

A regular spring migration occurs at Madison, principally during the last week in April and the first two weeks of May. Usually the jays are in small flocks. In open country they are to be seen flying at a height of about 200 feet. When woods are encountered they drop down and continue their journey through the tree tops. The flight of jays mentioned by Doolittle (1919. A Strange Blue Jay Flight. *Auk*, 36:572) represented a normal migration. The above is the only case in which I have seen jays tower before moving north. Circling and attaining altitude has been described by Tyrrell (1934. Bird Notes from Whitefish Point, Michigan. *Auk*, 51:21-26) for jays crossing Lake Superior. Brewster (1937. The Birds of Lake Umbagog Region of Maine. *Bull. Mus. Comp. Zool.*, 66(3):502) at Lake Umbagog noticed jays spiral to a height of 2,000 feet before flying southwest. The distance from Second Point to Fox Bluff on the north shore of Lake Mendota is approximately 1.7 miles. Even this expanse of water appears sufficient to stimulate the jays to migrate at a high altitude.

There are few observations on the manner by which birds gain altitude when they start their migration across a body of water. Taverner and Swales (1907. The Birds of Point Pelee, *Wilson Bull.*, 19:133-53), in spite of their unusual opportunity, are not specific on how Blue Jays and other birds left Point Pelee. Some species circle while others rise at an angle. I have seen Eastern Kingbirds leave Madeline Island in Lake Superior, and they rose at an angle. James Baird has informed me (in litt.) that at Block Island and Narragansett Bay, Massachusetts, swallows and Eastern Kingbirds did not circle, and this seemed to hold for the sparrows and warblers. Robins on the other hand gained great heights by circling.—A. W. SCHORGER, *College of Agriculture, University of Wisconsin, Madison 6, Wisconsin, 12 November 1960.*

Porcupine Quills in a Ruffed Grouse.—On 22 October 1960, Walter J. Frautschi of Madison shot a Ruffed Grouse (*Bonasa umbellus*) at Pine Lake, Oneida County, Wisconsin. When the bird was carved at the table, eight porcupine quills up to one inch in length were found in one side of the breast. The wounds had healed over completely. The porcupine is mentioned (G. Bump et al. 1947. The Ruffed Grouse, p. 14) as an enemy of this grouse but it must be an uncommon one. There is one account of its eating the eggs (Anon. 1933. Porcupine Eats Grouse Eggs. *Pa. Game News* 4(3):5). The female Ruffed Grouse is at times a bold defender of its nest and young. Though the bird was not sexed, it is logical to assume that it was a female that dashed at its potential enemy and was struck by the tail of the porcupine.—A. W. SCHORGER, *College of Agriculture, University of Wisconsin, Madison 6, Wisconsin, 12 November 1960.*

Yellow Warblers in conifers.—On 2 July 1960, at Marshall Point, near Port Clyde, Knox County, Maine (on the mainland about 10 miles south of Rockland), I found a number of Yellow Warblers (*Dendroica petechia*) in white spruce (*Picea glauca*) 20 to 30 feet high. Between 12 and 14 July 1960, I found over 100 of these birds in white spruce on Matinicus Island, Maine; and at the north end of this isle on 13 July I also found several well into a dense forest, over 100 acres in extent, of red spruce (*P. rubens*) 60 to 70 feet high. The same day Harry Edgcomb found them not only in white and red spruce but also in hemlock (*Tsuga canadensis*) near the southwest end of the island. Matinicus is one of a number of islands 20 to 25 miles south southwest of Rockland and just south of Penobscot Bay. Originally covered with conifers, probably mostly red spruce, Matinicus has been inhabited by white men for over 200 years. One-half to two-thirds of its 700-odd acres is now fairly open, with a goodly crop of bushy white spruce beginning to cover many areas. In these, Yellow Warblers were very common, Harry Edgcomb and I agreeing that, including young, about 700 (or 1 per acre) were on the

island. The warblers were still on the island 8 September 1960, but were gone the next day.

The only Yellow Warbler nest I have seen on Matinicus was in an apple bush 3 feet up in a clump of white spruce, just above the beach at Condon Cove, on the east side of the island. Mrs. Robert P. Booth said that four young had been in the nest on 16 July 1958, but we found it deserted the next afternoon.

This warbler, widespread over the entire country and breeding in its various forms in almost every state, is so confined to deciduous growth that I have been able in an extensive search of the literature to find but one reference to its being in conifers. There (Dawson, 1923. *Birds of California*, Students' Ed., I:464) it is said "the nest of the Yellow Warbler is found in suitable territory at any height, in alders, willows, apple trees, or even fir saplings."

I can suggest as an explanation only a tremendous crowding of this warbler from its normal habitat, peculiar in view of the cold June of 1959 in Maine. However, at least one late nesting was noted by Mrs. Judson Lord at Warren, Knox Co., Maine (Hebard, 1960. *The Land Birds of Penobscot Bay*, p. 22. Portland Soc. Nat. Hist.), and perhaps such late nestings in 1959 were unusually successful. Certainly all warblers loving deciduous growth, such as the Yellow, Chestnut-sided, Yellowthroat, and Redstart were unusually common in at least most of Maine in 1960 (H. L. Mendall, pers. comm.; Hebard, pers. obs.).

Observation of Yellow Warblers in conifers is all the more surprising when they seem generally confined to deciduous growth in winter (Bent, 1953. *U. S. Natl. Mus. Bull.* 203:176-177, quoting Skutch). However, some warblers, such as the spruce-loving Cape May (*D. tigrina*), are found in deciduous growth on fall migration and in winter (Bent, op. cit.: 221). Likewise, finding Yellow Warblers in deep woods is surprising. Brewster, at wooded Lake Umbagog, had but six observations dating from 1871 to 1907 (Griscom, 1938. *Mus. Comp. Zool., Bull.*, 66(4):570).—FREDERICK V. HEBARD, 1500 Walnut Street Building, Philadelphia 2, Pennsylvania, 23 December 1960.