



## Macrohymenopteran diversity in Thommana Kole wetland, Thrissur, India

P.P. Mohammed Anas<sup>1</sup>, Anju Sara Prakash<sup>2</sup>, C. Bijoy<sup>2\*</sup> and H.E. Syed Mohamed<sup>1</sup>

<sup>1</sup>Jamal Mohamed College (Autonomous), Tiruchirappalli 620020, Tamil Nadu, India; <sup>2</sup>Shadpada Entomology Research Lab, Department of Zoology, Christ College (Autonomous), Irinjalakuda 680125, Thrissur, Kerala, India; Email: [bijoyc@christcollegeijk.edu.in](mailto:bijoyc@christcollegeijk.edu.in)

**ABSTRACT:** The study conducted on the diversity of macrohymenoptera at the Thommana Kole wetland, Thrissur, Kerala revealed 36 species from 24 genera and 9 families.

**KEYWORDS:** Abundance, Hymenoptera, wetlands.

Wetlands supports rich biodiversity by providing many unique habitats for organisms and hence known as biological supermarkets (Mitsch and Gosselink, 2000). Wetlands in Kerala are very important ecosystems. In 2002, Kole wetlands were declared as Ramsar sites which increased the importance (Jayson, 2018). Kole wetlands are the water-logged, paddy cultivating areas and cover an area of 13,632 ha and spread over the Thrissur and Malappuram districts of Kerala (Johnkutty and Venugopal, 1993).

A study was conducted from October to December 2019 to analyze the relative abundance of macrohymenopteran insects at the Thommana Kole wetland of Thrissur, Kerala. The term macrohymenoptera is followed in this work, which normally includes larger species and with numerous veins in their forewing (Mason and Huber, 1993). Thommana (10<sup>0</sup>.3463 N 76<sup>0</sup>.2541 E) is a village in Irinjalakuda block in the Thrissur district of Kerala state, India. It is a highly diverse and productive ecosystem. The study site is a part of Muriyad Kole, which is a freshwater wetland (Thomas *et al.*, 2003). Line transect method was used to survey

the study site. The macrohymenopterans were collected by using a sweep net and by handpicking. Periodic collection of macrohymenopterans was done twice a month, taken in the morning from 8:00 am to 11:00 am. Ethyl acetate was used for killing the collected specimens. The killed specimens were dried and preserved for further study. Liquid preservation is used for the temporary storage of ant specimens until the specimens were card mounted for species identification. 70% ethanol is used as preservation fluid. The specimens were kept in small vials filled with alcohol, labelled and checked periodically. The specimen as such and its photographs were taken for identification. Identification was done up to the maximum possible level with the help of hymenopteran experts.

Altogether 36 species belonging to 24 genera and 9 families of macrohymenoptera were recorded during the period of study. Fig. 1 represent number of individuals collected from each genus. Families include Halictidae, Apidae and Megachilidae of bees; Vespidae, Scoliidae, Ichneumonidae, Mutillidae and Sphecidae of wasps and Formicidae of ants. Specimens were identified to

\* Author for correspondence