



Brought to You By... **POLLINATORS**

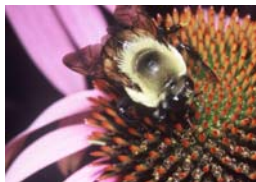
What is “Pollination” & What is a “Pollinator?”

- The act of “pollination” occurs when pollen grains are moved between two flowers of the same species by wind or animals. Successful pollination results in the production of healthy fruit and fertile seeds, allowing plants to reproduce. Without pollinator visits to tomatoes and other fruit and vegetable plants in our gardens, we would have no produce! For more information: <http://hiltonpond.org/ThisWeek031008.html>
- Almost 90% of all flowering plants rely on animal pollinators for fertilization, and about 200,000 species of animals act as pollinators. Of those, 1,000 are hummingbirds, bats, and small mammals such as mice. The rest are insects like beetles, bees, ants, wasps, butterflies and moths. See <http://www.wildaboutgardening.org/en/attracting/section1/>

Why Are Pollinators Important to Us?

- Worldwide, approximately 1,000 plants grown for food, beverages, fibers, spices, and medicines need to be pollinated by animals in order to produce the goods on which we depend.
- Foods and beverages produced with the help of pollinators include: apples, bananas, blueberries, chocolate, coffee, melons, peaches, potatoes, pumpkins, vanilla, almonds, and tequila. (Imagine a world without some of these things!)
- In the United States, pollination by honeybees and other insects produces \$40 billion worth of products annually!

Did You Know?



Bees -- can fly at about 7 miles per hour, and have to beat their wings 190 times per second to do it! Bees are constantly on the lookout for brightly-colored flowers with sweet scents. Bees tend to prefer flowers that they can walk on to sip nectar. Learn more at: <http://maarec.cas.psu.edu/infoonline.htm>.

Butterflies and Moths – Monarch butterflies in eastern North America have one of the longest migrations of any species! Their flights can last for thousands of miles, from Canada to central Mexico. Butterflies and moths need a place to land on the flowers that they visit, so they prefer broad, flat-faced flowers. Since they have long, straw-like mouth-parts, they can suck nectar from deep within the flower. Learn about butterflies at: <http://www.monarchwatch.org/htm>





Beetles – Did you know that ladybugs are natural enemies of many insects that we consider pests? A single ladybug can eat as many as 5,000 aphids in its lifetime! Many beetle species eat pollen, so the plants they visit must produce ample amounts of pollen to make sure that there is enough left to pollinate the flower after the beetles are finished eating! Beetles are attracted to spicy or fruity odors, and most of them need a wide opening in the flower, because they are clumsy fliers.

Hummingbirds – have long beaks and brush-like tongues, and they are good pollinators of many plants in the Western hemisphere. They generally look out for long, tube-shaped, flowers colored red or orange. Learn more at: <http://www.hummingbirdsociety.org/indexnew.asp>



Bats – like moths, nectar-eating bats are attracted to pale or white flowers that blossom after dark. Bats search for flowers with a large amount of nectar and that emit strong, musky or fruity odors. These flowers include the agave and many other tall, cactus species. Learn more about bats at: <http://www.batcon.org/home/default.asp>

Pollinator-Friendly Activities

Here are some simple steps you can take in your yard to create habitat and help pollinators survive and thrive!

- **Plant a pollinator garden.** Pollinator gardening is fun. Check out: <http://www.kidsgardening.com/growingideas/projects/jan03/pg1.html>. This website offers gardening instructions along with educational and curriculum resources.
- **Reduce chemical misuse.** Practice Integrated Pest Management (IPM) to reduce damage to your plants and to protect pollinators by using less chemicals. You could intersperse food plants, like tomatoes, with inedible plants like marigolds. Marigolds are known to attract pest insects away from food plants. Learn more about IPM and gardening at: <http://paipm.cas.psu.edu/homegarden/garden.html>
- **Reduce your area of lawn grass.** Grass lawns offer little food or shelter for most wildlife, including pollinators. You can replace grass with a wild meadow or prairie plants. For a neater look, make a perennial border with native plants. Plants native to your area are adapted to your soil type, climate, precipitation, and local pollinators! You can get a list of plants native to your area at: <http://www.nwf.org/backyardwildlifehabitat/nativeplants.cfm>
- **Provide water.** All wildlife, including pollinators, need water. Some butterfly species sip water from muddy puddles to quench their thirst and get important minerals. You can provide water in a birdbath or even a shallow dish placed on the ground.



For information about pollinators and to learn about other fun activities, please contact:

North American Pollinator Protection Campaign
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