Geophysical Research Abstracts, Vol. 8, 00080, 2006
SRef-ID: 1607-7962/gra/EGU06-A-00080

The use of micro fauna indicators for Caspian Sea level changing reconstruction in the late Quaternary period

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The Caspian Sea as the largest lake in the world has different characteristics considering geosciences. In fact sea level changing is the most important happening in this region. Annually fluctuation impact on surrounding coastal area has serious damage and human society meet frequent destroyed phenomena. In this paper we are trying to reconstruct rapid Sea level changing in Quaternary period by use paleontology evidences such as: Mollusks fossil shell and sedimentary facies record. In this research we have evaluated 254 Quaternary sediment core samples from exploring petroleum wells (M-1, G3-A) and more than 130 sea bottom recent sediments on view of biofacies and biostratigraphy. Our investigation results show that in the Quaternary period in the Caspian Sea basin there are many periodic sea level fluctuations and this basin could connect to another around Seas (Azov, Black and Baikal Sea).

Finally we could determine that climatologic impact is most important agent for sea level changing in this basin.

Conclusions are showing periodic sea level changing in the studied area. The Caspian Sea has several fluctuations along 10,000 years ago and its latest begin about 25 years ago. Finally we can conclude that Caspian Sea level fluctuation could continue at future similar past time and climatologic impact and tectonic movement are important agents for sea level changing in this region.