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Present-day state of benthic algal coenoses of Aral Sea

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We have been investigating algaflora of Aral Sea in 2002-2005. Collected data demonstrate advanced structure of benthic algal coenoses of Aral sea. Communities we studied have plural-component structure. We found 3 species of macroalgy and 70 microalgal species. All of them inhabit high salinity conditions. And this parameter steadily increases. During this time we found 2 species of green algae (Chlorophyceaea): Cladophora glomerata and Ñl. fracta, and 1 yellow-green (Xantophyta): Vaucheria cf. dichotoma. Distribution of that species highly differs. Vaucheria cf. dichotoma is found in coastal zone of West basin only, while Cladophora fracta is common in West basin and in the Strait. Cladophora glomerata is found in the Strait and East basin. Diatoms (Bacillariophycophyta) taxon is the most widespread among aral microphyts. Altogether 60 species of 70 microphyts are diatoms. Number of Diatom species in sample vary with depth and salinity from 10 to 40. In extreme conditions, such as high salinity (110-120 g/l) and strong mineralization of substrate, Amphora's species are the most abundant. Epiphytic communities are the least in number of species. Even the richest epyflora includes just several species like Tabularia fasciculatà, Cocconeis placenthula, Nitzschia fruticoza, Navicula ramosissima and some other. Colonies of Navicula ramosissima form a basis of epylithic communities during the summer and autumn. During the four years 5 species of Cyanophyta and Dinophyta Cystodinium cf. simplex were found in Aral Sea. Last one is abundant on the depth of 0-15 m. Two species of Euglenophyta were found in October, 2005, for the first time since Aral Sea became hyper-salted . They were collected in the Strait and north part of East basin in high salinity habitat (127-135 g/l). This species are Euglena cf. pasheri è E. taxa var. salina. They prefer shallow habitats, which are common in Aral Sea. On the depth of 15 cm both species are abundant. Just 1 species was found deeper (25 cm). Both species disappear on the depth of 30 cm. It is important that some species were found under 85-135 salinity conditions for the first time.