SHELL·O·GRAM
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The Jacksonville Shell Club (JSC) will meet on the fourth Thursday of January (the 23rd) and February (the 27th) at the usual place and time (Southeast Branch Public Library; 7:00 PM).

The January Shell-of-the-Month will be presented by Mary Reynolds, who has chosen a large bivalve native to our waters, *Anodontia schramm*i (Crosse, 1876), the Chalky Buttercup Lucine. Despite its size it is seldom seen by shellers and is a bit of a prize for any collection. Harry Lee will discuss the family Triphoridae, particularly those species occurring in moderate depths in the central Philippines. This group is one of the most speciose of all marine groups About 95% of its species are sinistral, and these comprise about 95% of all normally sinistral marine gastropods. Modern novel collecting techniques have brought to light an amazing array of shells, many of which are species new to science.

The February Shell-of-the-Month will be *Contraconus adversarius* (Conrad, 1840), a snail which flourished in the Plio-Pleistocene Epoch but became extinct hundreds of thousands of years ago. Like the vast majority of January's triphorids, yet unlike all other conesnails that ever existed, shells of this species are normally left-handed. Rick Edwards will make the presentation, and he will follow up with a report of a European trip that he Roz, and their children enjoyed and allowed them shelling opportunities.

Shelling at Cedar Key: Reported by Brian Marshall

On January 1st and 2nd, 2014 the Jacksonville Shell Club held it's customary annual field trip to Cedar Key. In attendance were Charlotte Thorpe, Dr. Harry G. Lee, Brian Marshall, Nickie Marshall and Heaven Marshall. The trip was to include one day of shelling on the flats located in front of the old Beachfront Motel followed by an excursion to the outer key flats via a charter the next day. Unfortunately our charter was cancelled as a result of severe fog conditions. As a result, we concluded day two on the same flats as the prior day. Although much of the 2 days we were there it rained almost the entire time, we really lucked out and did not get much rain during the morning when the tides were low. It is also noted that it was not as cold as has been experienced on prior trips over the years, but we have also experienced warmer conditions at times which are always welcomed by us Floridians! Overall, it was tolerable.

Harry Lee using net to search of a new Costoanachis species.

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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 emailed or USPS mailed to all regular members. Annual membership dues are $15.00 for individuals or $20.00 for families (domestic) and $25.00 (foreign). Lifetime membership is available. Please send checks to the above address and made out to the Jacksonville Shell Club, Inc. For members that use PayPal, you can now go to PayPal to pay your dues. Use neflshells@bellsouth.net as the address and be sure to add a note with your name.

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 from this newsletter 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.

Shelling Cedar Key continued.....

The most notable change we observed this year was the explosion in the *Melongena Corona* (Crown Conch) population. I have attended this trip for a near 8 consecutive years and have typically observed 10 or less of this species in the past on any given field trip. This year was strikingly different, as there were hundreds of this species to be observed. There were times when I could not help but to step right on them just to get around. When you have a species in such great numbers, first thought is to see if you can luck out and find a reverse coiled specimen. As much as we searched, we did not have any luck with a reverse coiled specimen. However, Nickie Marshall did obtain one specimen that was smooth shouldered, a great addition to any specimen collection. As well, it was a perfect opportunity to collect a couple fine samples of the Cedar Key *Melongena corona*. On another note, Cedar key is famous for its population of *Crytopleura costata* (Angelwing). This year I only observed 2 of which I did not bother to attempt to dig up. In the last 3 years I have attended this trip, they were much more abundant, but I do recall in years prior, I would only observe a couple here and there. It seems they come and go! At the time of this writing I do not have a comprehensive list of what was observed or collected, as the shells are still working the way through the cleaning and logging process. However, I can say samples of Urosalpinx, Epitonium, Nassarius, Costoanachis, Cerithium, Turbonilla, Eupleura and Boonea are a few on the list.

Meanwhile, Dr. Harry G. Lee was primarily in search of a new Costoanachis species (*Costoanachis 550*) in order to obtain DNA evidence. The species has been observed and collected on various tangled masses of microalgae, sponges, gorgonians and a red weed like alga that we are in the process of identifying. This read alga is a rhodophyte of some sort and appears to be the predominant habitat for this species. Although crabbed specimens were obtained, there were no living specimens of this particular species to be collected on this trip as we anticipated on finding these on the excursion to the outer banks. However, in due time Dr. Lee will obtain his samples. Outside of the marine shelling, Dr. Lee and I took a trip up to Steinhatchee in search for new Daedalochila populations. Two years ago we made this same trip and got skunked. At that time, the weather had been much drier. With the return of our customary Florida moisture, we had much better results this time, discovering 2 new stations where *Daedalochila*. sp. aff. *subclausa* and *Daedalochila auriculata* variants were observed living together. Had we not been on a road in the middle of nowhere and low on gas, we were confident we would have discovered additional stations. But, this just gives us another reason to return to the area in the future to explore more.

Although our charter was cancelled and it seemed to rain endlessly, it was another fun year at Cedar Key and I am already looking forward to returning. I always look forward to the wonderful seafood dinner Charlotte cooks for us, good times with friends that share similar interests and just a few days to get away from the normal hustle and bustle and retreat to a nice quiet setting. On a final note, the Beachfront Motel has always been a convenient and popular place for room accommodations for us shellers and it has been closed for the last 3 years. I am proud to announce that it has reopened and hope to see that it is available for us in the future.

Audubon's Shells **by Harry G. Lee**

John James Audubon (1788-1851) was a revolutionary naturalist and illustrator. Like any innovator, he was somewhat controversial early in his career, but when his benchmark work, *Birds of America* (hereafter *BofA*) began appearing in 1827, he began achieving international acclaim, principally for the **life-sized** prints from aquatint etched etchings. These productions were derived from watercolor paintings he executed mostly during his travels in the eastern US and Canada. Typically Audubon would paint from freshly shot birds, and supply some of the background of each watercolor. Usually each work would then be embellished with depictions of the natural setting provided by an assortment of collaborators. There has been much written about the scientific accuracy of the ornithological aspects of these 535 portraits (concluded in 1838), and the non-avian biota, e.g., plants and reptiles, which are generally quite accurate in appearance and context.

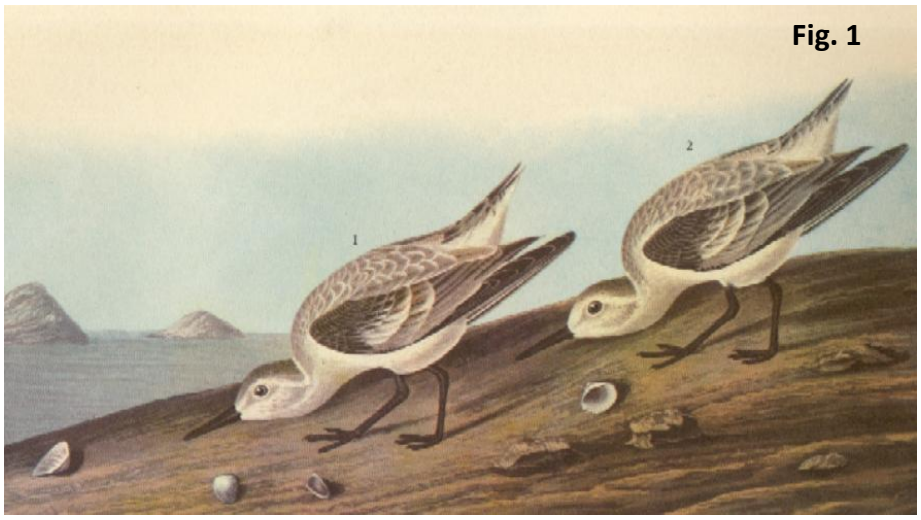
Fig. 1

The shells of mollusks can be found in some 17 of these elephant folio plates. This report looks at some ecological and zoogeographic aspects of the juxtaposition of these natural history objects with the avian and other components of these prints.


Fig. 2

Audubon produced a companion text to *BofA*, and, like the plates, it was issued serially (1831-1839). In this work, *Ornithological Biographies*, there are wonderful vignettes dealing with avian natural history but also including experiences of the author and his human interactions. Furthermore, many of his letters and diaries have been preserved and published. Thus we have been able to gather biographical insights which can somewhat illuminate the artist's use of shells.

Also of interest is the fact that Audubon's watercolors have survived, published in facsimile, and become easily available. Use of this resource allows analysis of some of the collaborators' contributions, e.g., that of the engravers, to be inferred by comparing the two stages of each production. By applying the above forensics one can gain a little more understanding of the artist and his conchology.

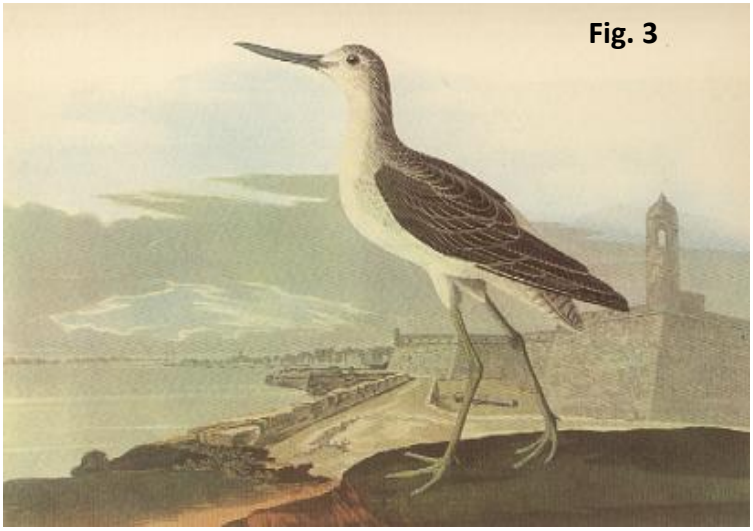

Fig. 3

Audubon's center of operations in the Southeast was Charleston, where he had many dozens of subscribers to *BofA*. His fellow zoologist, Dr. John Bachman (1790-1874) was his frequent host, and Audubon's two sons married the two Bachman daughters. He visited with the eminent conchologist Edmund Ravenel (1797-1870), known to us for numerous contributions, including the description of the Lettered Olive, *Oliva sayana*; for a discussion of the unusual nomenclatorial and taxonomic history of this beautiful local shell, see our website, specifically: <http://www.jaxshells.org/hgl54.htm>.Ravenel provided the artist with a "fine collection" of shells, which Audubon apparently kept with him for a substantial period of time. It is also apparent that Audubon obtained some of the shells used as "props" from other sources.

In November of 1831 Audubon, accompanied by his landscape artist collaborator, George Lehman, left Charleston for Florida. They spent much of the winter in St. Augustine, where the naturalist painted dozens of birds including those depicted in **Figs. 1-4.** the third of (just above) which includes Castillo de San Marcos. I must confess the inclusion of this plate here is a bit tenuous (the fort's its construction from **coquina** rock), but there is heuristic value to it. The fort does not appear in Audubon's watercolor of this bird, which was misidentified as a Greenshank and shot near Key West. It seems a near certainty that Lehman added the background to that which was etched on the copper plate at some later point in the production process. In any event, this process exemplifies the artifices by which some of the Audubon plates were composed. On the predceding page the shells included with the Sanderlings in **Fig. 1**: *Lunarca ovalis* and Herring Gulls in **Fig. 2**: that ark plus *Crassostrea virginica*, appear in the watercolors and were likely painted by Audubon. Furthermore they are quite consistent with the landscape and birds depicted. However, on the R, **Fig. 4**: Dunlins, there is an anomalous juxtaposition of the topical birds, the shells in the foreground, and the hilly landscape in the background. Neither the landsnail, *Neohelix albolabris*, nor any of its congeners occurs in Florida, and the *Cypraecassis testiculus* (Cowrie Helmet) would be a distinct rarity on a St. Augustine beach. Yet by far the most bizarre feature in this hodgepodge is the *Appporhais occidentalis* (New England Pelicanfoot), which is not found south of Cape Cod. The birds were almost certainly shot at different times of year, the one on the right being in summer plumage and quite possibly taken in Maine or Labrador, where Audubon visited not long after quitting Florida. This kind of whimsical composition is seen in a few more of the Audubon plates and indicates an exceptional abandon.

Fig. 4

Thus we must conclude that John James Audubon, ornithologist extraordinaire and quintessential natural history artist of the Nineteenth Century, perhaps of all time, had a certain passion for shells. However, he seems to have regarded them as somewhat ornamental rather than worthy of the rigorous scientific scrutiny he afforded his birds.

A breakdown of the Audubon birds and mollusks

If one reduces the 26 coon oysters to just 1 (clump) and subtracts the roughly 20 unidentifiable molluscan remains, the ratio across each row comes to about 25:1 birds: mollusks.

Legend for figures herein vs. BofA

Fig. 1. Plate 230. Sanderling; *Lunarca ovalis*
Fig. 2. Plate 291 Herring Gull; *Lunarca ovalis, Crassostrea virginic*a
Fig. 3. Plate 269 Greenshank (possibly a Greater Yellowlegs); *Donax variabilis* (in coquina rock)
Fig. 4. Plate 290 Dunlin; *Neohelix albolabris, Apporhais occidentalis, Cypraecassis testiculus*

Continued on Page 6.

Audubon's shells

Mytilus edulis Linnaeus, 1758 Blue Mussel
Lunarca ovalis (Bruguière, 1789) Blood Ark
Noetia ponderosa (Say, 1822) Ponderous Ark
Crassostrea virginica (Gmelin, 1791) Eastern Oyster
Unionoidea species Pearly Freshwater Mussel
Donax variabilis Say, 1822 Variable Coquina
Ensis americanus (A. Gould, 1870) Atlantic Jackknife
Mya arenaria Linnaeus, 1758 Softshell
Mya truncata Linnaeus, 1758 Truncate Softshell

Tectura testudinalis (Müller, 1774) Plant Limpet
Viviparidae species Mysterysnail
Aporrhais occidentalis Beck, 1836 American Pelicanfoot
Lobatus raninus (Gmelin, 1791) Hawkwing Conch
Neverita duplicata (Say, 1822) Shark-eye
Cypraecassis testiculus (Linnaeus, 1758) Reticulate Cowrie-helmet
Charonia variegata (Lamarck, 1816) Atlantic Triton Trumpet
Nucella lapillus (Linnaeus, 1758) Atlantic Dogwinkle
Buccinum undatum Linnaeus, 1758 Waved Whelk
Scaphella junonia (Lamarck, 1804) Junonia
Cancellaria reticulata (Linnaeus, 1767) Nutmeg
Neohelix albolabris (Say, 1817) Whitelip

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PRESIDENTS MESSAGE

Dear JSC Members,

Happy New Year to everyone, wishing the best to all of you and your family. In our January meeting we will follow up on recent conversations for a shelling trip to Cumberland Island. As discussed the field trip will need to take place in the first week of February as we will have extremely low tides. We are hoping to obtain enough member involvement to engage in the trip. If you are interested in this event, please attend the next meeting or contact me via email or phone. As well, we will begin our planning for the 2014 Jacksonville Shell Show. During our meetings for January and February, we would like to have as much attendance as possible in order to delegate out the various responsibilities to make our show a success. I look forward to seeing everyone!
Brian Marshall