

**RADIOLOGICAL ASSESSMENT OF ENVIRONMENT BY ANALYSING  
CYTOGENETIC EFFECTS IN NATURAL AQUATIC POPULATIONS**

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**ABSTRACT**

Cytogenic methods are widely applicable in radioecological research, since chromosomal aberrations and other nuclear anomalies are among the most sensitive criteria of induced injuries of an organism by radiation and/or chemical toxicants. As radioactive and conventional pollution produce non-specific final effects, the proposed method is based, on the distribution pattern of chromosome aberrations in cells of aquatic animals of different taxons, as a parameter to distinguish the pollution agent inducing the recorded damage. The environmental quality of a marine ecosystem can be assessed radiologically by the chromosome aberrations attributed to the different zones of radiation impact.