



# Meet the Scientist!



A forester studies how forests and woodlands grow, function, and are managed to provide things that people want and need from forests. Specifically, I study prescribed fire and how it can be used as a tool to manage our forests and wildlands.

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<http://www.naturalinquirer.org>

<http://www.scienceinvestigator.org>

## Important Scientist Characteristics

★ My math skills led me to graduate school to study statistics, modeling, and sampling. I use these studies to design experiments, take measurements, and test models of how a fire behaves. My curiosity leads me to ask questions and challenge our understanding of how fire “works.” Studying fire is fun!

**Example of a simple research question I have tried to answer:** Wildland fires burn in both living and dead vegetation. Living vegetation usually grows vertically while dead vegetation usually lays on the ground. I am trying to improve our knowledge of how fire spreads in living vegetation which always has more water in it than dead vegetation.

**Technology or equipment used in research:** I use video cameras that see the flame like a human eye. I also use tools that examine the hot gases of a flame. By analyzing how the flame flows around and through vegetation, we understand how a fire ignites and spreads through the vegetation.

## Most Exciting Discovery

We demonstrated that wind is sometimes a requirement for a fire to spread successfully in wet fuels (dead and live). This discovery contradicted our previous modeling of how fire spreads. Some fire users knew this from experience, but this hadn't been widely demonstrated in a lab.

## When did you know you wanted to be a scientist?

I knew I wanted to work outdoors in forests by 10th grade. Starting my sophomore year in college, I worked as a Cooperative Education student at the Forest Service Southern Forest Fire Laboratory and decided to become a scientist a year later.

<http://www.fs.fed.us/psw/programs/ff/staff/dweise/>