



**COLIFORM LOAD, PHYSICO-CHEMICAL PARAMETERS AND
ANTHROPOGENIC ACTIVITIES ALONG
YLANG-YLANG RIVER, CAVITE**

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ABSTRACT

The water quality of Ylang-Ylang River was assessed through the coliform load and the physico-chemical analysis of water, as well as the anthropogenic activities of the community along the riverbank. The sampling stations were selected based on the identified sampling area by Department of Environment and Natural Resources. Households near the riverbanks were randomly selected to answer the questionnaires and for the conduct of interview. A total of 295 individuals participated in the conduct of survey. The following physico-chemical factors were measured *in situ* at the midpoint of the river station: Dissolved oxygen, pH, salinity, conductivity, and temperature. The total dissolved solid and chloride were also measured. Water collection was done at the midpoint of the river per station. Multiple Tube Fermentation Technique (MTFT) was employed to identify the presence of coliform load. Coliform group was analyzed following Standard Method for the Examination of Water and Wastewater. The three stations along the river system were contaminated with total coliform that exceeded the standard limit set for Class C River. Temperature, salinity, total dissolved solid, conductivity and chloride show positive correlation to coliform load while pH and dissolved oxygen showed negative correlation. Contributing anthropogenic activities to coliform contamination of Ylang-Ylang river were the use of organic



fertilizers, improper disposal of waste and manure and direct defecation of humans. Overall assessment revealed that water quality of the river was deteriorating and exacerbated with varied anthropogenic activities of the residents along the river system.



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