

THE SNOWY OWL MIGRATION OF 1941-42

A REPORT OF THE SNOWY OWL COMMITTEE,

PREPARED BY L. L. SNYDER

IN 1938 Charles Elton of the Bureau of Animal Populations, Oxford University, England, suggested that a committee which would gather data and briefly report pronounced migrations of the Snowy Owl (*Nyctea nyctea*) in North America would fill a useful role. The principal objective would be to record the fact of a migration, state its time-period, trace its direction, if possible, and picture its magnitude. Such information would serve as an index to certain conditions in the Canadian Arctic.

This proposal was discussed informally by several ornithologists on the occasion of the annual meeting of the American Ornithologists' Union held in Washington in October, 1938. These individuals, together with other volunteers living in areas likely to be involved by a flight, agreed to act as a committee for this work. A few were already concerned with accumulating data, annually, on populations of certain animals including the Snowy Owl. Others volunteered to obtain specific data whenever a pronounced flight became apparent.

No movement of Snowy Owls, south of the area which can be regarded as the normal wintering range, was evident until the autumn of 1941. At that time members of the Committee began gathering records. Each was concerned with a fairly definite region. Many hundreds of people contributed data through the several members, who here express their appreciation.

When the flight seemed to have spent itself and regional reports were complete, a large blank map was circulated among the members of the Committee. Specific locality records were plotted on this map. Two symbols were used. A small cross marked places where reports indicated that no unusual numbers of Snowy Owls had been observed. In this way it was possible to determine that a major incursion had not taken place during the autumn of 1941 in the central and northern prairie provinces of Canada. Numbers there could be considered usual. The second symbol used on the map was a small circle. This marked specific places where Snowy Owl occurrences had been unusual. If one or two birds had been observed, the circle was left open; if three to ten birds, the circle was half-filled with black; if more than ten, the entire circle was made black.

The provisional map was then used as the basis for a final map (Figure 1) prepared by T. M. Shortt. In order to reduce the map for publication the details of the provisional map were condensed. Three degrees of density are shown by correspondingly shaded areas, and sections where no pronounced flight or increase of winter population was reported are left blank.

Data contributed by Committee members from the several regions concerned the date when first records were made and the period when the flight was clearly obvious. (The Committee has not attempted an exhaustive study of migrating Snowy Owls.) These data are combined as a brief general statement of the 1941-42 flight in the following paragraphs. If the undertaking continues, future reports will not require so lengthy an introductory statement as seemed advisable here.

The Committee will gladly add to its numbers ornithologists who will, in future, undertake to gather information in areas not well covered in our initial attempt. Such areas will probably be shown by our map. The members of the Snowy Owl Committee are listed below:

B. W. Cartwright, Winnipeg, Manitoba
A. O. Gross, Brunswick, Maine
H. F. Lewis, Ottawa, Ontario
F. C. Lincoln, Washington, D. C.
O. S. Pettingill, Jr., Northfield, Minnesota
L. L. Snyder, (Chairman), Toronto, Ontario
J. D. Soper, Winnipeg, Manitoba
D. Stoner, Albany, New York
R. W. Tufts, Wolfville, Nova Scotia
J. Van Tyne, Ann Arbor, Michigan
V. C. Wynne-Edwards, Montreal, Quebec

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The migration of 1941-42 resulted in concentrations of Snowy Owls in the St. Lawrence valley, along the New England coast, and about the shores of the Great Lakes. The source of this flight was probably Baffin Island, Southampton Island, and the region about the Straits and Hudson Bay portion of Ungava. This view is in harmony with the 1939-40 Snowy Owl population map of Chitty and Chitty (*Jour. Animal Ecol.*, 10: 187) where it is shown that this species increased in these areas. The same map shows that the Snowy Owl had decreased in the western Arctic.

The earliest records were:—one seen on Grand Manan Island, New Brunswick, September 6; one seen at Hawkesbury, Prescott County, in the extreme eastern part of southern Ontario, on September 10. Late September records came from Maine, New York (Long Island), and Minnesota.

The period in which it became obvious that a pronounced flight of Snowy Owls was taking place may be stated for each of the several regions as follows: Province of Quebec, western section, early to mid-October, eastern sections, later; Maritime Provinces, early October; New England states, mid-October; southern Ontario, late October; New York state, mid-November; Michigan, late November; Minnesota,

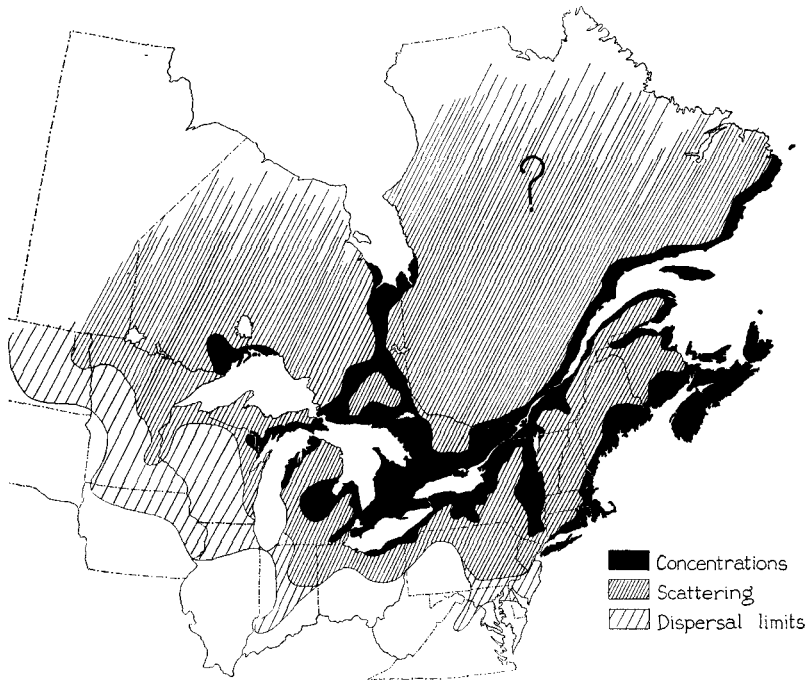


Figure 1. Snowy Owl flight. Scattered occurrences in the Ungava interior have been assumed. We are much indebted to T. M. Shortt for preparing the map.

late October. Maximum numbers were present in these sections two to three weeks later than the periods mentioned.

The line of flight taken by these migrants is suggested by the probable source, by the general topography, and by the time element as stated above. It would seem that the flight, which flowed southward and westward, may have followed, in its initial course, the Labrador coast, the east shore of Hudson and James Bay, and possibly, a smaller trickle, down the west coast of Hudson Bay (see Minnesota timing in relation to the east).

The above, together with the accompanying map, would seem to record the essential features of the 1941-42 flight. Other details can be left for treatment by individual ornithologists.

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