



Danube landscape evolution in the Calarasi-Braila sector

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Islands along the Danube valley reflect directly hydrological changes in liquid and solid discharge, that occurred in historical time. Our investigation is based on analysis of several maps divided into three periods: the end of the nineteenth century, mid twentieth century and the beginning of XXI century. Maps made after 1880 reflects a river system unaffected by human constructions in the Danube Basin. Topographical maps from the period 1960-1980 illustrates the shift from a natural regime to human- controlled system. Satellite images from 2005 expressed a strong intervention, after 30 years away from the appearance of larger dams: Iron Gates I and II. This latter period corresponds to a response of the fluvial system to the human interventions, when self-controlled processes became dominant. Comparisons were made at the surface and levee of the Danube islands. It were not been counted bathymetric and volume changes because we do not have enough data. If in the first period (1880-1960) rhythms of the erosive processes were 1.4 times higher than accumulative one, the trend is kept, but decreases (1.2) in intensity (1960-1980), to attend a accumulative light regime (1.1) in the last period (1980-2005). Necessary drainage facilities have resulted in a reduction of lakes area with 84.6% (1880-2005) and the length of the dams network that were built, being of 665 km. In natural regime was an extensive network of streams which have a length of 2800 km. These was replaced by a network of channels with over 5100 km long. All these major changes were made with the intention to reshape the economical function by switching to a predominantly agricultural landscape. In the present, some islands have entered into a regime of protection, preserving them both flora and fauna.