

***Transversopontis omarians* sp.nov. Calcareous Nannofossils from Jaddala Formation (Eocene) in Dh.1 well, central Iraq**

Omar A. Al-Badrani

Mohammad H. Al-Ubaidi

*Department of Geology  
College of Science  
University of Mosul*

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**ABSITRACT**

*Transversopontis omarians* sp.nov. is described from Jaddala Formation (Eocene) in Dh.1well, central Iraq. This species is recognized by having elliptical muroliths with transverse bar lacking two openings in the ends of the central area, it is reaching about 10 microns in length.

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النوع *Transversopontis omarians* sp.nov. من متحجرات النانو الكلسية من  
تكوين جدالة (الايوسين) في بئر ظفرية-١ وسط العراق

محمد حازم العبيدي

عمر احمد البدراني

قسم علوم الأرض

كلية العلوم

جامعة الموصل

**الملخص**

تم وصف النوع *Transversopontis omarians* sp.nov. من تكوين جدالة (الايوسين) في بئر ظفرية-١، وسط العراق. يتميز هذا النوع بامتلاكه موروليث بيضوي مع قاطع معكوس يفتقد الى فتحتين في جانبي المنطقة المركزية، ويصل طوله الى حوالي ١٠ ميكرون.

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**STRATIGRAPHIC REMARKS**

Jaddala Formation was first described by Henson, 1940 (in Bellen *et al.*, 1959) near Jaddala village at southern limb of Sinjar anticline NW Iraq, it is about 342 m. in thickness and consists of marly limestone, chalky limestone and Marlstone (Bellen *et al.*, 1959).

The described species come from Jaddala Formation from sample at depth 2505 metres in Dh.1 well at central Iraq (Fig. 1), which was drilled by I.N.O.C. and determinate Aaliji Formation between depths (2675-2525) consist of limestone, shaley limestone and shales, and determinate Jaddala Formation between depths (2525 - 2375 m.) consist limestone, marly limestone and chalky limestone (Aziz, 1997).

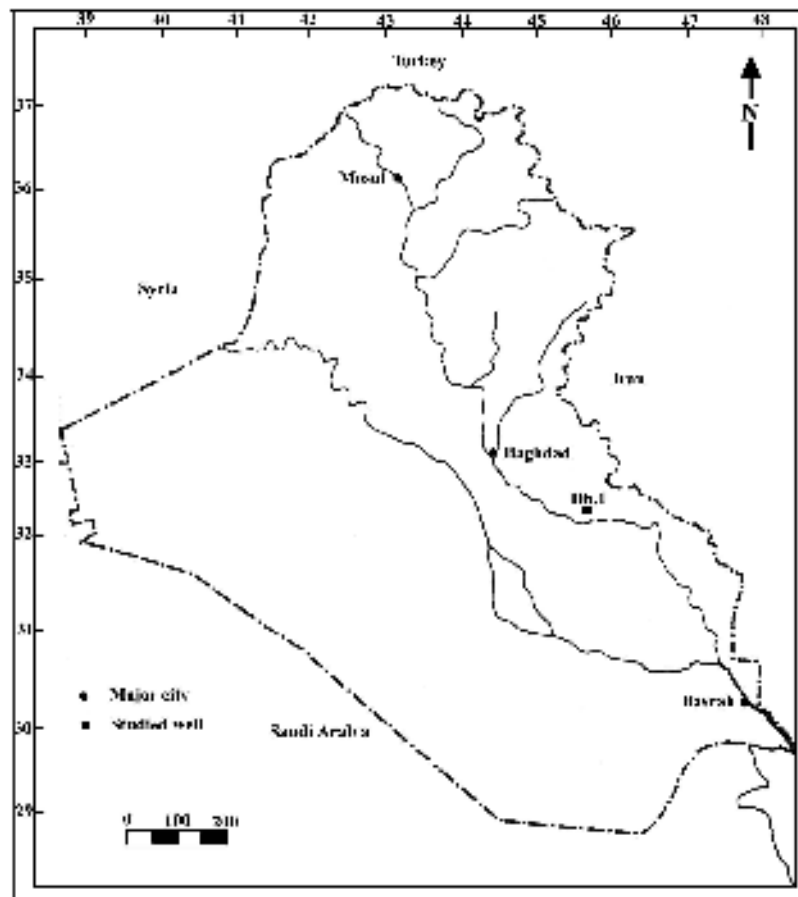


Fig. 1: Location Map of Studied Subsurface Section.

### SYSTEMATIC PALEONTOLOGY

The Classification was based on Perch-Nielsen (1985), Young *et al.*, (1997) and Young and Bown, (1997):

**Kingdom** Protista

**Division:** Chrysophyta Rothmaler, 1949

**Class:** Coccolithophyceae Rothmaler, 1949

**Family:** Pontosphearaceae Lemmermann, 1908

**Genus:** *Transversopontis* Hay, Mohler and Wide, 1966

**Type species:** *Discolithus obliquipons*(Deflandre and Fert, 1954) Hay, Mohler and Wide,1966

***Transversopontis omarians* sp.nov.**

Pl. 1, Figs. 1 - 3

**Holotype:** Mos.Geo.N.T.(2505-1,2) ( Mos: Mosul; Geo: Dept. of Geology; N.T.: Nannofossils Tertiary collection).

**Type locality and Stratum:** Southeast Baghdad, Central Iraq, Jaddala Formation from Marly Limestone from the depth 2505 metres in Dh.1 well at central Iraq.

**Materials Examined:** Two Heterococcoliths elliptical coccoliths.

**Dimensions:** Longitudinal (10micron), Traverse(6micron), traverse bar (7 micron).

**Diagnosis:** Elliptical muraliths with transverse bar does not have two openings in the ends of the central area.

**Description:** Heterococcoliths elliptical muraliths with an outer rim-cycle of V-units showing imbrication form narrow outer rim-cycle, central-area spanned by a conjunct bar, usually oblique, the bar do not have two openings in the ends of the central area (Plate 1).

**Discussion:** The *Transversopontis* Hay, Mohler and Wide,1966 have fourteen species(see Appendix), the Iraqi species very close to *Transversopontis obliquipons* (Deflandre in Deflandre and Fert, 1954) Hay, Mohler and Wade, 1966, but the later differs in having openings in the ends of the central area, and it is isogyre is not the same. Furthermore, it is similar to isogyre of *Transversopontis zigzag* Roth and Hay, 1967 but the later without straight bar as in the studied species (Plate 2) (Perch-Nielsen, 1985) (Farrinacci, 1970).

**Derivation of name:** From the name of Professor Dr. Farouk S. Al-Omari for his contribution to the Micropaleontological studies in Iraq.

The recorded species of *Transversopontis* Hay, Mohler and Wide, 1966 until now are fourteen species these are:

- Transversopontis duocavus* (Bramlette and Sullivan, 1961) Locker, 1973  
*Transversopontis exilis* (Bramlette and Sullivan, 1961) Perch – Nielsen, 1971  
*Transversopontis fimbriatus* (Bramlette and Sullivan, 1961) Locker, 1968  
*Transversopontis latus* Muller, 1970  
*Transversopontis obliquipons* (Deflandre in Deflandre and Fert, 1954) Hay, Mohler and Wade, 1966  
*Transversopontis pax* Stradner and Seifert, 1980  
*Transversopontis prava* Locker, 1967  
*Transversopontis pseudopulcher* Perch - Nielsen, 1967  
*Transversopontis pulcher* (Deflandre in Deflandre and Fert, 1954) Perch - Nielsen, 1967  
*Transversopontis pulcheroides* (Sullivan, 1964) Baldi - Beke, 1971  
*Transversopontis pygmaea* (Locker, 1967) Perch - Nielsen, 1984  
*Transversopontis rectipons* (Haq, 1968) Roth, 1970  
*Transversopontis sigmoidalis* Locker, 1967  
*Transversopontis zigzag* Roth and Hay, 1967

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## Plate 1

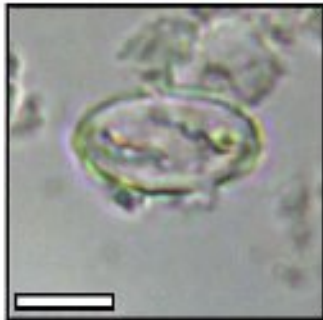


Fig.1: *Transversopontis omarians* sp.nov.  
normal light, bar is 5 micron

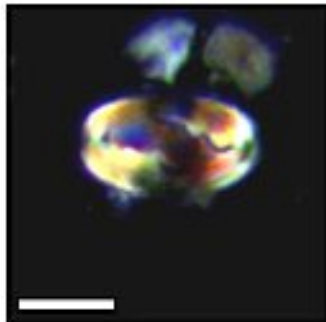


Fig.2: *Transversopontis omarians* sp.nov.  
polarized light, bar is 5 micron

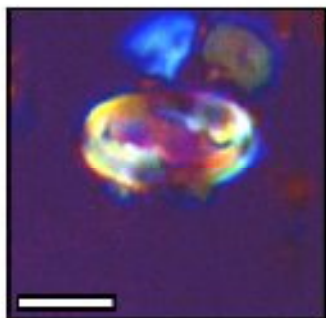


Fig.3: *Transversopontis omarians* sp.nov.  
gypsum plate, bar is 5 micron

## Plate 2



Fig.1: *Transversopontis obliquipons*  
(Deflandre) Hay, Mohler and Wade, 1966  
normal light



Fig.2: *Transversopontis obliquipons*  
(Deflandre) Hay, Mohler and Wade, 1966  
polarized light



Fig.3: *Transversopontis zigzag*  
Roth and Hay, 1967  
normal light