



Forest entomologists study the interactions between insects and trees. We try to find ways to limit the damage caused by insect pests as well as ways to foster a community of insects that help forests to stay healthy and strong over the long-term.

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Dr. Dan Miller



Important Scientist Characteristics

- ★ Ability to organize and synthesize information
- ★ Creative problem-solving approach to experiments and issues
- ★ Open communication with collaborators and colleagues
- ★ Ability to write clearly and concisely
- ★ Curiosity and common sense.

Example of a simple research question I have tried

to answer: Insects can become a problem when their population numbers outgrow those of their predators and competitors. One of my principal research questions is, what forest management practices can help maintain a proper balance of species diversity and abundance that minimizes the explosion of pest species?

Technology or equipment used in research: Insects that damage pine seed and cones are a concern as they can limit our ability to regenerate forests. We use aerial-lift devices or bucket trucks to allow us to work directly with cones, often 40-60 feet above ground. Bucket trucks are often used by other groups such as linemen to work on power poles and towers.

- **Most Exciting Discovery**
- Sawyer beetles can damage logs
- and transmit pinewood nematodes
- causing devastating pine wilt
- disease in other countries. Sawyer
- beetles are strongly attracted to
- bark beetle pheromones. Baiting
- trap lures that release pine odors
- and beetle pheromone is a great
- tool for detection and monitoring
- of sawyer beetles.

When did you know you wanted to be a scientist?

- In my sophomore year in college,
- I was standing in a lake watching
- a colony of nesting male bluegill
- sunfish. I wondered if the courtship
- behavior of one male influenced
- that of an adjacent male. It was
- my very first experiment! I've been
- experimenting ever since with
- mammals, birds and insects.