

Nesting Habitat Preference of Indigenous Bumblebee, *Bombus haemorrhoidalis* in Himalayan Range of Azad Jammu and Kashmir, Pakistan

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Abstract : Non Apis bee like the bumblebees are important due to their utilization of diverse floral plants and belong to the richest and most conspicuous flower visitors in alpine, temperate and arctic environments for pollination in both natural and managed cropping systems. These bees generally construct underground nests and habitat devastation and crumbling are major causes for their decline in nature. The present study was conducted in the Himalayan range of Azad Jammu, and Kashmir, Pakistan, surveys were conducted during the early spring season to observe maximum *Bombus haemorrhoidalis* queens (emerged after winter diapauses) searching for a nesting place. Whole study area was grouped into four types of landscape (open field, relatively open, relatively wooded and wooded), five habitat types (field, field boundary, pasture forest boundary and forest) and these habitat further grouped into four different patch types including withered grass, new grass, tussocks and stones and moss. Maximum nest seeking bumblebee queens preferred relatively open field landscape followed by open fields and forest boundaries. Field boundaries were recorded as most proffered habitat along with withered grasses for nesting sites of *B. haemorrhoidalis* queens. A wooded landscape with stone and moss type of patches were found least preferred nesting sites. This study will be helpful in the future for conservation program this for declining bumblebee species in this region. It will also provide the baseline for the conservation of other bumblebee species of the world.

Keywords : bumblebee, *Bombus haemorrhoidalis*, habitat, nest seeking preference, Pakistan

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