

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_ School: \_\_\_\_\_

## Grade 8: Lesson 12 Parasites

### Texts for lesson:

*Note: small portions of the source text have been omitted from this lesson in preparing it to air on public television.*

### Top 10 Real-Life Body Snatchers

*By Megan Gambino, Smithsonian.com October 24, 2011*

Parasites and zombies are not science fiction; they infest rats, crickets, ants, moths and other creatures, sucking the life out of them.

To ensure their own survival, parasites alter the appearance and behavior of their hosts in the creepiest ways. For instance, rats carrying the parasitic protozoan *Toxoplasma gondii*, which reproduces inside the gut of a cat, no longer fear the smell of cat urine. In fact, they are attracted to the scent, according to a recent study. This way, infected rats walk right into the grips of a feline.

#### *Paragordius tricuspidatus*

So exactly how a hairworm parasitizes a cricket is unknown. Scientists suspect that the insect ingests either an infected mosquito or water containing hairworm larvae. Scientists suspect that the insect ingests either an infected mosquito or water containing hairworm larvae. But once inside, the hairworm grows three to four times as long as the cricket, filling all parts of its body except the head and legs. What happens next is even more bizarre. The parasite, *Paragordius tricuspidatus*, produces proteins that hijack the cricket's central nervous system, making it attracted to areas brighter than its shaded forest home. The cricket, *Nemobius sylvestris*, heads then to an exposed pond or river and dives in, at which point the hairworm emerges from its host. In an aquatic, or water-based, environment, the worm can find a mate and reproduce. For some crickets, it's a leap to their death. But others lucky enough not to have drowned have lived for several months after the parasite removes itself. In fact, the crickets' strange attraction to light subsides as little as 20 hours later.

### **Independent Practice:**

In your own words, write a summary of today's passage on the hairworm and the cricket. As you write the summary, be sure to use each of the following vocabulary terms that we used today: *parasitizes*, *hijack*, *ingests*, *expose*, and *subsides*.

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