Backyard Briefs

A weekly column
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THE BUZZING BUMBLEBEE

This spring when you are enjoying the welcome warmth of the sun, as you work in your awakening garden, take a few moments to watch a bumblebee as she keeps you company there. Have you ever noticed how large the buzzing bumblebees of spring are? There is a reason for their extra-large size—every bumblebee you see in spring is a queen bee. Unlike honeybees, brought here by European settlers, a bumblebee colony will expand and develop for only one growing season. When autumn chill turns moist evening dew to brittle frost, all the members of a bumblebee colony will die except the young, recently mated, queens who will seek protected places in the fall to overwinter.

In spring these queen bees emerge from hibernation as the only survivors of last year's colony. Each is faced with the daunting task of starting a new colony single-handedly. As these bees seek nourishment from your garden flowers, they are also in search of a suitable place to establish a colony. The nest will be underground, often in the abandoned nest of a rodent, rotted tree root or other protected hollow spot. Once nestled in her new home the queen bee builds a honey pot, by exuding wax from glands on her abdomen. She fills it with regurgitated nectar (honey).

She then collects pollen, eating some and forming the rest into a lump moistened with nectar. This "beebread" becomes the food source for a nest that is created when she lays a small cluster of eggs upon the beebread, covering it with wax, which she places close to the honey pot. Using the honey pot to sustain herself, the queen seldom leaves her brood during the development of the eggs, tending her clutch much like a bird sitting on a nest of eggs. The brood must remain at a constant temperature of around 86 degrees in order to hatch. Even though bees are not warm-blooded animals they can generate heat. During the cool days of spring the queen bee is able to warm the eggs by flexing her wing muscles without moving her wings. It looks much like she is shivering. This generates heat that is circulated down to her abdomen, warming the eggs.

I look forward to telling you more in the next column.