

## Asian honey bee (Java genotype)

### What is the Asian honey bee?

The Asian honey bee (AHB), *Apis cerana*, is found throughout the tropical, sub-tropical and temperate zones of south-east and mainland Asia. This wide distribution has led to variations, commonly known as genotypes or strains, particularly between the temperate and tropical AHB.

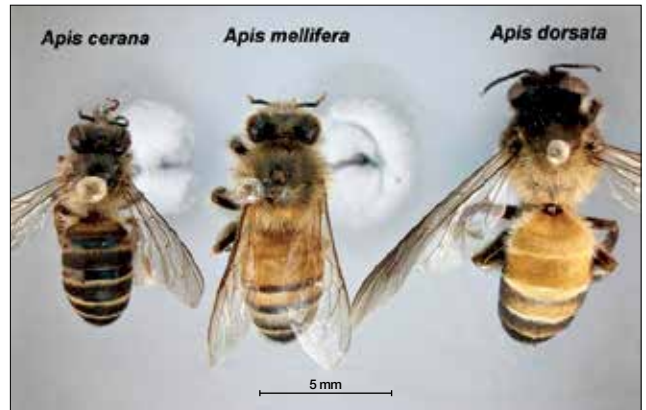
Although there are numerous strains or genotypes of *Apis cerana*, this fact sheet will specifically focus on the AHB that is present in Cairns (Queensland). The AHB found throughout the Cairns region of Queensland is *Apis cerana* Java genotype. This genotype cannot be managed for honey production and pollination services due to its frequent swarming and tendency to abscond. The AHB produces less honey than the European honey bee (EHB), *Apis mellifera*, and also commonly robs the EHB of their honey stores. It also has the potential to become a major competitor for nectar, pollen and nesting sites in the natural environment.

### What does it look like?

The AHB is approximately 10 mm long and looks like a slightly smaller version of the EHB.

### What can it be confused with?

The AHB could be confused with the EHB, which is present throughout Australia in both managed and feral honey bee colonies. However, the AHB is slightly smaller, has a darker abdomen, is slightly less hairy and has a more erratic flying pattern than the EHB. The AHB also differs to the EHB by having a distal abscissa of vein M in the hind wing, as well as its drone brood containing pin hole sized pores on the top of the cell, which become prominent within a week of hatching from the cell.



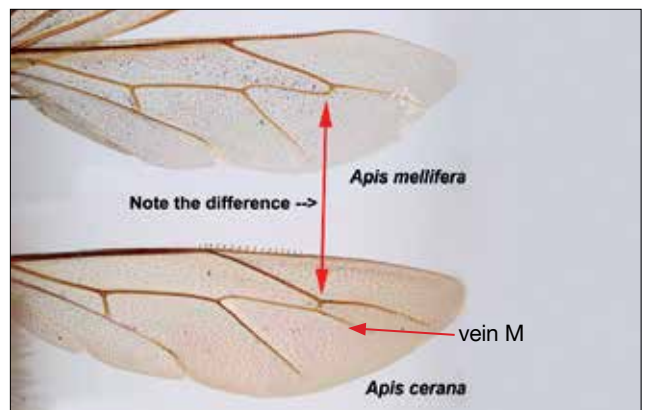
Asian honey bee (left) compared to the European honey bee (middle) and the giant honey bee (right)

Ken Walker Museum Victoria, PADIL



AHB worker bees

Denis Anderson, CSIRO



Hind wing venation difference between the EHB and the AHB

Ken Walker Museum Victoria, PADIL

## What should beekeepers look for?

Beekeepers should look for AHB nests and swarms. The AHB is a cavity nesting honey bee and therefore prefers enclosed openings such as tree hollows. The AHB can also swarm and nest in urban and disturbed environments. In Cairns (Queensland), the AHB has been found in cavities such as letterboxes, walls of buildings, compost bins and on machinery. AHB nest and swarm sizes can range anywhere from 200–10,000 honey bees.

## How does it spread?

The AHB can spread naturally through swarming and absconding. AHB colonies can produce up to 10 swarms per year and have been reported to travel up to 10 km from the original colony, but most commonly swarm only 1-2 km from the original colony. Reproduction, nest disturbances, pest and disease pressure or even a lack of nectar or pollen can cause the AHB to swarm or abscond.

The AHB is a proven hitchhiker on a variety of modes of transport and can spread over large distances into new areas on boats, trains, trucks and on shipping cargo.

## Where is it now?

The AHB originated in Java (Indonesia) and has since spread throughout Irian Jaya, Papua New Guinea and the Solomon Islands. In 2007 the AHB was detected in the Cairns region of Queensland and has since been found westwards to Julatten, south to South Johnstone and north to Mossman. It has not been found outside this region in Australia.

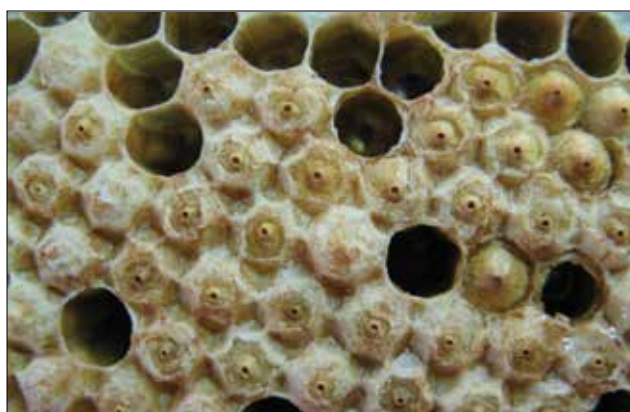
## How can beekeepers protect their hives from the Asian honey bee?

Currently, the only method of control is to find the AHB nest and destroy it. If you find, or think you have found the AHB it should be reported to your local department of agriculture immediately.



AHB swarm in a letterbox

Queensland Department of Agriculture and Fisheries



AHB drone brood with pin hole sized openings

Ben Oldroyd, University of Sydney

For more information about AHB, go to [www.beeaware.org.au/asian-honey-bee](http://www.beeaware.org.au/asian-honey-bee). The BeeAware website contains extensive information on AHB, including:

- Appearance
- Detection
- Spread and distribution
- Management options
- Additional fact sheets and videos

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