Development of metrics of resistance and resilience in forest communities in Minnesota through the integration of research and education.

A McIntire-Stennis supported project

UNIVERSITY OF MINNESOTA

Driven to Discover®

Climate change is impacting forest ecosystems (bark beetle epidemics, mega-fires, extreme droughts and flooding). Natural resource managers need on-the-ground examples of applied forest management techniques to increase resistance, resilience, and the response to the impacts of a changing climate.

Adaptive silvicultural research focuses on the development of research questions through partnerships and collaboration with natural resource management organizations including federal, tribal, private, local public, and non-profit agencies.

By utilizing a collaborative approach, my research not only supplies foundational data on how forests function under a changing climate but also concrete tools which can be implemented on forested lands by natural resource organizations—essentially influencing how forests are managed and increasing the adaptive capacity.

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.

USDA

COLLABORATION

US Forest Service, Bureau of Indian Affairs, Bureau of Land Management, MN DNR, WI DNR, The Nature Conservancy.

100+

National, State, and Country Resource Management Organizations; Nonprofit Organizations; and Tribal Entities

IMPACT

Research on the use of alternative forest management techniques to increase resilience to climate change is reaching and being implemented nationally, regionally, and locally.

35

Federal managers trained annually through the National Advanced Silviculture Program (NASP).

6,000+

Trees planted for research on climate adaptive management.

25,000+

Trees measured to assess the response of alternative silvicultural methods.