



Chemical and biological characterization of surface waters from Gorj district

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The water represents a regeneration natural source, vulnerable and limited, essential element for life, determinant factor in maintaining the ecological equilibrium. The drainage of a water course is made from a ramification of affluent values directly or indirectly to the water flow, considered the main element of drainage. The valleys collect the part of precipitation and aquatic plants, which are transmitted to the main water flow. The hydrographical reservoir, of reception of collector of drainage represents the territory surface from which the waters resulted from the precipitations and the underground waters gravitate and penetrate in the drainage ramification. In the drainage area take place all physical processes which determines the hydrological drainages. The hydrographical reservoir conditions the river life. All elements of rivers drainage depend on its characteristics. The hydrographical reservoir is limited by the watershed defined as the line of the eminences from which the superficial drainage lead to the evacuation drainage. Due to the general modelation of relief by the exogenous factors, but especially for the rivers regressive erosion the watersheds represents a mobile element in time. The writing presents general aspects regarding the drainage of Gorj district; the climatic characteristics and pollution sources of main rivers. To evaluate the quality of surface waters samples were cropped from rivers like: Sadu, Balteni, Racari, Amaradia, Hurezani, Negoiesti, Albesti and the saprobiological index, dissolved oxygen, biochemical consume of oxygen, the suspensions, the chlorides and constant residuum were determined. After the accomplished determinations it was established that the value of saprobiological index for district rivers is of 2.3 fact which indicates a satisfactory ecological state (β -mezosa sample), the content of dissolved oxygen which has bigger values than the limit of the second class for the analyzed rivers, the evolution of suspension indicator attained the biggest value in 1999, the evolution of chloride indicator and of constant residuum with the biggest value in 1997.