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## Genotoxic studies by induction of nuclear lesions and micronucleus assay in fish injected with phthalates

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Genotoxic studies were carried out by induction of nuclear lesions and micronuclei in peripheral erythrocytes of *C. idella*. Fish was exposed to Dimethyl Phthalate (DMP) ( $1.5 \mu\text{gL}^{-1}$ ), Di-n-octyl Phthalate ( $4 \mu\text{gL}^{-1}$ ) and mixture of both Phthalates  $10 \mu\text{gL}^{-1}$  for 3, 6 and 15 days, respectively. Comparison of total protein content in all the treatment groups showed statistically significantly highest fluctuations in the protein contents. Hematological analysis of *C. idella* revealed the significant decrease in total RBCs count, hemoglobin concentration, hematocrit and platelet count. 15 days exposed group showed the lowest values of all hematological parameters e.g. RBCs count, Hct, Hgb, PLT count as compared to other treated groups. The frequency of Micronuclei and other Nuclear Abnormalities e.g. Notched, blebbed, Deshaped, Eight shaped, Binucleated, Lobed, Vacuolated, Multinuclei were analyzed in peripheral erythrocytes of *C. idella*. Prevalence percentages of MN and NL were highest in DNOP exposed group with following order: eight shaped nuclei > MN > notched > Deshaped > lobed nuclei while DMP exposed group revealed highest were as follows: Binucleated > blebbed > multinucleated.

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