Potential Effect Of *Zengebare Officinale* Extract On Health, Treatment And Control Of *Oreochromis Niloticus (L.)* From Bacterial Infections.

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ABSTRACT

Three experiments were conducted to evaluate potential of using *zengebare officinale* extract as treatment to fresh water fishes from bacterial diseases. Also the use of ethanol-extracted from the medicinal plant, *Zingebare officinale* as a growth and immunity promoter for *Oreochromis niloticus (L.)* fingerlings. Fish (Average 12.33 g) were randomly distributed into four treatments; three replicates each at a rate of 15 fish per 140- L aquarium. Fish were fed one of the tested diets containing 0.0. 0.5 %. 1.0 %, or 1.5 % *Zingebare officinale* extract for 10 weeks. After the feeding trial, fish of each treatment were challenged by pathogenic *Pseudomonas aeruginosa* and *Pseudomonas flourscence.* and they were kept under observation for 10 days to follow up any abnormal clinical signs and the daily mortality rate. The growth-promoting influence of *Zingebare officinale* extract was observed on fish. The results showed that the maximum growth was observed at 1 % *Zingebare officinale* extract as compared to the control. No significant differences in fish survival were reported among the experienced treatments at ($P>0.05$). falling within the range of 93.3 100%. total protein, albumin, and globulin increased significantly ($P<0.5$) to the highest values at 1 *% Zingebare officinale* extract, as compared to the control. However, supplementation of *Zingebare officinale* extract did not significantly affect the albumin / globulin ratio **(A/G).** This present study showed that 1 % *Zingebare officinale* extract in Nile tilapia diets, increased the fish resistance to *Ps. aeruginosa* and *Ps. flourscence,* indicating the effective role of *Zingebare officinale* extract in disease prevention in tilapia. The intrapretonial inoculation (I/P) of (4×10^6) cells /ml of *Ps aurgonsia* caused mortality (90%) among *Orechromis niloticus.* while the treated *Orechromis niloticus* with ethonalic extract (turbines) of *Zingebare officinale* had mortality (40%). The intrapretonial inoculation (I/P) of (4×10^6) cells /ml of *Ps flourscence* caused mortality (100 %) among *Orechromis niloticus,* while the treated *Orechromis niloticus* with ethonalic extract (turbines) of *Zingebare officinale* had mortality (50%). Morphometric studies has been carried out crystalgrophy Imge processing soft ware **(C.I.S.)** to apply this tool for numerically and Imge evaluation of the effect of prepared neutral product antibiotics.

Key of words: *Zingebare officinale,* Nile tilapia, Medicine plant, *Pseudomonas aeruginosa,* and *Pseudomonas flourscence.*