W. Wucherer*, A. Aleschkovskii**, S.-W. Breckle* * Bielefeld, Germany, ** Almaty, Kazakhstan

Colonization by plants of the dry seafloor of the Small Aral Sea

The sea level of the Small Aral Sea in August 1998 was about 41,6 m a.s.l. In the last few years the level has increased by about 3,5 m. There are two reasons for this new development. The one is the decrease of the area of irrigated paddy fields by almost 40% in the larger Kzylorda-area. The other reason is the construction of a dam between the former islands Kokaral and Kosaral close to the former eastern coastline. The Syrdarya-water is feeding now only the relatively small part of the whole Aral basin, the Small Aral Sea. The hydrological equilibrium of the Small Aral Sea is by these reasons positive and the dam already is almost too low, the level of the Small Aral Sea has to be kept constant by about 42-43 m a.s.l.

This new hydrological situation, opposite to the Great Aral Sea, has influened the colonization of the dry seafloor of the Small Aral Sea in two ways. The therophytic vegetation with Salicornia europaea, Suaeda salsa and Suaeda acuminata was inundated and is almost lacking now on most parts of the present coastline because of the raid rise of the water level. On some coastal parts also perennial and woody vegetation was inundated. First observations show that the resistance of the various species against inundation differs greatly. On the remnant dry seafloor there are favourable conditions for a second flush of therophytes (with several Climacoptera-, Salsola- and Petrosimonia-species) as well as for some woody species from the Tugai-vegegation (Tamarix hispida, T. elongata, Limonium otolepis, L. gmelinii, Aeluropus littoralis). The overlapping of the ecological amplitudes of several species seem to have become wider. This may result in future in more stochastic processes during formation of vegegation units and a higher interspecific competition.