New Geological and Geophysical Data from the Cyprus Island Arc and Eratosthenes Seamount and their Interpretation

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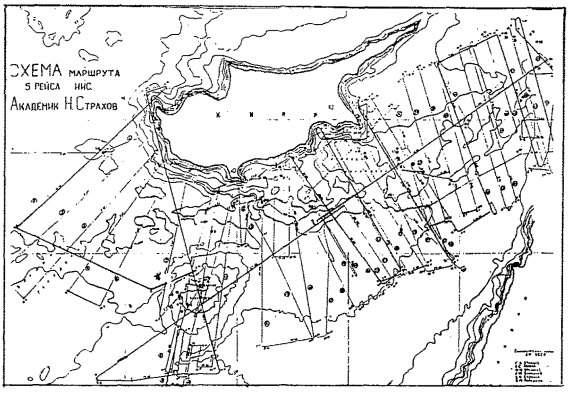
During the 5th cruise of RV *Akademik Nikolaj Strakhov* (1987) in the Cyprus Arc and Eratosthenes Seamount region we collected 6.000 n.m. of multibeam echosounding and continuous seismic profiles. In addition, several localities were dredged and sampled. The results show that the submarine ridge does not connect the Cyprus Arc with the Bassit Massif of Syria. This is particularly evident for the structures at basement level which are clearly discontinuous. A series of normal faults at the southern flank of this ridge controls the sharp diapiric crest and numerous diapiric structures, all associated with the Messinian evaporites. The diapiric ridge between the Heccata ridge off Cyprus and the Bassit Massif of Syria is a structural continuation between the two which is confined only in the deformation of the sediments.



The detailed survey and dredging of the Eratosthenes Seamount provided reliable proof of its continental origin since samples are typical for platform limestones and also metamorphic rocks of acidic affiliation. The top of the seamount submerged to depths of about 800 to 900 m. This subsidence is in good agreement with that observed for downfaulted seamount flanks that limit the Eratosthenes Seamount towards the adjacent floor of the Eastern Mediterranean.