

HISTORIC AND CURRENT FORESTS AND FIRE CULTURE IN THE SOUTHERN APPALACHIANS

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Forest assessments during the first decade of the 1900s can supply missing information of quantified tree composition, particularly in mountainous locations that were the last locations to be cleared of original forests. An extent of about 2 million ha in the Blue Ridge Mountains of the southern Appalachian Mountains, primarily North Carolina, was assessed by two spatially overlapping studies during the first decade of the 1900s. According to the assessments, fire-tolerant oaks (*Quercus* spp.) and American chestnut (*Castanea dentata*) historically were the dominant species with 61 to 63 percent of all trees for both study extents. In modern tree surveys, red maple (*Acer rubrum*) became the most abundant species, with 15 percent of all trees, increasing from an historical combined maple percentage of 2.5 percent. Eastern white pine (*Pinus strobus*; 7 percent of all trees) and Virginia pine (*P. virginiana*; 4 percent of all trees) increased to 14 percent of all trees from 4 percent historically. Therefore, in addition to loss of American chestnut to disease, oaks declined to 27 percent of all trees. The historical assessments documented an active fire culture, with evidence of light fires throughout 80 percent of the study area, which was converted into fire exclusion through an antifire campaign and land use. Despite small fire compartments in mountainous terrain, and a later transition date, this region conforms to the same progression of change since Euro-American settlement as most other upland regions in the Eastern United States.

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