



 March-April 2009

Volume 50 no.2

Jacksonville Shell Club gets ready for 50th Year

Historical Highlights of the Jacksonville Shell Club from Gertrude Moller

Gertrude Moller, an active member for 50 years, is one of the founding members of the Jacksonville Shell Club. The last Thursday in June, 1959, its first meeting was held. This meeting was the result of an article that was printed in the Florida Times Union on April 26, 1959. The article, by staff writer Nancy Campbell, told about Gertrude's shelling exploits when she lived on Eleuthera Island in the Bahamas. As a result of the article, nine individuals who had interests in shells, contacted her and she made a list of their names. When Mrs. Larry Hedgecoth called her about shells Gertrude mentioned she had compiled a list of others that were interested in shells. This led to the first meeting of what was to become the Jacksonville Shell Club.

Mrs. Hedgecoth invited those collectors to her home for a shell slide presentation and refreshments. This meeting on the last Thursday was held each month thereafter except November and December. These meetings were held in member's homes initially, but were soon moved to various locations in the Jacksonville area as membership grew from the original ten to twenty.

In January 1960, that group officially became the Jacksonville Shell Club with 20 Charter members and Mr. Larry Hedgecoth was elected its first President.

More history in the next edition

Programs

"The regular March meeting will convene at 7:00 PM at the usual venue, the Southwest Branch Public Library, on Thursday, March 26. The Shell-of-the-month will be the *Dondice occidentalis* (Engel, 1925), also known as the Western Dondice. Brian Marshall will discuss his discovery of a small colony of these frilly nudibranchs in the St. Augustine Inlet area. For the main program Charlotte Thorpe and Harry Lee will present a pictorial review of the micromollusks of northeast Florida.

"At 7:00 PM on Thursday April 23, 2009 the club will again meet. Brian Marshall will perform a Shell-of-the-month curtain call and tell us about *Doriopsilla pharpa* Er. Marcus, 1961. Aptly dubbed the Lemon Drop, this nudibranch has quite a different appearance than its March, 2009 counterpart. With Charlotte Thorpe's help, Harry Lee will present highlights of a CD titled *Shells on Stamps*. To compose this work, British philatelo-conchologist Dr. Tom Walker has assembled images of all 6200 postage stamps issued through 2008. Every one has a different story, and many such are of great interest to shell collectors."

Jacksonville Shell Club, Inc.
1010 N. 24th Street
Jacksonville Beach, FL 32250

Membership: Charlotte Thorpe
E-mail: charlloyd@bellsouth.net

Editor: Richard 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.

Beach Shelling and Learning about our local Beaches

Rick Edwards will be conducting shell walks for the GTMNERR (Guana Environmental Education Center) on April 25. 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.

President's Message

Hello Everybody!

Think about it! May 28 is just around the corner. Seems like we just finished our last year's shell show and here it is time for another. We owe Charlotte our thanks, again, for stepping up and agreeing to be our Chairperson.

We will still need volunteers to help in various jobs. So PLEASE, don't just be a member of our club - be an active member! Our membership is small and we need people to help by doing more than one job. The success of our show depends on you!

Publicity is a very important part of our show (Clare is doing a great job, as usual) and you can help by passing out fliers, posters and by talking about our show every chance you get. Call Charlotte and find out what else you can do to help. No job is too small.

See you at the next meeting - only 3 before the Shell Show! If you have constructive ideas this would be the time to share.

See you soon! Best,
 Billie 241-3755

Welcome a New Member

James & Lillian Smith

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**

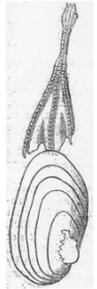
A freshwater malacologist reflects on Darwin's birthday*

By Rob Dillon**

Charles Darwin, whose 200th birthday the world has just celebrated, may have been the last complete biologist. His research interests spanned the entirety of the life sciences as they were known in his day, from his "Monograph on the Subclass Cirripedia (1851) through his "Descent of a ripping-good adventure story featuring "atmospheric dust with infusoria (1)." And his last publication, a four-paragraph communication appearing in 1882 just two weeks before his death, was a work of freshwater malacology (2).

In fact, Darwin first touched on freshwater mollusks in his (1859) "Origin of Species." Early in the chapter he entitled "Geographical Distribution - Continued," Darwin observed, "Some species of fresh-water shells have very wide ranges, and allied species which, on our theory, are descended from a common parent, and must have proceeded from a single source, prevail throughout the world. Their distribution at first perplexed me much." But Darwin then went on to relay a number of anecdotes regarding the attachment of juvenile freshwater mollusks to the feet and feathers of waterfowl, concluding his lengthy paragraph with "Sir Charles Lyell informs me that a *Dytiscus* (3) has been caught with an *Ancylus* firmly adhering to it."

Darwin's fascination with dispersal and biogeography brought him back to the subject of freshwater malacology in 1878 (4), with a charming anecdote about a surprisingly large unionid mussel found attached to the toe of a duck shot in Danversport, Massachusetts (5; right). And it reached full flower with his 1882 "On the Dispersal of Freshwater Bivalves (6)."



Darwin opened this, the last paper he would publish before his death, with "The wide distribution of the same species, and of closely-allied species of freshwater shells must have surprised every one who has attended to this subject." After reviewing his observations of 1859 and 1878, Darwin wrote, "I am now able to add, through the kindness of Mr. W. D. Crick, of Northampton, another and different case. On February 18 of the present year, he caught a female *Dytiscus marginalis*, with a shell of *Cyclas cornea* (7) clinging to the tarsus of its middle leg." Darwin went on to relay additional data about this now most illustrious of all fingernail clams, which was large (0.45 inch), viable (dropping from the bug only after five days) and fertile (bearing two juveniles). He then added several anecdotes about other individual sphaeriids found attached to the digits of amphibians, and finished with the charming observation that "my son Francis, while fishing in the sea off the shores of North Wales, noticed that mussels were several times brought up by the point of the hook."

Darwin concluded his 1882 work, "there can, I think, be no doubt that living bivalve shells must often be carried from pond to pond, and by the aid of birds occasionally even to great distances." This point may seem a bit trivial to us today, perhaps even quaint (8). But Darwin's central thesis, that all these creatures have diverged from a single common ancestor, required that they have originated at a single point, and dispersed throughout the world. If a convincing case could be built for freshwater mollusks, surely to be ranked among the most disadvantaged of the world's dispersers, perhaps the remainder of the worldwide biota might fall into line.

There's an interesting postscript to the story of Charles Darwin's career as a freshwater malacologist. The "Mr. W. D. Crick of Northampton" who sent Darwin his report of the fingernail clam pinched on the water bug leg was Walter Drawbridge Crick (1857-1903), the grandfather of Francis H. C. Crick, who (with James Watson & Maurice Wilkins) shared the 1962 Nobel Prize for elucidating the structure of DNA (9).

At the outset of this essay, I characterized Charles Darwin as "the last complete biologist." Chief among the reasons that there can be no more such protean figures must be the 20th century explosion of molecular biology, which has expanded our discipline in directions Darwin could never have imagined. It is a source of some inspiration to me that one can trace a path from Darwin to DNA through the great man's last paper, and the humble discipline of freshwater malacology.

Footnotes:

(1) Yes, Chapter 1 of Darwin's *Voyage of the Beagle* included a passing note about "infusoria" (primarily diatom frustules) in dust accumulated while on shipboard.

(2) I've taken a bit of license with this paragraph. Darwin had a couple publishing credits prior to his (1839) *Voyage*, and several posthumous papers after his 6 April 1882 paper on freshwater bivalve dispersal. For Darwin's complete bibliography, including PDF downloads of the papers mentioned here, see: <http://darwin-online.org.uk/contents.html>

(3) *Dytiscus* is a genus of large, predatory water bugs. Although spending the great majority of their lives swimming gracefully through the water column, they may on occasion take to the wing, flying like balsa-wood airplanes with old rubber bands.

(4) Darwin, C. (1878). Transplantation of shells. *Nature* 18:120-121.

(5) *Elliptio complanata* pinched onto a duck foot, from Darwin (1878):
<http://www.cofc.edu/~fwgna/images/Darwin-mussel.jpg>

(6) Darwin, C. (1882). On the dispersal of freshwater bivalves. *Nature* 25:529-530.

(7) The genus *Cyclas* has since been synonymized under *Sphaerium*. Today this common European "Fingernail Clam" is generally referred to as "*Sphaerium corneum*."

(8) It is not, however. See the classic paper by W. J. Rees (1965), "The Aerial Dispersal of Mollusca" (*Proc. Malac. Soc. London* 36: 269 - 282.)

(9) We must acknowledge an article in the February, 2009 issue of National Geographic for calling our attention to this remarkable coincidence: Ridley, M. (2009) Modern Darwins. *National Geographic* 215: 56 - 73.
<http://ngm.nationalgeographic.com/2009/02/darwin-legacy/ridley-text/1>

*First submitted electronically to the FWGNA (Freshwater Gastropods of North America) Group at 10:31 PM Feb. 25, 2009 and reproduced here with the author's permission. The title was supplied by Assistant Editor, Harry G. Lee.

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Jacksonville Shell Club selects Science Fair winners

by Harry Lee

Rick Edwards and Harry Lee represented the club at the annual Northeast Florida Regional Science and Engineering Fair. As with last years' event, the venue was the University Center at the University of North Florida, and the large function room on the first floor was filled to capacity.

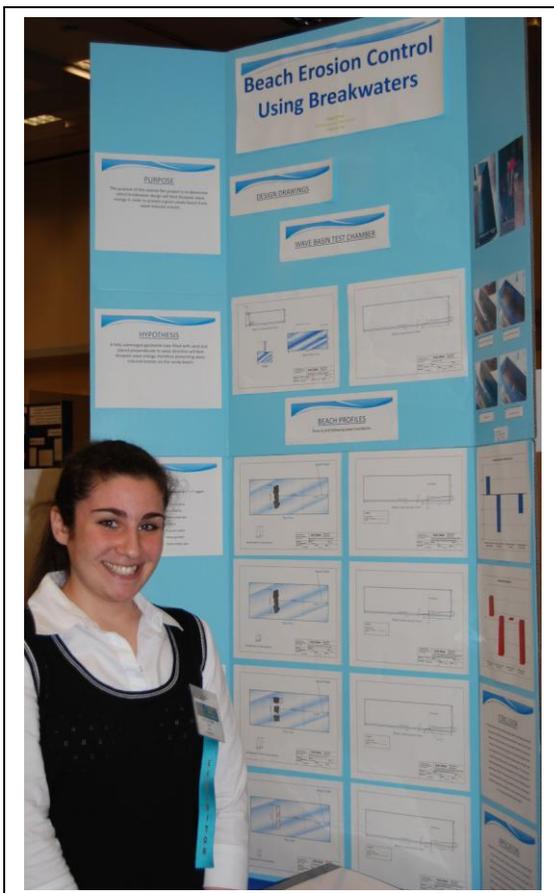
There were hundreds of exhibits, and their quality was remarkably good. Furthermore, it seems that each year technologic sophistication leave a greater imprint on the images and graphics used in the presentations.

Since our criteria included excellence on malacology, and/or marine biology, and/or invertebrate zoology, we looked at virtually every project and interviewed over a dozen exhibitors. We found projects in several divisions: engineering, botany, microbiology, and zoology included topics relevant to the interests of the club. The kids who created these works are truly a talented and articulate bunch.

For our Junior Award winner, we selected Joseph Balbona, an eighth grader at Episcopal High School. His project is titled “What is the effect of the hyperaccumulator *Spartina alternifolia* on the presence of heavy metals in water?” Joseph designed a system in which he was able to apply dissolved elemental lead to a standardized container with and without a measured sod sample of marshgrass, which plant he demonstrated had thrived in his “laboratory garden” (my quotes) for long periods. Dissolving granules of elemental lead into marsh water, he prepared his own heavy metal “cocktails” (my quotes again), which were applied to systems with and without the *Spartina* sod samples in standardized fashion. The results indicated a steady disappearance of the metal from successive water samples in the *Spartina*-containing but not the marshgrass-free system. Thus he confirmed one of the beneficial effects of a natural ecosystem, one which we associate with many characteristic species such as the Marsh Periwinkle, *Littoraria irrorata*, and Ribbed Mussel, *Geukensia demissa*, among several other molluscan denizens.

Vicki Zifteh, a twelfth-grader at Bishop Kenny High School, won our Senior Award for her project on prevention of beach erosion. In “Beach erosion control using breakwaters,” she contrasted four different designs of breakwater construction in a simulated shore environment. To do so she constructed her own miniaturized seashore using identical parameters such as volume of sand, level of water, and position and height of the surrogate breakwater. Perhaps not surprisingly, the design favored by engineers turned out to be the most efficient in her experiments.

Each winner received a check, fifty dollars for Joseph and seventy-five for Vicki, at the awards ceremony held in the same building that evening.



Joseph Balbona, an eighth grader at Episcopal High School. His project is titled: **The Effect of the Hyperaccumulator *Spartina alterniflora* on the Presence of Lead in Water**

Vicki Zifteh, a twelfth-grader at Bishop Kenny High School. Her project is titled: **Beach Erosion Control Using Breakwaters**

**Jacksonville Shell Show & the Shell Clubs Golden 50 Year Anniversary
will be held on May 29-31, 2009.**

**We will need the help of all of our club members and volunteers for the three day Show. Most
of the jobs are filled, but there will be a great need for members
to help in the various booths.**

Please call Charlotte 246-0874, or Billie 241-3755 to volunteer.

IN MEMORIAM

*Honorary Club member Andrew Thomas (Tom) Duhon passed away on Feb, 28, 2009.
Tom was an avid shell enthusiast who created a magnificent 12 ft. 3-ring circus using shells. The
circus gave many hours of delight to children and adults visiting his exhibit at various events in
the area, including the Jacksonville Annual Shell Show.
He will be greatly missed by his friends in the Shell Club.*

Correction

Sept 25-27 **OREGON SHELL SHOW**, Portland, OR
2009 Oregon Museum of Science & Industry,
1945 SE Water Ave.
Donna Saffir, 10409 NW Burkhardt Court
Portland, OR 97229 (503) 297-3009
E-mail: dragonz@comcat.net

Jacksonville Shell Show
Location: Morocco Shrine Auditorium
Date: May 29-31
Website: www.jaxshells.org
Contact phone number: 904-398-6383