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SİVASELLA GOEKCENİ, A NEW FORAMINIFER SPECIES OF MAASTRICHTIAN OF SOUTHWEST MALATYA (SE TÜRKİYE)

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ABSTRACT-A new species called *Sivasella, Sivasella goekceni,* is described from sediments within the Maastrichtian levels of inekpman limestone overlying the Malatya (SE Türkiye). This new species can readily be distinguished from *Sivasella monolateralis* Sirel and Gündüz, 1978 by its thicker, longer test and much thinner filling material in the upper part of test.

INTRODUCTION

The basement rocks of southern Malatya sedimentary sequence consist of Permo-Carboniferous age Malatya Metamorphics (Fig. 1). Upper Cretaceous-Upper Eocene age sedimentary rocks are located on the top of the metamorphics. These units are called Upper Cretaceous age Gündüzbey group and Upper Eocene age Yeşilyurt group (Önal and Gözübol, 1992).

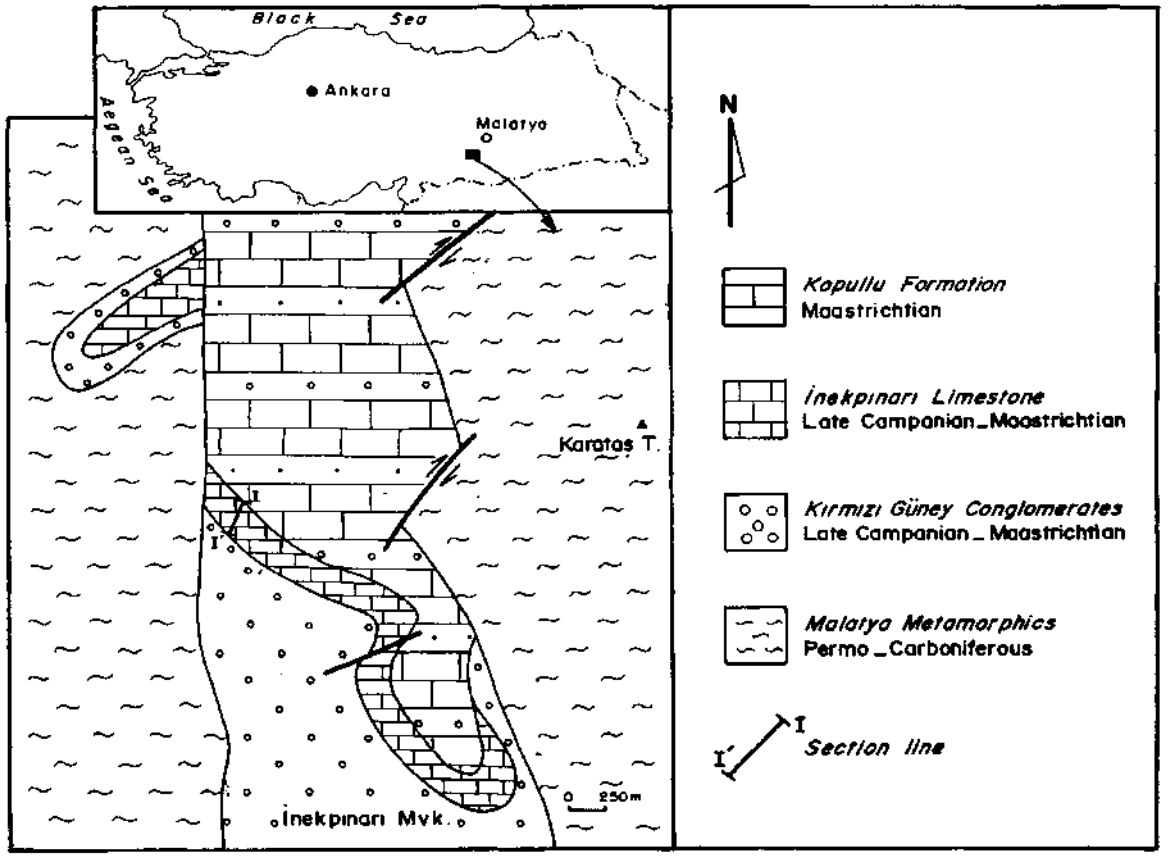

Fig. 1- Location and geological map of the study area (after Önal and Gözübol, 1992)

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In this study, on the Maastrichtian age level of Upper Campanian-Maastrichtian age İnekpınarı limestone, a new *Sivasella* species, *Sivasella goekceni* n. sp. has been found and described (Fig. 2).

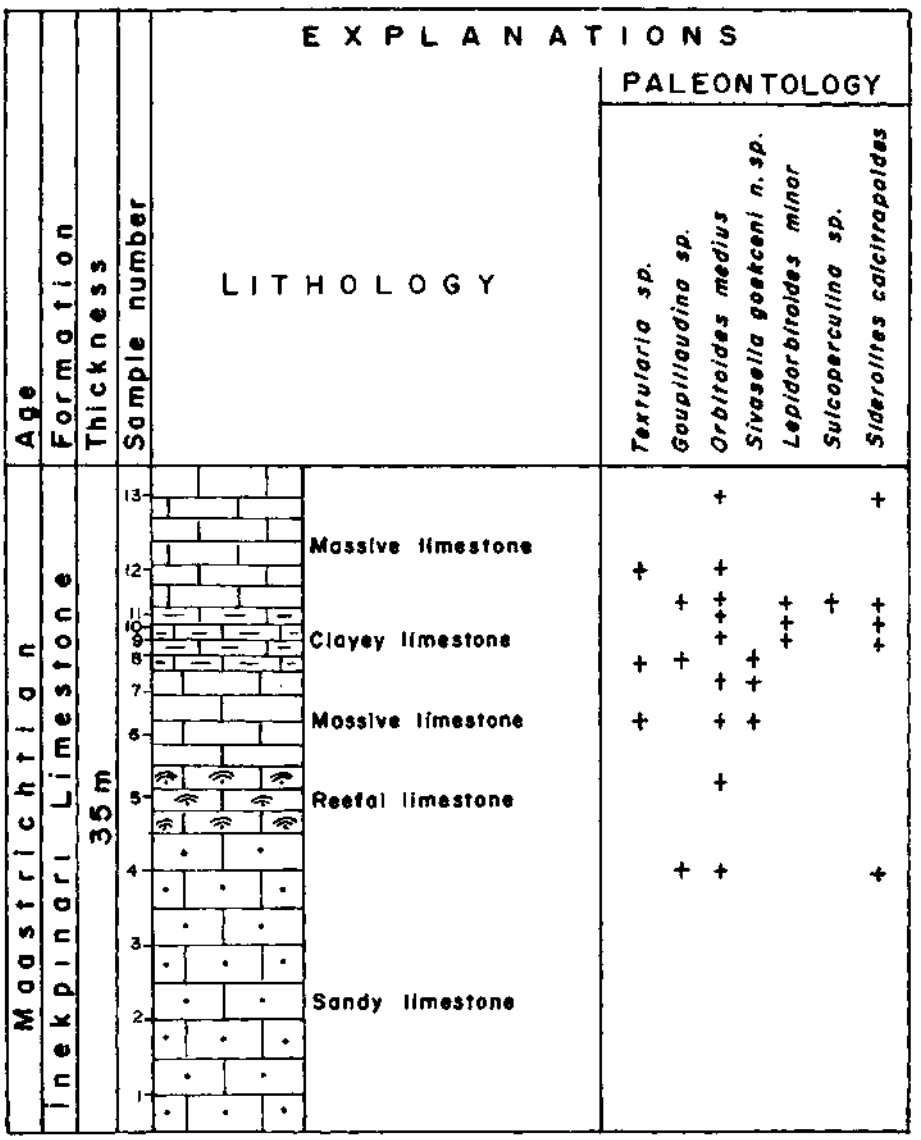

Fig. 2- The distribution of benthic foraminifera in the İnekpınarı section.

Sivasella genus were discovered by Sirel and Gündüz (1978) in Maastrichtian age sediments of southwest Sivas area (Sarkışla) and its type species was defined as *Sivasella monolateralis* Sirel and Gündüz was found in the Maastrichtian level of Upper Campanian-Lower Maastrichtian age Tripolitze series in Greece (Zambetakis-Lekkas, 1987).

SYSTEMATIC DESCRIPTION

Order	Foraminiferida Eichwald, 1830
Superfamily	Orbitoidacea Schwager, 1876
Family	Orbitoididae Schwager, 1876

Subfamily : Orbitoidinae Schwager, 1876
Genus : *Sivasella* Sirel and Gündüz, 1978
Types species : *Sivasella monolateralis* Sirel and Gündüz, 1978
Sivasella goekceni Meriç and inan, n. sp. (Plate I, Fig. 1-10)

Holotype : Axial section of microspheric, Plate I, fig. 3

Paratype : Axial section of macrospheric, Plate I, fig. 7 and 10

Type locality : İnekpınarı area (SW Malatya-SE Turkiye)

Type level : Maastrichtian

Derivation of name: This new species is named after Prof. Dr. L.Sungu Gökçen because of his valuable contribution to stratigraphy and sedimentology.

Deposition of types: Original material is kept at the Department of Geology, University of Cumhuriyet, in Sivas, Turkiye.

Tanımlama

The test is hyalin calcerous, its shape varies between concavo-convex, convex, conical and flabelliform.

The axial sections of the species is very characteristic. The arcuate shape of orbitoidal chamber series in on the equatorial plane. On one part of the lateral side of the test lie lateral chambers series and stolons which provide connection between lateral and and equatoral chambers. On the other part of the lateral side of the test, there is a slim calcerous filling material. The thicknees of this filling material decreases from center to periphery. Microspheric forms of this species are found more common than macrospheric forms (Fig. 3).

Association

This new species is discovered together with *Orbitoides medius* (d'Archiac), *Lepidorbitoides minor* Schlumberger, *Siderolites calcitrapoides* Lamarck, *Gaupillaudina* sp., *Sulcoperculina* sp., *Textularia* sp. group (Fig. 2).

Comparison

New species differs from *Sivasella monolateralis* Sirel and Gündüz, 1978 by its thicker and longer test, and much thinner filling material in one side of its test (Fig. 3). While the thickness of filling material in microspheric forms of new species is 13 or 16 of central thickness, in *monolateralis,* it is 6,6 or 1/4 of whole thickness. In macrospheric forms of new species; the thickness of filling material is 16 or 8,5 of central thickness. But, in *monolateralis,* it is measured as 3.3 or 1/2 of the whole thickness.

According to this comparison in filling parameters (Fig. 4), filling parameter of new species is 1/3 smaller than *monolateralis* parameters in average. New species can easily be identified by using this feature.

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	Sivasella goekceni n. sp.			*Sivasella monolateralis* Sirel _ Gündüz		
	Microspheric forms (B) Measurements mm					
	,in 21 specimens			,in 20 specimens (after Sirel _ Gündüz, 1978)		
	min.	max.	average	min.	max.	average
Axial diameter (d)	0,925	2,625	1,775	0,87	1,62	1,19
Thickness of the filling material (f)	0,0125	0,07	0,047	0,036	0,084	0,054
Central thickness (h)	0,20	0,925	0,56	0,24	0,34	0,30
h / f	16,00	13,20	14,60	6,66	4,04	5,34
d / h	4,60	2,80	3,70	3,60	4,76	4,18
	Macrospheric forms (A) Measurements *mm*					
	,in 10 specimens			,in 20 specimens (after Sirel _ Gündüz, 1978)		
	min.	max.	average	min.	max.	average
Axial diameter (d)	0,60	1,225	0,912	0,57	1,03	0,69
Thickness of the filling material (f)	0,0125	0,05	0,03	0,09	0,10	0,07
Central thickness (h)	0,20	0,425	0,31	0,18	0,33	0,26
h / f	16,00	8,50	12,25	3,30	2,00	2,65
d / h	3,00	2,80	2,90	3,10	2,70	2,90

Fig. 3- Comparison of the *Sivasella* species

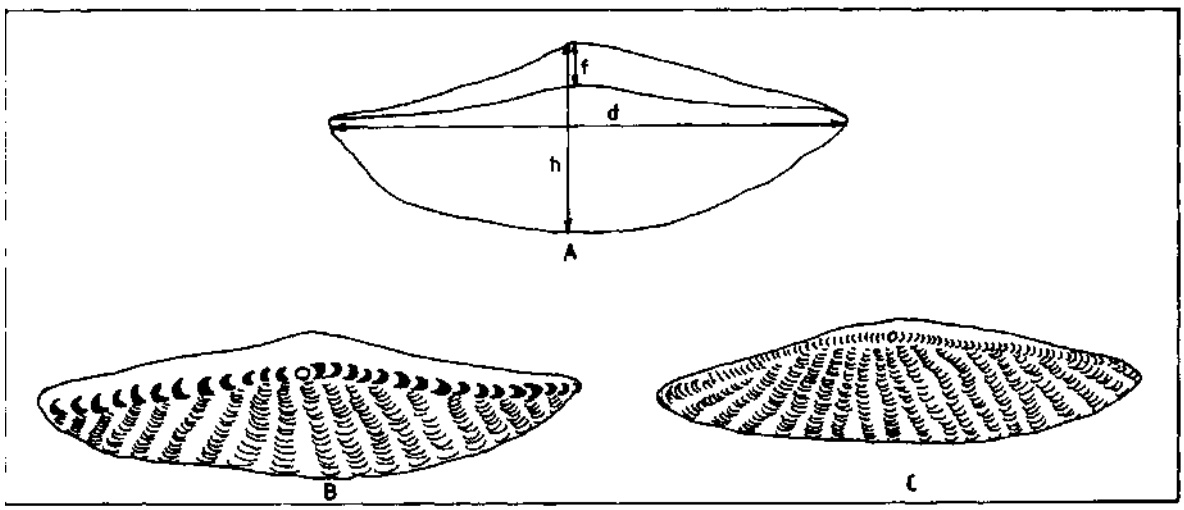


Fig. 4- Shematic axial sections showing the structural differences and test parametres of Sivasella genus.
(B)- *Sivasella monolateralis* Sirel and Gündüz, 1978, Plate I, fig. 8, Paratype, X91
(C)- *Sivasella goekceni* Meriç and İnan, n.sp., Plate I, fig.3, Holotype, X48.

PLATE

PLATE -I

Sivasella goekceni n.sp.
Maastrichtian
inekpman area-Southwest Malatya

Figure 1,2- Axial sections, Microspheric specimens, (7/I), X35

Figure 3- Axial section, Microspheric specimen, Holotype, (7/I), X48

Figure 4- Axial section, Macrospheric specimen, Paratype, (7/I), X10

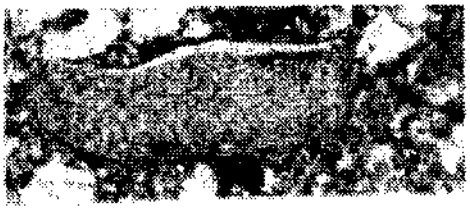
Figure 5- Axial section, Microspheric specimen, (7/I), X48

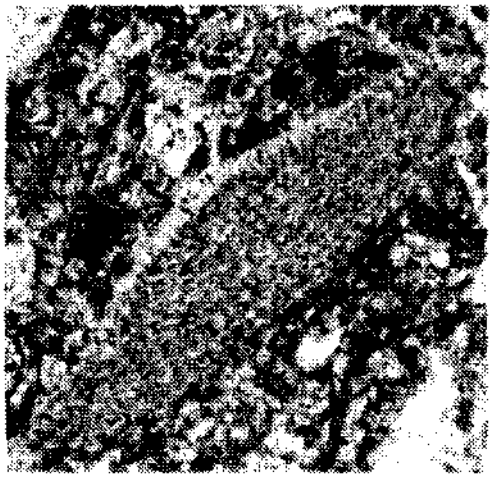
Figure 6,7- Axial sections, Microspheric specimens, (7/I), X74

Figure 8- Axial section, Macrospheric specimen, Paratype, (7/I), X46

Figure 9- Axial section, Microspheric specimen, (7/I), X74

Figure 10- Axial section, Microspheric specimen, (7/I), X78





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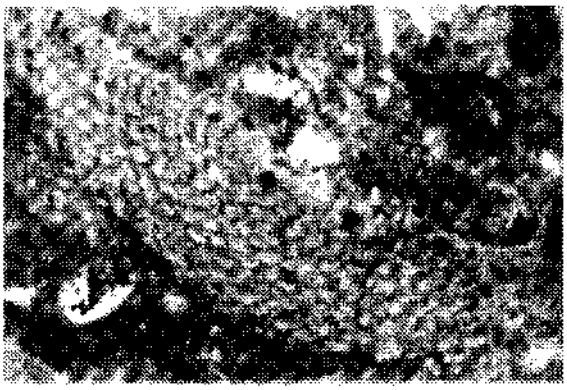

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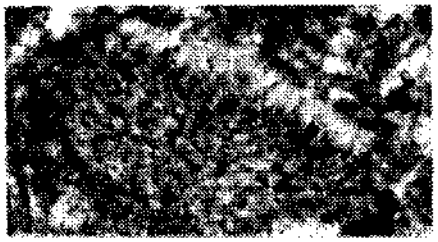

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