



# Meet the Scientist!



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A forest ecologist is concerned with the survival of the forests, how trees and people 'get along,' and how we can help each other.

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### Important Scientist Characteristics

I believe my ability to think about ways to investigate possible answers to questions is the skill that is most important to being a scientist. Figuring out how to design a study that you can actually do, that will answer an important question, can be very tricky.

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

What makes some trees live and others die, even the same tree of the same species and located in the same spot? For example, when we investigated how insects were killing sugar maples, we found that if sugar maples have enough calcium, they could survive the attack of what was eating their leaves.

### Technology or equipment used in research:

I measure the chemistry of the leaves with a plasma spectrophotometer. I also use hyperspectral remote sensing—special pictures taken from satellites or airplanes—to determine tree health.

### Most Exciting Discovery

We figured out we could use photos taken from special planes and satellites to tell if trees are sick before people can see that they are unhealthy. This can help us find those invasive insects before they become unstoppable or spread to new areas where they could kill millions of trees.

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

I knew I wanted to have a job where I worked outdoors a lot when I was very young. I realized I wanted to be a scientist when my teachers told me I asked too many questions!

<http://nrs.fs.fed.us/people/rhallett>