

# BEES OF MASSACHUSETTS

Massachusetts is home to 396 recorded bee species, covering 43 genera and six of the seven bee families. These bees come in all different colors, shapes, and sizes. Bees also display a variety of distinguishing traits: for example, their social behaviors, nesting habits, and diet breadth. Let's get to know the bees of Massachusetts by examining their traits!



*Bombus griseocollis*, the brown-belted bumble bee. Photo by Nicole Bell.

## DIET BREADTH

**GENERALIST** (polylectic) bees forage for pollen from a wide array of flowering plant families.\*

**78%** of recorded Massachusetts bees are generalists

\*Parasitic bees do not forage for pollen, but are included in this group as potential incidental pollinators.

**SPECIALIST** (oligolectic) bees limit their pollen foraging to typically one plant family or genus.

**22%** of recorded Massachusetts bees are specialists

**Fun fact!** Parasitic bees often look very wasp-like. They may lack obvious body hair, be bright in color, and fly close to the ground looking for host nests.



## SOCIAL BEHAVIOR

**SOLITARY** bees live alone: a single female builds and provisions each nest, though females sometimes share nest entrances.

**SUBSOCIAL** bees nest alone, but multiple females, and sometimes daughters, interact to increase offspring survival; for example, guarding nests against attack from natural enemies.

**EUSOCIAL** bees live in large groups, and exhibit cooperative brood care, overlapping generations, and division of labor.

**PARASITIC** bees enter the nests of pollen-collecting bees and kill the host egg or larvae.

## NESTING HABITS

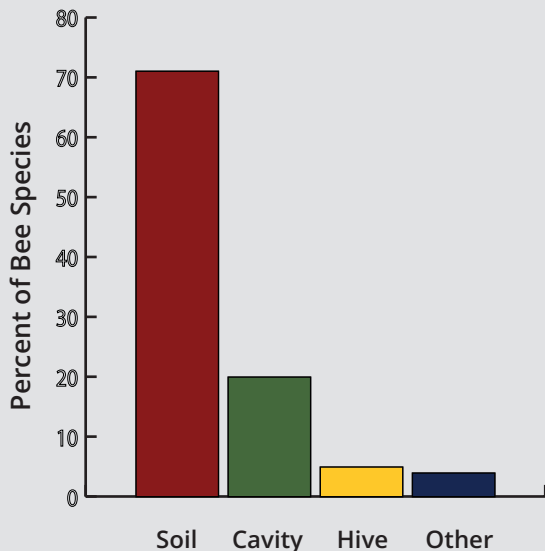
**SOIL** nesting bees excavate nests in the soil.

**CAVITY** nesting bees live in pre-existing cavities, sometimes in wood or artificial substrates like cracks in buildings.

**HIVE** nesting bees live in large structures characterized by a food storage system called "pollen pots."

**OTHER** nesting habits include excavating in wood, pithy stems, and unknown substrates.

## Where do Massachusetts bees nest?



## WHAT DO NESTS



**SOIL**



**CAVITY**



**HIVE**

Leafcutter bees (family Megachilidae) have large mandibles that they use to cut leaves and petals for their nests.



Photos from left to right: Jen Hayes, Nicole Bell, Nicole Bell.

## ADDITIONAL RESOURCES

Veit, M.F., Ascher, J.S., Milam, J., Morrison, F.R., Goldstein, P.Z., 2022. A Checklist of the Bees of Massachusetts (Hymenoptera: Apoidea: Anthophila). *Entomol. Soc. Am.* 94, 81–157. <https://doi.org/10.2317/0022-8567-94.2.81>

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