



SHELL-O-GRAM

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All editions will be sent electronically from the new shell club email address: jaxshellclub@gmail.com. Please ensure that we have your accurate email address so that you will continue to receive the Shell-O-Gram. Send your current email to jaxshellclub@gmail.com, Rick Edwards at edwar1@hotmail.com or to Paul Jones at jonesP0854@gmail.com.

Upcoming meetings

The Jacksonville Shell Club, Inc. (JSC) now meets on the **fourth** Sunday of each month except for November (no meeting) and December (traditional Xmas get-together/TBA) at the **Village Inn** in **St. Augustine**. The meeting will be from **5 to 7 PM**. Those who wish to have dinner prior to the meeting should be there by 4 PM to order dinner.

Club Update

We now have officers for the new year. The present officers were elected from a motion which was seconded and voted on with no objections. The following were reelected:

President-	Rick Edwards
Vice President-	Paul Jones
Co	
Secretary-	Mary Reynolds/Tammy Myers
Treasurer-	Doug Plishka
Membership-	Nancy Galdo
SOG Editor-	Bill Shankle

Thank you all. The club is growing in numbers, and we would like to continue the trend. Any suggestions that will improve the club are appreciated.

The November meeting will not be held due to the Thanksgiving Holiday.

December 7 is the December meeting. It will be a Christmas ornament presentation Shell Identification (bring shells you wish to have Id'ed and bring your references if you have some), and dinner. Details are still being worked out.

A date will be set for a "Shell Jamboree," possibly in May. Members will be asked to bring one case of their shells so that they can talk about them and answer questions.

After the damage to Cedar Key from the hurricane, some of the planned shelling trips may require some postponement. This will be discussed at the October meeting.

Bill Shankle has set up an email for the club. It is jaxshellclub@gmail.com. Thank you, Bill.

Rick

Membership Dues are payable in **September** each year.
Many of you have complied, but if you're in arrears, please send in your dues:
Individual \$15.00; Family \$20.00, to

Jacksonville Shell Club, Inc.
Richard Edwards
572 Boxwood PL
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Managing Editor: Bill Shankle ... Email: jaxshellclub@gmail.com

The club customarily meets monthly at the Village Inn, Route 1, St. Augustine, Florida. Please address any correspondence to the club's address above. Annual membership dues are \$15.00 individual, \$20.00 family (domestic) and \$25.00 (overseas). Lifetime membership is available. Please remit payment for dues to the address below and make checks payable to the Jacksonville Shell Club. The club's newsletter and scientific journal, the *Shell-O-Gram* (ISSN 2472-2774) is issued bimonthly and emailed. An electronic (pdf) version is sent to members and to about 200 individuals who have demonstrated an interest in malacological research and/or Florida mollusks. These pdf's (ISSN 2472-2782) have also been posted to <http://jaxshells.org/letters.htm> since November, 1998. We encourage members and other friends to submit articles for publication. Closing date for manuscript submission is two weeks before each month of publication. Articles appearing in the *Shell-O-Gram* may be republished provided credit is given the author and *Shell-O-Gram* Editor-in-Chief. As a courtesy, the editor and author should receive a copy of the original and republication version respectively. Contents of the *Shell-O-Gram* are intended to enter the permanent scientific record. The club is a chartered corporation in the State of Florida and a non-profit educational organization under the provisions of Section 501(c)(3) of the US IRS Code.

Florida Mollusca Exotica: Part 7: Terrestrial Gastropods (1 of 8)

by Robert R. Fales (Edison, NJ; fales@verizon.net)

In this part of the series on exotic Florida mollusks, we turn to the terrestrial gastropods. Before proceeding, there are some generalities to present.¹

- Terrestrial snails are hermaphroditic, having both male and female reproductive organs. Cross-fertilization is the more common mode, but self-fertilization is possible so that, theoretically at least, one individual could initiate a new colony.
- In general, terrestrial snails serve as intermediate hosts of parasites – mainly helminths and protozoa – that can affect, variously, wildlife, domestic animals, and humans. In humans in the United States, the parasites of greatest (but not only) concern vectored by terrestrial snails are the following nematodes:
 - *Angiostrongylus cantonensis* (rat lungworm), which causes eosinophilic meningitis (neuroangiostrongyliasis), which can be fatal, and
 - *Angiostrongylus costaricensis*, which causes abdominal angiostrongyliasis (intestinal angiostrongyliasis)
- Some terrestrial snails
 - feed on “higher” plants and can be agricultural and horticultural pests, and
 - can overrun, outcompete, and even extirpate native species.

We begin with our first four entries, included in Subclasses Neritimorpha and Heterobranchia.

Neritimorpha, Cycloneritida, Helicinoidea, Helicinidae

***Helicina striata* Lamarck, 1822²⁻⁴** (Striate Drop): Native to Puerto Rico. Its ability to adapt to a wide range of conditions accounts for occurrence throughout the island: during dry periods, specimens were taken from under leaves and stones, and in wet periods from low trees and shrubs. Introduced into Miami prior to 1980. May serve as an intermediate host for the nematode parasite *Angiostrongylus cantonensis*. No further information available.

Heterobranchia, Stylommatophora, Achatinoidea, Achatinidae

***Lissachatina fulica* (Bowdich, 1822)^{1,3,5-10}** (Giant African Snail): This voracious polyphagous plant pest with an enormous reproductive capacity began its emigration from East Africa via human agencies about the turn of the 19th century; it is now spread worldwide. This snail grows to a large size; it can attain a length of nearly 8 inches (20 cm) and a diameter of 5 inches (13 cm). First seen in Miami-Dade County in 1966: “eradicated.” Found again in Miami-Dade County in 2011: “eradicated.” Most recently: in June 2022, a population was discovered in New Port Richey, Pasco County; in December 2022, another population was found in Ft. Myers, Lee County; and in June 2023, a population was found in Miramar, Broward County. This snail easily becomes attached to any means of transport or machinery at any developmental stage; once escaped it can establish itself and reproduce prodigiously in tropical and some temperate locations. The snail will feed on most ornamentals,



vegetables, and leguminous cover crops, and the bark of certain trees, including citrus. Its size and prodigious breeding capability can make it a social nuisance simply by presence in great numbers and slime production. The snail is an intermediate host for the nematode parasites *Angiostrongylus cantonensis* and *A. costaricensis* and other parasites of wildlife and domestic animals, and can carry *Aeromonas hydrophila*, a bacterium that can cause disease in animals and humans. Gloves should be worn if the snail is to be handled.

***Opeas hannense* (Rang, 1831)**¹¹⁻¹⁵ (Dwarf Awlsnail): This is a small snail (≤ 6 mm) native to tropical Central or South America; it is now widely distributed in tropical/subtropical areas, and in greenhouses in the northern United States and across Europe. Unknown when/where invaded Florida, but has been collected in at least Collier, Lake, and Miami-Dade Counties. It is found in lawns and under leaf litter and boards in metropolitan areas. The snail requires humid conditions and will not tolerate dryness or cold. Little information is available, and no specific information on status as a parasite host.

***Opeas pyrgula* Schmacker & O. Boettger, 1891**^{11,12} (Sharp Awlsnail): Although described from Japan, the origin of this small snail (≤ 8 mm) is unknown. It is now widely distributed in many tropical and subtropical areas. Unknown when/where invaded Florida, but generally distributed in moist habitats in metropolitan areas throughout the state. Like *O. hannense*, this snail requires humid conditions and will not tolerate dryness or cold. Almost no information available, and no specific information on status as a parasite host.



Acknowledgements

The author acknowledges APHIS, USDA,¹⁶ for the picture of *Lissachatina fulica*, and the website of the Jacksonville Shell Club for the picture of *Opeas pyrgula* (<http://www.jaxshells.org/pyrgula.htm>).

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(Note: If a link does not open the reference when clicking on it, copy/paste or type the URL into the address bar of your web browser.)

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