SUMMARY

The present work was conducted to study and analyse the biodiversity of Megachilini in Sutlej basin of northern plains in India. Megachilini bees are solitary bees belonging to the family Megachilidae, order Hymenoptera and sub-order Apocrita. These solitary bees are commonly called ‘leaf cutter bees’ because of their habit of using leaf bits, resins, decomposing stems and wood for the construction of their nests. Female bees alone constructs nests and lay eggs on the food mass provisioned in the cells. Most of the Megachilini bees exhibit two generations per year.

The population of Megachilid bees is dwindling primarily due to deforestation, agricultural intensification, increasing population and habitat degradation. During the present study bees were collected while foraging in the field. Specimen collection was done from 8 a.m. in the morning to 4 p.m. in the evening. Collection was maximum around 1 p.m. which was the in the peak activity hour of bees. After collection, bees were killed with ethyl acetate vapours, stretched properly and preserved in insect boxes fitted with naphthalene balls. Their important taxonomic characters were studied to identify them. Adult specimens were photographed with Cannon D6 camera. Their genital slides, sternal slides were prepared and then photographed with Leica microscope and stereo zoom microscope (model RSM 9 fitted with software Progres Capture Pro version 2.1.1 and CT5 Jenoptik camera.) Plates containing all important taxonomic characters were given for all species. Detailed descriptions of species along with their floral associations, specimen examined, zoogeographic records and remarks were given for each species. A total of 52 plates giving taxonomic and biodiversity details of thirty seven species including seven new species is provided.