ON THE IDENTITY OF TWO SUPPOSED FACIOLARIID GASTROPODS, FUSUS MEXICANUS REEVE, 1848, and PERISTERNIA NODULOSA A. ADAMS, 1855

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On the basis of syntypes of Fusus mexicanus Reeve, 1848, this neglected species is recognized to be a junior subjective synonym of the western Atlantic muricid Calotrophon ostrearum (Conrad, 1846). Syntypes of Peristernia nodulosa A. Adams, 1855, another overlooked species, indicate that Adams' species is also not a fasciolariid but a senior synonym of Attiliosa incompta (Berry, 1960), the type of the genus Attiliosa Emerson, 1968.

Much work is presently being done on the systematics of the New World muricacean gastropods. In spite of this effort, species introduced in the literature continue to be overlooked due to the fact that some of the diverse muricaceans were described as belonging to other gastropod groups. Such is the case with *Fusus mexicanus* Reeve, 1848, and *Peristernia nodulosa* A. Adams, 1855, which have remained unrecognized by recent investigators. Examination of type material of both species has led to the conclusions presented in this paper.

FUSUS MEXICANUS Reeve, 1848

Plate 1, figs. 1-5

- Fusus mexicanus REEVE, 1848, Conchologia Iconica, v. 4, Fusus, pl. 19, fig. 77.
- Urosalpinx mexicanus (Reeve). KOBELT, 1879, Jahrb. Deutsch. Malak. Ges., v. 6, p. 173.
- Urosalpinx mexicanus (Reeve). TRYON, 1880, Man. Conch., v. 2, p. 153, pl. 39, fig. 482 (after Reeve).
- Urosalpinx mexicanus (Reeve). DALL, 1885, U. S. Geol. Surv., Bull. 24, p. 321.

Type material: Syntypes (3) in the British Museum (Natural History); one figured by Reeve, 1848, pl. 19, fig. 77 (see plate 1, figs. 1, 5).

1848, pl. 19, fig. 77 (see plate 1, figs. 1, 5).Type locality: "Mexico" (Yucum Balam, Campeche, TU R-353, here designated).

Remarks: Fusus mexicanus Reeve, 1848, is not mentioned in the works of McLean

and Emerson (1970), Keen (1971), Vokes (1971), or Abbott (1974), although: 1) the locality was stated to be Mexico; 2) Kobelt (1879, p. 173) placed *mexicanus* in the *Urosalpinx* group and recorded it from the Gulf of Mexico; 3) Tryon (1880, p. 153) noted: "This may prove to be identical with *U.[Urosalpinx] floridana* Conrad, 1869, and if so, will have priority over that species;" and 4) Dall (1885, p. 321) listed this species as *Urosalpinx mexicanus* in his list of Quaternary and Recent Mollusca from eastern North America.

Reeve's figure rather clearly refers to a species of the genus *Calotrophon*. After a comparison of the beachworn syntypes (plate 1, figs. 1-3) with numerous specimens of this group, one must conclude that *Fusus mexicanus* is conspecific with "*Murex*" *ostrearum* Conrad, 1846, a species placed by McLean and Emerson (1970) in the genus *Calotrophon* Hertlein and Strong, 1951.

Although the writer was unaware of the existence of this species in Mexico, Emily Vokes (personal communication) advised that it occurs along the western and northern coast of the Yucatán Peninsula. A specimen that is virtually identical to the syntypes is here figured (fig. 4). It comes from a locality to the north of Campeche (TU R-353), which is here designated as the type locality. (See Vokes paper preceding this for additional locality data and complete synonymy.)

PERISTERNIA NODULOSA A. Adams, 1855

Plate 1, figs. 6-8

Peristernia nodulosa A. ADAMS, 1855, Zool. Soc. London, Proc., (1854), p. 313. Coralliophila nodulosa (Adams). MELVILL, 1891, Manchester Lit. Phil. Soc., Mem. Proc., (ser. 4) v. 4, pp. 409, 410.

Peristernia nodulosa Adams. HEDLEY, 1908, Linnean Soc. New South Wales, Proc., v. 33, p. 486, pl. 8, fig. 11 (syntype).

Type material: Syntypes (2) in the British Museum (Natural History); Hedley, 1908, pl. 8, fig. 11, figured one of these specimens (see plate 1, figs. 6,7).

Type locality: "Australia."

Remarks: Because so few malacologists have studied members of the Fasciolariidae, certain species, such as Peristernia nodulosa A. Adams, have remained members of the family, although their obvious affinities lie elsewhere. Melvill (1891) in his monograph of Latirus, correctly noted that nodulosa did not belong to that group, and he placed Adams' species in the genus Coralliophila. Hedley (1908, p. 486, pl. 8, fig. 11) examined and figured a syntype of this species stating: "This species has not been figured or again noticed in literature. It was originally reported from Australia, but I am not acquainted with an Australian shell like it."

An examination of the syntypes in the British Museum (Natural History) (plate 1, figs. 6,8), leads me to believe that the Adams' species must be considered to be conspecific with a muricacean species described over a century later, *Coralliophila incompta* Berry, 1960. The latter species, the type of the genus Attiliosa Emerson, 1968, was placed by Emerson in the Thaidinae, near the genus *Cronia* H. and A. Adams, 1853. Emerson (1968), Vokes (1971), and Keen (1971) made no reference to *Peristernia nodulosa* A. Adams.

Peristernia nodulosa A. Adams, 1855, is here considered to be conspecific with Attiliosa incompta (Berry, 1960) and, being an earlier name, the correct name for this eastern Pacific species should be Attiliosa nodulosa (A. Adams, 1855).

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LITERATURE CITED

- ABBOTT, R.T., 1974, American Seashells, 2nd ed., Van Nostrand. 663 p., numerous figs., 24 color pls.
- ADAMS, A., 1855, Descriptions of twenty-seven new species of shells from the collection of Hugh Cuming, Esq.: Zool. Soc. London, Proc. for 1854, p. 311-317.

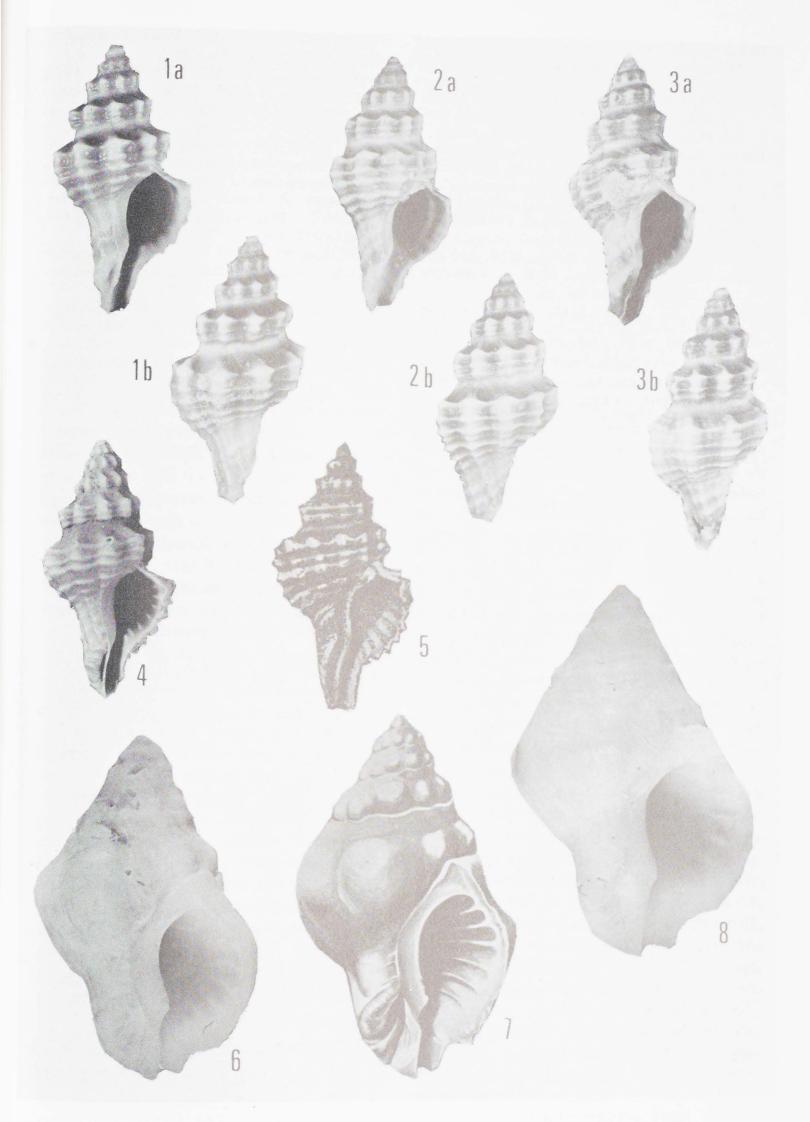
PLATE 1

Figures

- 1-5. *Calotrophon ostrearum* (Conrad) (X 2)
 - 1-3. British Museum (Nat. Hist.). Syntypes of *Fusus mexicanus* Reeve. Locality: Mexico. Recent.
 - 4. USNM 711119; height 22.0 mm, diameter 11.5 mm.
 - Locality: TU R-353, Yucum Balam, Campeche, Mexico. Recent.
 - 5. Reeve, 1848, Conchologia Iconica, v. 4, Fusus, pl. 19, fig. 77.

6-8. Attiliosa nodulosa (A. Adams) (X 2)

- 6, 8. British Museum (Nat. Hist.). Syntypes of *Peristernia nodulosa* A. Adams. Locality: "Australia." Recent.
 - 7. Hedley, 1908, Proc. Linn. Soc. New South Wales, pl. 8, fig. 11.



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- BERRY, S.S., 1960, Notices of new eastern Pacific Mollusca – IV: Leaflets in Malacol., v. 1, no. 19, p. 115-122.
- CONRAD, T.A., 1846, Descriptions of new species of fossil and recent shells and corals: Acad. Nat. Sci. Philadelphia, Proc., v. 3, p. 19-27, pl. 1.
- DALL, W. H., 1885, List of the Marine Mollusca comprising the Quaternary fossils and Recent forms from American localities between Cape Hatteras and Cape Roque including the Bermudas: U.S. Geol. Surv., Bull. 24, 336 p.
- EMERSON, W.K., 1968, Taxonomic placement of *Coralliophila incompta* Berry, 1960, with the proposal of a new genus, *Attiliosa:* Veliger, v. 10, p. 379-381, 5 text figs., pl. 53.
- HEDLEY, C., 1908, Studies on Australian Mollusca. Part X: Linnean Soc. New South Wales, Proc., v. 33, p. 456-489, pls. 7-10.
- KEEN, A.M., 1971, Sea shells of tropical west America, 2nd ed., Stanford University Press. 1064 p., numerous figs., 22 color pls.
- KOBELT, W., 1879, Catalog der Gattung Trophon

(continued from page 132)

 GEOLOGY OF EASTERN NORTH AMERICA, by Johann David Schopf; an annotated translation of Beytrage zur Mineralogischen Kenntniss des Ostlichen Thiels von Nord-Amerika und seiner Geburge, 1787, by Edmund M. Spieker (translator) with a foreword by George W. White; and, a facsimile reprint of the original German text. New York, 1972, x + 171 pp.; xii + 195 pp. (in facsimile), folded map.

Schopf's sojourn in the United States and the published report of his geologic investigations date from the earliest days of geology as an established science. His book is the first serious and comprehensive attempt to describe the geology of North America. However, it was almost totally unknown in America until 1894 when the first commentary on his work was published (Williams, Bull. Geol. Soc. America, v. 5, pp. 591-593). This fact, together with the rarity of the volume, have combined to prevent adequate appreciation of its value as a pioneering work on the geology of this country. Schopf's work is based on field observations and is more comprehensive than that by Volney (1803) and Maclure (1809) to whom he seems to have been unknown. If it had

Montfort: Jahrb. Deutsch. Malak. Gesell., v. 6, p. 168-174.

- MCLEAN, J.H., and W.K. EMERSON, 1970, *Calotrophon*, a New World muricid genus (Gastropoda: Muricacea): Veliger v. 13, p. 57-62, 1 pl.
- MELVILL, J.C., 1891, An historical account of the genus *Latirus* (Montfort) and its dependencies, with descriptions of eleven new species, and a catalogue of *Latirus* and *Peristernia:* Manchester Lit. Phil. Soc., Mem. Proc., (ser. 4) v. 4, p. 365-411, 1 pl.
- REEVE, L.A., 1847-1848, Monograph of the genus Fusus: Conchologia Iconica, v. 4, Fusus, pls. 1-14 (1847); pls. 15-21 (1848).
- TRYON, G.W., JR., 1880, Manual of Conchology,v. 2, Muricinae, Purpurinae. Philadelphia. 289p., 70 pls.
- VOKES, E.H., 1971, Catalogue of the genus Murex Linné (Mollusca: Gastropoda); Muricinae, Ocenebrinae: Bulls. Amer. Paleontology, v. 61, no. 268, 141 p.

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come to notice earlier, then Johann Schopf rather than William Maclure might be known as the "Father of American Geology". In the present edition, the full text is available for the first time in English and re-evaluation of Schopf's contributions (from this more easily readable form) is made possible.

- BENCHMARK PAPERS IN GEOLOGY, edited by Rhodes W. Fairbridge, selected anthologies of papers or journal articles from the geological literature on various phases of geological research, reprinted with an introduction by the volume editor and a "highlight commentary" on each "benchmark paper". Published by Dowden, Hutchinson & Ross, Inc., Stroudsburg, Pennsylvania; distributed by Halsted Press, a division of John Wiley & Sons., Inc., New York.
- 22. PLANATION SURFACES: PENE-PLAINS, PEDIPLAINS, AND ETCH-PLAINS, edited by George F. Adams. 1975, thirty-three papers, xv + 476 pp., \$28.00
- 23. GEOCHEMISTRY OF BORON, edited by C. T. Walker. 1976, thrity-four papers, xvii + 414 pp., \$35.00
- 25. ENVIRONMENTAL GEOLOGY, edited by Frederick Betz, Jr. 1975, thirty-two papers, xv + 391 pp., \$27.00 --H.C.S.