THREE NEW BRACKISH-WATER PLIOCENE MOLLUSCA FROM LOUISIANA.

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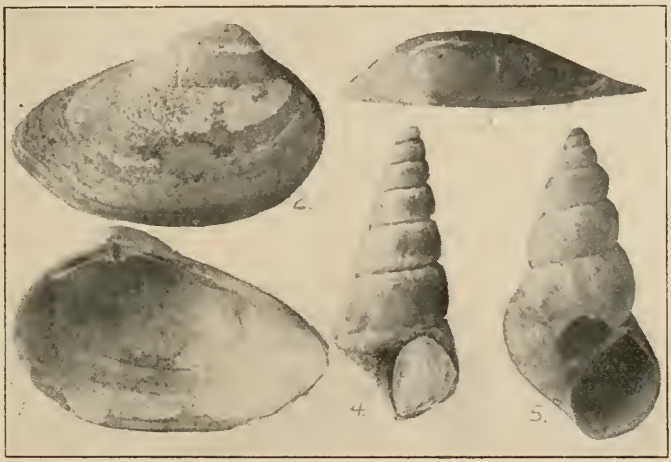
In a paper published in the Proceedings of the United States National Museum, Vol. 46, pp. 225-237, W. H. Dall listed a considerable brackish-water Pliocene fauna, including many new species from the Atlantic and Gulf Coastal Plains of the United States. Outcrops of this horizon are found at intervals from the Satilla River, Georgia, to Newton County, Texas. One locality, which yielded him a very considerable fauna, was the Frank Muse Place, six or eight miles southwest of Alexandria, Louisiana.



Figs. 1, 2, and 3. *Mulinia harrisi* n. sp.; fig. 4, *Paludestrina dalli* n. sp.; fig. 5, *P. olssoni* n. sp.

In 1916, Professor G. D. Harris of Cornell University, made a small collection in a well, about thirty feet below the surface, on the Hunting Club grounds ten miles southwest of Alexandria. This material, washed and sorted, furnished twenty-one molluscan species, seven being Pelecypods and fourteen Gasteropods. The elements, believed to be new, consist of the three species here describd as new and an imperfectly preserved Gasteropod, kindly examined by Mr. Dall who determined it as probably a *Melaraphe* Mühlfeldt. I wish to express my appreciation to Professor Harris for the opportunity to study this material and to Mr. Dall for his examination of the material believed by me to be undescribed.

Mulinia harrisi n. sp. Figs. 1, 2, 3.

This species resembles *Mulinia sapotilla* Dall and was confused with that species, because of inadequate material, in the paper mentioned above. It may be separated from that species by its deeper and better

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defined sinus, by its somewhat more slender form vertically and by its slightly greater globosity. Mr. Dall confirmed my opinion of the distinctness of this form by comparision with the original of his *M. sapotilla*, replying as follows: "The *Mulinia* which you sent agrees exactly with the specimen from the Pliocene of the Satilla River, Georgia, which I identified with my *M. sapotilla* from the Shell Creek Pliocene of Florida. After a comparison with yours, the differences seem constant." The same species probably occurred in the material which Dall had from the Frank Muse Place, but he did not compare my specimen with that material. The illustration, in the reference referred to above, seems to me to be *M. harrisi*, without question.

The type is a right valve in the Harris Collection, Department of Geology, Cornell University, Locality 134.

Length 15.8 mm.; height, 10.4 mm.; length in front of median line through the beak, 5 mm.: length behind the median line, 10.8 mm.; thickness, 3.4 mm.

Paludestrina dalli n. sp. Fig. 4.

Six smooth whorls; no umbilicus nor umbilical chink; whorls slightly flattened, angularly shouldered just below the suture; mouth slightly extended anteriorly in a somewhat flattened lip, departing from oval shape due to this extension, the flattening and the slight sutural shoulder; apex small, blunt. The mouth of the type is not entire, so it is impossible to say whether the peristome is thickened or not.

Length, 5 mm.; width, 2.1 mm.

The type is in the Harris Collection, Cornell University.

Paludestrina olssoni n. sp. Fig. 5.

Six smooth, evenly tapering, somewhat convex, unshouldered whorls; very small umbilical chink; apex acute; peristome unthicknened, oval.

Length, 4.35 mm.; width, 2.13 mm.

This species is named for my friend, Mr. Axel Olsson.

The type is in the Harris Collection, Cornell University.