

**EXTRACTION AND CHARACTERISATION OF GELATIN FROM  
RED STINGRAY FISH (*Dasyatis akajei*) SKIN**

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Bachelor of Science (Hons.) Food Science and Technology  
in the Faculty of Applied Sciences  
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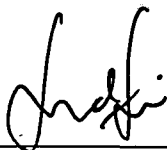
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This Final Year Project entitled “Extraction and Characterisation of Gelatin from Red Stingray Fish (*Dasyatis akajei*) Skin” was submitted by Nurul Fatimah Binti Mohd Fauzi, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons) Food Science and Technology, in the Faculty of Applied Sciences and was approved by



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## ABSTRACT

### EXTRACTION AND CHARACTERIZATION OF GELATIN FROM RED STINGRAY FISH (*Dasyatis akajei*) SKIN

Gelatin from the skin of red stingray fish (*Dasyatis akajei*) pretreated with 0.2 M acetic acid and extracted with distilled water at 45 °C for five different extraction times (4, 8, 12, 16 and 20 hrs) were characterized. The yield ranged from 0.081-0.136% (wet weight basis). The protein content ranged from 10.33-35.33%. The viscosity of the extracted gelatins ranged from 0.277-0.708 Pa.s. The gel strength ranged from 241.07-381.40 g. Yield, protein content and viscosity increased significantly ( $p < 0.05$ ) as the extraction time increased. However, gel strength of gelatin decreased significantly ( $p < 0.05$ ) as the extraction time increased. Those properties were governed by different extraction times. Thus, gelatin can be successfully extracted from the skin of red stingray fish (*Dasyatis akajei*) using the appropriate extraction time.