

Title: MICROBIOLOGICAL QUALITY ASSESSMENT OF THE WATER FROM BATOQUE RIVER IN HIDROLÂNDIA CITY-CE.

Authors: TIMBÓ, N.O.C.¹, NEVES, A.M.¹, COUTINHO, M.G.S.¹, OLIVEIRA, S.S.¹, FONTENELLE, R.O.S.¹

Institution: State University Vale of Acaraú - UVA – University Avenue, 850 -. Campus of Betânia-Sobral-CE.

Abstract:

Fresh water is a finite resource and indispensable to the maintenance of life on Earth and has been currently the subject of discussion on pollution, scarcity and its forms of use. The name Batoque means a small piece of roundwood, used by Indians as ornaments on the lower lip. The source of the river under study is located within the municipal territory in Amarante Farm; there is a distance of approximately 40 km from the headquarters. When domains of the river enter the urban perimeter, hospital waste and the ones from population living on the bank or near of it, for not having a proper sewage system, are thrown into the river, generating large water contamination problems, the water that is used by animals which are subsequently consumed by the population. This research aimed to evaluate the microbiological quality of waters of the Batoque River, through the method of multiple tubes. Therefore, we collected 03 samples of different points the river which were subjected to Determination of the Most Probable Number (MPN) of total coliforms and thermotolerant. Endpoints were: The point A, which is near the riverbank; the B, in front of a breeding; and C, situated near a rock. The results obtained quantifying the values of the Most Probable Number (MPN) of Total Coliforms (CT) and coliforms thermotolerant (CTT) obtained from 03 samples evaluated; it was found that 100% of the samples were within the category of "improper" as its swimming conditions according to the resolution of CONAMA. In the biochemical analysis bacteria were identified such as *Klebsiella pneumoniae*, *Escherichia coli*, *Providencia alcalifaciens* e *Hafnia alvei*. The high rates of contamination by fecal coliforms and thermotolerant can be associated with pollution dumps feces from the creations of animals and elsewhere, as well as the presence of solid and liquid waste. Therefore, it is required preventive measures that will raise awareness about the risks of contamination caused by discharge of waste and animal waste.

Keywords: Microorganisms, Batoque River, quality.