



Immunomodulatory Effect of *Ocimum Sanctum* Linn. Leaf Extract on A Common Fish *Clarias Batrachus* Linn.

Makode P. M, A. P. Charjan

Shri. Dr. R. G. Rathod Arts And Science College, Murtizapur, Maharashtra, India

ABSTRACT

The use of immunostimulants for the prevention of disease in fishes is considered as an attractive and promising area in the field of aquaculture. Immunostimulants are valuable for the prevention and control of fish diseases in aquaculture as they represent an alternative and supplementary treatment to vaccination. They also have additional effects such as growth enhancement and increase in the survival rates of the fishes under stress. Certain medicinal plants are believed to promote positive health and maintain organic resistance against infection by re-establishing body equilibrium and conditioning the body tissues. The present study was designed to evaluate the immunostimulant potential of crude extract of *Ocimum sanctum* leaf on fish *Clarius batracus* in both specific and non specific levels. Our results showed that there is not a significant decrease in the amount of Glucose and cholesterol at concentration 2.5% but there is a significant reduction in glucose amount at 5% in comparison to control. But a significant increase was seen the RBC, WBC, Serum protein and globulin at 2.5% and 5% concentrations of crude extracts in both the 15 and 30 days of treatments in the blood of the fish. It may be due to the presence phenolic compounds like flavonoids, terpenoids steroids, alkaloids etc. Based on the results it is appropriate to conclude that the plant extract of *Ocimum sanctum* may act as a potent Immunostimulant in *Clarias batrachus*.

Keywords: *Clarias batrachus* Linn, Immunostimulants, *Ocimum sanctum* Linn, Phytochemicals