SHELL·O·GRAM

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Nov.-Dec., 2016 _____ Volume 57 (no. 6)

Upcoming programs

Hurricane Matthew roared into NE Florida within hours of the scheduled October meeting of the Jacksonville Shell Club (JSC) necessitating its cancellation. Consequently we'll next meet on the customary third Thursday of **November (the 17th)** in deference to, and a week before, Thanksgiving We'll convene at the usual time (7:00 PM) and place (the Southeast Regional Public Library, 10599 Deerwood Park Boulevard - close to the intersection of Gate Parkway and J. Turner Butler Boulevard <map>). Lou Therres will present the shells-of-the month, the rissoinids of Mactan Island, off Cebu, Philippines (**see sampler on p. 4**). For a couple of years Lou has been examining the living and crabbed microshells that are brought up by the tangle (lumun-lumun) nets deployed by Cebuano fishermen off the coast of Mactan Island in the central Philippines. This methodology has resulted in the discovery of hundreds of new marine gastropod species, many quite small.

Harry Lee will give the main program, "Rare Shells." We shall see the many attributes that conspire to make a shell rare and desirable. Among these are remoteness of range, inaccessibility of habitat, specimen quality, presence of desirable abnormalities, exceptional size (small **or** large), and the non-conchological. The presentation will include illustrations of some of the most prized specimens in the world of conchology, e.g., the nonpariel *Vasum crosseanum* (Souverbie, 1875) **[R]**.

There will be no December meeting because of the Christmas holidays.

Annual membership dues (including your *Shell-O-Gram*) are payable in September. If you're not paid up, please send in your dues: Individual $15.00; Family $20.00, to
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This club meets monthly (Jan.-Nov.) at the Southeast Branch of the Jacksonville Public Library, 10599 Deerwood Park Boulevard, Jacksonville, FL <http://jpl.coj.net/lib/branches/se.html>. Please transmit correspondence to the address above. Annual membership dues are $15.00 for an individual, $20.00 family (domestic) and $25.00 (overseas). Life membership is available. Please remit payment for dues to the address above 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 mailed to an average of 15 regular members and friends by specific request and no less than ten scientific institutions with permanent libraries. An electronic (pdf) version, identical except for "live" URL's and color (vs. B&W) images, is issued the next day and sent to about 200 individuals who have demonstrated an interest in malacological research. These pdf's (ISSN 2472-2782) have also been posted to <http://jaxshells.org/letters.htm> since November, 1998. We encourage members and friends to submit articles for publication. Deadline for manuscript submission is two weeks before each month of publication. *Shell-O-Gram* articles may be republished provided credit is given the author and the journal. As a courtesy, the editor and author should receive a copy of the republication. Contents of the *Shell-O-Gram* are intended to enter the permanent scientific record.

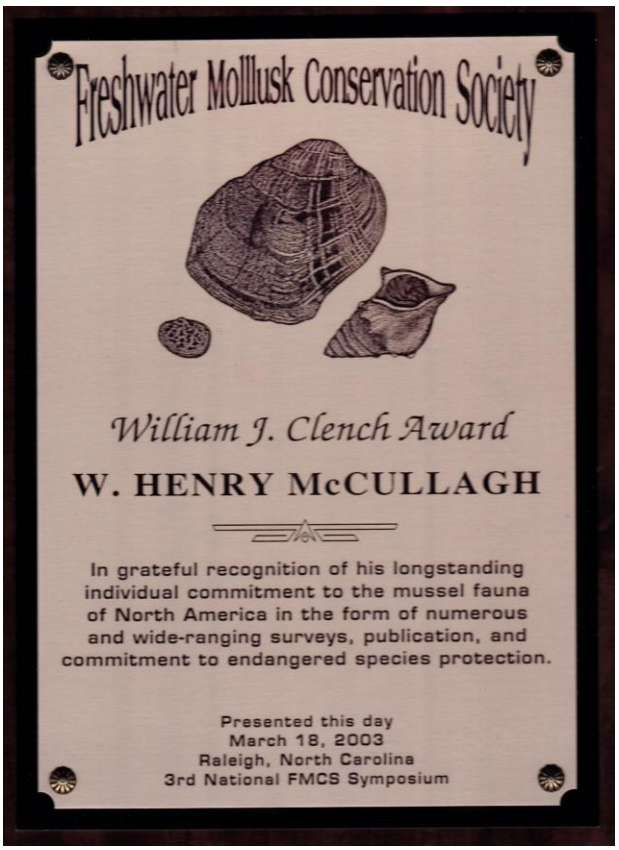
In Memoriam: (William) Henry McCullagh Jr., MD FACC (Nov. 12, 1938 – Oct. 7, 2016

Long-time JSC member Henry McCullagh died last month after a short illness.

Henry was my partner in medical practice and a fellow naturalist before then, a period spanning nearly half a century. While his passion for the naiads of the American southeast was unsurpassed, he was equally happy diving in the Florida Keys, plying the waters of Vancouver Sound aboard his *La Pescadora*, birding in South America, or landsnailing in the Smokey Mts. - almost always accompanied by his wife, Lenore, who shared his love of the outdoors.

After graduating first in his class from Emory University Medical School, he continued his training at Grady Memorial Hospital in Atlanta, GA, where I first made his acquaintance. He polished his enviable comprehension of cardiology under the tutelage of Drs. J. Willis Hurst, Eugene Braunwald, and John Ross, among the foremost authorities in the field. On 1972, he and Lenore moved back to the Jacksonville, FL area, where he entered private practice in 1972.

His reserved, even taciturn, demeanor belied a very active and inquisitive mind and wry sense of humor. He was a raconteur in the tradition of the Old South, which one might expect from a sixth generation Floridian. Public mien notwithstanding, he compulsively chronicled every one of his hundreds of field trips in bound logbooks, which span a meter (his preference over the foot/pound system) on his shell-room bookshelf.



Henry was a deft field collector and keen taxonomist. He contributed to the formal literature, e.g., McCullagh *et al*. (2002), and was recognized for his achievements by Freshwater Mollusk Conservation Society [FWCS; see below]. Typical of Henry, he attended the ceremony, in NC, with some reluctance and only on the condition that he not "give a speech." His request was honored.

Williams (2014: 15) wrote “since retiring, McCullagh continues to pursue regional mollusks, which has resulted in a computerized collection of about 3,500 lots of freshwater mussels and about 1,500 lots of freshwater and land snails. Hundreds of duplicates have been deposited in the FLMNH [Florida Museum of Natural History] and the OSU [Ohio State University] Museum of Biological Diversity in Columbus. In 2003 McCullagh was given the William J. Clench Memorial Award by the FCMS **[R]** for outstanding contributions to malacology, including his significant collections of aquatic mollusks.”

Henry’s collection will go to the FLMNH at the University of Florida, Gainesville, where some portions of it, used in monographs on AL and FL mussels (Williams *et al.,* 2008, 2014), already repose.

He leaves behind Lenore, a brother, Mike (Jane), who practiced medicine in our group, and three generations of cousins, nieces, nephews, and in-laws.

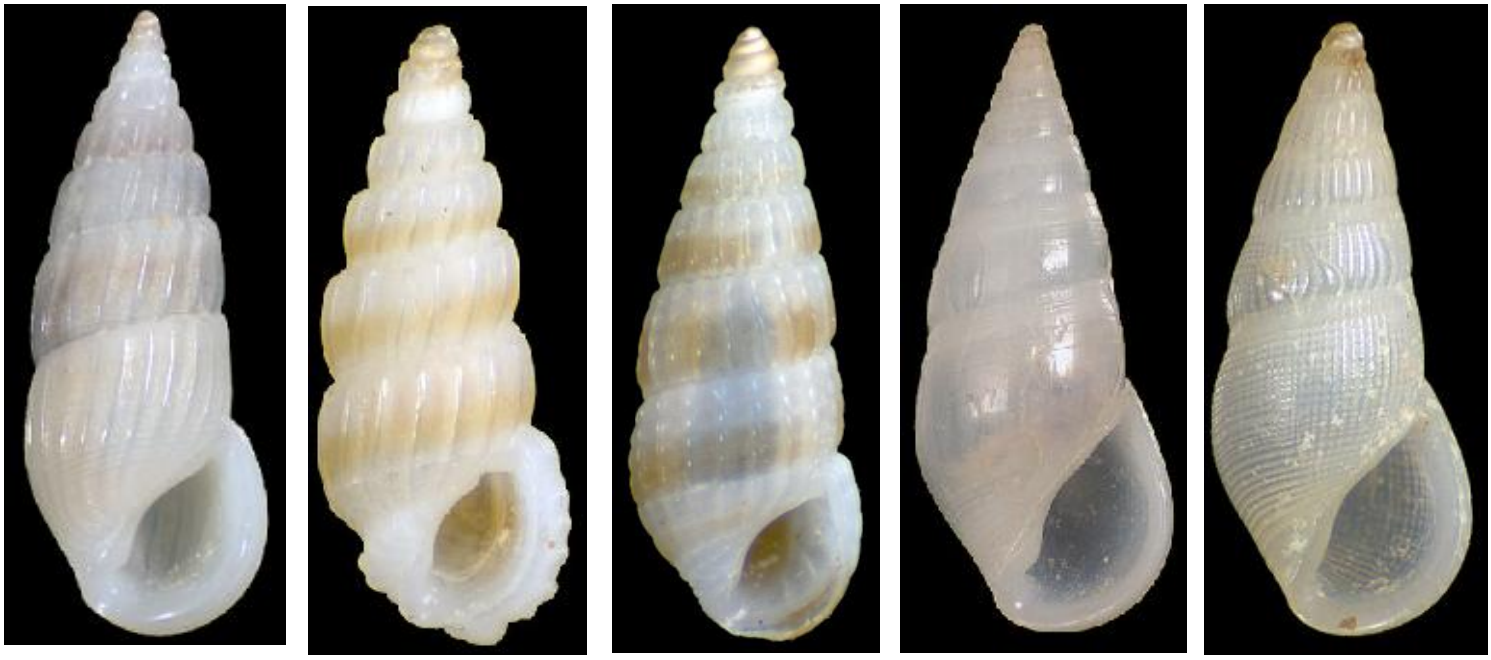
Henry McCullagh made his mark as a Southern Naturalist; he will be missed by many kindred spirits whose lives he enriched. He wished that his ashes be spread on the Chipola River in western Florida, near where his pioneer ancestors settled and he often returned in pursuit his beloved pearly mussels.

McCullagh, W.H., J.D. Williams, S.W. McGregor, J.W Pierson, and C. Lydeard, 2002. The unionid (Bivalvia) fauna of the Sipsey River in northwestern Alabama, an aquatic hotspot. *American Malacological Bulletin 17*(1-2): 1-15. <http://biodiversitylibrary.org/page/45999789>

Williams, J.D., A.E. Bogan, and J.T. Garner, 2008. *Freshwater mussels of Alabama and the Mobile Basin in Georgia, Mississippi, and Tennessee.* University of Alabama Press, Tuscaloosa. xv + 1-908. Review: <http://www.jaxshells.org/pdfs/atmb.pdf>.

Williams, J.D., R.S. Butler, G.L. Warren, N.A. Johnson, 2014. *Freshwater Mussels of Florida*. University of Alabama Press, Tuscaloosa, AL. [i]-xv + 1-498.

Selected central Philippine rissoinids culled by Lou Therres (5-12 mm)



L to R top to bottom: *Alinzebina sleursi* Faber, 2015; *Moerchiella antoni* (Schwartz von Mohrenstern, 1860); *Pandalosia* sp. cf. *P. subfirmata* (Boettger, 1870); *Phosinella media* (Schwartz von Mohrenstern, 1860); *Rissoina ambigua* (A. Gould, 1849); *R. torresiana* (Laseron, 1956); *R. (Apataxia) cerithiiformis* Tryon, 1887; *Sulcorissoina imbricata* (A. Gould, 1861); *Zebinella tenuistriata* (Pease, 1868)

Recovered from lumun-lumun nets deployed 40 meters deep off the north coast of Mactan Island, Cebu Province, central Philippines. Digital photography by George Hecht of the Florida Museum of Natural History, identifications by Harry Lee and Marien Faber, and image editing by Bill Frank.

Two new freshwater species for northeast FL

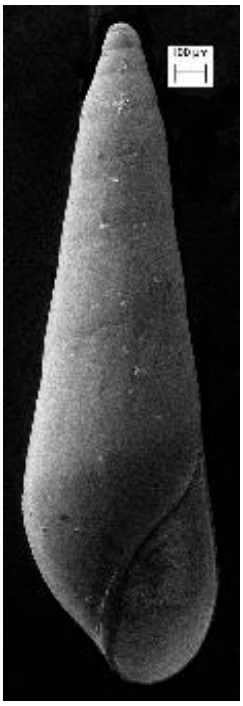
by Bill Frank and Harry G. Lee

***Biomphalaria havanensis* (L. Pfeiffer, 1839) Ghost Rams-horn [L]**
Found on the bank of a small drainage ditch near the Gerdau Steel Mill on Rebar Road just outside Baldwin, far western Duval County, FL, on 11/3/2016. The largest specimen measures 10.2 mm in maximum diameter. This species was not previously known from northeast Florida but was discovered at the Gerdau site by JSC member Bob Winters on 8/16/2015. Indications are that the species, although likely native to southern FL, is extending its geographic range northward At <http://jaxshells.org/pdfs/mayjun10.pdf> pp. 3-6 and pp. 5-7 at <http://www.jaxshells.org/pdfs/julaug10.pdf> there is a discussion of the relative abundance, ecology, genetics, conchological variability, taxonomy, and nomenclatorial issues related to this species.

***Biomphalaria glabrata* (Say, 1818) Bloodfluke Planorb [below, R]**
Found with the above bank of a small drainage ditch near the Gerdau Steel Mill on Rebar Road just outside Baldwin, far western Duval County, Florida 11/3/2016 (18.7 mm.). This species was not previously known from northeast Florida but was discovered at the Gerdau site by JSC member Bob Winters on 8/16/2015. Bob subsequently also found specimens in the high water wrack line (10/14/2016) on the east bank of the St. Johns River just north of Picolata in far western St. Johns County following the passage of Hurricane Matthew in early October. This invasive species, probably introduced from the West Indies centuries ago, is arguably one of the most important mollusks in the New World. It is the main intermediate host of the blood fluke, *Schistosoma mansoni*, cause of human schistosomiasis, second only to malaria in global impact on humans; see <http://www.jaxshells.org/mollusks.htm.

Thomas Say based his description on specimens obtained from Charleston, SC. Little did the master know the snails were interlopers. This vagabond has now reached FL, but there is little threat to the health of us residents.

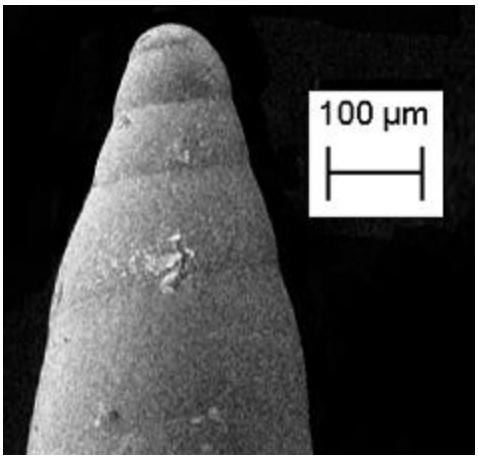
These two addenda bring the tally of northeast FL aquatic mollusks to 68 species (12 of which are non-native) <http://jaxshells.org/northeas.htm>. By contrast, our landsnails number 86 species (13 of them non-native) <http://jaxshells.org/checklis.htm>, and our marine taxa 804 <http://jaxshells.org/marine.htm > (5 non-native; one of them also on the aquatic list). Fifteen estuarine species appear on both the marine and aquatic (freshwater) list, so the total count of northeast FL mollusks is 943 species, of which 29 are non-native). **These are big numbers; spread the word!**



Eulimid Problems; past and present

by Harry G. Lee

Not long ago, while culling micromollusks from SMR 10, an exposure of the Upper Tamiami Formation in Sarasota Co., FL, I came across a eulimid shell, some 2.07 mm in height, I'd not seen previously **[L and below]**. I was impressed by the irregular rate of expansion of its earliest whorls, a character I vividly recalled seeing in a Recent species described by Abbott (1958: 106-107, text-fig. 5.4) as *Strombiformis auricinctus*, a specimen of which, dredged by Emilio Garcia off LA [~28N ~091W] in 57-65 m, although half-grown, is of nearly the same size and whorl count (8) and appears on the **[R]**. Since this wonky growth pattern, producing a somewhat papilliform apex, is a character not at all typical of the family, I immediately saw a kinship - or so I thought.



Despite many eulimids having been assigned to *Strombiformis* E.M. Da Costa, 1778, particularly in the Twentieth Century, Harris (1894) had restricted its type *to Turbo perversus* Linnaeus, 1758, a clausiliid landsnail. Pursuant to a petition (Warén, 1992) to the International Commission on Zoological Nomenclature (ICZN)), that body suppressed the Da Costa name (ICZN, 1993; Opinion 1718). Consequently *S. auricinctus,* and many presumed congeners, were transferred to the genus *Eulima* Risso, 1826 by revisers. However, the Abbott species is currently placed by Swedish eulimid expert Dr. Anders Warén (<http://www.marinespecies.org/aphia.php?p=taxdetails&id=566069>; WoRMS) in *Hemiliostraca* Pilsbry, 1918. After looking for this generic name in the Pilsbry anthologies (Clench and Turner, 1962; Johnson and Clench, 2002) and coming up dry, I resorted to Warén (1984: 48), wherein Pilsbry, "1917" [1918] and *Hemiliostraca* were clearly revealed and made accessible via the Internet **[see p. 7]**. As noted in the original description, *Hemiliostraca* is a eulimid genus level taxon based on the Hawaiian species, *Leiostraca distorta* Pease, 1860. Although *Hemiliostraca* was originally considered subordinate to *Subularia* Monterosato, 1884, the latter was later synonymized with *Eulima* (Warén, 1984: 74-75). As seen on **p. 7**, the most salient feature of *Hemiliostraca* is the flattened area on the columella. Warén (1984: 48) added the banded pattern (Pilsbry's material of the type species was bleached with age), and he clearly disregarded shell curvature and the placement of the varices, treating *"S." metcalfei* (A. Adams, 1853**)** **[see p. 7, fig 13a]** as a congener. The long, narrow aperture, while not diagnostic, helps restrict the diagnostic field, but that wonky apex is not characteristic of these two Hawaiian congeners treated by Pilsbry (1918).

Is this 3,000,000 year-old Upper Pliocene fossil actually related to *H. auricincta* as I impulsively sensed? It seems not, principally because of the lack of the flattened columellar shelf. Perusal of Warén (1984) suggests that the cosmopolitan genus *Polygireulima* Sacco, 1892, which has a Neogene fossil record, may be the best placement for my microshell. Confamilials collected in its company are *Ersilia, Eulima, Eulimetta, Eulimostraca, Hypermastus, Melanella, Microeulima, Nanobalcis, Niso, Oceanida, Scalenostoma,* and *Vitreolina*.

This exercise taught me new respect for paleomalacologists and the challenges they face. Living mollusks provide more help for taxonomists and plylogeneticists such as shell color patterns/lucency, soft anatomy, DNA, and marker proteins of various sorts, plus, in the case of eulimids and other parasitic groups, host indications. Mineral remains are pretty much the only tool of the paleontologist, who, in molluscan studies, may be more deservedly and aptly called a “pure conchologist.”

Subularia differs from *Melanella* (*Eulima*) by its compressed shape and by having a flattened area at the base of the ventral side, between the columella and a short angular longitudinal ridge on the left side; the aperture is very narrow, more than twice as long as wide, and the inner lip is straight.

Subularia is somewhat like *Strombiformis* (*Leiostraca* of most authors) in its narrow mouth, but it is probably more closely related to *Melanella* by the varices. The flattened area is an unique feature. The genus *Chileutomia* Tate and Cossmann differs by its projecting varices.[3]

The two species known are very distinct by the following characters.

Spire nearly straight, with varix-lines on the right and left sides (Section *Subularia*); colored markings present. *S. metcalfei*.

Spire strongly curved, with varix-lines on the right side only (Section *Hemiliostraca*). Shell without color markings, *S. distorta*.

A very minute specimen from Smuggler's Bay, Kahoolawe, a larger one from the north coast of Molokai and several from the beach near Waikiki, Oahu, seem to be Subulariæ, but as part are single specimens and none in fresh condition they are mentioned here merely as an indication that there are other species. Single shells are particularly inconclusive in this family, as there is nothing to definitely mark the adult stage.

Subularia distorta (Pease). Fig. 13*c*, *d*.

1860. *Leiostraca distorta* Pease, P. Z. S., p. 438.
1866. *Leiostraca distorta* Pease, Sowerby, Conch. Icon., Pl. 3, fig. 15.
1886. *Eulima peasei* Tryon, Man. Conch. VIII, p. 281.

One of two specimens in the Pease collection, No. 31706 Mus. Comp. Zool., is figured. The spire is bent to the right, and in the upper part it bends towards the ventral side. There are linear, inconspicuous, impressed varix-lines on the right side of the last two whorls. In a basal view the shell is seen to be strongly compressed between dorsal and ventral sides (fig. 13*c*). The ventral side is flattened near the base, the flattening bounded by a longitudinal angulation on the left side. The internal axis is faintly visible

[3] See Hedley, *Proc. Linn. Soc., N. S. Wales*, 1900, p. 505.

through the bluish-white shell. The suture is very inconspicuous, indeed difficult to see, not distinct as the line figure shows. There is a wide border below the suture, bounded by a white line, on the last two whorls. The aperture is very narrow and long, the inner lip nearly straight, calloused. The outer lip curves forward somewhat in the middle.

Length 5.75, diam. 2 mm.

Length 5.6, diam. 1.8 mm.; about 7 whorls.

This species is related to *S. metcalfei*. It also has some resemblance to *Melania distorta* Philippi, *Eulima curva* Jeffr., and *E. incurva*

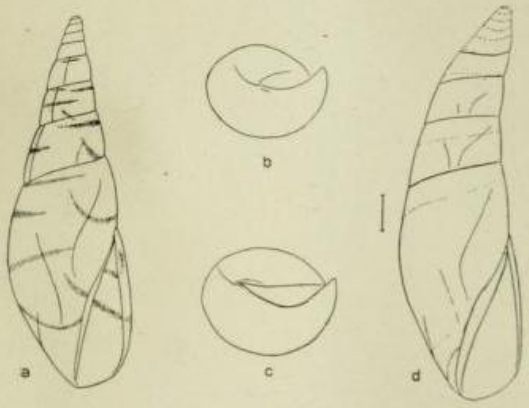


Fig. 13*a*, *b*.—*Subularia metcalfei*. *c*, *d*. *S. distorta*. Figs. *b* and *c* are basal outlines.

Ren., of the Mediterranean. In these the mouth is somewhat narrower than in *Melanella*, and a single series of linear varices runs up the right side and curves towards the dorsal side as usual; but they do not have the other characters of *Subularia*.

On account of the prior use of the name *distorta* for species belonging to *Eulima* (*Melanella*), Tryon renamed this species *E. peasei;* but if we consider *Subularia* a group of generic rank there is no conflict of names.

Abbott, R. T., 1958. The marine mollusks of Grand Cayman Island, British West Indies *Monographs of the Academy of Natural Sciences of Philadelphia 11*: [viii] + 138 pp., 5 pls. 31 Dec.

Clench, W.J. and R.D. Turner, 1962. New names introduced by H. A. Pilsbry in the Mollusca and Crustacea. *Academy of Natural Sciences, Philadelphia. Special Publication 4:* 1-218. <http://www.biodiversitylibrary.org/item/28923>

Harris, G.F., 1894. On the alternation of the genus name *Clausilia. Proceedings of the Malacological Society of London 1*(2): 31. <http://biodiversitylibrary.org/page/15167312>

ICZN, 1993. Opinion 1718 *Balea* Gray, 1824 (Mollusca: Gastropoda) conserved. *Bulletin of Zoological Nomenclature 50*(2): 155-156. 30 June. <http://biodiversitylibrary.org/page/12249580>

Johnson, R.I. and W.J. Clench, 2002. *Additions and corrections to Clench and Turner, 1962, New names introduced by H.A. Pilsbry*. Harvard University, Museum of Comparative Zoology, Department of Mollusks. 22 pp.

Pilsbry, H. A. "1917" [1918]. Marine mollusks of Hawaii, IV–VII. *Proceedings of the Academy of Natural Science of Philadelphia* (1917) *69*: 309–313, pls. 20–22. <http://biodiversitylibrary.org/page/24683327>

Warén, A., 1984. A generic revision of the family Eulimidae (Gastropoda: Prosobranchia). *Journal of Molluscan Studies supplement 13*: 1-96.

Warén, A., 1992. *Balea* Gray, 1824 (Mollusca: Gastropoda); proposed conservation. *Bulletin of Zoological Nomenclature 49*(1): 12-15. March. <http://biodiversitylibrary.org/page/12231071>

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