

ABSTRACT

Pollution threatens fish health in the eutrophic lakes, Chivero and Manyame, in Zimbabwe. Histopathological tissue alterations of two commonly consumed fish: catfish, *Clarias gariepinus*, and; tilapia, *Oreochromis niloticus*, from Lakes Chivero and Manyame were assessed between 2015 and 2016. Seventy-one (71) catfish and 81 tilapia were caught using gill nets, and samples of their gills, liver, kidney and stomach tissue were collected and assessed microscopically for manifestations of disease. Pathologies observed in the gills of tilapia and catfish from both lakes included lamellar fusion, hyperplasia of primary lamellar epithelium and disintegration of secondary lamellar epithelium. Liver histopathology revealed vacuolation, presence of melanomacrophage centres and inflammatory cell infiltration in catfish and vacuolation in tilapia from both lakes. There were no significant differences (Chi-squared-test, $p > 0.05$) in the frequency of occurrence of some histological lesions in tissues assessed for the unrelated catfish and tilapia in the two lakes. Lamellar fusion in the gills conjoined neighbouring lamellae suggests the presence of parasites. Melanomacrophage centres observed in catfish may reflect metal pollution. Observed lesions in populations from both lakes suggest exposure to similar stressors and high tolerances and adaptation to eutrophic conditions.