New Documentation of The Indicative Maastrichtian Ammonite

*Menuites fresevillensis* (Seunes, 1890a) from The Shiranish Formation, NW Iraq

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ABSTRACT

*Menuites fresevillensis* (Seunes, 1890a) is recorded and described for the first time from the Shiranish Formation (Late Campanian - Maastrichtian), NW Iraq. These diagnosis were made on the basis of planispiral involute shell and compressed whorl section (oxycone), with the mean ratio of whorl breadth to whorl height \( \frac{w_b}{h} \) attaining 0.4. The shell is moderately ornamented by numerous ribs which mostly arise on the umbilical wall becoming strengthened toward small bullate.

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**توثيق جديد لأحد أنواع الأمونيت الدالة على المايتريختي من تكوين شرينى**

*Menuites fresevillensis* (Seunes, 1890a)

شمال غرب العراق

الملخص

تم توثيق ووصف النوع (الكاملاني المتآخى - المايتريختي)، شمال غرب العراق، حيث نسبت النماذج المدروسة إلى هذا النوع بالاعتماد على شكل الصدفة المستوى الاحتفاظ ذو اللفائف المختلطة وشكل مقطع لفيف من النموذج المضغوط (oxycone) بالإضافة إلى أن نسبة عرض اللفة إلى طولها تصل إلى 0.4 (\( W_b : W_h = 0.4 \)) 4 السطح الخارجي للصدفة مزخرف باضلاع متعددة غالبا ما تنتخن بالاجتماع السرة لتكون بثرات صغيرة.

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**INTRODUCTION**

Shiranish Formation is first described by Henson, 1940 (cited in Bellen et al., 1959), its type section lies near the Shiranish Islam Village, northeast of Zakho City, North Iraq. This Formation consists mostly of marl and marly limstone and reaches about 228 meter thickness; representing offshore, open sea sediments of the late Campanian to Maastrichtian age as shown by the Foraminiferal assemblages content.
The studied specimens of ammonites were collected from the northern limb of Sinjar anticline at level of the stratigraphic successions of the Shiranish Formation, placed about 150 meter below the Shiranish/Sinjar contact. Accordingly, these beds were most probably part of the middle unit of this Formation (see also Maala, 1977).

**Systematic Paleontology**

<table>
<thead>
<tr>
<th>Order</th>
<th>Ammonoidea</th>
<th>Zittle, 1884</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suborder</td>
<td>Ammonitina</td>
<td>Hyatt, 1889</td>
</tr>
<tr>
<td>Superfamily</td>
<td>Desmocerataceae</td>
<td>Zittle, 1895</td>
</tr>
<tr>
<td>Family</td>
<td>Pachydiscidae</td>
<td>Spath, 1922</td>
</tr>
<tr>
<td>Genus</td>
<td><em>Menuiites</em></td>
<td>Spath, 1922</td>
</tr>
</tbody>
</table>

**Synonymy:**

1926 *Anapachydiscus* Yabe and Shimizu  
1926 *Neopachydiscus* Yabe and Shimizu  
1931 *Besairieites* Collignon  
1969 *Cabbanoscapheites* Collignon

**Type species:**

*Ammonites menue* Forbes, 1846, P. 111, Pl. 10, Fig. 1, by original designation by Spath (1922, P. 123).

*Menuiites fresvillensis* (Seunes, 1890a)  
Pl. 1, Fig. 4.

**Synonymy:**

1890a *Pachydiscus fresvillensis* Seunes  
1890b *Pachydiscus fresvillensis* Seunes; Seunes  
1890b *Pachydiscus auritocostatus* Schluter; Seunes  
1894 *Pachydiscus colligatus* Von Binkhorst  
1986b *Anapachydiscus fresvillensis* (Seunes, 1890a); Kennedy  
1986c *Anapachydiscus fresvillensis* (Seunes, 1890a); Kennedy  
1986d *Anapachydiscus fresvillensis* (Seunes, 1890a); Kennedy  
1986 *Anapachydiscus fresvillensis quiriquinae* (Steinmann); Stinnesbeck  
1987 *Anapachydiscus fresvillensis* (Seunes, 1890a); Kennedy  
1993 *Anapachydiscus fresvillensis* (Seunes, 1890a); Ward and Kennedy  

*Menuiites fresvillensis* (Seunes, 1890a); Kennedy and Hancock

**Types:**

Lectotype, by the subsequent designation of Kennedy, 1986, P. 44, is the original of Seunes, 1890, plate 2(1), no. A1186 in the collections of the cole des Mines, Paris, now housed in the Université Claude-Bernard, Lyon, and from the upper Maastrichtian Calcaire à *Baculites* of Fresville, Manche, France.
Material Examined:-

Two specimens preserved as external crushed molds were collected from the middle unit of Shiranish Formation, NW Iraq. These specimens were deposited in the Museum of the Department of Geology, Mosul University, Iraq.

Dimensions:-

The following measurements were made on the shell parameters of ammonite specimens, in order to illustrate the detail shell description. These measurable parameters are:

<table>
<thead>
<tr>
<th>D (mm)</th>
<th>U (mm)</th>
<th>W_b (mm)</th>
<th>W_h (mm)</th>
<th>W_b:W_h</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>11</td>
<td>8</td>
<td>20</td>
<td>0.4</td>
</tr>
</tbody>
</table>

D : Shell diameter.
U : Umbilicus diameter.
W_b : Whorl breadth.
W_h : Whorl height.

Diagnosis:-

The shell coiling is of planispiral involute type with compressed whorl section (oxycone), and of W_b:W_h ratio attaining 0.4. The shell surface is ornamented by numerous ribs arising mostly on the umbilical wall becoming strengthened toward small bullate.

Description:-

Planispiral involute shell is about 46 mm in diameter, with moderately deep and broadly rounded shoulder umbilicus. The whorl section is compressed of an oxycone type having whorl breadth to whorl height ratio attaining 0.4 and with the whorl breadth below the midflank of the shell. The outer flanks are flattened with broadly rounded ventral side.

The shell is ornamented by numerous straight prorsiradiate ribs arising on umbilical wall becoming strengthen toward the small bullate, separated by one or two intercalated ribs which appear mostly on the venter and ventrolateral side of the shell making a wide convexity across the venter.

Discussion:-

*Menites fresvillensis* (Seunes, 1890 a) is most closely resembles the *Menites terminus* Ward and Kennedy, 1993 but the latter differs in having numerous ribs counting 60 per single whorl during the mid-life of the growth, versus 30-40, in *Menites fresvillensis*. In addition, *Menites oralensis* Cobban and Kennedy, 1993 differ from the studied species in the presence of the umbilical bullate which occur near the whorls, but disappear again on the mid way of the adult body chamber and their ribs appear on the early whorls too but weaken or disappear on the adapical part of the adult body chamber.
Occurrence: -

*Meniites fresevillensis* is Maastrichtian species, in addition to the present record, its occurs in France, Netherlands, Yugoslavia, The Armenian Republic, Southern India, Southern Africa, Madagascar, Western Australia, Chile and possibly Brazil.

REFERENCES


Ward, P.D. and Kennedy, W.J., 1993; Maastrichtian ammonites from the Biscay Region (France, Spain). Memoir Paleontological Society, 34 :58 P.
Menites fresvillensis (Seunes, 1890a)

Fig. 1-3: The original of Seunes, 1890b, Pl. 8, Fig. 1, X1

Fig. 4: The present specimen. X2.3