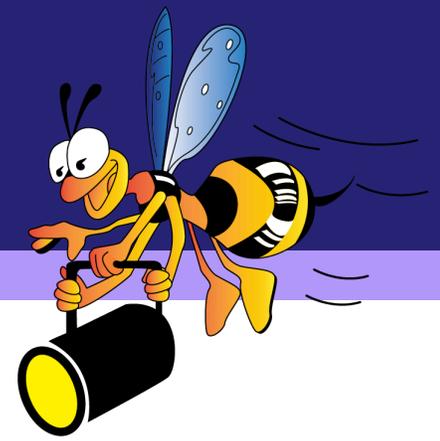


LIVING LIGHTS

Spotting Bioluminescent Fungi



Bioluminescence

Bioluminescence (“bi-o-loo-mi-neh-sens”) is the ability of an organism to make light. Most bioluminescent organisms live in the ocean. Bioluminescent organisms that live on land are rarer, but you’ve probably seen one in your neighborhood - the firefly (or lightning bug). There are also bioluminescent fungi and other insects, too.

So what makes these organisms glow? Bioluminescence is caused by a reaction between luciferin (a compound that makes light), oxygen, and luciferase (an enzyme) or a photoprotein. This reaction is a little different in each species, but the result is light.

Fungi

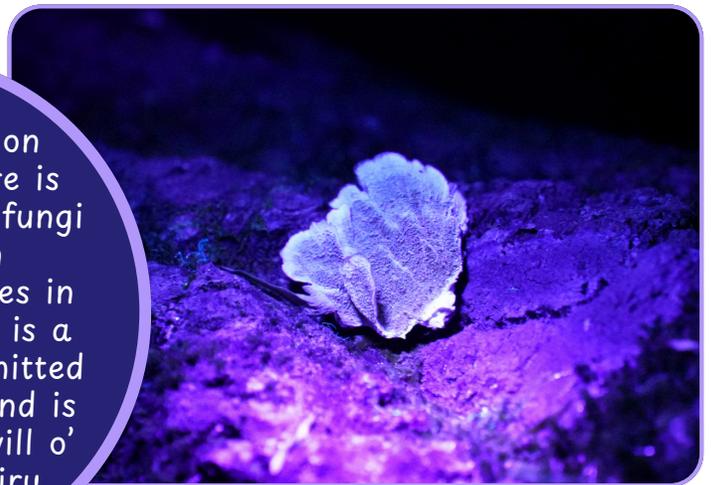
Some species of fungi are bioluminescent. Examples of fungi are mushrooms, mold, and yeast. They emit light 24 hours a day, but the light is so dim that we can’t see it during the day. Even at night, the light can be difficult to see. Depending on the species, different parts of fungi glow.

Photo by Stephanie M. Adams, Bugwood.org



In North America, jack o’ lantern mushrooms are commonly found bioluminescent fungi.

The phenomenon known as foxfire is produced by the fungi that feed on decomposing trees in a forest. Foxfire is a low-level light emitted by these fungi and is also known as will o’ the wisp or fairy fire.



FIND Outdoors photo by Diogo DeAssis



**Natural
Inquirer**

www.naturalinquirer.org

TRY THIS: Be a Mycologist



Career Exploration

A mycologist is a scientist who studies fungi. Some scientists, like mycologists, study bioluminescence in fungi and why fungi might glow. They think fungi might glow to attract organisms that will spread their spores. Or the fungi might be attracting predators that will eat the insects that eat the fungi. There's still a lot to learn about bioluminescence and fungi in general.



With an adult, find a safe place to explore outside. Do you see any mushrooms? If you do see them, just observe them with your eyes and draw the mushrooms you find here.

** Look, but don't touch! Never touch or eat mushrooms you find in the wild. Some mushrooms are dangerous for people. **

Rate this job! Based on what you learned and what you did, circle or color the number of stars you give this job.



Why did you give it this rating?