



Fire ecologists study how wildfire changes ecosystems. As a fire ecologist, I focus on forests. Specifically, I study the impacts of removing fire from, or changing how fires burn in, forests which originally had fire.

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<http://www.naturalinquirer.org>



## Dr. Sharon Hood



**Important Scientist Characteristics:** I love forests, and I am amazed how much forests can change over time. Spending time outside sparks my curiosity to understand forests and how climate and disturbance impacts forests. As a scientist, it is important to keep long-term goals in sight, accept some failures, and collaborate with others for successful research.

### **Example of a simple research question I have tried**

**to answer:** How do bark beetles and fire interact? How does one influence the other? In one project, I specifically asked, "Does a low 'dose' of fire, one in which trees survive, increase tree defenses to better help trees fend off attacking bark beetles, similar to the way a vaccine works in humans?"

### **Technology or equipment used in research:**

I use increment borers to collect wood samples from trees. The borer extracts a  $\frac{3}{16}$ " wood cylinder so I can measure wood traits without killing the tree. As trees grow, they leave a record of every year they are alive. This record enables scientists to reconstruct the conditions under which trees were growing in the past.

### **Most Exciting Discovery**

- In the United States, we stop
- many fires occurring in forests.
- Stopping fires has reduced how
- often fires burn in many forest
- types. My most exciting discovery
- was that reducing low-severity
- fires can make trees vulnerable to
- bark beetles.

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

- I like science because it helps
- me understand the world in
- which we live. I studied forestry
- in school because forests have
- such huge ecological and
- economic impacts. I thought I
- would become a forest manager.
- I gradually realized I loved the
- whole scientific process of going
- from ideas to publishing to
- informing land management.

<https://www.firelab.org/profile/hood-sharon>