



We are committed to increasing pollinator habitat on public lands, educating the public about pollinators, and supporting programs and events that highlight the important role pollinators play in maintaining the nation's food supply and healthy and diverse ecosystems. Consider supporting **Project Butterfly & Bumblebee** by making a donation today.

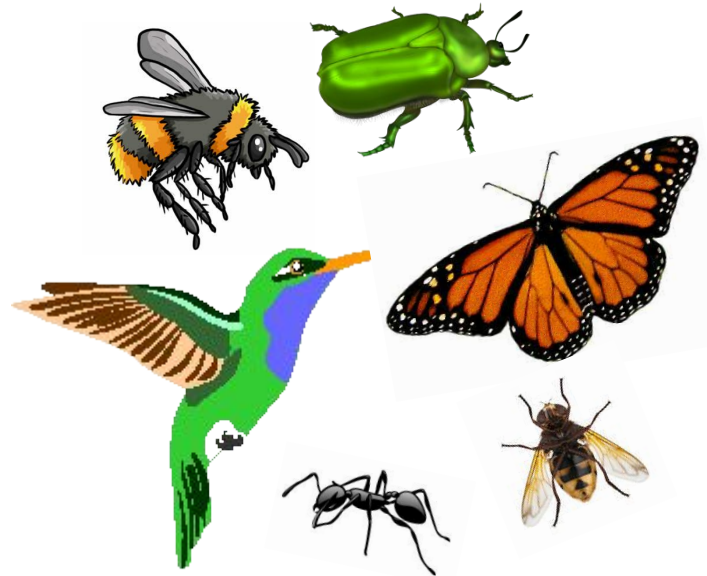
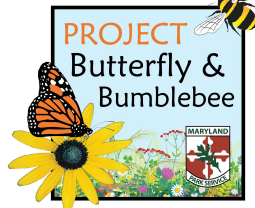


The facilities and services of the Maryland Department of Natural Resources are available to all without regard to race, color, religion, sex, sexual orientation, age, national origin, or physical or mental disability.

This document is available in alternative format upon request.

dnr.maryland.gov

Department of Natural Resources, 580 Taylor Ave., Annapolis, MD 21401, Call Toll Free in Maryland at 1-877-620-8DNR (8376), Out of state 410-260-8DNR (8367)



Your Observations

Date: _____ Time: _____ Location: _____

What pollinator did you see? _____

What was it doing? _____

Draw your pollinator here

Pollinator Discovery

Before you begin your pollinator adventure, put together a nature discovery kit! Below are some items you might want to include.

- Field Guides
- Pen/Pencil
- Camera
- Butterfly Net
- Flashlight
- Magnifying Glass
- Jar w/ holes in lid
- Binoculars
- Ruler
- Dip Net
- Nature Journal
- Sketching Supplies
- Map



Tips for Observing Wildlife

1. **Blend in with your surroundings.** Brightly colored clothes and/or smelly perfumes can alert wildlife.
2. **Keep still and wait.** If you find a good wildlife-watching spot, then sit down and be quiet. Loud noises can often scare wildlife away.
3. **Respect wildlife.** Most wildlife are best viewed at a distance, especially if you see a mother with its young.

Leave No Trace Principles



1. **Plan Ahead & Prepare**- Bring the tools you need and let someone know where you're going.
2. **Travel & Camp on Durable Surfaces**- Use trails whenever possible so that you don't disturb wildlife.
3. **Dispose of Waste Properly**- Litter is ugly and can also be deadly to animals. Keep a plastic bag with you for trash.
4. **Leave What You Find**- Leave behind any treasures you might find for others to discover and enjoy.
5. **Minimize Campfire Impact**- Keep it small, keep it safe, and clean it up.
6. **Respect Wildlife**-You are a guest, so use a quiet voice and give lots of space.
7. **Be Considerate of Others**- Nature belongs to everyone so please be courteous of other guests.

I Pledge to Follow the Leave No Trace Principles



(Signed)

(Date)



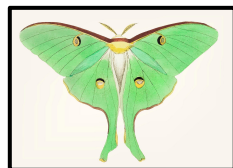
Pollinator Facts

- One of out every three foods we eat and drink is a result of pollinators.
- Flower flies are better pollinators than butterflies!
- Pollinators are important for the food web.
- Bats, birds, and even some small mammals can pollinate.
- Some plants have *only* one pollinator.
- Chocolate and vanilla are both pollinated by animals.
- A single blueberry bee can visit over 50,000 flowers in its life, creating up to 6,000 blueberries!
- Pollinators around the world are *declining*.

Have you seen ME?

These are a few of the most common pollinators in Maryland. Have you seen any of them?

- Ruby throated hummingbird
- Goldenrod soldier beetle
- Tiger swallowtail butterfly
- Luna moth



Put it in Poetry!

Haiku poetry is a short form of poetry developed in Japan centuries ago. The purpose of haikus is to tell a story that stirs emotion. Each poem has only 3 lines (5 syllables, 7 syllables, and 5 syllables).

Find a nice quiet spot where you can observe a pollinator. Brainstorm your poem by writing down 6 to 8 sentences of different images that you see. Then, take two of the sentences that you think will create a picture and pare them down into 3 short lines.

Butterfly soaring Searching for sweet sweet nectar Off to Mexico

First line= 5 syllables

Second line= 7 syllables

Third line= 5 syllables

Fancy Flies

Did you know? Many flies are better pollinators than butterflies! Flies pollinate crops like chocolate. Flies are attracted to flowers that are blue, purple, or white in color. Can you find some flowers that flies may like?



Blue flowers: _____

Purple flowers: _____

White flowers: _____

What's the buzz with nature apps?

Seek by iNaturalist- This app will show you lists of commonly recorded nature all around you. It is good for people just getting started learning.

Merlin- This app lets you record bird sounds and will even give you identification suggestions! It is good for beginners or more advanced watchers.

iNaturalist- This app connects a vast network of people-observers, identifiers, and experts- and collects user data to help scientists learn more about the world around us.

Bee Anatomy

Bees are specially designed to find flowers and to carry pollen. Bees use their **antennae** and **eyes** to locate colorful flowers. As they land on the flower, pollen attaches to the **hairs** on their **legs** and **bodies**. Some bees have **pollen baskets** to catch pollen. Color the different parts of a bee!

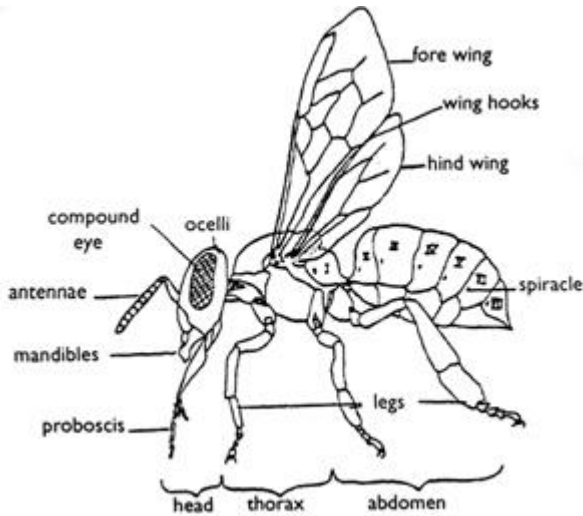


Diagram courtesy of: National Cooperative Extension

Fun Fact: Bees are the only insects that produce food eaten by humans! (honey)

What Foods are Pollinated by Animals?

Below are some foods that are pollinated by animals. Circle the ones that you like!

Fruit:

- Apple
- Apricot
- Blueberry
- Cherry
- Lemon
- Kiwi
- Mango
- Melon
- Orange
- Peach
- Pear
- Plum
- Raspberry
- Strawberry

Vegetable

- Asparagus
- Broccoli
- Cabbage
- Carrot
- Cucumber
- Eggplant
- Pepper
- Pumpkin
- Radish
- Squash
- Tomato

Other

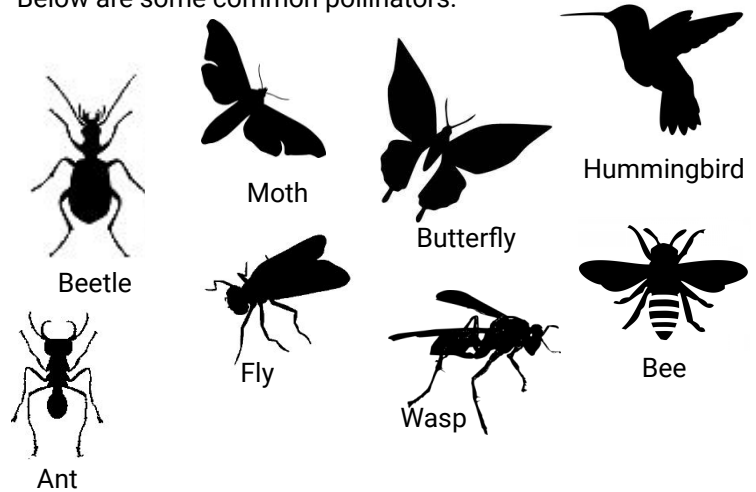
- Almond
- Chocolate
- Coconut
- Sunflower
- Walnut



What **one** food above can you **not** live without??

Who Pollinates Flowers?

To make a seed, **pollen has to travel from one flower to another**. Many flowers rely on animals to transfer pollen. Over 100,000 animal pollinators can be found worldwide! Below are some common pollinators.



Community Science Projects

YOU CAN HELP scientist learn more about pollinators by contributing data to one of these projects!

- [Monarch Larva Monitoring Project](#)
- [Bumblebee Watch](#)
- [The Great Sunflower Project](#)

Pollinator Safari

Date: _____ Time: _____ Location: _____

- Ant
 - Beetle
 - Bumble Bee
 - Butterfly
 - Caterpillar
 - Flower Fly
 - Honey Bee
 - Hummingbird
 - Mosquito
 - Moth
 - Wasp
 - _____
 - _____
 - _____

Go explore and find local pollinators!



What was the coolest pollinator that you found?

Why was it so cool?

How many body parts did it have? _____

How many legs? _____

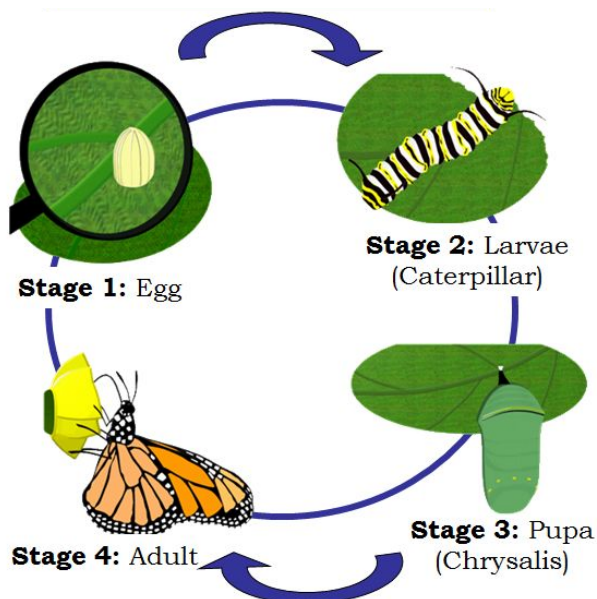
Did it have antennae? _____

What was it doing? _____

Other Notes:

Monarch Lifecycle

Did you know butterflies, bees, and moths all go through metamorphosis? Metamorphosis is a process some animals go through to become adults. It is a series of physical changes. Butterflies, for example, start as eggs that hatch into caterpillars. Caterpillars then pupate and turn into butterflies!



For more info on Maryland butterflies, go to:
dnr.maryland.gov/wildlife/Pages/plants_wildlife/butterfliesofmaryland.aspx

Be(e) a Friend to Pollinators!

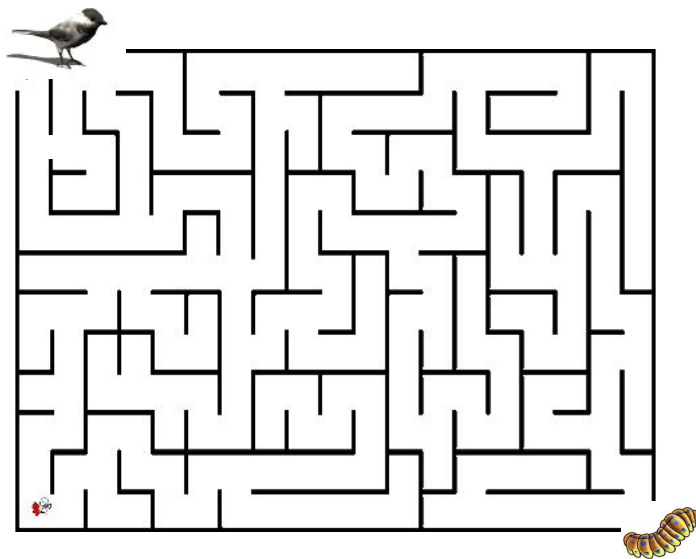
You can help pollinators with these five easy steps!

1. **Feed the bees!** Plant a garden with native flowers for pollinators at your home or at your school.
2. **Don't use pesticides!** Bug your family to stop using sprays on their lawn or garden. Pesticides kill bees, butterflies, and other important pollinators.
3. **Be kind to pollinators!** Many pollinators are fragile— be gentle and quiet when they are near.
4. **Protect habitat!** Help pollinators by keeping their habitat safe.
5. **Bug someone!** Teach your family and friends why they should help pollinators too!



Food Web Maze!

Did you know many pollinators are important food for other animals? A single family of chickadees needs **over 6,000** caterpillars to raise their babies! Help the momma chickadee find the caterpillar!



Who cares about mosquitoes? Lots of animals in the **food web**, that's who! In addition to being pollinators... mosquitoes are a source of food for birds, bats, fish, frogs, turtles, and many other animals.

Flower Quest!

Date: _____ Time: _____ Location: _____

Describe a flower you have found: _____

What color is it? _____

Does it have a smell? _____

Who do you think pollinates it? _____

Draw your flower here

