



# Utah County Beekeepers Association Press Release

## Africanized Honey Bees

March 1<sup>st</sup>, 2009

On February 11<sup>th</sup>, 2009, the Utah Department of Agriculture and Food announced the confirmed presence of Africanized Honey Bees (AHB) in southern Utah. AHB, also known as “killer bees”, first entered the United States in 1990 via Hidalgo, Texas. Since that time they have moved throughout most of the southern states where warm summers and mild winters have allowed them to gain a foothold in many counties.

The Utah Department of Agriculture and Food has maintained trap lines throughout the southern part of the state in an effort to monitor the spread of AHB since 1990. Although swarms of bees have been caught in their traps, it was not until 2009 that any of the bees captured were confirmed to be AHB. Although those bees were destroyed, it is likely that other colonies are present in Washington and Kayne counties and that these colonies will establish viable populations in those areas.

In an effort to help the general public gain an understanding of AHB and to prevent panic regarding honey bees in general, the Utah County Beekeepers Association is publishing this press release primarily for the citizens of Utah County; however the information given can be used for any county in state.

### A Brief History of the Africanized Honey Bee

The Africanized bee is descended from 26 Tanzanian queen bees (*Apis mellifera. scutellata*) accidentally released by a replacement bee-keeper in 1957 near Rio Claro, São Paulo State in the southeast of Brazil from hives operated by biologist Warwick E. Kerr, who had interbred honey bees from Europe and southern Africa. Hives containing these particular queens were noted to be especially defensive. Kerr was attempting to breed a strain of bees that would be better adapted to tropical conditions (i.e., more productive) than the European bees used in South America and southern North America. The hives from which the bees were released had special excluder grates which were in place to prevent the larger queen bees from getting out but to allow the drones free access to mate with the queen. Unfortunately, following the accidental release, the African queens eventually mated with local drones, and their descendants have since spread throughout the Americas.<sup>2</sup>

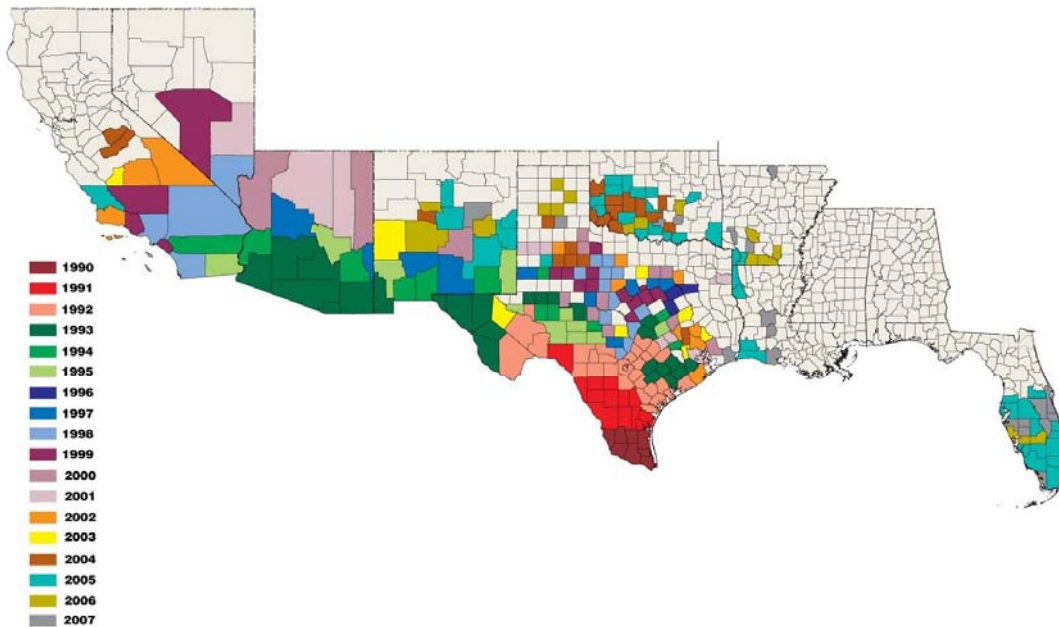
### The Spread of AHB into the US and their Potential Range

As previously stated, the Africanized Honey Bee first entered the United States through Hidalgo, Texas in 1990. Since then, AHB has spread to 10 states and dozens of counties in the US. The map below shows the spread of AHB by county and year; note that this map has not been updated to reflect the current occupation status of Utah.<sup>3</sup>

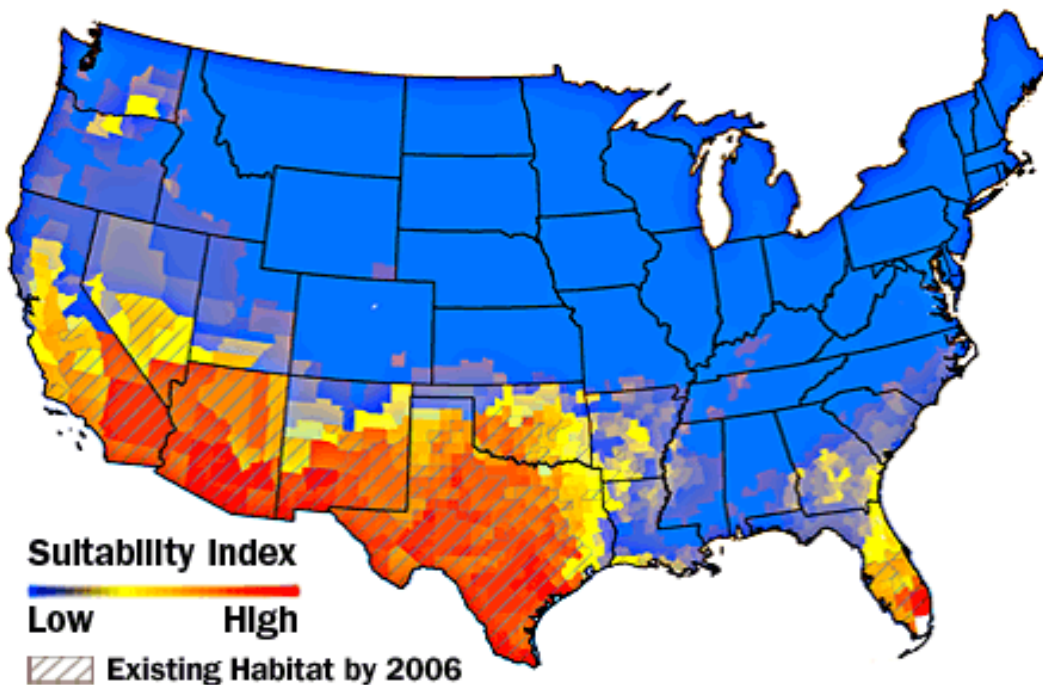
## Spread of Africanized honey bees by year, by county

*Updated March 2008*

First found in southern Texas in 1990, Africanized honey bees are now found in much of the South.



Researchers at NASA extrapolated data to show the potential range of AHB based on environmental factors that AHB would require for long term survival. This information was collated and formulated into a map showing the potential habitats of AHB. Here in Utah, this information was present to the Utah Beekeepers Association during their annual 2008 conference in December by Danielle Downey, the Apiary Inspector for Salt Lake County.<sup>4</sup>



As can be seen in this map, the projected areas in Utah that could be suitable habitat for AHB does not include Utah County. Further, it is unlikely that AHB would survive, unchanged by interbreeding with European or Western Honey Bees (*Apis mellifera ssp.*), any further north than Iron, Garfield or San Juan counties. Should interbreeding occur with European Honey Bees, it is highly likely that the defensive traits of the AHB would be diluted to a level that would permit safe control by beekeepers.

### Beekeepers as a Line of Defense

Here in Utah, the primary defense for the prevention of the spread and establishment of AHB in habitats throughout the state is with our own beekeepers. Beekeepers throughout the state work closely with the Department of Agriculture and Food in monitoring not only their own hives, but feral colonies and swarms. Although AHB will produce honey, they are much more prone to swarming, a reproductive behavior, than the honey bees typically used in our state. A hive that swarms will not produce as much honey as it could had it not swarmed. For most beekeepers, a loss of honey is tantamount to a loss of income. Therefore, it is in the beekeepers best interest to utilize and raise bees that do not swarm. Furthermore, beekeepers have no desire to work with aggressive colonies, whether they are AHB or not, and will take steps to eliminate the behavior. Such steps can include practices of re-queening, splitting or even hive destruction if necessary.<sup>5</sup>

### Public Concerns

Obviously, the general public is concerned about the possibility of stinging incidents from AHB, not only for themselves, but for pets and livestock. These concerns are entirely valid for those areas that either have AHB or have a very real potential to have AHB. Here in Utah County, there should be no fear of honey bees since it is highly unlikely that AHB will ever be present and therefore the potential for any life threatening stinging incident is very low. Also, it should be noted that the reputation of AHB has been greatly exaggerated by the media. Typically, incidents resulting in death have been the result of the inability of the victim to move away from the bees (such as tethered animals). AHB does not actively seek out animals or people to sting.<sup>6</sup> Further, it should be noted that the sting from an Africanized Bee contains only about 70% of the venom that is found in European bees.<sup>7</sup> It is the tenacity of AHB and its willingness to chase those that disturb its hive farther, that make it so dangerous.

The good news is that there are some actions that the general public can do to reduce the possibilities of stings from any colony of honey bees. First, citizens should acquaint themselves with the major types of "bees" present in Utah. Unfortunately, if it flies and buzzes, it is classified as a "bee"; the reality is that there are many, many types of true bee in Utah and several other types of insects that bear superficial resemblance to honey bees. Generally speaking, bees are hairy (fuzzy looking) and live either in colonies or lead a solitary existence. Creatures such as wasps and hornets are typically smooth and hairless. Below are some images to help familiarize you with the different types of "bees".



1 – Honey Bee © Neil Shelley



2 – Bumble Bee © Neil Shelley



3 – Yellow Jacket



4 – Paper Wasps



5 – Bald Faced Hornet



6 – Mud Dauber/Mud Wasp © Neil Shelley

Secondly, citizens should be aware of the habitats that bees will live in; hollow trees, rock cavities and occasionally, even in the open on a tree or bush. Knowledge of where bees may be will help avoid confrontation. It should also be noted that beekeepers will keep their hives in backyards, orchards and open fields; these hives are usually the standard white boxes stacked on top of one another. While our honey bees are fairly docile, it is best to avoid these hives and to teach our children to leave them alone as well. If you are lucky enough to know a beekeeper, see if they would be willing to provide you with safety equipment for a visit and for further education.

Create a Bee Safety Plan with your family; educate your family about bees and where they live. Listen for buzzing when entering an area indicating a nest or swarm. Enter potential nesting sites such as sheds, old cars garages carefully. If you or anyone in your family has a known allergy to bee stings, obtain a prescription for a sting kit from your doctor. When hiking or camping in areas where bees may reside, avoid wearing dark clothing and cover your hair. Dark clothing reminds bees of their predators (bears and skunks) and hair is easy to become entangled in. If you take your dogs with you, keep them under control; dogs can disturb a nest and lead the bees back to you. Keep children in the house when using noisy yard equipment like lawn mowers and weed whackers.<sup>8,6,7</sup>

Finally, property owners can take steps to avoid creating an attractive habitat. The occasional bee coming to pollinate your flowers, fruits, vegetables and trees should be of no concern. However, if you want to avoid having bees set up shop, follow the steps below.

### How to Bee Proof Properties

Properties should be inspected on a regular basis for bee hives or wasp nests; additional vigilance should be taken during swarm season which is typically April through July. Honey bee swarms will begin setting up a new colony literally overnight. Follow these simple steps to prevent bees from establishing colonies on your property:

- Inspect exterior walls and eaves; close any openings greater than 1/8 inch.<sup>8</sup>

- Install 1/8 inch hardware cloth over vents, rain spouts, utility boxes, dryer vents, swing set openings, tree cavities etc.<sup>8</sup>
- Tighten leaky faucets and other water connections; a ready supply of water is very attractive to bees.
- Completely close in unused or seldom used vehicles; eliminate them from your property if possible.
- Fill in holes in rock walls or holes in the ground caused by mice, gophers etc.

### What to do if You are Attacked by Bees

If you are attacked by bees, regardless of whether they are AHB or not, run away from the location as quickly as possible and DO NOT stop running until you can shelter in a vehicle, home or other secure building. While running away, pull your shirt up over your head to protect the head and neck. If you cannot get away to a secure location, cover yourself with blankets, clothes, sleeping bags, tarps etc., whatever is on hand.<sup>3</sup> Stay under cover and crawl away; European bees will typically subside after 20 minutes to an hour; AHB may remain agitated for a full 24 hours. Once you are safely away from the bees, remove all the stingers by scraping them out of your skin; do not squeeze them with fingers or tweezers as this will inject more venom into you. If you are stung more than 15 times, or feel nauseated, dizzy, or have a shortness of breath, DO NOT HESITATE to call 911 or go to the nearest emergency care provider – you need medical attention!

Here is a list of things to not do if a stinging incident is happening:

- Do not swat at the bees or flail your arms about; this is perceived as a hostile action and will only provoke further stinging.
- Do not jump into water – the bees will wait for you.
- Do not stop running until you reach shelter.
- Help others around you only if you can safely do so.
- If a stinging incident involves animals, bring the animal with you or, if it is safe to do so, release the animal until the incident is over.
- Do not hesitate to call 911 to report the incident especially if you or someone else is in need of medical attention.

### Reporting Hives and Swarms

Should you discover a swarm of bees or a colony of bees on your property or in an area of heavy use, you should report it. In Utah County, the local association maintains a large list of beekeepers that will come and remove swarms at no charge. This list is provided to all cities in the county and to the Sherriff's department, Highway Patrol and other agencies that may be contacted by citizens. Individual citizens are also welcome to report swarms to 801.822.4114 or refer to the association website at [www.utahcountybeekeepers.org](http://www.utahcountybeekeepers.org).

For areas outside of Utah County, there are also other associations that maintain swarm lists. For Salt Lake County, the Wasatch Beekeepers Association works with the UCBA in maintaining a comprehensive list of beekeepers who will remove swarms. Their website is [www.wasatchbeekeepers.com](http://www.wasatchbeekeepers.com). For other counties, please visit the Utah Beekeepers website for specific county contact information at [www.utahbeekeepers.com](http://www.utahbeekeepers.com).

Do not attempt to do anything with the swarm yourself. Do not harass the swarm; do not spray it with water or chemicals or pesticides. Do keep your family and animals inside until the beekeeper arrives.

Before calling and reporting a swarm, please have the following information available:

- What does the swarm look like? If the swarm has a “nest” then it is not honey bees but more likely hornets or wasps especially if it is “papery” looking. A swarm of honey bees will cluster into a roughly round shape on an object like a tree branch (see image below).
- Where is the swarm (physical address)?
- Your name and phone number.
- What has the swarm landed on?
- How high up is the swarm?
- Are there any special concerns in the area? (Lots of children, water hazards, bees in the house etc)



7 – Swarm of Honey bees on a bush © Neil Shelley

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## Sources and Citations

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