OBSERVATIONS ON THE AUTUMN MIGRATION OF BLUE GEESE

BY GRAHAM COOCH

THERE is much conjecture about the manner in which large flocks of Blue Geese (*Chen caerulescens*) make their autumn migration from James Bay to Louisiana. Although their route lies over an area well supplied with amateur ornithologists and sportsmen, the main James Bay flight frequently escapes detection. Soper (1942. *Proc. Boston Soc. Nat. Hist.*, 42 [2]:203) summed up the situation as it relates to the Baffin Island populations:

> Because of the high, fall flight ordinarily maintained by Blue Geese after leaving James Bay, practically none are taken along the regular migration route south of this point to the lower Mississippi. In fact, so seldom are these geese observed on this long and apparently uninterrupted flight of more than 1,000 miles, that very few records are extant to even indicate the time and nature of their movements.

THE ROUTE OF THE SOUTHAMPTON ISLAND POPULATION

Since 1952, 15,000 Blue Geese and Lesser Snow Geese *(Chen hyperborea)* have been banded at Boas River, Southampton Island, North West Territories, (63° 42′ N., 85° 45′ W.) and Eskimo Point, North West Territories, (60° 50′ N., 94° 25′ W.), and 1,300 of these bands have been recovered. The recoveries indicate that these populations do not migrate through James Bay but stop along the coast of Hudson Bay from York Factory, Manitoba, to Cape Henrietta Maria, Ontario. They migrate up the Nelson, Severn and Winisk rivers, skirt the north shore of Lake Superior, pass through western Minnesota and may stop in the lake country of eastern South Dakota. From there the flight is due south to eastern Texas. The distance covered from Hudson Bay to eastern Texas exceeds 2,100 miles, compared to the 1,700 mile flight required of James Bay populations. Perhaps the longer flight and the earlier date of departure from the Hudson Bay feeding grounds account for the difference in migratory behavior of the Southampton and Baffin island populations. Although in some years the flight of the Southampton Island goose population through the Dakotas is rapid and direct, years in which the birds interrupt their migration are more common. At Sand Lake Refuge, Brown County, South Dakota, major stopovers have occurred in seven of the past twelve autumn migrations.

THE ROUTE THROUGH JAMES BAY

The population migrating through James Bay apparently does not exhibit to the same degree this tendency to interrupt its flight, a factor contributing to the paucity of sight records. The lack of band returns from James Bay suggests that the Blue Geese breeding on Southampton Island do not migrate

through James Bay. Those geese which do so may breed on Baffin Island. To date no banding has been done on the Baffin Island breeding grounds, and the only records available on the flight of these birds are those from the McIlhenny bandings in Vermilion Parish, Louisiana. These data are not in sufficient volume to permit accurate plotting of the chronology of movement or dispersal patterns. In certain seasons the problem is increased by the apparent rapidity of the southward flight.

While engaged in waterfowl investigations in James Bay in September and October, 1952, the writer noted large flocks of geese flying up the Harricanaw and Kesagami Rivers (51° 08′ N., 79° 46′ W.) on the evening of

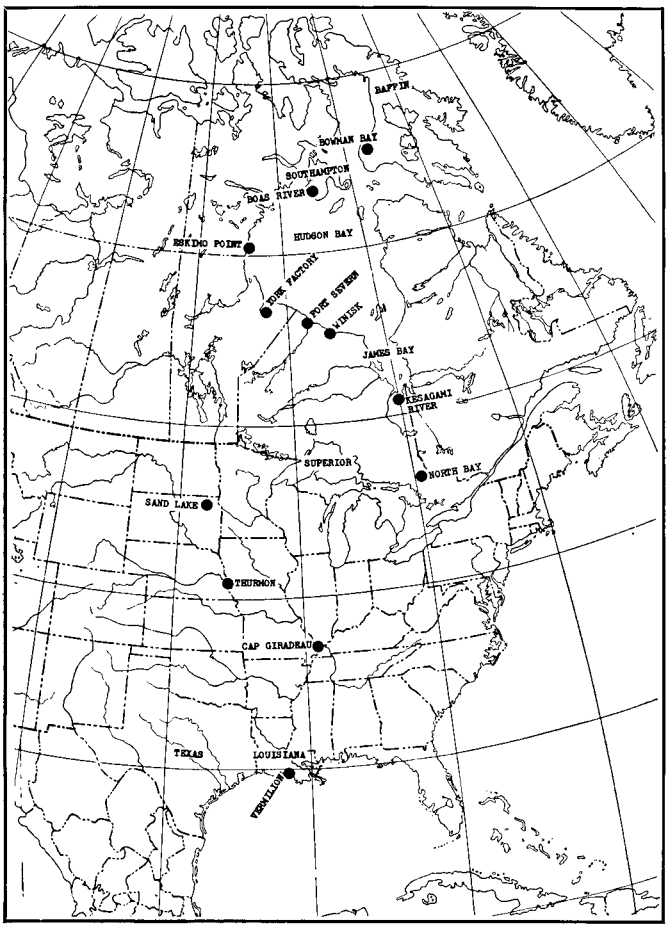

FIG. 1. Map of eastern North America showing the localities mentioned in the text.

October 16. The flocks gained altitude rapidly and headed almost due south. The weather was clear, and wind velocity at ground level was approximately 20 miles per hour, blowing from the northwest. Migrating flocks were heard continuously from 6:00 p.m. to 11:00 p.m.

On October 17, 1952, at North Bay, Ontario, all aircraft operating in the vicinity were warned that flocks of geese flying at 6,000 to 8,000 feet altitude constituted a hazard in the 50 miles lying to the north of North Bay.

Mr. K. R. Esselmont, Station Manager, in a letter to Mr. S. T. Howe, Cargo Representative, Trans-Canada Air Lines, Winnipeg, Manitoba, April 22, 1953, described the situation which existed on October 17. In the second paragraph of his letter he states:

> They were first spotted by the [Department of Transport meteorological] observer who saw them approach from the north east, flying in a southerly direction. There were three separate flocks at intervals of perhaps 5-10 minutes. The weather was clear from our station north and the overcast, consisting of altocumulus, began just over our station and extended south. The first flock, estimated at close to 200, approached the station in formation and immediately over the station they broke formation, flying in all directions and re-assembled in formation just prior to entering the overcast estimated at 8,000 feet.

Mr. S. T. Howe, in a letter to Dr. H. A. Hochbaum, February 12, 1953, quotes Trans-Canada Air Lines pilots who were at North Bay on October 17, 1952, as reporting many additional flocks of migrating geese at 8,000 feet. One aircraft was damaged in a collision with a goose and was forced to return to the airfield. North Bay is approximately 370 air-line miles south of the mouth of the Harricanaw River.

The next report on this movement of geese was obtained from Mr. L. E. Lemke, Thurmon, Fremont County, Iowa. He reported seeing large flocks of Blue Geese flying south along the Missouri River on October 18, 1952, at an estimated height of 3,000 feet. Although these birds were probably part of the Southampton Island flight, similar flights were reported by sportsmen at Cape Girardeau, Missouri, 800 air-line miles south of North Bay, Ontario. These latter flights were undoubtedly part of the Baffin Island population.

The last report of this migration was by Mr. John L. Lynch, U. S. Fish and Wildlife Service, Abbeville, Louisiana, who recorded the first large flights of Blue Geese arriving at Chenier au Tigre, Vermilion Parish, Louisiana, on the morning of October 19, 1952.

Thus it would appear that in 1952 the main flight of Blue Geese required less than 60 hours to complete a passage of more than 1,700 miles from James Bay to Louisiana. Soper *(op. cit.)* comments that, were a given flock of geese to migrate continuously at 45 miles per hour over the shortest possible route from James Bay to Louisiana, the entire journey would require only 40 hours.

During those seasons in which the geese pass rapidly through the northern

tier of the United States much concern and discussion results among sportsmen. In 1952, when the geese made a rapid flight directly to the Gulf of Mexico, an article entitled "Where Were The Blues?" appeared in the *Iowa Conservationist*, (December, 1952, Vol. 11 [12]: 91). Perhaps some of the mystery which now surrounds the autumn migration of Blue Geese from James Bay may be attributed to a rapid, direct, high-altitude flight. The reports of pilots and observers at North Bay, Ontario, are concrete evidence that the Baffin Island populations of this species make at least part of their flight at an elevation of several thousand feet, a fact long debated but never previously proved.

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