SHELL·O·GRAM
Official Publication of the
JACKSONVILLE SHELL CLUB, INC.

Nov.-Dec., 2019 Volume 60 (no. 6)

Upcoming meetings

The **November** 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 **third** Thursday (the **21st**) - Thanksgiving pre-empting our customary fourth Thurday as it has for over five decades. The venue continues to be Function Room D and gavel time 7:00 PM. David Davies will present the shell-of-the-month, *Donax variabilis* Say, 1822, from Texas (**R**). Although he dealt with the topic earlier, he intends to wrap up some previously uncovereded aspects of this coquina's biology.

For many years the Texas populations were considered a subspecies, *Donax v. roemeri* Philippi, 1849, isolated from its parent taxon by the Mississippi estuary - Say's subspecies being found in the eastern Gulf and from mid-Florida to VA on the Atlantic seaboard (including local beaches; (**L**). This position was supported with conchological evidence in an exhaustive monograph (Morrison, 1971). However, molecular geneticists, e.g. Adamkewicz & Harasewych (1994, 1996), found no evidence in support of this dichotomy. As I write this copy, I see that the World Registry of Marine Species (WoRMS: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=156776>) follows the latter analysis. Maybe members can bring in specimens from both areas as we did with E/W Florida Pear Whelks a few months back, and we can see for ourselves if there is at least a consistent difference in the shells of these two coquinas.

Harry Lee will present the program, which will be a look at some of the shallow water mollusk fauna of the Cedar Keys area. Focus will be on the smallest species, some of which represent range extensions and new taxa. SEM imaging allows us to better appreciate these novel shells – not to mention some of the more familar ones. On the **R** is a 1.78mm shell of *Besla arnoldoi* (De Jong & Coomans, 1988), an unusual species of Turbonille. A few of these were taken on May 24 this year.

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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.

Christmas shelling event

On Saturday, December 7 Paul Jones will host a unique event: a shell collection rehab clinic. Paul has taken over late JSC member Jim Knight's shell collection, which is in need of cleaning, recuration, and some moving of labels and/or reidentification. We'll meet at Paul's home, 3609 Crazy Horse Trail, St. Augustine, Florida 32086 at 11:00 AM. From Jacksonville, take I 95 S to Exit 311 (SR 207); go E on 207 (toward St. Aug.) for about two miles, then turn R at the first stoplight you come to (Wildwood Drive). Follow Wildwood Drive for about a mile to a mile and a half, then look for the Prairie Creek subdivision sign on the left hand side of the road. Turn into Prairie Creek, and, after stopping at the guard house, proceed thru the gate and up the hill, past the tennis courts, and take the first R - Crazy Horse Trail. Paul's house is the third house on the R, first driveway past the speed bump. Phone number: (904) 347-7254. After two or three hours of rehab, we'll adjourn to South Beach Grill, 45 Cubbedge Road, Crescent Beach, FL 32080 for a Christmas season feast.

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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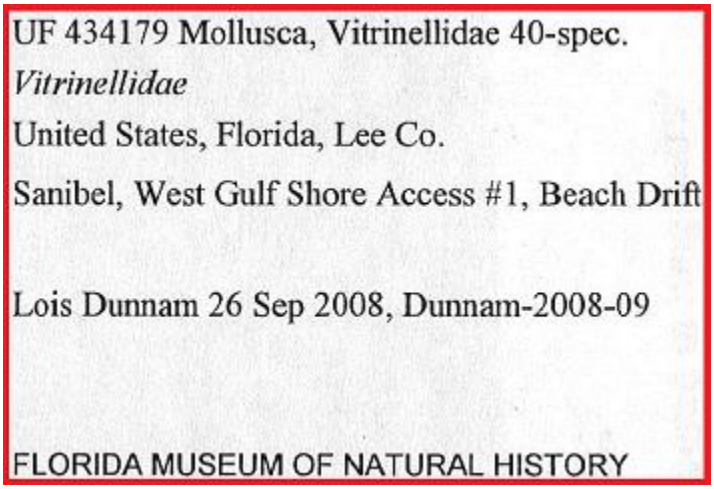
What is a "mixed lot" in curatorial lingo?

by Harry G. Lee


UF 434179 Mollusca, Vitrinellidae 40-spec.
Vitrinellidae
United States, Florida, Lee Co.
Sanibel, West Gulf Shore Access #1, Beach Drift

Lois Dunnam 26 Sep 2008, Dunnam-2008-09

FLORIDA MUSEUM OF NATURAL HISTORY

Identification of micromollusks is quite often a challenge. Not only are their shell features often essentially invisible to the naked eye, the literature dealing with their taxonomy is scattered and sometimes wanting.

The late Lois Dunham was a dedicated collector of microshells on Sanibel beaches, and much of her collection was donated to the Bailey-Matthews National Shell Museum and the Florida Museum of Natural History (FLMNH; UF, Gainesville; see label on **L**). Just three years after Lois collected the assortment of vitrinellid shells and lumped them together in her collection, an epic monograph illuminated with countless scanning electronmicrographs (Rubio, Fernàndez-Garcés, & Rolàn, 2011), demystifed the Florida-Caribbean members of this group (now subordinate to the Tornidae Sacco, 1896) to the point that species-level identification was made quite possible. Given enough time, nowadays microshell enthusiasts need not throw up their hands in frustration as I believe Lois was forced to do. With considerable reliance on Rubio *et al.*, I present an analysis of the contents of UF 434179:

1.	**Trochidae**	*Lissospira* species	n=4
2.	**Tornidae**	*Anticlimax pilsbryi* (McGinty, 1945)	n=1
3.	Tornidae	*Cyclostremiscus pentagonus* (Gabb, 1873)	n=18
4.	Tornidae	*Episcynia inornata* (d'Orbigny, 1842)*	n=3
5.	Tornidae	*Parviturboides interruptus* (C.B. Adams, 1850)	n=6
6.	Tornidae	*Solariorbis blakei* (Rehder, 1944)	n=4
7.	Tornidae	*Solariorbis infracarinatus* (Gabb, 1881)	n=6
8.	Tornidae	*Solariorbis terminalis* Pilsbry & McGinty, 1946	n=23
9.	Tornidae	*Teinostoma biscaynense* Pilsbry & McGinty, 1945	n=83
10.	Tornidae	*Teinostoma incertum* Pilsbry & McGinty, 1945	n=3
11.	Tornidae	*Teinostoma lerema* Pilsbry & McGinty, 1945	n=12
12.	Tornidae	*Teinostoma reclusum* (Dall, 1889)	n=1
13.	**Naticidae**	*Tectonatica pusilla* (Say, 1822)	n=1
14.	**Pyramidellidae**	*Cyclostremella humilis* Bush, 1897	n= 4

Totals: 169 specimens of 14 species in nine genera over four families belonging to two orders.

Thus we have 14 lots from one – an example, perhaps hyperbolic, of a "**mixed lot**." The solution to this situation is to add 13 new lots to the FLMNH collection. I'm not sure of the exact procedure, but I believe one, perhaps selected at random, or by no. of specimens (*Teinostoma biscaynense*), will remain as UF 434179. Posterity applauds Lois and FLMNH for preserving this shell olio so science could catch up and parse it into more specific, useful entities. Morals: (1) Museums matter! (2) Don't toss unidentifiable shells with metadata!

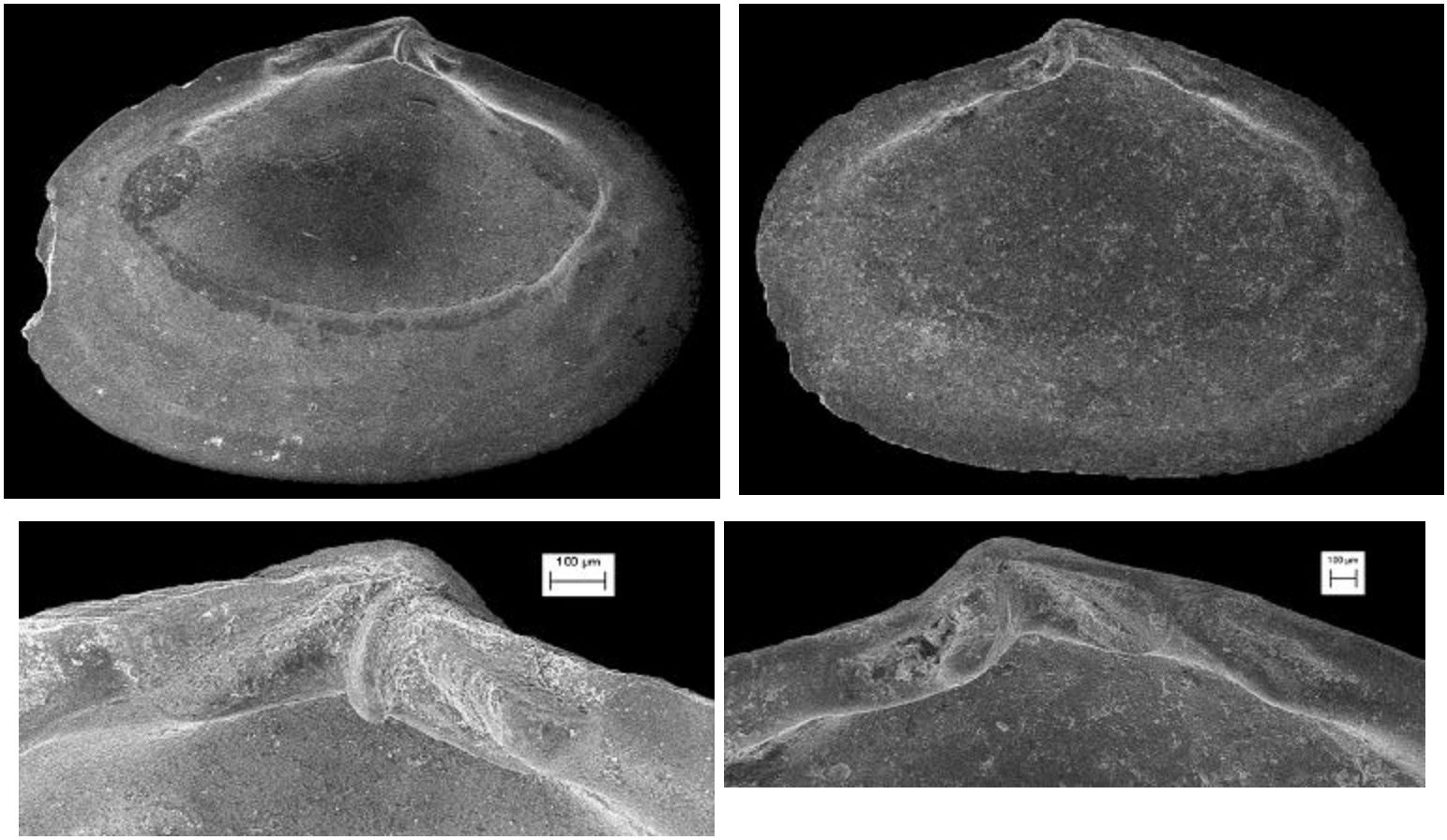
Rubio, F., R. Fernández-Garcés, and E. Rolán, 2011. The family Tornidae (Gastropoda, Rissooidea) in the Caribbean and neighboring areas. *Iberus 29*(2): vii + 1-230. December.

* Look for a discussion of the systematic placement of this odd species in an upcoming *Shell-O-Gram*.

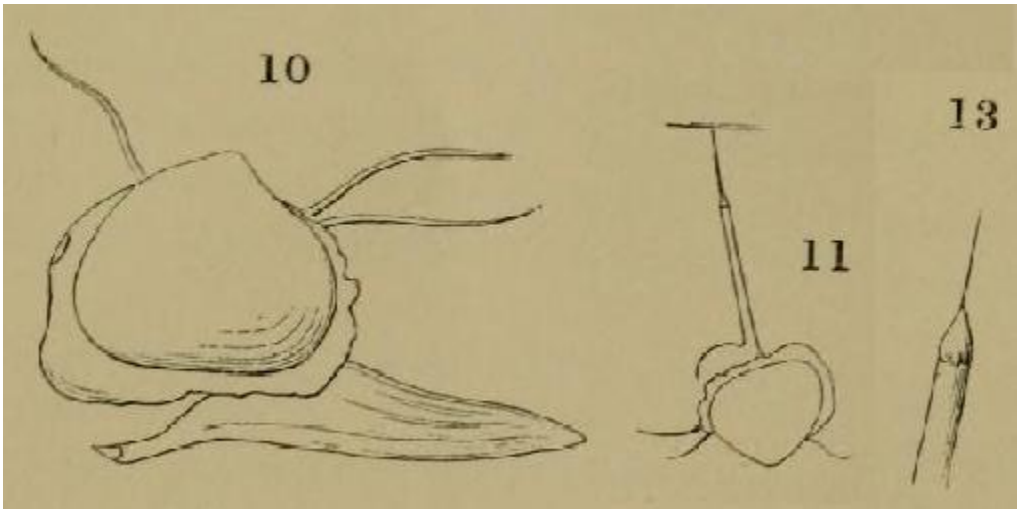
Ceratobornia longipes (Stimpson, 1855), a born again LWC

by Harry G. Lee

To my knowledge, the inside of this little white clam (LWC) has not been depicted in a scientific publication. Five apparently juvenile valves of this species were found in the sediment taken about a fathom deep W & SW of Atsena Otie Key, Cedar Keys, Levy Co., Florida on May 24, 2019 by Jacksonville Shell Club (JSC) members Paul Jones, Rick Edwards, and me. Fortunately, both left (L; 4.58mm) and right (R; 6.13mm) valves were included in the catch and two can be depicted below.



Originally dubbed *Lepton longipes* by William Stimpson (1855: 111-112), living examples of this little white clam were described in detail by him. It lives in burrows made by marine worms and crustaceans and appears to behave more like a snail than a clam (**L**). The specific epithet refers to the remarkably long foot, which accounts for its considerable motility. It is also able to extend a gelatinous byssal thread from a gland



positioned in the back of the foot, like a stiletto high heel, which allows the clam attach to hard substrate quite swiftly and firmly.

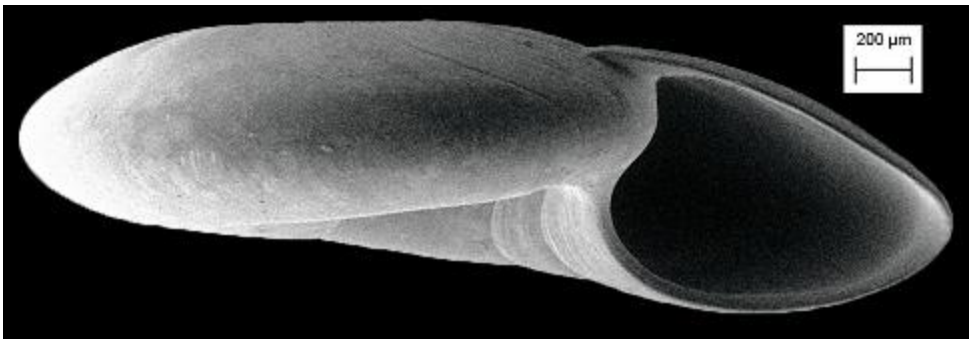
William Dall (1899: 888, 889 < https://biodiversitylibrary.org/page/15717007>) moved the species from *Lepton* Turtn, 1822 to *Bornia* Philippi, 1836 and created a new subgenus *Bornia* (*Ceratobornia*) to accommodate it alone. The added prefix of the generic epithet derives from the horn-like byssal gland, which is not found in the genus *Bornia* (or *Lepton* for that matter). The figure on the previous page was published by Dall (1899: pl. 88), but it closely conforms to Stimpson's 1855 description.

Abbott (1974: 469) Rosenberg (2009) limit the species to the Carolinas, and Huber (2015: 510), although not illustrating the shell, supported elevation of *Ceratobornia* to full generic rank and removal from the European genus *Bornia*, to which it is only remotely related. Hence the "born again" reference in the title above.

The next (Christmas) JSC field trip to the Cedar Keys may allow us to collect and observe adult specimens of this LWC allowing confirmation that these more elongate valves are in fact what I say they are.

Acknowledgements: Dr. Ann Heatherington, Dept. of Geology, University of Florida, provided major assistance with the SEM's presented above and below, and Bill Frank did likewise with image-editing.

Abbott, R.T., 1974. *American Seashells, 2nd ed.* Van Nostrand Reinhold, New York. [viii] + 663 pp. + 24 pls.
Dall, W.H., 1899. Synopsis of the Recent and Tertiary Leptonacea of North America and the West Indies. *Proceedings of the United States National Museum 21*: 873-897 + pls. 87-88. <https://biodiversitylibrary.org/page/15716992>
Huber, M., 2015. Compendium of Bivalves 2. A Full-Color Guide to the Remaining Seven Families. A Systematic Listing of 8'500 Bivalve Species and 10'500 Synonyms. ConchBooks, Hackenheim, Germany. 907 pp., incl. numerous color figs + CD-ROM. May.
Kurtz, J.D., 1860. *Catalogue of Recent marine shells, found on the coasts of North and South Carolina*. Published privately & printed by David Tucker, Portland, ME. (1)-9. <https://biodiversitylibrary.org/page/44194910>
Rosenberg, G., 2009. *Malacolog 4.1.1: A Database of Western Atlantic Marine Mollusca.* [WWW database (version 4.1.1)] <http://www.malacolog.org/>.
Stimpson, W., 1855. On some remarkable marine invertebrates inhabiting the shores of South Carolina. *Proceedings of the Boston Society of Natural History 5*: 110-117. Feb. <https://biodiversitylibrary.org/page/8871248> [Read by Dr. A.A. Gould on Dec. 6, 1854]



Cochliolepis parasitica Stimpson, 1858 (3.35 mm) with attributes similar to the LWC's above: collected with them; named from Charleston, SC; and known to inhabit invertebrate burrows in shallow water.

The Exquisite Paper Nautilus, *Argonauta argo* Linnaeus, 1758

by Anne DuPont

Walking along the beach, the most coveted "shell" (egg case) to find, to me, is the Paper Nautilus ***Argonauta argo.***

These photos were taken by Ron Lusk in Palm Beach County, Fl. Ron is a member of The Broward Shell Club, and I was happy for him but GREEN with envy!

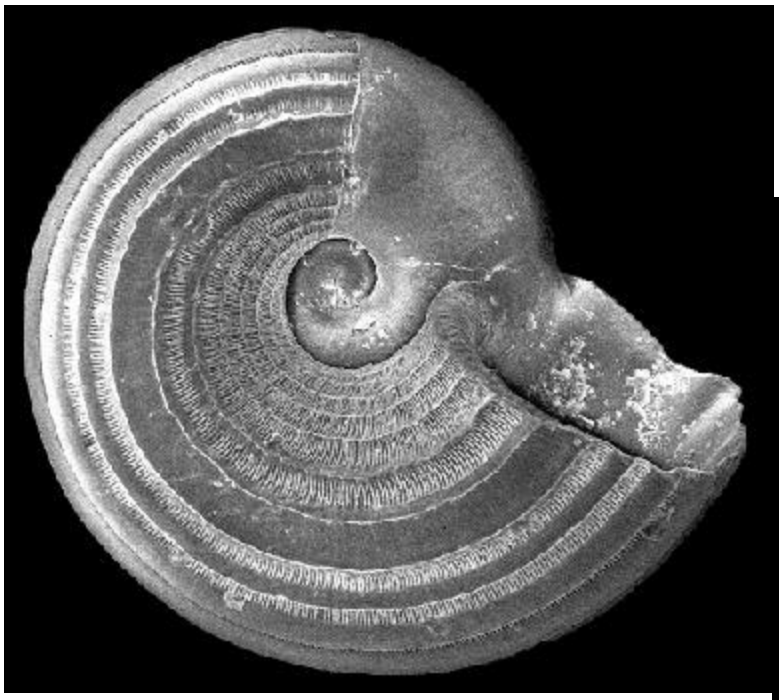
The **argonauts** (genus ***Argonauta***, the only extant genus in the family Argonautidae) are a group of pelagic octopuses. They are also called **Paper Nautiluses**, referring to the paper-thin eggcase that females secrete. This structure lacks the gas-filled chambers present in chambered nautilus shells and is not a true cephalopod shell but rather an evolutionary innovation unique to the genus *Argonauta*. It is used as a brood chamber and for trapped surface air to maintain buoyancy (Wikipedia).

Argonauts spend their whole lives drifting in the open oceans and migrate vertically at night to feed.

Argonauta argo photographed on a black water dive approximately five miles off the coast of Southeast Florida by Linda Ianniello. A black water dive is a drift dive in an area with substantial current, e.g., the Gulf Stream, at night. In Palm Beach Co., FL it is approximately 500-700 feet deep, but the divers generally stay in the top 40 feet. (from the book *BlackWater Creatures* by Linda Ianniello & Susan Mears)

[cont'd]

Scientific classification
Kingdom: Animalia
Phylum: Mollusca
Class: Cephalopoda
Order: Octopoda
Family: Argonautidae Tryon, 1879
Genus: *Argonauta* Linnaeus, 1758
Species: *Argonauta argo* Linnaeus, 1758
Type species (original monotypy).



Apropos of the discussion of shell morphology changing with growth at the end of the *Ceratobornia longipes* article (pp. 4-5), note the differences in the umbilicus and ultrasculpture of *Solariorbis blakei* (Rehder, 1944) a Cedar Key tornid collected with the topical LWC. Purposely not presented in scale, he 0.45 mm baby (**L; above**) would theoretically metamorphose into the 1.64 mm adult (**R**). This phenomenon is termed allometric growth, and is widely manifest in living forms, including *Homo sapiens*. Nonetheless, I think you'll agree it might confuse conchologists.

From all of us at the *Shell-O-Gram*:

HAPPY

AND


MERRY
Christmas
& HAPPY NEW YEAR
designed by freepik.com

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