



Ecology  
is the study of  
interactions between  
organisms and their  
environment. A fire  
ecologist studies fire as a  
disturbance process in  
the environment.

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## Dr. Morris C. Johnson



### Important Scientist Characteristics:

A combination of curiosity, experience, and passion for what I enjoy are important for my research. I have had the opportunity to work on elite firefighting crews (Redding and Redmond hotshot crews). Those experiences were valuable exposure to fire. I also understand what managers in the field need to make their jobs easier. I work for them.

**Example of a simple research question I have tried to answer:** How do fuel treatments change wildfire behavior during extreme weather conditions?

### Technology or equipment used in research:

I use computer models to simulate fuel treatment effects and wildfire behavior. The model grows trees and estimates fuel characteristics which influence fire behavior. In the model, I can remove trees to see how fire behavior changes.

**Most Exciting Discovery**  
My most exciting discovery was calculating the effects of thinning treatments, which most likely saved many homes in the 2011 Wallow Fire.

**When did you know you wanted to be a scientist?**  
At first, I never had plans to attend college. Most of my classmates had joined the military, and I thought that was my only available option. It wasn't until after I was accepted into graduate school that I knew I wanted to be a scientist.