

was pleased to have a juvenile Kirtland's Warbler of known age for the museum collection.

After we moved into our own home in late 1956, it was much easier to raise nestling birds because of our indoor aviary and three large outdoor flights, where the birds could spend the summer months. The outdoor flights planted with native vegetation, provided considerable quantities of berries and insect life for the birds. As the years passed, I raised several other nestling Kirtland's Warblers. One of the most difficult problems in raising these, as well as other primarily insectivorous birds, was to find an adequate artificial diet, particularly for the long winter season, and a considerable amount of experimentation was necessary. These efforts were well rewarded by the information obtained on the unfolding of the behaviour patterns of the developing birds and the changes that occurred as the birds became independent. There has not been time to prepare all of this information for publication, but Mayfield used some of it in *The Kirtland's Warbler* book and some aspects of the behaviour patterns were published in my book, *Bird Study*.

Van Tyne did not live to see live Kirtland's Warblers during the 1957 breeding season. Mayfield and I returned to the 1956 study area to obtain further data for the Van Tyne-Mayfield book on the warbler. We were particularly interested in returns of the many warblers that Van Tyne and I had color-banded in 1956.

The relatively wild Jack-Pine Plains are both invigorating and relaxing. They are a world apart. They enable one to get away from newspapers, radios, and all of the serious man-made problems of the world. A sojourn there also makes one realize how much man is dependent upon the land. Then, too, the Kirtland's Warbler is such a fascinating species

to study in the field that I could not resist returning to the Mack Lake area for at least a brief period almost every summer since 1957 in order to make further observations on the breeding biology of this rare warbler. My family and I left Bombay on April 9, 1965; in June we were back at Mack Lake with the Kirtland's Warbler. Diana, our 12 year-old daughter, proved to be an able field companion, finding nests of the Common Nighthawk, Brown Thrasher, and Chipping Sparrow. She also followed one singing male Kirtland's Warbler to within a few feet of his nest, which is no mean accomplishment. Hence, Diana used to excellent advantage her field experiences in India, including the very pleasant visit to the Indian Ornithological Garden at Dhrangadhra.

By a stroke of good fortune, Floyd, Clarice, and Bruce Radabaugh purchased a summer home on Mack Lake a short time before the 1961 census of the Kirtland's Warbler. Their growing interest in the warbler (and birds in general) is admirably described in Bruce Radabaugh's book *So! You want to be a Bird-watcher* (Harlo Press, Detroit, Michigan, 1964). Bruce accompanied me on a number of the field trips during the census period, and the Radabaughs I have worked together for all too short periods in succeeding summers. Bruce Radabaugh is the keenest field student I have known in the past 25 years. In the short period, Bruce has become the leading investigator of the life history of this intriguing warbler. Within the next few years, we can expect to learn the answers to many of the questions that Mayfield could not answer with the data he had on hand when he wrote *The Kirtland's Warbler*.

Hence, we see, that bit by bit through the enthusiastic and dedicated effort of a handful of competent investigators, the story of the Kirtland's Warbler is unfolding for all to know and enjoy.

ANCESTRY OF THE KIRTLAND'S WARBLER

By BRUCE E. RADABAUGH.

The Indian Ornithological Garden has a great interest in rare species of birds — and especially their preservation. Indeed all ornithologists and serious birdwatchers share this special interest and concern.

Through a fortuitous series of events I have had the great pleasure of becoming acquainted with the Kirtland's Warbler (*Dendroica kirtlandii*), a rare species of Wood Warbler (*Parulidae*) which nests only in the State of Michi-

