

What's a Rice Olive, anyway?

By Harry G. Lee

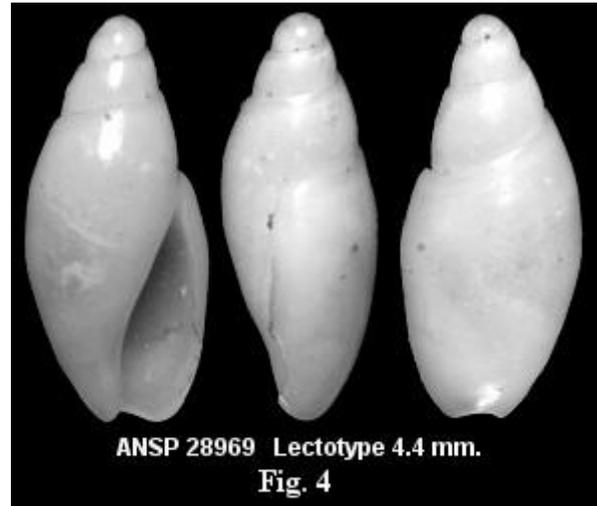
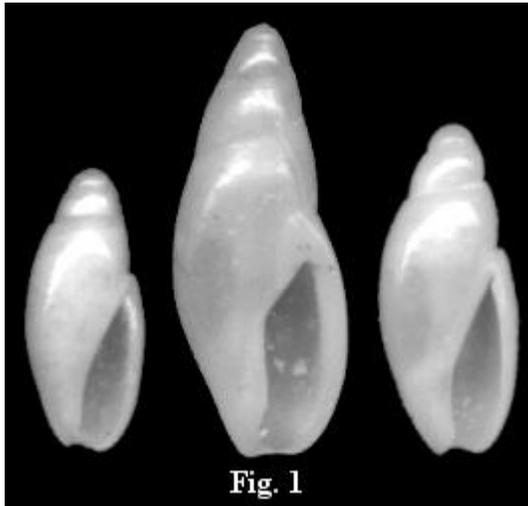


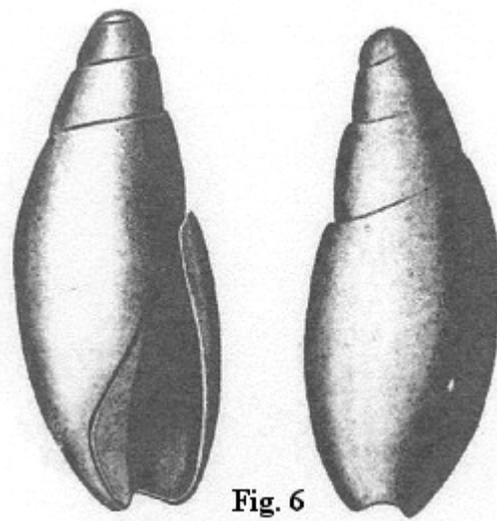
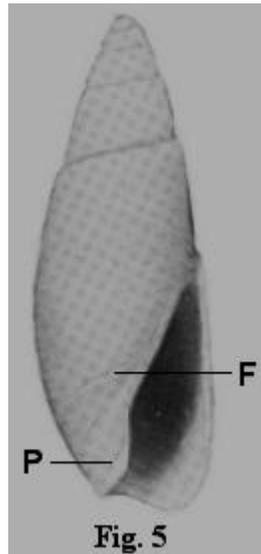
Fig. 2

Among the many puzzling specimens in my collection are three somewhat similar lots of marine snail shells looking like tiny grains of white rice (Fig. 1). From left to right, these examples measure 3.9, 6.2, and 4.7 mm and originate (respectively) in a sediment sample taken at 60 ft. on Newport Reef, CURACAO by a physician colleague, Dr. Mike Loper, on 2/20/04; on the beach at Hopetoun, along the south coast of Western AUSTRALIA, found 1973, originally labeled "*Ramoliva adiorygma* (Verco, 1909)," and reaching me through Werner Massier on May 2, 2003; and in a cave in 30-35 m., off Old Shark Pt., Vilini Is., MALDIVES, collected on 11/13/94 and obtained from Ross Mayhew circa 1998.

Each of these looks like an *Olivella* (*sensu lato*) but at first inspection has **no pillar modification or fasciolar structure** (see "P" and "F" in Fig. 5), which distinguishes this triad from any member of the generic group (*sensu lato*) known from the Americas (Olsson, 1956), Australia (Wilson, 1994), or in the largest assortment of world-wide species-level taxa (105 *in toto*) treated in the literature (Kaicher, 1987).

Let's consider the largest shell first. Sir Joseph Verco named *Olivella* (?) *adiorygma* (1909; p. 338. pl. 25, figs. 3,4; our Fig. 2) from 17 fathoms, Backstairs Passage, South Australia; the type is 5.2 mm in length. Cotton and Godfrey (1932; p. 54) designated it the type of *Ramoliva*, new genus. Wenz (1943; p. 1272, Abb 3621) synonymized *Ramoliva* with *Olivellopsis* Thiele, 1929 (p. 333; fig. 384), but the type (by original designation) of the latter generic unit, *Olivella* (*Callanax*) *simplex* Pease, 1868 was first described thus: "Long. 4 1/2, diam. 2 mill. ... Paumotus ... Shell somewhat fusiform, truncate at base, smooth, white; whorls four, marginated and slightly angulate at sutures; spire somewhat produced; outer lip simple, smooth within; aperture wide; columella slightly curved and callous. The generic characters of the above are doubtful. It may prove the type of a new genus. If correct, it is the first species of *Olivella* described from Polynesia" [p. 281; pl. 23, fig. 24; our Fig. 3]. The Pease species, although poorly illustrated, has a different profile and suture than the Verco species. Thiele (1929), in defining *Olivellopsis*, wrote: "Schale sehr klein, farblos, Naht mehr angedrückt, Spindelschwiele ohne untere Falte." Translated by Jochen Gerber on August 24, 2004: "Shell very small, colorless, suture more appressed [than *Belloliva* Peile, 1922; see below], columellar callus without lower fold." Just what "more appressed" means is critical to the understanding of this taxon; is the suture channelled or not? Since the identity of the Pease species (and thus *Olivellopsis* Thiele, 1929) was not at all clear, it was imperative to get an authentic specimen if this problem was to be worked out. Thus I searched my library for leads on the location of Pease's collection and promptly found a bio-bibliography of Pease (Kay and Clench, 1975), which indicated that "a great many of Pease's species are in the Pease collection of the Museum of Comparative Zoology [MCZ], Harvard University; others are in the British Museum (Natural History) and in the Academy of Natural Sciences of Philadelphia [ANSP]." I wrote Adam Baldinger at the MCZ, who replied almost immediately that in a more detailed report on the Pease collections (Johnson, 1994; p. 24) located Pease's *Olivella simplex* at the ANSP and designated a lectotype and

paralectotype. Collections Manager Paul Callomon kindly provided me with a photograph of the lectotype (ANSP 28969; **Fig. 4**). Clearly *Olivella simplex* Pease, 1868 is not a close relative of *Olivella adiorygma* Verco, 1909. We shall postpone discussion of *O. simplex* temporarily.



Barry Wilson (1994; p. 132) examined the type specimen of *Olivella* (?) *adiorygma* Verco and concluded it "... may be a synonym of [*Cupidoliva*] *nympha*" (Adams and Angas, 1864) thus suggesting synonymy not only the two species, but the genera *Ramoliva* and *Cupidoliva* Iredale (1924; pp. 183, 259), of which *O. nympha* is the type. **Fig. 5** is a scan of a syntype of *C. nympha* (BMNH 1870.10.26.92; whitened with magnesium oxide) from Kaicher (1987; card 5038). As the illustrations indicate, there is very little similarity between the two species in suture, pillar and fasciolar structure. Verco (1909) stated "It [*O. (?) adiorygma*] differs from *Olivella* in the **absence of a canaliculate suture**, and from the Volutidae in its smooth columella. Its generic location is unknown to me." The lateral view (Verco's fig. 4, but also visible in his fig. 3 - in our **Fig. 2**) also shows an apicad progression of the suture over the last quarter whorl, which is apparent in all four of my Hopetoun specimens as well. These characters are inconsistent with *Olivella nympha* Adams and Angas, 1864, and thus with *Cupidoliva* Iredale, 1924. I believe the middle shell in **Fig. 1**, from Hopetoun, is *Ramoliva adiorygma* (Verco, 1909) and conclude, as Verco hinted, that this species (and therefore its genus) is not closely related to *Olivella* (sensu lato).

In the same work Verco also named a somewhat similar shell *Olivella solidula* (Ibid. p. 39; figs. 7, 8; our **Fig. 6**). It was taken from Encounter Bay, South Australia, quite near the type locality of *O. adiorygma* and about 800 miles east of Hopetoun. He characterized it as "solid, shining white, smooth, obliquely elongate-oval. Apex blunt, four whorls, sloping convex, suture well channelled. Aperture oval, contracting gradually to a linear gutter posteriorly, widely-open in front, and notched; outer lip simple, smooth; inner lip is a narrow, thick glaze over the base to the suture, slightly spreading over the columella 6 mm. (by) ... 2.3 mm." As seen in Fig. 6, the shell has relatively narrowly-channeled sutures and no evident fasciolar or pillar sculpture. The absence of the latter features contrasts with *Olivella* [now *Belloliva*] *exquisita* Angas, 1871, which Verco wrote "it closely resembles [but differs] in being smaller, narrower and pure-white." A solitary specimen which matched the type illustration of *Olivella solidula* was found in my lot of Hopetoun *Ramoliva adiorygma*. Most regrettably, this shell was accidentally crushed in preparation for scanning. Our **Fig. 7** is a 8.2 mm *B. exquisita* in my collection taken near shore, Cogiee Bay, NSW, Australia. An image of another specimen whitened with magnesium oxide (Kaicher, 1987; card 4966; **Fig. 8**) more clearly demonstrates the pillar and fasciolar features, which are absent from *Olivella solidula*.

Olivella solidula was not treated in Wilson (1994), but he synonymized *Olivellopsis* Pease with *Belloliva* Peile, 1922 [type *Olivella brazieri* Angas, 1877; Cotton, 1955, fig. 9; our **Fig. 9**], which, like *Belloliva exquisita* and *B. triticea* (Duclos, 1835), has a twisted pillar and conspicuous fasciolar sculpture. In fact, *O. solidula*, particularly a stout form illustrated by Cotton (1955; fig. 11; our **Fig. 10**), bears a closer resemblance to *Olivellopsis simplex* (Pease, 1868), **Fig. 4**, than either does to *Belloliva brazieri*. *Olivella solidula* and *Olivellopsis simplex* may well be congeneric. The two smaller shells in Fig. 1 resemble both these species. Upon close examination of its dorsal aspect, each of the smaller **Fig. 1** shells

has a very faint fasciolar groove/ridge which meets the outer lip just behind its anterior extremity (as was the case with the destroyed Hopetoun shell). Although Paul Callomon (personal comm., Sept. 17, 2004) could see no such feature in the Pease lectotype, in this cosmopolitan and apparently natural group it is a very subtle character which may be effaced in older or abraded shells. If this feature proves consistent from one form to the next, and in consideration of the channeled sutures of these shells, this group of four putative taxa are likely very close to or in the *Olivella* (sensu lato).

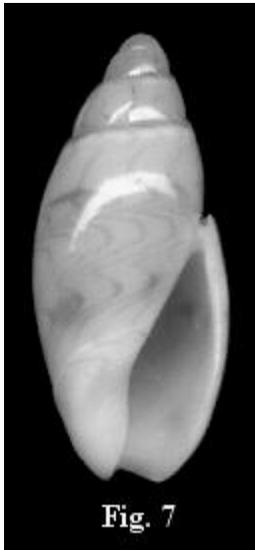


Fig. 7

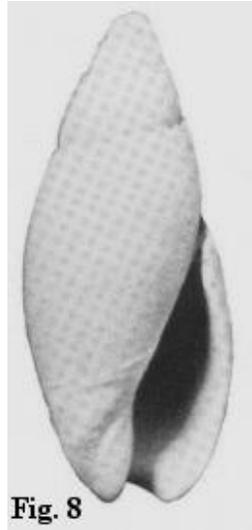


Fig. 8

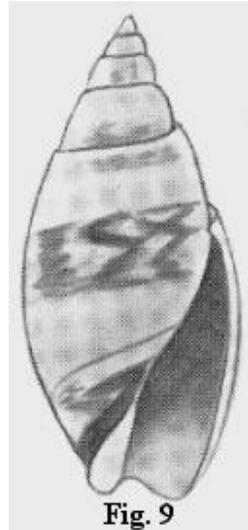


Fig. 9

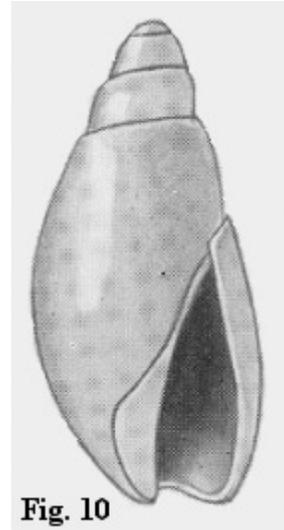


Fig. 10

Based on the findings above, I propose the diagnosis of these three shells in **Fig. 1** be (left to right): *Olivellopsis* species A [Olivellinae?; first Atlantic and New World record?], *Ramoliva adiorygma* (Verco, 1909) [Columbellidae?], *Olivellopsis* species B [Olivellinae?; first Indian Ocean record?]. Needless to say, I appeal to readers to be on the lookout for other material comparable to these three odd "Rice Olives" so that we can better appreciate the systematic relationships of each.

Acknowledgements: I am indebted to Adam Baldinger (MCZ) for provision of the Johnson reference, Paul Callomon (ANSP) for examining and photographing the lectotype of *Olivella simplex*, Bill Frank (Jacksonville, FL, USA) for assistance in the preparation of the figures and layout, Jochen Gerber (Field Museum, Chicago, USA) for translation of the Thiele passage from German, Dr. Patty Jansen (Lindfield, NSW, Australia) for the provision of critical portions of the Verco monograph, and Richard E. Petit (North Myrtle Beach, SC, USA) for access to Pease's original paper.

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Allgemeiner Teil und Prosobranchia 1-946 + xii; 947-1507-1639 + 1*-10.*

Teil 1	1-240	March, 1938
Teil 2	241-480	October, 1938
Teil 3	481-720	July, 1939
Teil 4	721-960	August, 1940
Teil 5	961-1200	October, 1941
Teil 6	1201-1506	October, 1943
Teil 7	1507-1639 + 1*-10* + i-xii	November, 1944.

Wilson, B., 1994. *Australian marine shells prosobranch gastropods part two (neogastropods)*. Odyssey, Kallaroo, W. A. pp. 1-370.

** *The Card catalogue of world-wide shells* was published from 1973-1992 comprising some 6421 3 in. X 5 in. cards, of which 121 were general and introductory and 6300 treated (illustrated) single species; most cards consecutively numbered, some duplicate numbers, some numbers skipped, some un-numbered but assigned numbers later; issued in 60 lots of between 96 and 108 species cards per lot; many primary museum types depicted (based in part on personal communication, G. Rosenberg, 4/10/99).]. An index created by Paul Callomon is posted at: <http://coa.acnatsci.org/conchnet/kaicher.txt> and <http://coa.acnatsci.org/conchnet/kaicher2.txt>.

On the Internet see: <http://www.jaxshells.org/riceo.htm>.

Marble Quarry/Natatorium Also Produces Conchological Gold

By Harry G. Lee

Once again my wife's family mustered in Manchester, Vermont (VT) for an September get-together.** As with last year's agenda, there was a little free-time on Saturday for off-site activities. While cousins and in-laws scattered about to hike, visit boutiques, bookshops, and neighbors' homes, I found myself with a couple of hours and a car - since I'd dropped off a party of three at the Appalachian Trail near the mountain known as "Mad Tom." Anticipating another opportunity to find a prosperous community of landsnails near a calcareous exposure, and not relishing a long mountain climb, I asked my son, Bobby, who actually has spent much more time in this immediate region, where I might find an abandoned quarry in our valley. He told me he'd swum in a flooded marble quarry a few miles northwest of Manchester Ctr. on the road (VT 30) to South Dorset. It didn't take me long to get there, and the site was easily recognized from the highway as a few dozen swimmers and sunbathers were enjoying this special resource.

In hot anticipation of a scene like the one at the quarry near the top of Mt. Aeolus, where empty large snail-shells were strewn about, I walked the outskirts of the tract on which the one-acre pond had been created. Although there was plenty of exposed marble, not a snail - living or dead was to seen with the naked (or bespectacled) eye. After twenty or thirty minutes of striking out, I thought about calling it quits, but I convinced myself that, although it wasn't very promising, it wouldn't take more than a couple minutes to gather up some leaf litter from sheltered areas on or at the base of the marble boulders. I filled up a giant Ziploc bag and headed back to the Homestead, where I knew I could get some living snails for club members Bill Frank and Joel Wooster to photograph.