



**GENOTOXICITY ASSESSMENT OF *Perna viridis* (GREEN MUSSELS)
USING MUSSEL MICRONUCLEUS CYTOME (MUMNCYT) ASSAY IN
BACCOOR BAY, BACCOOR CAVITE**

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ABSTRACT

The study was conducted to identify selected mussel harvesting sites in Bacoor bay that may contain genotoxicants as revealed by the presence of micronucleus in the hemolymph of green mussels (*Perna viridis*) using the method of Mussel Micronucleus Cytome Asssay (MuMNCyt). Micronucleus is an established indicator of genotoxins present in the environment. Only agranular hemocytes which contain the micronucleus from the hemolymph of mussels were considered for assessing genotoxicity. Three sites in the bay were considered. A total of 60 mussels were harvested from the three sites. Approximately, 0.02 ml of hemolymph was collected from the posterior adductor muscle of each mussel which underwent histotechnique preparation using Giemsa Stain Set. The mussels obtained from the three sites in Bacoor bay were found to exhibit micronucleus. Occurrence of micronucleus from the mussels harvested from the three sites indicated that there may be a presence of genotoxins in Bacoor bay coming from the surrounding residential and industrial areas. The mean occurrence of micronucleus in Site 1, 2, and 3 were 5.85, 2.00, and 7.55 respectively.

Keywords: Agranular hemocytes, Bacoor bay, Genotoxicity, Micronucleus, MuMNCyt, *Perna viridis*