

The Buzz about Bees – Communication Part 1

Why are elephants afraid of honey bees? It sounds like a child's riddle but it's really true. I would never have figured it out so don't feel bad if you don't. It's because things are so dry in Africa that the honey bees go after the water in the elephant's eyes and up their trunk! Elephants don't like that but then I don't like it when one gets in my hair either!

The farmers in Africa build bee fences to protect their fields of crops that the elephants would ordinarily trample. They either set up bee hives around the field or they play taped recordings of bees buzzing.

There's a wonderful website with a short video of a small herd of elephants standing peacefully by a tree. Taped bee buzzing starts out softly and the elephants start to get restless. As the music gets louder, the bees get so upset that they stomp off hurriedly. Check out www.elephantsandbees.com, publications, video library, "Elephants running from Bee Sounds".

As long as we are talking about buzzing, honey bees beat their wings 200 times *per second*, creating that trademark buzz. Bees communicate with *us* by their buzzing.

Most fascinating, perhaps, is how honey bees communicate with each other through pheromones and through dance. We'll just talk about pheromones today. Pheromones are chemical substances bees generate which we can just call "scents". The queen gives off a scent which is unique to her. It's passed from bee to bee throughout the colony as the bees touch her and then touch each other. It serves a couple of purposes. One, if she dies or is removed from the colony, the bees know that within three hours because her scent is gone. They immediately start raising a replacement queen. You're going to ask me how they do that, right? Go to www.tillamookbeekeepers.org/about-bees/ the Buzz – queens.

Because all the bees in the colony have the same scent, guard bees stand at the entrance and keep bees out that are from another colony. Those bees only want to rob honey. Bees rob when there's a dearth, i.e., not much blooming. Right now, we are in the middle of the blackberry flow. Because of all the rain we've had, flowers have lots more nectar than most years. It's coming in so fast that our colonies are getting "honeybound". The bees are filling up every cell leaving no

room for the queen to lay eggs. So, we have to move things around and add empty frames.

Back to pheromones. Another scent is called the “alarm” pheromone. It’s given by bees when they sense danger and need to recruit bees to protect the hive.

Sometimes it’s passed by a bee releasing a drop of venom and then fanning it. It’s always given off when a bee stings. Supposedly what the bees smell is similar to a banana smell. No eating a banana before working in a hive! It’s always wise to wash the bee suit when one gets stung to rid it of the alarm scent. One of the reasons we smoke bees is to block the alarm pheromone.

The brood (eggs, larva, and pupa) give off a scent that tells workers to go get pollen. Dead bees give off a scent that tell undertaker bees to remove a dead bee from the colony. Sometimes two bees will fly off carrying a dead bee between them to drop it a little farther from the entrance.

Lastly while watching bees coming and going from the entrance of a hive, you will often see a bee with her butt in the air. She’s giving off a scent to help new foragers find their way home!

As a reminder, all of the bees we’ve been talking about our “workers”. They are the female bees in the colony. Amazing how they can communicate with a pheromone! Just wait till you learn how and what they communicate with dances they do in the darkness of the hive!

It’s getting close to County Fair time, folks! Come see the observation hive and all the bee equipment. Bring your questions. Sign up for the next Intro to Honey Bees and Beekeeping class, August 20th. We are raffling off a horizontal bee hive.

Honey bees love the horizontal hive with its extra-long frames. Beekeepers love it because there’s no heavy lifting. It’s great for everyone but especially those who are elderly, weaker (like me), or even handicapped. You’ve just got to see this very unusual and beautiful hive built by our own Rick Stelzig. Look it up on the website. Buying tickets is another way you can help support honey bees. Proceeds go to planting bee friendly trees throughout the county.

Thanks for reading The Buzz!

