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Census of Kirtland's Warbler in 1972.—The population of Kirtland's Warblers (Dendroica kirtlandii) on the nesting ground in northern Lower Michigan remained level from 1971 to 1972, although down 60 percent from the level of 1961 and 1951. The count of singing males in June 1972 was 200 as compared to 201 the preceding year. It was 502 in 1961 and 432 in 1951. As we believe the number of males and females to be approximately equal, we judge the total adult population to have been about 400 at the beginning of the 1972 nesting season.

Virtually all Kirtland's Warblers now nest in three counties, Crawford, Oscoda, and Ogemaw. We found two males in one location in Wexford County, but isolated individuals had vanished from three counties where found in 1971, Otsego, Iosco, and Montmorency. All of this species now nests in 11 "colonies" on 27 surveyors sections (square miles).

The decline of the last decade was marked by a withdrawal from peripheral habitats and a contraction into the heart of the nesting range, where the density of the population in favored areas is as great as ever. From the standpoint of efforts to preserve the species, this concentration is fortunate because it has placed 45 percent of the entire population on tracts already designated in state and national forests as Kirtland's Warbler management areas. In addition to these, nearly all of the remainder also are nesting on public forest lands, where special attention can be given to them.

The only factor that has been clearly demonstrated to be detrimental to Kirtland's Warbler is the Brown-headed Cowbird (Molothrus ater). In recent years several samples have revealed between 60 and 70 percent of warbler nests parasitized, with a heavy loss of young. Therefore in 1972 the Michigan Department of Natural Resources, the U. S. Bureau of Sports Fisheries and Wildlife, and the Michigan Audubon Society undertook a cooperative effort to remove cowbirds, mainly by trapping, in the most important nesting localities. This work was carried out with the advice of a committee named by the Michigan Audubon Society and representing various groups interested in the preservation of this rare bird.

Nest studies in two of these areas by Lawrence H. Walkinshaw disclosed only two instances of parasitism among 32 nests and the highest yield of fledglings ever recorded for the species in a sample of respectable size. This report was encouraging, but the effect cannot be fully appraised until the 1973 campaign, which will ascertain not only the number of warblers returning to breed but also changes in the cowbird pressure in this restricted and specialized habitat.

For details of census methods and other circumstances, see my reports of previous censuses (Auk 1953, 70: 17; 1962, 79: 173; 1972, 89: 263).

In the 1972 count 31 people participated as follows: C. T. Black, Arlow Boyce, Jerry Brow, John D. Byelich, Doris Chopard, Jack Cook, Marvin Cooley, William A. Dyer, Warren R. Faust, Elsworth M. Harger, Ronald Hoffman, Thomas Heatley, George W. Irvine, Victor S. Janson, John Joldersma, Eugene E. Kenaga, Harold D. Mahan, Larry Masters, Harold F. Mayfield, Virginia Mayfield, Douglas S. Middleton, Ray Perez, Bruce E. Radabaugh, Lawrence A. Ryel, Eric Schneider, Jean Skellenger, Robert G. Strong, Lawrence H. Walkinshaw, Oscar Warbach, Harold Wing, and Mark A. Wolf.—HAROLD F. MAYFIELD, 9235 River Road, Waterville, Ohio 43566. Accepted 15 Aug. 72.

ARK ERRORS IN LEAD PENCIL

Ave checked this proof carefully all errors I want