



SHELL-O-GRAM

Official Publication of the
JACKSONVILLE SHELL CLUB, INC.

September-October 2008

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Programs

The Club will meet at 7:00 PM on Thurs., September 25, 2008 at the Southeast Branch Public Library. The Shell-of-the-month will be a specimen collected by Jeff Ward on Big Talbot Is. after Tropical Storm Fay. The main program will be given by Rick Edwards, who collected on Kwajalein Atoll in the Marshall Islands. Rick lived there for 4 1/2 years in the mid 50's and spent a good amount of time beach combing and reef walking in pursuit of mollusks.

The regular October meeting will be on the 23rd, usual time and place. Harry Lee will present the only abalone in Florida waters, *Haliotis purtalesi* Dall, 1881, to set the stage for Charlotte Thorpe, who will report on her experience aboard the RV Pelican on a research expedition to the offshore bottoms of the Gulf of Mexico. She and other team members found ample material, and some will likely be new to science.

Cedar Key Field Trip

The dates for the JSC fieldtrip are December 11 - 14. Normally, we try to stay at the Beachfront Motel (Phone 866-543-5113). Rates vary according to the size and location of your room. If you mention that you are with the JSC, there is a discount for the rooms. With such good minus low tides other shell clubs will likely be there also. It will be a good idea to make your reservations as early as possible. On Friday evening we will gather at the Thorpe's room for sea food chowder. Everybody please bring something to go with the chowder or a dessert. We always have a fun time so make plans to come and join us!

Officers and Board Members for 2009

Officers and Board members were nominated and approved at the August meeting. They are as follows - Billie Brown, President (Thank you-I think!); First Vice-President, Harry Lee; Secretary, Laura Rowley; Treasurer, Charlotte Thorpe. Board members are Brian Marshall, Ellen Reed, Skip Whitford, Barbara Cathey, Claire Newsome, and Rick Edwards.

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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 is sent to the above address.

Correction to Shell Show Awards

1st Place in B-4-11 Home Decor
 - Barbara Cathey

Welcome New Members
 Shannon & Daniel Webster
 Bernard & Iva McCarthy
 Kellie Ater
 Maria & Joseph Bannister

President's Corner

Hello Everybody!

Our new club year begins this month. Thanks to the officers and board members for agreeing to serve this year and thanks to the members who served this past year. We still need all the help we can get for projects this coming year. Please everybody help when you can!

We have set the date for the Shell Show 2009. It will be **May 28-31** at the Morocco Shrine Temple. If everything goes according to plan we will be sharing the building that weekend with the Coin Club. We are hoping that the time will be beneficial to both clubs. We are trying to find someone to step forward and be the **Shell Show Chairman**. At our last board meeting, we asked that those who served as committee heads at the show write a description of what their job entails. We want to compose a booklet with a timetable of what needs to be done and procedures for the various chairmen and volunteers. So far we have had ONE turned in - thanks Barbara C! We would like to have the rest turned in at the Sept. meeting.

Several new members attended our last few meetings. If you have not done so, please, introduce yourselves and make them welcome.

For those of us who pay dues at the beginning of our club year - dues are now due! I hope I haven't forgotten anything. If you have questions or comments, give me a call. See you at the next meeting.

Best, Billie
 241-3755

Membership Dues are Due Now

Please send in your dues: Individual \$15.00 Family \$20.00 to

Charlotte Thorpe
1010 24th St. N

Jacksonville Beach, FL 32250

Want to know your due date? Look at your S-O-G address tag and if the date has passed or is close to today's date -Your Dues are Due

Bardstown Blitzkrieg - The tertiary phase, saturation snailing

by Harry G. Lee

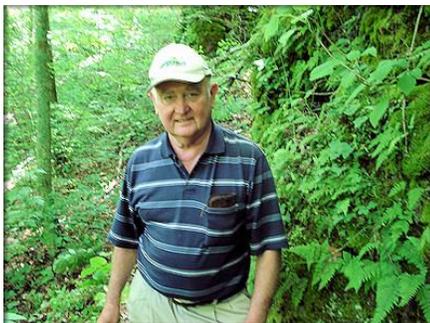
Lori and Jeff Schroeder are the only Kentucky residents on the Jacksonville Shell Club membership roster, but they have attended our shell shows, field trips, and at least one meeting. Furthermore, you can find their mark on the *Shell-O-Gram*. Related to the latter activity, which emerged from casual and tenuous origins at the 2002 Jacksonville Shell Show (Schroeder, 2005, 2008), a collaboration involving the author, and, as we shall see, a growing number of associates, has evolved in saltatory fashion (Lee, 2008a) resulting in the present report.

From absolute scratch, and with admitted reluctance, Lori began collecting land snails near her home in Bardstown, Nelson Co., KY. The initial impetus was a challenge by a friend, Gil Chumbley, who inquired about a land snail, later ID'ed as *Mesodon elevatus* (Say, 1821), the Proud Globe, he'd found on his pristine woodland property. His turf is part of a single contiguous tract covering 75 acres; a section is owned by Gil and the rest by the Stauble family. The Schroeders live less than ten miles north of this edenic forest. Lori collected her first specimens on the Stauble-Chumbley tract in the spring of 2003 and two years later reported on 23 species of land snails from the county - all but one from this forestland. The ice was broken (Schroeder, 2005, 2008)! While being quite respectably diverse, Lori's inventory was comprised almost exclusively of larger snails (none was a *micro* species; less than 5 mm in maximum dimension; see below). This prompted another gauntlet to be thrown. In an effort to expand diversity of the land snail inventory by including smaller species, I asked Lori to take leaf litter samples potentially rich in *micro's,* from sites which had earlier proved provident of the larger species, including "Anguispira Rock" ("AR") on the Stauble property, so named because the ground was strewn with Flamed Tigersnail shells. On Sept. 15 of last year Lori surveyed promising spots on the tract and, finding the landscape had changed due to drought, diverged slightly from protocol and harvested about two large handfuls of soil from each of 11 spots in which the "bones" of larger snails were obvious [a laudable strategy under the circumstances]. At the North Carolina Shell Show later that month she presented me with her precious samples along with the corollary but novel sobriquet "Dirty Harry." Due to pressure from competing activities, it took a few months to complete the analysis using tried techniques (Lee, 1990, 1993). At the end of the campaign, among other findings, I had identified 32 species from three clustered and rather conservative soil samples Lori took from "AR" (Lee, 2008a). Now that was a truly impressive fauna for a single station (here defined as one collecting event in an area of no more than 1000 m²).

Armed with a modicum of logic, a liberal dose of snailer's intuition, and a thirst for establishing some kind of single station biodiversity benchmark, I asked Lori and Jeff if they were ready for an all-out assault on "AR." They agreed, and we set a date.

With minimal persuasion, I convinced Jacksonville botanist/engineer Ed Cavin, for whom the land snail *Georissa cavini* Auffenberg, 1998 is named, that there was a sentinel expedition in the works. We hopped a Delta flight to Louisville, and drove to the Schroeders' home early in the evening of Friday, May 16. Despite an ominous light drizzle most of the afternoon, we were able to enjoy the congenial reception on our hosts' patio. Shortly expeditioner recruits Rob Smotherman and the Scheus of Louisville (*Am. Conch.* Editrix Emerita Lynn and hubby Richard) joined us, and the project as well as many other pressing conchologically relevant, etc. issues underwent lively discussion. A most festive repast followed, and the party continued well after dinner. Rob's provision of a generous aliquot of "1792 Ridgemont Reserve," a bourbon Bardstown bourbon endemic exquisite in flavor and nonpareil in conversational enhancement was a final highlight of a most enjoyable, memorable evening.

Ed (v) and I slept well. Not so early Saturday morning we (and all weather authorities we had consulted) were grunted by unexpectedly clear skies. The stage was set! We caravanned to "AR" and deployed our gear - far more than we eventually put to



full use. Lori and Jeff led us a couple of hundred meters from the parking area to the three limestone excrescences that define this piece of the landscape. Although the Scheus were somewhat daunted by the spectre of poison ivy, all seven expeditioners prospected for snails at least part of the two hour campaign that ensued. Details of the collection event are apparent in the professional video produced by Jeff (this can be accessed at <http://www.jaxshells.org/blitz08.htm>; Jeff >). Ancillary findings included various unusual wildflowers (Lynn Scheu is an aficionada thereof), various herbs including the genus *Rhus*, which created various levels of anxiety,



interesting hardwoods, and finally a great number of barrel hoops along a little spring run near "AR." Given the evidence in the context Nelson County's proud tradition of altering selected grain products by distillation and aging, we concluded that we had come very close to the operation of an olden days illicit competitor with our new-found friends at the "1792" operation.

We eventually mustered again at the parking area alongside the W shore of a one-acre impoundment of another spring run, 200 m W of "AR." There the Scheus had set up a table on which we were able to review the *macro*snails taken by all of us. Including the mantleslug my shirt had inadvertently collected, there were 15 species - enough to signal potential success. The remainder of the snail collection remained hidden from view in the six 1/2 to 1 gallon-sized bags I had stuffed with leaf litter taken along "AR." While we picnicked and conversed in this idyllic setting, Rob investigated the shore of the pond and brought some little aquatic snails (physids and planorbids) to my attention. On pure spec' I grabbed a seventh sample - about a quart of leaves and grass from just landward of his spot. After eating, drinking, and debriefing we headed north to the edge of the woods a paid a visit to Gil and Joyce Chumbley to give a preliminary (and favorable) report of our findings. After fond farewells, we went our separate ways. (Richard, Lynn, Rob, Lori, and the author >)

Exactly three months after departing "AR," I felt confident with my analysis of the day's catch. A tabulation follows.

In the first two columns below are the 48 species of terrestrial snails of Nelson Co., KY identified from collections made by Lori and Jeff Schroeder before the Blitzkrieg. Only the species among the 32 found at "AR" on the Stauble Property, ~ 8 mi. S. Bardstown [37°44.478 - 37°44.486N X 85°31.24 - 85°31.36W] on 9/15/07 are in the left-hand column. Those found at "AR" on May 17, 2008 are followed by [no. specimens]; five *micro* [<5 mm; normal typeface], one *meso* [5-10 mm; **bold typeface**], and seven *macro* [>10 mm **bold and underlined**] species of these taxa are new to the station; six of the thirteen were not previously found in Nelson Co. by the Schroeders, and these placed in the right-hand column. Thus the middle column is comprised of Nelson Co. species not found at "AR" found before May 17, 2008; some of these were collected during the Blitzkrieg, and those bear [no.] notations:

- Helicina (Olygyra) orbiculata* (Say, 1818) Globular Drop**
Carychium clappi Hubricht, 1959 Appalachian Thorn [1] (see appendix)
Carychium nannodes G. Clapp, 1905 File Thorn [49] (see appendix)
***Cochlicopa morseana* (Doherty, 1878) Appalachian Pillar [2]**
Columella simplex (Gould, 1841) Toothless Column [2]
***Gastrocopta armifera* (Say, 1821) Armed Snaggletooth**
Gastrocopta contracta (Say, 1822) Bottleneck Snaggletooth [23]
Gastrocopta corticaria (Say, 1817) Bark Snaggletooth
Gastrocopta pentodon (Say, 1822) Comb Snaggletooth [12]
Gastrocopta procera (Gould, 1840) Wing Snaggletooth
Vertigo gouldii (A. Binney, 1843) Variable Vertigo [17] (see appendix)
Strobilops labyrinthicus (Say, 1817) Maze Pinecone [2]
Vallonia perspectiva Sterki, 1893 Thin-lip Vallonia
***Haplotrema concavum* (Say, 1821) Gray Lancetooth [1] ^**
Punctum blandianum Pilsbry, 1900 Brown Spot [25]
Punctum minutissimum (I. Lea, 1841) Small Spot [91]
Punctum smithi Morrison, 1935 Lamellate Spot [6] (see appendix)
Punctum vitreum (H. B. Baker, 1930) Glass Spot [13] ^
***Anguispira alternata* (Say, 1817) Flamed Tigersnail [60] >>**
***Anguispira kochi* (Pfeiffer, 1845) Banded Tiger [9]**
***Discus patulus* (Deshayes, 1830) Domed Disc [3] >**
***Philomycus carolinianus* (Bosc, 1802) Carolina Mantleslug [1] v**
Helicodiscus parallelus (Say, 1817) Compound Coil
Lucilla cf. jacksoni (Hubricht, 1962) *cf.* Jackson's Coil
Lucilla cf. singleyana (Pilsbry, 1890) *cf.* Smooth Coil [3]
Lucilla ct. inermis (H. B. Baker, 1929) *cf.* Oldfield Coil
Euconulus dentatus (Sterki, 1893) Toothed Hive [12]
Euconulus trochulus (Reinhardt, 1883) Silk Hive
Guppya sterkii (Dall, 1888) Tiny Granule [48]



- Glyphyalinia indentata* (Say, 1823) Carved Glyph [34]
Glyphyalinia lewisiana (G. Clapp, 1908) Pale Glyph [1]
Glyphyalinia virginica (Morrison, 1937) Depressed Glyph [16]
Glyphyalinia wheatleyi (Bland, 1883) Bright Glyph [6] §
Hawaiiia alachuana (Dall, 1885) Southeast Gem [6]
Hawaiiia minuscula (A. Binney, 1841) Minute Gem [1]
Mesomphix globosus (Mac Millan, 1940) Globose Button [4] >L
Mesomphix vulgatus H. B. Baker, 1933 Common Button [35] > R
Striatura meridionalis (Pilsbry and Ferriss, 1906) Southern Striate [58]
Ventridens collisella (Pilsbry, 1896) Sculptured Dome [31] >
Ventridens demissus (A. Binney, 1843) Perforate Dome
Ventridens pilsbryi Hubricht, 1964 Yellow Dome
Zonitoides arboreus (Say, 1817) Quick Gloss [6]
Euchemotrema fraternum (Say, 1824) Upland Pillsnail [4]
Euchemotrema leai (A. Binney, 1841) Lowland Pillsnail
Inflectarius inflectus (Say, 1821) Shagreen [32]
Mesodon clausus (Say, 1821) Yellow Globelet
Mesodon elevatus (Say, 1821) Proud Globe
Mesodon thyroideus (Say, 1817) White-lip Globe [1]
Mesodon zaletus (A. Binney, 1837) Toothed Globe [22] >
Neohelix albolabris (Say, 1817) Whitelip [2]
Patera appressa (Say, 1821) Flat Bladetooth
Triodopsis vulgata Pilsbry, 1940 Dished Threetooth [27] > L §§
Triodopsis cf. vulgata Pilsbry, 1940 cf. Dished Threetooth [2] > R §§§
Xolotrema obstrictum (Say, 1821) Sharp Wedge [13]



- § ID change from *G. rhoadsi* based on adult shells first found during this saturation effort.
 §§ Previously misID'ed as *Triodopsis hopetonensis* (Shuttleworth, 1852) Magnolia Threetooth.
 §§§ Previously ID'ed as *Triodopsis vulgata* Pilsbry, 1940 Dished Threetooth; figure above :see both in the figure.

In summary, 681 specimens of 39 species, all native to the area, were collected at "AR" on 5/17/08. The total for the two (9/15/07 & 5/17/08) "AR" collections is 43 native species. To the best of my knowledge, based largely on personal experience and a series of informal conversations with American land snail experts over several decades, this single "AR" station (and the two-visit single locality composite) seems to have detected more biodiversity than any other place studied in the eastern United States - ever! The expedition was specifically designed to accomplish this feat. The strategy for its success involved a carefully-selected provident habitat (the limestone-rich KY pristine forest which had provided an abundance of snails previously), a team of energetic and savvy collectors, the technical combination of visual reconnaissance with generous sampling of the forest duff, and temperate weather preceded by generous precipitation. We can congratulate ourselves on a well-planned and -executed outing, but only Lady Luck should be credited for that final ingredient.

In my experience, the runner-up for productivity at a single station is 36 native species taken in the vicinity of Florida Caverns on 5/12/08 (Lee, 2008b). A total of 1267 specimens was taken in this event.

Next on my medal stand is the October, 1989 sample taken at "The Cabin," James Mt., Haywood Co., NC by Bonnie Holiman and Billie Brown with 566 specimens of 33 native species (Lee, 1990, 1993). The cumulative tally over a half dozen collecting episodes at "The Cabin" is 37 native and one introduced species.

Never have I gotten over 30 native species in a single collecting event at a Jacksonville locality under natural conditions. It is true that larger numbers have been taken from single localities, but I had to resort to at least one of two special methods: repeated (composite) sampling or drift analysis (Lee, 2006a).

Among the largest Jacksonville area single station takes are (native snails only): Freedom-Commerce Tract [33 spp.] (Lee, 2006a), Bennett Branch [22 spp.], Baker-Skinner Park [20], and the Jennings Tract [20 spp.], but these four were all essentially based on drift samples, the composition of which is not a natural assemblage.

The largest Jacksonville area "single locality" composite native snail species inventories are: Munsilna McGundo House, Ft.

George Is. [34 spp.], low woods, Dupont Ctr., St. Johns Co. [32 spp.], my back yard [25 spp.], Ft. Caroline National Memorial [25 spp.], and Big Talbot Is. [23 spp.] (Lee, 2006c). The latter two actually include more than one specific locality. Species lists and a map showing all the Jacksonville area localities can be found on our website at <<http://www.jaxshells.org/cumu.htm>>.

On Sanibel Is. at Ding Darling National Wildlife Refuge I took 847 specimens of 22 native landsnail species on 3/3/06 (Lee, 2008c)

My best Bennington Co., VT take so far has been Folsom Quarry on the eastern flank of Mt. Aeolus, where 23 native species were collected on 9/27/03 (Lee, 2004). Excluding the discovery of two introduced species, the cumulative tally increased to 28 with a second visit on 5/24/08.

Using samples of drift collected from the center of the USA by coast-to-coast sheller Tom Grace in 2005, I was able to find large numbers of native land snails: Buffalo River, AK [36 spp.], Marais des Cygnes River, KS [29 spp.], Neosho River, KS [26 spp.]. Two landmark collections were made in Alabama: (1) Several liters of drift from the Paint Rock River in Madison Co. contained 32 species of native snails (Lee, 1996). (2) During COA 2006 I took 26 native species at Claiborne Bluff, Monroe Co. without resorting to drift sampling (Lee, 2006b).

Returning to Nelson Co., I must write a bit of an epilogue. Because of Rob's interest in the open grassy area and pond margin at the picnic site, I analyzed the grass-soil sample I took:

Species found in grass-duff sample ("Rob's spot") near W shore 1 acre impoundment of another spring run, 200 m W "Anguispira Rock" [~37°44.5N X 85°31.32W]. H.G. Lee and R. Smotherman! May 17, 2008:

Carychium riparium Hubricht, 1977 Floodplain Thorn [2] > §

Vertigo milium (Gould, 1840) Blade Vertigo [3] >> §

Strobilops labyrinthicus (Say, 1817) Maze Pinecone [2]

Punctum minutissimum (I. Lea, 1841) Small Spot [1]

§ Not previously unrecorded from Nelson Co.



1.89 mm



1.50 mm

Thus the total species count for Nelson Co., KY collected by Lori Schroeder and associates climbs to 56! This finding at "Rob's Spot," in the context of the exhaustive benchmark collection made just 1/8 mile away, is a fine demonstration of the influence of habitat on the composition of the landsnail fauna ... and it opens the doors to speculation about how many land snail species **do** actually occur in Nelson Co., KY. Life wouldn't be interesting, and science wouldn't be true to form if new questions didn't arise as soon as older ones are answered.

The author wishes to thank Ed Cavin for logistical, photographic and field assistance, Bill Frank for technical, editorial, and photographic services, Lori Schroeder for her hospitality, ground-breaking field work, and editorial contributions, Dr. Jeffrey Schroeder for his cinematography, photography, and their editing, as well as field support, Lynn and Richard Scheu for their provision of materials and botanical support, and Rob Smotherman for his enthusiasm and provocative curiosity in the field.

Lee, H. G., 1990. Toward an improved strategy for landsnail collecting. *Shell-O-Gram* 31(1): 3,6-8. Jan.-Feb.

Lee, H. G., 1993. Toward an improved strategy for landsnail collecting. *American Conchologist* 21(1): 12-13. March.

Lee, H. G., 1996. A contrivance to combine conchological collection capacity coincident with canoe clamming -or- Dream stream stems teem with stenotremes. *Shell-O-Gram* 37(6): 1, 4-5, 7. Nov.-Dec.

Lee, H. G., 2004. Advancing Vermont malacology -or- Finding lime recycled after half a billion years of mineral inertia. *Shell-O-Gram* 45(1): 2-6. Jan.-Feb.

Lee, H. G., 2006a. The urban shelling experience: wrack up a new method - if you get my drift. *Shell-O-Gram* 47(1): 3,-4. Jan.-Feb.

Lee, H. G., 2006b. Landsnails of Claiborne Bluff. *American Conchologist* 34(3): 30-31. Sept.

Lee, H. G., 2006c. Archaeology team really digs shells. *Shell-O-Gram* 47(6): 1,5-6. Nov.-Dec.

Lee, H. G., 2008a. Shelling Sequel: Snailer Schroeder's shelled species survey soars significantly since second stage started (soil samples sorted). *Shell-O-Gram* 49(1): 3-10. Jan.-Feb.

Lee, H. G., 2008b. A dirty job, but one worth doing - Florida Caverns redux. *Shell-O-Gram* 49(4): 4-6. July-Aug.

Lee, H. G., 2008c. Shelled landsnails of the Indian Mound, Ding Darling National Wildlife Refuge, Sanibel Is., Florida.

submitted to *Florida Scientist*.

Schroeder, L., 2005. The reluctant explorer. *Shell-O-Gram* 46(1):1, 3-4. Jan.-Feb.

Schroeder, L., 2008. The reluctant explorer. *American Conchologist* 36(2): 32-34. June.

Appendix: L to R: *Carychium riparium*, 1.89 mm; *C. clappi*, 1.77 mm; *C. nannodes*, 1.39 mm >



<*Punctum smithi* 1.11, 1.18 mm; note basal lamella



Vertigo gouldii 1.68, 1.84 mm, showing variation >

Beach Shelling and Learning about our local Beaches

Rick Edwards will be conducting shell walks for the GTMNERR (Guana Environmental Education Center) on Oct 11 (tentative) and Nov 16. If you are new to the area or are a novice collector, you may wish to consider one these guided beach walks.

For information on time and meeting place contact the Environmental Center at 904-823-4500.

A \$3.00 parking fee does apply to park in the beach parking lot.

School Shell Kits.

If you have extras you can spare, bring them to a meeting.

1. **Knobbed Whelk** *Busycon carica* (Gmelin, 1791)
2. **Lightning Whelk** *Busycon sinstrum* Hollister, 1958
3. **Pear Whelk** *Busycotypus spiratus* (Lamarck, 1816)
4. **Shark Eye** *Neverita duplicata* (Say, 1822)
5. **True Tulip** *Fasciolaria tulipa* (Linnaeus, 1758)
6. **Eastern Banded Tulip** *Fasciolaria hunteria* (G. Perry, 1811)
7. **Crown Conch** *Melongena corona* (Gmelin, 1791)
8. **Lettered Olive** *Oliva sayana* Ravenel, 1834
9. **Florida Rocksnail** *Stramonita haemastoma floridana* (Conrad, 1837)
10. **Horse Conch** *Triplofusus giganteus* (Kiener, 1840)
11. **Eastern Auger** *Terebra dislocata* (Say, 1822)
12. **Eastern Mudsnail** *Ilyanassa obsoleta* (Say, 1822)
13. **Thick-lip Drill** *Eupleura caudata* (Say, 1822)
14. **Common Atlantic Slippersnail** *Crepidula fornicata* (Linnaeus, 1758)
15. **White Baby Ear** *Sinum perspectivum* (Say, 1831)
16. **Channeled Duckclam** *Raeta plicatella* (Lamarck, 1818)
17. **Disk Dosina** *Dosinia discus* (Reeve, 1850)
18. **Common Jingle** *Anomia simplex* dOrbigny, 1832
19. **Incongruous Ark** *Anadara brasiliana* (Lamarck, 1819)
20. **Green Mussel** *Perna viridis* (Linnaeus, 1758)