

KIRTLAND'S WARBLER STUDIES

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It was April 1931. The American Ornithologist's Union was to meet in October at Detroit and Ann Arbor, Michigan. Dr. Josselyn Van Tyne and Norman A. Wood were Curators of Birds at the University of Michigan Museum of Zoology. Richard E. Olsen was a Senior Medical Student there. I had been out in practice nearly two years and was beginning to overcome the early effects of the depression. Richard Olsen wrote, "Would I be able to go 28-31 May with him and A.D. Tinker to Lovells?" The mission was to work on a Kirtland's Warbler colony. We met at Lansing Friday night and in my little Model T Ford coupe I ate dust all through the night as Richard drove ahead of me with his Ford touring car, loaded with camping equipment, a huge tent, blankets, a large milk can for water, food, etc. The morning was cold as often happens when May cold fronts pass through and the sky was draped with a mass of gray clouds. We passed through Grayling and reached Frederick at 4 a.m. stopped for a few minutes then headed east away from US 27, covering the last 20 miles of our Lovells trip in a short time. There we filled our milk can with water then drove the 4 miles south to the Kirtland's Warbler colony. We pitched the huge tent in a clearing right in the midst of the colony, started a fire large enough for a logging camp and cooked breakfast (I never had another fire on a Kirtland's Warbler colony.). We rested a little but soon were all in the field. I was interested in studying the birds, searching for a nest if possible and for photography later. Before the week end was over and time for me to go south I found my first Kirtland's Warbler nest. The female was rather tame and was building. As I lay sprawled out amongst the low blueberries, I watched her carry beakful after beakful of grasses to the new site.

Now we knew where there was a new nest we must return to see if it was successful. With Richard Olsen, ~~and~~ his brother Humphrey and the N. T. Petersons we were back 16 June for a few days, my only vacation that ~~my~~ summer. The warbler nest had been finished and now contained a single egg but it was deserted. We surmised the reason but never could prove it. We began a new search and soon found another nest with five young $\frac{1}{2}$ -grown. There we took several photographs with a little Graflex camera Richard had borrowed from the Medical School. Our 1931 Lovells field work was over.

But Kirtland's Warblers were like a magnet. Memorial Day week end 1932, Clara (Clara Cartland and I were married 19 October 1931) and I were back at Lovells. We began searching for new colonies and shortly found two large colonies near Red Oak in Oscoda County. Both were less than two miles from the village. In the latter part of June that year Clara and I stayed in a large Forest Service tent at Red Oak, eating with the Max Laage family. Although black fly bites limited Clara's field work we found another Kirtland's Warbler nest. It contained one warbler egg and two Cowbird eggs. I removed the Cowbird eggs and the female did not desert. She was so tame I caught her by hand and banded her—the first one of that species to be banded. (Dr. Van Tyne banded another one week later). Before we left the warbler egg had hatched and I had some photographs ~~XXXX~~ but we never knew whether the nest was successful.

Four men from Ohio, Dr. Brody, Mr. Baker, Grant Cook and Vincent McLaughlin went to Roscommon in 1933. They found a Kirtland's Warbler nest northeast of Roscommon and wrote me of their find. Alfred G. Dowding and I stopped to examine it but they had removed two Cowbird eggs and the birds had deserted their own two. We found another nest at Red Oak. It contained only a half grown Cowbird. We then searched the Upper Peninsula and northern Wisconsin, without success.

On 13 May 1937 I found a male Kirtland's Warbler in a new colony just west of Lake Margrethe, west of Grayling, Crawford County. The Michigan Audubon Society

had its first Campout at Grayling the last week end in May 1938. At that time we visited that colony and found a female warbler building a nest. Clara, Jim (our 3-year old son) and I headed back to a little cottage on Lake Margrethe. Max Laage, one of the state foresters had checked the nest daily for me while egg-laying was in progress so we knew when the eggs were laid. We removed a Cowbird egg. Only one of the warbler eggs hatched and 15 days after incubation began. This female was very tame. She ate flies and other insects from my hand and I banded her later in June. Nearby I found two more Kirtland's warbler nests and banded nine nestlings which fledged. We found that Dr. Van Tyne was also working on Kirtland's Warbler. He was also in charge of publications at Cranbrook Institute of Science. Would I work on Sandhill Cranes, another great interest of mine, then he would work on the warbler? So eventually the Sandhill Crane book came out. But I still had much interest in Kirtland's Warbler and stopped over at the colony west of Grayling in 1940. Close to the road a male was singing. Soon he was carrying food and soon I had found his nest with 5 young. I sat there looking at the nest when I heard a slight noise in the jack pine beside me. Looking up there was the female with the band on her right leg I had placed there in 1938. Soon I banded the male and caught her to verify it was she then banded the young. The next year the male was shot by someone in the same locality.

I continued to send records to Dr. Van Tyne. In 1941 I found a nest at Lovells went back to examine the next morning and found remains of the female scattered throughout the vicinity. A house had been built right in the jack pines of this colony and we always felt sure a house cat had been the culprit. Ground nesting birds are vulnerable to house cats. We found the last nest in the Lovells colony in 1944 and another in a colony east of Grayling. Some friends of mine wished to photograph the birds and opened up the vegetation over the nest. The hot sun baked the nestlings until they died. I watched the birds. They started a new nest a short distance from the old and it was completed ^{when} we went south.

We allowed 4 days for egg-laying, 14 days for incubation and 8 days for the nestling period which brought the timing to 20 July when the young would fledge. We arrived Friday night 19 July, set up the blind before dark and I slept that night in the blind 6 feet from the warbler nest. Neither parent brooded the nearly ⁴ full grown nestlings that night but the next morning we took many photographs of the adults and fledged young (they fledged in the afternoon). A drawing was made from one of the photographs and was used on the cover of 'The Jack-Pine Warbler' magazine of Michigan Audubon Societies publication. We had several other experiences with the warblers during the next few years then in 1954 and 1955 helped Dr. Van Tyne with his studies. Harold Mayfield organized in 1951 the first singing male count when our group came up with 482 singing males. I worked in Lake, Wexford and other west Michigan counties then found my first warblers that year in Iosco County near East Tawas. At that colony in June 1953 Jim Ponshair, Peter Hovingh, Jr. and I found a nest with 5 nestlings then another in Montmorency County and we saw one in Presque Isle County found by someone from the Wilson Ornithological Society meeting at Douglas Lake. Then in ~~XXXX~~ 1957 Dr. Van Tyne died in late January. Harold Mayfield, Andrew J. Berger, Dale Zimmerman and I spent much time that June at a warbler colony near Mack Lake, Oscoda County. We found 11 nests all of which were parasitized by Cowbirds. Following that Harold Mayfield completed ~~XXXXXXXX~~ his marvelous book 'The Kirtland's Warbler.'

For several years I did not do much on Kirtland's Warbler but in late June 1966, Bill Coates, ~~XXXX~~ Kenneth and Harriet Krum, ~~and~~ Bill Dyer and I decided to go to a large colony on the Artillery Range, Crawford County about 12 miles north-east of Grayling to try and get some photographse of the species. Bill Dyer and I found three nests while I found several pairs with fledged nestlings. In all cases but one the nests had been parasitized by Cowbirds. Only one pair of birds was able to fledge Kirtland's Warbler nestlings; all of the rest fledged Cowbirds.

During 1967 my grandson, Ronald Walkinshaw and my friend Bill Dyer went with me to see if we could help do away with some of the Cowbirds which were making it so rough on Kirtland's Warbler. It was hot and the flies were bad but Ron, who was 8 years old survived the time we were there. We went to Lake Margrethe afternoons where he could go swimming then the next morning we were back again. The warblers had a little better luck. The next summer I took Steven, our second grandson. Bill did not go. We were camped under some jack pines along Ketcham Truck Trail on the National Guard Artillery Range. I woke up during the night. Not too far away I could hear the rat-a-tat-rat-a-tat-tat of machine guns then the rumbling of tanks running wildly through the jack pines. I did not sleep much the remainder of the night for they did not know we were there. Steve woke with a smile in the morning, stretched and I said to him 'Did you hear the battle?' In the next breath he said 'What battle?' He had not heard it. One thing we did find that summer, we watched a Blue Jay devour two nestling Cowbirds from a Kirtland's Warbler nest. Steve loved competition and helped find several warbler nests but again most were parasitized. The next three summers Bill Dyer and I spent some time on the Artillery Range. As before warbler nests were badly parasitized. I published the results of these studies in American Birds hoping it might do some good. Kirtland's Warblers were doomed if Cowbird parasitism continued at the rate it had 1966-1971. Kirtland's Warblers were rearing practically nothing but Cowbirds and they were taking around 93 per cent of the Cowbird eggs in that vicinity.

Early in 1972 the U.S. Fish and Wildlife Service contacted me to see if I would search for nests that summer on the Kirtland's Warbler regions and in so doing see how many nests were parasitized. They had erected Cowbird traps on all the main warbler nesting colonies. Where Kirtland's Warblers had reared around 0.89 young per year per pair prior to this, in 1972 they reared around 3 young per pair per year and parasitism dropped to around 6 per cent. For six years I continued helping them with this work and each year we had the same results. But Kirtland's Warbler did not

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increase in numbers greatly. Somewhere, somehow, something was keeping their numbers down. We are still working on why.

Up until 1966 I had banded between 26 and 30 Kirtland's Warblers. Two of these birds were refound in later years. Between 1966 and 1976 I banded 120 adults on the study areas and 477 nestlings. Returns and recoveries from this number were tremendous. They have been summarized in my book 'Kirtland's Warbler, the Natural History of an Endangered Species.'

The most thrilling of these returns and recoveries follow:

"Female 61-24179 was banded 22 June 1970 on the Artillery Range South, Crawford County. She had a banded mate, a nest with 3 warbler and 1 cowbird eggs. She hatched 2 of her own eggs when we had removed the cowbird egg. We were never sure whether she fledged the 2 young. During 1972, 1973 and 1974 she produced two nestings each year, fledging 25 young from 25 eggs. During 1975 she had one brood and fledged 5 young from 5 eggs. During 1976 she hatched 5 young from 5 eggs and lost the young a few days before they should have fledged. During these seven years, she was known to have four mates. Two of these mated with her two summers each."

Male 116-24662 was banded by Bruce Radabaugh in early July 1971 at Mack Lake, Oscoda County (when he was recently fledged). Warren Faust and I found him on the Lovells Management Area in 1972 and we placed a color band on him 28 May 1973. With mate 820-89201 they fledged 4 young from 5 eggs that summer. The next year he mated with a two year old banded female, 81-58978. At their first nest they fledged 5 young from 5 eggs then at their second nest they were one of the two unfortunate nests parasitized that summer. Apparently the Cowbird removed 2 or 3 warbler eggs and laid one of her own. When I found the nest there were only 2 eggs, one was a Cowbird egg. When the Cowbird hatched- they always hatched 2-3 days prior to the warbler eggs- I left him in the nest hoping she would not desert her lone egg. The morning the warbler hatched something (probably the Cowbird) dragged the baby from the nest, removed his legs and killed him but left the nestling Cowbird unharmed. I removed the Cowbird and gave the pair a baby warbler from another nest.

The next summer this male mated with a new unbanded female. I was not allowed to capture birds that summer. They fledged 5 young from 5 eggs. That fall, a 7-year old girl, Suzanne Doerger, found this male in their yard. He had flown into their picture window 27 September 1975 at a suburb of Cincinnati, Ohio. This male and his mates had produced 14 fledged nestling Kirtland's Warblers that we knew. He lived to be four years, and three months of age.

Professor Paul Aird of the University of Toronto became extremely interested in Kirtland's Warblers. He read how Dr. Paul Harrington had found the bird at the Petawawa Military area near Pembroke, Ontario, in 1916 and 1939. At that same location he found a singing male 8 June 1977. There was always a lull in nesting around 1 July so I drove down to Lansing. The phone rang and it was Jim Mattsson. What would you think of driving over to Pembroke, Ontario to see if we could capture that male Kirtland's Warbler and band him. ^{with} John Byelich, ^{and} Jim Mattsson ~~and we~~ drove over the next morning. We joined several Canadian friends, all very much interested in the project and then went to Pembroke where Paul Aird was working. He had done extensive work in the region, had found only the one male but no mate. We set up nets but the bird had two territories and left the region where we had nets. The next day we had no luck. The next day 1 July 1977 we were heading for home. I awoke at 4:00 a.m. It was raining hard. It looked as though we were not going to capture the bird. We ate breakfast early, the rain ceased, we all went to the warbler territory, set up 3 nets and with Paul playing the recorder watched the male fly over the net to the recorder but he turned around and flew right back into the net. He was the most photographed Kirtland's Warbler in Ontario as I placed a band on him. We released him and he was back the next spring (Paul Aird). But again no mate was found.

During late May 1978 Paul Aird and his organized Canadian team searched central Ontario and Quebec for Kirtland's Warblers. They found the male had returned to Petawawa then another male in the Gatineau Valley near Kazabazua, Quebec. On 27 May they captured the bird. I had several telephone calls shortly for the male warbler was wearing a band and it was one I had banded as a nestling 24 June' 1974 at Lovells, Michigan. He had settled 676 km from where he was born. His father and mother I had also banded and they had had their territories at Lovells.

That same summer, Nancy Tilghman working for the Wisconsin Department of Natural Resources found two singing male Kirtland's Warblers near Black River Falls, Wisconsin. John Byelich, Chairman of the Kirtland's Warbler Recovery Team and I drove over there 20 June 1978. There we met Nancy Tilghman and set up nets 21 June. Soon we caught and as usual released the bird, It was already wearing a band which I had placed on it 29 June 1972 when it was a nestling at the Artillery Range, Crawford, County, Michigan. He had settled 579 km from where he was born and in his case both of his parents had been banded and had their territory on the Artillery Range, Michigan.

In our work we found that most nestling warblers when one year old settled on territories fairly close to where they were born but most went to regions where the jack pines were smaller and younger than where their parents had their territories. We also found that some pairs mated two years, even three years on one occasion, that normally after they settled on a territory they retained that territory each summer as long as they survived. We found that although some males never did get a mate in summer, other males had two mates, one could have had three in one summer at the same time. We found that females returned to nest on the same territory year after year if it was possible. But we also found that both sexes at times moved on ensuing years, especially the females if some catastrophe came to an early nesting.

In early July 1982 Dr. John Probst, of the United States Forest Service, found a singing male Kirtland's Warbler near Gwinn, Michigan, the first definite Upper Peninsula record. I could not find the bird in later July that year but spent a week with it

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in June 1983. There he occupied the same territory both in 1982 and 1983. In no case where these birds were found far from the original nesting region in southern Michigan, could we find a female bird. In every case the males retained their territories throughout the summer and in the case of the Ontario bird he returned to the exact spot for two summers. They always selected an area of small jack pines where there were regions of dense growth interspersed with clearings and very similar excellent ground cover. *to that in southern Michigan,*

Now that my Kirtland's Warbler work is over, I look back and see many of us working together as teams have temporarily saved the species from extinction. We all worked in a united way. Its future rests with humanity. The Kirtland's Warbler Recovery team meets twice a year doing all they can to increase habitat, protecting the species from Cowbirds and other enemies but if people continue to settle in the jack pine country, if they allow their cats to roam the woods, if Blue Jays, Red Squirrels and ~~the~~ Thirteen-lined Ground Squirrels continue to ransack some nests even if we remove Cowbirds and if we lose two thirds of our warblers each year after the nesting season has terminated we could still write Finis on the species. We always ask 'Do you folks want to save our endangered species? We think you do.'