

It's All About the Birds and the Bees

Local Washington, D.C. public schools team up with Beyond Pesticides to learn about pollinators.

**by Annie D'Amato and
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This past June, students in two first grade classrooms at local District of Columbia Public Schools (DCPS) learned about the importance of pollinators firsthand when staff members from Beyond Pesticides visited their school. The first step in launching a widely available pollinator curriculum, Beyond Pesticides teamed up The Bees Waggle, to provide a fun, hands-on lesson about pollinators and their importance to our food system. Students learned about biodiversity, soil health, and the negative effects of pesticides on pollinators before creating and installing pollinator homes for their school gardens.

Day of Learning

The day of learning kicked off at Brightwood Education Campus, located in Northwest D.C., where students engaged in a lesson developed by Beyond Pesticides and Bees Waggle founder Jessica Goldstrohm. After learning about the role of pollinators in our food system, the children participated in several hands on activities that emphasized the key points within the curriculum. The activities included a demonstration of the interconnectedness of all living organisms with a biodiversity web simulation. Here, the scholars learned that if one organism in a food system starts to take more than its fair share of resources, the rest of the web finds itself out of balance. At the end of the lesson, the first graders each crafted their own small "bee hotel" to take home before heading outside to plant a butterfly house in their school garden. The butterfly house will serve as nesting habitat for migrating butterflies, including the Monarch butterfly, which have experienced rapid population declines over recent years.



Top photo: Students from J.O. Wilson elementary school in D.C. in front of their new bee hotel; Bottom photo: Jessica Goldstrohm of The Bees Waggle with students from Brightwood Education Campus in D.C.

What's the Buzz?

"My favorite part of today was when we built the bee house." -Antonio, age 7

"Today what I learned today about bees is that they carry pollen and that there are many different types of bees."

-Dynasty Small



"We were so happy that Beyond Pesticides came today to J.O. Wilson and gave the kids a hands on opportunity to work within a science curriculum. They were able to understand that bees aren't harmful creatures, they're just misunderstood and they had an experience to go out in nature in the garden and actually create something and see something from the beginning to the end. All of the kids really enjoyed it, it was an excellent hands on learning experience, so thank you!"

- Kate Maitland, 1st Grade Teacher J.O. Wilson Elementary

"I came out to Washington, D.C. to visit two elementary schools today. We sat in with first graders at two separate schools and taught them all about pollinators and how important they are... We tried to do this in a way that would encourage them not to be so scared of bees and to appreciate pollinators, so that pollinators become important to all of us, because they provide our food. Kids get really jazzed about it, they love learning about this stuff and they love going around telling everyone about it, so it's a really neat program. I encourage all of you to take advantage of this and do it in your own classrooms, you won't regret it at all, it's fantastic!" - Jessica Goldstrohm, The Bees Waggle

The educational team then moved to Northeast D.C., where they visited first grade scholars at J.O. Wilson Elementary School. Here the children received a similar lesson and participated in hands-on activities, applying the information they learned to solve puzzles about food systems, which involved working as a team to place several pictures of pollinators and food in the order that represents the food cycle from start to finish. For example, students assembled in order one puzzle with a bee that led to the pollination of the clover plant and production of clover seeds, followed by the clover growing to be fed to a cow, who eventually provided milk for humans to drink. The goal of the lesson was to encourage the children to use their critical thinking skills to figure out the role of pollinators in providing food, and use that knowledge to draw connections between pollinators and themselves.

Building a Bee Hotel

The visit to J.O. Wilson culminated with the building of a large bee hotel for the school garden. Bee hotels provide natural habitat for native bees, such as the leafcutter and mason bee. These bees are known as “solitary bees” because they make individual nest cells for their larvae, as opposed to living in colonies like honey bees. They typically nest in small holes or tunnels, and Beyond Pesticides sponsored the creation of a hotel, which the students completed by inserting pre-drilled wood logs. These tunneled logs serve as nesting sites for bees. Working together, the first-graders created a welcoming habitat for native pollinators. The hotel found a permanent home in the school’s fruit and vegetable garden, where it will help facilitate the pollination of those plants for years to come.

Educating local school children is just one of the many ways Beyond Pesticides works to protect pollinators. By teaching children about the importance of bees and other pollinators early in life, we instill the idea that bees are helpful organisms in the larger food system, as opposed



Students at Brightwood Education Campus in D.C. construct their bee hotels.

to ‘scary’ insects. Beyond Pesticides believes this knowledge will remain with the children as they grow older, creating a new generation of adults who fully understand the importance of biodiversity and the negative impacts pesticides have on an ecosystem.

Reducing fear and increasing awareness about pollinators are both positive outcomes of the time Beyond Pesticides’ educational team spent in each of these classrooms. The organizations’ goal for this upcoming school year is to multiply those lessons exponentially by making the lesson publicly available on our website. Teachers across the country will be able to download and implement the curriculum in their classroom, engaging students with hands on activities and thoughtful discussions about the importance of pollinator in our world.

To check out and download Beyond Pesticides’ Pollinator Curriculum, please visit <http://bit.ly/PollinatorCurriculum>. You may also find additional lessons available through Ms. Goldstrohm on her website www.thebeeswaggle.com.

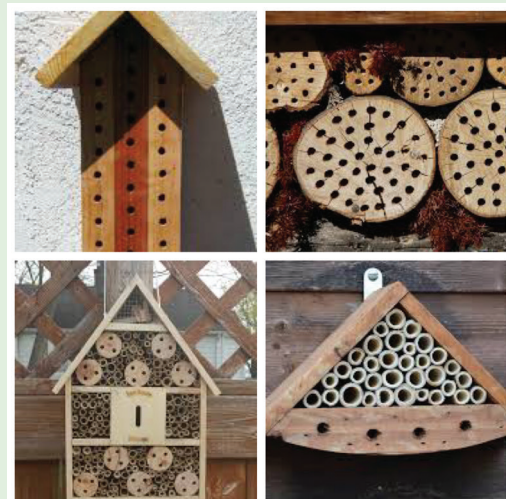
Build Your Own Bee House

Bee Houses are a great way to increase pollinator habitat in your own yard or garden, as they provide shelter and nesting areas for native bee populations. They can take a variety of different shapes and forms, ranging from elaborate house structures to a simple block or log.

Materials: Untreated or natural wood

Construction:

1. Drill holes in the block, spaced 3/4” apart. For leafcutter bees, the holes should be 1/4” wide and 2 1/2 -4” deep. For mason bees, drill 6” deep, 5/16” wide holes. Do not drill completely through the block.
2. Place block on the side of a house or shed, beneath the eave, or mount it securely on a fence post or pole at the edge of the yard. Attach an overhanging roof piece to the block, if placed away from an overhang or building eave.
3. Block should be erected in early spring and placed at least three feet above the ground. Position block to face southeast, allowing it to get morning sun. Hang your bee house under the eaves of your house or garden shed, protected from direct sun and rain.



Bee house photos. Courtesy of (Clockwise Top left): born1945, Hans, PollyDot, and anneheathen.

For more information and to see Beyond Pesticides’ Pro Tips for making your structure a bee-friendly success, visit bit.ly/BuildaBeeHouse. Be sure to send Beyond Pesticides a picture of your house for a chance to win one of our Bee Protective Starter Kits.