

Why are tree funguses cold to the touch? Even on a warm day they feel cold. Uh Oh... are they poisonous (after thought).

I have looked around (in a couple of mushroom/fungus books and on the internet) and have found no information on the apparent temperature of fungi of any type. I also took the opportunity to explore a bit about the Madrone (also known as the refrigerator tree because it is cool to the touch) and found no information on why it feels cool.

My answer will need to be my best guess based on thinking about mushrooms (fungi), trees and water.

The refrigerator tree feels cool to the touch (my best guess), when you touch the red bark areas, because you are not actually touch bark when touching the red parts of a Madrone. The red parts are exposed areas of vascular tissue in the tree. Vascular tissue moves water and nutrients through the tree. Mushrooms and fungi do not have bark, touching a mushroom/fungus is in essence touching its vascular tissue. If you were to peel a section of bark off an oak tree or a redwood tree, the exposed wood underneath would feel cool also. A damp piece of firewood will feel cooler than a dry piece of the same kind of wood.

In general higher humidity (wetter things have a higher humidity) causes heat to be conducted away from the body fast, often making a hot day feel hotter and inversely a cold day feel colder. A wet, damp or humid object can conduct heat from your hand faster which would make the object feel cooler.

My best guess is that a tree fungus feels cool because it is relatively wetter (more humid) than your hand is.

As for poisonous or not: there are about 10,000 species of fungi that occur in the United States, about 200 are poisonous, and a dozen or so are deadly (please note, you can have a fatal allergic reaction to a non-poisonous mushroom). To the best of my knowledge, fungi toxins need to be ingested to be effective. Touch alone will probably not be immediately dangerous, touching your lips afterwards might be. I always stress caution with wild fungi. Look, but do not pick and if you need to eat fancy mushrooms buy "wild" ones at the grocery store (they were almost certainly raised on a mushroom farm).