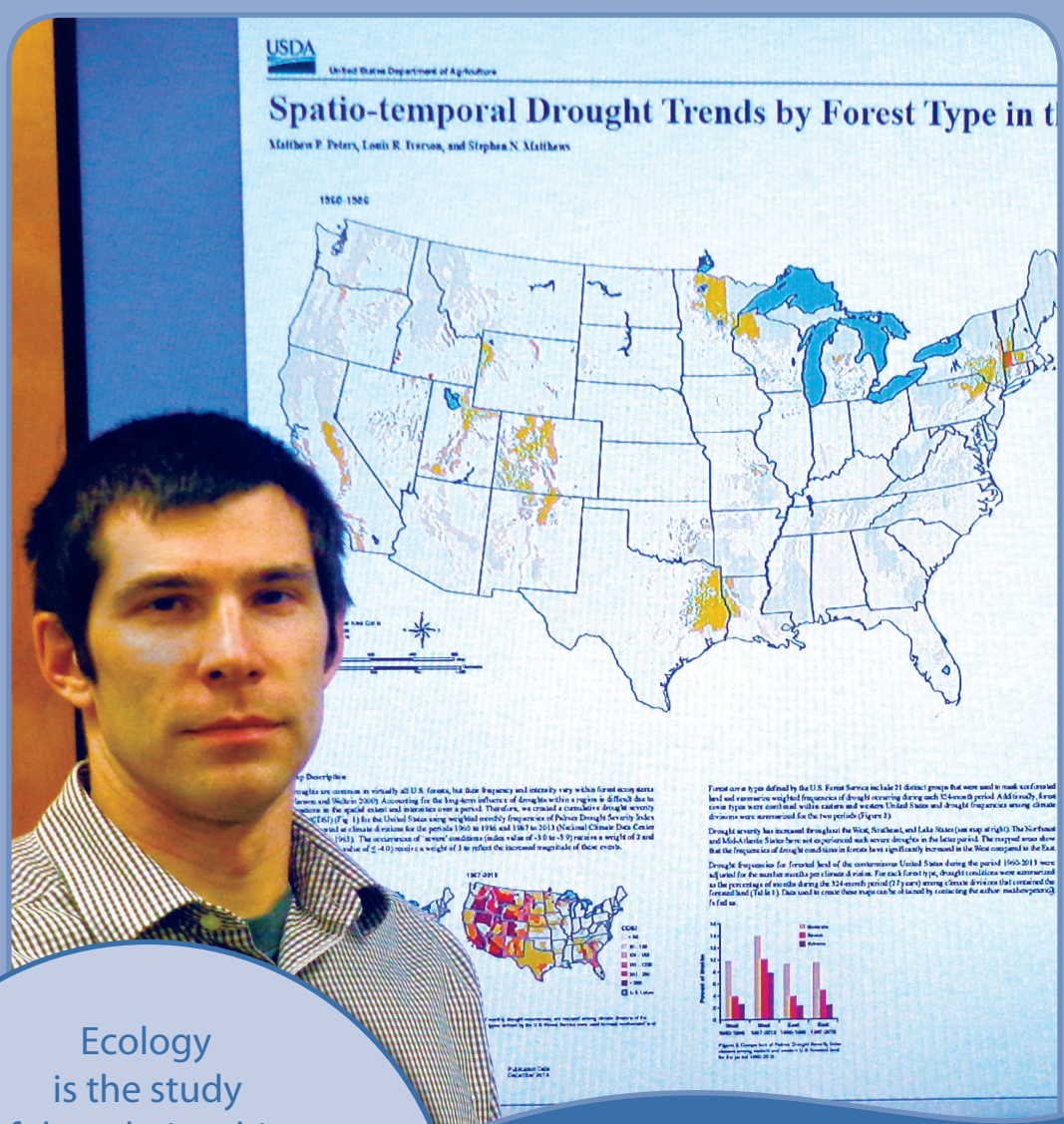

Meet the Scientist!

Ecology is the study of the relationships between organisms and their physical surroundings. As an ecologist, I use my background in geography to examine spatial patterns in ecology.

Matthews P. Peters

Ecologist

M.S., Arizona State University

USDA Forest Service scientist

http://www.naturalinquirer.org

Important Scientist Characteristics:

Critical thinking and curiosity are important skills in research. They enable a scientist to observe phenomena and begin the process of understanding what and why we have observed something. These skills are also useful when using geographic information systems (GIS) techniques to solve a problem.

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

How will Eastern United States forests, and the habitat of individual tree species, be impacted by projected climate change? Using information about the environment and the abundance of trees, we use models to simulate how and what change may occur in the future.

Technology or equipment used in research:

Geographic information systems (GIS) are computer programs that enable me to create, manage, maintain, edit, display, and analyze information about the environment. Spatial analyses and modeling are used to visualize patterns and trends which have geographic relationships.

Most Exciting Discovery

In a past study, I rated each Eastern United States tree species as tolerant or intolerant to drought. I created a forest composition map based on modeled suitable habitat, and then compared the map to recent drought conditions. The results suggested that droughts occurred mostly in forests with drought tolerant species or a mixture of tolerant and intolerant species.

When did you know you wanted to be a scientist?

Earning the rank of Eagle Scout gave me many opportunities to be outdoors and learn about the environment. I knew I wanted to pursue a career in science, and I discovered the possibility of using GIS while attending college.

https://www.nrs.fs.fed.us/people/mpeters