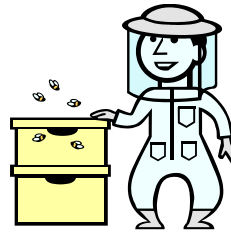




Bees



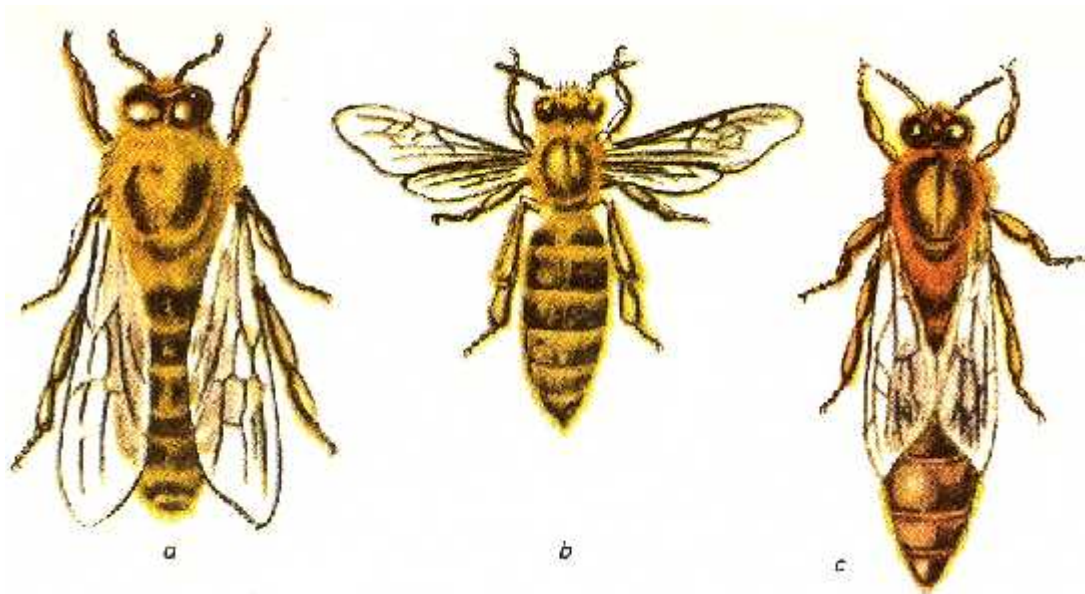
Name: Bee (Western honeybee)

Lateinischer Name: *Apis mellifera*

Klasse: Insects

Aussehen: threefold

- **head** with eyes, two antennae used as nose and mouthtools which consist of two strong jaws and a proboscis
- **Breast** with two paper-thin pairs of wings and six legs
- **Backside** with yellow-black stripes and poison sting



Unsere Honigbienen bilden ein **Volk**, das aus 50 000 Bienen bestehen kann. In diesem Volk gibt es eine **Königin** (c). Sie legt die Eier. Es gibt männliche Bienen, die **Drohnen** (a) heißen und die **Arbeitsbienen** (b). Die Arbeitsbienen sind weiblich, können aber keine Eier legen.

Verbreitung: worldwide (except Antarctica)

Lebensraum: fields, meadows, woods

Habitat: Bees are excellent builders and build vertically hanging waxboards (honeycombs). The honeycombs consist of hexagonal cells, in which the honey supply is collected and the young are raised.

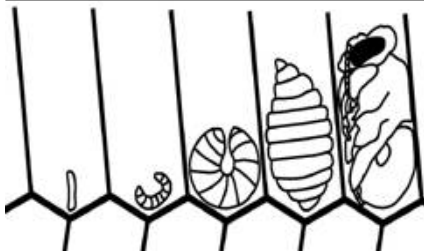


Mating season: June - August

Mating: The queen goes on the "wedding flight" once in her life. She is mated by several drones. The spermatozoa for the entire breeding time of the queen is saved in the seed container. After the wedding flight the queen returns to the beehive and starts laying eggs. All her life she is taken care of by worker bees, fed and cleaned. The drones that have succeeded in mating the queen die shortly afterwards.

Cycle of life:

The egg develops into a **round maggot**, then a **long maggot**, then a **pupa**, and eventually becomes a **bee**.



The life of a worker bee can be divided into four parts:

1st part: nurse bee (1st-10th day)

In the first three days the worker bee is busy cleaning her body and the honeycomb cells. Afterwards it helps to feed the brood, its feeding liquid glands are fully developed. This activity lasts until the 10th day after hatching.

2nd part: Building bee (11th-18th day)

With the help of the wax from the wax glands the worker bees build the honeycomb cells together. At the end of this phase the worker bees move on towards the exit of the beehive. Now they accept pollen and nectar. If the honeycombs get too warm, they use their wings to fan cool air into the beehive.

3rd part: Guarding bee (19th-21st day)

The guarding bees guard the entrance of the beehive next to the entrance hole. The poison gland is fully developed now. If a wasp or hornet approaches the beehive, it is driven away together. The worker bees that work in the beehive until the 21st day are also called beehive bees.

4th part: Collecting bee (22nd-30th day)

During this activity, which is essential for the survival of the beehive, the worker bees collect albuminous pollen with the help of their collecting leg and their proboscis and honey sac sugary nectar und water. The food is taken to the beehive and distributed to all. For the finding of food sources an elaborate bee language (waggle dance) is necessary.

Natural enemies: birds, hornets, bee louse, Varroa mite

Importance of bees: Bees are incredibly important! They are responsible for the pollination of blossoms. Without pollination there are no fruit or seeds. So there are no apples, cherries, tomatoes ... That is why the honey bee is the third most important farm animal after cattle and pigs.

In autumn the beekeeper exchanges the collected honey for sugary. Thus the bees can survive the winter in spite of the loss of their honey.

Mankind uses not only honey but also wax, pollen, bees' venom, Gelée Royal (baby food for queen bees and propolis (bee glue).

Bees have most probably been living on for 110 million years. And since the stone age people have been collecting honey.

