

AN UPPER PENNSYLVANIAN PARACONULARIA (COELENTERATA: CONULARIINA)

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ABSTRACT Paraconularia kohli Brew and Beus is reported from the Shumway limestone (Mattoon formation, Upper Pennsylvanian) of Illinois. This discovery extends the stratigraphic range of the genus from Middle Pennsylvanian (Desmoinesian) to the Missourian-Virgilian boundary in the Upper Pennsylvanian.

INTRODUCTION

Until Brew and Beus (1976) described Paraconularia kohli from the Naco formation (Desmoinesian) of Arizona, Paraconularia was only known from the Permian Period of India (Moore and Harrington, 1956) and the Mississippian Period of North America (Brew and Beus, 1976). Collections of fossil invertebrates from the Shumway limestone contain two specimens identifiable as Paraconularia kohli. These specimens extend the stratigraphic range of the genus in North America to the Missourian-Virgilian boundary. The present paper describes these specimens.

STRATIGRAPHY

The stratigraphic section containing the Shumway limestone at the collecting locality was described by Kosanke et al. (1960). Tucker (in press) listed the invertebrate fauna at this locality. Both specimens were collected from the lower bed of the Shumway limestone near the contact between the upper and lower beds of the unit. Kosanke et al. (1960) considered the Shumway limestone to be uppermost Missourian or lowermost Virgilian. The presence of the fusulinid genus Triticites supports these correlations (Kosanke et al., 1960).

SYSTEMATIC PALEONTOLOGY

Family CONULARIIDAE Walcott, 1886

Subfamily PARACONULARIINAE Sinclair, 1940

Genus PARACONULARIA Sinclair, 1940

PARACONULARIA KOHLI Brew and Beus

Figure 1.

Paraconularia kohli Brew and Beus, 1976, p. 891, Pl. 1, figs. 20, 23.

Description. The straight, uniformly tapering shell has an apical angle of about 17 degrees. The faces are equal and slightly convex to flat. The mid-line is marked by a weak ridge that is more pronounced aperturally and produces minor offsets or kinks in the transverse ribs. The interfacial corners are marked by prominent grooves. The strong

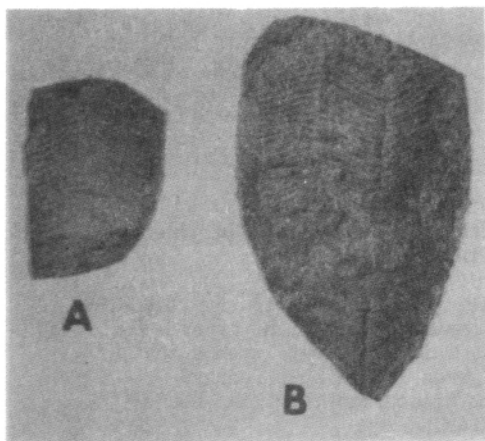


Figure 1. Paraconularia kohli Brew and Beus. A, lateral view of PE 28367; B, corner view of PE 28368. X 2.

the specimens are complete adapically nor adaperturally. The most complete specimen which is crushed measures 28 mm in length. The maximum facial width is 10 mm. The other specimen measures 12 mm in maximum facial width. The transverse ribs are spaced at 11 in 8 mm near the apertural end of both specimens.

Comparison. The Shumway specimens are very similar to the types of Paraconularia kohli. The only possible difference is that Brew and Beus (1976) make no mention of tubercles on the transverse ridges whereas they are present on the outer layer of the shells of the Illinois specimens. The significance of this difference is not clear. Species of Calloconularia are also superficially similar to P. kohli but all of the species of Calloconularia have longitudinal ribs in the interspaces between the transverse ribs whereas P. kohli does not.

Material. Two specimens (PE 28367; PE 28368) are deposited in the collections of the Field Museum of Natural History, Chicago.

Occurrence. Paraconularia kohli is known from the Naco formation on Kohl Ranch in Arizona (Brew and Beus, 1976) and from the Shumway limestone at SE $\frac{1}{4}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$, sec. 26, T9N, R5E, Effingham Quadrangle, Effingham County, Ill.

LITERATURE CITED

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transverse ribs which cover the shell surface do not cross the interfacial corner grooves but at their ends alternate with the rib ends from the adjacent face across the groove. In some cases the ribs abruptly bend adapertural at the corner grooves but some of the ribs show little or no adapertural deflection. At the mid-line the ribs form adapically directed angles of about 140 degrees. The transverse ribs are faintly to moderately tuberculated on the outer surface of the shell. Inner shell layers show no signs of these tubercles which are very closely spaced. No longitudinal ribs were observed in the interspaces between the transverse ribs. Neither of