

# THE NAUTILUS.

---

VOL. XXIX.

APRIL, 1916.

No. 12

---

**A NEW GENUS AND SPECIES OF NAIAD FROM THE JAMES RIVER AT  
HURON, SOUTH DAKOTA.**

BY WILLIAM B. MARSHALL.

*COKERIA*, new genus.

Characters those of the new species described below.

*COKERIA SOUTHALLI*, new species. Plate IV.

Shell gaping anteriorly, moderately thin, subquadrangular tending to subtriangular; abruptly rounded anteriorly, posterior margin nearly straight and perpendicular, dorsal margin straight, ventral margin gently curving throughout its entire length. Valves widest just in front of the posterior ventral angle. Umbones at about the anterior third of the dorsal margin, high and incurved, the second growth line nearly horizontal. Posterior dorsal ridge very high, obtusely angular. Posterior area descending abruptly from the ridge and somewhat wing-like. Greatest inflation is along the umbonal ridge. A pronounced furrow extends from the umbo to the lower third of the posterior margin. Seven rest-periods distinctly marked by concentric dark lines. Anteriorly from the middle portion a bold rounded rib occurs just below each rest-period. Dorsal area faintly radiately striate. Color, varying shades of chestnut, lighter (nearly straw color) anteriorly, darker posteriorly, rest stages sharply defined by blackish lines. Umbonal region faintly



tinged with greenish. Periostracum thin, slightly glossy, closely adhering.

Nacre anteriorly lustrous white and thickened, posteriorly thin, violaceous and brilliantly iridescent. Pallial line not sharply defined and with several concentric striae above it, its anterior portion radiately striated. Anterior adductor and retractor scars separated, deep and rough, posterior scars superficial. Dorsal muscle scars concealed by the incurving of the upper portion of the valve.

Lateral tooth of right valve thin, very high, wing-like, striated longitudinally. Laterals of left valve similar to that of right valve, but smaller, the groove between them being very narrow. Pseudocardinals of right valve two, thin, opposite, the upper one being the stronger. Pseudocardinals of right valve coalescing, standing in the same straight line, the anterior one high, slightly curved, the posterior low, its summit irregularly crenulated. The sculpture of each umbo consists of four concentric ridges, highest (almost a nodule) at their posterior ends, and numerous concentric striæ.

The type U. S. National Museum, Cat. No. 215130 comes from the James River at Huron, South Dakota, and was collected by the U. S. Bureau of Fisheries. It measures: Length, 81 mm.; Height 53 mm.; Diameter 44 mm.

Robert E. Coker and John B. Southall, both of the U. S. Bureau of Fisheries, first called attention to this shell in their "Description of Shell found in the James River at Huron, S. Dak., July 27, 1913,"<sup>1</sup> in which the shell is described and figured, with the following statement:—"Characteristic features of the shell are its triangular or pyramidal form and its remarkable inflation, which are strongly suggestive of the inflated types of *L. luteola*; its compressed sharp teeth which are of the *Lampsilis* type to an extreme; the color of epidermis and characteristic color of nacre, which find correspondence only in species of *Quadrula*, especially in *Quadrula undulata*. The pyramidal shape of the shell is also suggestive of *Q. undulata*. It is not

<sup>1</sup>"Mussel resources in tributaries of the Upper Missouri River" in Rep. U. S. Commissioner of Fisheries for 1914 (1915).



possible at the present time to place the specimen in any described genus.”

The resemblance to *L. luteolus* is remote and is confined to the character of the teeth. The resemblance to *Quadrula undulata* is more intimate. The undulations of the umbones are of the *Quadrula* type and of course entirely different from the double-looped, fine, wavy undulations of *luteolus*. The teeth are as different from those of *Quadrula* as the undulations of the umbones are different from *Lampsilis*, and consequently the shell cannot belong to either of those genera. There seems to be no possibility that the shell can be a smooth *Q. undulata* nor a hybrid of *L. luteolus* and *Q. undulata* and consequently it requires a new generic name.

---

LAND-SHELLS FROM ANAFE HILL IN THE HAVANA  
PROVINCE, CUBA.

---

JOHN B. HENDERSON.

---

The Havana province has been so much exploited by naturalists it could hardly be expected to offer any more novelties to a conchologist. On the contrary it appears to yield almost as much in the way of new species as does any other and larger province of the island,—and this, too, despite a denser population, a minimum of forest, a greater relative area under cultivation and an insignificant mountain system. So rich is this state in numbers of species, the many Cuban naturalists who have lived in or near Havana and three generations of visiting collectors who have ransacked the province, have not yet exhausted it of its treasures. Doctor Torre has quite a formidable collection of novelties from Madruga and its neighboring hills, and what is even more remarkable, a new sinistral *Urocoptis* from the golf-course of the country club scarcely more than without the city limits of Havana. Upon my return to Havana after roughing it in the wilds of remote Cuba I always detect a twinkle in Dr. Torre's eye as he matches my hard-won discover-