SHELL·O·GRAM

Official Publication of the
JACKSONVILLE SHELL CLUB, INC.

July-August, 2000 **Volume 41(4)**

July Meeting

The Thursday July 27th meeting of the Jacksonville Shell Club will be held at the Southeast Branch Public Library at 7:00 PM.

No formal educational program will be presented. Instead, that portion of the meeting will be devoted to discussing the club's recently completed shell show.

The Shell-Of-The-Month will be given by Bill Frank on *Bradybaena similaris* (Férussac, 1821) (The Asian Trampsnail) – an exotic species found in Duval County.

As is customary, refreshments will be served and guests are cordially invited to attend.

August Meeting

The Thursday, August 24th meeting of the Jacksonville Shell Club will be held at the usual time and place.

Charlotte Lloyd will present the month's educational slide program chronicling her mid-July dive trip to the Bahamas.

A surprise Shell-Of-The-Month will be given by the Jewells on a species found in the Bahamas.

Don't miss one of Charlotte's great programs - plan now to attend and bring a friend.

A Remarkable Catch

By Charlotte Lloyd

On April 24th of this year my son Brian was surf fishing for Whiting at Katherine Hanna Park in Atlantic Beach, Florida. He felt something pulling on his line and reeled in a discarded fishing rig entangled with algae, dead sea whips, marsh grass, a large parchment worm, sponges, and an empty whelk egg case. This "biomass" was teeming with a zillion (his description) hermit crabs in miniature shells. Recognizing several species of *Epitonium*, he put the tangle in his bucket, added seawater, and went home to call and tell me what he had for me. I was on my way to give a shell program to senior citizens, and it was several hours before I could pick up the bucket; consequently the hermit crabs expired. First glance told me it would be worthwhile to examine the shells more closely.

Once home I photographed the "catch," and then came the task of removing the hermit bodies from the shells. I found the "panning for gold" method to be the most successful. With water running into the bowl with the shells, most of the hermit crab bodies, being less dense than the shells, washed out and over the bowls rim.

I identified the hermit crabs as *Pagurus longicarpus* Say, 1817, a small and plentiful crab along our coast. Its well-developed soft and somewhat coiled abdomen is inserted into a dead mollusk shell it carries around as portable protection.

I noticed large numbers of *Nassarius acutus* (Say, 1822), the Sharp Nassa, so I thought it would be interesting to compare the numbers of different species to come up with a count. *Nassarius acutus* is a small 8-12 mm. species that has a glossy sturdy structure with strong pointed beads on the whorls. The beads occasionally have a narrow brown spiral line connecting them. Dr. Harry G. Lee was excited to hear about the catch and offered to identify all of the shells (see the list with identification and shell counts at the end of article). **(Continued on page 3.)**

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http://home.sprynet.com/~wfrank/jacksonv.htm

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: Teresa St. John, Treasurer
2605 Emily Court
Jacksonville, FL 32216-5101

The club meets each month, excluding December, at the Southeast Branch Public Library, 10599 Deerwood Park Boulevard, 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.

Welcome New/Rejoined Members

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Another Shelling Ban Instituted

Effective August 1st, the harvest of live shells within the town limits of Fort Myers Beach will be prohibited. It should be noted that the term "shells" as used here is synonymous with "shellfish" which is defined as members of the phyla Mollusca and Echinodermata.

This ban on shell collecting by Ft. Myers Beach is the second time that a Florida municipality has taken such action – the first being Sanibel on January 1st, 1995.

Since Sanibel's ban, Lee County (the county in which both Sanibel and Fort Myers Beach are located) also enacted a restriction banning the harvest of more than two live shellfish of any species per-day. This was followed by Manatee County on July 1st, 1996, which enacted the same restriction as Lee County. Specifically excluded are those edible species "oysters (*Crassostrea virginica*), hard clams (*Mercenaria* spp.), and (sic) sunray venus clams (*Macrocallista nimbosa*), bay scallops (*Argopecten irradians*, and coquinas (Genus *Donax*)." It should also be noted that harvest is defined as "the catching or taking of live shellfish by any means whatsoever, followed by a reduction of such shellfish to possession. Temporary possession of a shell for the purpose of determining whether it contains a live shellfish shall not constitute harvest, so long as such shellfish is not harmed in any manner." Additionally in regards to Lee and Manatee Counties, simple possession (other than temporary) is prohibited.

Freaky Flatcoils

By Harry Lee

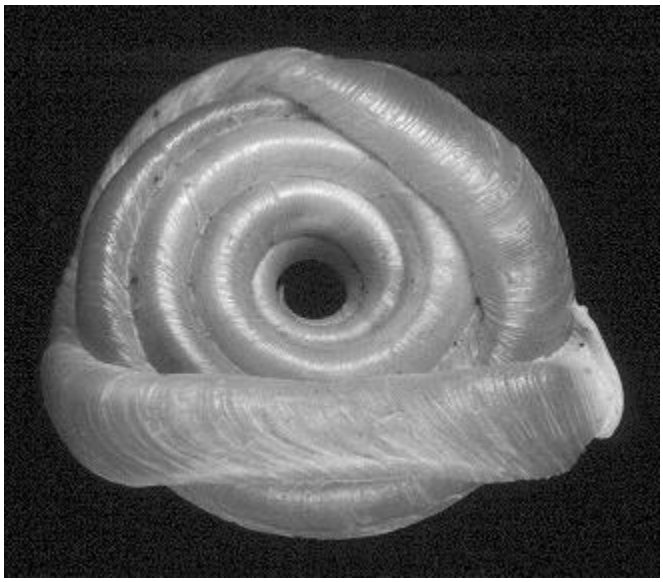


Figure 1. - Phil Poland's deformed specimen (14 mm.)

Polygyra cereolus (Mühlfeld, 1818*), also called the Southern Flatcoil,** is certainly the most ubiquitous landsnail in most of Florida. It achieves densities of thousands of living specimens per square meter - often in the most unpropitious (for most snails) situations.

Particularly well-adapted to withstand fluctuations of temperature and humidity, colonies can prosper on roadsides, graveyards, lawns, drainage swales, often more than in traditional (moist and shaded) areas. Originally limited to the Coastal Plain of the American Southeast, its ability to exploit ruderal (stressed, usually altered by man) habitats has made it a bit of a pest, and it has consequently extended its range to remote parts of the country by transport on ornamental plants, etc.

Quiite variable in size and whorl-count, the shell of *P. c.* is usually in the range of a quarter inch, occasionally a lot more, placing it above the median size of our 64 native shelled landsnails [see **Http://home.sprynet.com/~wfrank/checklis.htm**]. In our part of the U. S., the only species with which it might be confused is *P. septemvolva* (Say, 1818), the Florida Flatcoil, which Thomas Say named from specimens he collected at Picolata, St. Johns Co., on his 1817-18 East Florida expedition. The Florida is generally flatter, more widely-umbilicate, and possesses more whorls than the Southern Flatcoil; it is often as abundant. There are occasional intergrades, however.

Figure 2. – Wayne Sullivan's sinistral specimen (right)

As Phil Poland and Mariette Jearey independently concluded (see May-June *Shell-O-Gram*), the kind of population dynamics and habitat preference exhibited by *P. cereolus* are favorable for the appearance (and collection) of anomalous specimens. Well, two such sports have come to our attention. A sinistral specimen was collected by Wayne Sullivan in Desoto Park, Pinellas Co. in 1986. I was able to examine and photograph it shortly afterward (Figure 2.). Even more bizarre is a shell of *P. septemvolva* (recently collected by Phil) (Figure 1.), in which the body whorl abruptly veers off-course and traverses the base of the shell in a manner reminiscent of the (normal) growth pattern of the opisthostomines, terrestrial operculum-bearing snails of Tropical Asia.

***** Erroneously listed as "1816" in 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, U. S. A.

****** The convention of writing the vernacular names of animal species in lower case (e.g. southern flatcoil vs. Southern Flatcoil - as in Turgeon, Quinn, *et al*.) can be problematic. Take, for instance, the statement: "I found a minute gem among some glossy granules in my backyard; it was climbing on a carrot glass." There are three local snails in that report! How does one interpret this out of context? We are content to capitalize the proper names of people, places, and certain specific things (like Parkinson's, or Parkinson, Disease), but the revisionists want us to relegate the natural world to syntactical second citizenship. Let it be "I found a **Minute Gem** among some Glossy Granules in my backyard; it was climbing on a **Carrot Glass**." Actually I sorta' did! The **Carrot Glass** is *Dryachloa dauca* Thompson and Lee, 1981; my backyard is the type locality.

A Remarkable Catch – continued from page 1.

The 3,952 shells obtained from the "Remarkable Catch"

At final count, I recorded an amazing 3,952 shells with 2,088 being *Nassarius acutus* for 53% of the total. The 1,864 other shells were distributed among 59 different species.

Why so many *Nassarius acutus*? The family Nassariidae, the mud snails, are shallow water, often intertidal dwellers. They occur in large colonies and are scavengers. Several months ago I witnessed a closely related *Nassarius* species of the Indo-Pacific in the surf at Nuku Hiva Island in the Marquesas. This mollusk was very active in the surf zone. Each wave would pick up the tiny snail several feet off of the bottom where it would use its mantle to maneuver/glide to the bottom to feed again. There must have been thousands in an area of about five square meters. I can only surmise that locally *Nassarius acutus* has the same habit and is a lot more common in our surf than I had originally thought.

The question also arises as to why so many hermit crabs were on the biomass entanglement. What are the gains of coexistence - food, protection, reproduction? We do know that some hermit crabs like the company of their peers. Any shell collector can tell of turning a rock and finding hundreds of hermits "hanging out together." The mass could also have been a "lunch wagon" on which the hermits could hitch a ride and feed as it rolled along the bottom.

Some live shells were found on the mass. These included *Astyris lunata, Anadara ovalis, Anadara transversa* and *Musculus lateralis*. Also, two fossil species were identified - *Carditamera arata* (Conrad, 1832) and *Gemophos lymani* (M. Smith, 1936). There were quite a few single shells of bivalves in the entanglement.

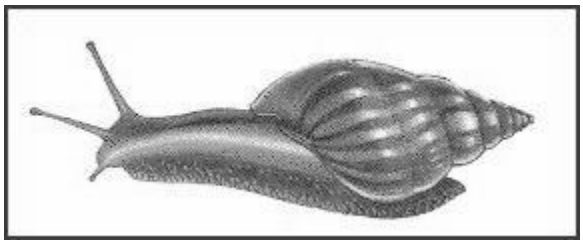
One week later I called Brian to tell him he was right about the *Epitonium*, that there were eight species identified, and that the total number of shells in the catch was 3,952. His reply was, "Wow, - Mom just think how many jumped or fell off when I was reeling it in!"

Below is a listing of shells and the number of each species obtained from the tangle of tackle, seagrass, *Busycon* eggcase, etc., angled by Brian Lloyd and lent to H. G. Lee on 4/27/00:

- **1** *Nucula proxima* Say, 1822 Atlantic Nutclam
- **3** *Brachidontes exustus* (Linnaeus, 1758) Scorched Mussel
- **11** *Musculus lateralis* (Say, 1822) Lateral Mussel
- **3** *Anadara ovalis* (Bruguière, 1789) Blood Ark
- **17** *Anadara transversa* (Say, 1822) Transverse Ark
- **1** *Carditamera arata* (Conrad, 1832) fossil
- **1** *Pleuromeris tridentata* (Say, 1826) Threetooth Carditid
- **1** *Crassinella dupliniana* (Dall, 1903) Pointed Crassinella
- **13** *Mulinia lateralis* (Say, 1822) Dwarf Surfclam
- **1** *Tellina versicolor* DeKay, 1843 Many-colored Tellin
- **1** *Donax parvulus* Philippi, 1849 Little Coquina
- **2** *Donax variabilis* Say, 1822 Variable Coquina
- **3** *Abra aequalis* (Say, 1822) Atlantic Abra
- **1** *Dosinia discus* (Reeve, 1850) Disk Dosinia
- **1** *Sphenia dubia* (H. C. Lea, 1843) Dubious Sphenia
- **1** *Litiopa melanostoma* Rang, 1829 Sargassum Snail
- **1** *Vermicularia knorrii* (Deshayes, 1843) Florida Wormsnail
- **3** *Littoraria irrorata* (Say, 1822) Marsh Periwinkle
- **1** *Caecum antillarum* Carpenter, 1857 Antillean Caecum
- **1** *Strombus alatus* Gmelin, 1791 Florida Fighting Conch
- **3** *Crepidula plana* Say, 1822 Eastern White Slippersnail
- **51** *Neverita duplicata* (Say, 1822) Shark Eye
- **431** *Tectonatica pusilla* (Say, 1822) Miniature Moonsnail
- **9** *Epitonium* sp. aff. *albidum* (d'Orbigny, 1842) cf. Bladed Wentletrap
- **16** *Epitonium angulatum* (Say, 1831) Angulate Wentletrap
- **1** *Epitonium championi* Clench and Turner, 1952 Champion's Wentletrap
- **6** *Epitonium humphreysii* (Kiener, 1838) Humphreys' Wentletrap
- **7** *Epitonium* sp. aff. *marcoense* Dall, 1927 cf. Marco Island Wentletrap
- **3** *Epitonium multistriatum* (Say, 1826) Many-ribbed Wentletrap
- **1** *Epitonium novangliae* (Couthouy, 1838) New England Wentletrap
- **22** *Epitonium rupicola* (Kurtz, 1860) Brown-band Wentletrap
- **2** *Melanella conoidea* (Kurtz and Stimpson, 1851) Conoidal Eulima
- **4** *Melanella hypsela* (A. E. Verrill and Bush, 1900) Sharp Eulima
- **47** *Eupleura caudata* (Say, 1822) Thick-lip Drill
- **34** *Urosalpinx cinerea* (Say, 1822) Atlantic Oyster Drill
- **1** *Gemophos lymani* (M. Smith, 1936) fossil
- **5** *Pollia tincta* (Conrad, 1846) Tinted Cantharus
- **38** *Busycon carica* (Gmelin, 1791) Knobbed Whelk
- **2** *Busycon sinistrum* Hollister, 1958 Lightning Whelk
- **8** *Busycotypus canaliculatus* (Linnaeus, 1758) Channeled Whelk
- **21** *Ilyanassa obsoleta* (Say, 1822) Eastern Mudsnail

- **133** *Ilyanassa trivittata* (Say, 1822) Threeline Mudsnail
- **2088** *Nassarius acutus* (Say, 1822) Sharp Nassa
- **6** *Fasciolaria lilium hunteria* (G. Perry, 1811) Eastern Banded Tulip
- **269** *Astyris lunata* (Say, 1826) Lunar Dovesnail
- **17** *Costoanachis avara* (Say, 1822) Greedy Dovesnail
- **1** *Costoanachis lafresnayi* (P. Fischer and Bernardi, 1857) Well-ribbed Dovesnail
- **323** *Parvanachis obesa* (C. B. Adams,1845) Fat Dove Shell
- **92** *Olivella mutica* (Say, 1822) Variable Dwarf Olive
- **22** *Olivella* species (an unnamed species)
- **7** *Terebra concava* (Say, 1826) Concave Auger
- **161** *Terebra dislocata* (Say, 1822) Eastern Auger
- **1** *Terebra protexta* (Conrad, 1846) Fine-ribbed Auger
- **1** *Cryoturris dorvilliae* (Reeve, 1845) Dorvill's Mangelia
- **5** *Kurtziella limonitella* (Dall, 1884) Punctate Mangelia
- **4** *Rubellatoma rubella* (Kurtz and Stimpson, 1851) Reddish Mangelia
- **1** *Boonea impressa* (Say, 1822) Impressed Odostome
- **1** *Turbonilla (Pyrgiscus) wrightsvillensis* E. Powell, 1981 Carolina Turbonille
- **40** *Acteon candens* Rehder, 1939 Rehders Baby-bubble
- **1** *Acteocina bidentata* (d'Orbigny, 1841) Two-tooth Barrel-bubble

An Unwelcome Visitor



Florida, due to a wide variety of reasons including its geographic location, mild climate and reliance on tourism and international trade, has more than its share of introduced species – both flora and fauna. It has been estimated that about 25 percent of Florida's many plant and animal groups are not native but introduced by humans in the past 300 years. Whether intentionally introduced by man or through other means such as hitchhiking on imports or through ballast water discharges, once established, these exotic species are virtually impossible to eradicate. However, fortunately for Florida residents there is one success story and it involves one of the largest land snails in the world – *Achatina fulica* (Bowdich, 1822) (Giant African Snail).

This species, whose shell can grow to a length of nearly 125 mm. (about five inches), has been introduced widely in Asia, to islands in the Pacific and Indian Oceans, and recently to the West Indies. It is a serious agricultural pest and road hazard as your editor personally observed during a three-year stint in Okinawa, Japan. There, its prevalence on roads following wet weather literally made them "slippery."

The Giant African Snail was intentionally introduced into Florida in 1966, when a boy returning from Hawaii smuggled three of the snails into Miami, and his grandmother released them in her garden. Reproduction ensued, and in 1969 the Florida Division of Plant Industry (DPI) was alerted, leading to an immediate survey. The state Commissioner of Agriculture notified the news media about the giant snail, mailed over 150,000 copies of an attractive brochure, and called for public assistance in reporting and eliminating it. An area covering about forty-two city blocks was quarantined, but within days, a second infestation was discovered - in Hollywood, 25 miles north of Miami and well outside the initial quarantine zone.

The ensuing eradication campaign relied primarily on hand-picking, plus a granulated chemical bait. There were frequent surveys, and by 1971 in a six months period only forty-six snails were found - compared to 17,000 in the previous sixteen months. In Hollywood, seventeen months after its initial infestation, only one adult snail was found. But less than a month after the effort seemed to have succeeded, a third infestation, probably three years old, was discovered three miles south of the original Miami site, with over 1,000 live snails on one block. The block was quarantined, and a large buffer zone was surveyed and treated. Nine months later, a fourth infestation, again about three years old, was found two miles north of the original one, followed by a fifth, about half a mile north of the initial infestation.

Although profoundly disappointed, the DPI persisted. By 1973, seven years after the three snails were brought into the city, more than 18,000 had been found, and many eggs. In the first half of that year, by contrast, only three snails were collected, in two sites. By April of 1975, no live specimens had been found for almost two years, and the campaign - which had cost over

$1,000,000 - was judged successful. Frequent surveys were continued for many months, along with the application of bait and chemical drenching. As a result, the Giant African Snail has not been found again, anywhere in the state.
*****Adapted from Impacts of Introduced Species in the United States by Daniel Simberloff - published in *Consequences, Vol. 2*, No.2, 1996 - a publication of Saginaw Valley, MI State University.
(See: **http://www.ncal.verio.com/~nsn/simberloff.html**)

A Note from Billie and Paul Brown Concerning the Shell Show

Hi Everybody! In lieu of a hospitality room at the shell show, we will be offering lunch and hospitality at our home. We will be serving lunch on Saturday and Sunday from eleven-thirty (11:30 AM) until two (2:00 PM). The club will furnish a main item and beverages. Club members are asked to supplement with side dishes and desserts. Please try to let us know what you may bring so we can coordinate. You can drop-off on Friday if it is more convenient. We will do our best to make sure everybody concerned with the show knows about our lunch plans - our members should also help spread the word. Our home is easy to find from the Brampton Inn. Maybe you can share a ride with an out-of-towner or someone " not sure."

Directions – Go north from the Brampton Inn to 15th Ave. North (approximately two blocks) and turn left on 15th Ave. Continue about 13 blocks to 14th Ave. North (it is the terra cotta house on the left with rail fence – number 1328). It is the last house on 15th Avenue before Penman Rd., and there is ample parking.

Phone 241-3755 if you need further information or directions. See you there!

THE SHELL SHOW IS COMING

Brampton Inn Resort – Jacksonville Beach, Florida Saturday, July 15th and Sunday, July 16th
Saturday from 9:00 A.M. until 5:30 P.M. and Sunday from 10:00 A.M. until 5:00 P.M.

Jacksonville Shell Club
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