the northwestern Gulf of Mexico. It is 74 km south of the northwestern entrance to Padre Island National Seashore and 3.2 km offshore from Central Padre Island. The reef is an elongate structure with four distinct rises, which are oriented at an approximate 45° to Padre Island (Rezak *et al.*, 1985). Tunnell (1973: 25) remarked that it was of freshwater origin based on fossil shell & mammal remains. However, he went on to say *"Cingula sandersoni* Verrill (shells only)" was among the most common mollusk found there.

This species was probably abundant throughout the SE in suitable habitats and may have survived well into the Pleistocene Epoch, with some its remains submerged during inter-glacial periods. Although matters like the precise taxonomic placement and paleoecology are conjectural, it's hard to resist casting this snail as a "phoenix" like *Cochlodesma antiquum* (see pp. 3-5 herein) and thus interdict an apparent taxonomic anomaly.

Bush, K.J., 1893. Reports on the results of dredging under the supervision of Alexander Agassiz, in the Gulf of Mexico (1877-78), in the Caribbean Sea (1878, 79), and along the Atlantic coast of the United States (1880), by the U.S. Coast Survey Steamer "Blake." Lieut.-Com. C.D. Sigsbee, U.S.N., and Commander J.R. Bartlett, U.S.N., Commanding. XXXIV. Report on the Mollusca dredged by the "Blake" in 1880, including descriptions of several new species. *Bulletin of the Museum of Comparative Zoology. 23*(6): 199-244, pls. 1-2. <<u>https://www.biodiversitylibrary.org/page/28881175</u>>

Olsson, A.A. and A. Harbison, 1953. Pliocene Mollusca of southern Florida. *Monograph No. 8 Academy of Natural Sciences of Philadelphia*. v + pp. 1-457 + 65 pls. [H.A. Pilsbry provided part III-B Fresh-water Mollusks]

Rezak, R., T.J. Bright, and D.W. McGrail, 1985. *Reefs and Banks of the Northwestern Gulf of Mexico: Their geological, biological, and physical dynamics*. Wiley, New York, NY, USA, 259 pp [not seen; see next entry].

Tunnell, J.W., Jr. 1973. Molluscan population of a submerged reef off Padre Island Texas. *Bulletin of the American Malacological Union for 1973*: 25-26. March (presented July, 1972). <<u>https://www.researchgate.net/publication/303485656 Molluscan population of a submerged reef off P</u> <u>adre island Texas</u>>. [Discussion of the two preceding works at <u><https://www.gulfbase.org/geological-feature/seven-and-one-half-fathom-bank></u>.]

Tunnell, J.W., Jr., J. Andrews, N.C. Barrera, and F. Moretzsohn, 2009. *Encyclopedia of Texas Seashells*. Texas A&M University, College Station. xi + 1-512. July or early August. [Copyright is dated "2010."]

Verrill, A.E., 1884. Second catalogue of Mollusca recently added to the fauna of the New England Coast and the adjacent parts of the Atlantic, consisting mostly of deep sea species, with notes on others previously recorded. *Transactions of the Connecticut Academy of Arts and Sciences 6*(1): 139-294, pl. 28-32. <<u>http://biodiversitylibrary.org/page/7477234</u>>



# *Turbonilla* (*Pyrgiscus*) *incisa* Bush, 1899; the Incised Turbonille redefined; part 1 (of 2)

A. Trawled off northeast Florida 5.5 mm (taken from Lee, 2009: 146; species no. 703)

**B**. The type figure, drawn from the holotype ("West Florida") designated by Katherine Bush (on its label) ANSP 62800: "three specimens" (Bush, 1899: 156-157, 174; pl. 8, fig. 12.). Specimen lost (Johnson, 1989: 43). 6.4 mm.

**C**. Paratype one of two; same locality, ANSP 62800, after Johnson (1989: 43; pl. 18, fig 8, as "lectotype" [an invalid designation *fide* Absalão and Pimenta, 1999]). 6.2 mm.

**D**. Paratype two of two; same locality, ANSP 372503 (recatalogued from ANSP 62800). Absalão and Pimenta, 1999: 80, 85; 90: fig. 18). 3.2 mm.

**E**. Specimen. 2730.213N 08020.289W (Indian River Lagoon N of Fort Pierce Inlet/W of the Intracoastal Waterway) by grab sample in 1 meter of water in fine sand (4 mm.). Digital images by Michael Scott Jones, Research Assistant - Benthic Ecology, Smithsonian Marine Station, Fort Pierce, FL

The next issue of the *Shell-O-Gram* will build on the above correct identification and attempt to clarify the taxonomic status of this ubiquitous Carolinian (e.g., on most of the checklists from NC to the FL panhandle at <<u>http://jaxshells.org/</u>> including our local shoreline). This nominal taxon, frequently misidentified as a number of others, notably the historic wastebasket repository, *T. interrupta* of authors, not of (Totten, 1835), is **invalid**!

Absalão, R.S. and A.D. Pimenta, 1999. *Turbonilla* (Gastropoda: Pyramidellidae) species described by Katharine Jeannette Bush: scanning electron microscope studies of the type material in the Academy of

Natural Sciences. Proceedings of the Academy of Natural Sciences of Philadelphia 149: 77-91. Jan. 29.

Bush, K.J., 1899. Descriptions of new species of *Turbonilla* of the western Atlantic fauna, with notes on those known. Proceedings of the Academy of Natural Sciences of Philadelphia 51: 145-177 + 1 pl. April. <a>https://biodiversitylibrary.org/page/6389312></a>

Johnson, R.I., 1989. Molluscan taxa of Addison Emery Verrill and Katharine Jeannette Bush, including those introduced by Sanderson Smith and Alpheus Hyatt Verrill. Occasional Papers on Mollusks 5(67): 1-143. 30 Aug. <a>https://www.biodiversitylibrary.org/page/4307384></a>

Lee, H.G., 2009. Marine shells of northeast Florida. Jacksonville Shell Club, Jacksonville, FL. Pp. 204 + 28 color pls. 29. May.

# Did you know?

The Shell-O-Gram is cited no less than twenty times in the authoritative biographical compendium 2400 years of Malacology by Eugene V. Coan & Alan R. Kabat, which is posted at the American Malacological Society's webpage at <https://ams.wildapricot.org/2400-Years-of-Malacology>. Our journal is also cited by another prodigious on-line resource, MolluscaBase <<u>https://molluscabase.org</u>/>, four times for initiatives in taxonomic nomenclature:

- 44(4): 5-10 [W. Atl. Stocisia],
- 57(1): 1, 3-6 [Terebra guttata],
- 60(2): 2-3 [Fulguropsis pyruloides],
- and last month's issue, 63(4): 3-10 [Aegistohadra]

# Jupiter-Peanut Island Field-trip

Contact Paul Jones (904) 347-7254 or <jonesp0854@gmail.com> for information on the JSC collecting expedition planned for Wed., Oct. 26 to Sat., Oct. 29. The last one to these destinations produced the likes of these Asaphis deflorata at <<u>http://www.jaxshells.org/asaf.htm</u>>!

