



Meet the Scientist!



As a forester,
I study carbon
dynamics in forest
ecosystems. I develop
and improve techniques
to estimate forest carbon
stocks and changes to the
carbon stocks using
forest inventory
information.

Dr. Grant Domke

Research Forester

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USDA Forest Service scientist



<http://www.naturalinquirer.org>

Important Scientist Characteristics

The skill that has helped most in my research is communication. The work I do is collaborative in nature, so being a good listener and communicating ideas to other scientists has been critical. It enables us to frame good research questions and then design studies to answer them.

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

How much carbon is in the litter and soil of forest ecosystems? We developed models using observations of litter and soil characteristics from the Forest Inventory and Analysis (FIA) program. We also used data on climate and soils to predict litter and soil carbon for all forests in the United States.

Technology or equipment used in research:

I use tree- and site-level data from the national forest inventory which is conducted by the FIA program within the Forest Service. This information is collected annually on permanent sample plots across forest land in the United States. It is publically available for anyone to use.

Most Exciting Discovery

We recently estimated that soils account for much more carbon in forest ecosystems in the U.S. than previously reported. To discover this, we used several data sources to estimate carbon across soil depth. Using those estimates we predicted soil carbon on all forested sample plots in the FIA program.

When did you know you wanted to be a scientist?

I have always been fascinated by how organisms interact and respond to changes in their environment. After a few years of undergraduate education in forestry, I realized I would rather inform management and policy decisions through science than be the one managing or implementing policies.

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