

**SPOILAGE OF CERTAIN UNDER-UTILIZED  
FISH SPECIES  
DURING STORAGE IN ICE**

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*To my parents*

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## ABSTRACT

The storage life of iced chub mackerel (*Scombrus japonicus*) and horse mackerel (*Trachurus trachurus*) was studied. The quality was evaluated by means of organoleptic assessment, trimethylamine nitrogen determination (TMA-N), thiobarbituric acid test (TBA), and determination of the free fatty acids (FFA). Chub mackerel and horse mackerel were judged suitable for human consumption for at least 11 and 15 days, respectively, on the basis of sensory assessment, when the TMA-N was 1.66 mg % and 6.82 mg %, TBA values were 10.10 mg malonaldehyde/kg and 5.60 mg malonaldehyde/kg, and FFA content was 0.38 % and 0.28 %, respectively. A relationship between TMA-N content and sensory evaluation was found for horse mackerel. TMA-N values remained low for chub mackerel, not exceeding 2.59 mg %. TBA values increased for chub mackerel and horse mackerel but there was not relationship with sensory assessment. The FFA content increased progressively for both species.

## CONTENTS

1.	INTRODUCTION.....	1
2.	EXPLOITATION OF UNDER-UTILIZED FISH RESOURCES.....	3
3.	POST MORTEM CHANGES OF FISH.....	9
3.1	AUTOLYTIC CHANGES / RIGOR MORTIS.....	9
3.2	THE MICROBIOLOGY OF MARINE FISH.....	12
3.2.1	Bacterial flora of marine fish.....	12
3.2.2	Factors which influence microbial spoilage rate.....	14
3.2.3	Changes during microbial spoilage of fish.....	18
3.3	RANCIDITY.....	22
3.3.1	Autoxidation.....	22
3.3.2	Lipid hydrolysis.....	26
4.	QUALITY ASSESSMENT OF FISH.....	28
4.1	SENSORY ASSESSMENT.....	28
4.1.1	Subjective sensory control.....	29
4.1.2	Objective sensory control.....	29
4.2	NON SENSORY ASSESSMENT.....	31
4.2.1	Chemical methods.....	32
4.2.2	Physical methods.....	36
4.2.3	Bacteriological methods.....	38
5.	PRESERVATION OF FISH BY CHILLING .....	39
5.1	FACTORS AFFECTING THE STORAGE LIFE OF CHILLED FISH.....	39
5.2	THE PRACTICE OF CHILLING .....	42

6.	EXPERIMENTAL WORK.....	47
6.1	MATERIALS AND METHODS.....	47
6.1.1	Fish species.....	47
6.1.2	Chilling.....	47
6.1.3	Sample preparation .....	47
6.1.4	Chemical assessment.....	48
6.1.5	Sensory assessment.....	53
6.2	RESULTS.....	54
6.2.1	Chemical assessment.....	54
6.2.2	Sensory assessment.....	65
6.3	DISCUSSION.....	66
6.3.1	Chemical assessment.....	66
6.3.2	Sensory assessment.....	74
6.3.3	Overall spoilage pattern for each individual species.....	75
6.4	CONCLUSIONS.....	78
6.5	SUGGESTIONS FOR FUTURE WORK.....	78
7.	REFERENCES.....	80
8.	APPENDIX.....	86