



SHELL•O•GRAM

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Programs

On Thursday, September 24th the club (JSC) will meet at the usual time (7:00 PM) and place (Southeast Branch, Jacksonville Public Library <<http://www.yelp.com/biz/jacksonville-public-library-southeast-regional-jacksonville>>). Harry Lee will present the shell-of-the-month, the eastern North American landsnail, *Mesodon thyroïdus* (Say, 1817), which ranges from eastern Canada to Minnesota and Texas. We live very close to the southeastern limits of the range of this species, the official vernacular name of which is the White-lip Globe. The main program will also be presented by Harry, who will report on a nearly decade-long investigation into the landsnails of the Bernheim Arboretum and Research Forest in KY located about 60 mi south of Louisville. JSC members Lori and Jeff Schroeder earmarked this 14,300 acre tract in The Knobs region of the state because of the variety of habitats, relatively pristine landscape, and the predominance of limestone in its geological constitution. To date over 80 species have been found on this tract, making it the premier landsnail biodiversity hotspot for the state.

In October we'll meet on Thursday the 22nd unless ousted by "early voting." Charlotte Lloyd will present the shell-of-the-month (a surprise) and Rick Edwards present a travelogue of his recent Caribbean cruise. As if inexorably drawn back to the sea, he spends this "shore leave" diving in these exotic waters, always on the lookout for shells. You don't want to miss this show!

Membership Dues are payable in September each year.
Please send in your dues: Individual \$15.00 Family \$20.00 to
Charlotte Thorpe
1010 24th St. N
Jacksonville Beach, FL 32250
Short version: Time to pay up!

**Jacksonville Shell Club, Inc.
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Jacksonville, FL 32210-5813**

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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 and friends 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 the *Shell-O-Gram*. The provision of free copies of the republished version to author and editor of the original is expected as well.

Nominating Committee Report

Pursuant to the JSC Constitution and Bylaws <<http://www.jaxshells.org/pdfs/laws.pdf>>, a Nominating Committee, consisting of Dr. Harry Lee, Rick Edwards, and Roz Edwards. was appointed at the June 25th meeting. After deliberations we recommend the following individuals for officers and/or Board membership for Sept. 2015- Sept. 2016 cycle.

Nominations from the floor will be solicited at the August and September meetings, and the annual election will take place at that September 24th meeting.

Officer nominees:

President: Brian Marshall (incumbent)
Vice President: Harry Lee (incumbent)

Secretary: Roz Edwards
Treasurer: Charlotte Thorpe (incumbent)

Board of Directors slate:

Brian Marshall (officer)
Harry Lee (officer)
Roz Edwards (rising officer)
Charlotte Thorpe (officer)
Unfilled (Past President)*

Mary Reynolds
Rick Edwards
Lou Therres
John Fatu

* A position on the Board of Directors. However, Barbara Cathey indicates she will be unable to serve.

Respectfully submitted by Rick Edwards, Chair

Conchological Crisscrossing of FL on summer vacation

by Louis Therres

Back in the last week of July, my family and I took a trip to Clearwater Beach to see the Clearwater Marine Aquarium and the dolphins from the movie "Dolphin Tale." We also went to Sand Key to walk the beach, where we found some *Strombus alatus*, the Florida Fighting Conch and a *Semicassis granulata*, the Scotch



Bonnet. The next day we drove back across the state to Ft. Pierce and spent the night. The following morning we went to the south jetty of Ft. Pierce Inlet. I accomplished my goal of bagging up some grunge to bring home and prospect for micromollusks. But I was unprepared for the discovery of three chitons living on the wave-dashed jetty rocks (Fig. 1). They turn out to be examples of *Ceratozona squalida*, the Rough Girdled Chiton. I have not searched all the grunge yet, but there are many dozens of species, including some seldom-

found ones: *Aesopus stearnsii* (common!), *Circulus liratus*, *Turbonilla riisei*, *Turbonilla (Chemnitzia) spp.*, *Tornatina inconspicua*, *Tornatina decurrens*, and *Turbonilla (Pyrgiscus) sp.*

When did the sun rise on American terrestrial malacology?

by Harry G. Lee

It is generally acknowledged that Thomas Say (1787-1834) was the first American-born scientific conchologist. His several publications on shells and insects include the descriptions of many species hitherto unknown to the scientific world. He was the first to formally describe and name landsnails endemic to North America (Say, 1817). While there were only seven (one a European alien already known by another name) in this dictionary article, the Philadelphia Quaker naturalist and great nephew of William Bartram went on to provide a total of 46 valid names for terrestrial snails living in the USA (Hubricht, 1985).

Say (1817) drew and figured all but one of these six American novelties, now placed in separate genera:

- *Helix albolabris* [now *Neohelix*, of which it is the type species] pl. 1, fig. 1.
- *Helix thyroidus* [now *Mesodon*, of which it is the type species] unfigured.
- *Helix arboreus* [now *Zonitoides*] pl. 4, fig. 4.
- *Helix tridentata* [now *Triodopsis*, of which it is the type species; see Lee (2011)] pl. 2, fig. 1.
- *Helix alternata* [now *Anguispira*, of which it is the type species] pl. 1, fig. 2.
- *Odostomia corticaria* [now *Gastrocopta (Privatula)*, of which it is the type species] pl. 4, fig. 5.

In his descriptions of the two **boldface** taxa, Say cited an earlier work which he believed the respective species was figured, "*Lister, conch.*" I'd like to present an analysis of this latter iconography, which was published in London rather than Philadelphia and appeared some 132 years before Say's sentinel contribution, as it relates to American landsnail taxonomy.

The polymath Englishman Dr. Martin Lister (1639-1712), physician to Queen Anne (1665-1714), was a multidisciplinary naturalist, studying, plants, insects, spiders, various fossils, and mollusk shells. From our perspective, his *magnum opus* was *Historia sive synopsis methodicae conchyliorum*, first published in 1785 and followed by complementary volumes, separate editions, and republications stretching into the early Nineteenth Century (Wilkins, 1957). Lister *et al.* (1785), the first of the four-volume first edition of the *Historia*, included the original published versions of the two images to which Say made reference. These were drawn and engraved by daughters Susanna and Anna under the watchful eye of the doctor. Dance (1986: 44) credits Lister as the first to produce "a scientific approach to the study of mollusks" in this "first of the major shell iconographies," the *Historia*.

Lister was in correspondence various domestic and overseas naturalists, including Rev. John Banister (ca.1650-1692), an English colonist who was Oxford-educated in natural science. Aside from ministering to an

Anglican parish, he collected plants and shells, mostly in tidewater Virginia, and was a founder of the College of William and Mary, located near his Charles City home. Banister is known to have sent the regal doctor field-collected material of various sorts (Ewan and Ewan, 1970: xxi, *passim*; Lister, 1794), but these Virginia specimens are presently unaccounted for, and the supporting archives are scanty. We do know that Lister, who often had frugal inscriptions placed on the actual engravings, made a point of including a notation as to provenance in many of them. A legend of these

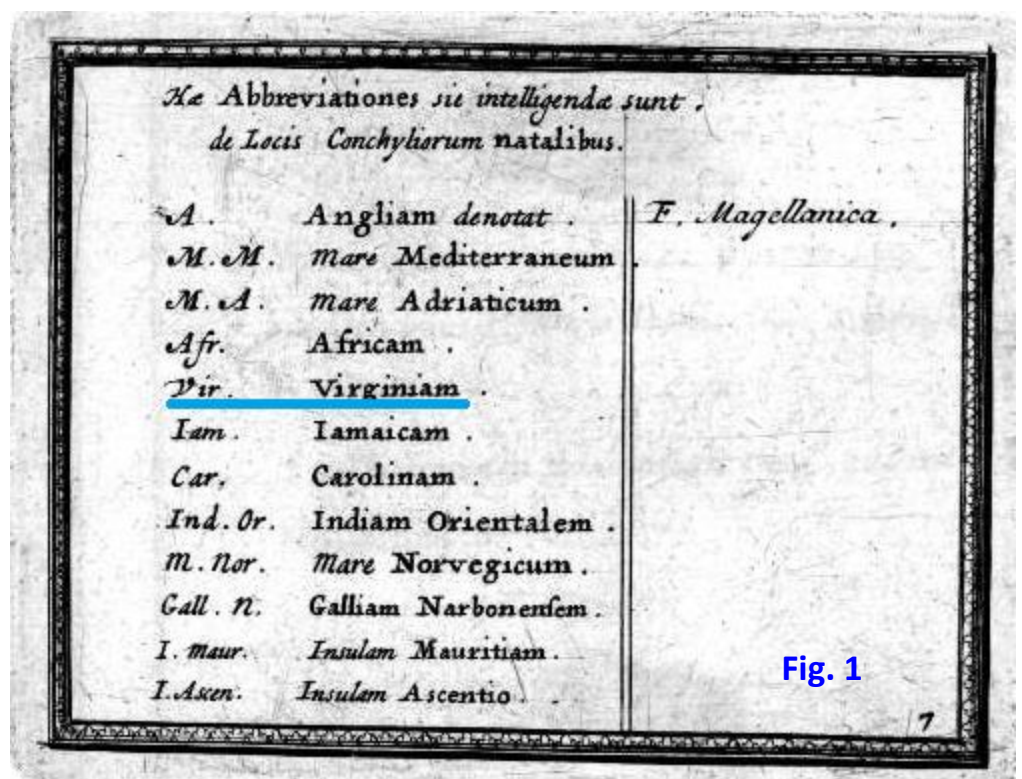


Fig. 1

localities appeared in the forepp. of Lister *et al.* (1685); our Fig. 1 I have underlined the notation "Vir.", which signifies "Virginiam" (Latin accusative; from Virginia). One can see that other places of origin for figured specimens included England, the Mediterranean, the Adriatic, Africa, Jamaica, Carolina, etc. As can be seen below, the "virg.", "virginia," and "virgin." often appear in place of "Vir." In the inscriptions

Apparently Lister felt it was sometimes unnecessary to place that inscription on engravings that otherwise clearly implied provenance. An example of such a situation is the plate of "*Cochlea Virginiana...*," which appears on plate 47 of the *Historia*. Although he used a "?" after the citation (Say, 1817), **Thomas Say**

actually referred to this Lister figure [Fig. 2] in his description of *Helix albolabris*. The likeness was sufficiently compelling to convince later workers, e.g., W.G. Binney (1864: 84) that the two were conspecific. Binney went on to aver that there were a few other American landsnails treated in the Listeropus; see Fig. 3.

84 **Fig. 3** BIBLIOGRAPHY OF [PART II.]

Lister.—MARTINI LISTER, M. D., *Historiæ sive Synopsis Methodicæ Conchyliorum, &c. &c.*, editio altera. Recensuit, &c., Gulielmus Huddesford, 1770. (The earliest Part bears the date of 1685.)

[No specific names are given to the species figured. The following are some of those referred to America, others being figured without name or locality.—W. G. B.]

| Pl. | Fig. | Name. | Locality. |
|-----|--------|--|-----------|
| | 19 | <i>Buccinum, &c.</i> | Virginia. |
| | 45 | <i>Cochlea Virginiana, &c. (Helix albolabris W. G. B.)</i> | Virginia. |
| | 69 | <i>Cochlea umbilicata, &c. (H. alternata W. G. B.)</i> | Virginia. |
| | 82 | (Immature <i>Helix W. G. B.</i>) | Virginia. |
| | 91 | <i>Cochlea, &c. (H. thyroides W. G. B.)</i> | Virginia. |
| | 92 | <i>Cochlea, &c. (H. tridentata W. G. B.)</i> | Virginia. |
| | 93, 94 | (<i>H. monodon W. G. B.</i>) | Virginia. |

globose and has a less reflected tip. These characters suggest *N. solemi* Emberton, 1988 <<http://www.jaxshells.org/solem.htm>>, a species characteristic of the Atlantic Coastal Plain and found throughout Tidewater Virginia, where *N. albolabris* may not occur at all (Hotopp *et al.*, accessed 30 Aug., 2015).

I actually began this essay having independently discovered these Lister Virginia figures. Then I read Binney’s analysis. Despite my disappointment at being scooped, I found that my identifications of Lister’s shells differed somewhat from those of the master. Although somewhat crestfallen, I nonetheless saw sufficient reason to carry on the project, which, if nothing more, may exemplify how a century and a half of taxonomic advancement have altered the interpretations.

Below are the other six landsnail figures cited by Binney (in order):

- *Buccinum exile* Lister Fig. 19.
- *Cochlea umbilicata* Lister Fig. 69.
- Immature *Helix* Lister Fig. 82.
- *Cochlea* Lister Fig. 91.
- *Cochlea* Lister Fig. 92.
- Uncaptioned Lister Figs. 93, 94.

Buccinum exile ... of Lister [Fig. 5] is a tiny slender species. Lister had his daughters draw the specimens to scale [note



Fig. 2

Fig. 4 is Thomas Say’s 1817 figure accompanying the original description of *Helix albolabris*. The similarities are evident, but are the two the same? Lister’s shell is more



Fig. 4

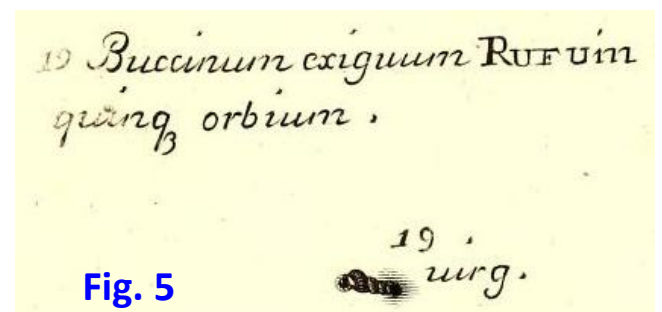


Fig. 5

relative size of script], which is informative to a degree but makes identification quite challenging for the smallest species. There is a chance this is a species of *Carychium*. The epithet “exile” (slender) happens to have been applied to a valid species of North American landsnail, *Carychium exile* H.C. Lea, 1842, but there is no indication the latter author drew from Lister’s work; it’s probably only a linguistic coincidence. A photo-micrograph is posted at <http://www.jaxshells.org/1245x.htm>. It depicts four eastern American congeners, including *C. exile*.

Cochlea umbilicata, *fusca* ... of Lister [Fig. 6] appears to be an *Anguispira* as surmised by Binney, but the color pattern is more consistent with *A. fergusonii* (Bland, 1861) than Binney’s designation, *Helix alternata* of Say. Perhaps unfamiliarity with the “new” Bland species and/or the previous citation of Lister’s Fig. 69 in the original description (Say, 1817) influenced Binney’s choice. The spirally arranged spots are much smaller, regular and numerous that on Say’s species. Although both may occur in SE Virginia, *A. fergusonii* is a species of floodplains and bottomlands, more characteristic of the Tidewater region where Banister lived and collected (Hotopp *et al.*, 2015; Hubricht, 1985).

Lister’s Fig. 82 [Fig. 7] had no caption. Binney’s interpretation, “Immature **Helix**,” is consistent with mine, but the meaning of *Helix* has undergone waves of subsequent restriction. What was and American *Helix* in 1864 is no longer placed there, having been transferred to any one of dozens of genera. Clearly this is an immature specimen of a rather large snail. While the spiral blotches suggest *Anguispira*, the umbilicus is too small for that genus. Placement in the Polygyridae is tempting, but such a color pattern is not seen in any species with which I am familiar. Thus this remains a mystery species, perhaps the result of artistic license or curatorial lapse as to place of origin.

Cochlea umbilicata, *capillaceis* ... of Lister [Fig. 8] is a well-rendered depiction of *Mesodon thyroidus* (Say, 1817). Say did not figure his species and curiously enough, did not make reference to this Lister figure. Binney and I have no disagreement on the identification of this engraving, in which, by way of pose and companion text, Lister and his daughters exemplified the presence of an open umbilicus, single parietal tooth, and “oblique” (more aptly axial) striae.

This is Lister at his best with the Banister Virginia landsnails. *M. thyroidus* is a species with catholic habitat exploitation and a large range in eastern North America. Although Jacksonville is very near the southeastern limits of its distribution, it can be found in good numbers in floodplain habitats, where it will climb trees to avoid

69. *cochlea umbilicata*,
fusca sive *variegata*,
capillaribus strijs *leuitor*
exasperata.

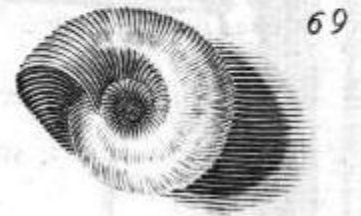
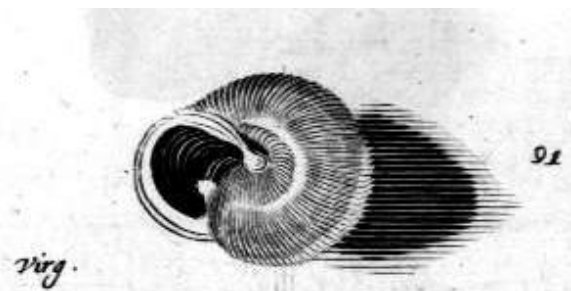


Fig. 6



Fig. 7



91. *cochlea umbilicata*,
capillaceis strijs *per obliquum*
donata, *Unico* *dente* *ad*
fundum *oris*.

Fig. 8

inundation when it becomes necessary; see the shell club's website: <<http://www.jaxshells.org/80291.htm>>.

Cochlea parva, umbilicata ... of Lister [Fig. 9] was interpreted as *Helix tridentata* Say 1817 by Binney, and that was certainly a reasonable conclusion in 1864. However, the tight coil, small umbilicus, subcircular aperture, and slight inflection of the parietal tubercle as visible in the Lister figure are more characteristic of *Triodopsis messana* Hubricht, 1952. The figure provided by Say (1817) [Fig. 10] shows a less-tightly-coiled snail with small, matching, unimmersed labral denticles placed somewhat closer together, and a more oval aperture. Rerrettably, Say's specimen was lost, but Pilsbry (1940: 795-796; pl. 474, figs. a) designated a neotype from Montgomery Co., PA. Forgive the digression and apostasy, I believe the Say figure actually resembles *T. juxtidentis* (Pilsbry, 1894) more than the neotype of his *Helix tridentata*. Nonetheless I endorse the arbitration Pilsbry exercised in this matter. *T. messana* congeners occurring in Tidewater Virginia include *T. fallax* (Say, 1825) and *T. hopetonensis* (Shuttleworth, 1852). The former has a conspicuous, buttressed basal tooth, the latter a larger umbilicus and more oval aperture than the Lister specimen. A discussion, with illustrations of the *Triodopsis* species presently recognized as valid, appears in Lee (2011) and at <<http://jaxshells.org/triodopsis.htm>>.



Fig. 9



Fig. 10

Lister's Figs. 93 and 94 [Fig. 11] had no caption other than those numbers and the tell-tale "virgin." Binney's interpretation, *Helix monodon*, is now known as *Euchemotrema leai* (A. Binney [W.G.'s father], 1840) since the synonymous *Helix monodon* Rackett, 1821 is permanently invalid due to junior homonymy with *H. monodon* Férussac, 1821. The two Lister images appear to depict a single species. The conspicuously reflected lip, suggested discoidal profile, and the prominent, sinuous parietal tooth are inconsistent with Binney's diagnosis, a smaller species with a straight, less raised parietal tooth and an aperture that neither flares nor has such a prominently reflected labrum. A much more likely diagnosis is *Patera appressa* (Say, 1821), which is widespread and common in Virginia, including the Tidewater (Hubricht, 1985). The urban Bermudian "species" *Helix santa georgiensis* Verrill, 1902 is synonymous and believed to have been introduced from Virginia (Pilsbry, 1940: 752). One can only wonder if John Banister was somehow participatory in that bit of adventitious dispersal.

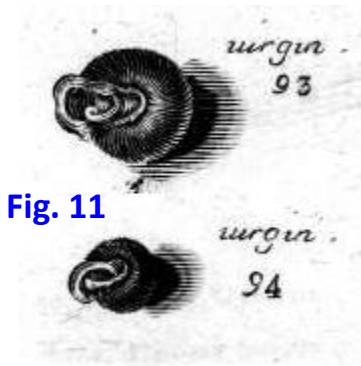


Fig. 11

In conclusion it seems safe to say that Martin Lister knew something about landsnail taxonomy before the discipline was formalized. The depictions by daughters Susanna and Anna under his supervision, perhaps the first ever published of American species, are generally well-executed, and most are identifiable to species in 2015. As for the accuracy of the latter analysis, one must acknowledge the maxim that science is cumulative. Malacology in America, as globally, has made quantum advances since Thomas Say's initiative in 1817. Yet, as we today, even the ever-honored Thomas Say stood on the shoulders of his predecessors.

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