SHELL·O·GRAM

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The JSC will meet on the customary **fourth Thursday**, March 28 and April 25, 2013 at **7:00 PM** at the usual venue, the **Southeast Branch Jacksonville Public Libra**ry < http://jpl.coj.net/lib/branches/se.html>, 10599 Deerwood Park Blvd, Jacksonville [(904) 996-0325].

The March program will be preceded by a shell-of the-month selected by Rick Edwards to exemplify the Carolinian Marine Province. Harry Lee will give a program on this biogeograhic region and how it interfaces with its neighbor to the south, the Caribbean Province. He will base his presentation on five shell collections made at separate points along the Atlantic Seaboard from NC to SE Florida.

Charlotte Thorpe will give the April Program. Her topic will be worldwide conesnails. As we've come to expect, her discussion will be lavishly illuminated by color photographs of living animals of this beautiful and very specialized group of gastropods. For the shell-of-the month, Harry Lee will present *Conus ventricosus* Gmelin, 1791 < http://www.jaxshells.org/sincon2.htm>, a variable species living principally in the Mediterranean Sea.

2013 JACKSONVILLE SHOW

The Jacksonville Shell Club will hold its Annual Shell Show on June 13 thru the 16th. The 13th is for Set-up. Our dealers and exhibitors will be able to bring in their displays on Thursday, from 10am to 4:30pm.

The hours for the public to visit the Show are as follows: Friday 10:00am to 4:00pm, (Judging begins at 4:30pm - Just the judges, scientific chairman and helpers will be present.) The Show will also be open on Saturday from 10:00 to 5:00pm, and Sunday from 10:00am to 3:00pm. Parking in front of the Morocco is free.

We will need all the help we can get. We need members to help run the door, raffle tickets, hospitality, shell store, publicity, dealers, auditorium layout, set-up, tear down, etc. To make this a success, we need all of our members to pitch in.

Again we will have our wonderful Chef Cricket Brown who will prepare an outstanding dinner Saturday night. Award winners will be announced, and our fun Silent Shell Auction will be open from 6:30 to 9:00 PM; BYOB.

There will be many dealers offering fabulous shells, coral, crafts and shell books in attendance. We need all of our members to take a part in this Show and to be there to meet and greet our guests. We will also need to be available to our dealers to watch their booth on Fri/Sat so they can have lunch at Billie's Lunch Bar.

Shell Show forms will go out soon for dealers and exhibitors. Once again - Admission is Free - So we better get busy and make this our BEST Shell Show ever. Brian Marshall, Charlotte Thorpe and Harry Lee will be Vice-Chairmen for this event. Thanks, Charlotte 904-246-0874.

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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:

The members of the Board of Directors recently assembled and delegated the responsibilities related to our upcoming Jacksonville Shell Show. Thank you to all who attended the meeting and assisted with this effort. Additionally, Laura Rowley was nominated and unanimously elected to serve as a member on the Board of Directors. Business over the next couple of months will revolve primarily around shell show related matters and in the field of education we have a couple of great programs lined up. I look forward to seeing all who can attend our meetings over the next couple of months.
Brian

Feb. 23, 2011 — An international research team, with Spanish participation, has discovered a new species of mollusk, *Polyconites hadriani*, in various parts of the Iberian Peninsula. The researchers say this species, which is the oldest in its genus, adapted to the acidification of the oceans that took place while it was in existence. This process could now determine the evolution of modern marine systems.

Below: *Polyconites hadriani*. (Credit: Eulàlia Gili *et al*.)
The new species *Polyconites hadriani*, which was discovered in 2007, has been crowned the oldest in the Polyconites genus of the Polyconitidae, a family of rudist bivalves, which large group arose and became extinct with the dinosaurs. To date, scientists had thought that the oldest mollusk in this genus was *Polyconites verneuili*. "*P. hadriani* is similar in shape to *P. verneuili*, but it is smaller (with a 30 mm smaller diameter), and with a thinner calcite layer to its shell (around 3 mm difference)," says Eulàlia Gili, one of the authors of the study and a researcher at the Department of Geology of the Autonomous University of Barcelona (UAB).

The new species was found in several parts of the Iberian Peninsula -- in the Maestrat basin, the Vasco-Cantábrica basin, to the south of the Lusitania basin and in the Cordillera Prebética mountain range, "where it accumulated in dense conglomerations along the banks of the carbonate marine platforms of the Lower Aptian period (114 million years ago)," says Gili.

"This recognition of *P. hadriani* resolves the lengthy uncertainty about the identity of these polyconitids of the Lower Aptian," the researcher says in the study, which has been published in the *Turkish Journal of Earth Sciences*.

What to do with *Hima* of authors, not of Leach, 1852?

The genus-level name *Hima* Leach, 1852 is employed frequently in the literature, usually as a subgenus of *Nassarius* Duméril, 1805[1]: 166 <Nassariusdescription>, the type species (TS) of which is *Buccinum arcularia* Linnaeus, 1758 (**fig. on L**) by its subsequent monotypy (SM) designated by Froriep (1806: 167). There seems to be general agreement as to its limits. Since several western Atlantic (WA) taxa, e.g., *Nassarius antillarum, N. paucicostatus,* and others thus far innominate: *N.* sp. cf. *N. albus*, *N*. sp. cf. *N. consensus*, both from northeast Florida (Lee, 2009: 111), *N*. sp. A, and *N*. sp. B, both from the Gulf of Mexico (**figures L to R above**), fit in this group, a scrutiny of the taxonomic and nomenclatorial underpinnings of *Hima* is essential to any advance in our understanding of this fauna.

Hima Leach, 1852[2]: 122-126 <Himadescription>) was introduced as a full genus. Its TS, *Buccinum minutum* Pennant, 1777 [= *B. incrassatum* Strøm, 1768 (**fig. on L**) <images and synonymy>], was established by the subsequent designation (SD) of Marwick (1931: 115).

However, Woodring (1928: 265) pointed out that *Hima* is actually a misspelling of *Hinia*[2] Leach *in* J.E. Gray, 1847a[3]: 269 <Hiniadescription>, inasmuch as the same three species, *Buccinum minutum* Pennant, 1777, *Buccinum reticulatum* Linnaeus, 1758, and *Planaxis mollis* G.B. Sowerby I, 1823[3] (unnecessarily renamed *Hima laevigata* Leach, 1852: 126; pl. 10, fig. 1), were originally included in each unit. Thus *Hima* Leach, 1852 is an incorrect subsequent spelling and thus unavailable for the purposes of taxonomic nomenclature (I.C.Z.N., 1999: Article 33). The TS of *Hinia* was restricted to *Buccinum reticulatum* Linnaeus, 1758 (**fig. on L**; <imagesandsynonymy>) by the SD of Cossmann (1901: 204 <Cossmann>. Since *Tritia* Risso, 1826: 172 <Tritiaoriginaldesc> is also based on *B. reticulatum* [SD Gray (1847b: 139 <GraySD>)], *Hinia* is an objective junior synonym thereof and must yield precedence.

The several WA nassariids under consideration bear a much closer resemblance to "*Hima" incrassata* (Strøm, 1768) than to "*Hinia" reticulata* (Linnaeus, 1758), and Cernohorsky (1984: 47, 175) recognized the two species as distinct at the subgeneric level. If these two aren't congeneric, then to what generic unit should we assign these WA species? Not *Tritia* (*+ Hinia*), based on *B. reticulatum*, not *Hima* Leach (unavailable), not *Hima* authors (although based on *B. incrassatum,* unavailable), and not even *Hinea*[3] (based on an unrelated planaxid).

Cernohorsky (1981: 175; 1984: 175) cites *Mirua* Marwick, 1931: 115, TS OD *Nassa socialis* Hutton, 1886 of the New Zealand Miocene (**fig. on L**) and *Reticunassa* Iredale, 1936: 322 TS OD *Nassa paupera* A. Gould, 1850 (**fig. on R**) of the Recent Indo-West Pacific fauna as synonyms of *Hima* of authors. Are these two species true congeners; can we prudently allocate our WA *Hima* [of authors] to one or both of these generic units? Admittedly *Reticunassa* is closer, but, except for the angulation and adaxial/ventral flexion of the posterior labrum in *Mirua*, the WA species are extremely close to it as well. Considering these shared features in the context of conchological variation among the Recent *Nassarius* (e.g., Cernohorsky, 1984; also Appendix below), I feel comfortable applying *Mirua* Warwick to the group of shells at the top of the preceding page and view the taxon as widely distributed in both time and space. Taken together, these attributes favor full generic over subgeneric rank.

Footnotes:

[1] Gregory (2010) demonstrated this publication date; the oft-cited 1806 appears on the title page of this first edition (incorrectly) and correctly on the second.

[2] Petit (2012: 94; taxonomic note 29) wrote: "Gray (1847e [here 1847a]) is a copy of a list of British Mollusca compiled by Leach that had been circulating in parts after his death in 1836. Gray published the list, properly attributed to Leach. It is, in every sense, a Leach paper, and the *nomina* therein are attributable to Leach. In his preface Gray wrote: 'To make the list more easily understood, I have added the genus to which Montague [sic] or Lamarck has referred the species, after the name used by Dr. Leach.' These annotations are easily recognized and make it possible to determine the identity of species assigned to new genera. At one time the incorrect citation of Gray as author of this paper was rather common. Based on an application from Dr. Myra Keen, an avid and frequent user of the Plenary Powers, the genus name *Ocenebra*, attributed to Gray instead of Leach, was placed on the Official List of Generic Names in Opinion 886 (I.C.Z.N., 1969). In Opinion 1942 (I.C.Z.N., 2000) the 1847 paper is correctly attributed to Gray and the taxa to 'Leach in Gray.' Also, Gray (1852g [*error pro* Leach, 1852]) edited a large posthumous volume of Leach's work and names from there are sometimes improperly attributed to Gray."

[3] Not to be confused with *Hinea* Gray, 1847b*:* 138 <Hineadescr> TS by monotypy *Planaxis mollis* G.B. Sowerby I, 1823 [= *Buccinum brasilianum* Lamarck, 1822 from the Recent of New Zealand]. *Hinia*, *Hinea,* and *Hima* all sprang from the same 1816 Leach ms, and *Planaxis mollis* is cited as a member of each of these three in their respective original descriptions. John Edward Gray seems to have been more than a little confused by the Leach nomina. Interestingly, each of these genera eventually received a different and quite distinct type species.

Acknowledgments: Thanks are due to Pierre Rocroi/Philippe Bouchet, who pointed out Woodring's discovery of the synonymy of *Hima* and *Hinia* as well as the availability of *Tritia*, to Dick Petit for wise counsel on matters nomenclatorial, to Bill Frank for image-editing, to Femorale, Guido Popppe, and Marlo Krisberg for images; Emilio García also provided images as well as access to Cernohorsky (1984).

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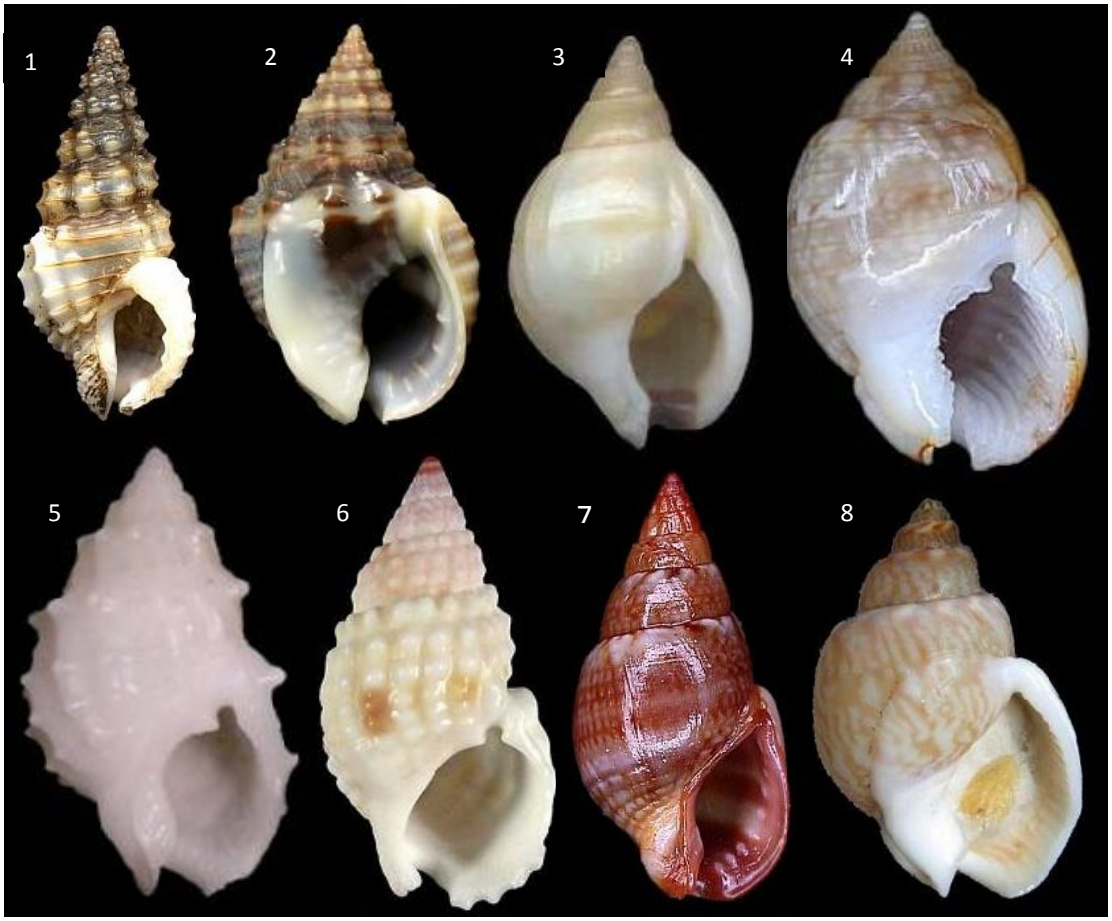
APPENDIX: 1. *Nassarius acutus*, 2. *N. polygonatus*, 3. *N. glabratus*, 4. *N. luridus*, 5. *N.* sp. cf. *N. echinatus*, 6. *N. papillosus*, 7. *N. corniculus*, 8. *N. mutabilis.*

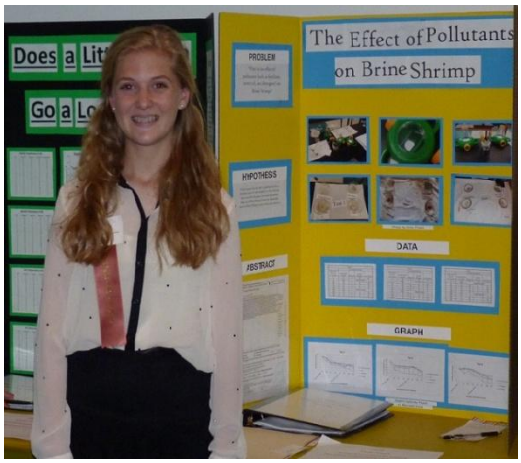


58th Annual Northeast Florida Regional Science and Engineering Fair

by Harry G. Lee and Bill Frank

On February 11 the writers judged the annual science and engineering fair. For the Jacksonville Shell Club this, too, has become an annual exercise, with origins way back in the 1970's . As representatives of the club, we were looking for projects that dealt with problems involving malacology, invertebrate zoology, and/or marine science. Like last year, the Morocco Temple on St. Johns Bluff Rd., home to over a decade of shell shows, was chock full of projects, no less than 390 of them. Because any one of the thirteen categories (Behavioral and Social Sciences, Biochemistry, Botany, Chemistry, Computer Science, Earth Science, Engineering, Environmental Science, Mathematics, Medicine and Health, Microbiology, Physics and Astronomy, and Zoology), albeit with differing likelihood, might include a contender, we got at least a glimpse of every one of the 390 projects.

Once our initial reconnaissance was complete, most of our effort was expended in the Environmental Science galleries, and we interviewed a half-dozen finalists. Competition was keen, especially in the Senior Division (grades 9-12), but we eventually reached consensus after about two hours of evaluation.



Our Junior Division (grades 6-8) winner is Emily Prohl (**on R**), an 8th grader from Fletcher Middle School, Jacksonville Beach. Emily measured the effects of three common environmental pollutants on survival of Brine Shrimp in her home laboratory. Much of the work involved in the project involved the development of effective techniques to maintain, count, and determine viability of the crustaceans though the experimental period. Using uniform concentrations, numbers of test organisms, and volumes, she found that two of the pollutants reduced the survival of her Brine Shrimp over the course of exposure. To Emily's surprise, the fertilizer she selected did not have that effect.

Kevin Coyle (**below**), a senior at Bishop Kenny High School, won the JSC Senior Division Award. Kevin had become aware of the extensive stands of *Spartina* (Cordgrass) containing its symbiont, *Littoraria irrorata* (Say, 1822), the Marsh Periwinkle, while rowing in the St. Johns River over the years. In order to better understand the relationship between the two, fodder and grazer respectively, he staked out an area of several square meters in a salt marsh near Mill Cove in the Arlington area of Jacksonville. Over a period of a week he made daily observations in his experimental tract, including water temperature, water-level, salinity, and number of snails on the plants' stalks. Using sophisticated regression analysis (facilitated by an on-line calculus), he was able to show significant correlation between two of the water characteristics and deployment of the periwinkles. It appears that higher salinity and lower temperature [possibly driven by tidal flux, ed.] tended to make the periwinkles ascend the Cordgrass.

Emily received a JSC check for $50.00 and Kevin $75.00 the next evening at the awards ceremony.