

Paleoecology of the Sarvak formation based on foraminifera in Dariyan section, east of Shiraz, southwest Iran

S. Afrasiabian¹, M. Motamedalshariati^{*2}, S. N. Raisossadat³ and M. Afghah⁴

1- M. Sc., student., Faculty of Sciences, University of Birjand, Birjand

2-Assist. Prof., Dept., of Geology, Faculty of Sciences, University of Birjand, Birjand

3- Prof., Dept., of Geology, Faculty of Sciences, University of Birjand, Birjand

4- Assoc. Prof., Dept., of Geology, Shiraz Branch, Islamic Azad University, Shiraz, Iran

* mmotamed@birjand.ac.ir

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Abstract

In this research the paleoecology of the Sarvak formation in Dariyan section east of Shiraz (folded Zagros) has been investigated. The Sarvak formation with 200 meters thickness is mainly composed of dark gray massive limestone in the lower part and light gray limestone in the upper part of the studied section. The identified foraminifera based on morphology and environmental conditions have been classified in eight morphogroups including 6 benthonic and 2 planktonic foraminifera morphogroups. These morphogroups have been used for interpretation of relative depth of the basin. Moreover, the variations in abundance and distribution of foraminifera in the studied section indicate some fluctuations of depth in the sedimentary basin. Thus, in the lower part of the section due to high abundance of planktonic foraminifera the depth of the basin is fairly high, then with high abundance of benthonic and decrease or absence of planktonic foraminifera depth have decreased. After that in the middle of the section the depth is a little increased and finally in the most of middle and upper parts of succession because of increasing the abundance of benthonic and lack of planktonic foraminifera depth of basin have been decreased. So, the depth of basin in middle and upper parts is shallower than the lower parts of studied section.

Keywords: Paleoecology, Foraminifera, Late Albian, Cenomanian, Zagros, Sarvak