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# A New Genus *Arabitrigonia* nov.

By

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ABSTRACT: In this paper, the writer proposed *Arabitrigonia* nov. based on *Trigonia pseudocrenulata* NOETLING. This new genus is one of the most aberrant and interesting Trigoniids, and may be an offshoot derived from *Pseudomyophorella* by the development of the *Pterotrigonia*-type shell form and surface ornament.

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## I. INTRODUCTION

Since NOETLING in 1886 described *Trigonia pseudocrenulata* found in the *Trigonia* sandstone at Abeih located about 25 Km southeast of Beirut in Lebanon, it has been reported and described by VOKES (1946), ABBASS (1962) and others from the Aptian of Lebanon and Sinai Peninsula.

*Trigonia pseudocrenulata* considered to be a member of GILLET's Groupe des Scabres *sensu stricto* is one of the most interesting and aberrant Trigoniids and it is very close to the genera of the Pterotrigoniinae van HOEPEN, 1929 em. KOBAYASHI and NAKANO, 1957 in surface sculpture and shell form but distinct in having radial ribbing on the area. In this respect, it has been considered that it may be new to science and belongs to a new genus.

In this occasion, the writer wishes to establish a new genus named *Arabitrigonia* nov. based on *Trigonia pseudocrenulata* NOETLING. This monotypic new genus seems to be possibly a member of the Trigoniinae because of the radial costation on the area, and it may be an issue derived from *Pseudomyophorella* NAKANO, 1961 by the development of the *Pterotrigonia*-type shell form and surface sculpture.

Before going further, the writer wishes to express his sincere thanks to Dr. Itaru HAYAMI of the Kyushu University at Fukuoka for supply of the interesting and important material.

## II. PALAEOLOGICAL NOTE

Subfamily Trigoniinae LAMARCK, 1819  
(=Pleurotrigoniinae van HOEPEN, 1929)

NAKANO's proposal (1970) for the subfamily is accepted here.

As already suggested by several authors, *Trigonia pseudocrenulata* NOETLING resembles closely *Trigonia crenulata* LAMARCK but differs in having 3–4 radial ribs on the area. In this respect, it was considered by KOBAYASHI and NAKANO (1957, p. 232) to be a questionable species belonging to their *Acanthotrigonia*. Succeedingly, the writer (1970, p. 102) suggested that this form has some resemblance to *Pterotrigonia* s. s. or *Acanthotrigonia* in essential characters, if overlooked the nature of the area, and in this aspect he tentatively placed this species in *Pseudomyophorella* having *Myophorella*-like sculpture on the flank and the radial ribbing on the area.

As mentioned before, *T. pseudocrenulata* is close to *Pseudomyophorella* in radial costation on the area, but easily distinguishable from the latter by the *Pterotrigonia*-type sculpture and shell form. The genera of the Pterotrigoniinae are quite similar to *T. pseudocrenulata* in essential characters, but distinct in lacking radial sculpture on the area.

On this occasion, therefore, the writer proposed *Arabitrigonia* nov. typified by *T. pseudocrenulata*. Judging from the radial ribbing on the area, *Arabitrigonia* nov. was issued probably from *Pseudomyophorella* by the development of the *Pterotrigonia*-type sculpture and shell form and it seems to be probably a member of the Trigoniinae.

Genus *Arabitrigonia* nov.

*Type species*: — *Trigonia pseudocrenulata* NOETLING, 1886. Aptian; Lebanon and Sinai Peninsula.

*Diagnosis*: — Shell medium, subtrigonal; umbo prominent, located anteriorly; beak strongly opisthogyrous; escutcheon depressed or excavated, broad, transversely costellate; carinae obsolete except near umbo; area narrow and strongly arcuated, ornamented with radial and oblique or transverse costae which are obsolete in later stage; median furrow shallow and somewhat obscure; flank with diagonal, tuberculate costae; ante-carinal depression shallow and indistinct.

*Remarks*: — This is monotypic, resembling *Pterotrigonia* s. s. or *Acanthotrigonia* in shell form and surface costation, but distinct in having radial ribbing on its area. *Pseudomyophorella* is distinguishable from this new genus by the presence of the carinae on the slightly concave area.

*Arabitrigonia pseudocrenulata* (NOETLING) is fairly constant in shell form and surface sculpture, but ribbing on its area seems to be somewhat variable in a small extent. According to NOETLING (1886, pp. 862–863, pl. 25, figs. 5 and 5a) and ABBASS (1962, p. 91, pl. 15, fig. 2a), oblique costae on the area are well recognized and developed in the vicinity of the umbo but they are indistinct in VOKES' ones (1946, p. 168, pl. 4, figs. 13–14).

*Distribution*: — Aptian of Lebanon and Sinai Peninsula.

III. CONCLUDING REMARKS

*Arabitrigonia* nov. typified by *Trigonia pseudocrenulata* NOETLING, seems to be limited to occur in the Aptian of Lebanon and Sinai Peninsula and it may be an issue derived from *Pseudomyophorella* by the development of the *Pterotrigonia*-like surface costation and shell form.

A New Genus *Arabitrigonia* nov.

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