Abstract

The lesser flamingo (LF) (*Phoeniconaias minor*) is the most abundant water bird species in Kenya and a major attraction for eco-tourism in many parts of Africa (Harper 2003; Nasirwa 2000; Owino *et al.* 2001; Owino *et al.* 2002). It is an obligate filter feeder and the main primary consumer of the prolific algae (*Arthospira fusiformis*) in the saline Rift Valley lakes of East Africa thus making it a key bio-indicator species of aquatic ecosystems. It is also a ‘flagship’ species for the wetlands (Jenkin 1957; Vareshi 1978). Mass deaths of LF have become more frequent in Eastern Africa over the last two decades and have been recognized as one of the threats to conservation of the species (Koyo and Owino 2010; Lugomela *et al.* 2006; Ndetei and Muhandiki 2005; Beasley *et al.* 2004; Kock *et al.* 1999; Motelin *et al.* 1995; Sileo *et al.* 1979; Tuite 1974; Manyibe *et al.* 2007). Previous investigations have implicated infectious and toxicological diseases, acting in combination with various environmental stressors, as the causes of mortalities. This paper reviews these investigations highlighting their salient features and proposes multidisciplinary approaches for better addressing of the problem in the future.