

MANAGEMENT RECOMMENDATIONS  
FOR A  
MATURE JACK PINE STAND  
WITHIN A  
KIRTLAND'S WARBLER MANAGEMENT AREA



By

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February, 1994

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A SILVICULTURAL PRESCRIPTION FOR  
STAND 3, COMPARTMENT 189  
HARRISVILLE RANGER DISTRICT, HURON-MANISTEE NATIONAL FORESTS

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A Term Paper Presented  
to the  
U.S.D.A. Forest Service, Region 9

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In Meeting the Requirements for  
the  
Program of Advanced Studies in Silviculture  
and  
Silviculturist Certification

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## EXECUTIVE SUMMARY

The Huron-Manistee National Forests manage approximately 53,000 acres of jack pine (Pinus banksiana) as critical habitat for the endangered Kirtland's warbler (Dendroica kirtlandii). The Kirtland's warbler is a small bird that nests only in dense young stands of jack pine growing on sandy outwash plains in the lower peninsula of Michigan. Thus, management of the jack pine ecosystem on the Huron-Manistee is critical to the survival of this species.

The ecosystem inhabited by the Kirtland's warbler is among the harshest environments in the state of Michigan. Growing seasons are short, soils are droughty, and precipitation low as compared to the rest of the Huron-Manistee. The Ecological Classification System (ECS) recognized this by classifying these lands as Landtype Association (LTA) 1, Outwash Plains; Ecological Landtype (ELT), Outwash Plains; Ecological Landtype Phase (ELTP) 1, northern pin oak-white oak-Deschampsia plant association. This ELTP is the driest and most nutrient deficient of all the ELTPs. Prior to the advent of fire suppression programs, large catastrophic fires were the predominant means of disturbance, regenerating oak and jack pine and keeping some areas in a semi-open condition. Prior to European settlement many of these areas were probably oak or oak-pine savannas. Current management plans have identified much of this ELTP as critical Kirtland's warbler habitat.

The project area is stand 3 of Compartment 189. While this stand is not currently identified as Kirtland's Warbler habitat, it is typical of the stands being managed to provide Kirtland's warbler habitat, and it lies within

