A geographic information system (GIS) analyst uses geographic data to answer questions, solve problems, and tell stories. In my work, this often means looking for spatial patterns that show how forests respond to climate change or other stressors.

Jennifer Moore Myers

Resource Information Specialist

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Important Scientist Characteristics

Geographic information systems (GIS) combines science and art, through cartography and design, which is a good balance for my interests and talents. Creativity, organization, and determination are essential. Often times, no standard method or practice guides my work, so I must invent, document, troubleshoot, and revise.

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

How have drought, acidic deposits, and the southern pine beetle contributed to widespread death of the red spruce tree in western North Carolina? The scientists in our unit learned that all three stressors were collectively impacting the forest ecosystem. Prior to this study, it was not known that spruce trees could be vulnerable to southern pine beetle attacks.

Technology or equipment used in research: I use a laptop and GIS software to analyze geospatial data. I create maps with specific color schemes and symbols to reveal patterns or highlight relationships between different datasets. I use spatial tools to combine and summarize data to create new information useful for research scientists.

Most Exciting Discovery

Working on the TACCIMO project, I learned that geospatial data are helpful for communicating complex scientific issues. Potential climate change impacts vary across space and time, and web-based maps are an interactive tool for visualizing and understanding climate change trends across scales.

When did you know you wanted to be a scientist?

I grew up in the Midwest, exploring its forests, fields, lakes, and rivers. I feel at home in the woods. I love that my job lets me continue to study the what, where, how, and why of our natural world and contribute to its stewardship in some small measure.

http://www.forestthreats.org/tools/taccimo