

D R A F T

SUMMARY

KIRTLAND'S WARBLER MANAGEMENT AREA

INTRODUCTION

The Kirtland's Warbler, or the "Jack-Pine Warbler" as it is often called in Michigan, is a rare, and believed, vanishing species. This bird may be regarded as Michigan's special bird because its nesting habitat is restricted to the pine-types in the northeastern part of the Lower Peninsula of Michigan.

It can be extremely expensive to save a bird from extinction as shown by the efforts presently being put forth to preserve the whooping crane. However, the Audubon Society feels that this warbler can be held in present numbers through continuous management.

The Huron National Forest is located in the center of the Warbler range. Since this bird is specific in its habitat, the Forest Service is in an excellent position to adjust forest management practices on portions of its area to maintain a relatively stable population.

Objectives:

The objective of this management plan will be to establish and maintain an area for the continued development of Kirtland's Warbler nesting habitat, and to provide the necessary protection to nesting birds. This will require timber cutting cycles, planting, burning and protection which will maintain an ecological condition favorable to the creation of ideal nesting cover.

Establishment of an area dedicated to the preservation of this bird will not eliminate the production of other resources on this area. This area is a part of the multiple-use program of the Lower Michigan National Forest.

HISTORY

This song bird was first known in 1851. The species winters only in the Bahamas Islands. Its nesting grounds were discovered in July 1903, near Red Oak, Oscoda County, Michigan. Every nest found subsequently has been within 60 miles of the first.

NESTING HABITAT AND POPULATION

Nesting Range:

The Kirtland's Warbler nests in scattered locations in some 12 counties, but ^{clarify} not more than 9 at any one time. The center of the Kirtland's Warbler range and maximum population densities are reached in the Mio Ranger District of the Huron National Forest. Normally, its range is limited to extensive natural jack pine stands. In rare instances, it may inhabit mixed jack and red pine plantations. Where a pine overstory or numerous deciduous trees are present, the area is no longer acceptable to the warbler.

Habitat Requirements:

Almost without exception, this bird can only be found in large, homogeneous, blocks of jack pine varying from 5 to 15 feet in height and occurring in a patchy condition of dense stands interspersed with nearly an equal area of small openings. The crucial requirement of the species appears to be the presence of living pine-branch thickets near the ground, together with numerous small openings. It is significant that Kirtland's Warblers have never been known to come in an area opened by lumbering.

To establish and manage an area for the preservation of this bird, involves the subdivision of a series of contiguous blocks on which even-aged jack pine stands can be managed on a 5 year cutting cycle and harvested as early a date as possible, consistent with minimum sacrifice of timber. Controlled burning and selective planting will be necessary to obtain the desired habitat where natural regeneration is inadequate.

Tract Size:

Few, if any, warblers are found on tracts of less than 80 acres. The Kirtland's Warbler is most successful in the midst of very extensive homogeneous tracts where conditions are exactly to its liking, but rather unfavorable to nearly all other forms of life. This tends to preserve the Kirtland's Warbler, a comparatively unsuccessful species, by freeing it from heavy pressure of competition.

Soils:

Nests of the Kirtland's Warbler, perhaps without exception, have been found on one podsol type: Grayling Sand. The soil is sandy and porous. It produces the vegetation required for nesting.

The Role of Fire:

Under natural conditions, the habitat of the Kirtland's Warbler is produced only by forest fires. This bird is, therefore, unusual among living creatures in being dependent upon fire.

Census Data:

A census of this species was undertaken in 1951 under the direction of Harold Mayfield. A total of 432 males were recorded. The entire population is believed to be between 800 and 1000 birds. A similar census will be undertaken in 1961. This will provide valuable information regarding population trend of this species. Since 1951, it is believed that the number of this species have been declining.

FOREST MANAGEMENT IN RELATION TO THE KIRTLAND'S WARBLER

Fire Control:

Burned area objectives on the forest have been established. This acceptable acreage and size of fires are smaller than that capable of producing suitable warbler habitat.

Planting:

Plantations are rarely used by this bird. Jack pine has not been planted on the forest for a number of years. Large, open areas, available for planting, no longer exist.

Silviculture:

Selective cutting in pine stands until rotation age will not produce suitable habitat. Adequate levels of restocking following harvest cut do not provide desirable warbler habitat. Controlled burning, to obtain adequate reproduction, may improve the habitat of this species. Normal timber cutting methods do not provide suitable nesting habitat. Natural red pine stands or reproduction do not provide the necessary habitat conditions to maintain this species.

MORTALITY

The cowbird may be a major item in the survival of this species. Losses from parasitized nests are high. Ultimately, the survival of this species may depend on control of the cowbird.

Other major losses include nest desertion and predation.

THE MANAGEMENT AREA

The area selected for management is a portion of the Mack Lake Burn. This area now provides ideal habitat. Selecting an area inhabited by existing colonies will limit the effort required to keep the habitat in a condition suitable to the warbler. A cover type map will be prepared relating ground cover to existing warbler populations.

MANAGEMENT

Management blocks have been selected and a cutting sequence established which will provide the largest possible area, consistent with the overall management of the area. Management practices such as burning and planting will be undertaken, based on the ecological requirement of this bird, which will produce desirable nesting habitat.

Signing:

Adequate signing of this area will be necessary to inform the public of this project and to control use of the area during the nesting season. Signing the

area to control use will have two objectives: (1) Minimum nesting losses, and (2) Obtaining fairly accurate data on the use of this area. Controlled use of the management area will be from May 1 to September 1. Such restricted use will not interfere with the normal hunting seasons.

CORRELATION WITH OTHER USES

Timber:

The jack pine timber type is one of the dominant timber types on the Huron National Forest. This management plan correlates timber management with the primary objectives of this Management Area.

Fire Control:

Prescribed or "controlled" burning will be necessary to create favorable warbler nesting habitat since, "under natural conditions the habitat of the Kirtland's Warbler is produced only by forest fires."

Recreation:

Roadside zones will be eliminated within the Management Area. This is necessary to permit the homogeneous tracts necessary to the welfare of this bird.

Wildlife:

Extensive homogeneous tracts necessary for the welfare of the bird are unfavorable to other forms of wildlife. Deer populations would not be greatly affected because of their mobility. Deer would benefit from the openings maintained in the area.

Special Uses:

Mineral activity must necessarily be limited in this area. Warbler colonies have abandoned areas where such activities disturb the site.

Mineral rights, with the exception of one 160 acre parcel, are now vested in the United States. The exception is vested in the State of Michigan. Restrictions will be placed on all lands within the area. Subsurface deposits may be prospected and removed by means of directional drilling only.

