

FOREST COVER CHANGE
IN MCDONOUGH COUNTY, ILLINOIS,
1816 - 1916

An Abstract to a Thesis
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ABSTRACT

Forest cover change in McDonough County, Illinois, during the first century of EuroAmerican settlement was analyzed. Five possible influences on forest change were investigated: slope steepness, soil productivity, woodland extent in townships, proximity of forest to towns, and property characteristics. The character of the native vegetation was derived from detailed interpretation of federal survey notes, dating from 1816 and 1817. Survey descriptions were compared with slope steepness, slope aspect, soil series, and fire vulnerability for survey section and quarter-section corner points.

A generalized map of the native vegetation of McDonough County was devised through an extension of survey corner point characteristics to unsurveyed section interiors. This map discriminates between prairie, dense forest, and a mixed area of broken forest and savanna. Post-pioneer forest cover was taken from the 1871 McDonough County Historical Atlas and 1911--1916 topographic maps of the county. The legitimacy and limitations of all three sources of historical vegetation cover were considered.

Forest cover changed considerably in McDonough County, Illinois, during the first century of EuroAmerican occupation. Suppression of prairie fires after pioneer settlement permitted widespread expansion of the forest at the forest--prairie border. After the 1870s, widespread deforestation occurred on all slopes and soils; remnants persisted mainly on the steepest slopes and least productive soil. No rela-

tionship was found between woodland availability and forest change. By 1916, deforestation was more extensive within three miles from towns than farther away. Property characteristics were not shown to affect forest change, although excessive subdivision in Blandinsville Township may have contributed to a virtually complete loss of tree cover between 1871 and 1916. A summary and interpretation of these changes were incorporated in a four stage forest history of McDonough County.