

Mesozooplankton of the Kosi Bay lakes, South Africa

African Journal of Aquatic Science, vol. 43(1): 71-77

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ABSTRACT:

The Kosi coastal lake system, a chain of four interconnected basins, is located in the subtropical north-eastern corner of South Africa. Little information is available on zooplankton of the system and the main aim of this study is to report on zooplankton samples collected during 2002 and 2003. The set of samples consists of seasonal, subsurface mesozooplankton samples that were collected during nighttime in each of the lakes. A well-developed salinity gradient was evident along the interconnected lakes in the subsurface water during all seasons, ranging from freshwater in the upper lake Amanzamnyama to a maximum of 22 recorded in Lake Makhawulani. The zooplankton community structures of the lakes reflected the salinity gradient of the system, with some coastal marine taxa recorded in the lakes closer to the mouth and only freshwater taxa recorded in Lake Amanzamnyama. Mesozooplankton diversity and abundance were relatively low compared to other estuarine systems along the eastern coast of South Africa. The dominant taxa were calanoid copepods *Acartiella natalensis* and *Pseudodiaptomus stuhlmanni* and the mysid *Mesopodopsis africana* in the lower lakes, whereas cyclopoids *Mesocyclops* sp. and *Thermocyclops* sp. dominated the freshwater lake Amanzamnyama.