

J Life Science, 10(2): 116-122 (2018) DOI: 10.31901/24566306.2018/10.02.220

Genotoxicity Studies of Heavy Metals by Single Cell Gel Electrophoresis (SCGE) in Two Fish Species – Puntius Narayani and Rasbora Daniconius

Nandini Vaz Fernandes

Department of Zoology, Parvatibai Chowgule College of Arts and Science (Autonomous), Gogol 403 602, Margao Goa, India E-mail: nvf001@chowgules.ac.in

KEYWORDS DNA Damage. Metal Toxicity. Mining Effluents

ABSTRACT Mine waste can deteriorate water quality by disturbing its physicochemical parameters as well as through the release of heavy metals. Metals leached into the water ultimately affect the humans often through the food chain transfer. The response of aquatic organisms to the metals in the environment may vary from species to species. The present study was carried out to investigate the response of two fish species *Puntius narayani* and *Rasbora daniconius* to mining effluents. The two species were evaluated for the body growth and genotoxicity by single cell gel electrophoresis. The study indicates that both species respond differently to the metal pollution as evidenced by reduction of body size and body weight and also genetic damage in the fishes. *Puntius narayani* was seen to be more sensitive to metal pollution and can, therefore, be considered as a good animal model for evaluation of metal pollution in aquatic ecosystems.