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HONEYBEES

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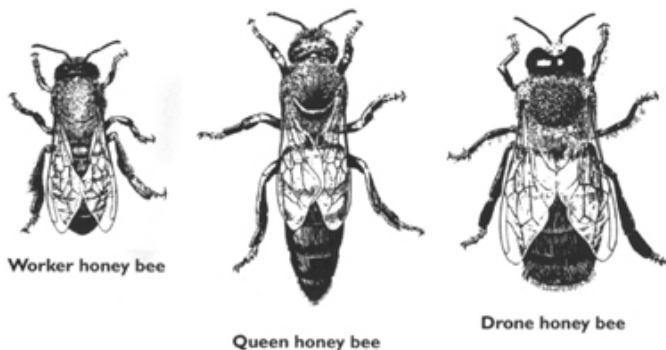
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Honey bees, or the western honey bee in particular, is known scientifically as *Apis mellifera*. Honey bees play a vital role in our lives. Seed plants produce fruit after pollinators such as bees and butterflies pollinate them by inadvertently transporting pollen from male to female flower parts. It is estimated that three-quarters of flowering plants require pollinators in order to produce fruit. Many agricultural crops, on the order of \$14 billion dollars worth, depend upon domesticated bee hives to help with pollination, and some, such as almonds, are 100% dependent upon the honey bee for pollination. In a role more familiar to most, honey bees also collect and concentrate nectar in the production of honey.

The honey bee is a very social insect. Honey bees live in hives within a very structured social order. Each hive contains one queen, a few hundred drones, or male bees, and the worker bees, all female. Wild (feral) hives will contain up to 20,000 bees, while managed bees can live in colonies of up to 80,000 bees. The sole purpose of drone bees are to mate with the queen, and her sole purpose is to produce eggs. The queen lives 2 to 5 years, whereas the drones live only about 8 weeks. All housekeeping tasks in the hive are performed by the female worker bees, who constitute the majority of the hive. Most worker bees live about 6 weeks, except for those born in the late fall, who will live until the following spring. Worker bees have a barbed stinger that rips out of their abdomen upon use, which kills them and thus can be used only once. The queen's stinger is not barbed, therefore she does not die when she stings a rival.



The differences in function are manifest in the varying body types among the three castes of bees.



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 Last Updated: January 30, 2008