

TABLE OF CONTENTS

COVER PAGE	i
TITLE PAGE	ii
HALAMAN PENGESAHAN	iii
PERNYATAAN	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF APPENDICES	xiii
INTISARI	1
ABSTRACT	3
CHAPTER I. INTRODUCTION	5
1.1. Research Background	5
1.2. Research Problem Formulation	6
1.3. Research Aims	7
1.4. Research Outcomes	7
CHAPTER II. LITERATURE REVIEW	8
2.1. Habitat	8
2.1.1. Habitat Suitability	8
2.1.2. Habitat Connectivity	8
2.1.3. Metapopulation	9
2.2. Mammalian Carnivores	10
2.2.1. Javan Leopard (<i>Panthera pardus melas</i>)	10
2.2.2. Dhole (<i>Cuon alpinus</i>)	11
2.2.3. Binturong (<i>Arctictis binturong</i>)	11
2.2.4. Fishing Cat (<i>Prionailurus vivverinus</i>)	12
2.2.5. Leopard Cat (<i>Prionailurus bengalensis javanensis</i>)	12
2.2.6. Small-clawed Otter (<i>Aonyx cinerea</i>)	13
2.2.7. Banded Linsang (<i>Prionodon linsang</i>)	13



2.2.8.	Eurasian Otter (<i>Lutra lutra</i>)	14
2.2.9.	Small-toothed Palm Civet (<i>Arctogalidia trivirgata</i>)	14
2.2.10.	Javan Mongoose (<i>Herpestes javanicus</i>)	15
2.2.11.	Yellow-throated Marten (<i>Martes flavigula</i>)	16
2.2.12.	Javan Ferret Badger (<i>Melogale orientalis</i>)	16
2.2.13.	Indonesian Mountain Weasel (<i>Mustela letrolina</i>)	17
2.2.14.	Sunda Stink Badger (<i>Mydaus javanensis</i>)	17
2.2.15.	Common Palm Civet (<i>Paradoxurus hermaphroditus</i>)	18
2.2.16.	Small Indian Civet (<i>Viverricula indica</i>)	18
2.3.	Maximum Entropy Species Distribution Modeling	19
CHAPTER III. THEORETICAL BASIS AND HYPOTHESIS		20
2.1.	Theoretical Basis	20
2.2.	Hypothesis	21
CHAPTER IV. RESEARCH METHODS		22
4.1.	Research Location and Time	22
4.2.	Research Materials	22
4.3.	Research Tools	22
4.4.	Methods	23
4.4.1.	Secondary Data Collection	23
4.4.2.	Spatial Data Preparation	24
4.4.2.1.	Mammalian Carnivores Presence Data	24
4.4.2.2.	Normalized Difference Vegetation Index (NDVI) and Normalized Difference Water Index (NDWI)	25
4.4.2.3.	Distance from River	26
4.4.2.4.	Elevation and Slope	26
4.4.2.5.	Land Cover	26
4.4.2.6.	Built-up Area and Human Population	27
4.4.2.7.	Annual Precipitation and Mean Annual Temperature	27
4.5.	Data Analysis	27
4.5.1.	Multicollinearity Test	27



4.5.2.	Mammalian Carnivores Species Spatial Distribution Modelling	28
4.5.3.	Species Distribution Modelling Validation	28
4.5.4.	Habitat Suitability Analysis	29
4.5.5.	Habitat Connectivity Analysis	30
4.5.6.	Priority Landscapes Identification	31
CHAPTER V. RESULTS AND DISCUSSIONS		33
5.1.	Spatial Data Preparation and Multicollinearity Test	33
5.1.1.	Mammalian Carnivores Presence Data	33
5.1.2.	Environmental Variables and Multicollinearity Test	34
5.2.	Mammalian Carnivores Species Distribution Modelling	35
5.2.1.	Javan Leopard (<i>Panthera pardus melas</i>)	35
5.2.2.	Dhole (<i>Cuon alpinus</i>)	36
5.2.3.	Binturong (<i>Arctictis binturong</i>)	37
5.2.4.	Leopard Cat (<i>Prionailurus bengalensis javanensis</i>)	38
5.2.5.	Small-clawed Otter (<i>Aonyx cinerea</i>)	39
5.2.6.	Banded Linsang (<i>Prionodon linsang</i>)	40
5.2.7.	Javan Mongoose (<i>Herpestes javanicus</i>)	41
5.2.8.	Javan Ferret Badger (<i>Melogale orientalis</i>)	42
5.2.9.	Sunda Stink Badger (<i>Mydaus javanensis</i>)	43
5.2.10.	Common Palm Civet (<i>Paradoxurus hermaphroditus</i>)	44
5.3.	Mammalian Carnivores Core Habitats and Habitat Characteristics	45
5.4.	Mammalian Carnivores Habitats Connectivity	48
5.4.1.	Javan Leopard (<i>Panthera pardus melas</i>)	48
5.4.2.	Dhole (<i>Cuon alpinus</i>)	49
5.4.3.	Binturong (<i>Arctictis binturong</i>)	50
5.4.4.	Leopard Cat (<i>Prionailurus bengalensis javanensis</i>)	51
5.4.5.	Banded Linsang (<i>Prionodon linsang</i>)	53
5.4.6.	Javan Mongoose (<i>Herpestes javanicus</i>)	54
5.4.7.	Javan Ferret Badger (<i>Melogale orientalis</i>)	55
5.4.8.	Sunda Stink Badger (<i>Mydaus javanensis</i>)	57



5.4.9.	Common Palm Civet (<i>Paradoxurus hermaphroditus</i>)	59
5.5.	Mammalian Carnivores Priority Landscapes	60
5.6.	Discussions	70
5.6.1.	Mammalian Carnivores Species Distribution Modelling	70
5.6.2.	Mammalian Carnivores Core Habitats and Habitat Characteristics	71
5.6.3.	Mammalian Carnivores Habitats Connectivity	72
5.6.4.	Mammalian Carnivores Priority Landscapes	72
5.7.	Conservation Implications	73
CONCLUSIONS AND RECOMMENDATIONS		75
6.1.	Conclusions	75
6.2.	Recommendations	75
BIBLIOGRAPHY		77
APPENDICES		90