



Meet the Scientist!



As a plant physiologist, I study how plants and fungi capture energy, grow, protect themselves, and eventually die. I also study beneficial microorganisms in the forest.

Dr. Kevin T. Smith Plant Physiologist

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USDA Forest Service scientist



<http://www.naturalinquirer.org>

Important Scientist Characteristics:

My research depends on wide-ranging curiosity and problem-solving based on fundamental principles of physics, chemistry, and biology. I also have an understanding of science history and philosophy.

Example of a simple research question I have tried to answer:

How do hollow trees continue to survive and even thrive for many years after becoming infected by wood-destroying fungi? I work to identify the boundaries inside trees that resist the spread of infection. These boundaries allow trees to produce new wood after injury from infection, fire, storms, and human activity.

Technology or equipment used in research:

I use a lot of cool gear, including equipment to safely remove wood from living trees, microscopes that show changes in plant and fungal cells, and x-rays that help identify chemical patterns. I also use cameras and power woodworking tools such as sanders, planers, drills, and saws.

Most Exciting Discovery

My environmental stress team recently documented the initial recovery of forests in the northeastern U.S. that had been damaged by acid rain. The early recovery came after Federal laws that reduced air pollution. The recovery also had to do with the restoration of healthy forest soil from the decay of wood and other plant parts.

When did you know you wanted to be a scientist? By the time I was five years old, I was looking closely at injured trees, broken branches, and wild mushrooms. (You should never pick wild mushrooms; just observe them with your eyes.) I was curious about how nature fit them together and how people could live in the middle of it all. My research career continues that childhood interest.

<http://www.nrs.fs.fed.us/people/ktsmith>