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Exploratory Fishing for Herring in NAFO Division 4T, Spring 1981

by

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Abstract

Exploratory fishing for herring was carried out in the 'edge' area of NAFO Division 4T by five purse seiners under contract with Fisheries and Oceans. A total of five nights of fishing occurred between April 25-30, 1981. On the fourth and fifth nights five additional searching vessels joined the fleet. The traditional 'edge' and the so-called new 'edge' areas were searched intensively for three nights. The fleet then broke into 2 parts, one searching the area north of P.E.I. while the second searched the waters around the Magdalen Islands and as far west as Orphan Bank. No herring were encountered by any vessel throughout the exploratory period.

Résumé

Une pêche d'exploration, en quête de hareng, a été pratiquée dans la région des Accores de la division 4T de l'OPANO par cinq senneurs affrétés par Pêches et Océans Canada. Il y eut au total cinq nuits de pêche entre les 25 et 30 avril 1981. A la quatrième et cinquième nuit, cinq autres senneurs se joignirent à la flottille. La région des Accores traditionnelles et la soi-disant Accore nouvelle ont été explorées intensivement pendant trois nuits. La flottille s'est ensuite divisée en deux, une partie explorant la région du nord de l'Ile-du-Prince-Edouard et l'autre les eaux entourant les îles de la Madeleine, vers l'ouest jusqu'au banc de l'Orphelin. Pendant toute la période d'exploration, aucun navire ne détecta de hareng.

## Introduction

The March 1981 CAFSAC Advisory Document 81/4 indicated that herring biomass in the southern Gulf of St. Lawrence (4T) was very low. It was recommended that the seasonal quota for the 'edge' fishery in 1981 be reduced to the lowest practical level. As a result the 1981 'edge' fishery TAC was set at 0.

In order to better assess the status of the Gulf herring stock however, it was subsequently decided that a limited 'edge' fishery should be pursued in the spring of 1981. As a result five purse seiners were permitted to fish the 'edge' under contract with Fisheries and Oceans.

The contract period was from April 14 to April 30, 1981. The main points of the contract are as follows:

- An observer from the Maritime Observer Program would be on board each vessel at all times.
- A maximum of seven nights fishing were to be carried out. A night's fishing was to consist of a minimum of 10 hours steaming, searching and fishing.
- A maximum of 300 tons of herring could be caught by any one vessel. The five vessels involved were, Apollo III, Lady Noreen, Ocean Leader, Rali II and Nicole Daniel.

## The Fishery

The observers were briefed and ready for deployment on April 14. However, at that time the vessels were having success fishing in the Chedabucto Bay area (4Wa). Because of this, a generally bad weather outlook, and the approaching Easter weekend, the vessels decided not to commence searching on the 'edge' immediately. The observers travelled to Port Hastings, N.S. to board the participating seiners on April 21. Fishing was still being carried out in 4Wa however, and it was not until April 24 that the vessels took observers aboard and steamed into 4T.

## Chronology of events once the vessels entered 4T

April 24 - The fleet cleared Canso Locks at 12:00 ADT and steamed toward Cheticamp, N.S. Two vessels had their fish finding equipment switched on and searched for part of the trip. Upon reaching Cheticamp the weather forecast was not favorable and the vessels entered the harbour to spend the night. The total searching time by the two vessels was 8.5 hours and this did not meet the requirements for a night's fishing (Table 1).

April 25 - Fisheries and Oceans wanted to ensure that both the old and new 'edge' areas were searched for herring. A boundary line along latitude 47°10' which ran just south of St. Paul's Island, was instituted. Three vessels were to fish north of the line on the old 'edge' and two south in the area between Cape North and Cheticamp (new 'edge'). It quickly became apparent however, that upon

leaving Cheticamp all vessels would begin searching in the new 'edge' and could then proceed northward to cover the old 'edge'. It was decided, therefore, that all the vessels could fish on both sides of the 47°10' line provided however that they also search the old 'edge' as outlined above.

The seiners left Cheticamp and searched simultaneously northeastward along the Cape Breton Channel (Figure 1). One vessel remained south of the 47°10' line and searched back toward Cheticamp. The four remaining vessels proceeded along the traditional 'edge'. All five vessels returned to Cheticamp on the morning of April 26.

Searching and steaming times are given in Table 1 for each vessel. A total of 51.5 hours of searching was carried out on the 25th. No herring were encountered. The vessel skippers were in contact with the local inshore fishermen who operated small draggers in the area and these fishermen had not seen signs of herring in the area either.

April 26 - The fishing pattern on this night was much the same as the previous night (Figure 2). Again no fish were encountered by the seiners and there was no reports of herring from the inshore fishermen. A total of 75.5 hours of searching occurred during the night of the 26th. All vessels remained at sea during the following day, three vessels drifted in the traditional 'edge' area while two stayed off Cheticamp. The weather was good and winds light.

April 27 - The fishing pattern on this night was slightly different than on the previous night (Figure 3). The three vessels that remained in the traditional 'edge' area searched southeast along the 'edge' then southwest to Cheticamp. The two other vessels searched southwest from Cheticamp along the Cape Breton coast as far as Port Hood and then returned to Cheticamp. The weather was good with light winds. As before no herring were encountered and therefore nothing was caught. Searching time on this night was about 53 hours.

April 28 - After three unsuccessful nights of fishing the old and new 'edge' areas all five seiner captains expressed an interest in searching around the Magdalen Islands and the northern perimeter of P.E.I. since these areas had been fished before with some success. The likelihood of catching herring on the 'edge' was remote in the opinion of the project officer. Consultation with Dr. W. Stobo of Marine Fish Division and Mr. P. Comeau of Conservation and Protection led to a plan which would see two seiners fish south of 47°10' on April 28 and then fish north of P.E.I. the following night. The remaining three seiners would fish north of 47°10' on April 28 and then contour the Magdalen Islands on the night of April 29. The closure lines around the Magdalen Islands were to be respected as was the closure line between East Point, P.E.I. and Sight Point, Cape Breton.

The fleet was joined by five other seiners from the Gulf Seiners Association which were to assist in the searching operations only. The vessels were Gemini I, Secord, Green Waters, Narroi and Nadine. All five searching vessels departed Mulgrave in the late morning of April 28 and were expected to arrive off Cheticamp by early evening. The plan called for five pairs (1 searcher, 1 catcher) to operate simultaneously in the above noted areas. However, due to the late arrival of the additional vessels this was not

possible. But by April 29, two searchers had joined the northern contingent and three joined the southern contingent.

The area searched on the night of April 28 is shown in Figure 4. The northern group searched along the 'edge' areas and the second group searched in a westerly direction off northern P.E.I. A total of 61 hours of searching was carried out. As before no fish were encountered.

April 29 - Fishing operations were carried out continuously through this day. The fleet had broken into three groups (Figure 5). One group continued along the P.E.I. coast and then on to Miscou Island and to the home ports of Caraquet and Shippegan. The second group searched in a clockwise fashion around the Magdalen Islands. The third group searched along the edge of the Laurentian Channel to Orphan Bank and the southwest to Miscou Island. On this final day of operations no fish were encountered. Total searching time on the period April 29-30 by the original five vessels was 50.25 hours.

### Comments

It was the opinion of the observers and the project officer that this exploratory fishing was conducted in a thorough manner. The seiner captains were genuinely interested in finding fish on the edge for obvious reasons. The observers were welcome on board the vessel; food and accommodations were excellent. The captains indicated a willingness to carry Fisheries observers at any time.

The captains felt that due to the early departure of ice from the Gulf this year that the herring had already left the edge area by the time this exploratory fishing got underway. They felt that a suitable start up date would have been the first week of April. However, it should be noted that the contract was in place on April 14 but the captains were not willing to begin fishing in 4T until April 24. This was because at that time a lucrative fishery was being prosecuted in Chedabucto Bay.

One captain expressed the opinion that a similar survey would be welcomed this fall and should also include a tagging program.

A total of 299.5 hours of researching time was carried out by the contracted seiners. In the last 2 days of the survey 5 additional vessels joined the fleet. During the period no herring were sighted by any vessel.

Table 1. Searching and steaming times of vessels involved in the 1981 spring 'edge' fishery.

	April 24		April 25		April 26		April 27		April 28		April 29	
	Search	Steam	Search	Steam	Search	Steam	Search	Steam	Search	Steam	Search	Steam
Apollo III	4.25	-	12.50	4.25	10.50	1.00	9.25	2.50	14.00	0	14.00	6.00
Nicole Daniel	-	-	10.50	1.50	13.25	0.50	11.50	1.00	12.00	1.00	5.00	5.75
Lady Noreen	4.25	-	8.00	8.75	21.75	1.25	11.00	0.75	13.00	0	12.00	10.25
Ocean Leader	-	-	8.50	8.75	10.00	1.25	14.00	1.00	12.00	1.00	9.25	1.00
Rali II			12.00	6.00	20.00	0	7.00	0	10.00	2.50	10.00	8.50
TOTAL	8.50		51.50	29.25	75.50	4.00	52.75	5.25	61.00	4.50	50.25	31.50

51



Figure 1. Searching patterns of purse seiners on the nights of April 25, 1981.

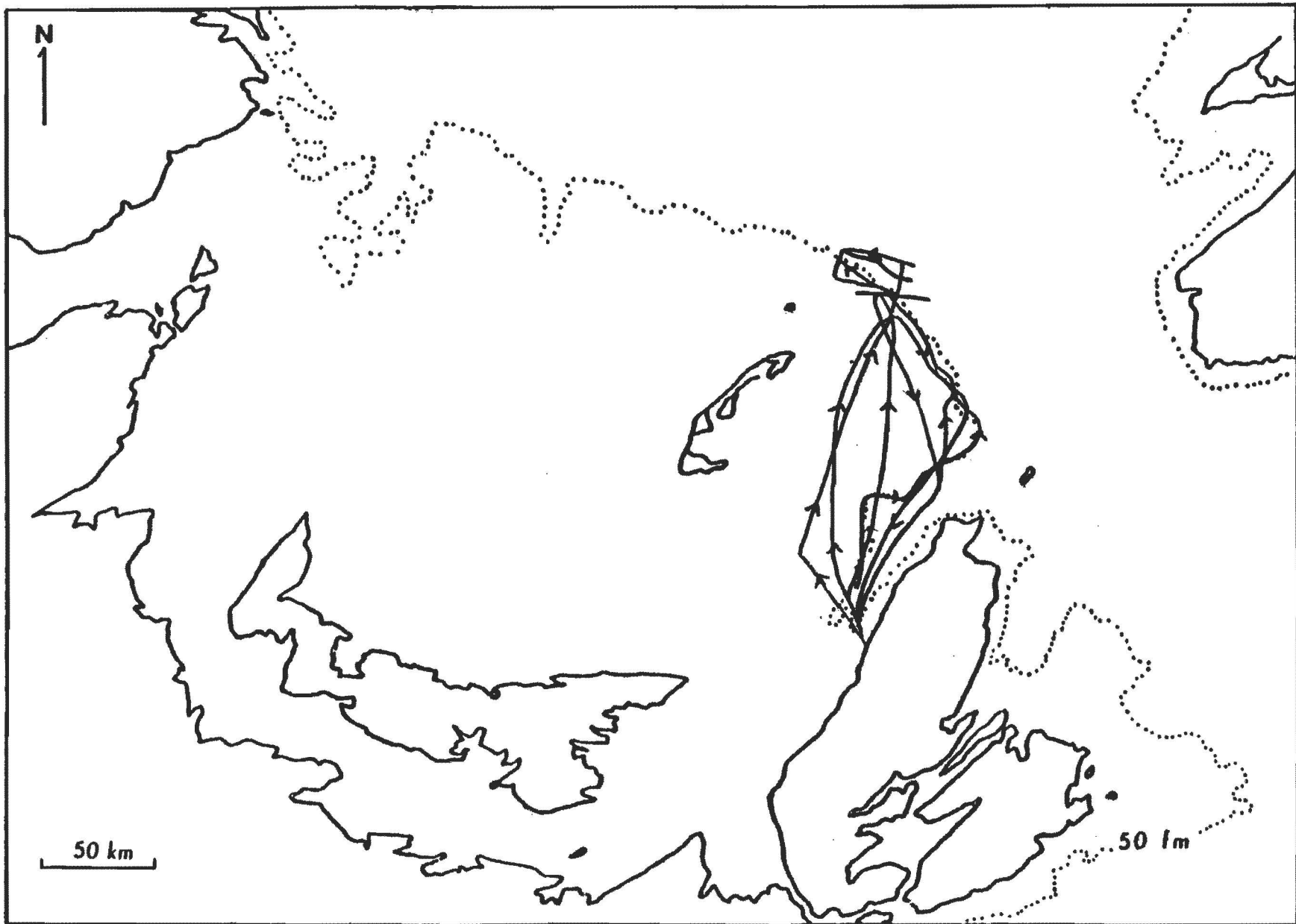


Figure 2. Searching patterns of purse seiners on the night of April 26, 1981.



Figure 3. Searching patterns of purse seiners on the night of April 27, 1981.



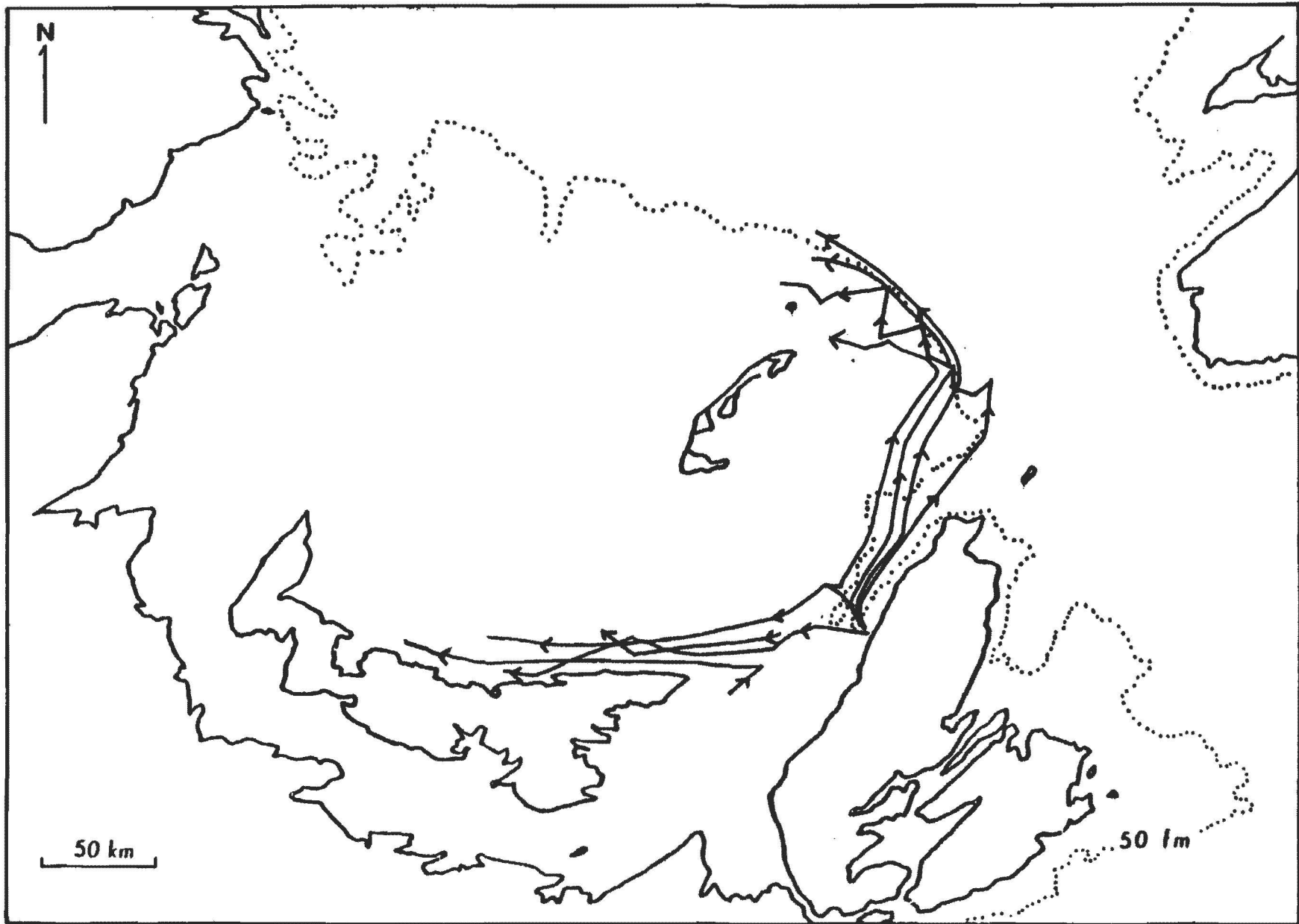


Figure 4. Searching patterns of purse seiners on the night of April 28, 1981.

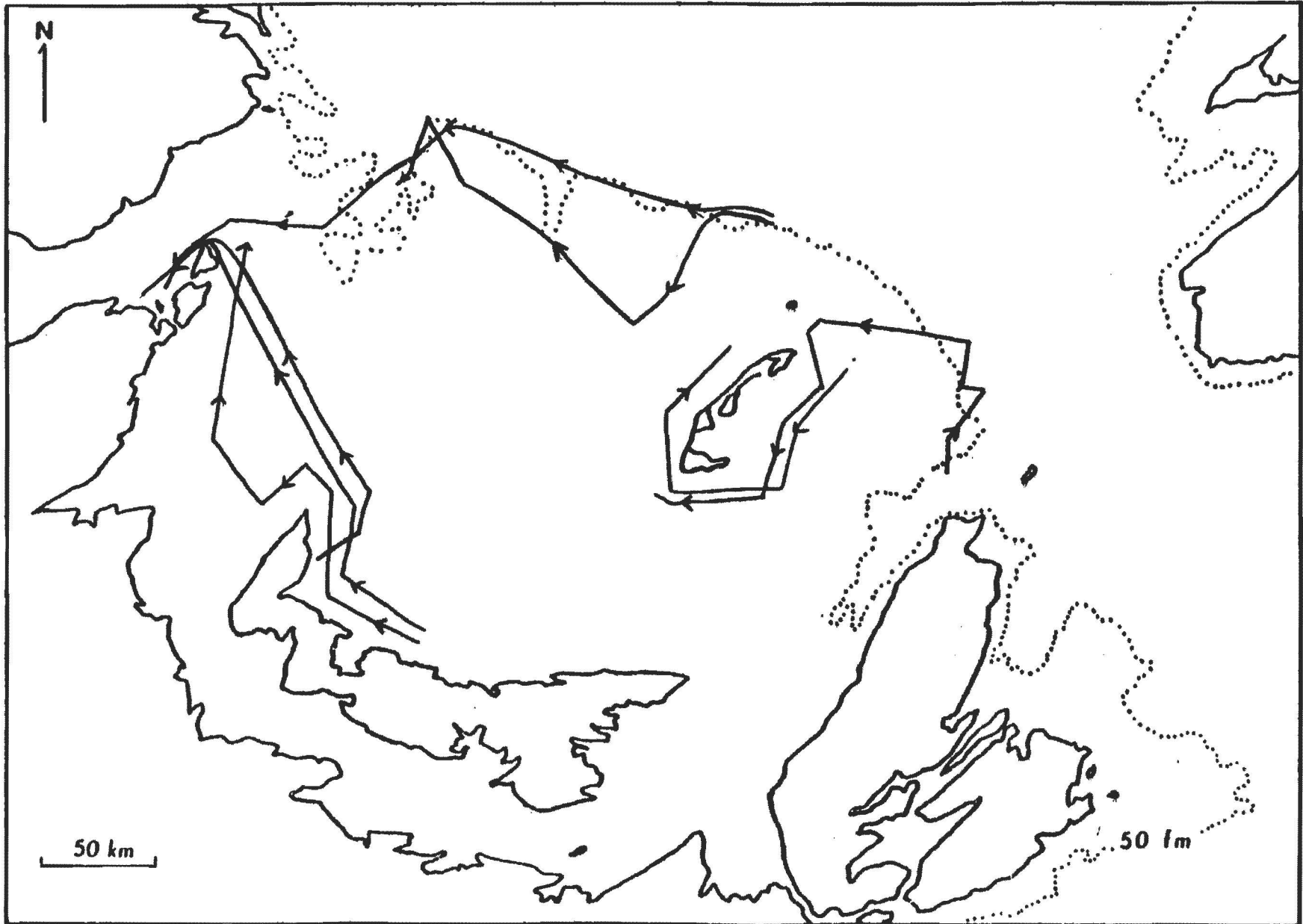


Figure 5. Searching patterns of purse seiners on the night of April 29, 1981.