



An entomologist studies insects, and a plant pathologist studies plant diseases — in my case diseases of trees.

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Dr. Kier Klepzig



Important Scientist Characteristics

I love to solve puzzles and find solutions to problems. I also love working with other people and teaming up to tackle something difficult. Working together is fun, and it's very rewarding to figure something out that no one ever knew before.

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

I like asking questions about symbiosis. Symbiosis occurs when unlike organisms live closely together. One question I have asked is, do bark beetles and microscopic fungi help or hurt one another? I found that some fungi help beetles by serving as food for beetle larvae. Other fungi hurt beetles by taking space that the helpful fungi could use.

Technology or equipment used in research:

I use powerful scanning electron microscopes to look at very small insects and the fungi around and inside them. This enables me to see spores and structures that regular light microscopes could not see.

• Most Exciting Discovery

- I found out that the southern
- pine beetle carries a very
- special bacterium in its body.
- This bacterium produces
- an antibiotic. Sort of like
- a medicine, this antibiotic
- protects the beetle by slowing
- the growth of bad fungi
- and allowing the growth of
- beneficial fungi. The beneficial
- fungus is something that the
- beetle eats.

- **When did you know you wanted to be a scientist?** I learned that
- I wanted to be a scientist when I
- was in college and my professor
- told me about fungi. Once I saw
- these amazing organisms,
- I became fascinated by how
- they grow, reproduce, and affect
- plants. I knew then I wanted to
- know more about fungi.

<http://www.fs.fed.us/research/people/profile.php?alias=kklepzig>