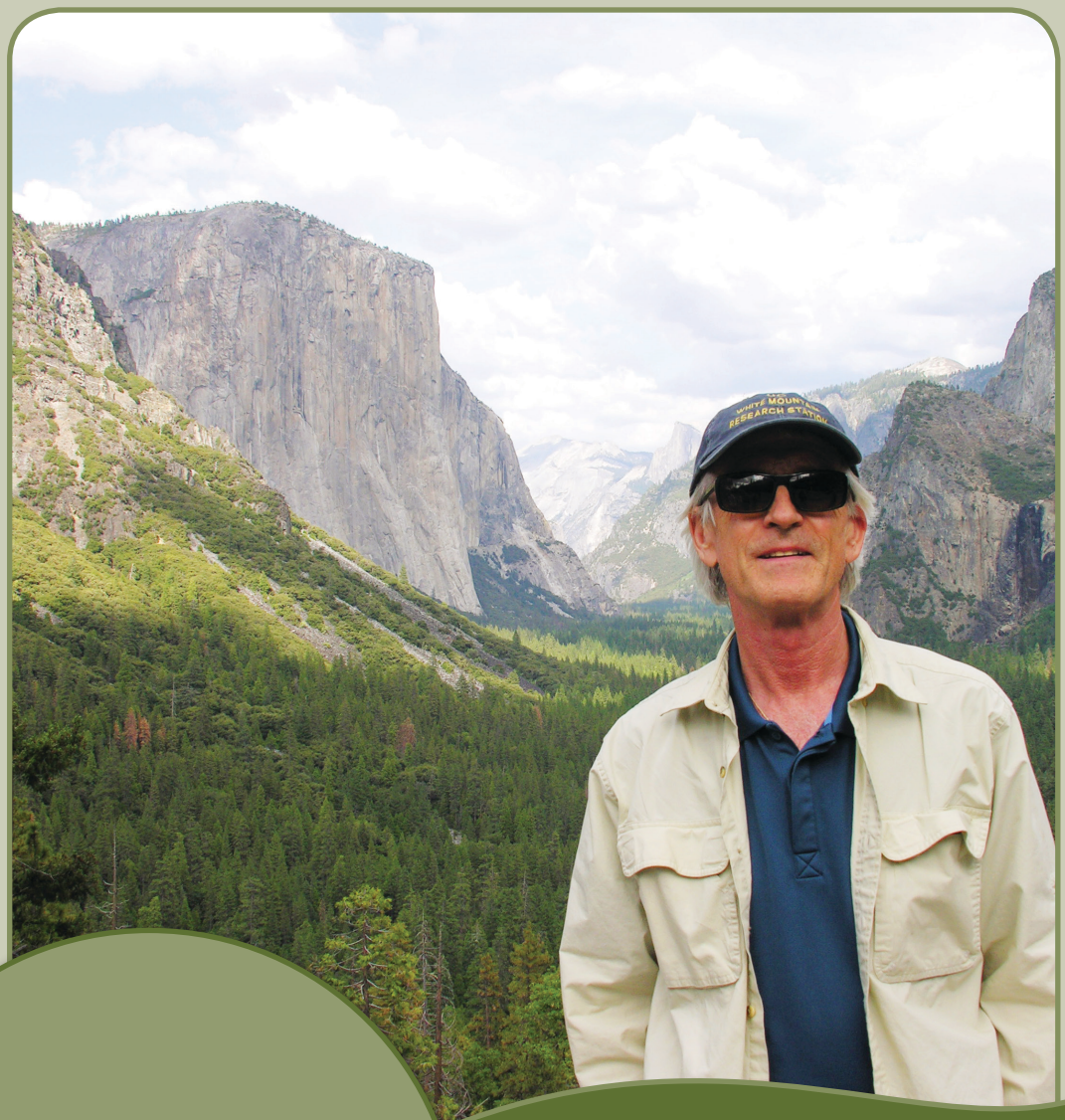

Meet the Scientist!

As an ecologist, I monitor and evaluate the impacts of air pollution and climate change on forests and other ecosystems.

Dr. Andrzej Bytnerowicz

Ecologist

Ph.D., Silesian University (Poland)

USDA Forest Service scientist

http://www.naturalinquirer.org

Important Scientist Characteristics

A no-nonsense approach supported by strong chemical and biological education, hard work, and a "big picture" method to seeing and solving scientifically important and interesting problems are valuable for my career. The ability to lead large research teams and optimism have also contributed to my accomplishments.

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

Ground-level concentrations of ozone, an air pollutant that can cause problems for humans and environmental systems, have been recently decreasing in the United States. How much are present levels of this important air pollutant still affecting human and forest health in California?

Technology or equipment used in research:

I use passive samplers in large-scale (e.g., landscape, region) evaluations of air pollution. These relatively simple sampling devices enable scientists to determine the concentration of ozone, ammonia, nitrogen oxides, nitric acid, sulfur oxides, and other chemicals potentially toxic to people and plants.

Most Exciting Discovery

I helped develop research collaboration between U.S. and European scientists and managers. This research for the first time showed elevated levels of ozone in the Carpathian Mountain forests of Central Europe. The elevated levels of ozone are contributing to forest decline in the Carpathians and worldwide.

When did you know you wanted to be a scientist? I knew I wanted to be a scientist after completing my Master of Science degree at the Warsaw Agricultural University in Poland. During my Ph.D. work, I developed a methodology for evaluating environmental pollution by sulfur, fluorides, and heavy metals at a large country scale (Poland) based on chemical analysis of Scots pine needles.

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