

Turkish Journal of Zoology

Turkish Journal

of

Zoology


Detection of Mutagenic-Carcinogenic Pollutants in Aquatic Systems Using Cytogenetic Methods
in Fish

Mehmet ULUPINAR

Ministry of Agriculture and Rural Affairs, General Directorate of Agricultural Research, Livestock and
Fisheries Research Department, Ankara - TURKEY

İbrahim OKUMUŞ

Karadeniz Technical University, Faculty of Sürmene Marine Sciences,
Department of Fisheries Technology, Trabzon - TURKEY

 [Keywords](#)
[Authors](#)



zool@tubitak.gov.tr

[Scientific Journals Home
Page](#)

Abstract: In this study, the detection of mutagenic-carcinogenic pollutants in water by using cytogenetic methods in fish was examined along with the necessity of sister chromatid exchange (SCE), anaphase aberrations (AA) and micronucleus (MN) tests for chemical analysis in aquatic systems. It has been reported that central mudminnow (*Umbra limi*) appear to be the most suitable species for such analysis because of its large and fewer chromosomes ($2n=22$) and high cell division ratio. This species also has a wide distribution, and can be easily captured and held for study. In such analysis, intestines, stomach, kidney and gill tissues stand out as giving superior numbers of usable metaphase and have been widely used.

Key Words: Mutagenic - carcinogenic pollutants, Cytogenetic, Sister chromatid exchange (SCE), Anaphase aberration, (AA), Micronucleus (MN), Central mudminnow, *Umbra limi*

Turk. J. Zool., **26**, (2002), 141-148.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Zool., vol.26,iss.1.](#)