



Meet the Scientist!



<http://www.naturalinquirer.org>



As a meteorologist, my research involves the predictability and fire science applications of weather and climate.

Dr. Shyh-Chin Chen

Meteorologist

Ph.D., University of Illinois
USDA Forest Service scientist

Important Scientist Characteristics:

I have always been fond of math. The logic training in math gave me an advantage in looking into a phenomenon from an angle that has not been seen before, and it becomes a source of creativity in my research.

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

Weather can vary between locations, even if the locations are nearby to one another. Fine resolution weather is detailed weather about specific locations rather than broader regions. How can fine resolution weather and climate forecasts help in fire management?

Technology or equipment used in research:

My research involves downscaling of weather and climate analysis/forecasts from regional to local scales using a meteorological model on high-performance computer clusters, which are connected computers that act as one system. The downscaled weather variables then are used for various diagnoses and applications. One example can be found in a product called Firebuster.

Most Exciting Discovery

It was a little surprising to find out that fire dangers are actually more predictable than typical weather variables, such as precipitation or temperature. Fire dangers have a lead-time of up to five months. This is an exciting result suggesting that climate prediction will be useful to fire management.

When did you know you wanted to be a scientist?

I wanted to be a physicist when I first learned about physics in middle school. Later, I found that it is more exciting to work on physical problems on a global scale than in the micro-world. My interest in the global scale is why I decided to study meteorology in college.

<https://www.fs.fed.us/faces-of-the-forest-service/meet-shyh-chin-chen>