ABSTRACT

Fish are a resource with great economic, nutritional and recreational benefits to humans on a global scale. In Kenya, fish represent an important source of food and income through trade and employment to many communities. In fact, fish are an important alternative source of animal protein, especially in famine-tolerant arid and semi-arid regions such as Turkana, Marsabit, Pokot and Baringo Counties, where annual drought periodically hampers traditional livestock keeping destitute. Kenya freshwater fishes have remained vulnerable to a variety of parasites and related diseases. Approximately 119 fish parasites have been reported in the country, with about 83 being identified to species level and 35 to genus level. Out of the reported parasites, 77% were detected in wild fish, 8% in farm fish and 15% in both wild and farmed fish. The parasites identified by various studies include protozoa (7), myxozoa (7), nematode (20), monogenean (33), digenean (16), cestoda (15), acanthocephalan (6) and crustacean (15). The highly commercialized fishes, such as Oreochromis niloticus and Clarias gariepinus, harbour the highest number of parasites, which greatly hinder fisheries and aquaculture productivity through retarded growth, mechanical damages, reduced reproduction rates and increased mortality of the fish hosts. Thus, there is need for adequate information on the taxonomy and ecology of these parasites as a basis for developing appropriate management and policies to control them. This review article is meant to provide an overview of the distribution, occurrence of fish parasites and their impacts on inland water fisheries and aquaculture in Kenya, while also highlighting the available gaps warranting further studies, with the goal of developing appropriate and accurate control measures to improve the region's fisheries and aquaculture productivity and food security.