

by Chris Mensing



Kirtland's warbler Ron Austina

Annual cowbird control and habitat management has allowed the Kirtland's warbler population to increase from a low of 167 singing males in 1987 to a record high 1,341 singing males in 2004. This represents about a 700 percent increase in the warbler population in less than 20 years. Even with the dramatic population increase, habitat management and cowbird control must be maintained on an annual basis to provide the Kirtland's warblers with the protection needed to ensure their survival.

## Bird Watchers Flock to Michigan

The endangered Kirtland's warbler (Dendroica kirtlandii) is a small, blue-grey and yellow bird that weighs less than half an ounce but has attracted the attention of bird watchers from all over the world to the two small northern Michigan towns of Grayling and Mio.

The Kirtland's warbler was first discovered near Cleveland, Ohio, in 1851. It was not until 1903 that its nesting range was discovered near the Au Sable River in Crawford County, Michigan. Since then, all confirmed reports of nesting Kirtland's warblers have occurred in the Upper Peninsula and northern Lower Peninsula of Michigan.

The Kirtland's warbler's nesting habitat consists of young jack pine (Pinus banksianna) ranging in size from 5 to 20 feet (1.5 to 6 meters) in large stands over 200 acres (80 hectares). Historically, these stands would regenerate after periodic wild fires; however, modern fire control has suppressed natural regeneration and limited the amount of young jack pine available to Kirtland's warblers. To compensate for the loss of natural forest regeneration, managers artificially create suitable habitat by direct seeding or planting jack pine seedlings in the appropriate density and distribution. Currently, over 150,000 acres (60,703 ha) of public forest land are set aside as Kirtland's Warbler Management Areas. These lands are regulated for sustained yield of warbler nesting habitat and timber production.

To further protect the warblers, biologists annually trap and remove brown-headed cowbirds (Molothrus ater) from the nesting sites. Cowbirds are brood parasites that place their eggs in the nests of a variety of host species, including Kirtland's warbler. The host bird then raises the cowbird chicks at the expense of the host chicks. Cowbirds were not present in the warbler's nesting range prior to the late 19th century settlement and subsequent logging of Michigan. As a result, Kirtland's warblers have no known defense against cowbird parasitism. Before the initiation of cowbird control in 1972, 70 percent of warbler nests contained at least one cowbird egg and an average of less than one Kirtland's warbler chick fledged per nest. After cowbird control was initiated. warbler production increased to an average of 2.7 Kirtland's warbler fledglings per nest.

Each year, the U.S. Fish and Wildlife Service and the U.S. Forest Service provide the public an opportunity to see one of the nation's rarest songbirds. The agencies conduct guided tours from mid-May through July 4. A total of 1,204 people from 43 states, the District of Columbia, and 10 foreign countries

participated in guided tours in 2004. Since 1966, more then 36,000 people have traveled to northern Michigan for the chance to see a Kirtland's warbler. These tours are the best opportunity to view this endangered songbird, since Kirtland's warbler nesting areas in northern Michigan are closed and posted against public entry during the nesting season. The tours begin with a short slide presentation on the Kirtland's warbler recovery program. Participants are then led to nesting sites where they have an opportunity to view Kirtland's warblers. While on the tour, the participants receive more information about Kirtland's warbler biology, habitat requirements and management, the cowbird control project, and the flora and fauna of the jack pine ecosystem.

The Kirtland's warbler tours present an opportunity for people from all over the world to experience the beauty of northern Michigan. Out of the 644

survey respondents, 251 were from Michigan and only 21 were from the local Grayling, Michigan, community. In addition, 88 percent of the participants were visiting the Grayling area primarily to attend a Kirtland's warbler tour. Some of these participants traveled hundreds, if not thousands, of miles for the tour.

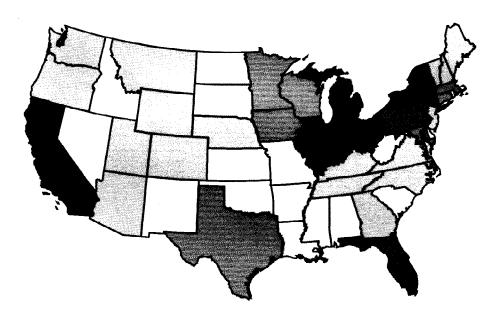
The continued survival and recovery of endangered species depend in part on outreach programs like the Kirtland's warbler tours. For more information on the tours, contact Chris Mensing with the Fish and Wildlife Service's East Lansing Field Office (chris\_mensing@fws.gov) or Joe Gomola with the Forest Service's District Ranger Station in Mio, Michigan (jgomola@fs.fed.us).

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At the conclusion of the 2004 tours, the participants were asked to complete a short survey. The results showed that the participants were overwhelmingly satisfied with the tour. The guide was rated on knowledge of Kirtland's warbler, knowledge of the warbler management program, general bird identification and information, professionalism, friendliness, and overall effectiveness. These qualities received an average rating of 4.920 out of 5. Likewise, the slide presentation was rated on the detail about Kirtland's warbler, detail about the warbler management program, quality of sound, quality of pictures, and overall effectiveness. These aspects rated an average of 4.633 out of 5. Included with the survey was a section where people could provide additional comments. One of the most frequent comments was that programs such as the Kirtland's warbler tours are an invaluable resource to the public and definitely should be continued.

## U.S. Participation in USFWS Kirtland's Warbler 2004 Tour



## **Tour Participant Distribution**

251 - 41 40 - 31 30 - 21 20 - 11 10 - 2 11