

Honeybee(worker)

Classification:

Kingdom : Animalia

Phylum : Arthropoda

Class : Insecta

Order : Hymenoptera

Family : Apidae

Genus : *Apis*

Species : *mellipera*



For further details, [Link](#)

Characteristics :

- **Definition:** Worker bees are the smallest and most numerous inhabitants of the beehive. They are infertile females, meaning they are normally incapable of laying eggs.
- **Role Specialization:** Workers have specialized anatomical structures, including glands for producing royal jelly and wax, and pollen baskets on their legs. Their roles are divided into different "castes" based on their age and the needs of the colony, such as:
 - **Cell Cleaning:** Young bees' clean cells for brood.
 - **Nurse Bees:** Older bees secrete royal jelly to feed the young larvae and the queen.
 - **Building & Storage:** Bees secrete wax to build combs and process nectar into honey.
 - **Foragers:** Older bees venture out to collect nectar and pollen.
 - **Guards and Others:** Some workers defend the hive entrance, while others help with ventilation and heating.
- **Lifespan & Pheromones:**
 - Their lifespan varies depending on the season, but they are heavily influenced by the queen's pheromones, which suppress ovary development.

Habit (Behaviour)

- **Social Structure:** Worker honeybees are highly social, living in large colonies where they cooperate to maintain the hive and care for the brood.
- **Task Specialization:** A worker bee's tasks change as she ages, transitioning from hive duties like nursing and cleaning to foraging for nectar and pollen as an adult.
- **Foraging:** Workers fly out of the hive to collect nectar (for honey) and pollen (for protein and nutrients) from flowering plants.
- **Communication:** Workers use a complex "dance" to communicate the location of food sources to other foragers.
- **Overwintering:** They do not hibernate but remain in the hive, huddling together to share body heat and conserve energy.
- **Defense:** Workers protect the hive from threats, which can include aggressive behavior towards other bees.

Habitat (Environment)

- **Nesting Sites:** Honeybees build their hives in cavities found in nature, such as tree hollows, rock crevices, and sometimes in man-made structures.
- **Diet:** They require environments with a diverse and abundant supply of flowering plants to sustain their diet of nectar and pollen.
- **Adaptability:** They can thrive in various environments, from forests and meadows to urban gardens and orchards, as long as there is sufficient food.

Superorganism:

A honeybee colony functions like a single, complex organism, with each individual worker contributing to the survival and reproduction of the collective.