

Not to be cited without  
permission of the authors<sup>1</sup>

DFO Atlantic Fisheries  
Research Document 93/17

Ne pas citer sans  
autorisation des auteurs<sup>1</sup>

MPO Document de recherche sur les pêches dans  
l'Atlantique 93/17

## **Sea Scallop (Placopecten magellanicus) Fishing Areas in the Bay of Fundy**

by

**E. Kenchington and M.J. Lundy  
Benthic Fisheries and Aquaculture Division  
Biological Sciences Branch  
Halifax Fisheries Research Laboratory  
Department of Fisheries and Oceans  
Scotia-Fundy Region  
P.O. Box 550  
Halifax, N.S.  
B3J 2S7**

<sup>1</sup>This series documents the scientific basis for the evaluation of fisheries resources in Atlantic Canada. As such, it addresses the issues of the day in the time frames required and the documents it contains are not intended as definitive statements on the subjects addressed but rather as progress reports on ongoing investigations.

Research documents are produced in the official language in which they are provided to the secretariat.

<sup>1</sup>La présente série documente les bases scientifiques des évaluations des ressources halieutiques sur la côte atlantique du Canada. Elle traite des problèmes courants selon les échéanciers dictés. Les documents qu'elle contient ne doivent pas être considérés comme des énoncés définitifs sur les sujets traités, mais plutôt comme des rapports d'étape sur les études en cours.

Les Documents de recherche sont publiés dans la langue officielle utilisée dans le manuscrit envoyé au secrétariat.

**ABSTRACT**

Recent developments in the management plan for the inshore scallop fishery have required a biologically-based division of the scallop beds in the Bay of Fundy into fishing areas. These fishing areas must define contiguous scallop beds that have been persistent through time. Four such areas have been defined: Grand Manan and surrounds, below Digby Neck and above latitude 43°40'N, the upper reaches of the Bay of Fundy, and the Bay of Fundy proper encompassing the traditional fishing grounds off Digby, N.S. and the sporadic fishing grounds off Cape Spencer, N.B.

**RÉSUMÉ**

Des éléments nouveaux du plan de gestion de la pêche côtière du pétoncle ont entraîné une division biologique des gisements de pétoncles de la baie de Fundy en zones de pêche. Celles-ci correspondent à des gisements de pétoncles contigus, qui se sont maintenus au fil des ans. Quatre zones de pêche ont ainsi été définies : Grand Manan et ses environs, le secteur se trouvant entre le Digby Neck et le parallèle de latitude 43° 40'N, la partie supérieure de la baie de Fundy et la baie de Fundy proprement dite, qui englobe les bancs de pêche traditionnels du large de Digby (N.-É.) et les bancs de pêche occasionnels du large du cap Spencer (N.-B.).

## INTRODUCTION

In February 1993 an Inshore Scallop Workshop was held in Halifax to discuss future management options for the inshore scallop fishery. As a result of these discussions a request was made for a demarcation of fishing areas in the Bay of Fundy. "Fishing areas" as defined at this workshop are contiguous scallop beds which may or may not represent self-sustaining stocks.

## METHODS

All available fishing locations extracted from fishing logbooks of the Bay of Fundy licensed vessels were plotted for each of the years 1990, 1991 and 1992. Log records prior to 1990 were not available on our database. In 1990 data were obtained from the 13 vessels complying with the log record procedures. This represents 14% of the Bay of Fundy active license holders. In 1991 data were obtained from 26 vessels representing 28% of this fleet. In 1992 this increased to approximately 48% representing 45 vessels.

## RESULTS AND DISCUSSION

In 1990 the Bay of Fundy fleet fished primarily on the traditional fishing grounds off Digby, N.S., in the upper reaches of the Bay of Fundy, and on the Cape Spencer grounds off Saint John, N.B. (Fig. 1). In 1991 the fleet also exploited the scallop beds in St. Mary's Bay, below Brier Island, and above Lurcher Shoal (Fig. 2). In 1992 effort was maintained in all of these areas (Fig. 3).

During this period the Bay of Fundy fleet did not exploit the scallop beds in the upper reaches of the Bay or surrounding Grand Manan to any extent. However these beds have supported local fisheries.

The fishing locations of the Bay of Fundy fleet have not changed from the historical pattern described by Stevenson (1933) (Figs. 4, 5). The scallop beds in the Bay of Fundy have been persistent since the early 1900's when data became available for this fishery. In particular the traditional fishing area off Digby, N.S. has sustained effort throughout this period. The fishing grounds at the approaches of the Bay of Fundy have been fished sporadically (Bourne 1964) and most recently were not fished extensively from 1987 through to 1991.

Four fishing areas within the Bay of Fundy are suggested : Grand Manan and surrounds, below Digby Neck and above latitude 43° 40'N, the upper reaches of the Bay of Fundy, and the Bay of Fundy proper. Figures 3 and 4 may be used in assigning geographic coordinates to these areas.

## REFERENCES

- Bourne, N. 1964. Scallops and the offshore fishery of the Maritimes. Fish. Res. Bd. Can. 145 1-60.
- Stevenson, J. A. 1933. The Canadian scallop. Its fishery, life-history and some environmental relationships. Fish. Res. Bd. Can., MS Rept. Biol. Sta. No. 373, 191pp.

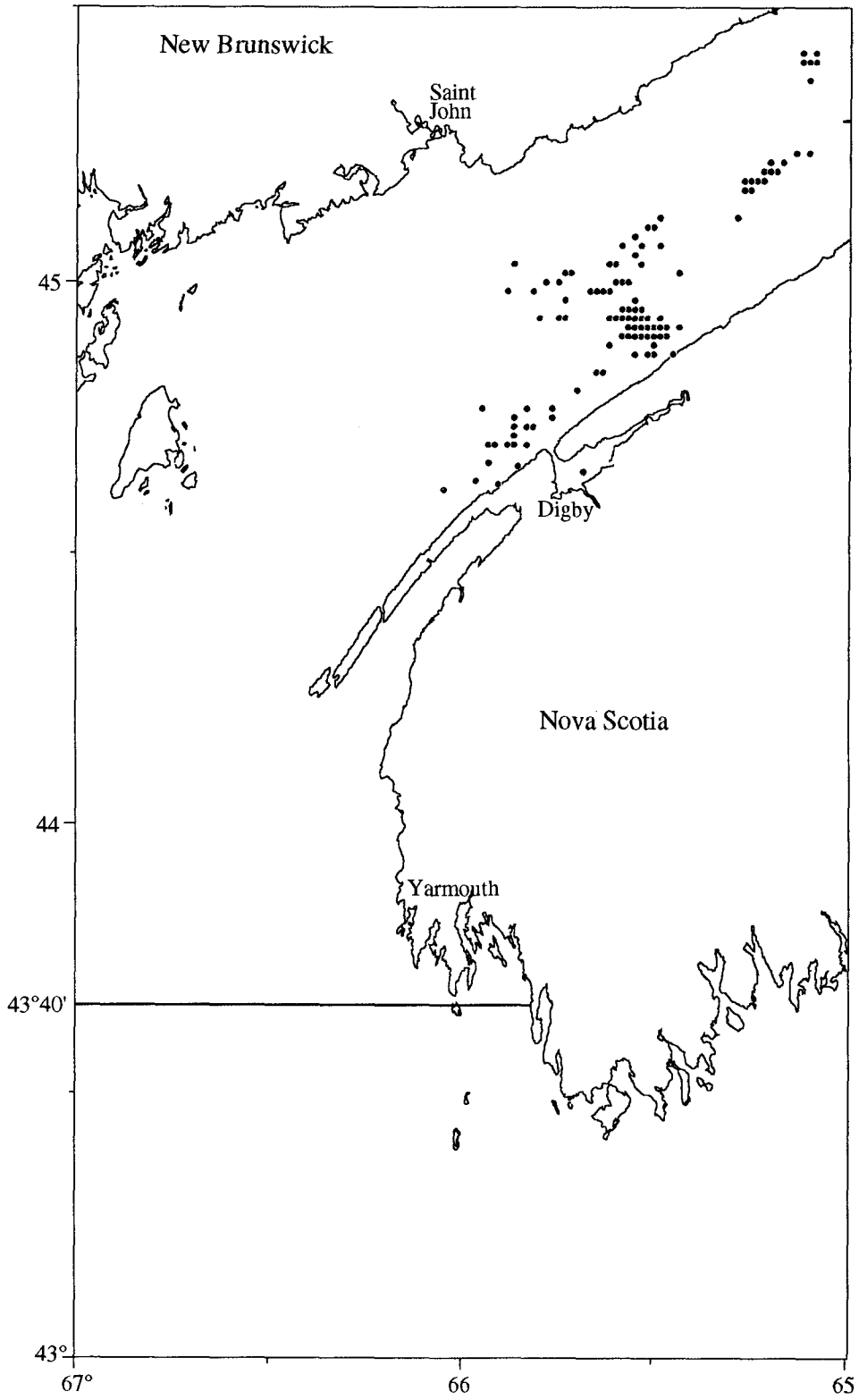


Fig. 1. Fishing locations in 1990 of the Bay of Fundy license holders as obtained from logbook records.

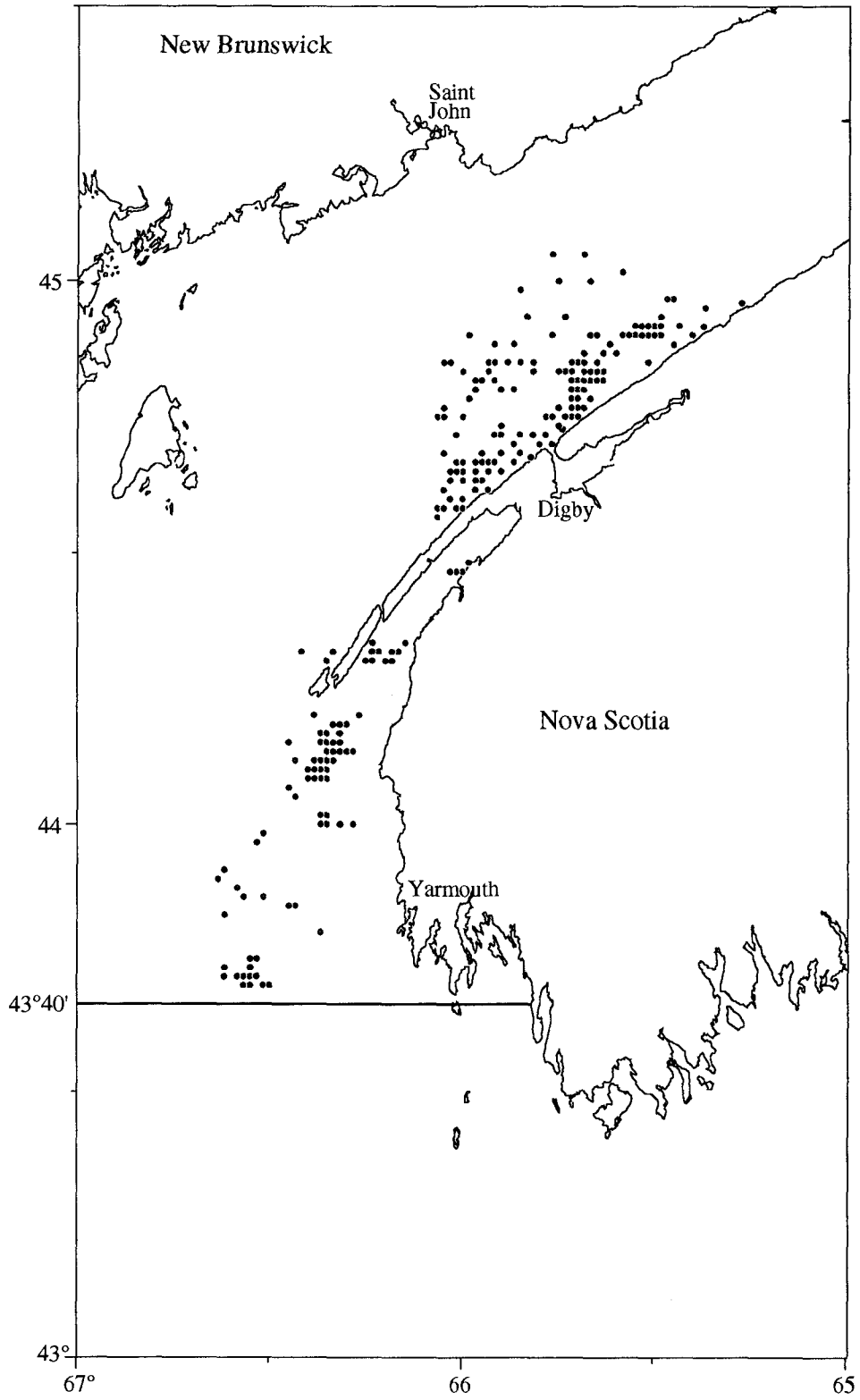


Fig. 2. Fishing locations in 1991 of the Bay of Fundy license holders as obtained from logbook records.

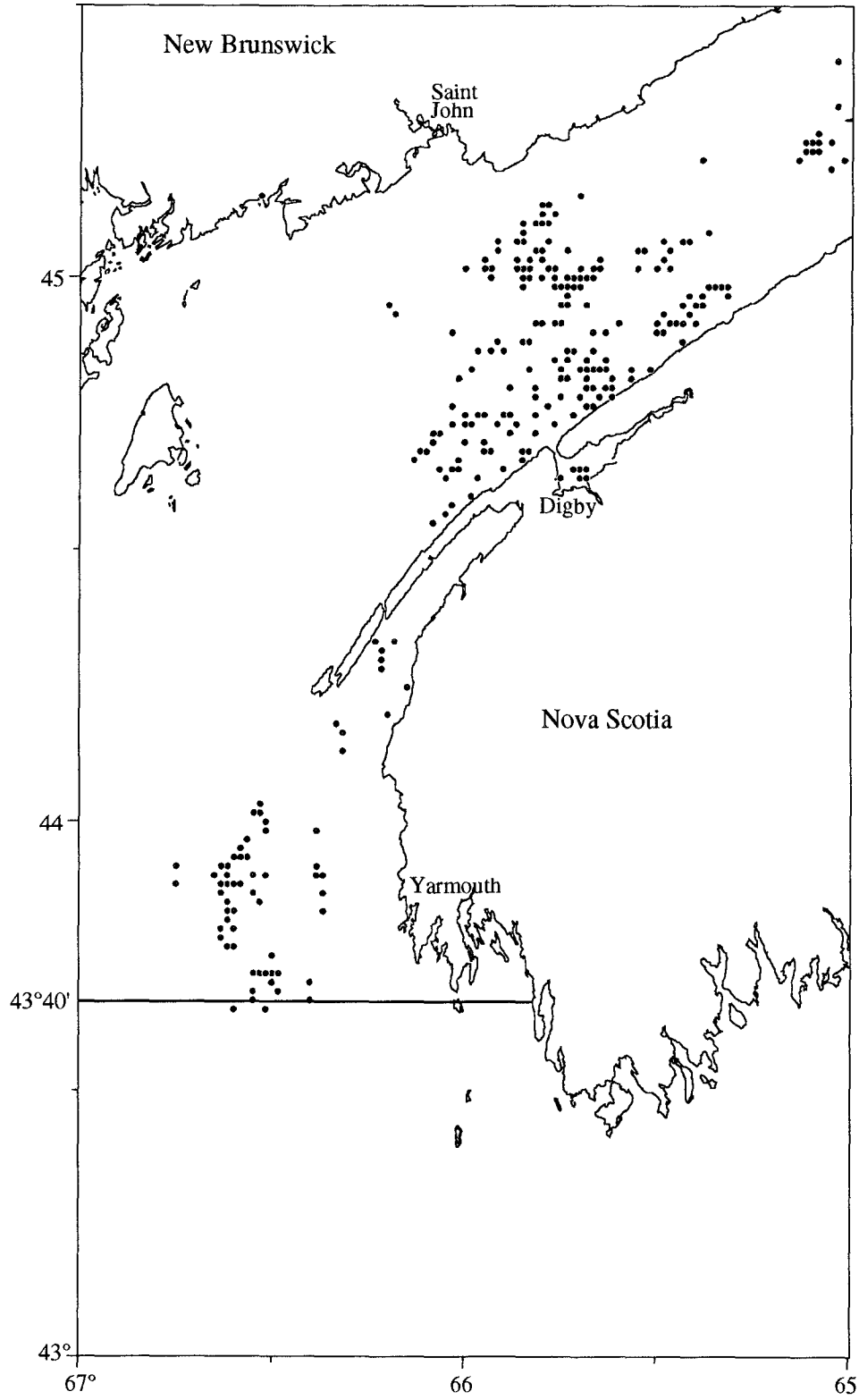


Fig. 3. Fishing locations in 1992 of the Bay of Fundy license holders as obtained from logbook records.

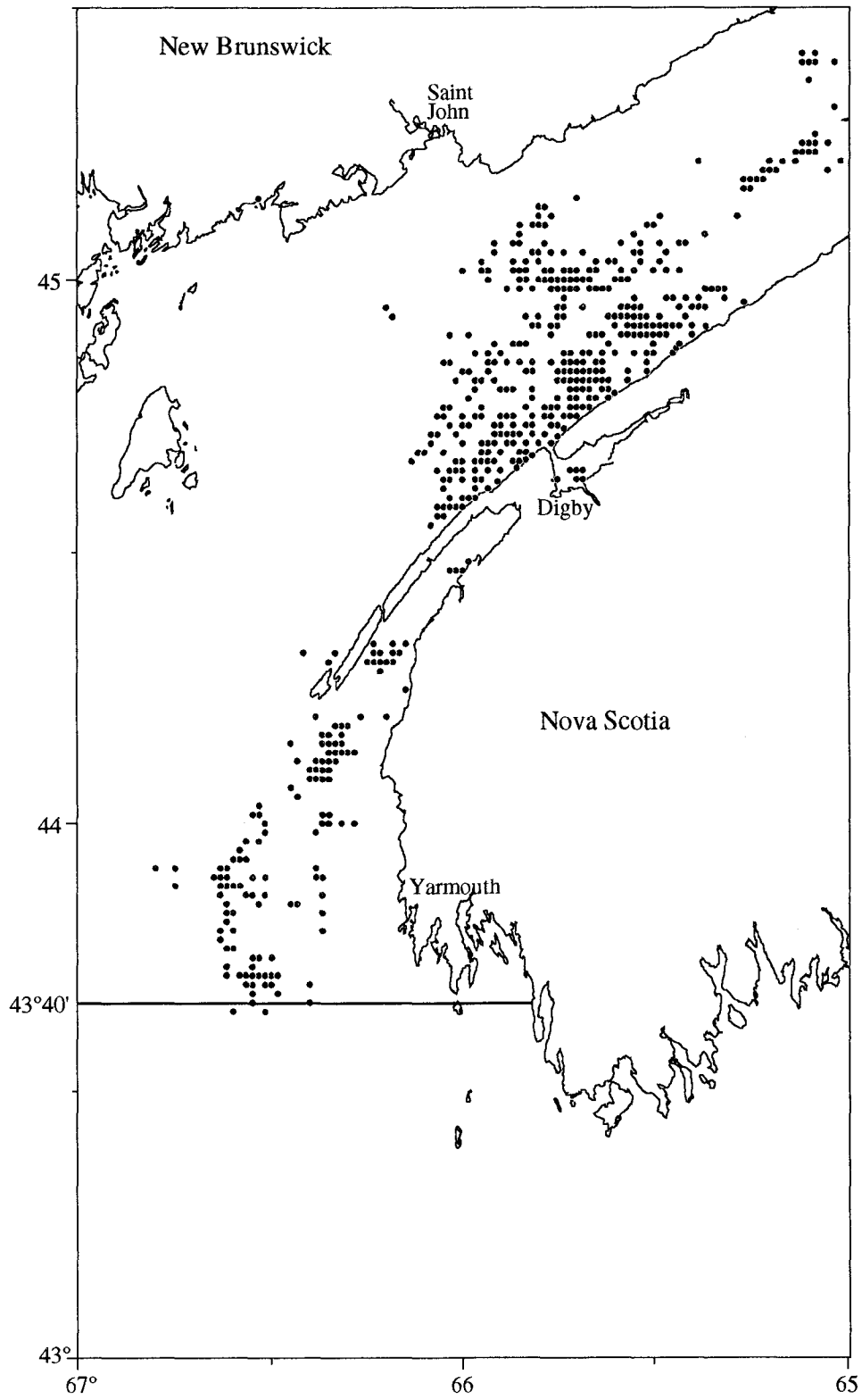


Fig. 4. Fishing locations during 1990-92 of the Bay of Fundy license holders as obtained from logbook records.

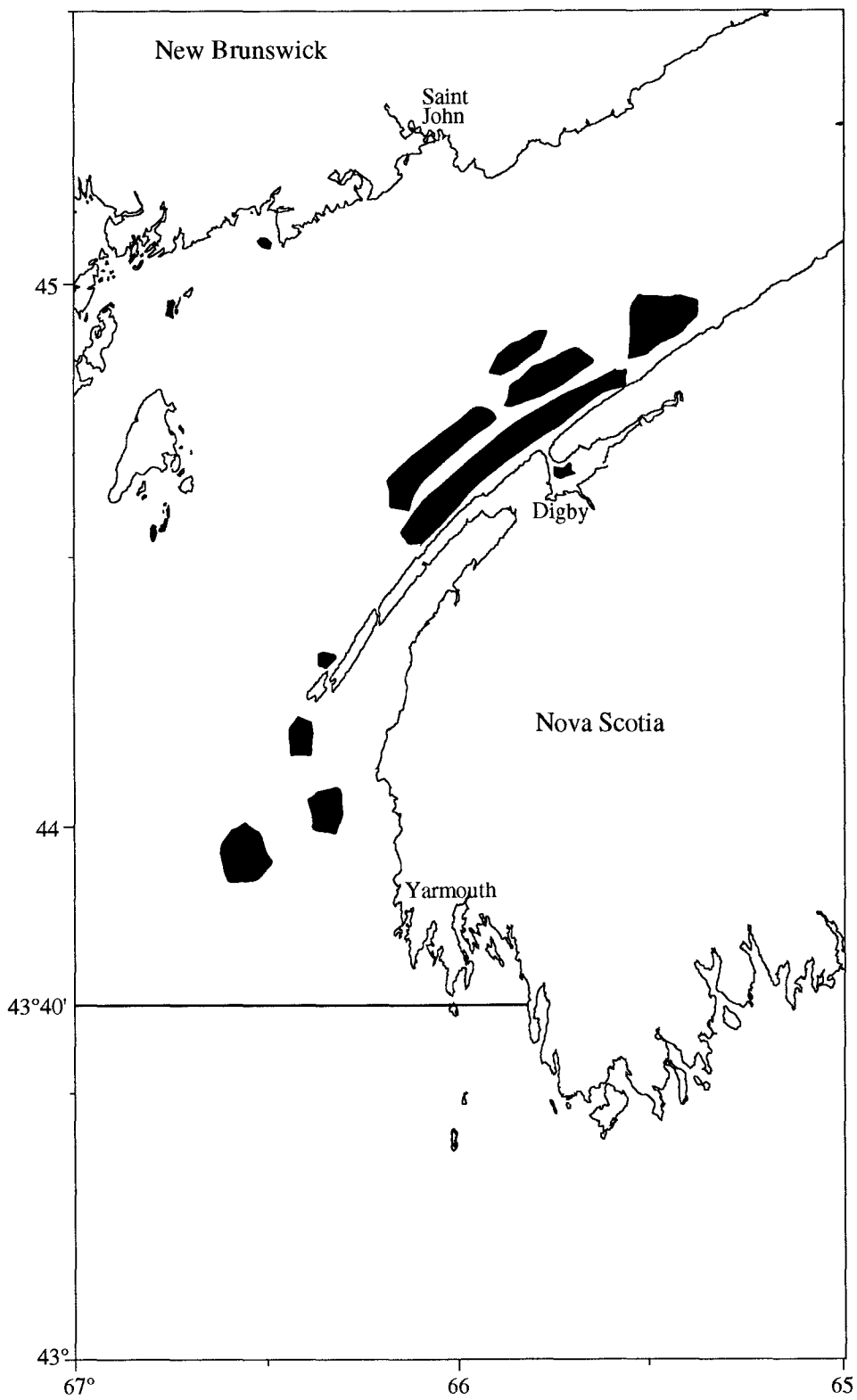


Fig. 5. Fishing locations compiled in 1931 for the Bay of Fundy by Stevenson (1933).