ABSTRACT

Seasonal Changes of Length -Weight Relationship and Condition Factor of Five Fish Species in Lake Baringo, Kenya

Elijah Migiro Kembenya, Erick Ochieng Ogello, Cecilia Muthoni Githukia, Callen Nyaboke Aera, Reuben Omondi and Jonathan Mbonge Munguti

This study describes the length-weight relationships (LWR) and relative condition factor (K) of five fish species in Lake Baringo, Kenya. A total of 483 fishes consisting of Barbus intermedius, Clarias gariepinus, Labeo cylindricus, Oreochromis niloticus baringoensis and Protopterus aethiopicus were collected on monthly basis from Lake Baringo between September 2012 and August 2013. There was a significant difference ($P < 0.05$) in the weight at unit length (b) of the length weight relationship between the wet and dry season in all the fish species. However, there was no significant difference ($P > 0.05$) in condition factor between the two seasons. In all the five species studied, the sex ratio did not deviate from the expected sex ration of 1:1. The b values were within the range of 2.2 and 3.4 in both the dry and the wet seasons respectively, indicating an isometric growth of the fishes. The condition factor (K) for all the five species from Lake Baringo was well above 1 suggesting a relatively good physiological condition of the fishes in the lake. The seasonal variation influenced the length-weight relationship of the fishes but did not affect the condition factor and the sex ratio of all the fish species in Lake Baringo. The authors recommend a further study taking into account the fluctuations of water quality parameters.

Keywords: Seasonal Changes; Length-Weight Relationship; Condition Factor; Lake Baringo