SHELL·O·GRAM

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Our next meeting will be on Thursday, January 24, 2013 at the usual time and place (Southeast Branch Public Library, 7:00 PM). After some 14 mos. from its initiation, Brian Marshall will be providing part two of a slide show presentation of shells from Okinawa. Some photos were taken of the shells completely *au naturel*. We'll have some fun with it and see if we can name all these shells, of which some are hiding behind their mantles, perio- and various growths. Brian says he looks forward to seeing all who attend and hopes you will all enjoy the photographs of these beautiful gems of the Indo-West Pacific. Another erstwhile Okinawan, Rick Edwards, will present the shell-of-the-month, a surprise from that island group, the Ryukus.

At the usual time and place on February 28 we'll hear from Charlotte Thorpe, who'll give us an update on collecting the Pacific coast of Panamá. Along with the more popular and showy species, she plans to give us a taste of some of the micromollusks, including the macaroni snails (Caecidae), which constitute a large share of the tiniest infaunal mollusks. The shell-of-the-month will be a Jax species of this family, *Caecum donmoorei*, to be reported by Harry Lee.

Christmas Party held at Charlotte & Frank's Home on Dec. 12th. Twenty-two members attended.

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This club meets each month at the Southeast Branch of the Jacksonville Public Library, 10599 Deerwood Park Blvd,, Jacksonville, Florida. Please address any correspondence to the club's address above. The *Shell-O-Gram* is issued bimonthly and mailed to all regular members. Annual membership dues are $15.00 individual and $20.00 family (domestic) and $25.00 (foreign). Lifetime membership is available. Please send checks for dues to the above address and made out to the Jacksonville Shell Club. We encourage members to submit articles for this publication. Closing date for article submission is two weeks prior to the first of each month of publication. Articles may be republished provided full credit is given the author and this newsletter and one copy of the complete publication in which the article appears.

President's Message:

We ended 2012 with our annual trip to Cedar Key. Attendee's included myself, Anton Heath, Harry G.Lee, Charlotte Thorpe and Frank Thorpe. The main attraction was a ride out to West Bank in search of anything new and unusual. Harry focused attention straining within the shallow water seagrasses in pursuit of dovesnails. He triumphed in this endeavor by obtaining four species alive, of which one specimen was that of an un-named *Costoanachis* species wrapped in a full coat of periostracum. While joining Harry in his efforts, Anton Heath and I added a species of *Calliostoma* to our collection of which we had not previously collected. Charlotte and Frank Thorpe walked a significant portion of the bank and found a very large *Neverita delessertiana*. Cedar Key proved once again to provide something new and unusual for everyone. As we enter into the new year we will begin our efforts in preparing for our annual Jacksonville Shell Show. As well, we have some great programs in the upcoming meetings involving underwater photography. I look forward to another great year with the Jacksonville Shell Club." Brian Marshall

JACKSONVILLE SHELL CLUB DISPLAY AT PABLO CREEK REGIONAL LIBRARY

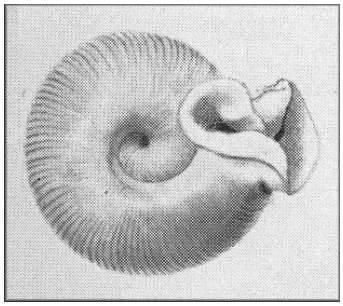
Club member Billie Brown has been placing Shell Club displays at the Pablo Regional Library for the last 5 years. This was a special Christmas design that was placed the 1st of December and will be on exhibit through January. We hope to be able to place a shell exhibit in both the Pablo Creek and Neptune Beach libraries to remind people that our "Annual Shell Show" will be on June 14-16th at the Morocco Temple on St. Johns Bluff Blvd, with FREE ADMISSION FOR ALL.

Photo by Billie Brown

Helix leporina: a *Daedalochila* or a *Lobosculum*?
by Harry G. Lee

Recently I caught myself making an egregious misidentification on a smallish (6.1 mm) land snail taken from a leaf litter sample harvested by Henry McCullagh in eastern Arkansas (see above). I had diagnosed "*Inflectarius inflectus* (Say, 1821) with a conspicuous buttress like a *Stenotrema.*" It took a couple of weeks to sink in that the shell was actually that of *Lobosculum leporinum* (Gould, 1848: 39) Gulf Coast Liptooth. Here is the original description: <H. leporina>, and the first illustration (Binney, 1857: plate 40a, figs. 1) is to the left. Interestingly, Gould considered this species "intermediate between" *Helix hirsuta* Say, 1817 <H. hirsuta>, (fourth column; as *Stenotrema hirsutum*), which has a buttress, the character indicated by the upper arrow (to the right), and *Helix inflecta* (as *Inflectarius*: <H. inflecta>). This was my misdiagnosis at the start.

The unraveling of this confusion exposes us to unusual nomenclatorial and taxonomic situations. Our topical shell clearly has close affinities with *Lobosculum* [Type species (TS): *Helix pustula* Férussac, 1832 (below, left) by the subsequent designation (SD) of Pilsbry, 1930: 319]. Nonetheless, based on its lack of a penial appendage, Emberton (1988) was the first to transfer this species to *Daedalochila* Beck (1837: 21) [TS: *Polygyra auriculata* Say, 1818: 277-278 (lectotype on right) SD Herrmannsen (1847: 369 <Herrmannsen>;], an interesting placement on conchological grounds as the labral lamella lacks the exclusive generic character, the "uvula" of Shuttleworth; see <H. uvulifera descr>). Pilsbry (1940: 607) was aware of the genital deficiency in this species but considered the (absent) feature to be a convergent character and grouped the Férussac taxon with *Lobosculum* rather than *Daedalochila*. Emberton was dedicated to an unbiased cladistic approach and apparently wasn't able to factor in Pilsbry's hypothesis.



Getting a handle on the type species of *Lobosculum* requires an immersion in one of the more Byzantine Nineteenth Century conchological works, that of Andre Étienne Just Pascal Joseph François dAudebard, Baron de Férussac, to whom this species, *Helix pustule*, is aptly attributed. The description consists of (1) the figures (Férussac, 1822: plate 50, figs. 1; *vidi*, but subsequently removed from on-line access) and (2) the plate explanation (Férussac, 1832 *Tome 1*: 78), neither by itself constituting a nomenclatorial action. Many authors, *e.g.*, Pilsbry (*loc. cit*.) mistakenly concluded that the two publications were concurrent and cited 1822 as the date of description for this and many other taxa actually not made available until the latter Férussac publication. Not affecting our species, but impacting lots of others is a similar misunderstanding of the Baron's convoluted work: many of the new taxa he proposed in a related work the preceding year (Férussac, 1821) were incorrectly characterized by Sherborn (1922-1932) as "n[omina]. n[uda]." Sherborn overlooked the fact that most of them were made available when the companion plates, along with those of work involving *H. pustula*, appeared a decade later. Most of the blame for these misinterpretations of the context (Férussac and Deshayes, 1819-1851) can be attributed to the rarity of the work and chronology of its publication (*vide infra* for discussion and collation). That detraction is greatly offset by the generally very well-executed figures, far above the standard of the day. Unfortunately, as with many of the smaller species, those of *H. pustula* are not of the exquisite caliber of the majority, yet the similarity between *H. pustula* Férussac and *H. leporina* Gould is quite evident.

Back to the Twentieth Century … the Gulf Coast Liptooth, the vernacular name provided by Fred Thompson (*in* Turgeon, Quinn, et al., 1998), may prove less mutable than its scientific counterpart. I ask the reader to determine its proper generic placement based on the evidence presented here. Let me be the first to claim my original assignment, *Inflectarius*, [TS *H. inflecta* Say, 1821 on right] out of the running.

Literature cited:

Beck, H., 1837-1838. *Index Molluscorum praesentis aevis Musei Principis Augustissimi Christiani Frederici.* Copenhagen. [1837: pp. 1-100; 1838: pp. 101-124; 1-8].
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Emberton, K.C., 1988. The genitalic, allozymic, and conchological evolution of the eastern North American Triodopsinae (Gastropoda: Pulmonata: Polygyridae). *Malacologia 28*: 159-287.
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Férussac, [A.E.J.P.J.F. d'A.], Baron de, 1821. *Tableaux systématiques des animaux mollusques classés en familles naturelles, dans lesquels on a établi la concordance de la concordance de tous les systèmes; suivis d'un prodrome général pour tous les mollusques terrestres ou fluviatiles, vivants ou fossils. [Premiere Partie Tableaux systématiques généraux de l'embranchemant divisés en familles naturelles] Deuxième partie (premiere section.). Tableaux particuliers des mollusques terrestres et fluviatiles, présentant pour chaque famille les genres et espèces qui la composent.*. Bertrand, Paris. [i]-xlvii + [i] + [3]-27 + [3]-110 + [i]. (cont'd)

<http://www.biodiversitylibrary.org/item/41533#page/9/mode/1up>http://www.biodiversitylibrary.org/item/41533#page/9/mode/1up>
This monograph was intended to be somehow integrated with the author's larger work, Férussac and Deshayes, 1819-1851; *vide infra*.

[a] [b] **Férussac, A.E.J.P.J.F. dA. de and G.-P. Deshayes, 1819-1851.** ***Histoire naturelle générale et particulière des mollusques terrestres et fluviatiles, tant des espèces que l'on trouve aujourd'hui vivantes, que des dépouilles fossiles de celles qui n'existent plus; classés d'après les caractères essentiels que présentent ces animaux et leurs coquilles.*** **J.-B. Bailliere, Paris. Tome 1: 8 + 184 pp [not seen]; Tome 2 (1): 402 p.; Tome 2 (2): 260 + 22 + 16 pp; [c] Atlas 1 (Tome 3): pls. 1- 70; [d] Atlas 2 (Tome 4): pls. 71-166 + pls. 1-5.**

Gould, A.A., 1848. Untitled [Shells collected by Mr. J. Bartlett, in the south-western States, for the late Dr. Binney ...]. ***Proceedings of the Boston Society of Natural History 3*****: 37-41.**
<http://www.biodiversitylibrary.org/item/35741#page/45/mode/1up>

Herrmannsen, A.N., 1846-1847. ***Indicis Generum Malacozoorum Primordia, Nomina subgenerum, generum .... vol. 1*****. Theodor Fischer, Cassell. pp. i-xxvii + 1-637. Sept. 1-July 17 (in 6 parts)**
<http://www.biodiversitylibrary.org/item/40627#page/9/mode/1up>

Pilsbry, H.A., 1930. Anatomy and relationships of some American Helicidae and Polygyridae. ***Proceedings of the Academy of Natural Sciences of Philadelphia 82*****: 303-327 [not seen]**

Pilsbry, H.A., 1940. ***Land Mollusca of North America (north of Mexico) vol. 1 part 2*****. Academy of Natural Sciences, Philadelphia. vi + 575-994 + ix. 1 Aug.**
<http://books.google.com/books?id=YycWAQAAIAAJ&source=gbs_book_other_versions>; search "leporina"

Say, T., 1818. Account of two new genera and several new species, of fresh water and land shells. ***Journal of the Academy of Natural Sciences of Philadelphia 1*****(2): 276-284. July.**
<http://www.biodiversitylibrary.org/item/79416#page/340/mode/1up>

Sherborn, C.D., 1922-32. ***Index animalium sive index nominum quae ab A. D. MDCCLVIII generibus et speciebus animalium imposita sunt. Sectio secunda. A Kalendis Ianuariis, MDCCCI usque ad finem Decembris, MDCCCL.*** **Longsmans, Green, & Co. and British Museum (Natural History), London. cxxxi + 7,056 pp.**
<http://www.sil.si.edu/digitalcollections/indexanimalium/TaxonomicNames/ >

Turgeon, D.D., J.F. Quinn, Jr., A.E. Bogan, E.V. Coan, F.G. Hochberg, W.G. Lyons, P.M. Mikkelsen, R.J. Neves, C.F.E. Roper, G. Rosenberg, B. Roth, A. Scheltema, F.G. Thompson, M. Vecchione, and J.D. Williams, 1998. Common and scientific names of aquatic invertebrates from the United States and Canada: mollusks, 2nd edition. American Fisheries Society, Special Publication 26, Bethesda, Maryland. ix + pp. 1-509 + 16 pls. (unpaginated).

Footnotes:

[a] This work appeared in many livraisons/Lieferungen. In the period 1819-1832, 28 livraisons appeared, consisting of texts and plates, not necessarily connected with each other. Many plate numbers This work appeared in many livraisons/Lieferungen. In the period 1819-1832, 28 livraisons appeared, consisting of texts and plates, not necessarily connected with each other. Many plate numbers appeared twice. Covers usually had no important texts or names printed on them. Explanations of plates 1-47 were published in livraison 9 (6 Apr., 1821), explanation of included plates on the cover in livraison 17 (2 Nov., 1822), explanation of plates on the cover of livraisons 22-27 (4 Aug., 1832 - serious error in Bouchet & Rocroi 2005: 305: "4 August 1823" is a misprint for "4 August 1832") (species were printed in small caps in these lists, with references to corresponding numbers in Prodr. [italics]). When the whole work was finished, a final issue of plate explanations appeared (1851, species names were in normal and bold font, authors not bold, no references to Prodr.). Usually only the final plate explanations were bound, while the initial plate explanations, different from the final ones, were not conserved by librarians (cont'd).

Title, préface pp (i)-xvi (6 Mar., 1819)
pp 1-16 (5 Jun., 1819)
pp 17-56 (10 Jul., 1819)
pp 57-72 (18 Sep., 1819)
pp 73-96 (4 Dec., 1819)
pp 97-128 (17 Jun., 1820)

explanation of plates 1-47 (6 Apr 1821)
explanation of plates 48, 53, 63, 75A, 75B, 113 (2 Nov., 1822)
pp 96a-96[lambda] (27 Sep., 1823)
explanation of plates of livraisons 22-27 (many plates, 4 Aug. 1832)
explanation of plates 8E, 126, 131B, 133, 141, 147 (4 Aug., 1832 ?) (cover not conserved in London but should have existed)
Plates (uncaptioned): 1, 2, 4, 8, 12 (6 Mar., 1819); 3, 5-7, 11, 13 (5 Jun., 1819); 9, 15-17, 19, 23 (18 Sept., 1819); 14, 18, 20, 22, 24, 25 (4 Dec., 1819); 21, 21A, 26-28, 30 (26 Feb., 1820); 29, 30-34, 57 (17 June, 1820); 52, 75, "66"[=76], 91, 92, 103 (5 Aug., 1820); 8A, 39A, 54, 73, 112, 120 (6 Apr., 1821); 32B, "101"[=51B], 63A,114, 115, 159 (26 May, 1821); 11A, 21B, 32A, 35, 39, 44 (13 July, 1821); 36, 38, 46, 81, 108, 118 (21 Sept., 1821); 9A, 37, 40, 41, 43, 62 (10 Nov., 1821); the others by Férussac in 1822 and 1823..
Plates issued by Deshayes:
pl. 8F, 10A, 17A, 28A, 29A, 69C, 73B, 83, 84, 106, 107, 129 (1839)
pl. 10B, 62A, 69B, 69D-69H, 69K, 72, 85, 86 (1840)
pl. 37A, 55 [4], 62B, 64A, 69I, 69J, 75C, 87, 89 [2], 90 [3], 127A, 127B (1841).

The above collation is based on Bouchet and Rocroi (2005: 304), Kennard (1942:1-4), and Gittenberger and Groh (1986) and is posted at <http://www.animalbase.uni-goettingen.de/zooweb/servlet/AnimalBase/home/reference?id=145>

[b] There is a curious text version of the above work at <http://books.google.com/books?id=6hBQAAAAcAAJ&pg=RA1-PA162&lpg=RA1-PA162&dq=Achatina+%22Histoire+naturelle+g%C3%A9n%C3%A9rale+et+particuli%C3%A8re+des+mollusques+terrestres+et+fluviatiles%22&source=bl&ots=aqQTairPi7&sig=2Ye8n-BrB0uIkJbqN7CW8ORvNA4&hl=en&sa=X&ei=XqKuT-3dIIjc9ASH2rnhCA&ved=0CFgQ6AEwAA#v=onepage&q&f=false>.
It has an 1819 title page and is comprised of "Tome I" [? Tome 2 (2)] beginning with a préface [pp (i)-xvi] followed by (1)-184, but having are many, many pages no. 96 (various sub-pagination indicators, e.g. 96a, 96b, etc.) and "Tome II" [? Tome 2 (2)], which runs from (1) to p. 260.

[c] Atlas 1 (Tome 3) with plates 1-69K (69, 69A, etc. yielding 12 pl. 69's and lots of other A's and B's; plate 70 missing, perhaps missed in the scanning process) is posted at <http://books.google.com/books/about/Histoire_naturelle_g%C3%A9n%C3%A9rale_et_particu.html?id=-L4YtwAACAAJ>.

[d] Atlas 2 (Tome 4) is posted at <http://books.google.com/books?id=JolDAAAAcAAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false> and contains plates 71 to 166 [with multiple A's and B's] + fossil plates 1 to 5 + (1)-22 [explication des planches; cross-referenced to indicate that there are 247 pl

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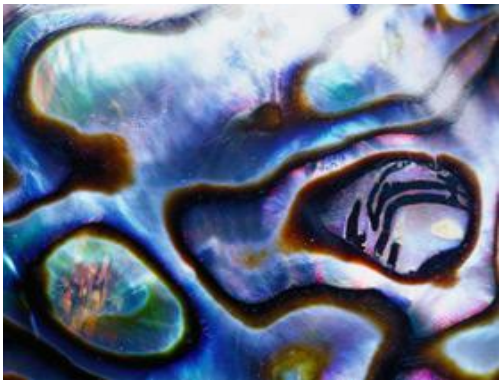
NEWLY DISCOVERED:

A natural pearl is a rare treasure, but new mass-produced mother of pearl could soon be as cheap and versatile as paper. The chief natural sources of mother of pearl are the pearl oyster, freshwater pearl mussels and abalone shell.



Artificial nacre, or mother of pearl, can now be mass-produced. The material is flameproof, super strong and as cheap as paper to make. It could be used to fireproof homes and to make cars more fuel efficient.

Synthetic nacre has long been a goal for both material scientists and biologists. For material scientists man-made nacre could provide strong, lightweight, cheap and environmentally-friendly material for a huge variety of products. Flameproof yet flexible, thinner than office paper but 20 times as strong, the new material could eventually make aircraft lighter and comfortably protect police from bullets.