CHAPTER VII

CONCLUSIONS
Conclusions

The present study has recorded 91 butterfly species, belonging to family Papilionidae, Pieridae, Nymphalidae, Lycaenidae and Hesperiidae which includes 65 genera from North Maharashtra. There is dominance of Nymphalidae > Lycaenidae > Pieridae > Papilionidae > Hesperiidae.

91 butterfly species were recorded from Nashik District followed by 79 species from Nandurbar, 77 species from Jalgaon and 75 species from Dhule districts respectively.

Four districts of North Maharashtra shows Pielou’s evenness index above 0.9 which suggest less variation i.e. less uniqueness and uniform distribution of species in the area. Shannon diversity index was recorded highest in Nashik district and lowest in Dhule district. Sorensen Similarity index was highest between Dhule, Nandurbar and Jalgaon districts. Margalef’s sp. richness index was observed highest in the year 2008 followed by the year 2010 and 2009 for each district.

Peak period for butterfly occurrence was recorded in August and September month.

Among 91 species recorded from North Maharashtra 12 species comes under the protection category of the Indian Wild Life (protection) Act 1972.

Common Wanderer’s rare form Philomela, female was recorded for the first time from study area. During present investigation only one large species namely, P. polymnester has recorded from North Maharashtra. Four pest species namely; Papilio demoleus, Pieris candia, Cythia cardu and Deudorix Isocrates were recorded from this area. Polyphenism was observed clearly in Lime butterfly, Grass yellows, Common Emigrant, Bushbrown, Evening brown and Pansys. Polymorphism was recorded in case of Common Mormon.

During present investigations ten unpalatable species have been recorded from North Maharashtra namely: Common Jezebel, Common Rose, Crimson Rose, Blue Tiger, Dark Blue Tiger, Glassy Tiger, Plain Tiger, Striped Tiger, Common Indian Crow and Tawny Coster.
Batsian Mimicry was recorded in case of Danaid eggfly female, Common Palmfly female, Common wanderer female, Great Eggfly female, *Stichius* and *Roumulus* form of Common Mormon female. Two clusters of Mullerian butterflies were recorded namely: Tawny Tiger cluster which include Plain Tiger, Striped Tiger and Blue Tiger cluster which include Blue Tiger, Dark Blue Tiger and Glassy Tiger.

Environmental awareness among populace especially children, strict implementation of law by forest conservators, development of butterfly park, cultivation and protection of larval and nectar host plants specifically used by these butterflies and provision of protection and maintenance of mating sites will aids in butterfly conservation in North Maharashtra. The present results have thrown light on the butterfly diversity from North Maharashtra. This will help in species conservation of this region.

The factors responsible for habitat destruction are going to have their effects in coming years also. Hence studies related to butterfly conservation need to be taken up further.