

Bacteriological Quality and Physicochemical Water Beaches of the City of Annaba (Mediterranean Sea)

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Abstract : The intensity of human activities in regions surrounding the Mediterranean Sea always has a strong long-term environmental impact resulting in coastal and marine degradation, as well as an aggravated risk of more serious damage. The available data on water quality show that most water resources in Algeria are polluted by uncontrolled discharges from municipal sewage and untreated industrial effluents. Annaba is a coastal town in Algeria; The Gulf of Annaba, responds to these changes as it receives the continental inputs and urban waste, industrial without prior treatment of a highly industrialized and urbanized city, subject to the same environmental problems that know the rest of the Algerian coast. In later year, the beaches of bacterial enumeration process waters showed relatively high levels of bacterial indicators of fecal contamination (group D streptococci, total and fecal coliforms), which reflect the risks to people attending these beaches. During the twelve months of our study, we isolated from three beaches in the city of Annaba (St. Cloud, El-Kettara, and Djenane El Bey) a number of pathogenic microorganisms considered, namely: Salmonella, Aeromonas, Citrobacter, Yersinia, Enterococcus, and E.coli. The microbial count revealed elevated levels of coliform bacteria, fecal coliforms and fecal streptococci quite high especially in urban beaches (St. Cloud and El-Kettara). They are widely popular during the summer by many vacationers. For the physico-chemical parameters, there exist some weak values which increase during the pluvial period, hivernal and festival saison. These values remain, nevertheless, weak to be able to cause an organic or metallic pollution.

Keywords : quality microbiology, pollution of water, fecal contamination, physico-chemistry, beaches of Annaba city, Algeria.

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