

TABLE OF CONTENTS

UNDERGRADUATE THESIS	i
VALIDATION SHEET	iii
PREFACE	iv
LIST OF SYMBOLS AND ABBREVIATIONS	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
ABSTRACT	x
CHAPTER I INTRODUCTION	1
A. Background	1
B. Problems	2
C. Objectives	2
D. Benefits	3
CHAPTER II LITERATURE REVIEW AND HYPOTHESIS	4
A. Literature Review	4
1. <i>Hemiscyllium halmahera</i>	4
2. Phylogeography using ND4 Gene for Conservation	5
3. Genetic Connectivity	6
B. Hypothesis	7
CHAPTER III METHODOLOGY	8
A. Time and Place	8
B. Instruments and Materials	8
C. Methods	8
1. Tissue Sample Collection	8
2. DNA Extraction & Amplification	9
3. Bioinformatics Analysis	9
CHAPTER IV RESULTS AND DISCUSSIONS	11
A. Result	11
B. Discussion	17
1. Phylogeography and Genetic Diversity	17
2. Population Structure and Genetic Connectivity	18

3. Implications for Conservation.....	19
CONCLUSIONS.....	21
REFERENCES.....	22
APPENDICES	26