Meet the Scientist!

Dendrochronologists study tree rings to understand how environments have varied in the past or to determine the specific year when events occurred.

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Dendrochronologist

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USDA Forest Service scientist

http://www.naturalinquirer.org

Important Scientist Characteristics:

Creativity combined with careful observation has contributed most to my science work. Looking at tree rings through a microscope requires patience, but I get a lot of ideas and never seem to run out of them! I also discovered that I like math when I need it to understand my own data.

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

How is tree growth affected by prescribed fires, also called controlled burns, set by forest managers? I studied a ponderosa pine forest in Arizona which was burned. First, I subtracted out the effect of climate and competition from other trees. The trees grew slowly at first, but then growth increased.

Technology or equipment used in research:

One way we measure tree rings is to put the sample on a big scanner and save the scanned image. Then we use a special computer program that can measure the distance between rings on the image. Of course, we have to check the results because sometimes the program gets it wrong!

Most Exciting Discovery

Scars sometimes form on a tree after a fire which tells us what year the fire burned. It has been interesting to see how scars form on different tree species because it affects our interpretation of how important fire is to trees in that kind of forest. Oaks are different from pines!

When did you know you wanted to be a scientist?

My older sister was a scientist. When I was in high school, she invited me to visit her and I saw what being a scientist was like. I knew then that I wanted to be a scientist. She studied bacteria and I study trees.

https://www.fs.fed.us/rmrs/people/esutherland