

## **Is the Bird Population in the Hadejia-Nguru Wetlands under Threat?**

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### **Abstract**

Anthropogenic disturbances have been found to be one of the key drivers of changes in bird populations as observed with dramatic consequences among the bird assemblages of Hadejia-Nguru Ramsar Wetland and elsewhere globally. We assessed the effects of farming, fishing, and grazing on bird species richness and density in Protected Areas (PAs) and Unprotected Areas (UPAs) of the Hadejia- Nguru Wetlands. Anthropogenic activities (grazing, fishing, and farming) at four different disturbance scales based on the level of anthropogenic activities: No, Low, Moderate and Intense were observed, assessed and recorded in PAs and UPAs of the Wetland. Results showed that farming, fishing and grazing had more negative influence on bird species richness, compared to bird densities and the species richness decreased significantly as intensity of these activities became more intensive ( $p < 0.001$ ). The results also indicated that fishing had more negative influences on bird species richness than farming and grazing. This could lead to reduction of bird density in both areas if not checked. Management of both areas should ensure the long-term conservation of resident, intra-African and Palearctic migratory birds in the Hadejia-Nguru Wetlands. It is also recommended that anthropogenic activities within the wetland should be minimized in order to conserve the bird community and other wildlife.