

# Why did the bees abscond? Dismantling an open air hive of native Japanese honey bees

An open-air colony that had been set up was absconded. An open-air colony is a colony out in the open. Since the colony was absconded, it had to be dismantled.

The comb is attached to a thin board that is attached to the ceiling of the shed, so we will start by removing the board. First, a scraper is used to loosen the wax attached to the board and ceiling. We can remove the comb without any protective gear when hot but suit up when the remaining bees become agitated. The bees seem to be just roaming around and do not appear to be collecting any honey. We make a gap between the ceiling and the board, to help free the comb. Some combs contained honey before, but the bees took the honey when they absconded. There are some remaining pupae in the cap cells, but no eggs and larvae.

## Definitions

This open-air colony was initially in a traditional Japanese beehive but transferred the colony and honeycomb to create this open-air colony. The lighter area is newer while the darker area is older. The lighter part of the comb was built after the colony was transferred. There are more bees than we were expecting so it's possible that the remaining bees had gone out to collect nectar that morning and by the time they had returned the colony had already been absconded. The absconding happened so quickly and lasted only about five minutes. Finally, the honeycomb is slowly taken the honeycomb down.

## Removing the comb

We will gently blow away some of the bees before taking the colony apart then place the comb containing honey into this plastic bag. Carefully detach the comb, avoiding injuring or killing the bees. She manages to remove the whole comb and she can see some honey stored in the comb. In the third comb that was removed, we found some eggs in larvae. This suggests that the colony did not plan to abscond in advance. The bees likely absconded suddenly. This piece of comb is full of honey and pollen. The last comb contains quite a bit of honey. There are also pupae, eggs, and larvae.

## Reason for absconding

The queen was laying eggs right up until the absconding. The queen appears to have been healthy and there is no sign of disease. The most likely reason for the bees absconding was the disturbance from filming the colony often. Sometimes bears attack Japanese honeybees. Shimmering is a defense mechanism of Japanese honeybees to intimidate animals, such as bears. The colony would often display this defense mechanism whenever filming was taking place. It is possible that the bees mistook us for a bear and decided to abscond since the bees might have believed that they could potentially be attacked.