

MANAGEMENT OF GRASSY BALD COMMUNITIES IN THE ROAN HIGHLANDS

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No place better exemplifies that which is rare and unique within high-elevation communities of the Appalachian Mountains than the highlands of Roan Mountain. The Roan Highlands are protected through a landscape-level conservation initiative originally established by the Southern Appalachian Highlands Conservancy and the U.S. Forest Service in 1974. The Roan massif rises more than 6,000 ft above mean sea level and straddles the border of North Carolina and Tennessee in the Pisgah and Cherokee National Forests, respectively. Among its unique aspects, the Roan supports 800 known plant species, 27 rare plant communities, and 33 federally or state-listed threatened and endangered species, 27 of which are globally rare. Its threatened community types include: heath balds, seeps, red spruce-Fraser fir forests, grassy balds, and rocky summits, of which the latter three are deemed in need of restoration, in addition to preservation. The grassy balds have been a focus of management in the Roan Highlands, largely due to their iconic status within these high elevation communities. To wit, the grassy balds provide splendid, panoramic views of the high-elevation landscape; they predate European settlement and their origins are enigmatic; the Roan's grassy balds represent the highest quality and the longest linear stretch of this community type remaining in the southern Appalachians; they provide habitat for 10 regionally rare species and numerous locally rare species. The Roan's grassy balds currently occupy less than 25 percent of their historic extent. Trees, shrubs, and blackberries have encroached into the grassy balds due to a lack of natural and anthropogenic disturbances and inadequate levels of management. With so much biodiversity at stake, the scientific and conservation communities determined that broad management partnerships must be formed to sustain the rare elements of the Roan; multiple governmental and nongovernmental organizations have worked together toward mutual conservation goals since the early 1970s. Currently known as the Roan Stewardship Committee, these managing entities collaborated with the Forest Service to establish a restoration goal of approximately 2,000 ac of the Roan's grassy balds in 1991, but that goal has not been met. In this study, we present information recently gathered by members of the Roan Stewardship Committee on efforts to maintain and restore grassy bald communities in the Roan Highlands, emphasizing recent summaries of historic and current adaptive management efforts, as well as data from the first year (2008) of a browsing study known as the Baa-tany Goat Project.

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