New seismoacoustic data and sediments investigations results of Lake Sevan (Armenia).

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Lake Sevan (Armenia) is a unique lake for reconstruction climate changes in the past. In the lake sedimentation record there are features of past earthquakes, landslide processes, quiet sedimentation, paleogeographic changes etc. Thus, seismic studies can provide important preliminary information about the evolution of the lake basin. In the published sources there are very few studies of this lake by the seismic acoustic method. Recent work relates to the 40-50th years of the last century. In August 2018 an expedition was organized to Lake Sevan. In the framework of expedition preliminary seismic studies were conducted in the western part of the lake, also the core of bottom sediments was collected. In total, 5 profiles of seismic data were obtained (total length 30 km). Studies have allowed identifying some features of the lake basin, the presence of sediments and its thickness, as well as to find best sampling points. For laboratory studies 6 core columns were collected with UWITEC corer, up to 32 cm each. This work shows the unique high resolution seismic data sections of Lake Sevan. As well as the results of core studies - magnetic susceptibility, thermomagnetic curves, coercivity parameters, X-ray fluorescence (for studying elemental composition), radiocarbon dating. The work was supported by RFBR grant № 18-55-05016.