

Meet the

Scientist!

As a silviculturist, I study ways to sustainably manage forests for desired products and outcomes.

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http://www.naturalinquirer.org

## Important Scientist Characteristics:

I have a lot of perseverance. Perseverance enables me to continue with projects even if they are hard or take a long time. This is an important skill in science because there are always more questions to be answered.

**Example of a simple research question I have tried to answer:** How do light, moisture, and soil relate to the growth and survival of young trees of different species? Planting trees is uncommon in the forests of the northeastern United States. Most trees regenerate naturally. Foresters need to know which conditions are suitable for each tree species. With this knowledge, forests can be managed to create different microclimates, or small areas with different climates, for each tree species.

## Technology or equipment used in research:

I use a camera with a fish-eye lens that can take hemispherical photos of the forest canopy. A hemispherical photo shows a full 180 degrees. Combined with computer programs, these photos show how much sunlight reaches young trees, called seedlings, on the forest floor.

## Most Exciting Discovery

I discovered that red spruce, an important tree in northeastern United States forests, is at a disadvantage when compared to seedlings of other species. Red spruce seedlings grow best on moist soil, like soil created from decayed wood. But those soils are uncommon in managed forests because trees are removed before they die, fall down, and decay. Red spruce seedlings also grow slowly, and they are eaten by snowshoe hare. It is hard to be a red spruce seedling!

When did you know you wanted to be a scientist? I decided to become a scientist after my high school science fair project about acid rain. I had a lot of encouragement from my parents and teacher. I made it to the state competition. That experience showed me that science can be exciting, and that all kinds of people can be scientists.