

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

January 8, 1980

TO: Nels I. Johnson, Regional Wildlife Biologist
FROM: Jerry Weinrich, Endangered Species/Wild Turkey Biologist
SUBJECT: Kirtland's Warbler Habitat Availability - 1961 and 1971

At Larry Ryel's suggestion, I used Mike Mang's age and acreage data for those state owned lands proposed as Kirtland's Warbler critical habitat to estimate habitat availability in 1961 and 1971. As in similar tabulations, only stands of over 40 acres are included and "occupiable-aged" is taken as 8 to 20 years for wildfire areas and 10 to 20 years for areas regenerated without fire.

Stand data for these lands indicate a large decline in availability of habitable-aged jack pine from 1961 to 1971:

<u>Occupiable-aged</u> <u>1961</u>	<u>Occupiable-aged</u> <u>1971</u>	<u>Change 1961 to 1971</u>
11,855 acres	7,125 acres	-4,730 acres; -39.9%

This large decrease in availability of habitat is similar to the observed decrease in estimated numbers of singing males for these same years.

Although I do not have similar estimates of habitat availability for U.S. Forest Service lands, I suspect they would also show a large decrease due to similar history and management practices.

It is important to note that the vast majority of habitable-aged stands available in 1961 and in 1971 were regenerated naturally - mostly by fire. (Large scale planting efforts occurred in the late 1920s and through the 1930s - acreages planted from 1941 to 1961 were much less than before 1940. Also, commercial harvest of jack pine by clearcutting did not begin on a large scale until the mid 1960s - too late to provide possible habitat for 1971).

Although there were 11,017 acres of "occupiable-aged" habitat on these lands in 1979, the proportion of this area actually usable by Kirtland's Warblers is now undoubtedly much less than it was in 1961 or 1971 since proportionately less is of wildfire origin. Much of the 11,017 acres available in 1979 resulted from commercial clearcuts in the mid 1960s. Warbler use of these jack pine stands is observedly much less frequent and less consistent than for stands of wildfire origin.

JW:leg
cc/Ryel, Byelich, Taylor,
Irvine, Sorenson, Cuthbert
Perez, Carlson, Mayfield

