

Populations and identity of bacteria on the waters of Usuthu, Usushwana and Komati rivers in Swaziland

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Studies were conducted to determine the presence of bacteria in Usuthu, Usushwana and Komati Rivers in Swaziland. The number of bacteria were counted and coliform bacilli detected on samples of water. The genera of bacteria present were identified. Bacteria were present in all rivers. The amount of Colony Forming Unit (CFU) bacteria or bacterial count varied depending on sampling sites and the month of sampling. The sampling site near the Sappi-Usuthu Pulp Mill had higher CFU compared to other sites along the Usuthu river except for the month of February 2001. Matsapha Industrial Complex had lower CFU compared to other sites along the Usushwana river. Sampling sites along the Komati river had similar CFU except for the month of March 200. Coliform bacilli were present in all of the three rivers. The genera of bacteria identified were Escherichia spp, Staphylococcus spp, Streptococcus spp, Streptomyces spp, Pseudomonas spp, Treponema spp, Klebsiella spp, Aeromonas spp and Enterobacter spp. Komati river appeared to have more species richness compared to Usuthu and Usushwana river.

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