

**BIOCHEMICAL QUALITY OF *Clarias batrachus* IN  
DIFFERENT PRESERVATION METHODS**

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This Final Year Project Report entitled "**Biochemical Quality Of *Clarias batrachus* In Different Preservation Methods**" was submitted by Nor Alia Binti Abd Aziz in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by



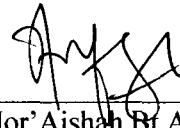
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## ABSTRACT

### BIOCHEMICAL QUALITY OF *Clarias batrachus* IN DIFFERENT PRESERVATION METHODS

The aim of this study was to compare the biochemical composition of preserved *Clarias batrachus* with the fresh sample. Biochemical composition such as moisture, protein, fat and ash contents were investigated in three different preservation methods; freezing, smoking and salting. Moisture content was the highest in fresh sample and decreasing in all preservation methods with smoking and salting showed significant differences to the fresh sample. The moisture contents were removed out from the preserved samples through the action of osmosis. This action was contributed by the hypertonic solution in salting method and evaporation in smoking method. Other biochemical compositions showed inverse relationship with moisture contents, in which protein, fat and ash contents were the lowest in fresh sample. The decrease in the moisture content has been described as the change that makes the protein, fat and ash contents increase in preserved fish. However, only fat content indicated no significant changes between fresh sample and all preservation methods. Thus, the results showed that different preservation methods have a significant effect on the biochemical composition of *Clarias batrachus*. However, freezing method showed no significant different in all biochemical compositions as compared to fresh sample. Therefore, it can be concluded that freezing method sustained most of the biochemical quality and slowed down the deterioration of *Clarias batrachus*.