



## **Physiological Response of Gouramy Fry (*Osphronemus Gouramy*) to Different Temperatures**

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**Abstract :** The low survival rate of gouramy fry is caused by high stress risk . Temperature is one of the factor which can cause stress. Cortisol and blood glucose are indicators of stress on the fish. This study aims to investigate the physiological response of gouramy fry on different temperatures. This study used 27°C, 29°C, 31°C as treatment. Ninety Gouramy fry sized 7 cm were used and kept at aquariums for 42 days. The results of the observation showed that 31°C was the most appropriate temperature for gouramy which provided 70 mg/dl blood glucose level and 55.44 ng/ml cortisol level. The results of the variance analysis of blood glucose level showed that  $F$  test = 5,33 was greater than  $F$  table 5%, whereas the cortisol level indicated that  $F$  test = 25.01 was greater than  $F$  table 5% and 1%. It can be concluded that a temperature difference in each treatment influence blood glucose and cortisol level. In this research, the pH was ranging from 7.3 to 8.1, while the oxygen level was ranging from 4.2 to 7.7mg/l.

**Keywords :** Gouramy, temperature, blood glucose, cortisol.

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