



Meet the Scientist!



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Vegetation ecology is the study of the composition, structure, distribution, and dynamics of plants and their interaction with the environment.

Dr. Robert L. DeVelice Vegetation Ecologist

Ph.D., New Mexico State University
USDA Forest Service scientist

Important Scientist Characteristics:

My passion for exploring the natural world has contributed most to inspiring my career path. In both work and play, I am most attracted to wildlands. I also enjoy the statistical analyses, computer modeling, and environmental monitoring involved in my work.

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

Does New Zealand's nature reserve system contain the diversity of environments in the country? I studied New Zealand's nature reserves to see if they included all the different possible environments. I found "gaps" in the representation. A gap meant that some plant communities were not protected by nature reserves. Creating new nature reserves or changing the boundaries of current nature reserves could help fill those gaps.

Technology or equipment used in research:

I often use a quadrat. A quadrat is a sampling frame made from plastic or metal and in the shape of a square or rectangle. I use a quadrat to estimate the number of items of interest (e.g., species, life forms, ground cover) in a study area. Quadrat size depends on the type of survey. For example, estimating the number of non-woody plants usually involves a smaller quadrat than one used for trees.

Most Exciting Discovery

I co-wrote a paper about the role of roadless areas as conservation reserves. These conservation reserves would improve representation of ecoregions. Ecoregions are areas with distinct environmental conditions. Roadless areas as conservation reserves could increase protected land at lower elevations, and increase the number of large, undisturbed areas.

When did you know you wanted to be a scientist?

I enjoyed spending time exploring the natural world on hiking and backpacking trips when I was younger. Backpacking trips with the Boy Scouts in the Gila Wilderness of New Mexico were especially powerful.

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