DETERMINATION OF FISHERY WASTEWATER QUALITY CRITERIA IN MUNCAR BASED ON TOXICITY TEST TO 
*Artemia* AND *Daphnia*

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**ABSTRACT**

Toxicity level of wastewater from fishery in Muncar was determined with toxicity test using *Artemia* and *Daphnia*. This study were using wastewater from fish salting industry and wastewater from oil and filleting industry in Muncar. Variation of treatment was oil and grease elimination. The purposes of this study were inspected the level of toxicity wastewater from fish salting industry and wastewater from oil and filleting industry toward *Artemia* as brine organism and *Daphnia* as freshwater organism, and determined quality criteria wastewater from fishery which can be permitted in water area.

The method used in this study was short term bioassay with static test. Concentration of acute toxicity test based on range finding test. Duration of exposure was 24 hours which repeated three times. Parameters observed were the death of *Artemia* and *Daphnia*. Test was continued with chronic test, the exposure during life cycle of *Artemia* and *Daphnia*.

Based on the result of Probit analysis, LC$_{50}$ of wastewater from fish salting industry toward *Artemia* and *Daphnia* were 7.92% and 1.72% respectively. LC$_{50}$ of wastewater from fish salting industry with oil and grease elimination toward *Artemia* and *Daphnia* were 6.38% and 1.67% respectively. LC$_{50}$ of oil and filleting industry toward *Artemia* and *Daphnia* were 7.11% and 3.13% respectively, whereas LC$_{50}$ of wastewater from oil and filleting industry with oil and grease elimination toward *Artemia* was 6.01%, and toward *Daphnia* was 9.38%. MATC of wastewater from fish salting industry toward *Artemia* and *Daphnia* were 2.87 and 1.86 mg/L respectively. MATC of oil and filleting industry was 2.87 mg/L toward *Artemia*, and 2.18 mg/L toward *Daphnia*.

**Keywords:** *Artemia*, *Daphnia*, fishery wastewater, toxicity