

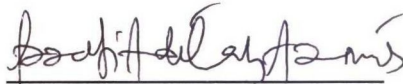
**DETECTION ON THE PRESENCE OF GELATIN FROM  
THREADFIN (*Eleutheronema* sp.) AND TORPEDO SCAD  
(*Megalaspis* sp.) SKIN**

**NURNATASAH ROSLAN**

**Final Year Project Report Submitted in  
Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science (Hons.) Biology  
in the Faculty of Applied Sciences  
Universiti Teknologi MARA**

**JULY 2019**

This Final Year Project Report entitled “**Detection on the Presence of Gelatin From *Eleutheronema* sp. (Senangin) and *Megalaspis* sp. (Cencaru)**” was submitted by Nurnatasah binti Roslan, 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



Dr. Izzati Adilah Bt Azmir

Supervisor

B. Sc. (Hons.) Biology

Faculty of Applied Science

Universiti Teknologi MARA

72000 Kuala Pilah, Negeri Sembilan



Siti Norazura Bt Jamal

Project Coordinator

B. Sc. (Hons.) Biology

Universiti Teknologi MARA

72000 Kuala Pilah

Negeri Sembilan



Dr. Aslizah Binti Mohd Aris

Head School of Biology

Faculty of Applied Science

University Teknologi MARA

72000 Kuala Pilah,

Negeri Sembilan

Date :

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## ABSTRACT

### **DETECTION ON THE PRESENCE OF GELATIN FROM THREADFIN (*Eleutheronema* sp.) AND TORPEDO SCAD (*Megalaspis* sp.) SKIN**

The increase extraction of gelatin from marine sources is due to the raise in bovine spongiform encephalopathy (BSE) cases and bird flu (avian influenza) threats, as well as for religious and social reasons. In this study, gelatin was extracted from the skin of *Eleutheronema* sp. (Senangin) and *Megalaspis* sp. (Cencaru) and detection on the presence of gelatin component from the fish skin was through hydrolysatation test/gelatinase test, Biuret test and UV absorption spectra analysis. The gelatin from fresh “senangin” and “cencaru” skins have been successfully extracted by acid and alkaline treatment and also hot water extraction method. The extracted materials were further confirmed by gelatinase or hydrolysis test and UV absorption spectra analysis. The gelatin of both fish had the highest absorbance between the wavelength of 210-230nm, which indicated the presence of high non-aromatic amino acids. The hydrolysis test conducted using gelatin broth media showed positive results for both “cencaru” and “senangin” as liquefaction of the broth were observed. Contrastly, the hydrolysis test using gelatin agar showed negative results as no clear zones were observed due to several reasons such as unsuitable temperature for incubation, insensitive agar plate method and the effect of additional mercuric chloride. Also, positive results were shown on both gelatin sources after being tested with Biuret assay as the colour of the reagent changed from blue to purple. Hence, the methods described were useful in analysing and detecting the presence of the extracted gelatin in the skin of “cencaru” and “senangin”. However, the duration during freeze drying method need to be lengthen to produce high quality of fish gelatin with small amount of water content.