

BEE SCENE:

Who Inhabits the Hive?

By Lynne Shue

Let's talk about queen bees—and no, not the four queen bee stars of the 2021 movie by that name. A beehive has only one queen bee, and she is larger than any other hive inhabitant.

Queen bees usually live four to six years. Even though a queen bee can lay up to 2,000 eggs a day each spring, she leaves the hive to mate only once during her lifetime. Fertilized eggs become female worker bees, and unfertilized eggs hatch into male drones.

A drone bee's sole purpose is to mate with the queen bee. Usually, a couple hundred drones live in a hive. They are smaller than the queen bee but larger than the worker bees. Drones live for 56 days, when they are no longer useful. Then the worker bees kill them or kick them out of the hive in the fall. Ouch!

Only about five percent of a hive's population is drones, however; 95 percent of every hive is made up of 20,000 to 30,000 little worker bees. Though their lifespan is only about 42 days, they have the most to accomplish. They keep the hive functioning smoothly. Young worker bees feed the queen a special secretion called royal jelly. They also watch over the eggs in the nursery and seal off the hive's cells with wax when the baby bees reach the pupa stage. More mature worker bees fan their wings to keep the hive cooler in the summer, or they form a ball around the queen bee to protect her from the cold during the winter months. Older worker bees guard the hive by tagging any perceived threat with a pheromone produced by the queen, or by stinging them. Unfortunately, the worker bee dies after stinging the enemy. Finally, worker bees also leave the hive to scout and forage during the spring, summer and early fall. (Surprisingly, during its short life, a worker bee produces only about one teaspoon of honey.)

Hives are considered superorganisms, as all bees are interdependent on each other to survive. Take away even one of the types of bees and the hive will collapse and die.

12-Step Recovery group meets

Broadmead's 12-Step Recovery Group meets on Saturdays at 1:30 p.m. in the Seminar Room. Anyone who has ever participated in a 12-Step Program or who has an interest in changing unhelpful thoughts and behaviors associated with dependence and/or addiction is welcome. Questions? Contact Teresa Geroulo at tgeroulo@broadmead.org or 443-578-x8035.

Using technology to observe nature

By Carel Hedlund for the Nature Committee

As you wander around the Broadmead campus or along the NCR Trail, do you ever wonder, “What is that bird I just heard?” or “I wish I knew the name of that plant—I haven’t seen it before.” As with many things, the answer is readily available on that phone in your pocket!

Many nature apps can help you identify what you see and hear and provide useful information as well. Here are a few that are tried and true.

iNaturalist (*free*) is an online community that allows you to share your observations and contribute to citizen science. Your photo, location, and time recorded go into the iNaturalist database, where they can be accessed by others. If you know the identification, you can add it, or the app suggests what it is. This works for plants, insects, animals, and fungi.

iNaturalist Seek (*free*) is another version that uses AI-assisted identifications rather than community knowledge. You don't need to create an account, and the data does not leave your device.

Merlin Bird ID (*free*) is from Cornell Lab of Ornithology. It can identify birds by sight, using the phone's camera, and by sound, highlighting the one singing at the moment.

PlantNet (*free*) is another citizen science platform that uses AI to facilitate identification and inventory of plant species.

PictureThis (*free or subscription*) identifies plants and provides information, diagnoses diseases, provides plant care information (including houseplants!), toxic plant warnings, and native/nonnative distribution. It also identifies birds and insects.