



BEE HOTEL



I. WHAT IS A BEE HOTEL?



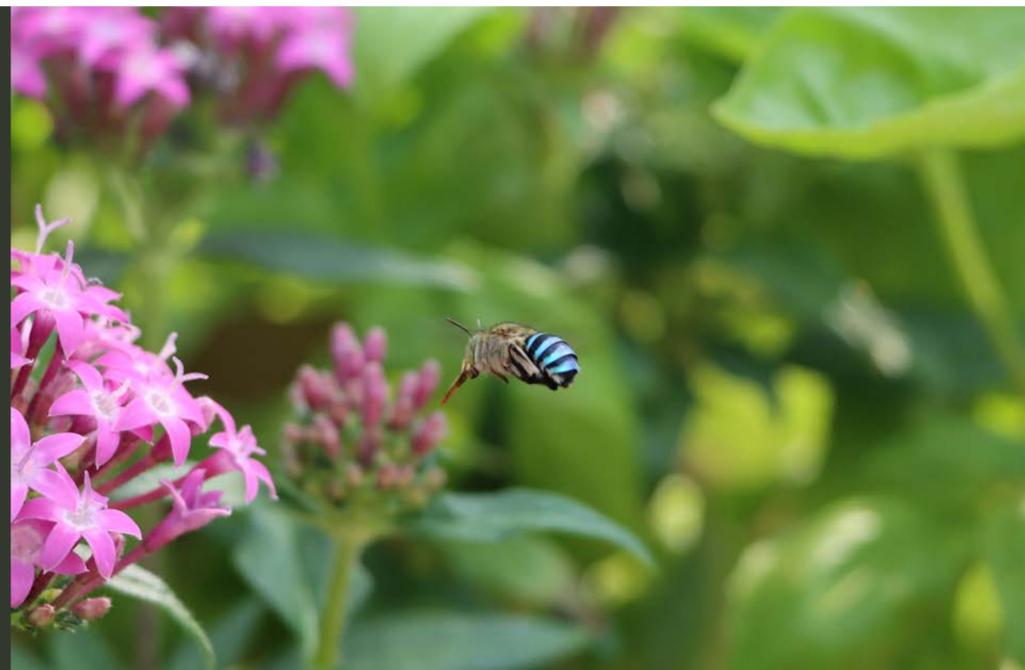
A BEE HOTEL

is a structure in which bees can nest and raise their larvae. Bee hotels come in a variety of sizes and designs, ranging from small to large, and, simple to complex. They are usually made using materials such as wood, bamboo, twigs, or even plastic or brick.

2. WHO WOULD USE A BEE HOTEL?

A BEE HOTEL PROVIDES

nesting space for cavity-nesting solitary bees. Solitary bees, as their name suggests, do not live in large colonies or build hives. They live alone or near a few others of their species. These bees require dead wood, twigs, or exposed soil for nesting. They are important and efficient pollinators of many vegetable and fruit plants. They do not display the typical aggressive behaviour associated with honey bees, and almost never sting unless handled closely.



3. WHY SET UP A BEE HOTEL?

• A BEE HOTEL

provides nesting space for many cavity-nesting solitary bee species. These species of bees are likely to be constrained in the urban environment as suitable nesting material may be hard to come by in the city.

- Maintaining bee diversity is crucial to ensuring a healthy and resilient population of pollinators. If one species of bee is affected by a disease or erratic weather, another species is available to step in and assume its role until the population recovers.
- As vegetable and fruit plants provide excellent bee forage, incorporating bee hotels into edible gardens can increase harvest many-fold.
- Bee hotels serve as a nature-based solution for creating sustainable cities by helping conserve a part of the rich urban biodiversity that can co-exist in human-dominated spaces.



4. WHERE TO SET UP?

A BEE HOTEL CAN

be set up in any outdoor or semi-outdoor space including lawns, balconies, terraces or rooftops. Green spaces such as gardens are particularly well suited for a bee hotel. The existing space can be redone to better support bees by incorporating edible plants as well as ornamental flowering plants to provide food resources.

ATREE

5. HOW DOES IT WORK?

WE HAVE

developed a phone-based (Android) app alongside our bee hotel. The 'Bee Hotel' app can log observations including date, time and type of bee activity, along with photo documentation. The app has a simple guide for identifying common bees that one might expect to see in the city.



WHAT IS THE BEE GARDEN PROJECT?

THE BEE GARDEN PROJECT

is a citizen-science initiative to study cavity-nesting bees in urban spaces. Through this project, we endeavour to motivate the public to take part in bee conservation. By setting up and monitoring bee hotels in cities, we seek to generate valuable data about bee ecology which is critical for designing pollinator-inclusive urban spaces.



OUR BEE HOTEL



OUR BEE HOTEL

is designed using up-cycled material, mainly, old wooden crates used for storing fruits and vegetables. It has three parts, each of which cater to different bee nesting requirements.

We have set up more than 50

bee hotels across Bengaluru city. We help hosts find suitable spaces in their homes and gardens to set up the bee hotels and provide instructions on recording observations. We monitor and analyse bee activity in these hotels.

We are excited to report that some of our bee hotels have already had visitors! So far, different species of Megachilid bees have colonized our bee hotels. These resin/leafcutter bees are important pollinators for several wild and edible plants.

LARGE INSTALLATIONS

WE HAVE SET UP

two large bee hotel installations at Venkateshpura Lake and Jakkur Lake, Bengaluru. Besides providing nesting space for bees, the installations also serve an educational purpose. At Venkateshpura Lake, the installation is part of a pollinator walkway that is being created by the research team.



OUTREACH

THE BEE GARDEN

Project was presented to members of the public and the scientific community as part of a talk 'Bees and cities- is there a win-win?' at the Silver Jubilee celebrations of ATREE, held at the Indian Institute of Science, Bengaluru.

Link to the recording: <https://youtu.be/-TsSenD8cBU>

A D-I-Y insect hotel workshop was conducted at Kupu - A Festival for Climate Action, 2023, at the Bangalore International Centre. The workshop was aimed at promoting insect conservation and helping children explore techniques and materials to make habitats for solitary bees and non-social wasps.



OUR BEE HOTELS IN THE NEWS

THE PROJECT

has generated a lot of interest and has been reported in the news:

<https://bangaloremirror.indiatimes.com/bangalore/others/a-hotel-for-bees/articleshow/91324593.cms>

<https://www.news18.com/news/buzz/bee-hotels-pop-up-across-bengaluru-as-scientists-try-to-invite-bumblng-guests-5796511.html>

<https://timesofindia.indiatimes.com/city/bengaluru/scientists-set-up-50-hotels-across-bengaluru-to-woobees/articleshow/93697612.cms>



Scientists have placed 50 'bee hotels' across Bengaluru so as to integrate them into urban spaces and hence spur conservation efforts. It's a common belief in the scientific community that the extinction of bees spells doom for mankind. While some of the bee hotels, made of upcycled wood, were placed in people's gardens, others were set up on their balconies or terraces, as per Times of India. The endeavour was carried out by scientists at ATREE (Ashoka Trust For Research In Ecology And The Environment).

The bee hotels, two-feet-tall, are designed keeping in mind the different requirements of different species of bees. The experiment also aims to find out if different species of bees living in one hotel can peacefully coexist. The scientists have begun work on sampling the bee population living in Bengaluru. As sampling has never been done before, the scientists could not reach a conclusion on how much the bee population has reduced due to human

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