



Meet the Scientist!



A forest ecologist studies the interrelated patterns and processes of vegetation, animals, energy, water, and nutrients in forests.

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<http://www.naturalinquirer.org>

Important Scientist Characteristics

My research is founded on a solid foundation of math and science. However, it is largely driven by curiosity, sparked by creativity, and achieved with patience and persistence.

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

I am interested in climate change and extreme weather events. In particular, I am interested in extreme weather events (e.g., hurricanes, droughts, heat waves, and ice storms) and how increases in the frequency and severity of these events will shape our future forests.

Technology or equipment used in research:

I am increasingly using digital environmental sensors. Sensors wirelessly transmit forest data to the Internet in near real time, providing a virtual "window on our watersheds." This allows us to measure and monitor the physical, chemical, and biological pulse of our forest ecosystems.

Most Exciting Discovery

Using the sensor network, we observed dramatic increases in soil temperature at the same time the snow melts in forests. This jump in soil temperature occurs over a period of just a day or two. The temperature increase is as dramatic as annual ice melt on lakes. It announces spring in northern hardwood forests.

When did you know you wanted to be a scientist?

I have always loved the outdoors. I started studying philosophy in college. But I soon learned that I was fascinated by understanding patterns and processes of energy, water, and nutrient movements through forest ecosystems.

<http://www.nrs.fs.fed.us/people/lrustad>