

عنوان مقاله:

A comparative study in fish biodiversity in Goronyo reservoir and downstream river Rima in Sokoto State Northwestern Nigeria

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خلاصه مقاله:

This study was conducted between April and October, ۲۰۱۶ in Goronyo Reservoir and downstream River Rima in Sokoto State with the main objective of evaluating and comparing the fish biodiversities of the two water bodies in relation to types of gears used. A multistage sampling technique was used to select water bodies. Three landing sites were purposely selected from downstream River Rima and five from Goronyo reservoir because of their high fish landings and five fishermen were randomly selected and their catches monitored. The catches were identified at species level, counted, measured and weighed to the nearest centimeter and gram respectively. The results showed the presence of ۱۴ and ۱۵ fish families in river Rima and Goronyo reservoir, represented by ۴۰ and ۳۵ fish species respectively. The members of Mormyridae and Bagridae families were the dominant fishes in terms of numbers accounting for ۴۴.۹۲%, ۱۶.۹۲% in River Rima and ۲۶.۰۶%, ۲۱.۴۴% in Goronyo reservoir. The most rarely occurring families were Clariidae and Cyprinidae in Goronyo reservoir accounting for ۰.۲۶% and ۰.۴۵% respectively. However, rarest species in Rima River was Synodontis membranaceus (۰.۱۱%). Mormyrus rume was the dominant species in both River Rima and Goronyo reservoir accounting for ۲۳.۶۴% and ۱۵.۳۱% by number. Simpson species richness showed Rima River with ۴۰ and Goronyo reservoir with ۳۵ fish species each exhibiting high (۰.۹۰) Simpson index of heterogeneity. Hook and line and gillnets were the most common fish gears used by the fishermen accounting for ۲۹.۸۷% and ۳۰.۳۷% respectively. Our study concluded that the two water bodies have fairly high fish diversities and recommended the reservoir should be enhanced by stocking it with Lates niloticus and Labeo coubie to serve as sport and commercial fishes in the reservoir. This study was conducted between April and October, ۲۰۱۶ in Goronyo Reservoir and downstream River Rima in Sokoto State with the main objective of evaluating and comparing the fish biodiversities of the two water bodies in relation to types of gears used. A multistage sampling technique was used to select water bodies. Three landing sites were purposely selected from downstream River Rima and five from Goronyo reservoir because of their high fish landings and five fishermen were randomly selected and their catches monitored. The catches were identified at species level, counted, measured and weighed to the nearest centimeter and gram respectively. The results showed the presence of ۱۴ and ۱۵ ... fish families in river Rima and Goronyo reservoir, represented by

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