

Name: _____ Teacher: _____ School: _____

Grade 8: Lesson 13 Parasites

Texts for lesson:

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.

Hymenoepimecis argyraphaga One of the most complex manipulations, or changes, of a host by a parasite happens in Costa Rica. A female parasitic wasp of the species *Hymenoepimecis argyraphaga* stings the spider *Plesiometa argyra* and paralyzes it. In the 10 to 15 minutes that the spider is immobilized, or not moving, the wasp lays an egg and affixes it to the spider's abdomen, or stomach. For a week or two, the spider proceeds living as normal. Then, the egg hatches. The larva, or young wasp, pierces the spider's tough skin and sucks its blood for sustenance. On the night it plans to kill its host, the wasp larva injects a chemical into the spider that drugs it into spinning a web unlike any it would normally make. Basically, the spider repeats one stitch in its web-constructing repertoire over and over. The wasp larva then kills and eats the spider, spins the cocoon from the sturdy web, and a week and a half later, transforms into a wasp.

Glyptapanteles sp. Little do caterpillars of the moth *Thyrinteina leucocerae* know, but as they feed on guava and eucalyptus trees in Brazil, the larvae of parasitic wasps of the genus *Glyptapanteles* may very well be feeding on them. The wasp deposits up to 80 eggs in the caterpillar. When the eggs hatch, the larvae bulk up by eating the host's inner parts. At full size, all but a few squeeze through holes in the caterpillar's skin and spin a cocoon on a nearby twig or leaf. The larvae that stay behind begin to pull the puppet strings, so to speak. Within a day, the caterpillar stops eating and starts exhibiting a strange behavior—what scientists call “violent head-swings.” Like a bouncer at a bar, it swings at any predators that approach the cocoon, either knocking them down or causing them to back away. Once the wasps emerge, the caterpillar dies, having served its purpose.

Independent Practice:

In a brief essay, compare and contrast the parasitic relationships we discussed today. What are the similarities between the wasp and the spider relationship, and the wasp and the caterpillar relationship? What are the important differences between them? Be sure to use specific details from your notes to support your answers.

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