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ABSTRACT.—Trail of Tears State Forest is a 5,200 acre tract in the Illinois Ozark Hills and represents one of the largest blocks of contiguous forest in the lower Midwest. A highly dissected terrain with long, narrow ridges that fall away sharply on either side characterizes the area. The forest cover is a mosaic of oak-hickory approaching “old growth” condition interspersed with bottomland hardwoods. Since the onset of post-European settlement in the 1830s, humans through logging, grazing, and row cropping have manipulated this tract. While past land-use and topography clearly have an impact on present forest cover, the exact nature of this relationship is not known. Given these conditions and the existence of a detailed continuous forest inventory, this forest presents a unique opportunity to explore the interrelationship between topography, past land-use, and present forest condition. A continuous forest inventory was started at Trail of Tears State Forest in 1979. In 1999, we resampled 240 plots and added 100 new plots to develop a 20-year forest stand history. In addition to the forest inventory, dendroecological and historical ecology studies have been implemented to elucidate the influence of natural and anthropogenic disturbances on forest structure and composition. Historical disturbance patterns and their impact on present forest condition can now be described. The results of the continuous forest inventory and historic analysis are being used to develop guidelines for future management (Groninger and others 2002).

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#### LITERATURE CITED

**Groninger, J.W.; Ozier, T.B.; Ruffner, C.M.**

2003. Stand compositional dynamics in a mature Illinois Ozark forest: implications for management. In: Van Sambeek, J.W.; Dawson, J.O.; Ponder, F., Jr.; Loewenstein, E.F.; Fralish, J.S., eds. Proceedings, 13<sup>th</sup> Central Hardwood Forest conference; 2002 April 1-3; Urbana, IL. Gen. Tech. Rep. NC-234. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station: 296-302.

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