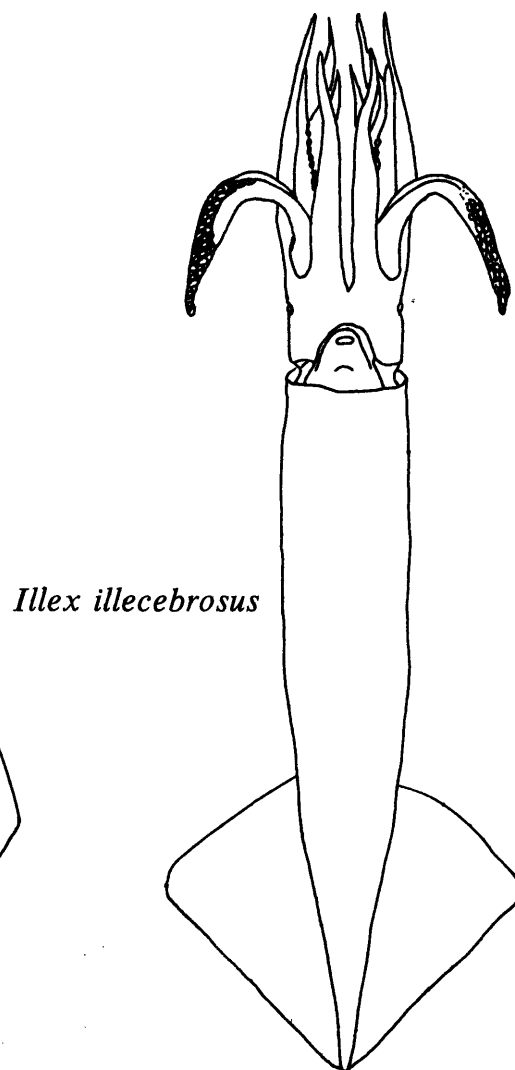
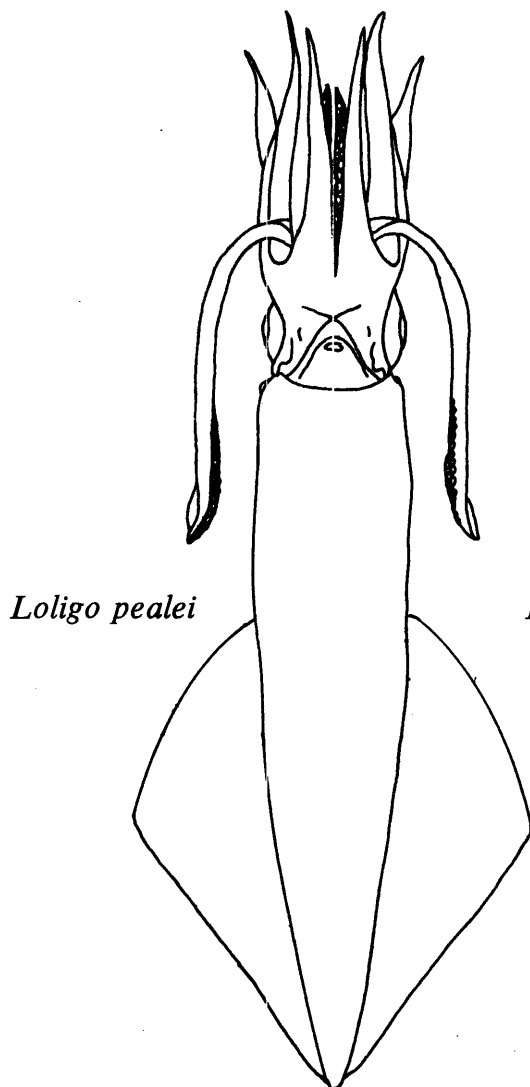


Location Of Foreign Fishing Vessels  
Harvesting Squid In The Mid-Atlantic Region  
Of The United States: 1970-1976

James Zaborski



Special Report In Applied Marine Science And Ocean Engineering No. 235

Virginia Institute Of Marine Science  
Gloucester Point, Virginia 23062



April 1980

**LOCATION OF FOREIGN FISHING VESSELS  
HARVESTING SQUID IN THE MID-ATLANTIC REGION OF THE  
UNITED STATES: 1970 - 1976**

**James Zaborski  
Commercial Fisheries Specialist**

**Sea Grant Marine Advisory Service  
Virginia Institute of Marine Science  
College of William and Mary  
Gloucester Point, VA 23062**

**April 1980**

**SRAMSOE No. 235 of the Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA 23062. This work is a result of research sponsored by the Virginia Institute of Marine Science Institutional Sea Grant Program, supported by the Office of Sea Grant, NOAA under Grant Number NA80AA-D-00021.**

## ACKNOWLEDGEMENTS

Special thanks to Charles C. Philbrook, Fisheries Enforcement Agent who provided much of the historical information upon which the charts were prepared. Without his contribution this publication would not have been possible.

## INTRODUCTION

The squid resources of the Northwest Atlantic, *Loligo pealei* (long-finned squid) and *Illex illecebrosus* (short-finned squid), have been identified as two species with potential for expanding the U.S. fishing industry. The current fishery management plan regulating these species allocates 12 thousand metric tons to domestic fishermen, 30 thousand metric tons to foreign harvest, and 32 thousand metric tons in reserve. The magnitude of the reserve and foreign allocations indicate the potential to which the U.S. industry can expand. In the Mid-Atlantic (Long Island to Cape Hatteras), the foreign fleet harvested an average of 18,000 metric tons annually between 1969 and 1976. During this period, the foreign skippers had to learn the seasonal distribution of squid off our coast. In the past, the domestic squid fishery in the Mid-Atlantic had been limited and the majority of squid landed were taken as a by-catch of other fisheries. Consequently, many Mid-Atlantic fishermen may not be familiar with the seasonal distribution of these species. The lack of this type of information has been cited as one barrier to the development of a Mid-Atlantic squid fishery.

This publication has been produced to assist U.S. fishermen locate squid resources within the Mid-Atlantic U.S. Fishery Conservation Zone (200 mile limit). It is a summary of foreign squid fishing activities in this area between 1970 and 1976. The data sources used to prepare the report are the National Marine Fisheries Service (NMFS) and the International Commission for the Northwest Atlantic Fisheries (ICNAF) Statistical Bulletins, Vols. 22-26.

The charts have been prepared by condensing monthly summaries of foreign fishing activity as recorded by NMFS from Coast Guard overflights conducted between 1970 and 1976 (excluding 1974 for which data was not available). The charts are designed to show, on a monthly basis, areas where foreign vessels were engaged, or believed to be engaged, in squid fishing. The areas indicated are divided according to the frequency foreign fleets were observed in these areas. For example, the darkest shaded areas are those in which the foreign fleet was observed most frequently during the six years of observation.

Information from the U.S. Coast Guard overflights simply identified the catch as squid. Additional information is necessary to distinguish between *Illex illecebrosus* (short-finned squid) and *Loligo pealei* (long-finned squid). This is provided in Figures 13 and 14 which show the average foreign catches of a *Loligo* and *Illex* from three areas in the Mid-Atlantic between 1970 and 1976. Using both the charts and graphs, a fishermen can determine which species is abundant within his fishing area during a particular season.

It is important to note that the abundance and seasonal location of squid are likely to change as a result of environmental fluctuations and changes in stock size. The information contained in this publication should therefore only be considered a tool to help determine the best times and areas for squid fishing.

## FIGURES 1 - 12

Monthly distribution of the foreign squid fishing fleet in the Mid-Atlantic between 1970 and 1976. Shaded areas indicate the yearly frequency of fishing activity as reported by NMFS from U.S. Coast Guard overflights:

Darkest areas	vessels observed in area 4 of the 6 years
Next darkest	vessels observed in area 3 of the 6 years
Next darkest	vessels observed in area 2 of the 6 years
Lightest	vessels observed only once during the 6 years

FIGURE 1

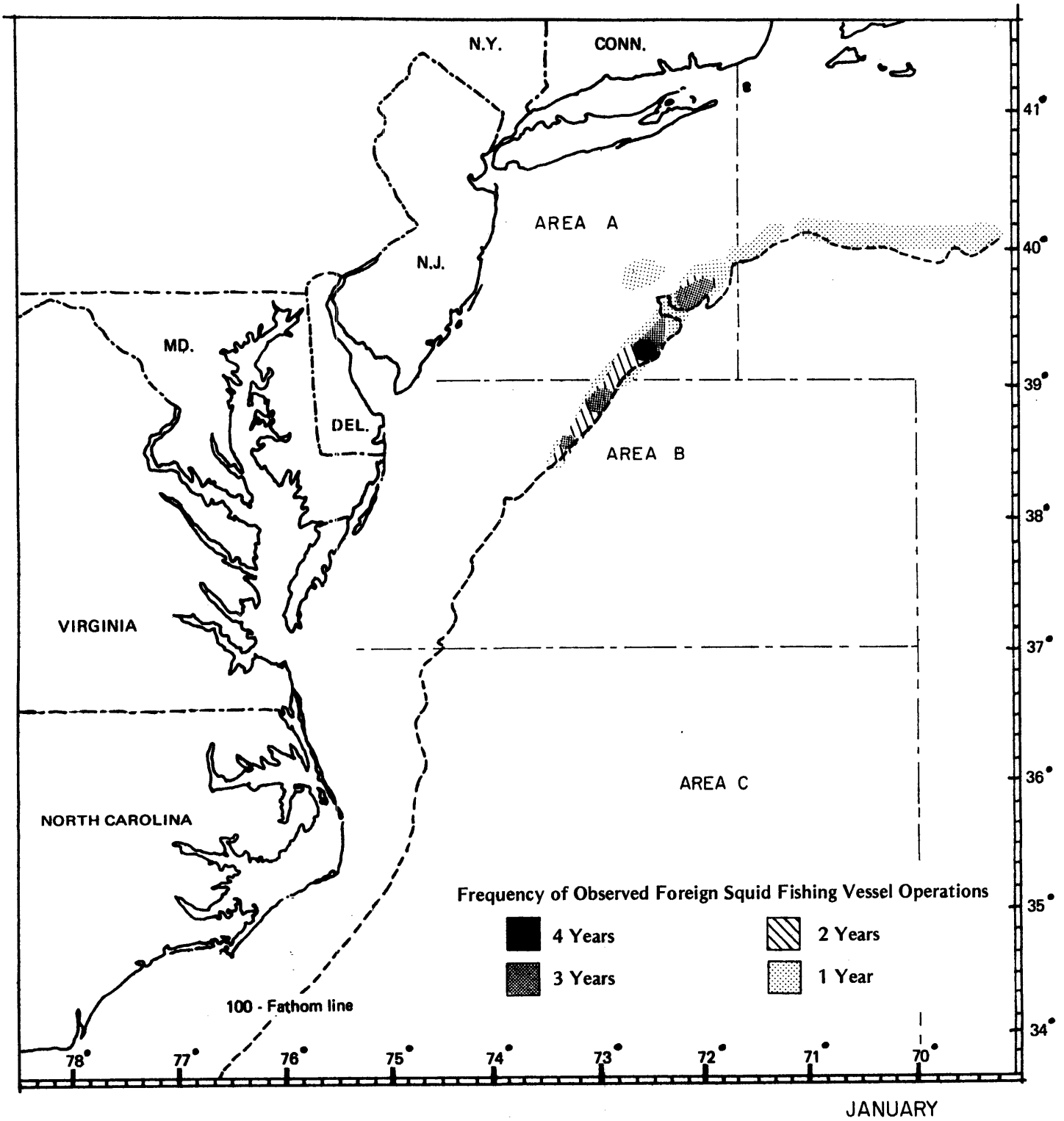


FIGURE 2

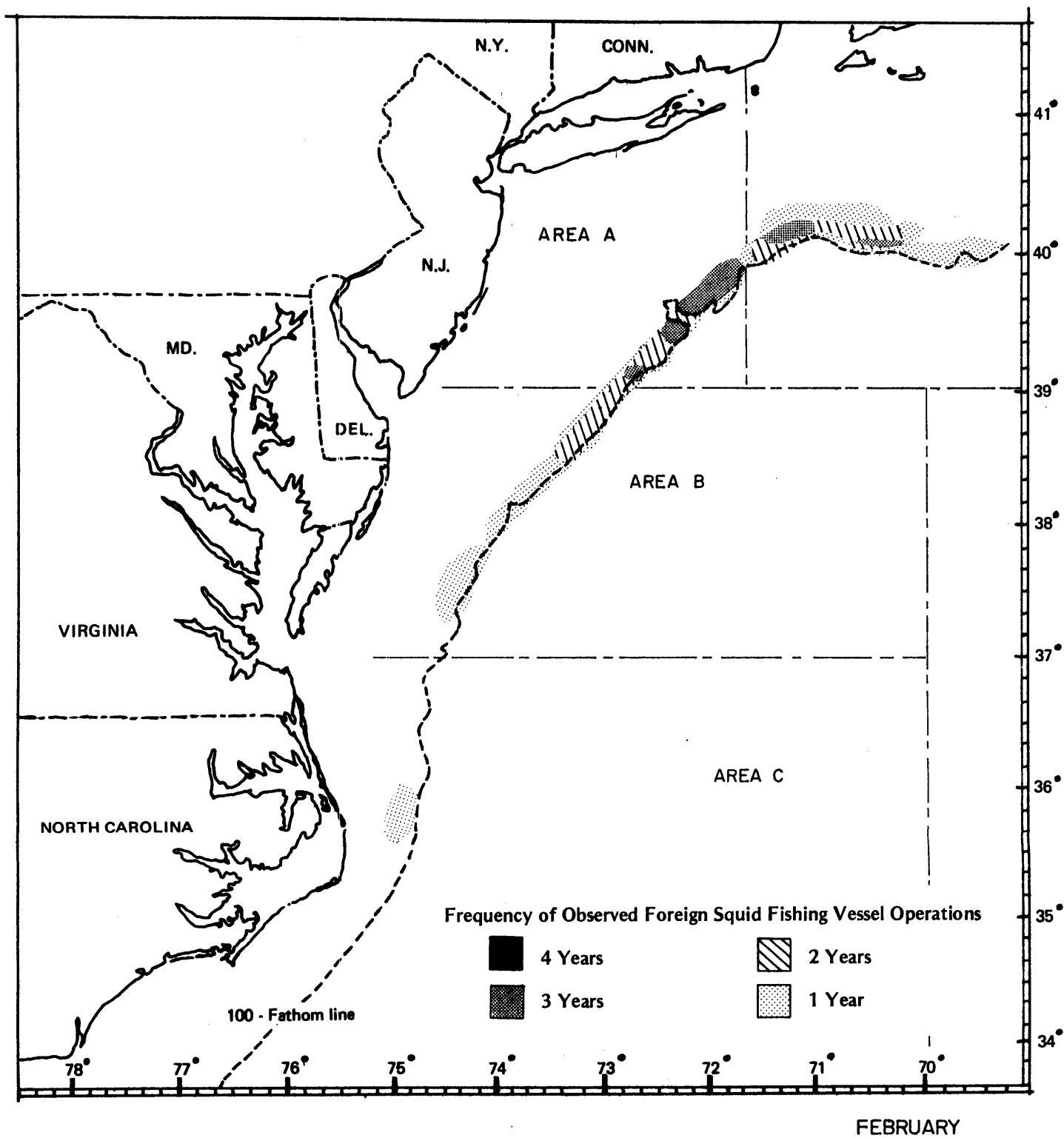


FIGURE 3

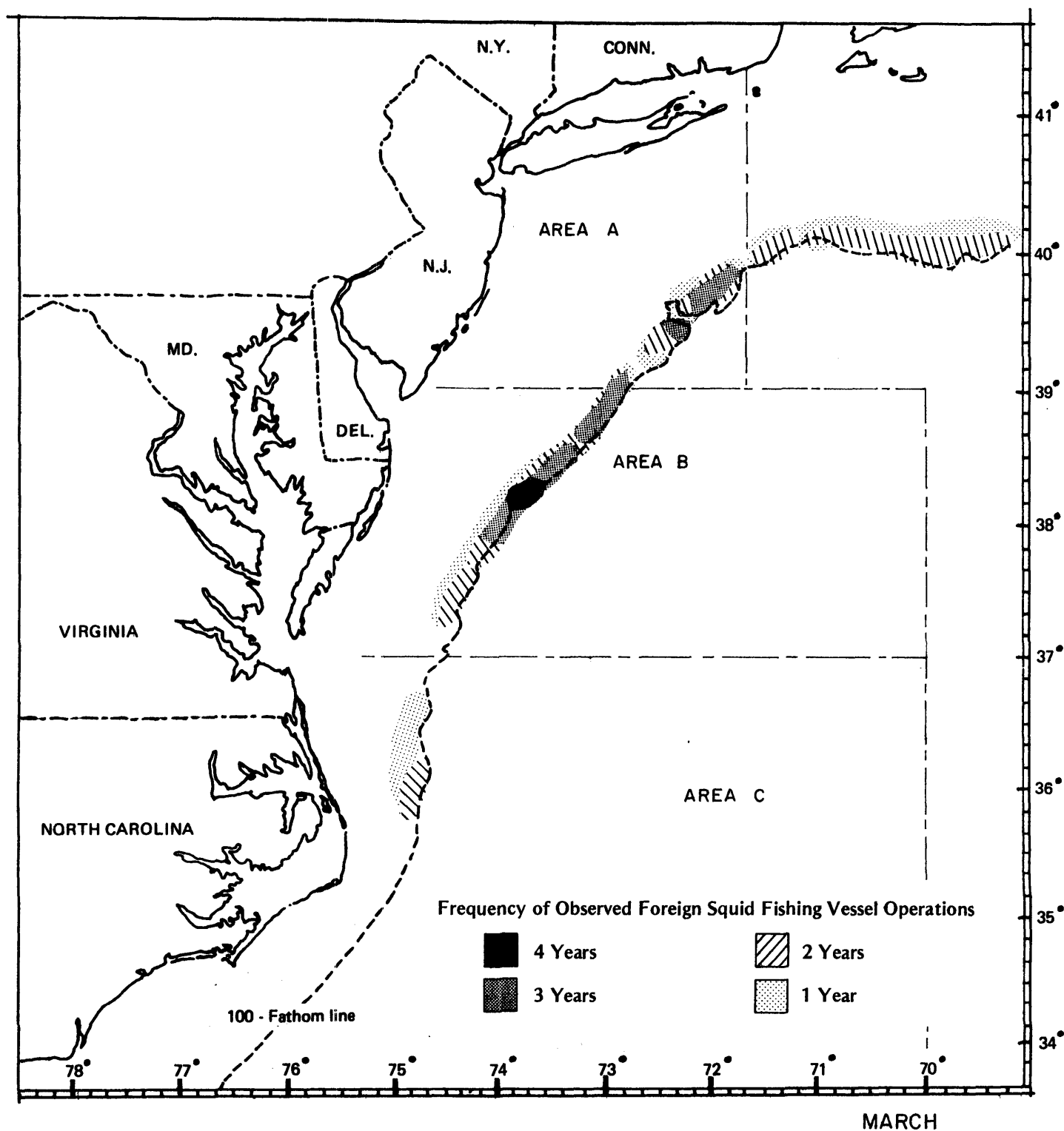


FIGURE 4

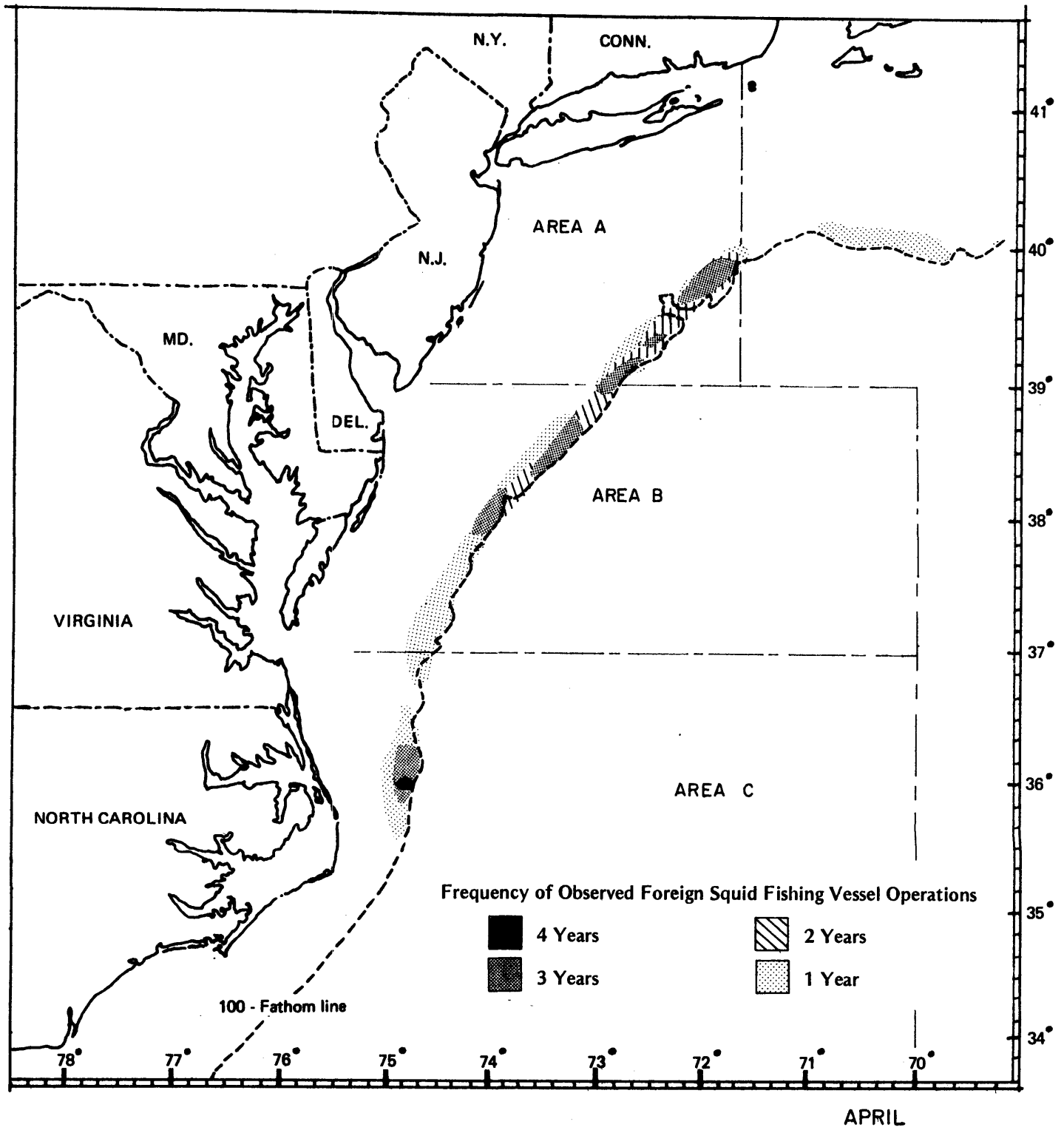




FIGURE 5

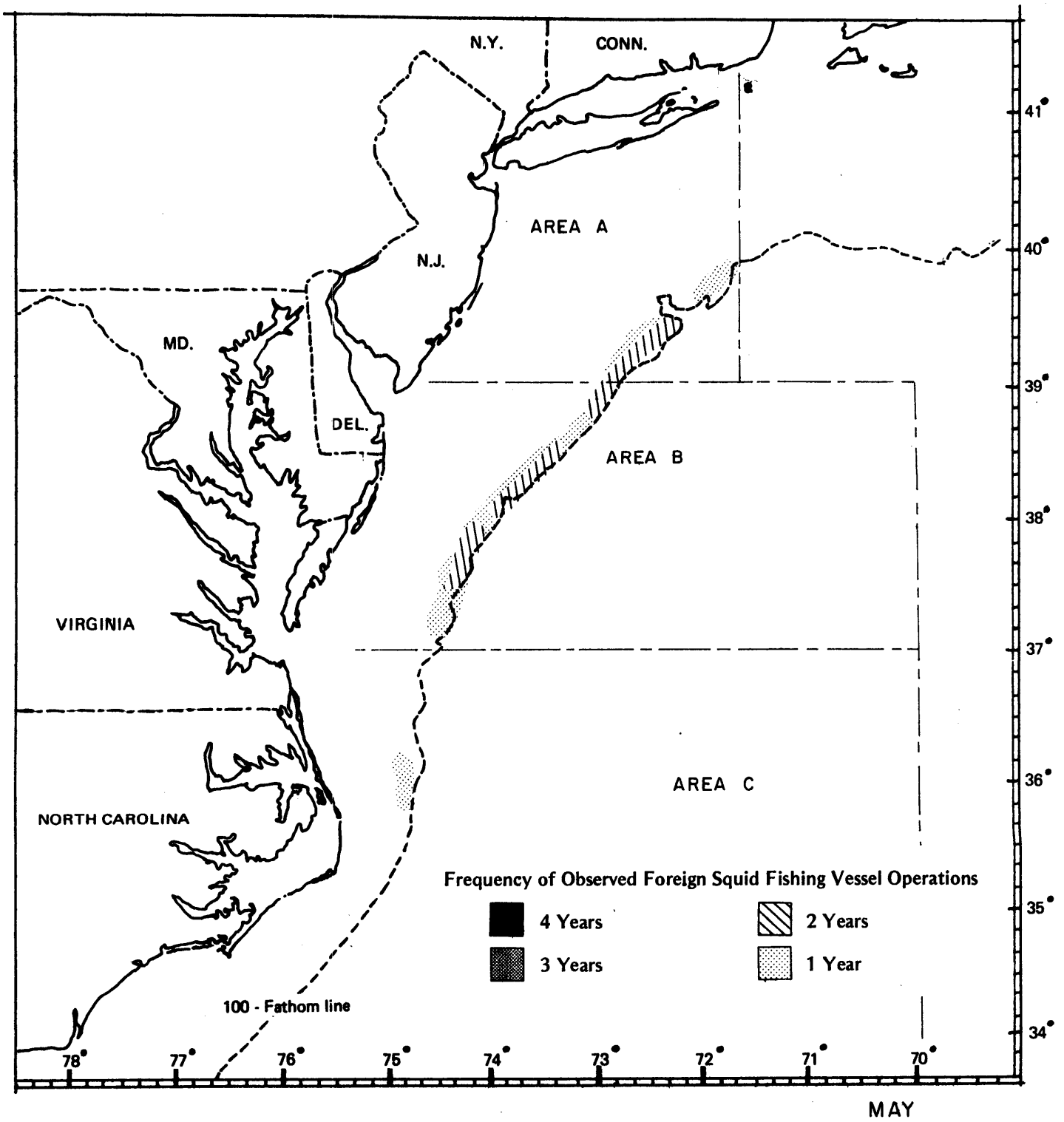


FIGURE 6

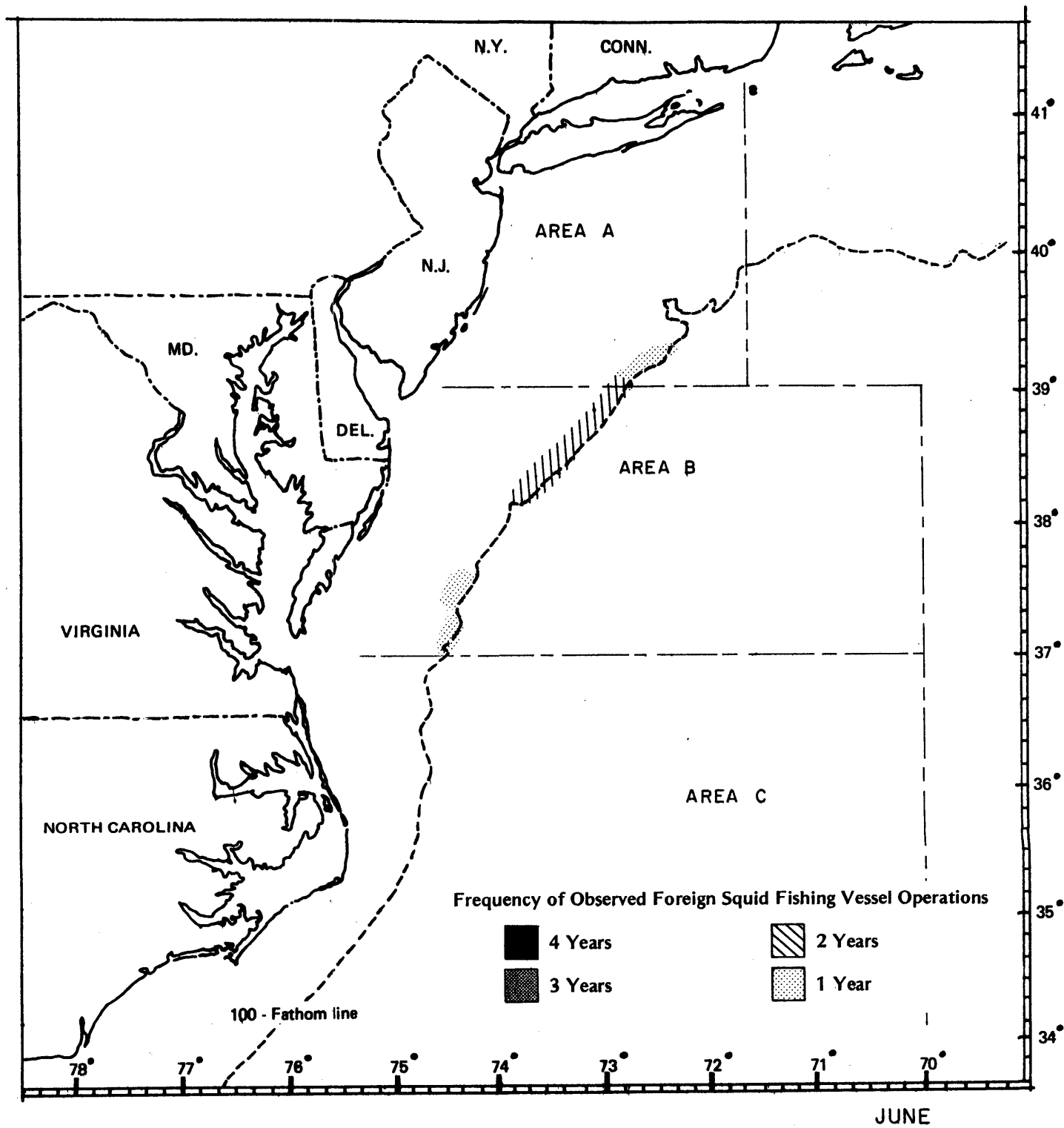


FIGURE 7

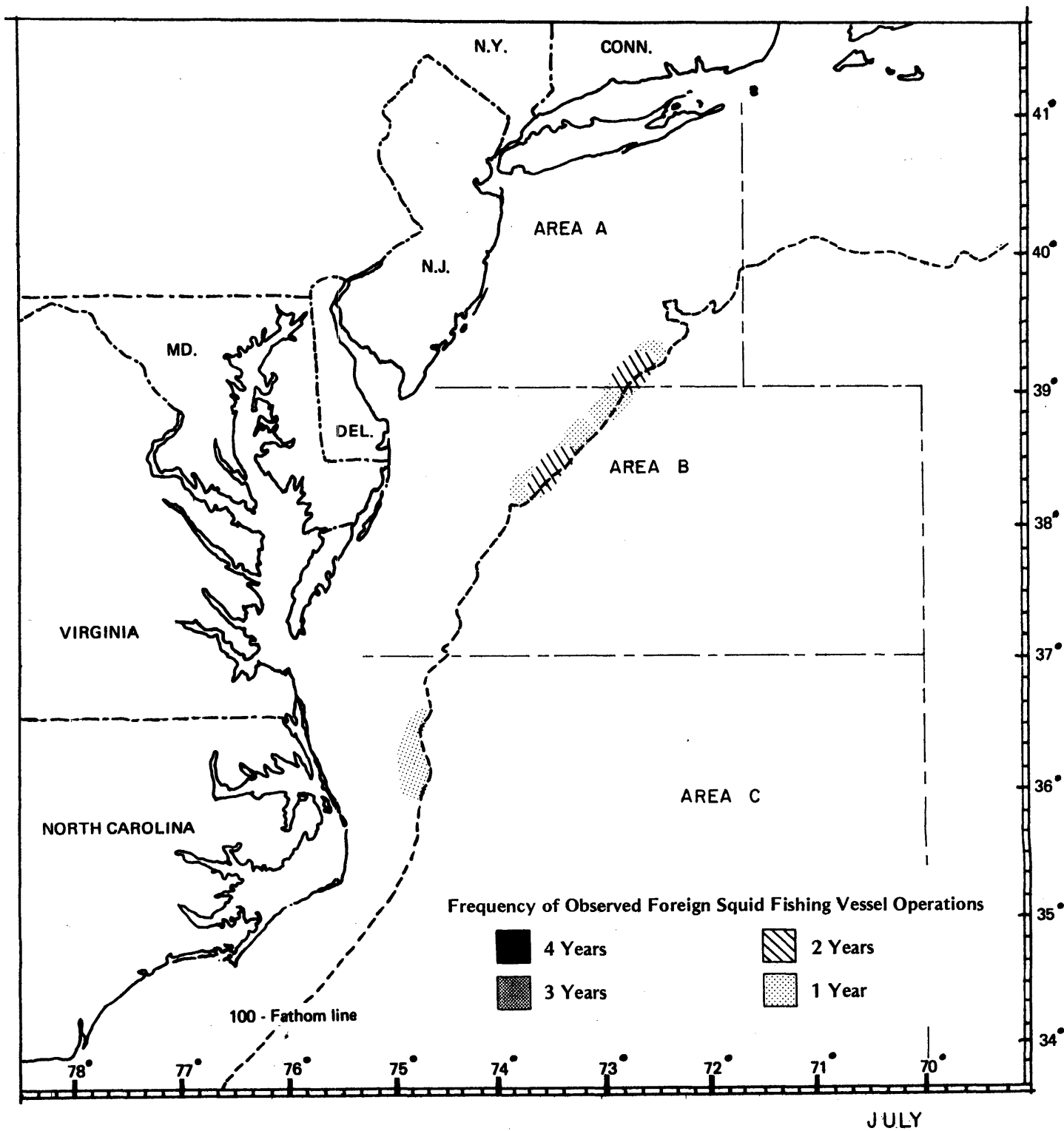


FIGURE 8

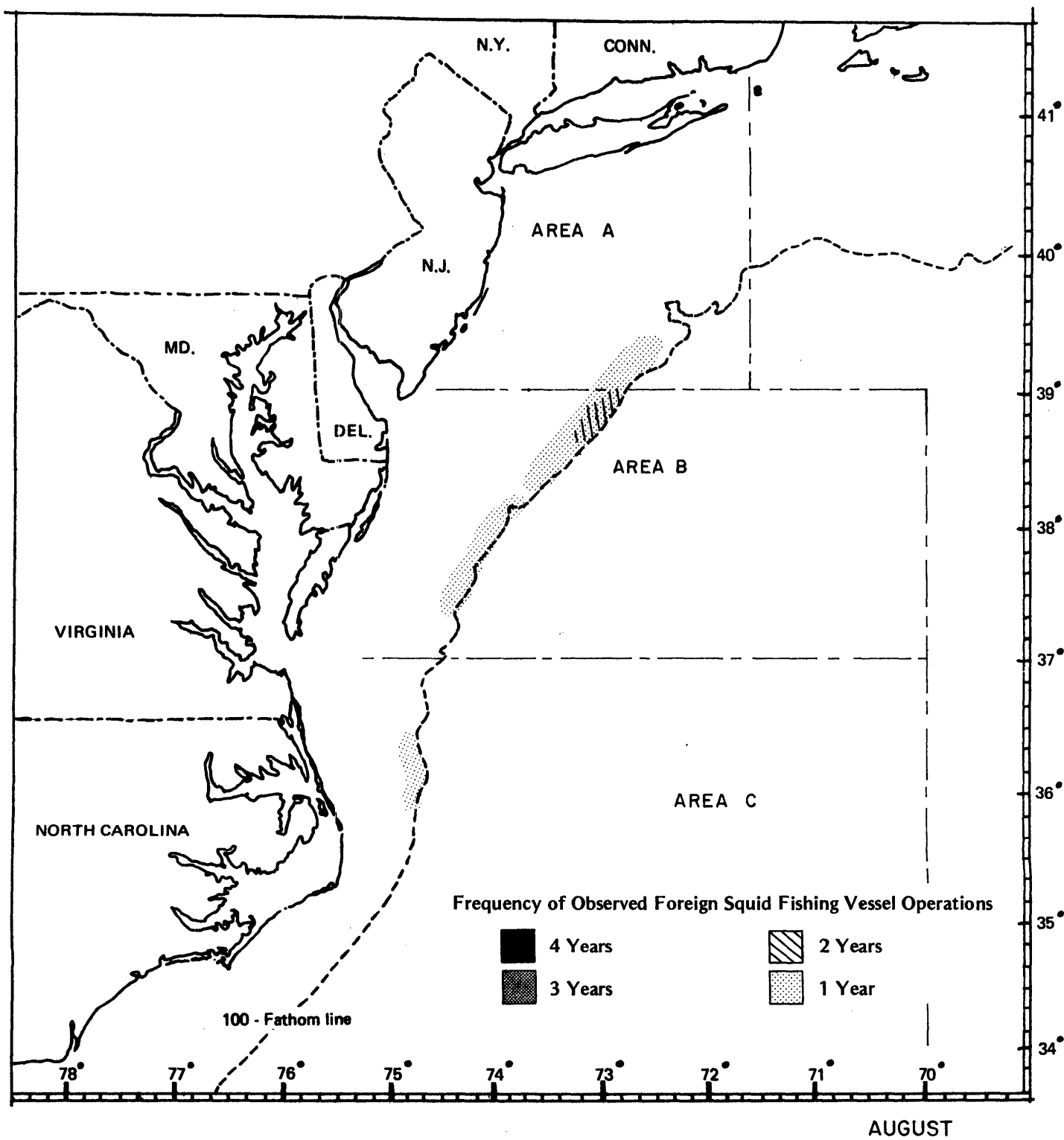


FIGURE 9

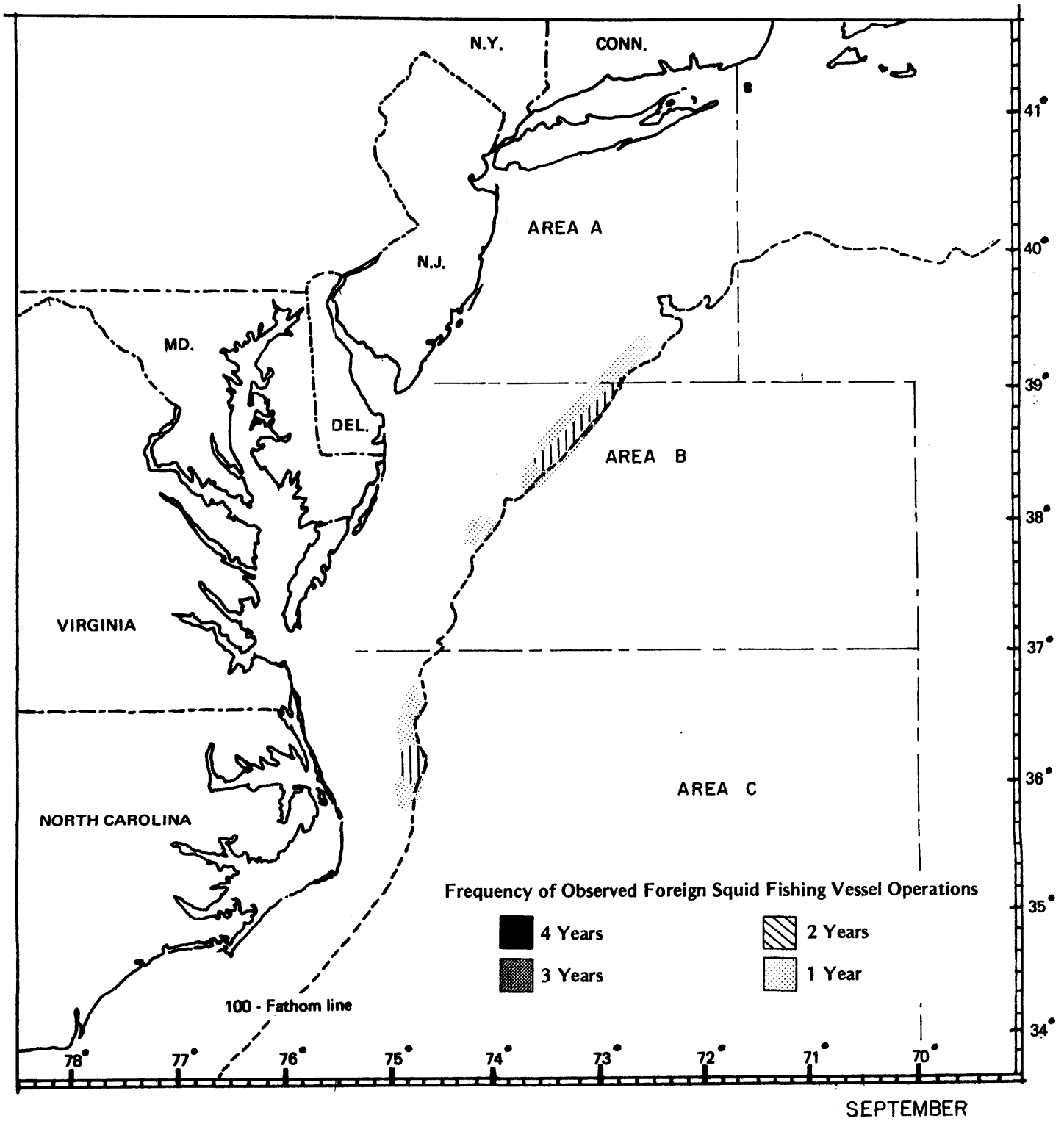


FIGURE 10

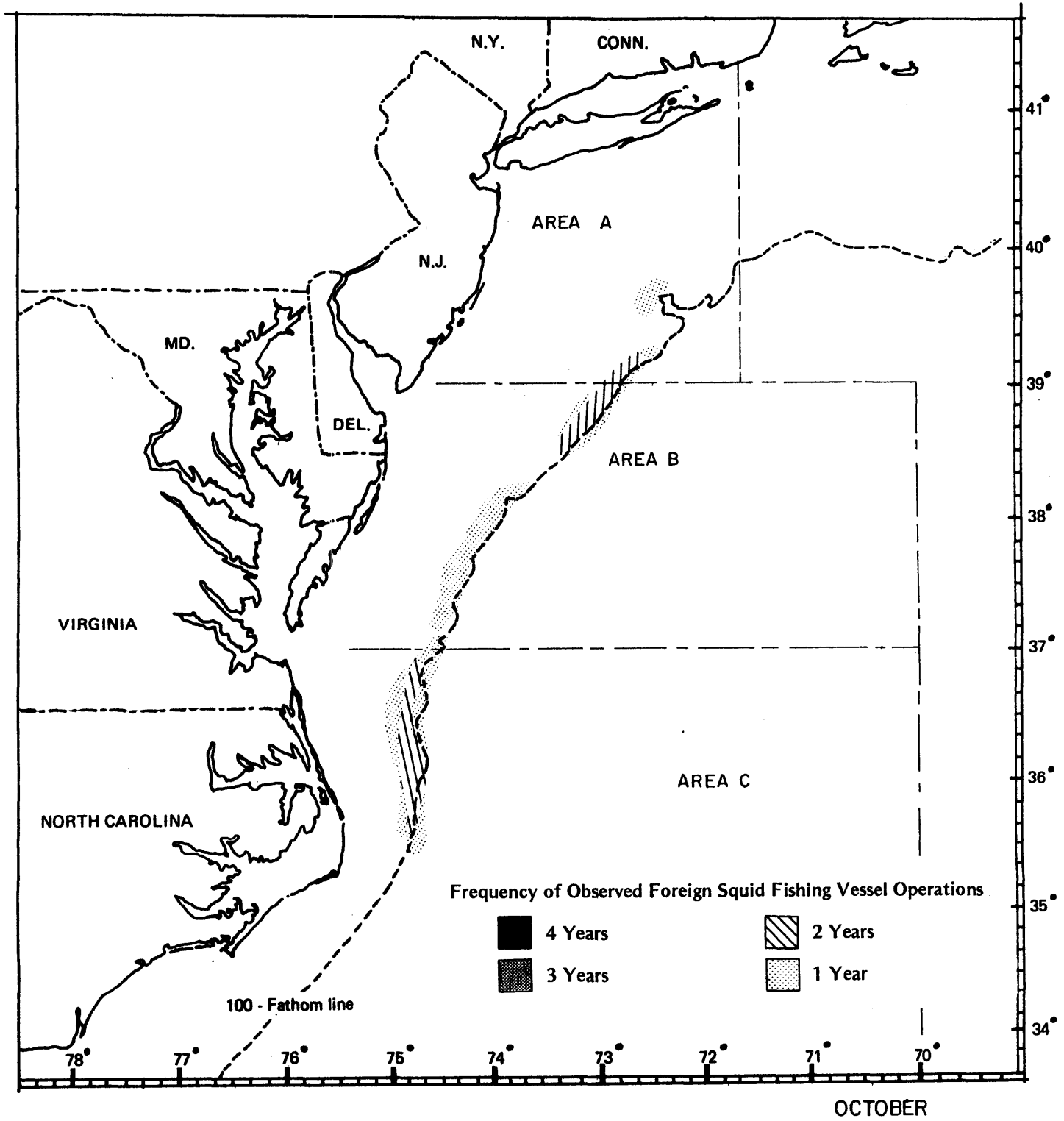


FIGURE 11

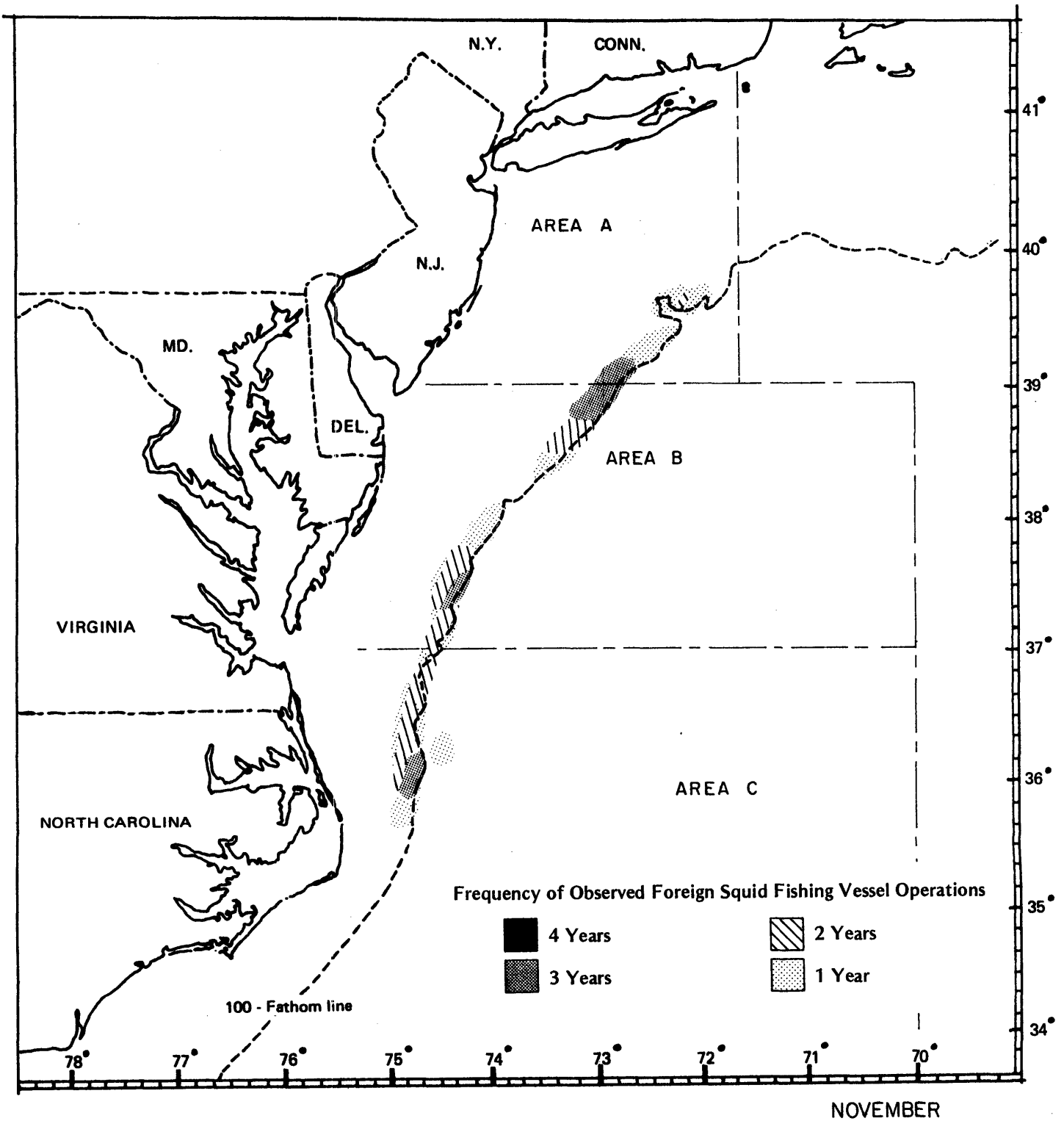


FIGURE 12

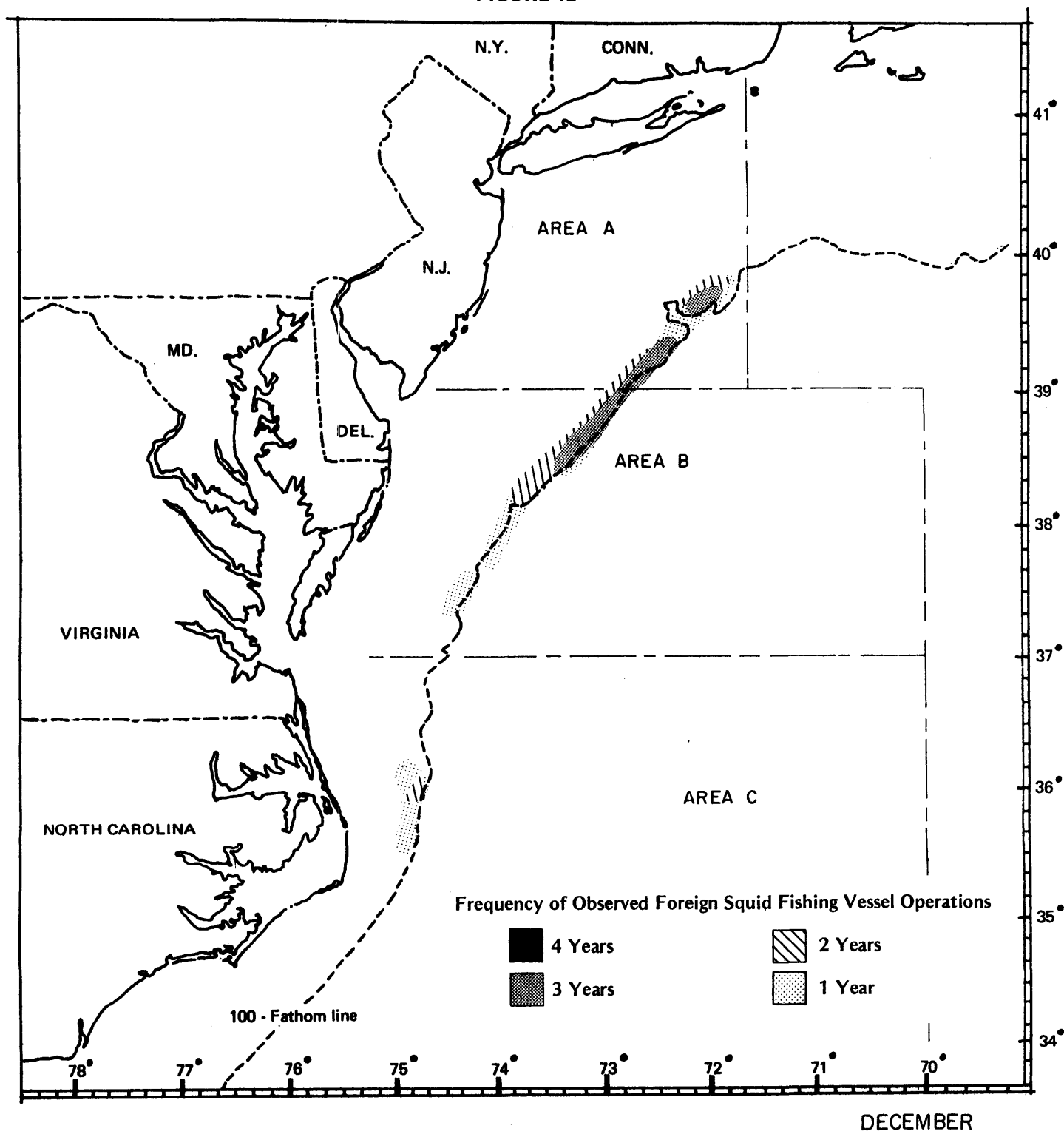




FIGURE 13

Average Monthly Foreign Catch of *Loligo pealei* from Areas A, B, and C between 1973-76 in Metric Tons (from ICNAF Stat. Bul. Vol. 22-26)

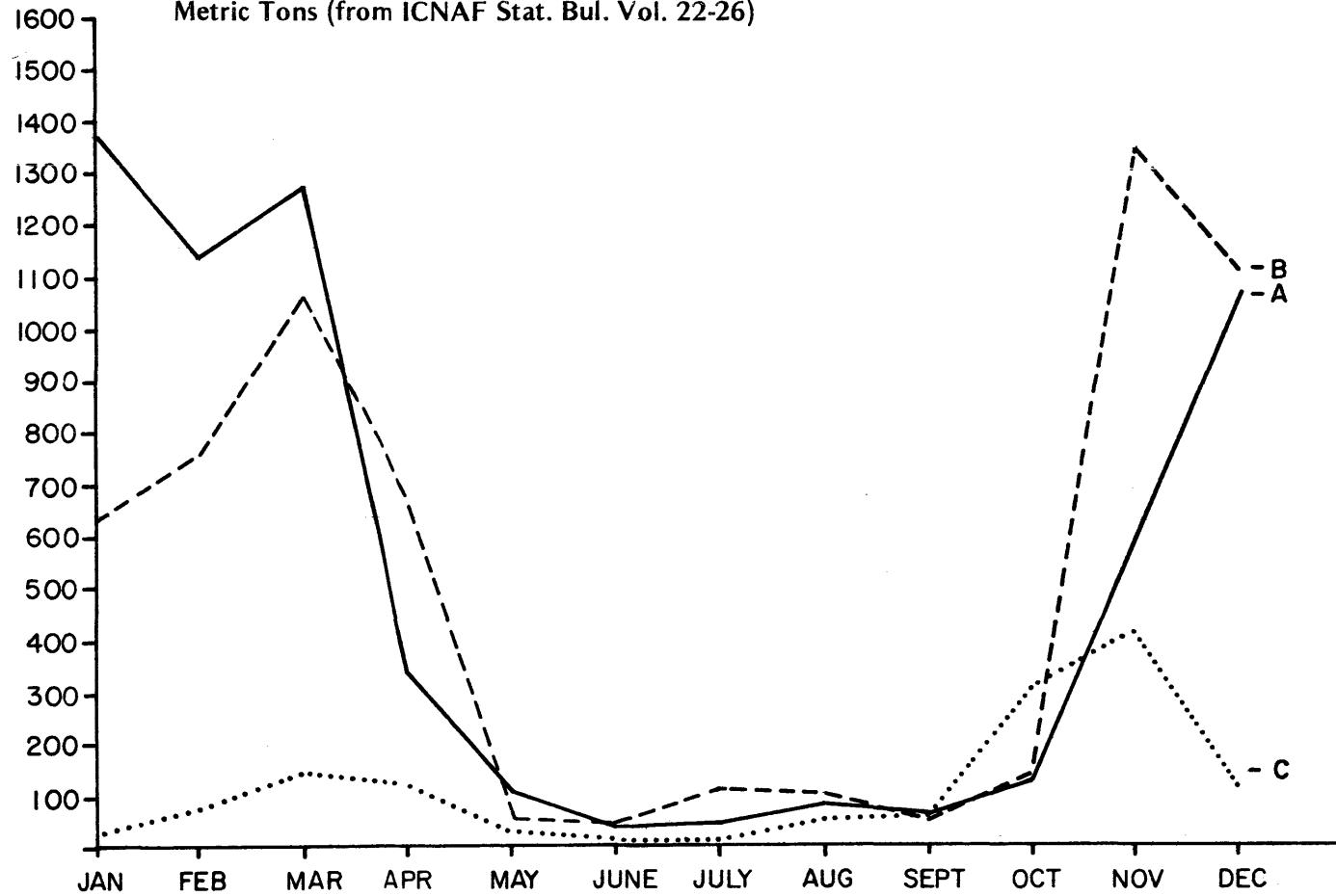


FIGURE 14

