

Ecological and Biological Effects of Pollution and Dredging Activities on Fisheries and Fisheries Products in Niger Delta Ecological Zone

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Abstract : The effects of anthropogenic activities on fish and fisheries products in Niger Delta water bodies were investigated. The rivers were selected based on their close proximity to contaminants and dredging activities. Three stations were chosen per river. The stations chosen to depicting downstream and upstream stations were visited and samples collected on monthly basis. The down streams stations are the polluted and heavily dredged sites, where the upstream station is far, without any evidence of pollution or human activities. During these periods, the fishes of the same species were collected and analyzed for morphological and physiological changes, after which they were returned back to the rivers. The physico-chemicals parameters of these stations were also taken. Morphological changes such as skin ulcerations and other lesions, as well as fungi infections were observed in the down streams fishes. The fish in up streams look healthier and bigger (though the age could not be affirmed) than the downstream fishes. The physico-chemical parameters between the up streams and down streams stations vary significantly ($p < 0.01$). These anthropogenic effects must have interfere with the normal migration pattern of these fishes, because there were changes in the composition of population and species diversity in the samples sites, with the upstream having true species diversity. The release of pollutants into the water in the Niger Delta areas may triggers off naturally occurring bio toxicity cycles and other fish poisoning. There is risk of biomagnifications of these poisons along the tropic level. This makes the normally valuable food resource dangerous for human consumption and thereby instances of human death caused by such poisoning.

Keywords : anthropogenic, dredging, fisheries, niger delta, pollution, rivers

Conference Title : ICWPC 2016 : International Conference on Water Pollution and Control

Conference Location : Paris, France

Conference Dates : February 22-23, 2016