## KIRTLAND'S WARBLER CENSUS OF 1961

## INSTRUCTIONS

## Organization

The cooperators have been tentatively grouped and assigned to areas on the basis of their requests or their known familiarity with those areas. To simplify coordination and reporting, one leader has been named for each area. Maps and other special instructions about each area will be sent to the leader alone.

Each group may be organized internally according to the wishes of its members. For example, portions of an area may be parceled out to members, each working separately, or the group may prefer to work closely together at all times. However, the leader will be responsible for his entire area, and will assemble the separate reports for transmittal to me.

The present list of cooperators and assignments is attached. There is nothing unchangeable about this. If any of you would like to alter your role in this census, please do not hesitate to write me. If you have other friends you would like to enlist, go right ahead. We have no desire to be exclusive; our only concern is to have workers who are reliable and interested. The present list consists of people who have specifically volunteered, including several who participated ten years ago and have been given responsibility for the same areas again. If any of you would like to participate more extensively than assigned here, feel free to get in touch with any of the other leaders with whom you would like to join. I have included addresses to facilitate correspondence between you.

So that I may be sure each area is covered, I would appreciate a prompt note of acceptance from each assigned leader.

## Areas to be searched

As all of these cooperators know, the Kirtland's Warbler is to be found nesting only in extensive, nearly homogeneous stands of Christmas-treesize pines on sandy soil with low and sparse ground cover. All spontaneous growths will be of jack pines, but plantings may be either jack or red pines. Experience suggests that the proper conditions will be found only in areas that have been burned or planted with pines in the last 25 years within the known range of the warbler. Therefore, these assignments ignore pinelands in other parts of the state, such as the Manistee National Forest which is nearby and in places looks promising, or parts of the Upper Peninsula which have extensive growths of small pines. However, if any of the cooperators hear of such areas and find it convenient to check them, we hope they will do so.

In general, we believe it will be sufficient for the groups to examine those sections marked on the Conservation Department map sent each leader. There are three kinds of markings: (1) sections marked with a cross have had Kirtland's Warblers reported for them within the last ten years; (2) red pencilled enclosures are sites of recent forest fires and the red numeral gives the year of the fire - i.e., a red 51 means the fire occurred in 1951; (3) black ink numerals give the year and approximate location of pine plantings. Where the information was available to me, I have tried to indicate by enclosures and numerals the part of each section affected by fire or planting, but in some instances I was unable to learn the location within the section exactly, and a general inspection of the section will be necessary. I have ignored all fires of less than 50 acres and very small plantings. Occasionally, you may not be able to find the planting or burn, because the young trees did not live or the fire did not leave sufficient scar.

Although I shall be surprised if you find Kirtland's Warblers outside the marked sections, I hope you will use your own ingenuity also to find other likely spots within your area. Through local inquiries and through driving the roads, you may come across something that all the rest of us have missed.

Harold Wing has taken a special interest in trying to determine if the Kirtland's Warbler always occurs on the soil type known as Grayling Sand. If true, this is a remarkable circumstance. There are other sandy soil types in the range of the bird, and pines grow on all of them, but we do not yet have any clear instance of the bird's nesting on anything but Grayling Sand. To check this suggestion more completely, Mr. Wing is tracing from county soil maps the Grayling Sand boundaries, and these maps are being supplied the leaders also - some by me with this letter and some by Mr. Wing in a later mailing. Therefore, we are requesting each cooperator to sketch each warbler colony found so the area leader can outline it on the Grayling Sand map supplied him. For this purpose it is not sufficient just to list the sections as we do in our general report, for many sections are not homogeneous in soil types and very few are fully populated by warblers.

### Census methods

This is a count of singing males. We are greatly helped in this effort by the fact that the bird is a loud and persistent singer and usually occurs in colonies. I have found that there is 85% probability that one bird will sing at least once in any five-minute period between sunrise and ll a.m. in good weather in the month of June. Consequently, in a colony of several birds there is rarely a silent five-minute period within those hours and dates. The birds often sing energetically also in the afternoons and in July but much less predictably, and at these other times there may be long silent periods.

In the quiet of early morning the birds may usually be heard at a distance of a quarter of a mile. But with a breeze in the pines, some warblers may not be audible more than 200 yards away. Since the singing territory of a bird is usually approximately circular and not more than 200 yards in diameter, the separate singers in a colony can usually be distinguished readily, except in large, dense colonies.

Since completely unsuitable areas can be ruled out at a glance, it is sometimes convenient to reconnoitre unknown areas in the afternoon and to reserve the morning hours for counting birds.

## Reporting results

The area leaders will please mail their reports and Grayling Sand maps to me by July 4. I am interested not only in the birds counted but also in the conditions you found on other sections I have marked on the Conservation Department maps; so I am requesting you report on all sections in large burns or plantings (that is, where warblers might have been expected to occur) as in this example:

Location	No. of males	Comment
T27, R1E Sec. 11, 12, 14	none	Former nesting area, but pines are now too large.
T27, RIE Sec. 13	none	Pines all too large in northern part of the section where warblers formerly oc- curred. 60-acre burn on south border looks good but has no warblers.
T25N, R3E Sec. 5	8	About one-fourth of this section appears suitable; the northeast half is covered by large trees, and there are islands of large trees also as well as some open grasslands in the southeast half; the warblers are found along the whole south boundary.
T25N, R3E	4	About 80 acres at the north edge of this section appears suitable. It is a continuation of the colony in Sec. 8. There is also a part of the southeast corner that looks good (60A.), but has no warblers.

### In an emergency

If unexpectedly a leader finds he is unable to cover his area or if for any other reason a cooperator wishes to reach me promptly, I will be at Hinchman Cabins, Mio, Michigan, from June 12 to 17. Then I will be back at my home for the rest of the month. Since the area I am censusing may not have any suitable habitat, I should be able to give prompt attention on any problem that reaches me during my week in Kirtland's Warbler country.

## A word of appreciation

I am deeply grateful for help of all those who cooperate in this census. It is the competence and enthusiasm of all of you that make this project possible. As soon as possible after this count I hope to publish the results in the Auk and acknowledge your help publicly. Ultimately I will supply reprints to all who participate.

- Harold Mayfield River Road, RFD Waterville, Ohio

# Tentative Assignment of Census Groups and Areas

#### Area

SE Oscoda Co. (East of M33, south of Au Sable river)

E. Kalkaska Co. (East of Co. 571)

Roscommon Co. (Except RlW, T23N and T24N), Southern Crawford Co. (So. of M72), Northern Missaukee Co. (No. of M55)

Alcona Co.

NW Clare Co. SE Missaukee Co.

NW Crawford Co. (No. of M72, R3W and R4W) SW Otsego Co.

SE Antrim Co.

#### Leader

Andrew J. Berger Department of Anatomy University of Michigan Ann Arbor, Michigan

C. T. Black Route 1, Box 480 East Lansing, Mich.

Ralph I. Blouch Houghton Lake Wildlife Exp. Sta. Houghton Lake Hts. Box 158 Michigan

John Byelich Dept. of Conservation Mio, Michigan

Norman Ford Museum of Zoology University of Michigan Ann Arbor, Michigan

Fenn M. Holden Box 428 Grayling, Mich.

Irene F. Jorae Central Michigan University Mt. Pleasant, Michigan

### Other members of group

R. E. Radtke U. S. Forest Service Cadillac, Michigan

Bette Jane Johnston 191 North Rose St. Mount Clemens, Mich.

W. R. Freeman 1603 Wagon Wheel Lane Lansing 17, Mich.

Robert Curtis
Houghton Lake Wildlife
Exp. Sta.
Houghton Lake Hts.
Michigan

Robert W. Storer Museum of Zoology University of Michigan Ann Arbor, Michigan

Harrison B. Tordoff Museum of Zoology University of Michigan Ann Arbor, Michigan

Mr. & Mrs. Joseph Stripe Grayling Michigan

### Area

### Leader

## Other members of group

NW Kalkaska Co.

Ford Kellum Dept. of Conservation Traverse City, Mich.

NE Iosco Co.

Eugene E. Kenaga 1629 Isabella Rd. Midland, Michigan Mark A. Wolf 2609 Jefferson Ave. Midland, Michigan

Western Montmorency Co.

Martha Lengemann Imlay City, Michigan Several friends

Western Oscoda Co.

Harold Mayfield River Road, RFD Waterville, Ohio

Verne Dockham Mio, Michigan

NE Crawford Co. (No. of M72, RlW and R2W) SE Otsego Co.

Douglas Middleton 20553 Fairport Detroit 5, Michigan

Walter P. Nickell Cranbrook Institute of Science Bloomfield Hills, Mich.

SW Presque Isle Co. NE Montmorency Co. Dr. Richard E. Olsen 3325 Franklin Road 420 South Jefferson Bloomfield Hills, Mich.

Dr. Frank Novy Saginaw 6, Mich.

Bruce Winchell R. 2 Freeland, Michigan

NW Ogemaw Co. NE Roscommon Co. (R1W, T23N and T24N)

Lawrence Ryel 14244 Peacock Rd., R.1 East Lansing, Mich.

Victor Jansen 121 Center St. E. Lansing, Mich.

William W. Oliver Dept. of Conservation Gwinn, Michigan

NW Iosco Co.

Harold F. Wing R 3 Jackson, Michigan

Sergej Postupalsky 7283 Lozier Warren, Michigan

In reserve for later assignment

Lawrence H. Walkinshaw Wolverine-Federal Tower Battle Creek, Michigan

Dr. W. Powell Cottrille 408 Reynolds Bldg. Jackson, Michigan