

TO THE STUDY OF OSTRACOD OF THE QUATERNARY DEPOSITS IN THE SOUTH CASPIAN OFFSHORE PART OF THE BASIN

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Studies on fauna and stratigraphy of the Quaternary deposits in the South Caspian basin and surrounding area are essential for understanding the Quaternary history of the Caspian Sea. Data collected from numerous offshore boreholes drilled in the South Caspian basin have provided useful information on the ostracod fauna, stratigraphy, and lithofacies characteristics of the Quaternary deposits in this basin. 685 core samples from 71 exploration and shallow engineering boreholes over 45 offshore structures have been studied. The analysis included 20 exploration and engineering drilling wells from the Turkmenia shelf, 25 from Apsheron archipelago, 23 from the Baku archipelago (Azerbaijan sector of the Caspian Sea) 3 from Iranian shelf. Limited core materials were taken from the 33 boreholes, which allowed us to determine the stratigraphic boundary between Apsheronian and Akchagylian deposits. Multiple boreholes sections and their micro and macrofauna content allowed identify 126 species of ostracods from the 685 offshore core samples of the South Caspian basin. Biostratigraphy study included complex analysis of the offshore drilled borehole's litho stratigraphy sections, logs, seismic and outcrops data. The resulting study enabled us to propose a detailed stratigraphic chart for the Quaternary deposits of the entire South Caspian basin. The Quaternary deposits of the South Caspian divided into five supra horizons and ten horizons by using seven index ostracod species. The index species were identified according to their successive range within zonal complexes (biozones). All the subdivisions mentioned above play regional roles. Analysis of the lithofacies, thickness of the deposits, and fauna distribution revealed that in the Quaternary period, the South Caspian region was characterized by dynamic paleogeography. Furthermore, considerable changes in the sea bottom topography, salinity, temperature, and sea level in the South Caspian basin occurred in the Quaternary period.