



As a forest geneticist, I oversee seed orchards, seed extractories, and seed bank resources. These resources supply cost-effective, genetically diverse, and genetically appropriate seeds for different places across the country.

Marcus Warwell
Forest Geneticist
Ph.D., University of Minnesota
Forest Service

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Marcus Warwell Forest Geneticist

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Career Pathways



What advice do you have for students interested in your job? We need forest geneticists to support the management of healthy forests, conservation, and tree improvement. If students become forest geneticists, they could be employed in Federal, State, or private sectors as managers and researchers. They could work in labs, nurseries, and field settings.

What is an example of a question you have tried to answer in your job? Given a change in climate, where can seeds be planted or moved to match their adaptation with the future expected climate?

What is an example of technology or equipment that you use in your work? I use digital calipers with transmitters. This equipment allows me to record hundreds of seedling growth measurements in a short period while working in the field.

What has been your most exciting project?

Studying adaptive variation in whitebark pine. The project included cone collecting from wild populations in the Rocky Mountains and field testing of next generations. The data helped us describe patterns among whitebark pine populations for adaptation across the species distribution. This information can guide foresters to select seed that will survive and grow well for reforestation.

When did you know this career would be a good fit for you? My first memory of being interested in forest genetics was during a summer research internship with the Forest Service during my sophomore year of college. The experience exposed me to forest genetics research in the field over many weeks.

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