

FREE AND DETACHED COASTAL ACCUMULATIVE FORMS  
OF SIVASH BAY

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The basic types, distribution, morphology and characteristics of the dynamics of free and detached coastal accumulative forms of Sivash bay are considered in the article.

Free and detached coastal accumulative forms have a length to 4 km and are formed as a result of biogenic sedimentation represented by mollusk shells, shell sand and detritus. In the water area of Sivash formed several types of detached forms: straight, slightly and arc curved forelands of irreciprocal supply, bilateral supply arrows. For southern coast of Arabat coastal barrier so-called «Azov type» forelands are typical. In the structure of these forms a narrow beach and a series of ancient beach ridges is allocated, composed of sand and shell deposits, and low-lying silty surface, which gradually turns into the waters.

Free and detached coastal accumulative forms formed in the making of the creek -lagoon Sivash which had been forming during the Holocene postglacial transgression when a Arabat coastal barrier existed. In order to determine the current dynamics of accumulative forms used different time (1977-2014) satellite images obtained from Landsat 5 and 7. In order to analyze growth rate of the distal end of accumulative forms software package ArcGIS 10.0 was applied. At the present stage free coastal accumulative forms have tend to grow, which appears in the extension of the distal end for general constancy of direction and width of the form. The average rate of growth of the distal end of accumulative forms vary from 0.6 to 13.2 m / year, and to forelands so-called «Azov type» on the coast of Arabat coastal barrier – from 4.5 to 23.7 m / year. The maximum speed of growth is representative for forms which are elongated along the main bays and parts Sivash stretch, in accordance with the direction of the prevailing winds. In the creek area with high salinity and low biomass of mollusks, which form alluvion, the growth rate is less. Shells and detritus bring in South Sivash is ocured by stream from Shokalinskoe constriction, as well as the removal of detrit material from the Arabatsky coastal barrier.

**Keywords:** Sivash, coast, accumulative form, dynamics, photointerpretation, space pictures.

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