

NOTES ON CANCELLARIIDAE (MOLLUSCA: GASTROPODA)

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ABSTRACT

Two generic names, *Bivetia* and *Ventrilia*, that have been misunderstood and out of use are discussed. One new generic name, *Agatrix*, is proposed and *Cancellaria depressa* Dall, a preoccupied specific name, is replaced.

In 1887, Jousseume published his monograph on Cancellariidae, describing several new genera and species. Two of these genera, *Bivetia* and *Ventrilia*, have not been in general usage as the identification of the type species has been doubtful. Specimens of these species were identified by the author and sent to Prof. E. Fischer-Piette of the Museum National d'Histoire Naturelle in Paris for comparison with the types. Prof. Fischer-Piette confirmed the identifications.

BIVETIA Jousseume, 1887

Bivetia JOUSSEUME, 1887, Le Naturaliste, (Ser. 2) v. 1, fasc. 14, p. 163 (with fig. 1); 1888, reprint, p. 10, fig. 1.

Type species: *Bivetia mariei* Jousseume, 1887 [= *Cancellaria indentata* Sowerby, 1832], by monotypy.

Bivetia, with its monotypic species *mariei*, was described from a single specimen of undetermined locality. A specimen of *Cancellaria indentata* Sowerby, 1832, was sent to Prof. Fischer-Piette who confirmed that the two are conspecific (personal communication, August 19, 1965). The type has been incorrectly cited in the literature as "*Bivetia mariae*."

Bivetia is more closely related to *Euclia* than to *Cancellaria* s.s. and it seems advisable to retain its generic status pending further work on the relationship between the various taxa in this family. *Bivetia* is not closely related to *Bivetiella* as speculated by Marks (1949, p. 456).

TRIGONOSTOMA Blainville, 1827

Trigonostoma BLAINVILLE, 1827, Man. Malacologie et Conchyliologie, p. 652 (= *Trigona* Perry, 1811, non Jurine, 1807).

Type species: *Delphinula trigonostoma* Lamarck, 1822 [= *Trigona pellucida* Perry, 1811], by monotypy.

In 1811 Perry (pl. 51) described *Trigona pellucida*, prior to Blainville's introduction of *Trigonostoma*, and prior to the description of *Delphinula trigonostoma* Lamarck (1822, p. 231). Perry's generic name was invalid due to the prior *Trigona* Jurine, 1807. Almost all works on *Trigonostoma* Blainville show *Trigona* Perry as a synonym, but none have adopted Perry's specific name, *pellucida*, which remains valid even though his generic name is preoccupied. Therefore, this species should be credited to Perry, and properly should be cited as *Trigonostoma (Trigonostoma) pellucida* (Perry), 1811.

Perry's name cannot be dismissed as a *nomen oblitum* as it was used by Grant and Gale (1931, p. 622) in their remarks about a species of *Cancellaria*. However, they also used Perry's genus *Trigona*, indicating that this name has priority over *Trigona* von Mühlfeld, 1811, but not mentioning *Trigona* Jurine, 1807. It is unfortunate that a well known specific name such as *Trigonostoma trigonostoma* must be replaced.

TRIGONOSTOMA (VENTRILIA) Jousseume, 1887

Ventrilia JOUSSEUME, 1887, Le Naturaliste, (Ser. 2) v. 1, fasc. 16, p. 194 (with fig. 2); 1888, reprint, p. 12, fig. 2.

Type species: *Ventrilia ventrilia* Jousseume, 1887 [= *Cancellaria tenera* Philippi, 1848], by monotypy.

This genus is based on the species *Ventrilia ventrilia*, described from an unknown locality. Jousseume expressed regret that he had been unable to compare his specimens with the poorly described *Cancellaria stimpsoni* Calkins, 1878, and it is most unfortunate that he could not do so, as the two species are the same. Furthermore, both are synonyms of *C. tenera* Philippi, 1848. Prof. Fischer-Piette compared a specimen of *C. tenera* with the type of *V. ventrilia* and has advised that they are the same (personal communication, August 19, 1965). *Ventrilia* is a valid and useful subgenus of *Trigonostoma* and will replace *Emmonsella* Olsson and Petit, 1964, which becomes an objective synonym of *Ventrilia*.

AGATRIX Petit, n. gen.

Type species, here designated: *Trigonostoma agassizii* Dall, 1889. Recent, North Carolina to Gulf of Mexico.

Shell small, with a turreted spire of widely shouldered whorls. Pillar slightly perforate, the shelf of the inner lip overhanging and appressed against it so as to close it almost completely. Reticulate sculpture formed of strong axial ribs crossed by spiral cords producing small nodes at the intersections, the axials sharply crested on the shoulder and in life the shoulder nodes adorned with small tufts of bristle-like periostracum, giving the whorls a coronate appearance. Aperture ovate, bearing below a strong siphonal canal. Columella with two equal descending plaits and a keel at the end of the pillar.

This new genus is necessary in order to place not only the type species, but the congeneric *Cancellaria strongi* Shasky from West Mexico. In describing *Cancellaria strongi*, Shasky (1961, p. 19) mentioned the fact that there appeared to be no existing genus to which his species could be assigned. *Cancellaria zapoteca* Böse, 1910, from the Neogene of Tehuantepec is another congener.

Further study of the Cancellariidae may determine that *Agatrix* should be used as a subgenus of an existing taxon, but it appears now that it should stand as a genus. No other genus of the family is known to have the peculiar coronate periostracum described above. Two specimens of *Agatrix agassizii*, with and without periostracum, are shown in text figures 1 and 2.

TRIGONOSTOMA TAMPAENSIS Petit,
new name

The above name is proposed for *Cancellaria depressa* Dall, 1915, U.S. National Museum Bulletin 90, p. 48; not *Cancellaria depressa* Tuomey & Holmes, 1857, Pleiocene Fossils of South Carolina, p. 143. Proper assignment of this species to a subgenus must await further study of the family. The custom of replacing a preoccupied name with the name of the original author has not been followed in this instance, as there are at least two species in the family with specific names honoring Dr. Dall, and another could be confusing. As this species is from the Tampa "Silex Beds", the name *tampaensis* has been chosen.

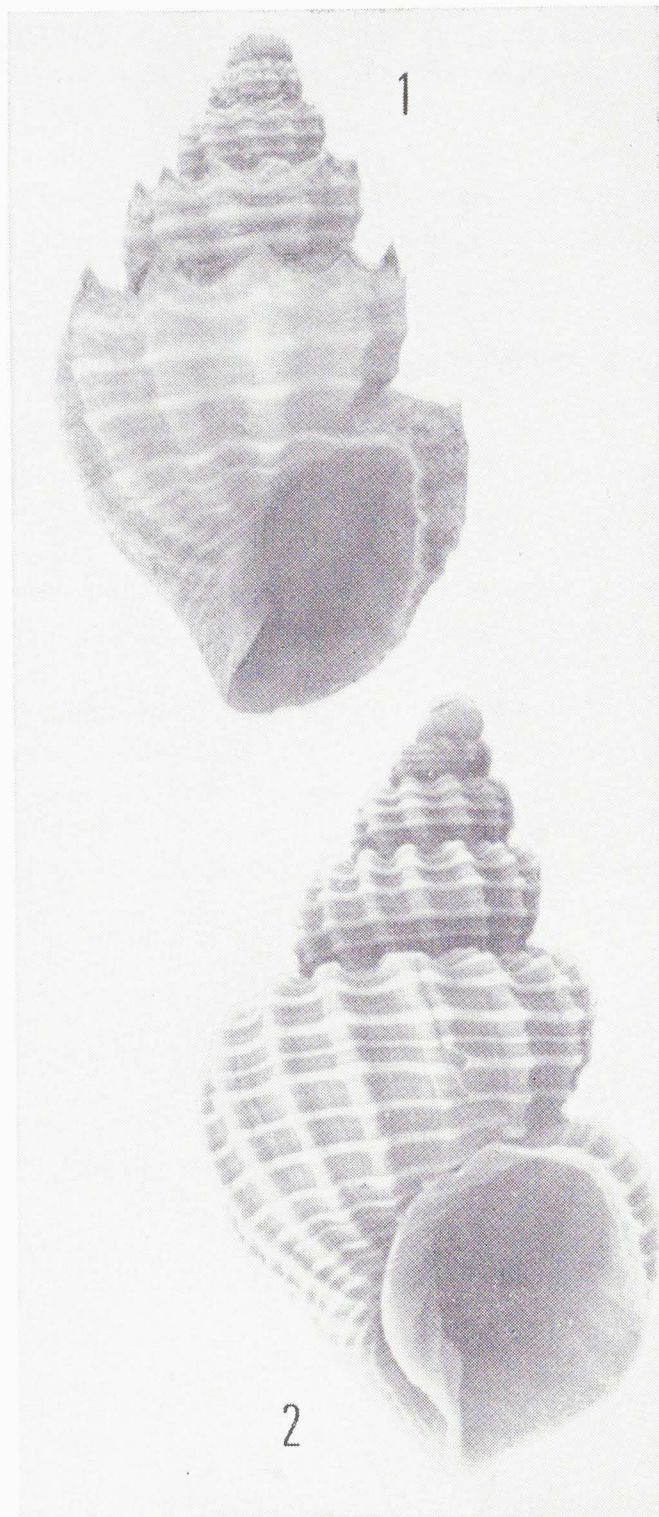


Figure 1. *Agatrix agassizii* (Dall). Slightly immature specimen with periostracum intact showing tufted nodes on shoulder. Height 8.6 mm. West of Panama City, Florida, from approximate depth of 180', USNM 678306.

Figure 2. *Agatrix agassizii* (Dall). Mature specimen with periostracum removed. Height 12.4 mm. Same locality as previous figure, USNM 678306.

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REVIEWS

PROBLEMS IN ENGINEERING SOILS; ATOMIC ABSORPTION SPECTROMETRY IN GEOLOGY

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PROBLEMS IN ENGINEERING SOILS by P. L. Capper, W. F. Cassie, and J. D. Geddes, a new volume in the Spon's Civil Engineering Series. Published by E. and F. N Spon Ltd., London, 1966, vii + 183 p., paperback \$3.50, cloth \$5.75. Distributed in the USA exclusively by Barnes and Noble, Inc., New York

In the years since Dr. Karl Terzaghi "fathered" the science of soil mechanics, it has advanced through the efforts of engineers from every part of the world. The book under review, written by teachers from London, Newcastle upon Tyne, and Cardiff, continues to broaden the usefulness of the theory and practice of modern soil mechanics. This little book is essentially a "problems" book, designed as a companion volume and supplement to a much larger text (the Mechanics of Engineering Soils) co-authored by the senior two of the present authors. The material covered is that normally encountered in advanced technology and university courses in this subject. The treatment is thorough with most topics receiving full guiding explanations. The problems are those which might arise in field practice and thus the book is extremely

practical. Students in soil mechanics and geologists and engineers not engaged in the daily application of soil engineering will find this book of great aid as a simplifier, a refresher, and a fast reference.

ATOMIC ABSORPTION SPECTROMETRY IN GEOLOGY by Ernest E. Angino and Gale K. Billings, volume seven in the series *Methods in Geochemistry and Geophysics*. Published by Elsevier Publishing Co., Inc., New York, 1967, x + 144 p., \$11.75

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