

CONTENTS

Page

PREFACE	
1. GENERAL INTRODUCTION	1
2. DESCRIPTION OF SPECIES BASED ON AVAILABLE LITERATURE	5
2.1 Introduction	5
2.2 Review of literature	5
2.3 Description	8
2.3.1 Clams	8
2.3.2 Mussels	14
2.3.3 Oysters	17
2.4 Study area	19
2.5 Salient features observed in the present study	22
2.5.1 Clams	22
2.5.2 Mussels	24
2.5.3 Oysters	24
3. MORPHOMETRY	25
3.1 Introduction	25
3.2 Review of literature	25
3.3 Materials and Methods	28
3.3.1. Specimens and Study area	28
3.3.2 Collection and Conditioning of Specimens	28
3.3.3. Methods	29
3.4 Results	30
3.5 Discussion	38

4.	ELECTROPHORETIC STUDIES OF MUSCLE PROTEINS	42
4.1	Introduction	42
4.2	Review of Literature	43
4.3	Materials and Methods	47
4.3.1	Collection and conditioning of specimens	47
4.3.2	Preparation of Stock solutions	48
4.3.3.	Procedure	48
4.3.4.	Standardization of Methodology	50
4.4.	Results	52
4.4.1.	<u>Villorita cyprinoides</u>	52
4.4.2.	<u>Crassostrea madrasensis</u>	55
4.4.3.	<u>Perna viridis</u>	57
4.5.	Discussion	58
5.	ELECTROPHORETIC STUDIES OF ISOENZYMES	65
5.1	Introduction	65
5.2	Review of Literature	66
5.3.	Materials and Methods	74
5.3.1.	Selected specimens	74
5.3.2	Methods of Staining	74
5.4	Results	76
5.4.1.	<u>Villorita cyprinoides</u>	77
5.4.2.	<u>Crassostrea madrasensis</u>	81
5.4.3.	<u>Perna viridis</u>	83
5.5	Discussion	84

6.	BIOCHEMICAL COMPOSITION	90
6.1	Introduction	90
6.2.	Review of Literature	91
6.3.	Materials and Methods	94
6.3.1.	Specimens employed	94
6.3.2.	Estimation of Biochemical constituents	94
6.4.	Results	97
6.4.1.	<u>Villorita cyprinoides</u>	98
6.4.2.	<u>Crassostrea madrasensis</u>	100
6.4.3.	<u>Perna viridis</u>	100
6.5	Discussion	101
7.	SUMMARY	105
	REFERENCES	111