

African Honey Bee Information for School Administrators¹

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African honey bees (AHBs—Box 1; <https://edis.ifas.ufl.edu/in790>) have been established in Florida since the early 2000s. African honey bees exhibit several characteristics that have caused public concern (<https://edis.ifas.ufl.edu/in784>). Due to the media attention the bees have received, parents have voiced concern over the safety of their children attending school or after-school activities. It is important that school officials and administrators stay current on AHB-related information, educate students about the AHB, and ensure that school properties are bee-proofed.

Box 1. What's in a name?

In popular literature, "African," "Africanized," and "Killer" bees are terms that have been used to describe the same honey bee. However, "African bee" or "African honey bee" most correctly refers to *Apis mellifera scutellata* when it is found outside of its native range. *A.m. scutellata* is a subspecies or race of honey bee native to sub-Saharan Africa where it is referred to as "Savannah honey bee" given that there are many subspecies of African honey bee, making the term "African honey bee" too ambiguous there. The term "Africanized honey bee" refers to hybrids between *A.m. scutella* and one or more of the European subspecies of honey bees kept in the Americas. There is remarkably little introgression of European genes into the introduced *A.m. scutellata* population throughout South America, Central America, and Mexico. Thus, it is more precise to refer to the population of African honey bees present in the Americas as "African-derived honey bees." However, for the sake of simplicity/consistency, we will refer to African-derived honey bees outside of their native range as "African honey bees" or "AHBs".

About the AHB

The media often over-sensationalizes its coverage of the AHB—labeling it the "killer bee". As a result, an unnecessary public fear of and concern over honey bees has arisen in the southern United States where the AHB is present. However, honey bees are one of the most beneficial pollinators in the world (<https://edis.ifas.ufl.edu/in1005>). They ensure the production of much of the food we eat and are responsible for all the honey and honey-related products we enjoy. The AHB is not very different in appearance

from the European honey bee (EHB)—the docile bee that is managed by American beekeepers (<https://edis.ifas.ufl.edu/in784>). In fact, the AHB is a little smaller than the EHB and its sting is not any more potent. The AHB even produces honey and pollinates flowers. The AHB characteristic that concerns the public most is its defensiveness. All honey bees are defensive; that means if a colony is disturbed, bees will come out of the hive to defend against the possible intruder. Disturbed EHB colonies usually will send less than a dozen bees out to defend a distance of about 20 feet around the colony, though this distance can vary. African honey bee colonies, on the other hand, may send out several hundred bees to defend a distance up to 40 yards or more around the colony. Furthermore, while most honey bees nest in enclosed areas, or cavities, AHBs regularly build exposed colonies, foregoing nesting in cavities. All foraging honey bees, like those visiting flowers, are normally not a threat. However, honey bees are attracted to soda and juice containers, and children have been stung on the lips and mouth while outside drinking. This problem is not unique to AHBs as all honey bees and many other stinging insects are attracted to sugar sources of this kind.

Precautions

Several steps can be taken to lower the risk of AHBs interacting negatively with students. The first precaution to be instituted is bee-proofing the school property (<https://edis.ifas.ufl.edu/in741>). Bee-proofing is the practice of methodically removing or restricting access to potential honey bee nesting sites. This practice is beneficial for many reasons. Naturally, if an area is bee-proof, the potential for feral colonies to move into that area is greatly lowered; therefore, the risk of stinging incidents is also lowered. Additionally, colonies that establish themselves inside a wall or around a structure must be eradicated or removed immediately (Box 2). This process can be expensive and often requires structural repair (which also costs time and money). Bee-proofing a property not only makes the area safer, but it also saves time and money related to the cost associated with eradicating or removing an unwanted colony. It is an ongoing process that requires an initial assessment to address a majority of the sites on a property. It also requires follow-up inspections to maintain the bee-proofed area. Another necessary precaution is teaching faculty, staff, and students

information about the AHB, what to do when someone is stung, and what to do when a honey bee colony is found.

Box 2. Honey bees nesting on your property?

The state of Florida recommends that nuisance honey bees (<https://edis.ifas.ufl.edu/in1005> and <https://edis.ifas.ufl.edu/in790>) found nesting outside of hives managed by a beekeeper (like those nesting in tree cavities, walls, water meter boxes, etc.) be either (1) removed from the nest site by a registered beekeeper (<https://www.fdacs.gov/Agriculture-Industry/Bees-Apiary/Beekeeper-Registration>) or trained Pest Control Operator (PCO—<https://edis.ifas.ufl.edu/in771>) or (2) eradicated by a PCO. It is the responsibility of the property owner to deal with an unwanted swarm (<https://edis.ifas.ufl.edu/in970>) or colony of honey bees. To find a registered beekeeper or PCO who offers removal or eradication services, visit: <https://entnemdept.ufl.edu/honey-bee/beekeeper-resources/bee-removal/> and click on "Find a Bee Removal Expert in your area". For more information on African honey bees, see https://edis.ifas.ufl.edu/entity/topic/africanized_honey_bee.

Administrator's Checklist

- Require custodians to perform regular inspections for honey bees nesting on the property.

- Bee-proof the school property (see <https://edis.ifas.ufl.edu/in741>)
- Ensure that faculty and staff are educated about AHBs including what to do if they find a colony or see bee activity.
- Speak with UF/IFAS Extension faculty about incorporating AHB resource materials into science curriculum (for a list of statewide UF/IFAS Extension faculty, see: <https://sfyl.ifas.ufl.edu/find-your-local-office/>).
- Involve individuals and leaders from parent/teacher groups in the AHB education process.
- Proactive bee-proofing reduces liability.

Resources

For more information, see:

https://edis.ifas.ufl.edu/entity/topic/africanized_honey_bee

<https://www.fdacs.gov/Consumer-Resources/Health-and-Safety/Africanized-Honey-Bees>

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