

around town

By resident **Michael Henderson**

the Bees of Villa Park

We often hear stories about how threatened honey bees are, with many colonies dying each year from the mysterious Colony Collapse Disorder. But here in Villa Park we have many hives of wild bees, sometimes taking up residence in, or around, our homes.

I'm happy to report that honey bees are not endangered in Villa Park, and I'll explain why.

Honey bees are not native to the Americas – the first hives were brought to Virginia in 1622. The bees found North America to be an agreeable place and by 1639 they were reported to be found throughout the woods of the colonies. By 1853 honey bees were introduced into California, brought here by ship.

Beekeeping was relatively easy until modern times. The honeybees brought here from Europe were relatively docile and easy to work with. They were productive, producing two harvests of honey a year here in southern California.

All that changed in 1987 when the varroa mite was introduced into North America. The varroa mite was a parasite of the Asian honeybee but it was able to jump to the European honeybee and spread around the



Judy holding a frame of bees

world. Untreated, the varroa mite is fatal to a hive of European honeybees. In most places, wild honeybees disappeared – wild hives were, by definition, untreated and the varroa mite overwhelmed and killed the bees. Many cases of “Colony Collapse Disorder”, where the bees just disappeared from a hive, were due to the infestation of varroa mites.

But another thread was running in the history of honeybees. In 1957, 26 swarms of bees brought from Africa escaped into the wilds of Brazil. Being adapted to a tropical climate, the number of their hives rapidly expanded, overwhelming the European honeybees that had been introduced there.

The problem with the African honeybee was that it was significantly more defensive than the European honeybee. This is because bees were not “kept” in Africa – the collection of honey and beeswax was done from wild untended hives. Additionally, there were other natural enemies of honeybees in Africa (besides man) and only those honeybees which responded to a threat with an overwhelming attack were able to survive.



Harvest time! That's about 50 pounds of honey in the bucket



2 large mature hives. Each will produce over 100 pounds of honey



Worker bees taking care of brood

But the African honeybee brought an advantage – it could deal with the varroa mite. A hive might not be able to kill all the varroa mites in the hive, but they would keep the population of varroa at a low level where it would not threaten the survival of the hive.

In 1994 hives of Africanized bees were detected in California. I say “Africanized” and not “African” because since 1957 the descendants of those original 26 African hives have been cross-breeding with European honeybees. The original fear was that they would keep their strong defensive behavior that was dangerous to people and animals.

In addition to crossbreeding with European honeybees, the bees were encountering another pressure. People were exterminating the hives which were excessively defensive. Beekeepers who have wild bees exterminated those hives which were too defensive, and encouraged those which were more docile. And home owners who were stung by wild bees in an established hive on their property

called an exterminator. The wild bees that did not bother people were not noticed, and they prospered.

These hybrid bees were experiencing evolution. While only the most defensive bees survived in Africa, that same behavior got them killed in North America. Here, being docile and unnoticed was the behavior that allowed them to survive.

And that is – to a large degree – what we have in Villa Park now. I say “to a large degree” because genetics being what they are, a hive can still be defensive. And when a hive is too defensive, it should be exterminated to keep those genes out of the wild gene pool.

There are beekeepers in Villa Park, and a responsible beekeeper will only keep docile wild bees in their yard. I'm one of those beekeepers.

Each year, many of the wild hives swarm and I get a call to rescue a swarm that landed in someone's yard. I can only keep a few hives, so I often have to pass on the opportunity to capture them.

A hive swarms when they run out of room in their existing hive to store honey. About half the bees leave the hive, with the old queen, and fly off to find an appropriate cavity where they can set up housekeeping. Only about 25% of swarms are successful (survive a year) primarily because they can't find an appropriate cavity.

To save more wild bees, we need more beekeepers who will keep a hive in their backyard.

It's not expensive to be a beekeeper although there are initial purchases that are required, including a bee suit, gloves, a smoker, and the hive components – all told about \$350 for the basics. Beyond that, you need to learn about bees and how to handle them. Most beekeepers are willing to mentor beginning beekeepers. I'm working with a beginning beekeeper now.

If you feel drawn to helping wild honeybees, consider becoming a beekeeper. It's interesting, educational, and it provides sweet rewards.

About the author: Mike Henderson is a retired engineer who began beekeeping after he and his wife, Judy, moved to Villa Park. He can be reached at mike@michael-henderson.us. His beekeeping website is www.social-beekeeping.com.