

Influence of Human Activities on Insect Diversity and Abundance in the Wetland

Environment

BEATRICE AYORKOR MENSAH

ABSTRACT

The Wetland environment is a unique with unique biota, including insects. Insects serve as indicators of environmental health. However, the recent spate of human encroachment on wetlands would affect this unique biota structure. This phenomenon could pose a threat to the wetland environment. The physical and chemical quality of these habitats would provide background information for comparison against established quality standard of the wetland environment. Information gathered could help manage threatened wetlands better. The study involved reconnaissance surveys, trapping of insects, physico-chemical and bacteriological assessment of water and social surveys to determine how human activities influence insect diversity and abundance in and around the wetland environment. Of the 5541 individual insects recorded, a total of 22 orders belonging to 112 families were collected and identified from different sites along the Sakumono, Kpeshie and Muni-Pomadze Wetlands. The distribution of species was significantly different among the various locations with the most diverse site being Kpeshie where 2128 individuals were collected. Principal component analysis indicated that species assemblage on sampled site were related to some environmental and water quality parameters. In the case of Kpeshie the water was badly polluted but still had a positive correlation with insect diversity and abundance. The social survey of the selected communities showed that majority of the residents had low level of education and this has affected their appreciation of issues involved in environmental pollution. Majority of the communities also lack proper toilet facilities and publicly demarcated waste disposal sites and there was no

coordinated and concerted effort to manage the three lagoons. Activities such as the establishment of farms, improper fishing practices, discharge of domestic garbage, industrial and human waste into the lagoon are creating very serious problems for the lagoons.

Supervisors

Dr. Rosina Kyeremanteng

Dr. Ted Annang