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Sharp fluctuations in ecosystem parameters of the East Big Aral

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Recently almost all superficial inflow to the Big Aral Sea is directed to its shallow (1-3 m) East basin connected by narrow North channel with deep (till 40 m) West basin. Inflow of Syrdarya last years was almost completely used for filling of the North (Small) Aral Sea and in fact does not influenced on water balance of the Big Aral Sea. As main part of water of Amudarya is used for irrigation in Uzbekistan, Turkmenistan and Tajikistan, sufficient amount of water comes to the Aral Sea only in years abounding in water, whereas in dry years practically no water is released to the Big Aral Sea. It results in sharp fluctuations in water mineralization and biota development in East basin of the Big Aral Sea. So, mineralization of water in West Big Aral gradually increased from 70 ppt in 2002 to 104 ppt in 2006. In East Big Aral after draught of 2000-2001 mineralization of water reached 150 ppt in 2002. In following years relatively abundant in water mineralization decreased to 90-110 ppt in 2003-2004. Monthly observations in 2005-2006 showed that if there are no substantial fluctuations in mineralization and biota composition in West Big Aral, sharp fluctuations of mineralization of water and biota (phyto- and zooplankton) development are present in East Big Aral. So, in 2005 mineralization of water here decreased from 94-102 ppt in Spring time to 66 ppt in Autumn. In 2006 mineralization increased from 70 ppt in Spring to 140 ppt in Autumn. Such sharp changes in mineralization of water were accompanied by sharp changes in structure and composition of plankton. So, fast decreasing of mineralization of water in Autumn 2005- Spring 2006 resulted in sharp increasing of number and biomass of zooplankton and appearance in its composition such species as *Brachionus plicatilis, Moina salina, Arctodiaptomus salinus, Apocyclops dengizicus* which have not been recorded in the Big Aral Sea during previous

few years. Diversity and number of phytoplankton is also markedly increased.