A research ecologist studies streams and lakes to explore both who lives in the water and how forestry and year to year climatic variability impact the water quality and water as habitat for biota.

Dr. Sherri L. Johnson
Research Ecologist
Ph.D., University of Oklahoma
USDA Forest Service scientist

http://www.naturalinquirer.org
Important Scientist Characteristics:
Curiosity and willingness to ask questions are crucial for learning. Logical thinking is important to figuring out how our environment functions. Persistence, attention to detail and good notes are essential because we do not always figure things out the first time.

Example of a simple research question I have tried to answer: How does forest harvest around small streams affect stream food webs? We quantified responses across the full food web, from light, algae, sediment, nutrients and stream temperature to macroinvertebrates, frogs, salamanders and fish.

Technology or equipment used in research:
Our research uses a combination of low-tech observations and measurements as well as high-tech data loggers and sensors that we install in streams and lakes to make frequent measurements. We also use specialized nets and traps to capture insects, frogs and salamanders.

Most Exciting Project or Discovery
Animals and plants in the stream are very sensitive to changes in temperature that can occur with land use and removal of riparian trees. We experimentally shaded a stream and learned much about which factors most influence temperature.

When did you know you wanted to be a scientist?
After high school and some college, I tried out many types of work in Montana including wilderness ranger, Forest Service fire fighter, construction and remodeling of houses, and co-owning a natural food store in a small town. I returned to college to study rivers, streams and lakes in my late 20s.

https://andrewsforest.oregonstate.edu/