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Crawly Creatures

Mike Artell

GOOD YEAR BOOKS

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PREFACE

Market of the creatures described in this book are arthropods. Arthropods are creatures that have legs with joints and skeletons on the outside of their bodies. Some of the arthropods you'll meet in this book are mosquitoes, fleas, and ticks. You may think there are a lot of humans on Earth, but there are a lot more arthropods. In fact, approximately 80 percent of all the creatures in the animal kingdom are

arthropods.

Other bloodsucking creatures in this book (such as leeches) are not arthropods. They're actually weird worms. The amazing thing about all of these creatures is that they feed on human and animal blood.

You're probably wondering why these backyard bloodsuckers want our blood. Why don't these creatures just eat other, smaller creatures, or plants? The reason is that bloodsucking creatures don't have all the chemicals in their bodies that they need to reproduce. They have to get those chemicals from human or animal blood. And since our blood is inside of us, bloodsuckers need to penetrate our skin to get to it. That means they have to bite us.

Human blood is made up of four basic ingredients: plasma, red blood cells, white blood cells, and platelets. Plasma is a light yellow liquid. Plasma contains water, salt, and the proteins that bloodsucking animals need to reproduce.

Red blood cells are oxygen carriers. When you breathe, your lungs transfer the oxygen to the red blood cells, which deliver the oxygen to the rest of your body.

White blood cells are your body's "soldiers." They attack bacteria, viruses, and anything else that might be harmful to your body.

Platelets help you to stop bleeding if you get cut. They make your blood clot.

The blood cells in your body are very, very small. There are approximately 25 billion red blood cells, 35 million white blood cells, and 1.5 billion platelets in a single teaspoon of blood. You've probably seen a two-liter plastic soda bottle. If you drained the average human body of all of its blood, it would fill about two of those two-liter bottles. For more information about human blood, check out these Web sites:

http://www.bloodbook.com/facts.html http://www.bloodcenters.org/aboutblood/bloodfacts.htm http://www.pa.msu.edu/~sciencet/ask_st/061197.html

About the Author

Mike Artell has written and illustrated more than 30 books and has hosted his own television cartooning show. Mike likes to write and illustrate nonfiction books because he learns so much while doing the research for them. Mike also likes to write and illustrate joke books, riddle books, and tongue twister books because they make him laugh while he's writing them. Mike lives near New Orleans, Louisiana. He's married to Susan, a high school science teacher. They have two daughters (Stephanie and Joanna), a cat (Simba), a rabbit (Smokey), and two fish (Pisces and Aquarius).

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Mosquitoes

M osquitoes might be the most annoying insects on Earth. When they're not sticking you with their pointy little mouths and sucking your blood, they're buzzing around your ears while you're trying to sleep.

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Backyard Bloodsuckers Bulletin

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The word mosquitoes comes from the Spanish word musketas, which means, "little flies." That's a very good name for them, because mosquitoes are actually a type of fly.

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What Do They EAT?

s blood the only thing that mosquitoes drink? Nope. In fact, male mosquitoes never drink blood—they drink nectar from plants and flowers. Only female mosquitoes drink blood. Females usually drink nectar too, but when they are ready to reproduce, they need some of the chemicals that are contained in blood in order to produce eggs. So the next time you get a mosquito bite, you'll know that it was a girl mosquito that bit you.



Mosquitoes don't live very long. Some species live as long as 5 or 6 months, but most usually only live about 14 days. That doesn't count the ones that get eaten by animals or squished by people.

Why don't you see many mosquitoes during the winter? Do they hibernate? Mosquitoes don't go into a state of true hibernation, but their bodies do slow down a lot during the winter.

During their lifetimes, mosquitoes go through four separate stages. The first stage is the egg stage. Most mosquitoes lay their eggs on the surface of standing water, although some lay their eggs in damp soil and then wait for the soil to become flooded. The

eggs are stuck together and form a little "raft," which floats on the surface of the water. In a day or so, the eggs hatch and mosquito larvae appears. This is the beginning of the second stage of the mosquito's life. Mosquito LARVA

mosquito larva is a weird-looking creature.

Mosquitoes

It's hairy-looking and wiggles around in the water looking for food. After a while, it wiggles up to the surface of the water, where it takes a breath of air through a breathing tube called a siphon.

The next stage in a mosquito's life is called the pupa stage. During this stage, mosquitoes begin to change. They stop eating



and develop two breathing tubes called trumpets. They also change shape and develop a pupal case. It is in this case that they change into an adult mosquito.





Another way to get rid of mosquitoes is to encourage mosquito predators, such as bats and dragonflies. Although you may think of bats as bloodsuckers too, not all bats drink blood. In fact, many species of bats are insect eaters. Did you know that one hungry bat can eat 600 mosquitoes in an hour?

You can also reduce the number of mosquitoes near you by adding turtles or mosquitoeating minnows to pools of water. Some minnows just love to eat mosquito eggs, larvae, and pupae.

Of course, another great way to get rid of mosquitoes is to wait until one lands on your skin, and then . . .

Backyard Bloodsuckers Bulletin

Most mosquitoes keep their bodies horizontal when they bite, but the Anopheles mosquito sticks its rear end up in the air when it bites.

Besides being obnoxious, mosquitoes can be deadly. Mosquito bites have transmitted diseases such as yellow fever, encephalitis, and malaria. Malaria is probably the worst disease a mosquito transmits. According to some estimates, as many as 3 million people die from malaria every year.