

COLEOPTERA



CITY

Inside the Life of Ladybugs and
Weevils

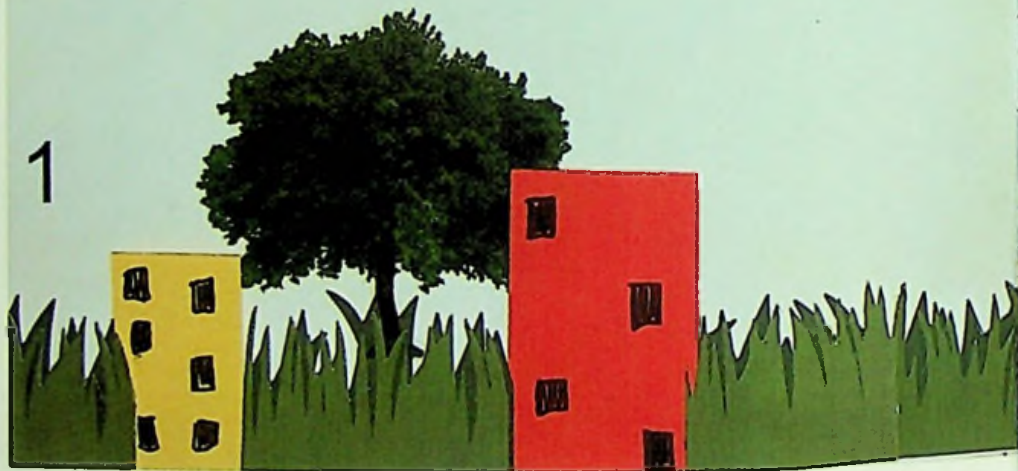




Oh, hey there! I'm Mayor Ben Beetle. Welcome to Coleoptera City! Home of the largest insect order. That's right, Coleoptera is the most diverse order of insects. Today, we will be learning about two beetle families that live in the city! Ladybugs (*Coccinellidae*) and Weevils (*Curculionidae*). Follow me!



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Our first stop is the Ladybug family! These colorful beetles live everywhere including cities, near rivers, grasslands, and forests.

There are around 5,000 species of ladybug and they can be found all around the world! These small colorful insects feed on aphids, pollen, mites, and nectar.





Looking closer into the Ladybug's life, they have four stages; egg, larva, pupa, and adult. The first three stages only take a few days.



EGG

Ladybug eggs are a white and turn yellow when they grow.



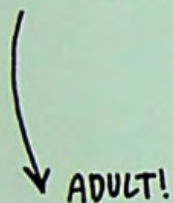
LARVA

Larvae leave a scent to alert other female Ladybugs to lay their eggs elsewhere. They're also known for eating their own kind! Ew!



PUPA

Ladybug pupa are usually a yellow-orange color with black spots on them.



ADULT!



3



Adults have six legs, and two wings. They vary in spot pattern, everyone is unique! Spots don't equal age in this little insect and they can live for months.



Mother's have instincts which lets her know the best place to lay her eggs. Usually near an aphid colony for increased feeding for their young.



Ladybugs secrete toxins from the joints in their legs that taste bad to predators for protection.



The brighter the color of Ladybug, the more toxic. Their color lets predators know to stay away! This is called aposematic coloration:



4



A species called *Thalassa saginata* has a special symbiosis with an ant species called *Dolichoderus bidens*. The brown Ladybug lays its eggs in the leaf nest of the ants. The ants then look after the eggs and keep them clean! This is a species-specific symbiosis, not all Ladybugs do this. These two species are great neighbors!



5



Wow, that was fun! Our next and final stop is the Weevil family! This is the largest beetle family within Coleoptera City. They love shady forests, grasses, and gardens. These cute insects are known for their long snouts which hold their antennae. They feed on shrubs and plants in their environment.



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Similar to the Ladybug, the Weevil has the same four stages. There are thousands of different Weevil species found all around the world!

An individual Weevil can produce up to 1,000 eggs a year! Weevil eggs are a cream color. Clutch sizes can range from 6-157.



EGG

Larval stage occurs in the spring to early summertime



LARVAE

Pupal stage develops during the mid to late summer months.



PUPA

ADULT!

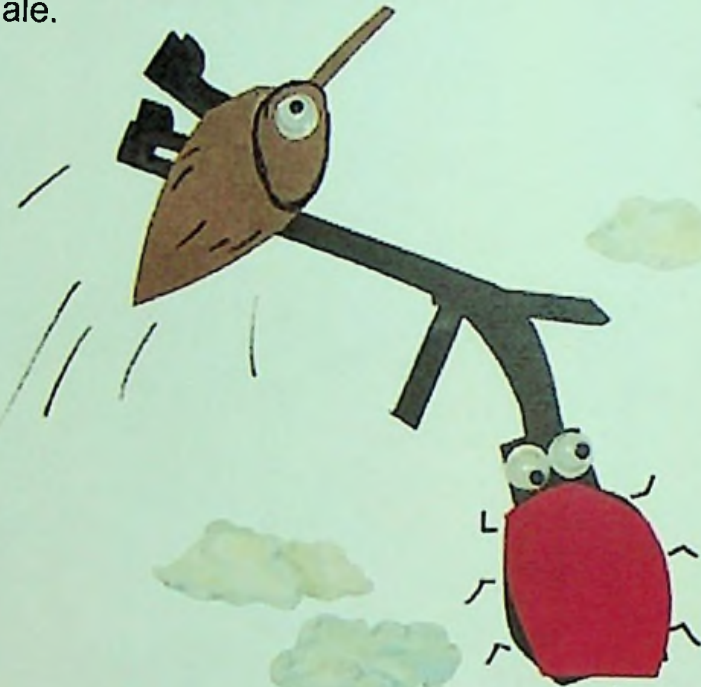
Adult Weevils vary in size and color, but they are usually brown. They have six legs and wings, although many are wingless.



Weevils are known to feed on fruits. Female Weevils have their long snout for drilling holes into fruits or shrubs. They drill these holes to lay their eggs in them! The *Mylocherus undecimpustulatus* Weevil prefers peach plants and smells! Eggs develop in the flower and eat the peach when they grow!



Uh oh, trouble in the Weevil habitat. Male Weevils use their long snouts to assert dominance. Here it looks like we have a Giraffe Weevil fighting another Weevil. Giraffe weevils have super long snouts that can grab opponents and fling them out of the way when trying to mate with a female.



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we made it!

Congratulations! You made it through one of the biggest cities in the insect world. We learned so much about what Ladybugs and Weevils eat, their habitats, life cycle, and so much more! As Mayor Ben Beetle, I'd like to invite you to come back anytime to learn about other families in our beautiful city! Hope to see you soon!



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Works Cited

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