

Progress Report

Assessing & Mapping Regional Variation in Site Productivity

CAFS.19.75

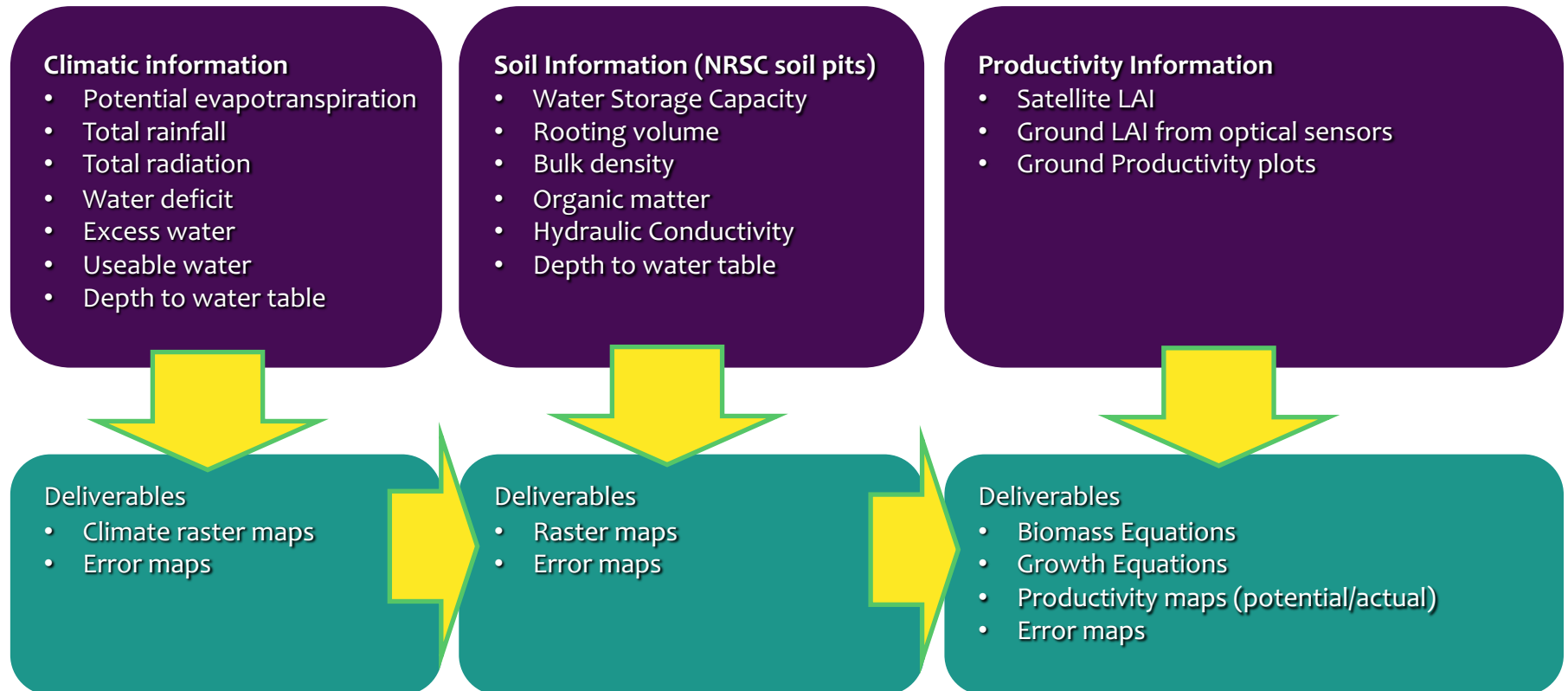
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Kim Littke (UW)

Presented by: Holly Munro
University of Georgia

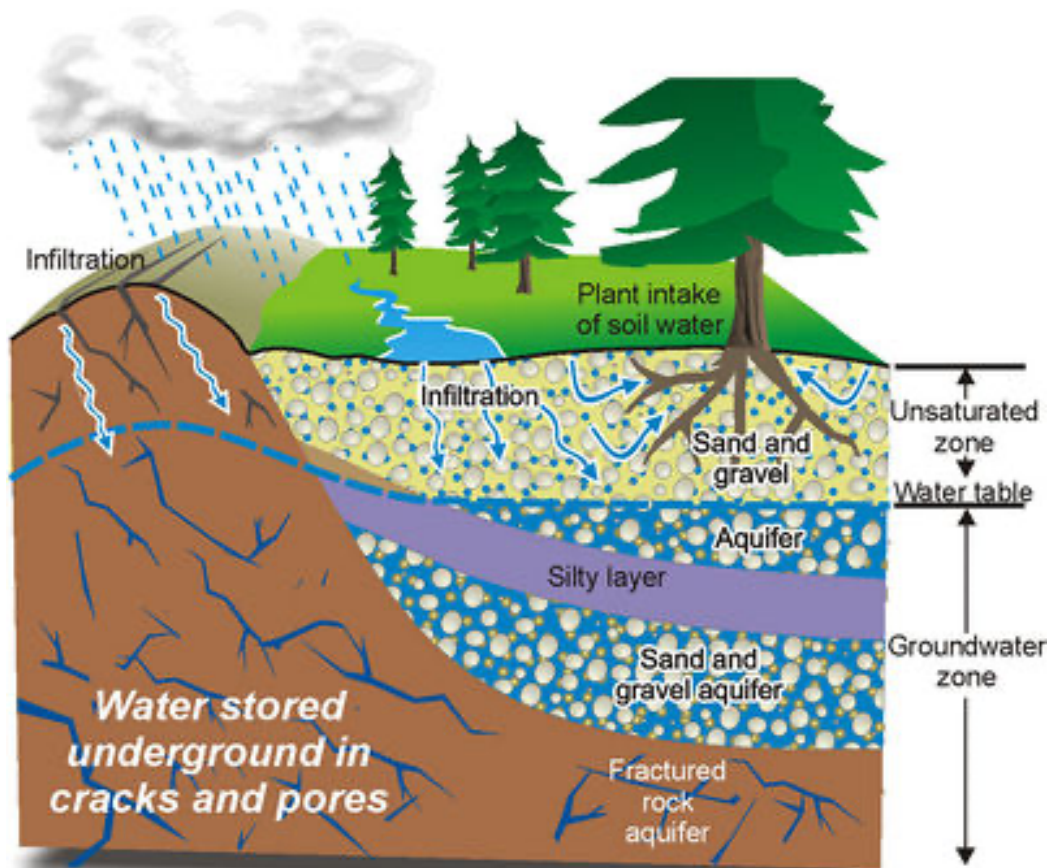


Project Overview

Develop base information as well as standardized methods to include environmental variables as predictors for stand productivity.



Current Progress



Depth to water table has been linked to:

- Tree growth and height
- Basal area
- Foliar nitrogen
- Needle length

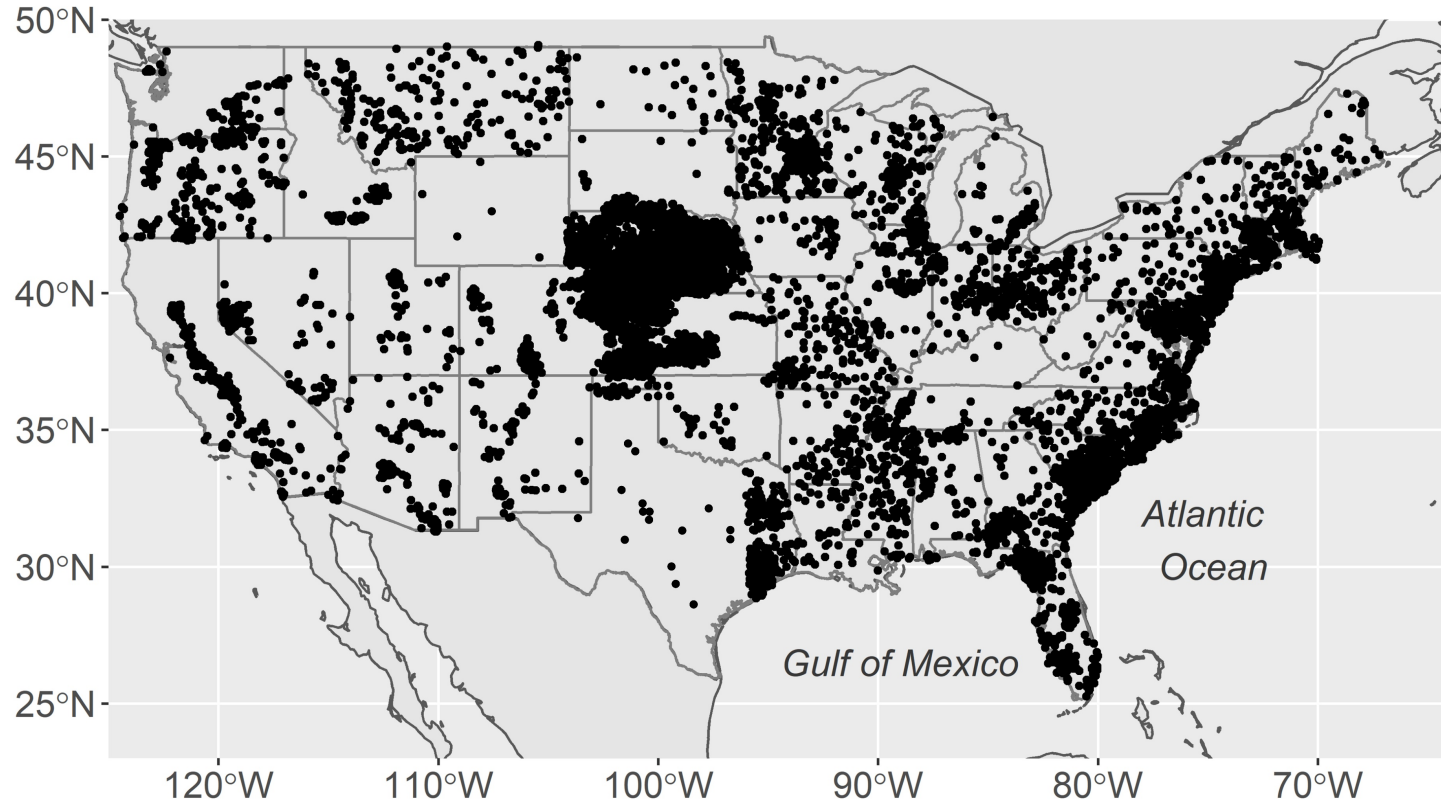
Management factors that influence depth to water table:

- Harvesting
- Bedding
- Thinning
- Prescribed fire



Current Progress

Leveraging 40 years of data for ~14,000 sites and 19 million observations to assess depth to water table over time

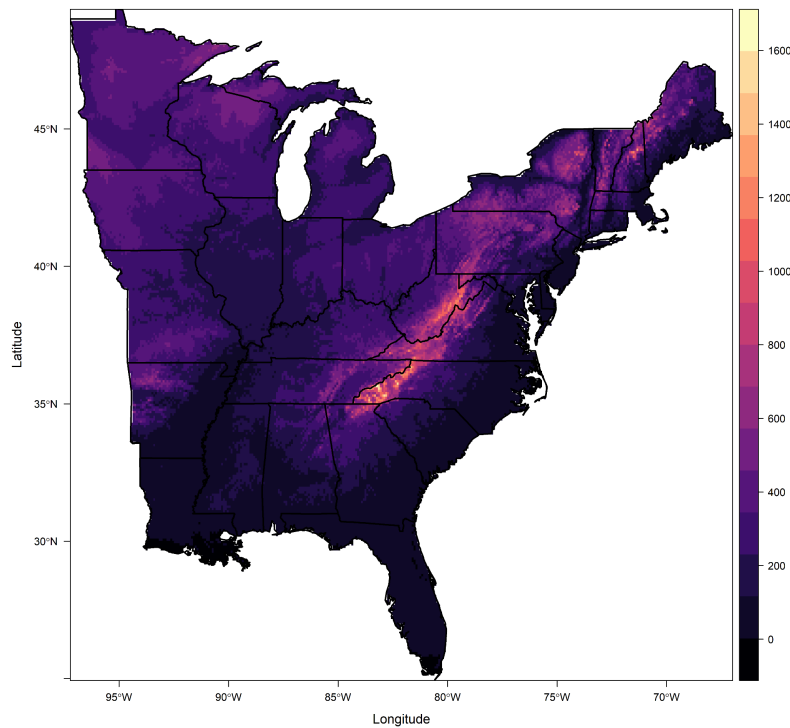


Current Progress

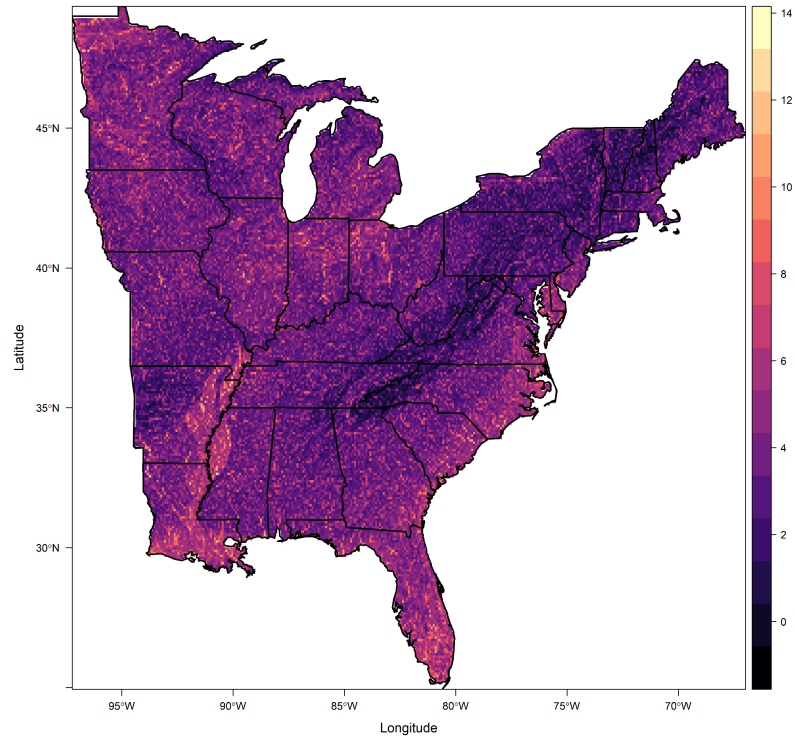
Predictors:

- Digital elevation map
- Compound topographic index
- Year
- Month (coming soon)

DEM



CTI

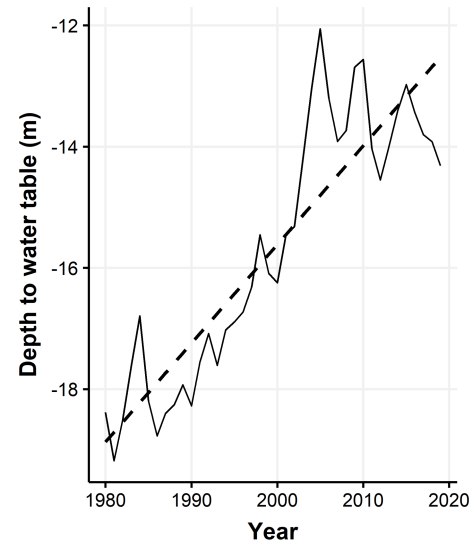


Current Progress

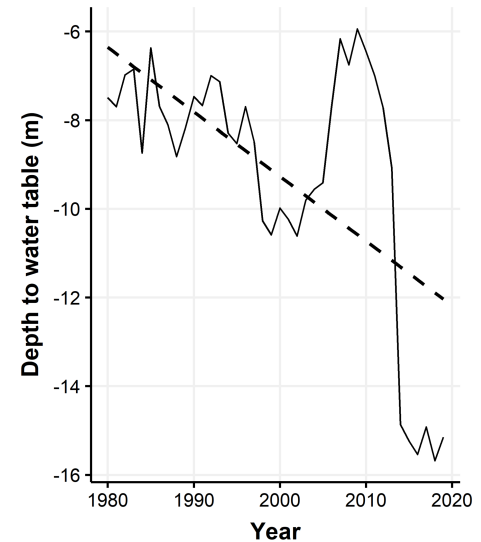
Change in Depth to Water Table United States



Georgia

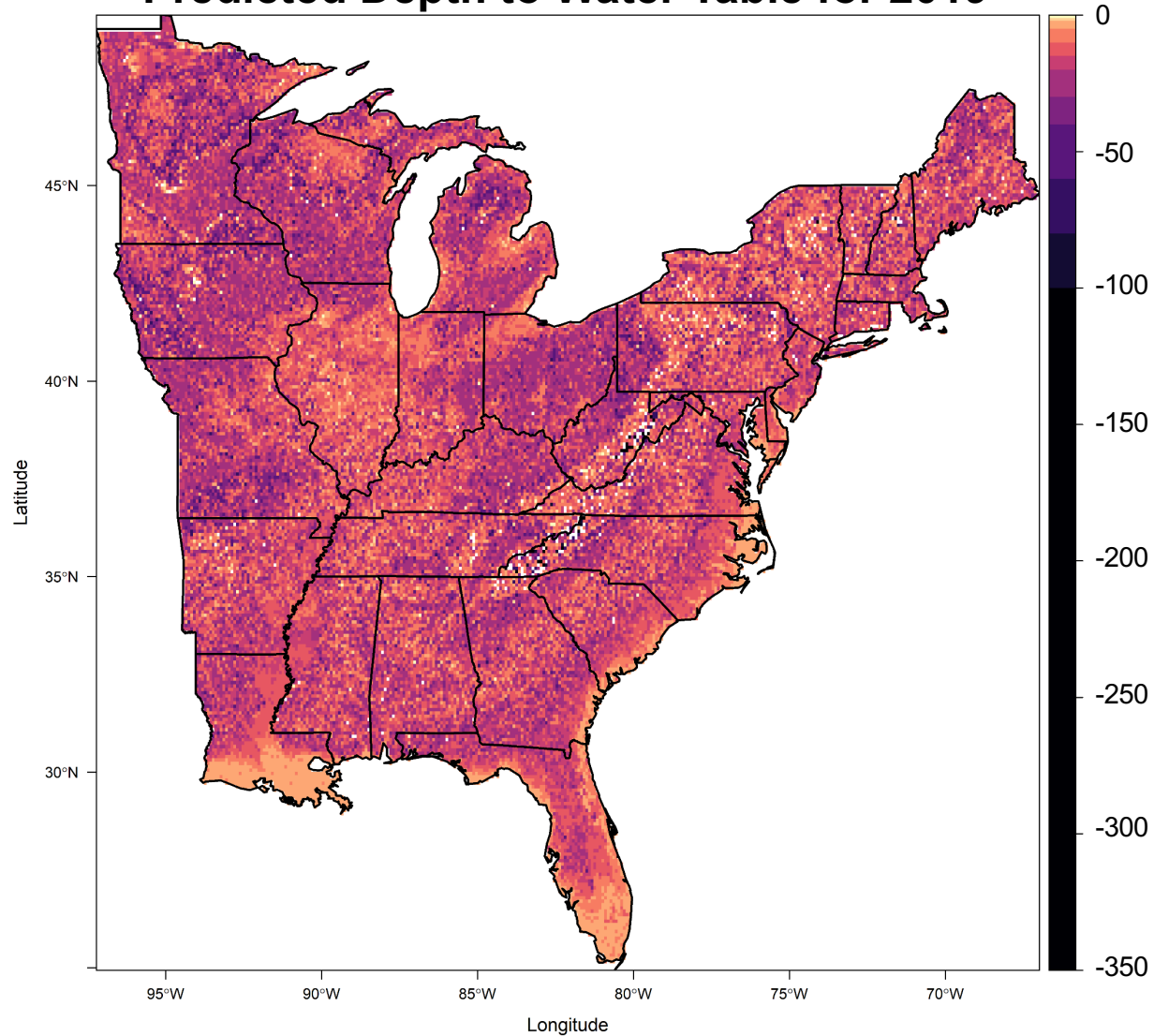


Alabama



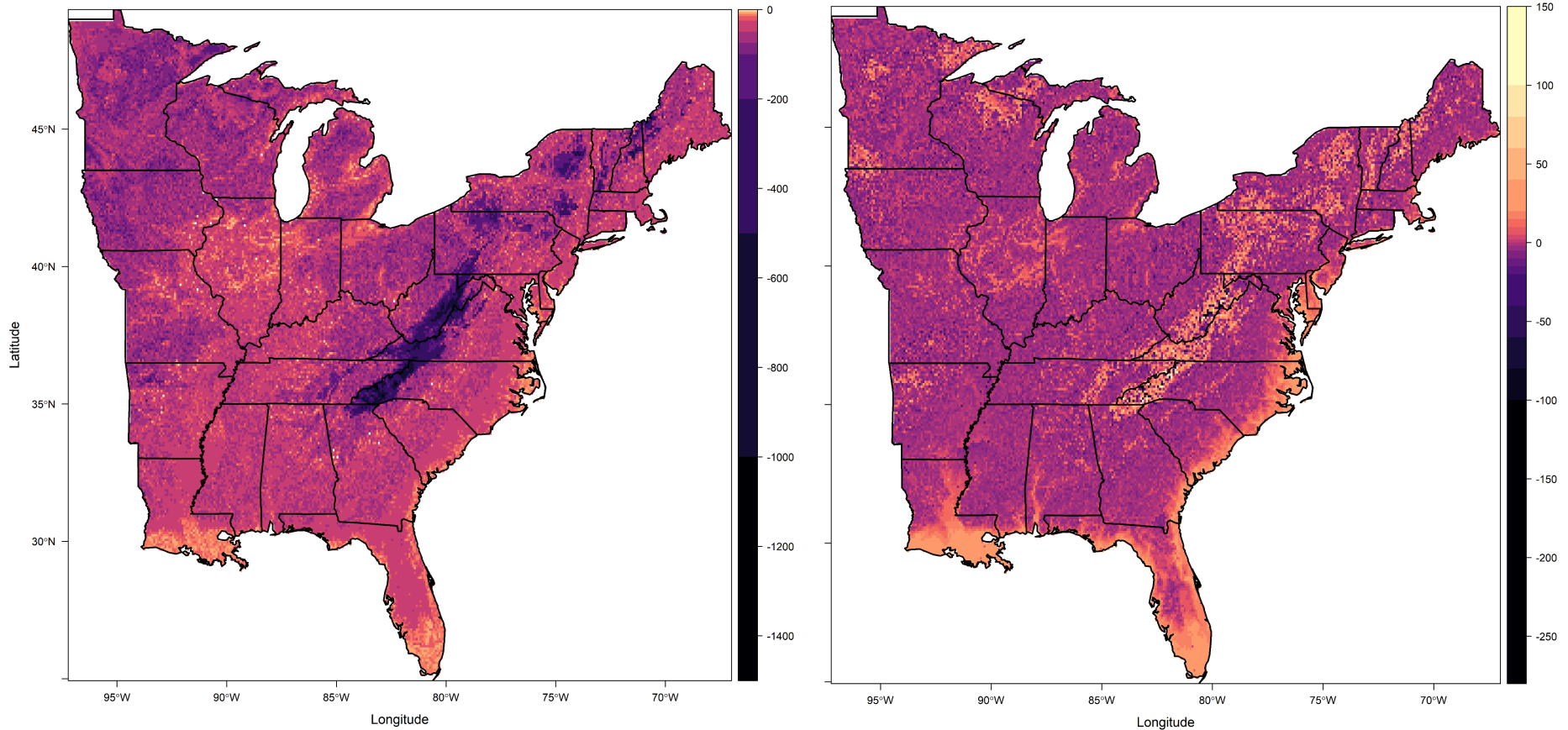
Current Progress

Predicted Depth to Water Table for 2019

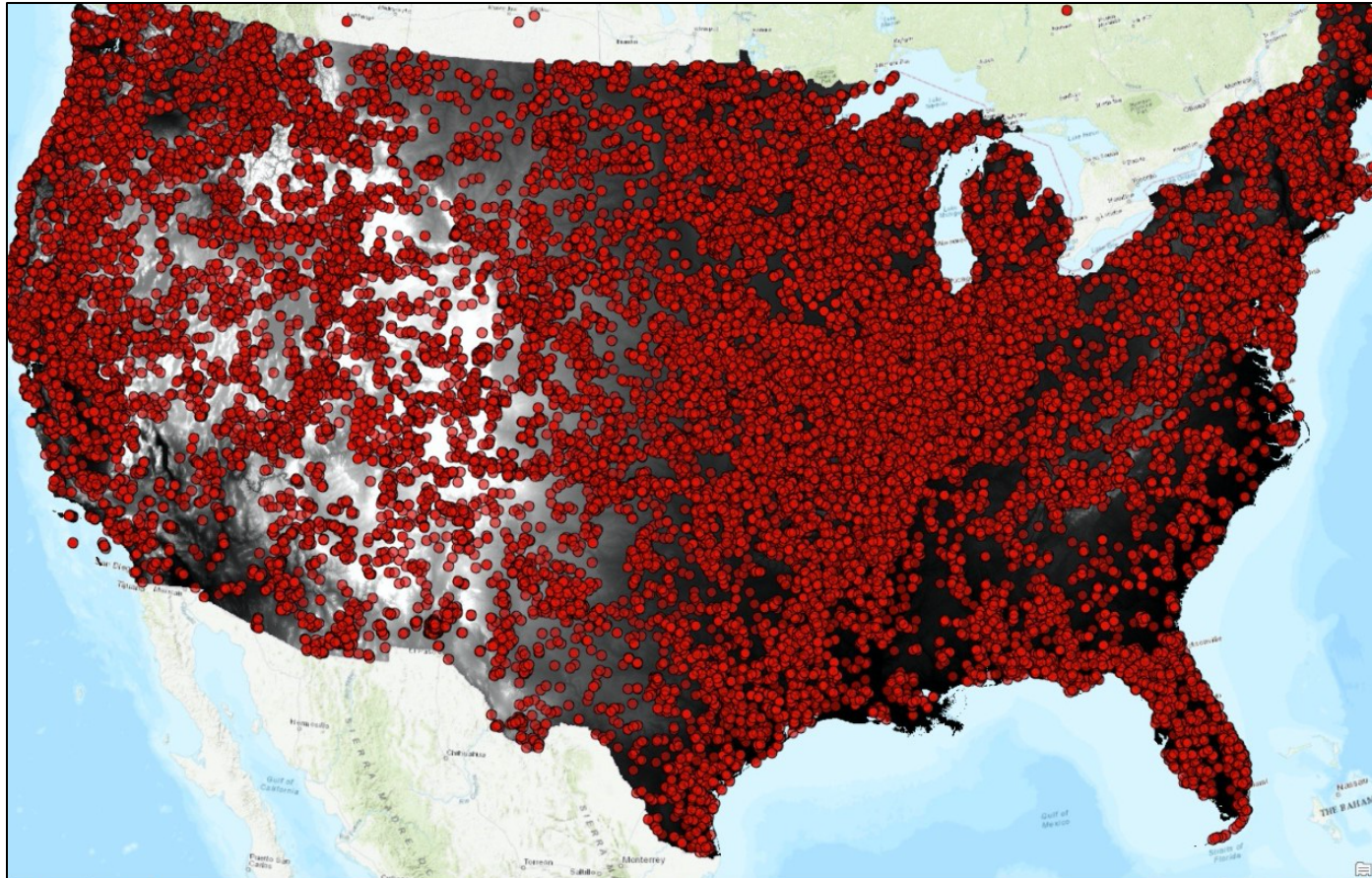


Current Progress

Predicted Depth to Water Table for 2019: Upper and lower bound



Estimation of other ecological predictors



Future Plans

Develop base information as well as standardized methods to include environmental variables as predictors for stand productivity.

