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FISHERIES OF TWO TROPICAL LAGOONS IN GHANA, WEST AFRICA

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Abstract

The fisheries of two coastal lagoons, Keta and Songor, were studied as part of Ghana Coastal Wetlands Management Project (GCWMP) aimed at sustainable exploitation of wetland resources. Fish samples were obtained with seine nets and cast net as well as from local fishermen. Water quality parameters (pH, dissolved oxygen, temperature and turbidity) were similar in the two lagoons, except for salinity, which was significantly different ($P < 0.001$). Despite their close geographical proximity, the lagoons supported different fish assemblages with the blackchin tilapia, *Sarotherodon melanotheron* Rüppell, and the redchin tilapia, *Tilapia guineensis* (Bleeker), being the most important commercial fishes in both lagoons. The number of individuals for each species in Songor Lagoon were far more abundant, with densities several orders of magnitude higher than in Keta Lagoon. However, both species were significantly larger ($P < 0.01$) in the latter [15-121 and 25-157 mm standard length (SL)] than in the former lagoon (30-102 and 15-95 mm SL) for *S. melanotheron* and *T. guineensis* respectively. Over-fishing, use of small-size mesh nets, limited mixing of marine and fresh water were some of the factors limiting fish production in both lagoons.

KEYWORDS: economic, fish communities, fisheries, tropical lagoons.