

Alabama A&M University

Ecology, Restoration, Silviculture, and Management of Mixed Pine-Hardwood Forests

A McIntire-Stennis supported project



Program PI: Dr. Troy Bowman

This study quantifies the occurrence, characteristics, and management of pine-hardwood forests in the North Alabama region and assesses their ecological and economic importance.

This study relates the current forest composition to the abiotic conditions and past management history. We also seek to establish the relationship between productivity and diversity in planted and naturally regenerated stands.

This project's other objectives include assessing the impact of recreation and other human influences on the trends in regeneration and species composition – quantifying the relationship between silvicultural treatments and recreational activities to forest ecosystem response. Public education was provided through a “Big Tree Trail” system of signs and posted information (in partnership with SAF).



COLLABORATION

USDA Forest Service,
Bankhead National Forest
(BNF)

Land Trust of North
Alabama

Society of American
Foresters – Mountain
Lakes Chapter



About 40

undergraduate seniors
have participated in data
collection for the project
through their capstone
projects

About McIntire-Stennis

The McIntire-Stennis program, a unique federal-state partnership, cultivates and delivers forestry and natural resource innovations for a better future. By advancing research and education that increases the understanding of emerging challenges and fosters the development of relevant solutions, the McIntire-Stennis program has ensured healthy resilient forests and communities and an exceptional natural resources workforce since 1962.



IMPACT

Provided management, education, and research support for Land Trust and AAMU forest properties by employing staff botanist and 10+ undergraduate student researchers



Increased the size of the university herbarium and available plant samples by 1000+ species



Partnership with the Land Trust of North Alabama provided access to thousands of acres of additional research forest and public education opportunities



On recreational properties where little silvicultural and plant control practices were implemented, trail systems were important for controlling invasive species.