



# Meet the Scientist!



<http://www.naturalinquirer.org>



As a research entomologist, my job is to help define the roles and impacts of insects in forests and wildland ecosystems in order to maintain the health, diversity and productivity of these environments. Entomologists, in general, typically work in one or more sub disciplines (e.g., agriculture, forestry, genetics, medicine, veterinary, etc.).

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## Important Engineer Characteristics:

- ★ Critical thinking
- ★ Persistence

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

In the West, bark beetles kill millions of trees each year. Often insecticides are applied directly to trees to prevent beetle attack. We studied several questions: 1) How much insecticide goes into the ground?; 2) Where is the insecticide concentrated?; 3) How much of a risk is the insecticide for organisms other than beetles? In the end, the study revealed that the movement of insecticides poses little threat to adjacent aquatic environments if appropriate no-spray buffers are used.

## Technology or equipment used in research:

We use many different technologies to answer complex research questions. However, we still rely most heavily on a compass and 4WD vehicle to accomplish much of our work!

## Most Exciting Discovery

Developing an environmentally-sensitive tool to protect trees from bark beetle attack. This project was called the "Art of Chemical Camouflage" because we made host (susceptible) trees smell like nonhost (unsusceptible) trees (e.g., making a pine tree smell like an aspen tree). This confuses the beetles and they won't attack these trees or attack them at much lower densities, which allow the trees to survive.

**When did you know you wanted to be a scientist?** Since elementary school, I always wanted to be a scientist or commercial fisherman. However, it wasn't until college that I made a serious commitment to become a scientist.

<http://www.fs.fed.us/psw/programs/efh/staff/cfettig/>