

### 【イリプロジェクト講演会】

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演題：Aral Sea and its modern state as a cascade lakes complex of residual water bodies

日時：2009年3月9日（月）14：00～16：00

場所：総合地球環境学研究所・講演室

会場へのアクセス：<http://www.chikyu.ac.jp/rihn/access/index.html>

使用言語：英語

### 【講演要旨】

In the first half of the 20th century, the Aral Sea was a single terminal water body of two rivers in the arid zone. The main part of its water area was brackish with specific aboriginal brackish water ecosystems. Since 1960s, decrease of level and salinization of the Aral Sea have begun. Due to the structure of its depression the Aral Sea began to split into several residual water bodies. In 1988-1989, when level decreased by 13 m, the Aral Sea was divided into 2 polyhaline terminal lakes with marine ecosystems - the Large and Small Aral. In the fauna, only widely euryhaline species remained due to water salinization and introduction of exotic species. Piscifauna consisted of introduced species of marine origin. In spring 1990, level of the Small Aral increased and a water flow to the Large Aral appeared. The threat appeared of moving the Syrdarya River mouth to the Large Aral. In August 1992 a dike was built in the Berg's Strait. Salinity growth in the Small Aral stopped; the salinity began to decrease what was favourable to the fauna. Conditions of transitional brackishwater-marine salinity zone were formed. In April 1999, the dike was destroyed by a storm. Construction of new solid dike started in 2004 and was finished in autumn 2005. After Aral Sea division, salinization and level fall in the Large Aral became faster. The Large Aral was divided into the Western Aral, Eastern Aral and Tschebas Bay. Salinity in the eastern basin is growing faster than in the western one. In the late 1990s, the Large Aral became hyperhaline with specific fauna. Some invertebrate species inhabiting saline water bodies in the Aral Sea region moved into the Large Aral by natural way. Among them, the brine shrimp (*Artemia parthenogenetica*) became predominating in zooplankton.