



FIRST EUROPEAN SYMPOSIUM
RESEARCH, CONSERVATION AND MANAGEMENT
OF BIODIVERSITY IN THE EUROPEAN SEASHORES



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**MONITORING OF WETLANDS IN THE SYRDARYA RIVER
DELTA AND THE SMALL ARAL SEA**

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Methodology: monitoring conducted once in two years in the last week of August (2011-2015).

Purpose: Assessment of the current state of biodiversity and development of recommendations for sustainable ecosystem functioning.

Results: The area of wetlands, flooded ecosystems, oleaster-willow riparian forests increased in the river Delta front. In the Delta lakes the area of grassy swamps reduced, halophytic vegetation area increased. Overgrazing and recreation area expanded. The state of rare plants (*Scirpus kasachstanicus*, *Nimphoides peltatum*) is stable and new locations were noted.

The diversity of zooplankton was in 1.4 times less in 2015, rare species were absent. Strengthening of eutrophication processes was observed on the basis of changes in zooplankton structure. Comparative analysis of insect fauna showed a decrease of species diversity in 2 times in comparison with 2011. Of the three rare species met only one (*Anax imperator*). Monitoring in 2015 revealed 6 birds listed in the Red Data Book: *Plegadis falcinellus*, *Phoenicopterus roseus*, *Aythya nyroca*, *Aquila nipalensis*, *Larus ichthyaetus*. Species diversity of birds in the Delta front decreased from 102 to 82 species, in the Delta lakes ranged from 17 to 21. Number of breeding and migratory birds reduced in 2-3 times, molting and autumn clusters of river ducks and geese disappeared.

Conclusions: The wetlands were included into the Ramsar list in 2012. The lack of protection showed a significant reduction of biodiversity components. It is extremely important to include the Delta cluster area into Nature reserve of strict protection for restoration of wild animals.

Key words: *monitoring, wetlands, biodiversity, rare species.*