DISTRIBUTION AND STATUS OF SEABIRD COLONIES ALONG THE COAST OF LABRADOR

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Prepared for:
Newfoundland Department of Tourism, St. John's
and
Department of Regional Economic Expansion, Ottawa

October 1975

An investigation associated with 'Studies on northern seabirds',
Canadian Wildlife Service, Environment Canada (Report No. 38)

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Introduction

The seabird fauna of the coast of Labrador is poorly known. Some information is included in general reviews (e.g. Townsend and Allen 1907, Harper 1958, Todd 1963) and more detailed investigations of offshore islands in 1928 (Austin 1932) and 1952 (Tuck 1953). Together these data provide a reasonably complete inventory of the distribution of major colonies, species composition, and bird numbers within orders of magnitude. However, precise number estimates of species populations at individual colonies, details of timing of breeding, breeding performance and distributions of birds at sea through the annual cycle are very sketchy. The present need is to resurvey the coast (especially colonies visited by Austin and Tuck) using census techniques of sufficient precision to measure real changes in numbers within individual colonies in order to establish a baseline for comparison of population changes over long periods and determine the present distribution and status of seabird colonies in Labrador. These data are essential for the assessment of the effects of

of human activities upon seabird populations and the marine ecosystem.

Preliminary studies were conducted in 1972 by members of the Canadian Wildlife Service Program 'Studies on northern seabirds'. Ground surveys at certain colonies in the Hamilton Inlet region and an aerial flight from Strait of Belle Isle along the coast north to Cape Chidley were made in July 1972. This report will attempt to provide a brief outline of present knowledge on numbers and distribution of the densely colonial seabirds in coastal Labrador based on data secured by the 1972 C.W.S. party and the observations of Austin (1932) and Tuck (1953). The present report is restricted to major seabird colonies and species; it does not include colonies of Larus gulls, general distributions of breeding sites of Black Guillemots or seaducks.

Breeding Distributions

The location, species diversity and population sizes of seabird colonies along the Labrador coast are given in Figure 1 and Table 1. The largest colonies are on offshore islands and concentrated in the Hamilton Inlet area. Within this region, Outer Gannet Island and the Gannet Clusters have the greatest species variety and density of breeding birds: Northern Fulmar (small numbers), Black-legged Kittiwake (16 pairs) Razorbill (6,700 pairs), Common Murre (35,200 pairs), Thick-billed Murre (500 pairs), Black Guillemot (small numbers), and Atlantic Puffin (38,400 pairs). Herring Island, towards the entrance to Hamilton Inlet, also has relatively

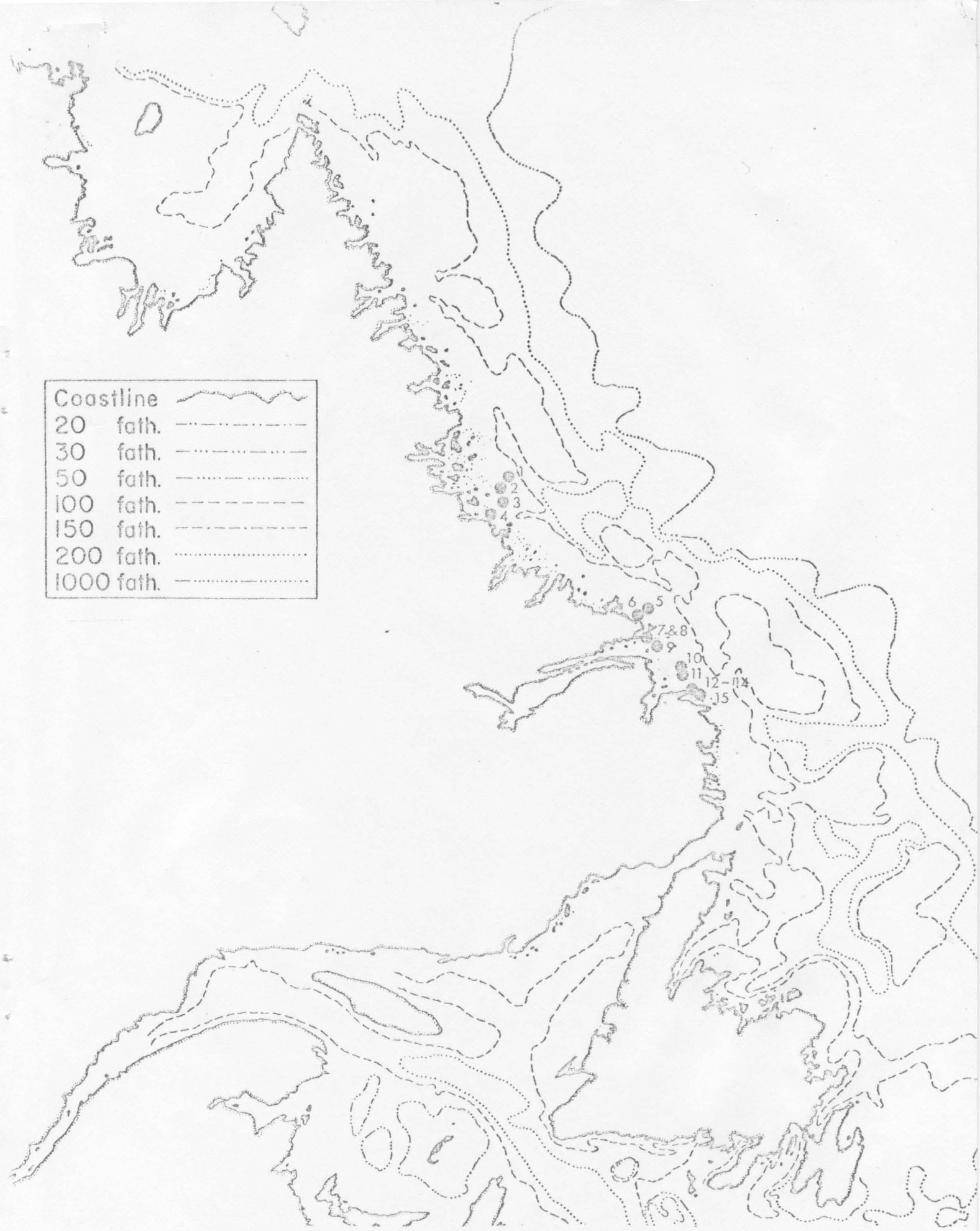

Figure 1. Location of seabird colonies along the coast of Labrador.

able 1. Location and size of seabird colonies of Labrador. Symbols: p = pairs; i = individuals; ? = suspected breeding; + = a colony where complete data are not yet available; - = not thought to be breeding.

Colony Location	Position	Northern Fulmar	Black-legged Kittiwake	Razorbill	Common Murre	Thick-billed Murre	Black Guillemot	Atlantic Puffin	Year	Authority*
1. Negro I.	56°20'N, 60°32'W	-	-	10i	-	-	-	20i	1928	Austin 1932
2. Kidlit I.	56°11'N, 60°28'W	-	-	500i	-	-	-	1,000i	1928	Austin 1932
3. Nunarsuk I.	56°03'N, 60°27'W	-	-	150i[1]	150p[2]	175p[2]	?	2,500i[3]	1953[1,2] 1928[3]	[1]Tuck in Bédard 1969 [2]Tuck 1961 [3]Austin 1932
4. Tinker I. (=Akpalik)	55°53'N, 60°35'W	-	-	100i[1]	-	-	?	20i[2]	1952[1] 1928[2]	[1]Tuck in Bédard 1969 [2]Austin 1932
5. Quaker Hat	54°44'N, 57°20'W	-	-	1,000i[1]	30p[2]	75p[2]	?	2,500p[3]	1952	[1]Tuck in Bédard 1969 [2]Tuck 1961 [3]Tuck pers.comm.
6. Tinker I.	54°42'N, 57°28'W	-	-	100i[1]	-	-	?	?[2]	1952	[1]Tuck in Bédard 1969 [2]Tuck pers.comm.
7. Puffin I.	54°24'N, 57°23'W	-	-	20i[1]	-	-	150p[2]	200p[2]	1928	[1]Austin 1932 [2]Tuck pers.comm.
8. Green I.	54°23'N, 57°19'W	-	-	200i[1]	-	-	?	500p[2]	1952	[1]Tuck in Bédard 1969 [2]Tuck pers.comm.
9. Herring I.	54°20'N, 57°06'W	-	-	4,000-5,000i[1]	475p[2]	-	?	10,000p[3]	1952	[1]Tuck in Bédard 1969 [2]Tuck 1961 [3]Tuck pers.comm.
10. Outer Gannet I.	54°00'N, 56°32'W	+[1]	16p[2]	1,275p[3]	17,700p[3]	475p[3]	?	4,950p[3]	1972	[1]Nettleship and Lock (1973) 2 " " " (1974) 3 " " "
11. Gannet Clusters	53°56'N, 56°31'W	-	-	5,460p	17,500p	0	53i	37,425p	1972	Nettleship and Lock
12. Wester Bird I.	53°44'N, 56°18'W	-	-	5,000i[1]	50p[2]	-	?	1,500p[3]	1953	[1]Tuck in Bédard 1969 [2]Tuck 1961 [3]Tuck pers.comm.
13. Little Bird I.	53°43'N, 56°15'W	-	-	300p	725p	-	?	-	1972	Nettleship and Lock
14. Bird I.	53°43'N, 56°15'W	-	-	900p	250p	-	?	4,500p	1972	Nettleship and Lock
15. Halfway I.	53°41'N, 56°11'W	-	-	61i	-	-	4i	-	1972	Nettleship and Lock

*Taken from Brown and Nettleship et al. 1975. Atlas of Eastern Canadian Seabirds. CWS, Ottawa. 220pp. (In press)

large numbers of Razorbills (c. 2,200 pairs), Common Murres (c. 500 pairs) and Atlantic Puffins (10,000 pairs).

The islands are generally low with cliffs and portions of other nesting habitats fairly viewable from the sea. It should be relatively easy to visit the islands using small boats chartered from Cartwright. However, landings are not recommended for two reasons:

(1) the physical structure of most of the islands makes landings possible only under ideal weather conditions (and only for individuals in good physical condition); and

(2) the islands are generally small with high concentrations of nesting birds whose productivity could be quickly reduced to zero by the presence of human visitors on land (especially murres and puffins). Furthermore, some of the islands (i.e., Outer Gannet Island) are provincial seabird sanctuaries which precludes any landings except for official and/or research-management purposes.

The best time to view nesting birds (in terms of species diversity and numbers) from a boat is in July and the first half of August.

Pelagic Distributions

The Labrador Sea is not only a zone critical to the reproduction of certain summer resident breeding seabird populations; it also provides an important food supply for non-breeding birds (including transatlantic

migrants: e.g. fulmars, alcids), transequatorial summer visitants (e.g. petrels, shearwaters), and large wintering populations.

Figures 2 and 3 summarize the areas in Atlantic Canada where seabirds are concentrated at different times of year. The figures are based on observations of birds at sea by CWS workers between 1969 and 1974 (for complete details see Brown and Nettleship et al. 1975). Although coverage for birds along the coast of Labrador is meagre, some highlights have been revealed. For example, it is known that fulmars are found in early spring in cold waters close to the Labrador coast (some of which are from the European arctic) and both Atlantic Puffins and Common Murres have a post-breeding movement from eastern Newfoundland to southeast Labrador where they remain for at least part of the winter. Similarly, Dovekies leave their colonies in northwest Greenland during September and reach the Labrador Sea in October; they remain in the northwest Atlantic until May. It is hoped that these few examples will illustrate the probable importance of Labrador waters to birds in the spring, autumn and winter periods, though much additional information is required.

Tourist Potential

Seabirds form a conspicuous part of the fauna of Labrador and its habitats. However, it seems clear that their potential contribution towards tourist and recreation activities in Labrador is limited. While the species variety and total number of birds at first glance appear to be acceptable,

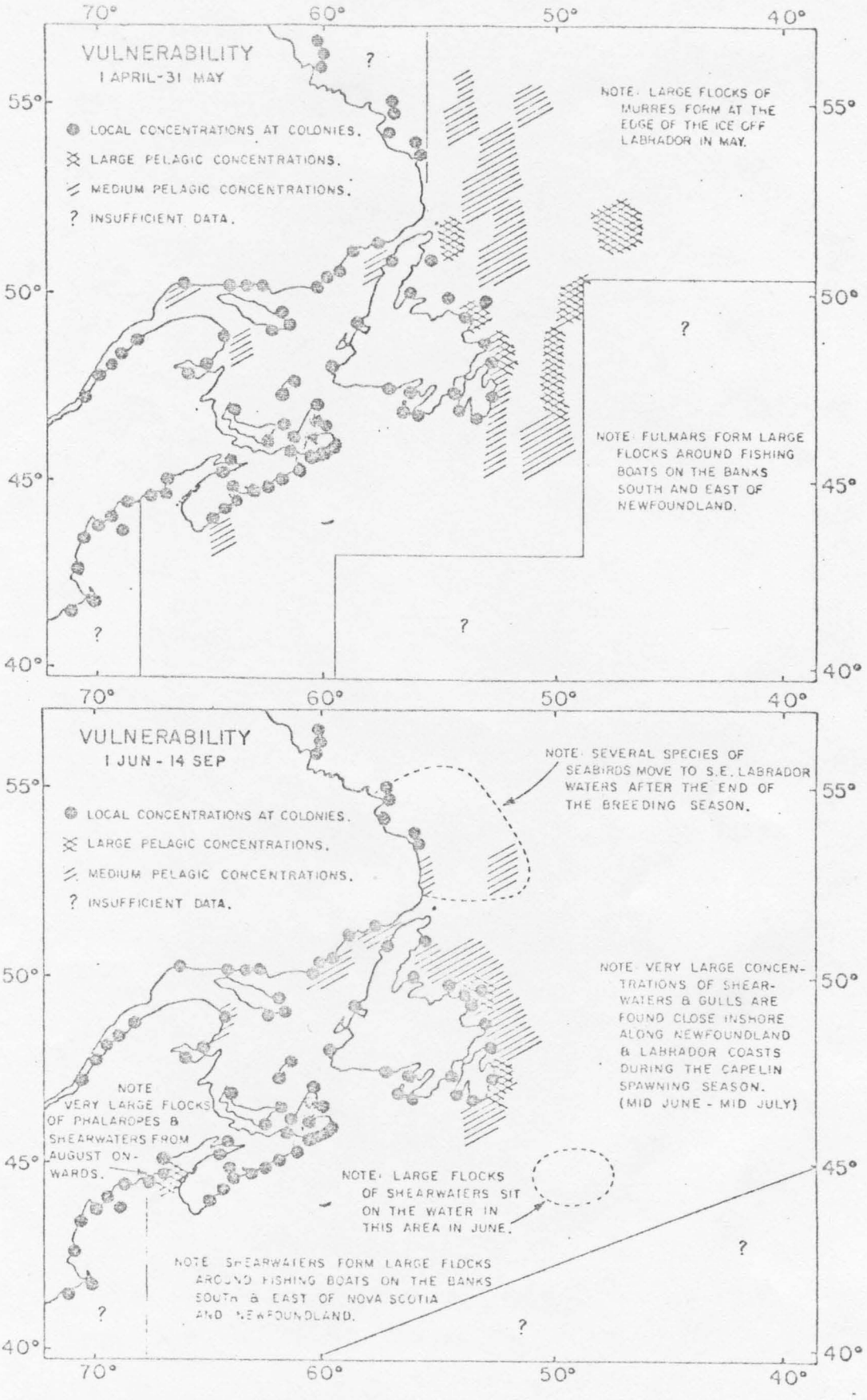

Figure 2. Areas in the northwest Atlantic where seabirds are most concentrated from 1 April to 14 September.

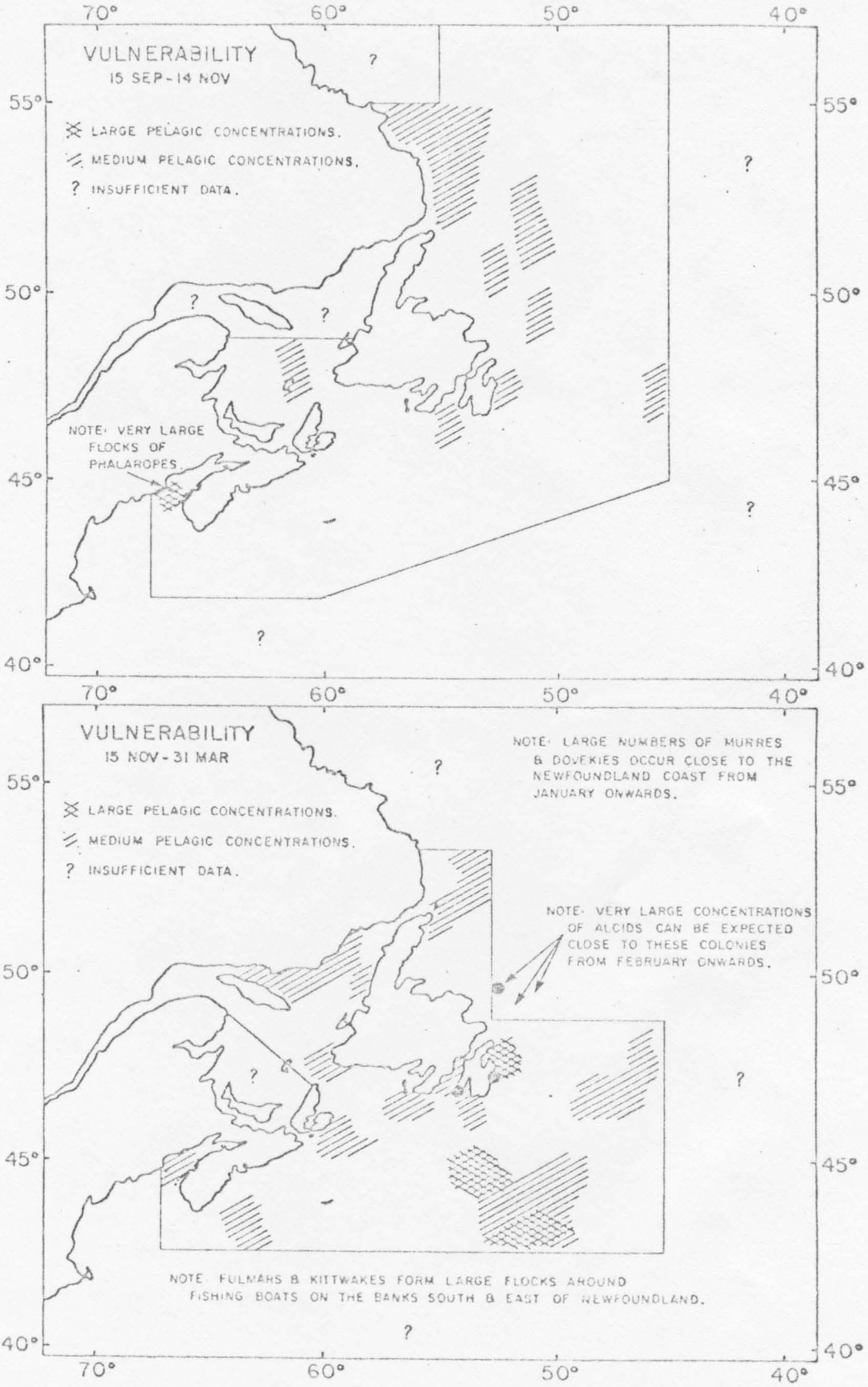

Figure 3. Areas in the northwest Atlantic where seabirds are most concentrated from 15 September to 31 March.

the scattered nature of the colonies and the relative small size of populations at individual breeding sites suggest that, at best, the colonies could only be used to augment tours directed towards other interests (e.g. physiography, vegetation and land-birds, etc.). Moreover, there are several other locations in Atlantic Canada where the same seabird species can be viewed more easily and in far greater numbers (e.g. Gaspe Peninsula, Gulf of St. lawrence, east Newfoundland). However, it seems probable that a multidisciplinary tour package (comprising an exposure to terrestrial, freshwater river-inland lake, and marine coastal systems) combined with the outstanding beauty and diversity of the physiographical features of the Labrador coast would provide a unique and successful venture.

Conclusions

Information on the distribution and numbers of seabirds at breeding sites and at sea along the Labrador coast is incomplete. On the basis of what is known, it seems unlikely that seabirds offer real potential as a primary resource for tourism and recreation in Labrador. It seems possible, however, that boat trips to view major colonies from the sea and birds at sea (breeding residents and summer visitants) near Hamilton Inlet could be included within the framework of a natural history tour of Labrador - the land and its biological systems.

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