Soil ecologists focus on understanding the interaction between soils, water resources, ecosystem productivity, and biodiversity to ensure sustainable landscapes. Soil is the foundation for our agricultural and forest ecosystems.

Dr. Carl Trettin

Soil Ecologist

Ph.D., North Carolina State University

USDA Forest Service scientist

Dr. Carl Trettin

Important Scientist Characteristics:
As a scientist, it's important to be inquisitive. Understanding the complex interactions among soils, water, vegetation, and other organisms requires diligence in employing field, laboratory, and analytical skills.

Example of a simple research question I have tried to answer:
How does management of forested wetlands affect carbon and greenhouse gases? Carbon and other greenhouse gases are stored in all types of ecosystems, including wetlands. Carbon moves through Earth's ecosystems, all living things, and the atmosphere in a cycle, called the carbon cycle.

Technology or equipment used in research:
I use equipment that measures greenhouse gas emissions, like carbon or methane. I do both field-based measurements and collection of samples that are analyzed in the laboratory. I also collect measurements of hydrology, forest condition, and soil properties.

Most Exciting Discovery
My most exciting discovery was that organic soils, soils created from living material, are common throughout the alpine mountains of Lesotho, a country in Africa.

When did you know you wanted to be a scientist?
I knew I wanted to be a scientist when I understood that I was not suited for a "business" career selling something.

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