

November-December, 2013_

Volume 54, No. 6

Because of various scheduling conflicts, not the least of which is our perennial coincidence with Thanksgiving Day, the club will meet on Thursday, November 7 at the usual time and place (7:00 PM; Southeast Branch Public Library Function Room A). A program will be presented by Charlotte Thorpe, who will take us on a vicarious expedition through the many countries where she has found cone-snails. Harry Lee will present the shell-of-the-month, *Huttonella bicolor* (Hutton, 1834), an invasive land snail species occurring in Jax and other spots in the southern US states.

The 2013 JSC Christmas party will be held beginning at 6:00 PM on Saturday, December 7. Our host will be Brian Marshall. As is customary, each attending <u>club member</u> is asked to bring a shell-related gift (about \$10 in value) for a member of the same gender. **The Club will furnish a turkey, ham and soft drinks, but members are asked to bring other food items. Brian will provide further details in his President's Message below.**

Dear JSC Members,

I hope everyone is enjoying the cooler weather! Although we have not had the extremely low tides, some of the members take advantage of shelling on our beaches and inlets. The weather has been beautiful and my family has switched gears from shells to sharks teeth. On our last adventure, we collected 50 teeth at Mickler's Beach within just a couple of hours. This is just one of many ways to get creative and get out on the beach and enjoy the beautiful Florida weather while serving our craving for exploration and hunting.

Please keep in mind our November meeting is once again scheduled early in the month and will take place on Thursday, November 7th at the usual time and place. There is no meeting scheduled in December as we will be hosting the annual JSC Christmas Party. This year the event will take place at my house. Below I have provided directions and you may contact me via email or by phone should you need additional information.

Jacksonville Shell Club Inc., 1010 24th St. N., Jacksonville Beach, FL 32250-2883 Editor, Charlotte Thorpe; email: challoyd@bellsouth.net or 904-246-0874 Assistant Editor, Harry G. Lee; email: shells@hglee.com or 904-389-4049

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 <u>neflshells@bellsouth.net</u> 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.

A Convincing Mimic: Scientists Report Octopus Imitating Flounder in the Atlantic

In the February 2010 issue of *The Biological Bulletin*, MBL Senior Scientist and cephalopod expert Roger Hanlon and his colleagues report the exceptional camouflage capabilities of the Atlantic longarm octopus, *Macrotritopus defilippi*, whose



strategy for avoiding predators includes expertly disguising itself as a flounder. While Hanlon and others have documented two other species of octopuses imitating flounder in Indonesian waters, this is the first report of flounder mimicry by an Atlantic octopus, and only the fourth convincing case of mimicry for cephalopods.

Comparing still photographs and video footage from five Caribbean locations collected over the last decade, Hanlon and co-authors, MBL graduate students Anya Watson and Alexandra Barbosa, observed uncanny similarities between the small and delicate octopus and the peacock flounder, *Bothus lunatus*, one of the most common sand dwellers in the Caribbean. They compared not only coloration, which in each animal resembled the sandy seafloor, but swimming speed and form.

Just like flounder, the octopuses contoured their bodies to hug the wavy seafloor, tapering their arms behind them. They also swam with the same fits and starts as flounder at the same speeds. Interestingly, the octopuses mimicked flounder only when swimming, when movement would compromise their camouflage. How well the animals blended in with their background differed. The octopus showed more highly controlled and rapid skin patterning than the flounder, whose camouflage was slower and less precise.

"We were equally impressed with the remarkable camouflage of this small octopus species even when it was stationary yet entirely exposed on top of the open sand," says Hanlon. "The apparent match in pattern, color, brightness, and even 3-dimensional skin texture was noteworthy even when compared to other changeable cephalopods. They also demonstrated an unusual form of disruptive camouflage."

So why do Atlantic longarm octopuses choose to imitate flounder as a way to avoid the threat of predators? More study of cephalopod mimicry is needed, but a possible explanation, according to Hanlon and his team, could be that predators who could easily take a bite out of the small, soft octopus might find a rigid flatfish like the flounder too much of a mouthful and avoid them.

Spondylus tenuis Schreibers, 1793. The Digitate Thorny Oyster

by Harry G. Lee



Shallow water, Ragged Keys, Molasses Reef, Monroe Co., Florida (40-68 mm.)

Although not found in NE Florida, this thorny oyster is a common species in the warmer waters of the western Atlantic Ocean. There is a reasoned discussion of the synonymy of the variable *Spondylus tenuis* Schreibers (1793: 163-164: <<u>http://www.biodiversitylibrary.org/item/81334#page/183/mode/1up</u>>) in Huber (2010: 215, 628). Since there is no extant type specimen, the latter author proposed the name be based on the figure cited by Schreibers (Chemnitz, 1786: pl. 115, fig. 987; **Fig. 1** herein (below); edited only to remove adjacent figures and captions)

Apparently, Sherborn (1902: 8) was the first to recognize Schreibers' *Versuch*, which he consistently treated as an available work, recognizing numerous taxa in *Spondylus*. Cox (1929: 254), after analyzing all Schreibers' *Spondylus*, concluded they were varietal names only, as "that acceptance of Schreibers' names would bring about a revolution in the whole specific nomenclature of the genus" (M. Huber, personal communication 29 March, 2012). Contrary to Cox's

opinion, Lamy (1938) accepted the work and the spondylid names as available but attributed all of Schreibers' *Spondylus* names to the earlier (but now officially unavailable) nomina provided by Chemnitz or Schröter (Huber, *idem*).



Lamprell (1986, 1987, 1989, 2006) seems to have been the first to actually put Schreibers' *Spondylus* nomina into popular circulation, and he treated *S. tenuis* as a <u>possible</u> senior synonym of *S. ictericus* Reeve, 1856 (pl. 11, fig. 40), which type figure is **Fig. 2** herein (above, R). He maintained that "most authors now consider that these names were introduced validly" (Lamprell, 2006: 10). Certainly that was a bit of a stretch (R.E. Petit, personal communication, 6 December, 2008), but since Huber (2010: 70) found the *Versuch* to be "clearly binominal," and considering the strength of his overall presentation, I am inclined to follow him on the thorny (oyster) synonymy.

Acknowledgments: I thank Markus Huber (Zürich, Switzerland) for enlightening discussions of Schreibers' work and Bill Frank for photographic and image-editing services.

Literature cited:

Chemnitz, J.H., 1786. *Neues systematisches Conchylien-Cabinet 9*. Kaspischen Buchhandlung, Nürnberg. [i-xii] + 1-151 + [i]-xxvi + 1-194 + pls. 103-136 [figs. 875-1270]. On-line at <<u>http://archive.org/details/neuessystematisc91786mart</u>>. [All plates (in B&W) with annotations reprinted in **Richardson, L., R. T. Abbott, G. M. Davis (eds.), 1979.** Early references to the figures in the *Conchylien Cabinet* of Martini and Chemnitz: volumes I - XII. *Tryonia 2, parts 1, 2*: 427 pp., 432 pls., 70 vigns. 1 August.]

Cox, L.R., 1929. On the varietal names for *Spondylus* in K. Schreibers' *Versuch einer vollständigen Conchylienkenntniss* (1793). *Proceedings of the Malacological Society of London 18*: 251-254. [not seen]

Huber, M., 2010. *Compendium of Bivalves.* ConchBooks, Hackenheim, Germany. [1]-901 [in addition, there is a CD constituting chapters 5 and 6; the latter is also in the print version]. August.

Lamy, E., 1938. Révision des Spondylus vivants du MNHN de Paris. Journal de Conchyliologie 82: 177-214; 265-306. [not seen]

Lamprell, K., 1986. Spondylus. *Spiny Oyster Shells of the World*. Robert Brown and Associates Pty., Ltd. Bathurst, Australia. 1-86 incl. 36 plates. [not seen]

Lamprell, K., 1987. Spondylus. Spiny Oyster Shells of the World. E.J. Brill - Dr. W. Backhuys, Leiden, Netherlands. 1-84 incl. 36 plates

Lamprell, K., 1989. Spondylus Notes on the American species. American Conchologist 17(1) 6-9. March.

Lamprell, K., 2006 Spiny Oysters: A Revision of the Living Spondylus Species of the World. Jean Lamprell, Brisbane, Australia. 1-119 incl. 40 plates.

Reeve, L., 1856. Monograph of the genus *Spondylus. Conchologia Iconica 9*. 18 plates, unpaginated facing plate explanations, 1 p. index. January to June. On-line at <<u>http://www.biodiversitylibrary.org/item/36244#page/9/mode/1up</u>>.

Schreibers, K. 1793. *Versuch einer vollständigen Conchylienkenntniß nach Linnes System. Zweyter Band. Von den Muscheln.* J. von Kurzbeck, Vienna. [1-12], 1-446 [447]. On-line at <<u>http://www.biodiversitylibrary.org/item/81334</u>>.

Sherborn, C.D., 1902-1933. *Index animalium sive index nominum quae ab A. D. MDCCLVIII generibus et speciebus animalium imposita sunt.* London. Searchable on-line at http://www.sil.si.edu/digitalcollections/indexanimalium/taxonomicnames/.

President's Message continued.....

At the October meeting we discussed a field trip to Cumberland Island in early or late February. Tides for this month will be comparable to those we will experience in Cedar Key. As well, we are making arrangements for a trip to the SMR shell fossil pit in late March. If these events are scheduled, stay tuned for further details in our next Shell-O-Gram and on our Facebook page.

2013 JSC Christmas Party Contact Info and Directions:

Brian Marshall - Phone: 904.655.7738 - E-Mail: dusaveli@gmail.com - 10515 Indian Walk Rd., Jax, FL 32257

- Via I-295 from Orange Park: Exit San Jose Blvd. Make a left. Make the first right on Hartley Road. Follow Hartley Road past the Ramada Inn and continue. Make the third left on Indian Walk Road. House is the 6th house on the right.

- Via I95 from St. Augustine or Northern Jacksonville: Exit on to the I295 heading west towards Orange Park. Take the first San Jose Blvd exit (5a). Make a right. Make the first right on Hartley Road. Follow Hartley Road past the Ramada Inn and continue. Make the third left on Indian Walk Road. House is the 6th house on the right.



Hope all our members are well and looking forward to our many events for the upcoming year.

The Shell Show for July 10-13, 2014 has been booked in our favorite room at the Morocco Temple. Members think about displays, and how you can help to make this Shell Show a success!

Also - please visit the Jacksonville Shell Club on Facebook!

I look forward to seeing all our members at the Christmas Party at Brian Marshall's home.

Charlotte Thorpe 246-0874