

Dear Pollinator Pathway Friends,

Hoping this finds you all well and managing to adjust to these challenging times. For over a week now the activities of some native cellophane bees in my garden and in the local cemetery have been a welcome distraction from the news; so I am sharing some photos in the hope that you may find cellophane bees too; and that as the seasons progress we can continue to share the wonders of the nature in our own yards. I am still learning my native bees, so I was happy to identify a new species right outside my front door.



*Male bee (he has a hairy face, and he is not collecting pollen - Heather Holm) patrolling for female action on a boxwood shrub in my front yard.*

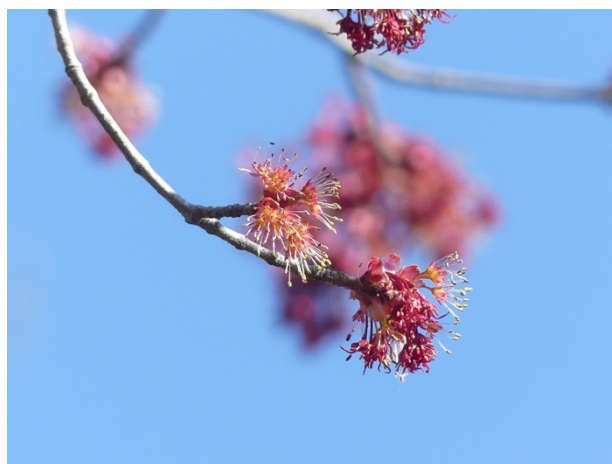


*Female bee (she has a heart-shaped face which is not hairy) peeking out from her nest in the cemetery.*

Thanks to [iNaturalist](#) identifications (by bee experts Heather Holm and John Ascher), I discovered that the bees pictured are Unequal Cellophane Bees (*Colletes inaequalis*). According to Heather Holm's [BEES: An Identification and Native Plant Forage Guide](#), spring forage includes Red maple, Willow, and American Plum. Of those three species, Red maples are the most adaptable and commercially available - they are literally street and parking lot trees, so we should continue to promote them as important spring bee forage. They are flowering now and are a wonderful splash of color in our otherwise drab landscapes.

I think the reason I have these lovely little bees in my front yard is because there is a Red maple street tree opposite my house! That seems to be the only available forage nearby, with the exception of a small patch of crocus.

Coincidentally, the same day I noticed these bees in my yard I came upon a large colony of Unequal Cellophane Bee nests in the local cemetery - approximately 100 anthill-like structures nestled between gravestones on a southwest-facing slope. Makes sense: it's sheltered, undisturbed habitat.



*Red maple street tree flowering.*



*Mating on cemetery interpretive sign (on the map of NY State!)*

Some information about these fascinating little bees, from Sharpe-Eatman's guide: [Wild Bees of New York at Rockefeller State Park Preserve and Stone Barns Center for Food and Agriculture:](#)

*Unequal cellophane bees are among of the very first pollinators to emerge in spring in the Northeast -- in Westchester County, New York, these bees surface right after the last March snows begin to melt, when the weather is still chilly. The bees remain visible for only a brief period, usually through the end of April.*

*These bees are amusing to watch. The females often hunker down at the mouths of their tunnels, guarding their nests and staring out at the world. If you observe them carefully, you may see the female bees surface in order to push dirt from their holes with the tips of their abdomens. The bees' tunnels extend as deep as eighteen inches under the soil.*

*Bees of the genus Colletes line the cells of their nests with a waterproof material which, when dry, resembles clear plastic. Accordingly, they are sometimes called "cellophane bees" or, alternately, "polyester bees". Cellophane bees are equipped with unusual forked tongues, which they use to paint the plastic-like material onto their nest walls in order to keep their nests dry. The bees produce the material from a special abdominal organ called the Dufour's gland, named after French naturalist Léon Jean Marie Dufour, who first recorded his fascination with the bees' fabrication of plastique in 1835.*

*According to the Xerces Society's Guide to Attracting Native Pollinators, cellophane bees also spray their egg-cell walls with a natural fungicide and bactericide, linalool, secreted from a gland in the bees' mandibles. After coating their cells, the bees fasten their eggs onto the cell walls rather than leaving them on nest floors where moisture might collect. The bees provision their cells by mixing pollen and nectar together to make a liquid "bee bread" for their offspring; these provisions are stored in cellophane sacs that look a little like elongated plastic sandwich bags. The special measures taken by the bees to protect their eggs against water and fungus allow them to build nests near stream banks and other areas with wet soils.*

*Cellophane bees are solitary. They construct individual nests in the ground, excavating tunnels that exit through small round holes. Despite their solitary status, the bees tend to build their nests near one another. Groups of nesting cellophane bees sometimes number into the tens of thousands. These bees, however, are non-aggressive and do not form swarms. They are important pollinators of spring trees, crops and wildflowers.*

Anyone else seeing these adorable little bees?

Karalyn Lamb, Croton-on-Hudson, NY

*Karalyn Lamb serves on the steering committees of the Pollinator Pathway Northeast Region and of the Native Plant Center at Westchester Community College.*