

CHAPTER-V
SUMMARY

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Crickets belong to Order Orthoptera of Class: Insecta. They are visualized as pest insects in western and several other countries. They are hard bodied and do not bite. But, destroy lawns, certain agricultural crops and nuisance in house due to their monotonous chirping noise. Crickets are widely distributed in the world. They are reported from USA, Africa, Europe, India, Pakistan, Bangladesh, Sri Lanka, Myanmar, Thailand, Laos, Malaya Archipelago, Indonesia, Mentawai Islands (Near Sumtra), New Guinea, Philippines, etc.

Maharashtra is leading state of India in agricultural and natural wealth. Out of 35 districts of Maharashtra, Kolhapur is economically very advanced district. The district Kolhapur is very rich in flora and fauna. Noting the taxonomical characteristics of crickets and their abundance would be interesting from the view point of biodiversity and economic importance as crickets are visualized as a pest insects. Therefore, present topic has been selected.

The dissertation has been divided into six chapters. First chapter includes introduction which

contains general information on crickets and their economic importance and the relevance of the topic chosen for the present study.

Second chapter deals with review of literature. The perusal of literature showed that the crickets have been studied widely with various aspects from different parts of the World. However, taxonomy of this group is not attempted from Maharashtra although considerable amount of work on the taxonomy of Indian crickets have been reported from Northeast India.

Third chapter embodies materials and methods adopted for cricket collection, observations, preservation and taxonomical studies. The crickets have been collected with the help of insect collecting net, and ordinary mosquito bag of 35 cm in depth was also used for collecting nymphs and adults of both crickets i.e. mole cricket and house cricket. From the human dwellings and garden/fields, crickets were collected and preserved in the insect box for taxonomical studies. For taxonomical studies various body parts have been taken into account.

The chapter fourth is devoted for taxonomy of crickets. In the present study two families namely, Gryllotalpidae and Gryllidae were selected. For

description of species, classification system of Chopard (1969) and Vasanth (1993) have been adopted.

In the present work 4 new species of the genus *Gryllotalpa* and 5 new species of the genus *Gryllus* have been described. Four new species of *Gryllotalpa* includes *Gryllotalpa indica* sp. nov., *Gryllotalpa vestigi* sp. nov., *Gryllotalpa shivajiensis* sp. nov. and *Gryllotalpa micromi* sp. nov. ^{and} five new species of *Gryllus* includes *Gryllus ovali* sp. nov., *Gryllus mirroriquadri* sp. nov., *Gryllus indica* sp. nov. *Gryllus pentagoni* sp. nov. and *Gryllus lanceolati* sp. nov.

The chapter fifth deals with summary of dissertation while, sixth deals with bibliography. The dissertation has an appendix of papers (4) published /accepted in journals /presented in Internatinal and National Conferences.