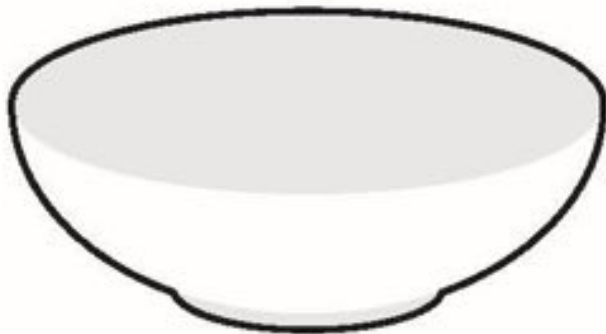
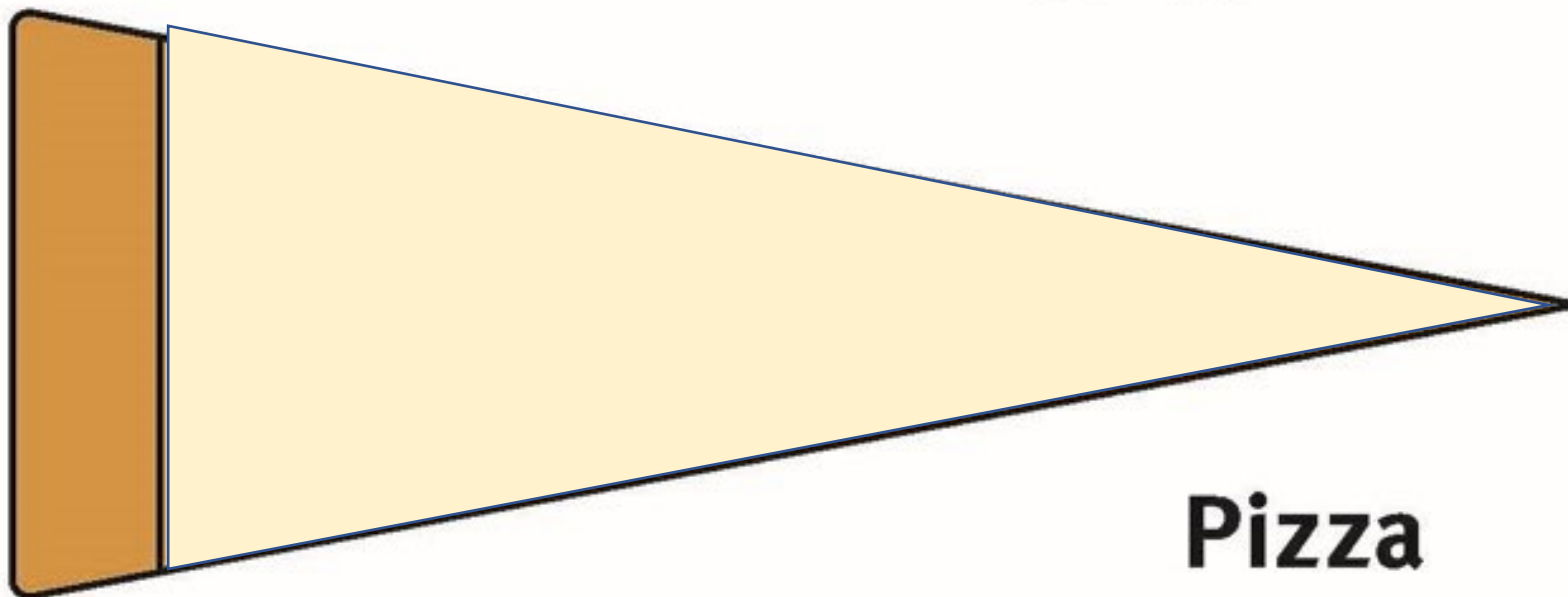
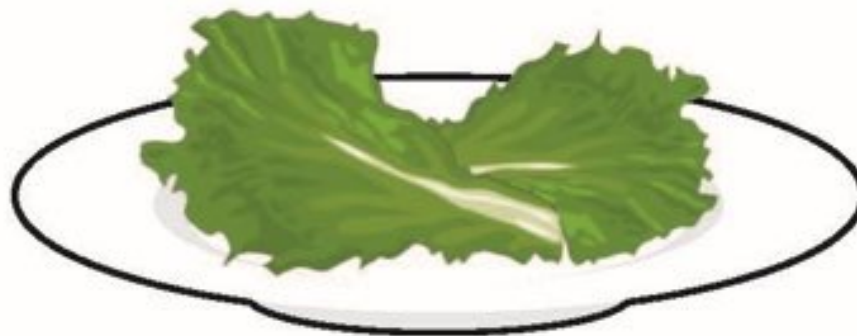


Laminated
parts
or
Magnets

Fruit Bowl



Garden Salad

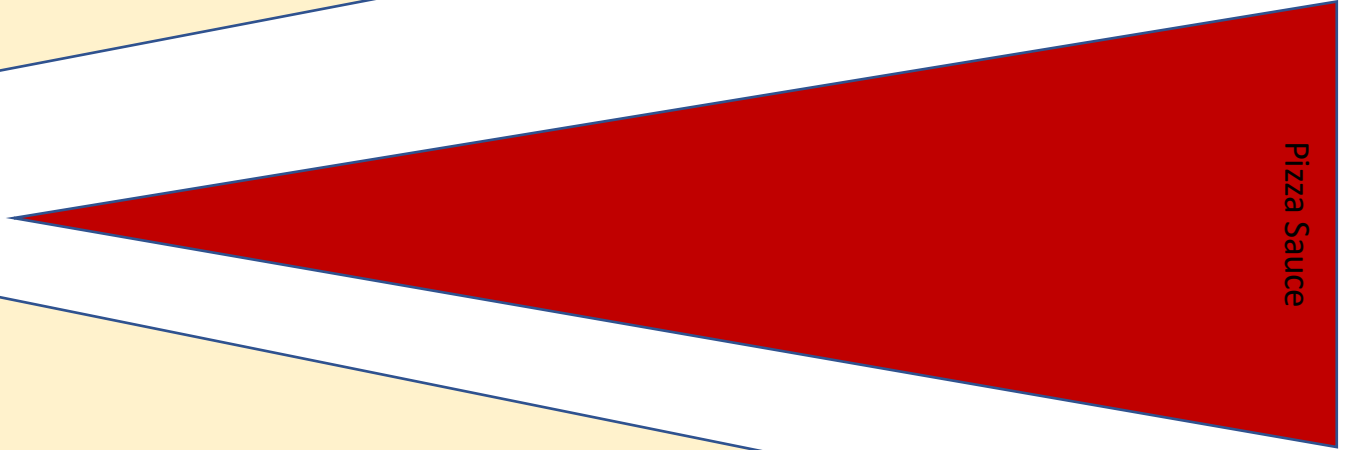
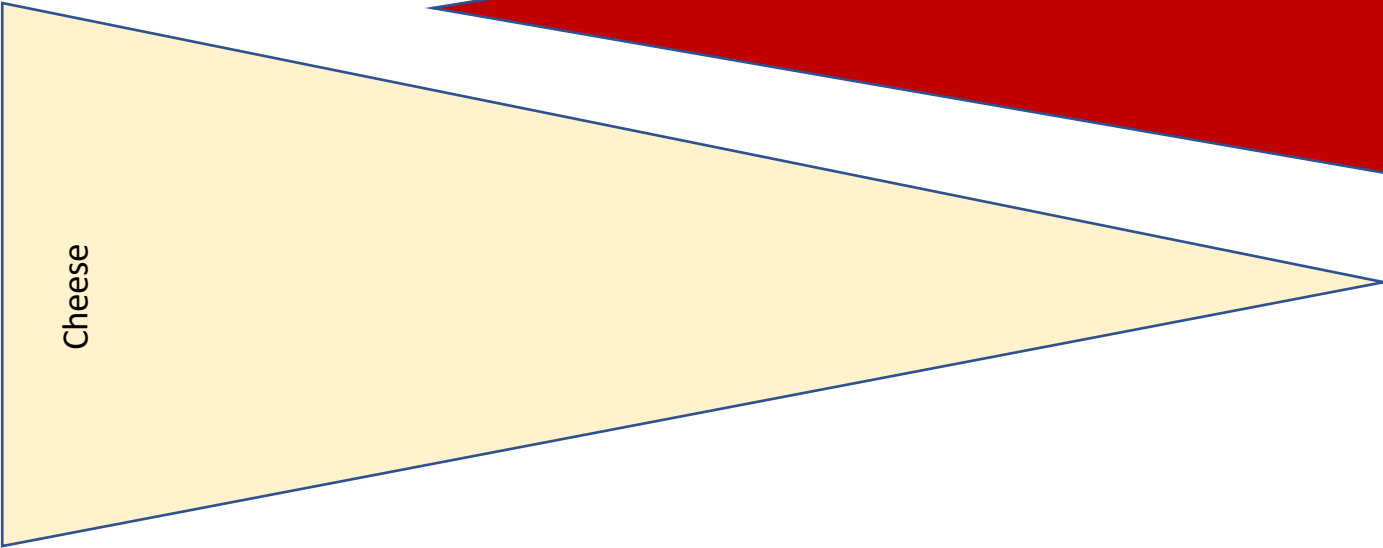
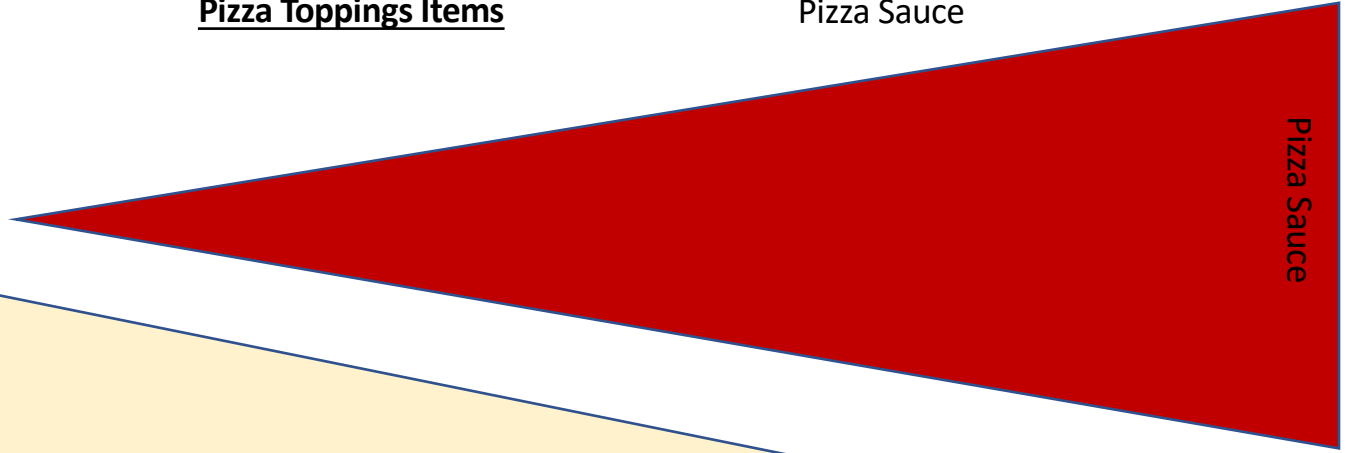
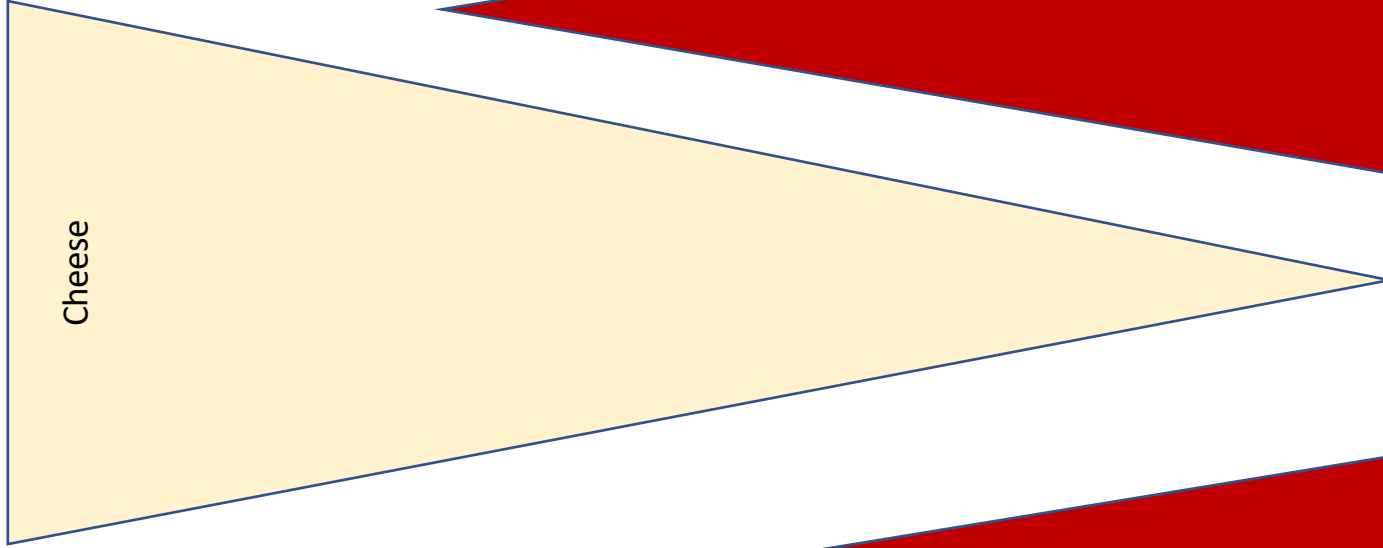


Pizza

Cheese

Pizza Toppings Items

Pizza Sauce



Pizza Topping Items

Fruit Bowl Items

Salad Items



WHY ARE POLLINATORS IMPORTANT?



Pollinate over 85% of flowering plants species on Earth



Pollinate our food plants, contributing to

- 1/3 of the bites we eat
- our most nutritious and tasty foods



Help produce dairy and meats by providing high protein feed



CARROT

Masked bee
(*Hylaeus* sp.)



PEPPER

Black and gold
bumblebee
(*Bombus auricomus*)



BLUEBERRY

Southeastern
blueberry bee
(*Habropoda laboriosa*)



CANTALOUPE

Squash bee
(*Peponapis pruinosa*)



ONION

Sweat bee
(*Halictus ligatus*)



TOMATO

Eastern bumble bee
(*Bombus impatiens*)



CUCUMBER

Longhorn bee
(*Melissodes bimaculata*)



STRAWBERRY

Small carpenter bee
(*Ceratina* sp.)



APPLE

Mining bee
(*Andrena* sp.)



CHEESE

Alfalfa leafcutter bee
(*Megachile rotundata*)



Use this key to figure out which foods on your lunch tray need bees.

MORE ABOUT YOUR POLLINATORS



There are more than 24,000 types of bee in the world.

Missouri alone has over **450** species!



Bees come in all colors (including blue, green, and red) and sizes, from smaller than an eyelash to longer than a quarter. Most bees nest in the ground & are solitary (no workers or queens).



MASKED BEE (*Hylaeus* sp.)

Small, mostly black, bees with unique white or yellow face markings that look like superhero masks.

Carry pollen in a special "tummy" and pull it back up to feed their young.

Make cellophane-like material to keep water and pests out.



BLACK & GOLD BUMBLE BEE (*Bombus auricomus*)

One of our largest local bumble bees.

Like other bumble bees, ...are social with annual colonies started each spring by new queens.

...shiver to raise their body temperature and forage in cooler temperatures than other bees.



SOUTHEASTERN BLUEBERRY BEE (*Habropoda laboriosa*)

Solitary bee that nests in the ground.

Only collects pollen from blueberry flowers.

Blueberries need buzz pollination to release pollen. Only blueberry and bumble bees can pollinate them.



SQUASH BEE (*Peponapis pruinosa*)

Solitary bee that nests in the ground.

Only collects pollen from squashes and melons, so they are active before sunrise when the blossoms open.

Male squash bees sleep inside flowers at night, often in groups.



SWEAT BEE (*Halictus ligatus*)

One of the most common bees found in our region.

Has a large range, found from the Arctic Circle to Venezuela, South America.

Can be social or solitary, depending on the environment.



EASTERN BUMBLE BEE (*Bombus impatiens*)

One of the most common bumble bees of the eastern United States.

Bumble bees are one of the few types of bees that can "buzz pollinate" to release pollen from tomatoes and their relatives. Honey bees cannot buzz pollinate.



TWO-SPOTTED LONGHORN BEE (*Melissodes bimaculata*)

They get their name from the extra long antennae of the males.

The females have long hairs on their legs for carrying pollen.

Nests in burrows dug into the ground by the female.



SMALL CARPENTER BEE (*Ceratina* sp.)

Small solitary bees that are often dark, iridescent blue-green.

Females nest in the broken or cut stems of various wildflowers and shrubs from which they chew out the soft centers.



MINING BEE (*Andrena* sp.)

Have unique "eyebrows", dense hairs that run along their large, compound eye.

Abundant during the spring, making them great pollinators of fruits, including peaches and apples.

Solitary bees that nest in the ground.



LEAFCUTTER BEE (*Megachile* sp.)

Carries pollen on the underside of its belly (abdomen), not on its legs like other bees.

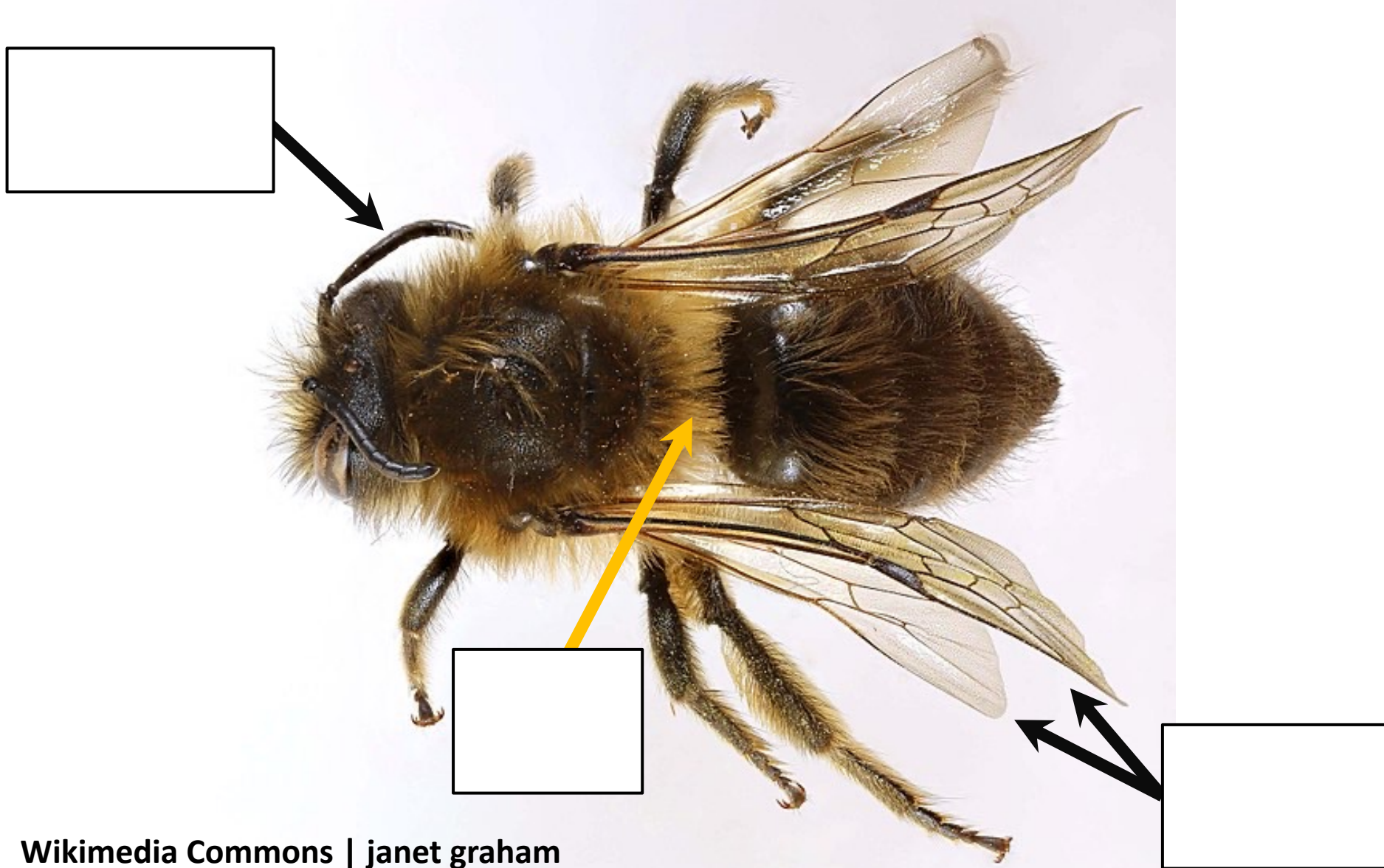
Cut circular sections of leaves or flower petals to line their nest.

Build their solitary nests in cavities of rotting wood or hollow stems.

Table of Traits

	BEE	WASP	FLY
EYES			
ANTENNA			
WAIST			
LEGS			
HAIRS			
WINGS			

What makes a bee a BEE?



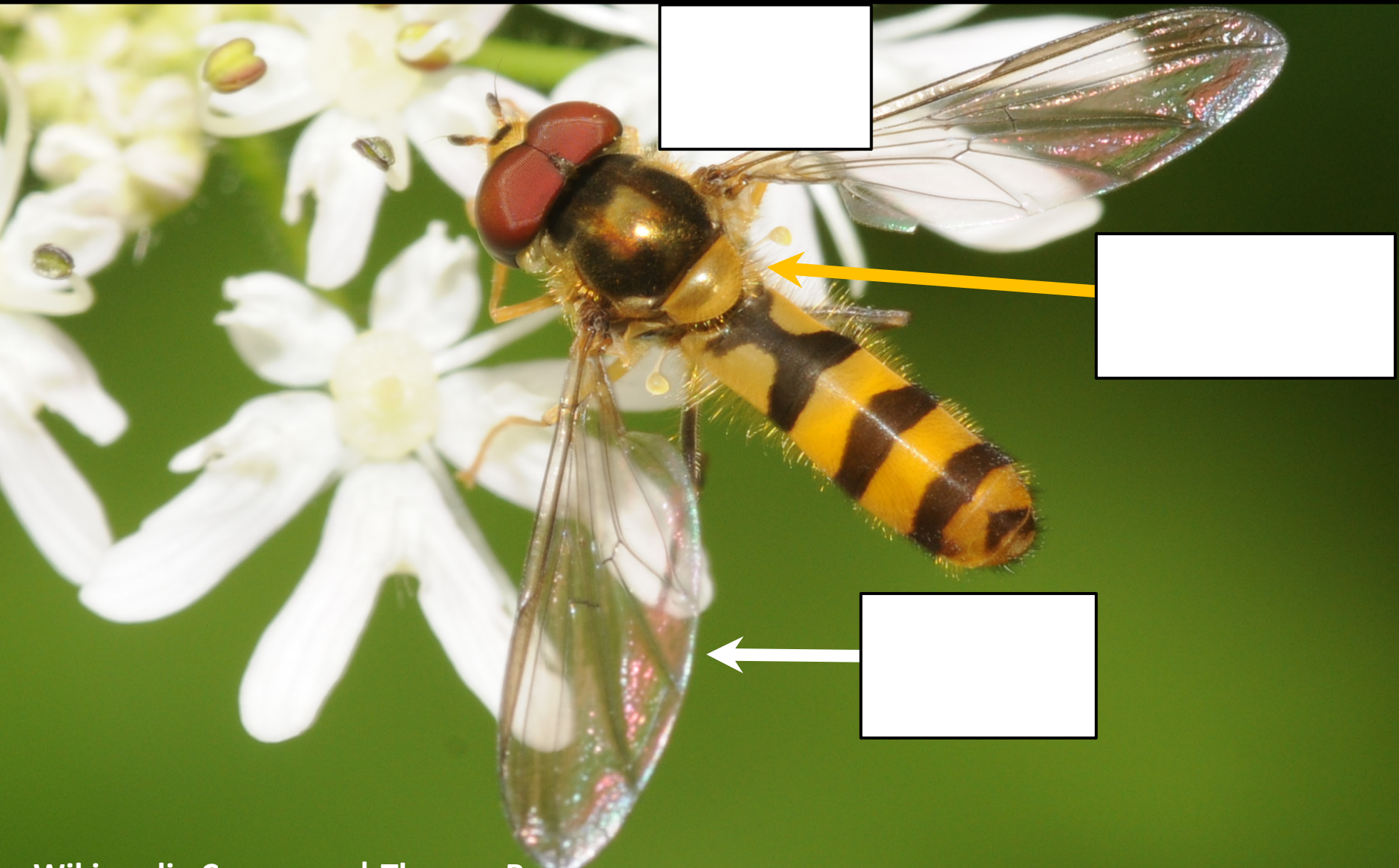
What makes a bee a BEE?



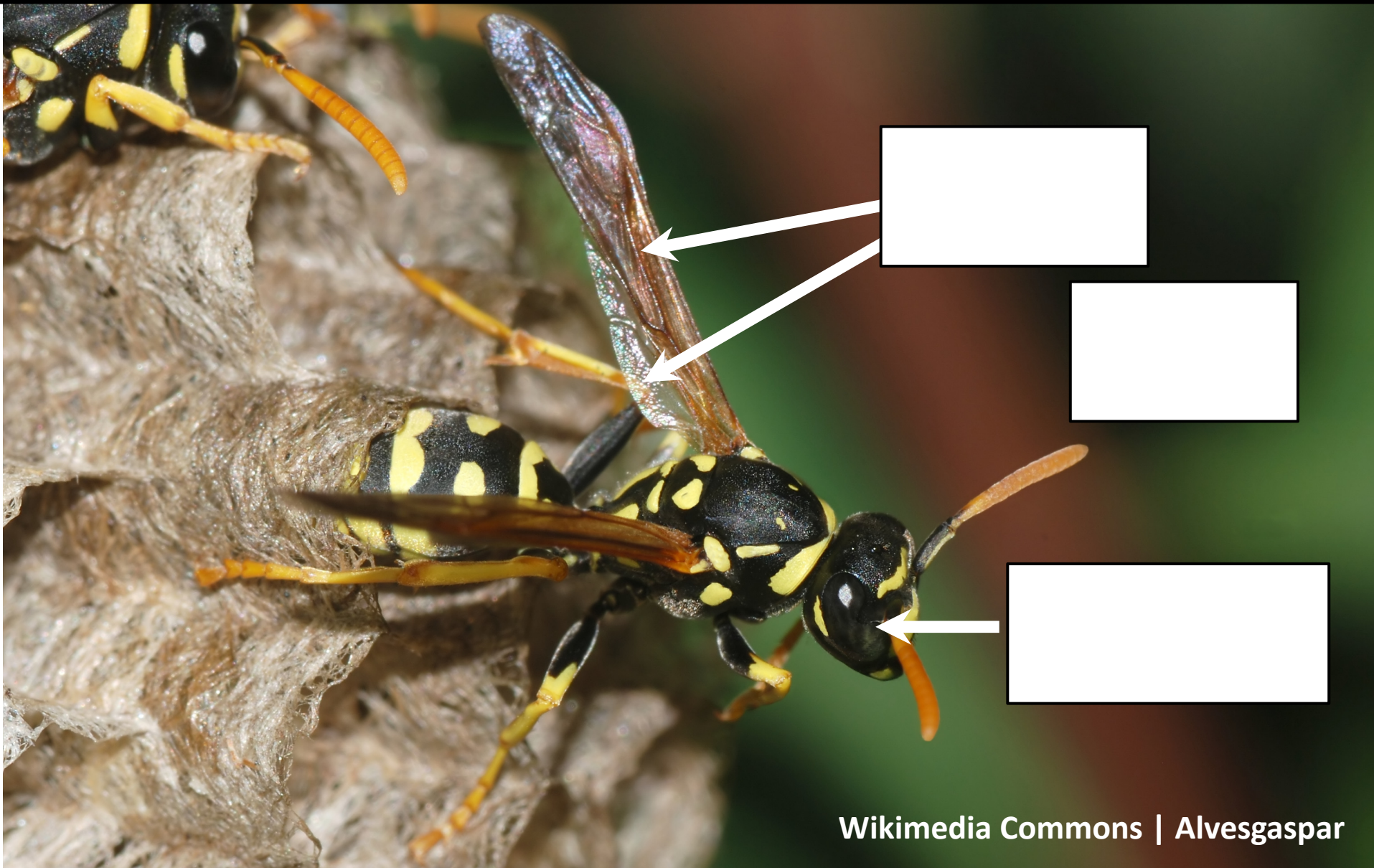
What makes a fly a FLY?



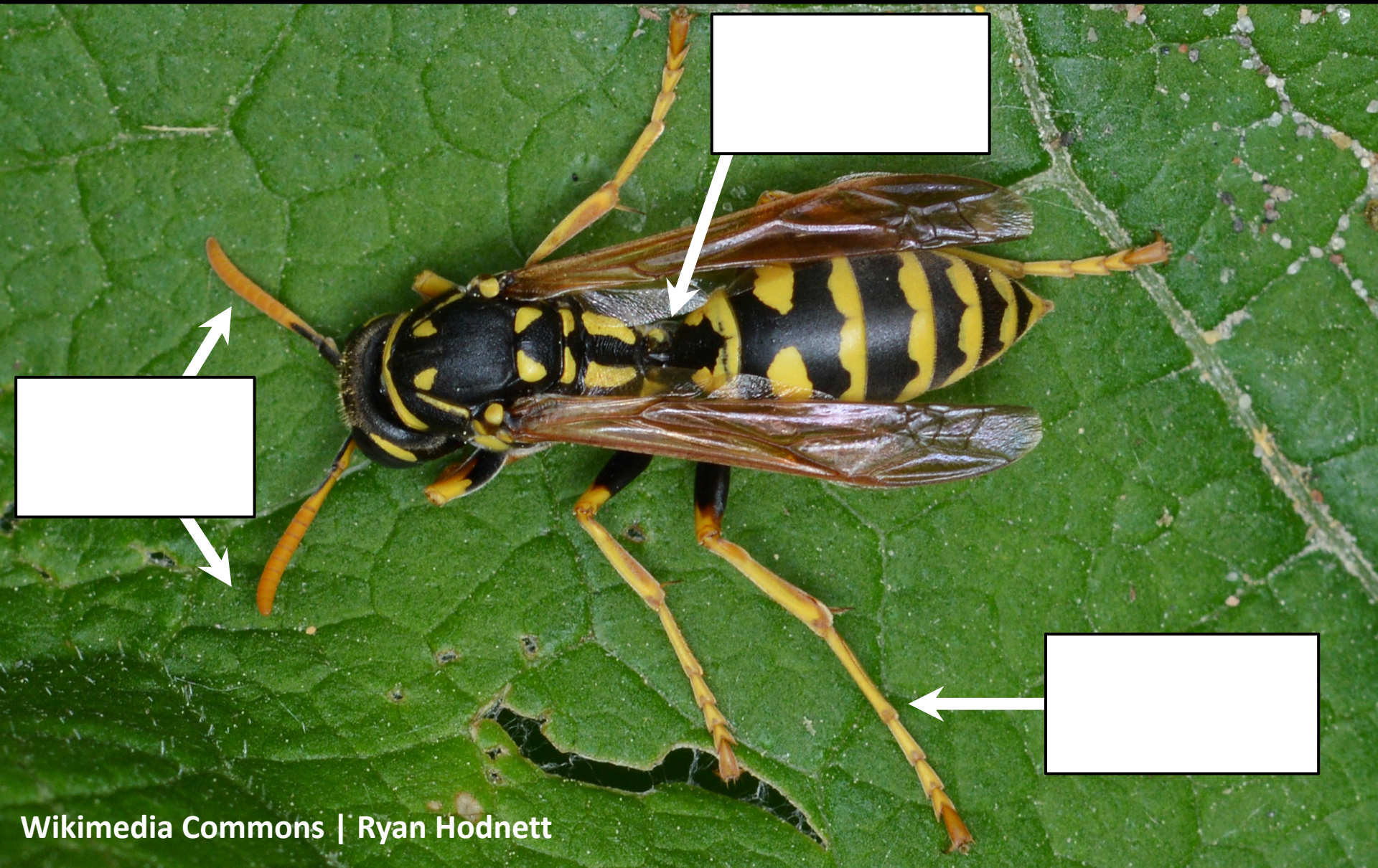
What makes a fly a FLY?



What makes a a wasp a WASP?



What makes a a wasp a WASP?





What is Causing Pollinator Declines?



Lack of flowers.

Monotonous flowerers limit food for many pollinators who need diverse resources all year.



Limited nesting sites.

Many pollinators develop as larvae in bare ground, twigs, stems, etc.



Diseases

Habitat stress & exposure to diseased agricultural insects makes pollinators more susceptible to parasites & pathogens.



Pesticides

Many types of agrochemicals are toxic to pollinators, & interfere with foraging, navigation, & health.

Why Should We Care?



Pollination

87% of flowering plants are animal pollinated.



Food

1 in 3 bites of food we eat is made possible by pollinators.



Nutrition

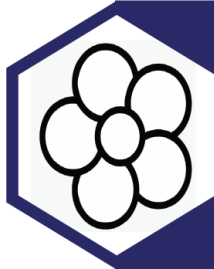
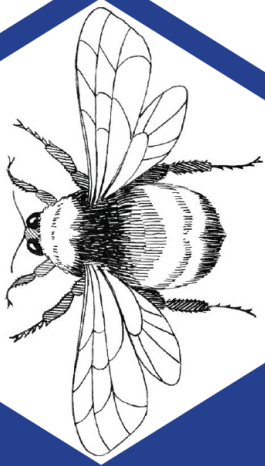
Many of our most nutritious foods need pollinators.



Ecosystem services

Pollinators are part of robust ecosystems that support biodiversity, clean our air, stabilize soil, & benefit our health.

10 Ways to Help Native Pollinators



1. Plant native flowering plants.

Native plants provide optimum nutrition. Many cultivated, non-native plants don't provide those resources.



2. Keep diverse resources blooming.

Plant flowers with different shapes & colors that bloom throughout the year.



3. Provide pollinator watering holes.

Many pollinators need access to moving, untreated water. A small fountain is perfect. Just refresh the water weekly.



4. "Bee" a lazy mower.

Mowing every other week or less helps to support bee habitats, floral resources, & biodiversity.



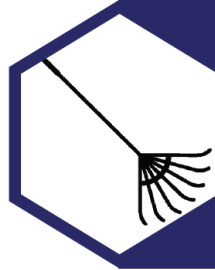
5. Leave leaves behind.

Some pollinators nest in leaves & brush. Additional ground cover also insulates ground-nesting species over winter.



6. Let stems stand.

Some pollinators nest in the stems of forbs & grasses. Leave these standing through the winter & spring so their young can grow.



7. Mulch sparingly.

Nearly 70% of bees nest in the ground & require bare patches of soil. Mulching around beds covers up potential nest sites.



8. Switch to lawn alternatives.

Traditional lawns don't provide food for pollinators. Try a lawn of clover, violets, groundsel, or slowgrowing "eco-grasses".



9. Reduce pesticides.

Avoid using pesticides whenever possible. Spray only on affected areas rather than an entire location, & follow bottle directions carefully.



10. Build a network

Support your local pollinator gardens, natural areas, & wild-lands! A network of habitats helps pollinators maintain healthy populations.