

Influence of forest restoration treatments on tassel-eared squirrels

Catastrophic fires in Arizona's recent history have increased concerns about the growing interface between urban areas and forested wildlands. Several forest thinning and fuels reduction treatments have been done in efforts to address concerns and eliminate recurring destruction by fire to manmade structures. However, while alleviating pressures on human dwellings, these treatments may alter forest structure in ways that significantly impact the ecosystem and wildlife living there. For example, thinning may reduce vertical structure for birds nesting or foraging in the canopy layers while simultaneously increasing herbaceous cover underneath that then provides improved forage for herbivorous mammals or birds that pick insects from vegetation. Hence when planning forest management activities, like tree stand thinning in the wildland-urban interface (WUI), it is critical to identify the structural and compositional features of a forest that are important to wildlife.



Tassel-eared squirrels inhabit forests in the WUI, and the public values them as a popular watchable wildlife species. Yet squirrel densities are influenced by the forest stand structure and condition that gets altered when treatments occur along forested areas near suburbia. Our research project compares the effect of different fuel reduction prescriptions in the Flagstaff WUI area on tassel-eared squirrel densities and habitat use. Our goal is to identify the combination of treatment type, size, and landscape application that provides the most suitable habitat for squirrels and to define how those areas are used over time by squirrels.

Objectives

1. To compare squirrel densities on areas where different types of treatments have already been implemented.
2. To collect pre-treatment data on squirrel densities in areas where treatments are scheduled to occur in the near future.

This project is being conducted in Region 2 in the Coconino National Forest near Flagstaff. It began in 2014, and has no set closing date. Rather, this project is a long-term monitoring effort dependent on annual funding.

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