

To Study Histology of Ovary of the Fresh Water Bivalve, *Lamellidens marginalis* under the Stress of Tributyltin oxide

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Abstract: The aim of the present study is to study the significant Histological changes seen due to Organotin Compound TBTO on ovary of fresh water bivalve species *L. marginalis*. Organotin compound is generally used on large scale as biocide in Aquatic ecosystems. The bivalves are bio-indicators to determine aquatic pollution on large scale in riverine Ecosystem. Histological study of these reflects the health of an entire aquatic ecosystem in the bio-monitoring process. Histological responses may also serve as Ecotoxicologically meaningful biomarkers since they form an important link between effects at the biochemical level and those measured in whole organism. The adverse effect of Tributyltin Oxide has been studied on ovary of freshwater bivalve. To study the acute lethal dose of Tributyltin Oxide the acute toxicity of TBTO is calculated under controlled laboratory conditions at 24 hrs, 48 hrs, 72 hrs and 96 hrs respectively. *L. marginalis* exposed to Tributyltin Oxide to 4.2 ppm, 3.6ppm, 2.8 ppm and 1.6 ppm for 24, 48, 72 and 96 hours respectively and studied its effect on the ovary. Results were compared with control group and illustrated histological changes in ovary. The results show gradual degenerative changes in its ovary. The severe damage was observed in the tissue of 72 & 96 hrs exposure to TBTO than compared to 24 & 48 hrs. Results showed damage to ovary tissue as exposure period increases and this was noted for all three observations.

Keywords: *Lamellidens marginalis*, Bis (tributyltin) oxide, ovary etc.

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