



**BACTERIOLOGICAL ASSESSMENT OF SELECTED RESORTS IN
CAVITE PROVINCE**

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ABSTRACT

The study determined the bacterial status of different resorts, rivers and beaches. The water samples from the 20 different sites were collected during dry and wet seasons. Detection of enteric bacteria was done by enrichment of the water samples first in buffered peptone water for 24 hrs and then, streaked onto Eosin Methylene Blue Agar and Salmonella-Shigella Agar. The chlorine concentration of all sampling sites was determined by Hach test kits. Cultures grown were identified by API20E kit. It was found out that 21 plates out of 120 had a positive growth. It was noted that the predominant enteric bacteria during summer and wet season, were *Salmonella spp.* and other bacteria *Raoultella planticola*, *Shigella spp.* and *Escherichia coli*. Also, it was found out that there is an association of the enteric bacteria to type of recreational water ($P=0.007$). Chlorination does affect presence of bacteria but it does, however, reflect that the bacteria present in the resort are an indication of fecal contamination or poor sanitation. Their presence indicates that the pool treatment has failed to regularly monitor the water quality. Parameters such as temperature can have indirect but drastic impact on the effectiveness of chlorine-based disinfectants for inactivation of bacteria. It was also noted that the most numerous presence of enteric bacteria in the different recreation waters was the resort. This may suggest that there have been many people who used the pool all throughout the summer and wet season in which the bathers could have introduced the bacteria themselves.



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