Iowa's Changing Resources

Steven E. Jungst

Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/amesforester

Part of the Forest Sciences Commons

Recommended Citation

Available at: https://lib.dr.iastate.edu/amesforester/vol87/iss1/3

This Article is brought to you for free and open access by the Journals at Iowa State University Digital Repository. It has been accepted for inclusion in Ames Forester by an authorized editor of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Iowa's Changing Resources
by Dr. Steven E. Jungst

It is impossible to know exactly what Iowa's original land cover looked like before settlers began to leave their mark on the land. However, early surveyor's notes give us a glimpse of what it was probably like during the mid-1800's. Through analysis of the Government Land Office (GLO) notes conducted by Paul Anderson and his graduate students in Landscape Architecture (Anderson, 1990), estimates of the acreage of original ground cover are possible. Figure 1 shows land cover distribution based on those notes.

Acreage estimates based on these notes indicate approximately 28 million acres of prairie, 4 to 7 million acres of forest (7 million if both probable and possible forest are counted), 500,000 acres of wetlands, and 128,000 acres of agricultural land and towns.

Figure 1. Iowa's land cover during the 1830-1860 period as reconstructed from GLO notes.

As settlement began to take place, the land cover patterns began to change significantly. Most notably was the increase in agricultural land at the expense of other land cover types. Although foresters tend to bemoan the loss of forestland, the percentage loss of forest has actually been far less than the loss of prairie acreage. Figure 3 shows how the 1990's era land cover would look if placed into continuous blocks. It doesn't take much comparison between Figure 2 and Figure 3 to see that although forests cover has decreased significantly, the most striking change has been in the increase of agricultural land and the decrease in prairie cover.

The 1990 U.S. Forest Service inventory showed that forestland in Iowa was at 2 million acres which was actually an increase over the 1974 low of 1.6 million acres (Leatherberry et. al. 1992). Other sources indicate that wetland area had declined to approximately 75,000 acres, and prairie land had
dropped to only 30,000 acres from its original 28 million acres in 1850. The "other" category containing predominantly towns and agricultural land had increased to nearly 34,000,000 acres.

Of perhaps more concern to foresters than the actual change in forest acreage is the change in forest types. Forest Service inventory data indicates a shift from shade intolerant Oak species to species such as Maple and Basswood. Whether the shift is viewed with alarm depends on the way in which one values the various tree species. From the standpoint of wood value, the oaks are of considerably more economic value than the maples and basswood. Also, the mast produced by the oaks is a highly desirable food source for a number of Iowa's wildlife species. Consequently, many individuals are as concerned with the shift in forest types as they are with the decline in overall acreage since the 1850's.

A second shift that is apparent from Forest Service data is that of changes in ownership. Iowa's forests have always been predominantly in private ownership. Only 8% Iowa's forest land is in public ownership, with that percentage holding constant between the 1974 and 1990 inventories (Leatherberry et. al., 1992, Spencer and Jakes, 1980). However, there has been a noticeable change in the categories of private ownership. In 1954, farmers owned 84 percent of Iowa's forests. By 1990, that percentage had declined to 64 percent. Individual non-farmer private ownership went from 11 to 22 percent during that time, and other private ownership increased from 4 to 6 percent. As ownership shifts toward non-farmer individuals, there is some concern that this will lead to a decrease in the amount of timber available for harvest, as well as an acceleration of the shift to more shade tolerant species. Accelerated shift to more shade tolerant species is possible under the assumption that non-farm individuals may be less willing to create the harvesting disturbances that are typically necessary to maintain oak types.

What the future holds for Iowa's landscape depends in large part on private individuals. There is certainly increased interest in prairies and wetlands throughout the state. Consequently, one could expect modest increases in acreage of those land cover types over the next 10 to 20 years. It seems unlikely that forest acreage would increase significantly during that time, but perhaps more individuals will get involved in actively managing their forest ownership for increased production of the many goods and services that forests can provide. If that were to happen, at least the remaining forests in Iowa could be maintained in a more vigorous state.

LITERATURE CITED
Anderson, P. F. 1996. GIS research to digitize maps of Iowa 1832-1859 vegetation from General Land Office township plat maps: Final Report. Department of Landscape Architecture, Iowa State University, Ames, IA.
