

# Bees are important!

- One third of our daily diet relies on bees for pollination
- Pollination is valued at \$15billion/year!
- Over 2 million bee colonies are rented each year for pollination services, most of them travel over the road. Rent is up to \$150/colony!

# The Beehive State

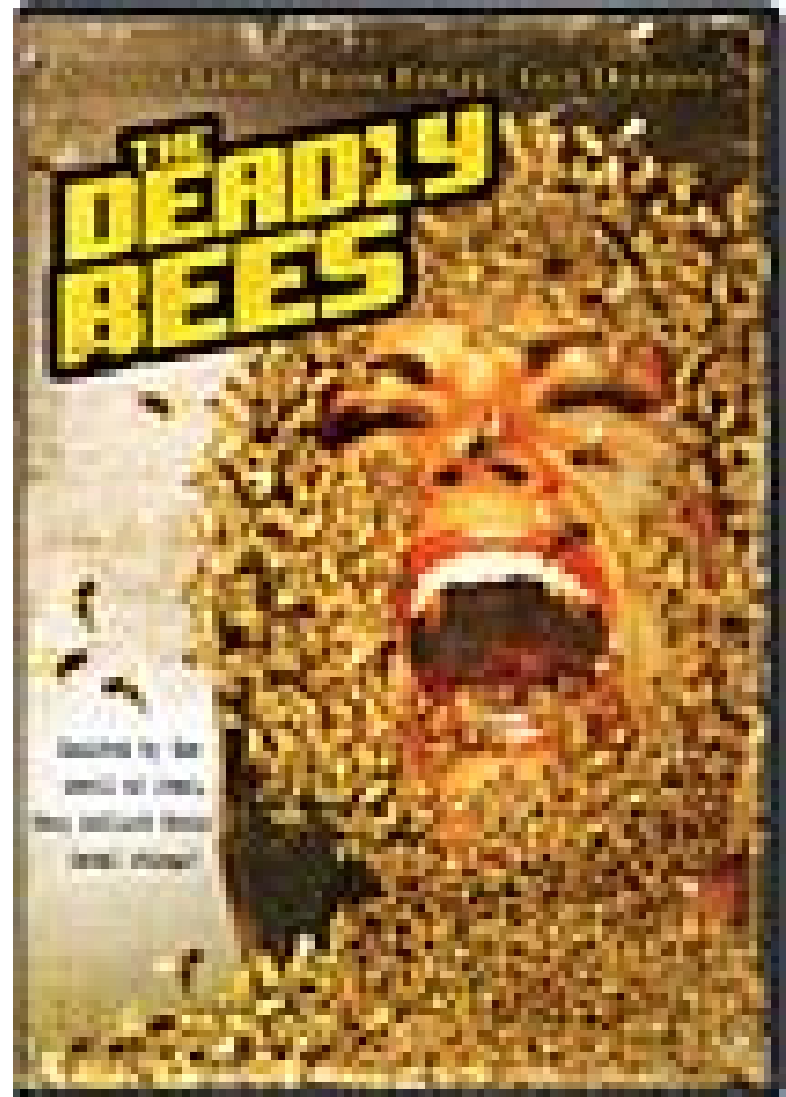
- There are about 350 beekeepers registered in Utah
- Most are hobby beekeepers with less than 10 colonies in their back yard
- Most are very discreet, you won't notice them
- There are 10-20 commercial beekeepers in Utah, some with 1000's of colonies



Erin Alberty

# What are “Killer Bees”?

- Bees get a bad reputation in the media.
- This sensationalism and fear is unnecessary.



# Africanized honey bee- what is it?

- There are about 40 races, or 'strains' of the honey bee, *Apis mellifera*
- Africanized honey bees (AHB) are temperamental relatives of the common honey bee, which is a European strain.
- They defend their colonies more intensively and with less provocation than other bees.

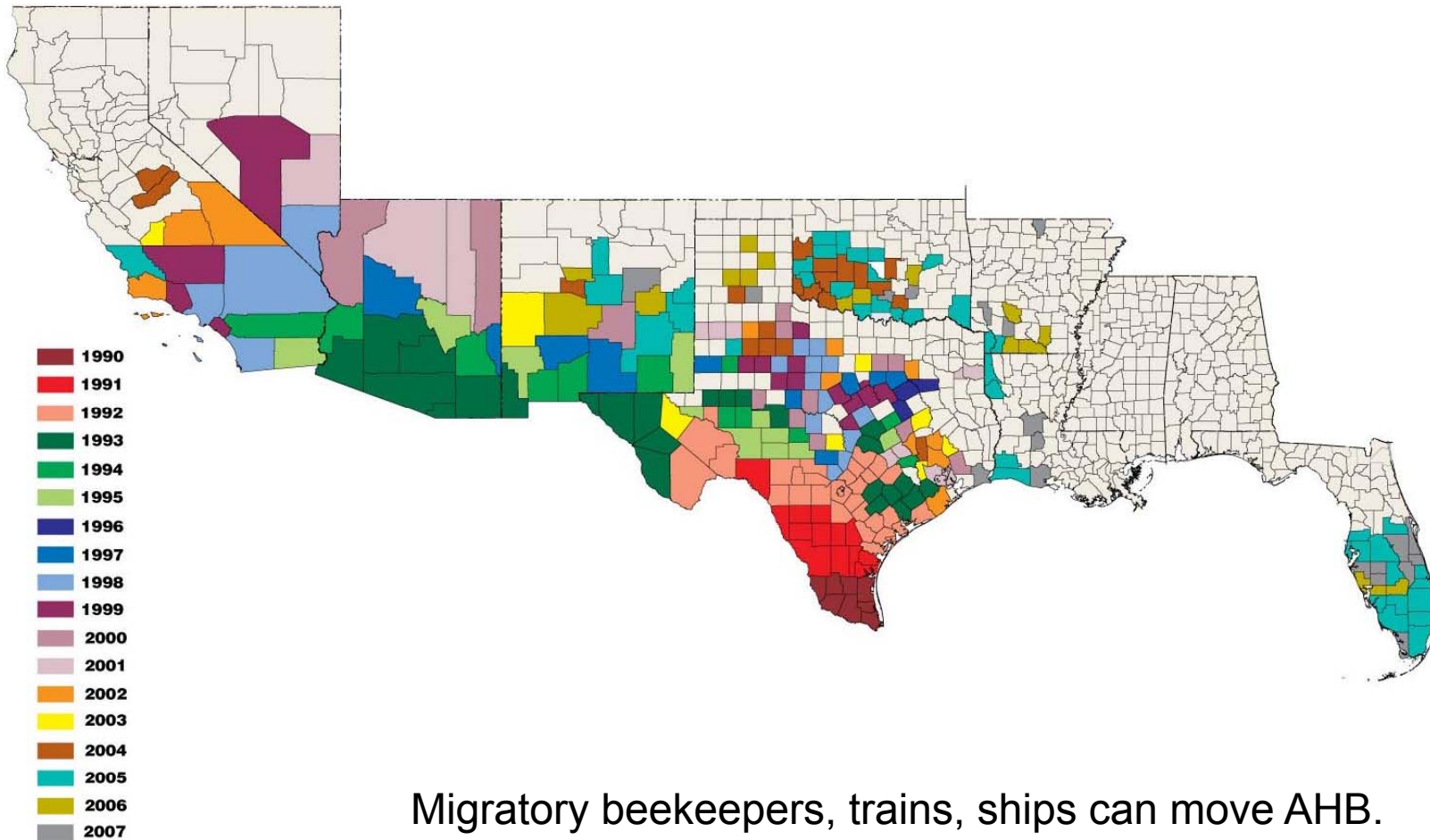
# Where did they come from?

- No honey bees are native to the Americas
- Europeans brought bees here in 1622
- The AHB was first introduced into Brazil in 1956 in an attempt to upgrade honey production
- The bees were accidentally released and have steadily moved north.

## 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.



Migratory beekeepers, trains, ships can move AHB.

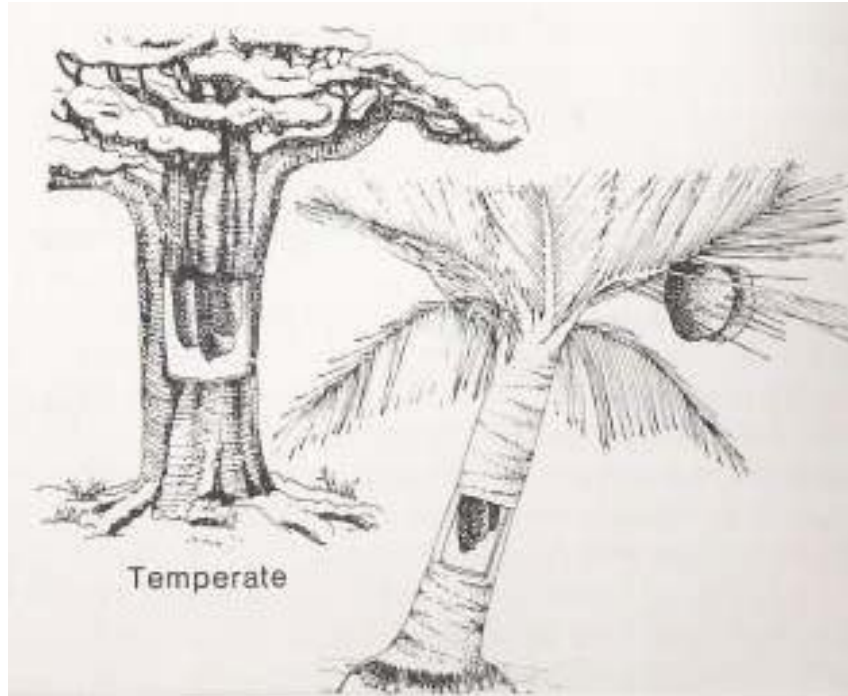


Which is the  
killer? You  
can't tell by  
looking.



USDA image

# Some differences you can see



AHB prefer smaller nest cavities  
& build exposed nests more often  
Than temperate (European) bees



AHB is much less selective about  
where it lives, smaller colonies.



# You might find AHB nesting here:



**overturned flower pots**



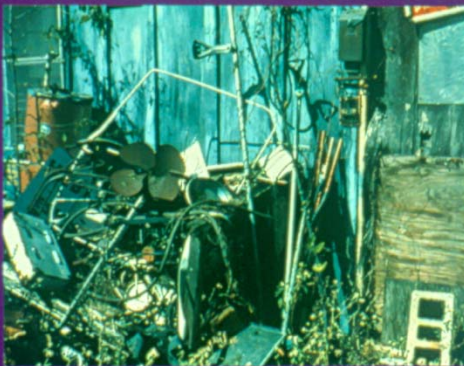
**old tires**



**mobile home skirts**



**abandoned structures**



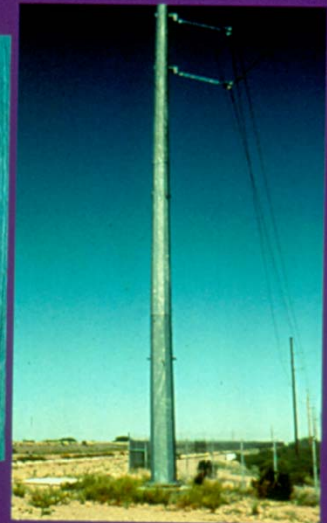
**junk piles**



**house eaves**



**holes in structures**



**metal utility poles**





**rock outcroppings**



**saguaro cacti**



**holes in the ground**

# Tropical vs Temperate honey bees

## Temperate EHB



- store more honey for winter
- nest in well-insulated cavities
- rear lg worker populations
- only 1-3 swarms/year
- rarely abandon nest

Selection factor – winter -- raise more workers and store more honey to survive, swarming/abandoning the nest less

# Tropical vs Temperate honey bees

## Tropical AHB

- smaller nests
- collect more pollen – less honey
- higher reproduction (swarming)
- abandon nests more
- more defensive

Selective factor – predation

-- reproduce more quickly,  
swarm a lot more.

Defend more rapidly, also  
abandon nest more.



# Foraging bees are not dangerous

- Bees gathering food or water are called foraging bees.
- When they are away from the colony, most honey bees are not defensive.
- They will sting if you step on them, or if they get trapped in your clothing.
- Swatting will agitate bees, and make them defensive.



# Colonies and swarms

Colonies reproduce by a bunch of bees leaving to find a new home, this is called a swarm.



Swarms are not aggressive or defensive.

The swarm moves into a cavity and builds comb with wax, collects food and begins to rear brood. This is a colony, which can be managed or feral. Colonies will defend the nest, stinging incidents are more dangerous here.

# Inspect for signs of honey bee colonies

- Look for bees passing in/out of an opening
- Listen for the hum or buzz of active bees
- Check at all levels, from the ground to under the eaves.

# Eliminate colony sites

- Fill or cover holes and cracks
- Fill animal burrows
- Remove trash or debris such as car parts, tires, used appliances, boxes, stacks of crates or pots



# Ten things to remember:

- Stay away from honey bee colonies
- Expect honey bees to behave defensively
- If you are attacked, RUN AWAY
- Call 911 for emergency help
- Seek medical attention if allergic to bee stings, if you are feeling ill or if you get more than 15 stings.
- Check your surroundings for evidence of bee colonies
- Bee proof your property
- Consult experts for swarm/colony removal
- Check area for colonies before using landscape or heavy equipment
- Plan ahead- know what to do if attacked.