

ABSTRACT

Gross and microscopic lesions especially those associated with pollutants were investigated in Nile tilapia (*Oreochromis niloticus*) and Nile perch (*Lates niloticus*) from Lake Victoria. A total of 104 live fish were bought from fishermen from Homa Bay and Suba districts. During post mortem examination, lesions observed were recorded; and kidney, gills, liver, spleen, heart, stomach, intestine and gonadal tissues taken and preserved in 10% buffered formalin for histological processing. Gross lesions observed were hyperemia, hemorrhages in various tissues; skin ulcers, eye opacity; cooked liver appearance, fibrosis, gray spots and bile imbibitions; atrophied and cystic gonads; and fish skeletal deformity. Histological lesions were gill aneurysms, kidney tubular lumen occlusions, increased melanomacrophage aggregation in the liver, kidney and spleen; liver sinusoidal hemorrhages, fatty degeneration, hepatocytes" vacuolations, necrosis, bile stasis and granulomas; kidney granulomas; testicular and ovarian degeneration and cysts; myocarditis and myositis. The liver had majority lesions that were severe in both fish species. These lesions can be caused by variable aetiologies, including pollutants. In all, 63% of the *Oreochromis niloticus* and 58% *Lates niloticus* had histological lesions. Further studies are required to establish the cause of the lesions.