

Last week's column told how to make Mason Bee Houses. This week we'll talk about the life cycle of these incredible creatures. I hope you'll be inspired to give these profuse pollinators a home in your gardens.

The Mason Bees live solitary lives except for mating. They're smaller than Honey Bees and look like black flies with four wings instead of the fly's two. In the wild they nest in the leftover nesting holes of beetles and other insects. They'll even nest in hollow stems of plants. Mason Bees don't excavate their own holes, depending on others for a home to nest in.

Males emerge first in the spring with the sole purpose of waiting for the females to arrive. This activity begins in mid March. Males exit the nest 3 or 4 days before the females offering a meal for any waiting predators. Enough survive to mate with the females. The females are bigger (they need stamina and strength for their work ahead) and are also slower so the males can catch them and have their way with them. In about two weeks the males die and then the females begin provisioning the egg tubes and laying eggs.

From March through June female Mason Bees spend their whole lives finding a hole, filling it with rich nectar and mud, laying an egg, and next sealing up each egg and nectar-rich packet with mud. The first thing she does is find mud to plug up the back of the hole. It's like cement thus the name "mason." Then she gathers up pollen and nectar and regurgitates it on top of the cement-mud plug. After these layers she backs into the hole and lays a small white egg. Bee expert Brian Griffin describes it as a "wiener sausage with a wiener-like curve." Mamma Mason Bee seals up her baby egg with its food supply by plugging the cell with cement-mud to protect the bee-to-be from predators. She then sleeps in the hole for the night and grows another egg in her body.

The next day the female Mason Bee starts the process all over again. She'll continue for about thirty days filling up the cells as she progresses. Each segment in the tube-shaped hole is called a cell. Each cell takes 8-12 mud-collecting trips and the provisioning with pollen and nectar takes 14-35 trips. Females pre-select the sex of the eggs they lay. They fill the back end of the hole with eggs to yield females and then finish the hole off with eggs to yield males. In the spring when the males emerge they become a bee sacrifice to waiting predators. Two-thirds of the eggs laid are male. Each female lays about 35 eggs and then dies.

While our bee is doing her nesting thing, the eggs she's laid start an amazing transformation. Griffin describes it as changing from egg, to tiny larva, like the original egg, except that it descends into the food source with an eating end attached to the food. Over 28-29 days the food disappears and the larva gets larger. When the food is gone the larva starts weaving a hard cocoon around its shape. This cocoon protects the forming bee during the long, cold winter ahead. Inside the cocoon a pupa shape forms. Griffin describes it as an "insect mummy." By September a fully formed adult bee lies asleep in the cocoon to wait until spring when the whole process starts again.

Griffin recommends leaving Mason Bee houses up until September; then bring them in to an unheated garage or store them in a refrigerator. Each year the Bees need additional nesting blocks or houses. They won't nest in the old houses full of holes unless they're taken down and cleaned out each year. Gardeners are becoming very important as providers of homes for these amazing creatures. As our Honey Bees are dying out native bees such as Mason Bees are becoming more and more important as pollinators of our fruits, vegetables and flowers. Provide them with homes. You'll be glad you did.

If you're looking for an enjoyable local gardening experience this weekend you'll want to take in the Soroptomist Garden Show at North Kitsap High School on Saturday March 4 from 10 AM through 4 PM. Featured speaker is KOMO Radio garden show host Scott Connor. You'll find workshops by the Peninsula Fruit Growers, vendors offering temptations for gardeners, informational tables and Master Gardeners to answer your questions. It's a great deal at five dollars per person. You won't want to miss it.

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