

The Power of Pollinators



What is a Pollinator?



Pollinators are insects or animals that help plants create fruits and seeds. All fruit comes from flowers and all flowers have **pollen**. Pollen is the colorful dust in the

middle of a flower that carries the recipe for what its baby plants will become.

Pollinators move pollen between plants that are exactly the same type or **species**; they take pollen from one plant's flower and spread it to another plant's flower. This pollen then **fertilizes** the other plant, which means it gives the plant what it needs to grow seeds and fruit. Seeds are like eggs, only instead of turning into chickens or other animals, they turn into new plants! Fruit protects and helps spread the seeds, which grow new plants. Without pollinators like bees, butterflies, hummingbirds, moths, flies, and bats to help fertilize plants, we wouldn't have all the tasty fruits and vegetables we love to eat!

Natural Nectar



Just like us, pollinators can be picky about the food they eat. Pollinators sip a sweet liquid, or **nectar**, from flowers and in return take pollen to other flowers,

which helps the flowers make seeds and fruit. As they travel from flower to flower, sipping nectar, they collect and spread pollen wherever they go. Pollinators do such an important job fertilizing flowers that flowers create nectar just to attract pollinators!

Busy Bees



The most important pollinators in the world are bees! Bees help pollinate plants that create a lot of the foods we eat such as peaches, apricots and almonds. Bees like brightly

colored flowers with sweet scents. In exchange for nectar, bees help **transport**, or bring, pollen to another plant. As a bee walks along a flower to get to nectar, pollen from the flower sticks to its legs. Then when the bee flies to another similar flower, the pollen on its legs rubs off onto the new flower, fertilizing it. The bee then takes the nectar it eats and gives it to worker bees waiting at their hive in honeycombs, where the bees live. The worker bees spread the collected nectar into wax honeycombs where water



evaporates from it, which means that the water turns into a gas and disappears into the air. With the help of bees fanning the nectar with their wings, the nectar then turns into thick syrup. This syrup is honey! When the honey is thick enough, bees seal the honeycomb with wax. The honey is then stored until it is ready to be eaten by bees during wintertime.

Smarty Plants



Plants have many ways to survive. One of the things they do is **adapt**, which means they grow in special ways, to spread their seed and match the feeding

habits of the animal that pollinates them. This means that a flower's color, shape, and blooming pattern are clues about the plant's pollinator. For example, some flowers open only at night so moths (who only fly at night) can pollinate them. Other flowers are tube-shaped and surrounded by wide, flat petals or leaves so that butterflies can land on them, and use their long, straw-like mouths to suck nectar from deep within the flowers. Since butterflies like color, the flowers they pollinate use bright colors of the rainbow to attract them.

Plants also have developed fruit that is specially designed to move their seeds away from the parent plant in order to grow new plants in different areas. For example, coconuts are hollow and float, so waves and water can carry them to new places.

Follow the scent!



Would you believe there are flowers that smell like cherry-vanilla ice cream? It's true! Because most pollinators are attracted to sweet

smells, many flowers have sugary, inviting scents and patterns of color that lead pollinators toward a flower's nectar. On the other hand, some flowers smell like rotting meat! This tricks flies into pollinating them because they look and smell like rotten food. Chances are if you smell a stinky, dark-colored flower, it's trying to attract a fly!

Pollinator Power



Pollinators do a powerful job because they help nature grow more seeds and fruits like apples, watermelon, walnuts, and even chocolate and vanilla! Pollinators are so

important that without them, many plants

and flowers would go **extinct**, or disappear forever, because pollinators help plants **reproduce**, or make new plants.

Protecting Pollinators from Danger

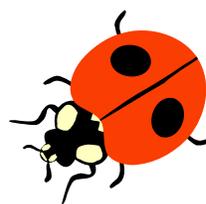


Pollinators face a lot of threats in today's world. One of the main dangers is exposure to poisonous chemicals called **pesticides**.

Pesticides are sprayed in gardens and farms to kill unwanted insects that can damage plants. When pesticides get sprayed on flowers that create nectar, the pollinators don't just eat the nectar, they also eat some of the pesticides! This can sicken and even kill the pollinators.

Some pollinators are also in danger because their habitat may be destroyed when people pave over open, natural space to build parking lots, homes or shopping malls. This is called **habitat loss**, which means the animals and insects that depended on that area lose their natural home and food they need to survive. Every time a garden, farm or natural area is destroyed, pollinators have fewer places to live and less food to eat.

Ready, Set, Action!



We all have the power to protect pollinators! First, we can stop using pesticides in our gardens and use other methods for controlling unwanted insects. For instance, we can plant flowers like clover that attract **beneficial**, or good, insects like ladybugs that will eat insect pests. We can also help pollinators by providing them with a variety of food they love. Different flowering bushes and brightly colored flowers will attract and feed many kinds of pollinators.