



BEE ALERT

By David Aycock, Animal Control Officer

On May 31, 2007, I attended a seminar on managing African Honey Bees presented by William H. Kern, Jr., PhD, from the University of Florida. Dr. Kern is currently one of the state's leading experts on African Honey Bees, and is in the process of training first responders such as police, fire, and animal control departments, along with city, county, state, and private pest management companies on dealing with and eradicating this invasive species.

We have all felt the effects of exotic species that have become established in South Florida such as iguanas, Muscovy ducks, Eurasian collared doves; European pigeons, parrots, etc. Now we have a well established infestation of African Honey Bees that is more threatening to our way of life than all of the above.

It only takes one month from the time a swarm turns into a colony that they become lethal. Any person or animal that happens upon the colony and disturbs it will be brutally attacked and will narrowly escape death without knowledge of a proper response to the threat. States such as Texas where these bees have completely colonized, report annual human deaths caused by African Honey Bees. It is inevitable that Florida will have its first human fatality soon.

The City of Pompano Beach Animal Control Division is currently killing between 2-3 colonies a week which is an

alarming rate. This number has been steadily increasing over the past three years, and Dr. Kern believes it will continue to do so. Colonies will be established in the entire State of Florida by the year 2012. African Honey Bees will establish a colony every 1-2 acres - that is one colony for about every eight homes. These bees love to build nests in containers such as meter boxes. Animal Control is responsible for the city water meter boxes and parks; however you are responsible for your own private property. Rather than eradicate the nest yourself, the use of a trained African Honey Bees pest management professional is highly recommended.

Since the infestation began over three years ago, I have noticed that the European Honey Bee is becoming rare. To properly identify the difference between these two bees, you actually have to do DNA analysis because they are of the same species. On the other hand, the behavior traits of both are well documented, and we are now definitely dealing with the aggressive African Honey Bees.

European Honey Bees prefer to start their colony in a hollow cavity with a minimum of two gallons in volume. African Honey Bees have been known to start on a palm frond. European Honey Bee will swarm once every year or two. A swarm occurs when a second queen is produced, and the old queen leaves taking a percentage of the hive with her

to start a new colony/hive. African Honey Bees swarm very often, at a rate of once every three months. European Honey Bees were bred for docile behavior for over 3000 years. To the contrary, African Honey Bees have been an untamed species for longer than that. European Honey Bee like to stay for many years with their hive. Unfortunately this behavior has become detrimental to their existence because of parasites. African Honey Bees will move on when parasites are present or the security of the hive is jeopardized, making them much better at survival than the European Honey Bee.

African Honey Bees become dangerously aggressive the minute the queen starts to lay her brood. This is important to note because when they are in the swarm stage, they are **not** aggressive. Bees in the swarm stage have just filled themselves with honey in order to survive the time outside the hive they just left. The process of finding and establishing a new home takes between 2-5 days. The swarm will usually leave a hive and stop on something above the ground anywhere from 10 to 30 yards away from the original hive. Once they have located a place designated for hive production, the bees will start the process of storing honey and producing brood; this is when they become dangerous again. The queen will produce between 1000 and 2000 larvae every day, and the average gestation between workers, drones, and queen larvae is about 21 days. Now you can understand why they become lethal when they have been in their new hive for about a month.

Approximately 300 stings of the African Honey Bee is the equivalent to a rattle

snake bite. The non-allergic person can tolerate about 5-10 stings per pound of body weight. This equates to a 30 pound child 150-300 stings; 120 pound adult 600-1200 stings; 200 pound adult 1000-2000 stings. If a colony is started at the beginning of the month and you run your weed eater near it 30 days later, there is a reasonable expectation that you could be running from and being stung by 9,000 to 18,000 bees. Typically, we may cut the grass in the winter within that time frame, and this is why people will die from encounters with these bees.

The most at risk are children, elderly, handicapped, and pets due to the lack of ability to get away from the danger. Children between the ages of 18 months and three years usually stay where they are when being stung and scream and swat, only to excite the bees more. Elderly, handicapped, and pets either can't run or have a limited ability to do it fast enough.

If you are attacked, you need to get away fast! The only way to be able to run to safety is to be able to see where you are running. This means the first thing you need to protect is your eyes and airway. This can simply be done by pulling your shirt over your face. Bees are attracted to your face due to Carbon dioxide that we emit when we exhale. People who are stung in the eyes have been known to run into traffic and be killed or they remain close enough to the territory to be finished off. When bees get into your respiratory system and sting, it causes the airway to close. A recent necropsy performed on a Florida horse that was attacked and killed by bees uncovered three pounds of African Honey Bees in the horse's mouth, trachea, and lungs.

Where do you run? If you can get inside an enclosure that will prevent the bees from entering, do it. Some bees will follow you in, but the bees can only sting once, and you are much better off with 50 or 100 stings than you are with 10,000. If you stay where the colony still has access to you, they will not stop until you are dead.

Once the colony/hive has been disturbed, the bees will attack any living thing for up to but not limited to 300 yards. African Honey Bees have been known to chase a victim up to a mile. Additionally, once they have been disturbed, they will stay in attack mode for up to 24 hours, another differentiating distinction between the African Honey Bee and the European Honey Bee. Never jump into a body of water. African Honey Bees will continue to sting you on the head, face, mouth, eyes, and nose every time you come up for air.

What do you do if you see someone being attacked? Call 911 and stay a safe distance away. If you are stung one time, the stinger that is left in you will signal the rest of the bees to include you in the attack by emitting pheromones. Once they get a whiff of this odor, you will be targeted as if you had been the original disturber of the hive. African Honey Bees will seek out and destroy every living thing within their perceived territory; this includes your pets and the squirrel in the tree.

After you have been attacked, remove the stinger fast. A university study found that by removing the stinger within three seconds versus after 10 seconds limited the sting reaction to a quarter of the size. The best way to remove the stinger is to

scrape it away with an edge similar to a credit card or a finger nail, but do it fast. If you know that you are allergic (one person out of a thousand are allergic), you should immediately call 9-1-1. Consult your doctor and discuss getting a prescription now that could prevent shock or airway swelling in the event you are stung. This will help you survive until you get to the hospital.

Signs of allergic reaction

- Large area of swelling
- Trouble breathing
- Tightness in throat and chest
- Dizziness
- Hives
- Fainting
- Nausea or vomiting

If you exhibit any of these signs, get to the emergency room immediately!

Techniques for easing pain

- Cold packs
- Baking soda and water paste
- Ammonia or sting aid product
- Acetaminophen

If this article scares you, it should. Be aware of your surroundings when you're in their environment. Most of the time simply looking around before you enter an area that has not been used in a while will suffice. Bees are usually going in and out of the hive, straight in and out, and it is a continuous steady stream or beeline. On days when it is raining, be aware that they may all be on the hive, and they will get aggravated easier than usual.

It is not a matter of if you will encounter African Honey Bees it is when! You and

every member of your family need to be ready in a Bee Emergency.

BEE AWARE