RI-57

UNITED STATES GOVERNMENT

Memorandum

BUREAU OF SPORT FISHERIES AND WILDLIFE

0132

TO : Area Director, BSF&W, Anchorage

DATE: June 21, 1972

FROM : Area Fish & Wildlife Administrator, BSF&W, Anchorage

SUBJECT: Bristol Bay Bird Survey--May 1972

Attached is James C. Bartonek's preliminary analysis showing the numbers and distribution of various groups of birds and mammals in Bristol Bay. As you know, this information was gathered during the aerial survey conducted last May.

In the penultimate paragraph of Mr. Bartonek's transmittal memorandum dated June 14, he hopes that these surveys could continue and that they could be done in conjunction with boat surveys. In the May 1972 Monthly Narrative Report by NMFS, page 4 (copy enclosed), it is stated that the NMFS research vessel Oregon will be conducting studies in the Bristol Bay and the Bering Sea throughout the summer. I contacted Dale Evans (NMFS) to explore the possibility of placing a man aboard the vessel to make observations on the bird concentrations. Dale felt that this may be arranged but had no details on cruise schedules and if space would be available. I will contact Murray Hayes regarding this as soon as possible--also Jim Bartonek. We, of course, would have to have a qualified observer for these assignments in the event that space is available on the boat. I will discuss this with Hayes, Bartonek and Montgomery and will keep you apprised of developments.

I hope that next fiscal year it will be possible to conduct aerial surveys during the summer, fall and winter and again possible in the spring in order to obtain information on seasonal use. I will advise Montgomery to contact Bartonek and Jim King to determine the best time that the work should be done. The conduct of these surveys will depend on the availability of funds. However, I believe that we should give this particular study high priority in our RBS program and every effort will be made to complete an estuary report for the Bristol Bay area as soon as possible.

Melvin A. Monson

Biological changes in the disrupted areas are of two types--disappearance of organisms from previously exposed substrate and plant and animal colonization of newly exposed substrate. Because of displacement of their rock substrate, kelps and other algae growing on previously exposed surfaces of rocks are now in shaded positions where there is not enough light to support plant life. These displaced plants will gradually die and disappear. In addition, some sessile filter-feeding invertebrates (such as sponges and tunicates) may be eliminated on surfaces where waterflow and food availability have been reduced because of displacement. The extensive fracturing of rock has exposed much new substrate, and surfaces are already being colonized by mobile invertebrate animals such as urchins and gastropods and, especially at the shallower locations, by the algae, Alaria sp. Within several years these new surfaces should become totally encrusted by organisms and indistinguishable from undisturbed areas.

OREGON EMBARKS ON CRUISE TO THE BERING SEA

The NMFS research vessel OREGON sailed from Kodiak on May 16 to begin a 91-day cruise to the eastern Bering Sea. The cruise, a cooperative effort between the Auke Bay Fisheries Laboratory and the Kodiak Investigations staff of the Northwest Fisheries Center, Seattle, is expected to terminate at Kodiak on August 12. Objectives of the multi-purpose cruise are to ascertain the distribution and abundance of king and tanner (snow) crabs on the shelf of the southeastern Bering Sea: to obtain detailed oceanographic observations at monthly intervals throughout the summer to describe the environment; to collect data on the species composition, abundance, and distribution of ichthyoplankton; to determine the abundance and species of composition of groundfish; and to follow the movement of seaward-migrating juvenile sockeye salmon through the Bristol Bay estuary.

The major research effort is expected to be devoted to trawling (43 days); the remaining time will be allotted to oceanography, salmon studies, transit, and logistics. Emphasis will be on delimiting the king crab stock, with special attention toward abundance of commercial males, recent recruits, and females. Data generated from this cruise will be utilized to evaluate the status of the Bering Sea crab stocks and to determine the U. S. position in international negotiations.

Responsibility for international shellfish research in the Bering Sea will be transferred from the Auke Bay Fisheries Laboratory, Region 5, to the Northwest Fisheries Center, Region 1, on July 1, 1972. This cruise encompasses the transitional period, and responsibility for the crab data generated will rest with the Kodiak Laboratory. To ensure continuity in the collection of data, John Karinen, program

Watson

Mel Monson, Area Fish & Wildlife Administrator, Alaska, BSF&W, Anchorage

June 14, 1972

Wildlife Biologist, BSF&W,
Fairbanks, AK

Bristol Bay Bird Survey - May 1972

Attached are figures showing numbers and distributions of various groups of birds and mammals in Bristol Bay. These figures should be self-explanatory. Also enclosed are some pictures I had taken of birds and walrus in the Bay.

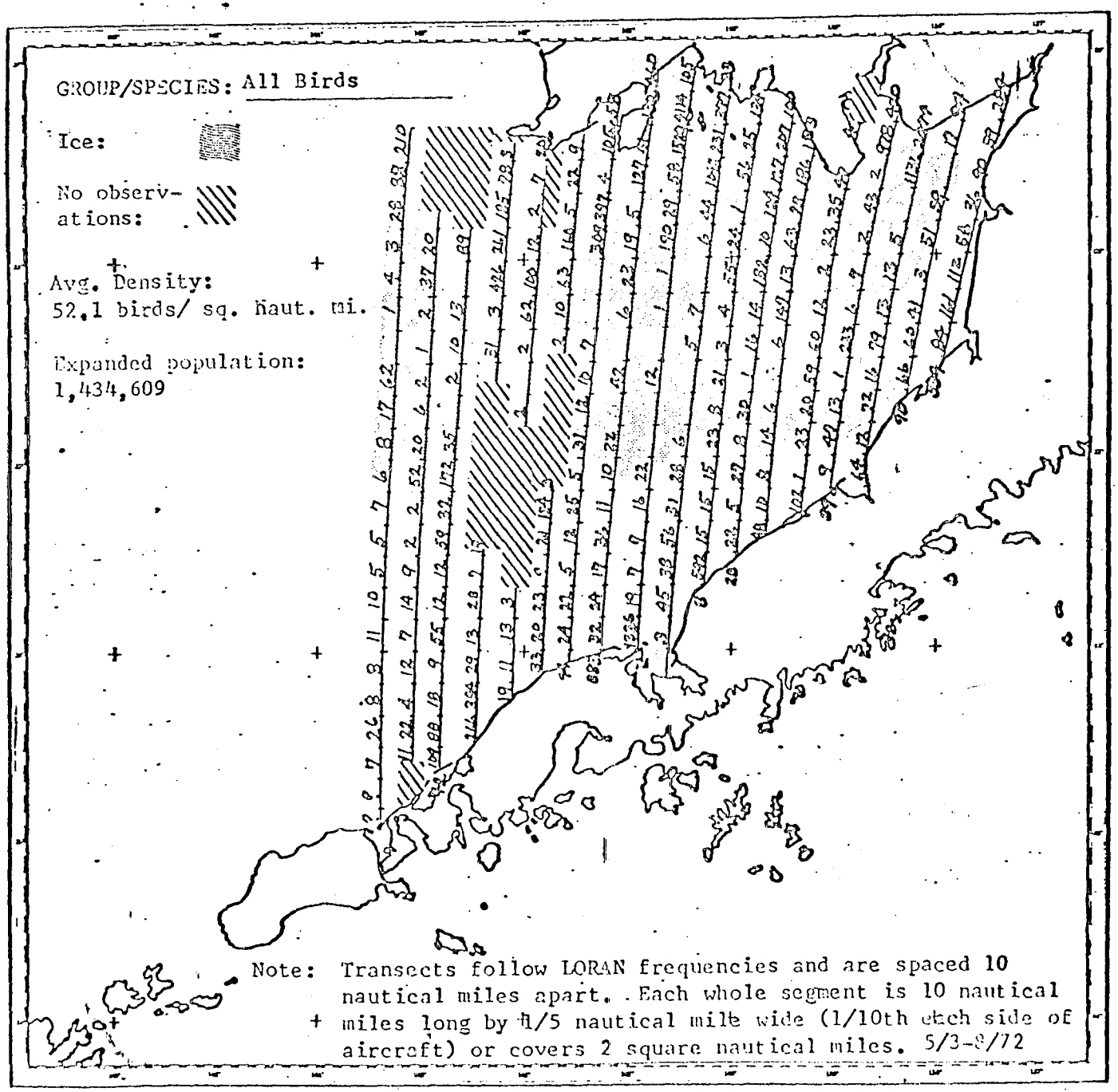
I read LeRoy's briefing statement regarding "Pelagic birds in Bristol Bay" where he reported finding 66 birds per nautical mile in early June. Our estimates of birds in the Bay were quite similar with 52 birds per nautical mile in early May, notwithstanding a high percentage of ice cover. Undoubtedly the densities would increase during the summer.

I certainly hope that these surveys could continue. And I hope they could be done in conjunction with boat surveys -- using either NMFS's vessel or the Bureau's T-boat.

As of yet, I have not attempted any in-depth analysis of the information.

James C. Bartonek

cc: Watson
Montgomery
Sowl



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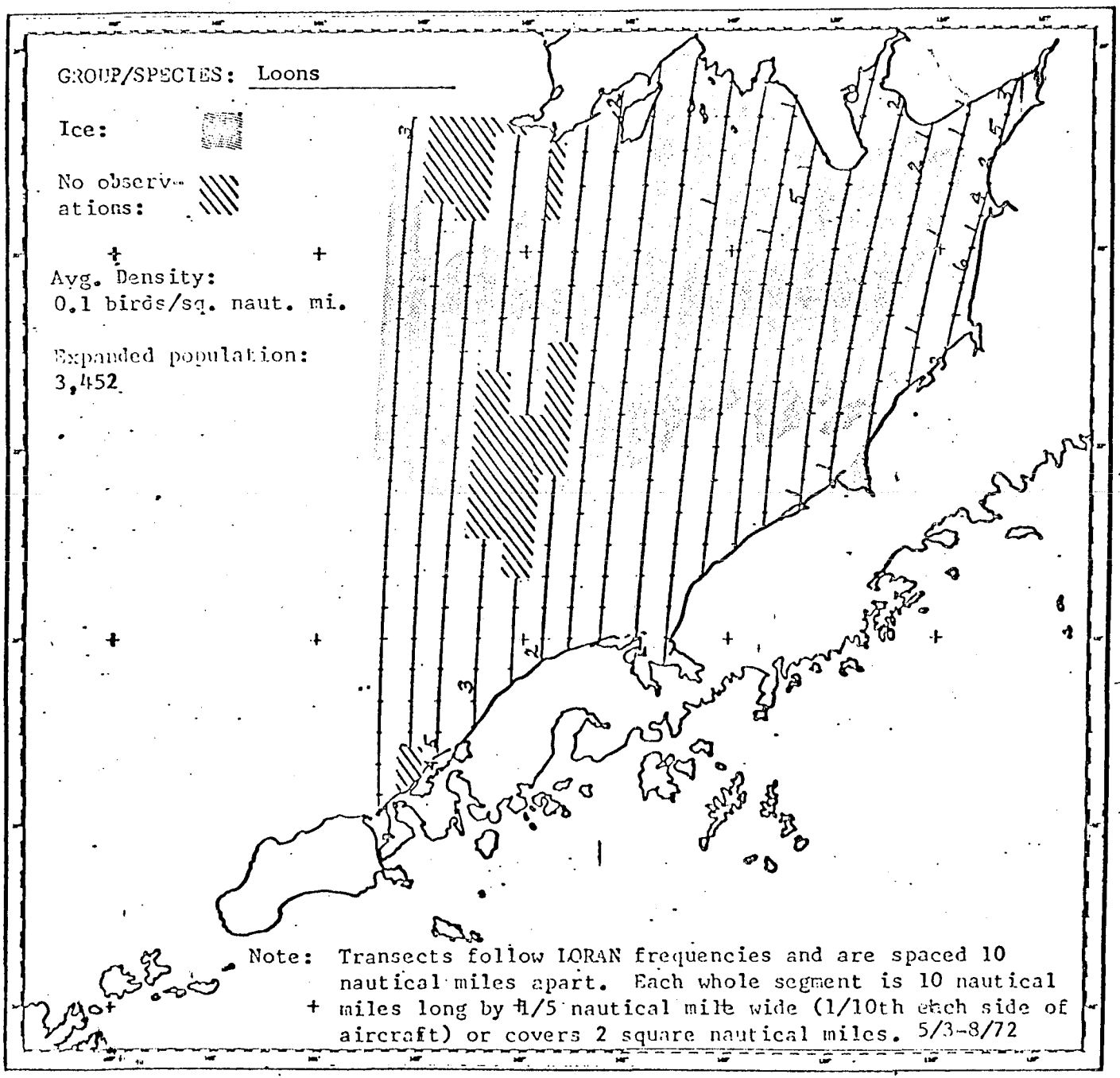

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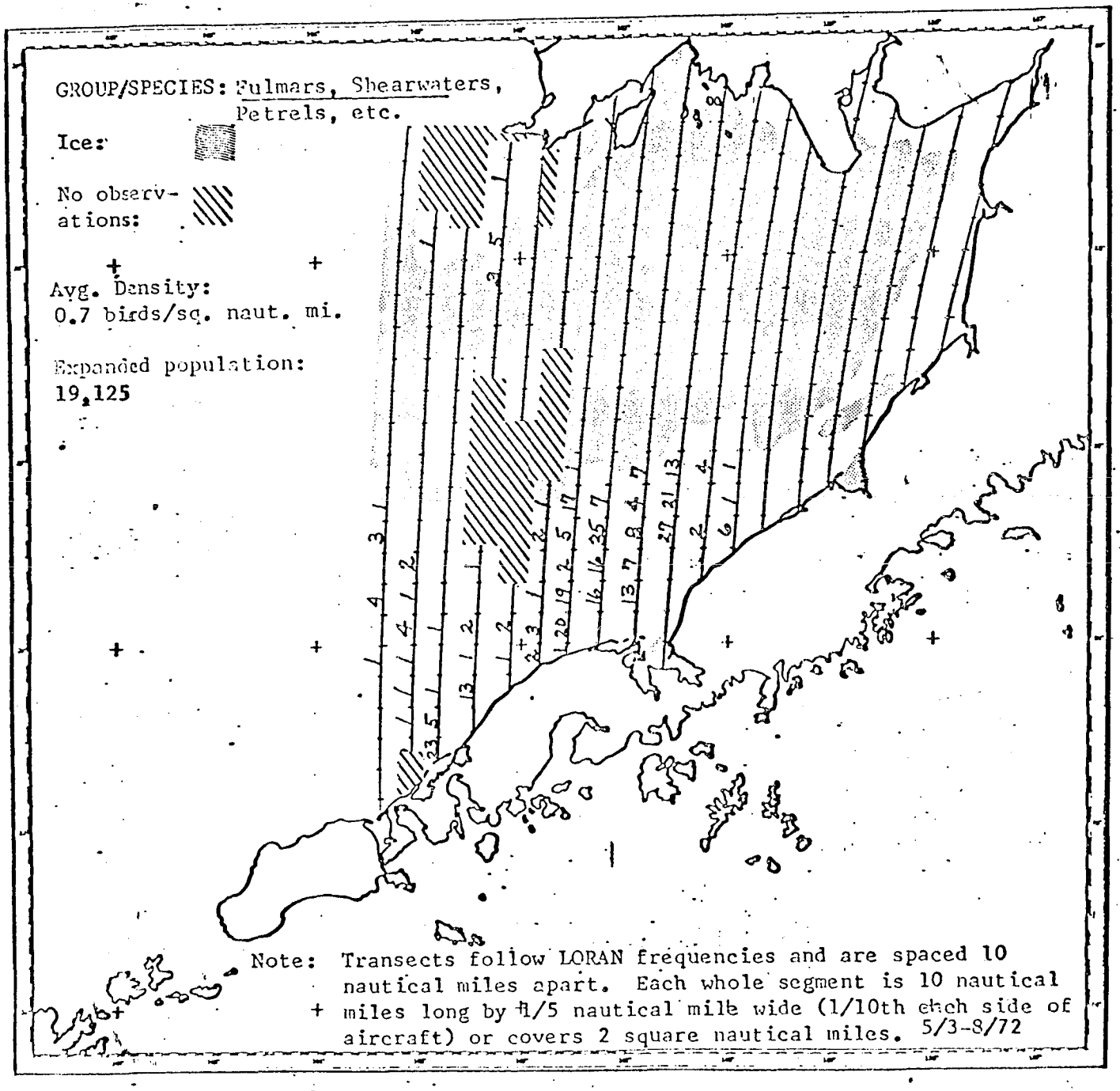

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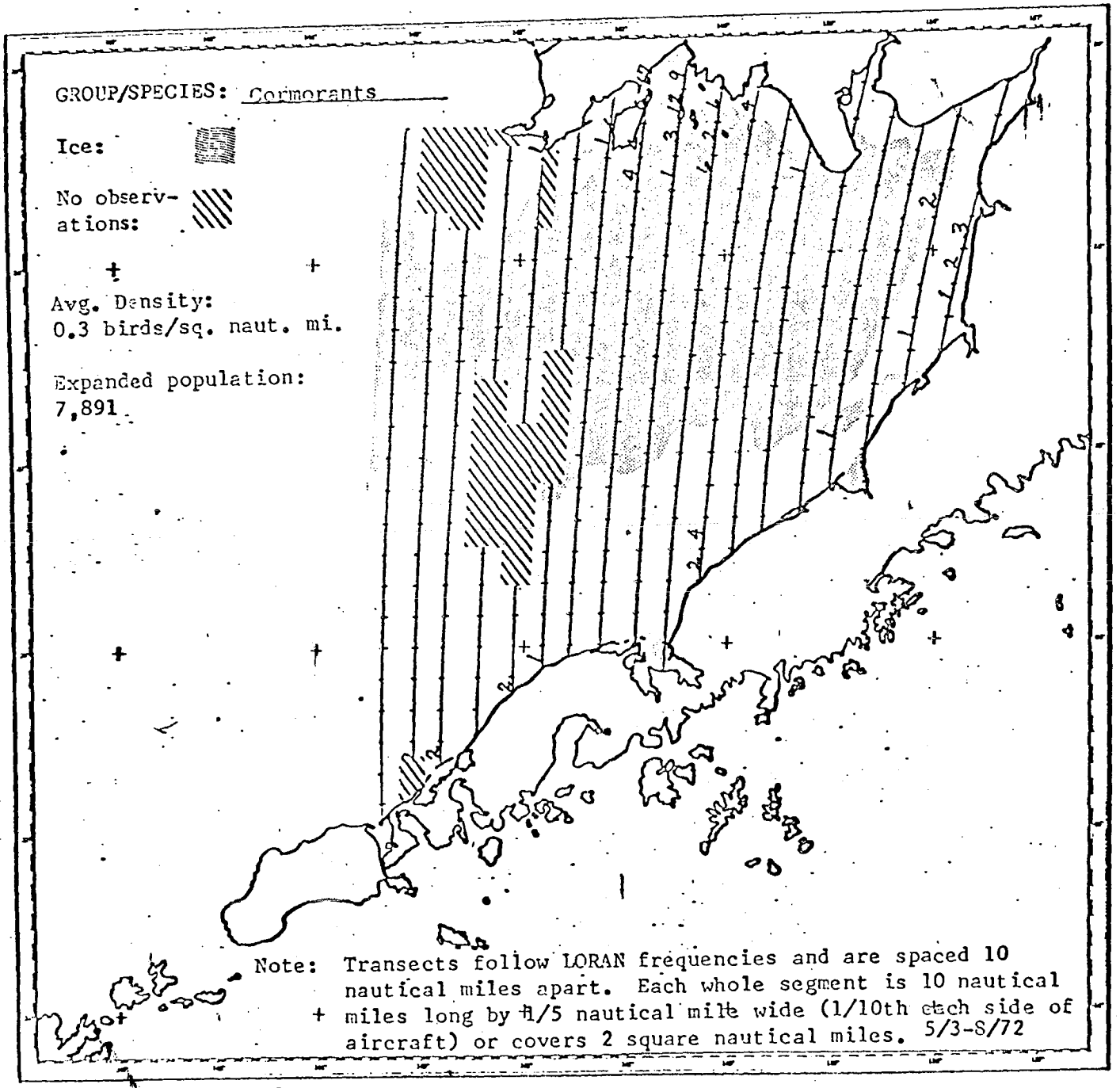

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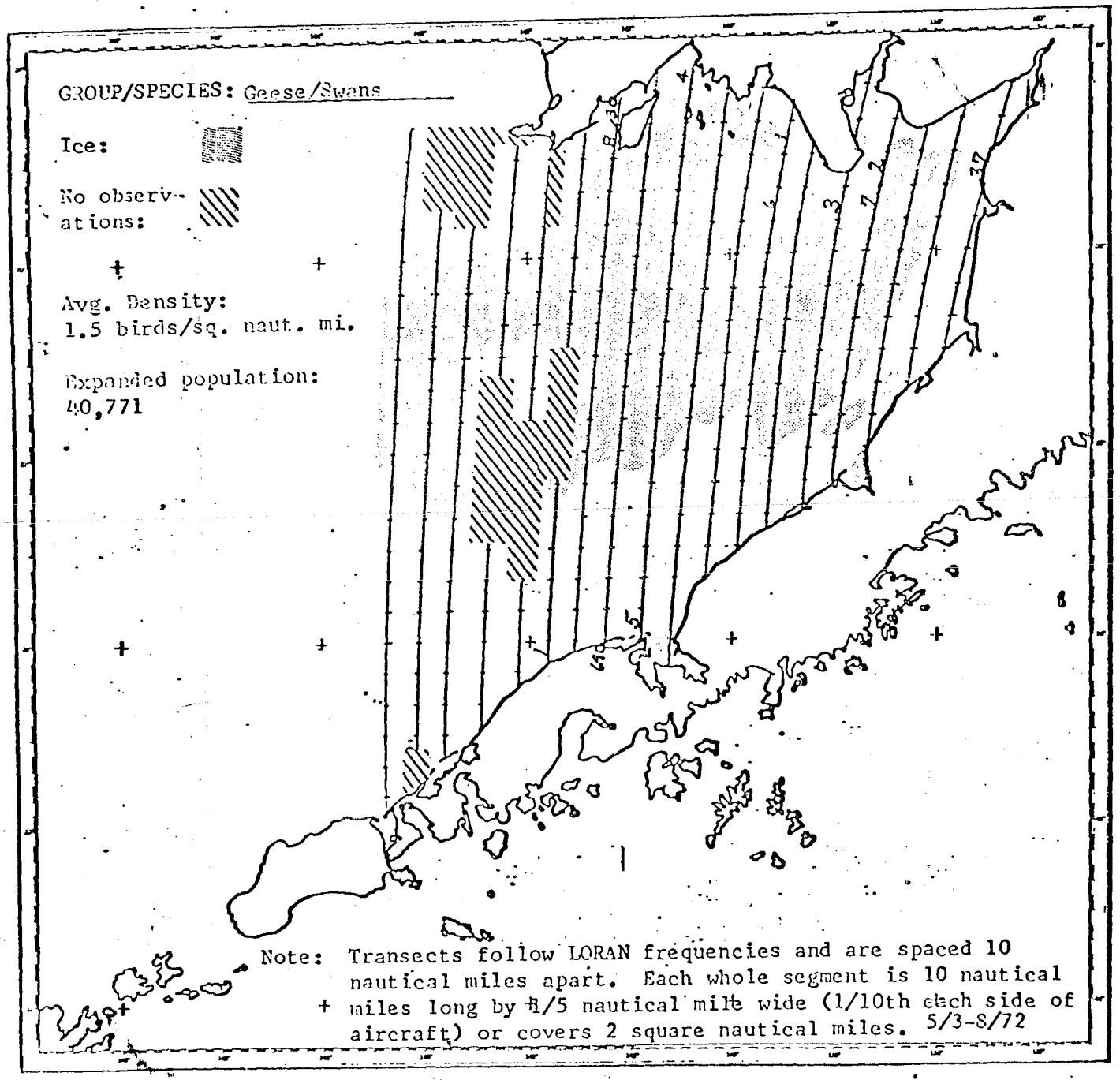

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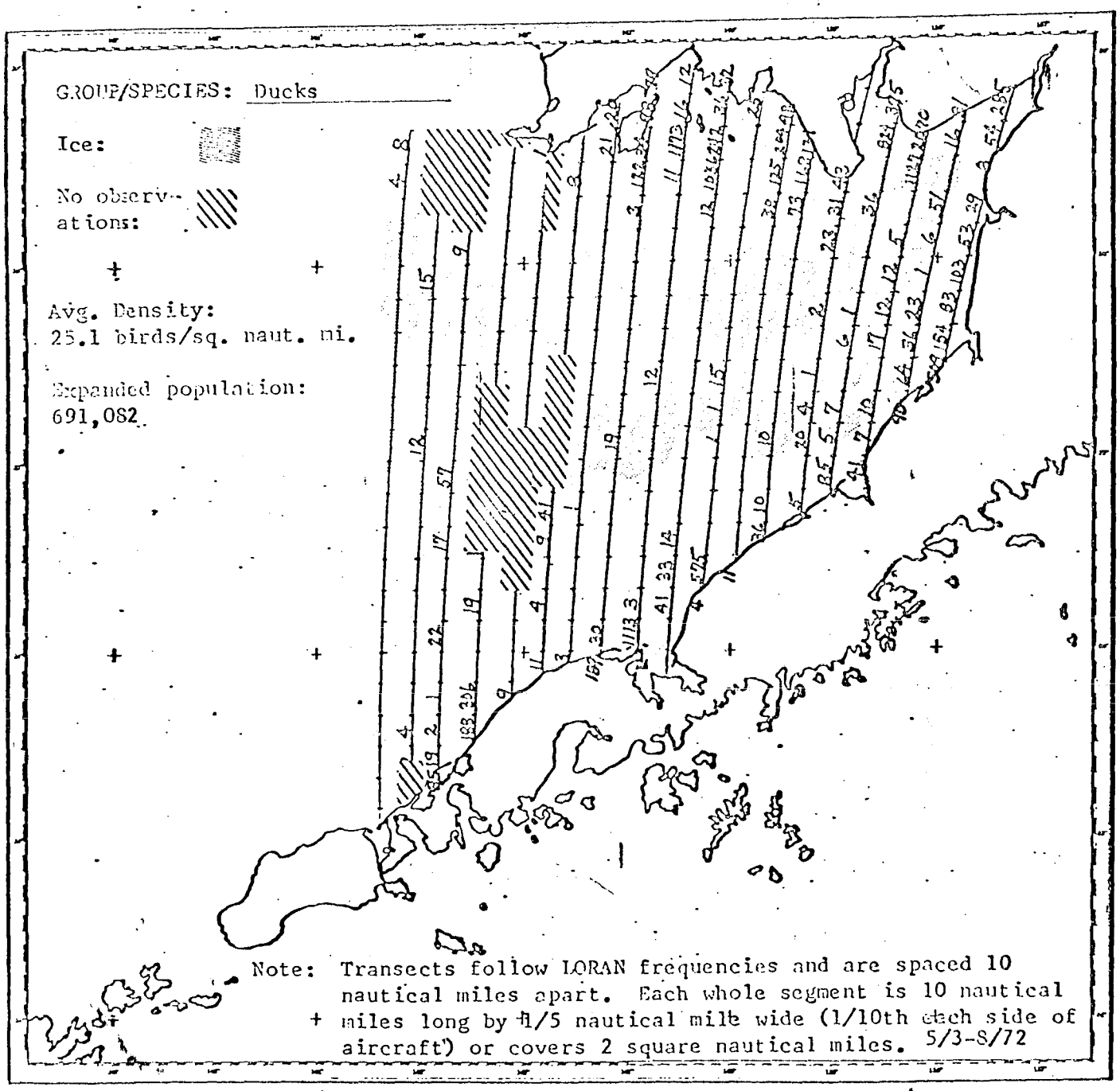

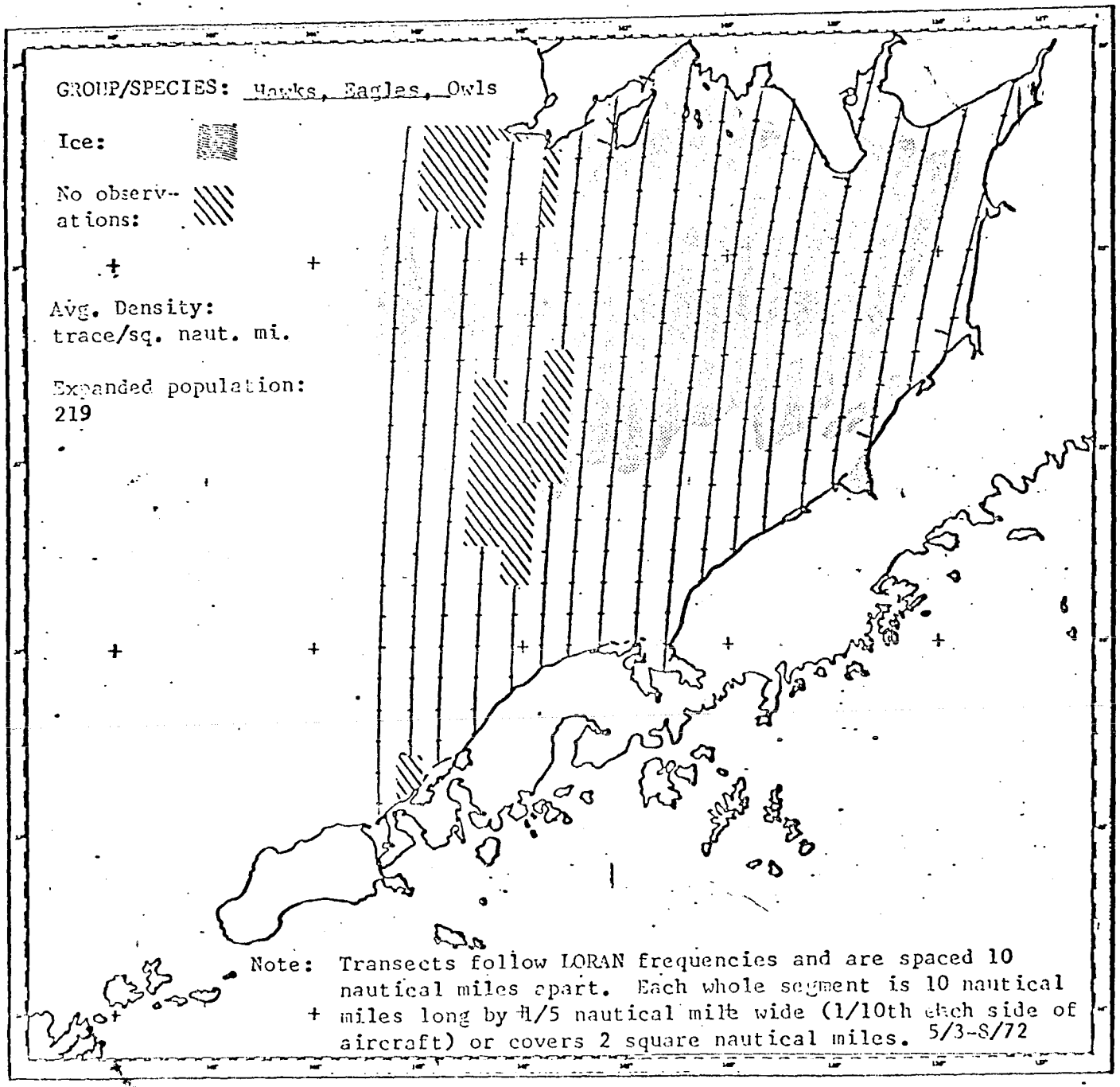

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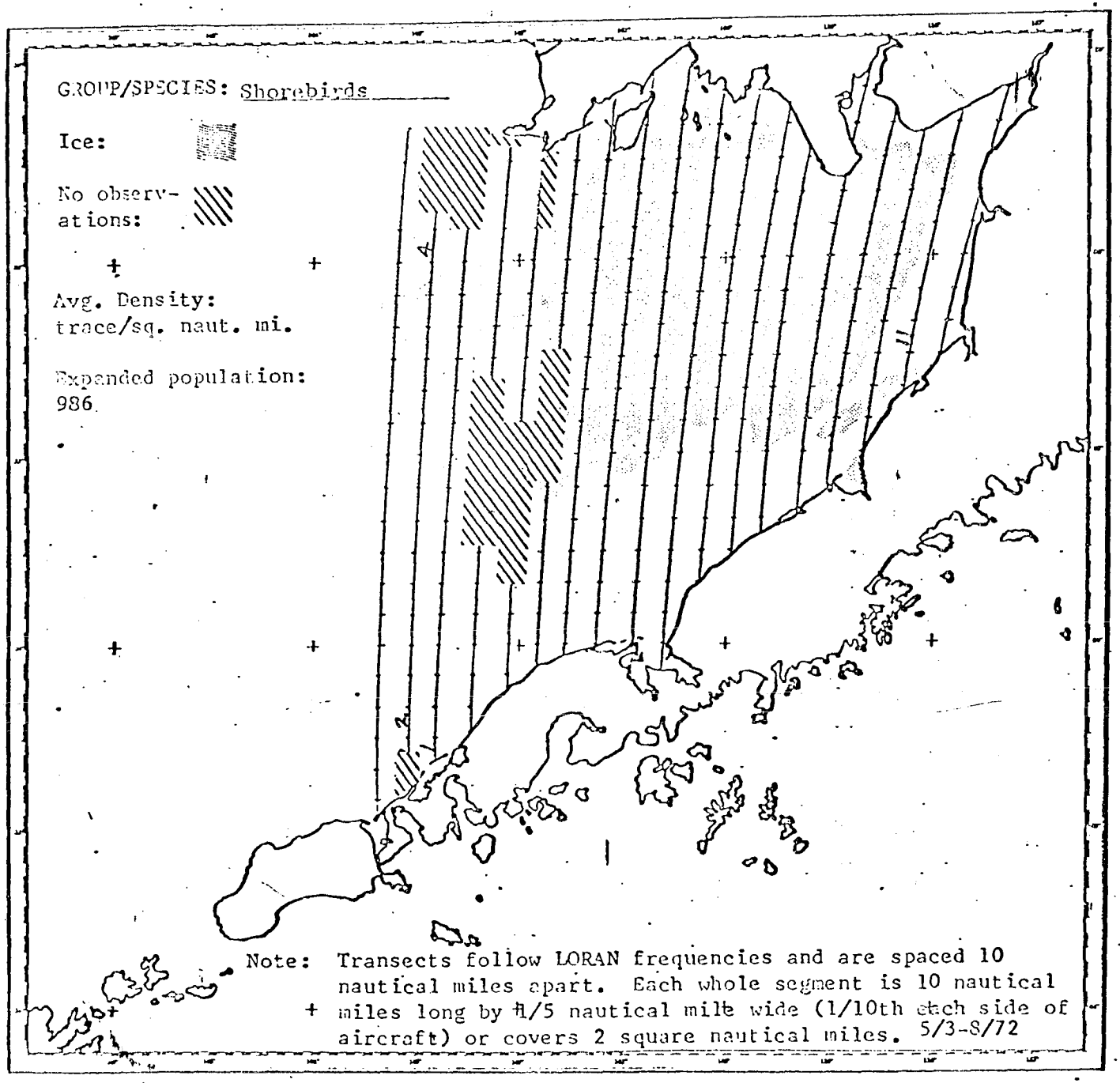

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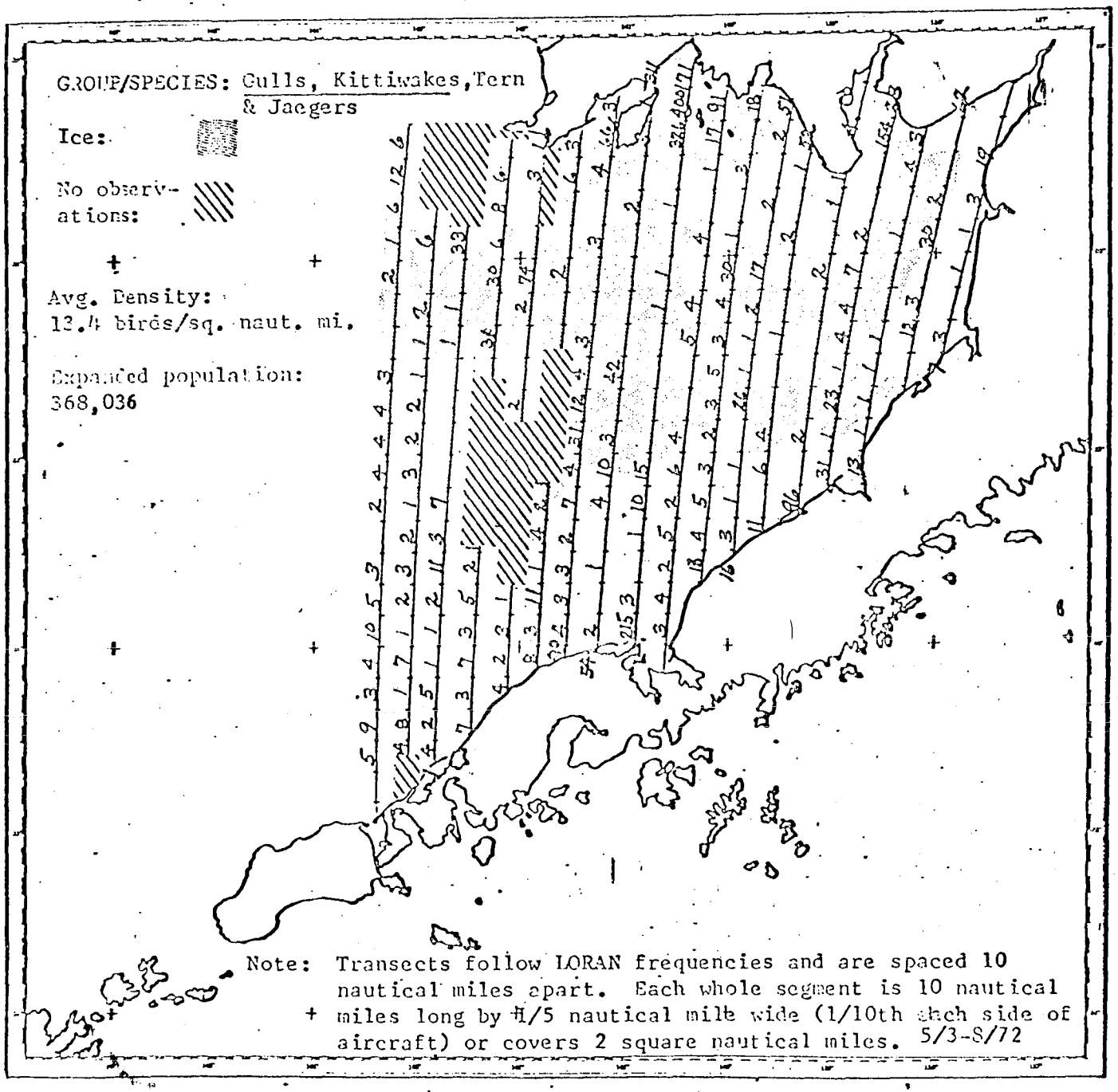

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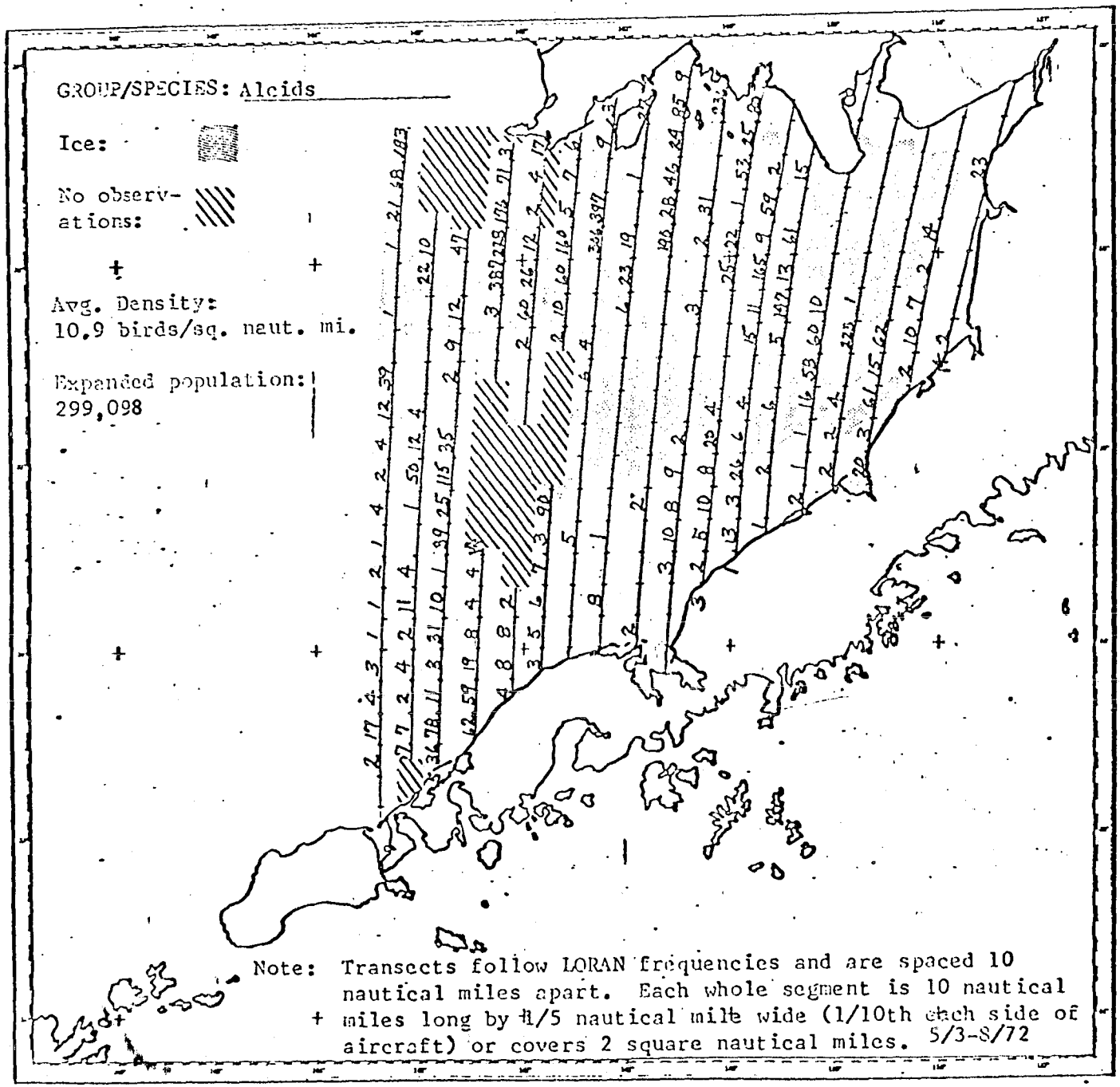
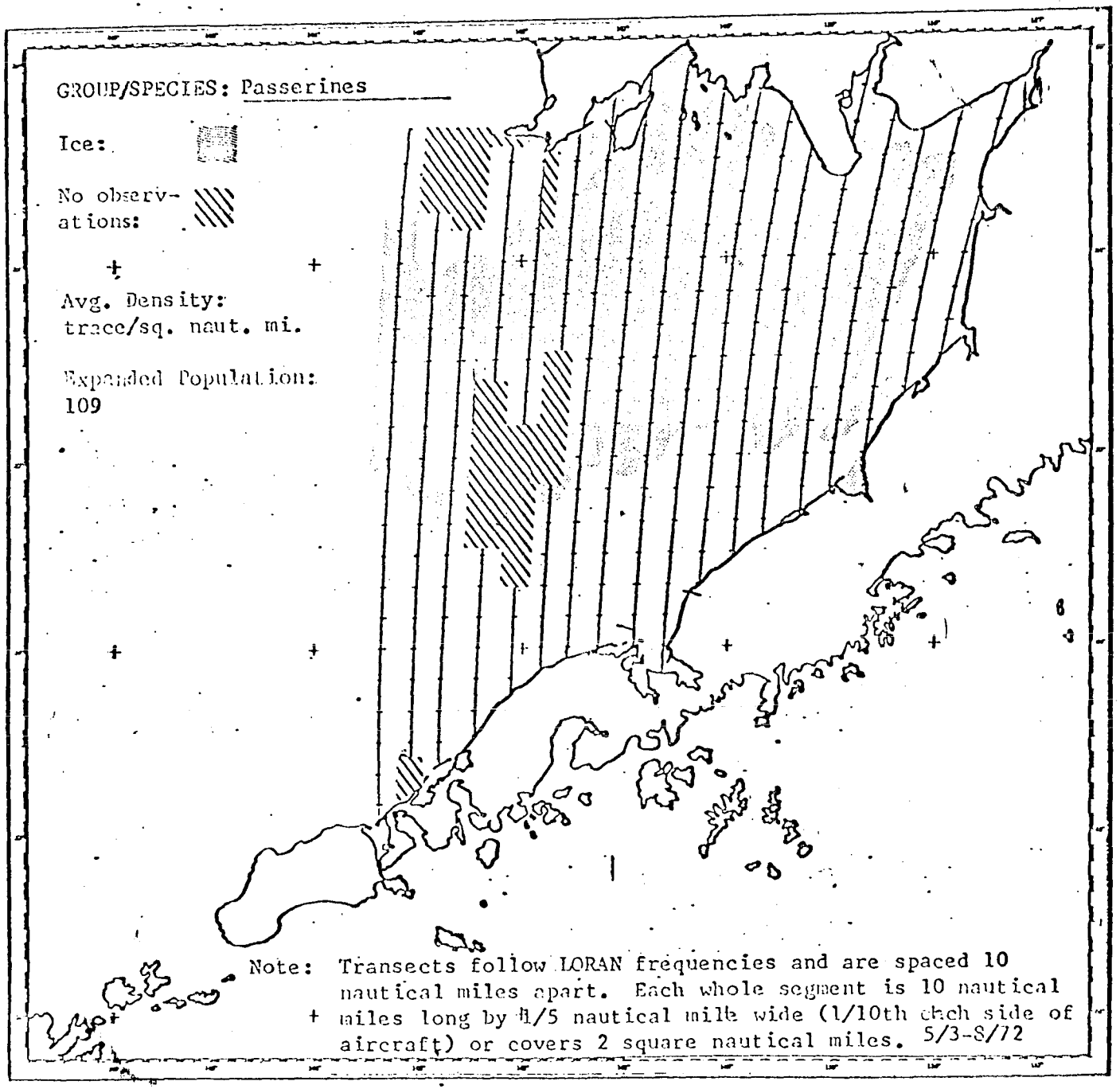

GROUP/SPECIES: Alcids
Ice:
No observations:
Avg. Density:
10.9 birds/sq. naut. mi.
Expanded population:
299,098
Note: Transects follow LORAN frequencies and are spaced 10 nautical miles apart. Each whole segment is 10 nautical miles long by 4/5 nautical mile wide (1/10th each side of aircraft) or covers 2 square nautical miles. 5/3-8/72



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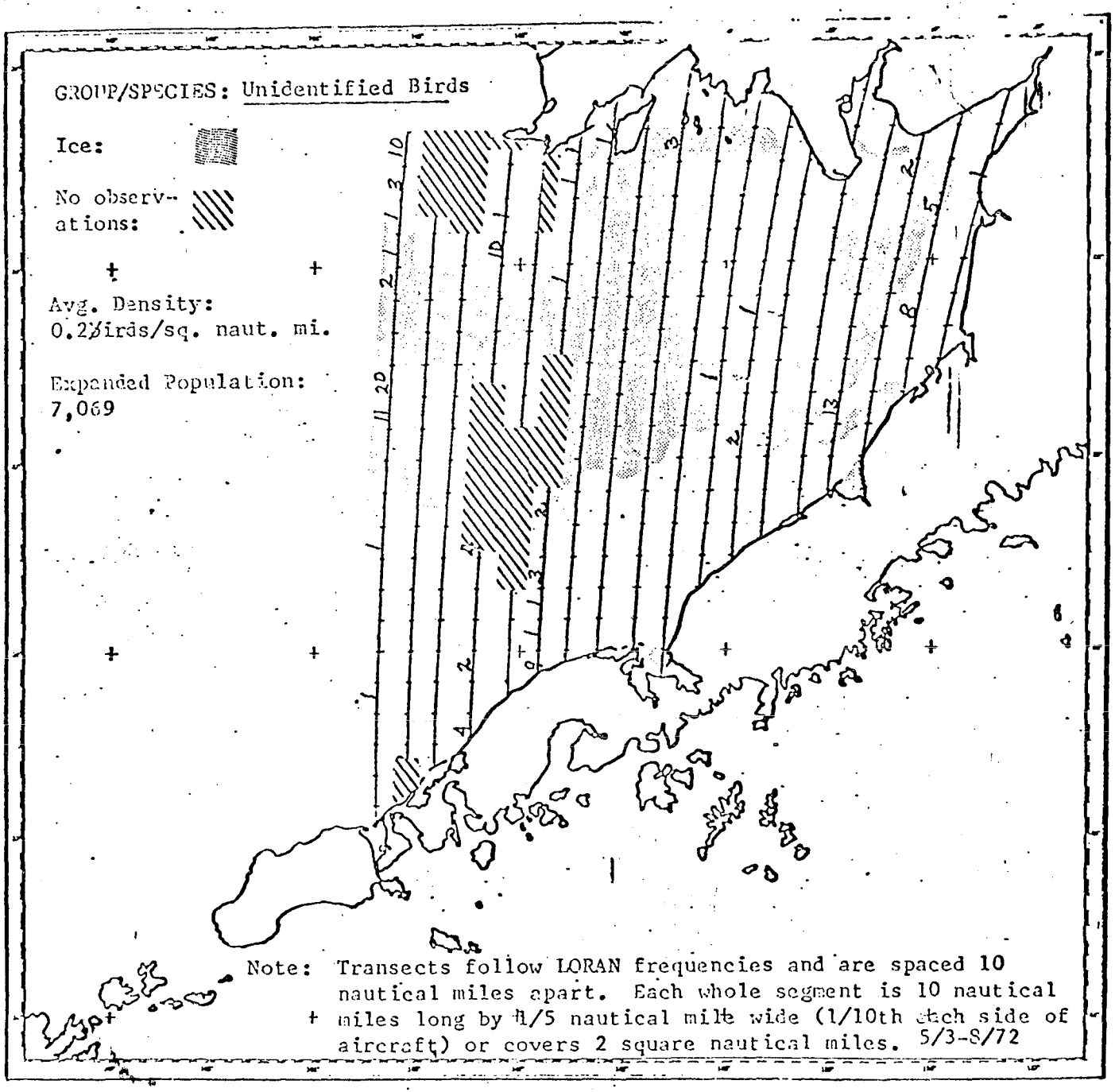

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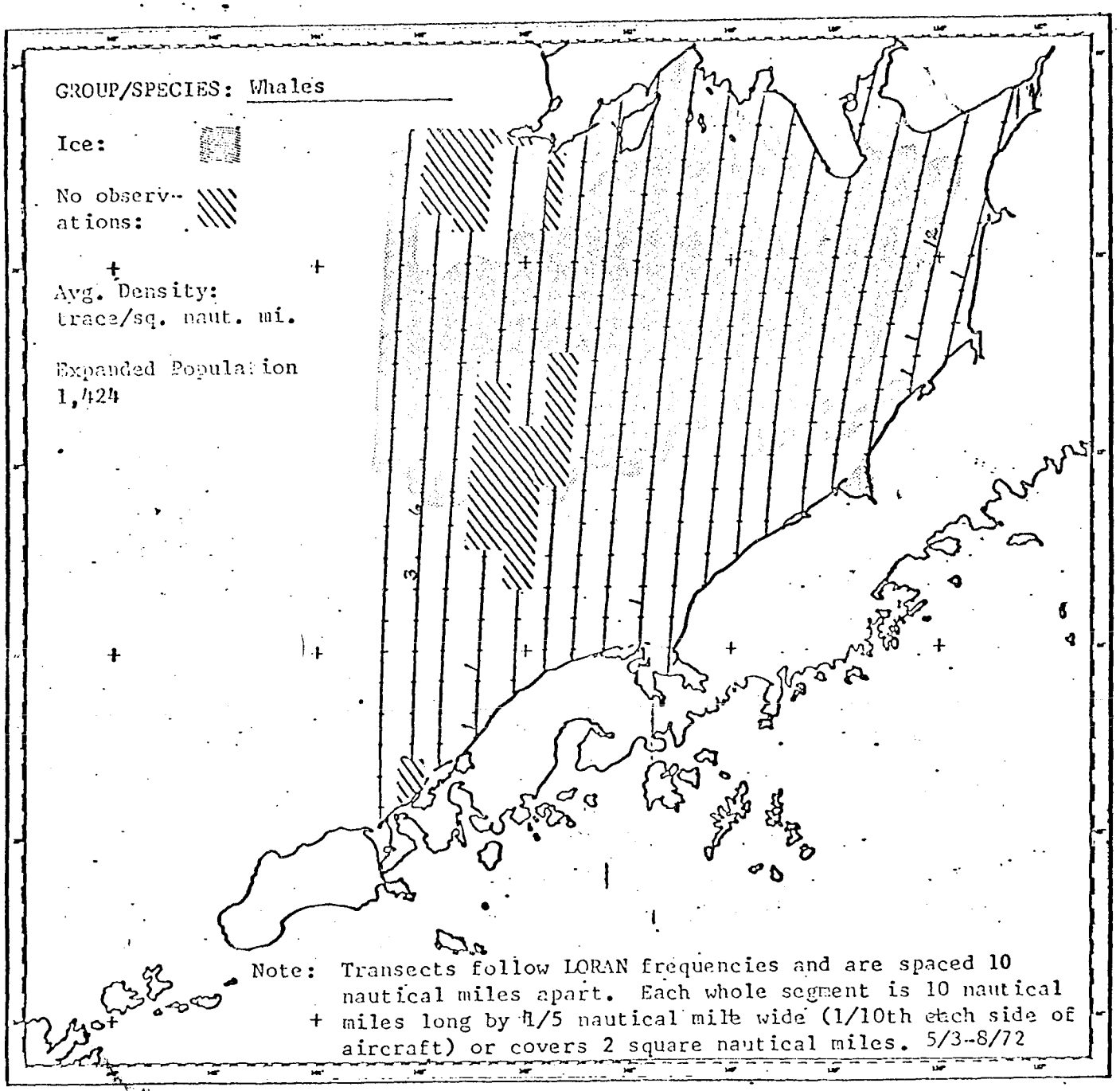

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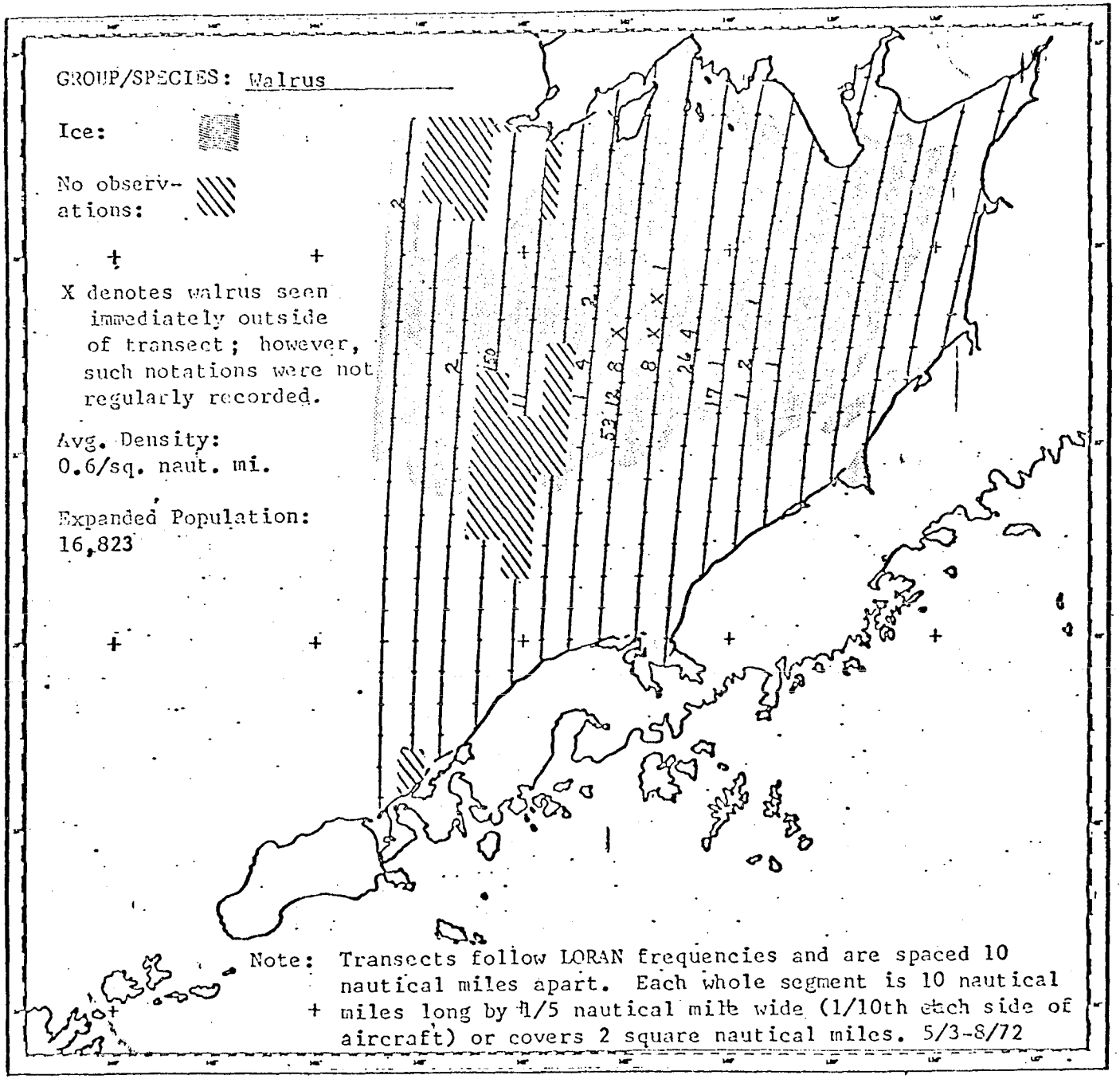

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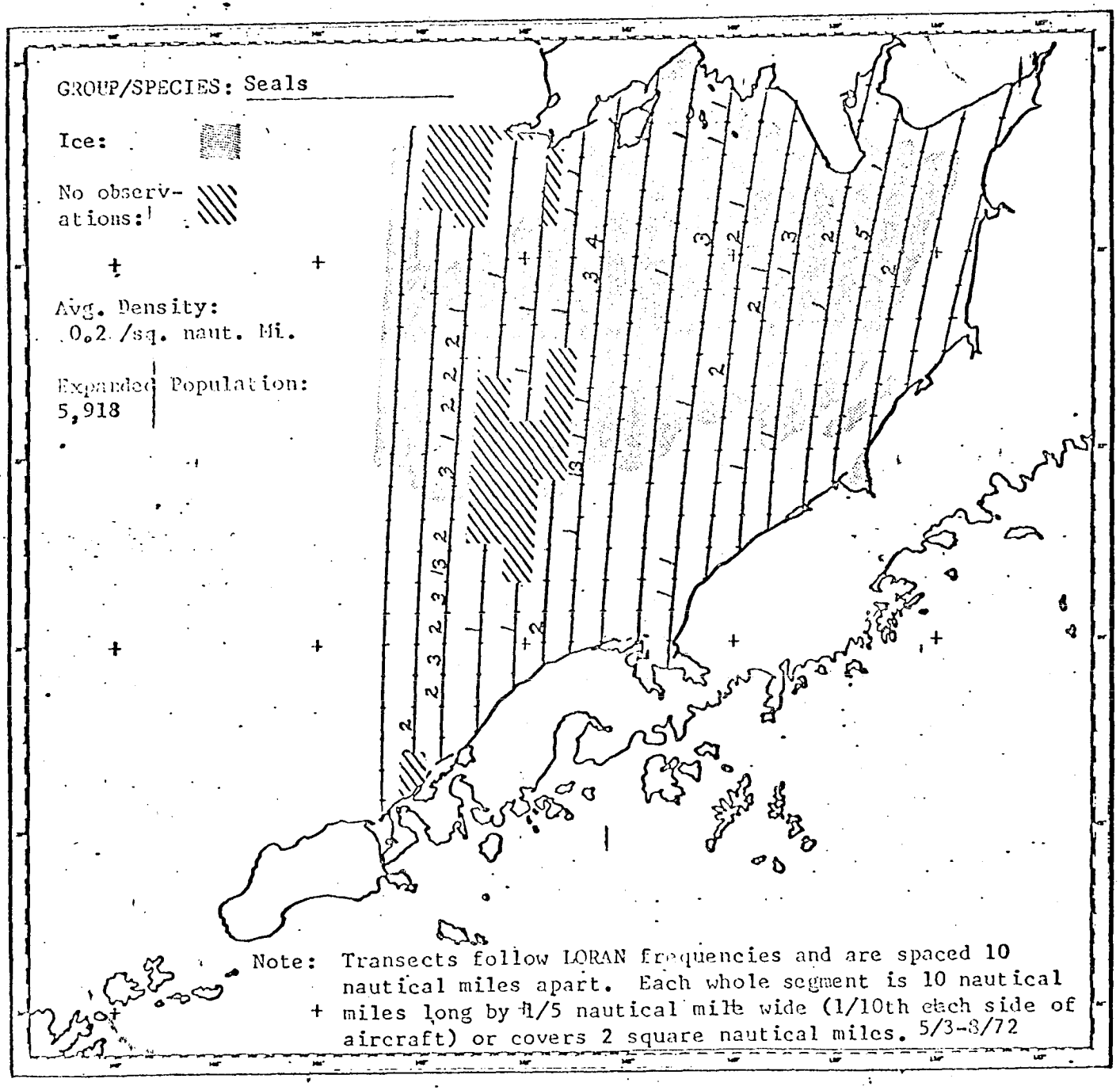

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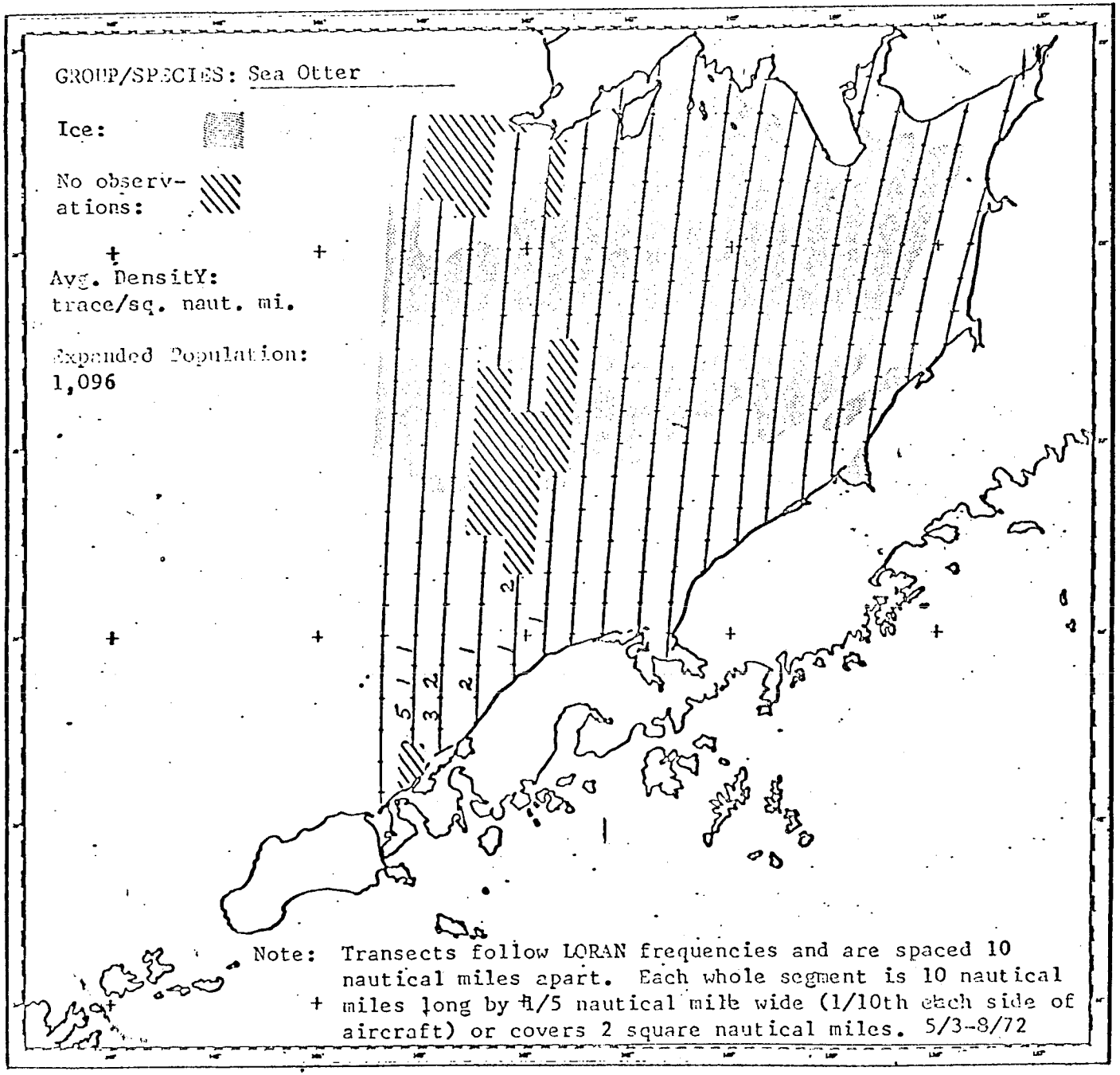

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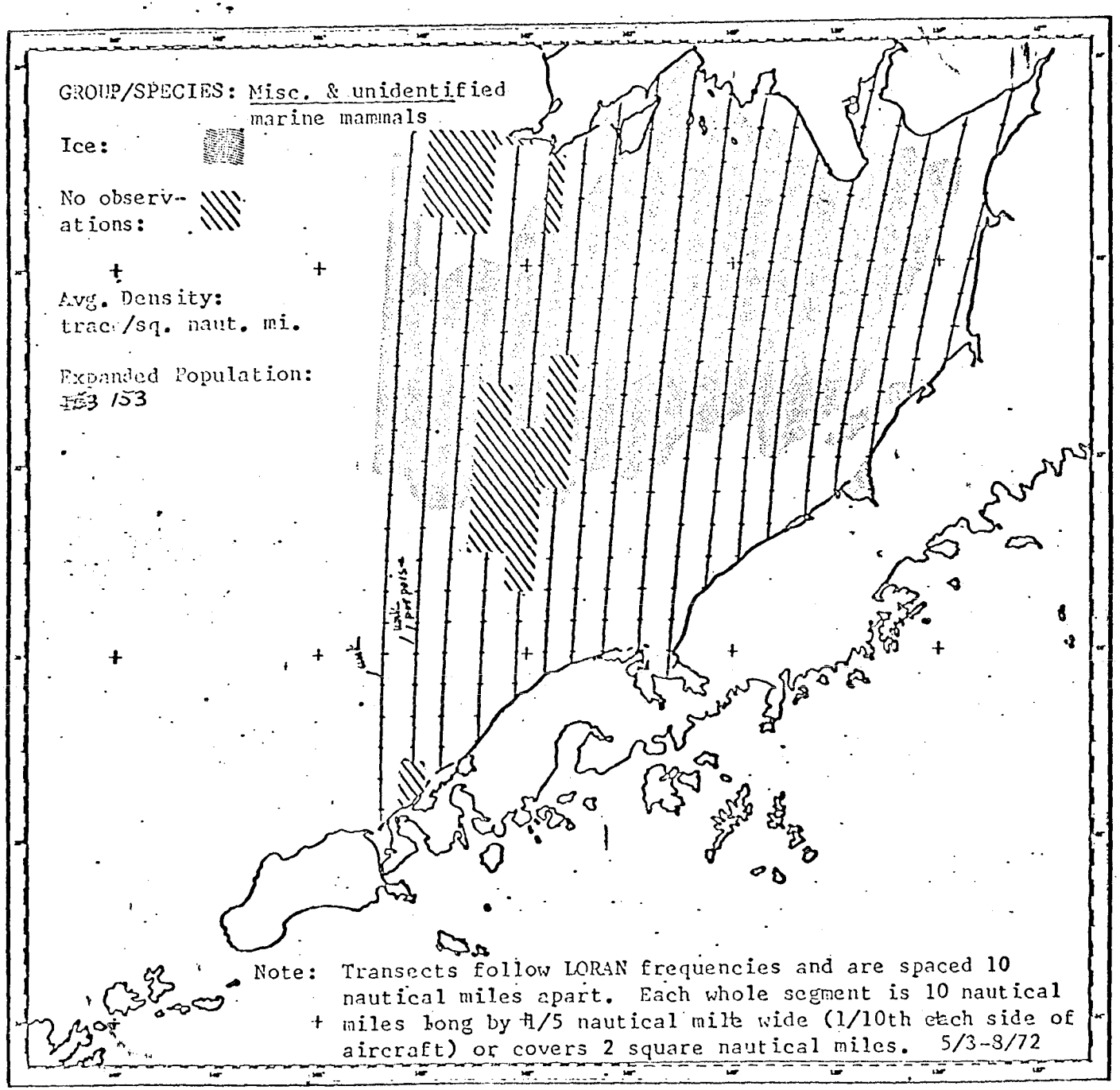

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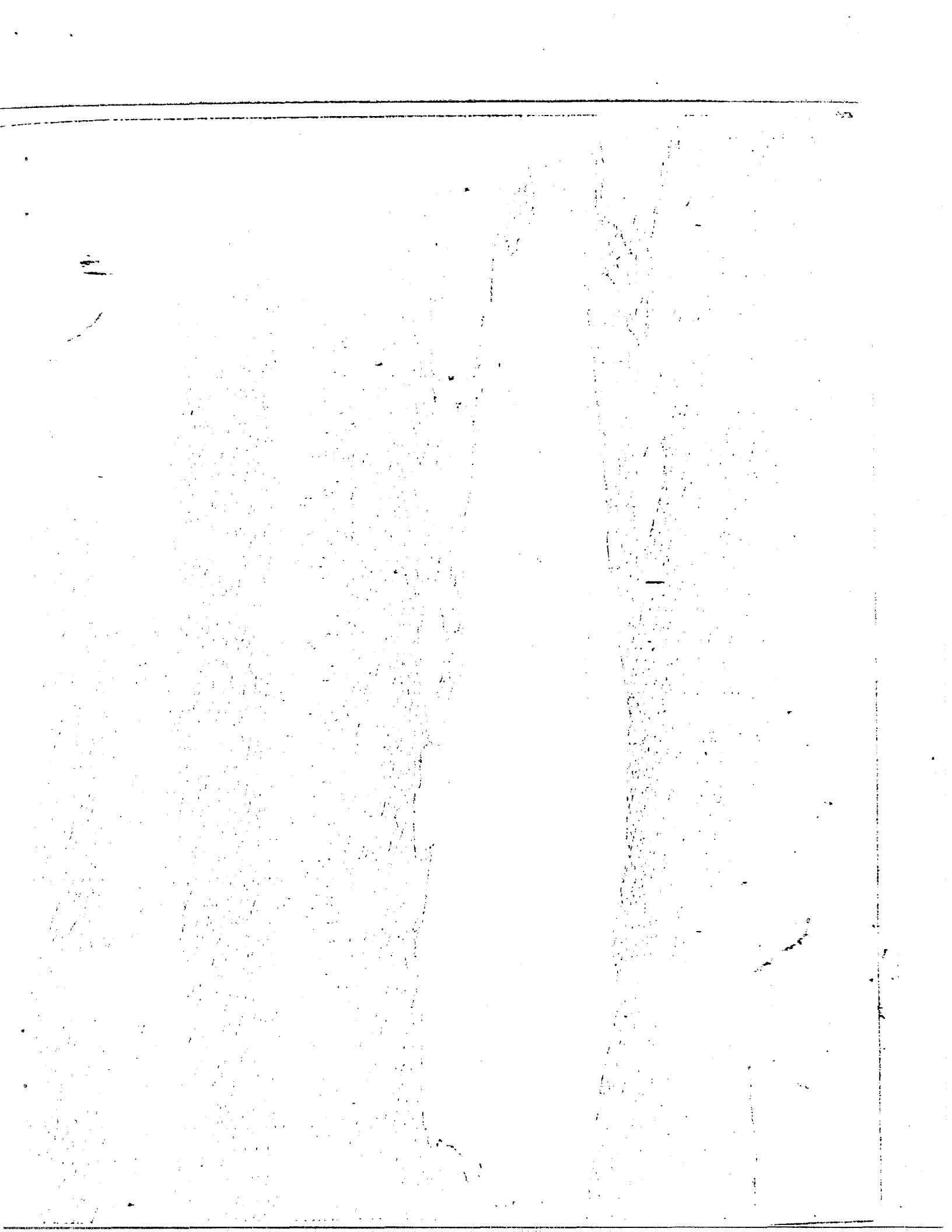

nurses in Bristol Bay

May '72

James C Bartonek
Bureau of Sport Fisheries & Wildlife
Division of Wildlife Research
1412 Airport Way, Fairbanks, Alaska 99701
Telephone: 907-452-3206

James C. Bartonek

Bureau of Sport Fisheries & Wildlife
Division of Wildlife Research
1412 Airport Way, Fairbanks, Alaska 99701
Telephone: 907-452-3206

Walrus in Bristol Bay May '72

James C. Bartonek
Bureau of Sport Fisheries & Wildlife
Division of Wildlife Research
1412 Airport Way, Fairbanks, Alaska 99701
Telephone: 907-452-3206

King Eiders in Bristol Bay
May 72