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Entomology, Ornithology & Herpetology: Current Research

Perspective

Medicinal Uses of Honey Bee Venom

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INTRODUCTION

The honey bee belongs to the Apis species and is called a structural and organized group. The role played by them is pollination in cultivate plants, as they are useful as pollinators, with implications for our economy and food supply, as well as for natural ecosystems. There are different types of honey bee hives: worker, drone, and queen. Honey bee species are of two types: Apis mellifera and Apis cerana. The honey bee builds perpetual colonies and helps in producing honey. Bee venom contains proteins and is made up of a mixture of proteins such as melittin and phospholipase. Bee venom is made by bees. Bee venom is used in the field of medicine. Honey bees are related to the Apis mellifera species, which are native to the southern and Southeast Asian regions. The few relatives of modern honey bees are bubble bees and stingless bees. There are eight species of honey bee, and sub-species are 43 in number. Some of the species are, namely, *Apis andreniformis*, *Apis laboriosa*, *Apis florea*, *Apis mellifera*, and *Apis nigrocincta*. Honey bees consist of 3 clades: *Megapis*, *Micrapis*, and *Apis*. They are called western honey bees. The *Megapis* are called dwarf honey bees. Most of the species of honey bees are exploited for honey and beeswax [1-3].

BENEFITS OF HONEY BEE

Plant pollination

The honey bee collects the honey through nectar from hives to collect the honey. The bees travel from one plant to another to collect the nectar. Due to pollination by honey bees, it is stated that 85% of food crops are used for human consumption.

Food Preparation

The honey bee produces honey that contains vitamins, minerals, and antioxidants that are useful for the human diet. Honey also contains a sufficient amount of vitamins like B1, B3, and B6, some calcium and zinc.

Antibacterial properties

Honey has Antibacterial properties it has effectiveness to heal the infected wounds and also relief the pain and allergies.

Beeswax production

Honey bees build the honeycombs. Beeswax is a substance made from the honeycombs of honeybees. Beeswax is used in cosmetics and is also used in making candles and also to fill cavities. It is also used in preserving copper and leather coats with a waxy coating. Bee venom is used in the medical field. The practice of using honey products for the treatment of diseases is called "Apitherapy." One of the products is bee venom. Bee venom is used to treat pain relief and also prevent illness. Bee venom is used as a supplement serum and also as an extract [4].

Benefits of bee venom

Bee venom has anti-inflammatory effects. It is very effective and gives instant relief. It also decreases inflammatory markers like tumours necrosis factor alpha. The anti-inflammatory effect of bee venom has been shown to be effective in treating rheumatoid arthritis. In neurological diseases, bee venom therapy is used to treat some neurological diseases, some of which are Parkinson's and multiple sclerosis [5].

CONCLUSION

Bee venom therapy is used to relieve pain and improve the functionality of the body. Bee venom is used in treating lyme diseases since bee venom has antimicrobial properties. Honey bees produce products like royal jelly, propolis, bee wax, pollen, and also provide service in pollination, enriching the ecosystem. Bee venom is a product that is obtained from the honeycombs and has many benefits in the field of medicine and also in the treatment of some diseases.

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