

TABLE OF CONTENTS

1. Introduction	18
1.1 Prior research work in Lepidopterology	19
1.2 Butterfly Diversity in Indian Sub-continent	20
1.3 How diverse habitats will affect Rhopaloceran existence?	22
1.4 How climatic factors will influence distribution of Rhopalocerans?	26
1.5 Life cycle of a butterfly.....	28
1.6 Rhopaloceran Study in Gujarat: THEN and NOW.....	39
1.7 Aim and Objectives.....	41
2. Materials and Methods	43
2.1 State of Gujarat- An Overview	43
2.2 Study Area.....	44
2.2.1 Urban Residential.....	46
2.2.2 Agricultural Landscape.....	47
2.2.3 Industrial Vicinity	52
2.2.4 Botanical Garden	55
2.2.5 Hill Station	55
2.3 Sampling Protocol.....	59
2.3.1 Pollard- Walk Method	59
2.4 Collection of Data	59
2.4.1 Rendering Habitat Preferences	60
2.4.2 Rendering Seasonal Variations.....	65

2.4.3	Photographing Butterflies	65
2.5	Taxonomical Identification of Rhopalocerans.....	66
2.6	Statistical Analysis of Species Diversity	66
3.	Results and Discussion	69
3.1	Species Diversity.....	70
3.2	Habitat Preference	112
3.2.1	Urban Residential	113
3.2.2	Agricultural Landscapes	118
3.2.3	Industrial Vicinity	122
3.2.4	Botanical Garden	124
3.2.5	Hill Station	128
3.3	Impact of Seasonal Variations	134
3.3.1	Urban Residential	134
3.3.2	Agricultural Landscape.....	136
3.3.3	Industrial Vicinity	138
3.3.4	Botanical Garden	140
3.3.5	Hill Station	142
4.	Conclusion & Critical Findings	147
5.	Recommendations & Future Prospects	151
6.	Bibliography.....	155
	APPENDICES	164