

Cavity Nesting Bees in India

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ARTICLE ID: 15

Introduction

Honey bees which are generally building their nests in hollow trees, small caves, or in man-made structures are referred to as Cavity nesting bees. Several vertical wax combs are arranged parallel to one another in mature nests, an arrangement that is mimicking by the beekeeper's Lang troth hive. The cavity nesting habit enables these bees to control the nest temperature easily, and also provide assistance to them in defending their stored food resources.

Cavity Nesting Bees found in India

There are about 3 cavity nesting bees found in the Indian subcontinent, i.e. *Apis cerana*, *Apis indica*, and the newly discovered species of honey bee, *Apis karinjodiana*.

1. *Apis cerana* :

Apis cerana is called as the Asiatic honey bee. It is one of the main bee of paramount importance which is found and domesticated in India and it's neighbouring countries like Pakistan, Nepal, Myanmar, Bangladesh, Sri Lanka, Thailand and mainland Asia. It is relatively non-aggressive. Swarming behaviour is rarely observed in this species. It is ideal for beekeeping purpose.



Fig. *Apis cerana*

It is similar to the European honeybee (*Apis mellifera*), which tends to be slightly larger and can be easily distinguished. Multiple combed nests are usually build by them in

man-made structures and tree hollows. These bees can adapt to living in purpose-made hives and cavities. Their nesting habit implies that temperate areas with prolonged winters or cold temperatures can be potentially colonized by the bees. Colonies contain only a few thousand workers, compared to *A. mellifera*.

2. *Apisindica*

The last honeybee described from India was *Apisindica* in the year 1798. A recent original research propounded that *A. indica* is a distinct species from *A. cerana*. Earlier it was considered as the subspecies of *Apis cerana*.



Fig. *Apisindica*

3. *Apiskarinjodian* :

Apiskarinjodian is referred to as the 'Indian black honey bee' as it is darker in colour. The currently known distribution of *A. karinjodian* covers nearly the entire Central to Southern Western Ghats, where it is endemic, and includes the ghat regions in the states of Kerala, TamilNadu, Karnataka and Goa. It has been observed after a long gap of more than 200 years from the Western Ghats. *Apiskarinjodian* has been evolved from morphotypes of *Apis cerana* which got acclimatised to the hot and humid environment of the Western Ghats.



Fig. *Apiskarinjodian*

The researchers hope that the apiculture industry of India will get benefitted by the ability of *A. karinjodian* to produce higher quality honey with thickness in consistency. This species are considered as near-threatened species according to the IUCN Red List. Molecular analysis of mitochondrial DNA helps in confirming this new species of honeybee. A new measure called as Radio-Medial Index (RMI) is proposed recently in an original research paper for differentiation of species in *Apis*,

References :

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