

Public Abstract

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Title: FOUR DECADES OF CHANGE IN AN OLD-GROWTH BEECH-MAPLE FOREST IN INDIANA

Hoot Woods is an old-growth beech-maple forest located in Indiana. Although it is set in a highly fragmented agricultural landscape, the stand largely escaped direct human impact during Euro-American settlement of the region during the mid-1800s. Currently, natural processes of competitive development, windthrow, gap replacement, and decomposition operate undisturbed. Tornadic disturbance in 1980 influenced several portions of the stand. Mortality rates reveal that beech was particularly hard-hit by the tornado disturbance. The loss of so many sizable stems severely dampened the species' reproductive capacity and opened tremendous holes in the canopy. This, in combination with the biological attributes of the codominant tree species, seem to account for a recent decline in American beech in Hoot Woods.