

## New Documentation of The Indicative Maastrichtian Ammonite *Menuites fresevillensis* (Seunes, 1890a) from The Shiranish Formation, NW Iraq

Ramzi K. Al-Naser                      Omar A. Al-Bdrani  
Department of Geology  
College of Sciences  
Mosul University

### 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 ( $w_b:w_h$ ) attaining 0.4 . The shell is moderately ornamented by numerous ribs which mostly arise on the umbilical wall becoming strengthened toward small bullate.

توثيق جديد لاجد انواع الامونايت الدالة على المايسترختي

*Menuites fresevillensis* (Seunes, 1890a) من تكوين شرانيش

شمال غرب العراق

### المخلص

تم توثيق ووصف النوع (*Menuites fresevillensis* (Seunes, 1890a) لأول مرة من تكوين شرانيش (الكامباني المتأخر - المايسترختي)، شمال غرب العراق. حيث نسبت النماذج المدروسة الى هذا النوع بالاعتماد على شكل الصدفة المستوي الالتفاف ذو اللفات المختلفة وشكل مقطع لفتيا من النموذج المضغوط (oxycone) بالاضافة الى ان نسبة عرض اللفة الى طولها تصل الى 0.4 ( $W_b : W_h = 0.4$ ) ، السطح الخارجي للصدفة مزخرف باضلاع متعددة غالبا ما تتخذ باتجاه السرة لتكون بثرات صغيرة.

### 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 limestone 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

Order	Ammonoidea	Zittle,1884
Suborder	Ammonitina	Hyatt,1889
Superfamily	Desmocerataceae	Zittle,1895
Family	Pachydiscidae	Spath,1922
Genus	<i>Menuites</i>	Spath,1922

### Synonymy: -

1926	<i>Anapachydiscus</i>	Yabe and Shimizu
1926	<i>Neopachydiscus</i>	Yabe and Shimizu
1931	<i>Besairieites</i>	Collignon
1969	<i>Cabbanoscaphites</i>	Collignon

### Type species: -

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

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

### Synonymy: -

1890a	<i>Pachydicus fresvillensis</i>	Seunes
1890b	<i>Pachydicus fresvillensis</i>	Seunes; Seunes
?1890b	<i>Pachydiscus auritocostatus</i>	Schluter; Seunes
1894	<i>Pachydiscus colligatus</i>	Von Binkhorst
1986b	<i>Anapachydiscus fresvillensis</i>	(Seunes, 1890a); Kennedy
1986c	<i>Anapachydiscus fresvillensis</i>	(Seunes, 1890a); Kennedy
1986d	<i>Anapachydiscus fresvillensis</i>	(Seunes, 1890a); Kennedy
1986	<i>Anapachydiscus fresvillensis quiriquinae</i>	(Steinmann); Stinnesbeck
1987	<i>Anapachydiscus fresvillensis</i>	(Seunes, 1890a); Kennedy
1993	<i>Anapachydiscus fresvillensis</i>	(Seunes, 1890a); Ward and Kennedy
	<i>Menuites fresvillensis</i>	(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 Universitç 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:-

$\frac{D \text{ (mm)}}{46}$	$\frac{U \text{ (mm)}}{11}$	$\frac{W_b \text{ (mm)}}{8}$	$\frac{W_h \text{ (mm)}}{20}$	$\frac{W_b:W_h}{0.4}$
-----------------------------	-----------------------------	------------------------------	-------------------------------	-----------------------

- D : Shell diameter .  
 U : Umbilicus diameter .  
 W<sub>b</sub>: Whorl breadth .  
 W<sub>h</sub>: Whorl height .

**Diagnosis:-**

The shell coiling is of planispiral involute type with compressed whorl section (oxycone), and of W<sub>b</sub>:W<sub>h</sub> ratio attaining 0.4. The shell surface is ornamented by numerous ribs arise 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: -**

*Menuites fresvillensis* (Seunes, 1890 a) is most closely resembles the *Menuites 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 *Menuites fresvillensis*. In addition, *Menuites 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

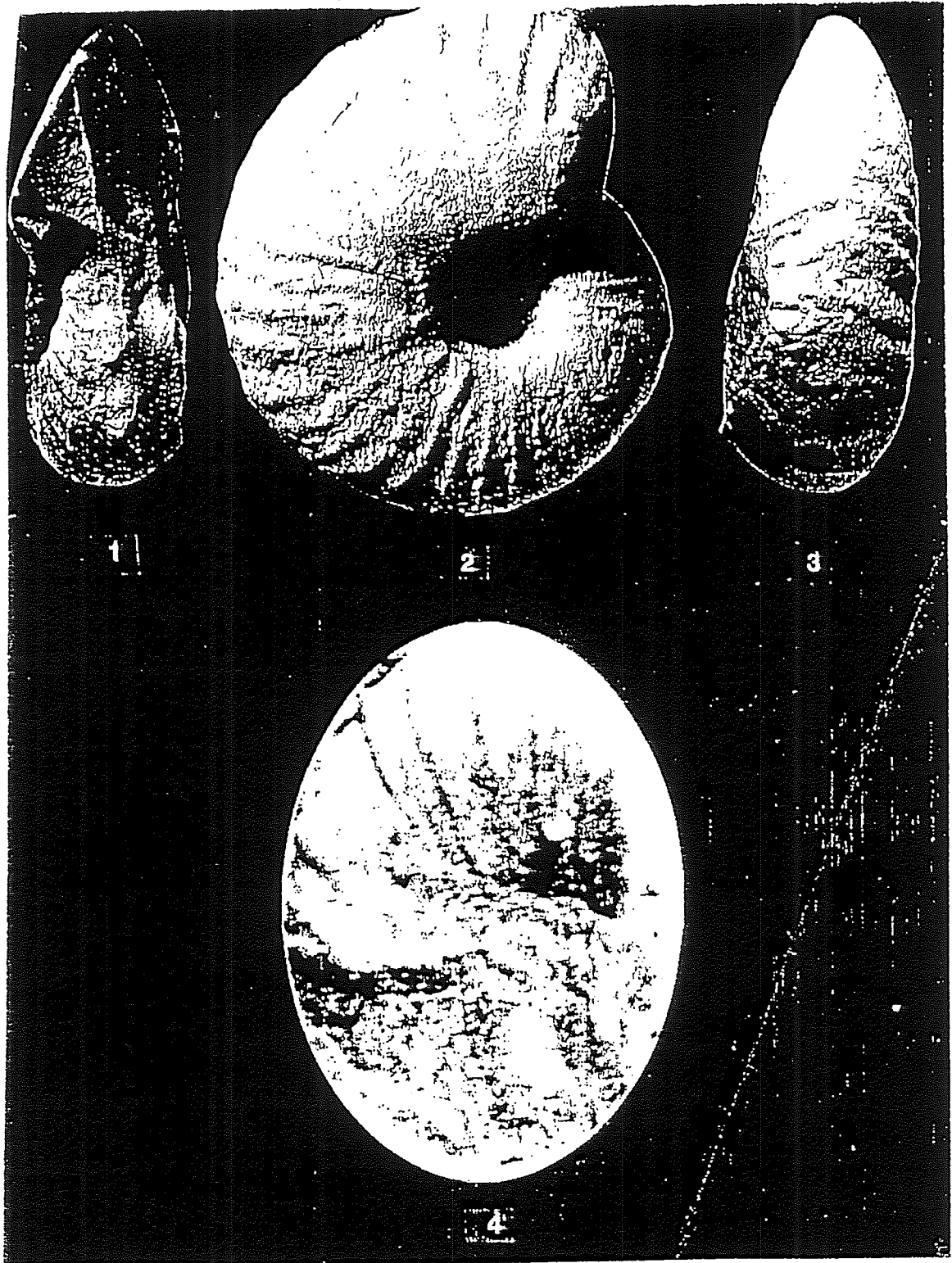
**Occurrence: -**

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

**REFERENCES**

- Bellen, V.R.C., Dunnigton, H.V., Wetzel, R. and Mortan D., 1959; Lexique Stratigraphique International, Asie fascicule, 10 a-Iraq, Paris, 333p.
- Cobban, W.A. and Kennedy, W.J., 1993; The Upper Cretaceous dimorphic Pachydiscid ammonite *Menuites* in the Western interior of the U.S. U.S.Geol.Surv. Prof. Pap.1553: 14Pp.
- Forbes, E., 1846; Report on the Fossil Invertebrata from Southern India, collected of Mr. Kaye and Mr. Cunliffe. Transactions of the Geological Society, (2), 7:97-174.
- Kennedy, W. J., 1986b; The ammonite fauna of the Calcaire à *Baculites* (upper Maastrichtian) of the Cotentin Peninsula (Manche, France). Palaeontology, 29:25-83.
- Kennedy, W. J., 1986c; In Kennedy, W.J., Bilotte, M., Lepicard, B. and Segura, F.; Upper Campanian and Maastrichtian ammonites from the Pettes-Pyrénées, southern France. Eclogae geologicae Helvetiae, 79:1001-1037.
- Kennedy, W. J., 1986d; The Campanian-Maastrichtian ammonite sequence in the environs of Maastricht. (Limburg, the Netherlands). Newsletter on Stratigraphy, 16:149-168.
- Kennedy, W. J., 1987; The ammonite fauna of the type Maastrichtian, with revisions of *Ammonites Colligatus* Binkhorst, 1861. Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, 56 (for 1986):151-267.
- Kennedy, W. J. and Hancock, J. M., 1993; Upper Maastrichtian Ammonites from the Marnes De Nay between Gan and Rebenacq (Pyrenees-Atlantiques), France. GEOBIOS, 26, 5: 575-594.
- Maala, K.A., 1977; Geology of Sinjar area. part I, No.860, S.O.M. Library, Baghdad.
- Seunes, J., 1890a; Contributions à l'étude des Céphalopodes du Crétacé supérieur de France. 1. ammonites du Calcaire à *Baculites* du Contentin. Mémoire de la société Géologique Française de Paléontologie, 1, Mém.2:1-7.
- Seunes, J., 1890 b; Recherches géologiques sur les terrains secondaires et l'Eocène inférieur de la France (Basses-Pyrénées et Landes). Dunod, Paris: 250 P.
- Stinnesbeck, W., 1988; Zu den faunistischen und paläologischen Verhältnissen in der Quiriquina Formation (Maastrichtian), Zentrales Chile. Palaeontographica, A194:99-237.
- Ward, P.D. and Kennedy, W.J., 1993; Maastrichtian ammonites from the Biscay Region (France, Spain). Memoir Paleontological Society, 34:58 P.

PLATE 1



*Menuites fresvillensis* (Seunes, 1890a)

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

Fig. 4: The present specimen. X2.3

