A soil scientist studies soil properties and processes, how they change in response to management actions, and how they influence other parts of the forest.

Dr. Andy Scott
Research Soil Scientist
Ph.D., Virginia Tech
USDA Forest Service scientist

Important Scientist Characteristics
I think my most important talent is in communicating science to a wide variety of people. Too often, scientists focus on discovery but don’t communicate it well. I enjoy speaking about my science to everyone, from the experts to local elementary schools.

Example of a simple research question I have tried to answer:
Do forest management practices, such as tree harvesting, alter the soil’s ability to function in a number of ways?

Technology or equipment used in research:
I frequently use a custom-made soil coring tool. It’s about 50 cm long, 8 cm wide, and it is hammered into the soil to remove an intact soil core 30 cm long. From this sample, I can calculate all sorts of chemical and physical properties important to understanding how the soil functions.

Most Exciting Discovery
I calculated the potential biomass energy lost from harvesting trees on nutrient-poor sites and the energy it would require to restore the nutrients to the soil. I showed that the energy gain of having fertile soil is much greater than the energy needed to fertilize the soil.

When did you know you wanted to be a scientist?
I grew up exploring the forests around my house, and entered forestry upon the advice of a local forester. I got a job working for a forest soils scientist the first summer I was in college, and I found that I loved forestry, soils, and science.

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