Abstract

Rotifers have often been used as indicators of sudden changes in physical and chemical features of the aquatic environment. Such features vary greatly during flood pulse events in small lakes connected to major floodplains. However, few are the studies that investigate the consequences of the flood pulse in rotifer species composition, abundance, richness and diversity, especially in Amazonian lakes. We analyzed samples from a small blackwater lake of an “igarapé” connected permanently to the Negro river, in Central Amazonia. Samples were taken twice a year for two years, comprising flooding and receding periods of the flood pulse. Rotifer abundance increased significantly after draught events, and electrical conductivity and turbidity were intrinsically related to such variation. Species composition also changed from flooding to receding periods. Some taxa, such as Brachionus zahniseri reductus and Lecane remanei were restricted to receding periods, while Brachionus zahniseri, Brachionus gillardi and Lecane proiecta were only present during flooding. A shift in the composition of rotifer families was observed from one period to another, showing the effect of renewing waters of the flood pulse. These results suggest that the flood pulse acts as a driving force and stressing condition, considerably altering rotifer community dynamics, either changing species composition or decreasing abundance.

Keywords
Floodplain, flood pulse, “igarapé”, Rotifera, zooplankton.