



Meet the Scientist!



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Bonni Colcoan/USDA Forest Service

As a wildlife biologist and geographer, I focus on studying the effects of disturbance (fire, post-fire erosion, and drought) on bird populations and habitats in the National Forests in southern California.

Dr. Jenny Rechel
Wildlife Biologist/Geographer
Ph.D., University of California
USDA Forest Service scientist

Important Scientist Characteristics

I had an interest and talent for “detective work,” as a “science detective.” Creativity and observation are essential skills. Using geographic information systems (GIS) in science requires a math background, such as geometry, trigonometry, and calculus.

Example of a simple research question I have tried

to answer: Is bird diversity equal among chaparral (shrub), oak woodlands, and conifer forest vegetation types in the California Floristic Province in southern California? I found that bird diversity is highest in the chaparral and lowest in the conifer forests. My findings show that chaparral is valuable for birds, despite often being overlooked as important bird habitat.

Technology or equipment used in research:

I use field equipment to measure habitat for birds and images from satellites to create vegetation maps for large areas. I use GIS to analyze and map changes in bird populations following wildfires. I also use Global Positioning System (GPS) units to locate vegetation sites and bird observations, which I then put into a GIS map.

Most Exciting Discovery

My most exciting discovery was in 1988. I discovered and documented the first nesting pair of Buffleheads (a water bird) in Colorado. They were located in a remote area of north central Colorado.

When did you know you wanted to be a scientist?

I wanted to become a scientist after my 10th grade science teacher, Mr. Snyder, encouraged me to pursue my interests in the natural world. Also, my father continually encouraged me to follow my interests in birds and mapping as a professional career path.

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