

Jan. - Feb., 2023 ______

Volume 64 (no. 1)



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 gettogether actualized on December 10, 2022; see report on pp. 2, 10-11) in Function Room D of the Southeast Branch, Jax Public Library <u>https://www.jaxpubliclibrary.org/locations/southeast-regional</u>. The main program on **January 26** is titled "Late Cenozoic Pyrams of Florida. Part I Odostomiinae" Neontologists needn't cringe, the time frame includes the Recent, and all save a dozen of the 42-odd genera treated are living in our waters today. Seven genera, one uniquely modern [L), the rest Plio-Pleistocene, e.g., **R**, appear to be unnamed as do at least twice that number of species. The focus will be on the many new geographic (FL) and stratigraphic Pliocene, Pleistocene) records among the hundred-



odd species presented. Collections or cullings made by JSC members Rick Edwards, Paul Jones, and Harry account for all of these novelties.

The shell-of-the-month will be presented by Paul Jones, who will discuss *Chione mazyckii* Dall, 1902, a beautiful Venus clam species found in our offshore waters but seldom recognized as distinct.

In **February** we'll reconvene on the **23rd** at the usual time and place. The shell-of-the-month, the Lion's-paw Scallop, will b presented by Paul Jones, who elsewhere in this issue makes mention of this iconic bivalve. Members re ncouraged to bring their own specimens so a fuller spectrum of color forms and sculptural variation can be appreciated.

Rick Edwards will report on the marine mollusks of Labadee, Haiti, a port-of-call for Hi, and Roz their Caribbean cruises over the last few years. Although his collecting was limited to beachcombing, quite a variety of species were found, The majority of which are absent from the shoreline of the cooler waters of northeast Florida.

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The club customarily meets monthly at the Southeast Branch of the Jacksonville Public Library, 10599 Deerwood Park Blvd,, Jacksonville, Florida https://www.jaxpubliclibrary.org/locations/southeast-regional. 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 respectively. 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.

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

Jacksonville Shell Club's 2022 Christmas and shell ID party by Paul Jones

Last December 10 the Jacksonville Shell Club (JSC) once again held a fun, entertaining, and very educational event at my home in St. Augustine last month. It was a combined Christmas party and shell identification working session get together as we have had a time or two before. [cont'd on p. 10]

What is *Odostomia acutidens* Dall, 1884? by Harry G. Lee

William Healey Dall (1884: 331 <<u>https://www.biodiversitylibrary.org/page/15715242</u>>) described (but **didn't figure**) a little pyram, *Odostomia acutidens*, from material collected by Henry Hemphill on the flats of Cedar Key, FL. As with most of Hemphill's FL shells, JSC members have collected topotypes, to wit <<u>http://jaxshells.org/cedarkey.htm</u>>. These shells approximate Dall's description, but they consistently differ somewhat: being ~ ½ the 4.12mm size, having four vs. six whorls, and possessing a chink-like umbilicus. On the other hand, they do match the interpretation of the nominal taxon by Lyons (1989: pl. 12, fig. 1 **R**), who **may** have been the first to illustrate this morph.



Below is an attempt to clarify the taxon by Lee (2009: 142):



685. *Odostomia acutidens* Dall, 1884 **Sharp-tooth Odostome** [4] 2.5 mm. Dredged, 40 ft., mud and shell hash, 1.5 mi. N.E. Mayport. CL! 5/12/92. (HL). Dredged, 60 ft., Southeast Hole, 4.0 mi. S.E. Mayport. CL! 1/91. (HL). *Appears to be specifically distinct from the European* O. conoidea (*Brocchi, 1814*) *rather than a form or subspecies as stated by Abbott (1974). Also Collier (MK), Lee, Gulf Cos., and LA (HL)*. Odostomia acutidens *Dall of Perry and Schwengel (1955: pl. 46, fig. 321) is a Sayella species. Excellent color illustration in Gundersen, 1998 [as*

Brachystoma gibbosa non (Bush, 1909)].

Abbott also tentatively synonymized a second species, *Odostomia modesta* (Stimpson, 1851),¹ with the European *O. conoidea* (Brocchi, 1814) (*idem*: sp. 3475) and reproduced the iconotype of a similar species, *Odostomia gibbosa* Bush, 1909, citing its range as "Maine to Massachusetts" [quotes added here] (*Idem*: sp.



3474). Footnote¹ one deals with the Stimpson species, but O. gibbosa requires some scrutiny, especially considering the Lee (2009) and Gunderson (1998) determinations.

Katharine Bush (1909: 482) provided the name *Odostomia gibbosa* to apply to the treatment of a species misidentified by Paul Bartsch which was published earlier that year. The text of the original description, as "*O. modesta* (Stimpson, 1851),"¹ [quotes added here] referred to Bartsch (1909: 108), and its iconotype followed (*Idem*: pl. 10, fig. 50 <<u>https://www.biodiversitylibrary.org/page/55625706</u>> L). It bears a certain resemblance to Lee and Lyons shells, but the absence of a columellar denticle and the less squat 3.2mm specimen seems to distinguish this shell from the aptly-named Dall species. What is the true relationship between these two little pyrams, and what does *Odostomia acutidens* actually look like? Regrettably no image of any of Dall's five syntypes (USNM 35988) is posted at <<u>https://collections.nmnh.si.edu/search/iz/</u>>.

¹ Abbott (*Idem*: sp. 347) incorrectly suggested *O. modesta* (Stimpson, 1851) was a synonym of the European *O. conoidea* (Brocchi, 1814). Subsequently Robertson (1978: 376) clarified the status of *Odostomia modesta* Stimpson, 1851 [*non* d'Orbigny, 1842 (homonym), *nec* Bartsch, 1909 (misidentification)]: Its valid name is *Pyramidella bartschi* Winkley, 1909, which Robertson placed in *Fargoa* Bartsch, 1955, the type species *F. calesi* Bartsch, 1955: 80 by original designation. This fossil bears a striking resemblance to the Recent *Fargoa bushiana* (Bartsch, 1909 [as *Odostomia*]), and is here considered synonymous. Later Robertson (1996) presented an extensive investigation into the biology of this variable and widespread species. To remain on track, for the time being at least, we can close the chapter on *F. bartschi* and *F. bushiana*, after just scratching the surface of their interesting backstories.



Perhaps this chronicle should pick up with Odé and Speers (1972: 17), who in their treatment of Odostomia gibbosa, a species they considered common and widespread in TX, included a Frank Van Morkhoven photograph of a 3.00 mm shell with between of four and five whorls which has a somewhat broken, but thickish-looking peristome, a chink-like umbilicus, and in its caption: "when rotated slightly specimen will show large tooth [boldface added here]" (idem: Fig. 15; L). This shell bears a close resemblance to the iconotype placed on the preceding page and is almost certainly identical with that species. On the other hand, if a robust columellar fold/denticle were added, it would be very difficult to deny it was O. acutidens Dall, 1884 as interpreted by Lyons (1989) and Lee (2009) above. Although the latter nominal taxon received short shrift, it was cited as a possible synonym, along with O. modesta,¹ of O. gibbosa by Odé and Speers (Idem: 16).

As for generic placement of these two taxa, Robertson (1978: 379) opined that the Odostomia gibbosa he examined, although spermatophores were not observed, met the other nine (of 12) criteria for placement in the genus Fargoa Bartsch, 1955.¹ Conchologically at least, it seems reasonable that O. acutidens can be placed therein as well.

Although one or both taxa appeared on various checklists over the past five decades, e.g. Rosenberg et al. (2009), figures attributable to Farqoa acutidens or F. gibbosa are scarce. None of the standard references for the malacofauna of the Caribbean Province (sensu stricto), e.g., Warmke & Abbott (1955), De Jong & Coomans, (1988), Zhang (2011), Redfern (2013), Lamy & Pointier (2017), depicts a shell anything like what we have seen of these. A notable exception is Vokes & Vokes (1984: 1984: pl. 30, fig. 2, "Odostomia sp. cf. gibbosa" [quotes added here] R). However, their only record(s) they recorded was on the SW shores of the Yucatan Peninsula near Playa del Carmen, distinctly in the Carolinian





(sub)Province; none was found from Campeche to Belize – a 500km stretch, half of which faces

the Caribbean Sea. Except for the robust columellar denticle, this 2.6mm specimen certainly matches the one in the Van Morkhoven photograph above L.

The only other relevant figure I could find is a very telling one: Tunnell *et al*. (2009: 265, captioned Fargoa gibbosa L). In the companion text, the authors cited the now familiar Odé and Speers (1972), Robertson (1978, 1996), as well as personal communication from the latter. They also indicated a maximum size of five mm, the anteriorly flared aperture, and the columellar fold. Although no mention was made of any variability, the inclusion of the references clearly implied the size and columella were inconsistent!

Thus, from the literature, we have a defensible hypothesis for a variable morphospecies ranging from ME, US to Playa del Carmen, MX. What unpublished evidence can be mustered to inform this concept?

Almost a quarter century ago, the late Bill Frank created the website <<u>http://jaxshells.org/</u>> to be a resource for the shell collecting and malacological communities. He left us with 13,339 'documents,' and, with ongoing support from these constituencies, these can remain for posterity. Principal among these 'documents' are zoogeographic checklists and mollusk images. In this instance, examples of both can be leveraged to test the single morphospecies/Maine to Mexico posit as demonstrated in the next paragraph.

Using the jaxshells search engine, one can find Odostomia acutidens documented on the site as occurring in NC: two localities; SC; NE FL; SW FL; NW FL (peninsula): two localities, FL; FL Panhandle; and off LA. Of these four, have image(s) to underpin the listings. The composite figure **below** is adapted from <<u>http://www.jaxshells.org/smooth8.htm</u>>:



L to R (not to scale) all Fargoa acutidens. NC: Ft. Fischer, Kure Beach. 2 mm; SC: Hilton Head. 2.2mm; FL: Kice Is., Collier Co. 2.19mm; FL: New Port Richie, Pasco Co. 3.0mm.

Note the variation in columellar callus (affecting prominence of the denticle and concealment of the umbilicus) as well as whorl count and spire angle, and sutural impression. Such a morphological spectrum is no less manifest in the probable congener F. bartschi¹ (Robertson, 1996: 13, figs 1-5). In further support of the NC record, at least in latitude, is USNM 92796 [loc. cit. above], a specimen collected by the USS Albatross off Cape Hatteras in 1885 and almost certainly identified by W.H. Dall himself.



Shells like these have not turned up in our 2000+ hr. search of the Pinecrest beds of The Tamiami Formation in Sarasota Co. (ca. 3 mya), but the somewhat younger Nashua Formation exposed SE of Orlando has yielded these specimens. This morph (2.04mm L; > 1.87mm R) has blunt axial ribs, which become progressively more conspicuous as the shell advances. That character and the straighter profile of the body whorl are consistent enough to indicate that it is a different species. Nonetheless, it is likely ancestral to the topical taxon and an indication the stock was in FL a million years ago.



Concluding this inquiry, I think it quite likely Fargoa acutidens (Dall, 1884) is a senior synonym of F. gibbosa (Bush, 1909), a protean pyram occurring along the entire U.S. Atlantic seaboard and essentially throughout the Gulf of Mexico, and it's not exactly a newcomer to our fauna.

Acknowledgements:

Thanks are due to Rick Edwards, Dr. Ann Heatherington, David Kirsh, Roger Portell, Amy Tripp, and the late Bill Frank for material and technical support. Without their help, this study wouldn't have been possible

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Robertson, R., 1996. *Fargoa bartschi* (Winkley, 1909): a little known Atlantic and Gulf coast American odostomian (Pyramidellidae) and its generic relationships. *American Malacological Bulletin 13*: 11-21. <<u>https://www.biodiversitylibrary.org/page/45930823</u>>

Rosenberg, G., F. Moretzsohn, and E. F. García. 2009. Gastropoda (Mollusca) of the Gulf of Mexico, Pp. 579–699 in Felder, D.L. and D.K. Camp (eds.), *Gulf of Mexico -Origins, Waters, and Biota. Biodiversity.* Texas A&M University Press, College Station, Texas. <<u>file:///C:/Users/Harry%20Lee/Downloads/33-Rosenbergetal2009-</u><u>GastropodaoftheGoMx.pdf</u>>

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Turbonilla (Pyrgiscus) incisa Bush, 1899; the Incised Turbonille redefined; part 2 (of 2) by Harry G. Lee [continued from the Sept.-Oct. issue, which has all the figures cited below]

There appears to be little doubt that *Turbonilla caroliniana* Holmes, 1859 (p. 86; pl. XIII: figs 9, 9a, 9b) from Cainhoy, Wando River, probably very late Post-Pleistocene (R. E. Petit, personal communication, 12 Jan., 2006) conspecific with *Turbonilla incisa* Bush, 1899 (pp. 156-157; pl. VIII: fig. 12) described from the Recent of west Florida. An image of the holotype of the former (top, left: American Museum of Natural History [AMNH] originally no. 5676; later 11369), produced and provided by Bushra Hussaini and the fine work of Absalão and Pimenta (1999: 80, 86, 90: figs. 18, 19 [SEM]; see preceding page) elucidating a paratype (Academy of Natural Sciences, Philadelphia [ANSP] 372503; holotype missing) of the latter taxon help confirm the synonymy.

Turbonilla caroliniana is seldom mentioned in the literature. The few citations encountered relate to its synonymy. *Chemnitzia reticulata* C. B. Adams, 1850: 75; Clench and Turner, 1950: 337) was considered a possible senior synonym of *Turbonilla caroliniana* Holmes, 1859 by Dall (1892: 260; with a "?"). Later Whitfield and Hovey (1901), Wolfe and Wolfe (1970), Odé & Speers (1972), and Porter (1974) uncritically repeated Dall's observation omitting the question mark. Adams named *C. reticulata* from Jamaica; it was never figured by its author, and its type material was lost according to Clench and Turner (1950). It was described as " ... white ... 26 to 30 transverse [axial] ribs, which become obsolete on the anterior surface, with very coarse distant raised spiral lines, decussating the ribs ... whorls about seven excluding the nucleus, with a well-impressed suture: aperture oval, acute above ...Mean divergence 12 degrees; length of spire 0.09 inch; total length .125 inch; breadth .04 inch." The rib-count is much higher, and the decussate sculpture, smaller size, absence of ribs on the anterior surface of the body whorl are not consistent with *T. caroliniana*. It is quite doubtful the two are synonymous. Furthermore, given the vagueness of the description, we must consider *Chemnitzia reticulata* C.B. Adams, 1850 a *nomen dubium* pending location of type material, which isn't very likely.

This research was stimulated by an inquiry made by Kevin Czaja to the Conch-L Internet list-serve on Jan. 12, 2006. He remarked that the name "*Pyrgiscus caroliniana* [sic] (Tuomey and [sic] Holmes) Carolina Turbonille" appeared in a book dealing with the shells of Martha's Vineyard (Heuer, 1970). Through a series of email ex-

changes, including valuable comments from R. E. Petit (North Myrtle Beach, SC), the proper attribution and generic assignment were accomplished. Reference to Lester Stephens' (1988: 38-39) biography of Holmes, which indicated the AMNH was sold some of the Holmes collection, led to the catalogue record of the holotype (Whit-field and Hovey, 1901: 474-475) and its being identified and photographed by Susan Hewitt and Bushra Hussaini at the AMNH. Now the identity of *Turbonilla caroliniana* Holmes, 1859 appears established, and it is a valid species, probably occurring throughout the Carolinian Province. Its presence on Martha's Vineyard, however, requires confirmation!

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Holmes, F.S., 1858-1860 [published in parts]. *Post-Pleiocene Fossils of South Carolina*. Russell and Jones, Charleston. 1-98 + 14 pls. [R. E. Petit offers a collation of this rare and serial work: Title page (dated 1860); verso: name of printer and engraver. Dedication page; verso: Preface and acknowledgements. [i] - xii – Introduction, [i]-v - Index; v verso: Errata, 1-64, pls. 1-10 - Cover for Nos. 1 & 2 with printed date of 1858. "3, 4 + 5" plus "2 plates to a number" added in pen; 65-98, pls. 11-14 - Cover for "Nos. 6 and 7" with printed date of 1859.] <<u>https://archive.org/details/cu31924004586776/page/n5/mode/2up</u>>

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Wolfe, D. and N. Wolfe, 1970. *Molluscs of North Carolina*. Carteret County Regional Marine Science Project, Beaufort, NC. 69 pp. [not seen].

PS: The description of "*Turbonilla (viridaria* var?) virga n.s.?" Dall (1884: 332), an available nominal taxon, Sounds suspiciously like our species also - but that's another problem for another day. HGL

Addendum and Corrigendum

Your editor limited himself to a mere pair of gaffes in the preceding issue of the *Shell-O-Gram* [63(6)]. Author Bob Fales was kind enough to point out my amputation of the last five references in the bibliography of his paper "Mystery Mollusk: *Rapana rapiformis* (Born, 1778) in Florida." Here they are:

Mann, R. and J.M. Harding. 2000. Invasion of the North American Atlantic coast by a large predatory Asian mollusc. *Biological Invasions* 2: 7-22.

<<u>https://www.researchgate.net/publication/228557260 Invasion of the North American Atlantic Coast b</u> y a Large Predatory Asian Mollusc>

NMHR (Natural History Museum Rotterdam). *Rapana rapiformis* (Born, 1778). <<u>https://specimens.hetnatuurhistorisch.nl/data/?catalogNumber=NMR993000051570&entity=2570125096&t</u> <u>axonKey=4363579</u>> (click on figure to enlarge). Accessed 2022-10-19.

NOBANIS (European Network on Invasive Alien Species). *Rapana venosa* (Valenciennes, 1846) – Veined rapa whelk. <<u>https://www.nobanis.org/marine-identification-key/gastropods/rapana-venosa/</u>>, literature at <<u>https://www.nobanis.org/marine-identification-key/gastropods/literature-on-rapana-venosa/</u>>. Accessed 2022-10-18.

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From Germany, reader Jaap van der Voort wrote [his yellow highlighting]: "Thanks for the latest newsletter. As a European, a Dutch national living in Germany and also an Italy lover and frequent visitor, allow me to draw your attention to a geographical error in your introduction, where you say: 'The main program on November 17 will deal with the gastropods Paul collected while in the service of Uncle Sam and garrisoned at Acitrezza, Sicily. A significant portion of his material originated in the frutti di mare markets in the ancient city, which, along with the more renowned Pompeii, lies within the shadow of Mt. Etna.'

"Mount Etna is indeed the volcano on the island of Sicily, but Pompei (one "i" only) lies within the shadows of the sleeping but even more dangerous volcano Vesuvius, near the city of Naples (Napoli, not Naples in Florida of course). And that's many miles away from Sicily. Have a look at the map."

JSC's 2022 Christmas and shell ID party (cont'd from p. 2)

Mother Nature smiled on us that day indeed with pleasant weather and mild temperatures (for the most part, anyway). Attendance was very good as well, with over fifteen members and guests turning out in total at my house for the shell ID part of the activities. My good shelling friend Barbara Miller came all the way down from Pennsylvania to join us; new JSC member Kathy Kenley came up from the Ft. Myers area; and David and Robin Davies joined us from the Savannah, Georgia area!

Our peerless leader Harry Lee led the shelling ID portion and was ably assisted in that worthwhile endeavor by JSC President Rick Edwards and member Tammy Bailey Myers, who came up from the Ormond Beach area as well as David and Kathy. Other Ormond Beach guests were Lilian Rodriguez and Patrick Sanders. Other attendees were members Doug Plishka, Mary Warren, JSC Secretary Mary Reynolds, and her friends. It was a great turnout and a very spirited session indeed!



Doug really wowed us by all by bringing a huge basket full of large, high quality Kiener's Whelks [**R**] he found on the beaches of north St. Johns County after hurricane Nicole. He generously shared them with all in attendance. Thank you, Doug; they were awesome! Harry also brought treasures to share, some gorgeous finds from the old scallop operation and bycatch dumps of the 1980s. We all came away with someug really wowed us by all by bringing a huge basket full of large, high quality Kiener's Whelks he found on the beaches of north St. Johns County after hurricane Nicole. He generously shared them with all in attendance. Thank you, Doug; they were awesome! Harry also brought treasures to share, some gorgeous finds from the old scallop operation and bycatch dumps of the 1980s. We all came away with some awesome Giant Atlantic Murexes and even some large, paired Lion's Paw Scallops! Thank you so much, Harry!





the only ones in the group who were around for that amazing time) told stories and fondly remembered those heady days when the amazing deep-water shells of a lifetime were coming in by the ton!

We were further surprised and pleased to find that the restaurant had laid down truckloads of fossil shells from the Hastings fossil pit! We had fun poring over local fossils as we waited for our orders. While we were there, a brisk, chilly northeast wind came up and caught us somewhat unprepared, but it could not interfere at all with our enjoyment of the awesome food we were served. All in all, it was a superb get together - and one which we will reprise very soon. I'm sure we will be going back to the same venue as the food was to die for. Stand by for notification of our next JSC shelling ID party and lunch/dinner afterwards!



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