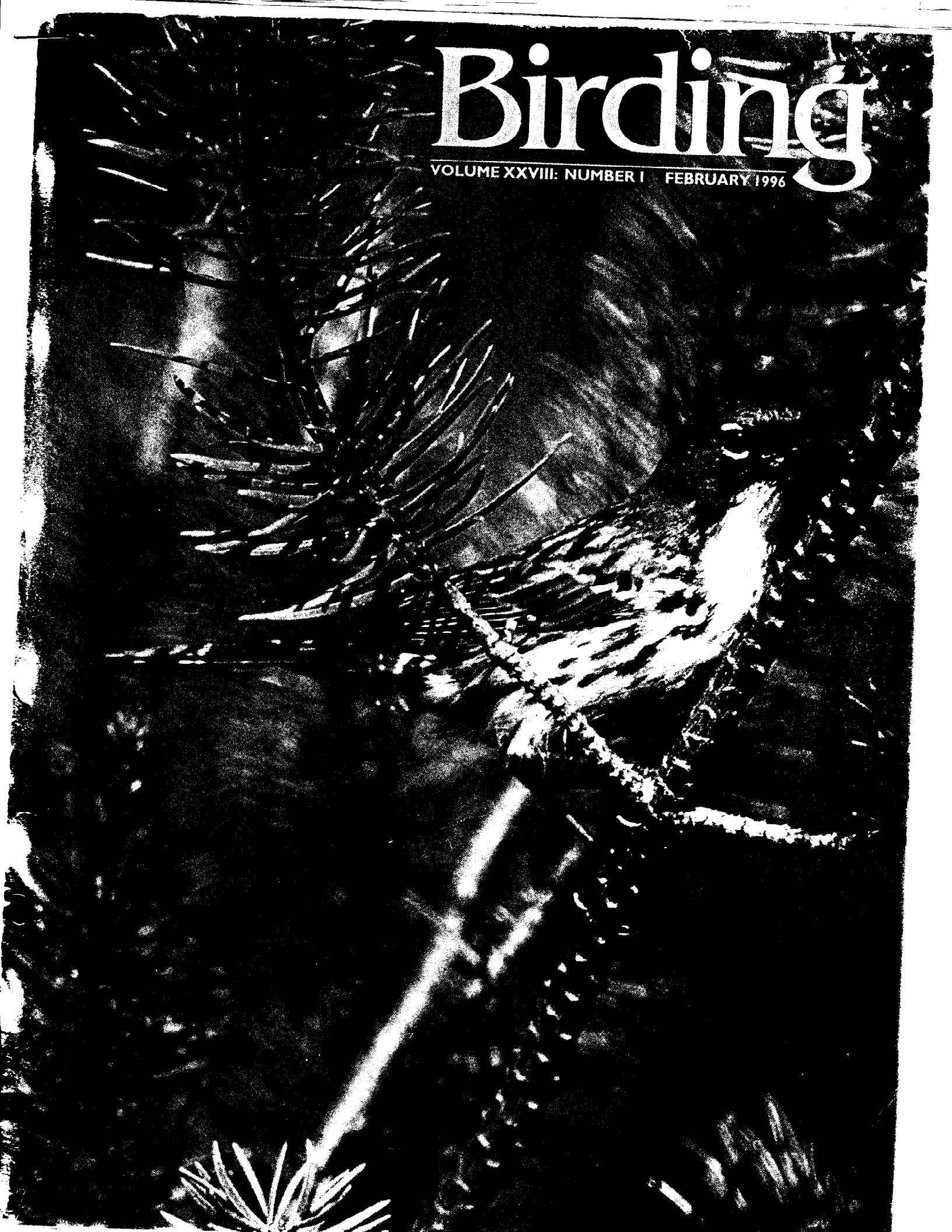


Birding

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Kirtland's Warblers in Winter

HAROLD F. MAYFIELD

THE KIRTLAND'S WARBLER (*Dendroica kirtlandii*) is found nowhere else in winter (September to April) but in the Bahama Islands, with uncorroborated sightings in coastal areas of nearby islands and in Mexico (Mayfield 1992). Most birders visiting the Bahamas in winter ask, "Where can we find Kirtland's Warblers?" The simple answer is, "No one can pinpoint the place to look. The best we can do is to tell you the situations where other people have found them." Even this information is of limited use because the species probably inhabits—as on its nesting ground—small and young vegetation, and this is transitory. Although the bird has been seen on nearly all the Bahama islands, it is not easy to locate. That should not be surprising, because there are only a few hundred Kirtland's Warblers, and the Bahama chain consists of 17 inhabited islands, 700 cays, and 2400 rocks. Even a "rock" on a navigation chart may have some low vegetation. My only personal sighting of a Kirtland's Warbler away from the nesting grounds involved a singing male stopping over in spring migration at an undistinguished weedy lot in a small Ohio village.

Finding the Kirtland's Warbler

seems like finding a needle in a haystack, but the prospects now are better than at any time in more than a half-century. The annual census in Michigan during June 1995 revealed 765 singing males, about three times the numbers prevailing through the 1980s. But the species is still difficult to find, even on the nesting grounds, where the males are singing loudly. They are largely silent in the Bahamas. In both regions there are vast areas that seem suitable to the human eye but do not attract Kirtland's Warblers (Mayfield 1960).

The rarity of Kirtland's Warbler is not a recent development. It is not a consequence of the widespread destruction of forests such as have occurred in other Neotropical regions. Most scientists who have studied the bird believe its population is limited by the availability of suitable nesting habitat. In summer, the warbler occupies only scattered, extensive tracts of small Jack Pines (*Pinus banksiana*)—and these trees occur naturally only after extensive forest fires—at the southern limit of the pine's widespread distribution. The historical nesting range of the warbler lies in northern Lower Michigan on level or gently rolling sandy soil. The distance from the northernmost nest on record to the southernmost is less than 85 miles (136 km), and from the easternmost to the westernmost

is less than 100 miles (160 km). This is the remaining fringe of a pine forest that has been retreating northward ever since the Wisconsin Glaciation came to a close in this region some 12,000 years ago.

We know nothing about the numbers of Kirtland's Warblers before the 1900s except for circumstantial evidence that the warbler was more abundant in the 1880s and 1890s than immediately before or since. This evidence comes mainly from the Bahamas, where the bird was found repeatedly before its nesting grounds in Michigan were discovered.

Selected Examples from the Historical Record

Before the nesting area in Michigan was discovered in 1903, sixty-nine specimens were collected in the Bahama Islands, but most of these records are of little help to us in finding the warbler today.

The first winter specimen in the Bahamas was taken on Andros Island on 9 January 1879 by Charles B. Cory of the Field Museum in Chicago. It was taken at Hawk's Nest Creek, "in some bushes near the sea. Among low brush. The stomach contained remains of insects."

The most complete early descriptions of the habitat came from Charles J. Maynard of Bos-

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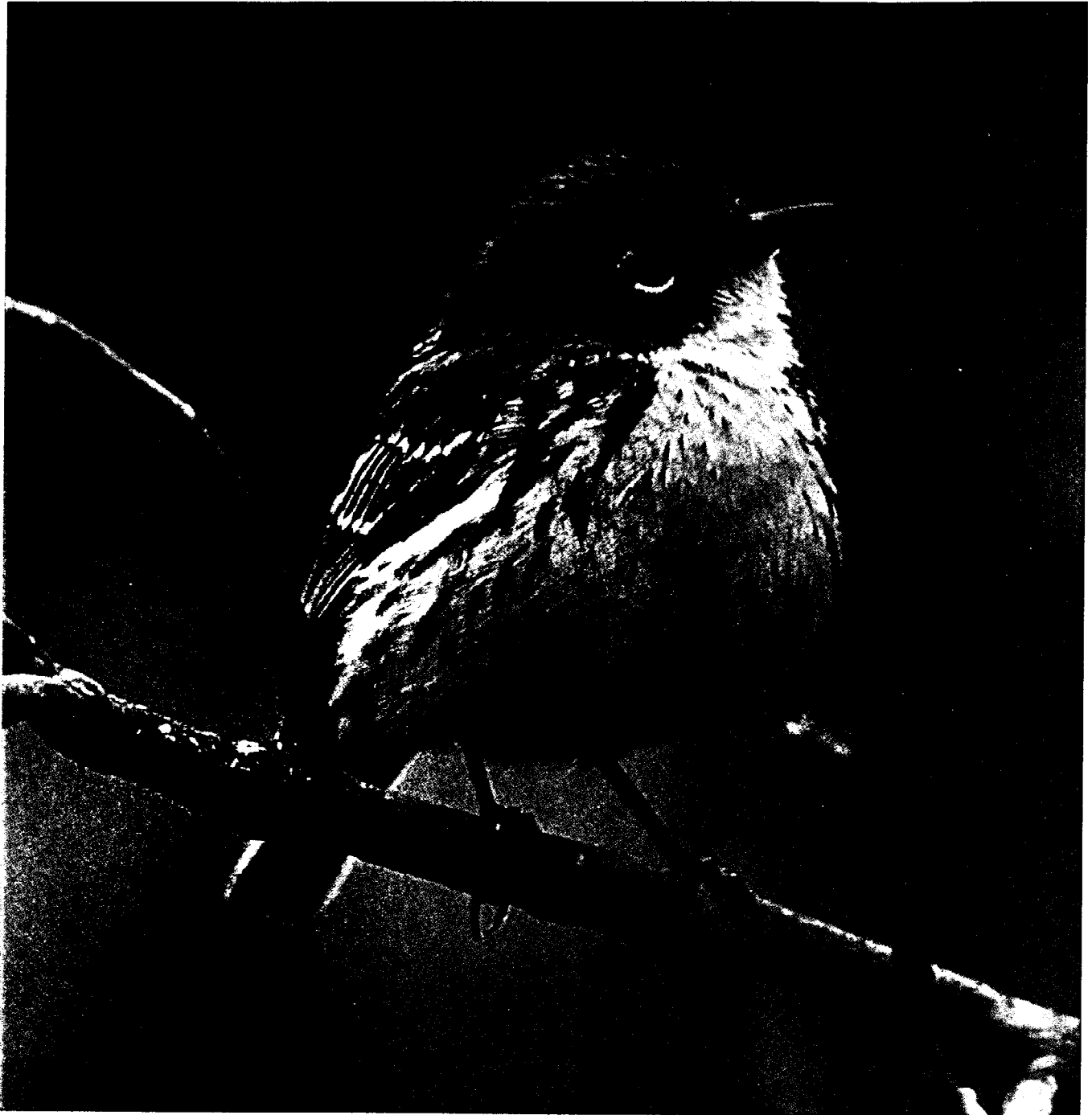
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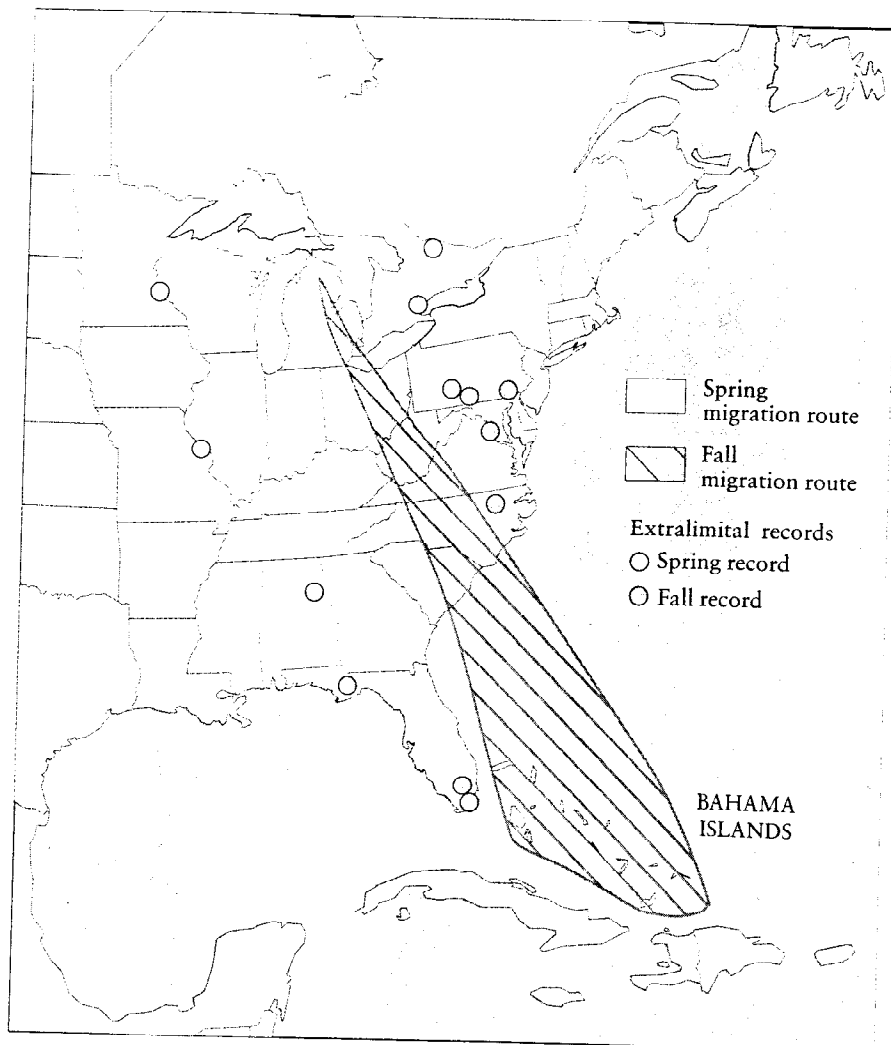
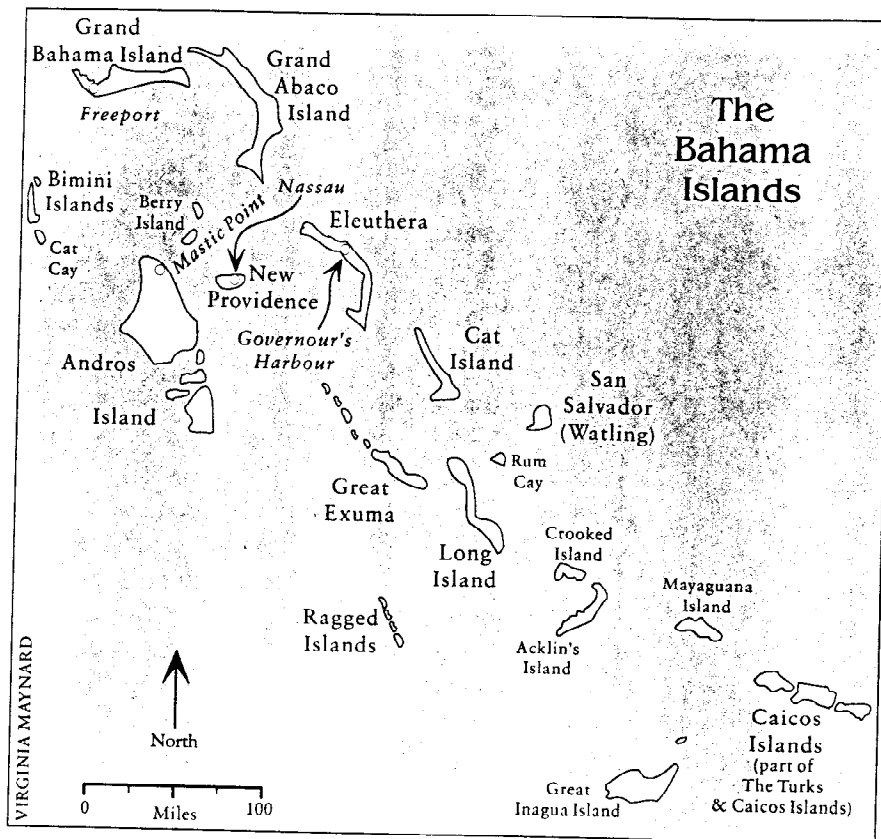
RON AUSTING

This male Kirtland's Warbler was photographed near the nest in Oscada County, Michigan.

ton, and we cannot improve upon it today. Maynard collected a remarkable twenty-four specimens between 23 January and 14 April 1884 near Nassau on New Providence Island. He wrote, "Kirtland's Warblers are shy birds of solitary habits, for never in any case did I find two together. They inhabit low

scrub, preferring that which is only three or four feet high, but retire at night to roost in higher dense shrubbery near the spots which they frequent during the day. Those collected were, with one or two exceptions, found in an exceedingly limited area within a mile or two of the city of Nassau, and always in old

fields grown up to low shrubbery. I have never heard Kirtland's Warblers sing. The only note they uttered was a harsh chirp, with which they greeted me when alarmed at my approach. When one was not secured at first sight, it generally retreated into the bushes and silently disappeared. The thick



The Bahama Islands

and tangled character of the scrub rendered any quiet and swift pursuit impossible; thus, a retreating bird was never seen again that day, and a number seen escaped in this way.”

“As with many shy birds, however, these warblers presented strange exceptions to the usual rule; twice at least as I was making my way through the thickets in search of the Greater Yellowthroat [Bahama Yellowthroat], I was confronted by a Kirtland’s Warbler. In both instances the birds appeared from out of the thicket within a yard of my path, and remained a few seconds, then darted off in the scrub.”

It is notable that Maynard’s 1884 sightings, which are unmatched in number before or since, occurred at a time when we suspect the species was more numerous than at any other time in history. Following extensive lumbering of Michigan’s pine forests, forest fires peaked in 1871 (“when an empire burned”; Pyne 1982), and we believe the nesting habitat was at its historical maximum at about the time of Maynard’s visit to the Bahamas.

In the early 1900s, there were many unsuccessful searches by competent observers. In 1949, Josselyn Van Tyne, then the leading authority on the species, and I spent five weeks systematically searching various habitats on New Providence and Eleuthera islands. In the 1960s, I searched Grand Bahama, New Providence, and Great Abaco without success. In March 1960, Lawrence Walkinshaw, a leading student of the bird in Michigan, aware that mist nets often reveal

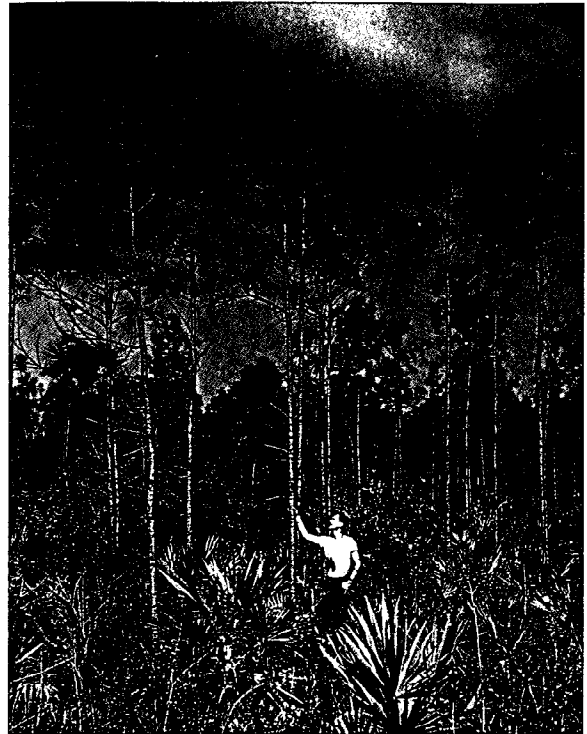
birds not found by binocular-wielding searchers, sampled the birds at Mastic Point, Andros, in January 1960. In 305 net-hours he did not catch any Kirtland's Warblers. Similarly, John Emlen spent many weeks surveying the general bird populations on Grand Bahama and Andros in 1968 and 1969 without seeing any Kirtland's. Likewise, Donald Buden's eight years of surveying Bahamian birds during the 1970s and 1980s—with special attention paid to the southern islands of the group—revealed no Kirtland's Warblers.

On the other hand, many of the modern sightings have been fortuitous, even bizarre—on the sand of a beach, on the porch of a hotel, on the edge of the Nassau airport.

One of the few modern detailed accounts of the bird's be-

havior and habitat was provided by Bruce Radabaugh (1974), who was making a deliberate search for the species with the aid of a tape of its song. He found one near the east end of Crooked Island on 11, 12, and 22 March 1973. The bird was alone, and it foraged over an area of about 17 acres, spending 70 percent of its time on the ground. The site was 900 meters from the sea and was sparsely vegetated with bushes less than one meter tall, broken by openings and scattered small trees.

Another notable record was



HAROLD MAYFIELD

Pine Forest near Nassau on New Providence Island, which superficially resembles the pine barrens on the nesting range in Michigan. But the warbler does not favor pine habitat in the Bahamas.



ANNE AND FRANK KLUG

This male Kirtland's Warbler was found in early May 1993 at Point Pelee, Ontario, where this species has been reported approximately seven times. Males vary considerably in the intensity of yellow and the prominence of spots on the underparts.



PAUL W. SYKES, JR.

Low scrub, near Governor's Harbor, Eleuthera Island, where Kirtland's Warbler wintered in at least two years. Extensive areas of low, sparse vegetation is its preferred habitat.

Kirtland's warblers in winter

contributed by Mary Clench (1978), who found one bird on North Caicos Island on 10 February 1978. The Caicos Islands are politically separate from the Bahamas, but geologically and biologically a part of the island group. Dr. Clench had searched the Bahamas extensively in previous years without success. In this instance, following a tip, she went to Bellefield Landing and walked through the scrub playing a tape of the Kirtland's song. Here she found a female warbler feeding on insects among sparse vegetation. The ground was mostly flat limestone, supporting

scanty grass and small trees with many openings. She was not able to find the bird again during two additional days of searching.

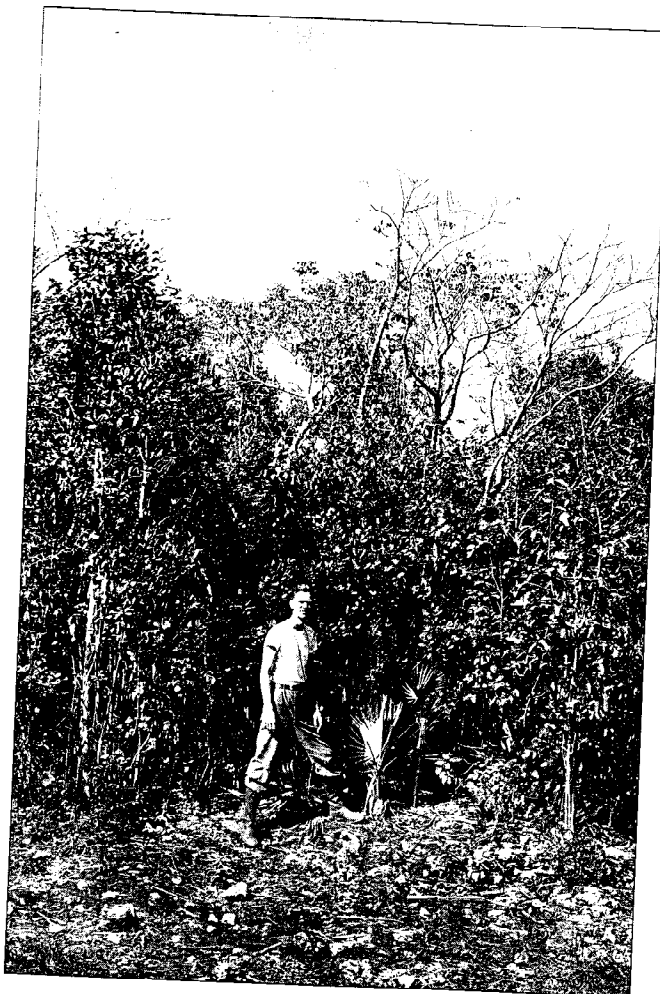
Another modern record at the extreme limits of the Bahama Islands comes from Dennis Paulson (pers. comm.), who took the most recent winter specimen on 27 December 1965 on Watlings Island (San Salvador). He described the situation thus: "at the edge of an extensive area scrub forest or low coppice with a canopy about 8 to 10 feet above the ground, i.e., composed of what could be called small trees . . . Palms were scarce there."

The most thorough study of the Kirtland's Warbler's winter habitat and behavior comes from Paul Sykes, leader of a U.S. Fish and Wildlife Service search team on Eleuthera Island in late February 1985. The site was located a short distance north of Governor's Harbor. Here, two birds were seen and one was banded. The birds foraged over a small area that had been cleared several years before. The vegetation was mainly about waist-high, with a few young trees protruding through the low growth to a height of about ten feet. Prominent in the vegetation was a bush with small berries known locally as sage. The warblers ate these berries in addition to insects. (Frank Chapman found Kirtland's Warblers eating these same berries on Cat Cay in late April 1908.)

Conclusions from a Century of Sightings

Kirtland's Warblers may be found on any of the Bahama Islands. The preferred habitat consists of extensive areas of low, sparse vegetation, which may dominate or characterize a tract after clearing. The birds do not appear to be associated with pine trees such as Caribbean Pine (*Pinus caribaea*), which are prominent on a few of the northern Bahama Islands.

Unlike that in some other Neotropical regions, the habitat does not appear to be threatened by human activities. Today, one can fly the length of the Bahama chain and see little in the *interiors* of the islands that has changed since Columbus landed



This is tall scrub ("coppice") on New Providence Island. Kirtland's Warblers have never been found in this habitat.

HAROLD MAYFIELD

here in 1492. The attention of settlers has been directed toward the sea. The villages have been built on harbors, leaving the interiors of the islands clothed with scrub, broken by few roads. Large-scale agriculture and lumbering have been attempted more than once in the last two centuries but have been discouraged by the shallow soil and scarcity of fresh water. Indeed, periodic clearings may have been beneficial to the habitat favored by Kirtland's Warblers.

The scrub is often dense and thorny, penetrated by few roads and footpaths. Hikers in most of the out-islands will see little sign of other human beings when they go inland from the beach. The birder's biggest challenge is to avoid being fooled by other small birds with yellow underparts glimpsed briefly in the shrubbery. Prairie Warblers (*D. discolor*) also bob their tails and have been mistaken (even photographed) for Kirtland's Warblers, and other birds that might cause the novice to look carefully are Northern Parula

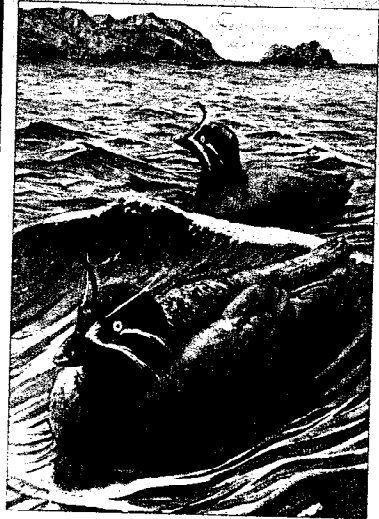
(*Parula americana*), Magnolia Warbler (*D. magnolia*), Yellow-throated Warbler (*D. dominica*), Olive-capped Warbler (*D. pityophila*), Pine Warbler (*D. pinus*), and Palm Warbler (*D. palmarum*).

Every documented winter record of Kirtland's Warbler should be published. Information on the location, habitat, and date is important. There is still much to be learned about the arrival and departure dates of this species and about its habits while on the wintering grounds.

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