SHELL·O·GRAM

Official Publication of the
JACKSONVILLE SHELL CLUB, INC.

January-February, 2004 **Volume 45(1)**

January Meeting

The Thursday, January 22nd meeting of the Jacksonville Shell Club will be held at the Southeast Branch Public Library at 7:00 PM.

The program will be presented by veteran member Fred Chauvin, who will take us to St. Johns Co. and down memory lane as he shows us what it was like to shell the waters around St. Augustine in the early years of the Jacksonville Shell Club (and before). Some of the habitats are gone, and many changed since Fred began collecting. The mollusks are different as well.

Billie Brown will discuss *Hexaplex fulvescens* (G. B. Sowerby II, 1834) [Giant Eastern Murex], the official club shell. She has found this species herself and is especially proud of the specimen she will demonstrate.

February Meeting

The Thursday, February 26th meeting of the Jacksonville Shell Club will be held at the usual time and place.

The program will be a look at Big Talbot Island, at Duval County's northeast extremity. Super collector Jeff Ward will show us how to find some prizes - and what these prizes are.

The Shell-Of-The-Month will be two species - the sibling pair *Nassarius vibex* (Say, 1822) [Bruised Nassa] and *N. polygonatus* (Lamarck, 1822) [Black-spot Nassa], which occur together in large numbers at Big Talbot Island.

President's Message

Happy New Year! Our last club function of 2003 was our Christmas Party. So – let's start there.

A huge thank you to Charlotte & Frank Thorpe for hosting our party. There had to be a last minute change of plans in location. Everything was lovely and our hosts most gracious. However, next year, no amount of begging on our parts will work. It will definitely be someone else's turn. We had a good turnout with 23 people and of course the food was excellent. We do put together a good spread. After eating it was the gift exchange. We all drew numbers and rules were explained. Presents were opened and admired. Everybody kept the gift they picked from under the tree. Everybody except Paul – he played the game and since he had number one – he chose to exchange! After visiting awhile longer we began saying our goodnights.

(continued on page 2.)

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The Shell-O-Gram is issued bimonthly and mailed to all regular members. Annual membership dues are $12.50 individual and $15.00 family (domestic), and $20.00 (foreign). Lifetime membership is available.

Send dues to: Charlotte M. Lloyd
1010 N. 24th Street
Jacksonville Beach, FL 32250-2883

The club meets each month, excluding December, at the Southeast Branch Public Library, 10599 Deerwood Park Blvd., Jacksonville Florida. Please address any correspondence to the club's address shown above.

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 is mailed to Editor at the above address.

President's Message (continued)

We extend our sympathies to Harold and Lucy Hatter on the death of his mother. Gertie was back in the hospital after Christmas. Her illness was much like the respiratory problems associated with the flu, but with heart problems, the doctors took no chances. She has now returned home.

Taking my son to physical therapy I have had the pleasure to seeing Harriett and Joe Sasser. Harriett has had knee surgery and seems to be getting along quite well. During one of our waits for our appointments we discussed the changes at the beach and remember when's. For instance, the bowling alley and setting pins by hand. Joe swears some over zealous bowler actually tried to knock him off his pins. One of his summer jobs was on the boardwalk at the "throw the darts at the balloons" game. Joe's job was to physically blow up the replacement balloons. Has he ever come a long way from 1st jobs! Of course, I invited Joe and Harriett to please come back to meetings. We miss them!

Our congratulations and best wishes to Charlotte and Frank on the occasion of their marriage in November.

We are proceeding with plans for the 2004 shell show (July 17th & 18th). We had concerns about the Days Inn being sold but are assured that it will not be during our time frame for the show. Please give thought to what you will do to help. We will be having a meeting for Chairmen and workers soon. Please volunteer – Don't make us beg! We are planning a banquet and auction again this year. We will be offering shells and cases from the collection of Norma Carlson plus other acquisitions.

If you have questions or suggestions about the Show or shell club in general, give me a call – your input is always welcome.

Remember the Jacksonville Shell Club is only as good as the effort put forth by the members – all the members.

Best, Billie.

Welcome New Members

Monroe Beller
4511 Orchid St.
Shreveport, LA 71105-3131
Phone: (318) 865-1872

Andrew P. Borgia
P. O. Box 4346
Key West, FL 33041-4346
(305) 294-8739
E-mail: notrus2@aol.com

Address Change

Marion L. Webb (life member)
800 North Lake Drive, Apt 212
Lexington, SC 29072
Phone: (803) 358-2735
Note: Marion recently celebrated her 94th birthday.

Advancing Vermont Malacology
-or-
Finding lime recycled after half a billion years of mineral inertia
By Harry G. Lee

My wife's birthday occasioned a visit to her family's "Homestead" just north of Manchester Center, Bennington County, Vermont over the weekend of September 26-28, 2003.

Aside from the indoor and patio festivities, the two dozen or so visitors enjoyed an assortment of outdoor recreation ranging from jogging, hiking, and fly-fishing

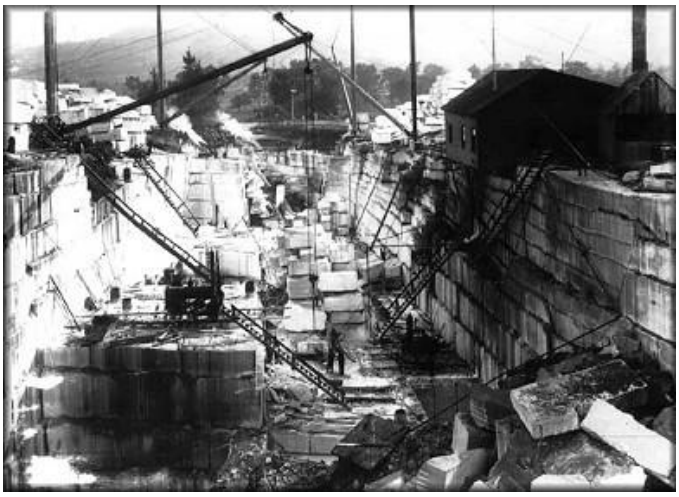
to pet burial, fence-dismantling, and, needless to say for the honoree's spouse, prospecting for shells.

Mt. Equinox, Vermont

The Homestead is located in the valley of the fabled trout stream, the Batten Kill, as it winds its way to the Hudson River between mountain ranges. Two crests dominate the western horizon: Mt. Equinox of the Taconics (highest point 3848 feet above sea level) in the SW and a lower ridge belonging to the Green Mts. (Mt. Aeolus, Owls Head, Netop and Dorset Mt.) to the NW. On the second day, when the mist had risen high enough in the morning sky, I was able to make out a bare whitish scarp on the north flank of Mt. Aeolus, which rises about 2400 feet. I inquired about this feature, and my mother- and brother-in law confirmed my suspicion that this was a marble quarry - one of a group of two dozen excavations on the slopes of Dorset Mountain and Mt. Aeolus.

These quarries began as America's first commercial marble industry. Mining was begun in neighboring South Dorset by Isaac Underhill in 1785 and flourished for some 130 years. Dorset marble, as this deposit came to be called, built the largest marble structure in the U.S., the New York Public Library, as well as the library of Brown University and Memorial Continental Hall of the Daughters of the American Revolution in Washington, D.C. It was also used for over 5000 headstones over the fallen soldiers at the battle of Gettysburg; see **http://www.dorsethistory.org/history.html**.

I recalled that the principal stuff of marble, calcium carbonate, is the mineral terrestrial snails (just as marine and aquatic ones) use to fashion their shells; consequently these mollusks tend to prosper in habitats on or very near exposures of this rock. Furthermore, after the demise of their inhabitants, the empty shells persist *in situ* far longer due to the buffering of acidic groundwater that etches and ultimately dissolves their mineral content. Thus collecting is easy and usually profitable. With geographic guidance from brother-in-law, Hamilton "Ham" Hadden III, and the company of Ed Cavin (Jacksonville, FL), I set out by car to approach the point on the mountainside we had observed from the patio of the Homestead. This being a well-contrived collecting trip, our expectations were high. Yet, as we all know, too much scheming can be a recipe for failure, so our prospects were tempered with various practicalities such as our fitness for the ultimate assault of the mountain by foot.



Dorset marble mining operation

First a word about American landsnails, and those of Vermont in particular. It is apparent that the state has never been a popular destination for snail-collectors, and very little has appeared in the literature about its molluscan fauna. Most references are in the form of simple locality-citations in a variety of works with a far wider geographic scope or in phylogenetically-restricted studies. In the nineteenth century Charles Baker Adams (1814-1853)* wrote a few short papers on the state's fauna during his tenure at Middlebury College (1838-1848) including the years he was the head of the Vermont Geological Survey (1845-1848). Monographic treatments of the non-marine mollusca of the other New England states have appeared in the literature over the last century and a half, but nothing of that scope has been dedicated to the malacofauna of Vermont.

As a student at Williams College, just over the Massachusetts line, an hour to the south, I wrote my senior honors thesis (unpublished) entitled *The biology of the testaceous Mollusca of the Williamstown area.* It included reports of three 1961 collecting expeditions to the vicinity of Pownal, a Vermont town several miles

south of Manchester but also in Bennington Co. One of these three stations was an abandoned marble quarry! A total of 25 species was collected, and we will see below how this assemblage relates to the efforts in the neighborhood of the Homestead.

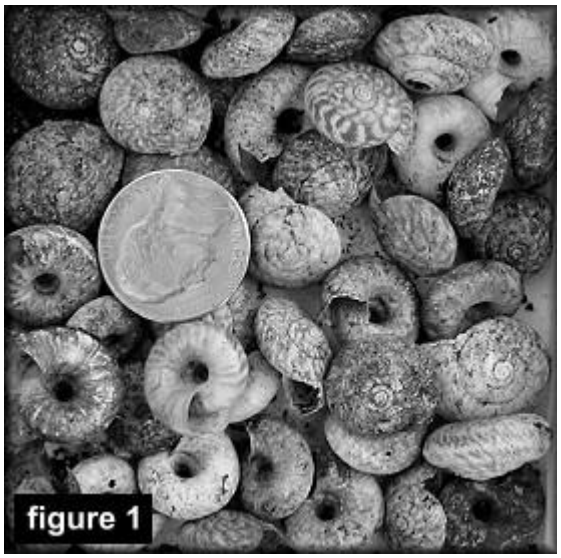


figure 1

In 1985 Leslie Hubricht, an inveterate student of our country's non-marine mollusks and one-time visitor to the Lee domicile, published a zoogeographical study *The distribution of the native land mollusks of the Eastern United States.* Using literature records, his personal collections (43,000 lots), and critically-reviewed material in the leading American museums, he produced appropriately-edited maps showing every county inhabited (or not) by each of the 523 total species. As expected, Vermont was not prominently-represented in this work. He demonstrated 51 species from the state, and virtually all of these were found in less than half the state's counties. Of the 14 counties in Vermont, Bennington was the most often-represented - with 27 species (based principally on my 25, which I had communicated to him in the 1970's), of which 15 were found nowhere else in the state. Second place went to Windsor Co., just to the northeast of Bennington Co., with 20 species (four unique to the state), and third was Orleans Co., on the Canadian border, with 12 species (three unique).

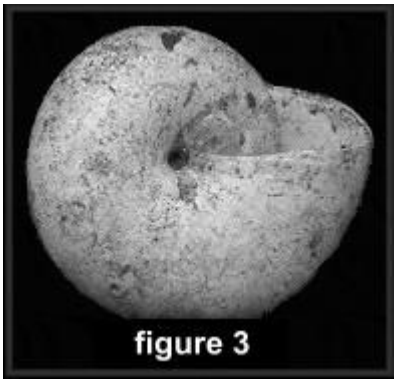
Getting back to the Mt. Aeolus marble quarry expedition.... After being escorted by Ham to the trailhead, we debarked afoot and made a 45 minute ascent of the mountain with moderate effort. After passing through a forest of hemlock, birch, beech, and maple on an unusually straight and commodious trail, we came in sight of the areas of exposed marble, and I paused to reflect on what I knew of this formation. It started as limey mud formed by long extinct invertebrates as they died and sank to the bottom of a shallow Cambrian sea about 463,000,000 years ago. Later, additional sediments and collisions between continental plates applied pressure and heat to these limey strata - metamorphosing limestone to marble. Here we were at the end of our ascent, and Ed and I immediately noticed empty snail shells for the first time on the trek. After about a half-hour of our visual reconnaissance and hand-picking of about five dozen shells **(figure 1)** of about ten species, I scooped up several handfuls of the humus in the rock crevices and stashed them in a one quart ziplock bag. This stuff was later dried, sifted, and sorted under the microscope and, *mirabile dictu*, nearly a hundred more shells were culled. The total species count was a fairly astounding **23**. The list follows (phylogenetic order; scientific name, author, date of description, official vernacular name;** **boldface** indicates a new county record; new state records are indented):

***Carychium exile* H. C. Lea, 1842 Ice Thorn**
***Cochliocopa morseana* (Doherty, 1878) Appalachian Pillar**
***Columella simplex* (Gould, 1841) Toothless Column**
Gastrocopta contracta (Say, 1822) Bottleneck Snaggletooth
Gastrocopta pentodon (Say, 1822) Comb Snaggletooth
***Vertigo gouldi* (A. Binney, 1843) Variable Vertigo**
***Vertigo ventricosa* (E. S. Morse, 1865) Five-tooth Vertigo**
Haplotrema concavum (Say, 1821) Gray-foot Lancetooth
Punctum minutissimum (I. Lea, 1841) Small Spot
Helicodiscus shimeki* Hubricht, 1962 Temperate Coil**
Anguispira alternata (Say, 1816) Flamed Tigersnail **(figure 2)**

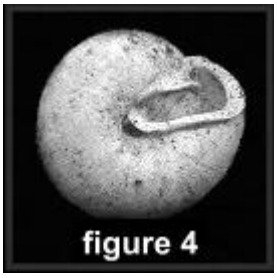

figure 2

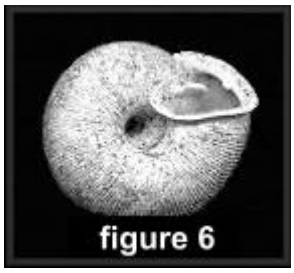
***Succinea ovalis* (Say, 1817) Oval Ambersnail**
Euconulus fulvus (Müller, 1774) Brown Hive

***Mesomphix inornatus* (Say, 1821) Plain Button (figure 3)**

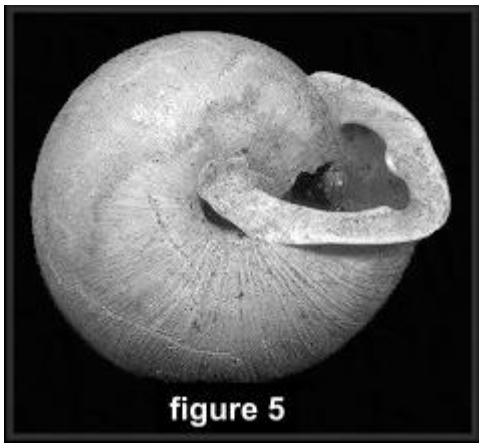


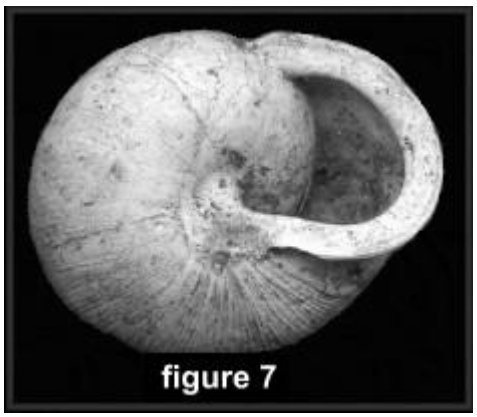
***Nesovitrea binneyana* (E. S. Morse, 1864) Blue Glass**
***Paravitrea multidentata* (A. Binney, 1840) Dentate Supercoil**
Striatura exigua (Stimpson, 1850) Ribbed Striate
Striatura ferrea E. S. Morse, 1864 Black Striate
Zonitoides arboreus (Say, 1816) Quick Gloss
Euchemotrema fraternum (Say, 1821) Upland Pillsnail **(figure 4)**





Neohelix albolabris (Say, 1817) Whitelip **(figure 7)**
Triodopsis tridentata (Say, 1816) Northern Threetooth **** **(figure 6)**
***Xolotrema denotatum* (Férussac, 1821) Velvet Wedge (figure 5)**





Wanting to integrate these finds with prior work done in the neighborhood, I searched out my earlier collection records (same conventions; cumulative number for county species list in parentheses):

Deep in grass, along north side of driveway near North Road, The Homestead. H. Lee! 10/13/02:

Cochliocopa lubrica (Müller, 1774) Glossy Pillar (24)
Nesovitrea electrina (Gould, 1841) Amber Glass (25)
***Zonitoides nitidus* (Müller, 1774) Black Gloss** (26)

Left Bank of Batten Kill, south border of The Homestead, near old Rte. 7. H. Lee! 6/6/01:

Carychium exiguum (Say, 1822) Obese Thorn (27)
***Vertigo pygmaea* (Draparnaud, 1801) Crested Vertigo** (28)
Oxyloma retusum (I. Lea, 1834) Blunt Ambersnail (29)****
Zonitoides nitidus (Müller, 1774) Black Gloss

Under log, upper pasture The Homestead, under four inches of snow H. Lee! 12/25/65:

Nesovitrea binneyana (E. S. Morse, 1864) Blue Glass
Zonitoides arboreus (Say, 1816) Quick Gloss
***Vitrina angelicae* Beck, 1837 Eastern Glass-snai**l (30)

Now back to the three localities near Pownal, Bennington Co., VT H. Lee! 1961:

Carychium exiguum (Say, 1822) Obese Thorn
Cochliocopa lubrica (Müller, 1774) Glossy Pillar
Gastrocopta armifera (Say, 1821) Armed Snaggletooth (31)
Gastrocopta pentodon (Say, 1822) Comb Snaggletooth
Gastrocopta contracta (Say, 1822) Bottleneck Snaggletooth
Pupoides albilabris (C. B. Adams, 1841) White-lip Dagger (32)

Vertigo ovata Say, 1822 Ovate Vertigo (33)
Haplotrema concavum (Say, 1821) Gray-foot Lancetooth
Punctum minutissimum (I. Lea, 1841) Small Spot
Helicodiscus parallelus (Say, 1817) Compound Coil (34)
Anguispira alternata (Say, 1816) Flamed Tigersnail
Discus catskillensis (Pilsbry, 1896) Angular Disk (35)
Catinella vermeta (Say, 1829) Suboval Ambersnail (36)
Euconulus fulvus (Müller, 1774) Brown Hive
Glyphyalinia indentata (Say, 1823) Carved Glyph (37)
Hawaiia minuscula (A. Binney, 1841) Minute Gem (38)
Mesomphix cupreus (Rafinesque, 1831) Copper Button (39)
Nesovitrea electrina (Gould, 1841) Amber Glass
Striatura exigua (Stimpson, 1850) Ribbed Striate
Striatura ferrea E. S. Morse, 1864 Black Striate
Striatura milium (E. S. Morse, 1859) Fine-ribbed Striate (40)
Zonitoides arboreus (Say, 1816) Quick Gloss
Appalachina sayana (Pilsbry, 1906) Spike-lip Crater (41)
Euchemotrema fraternum (Say, 1821) Upland Pillsnail
Neohelix albolabris (Say, 1817) Whitelip

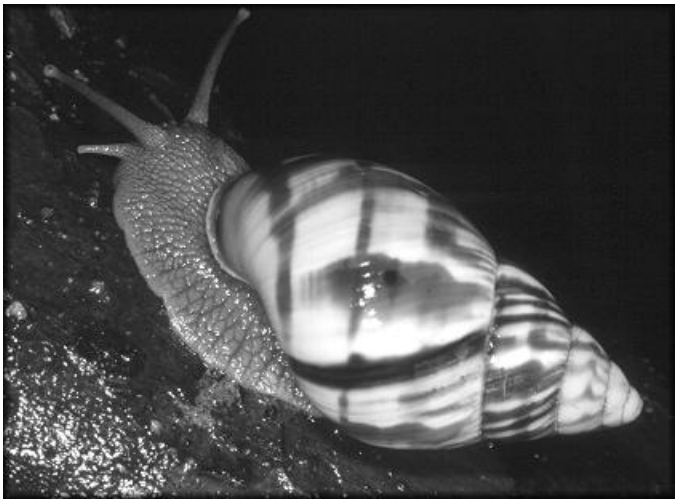
Thus the collections made at Mt. Aeolus and around the Homestead (1965 - 2003) have added 14 county landsnail records (total now 41 of the state's 56; 73%), of which five are new Vermont state records, which now makes 20 of these Vermont species "unique" to Bennington Co. These addenda further dwarf second-place Windsor (41 and 20 vs. 20 and [now] 3 respectively).

While the obvious cause to this geographic inequity is bias in collection effort, this account demonstrates the scope of poverty in knowledge of a part of natural history - and that a practical remedy is available. Further, it chronicles the process and outcome of a strategic collection plan - in this case based on the anticipated recycling of a calcium resource that lay biologically dormant for nearly half a billion years.
* Read more of C. B. Adams' tragically short life in the Sept.-Oct., 2003 *Shell-O-Gram* or **http://www.jaxshells.org/907b.htm**.
** 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.
*** First time ever collected and first time in the collection of H. G. Lee.
**** These species, *Oxyloma retusum and Triodopsis tridentata*, are the two species (of 27) indicated for Bennington Co. by Hubricht (1985) which were not collected by me in 1961.
Hubricht, L., 1985, The distributions of the native land mollusks of the Eastern United States. *Fieldiana 24*(1359): pp. 1-191 + viii. June 28.
Note: This article, accompanied by color images, can be viewed on the Jacksonville Shell Club web pages at **http://www.jacksonvilleshells.org/vermont.htm**.

Web Page News

Past copies of the "Shell-O-Gram" in Portable Document Format (PDF), dating back to and including 1999, are now available on the club web site at **http://www.jaxshells.org/letters.htm.** Additionally, a copy of the club's constitution and by-laws in PDF format is available at the same URL. Viewing these files requires that one have Adobe Acrobat Reader installed on their computer. The reader is a free download from Adobe.

Florida's Endangered Species



Photograph by Phil Poland

The Stock Island Tree Snail [*Orthalicus reses reses* (Say, 1830)] is the only mollusk species found in Florida listed by state government as "endangered." The species was listed by the federal government as "threatened" in 1978. This approximate two inch (45-55 mm.) species occupied a very restricted range in the lower Florida Keys (small portions of Key West and Stock Island) and thus was considered vulnerable to extirpation. The species survives today in several areas of south Florida as a result of introductions/transplants by man.