

OR073*Collective decision-making in Asian honeybee swarms on the move***James Makinson**, Timothy Schaerf, Atsalek Rattanawanee, Wandee Wattanachaiyingcharoen
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When a honeybee swarm leaves the colony it is faced with a tough dilemma; it must collectively locate, choose between and coordinate movement to the best quality nesting cavity it can find. The process of nest-site selection in the Western honeybee (*Apis mellifera*) is the best studied example of collective decision-making in the social insects. But *A. mellifera* is only one of eleven species within the genus *Apis*. Furthermore, the genus can be split into three categories based on nesting biology; cavity nesters (e.g. *A. mellifera*), dwarf open nesters (e.g. *A. florea*) and giant open nesters (e.g. *A. dorsata*). Both open nesting groups are migratory, following seasonal nectar flows. Dwarf open nesters build small colonies on shrub and tree branches, while due to their size giant open nesters are limited to nesting on large smooth surfaces such as the branches of large trees. We test whether differences in nesting biology influence the decision-making processes used by these species. By creating swarms of *A. florea* and *A. dorsata* we found that unlike *A. mellifera*, neither of these species go through a process of waggle dance decay. In contrast to *A. mellifera*, *A. florea* scout bees did not frequently leave the swarm surface to re-evaluate sites being danced for, while *A. dorsata* took off from the swarm surface regularly. Our results demonstrate that the decision-making process of *A. florea* is the simplest within the genus, with the decision-making process of *A. dorsata* appearing to be intermediate between the quality independent process of *A. florea* and the quality dependent process of *A. mellifera*.