

(Before writing the response, make sure to read both passages of text.)

An Unlikely Parasite: The Mistletoe

During the holidays, many people hang mistletoes over doorways. People share kisses under this evergreen plant. It is a popular Christmas tradition. But don't let the image of a romantic plant used during the happy times of the holidays fool you. In the forests where they're from, mistletoes can do some real damage. Let's take a look at how and why.

The mistletoe plant is evergreen. This means it has leaves that remain green throughout the year. It is also poisonous and has white berries and small, yellow flowers. The mistletoe lives on other plants, taking water and nutrients from these plants. For this reason, mistletoes are considered parasites.

The white berries of the mistletoes contain seeds. Some birds and mammals like to feed on these berries. When they do, the seeds may attach to the animal eating the berries. The animal may carry the seeds to another part of the tree or shrub. They may also carry the seeds to another plant altogether. The seeds start to grow roots that dig through the bark of the tree or shrub. The roots grow into the tissues of the plant they've taken over. That's how mistletoes take nutrients and water away from the host plants. Mistletoe can be hard to remove once it infects a plant. The best way to fight off a mistletoe infestation is to cut off the infected branch completely. If the mistletoe takes

over more parts of the plant, it can start to weaken the plant and make it harder for it to grow.

As mistletoes grow in the trees, they become a thick mix of branches and stems. This big mass is sometimes called a "witch's broom." Some animals nest in these witches' brooms. These animals include chickadees, house wrens, and most Cooper's hawks.

Venus Fly Trap

The Venus flytrap is an insect-eating plant that lives mostly on the East Coast. Found primarily in swampy parts of the United States, like North and South Carolina, the Venus flytrap has colorful pink and green hues. Like most other plants, Venus flytraps get some nutrients from the soil, but since swampy areas tend to have soil that is nutrient-poor, it is hard for the plant to get nutrients from there. As a result, the flytrap has evolved to not only rely on the soil to survive. The Venus flytrap is a carnivorous plant because it catches insects and eats them to get the nutrients that it can't get from the soil.

The Venus flytrap has leaves that open to catch prey and then snap shut once it's ready to eat. On the inside of each leaf there are short, stiff hairs called trigger hairs. When an insect touches one of the three trigger hairs on either side of the leaf twice in a row, it signals to the flytrap that dinner is here. The leaves then snap shut, trapping the insect inside. Of course, some insects are able to escape, but many don't. And if they try and struggle to get out, the trap closes even tighter! The trap

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doesn't close all the way, though. It stays open for a few seconds, so smaller insects that might be trapped inside with the main meal can crawl out. Venus flytraps don't like to eat small insects because they don't provide a lot of nutritional value. If it's not an insect that is trapped, rather a nut or a stone, the trap will open after about 12 hours and spit it out. The inside of a flytrap has fingerlike tentacles that help keep the insect from escaping. If you fold your hands together and lace your fingers on the inside, you'll get an idea of what the trap looks like.

In order to digest or eat the insect, the flytrap must squeeze its prey very tightly, as digestive juices dissolve the inside of the insect. At the end of this process, which takes anywhere from 5 to 12 days, the trap opens up again, and either rain or wind will carry the insect's remaining exoskeleton away. If the flytrap has caught an insect that is too big, and, say, the legs of the bug are sticking out of the trap, the digestion process might not happen the way it should. The trap will grow mold and once that happens, it will continue to get sicker and sicker, with the trap eventually turning black and falling off.

The exact amount of time it takes for the trap to open back up again depends on a variety of factors. These factors include the size of the insect, temperature, how old the trap is, and how many times the plant has gone through this process. In fact, the trap can only catch about three of its prey before it turns black, dies, and falls off. The trap can only open and close about seven times; that is why it is important to not go around touching the

trap in order to get them to close. So if you ever see one, don't tease it!

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Each passage provides information about dangerous plants. Write a response explaining how the Venus Flytrap and the Mistletoe are considered dangerous plants. Use information from **both** passages to support your response.