SHELL·O·GRAM
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JACKSONVILLE SHELL CLUB, INC.

Mar.-April, 2020_____Volume 61 (no. 2)

Upcoming meetings

The **March** meeting of the Jacksonville Shell Club (JSC) will be held at the usual place, the Southeast Branch of the Jacksonville Public Library <http://www.yelp.com/biz/jacksonville-public-library-southeast-regional-jacksonville>, on the customary **fourth** Thursday (the **26th**). The specific venue continues to be Function Room D and President Paul Jones will rap the gavel at 7:00 PM. Harry Lee will present the Shell-of-the-Month, *Orectospira babelica* (Dall, 1905) holotype on **L** [image courtesy of the US National Museum]. The original monotype of *Orectospira* Dall, 1925, it is a 1½ inch deepwater Japonic marine snail with a somewhat murky systematic placement. Rick & Roz Edwards are just back from a Caribbean cruise COVID-19-free and able to share their shelling experiences with the rest of us. They were able to go ashore in Labadee, Haiti; St. Thomas (US Virgin Is.); and St. Maarten/Martin, where Rick was able to assemble an impressive collection of beach-collected shells. Many of the species he collected cannot be found in NE Florida, so be prepared for some Antillean novelties.

Our second spring meeting of the year will be on Thursday **April 23** at the same time and place. We'll first hear from Paul Jones, who has selected *Asaphis deflorata* (Linnaeus, 1758) on the **R** [credit Femorale Shells] as his Shell-of-the-Month. As with many of the shells Rick presented in March, this 2-3 inch variably-colored clam is found only south of us on the Florida coast and points beyond. Paul has been an outspoken proponent of bivalve collecting, and he intends to show us why. Harry Lee will present a discussion of the valid species proposed in 1786 by Rev. John Lightfoot. The topical publication, an auction catalogue of curios left behind by the late Dutchess of Portland (U.K.). has a long and somewhat tortured history in the annals on molluscan taxonomy and nomenclature. There is a general consensus as to the validity of 53 nominal species in this publication, but a couple more, with more contentious standing, will receive fuller treatment by Harry.

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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.

Addendum/Corrigendum

In the last issue, *Shell-O-Gram 61*(1), your editor failed to acknowledge that no less than five images put to use therein were taken from the scrapbooks that our late Historian, Gertrude Moller, maintained for decades beginning with the earliest days of the Jacksonville Shell Club. Their use was greatly facilitated by Gertrude's son, Eric, who converted the contents of all seven binders to digital format and provided the club with a complete copy. The hardcopy versions repose with the editor-in-chief as well. Eric's initiative has helped ensure this extensive and valuable archive will be accessible far into futurity.

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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Karstic and stygobiont microsnails from Indo-China (compliments of Simon Aiken)

Family Gastrocoptidae

Acinolaemus rectus Vermeulen, Luu, Theary & Anker, 2019 (1.9mm). Embedded in dried mud deep in a cave system, Phnom Kbal Romeas, Kampot Province, Cambodia.

Boysidia paviei Bavay & Dautzenberg, 1912 (1.8mm). Collected in loose soil in crevice of limestone rocks, on steep hillside above hot water spring, 19km N of Kasi, Vientiane Province, Laos.

Clostophis sp. nov. (1.2mm). In dry soil on rock at foot of limestone hill, 2km N of Gnommalath, Khammouane Province, Laos.

Angustopila sp. (1.0mm). In dry soil in cave, Tham Poukham, 1.3km from Naka, Vientiane Province, Laos.

Family Ellobiidae

Carychium thailandicum Burch & Panha, 1998 (1.6mm). Collected in soil near a spring, in rocky area on steep limestone hillside, above Ban Nadom, Xiangkhouang Province, Laos.

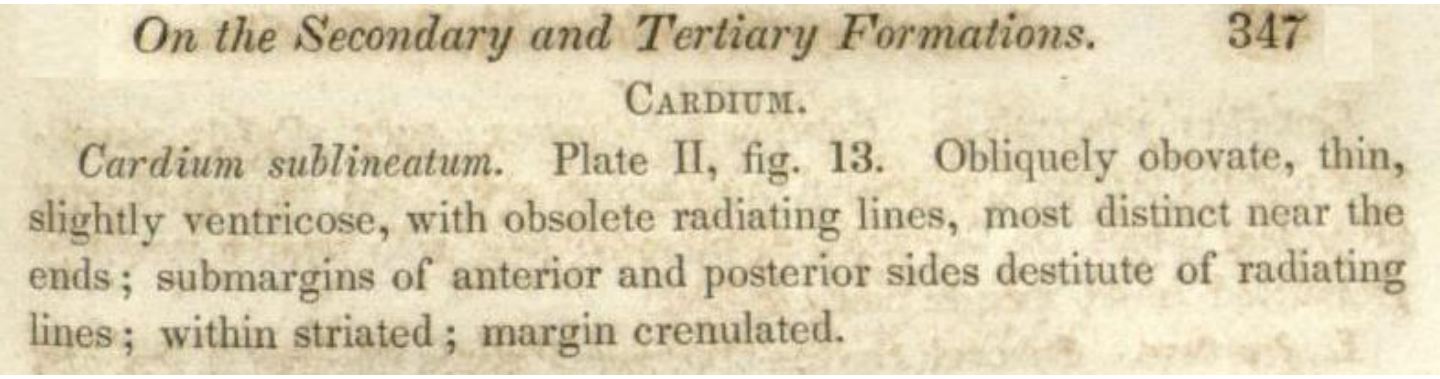
Family Assimineidae

Acmella cyrtoglyphe Vermeulen, Liew & Schilthuizen, 2015 (1.1mm). Embedded in dried mud deep in a cave system, Phnom Kbal Romeas, Kampot Province, Cambodia.

The above snails were collected by Simon Aiken (simonaiken@btinternet.com) in July 2019. Simon has many more photographs of microsnails on his website (www.simons-specimen-shells.co.uk).

Laevicardium pristis (Bory de St. Vincent, 1827) part 2. A synonym?

Recently I ([Lee] , 2020) reported on the identity of the largest eggcockle in our NE Florida (as well as all W. Atlantic) waters, which was described in detail by Lee (2009) under the misnomer *L. oviputamen* (Reeve, 1844). The basis for this revision was the work of Hylleberg (2004a: 91; 2004b: 711, 885), whose work I had overlooked, and who took and published photographs of the holotype of *Cardium pristis* at the Paris Museum (MNHN), which **very** closely resembles our species. Hylleberg (2004b: 711) treated three species as synonyms of *C. pristis*: *C. sublineatum* Conrad, 1841, *C. glabrum* Romer, 1869, *C. multilineatum* Dall & Simpson, 1901. Since the first of these also occurs in our jurisdiction (e.g., exposures of Plio-Pleistocene sediments in the Nashua Formation, St. Johns Co.), evolutionary implications are rather compelling, so let's examine the two taxa. Here is the original description:

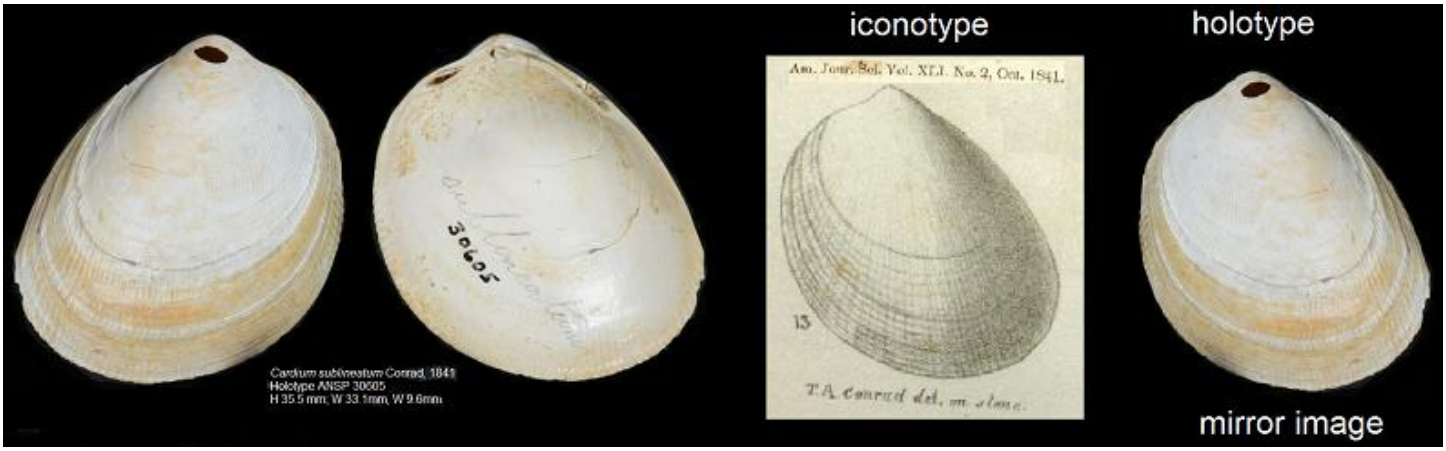


On the Secondary and Tertiary Formations. 347

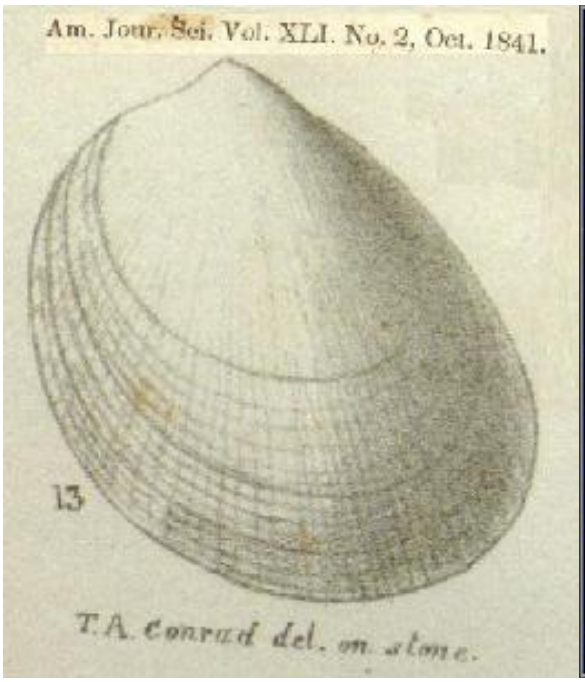
CARDIUM.

Cardium sublineatum. Plate II, fig. 13. Obliquely obovate, thin, slightly ventricose, with obsolete radiating lines, most distinct near the ends; submargins of anterior and posterior sides destitute of radiating lines; within striated; margin crenulated.

On my request Katy Estes-Smargiassi, Collections Manager at the Academy of Natural Sciences in Philadelphia, kindly and ably photographed ANSP 30605, a solitary 35.5 mm high R valve, the holotype of Conrad's *Cardium sublineatum* (**below**: two images on **L**). Although Conrad (1841: pl. 2, fig. 13; **inset** below) illustrated only the exterior of a L valve, a specimen for which there is no account, I have mirrored Katy's image of the holotype exterior and placed it on the **R**. There can be little doubt that only one species is involved.



There are over a dozen lots of *Laevicardium sublineatum* at the Florida Museum of Natural History (FLMNH), and those shells deviate very little from the holotype in their morphology. This species is smaller, less ventricose, flatter, and has much less tumid umbones than our *L. pristis*. The iconotype of the former and a 65 mm pair of the latter are shown in juxtaposition on the next page.



Iconotype of *Laevicardium sublineatum* (35.5 mm) **L** and a 65 mm *L. pristis* **R** from scallop bycatch of scallop trawl 100 ft., 30 mi E Mayport, FL.

Thus it appears that Hylleberg erred in his synonymy, the Conrad eggcockle is probably extinct, and we'd be wise to look elsewhere for an ancestor of our giant Carolinian eggcockle, *L. pristis*. Stay tuned for part 3 of this ongoing *Shell-O-Gram* chronicle, in which we seek out a forebear.

Conrad, T.A., 1841. Appendix to Mr. Hodge's paper describing the new shells, &c. [Observations on the Secondary and Tertiary formations of the southern Atlantic states., by James T. Hodge]. *American Journal of Science 41*(2): 344-348, plate 2. <https://biodiversitylibrary.org/page/15987631> [Wilmington, NC]
Hylleberg, J., 2004a. A Lexical Approach to the Cardiacea Records, Annotated and Illustrated 1. *Phuket Marine Biological Center Special Publication 29*. [i]-ii + [1]-352. Jan.
Hylleberg, J., 2004b. A Lexical Approach to the Cardiacea Records, Annotated and Illustrated 3. *Phuket Marine Biological Center Special Publication 30*. [i] + 645-939. June.
Lee, H.G., 2009. *Marine shells of northeast Florida.* Jacksonville Shell Club, Jacksonville, FL. Pp. (1)-204 incl. numerous text figs. + 19 color pls. 28 May. Checklist of treated species at Marine Shells Of Northeast Florida.
[Lee, H.G.], 2020. New light shed on the big Carolinian eggcockle. *Shell-O-Gram 61*(1): 6. Jan.

APPENDIX: Stratigraphic range of *Laevicardium sublineatum* from FLMNH records and literature:

Recent
- None

Early Pleistocene
- Bear Bluff Formation (SC)
- Caloosahatchee Formation (S. FL)
- Nashua Formation (N. FL)
- Waccamaw Formation (SC, NC)

Late Pliocene
- Duplin Formation (NC)
- Duplin / Raysor formations (GA)
- Raysor Formation (SC)
- Tamiami Formation (Pinecrest Beds) (S. FL)
- Yorktown Formation (VA)

Early Pliocene
- Goose Creek Limestone (GA)

Rarest of the Western Atlantic Volutes found and named by JSC member

Paratype USNM 1138068, height: 34.9 mm, width: 12.7 mm; Holotype USNM 1138067, height: 37.9 mm, width: 14.3 mm

During the lunch break at last month's FUM (Florida United Malacologists) meeting at the Bailey-Matthews National Shell Museum, I learned from Dr. Anton Oleinik that a former Florida International University student of his, one **Billy Aley IV**, helped find and name ***Scaphella biminiensis* Oleinik, Petuch, & Aley, 2012**, a distant cousin of the Junonia dredged deep off the W flank of Bimini Bank, Bahamas. As his grandmother Billie Brown, an ex-president, Billy has been a member of the Jacksonville Shell Club (JSC), for decades, but this seminal accomplishment was news to me. This species clearly qualifies as one of the rarest and most coveted of all marine shells, and is at the head of that list for western Atlantic waters. An equally rare but less spectacular triviid, *Hesperato pallida* Oleinik, Petuch, & Aley was taken and named with the volute. Billy, JSC is very proud of you!

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.

Did you know?

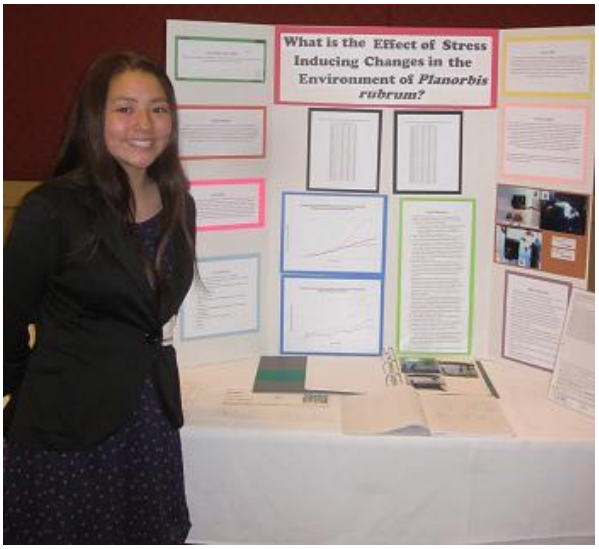
The *Shell-O-Gram* is cited no less than eleven times in the authoritative biographical compendium *2400 years of Malacology* by Eugene V. Coan & Alan R. Kabat, which is posted at <https://ams.wildapricot.org/2400-Years-of-Malacology>.

Northeast Florida Regional Science & Engineering Fair (NFRSEF) Special Award Winners

NFRSEF is a not-for-profit organization dedicated of promoting and conducting an annual science and engineering fair for interested sixth through twelfth grade students in Duval and Flagler Counties for the purpose of promoting, encouraging, and supporting students , laymen, and the general public in matters of scientific and engineering endeavors. Its goal is to promote the lifelong skills of critical thinking, problem solving, data analysis, communication, and public speaking.

On Monday, February 9 your editorial staff met up at a new NEFRSEF venue, the Florida Blue Conference Center at the Deerwood Campus for a complimentary lunch preceding the special judging scheduled for 1:00 – 4:00 PM. As with decades past, the Jacksonville Shell Club (JSC) was one of the entities, now numbering 35, participating in "special awards." These prizes totaled nearly $4000.00 this year.

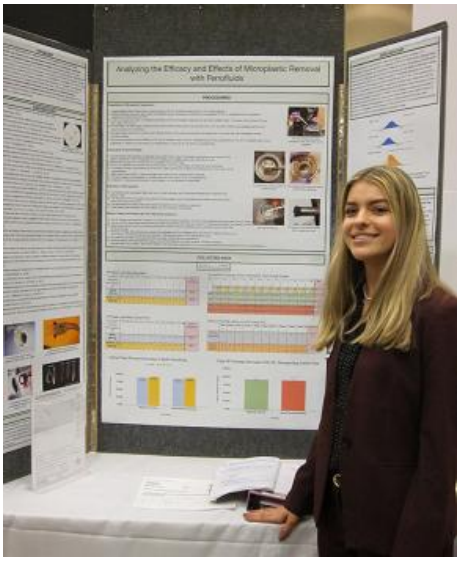
There were 179 (co-)exhibitors from 24 schools entered in ten categories in each of two divisions, Junior (grades six through eight) and Senior (nine thro 12). The JSC Award criteria, "Best treatment of a problem involving mollusks, invertebrate zoology, or marine science," are sufficiently broad to oblige us to at least scan every one of the over 150 presentations through all categories. Consequently we almost exhausted the three hours allowance afforded us for the judging exercise. Despite significant competition, two winners emerged.



We selected **Sara Baker** as our **Junior Division Winner**. Sara, now an eighth grader at James Weldon Johnson Middle School, reprised her winning effort of last year with an extension of her work on the freshwater snail known as *Planorbis rubrum* [sic][1] in the aquarium trade. Contrary to her null hypothesis, her snails thrived as measured by locomotion, growth and fecundity compared to a control group whose aquaria were not perturbed by frequent periodic bursts of gross vibration. Aside from the scientific aspects of the work, we were impressed by her technical skills; there was no mortality in any of her snail cultures over the several weeks that the experiment ran. Mrs. Jeanne Murphy was Sara's new faculty advisor for this cycle. Sara was awarded our check for $50.00 two days later at the Awards Ceremony. (cont'd.)

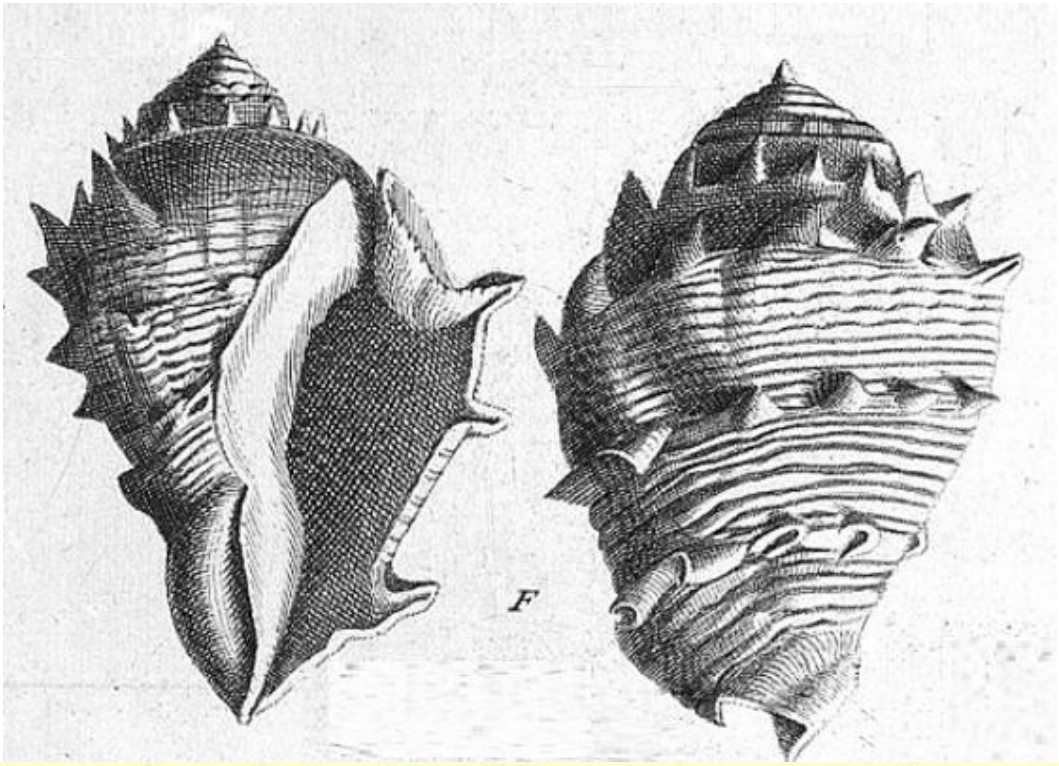
[1] This binominal construct, which is a linguistic malapropism, seems to have its origin in the red pigmentation of the snail's body, due to hemoglobin, the normal oxygen-carrying pigment in the Planorbidae, which is quite apparent due to the (abnormal, mutant) lack of melanin in the soft tissues. The actual identity of the species is unclear, but it may be *Biomphalaria glabrata* (Say, 1818) <http://www.jaxshells.org/bh115.htm>. In any event, the specific adjectival epithet *ruber, rubra, rubrum* does not appear to have been made nomenclatorially available in combination with any planorbid genus in the formal taxonomic literature; see <http://www.marinespecies.org/aphia.php?p=taxdetails&id=182692>. The topic snail was also employed in the work of 2017 JSC Senior division winner (*Shell-O-Gram 58*(2) <http://jaxshells.org/pdfs/marapr17.pdf>, Alice Baker, who is Sara's older sister.

Science Fair, cont'd



Our winner in the **Senior Division** was **Miranda Doro**, who is a sophomore at Episcopal High School and was advised by Mrs. Marion Zeiner, herself a veteran member of the NEFRSEF administration. Miranda's project addressed the removal of plastic microparticles from suspension in aqueous media using ferrofluids. A few concoctions were compared according to a carefully planned protocol. What impressed us the most was Miranda's demonstration that there was no need to apply a magnetic field to the experimental mixtures in order to succeed in the particle removal. At least one other project applied such a field as a standard procedure with such purification systems. Miranda's careful application of experimental controls seems to have called the necessity of that component of the process into question. Microplastics play a major role in the health of marine ecosystems, particularly impacting filter feeders such as bivalve mollusks. Miranda received a $75.00 JSC check.

Volema calcaratum ([Lightfoot], 1786) – a valid species? [teaser for April JSC meeting]



2961 A large and very fine variety of Buccinum calcaratum, S. Gualt. 31. F. rare

Gualtieri, N., 1742. *Index testarum* ….. <https://biodiversitylibrary.org/page/53631132> [sole indication]
[Lightfoot, J.], 1786. *"Portland Catalogue"* <https://biodiversitylibrary.org/page/43260590> [description]

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