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Ichthyofauna diversity in Asejire Lake, Southwest, Nigeria

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The valuation of biodiversity and environmental resources is important in understanding the healthy functioning of the environment. Diversity of fishes in Asejire Lake, Nigeria was studied for seven months (February to August, 2014). The lake was naturally divided into two strata-upper and lower reaches- one landing site in each stratum. Fish catches from fishermen were assessed, sorted into species, counted and weighed. Diversity indices package and cluster analysis were used for the statistical analysis. Twenty-four fish species from fourteen families were identified. *Chrysichthys nigrodigitatus* was the most abundant species by number (46.6%) and weight (34.3%) while *Gnathonemus senegalensis* was the least observed in the catch. Bagrid (46.7%) and cichlid (46.3%) families had the highest contribution by abundance and weight respectively. The greatest number of taxa was recorded in May and least in February. Lowest Simpson diversity index (0.50) was observed in February and highest in July (0.88). Simpson diversity index for the lake (0.70) was observed to be high with low dominance (0.30) and evenness (0.21). Cluster analysis showed six distinct groups of fish assemblages. Abundance-biomass comparison (ABC) curves revealed that Asejire Lake is a disturbed aquatic ecological system which might be attributed to over-exploitation of the fish resources in the lake and the waste discharge from the nearby industry. This may have negative implications on the fish production and conservation of the diverse species in the lake. There is need for monitoring and proper management of the lake system for sustainable fish production and conservation for the posterity.

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Community structure and spatial distribution of benthic fauna in the Oualidia lagoon (Moroccan Atlantic coast)

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The lagoon of Oualidia, located on Morocco's Atlantic coast, is international interest in its diversity and potential shellfish. It is exploited for its natural stocks in coastal resources such as shellfish, fish species, macroalgae. The main purpose of this work is to describe the composition, abundance, diversity and spatial distribution of the benthic fauna in the area and to assess the factors governing this spatial distribution in Oualidia lagoon. The benthic macroinvertebrates of Oualidia lagoon (Moroccan Atlantic coast) was studied during summer 2013. The distribution of the benthic macroinvertebrates species was recorded at 43 stations on the whole of the lagoon. The samples were collected using a Van Veen grab with two samples in each station and each sample had a surface area of 0.0625 m^2. The samples were sieved *in situ* through a 1-mm mesh. The material retained on the mesh was fixed in formaldehyde 10%. Water parameters (salinity and temperature) were recorded at each site. The macroinvertebrates were sorted, identified at the lowest taxonomic level possible and counted. A total of 52 taxa of benthic macroinvertebrates were listed. The molluscs and polychaete dominate qualitatively. Classification analysis used to perform the characterization of the lagoon on the basis of benthic macroinvertebrates showed the existence of three main clusters from downstream to upstream. Hydrodynamic and sediment composition were the major factors affecting the number of species and the biodiversity of benthic communities.

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