

Budambula N.L.M., E.C. Mwachiro and N.M. Gitonga (2006). Antibiotic resistance of bacteria isolated from Nairobi River. Asian Journal of Microbiology, Biotechnology and Environmental Science 8: 9-12.

Abstract

This study aimed to evaluate the antibiotic resistance of bacteria isolated from six sites along the pollution gradient of Nairobi River. Bacteria were isolated by standard methods and grouped into 3 categories; enteric Gram negative bacteria, non enteric Gram negative bacteria and Gram positive bacteria. They were identified using standard biochemical techniques and API Kits. The bacteria were tested against 16 antibiotics using the disc agar diffusion technique. The highest incidence of antibiotic resistance was recorded with nystatin (80.0%), followed by trimethoprim (63.3%) and cephalothin (55.8%). The enteric Gram negative bacteria recorded the highest incidence of antibiotic resistance while Gram positive bacteria showed the least antibiotic resistance. Pollution by animal and human waste contributes to the bacterial load of aquatic ecosystems. Pollution enhances the incidence of antibiotic resistance, which is of medical concern.