

Pollinator “Who Am I ?”

Flower Fly

- Looks like a social bee or wasp
- Antennae are short with a bristle on the end
- Has only one pair of wings
- Cannot sting or bite
- Hairy
- Considered a significant pollinator

Honey Bee

- Social, lives in colonies in hollow trees or hives
- Used for honey production and agricultural pollination
- Hairy, color is tan with varying degrees of orange or brown
- Carry pollen in pollen baskets on their hind legs and it sticks to the hairs on their body
- Antennae very sensitive to touch and odor
- Two compound eyes detect color, shape and movement
- Three simple eyes detect light
- See colors in the spectrum from ultraviolet to orange (don't see red)
- Stings only once (dies once stinger is detached from body)
- Drinks nectar, honey, and water through a long hairy tube called a proboscis
- The whole colony can live through the winter

Bumble Bee

- Only social bee native to North America
- Make nests close to or in the ground. Likes abandoned rodent holes.
- Large and very furry
- Yellow and black
- Wings are clear with black veins
- Slow and unsteady when flying.
- Can collect nectar and pollen from hard to get into flowers such as snapdragons
- Can sting more than once
- Only the queen survives through the winter

Butterflies

- Every part of their thin body is covered with scales
- Fly only during the day when it is warm
- Fold their wings straight up over their bodies when resting
- Antennae have bare knobs at the end and are used for smell and also for hearing according to some experts
- Pass through 4 stages of development--egg, larva, pupa, adult
- In the larva stage they are recognized as caterpillars and can be destructive to flower gardens and crops because of their huge appetite.
- In the adult stage they are harmless and beautiful.
- A long tube that can be uncoiled for drinking nectar is called the proboscis
- Two large compound eyes detect color and movement
- Some are migratory and travel great distances

Moths

- Fly only at dusk and at night
- Every part of their body is covered with scales
- Have a plump body
- spread their wings flat when resting
- Antennae are either hairy or plummy and end in a point
- Attracted to light or white flowers that are open at night

Leafcutter Bee

- A solitary bee
- Cuts neat circles in leaves and uses the pieces to line their nests
- Builds nest in hollow twigs or other openings about the diameter of a pencil
- Usually will not sting unless trapped
- Help pollinate alfalfa

Carpenter Bee

- Solitary
- Hairy
- Females are bluish-black in color and can sting
- Males are blond or tan in color and can't sting
- Over 1 inch long and as wide as your thumb
- Nest in wood such as dead tree trunks, firewood or exposed wood on structures
- Nest consists of a tunnel about 10 inches long
- Female gathers nectar and pollen which is rolled into a ball that she pushes to the back of the tunnel where she lays an egg and seals it in a chamber about 1 inch long. This process is repeated until the tunnel is filled with chambers of growing bees

Alkali Bees

- Solitary
- Pollinate alfalfa better than honey bees

Hummingbirds

- Important for pollinating flowers and eating insects
- Bright red, orange and pink flowers are more visible to them than other colors
- Red, tubular-shaped flowers are ideal
- Fragrance is not important
- Have the largest brain, heart, energy output, and breast muscles in proportion to body size of any bird.
- They feed 5 to 8 times/hour consuming half their weight in sugar each day.
- Nests are usually 1.5 inches in outer diameter and used year after year
- Eggs are 1/2 the size of a jelly bean and hatch in 14 to 21 days

Bats

- Bats, like moths, do their foraging at night and are also attracted to white flowers.
- Pollen clings to their forehead as they reach into the flower with their long snout and bristly tongue to reach the nectar.
- The Saguaro and Agave cactus depend on bats for pollination
- They are responsible for pollinating bananas, cashews, peaches, avocados, mangos and other tropical fruits and vegetables
- There are nearly 1,000 species of bats
- They are generally divided into two groups; mega and micro bats
- Megabats live mostly in tropical parts of Australia, Asia, Africa, and the Pacific and eat fruit, nectar, or pollen.

Beetles

- They are clumsy when they fly and can't smell or see colors very well.
- They are attracted to flowers that are white or green and either have a very strong scent or none at all.
- The flowers they visit must produce a lot of pollen so there is enough for food as well as pollination.
- They usually pollinate flowers with large openings where there is plenty of room to land.

Developed by Deb Ruff, Livingston SWCD, IL utilizing the information below. Debra.ruff@il.nacdnet.net

Information from <http://www.pollinator.org/nappc/PDFs/curriculum.pdf>

Photos available at: **Pollinator Photos**
USDA Forest Service: <http://www.fs.fed.us/wildflowers/photos.shtml>

Pollinator PowerPoint – The birds and the bees and the beetles
www.fws.gov/pollinators/ppt/PollinatorWalkfinalFeb2010print.ppt