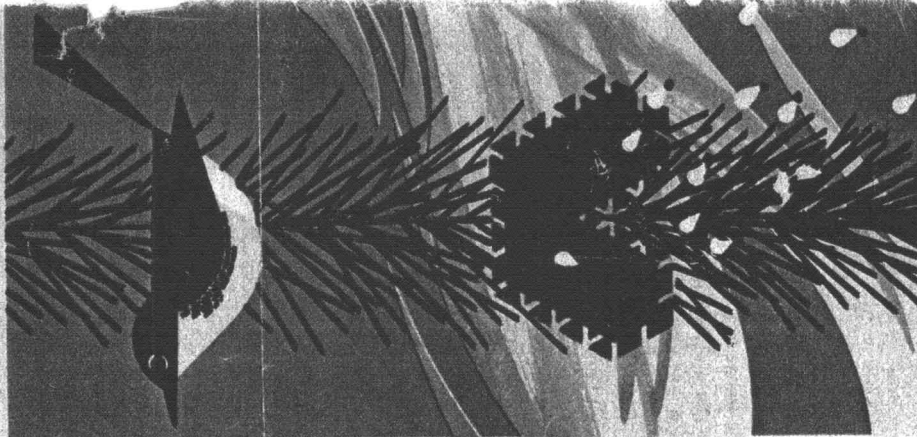


WILL THE KIRTLAND'S WARBLER RETURN?



by Jean Ducey

THE TOTAL WEIGHT of the world's entire population of Kirtland's warblers is less than 12 pounds. They would not, at five to an ounce (one-half an ounce for an adult), fill a standard-size shopping bag, yet this rarest of all the American Warblers, now on the Endangered Species List, creates excitement out of all proportion to its size.

Little wonder that bird lovers everywhere are anxiously awaiting the mid-May return to Michigan's northern Lower Peninsula of the remaining 200 breeding pairs from their winter in the Bahamas. Not until the June census is complete will it be known how many of these delightful songsters have survived the perilous and grueling flight. The Michigan base for this mite with lemon-yellow breast, blue-black back and constantly wagging tail consists of an area less than 50 miles wide and covers portions of only three counties; 10 years ago its base involved nine counties. This little warbler nests no place else in the world.

The requirements that must be met in this nesting site constitute a

small miracle. There must be extensive stands of jack pine (about the size of Christmas trees) between eight and 20 years old. This accounts for the bird's other name—"Jack Pine Warbler."

Usually near the base of a pine the bird excavates a hole in sandy soil for its nest. The outside of the nest is made of soft bark, strips of vegetable fiber and dead grass. Then the nest is lined with fine, dead grass, old pine needles and horse and cattle hair.

There must be low ground cover of grass and blueberry to hide the nest. As the pines grow, the shading limbs die, no longer concealing the birds as they go to and from the nest, and the site is then abandoned. All these conditions come together in only one place and on one soil type, Grayling sand. This pervious soil protects the sunken nest from flooding during heavy rain.

The warbler was rare when it was first collected in 1851 on the Ohio farm of the physician and naturalist, Dr. Jared P. Kirtland, for whom it was named. Dr. Kirtland was a most unusual man: He was active in the

work of the Underground Railroad and during the Civil War donated his pay as examining surgeon to the bounty fund and to the Soldiers Aid Society of Ohio. Influential in improving agriculture and horticulture, he wrote the first listing of Ohio birds, fishes, mammals, reptiles and amphibians. Also named for him are a mollusk, a fossil plant, and a snake. (His water snake is now on Michigan's Threatened List.)

It was not known until 1881 that the warbler wintered in the Bahamas, and it was not until 1903 that the nesting ground of the warbler was found by two trout fishermen plying Michigan's Au Sable River. One of the fishermen was an ornithologist from the University of Michigan. When he heard this beautiful and unfamiliar song, he shot the bird (with a collector's permit) and took it to Norman Wood, curator of the University's Museum of Natural History.

Wood rushed north by train on what became an historic eight-day search via rowboat, horse and buggy, and on foot. He heard his first Kirtland's warbler song July 2.

He hunted with no luck for five more days. Then on July 8 he reached a large tract of jack pine swept by fire a few years before and covered with trees three to 10 feet high.

Wood wrote in his pocket notebook:

"Suddenly I heard a new song, so rich, loud and clear, I knew it must be the one I was in search of. . . I tried to get sight of the singer, but failed on account of his keeping low down in the bushes. . . . I shall be disappointed if I do not find the nest low down, or maybe on the ground.

"Its song, the most beautiful of any warbler, is so wild and clear and has such a ringing, liquid quality, I feel well repaid for my trip by this one experience. . . . Suddenly I saw the nest! . . . as luck would have it, one beautiful egg. . . pinkish white, thinly sprinkled with chocolate-brown spots gathered in a wreath at the larger end."

The warbler's low-pitched song, from one to 1½ seconds long, may be heard more than a quarter of a mile away on a windless day. Harold Mayfield, author of the definitive monograph, *The Kirtland's Warbler*, counted 2,212 songs by one bird in a single day.

The bird's rigid habitat requirements have placed it on the endangered list. The cover of the warbler is fire-produced and the cones of the jack pines are unusually tight; they will not open without the intense heat of a forest fire.

Lightning and fires set by Indians

in early times kept the warbler supplied with needed habitat as did fires during the logging years.

Man's efficiency, however, has tamed the forest fires and threatened the warbler with extinction. To avert this crisis, the Michigan Audubon Society and the Department of Conservation reserved three state forest tracts—11 square miles—for the warbler.

The U.S. Forest Service also was sympathetic to the bird's dilemma as was former Agriculture Secretary Orville Freeman (a bird-watcher in his native Minnesota) who set aside 4,010 acres of the Huron National Forest in Michigan for the bird—the first plot of land of this size in America to be managed primarily for the propagation of a songbird.

The Forest Service completed a huge 500-acre burn and now rotates

