CATS AND RATS

Rats fear cats because when cats see rats, they think, *Yum yum*. So naturally, rats stay away from cats if they're smart.

But suppose rats stopped being smart. What could possibly make a rat want to approach a cat? The answer is a protozoan called *T. gondii*. Like *O. unilateralis*, *T. gondii* is a parasite. It thrives by living inside a host (another animal)—in this case, a housecat—and soaking up nourishment from its blood. How do these single-celled parasites get into cats?

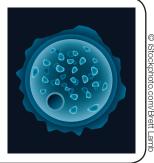


First they get into a rat when the rat comes into contact with cat feces. *T. gondii* protozoa are there waiting for the rat, and in they go. Now they must transfer from rat to cat. But rats are terrified of cats, so *T. gondii* protozoa infect the rat's brain. After that, the rat is no longer afraid of cats.

The infected rat has a good chance of being eaten by a cat, thus putting the *T. gondii* protozoa inside the cat—the best place on Earth for them to grow and reproduce.



Protozoa comes from the Greek words for "first" and "animals." Scientists believe that plants and animals all evolved from these single-celled organisms.







One of the weirdest insects on Earth lives in a tropical rainforest in Thailand. Scientists call it a zombie ant.

In fiction, zombies are dead people who come back to life. Zombie humans are makebelieve, of course, but zombie ants are for real. Members of an ant species that scientists call *C. leonardi* become zombies when fungi known as *O*. unilateralis invade them. Fungi such as mushrooms and mold do not contain chlorophyll to make food like plants do. The tiny parts of the fungi that reproduce, called spores, invade the ant and soak up nourishment from its insides.

The fungi also utilize the ant for transportation. Scientists are not sure exactly how they manage this, but somehow the spores control the ant's movements. They guide the zombie ant to a wet, warm place on the north side of a

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Fungus grows out of an ant's head, ready to infest other ants with its spores.

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plant and make it climb up to a leaf about 10 inches off the ground. Now the spores are in their ideal environment, so they force the zombie ant to chomp down on the leaf and hang on. The ant starves to death because its jaws remain clamped shut. Inside the dead ant, the spores thrive and reproduce. They also sprout out of the ant's head and send spores into the open air. The spores invade other ants and turn them into zombies, too.



Scientists use Latin words to name each species, or kind of living thing. Each species has two Latin names, for its genus and species. Humans are called Homo sapiens or H. sapiens.



Ants in Central America also get invaded. A worm called a nematode gets into bird droppings. When ants eat the droppings, they take in the nematodes. Inside the ants, the nematodes lay eggs, which turn the ants red and bloat their bellies. Now the ants resemble red berries that birds want, so the birds gobble up the nematode-infested ants. Then the birds excrete the nematodes in their droppings, and the whole process begins again.

Write About This!

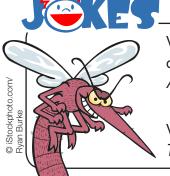
An invasion is an aggressive attack. Think of all the little creatures that attack people and invade their homes. Some, such as most ants, are seldom harmful. Others, such as certain microbes, or germs, carry disease. List as many little invaders as you can think of. Use your list to help you write a story about humans being invaded and fighting off the invaders.

INVASION OF THE CRICKETS



In Tuscarora, Nevada, millions of crickets show up each spring. They come marching across the desert and through the town, looking for food, invading houses, and covering walls and windows. Only twelve

people live in the town, but they were determined to keep the crickets away this year. They blasted rock music from boom boxes, but it didn't bother the crickets. The citizens of Tuscarora are still searching for a way to stop the invaders. How would you help?



What do you call a creature with antlers that sucks your blood? A moose-quito.

Why do mosquitoes visit the dentist? They want to improve their bite.

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