

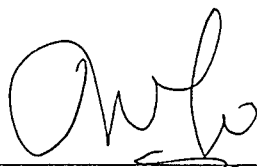
**ANALYSIS OF ANTIOXIDANT PROPERTIES, OXIDATIVE
STABILITY AND MINERAL CONTENT OF PROTEIN
HYDROLYSATE FROM THREADFIN BREAM (*Nemipterus
japonicus*)**

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TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES	vi
LIST OF ABBREVIATIONS	vii
ABSTRACT	viii
ABSTRAK	ix
CHAPTER 1 INTRODUCTION	
1.1 Background and problem statement	1
1.2 Significance of study	2
1.3 Objectives of study	2
CHAPTER 2 LITERATURE REVIEW	
2.1 Threadfin Bream (<i>Nemipterus japonicus</i>)	3
2.2 Fish Protein hydrolysate	5
2.3 Antioxidant Properties for Different Types of Fish	8
2.3.1 Loach Protein Hydrolysate	8
2.3.2 Clam Protein Hydrolysate	9
2.3.3 White Shrimp Protein Hydrolysate	10
2.3.4 Yellow Stripe Protein Hydrolysate	11
2.4 Application of Fish Protein Hydrolysate	13

ABSTRACT

ANALYSIS OF ANTIOXIDANT PROPERTIES, OXIDATIVE STABILITY AND MINERAL CONTENT OF PROTEIN HYDROLYSATE FROM THREADFIN BREAM (*NEMIPTERUS JAPONICUS*)

Determination antioxidant properties with effect of concentration and storage, oxidative stability and mineral content of threadfin bream (*Nemipterus japonicus*) by treatment with Alcalase were investigated. For all the determination of antioxidant properties, threadfin bream hydrolysate exhibited the antioxidant properties but still lower than the α -tocopherol, BHT and EDTA which are the commercial antioxidant. Similar with lipid peroxidation inhibition assay, the threadfin bream hydrolysate effectively inhibited lipid peroxidation in linoleic acid for up to 6 days of storage. The threadfin bream hydrolysate also showed the physicochemical and rancidity properties in determination of oxidative stability. Meanwhile for the mineral content determination, the threadfin bream contained higher amount of sodium (Na) followed by potassium (K), magnesium (Mg) and iron (Fe). The threadfin bream hydrolysates exhibit a significant antioxidant activity and due to its functionality, it can serve as a good source of quality food ingredients and also provide desirable characteristics to food products. It can be one of the antioxidant sources. Antioxidants block the process of oxidation by neutralizing free radicals. Although threadfin bream hydrolysates were less effective than commercial antioxidant like α -tocopherol and BHT, fish hydrolysates in general are considered safe products and they are not subjected to restricted use in foods. Therefore, threadfin bream protein hydrolysate can be used in food systems as a natural additive possessing antioxidative properties.