NOTES ON THE CONRAD COLLECTION OF VICKSBURG FOSSILS, WITH DESCRIPTIONS OF NEW SPECIES

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The following paper anticipates a more elaborate descriptive catalogue of the Vicksburg fossils which the author has in view, and it is intended that the species here described as new shall be figured with the others when that is published. It will be sufficient to state that nearly all the species here named for the first time are well known, and represented in every collection from Vicksburg, Red Bluff or Jackson, that can be considered in any way complete, and there can be but little doubt of their ready identification from the diagnoses, comparative or otherwise, which it is thought are drawn up with sufficient fullness and accuracy for that purpose.

PELECYPODA.

Corbula laqueata n. sp.

C. filosa Con. (Am. Jour. Conc., I, p. 145; nomen præoc.).

Differs from the species named perdubia by De Gregorio; at least on comparing Vicksburg specimens with those from Red Bluff, I find that the latter form is shorter and differs greatly in sculpture in the umbonal region. The true rugæ do not begin for a considerable distance from the beak in the Red Bluff form, this region being smooth or feebly wrinkled, whereas in the Vicksburg species the rugæ begin very near the beaks, and the latter are more strongly gyrate. As the Vicksburg species is distinct I would propose the name given to it in manuscript by Conrad. C. laqueata is a small species, never materially exceeding 6 mm. in length by 5 in height, the posterior flattened surface feebly delimited, the bounding line being rounded and not carinate; the rugæ are comparatively coarse ventrally. It is confined to the upper marl and represented in the lower limestone by a variety having much finer rugæ.

The type of *Corbula interstriata* appears to be the only known representative of the species, and I have never been able to discover it at Vicksburg. I did not examine the hinge with much care, but the general appearance of the species is not very unlike that of *C. qibbosa*

COCHLESPIRELLA n. gen.

The Fusus nanus, of Lea, belongs to a genus widely different from Microdrillia, but allied more closely to Cochlespira of Conrad. The genus, which will include also insignifica of Heilprin, which is not the same as nanus according to some very accurate drawings of the types very kindly lent me by Mr. Aldrich, and one or two undescribed Texan forms, may take the above name.

Conus scopularis n. sp.

In the Red Bluff deposit there is a Conus, about the size of the Vicksburgian alveatus, but with a much more depressed spire and differing also in sculpture to a marked degree. This species differs also from any of the forms found in the Jacksonian. It is rather broadly obconic in form, the exterior outline of the body whorl straight, becoming very broadly, feebly arcuate toward the shoulder, just below which there are some two or three close-set and very obsolete obliquely rugulose revolving striæ. The anterior oblique revolving striæ are very feeble, subobsolete and occupy lower third of the whorl. The oblique anterior columellar fold is feeble. Spire extremely short and flattened, not more than an eighth or ninth as long as the body whorl, the whorls flat, each with five strong revolving lyra separated by equally large grooves, the arcuate lines of growth very distinct, producing a beaded or scabrous appearance. Length 28 mm., width 16.5 mm. The fine striæ on the face of the body whorl at the top and parallel to the acute shoulder angle distinguish this species at once from any in the adjacent horizons.

The species named Bursa mississippiensis by Conrad, in the list of 1865, is, in all probability, the young of Triton conradianus Ald., of the Red Bluff horizon. I have found this species in the Lower Vicksburg. Bursa abbreviata is, however, a distinct species, moderately abundant in the upper marl at Vicksburg, to which it is confined, as is also Distorsio crassidens. Tritonopsis subalveata, of Conrad, is confined to the Lower Vicksburgian, like Bursa mississippiensis.

Phos macilentus n. sp.

Phos mississippiensis, of Conrad, occurs in both horizons at Vicksburg, but does not occur at Red Bluff. The species of the Red Bluff formation, which has hitherto been confounded with it, may take the name indicated. It is much narrower and more elongate than mississippiensis. The ribs are more numerous, finer and not so nodulose at the points where they are crossed by the revolving sculpture. The revolving lines are subequal among themselves, finer than in mis-