

DOES OPEN-AIR NESTING HONEY BEE *Apis florea* DIFFER FROM OTHER BEES OF THE GENUS *Apis* IN BROOD HYGIENIC BEHAVIOUR?

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The cavity nesting *Apis mellifera* and *Apis cerana* bees detect, uncap, and remove diseased brood. Migrating, open-air nesting *A. dorsata* and *A. laboriosa* left unopened the diseased sealed brood in deserted combs. Thus, *A. dorsata* and *A. laboriosa* do not open undamaged cells with dead brood. This behaviour is a more efficient mechanism in preventing the spread of diseases and parasitic mites than uncapping and removing dead pupae by *A. mellifera* and *A. cerana*. It may be beneficial for migrating *A. dorsata* and *A. laboriosa* to temporarily disuse part of the comb cells in exchange for arresting the mites there and thus reducing the increase of their population. The purpose of this investigation was to examine and describe the nature and extent of hygienic behavior of open-air nesting bee *Apis florea*. The assay of hygienic behaviour was used by freeze killing of brood. For this method five pieces of sealed brood were carefully cut and removed from five test nests of *Apis florea*. The brood was killed by freezing at -20°C for 24 h. Afterwards the brood pieces were inserted into the respective test nests. The killed brood was checked daily for 5 days. The number of pupae left and the nature of cell capping on brood cells of test comb pieces was recorded daily throughout the observation. It seems, the hygienic behaviour of open-air nesting bee *Apis florea* is more similar to cavity nesting *Apis mellifera* and *Apis cerana* bees. However, due to the difficulties of observation *Apis florea* colonies and their absconding behaviour it is necessary to repeat the investigation.

Key words: hygienic behavior, *Apis florea*, freeze killing, sealed brood.
