



Mushrooms emerge from a log near Hobsons Pond.

PHOTO: Irwin Barrett

# The Death That Leads to New Life

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If a tree falls in the forest, does it make a sound? What is certain is that the tree will rot and decompose until it becomes dirt, allowing new plants and trees to grow in the space it once occupied and use the nutrients that it left behind.

Death is often an overlooked part of the life cycle. As a society, we steer away from conversations concerning our sorrow and own mortality.<sup>1</sup> This is seen in the societal pressure we face when dealing with grief.<sup>2</sup> It leaks to all aspects of our life, even to how we talk about flora and fauna.

**Xochil** (she/her) is a marine biologist with an MBA. She is a born and raised Nova Scotian and cannot think of a better place to live surrounded by forests and the ocean. Her hopes are that she will be able to use both her degrees to make a difference in her community and the environment.

Fungi are nature's decomposers. Unlike plants, turning the energy of sunlight into new growth, fungi instead digest and feed on organic materials. These remarkable organisms have the ability to digest and break down cellulose and lignin, which is present in trees.<sup>3</sup> Thanks to fungi producing energy from organic matter, the nutrients within a tree make their way back to the earth. This process in turn will provide the nutrients needed for new plants and trees to grow.

While it is always sorrowful to see a big tree reach the end of its life, death is an essential part of an ecosystem. Often there are so many trees blocking the sun that the light is unable to reach the forest floor. Plants low to the ground, then, can't access the solar energy they need to grow. In such circumstances, the death of an old tree makes space in the canopy, bringing hope and light to the forest floor.

When the tree falls down, spores from fungi will find a place to settle and start to grow, feeding off the matter from the tree. This in turn helps decompose the tree faster, leading to an increase in insect activity. Many insects depend on the rotting trees for food and





Fungi grow on a moss-covered forest floor.

PHOTO: Xochil Hernandez-Urquilla

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shelter.<sup>4</sup> There are also fauna, like woodpeckers, bats, snakes, lizards and salamanders, to which this decaying tree is a vital part of their home environment. The tree offers shelter, and ideal environmental conditions for their survival, which may not exist if not for the death of the tree.

Even when the plants start to grow back and the sun no longer reaches the forest floor, fungi will continue to thrive. In some cases, there will be an increase in the diversity of fungi you will see, a by-product of the growing flora causing increased humidity and darkness. In turn the fungi will continue to break down remaining matter, releasing the essential nutrients needed by plants to flourish.

So now when you take a walk in the forest and see a patch of fungi growing, take it as a sign of an environment that is thriving. Take a moment and appreciate the key role these fungi play in the environment, turning death into new life. Appreciate how something so small and seemingly insignificant has such an essential role in the world around us.