



**The use of ethanol extract of rose balsam
(*Impatiens balsamica L*) to enhance resistance of
catfish (*Clarias gariepinus* Var. *Sangkuriang*)
against *Aeromonas hydrophila***

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Abstract: The objective of this study was to evaluate the potential of ethanol extract of rose balsam to induce the resistance of Sangkuriang catfish (*C. gariepinus* Var. *Sangkuriang*) against *A. hydrophila* infection. Sangkuriang catfish measuring 10-12 cm each were obtained from Freshwater Aquaculture Board, Ministry of Marine and Fisheries at Tatelu Village North Sulawesi Province. After adaptation for one week, the fish were introduced into 12 aquaria at a density of 12 individuals per aquarium. In the first three aquaria (Group A), the fish were injected with 0.1 mL of rose balsam extract, seven days later the fish were infected intraperitoneally with 0.1 mL of *A. hydrophila* suspension containing 1×10^7 cfu/mL. Fish in the second three aquaria (group B) were injected first with 0.1 mL of *A. hydrophila* and after three days of infection, the fish were treated with rose balsam extract by injection of 0.1 mL extract per fish. Fish in the third three aquaria (group C) were injected with only with 0.1 mL *A. hydrophila* suspension as positive control and lastly fish in the fourth three aquaria (group D) were injected with 0.1 mL rose balsam extract only as negative control. The results showed that ethanol extract of rose balsam flower was able to increase the survival of catfish fry against *A. Hydrophila* infection. The survival of fish in group A achieved 75% while in positive control group, survival of fish was only 30.55%. Survival of fish in negative control (injected only with rose balsam extract) was 91.5% indicating that the extract had no toxic effect on fish. Thus, the use of rose balsam extract was potential to improve resistance of Sangkuriang catfish against pathogen.

Keywords: catfish, *Clarias gariepinus* Var. *Sangkuriang*, *Impatiens balsamica* L, medicinal plant, aquaculture.

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