

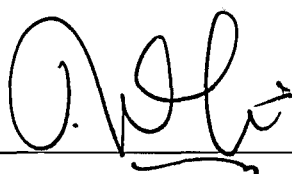
**EXTRACTION OF ACID-SOLUBILISED COLLAGEN FROM THE  
SKIN OF THREADFIN BREAM (*Nemipterus japonicus*) AND  
DETERMINATION OF ITS CHARACTERISTICS**

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**Final Year Report Submitted in  
Partial Fulfilment of the Requirements for the  
Degree of Bachelor of Science (Hons.) Food Science and Technology  
In the Faculty of Applied Sciences  
Universiti Teknologi MARA**

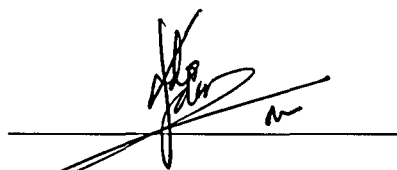
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## **ABSTRACT**

### **EXTRACTION OF ACID-SOLUBILISED COLLAGEN FROM THE SKIN OF THREADFIN BREAM (*Nemipterus japonicus*) AND DETERMINATION OF ITS CHARACTERISTICS**

Fish skin is a major by-product of the fish processing industry, causing wastage and pollution, thus utilizing the skin of threadfin bream which mainly used in the fish processing industry could provide a valuable source of collagen especially in Malaysia. The primary objective of this study is to determine whether collagen can be extracted from the skin of threadfin bream. Collagen was extracted from the skin of threadfin bream using acid solubilisation method and the yield was 12.39%. Its characteristics (moisture, fat, ash, solubility in different pH and different NaCl concentration and viscosity) were determined. Amino acids composition of the collagen extracted was also determined. The results for moisture, fat and ash content were 0.27%, 3.41%, 7.97% respectively. The collagen was most soluble in low pH and low salt concentration. The viscosity decreased when temperature was increased. The highest amino acid contained in the collagen extracted was histidine.