

STATUS OF BEE (INSECTA: HYMENOPTERA) DIVERSITY OF KERALA

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ABSTRACT

In the present study, a total of 87 species of bees were reported from Kerala belonging to 19 genera under 3 families, according to the available literature. The family Apidae is dominated in Kerala with more genera followed by Halictidae. Species diversity is more in the genus *Lipotriches* Gerstaecker with 15 species followed by genus *Nomia* Latreille with 12 species.

Keywords: Bees, Apoidea, Apidae, Halictidae, Megachilidae, Kerala

INTRODUCTION

Bees are the insects mainly known for their pollination services. The importance of bees as pollinators of a great range of crops is undeniable. According to some estimates, one-third of the food we eat is dependent on insect pollination and bees are the most efficient pollinators. Bees display a range of lifestyles from solitary to eusocial, with some being able to shift between social and solitary modes according to environmental condition (Benton, 2017). Among the seven families under superfamily apoidea, members of the families Andrenidae, Colletidae, Halictidae, Megachilidae, Melittidae and Stenotritidae are mostly solitary bees. Family Apidae also has members following solitary mode of lifestyle.

There are 20,473 described species of bees in the world (Ascher and Pickering, 2020). In India, preliminary works on the taxonomy of bees were done by Bingham (1897) followed by Gupta in 2004 who catalogued 633 species of bees under 60 genera from India. Arati and Belavadi (2017) published a distributional checklist of subfamily Nomiinae of South India and recorded 48 species under 13 genera. Jobiraj (2002) conducted studies on the systematics of Apidae of Kerala. Recently,

Manjusha and Jobiraj (2018) published a checklist of Nomiinae subfamily of Kerala which contains 25 species under 12 genera. The bee fauna of Kerala is yet to be explored completely and it surely requires plenty of work. This work aims to present the status of bee fauna of Kerala based on the published information and according to it, 87 species of bees were reported from Kerala under 19 genera. Further studies are recommended in this field to discover the rich diversity of bees from Kerala.

Methodology

Status of bee diversity in Kerala was analysed by collecting information from published literature, books and checklists. Specimens are not examined for this purpose.

Results and Discussion

According to the literature, bees of the families Apidae, Halictidae, Megachilidae are reported from Kerala. The genera reported from each family along with some taxonomic characters of each genus are given and the graph below represents the same. The two genera in which species identity not determined are not represented in the graph.