GEOSPATIAL TECHNOLOGIES FOR FOREST RESOURCES MANAGEMENT IN EAST TEXAS

A McIntire-Stennis supported project

STEPHEN F. AUSTIN STATE UNIVERSITY
Arthur Temple College of Forestry and Agriculture

Spatial scientists in the Arthur Temple College of Forestry and Agriculture are examining the most effective applications of the rapidly expanding suite of geospatial technologies available to natural resource professionals, with a special emphasis on East Texas forests.

As the population of Texas expands, placing increasing stress on the state's natural resources, it is imperative that resource professionals have access to not only the most cost-effective, but field-accessible and accurate tools available in order to make the most effective managment decisions in both rural and urban environments.

This ongoing project will explore the latest technologies in global navigation satellite system/global positioning system receivers, remotely sensed data from different sensors, GIS platforms for desktop and mobile field data collection, as well as the diverse applications of unmanned aerial vehicles from a field-forester's perspective.

COLLABORATION

Through partnerships with the National Center for Pharmaceutical Crops, Hydrex Environmental, and the U.S. Army Corps of Engineers, researchers investigated the spread of the invasive plant giant salvinia using unmanned aircraft systems and remote sensing technologies.

3
Graduate and undergraduate students are supported through this project.

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

IMPACT

This research will provide key insight into the most effective applications of evolving geospatial technolgies, enpowering professionals in their mission to best manage and conserve natural resources.

>12 million
Acres of forestland in East Texas alone.

$18.3 billion
Of direct forest industry output contributed to the Texas economy in 2015.

>66,000 Texans
Are employed by the Texas forest sector.