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Enteroccoccus in water, sediment and clams in a tropical environment, maracaibo lake, Venezuela

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The genus *Enterococcus* has widespread extraenteric sources and reservoirs. It has been suggested that coastal and Great Lakes states adopt enterococci as an alternative indicator for the monitoring of recreational water quality. Limited information, however, is available about the presence of enterococci in Lake Maracaibo, which is an important estuary in Venezuela, with the income and interchange of the Caribbean Sea, and is used by the people for recreational purposes and the culture of marine organisms. In this study, the density and species composition of enterocci in sediment, clams and water were examined at Lake Maracaibo. Enterococci was enumerated by the Most Probable Number Technique (MPN), and isolated by standard methods. Results obtained by MPN analyses indicated that enterococci were present in all samples, and their densities were generally higher in clams than sediment and water with means of $1,0x10^6$ MPN/100 g, $2,1x10^3$ MPN/100 g, and $6,0x10^1$ MPN/100 ml, respectively. Dominant *Enterococcus* species were *E. faecalis* (65%), *E. casseliflavus* (20%), "*E. sanguinicola*" (5%), *E. faecium* (5%), and unidentified strains (5%). Results suggest that some enterococci are able to persist in Lake Maracaibo, especially in clams and sediment, for a prolonged amount of time after being introduced.

Biography

Marynes Montiel is a microbiologist; she obtained her Ph.D. from the Florida Institute of Technology. She is a full Professor at University of Zulia in Venezuela, and Executive Editor of CIENCIA. She has published more than 20 papers in journals related to environmental microbiology.

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