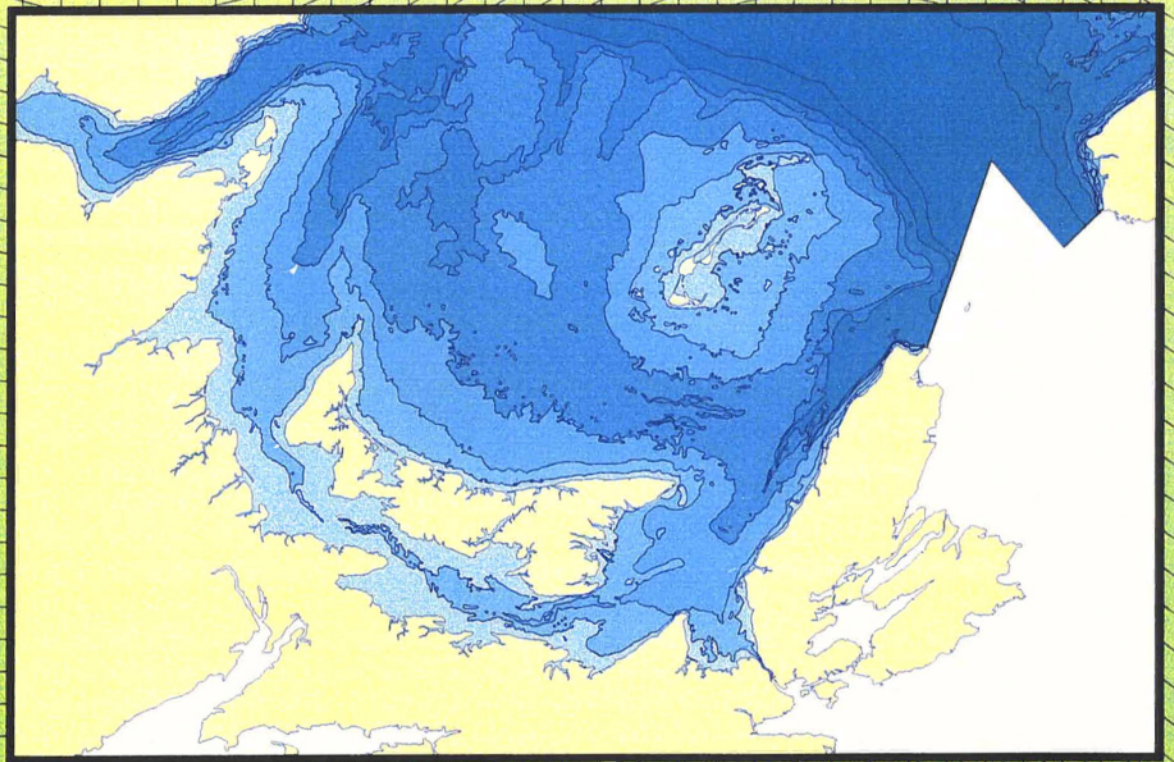


Resource Mapping Series

# Traditional Fisheries Knowledge

For the Southern Gulf of St. Lawrence



A Provisional Atlas

# **Resource Mapping Series**

## **Traditional Fisheries Knowledge for the Southern Gulf of St. Lawrence**

Coordinator, DFO: John A. Legault,  
Oceans Act Coordination Office, Moncton, NB

Data Collection, Compilation & Design by:  
J. Lee MacNeill & Associates, Amherst, NS

### **Sources:**

Resource Information: Local Fishermen NS, NB and PEI 1996-97

Hydrographic Information: CHS/NDI

Terrestrial Information: NTS/DOE

### **Funding:**

Department of Fisheries & Oceans - Habitat Action Plan

Human Resource Development Canada - Pictou County, NS

Human Resource Development Canada - Antigonish County, NS

Human Resource Development Canada - Inverness County, NS

## **Provisional Atlas**

The nature of the information presented in these pages is very dynamic and changing. It was not the intention of this project to produce a "coffee table" document. This is to be a working tool to assist in the development of integrated coastal zone management plans, resource management plans, tourism, alternative resource use, conservation and protection - whatever initiatives that may call for a knowledge of the fisheries resources in an area.

The provisional nature of this atlas is that it is never final. Changes, updates, and revisions are encouraged and we ask that any changes are verifiable. All opinions are welcome. Please send all comments and changes to Mr. John A. Legault at the Department of Fisheries and Oceans in Moncton, NB. (Tel.: (506) 851-6221; Fax : (506) 851-6579; E-mail: Legaultj@mar.dfo-mpo.gc.ca).

Individual thematic maps can be custom-made (ex. lobster and scallop) and provided at the appropriate scale for planning purposes at production cost.

# Project Team

## **Project Manager:**

J. Lee MacNeill

## **Field Managers:**

Terry Kennedy, NB  
Don Bronson, NS  
Colin MacNeill, NS  
Graham MacKay, PEI

## **Technical Support:**

Ross Burke

## **DFO Personnel:**

Charles Cormier  
Victor Ferguson  
Conrad Legere  
Dave MacEwen  
Bob MacInnis  
Sean MacLean  
Kent MacRae  
Gerard Martin

## **Community Personnel:**

Georgina Bishop  
Richard Cormier  
Grace Cummings  
Marcy Elliott  
Brenda Fitzgerald  
Evelina Gillis  
Sarah Poirier  
Pierette Roach  
Kelly Snook  
Linda Sutherland  
Jeff Turnbull

## **Acknowledgments**

Thanks to all the fishermen of the Southern Gulf who helped to make this project a reality. All of the information contained within these pages is formulated from face-to-face interviews with the fishermen who work these waters. We wish to extend a special acknowledgement to Monique Aucoin and Leon LeBlanc (Cape Le Moine Development Association), and Bob Christie (ACAP - Pictou) for helping to coordinate this project in their area. In addition, thanks to Cecil Rankin and John MacInnis from NS Fisheries and Eric Theriault from Environment Canada.

### Rationale for the Approach

The policy for the Management of Fish Habitat that has been used by the Habitat Management Division and the strategy that has been identified as the most proactive has been that dealing with the Resource Planning and Management. With this in mind, it has long been the approach of the Planning and Inventory unit that in order to manage fish habitat from a fisheries perspective, it is important to identify that "asset". For 15 years, the planning and inventory unit has advocated the use of mapping and the GIS technology as an important tool in this regard.

### Methodology

The habitat, fisheries, fish distribution and land use information was initially collected through a review of existing literature, scientific reports, data reports, consultant reports, etc., available from the Federal, Provincial and municipal departments, private organizations and individuals. From these sources, data was extracted on the initial location of fisheries' resources and the habitat on which they depend, land use practices and habitat impacting activities.

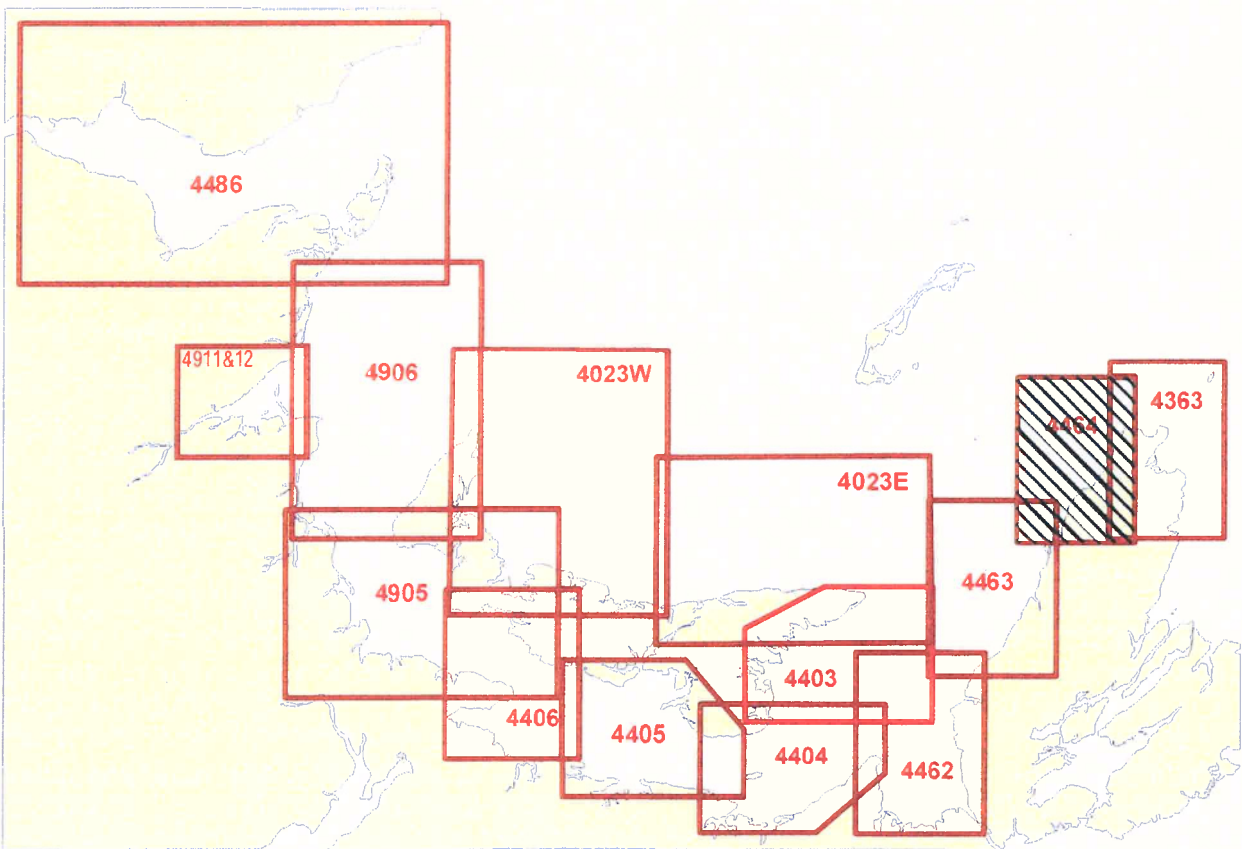
With direction and consultation with the Habitat Management Division, a Project Coordinator was hired to put into place a procedure to acquire the information for the mapping project. Regional coordinators were put into place for each province. Community-based data collectors and Seasonal Fisheries Officers were also brought into the team.

The Data collectors and Fishery Officers received training in interview and mapping techniques and interviewed individuals, fishermen, interest groups, representatives from municipalities and local industry as well as officials from federal and provincial departments throughout the former Gulf Region. The objective of the interviews was to gain information on the locations of fisheries' resources and their habitats (if they could be identified), the local fishing activities, and the human activities impacting fish habitat and fisheries resources. Relationships with the fishing community were greatly enhanced using this strategy as the former regulatory agents were now viewed as DFO staff helping the fishers to manage their resources.

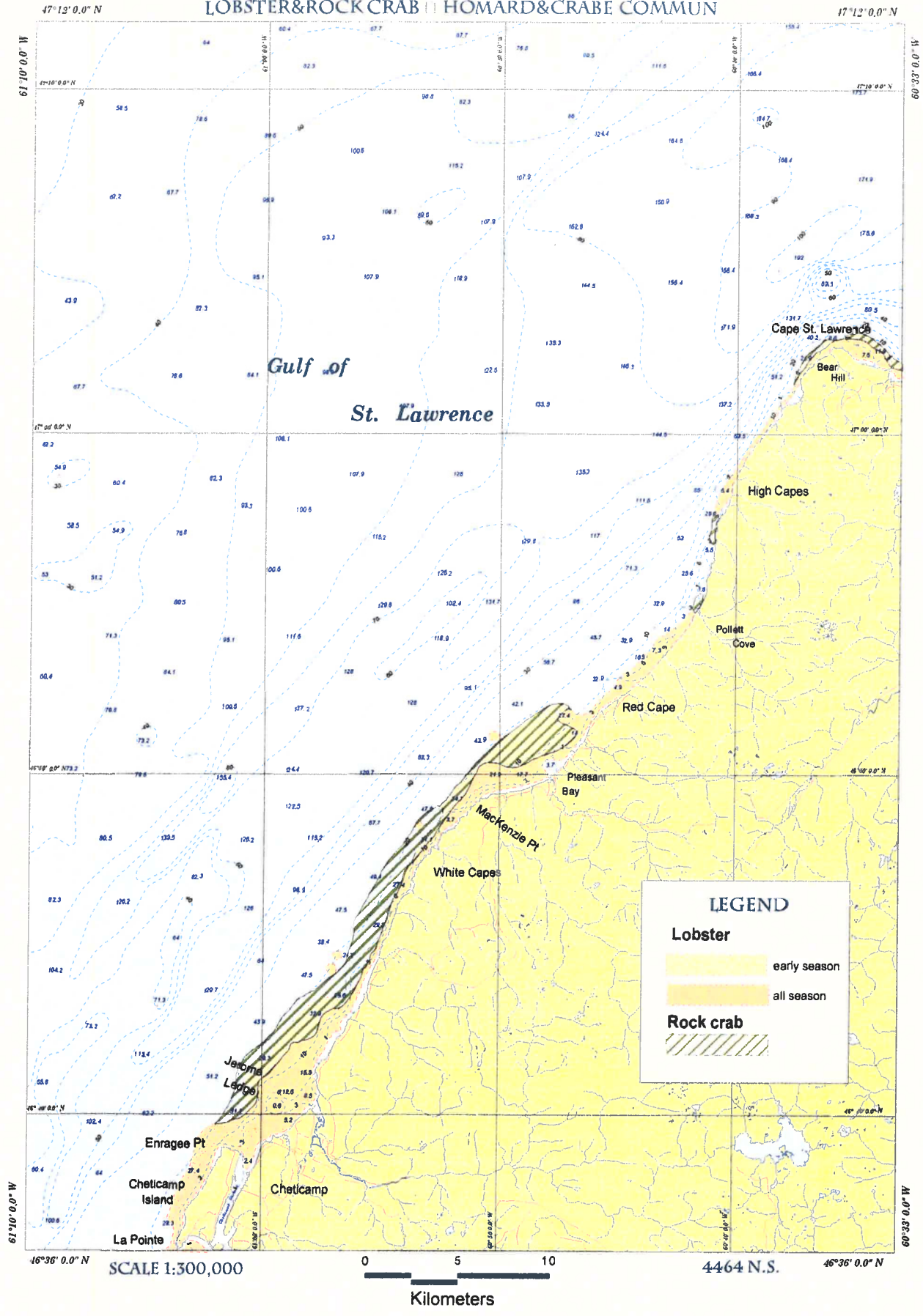
The data and information was vetted through a process of verification with scientists, the fishers themselves, the local community and industry representatives, and government officials. This was done by a series of open houses displaying the rough compilation of information and data on actual charts and maps for review and comments. The maps were then compiled into manuscripts ready for digitizing into MapInfo. The data was then incorporated into a habitat related data base.

The data was compiled using the traditional cartographic manuscript techniques and digitized upon completion of the manuscripts. It was decided that the data and maps would be prepared for publication and distribution in a digital format and therefore be collected accordingly to facilitate manipulations, corrections and production. The selection of the software platform - MapInfo - was based on the review of available desktop mapping software made by Environment Canada. Thus all the data that was collected was digitized into MapInfo.

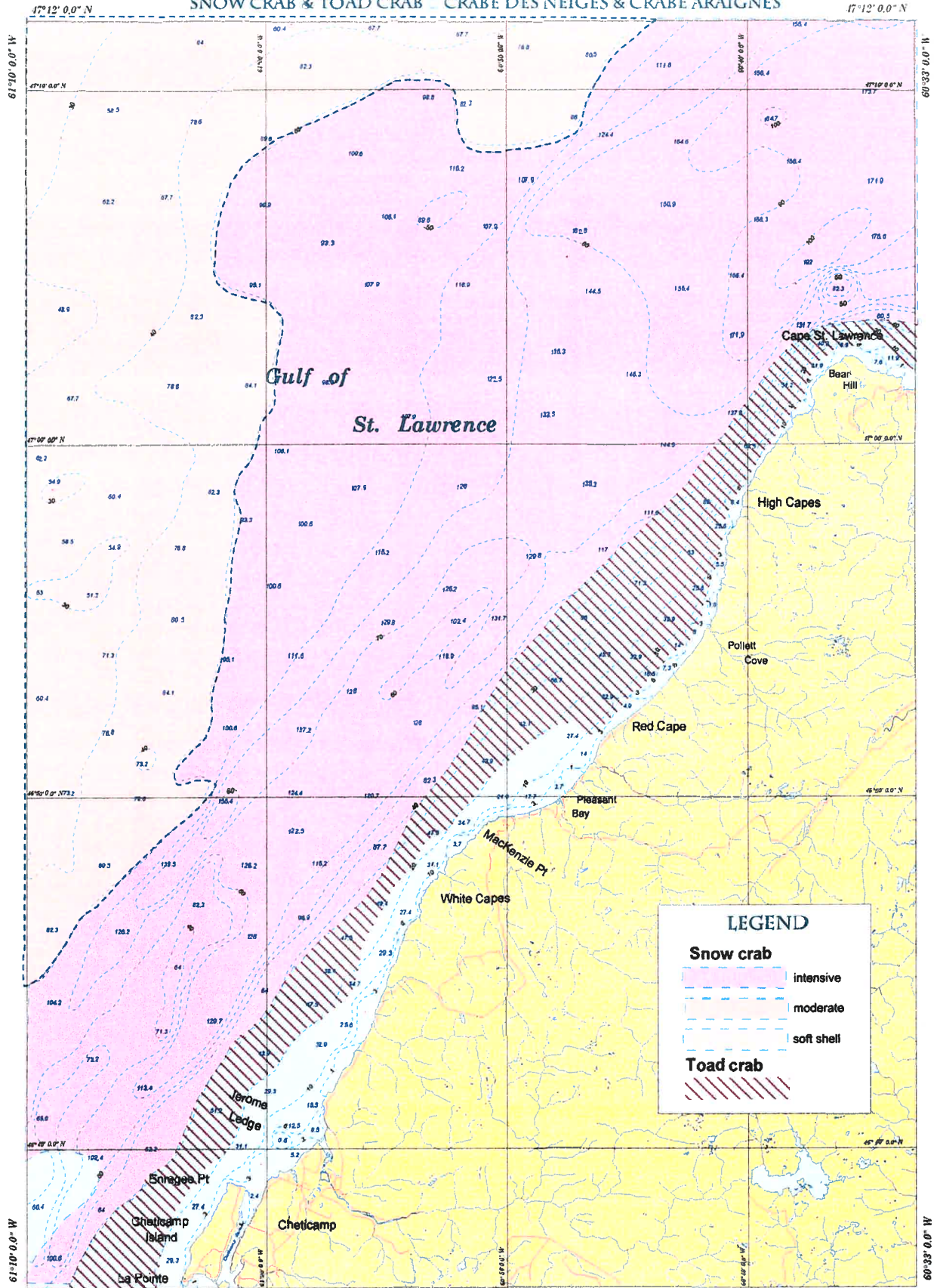
The areas of interest comprise the north and eastern shore of New Brunswick, all of Prince Edward Island and the Gulf Shore of Nova Scotia.



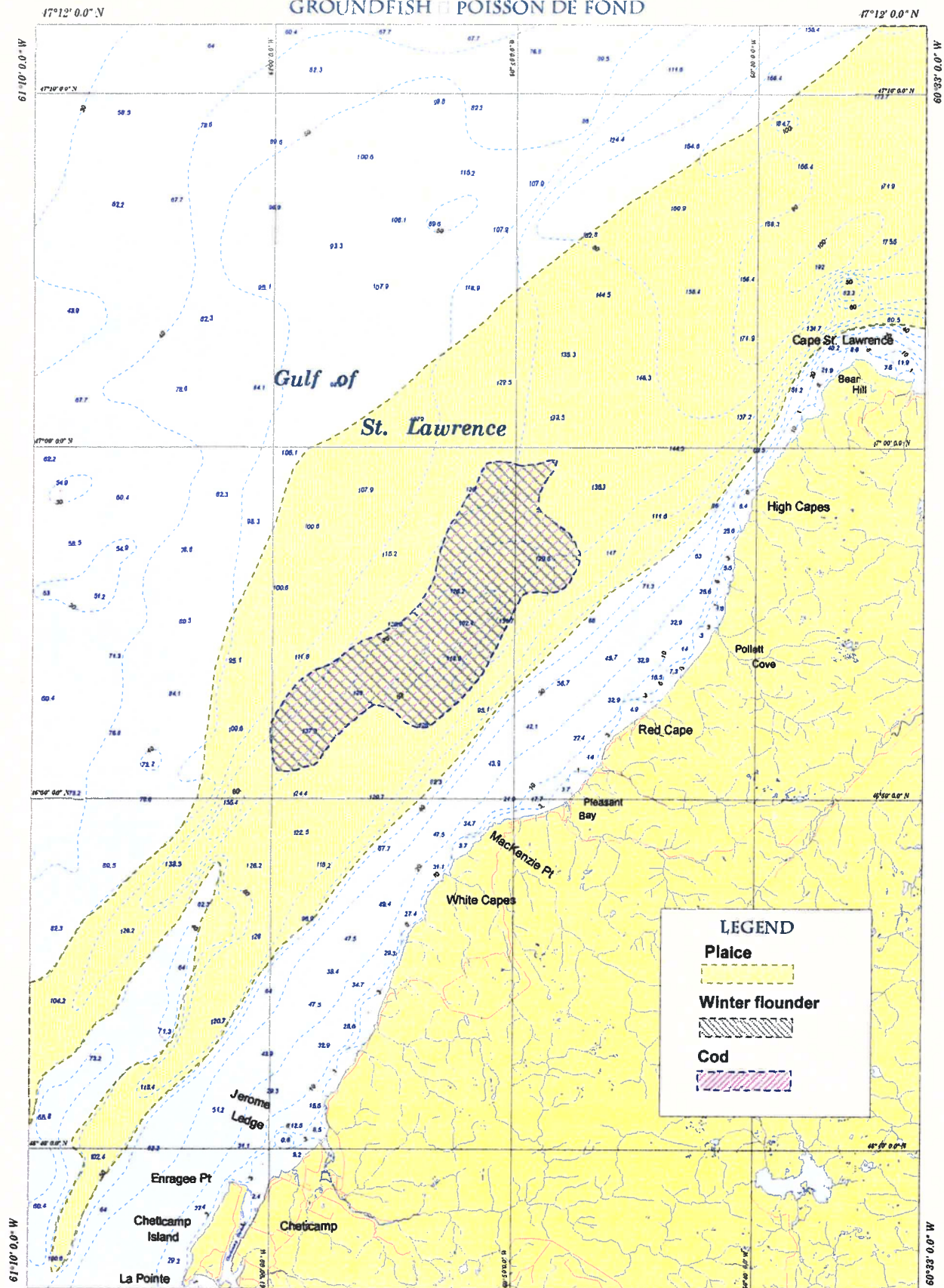
LOBSTER & ROCK CRAB || HOMARD & CRABE COMMUN



SNOW CRAB & TOAD CRAB = CRABE DES NEIGES & CRABE ARAIGNES



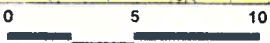
GROUND FISH POISSON DE FOND



**LEGEND**

- Plaice
- Winter flounder
- Cod

SCALE 1:300,000

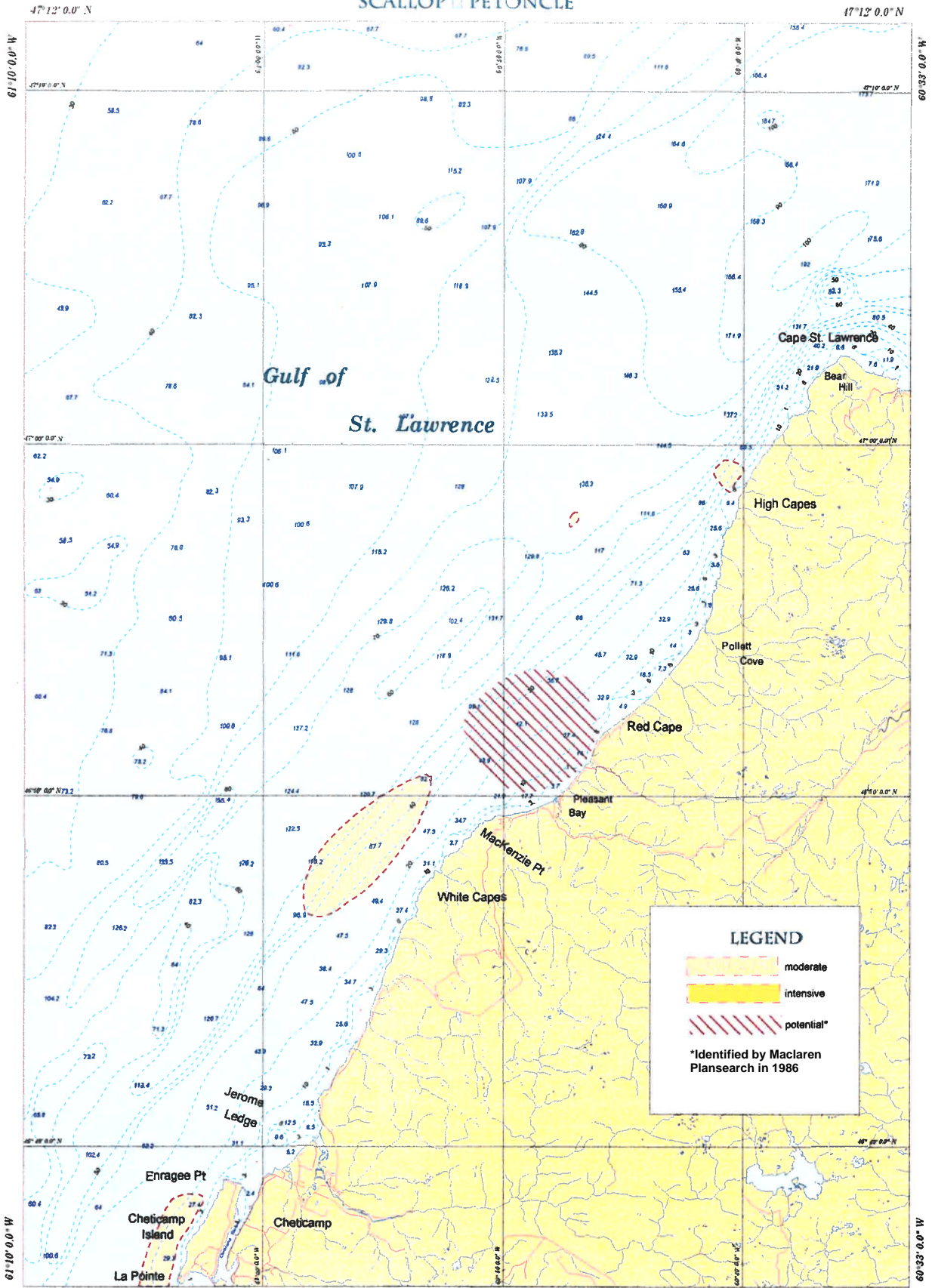


Kilometers

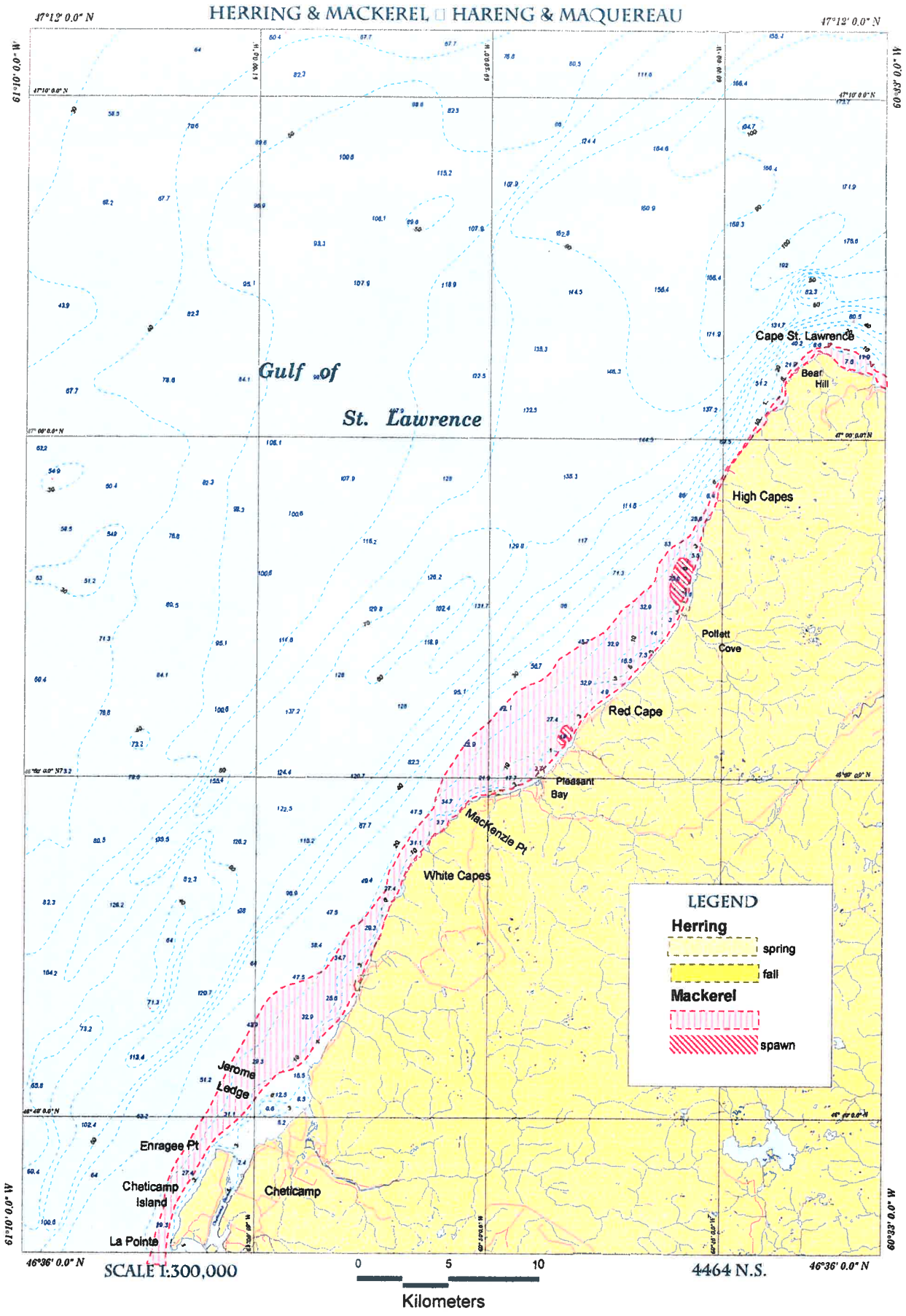
4464 N.S.

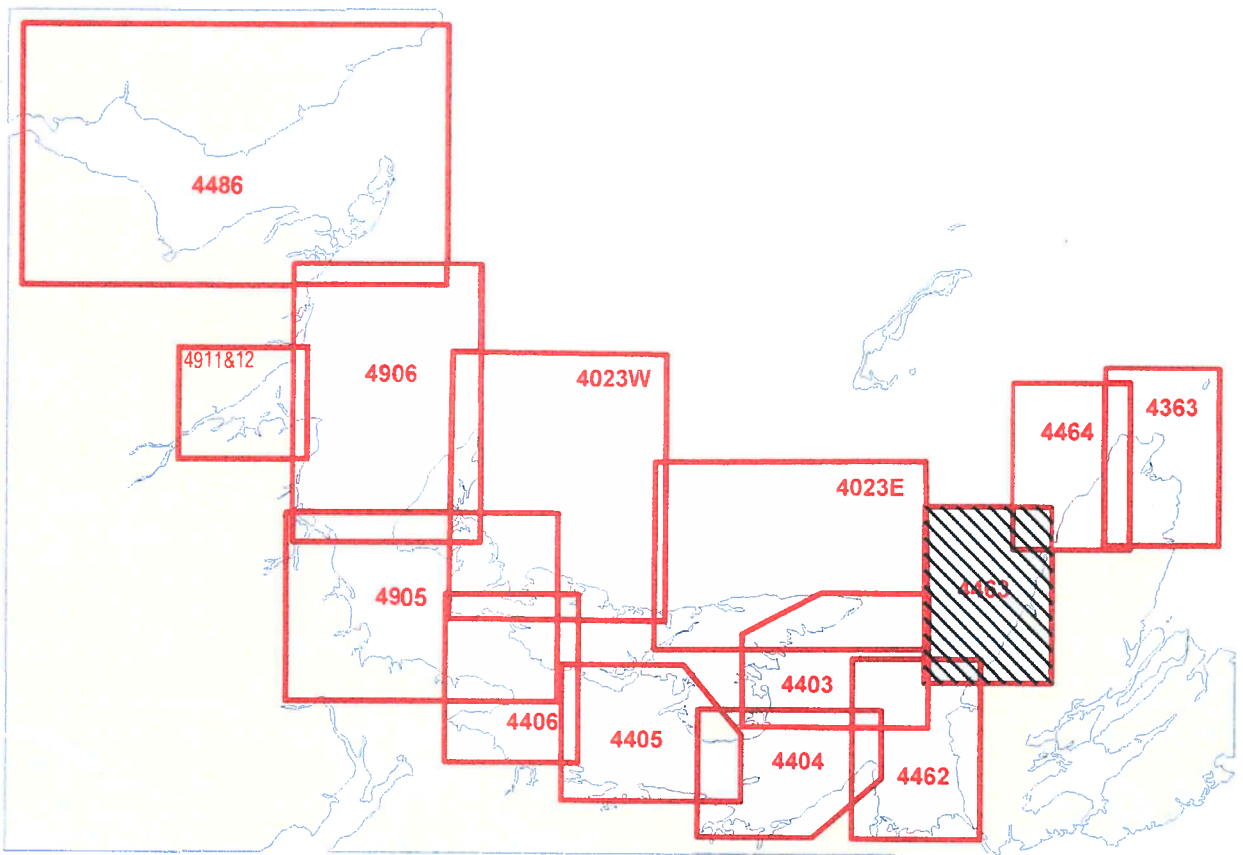


SCALLOP PETONCLE

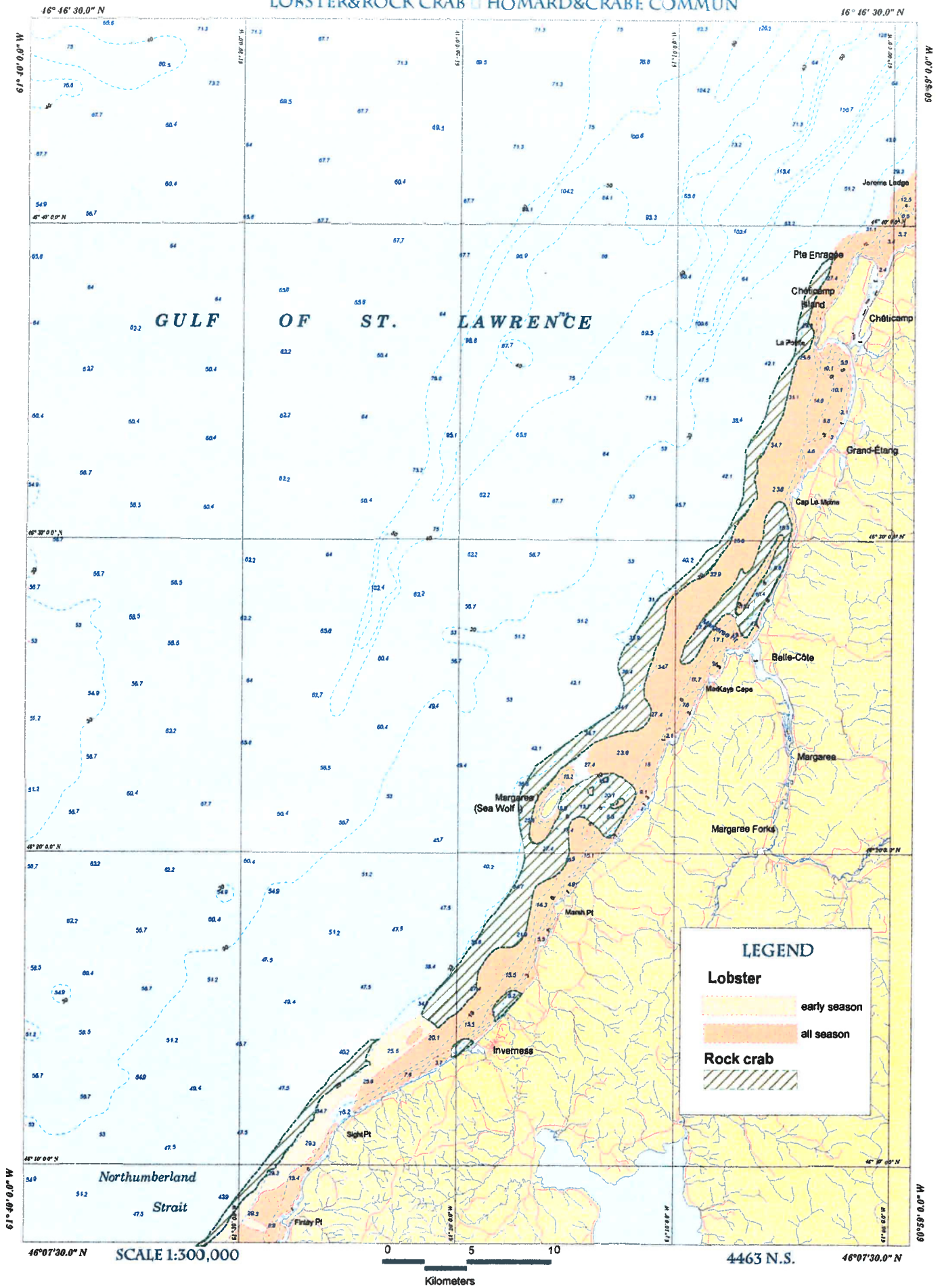


SCALE 1:300,000  
0 5 10  
Kilometers  
4464 N.S.

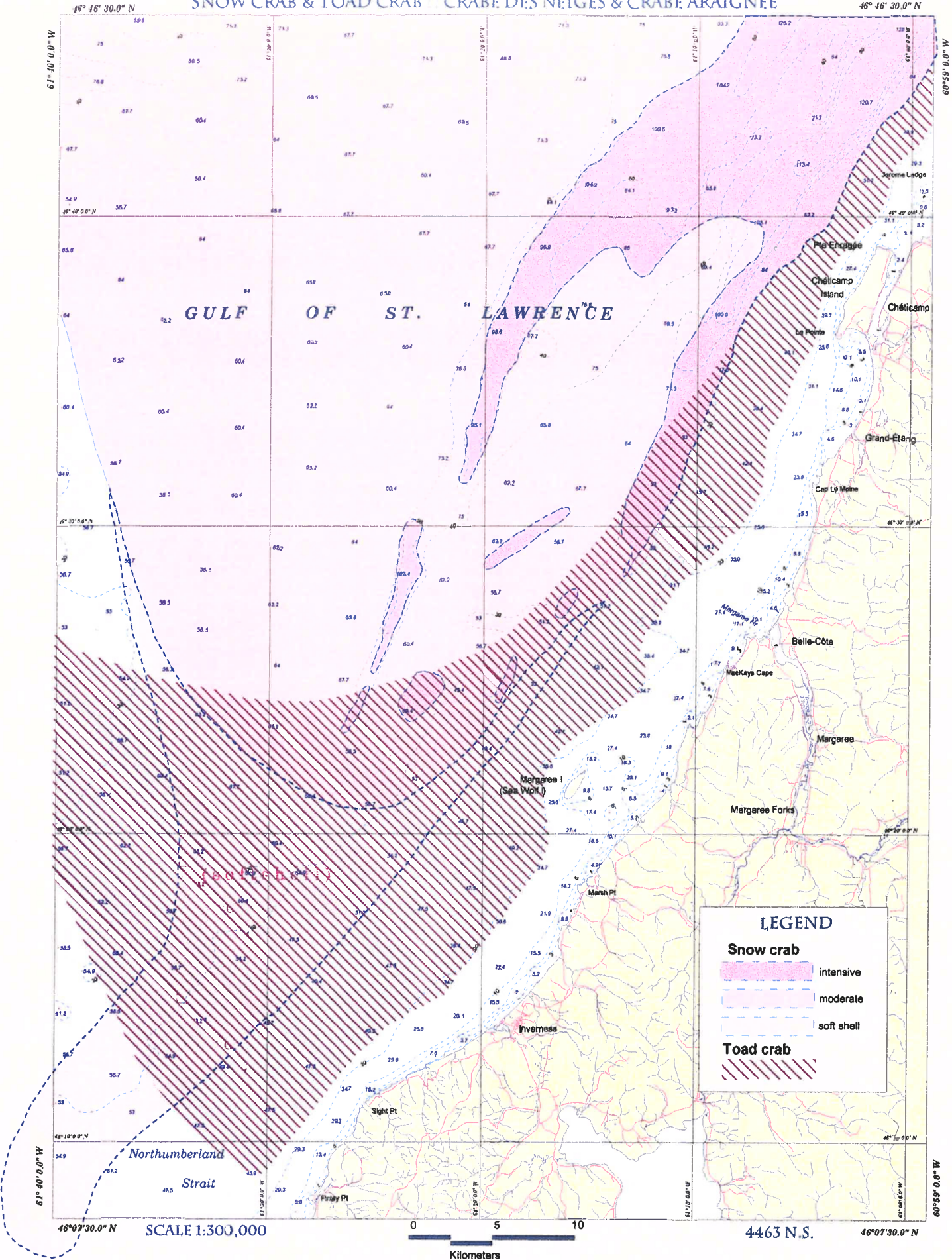




LORSTER & ROCK CRAB | HOMARD & CRABE COMMUN



SNOW CRAB & TOAD CRAB CRABE DES NEIGES & CRABE ARAIGNEE

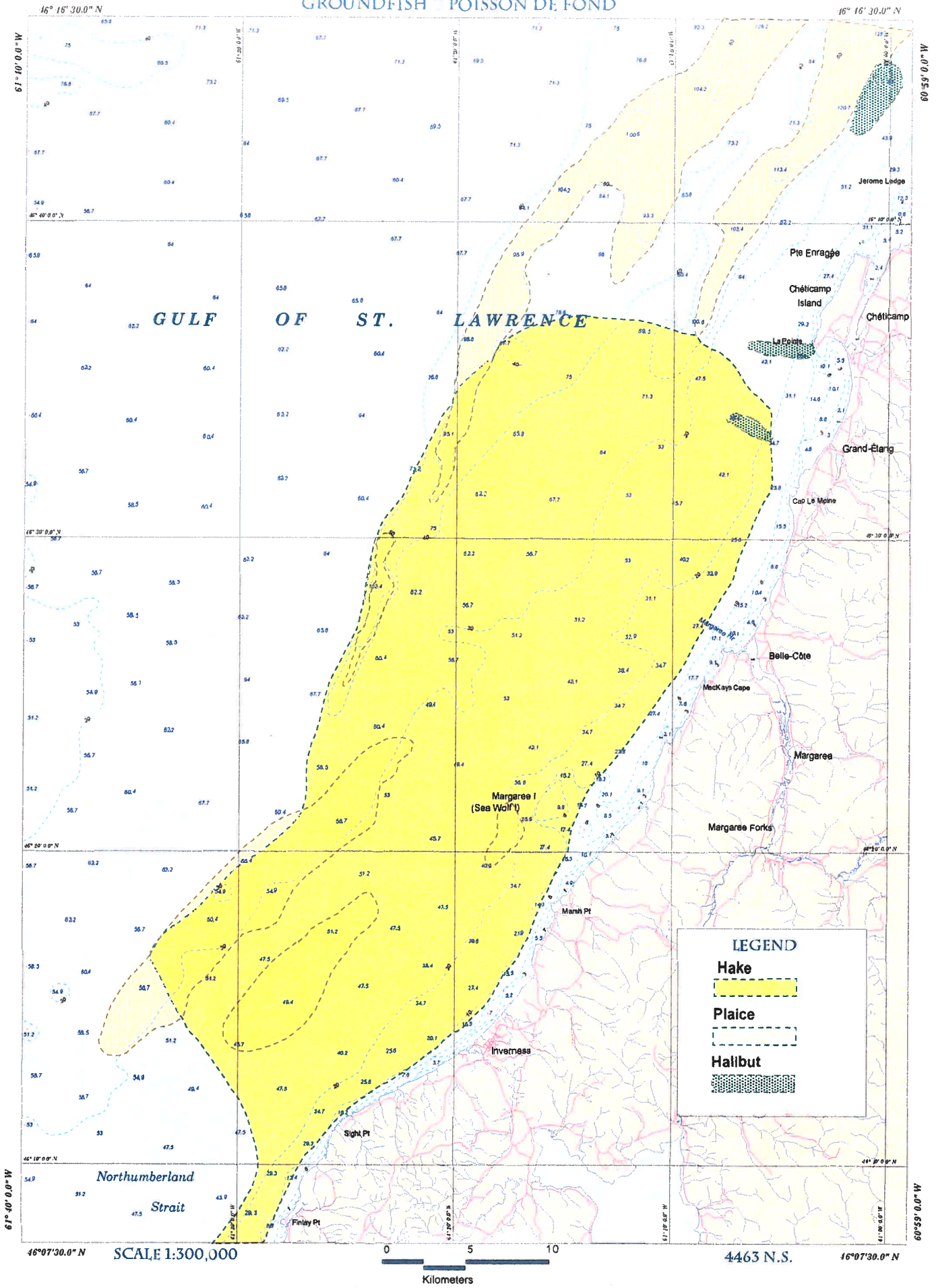


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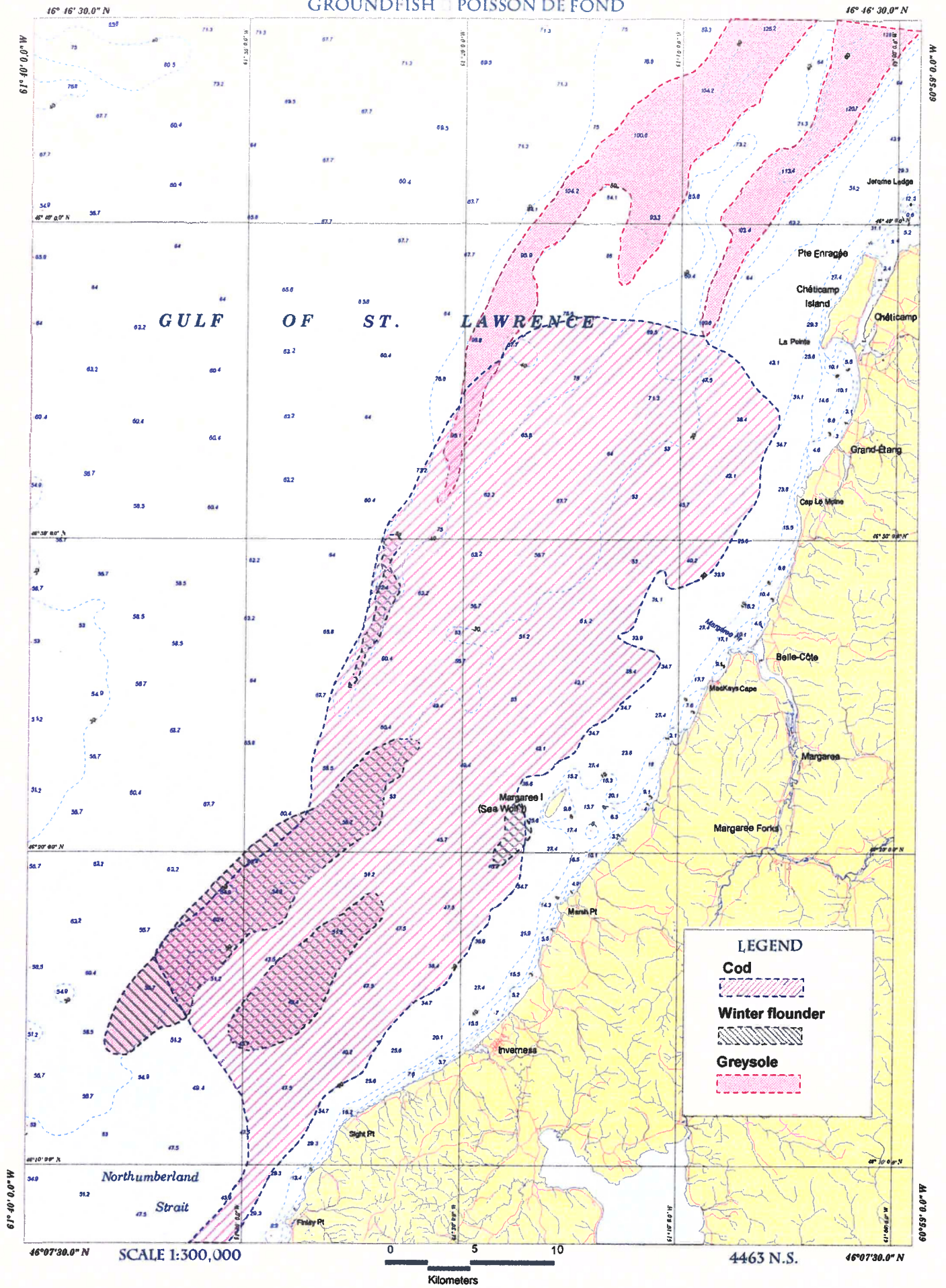
0 5 10  
Kilometers

4463 N.S.

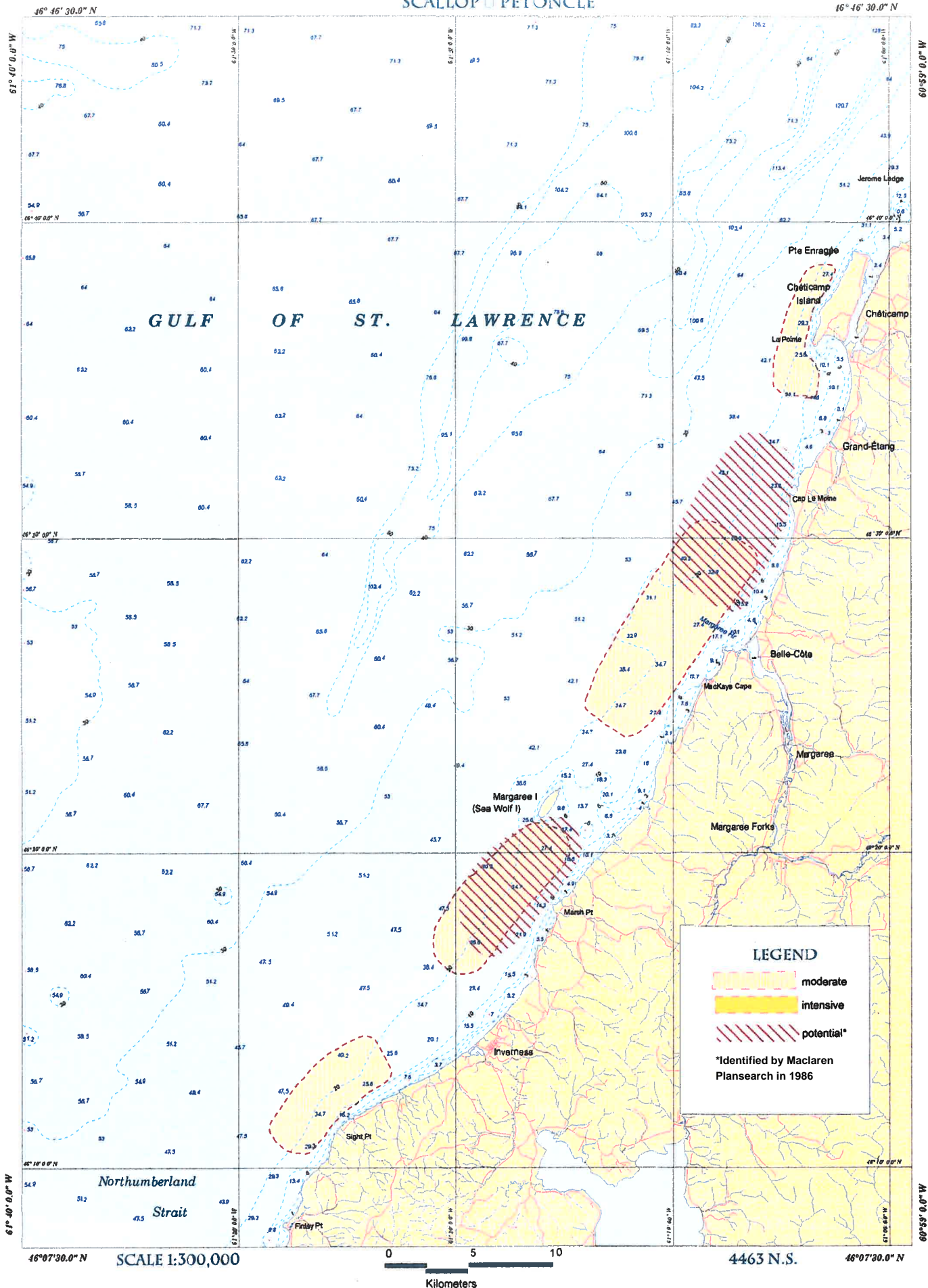
GROUND FISH POISSON DE FOND



GROUND FISH POISSON DE FOND

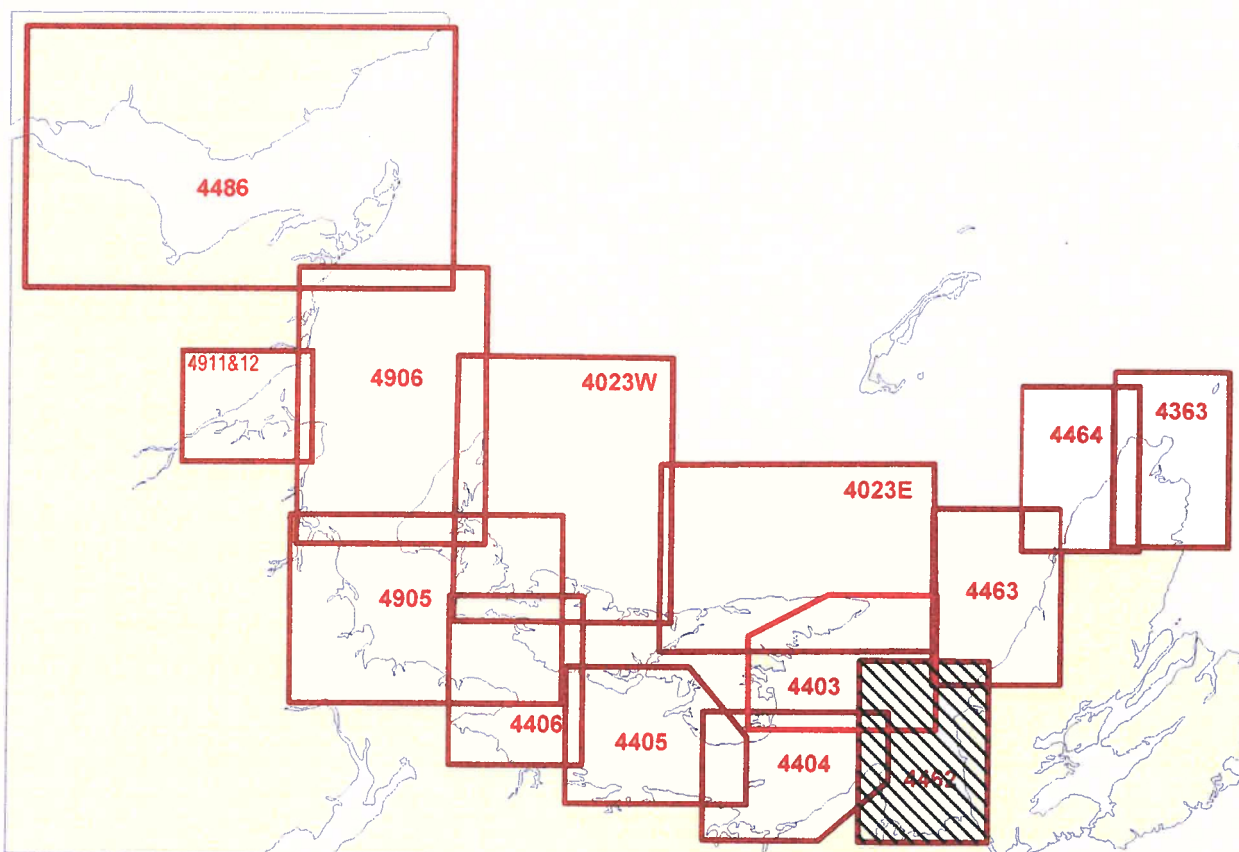


SCALLOP PETONCLE

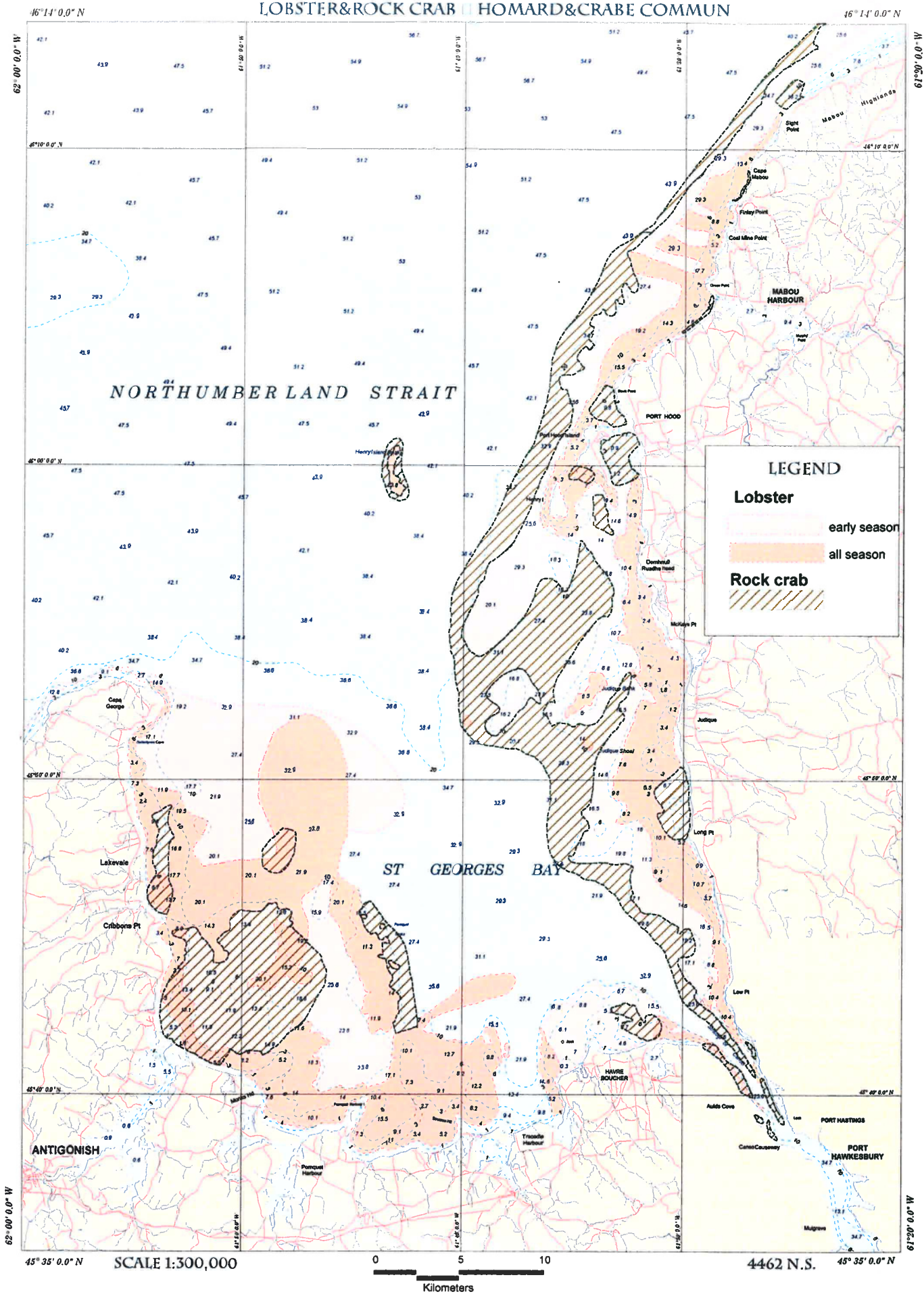




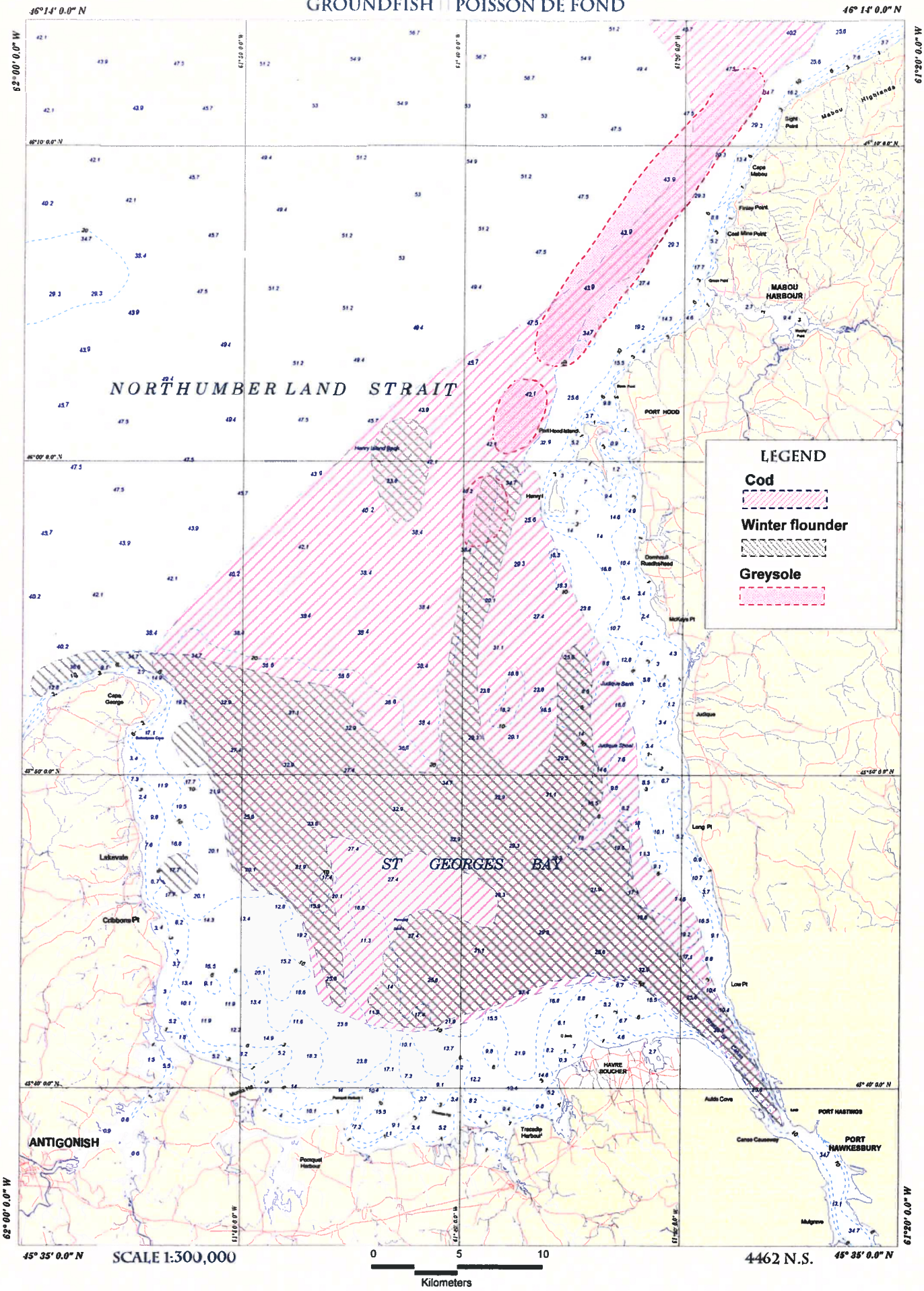




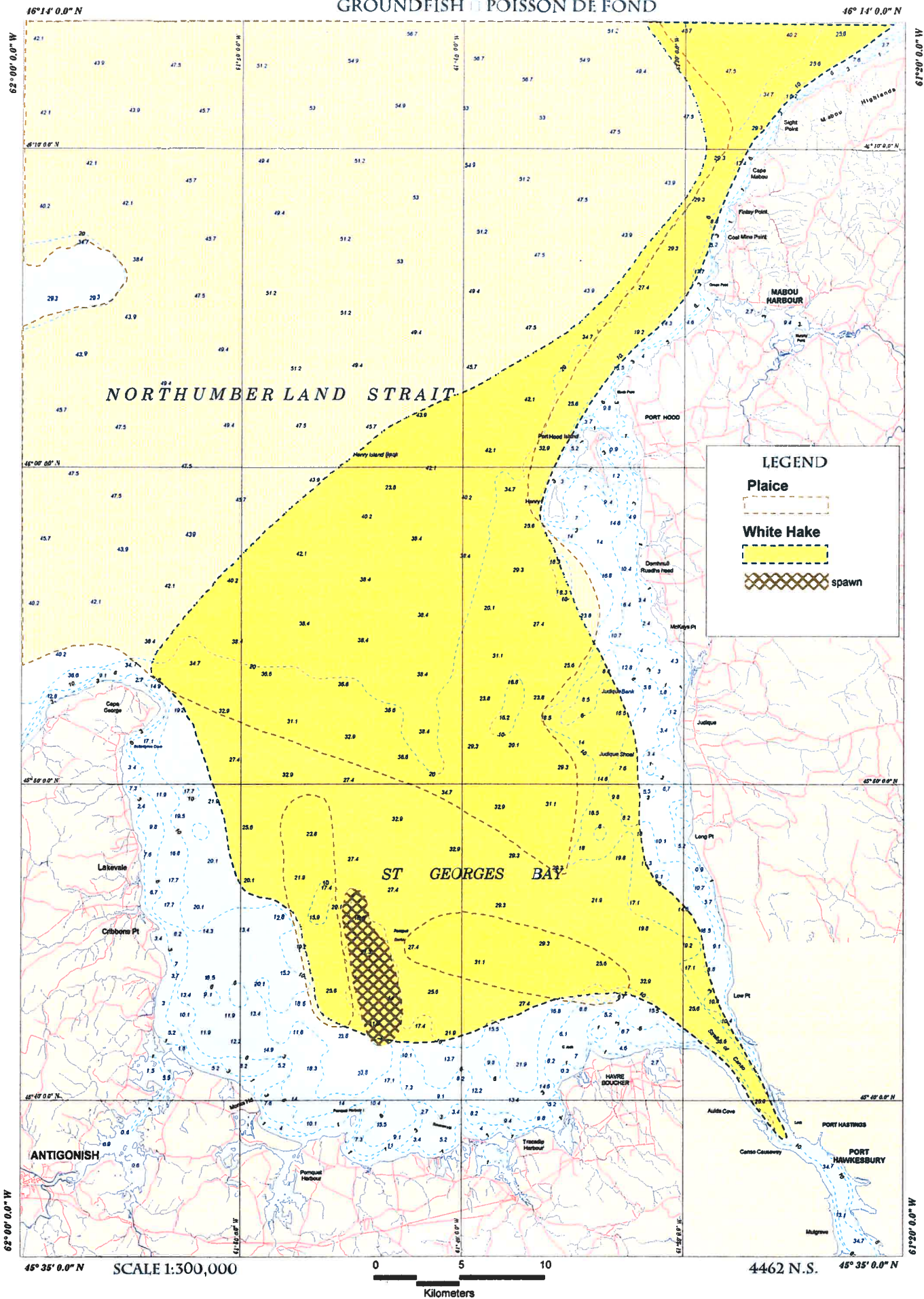
LOBSTER & ROCK CRAB | HOMARD & CRABE COMMUN



# GROUNDFISH || POISSON DE FOND

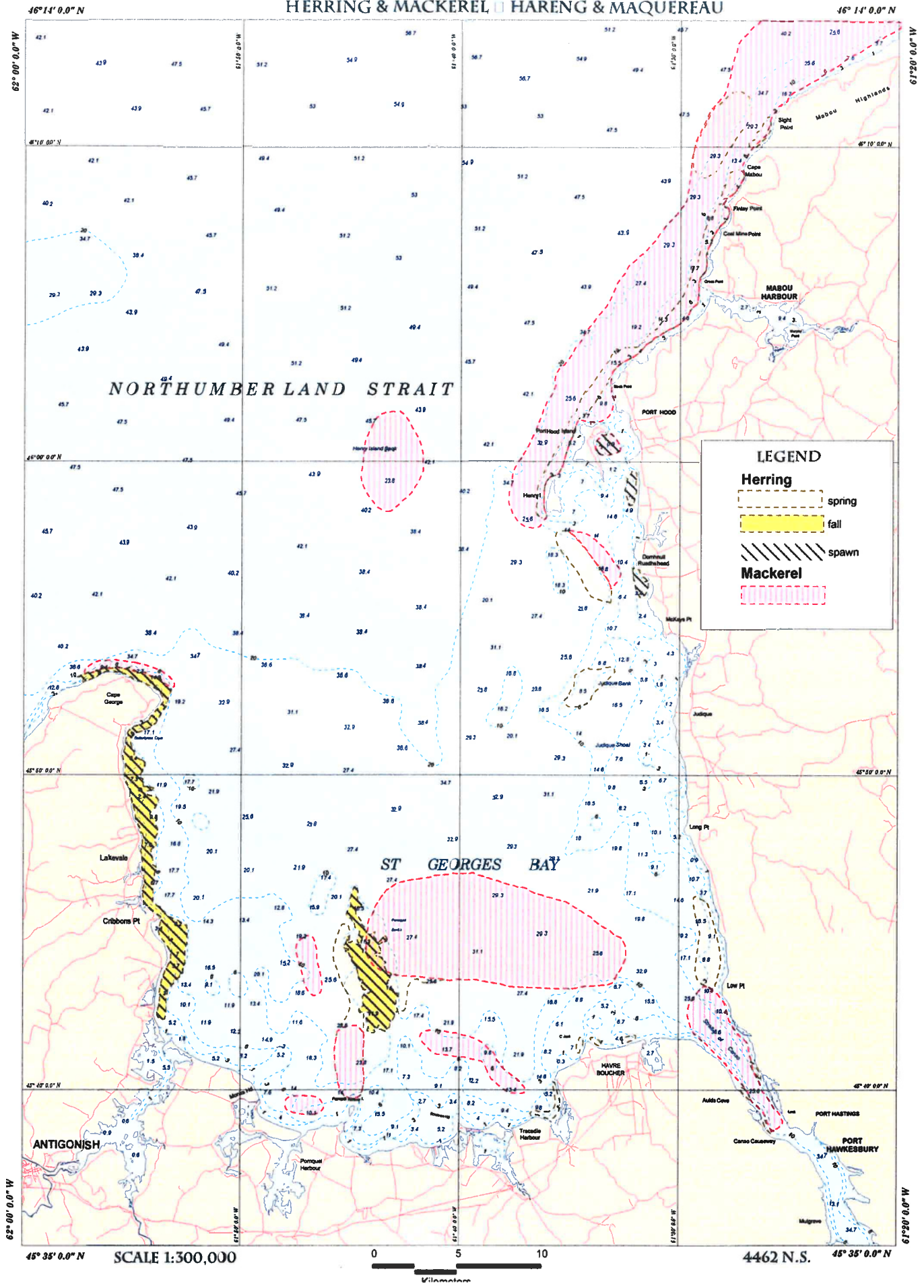


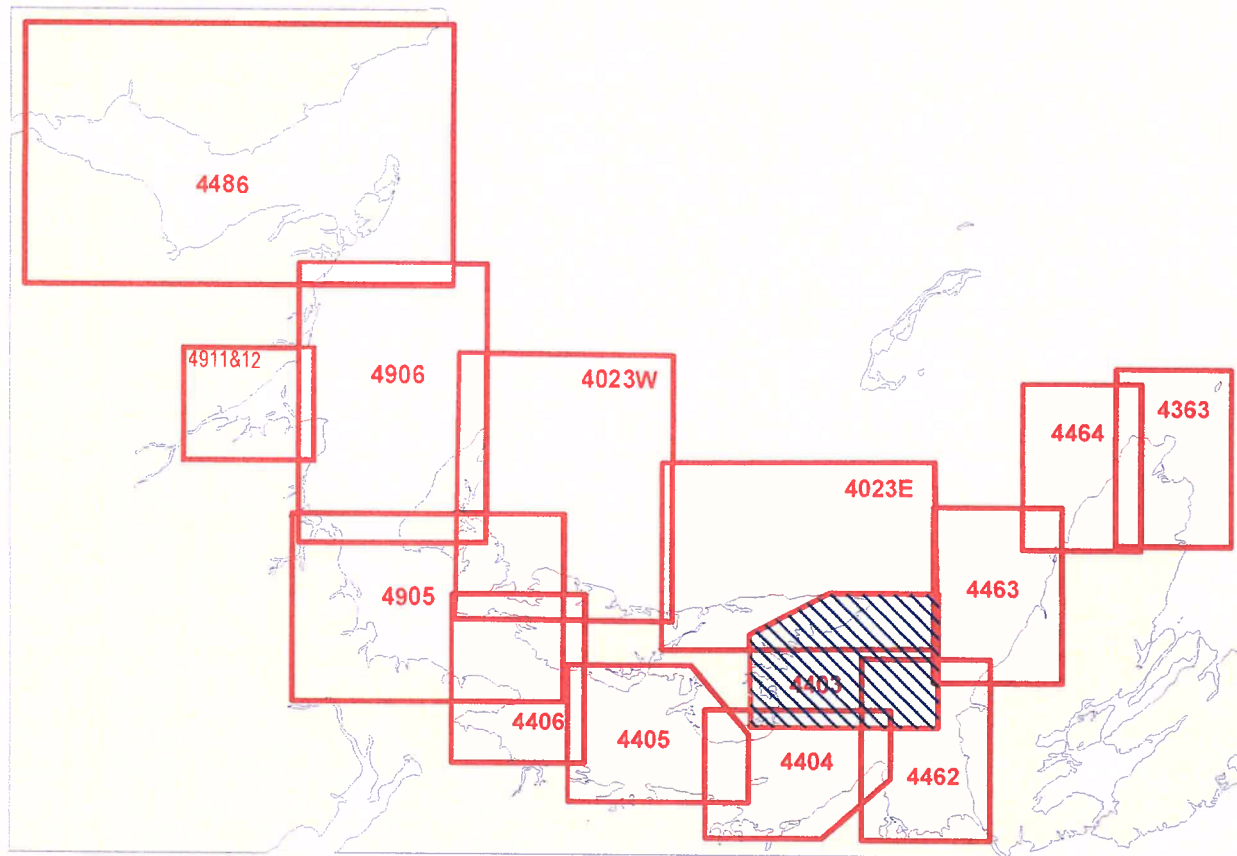
# GROUNDFISH POISSON DE FOND





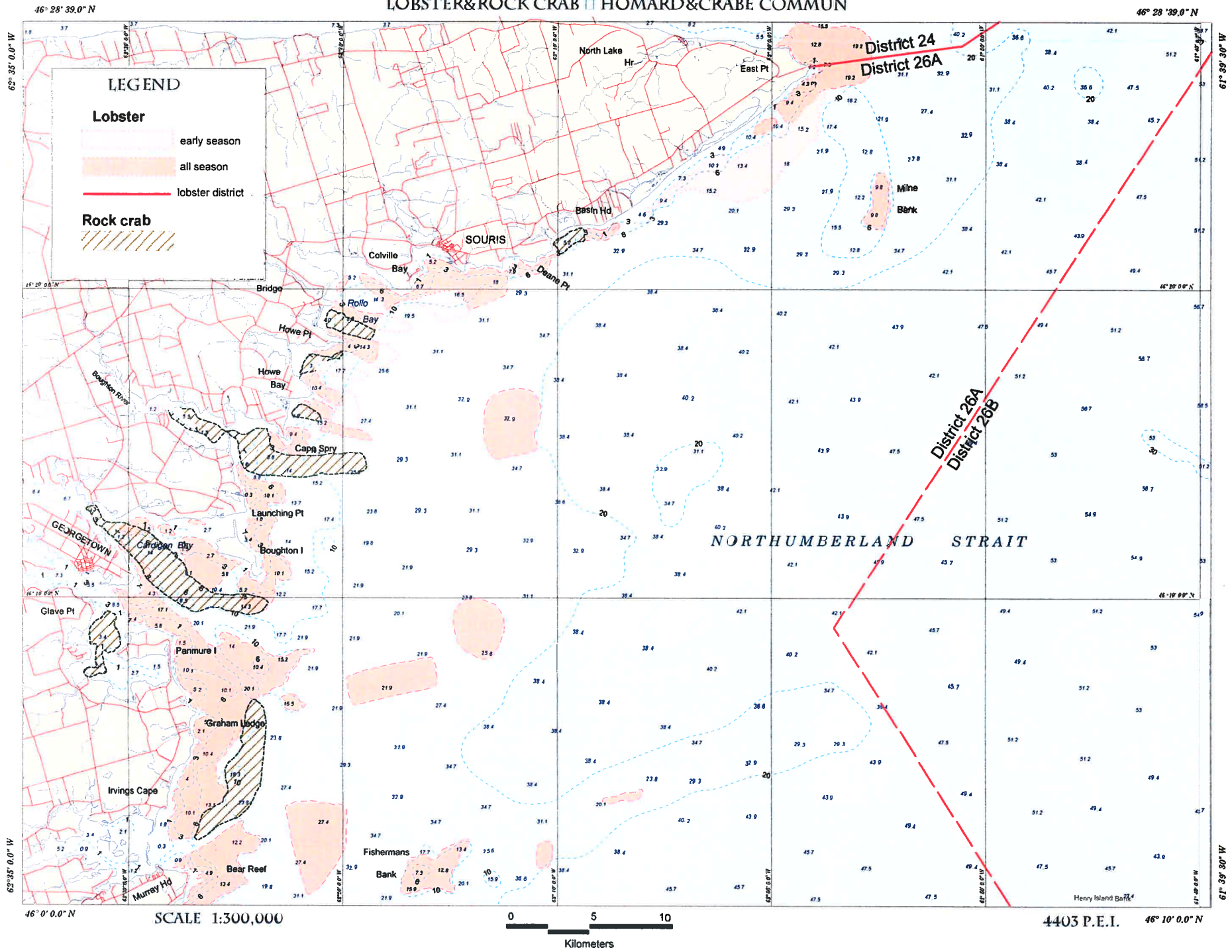
HERRING & MACKEREL HARENG & MAQUEREAU







# LOBSTER & ROCK CRAB | HOMARD & CRABE COMMUN

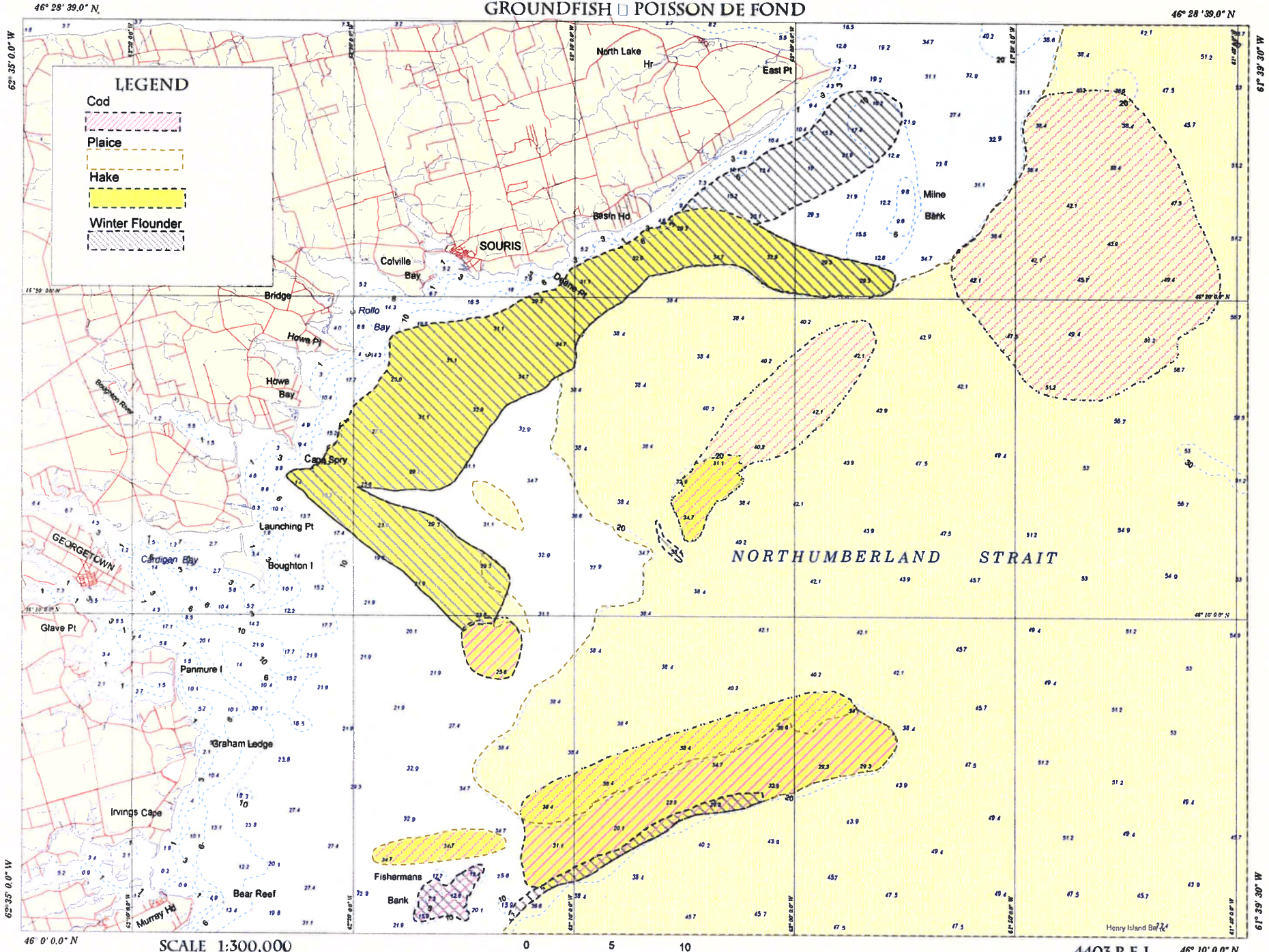


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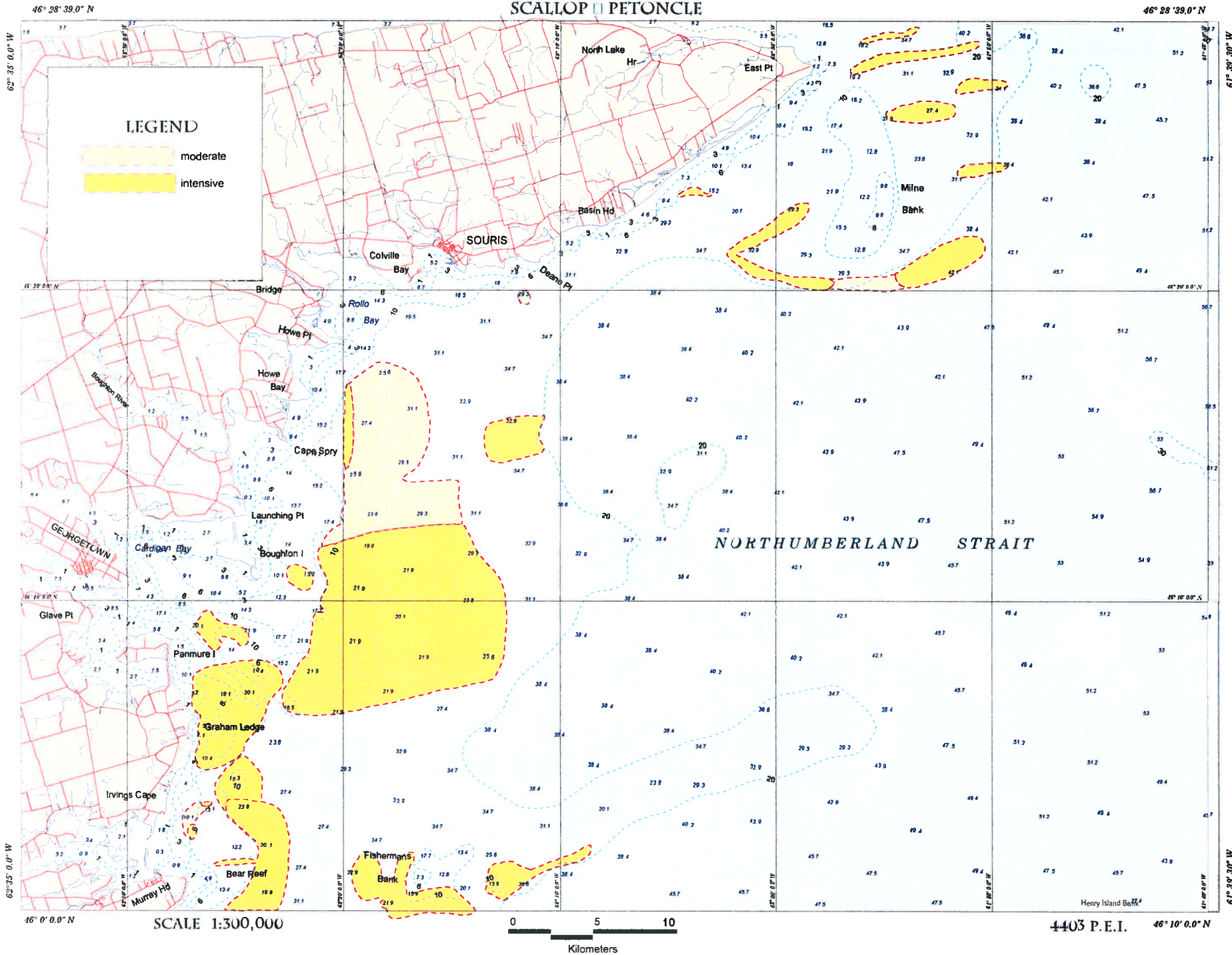
4403 P.E.I. 46° 10' 0.0" N

# GROUNDFISH □ POISSON DE FOND

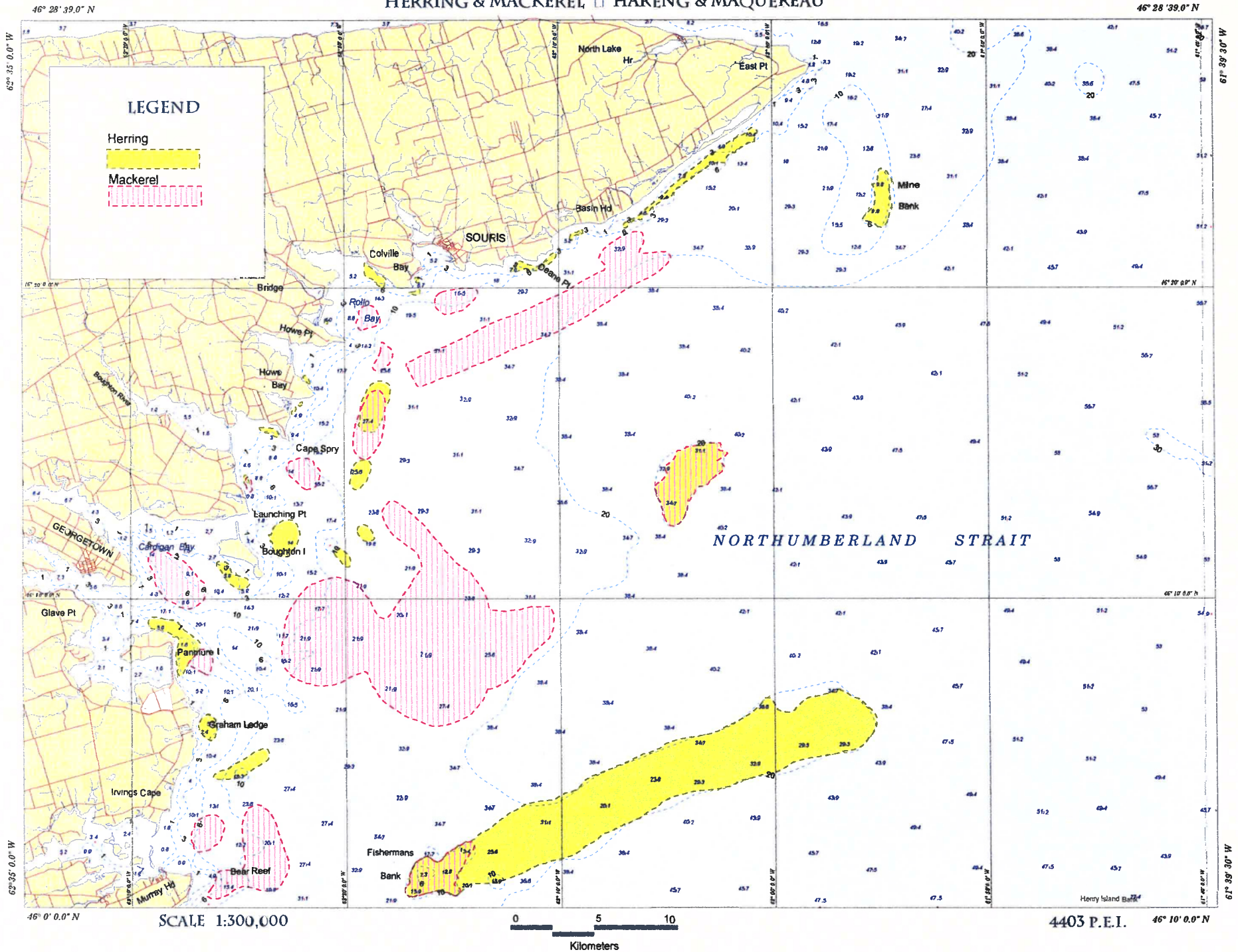


4403 P.E.I. 46° 10' 0.0" N

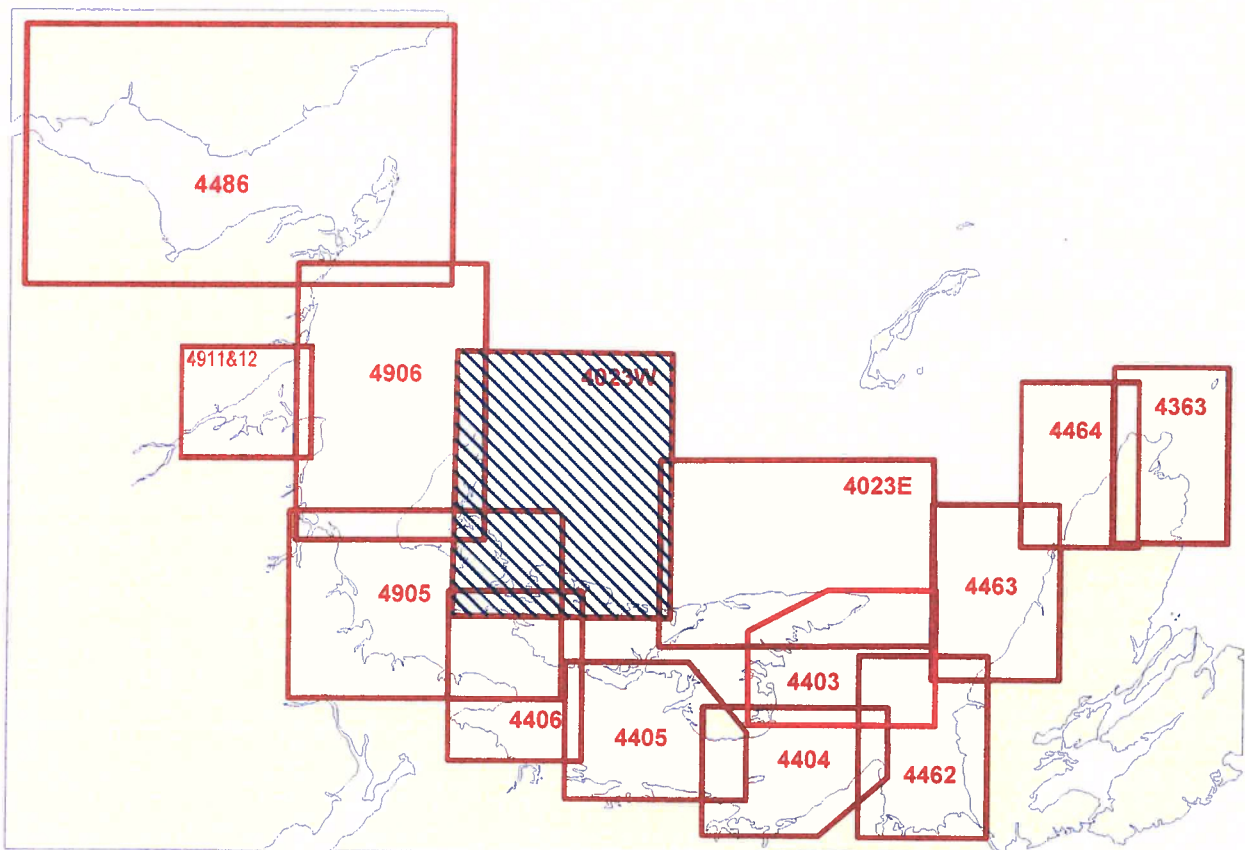
SCALLOP PETONCLE



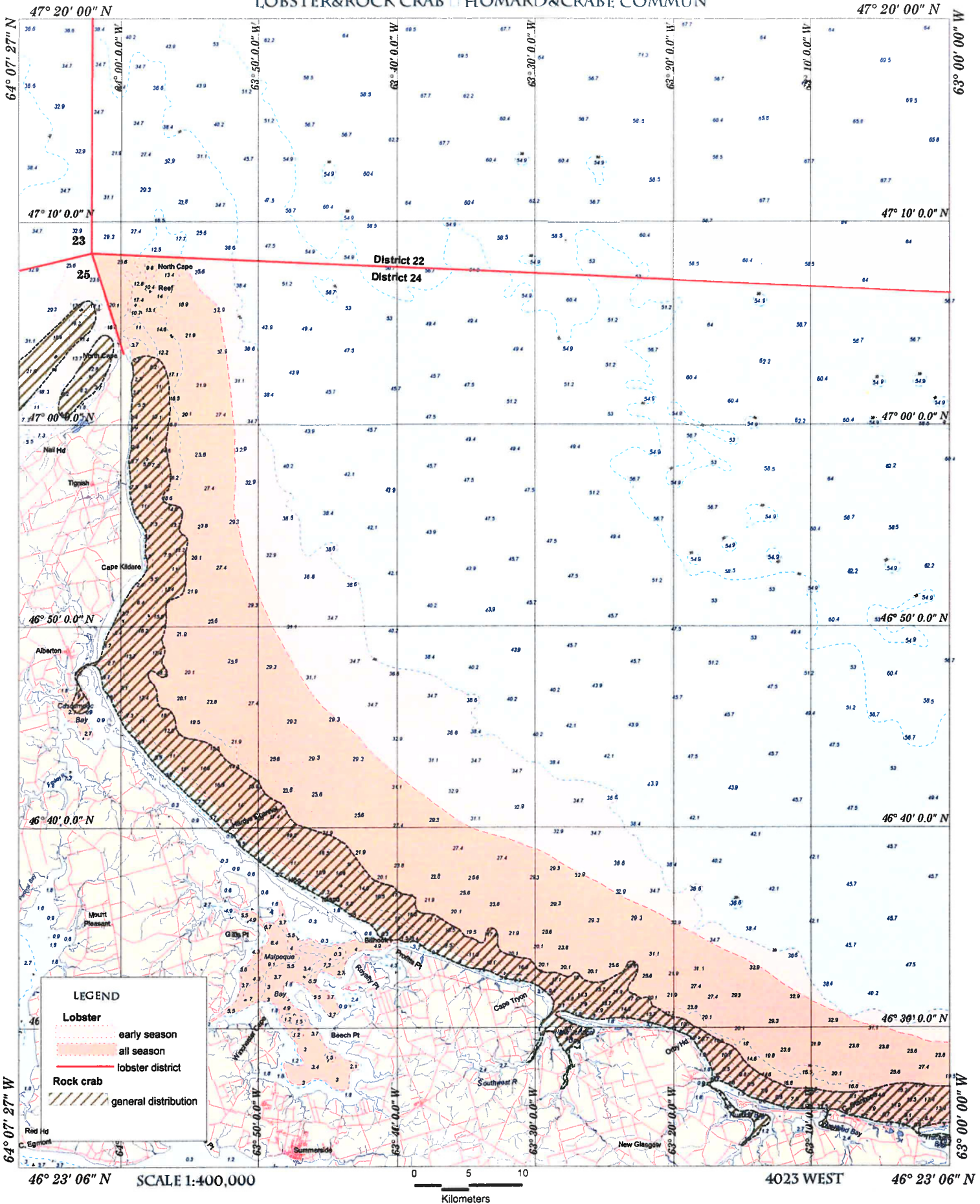
# HERRING & MACKEREL □ HARENG & MAQUEREAU



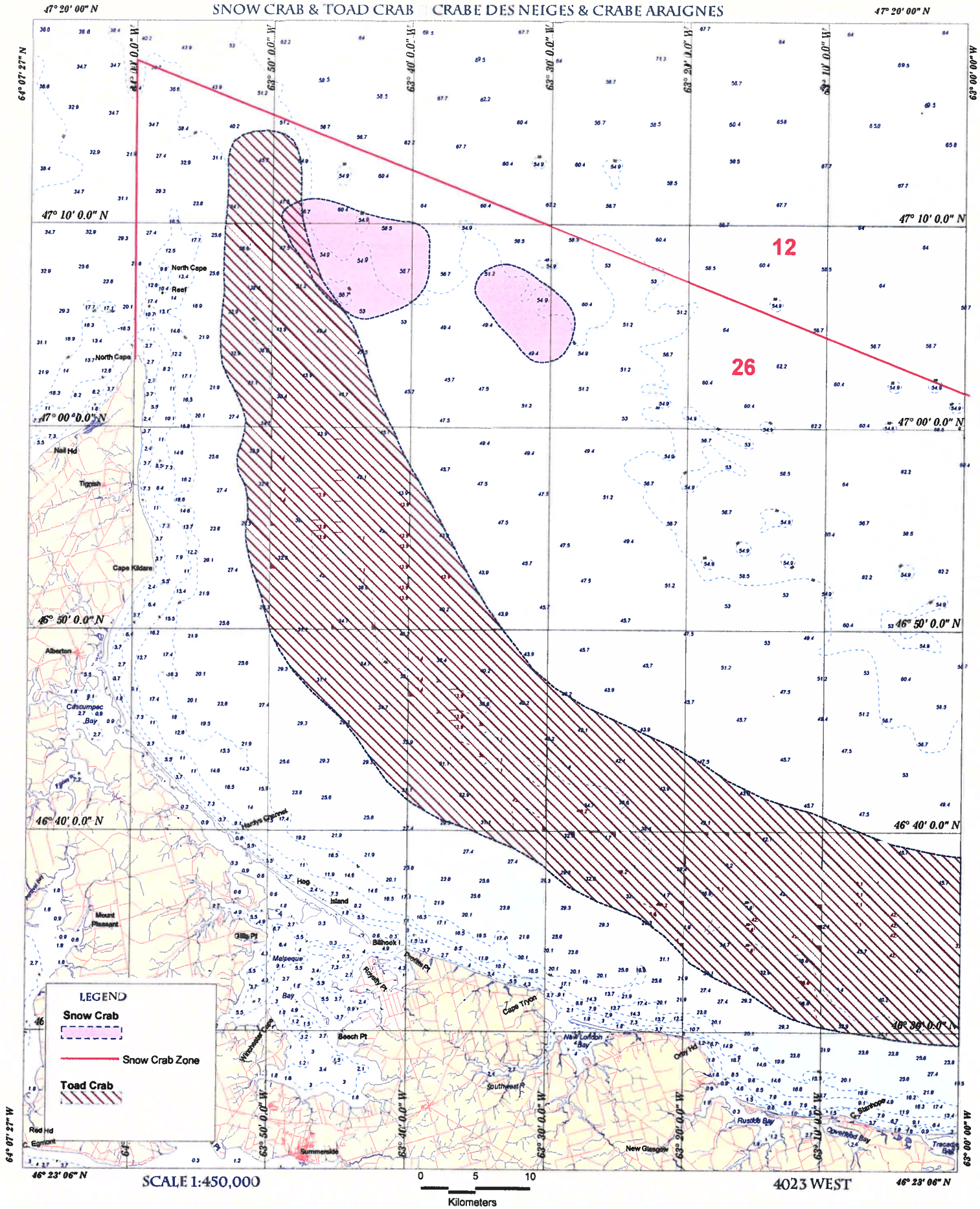
# 4023W



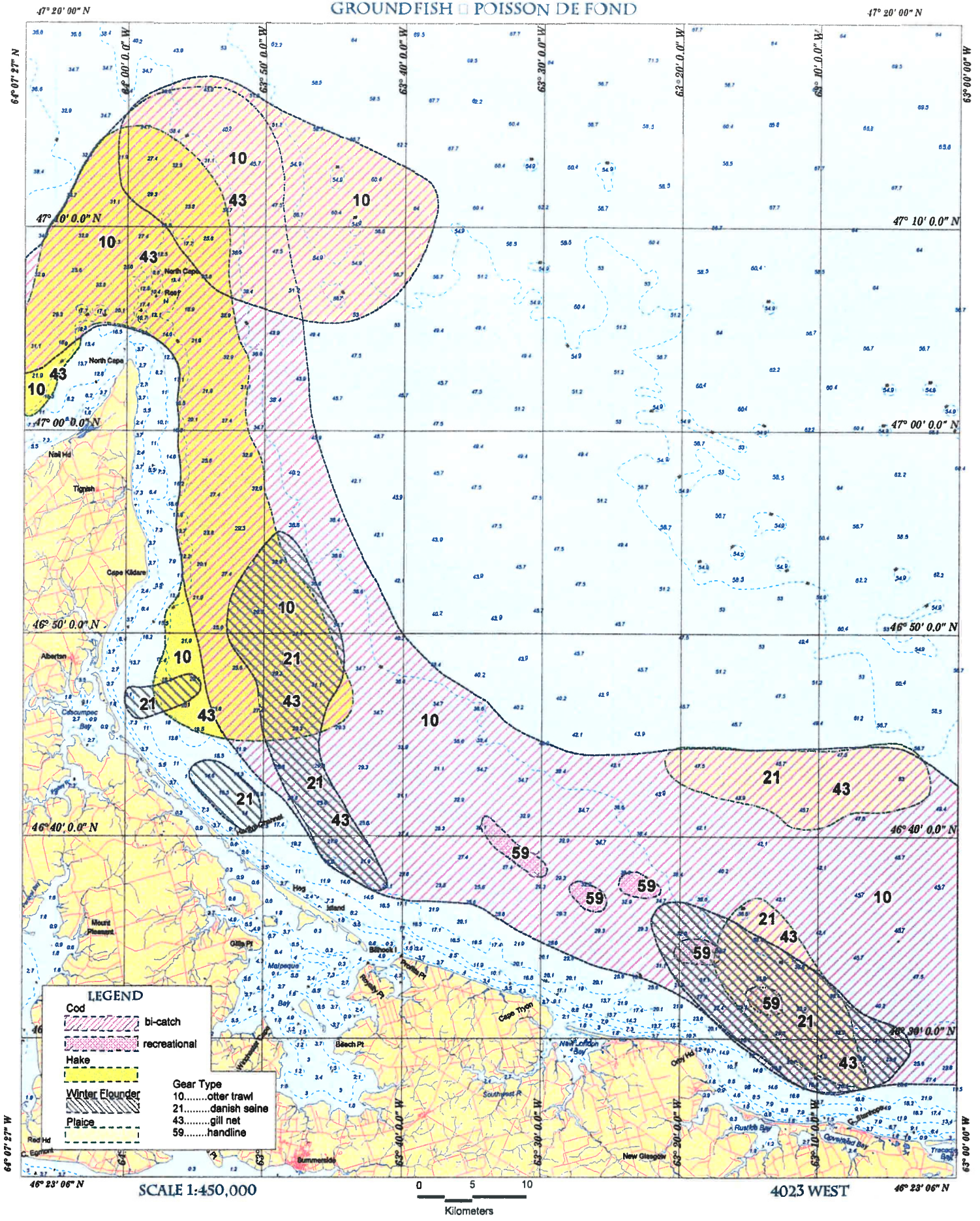
LOBSTER & ROCK CRAB □ HOMARD & CRABE COMMUN



SNOW CRAB & TOAD CRAB CRABE DES NEIGES & CRABE ARAIGNES

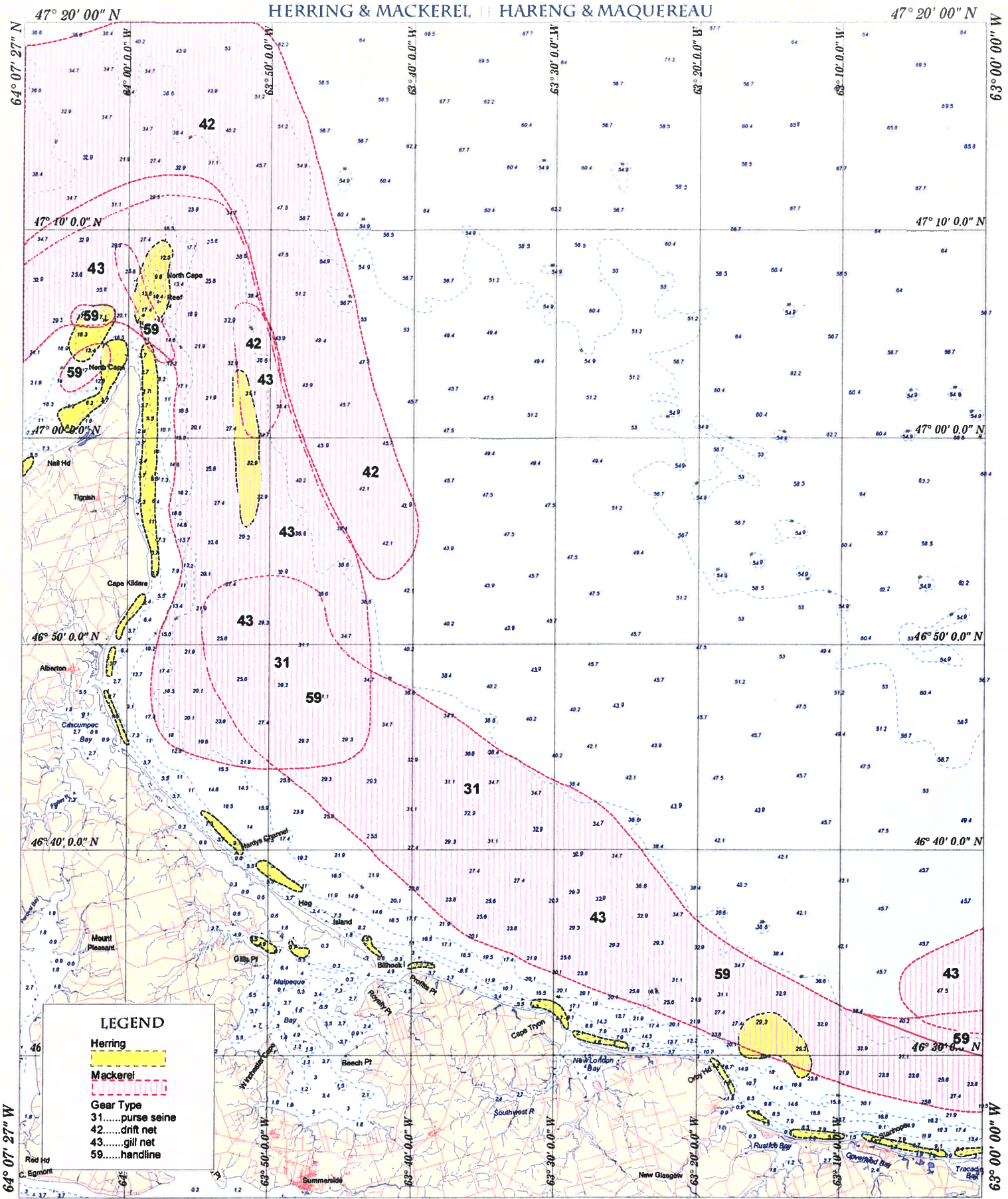


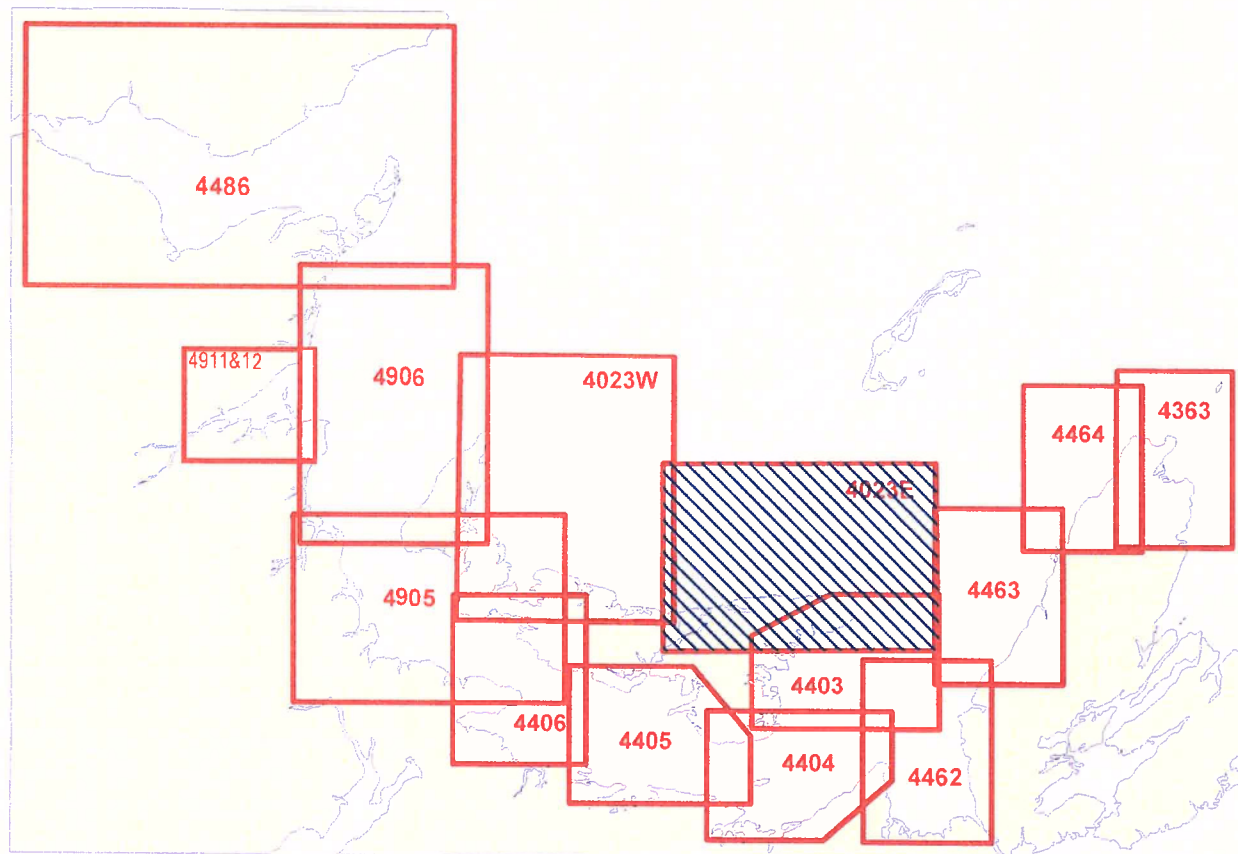
# GROUND FISH □ POISSON DE FOND



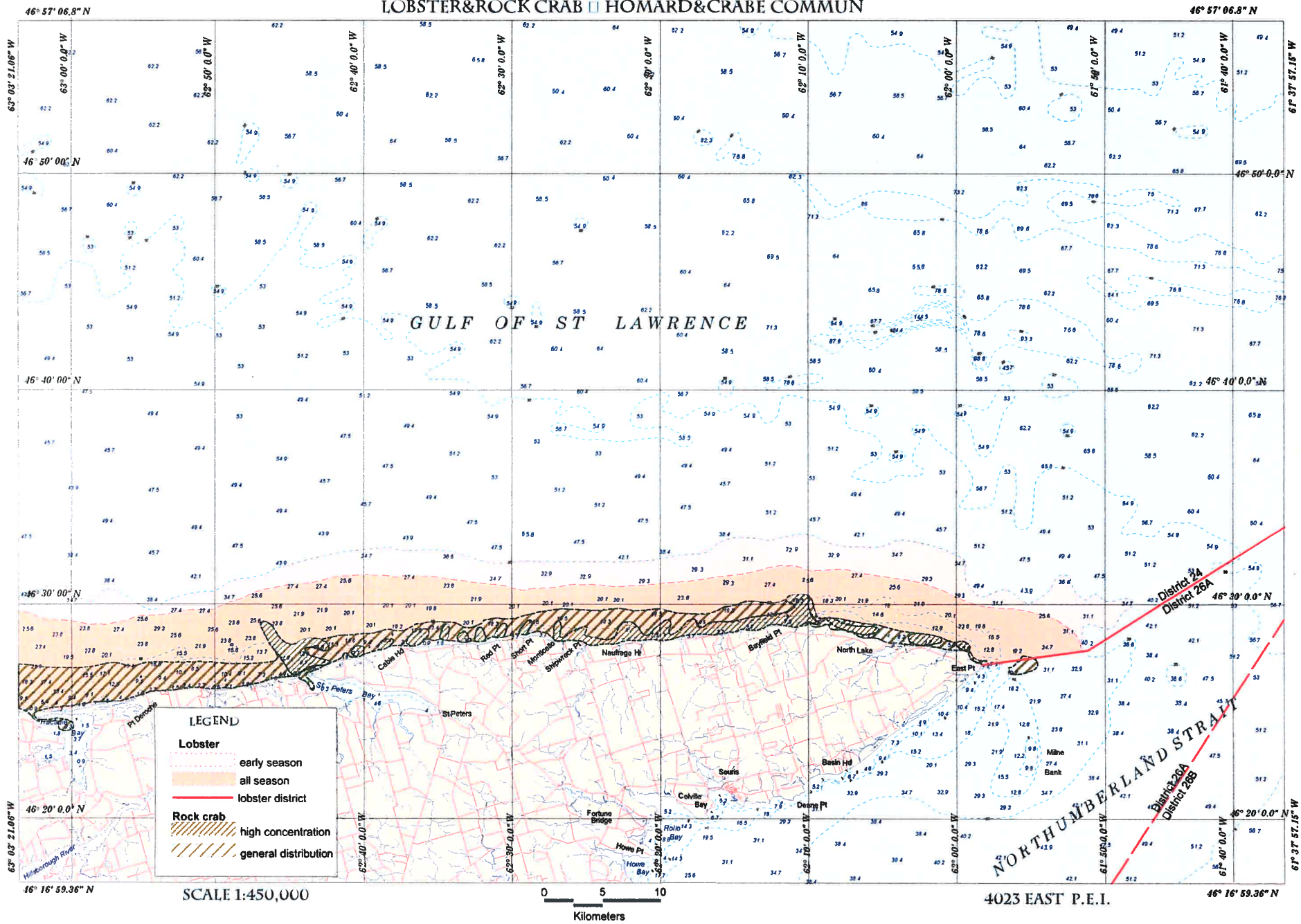


HERRING & MACKEREL HARENG & MAQUEREAU

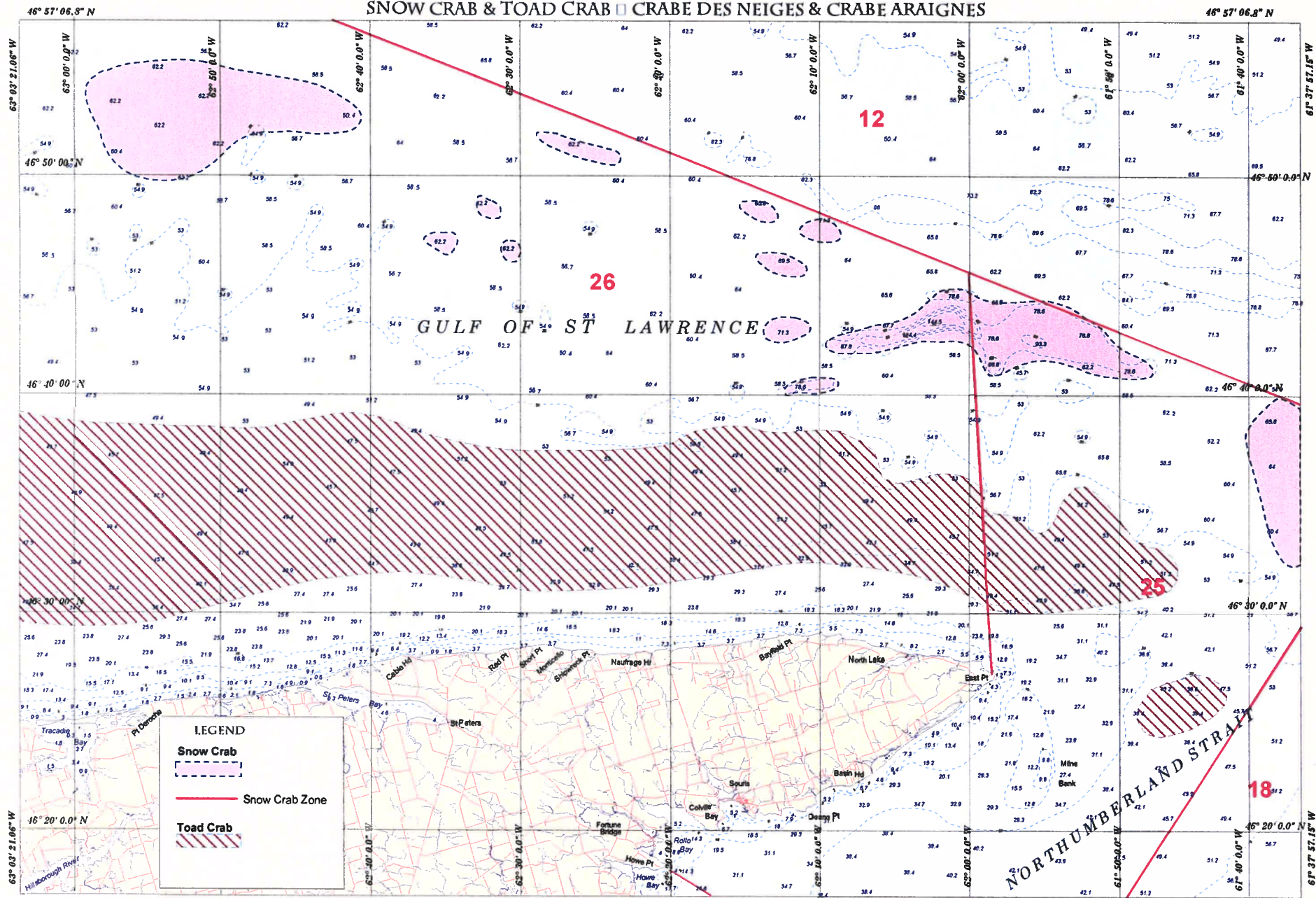




LOBSTER & ROCK CRAB □ HOMARD & CRABE COMMUN



SNOW CRAB & TOAD CRAB □ CRABE DES NEIGES & CRABE ARAIGNES



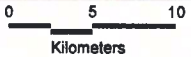
**LEGEND**

Snow Crab  
 [Dashed line symbol]

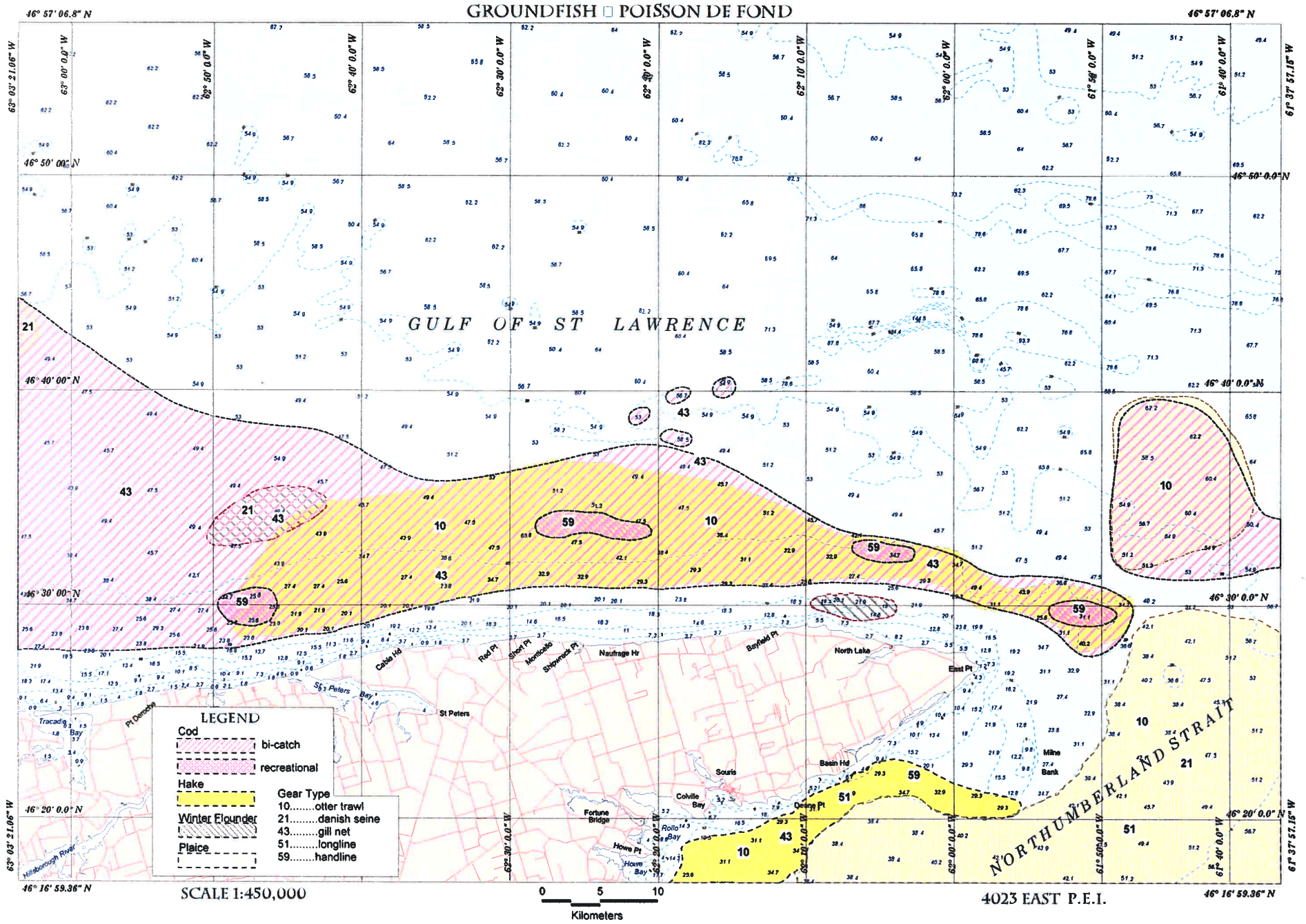
Snow Crab Zone  
 [Red line symbol]

Toad Crab  
 [Hatched area symbol]

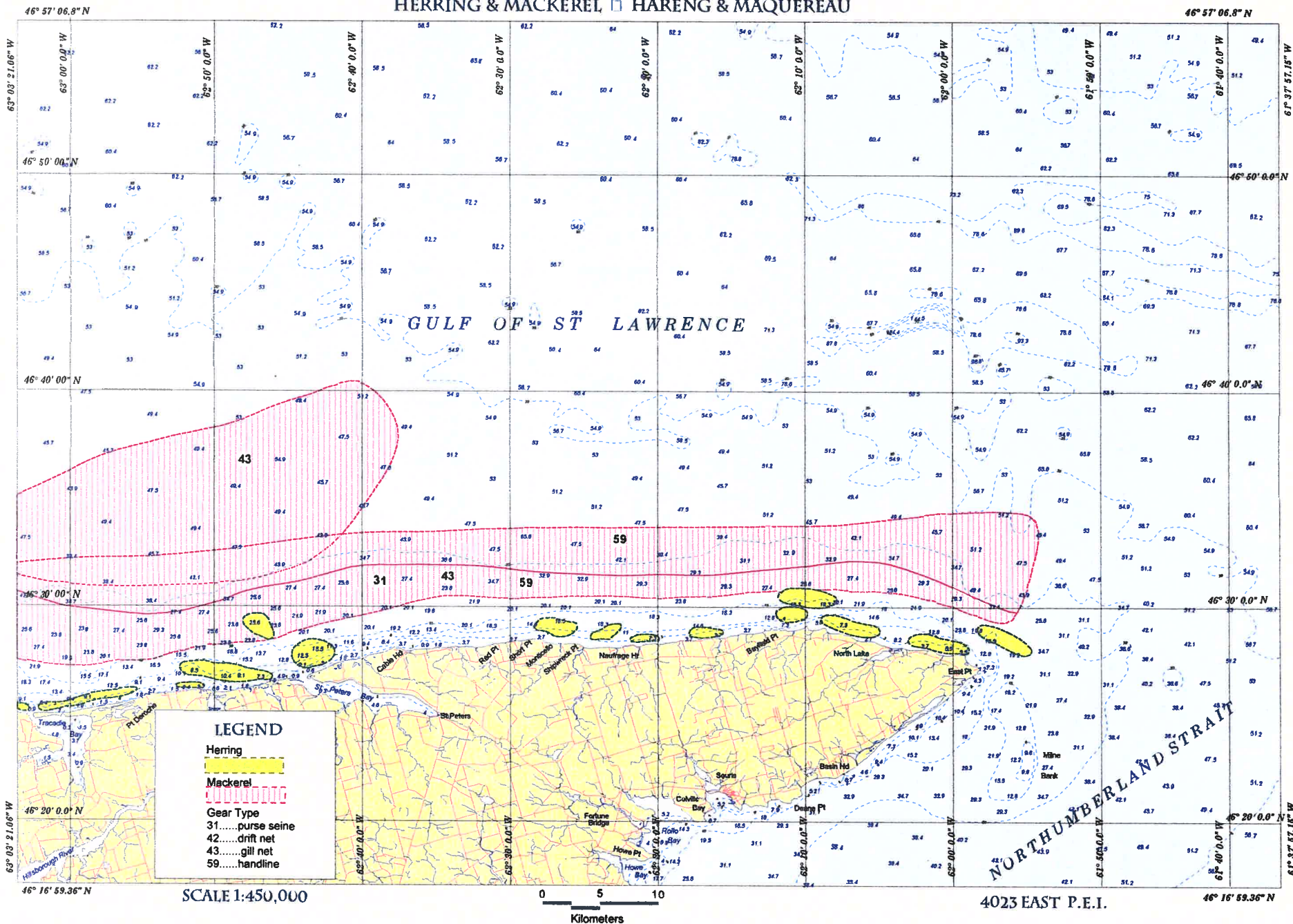
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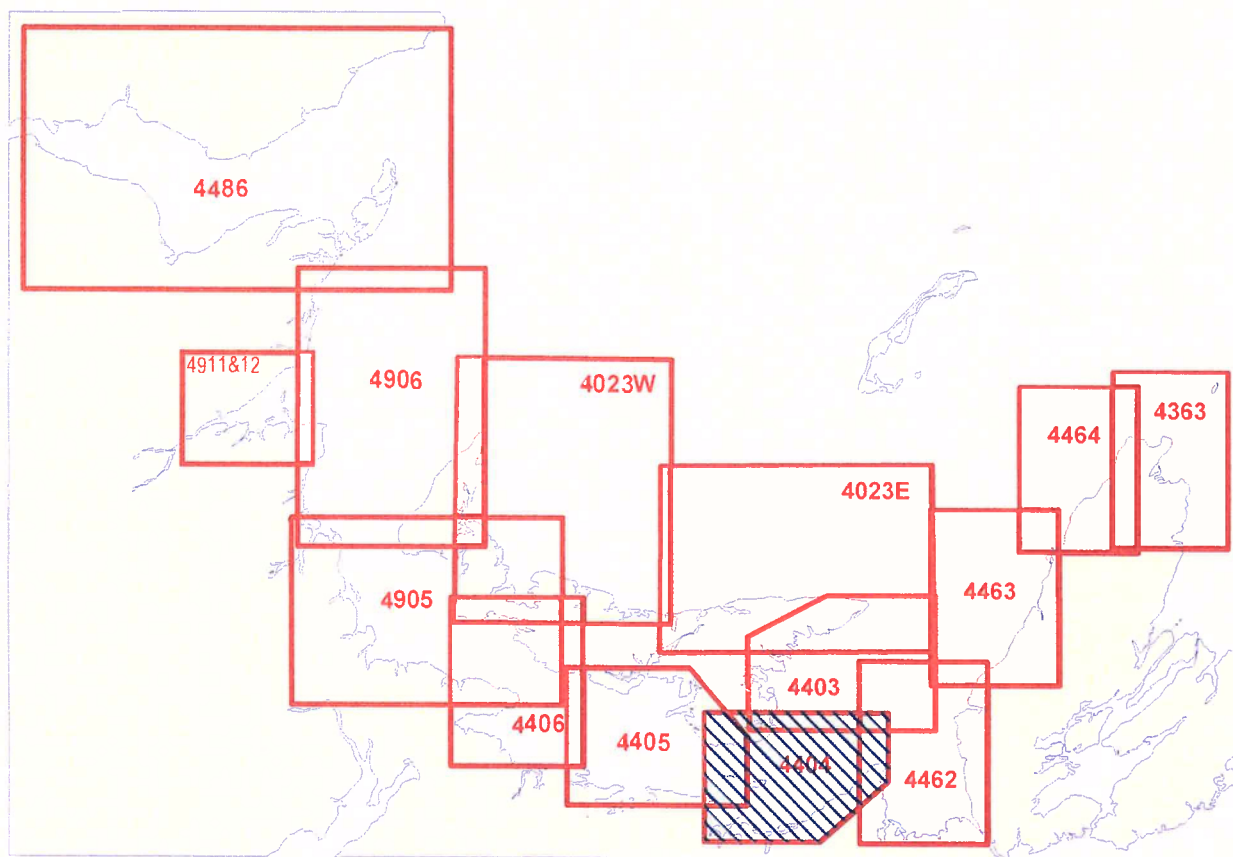


4023 EAST P.E.I.



# HERRING & MACKEREL □ HARENG & MAQUEREAU

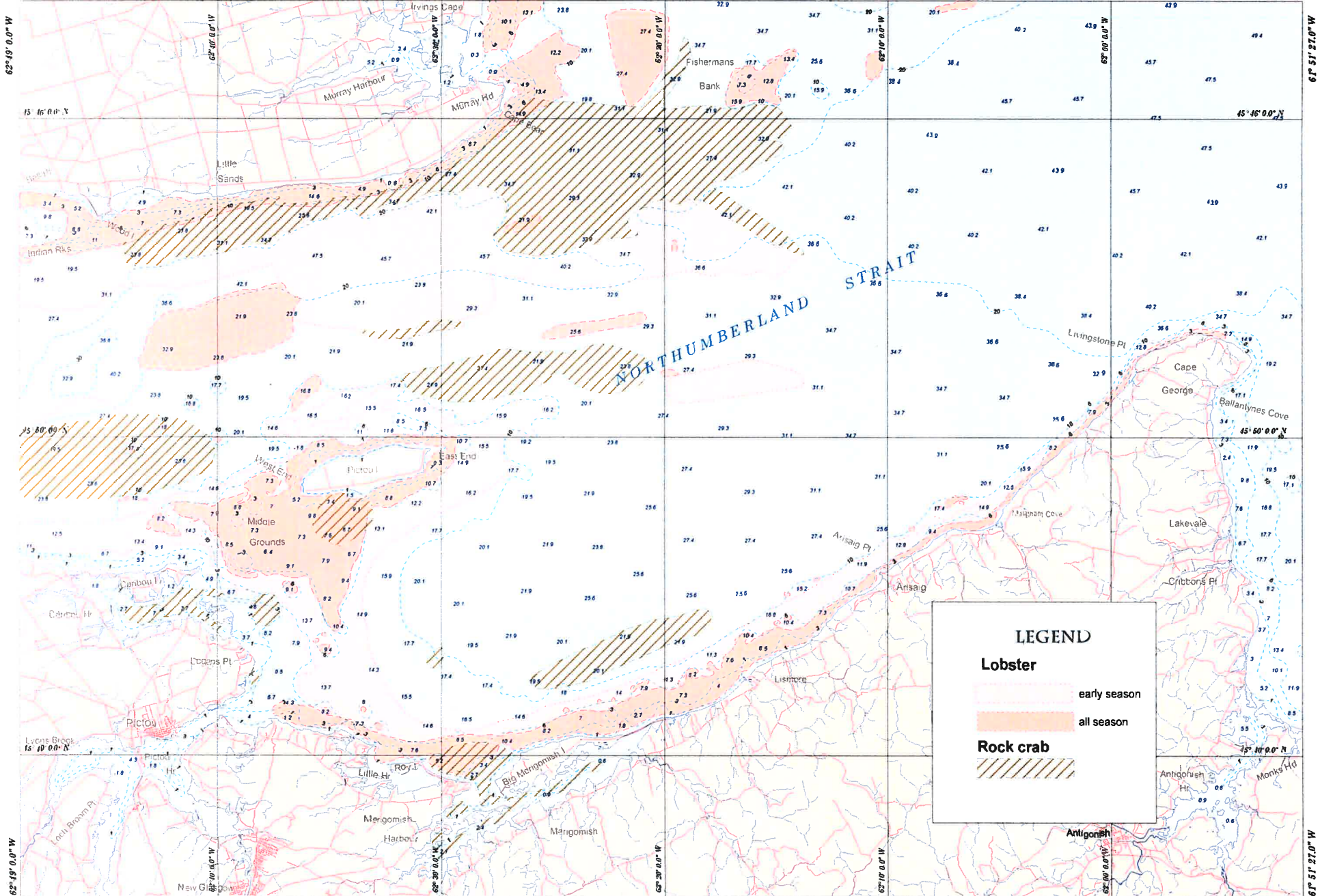




46° 03' 41.0" N

# LOBSTER & ROCK CRAB □ HOMARD & CRABE COMMUN

46° 03' 41.0" N



45° 35' 30.0" N

SCALE 1:300,000

0 5 10

Kilometers

4404 N.S. & P.E.I.

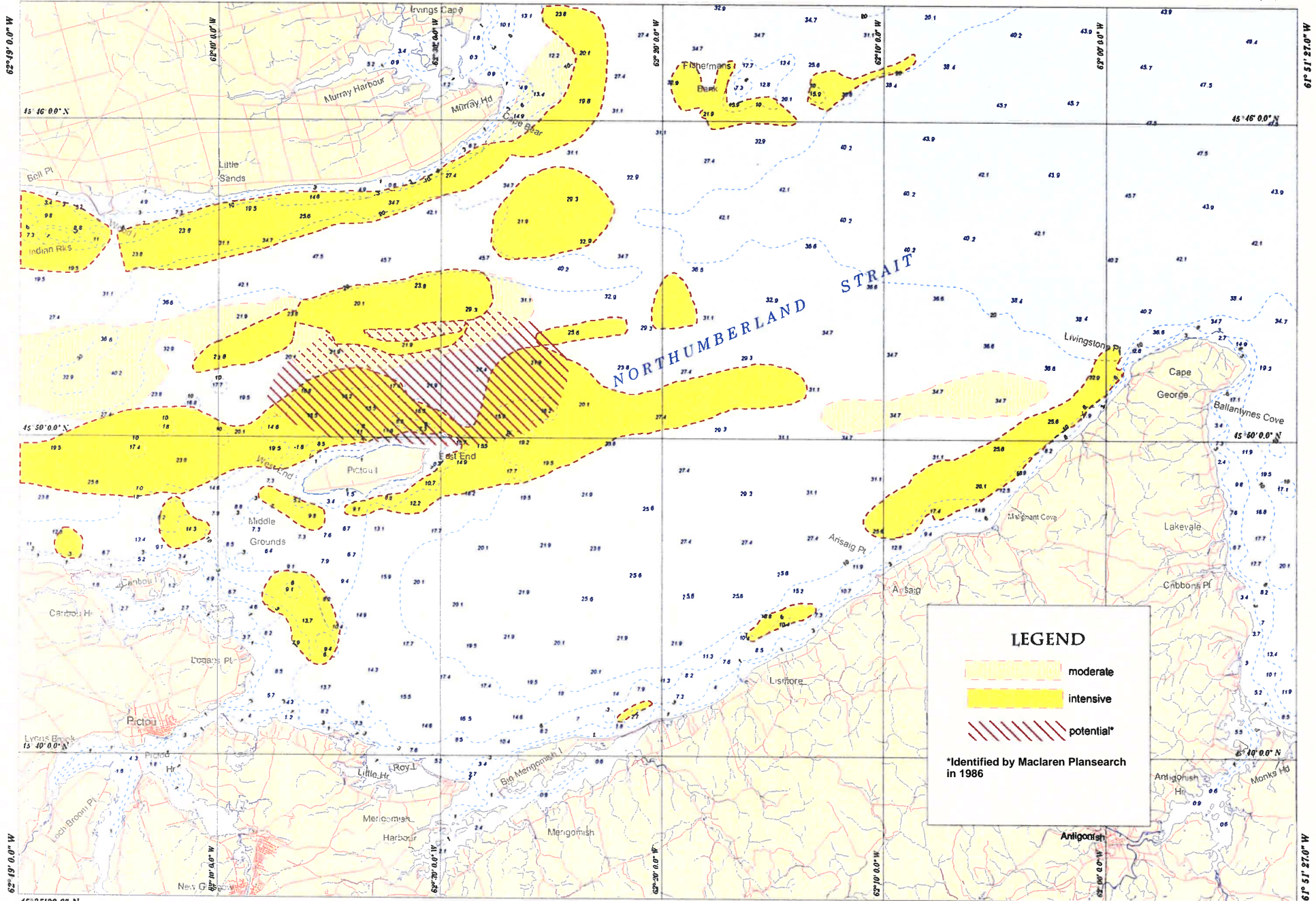
45° 35' 0.0" N



46° 03' 41.0" N

# SCALLOP $\square$ PETONCLE

46° 03' 41.0" N



**LEGEND**

- moderate
- intensive
- potential\*

\*Identified by Maclaren Plansearch in 1986

SCALE 1:300,000

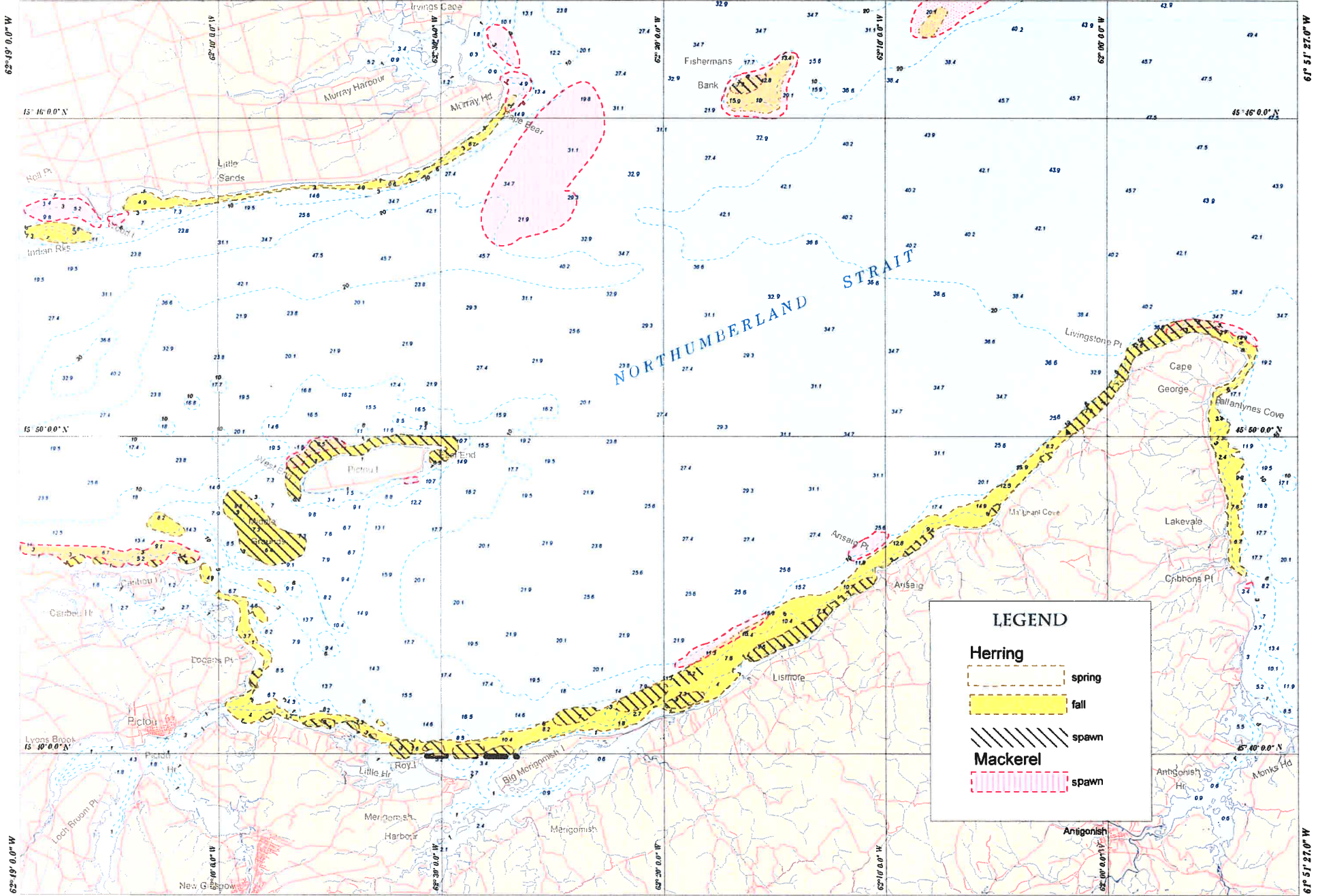


4404 N.S. & P.E.I.

46° 03' 41.0" N

# HERRING & MACKEREL / HARENG & MAQUEREAU

46° 03' 41.0" N



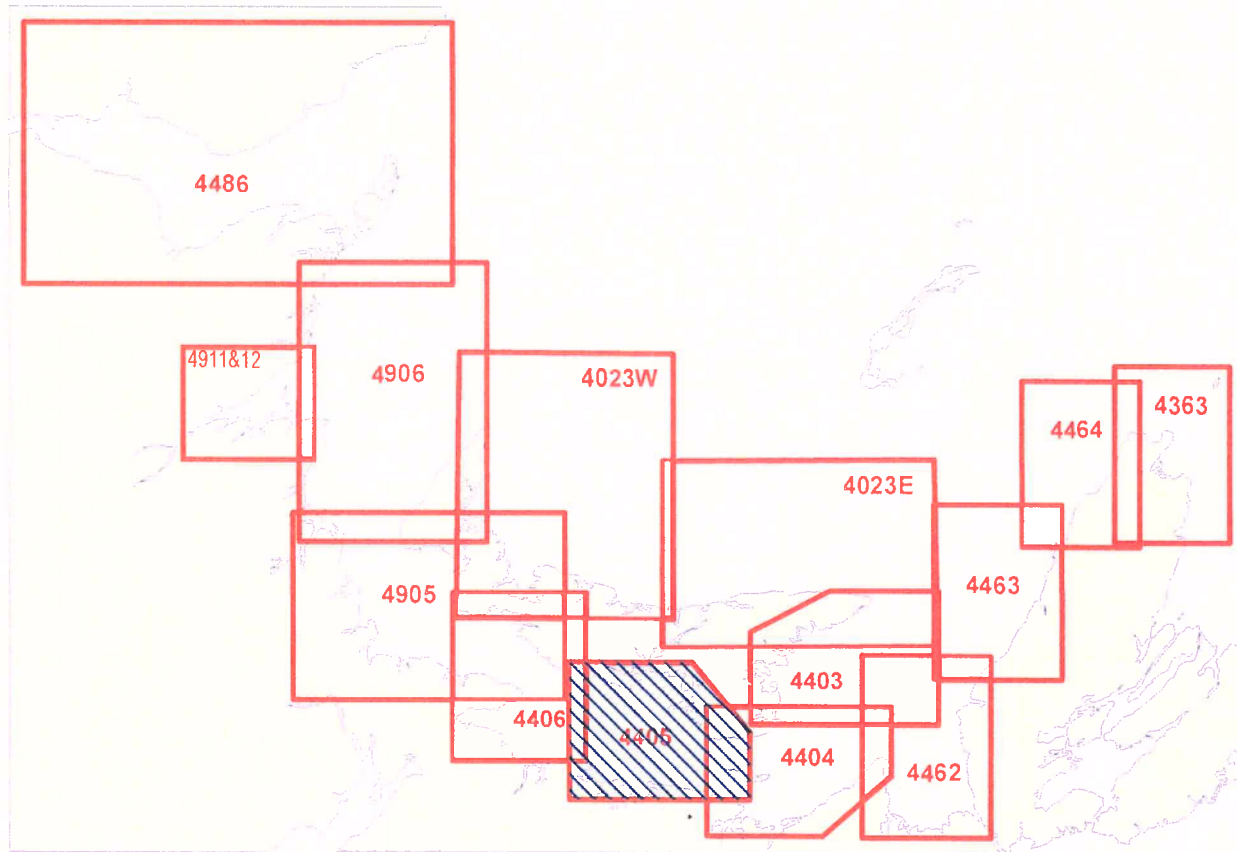
**LEGEND**

- Herring
  - spring (dashed yellow)
  - fall (solid yellow)
  - spawn (hatched yellow)
- Mackerel
  - spawn (dashed red)

SCALE 1:300,000



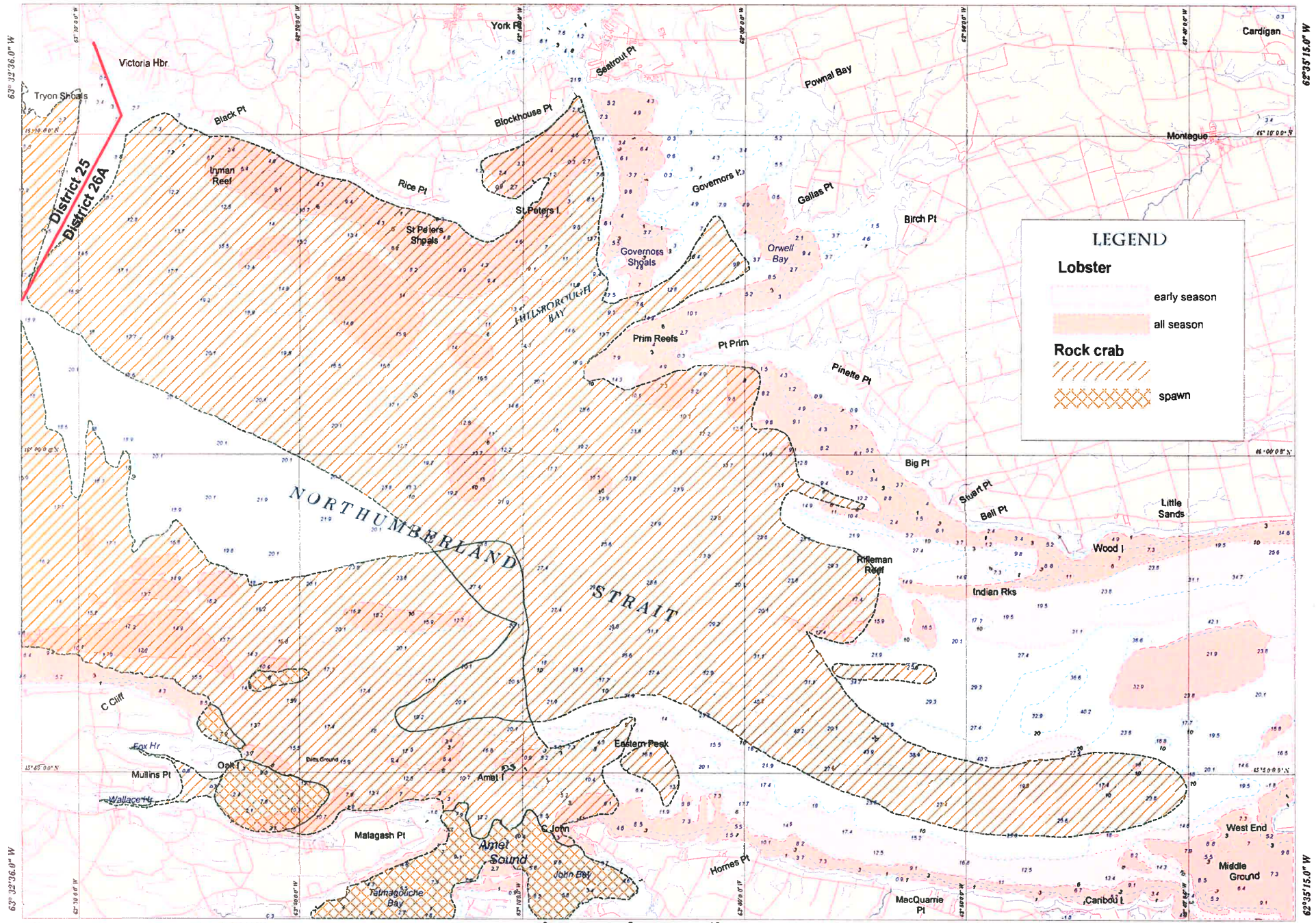
4404 N.S. & P.E.I.



46° 14' 04.0" N

# LOBSTER & ROCK CRAB | HOMARD & CRABE COMMUN

46° 14' 04.0" N



**LEGEND**

**Lobster**

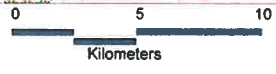
- early season
- all season

**Rock crab**

- spawn

46° 15' 21.6" N

SCALE 1:300,000



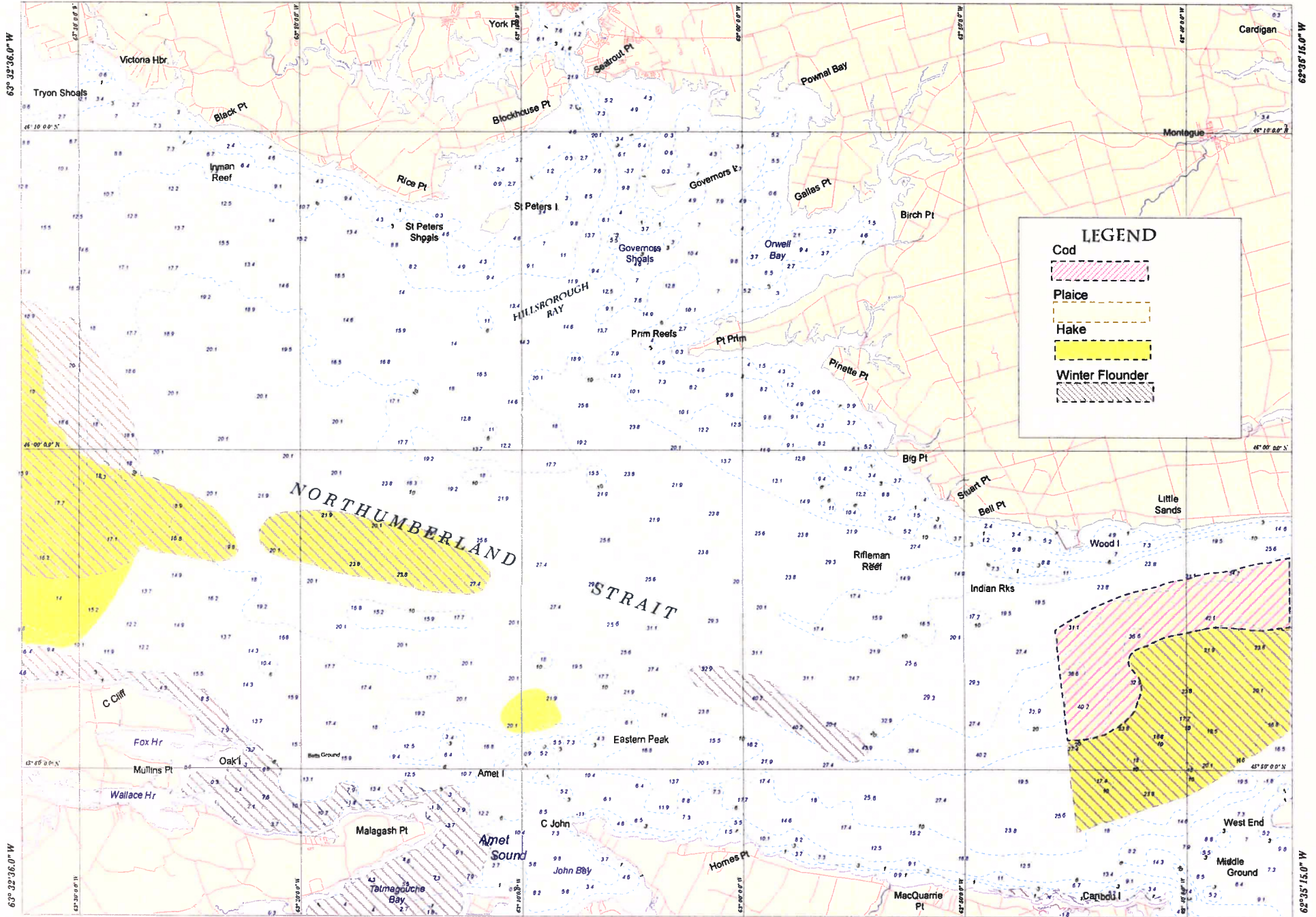
4405 N.S. & P.E.I.

46° 45' 21.6" N

46° 14' 04.0" N

# GROUND FISH POISSON DE FOND

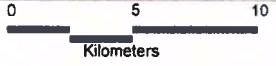
46° 14' 04.0" N



**LEGEND**

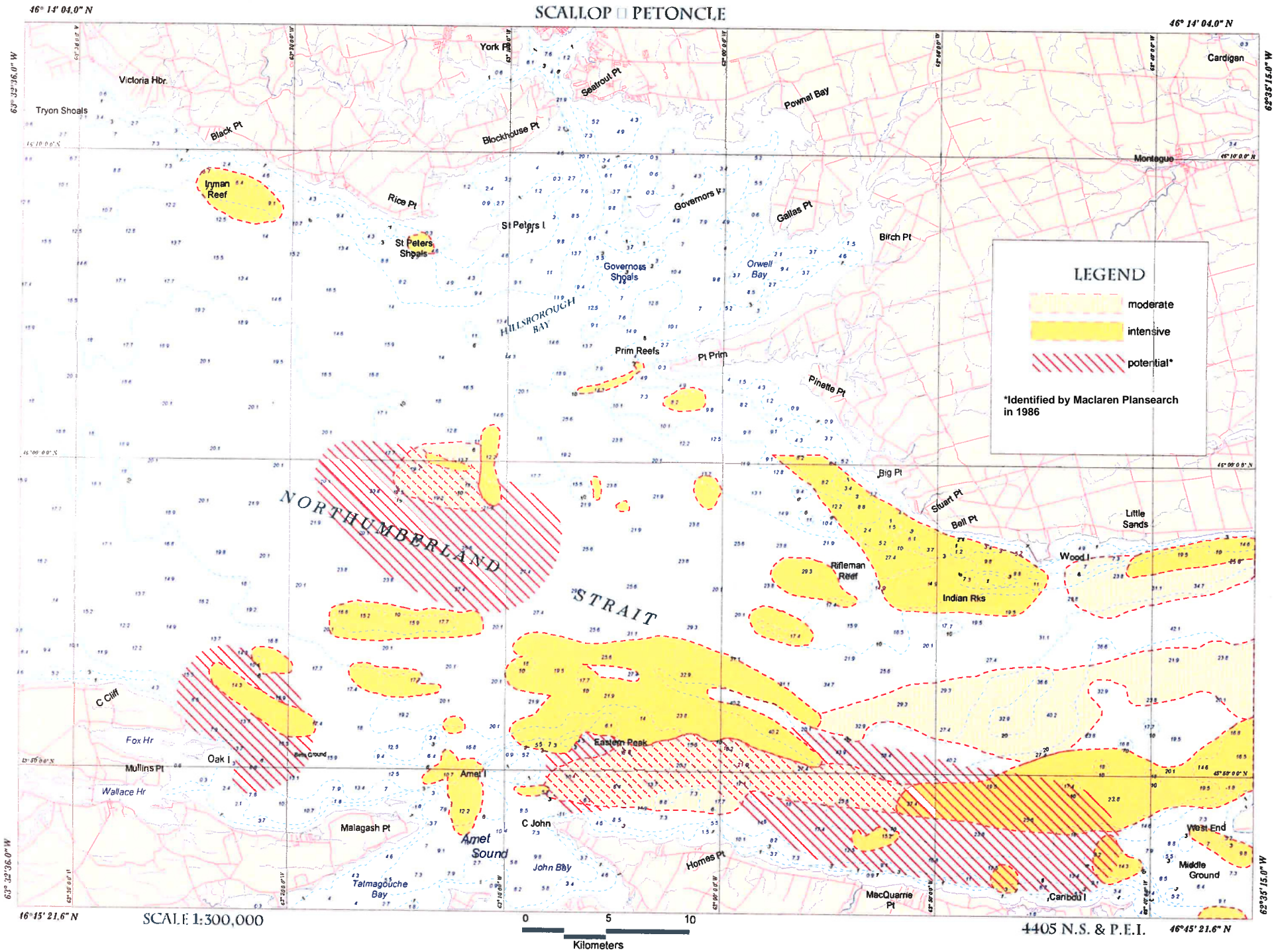
- Cod
- Plaice
- Hake
- Winter Flounder

16° 45' 21.6" N SCALE 1:300,000



4405 N.S. & P.E.I. 46° 45' 21.6" N

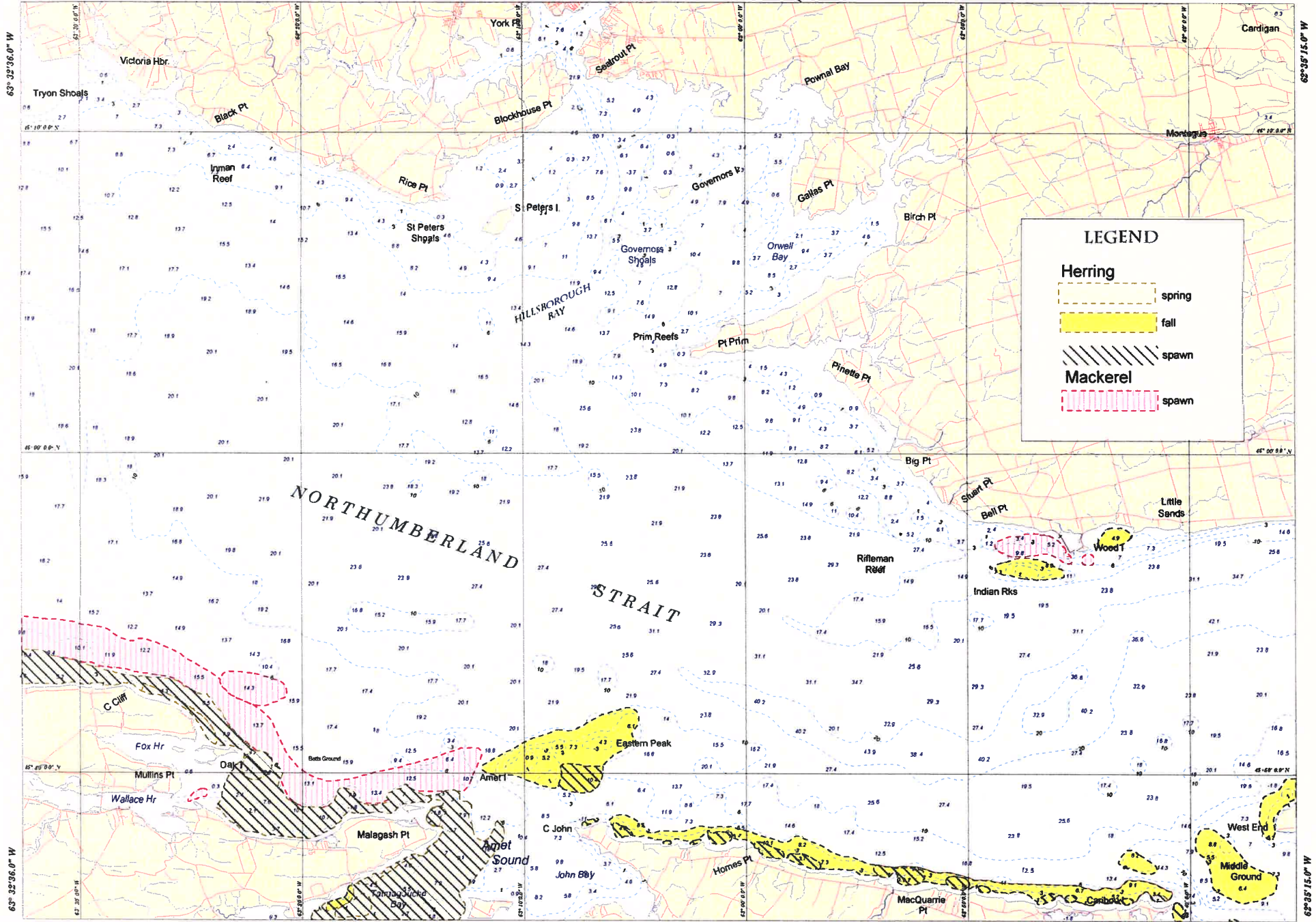
# SCALLOP PETONCLE



46° 14' 04.0" N

# HERRING & MACKEREL | HARENB & MAQUEREAU

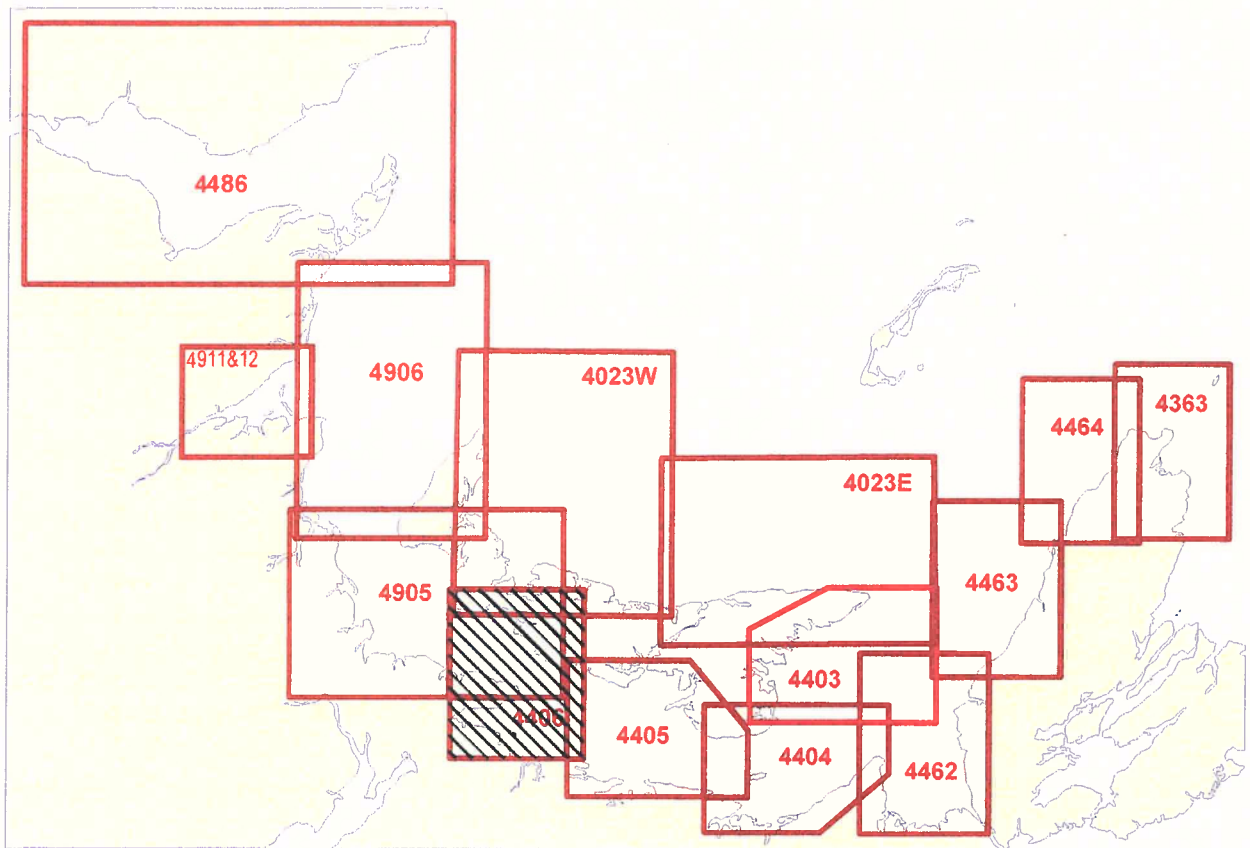
46° 14' 04.0" N



SCALE 1:300,000

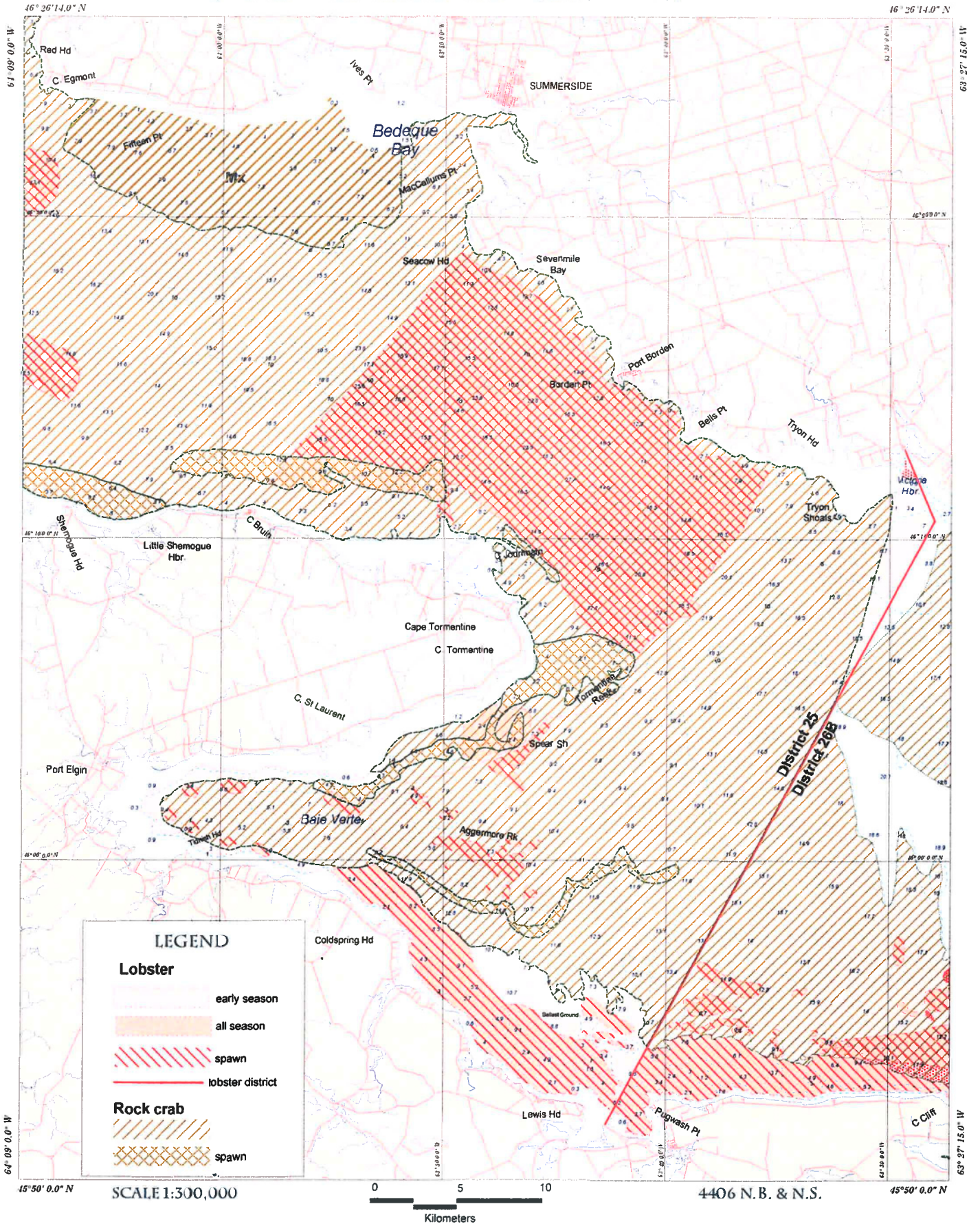


4405 N.S. & P.E.I.

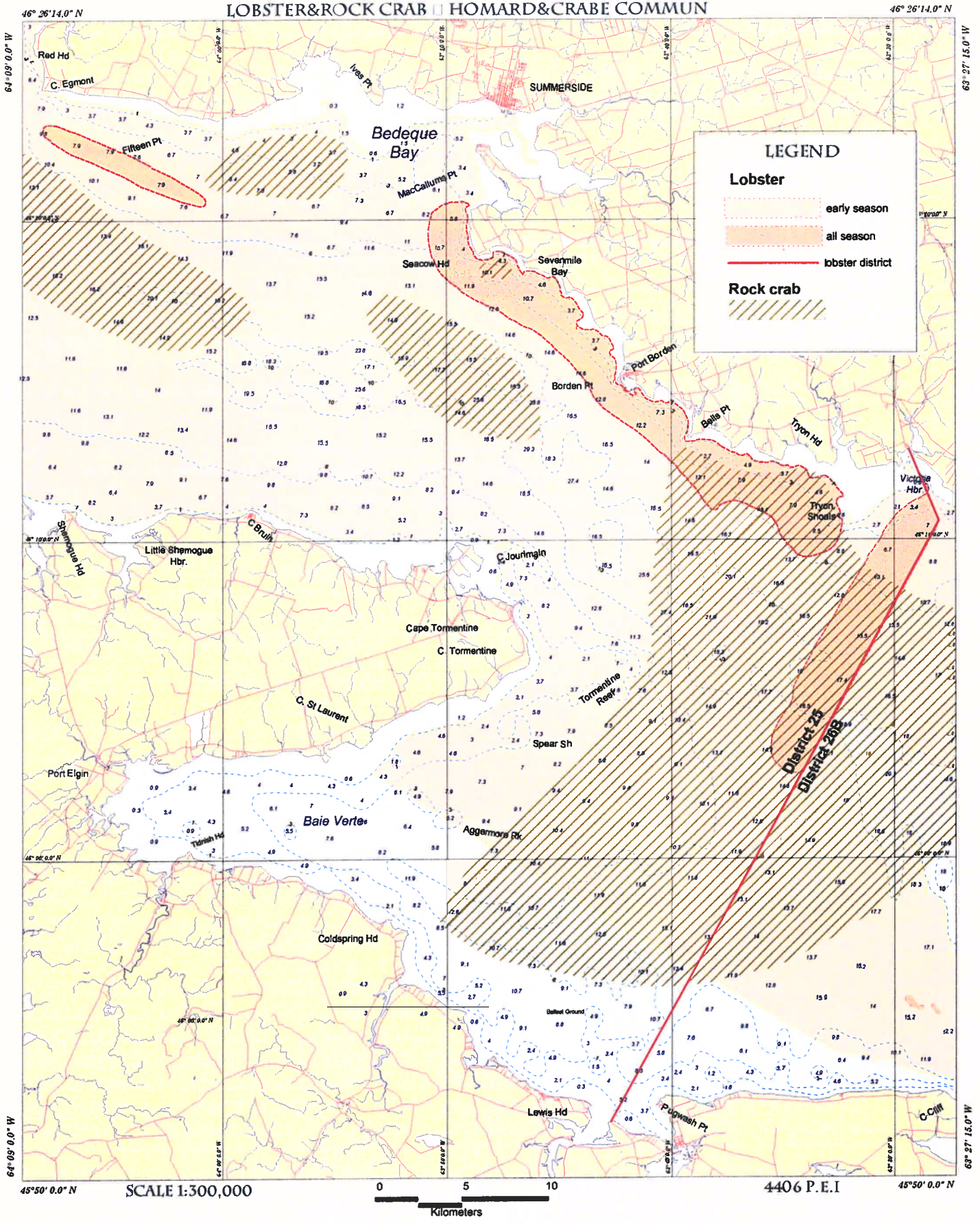




# LOBSTER & ROCK CRAB HOMARD & CRABE COMMUN



LOBSTER & ROCK CRAB | HOMARD & CRABE COMMUN



LEGEND

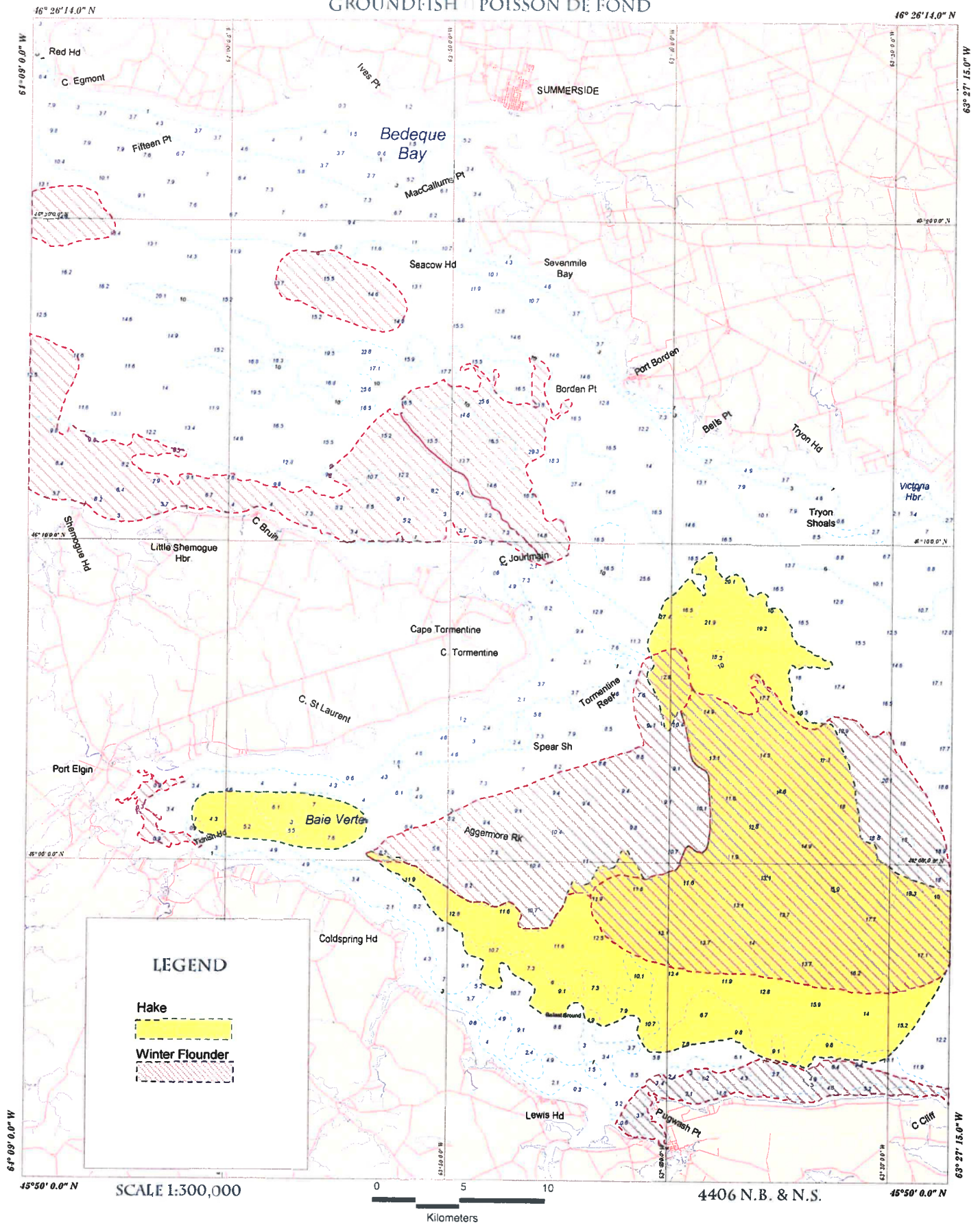
- Lobster**
- early season
- all season
- lobster district
- Rock crab**
- 

SCALE 1:300,000

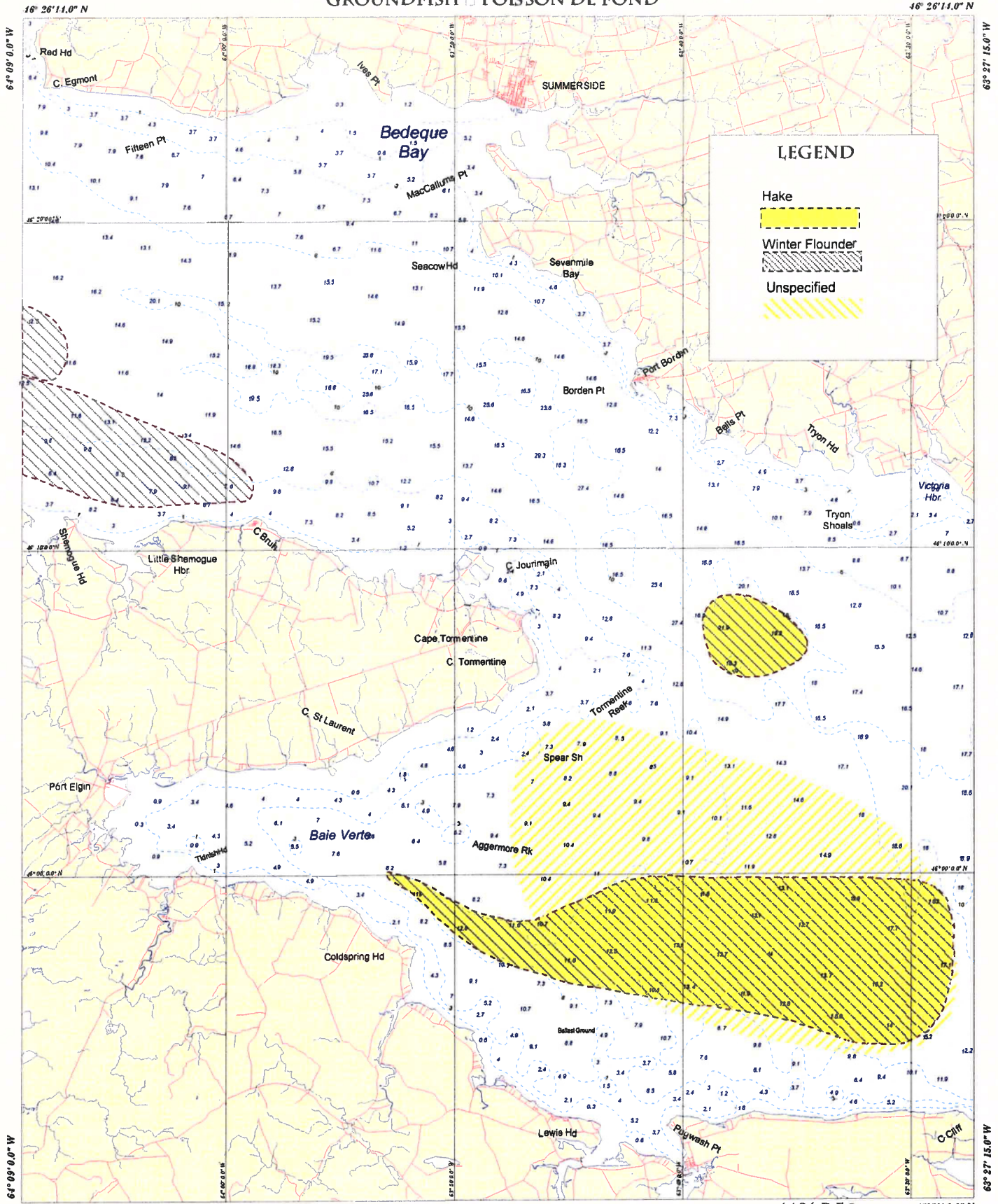


4406 P.E.I.

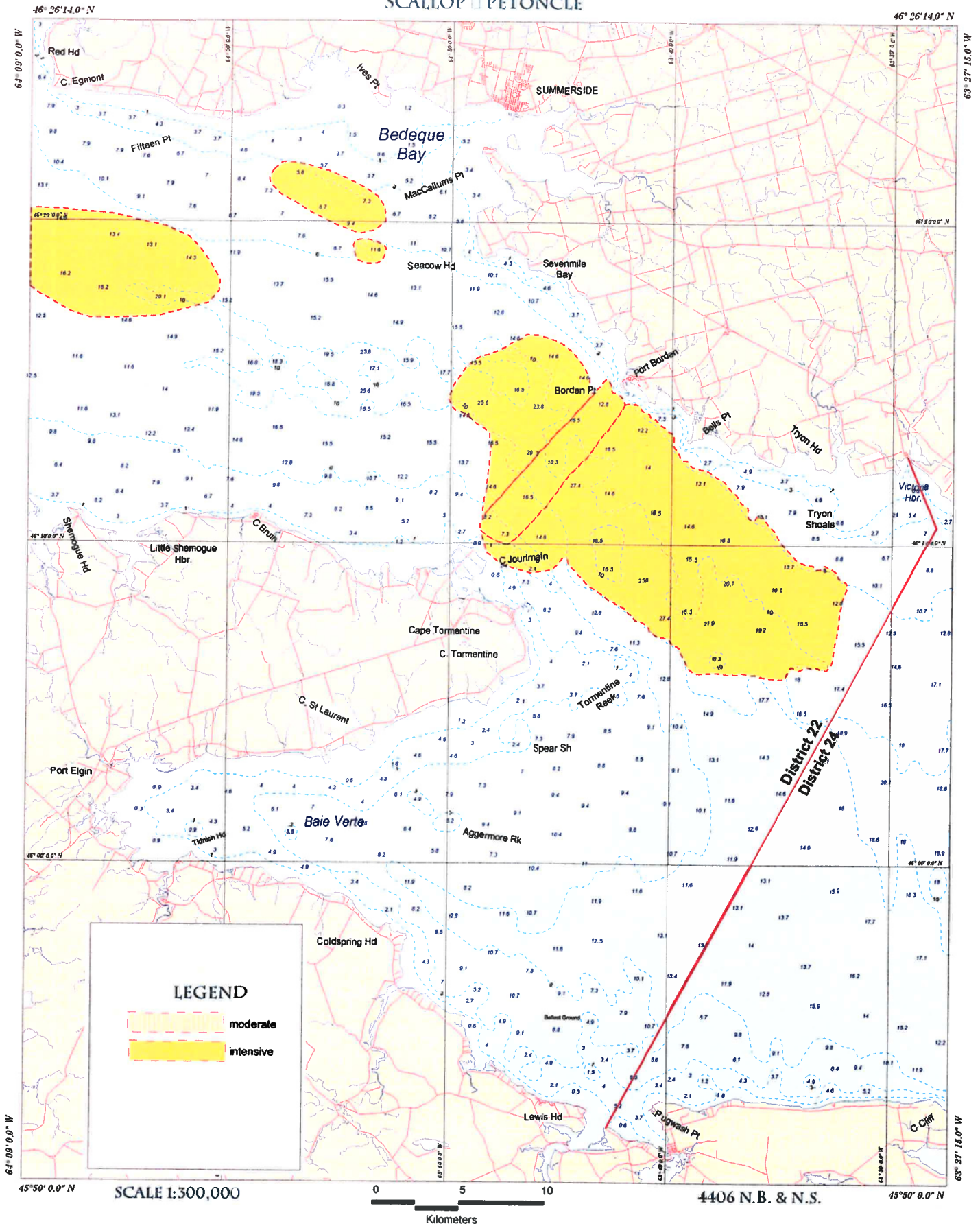
GROUND FISH POISSON DE FOND



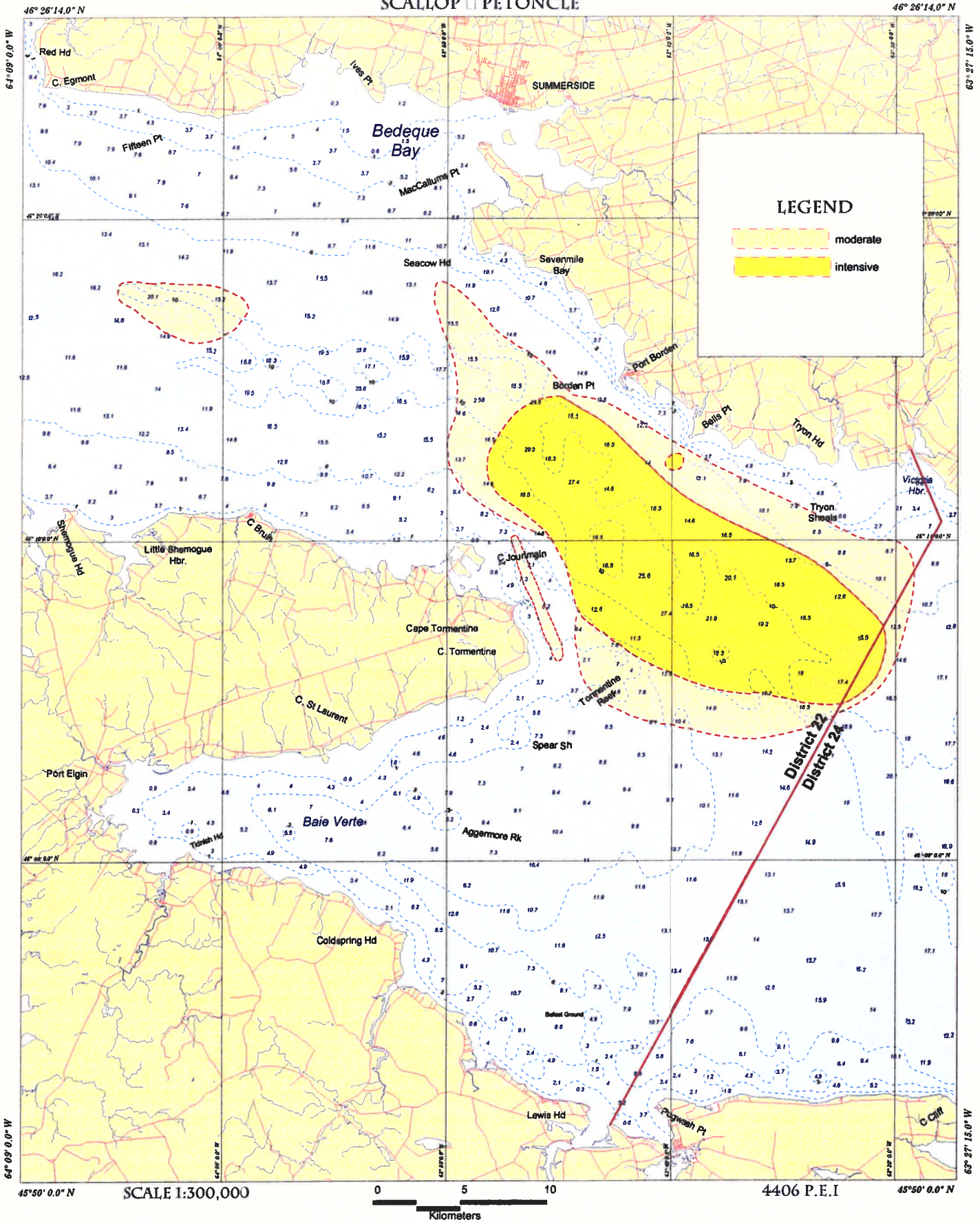
GROUND FISH POISSON DE FOND



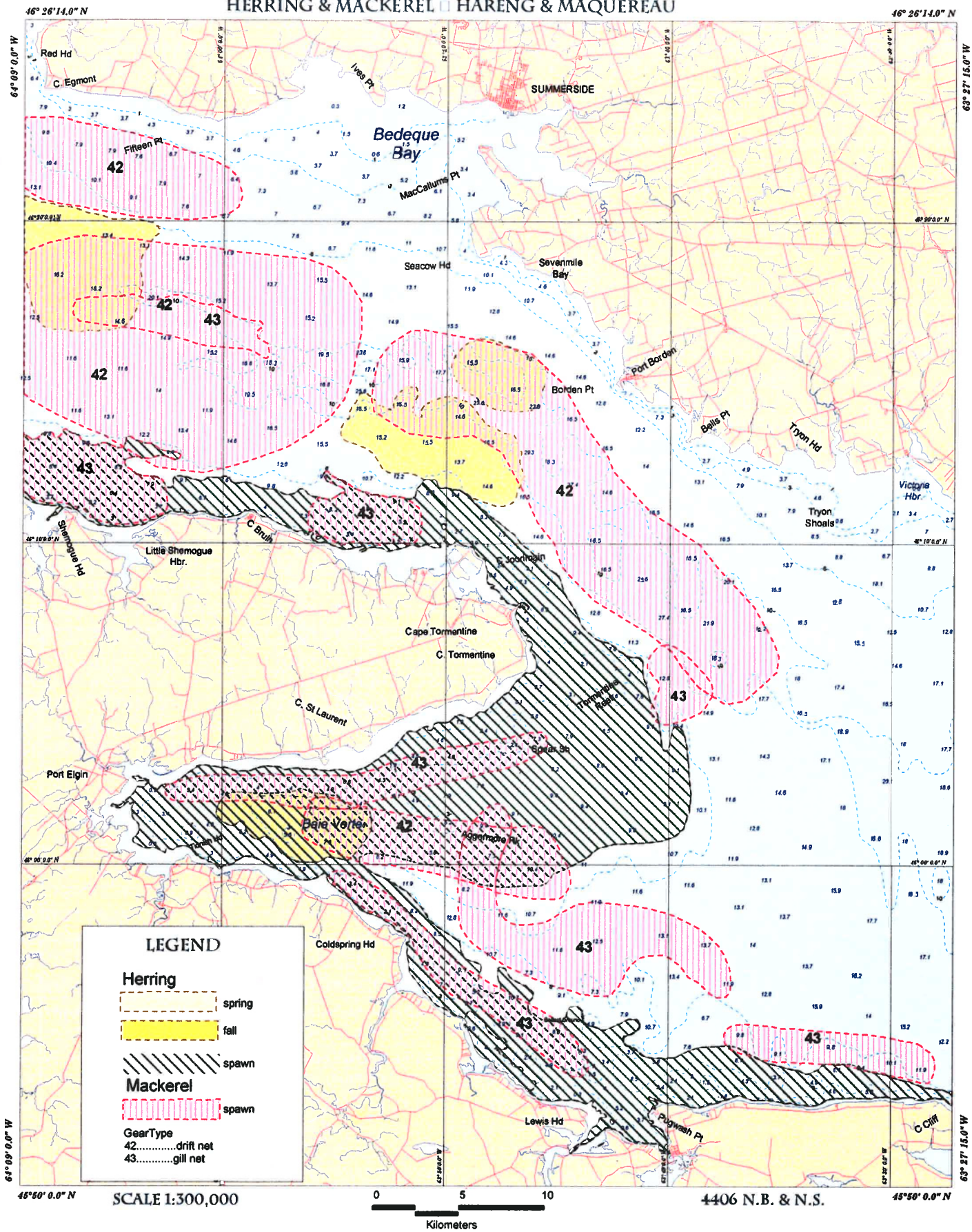
# SCALLOP PETONCLE



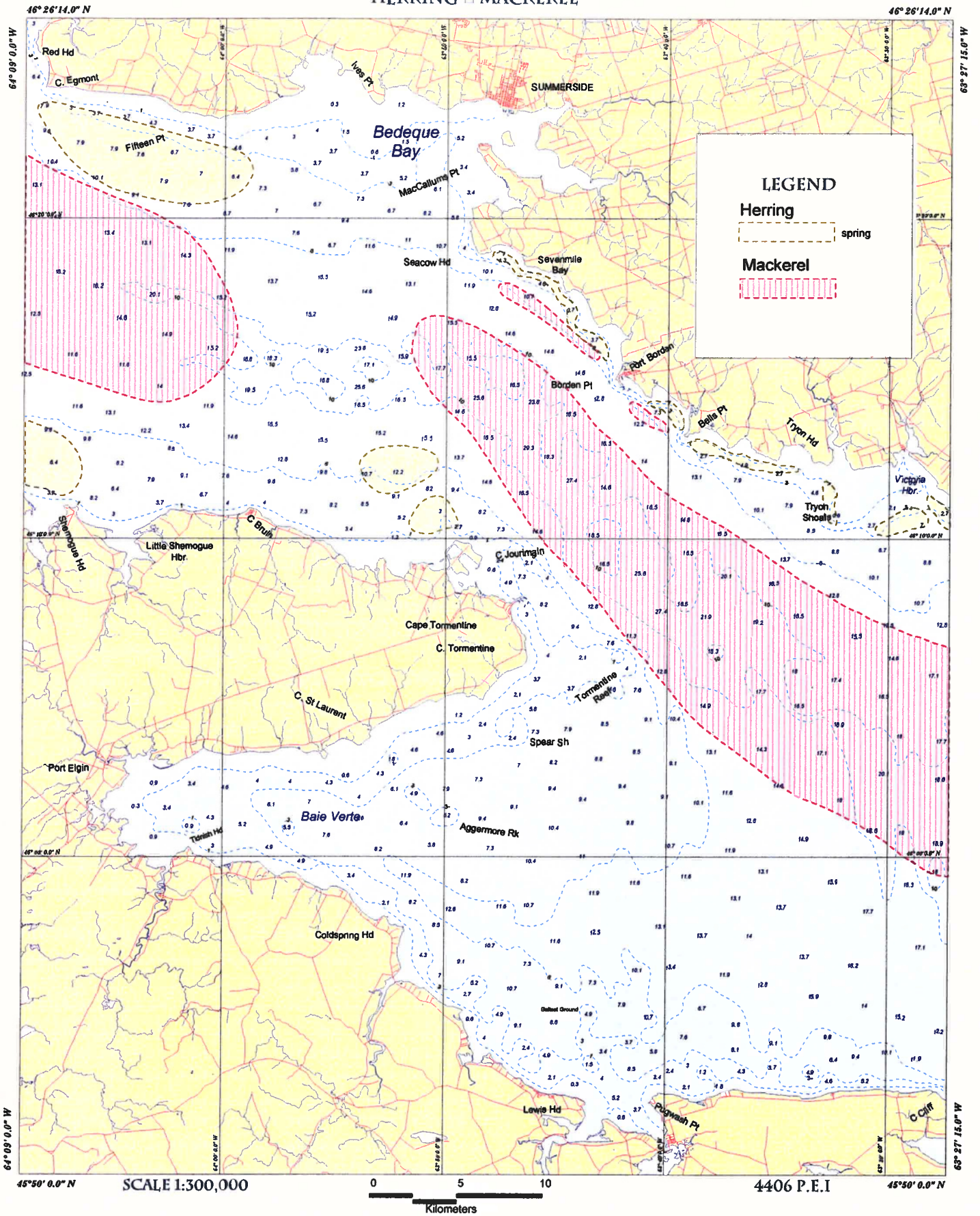
# SCALLOP & PETONCLE



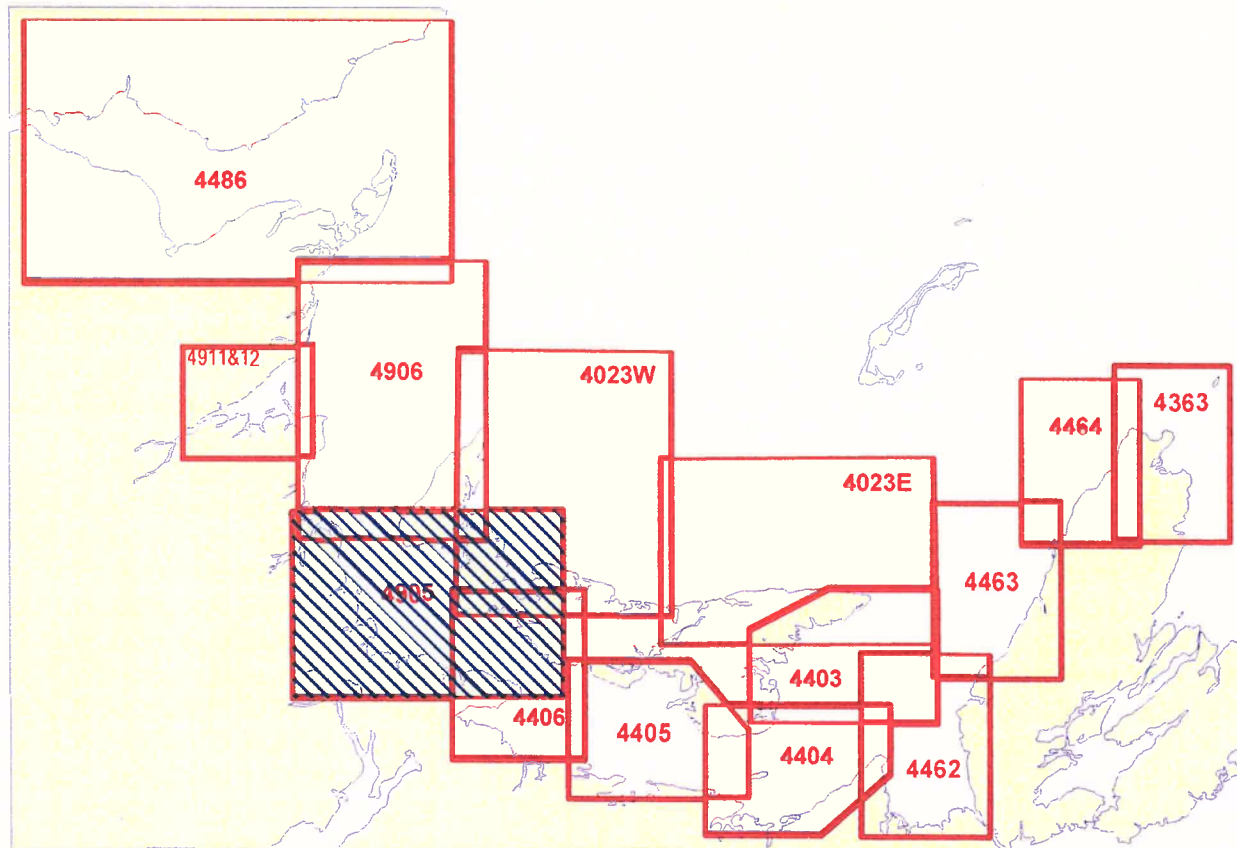
# HERRING & MACKEREL HARENG & MAQUEREAU



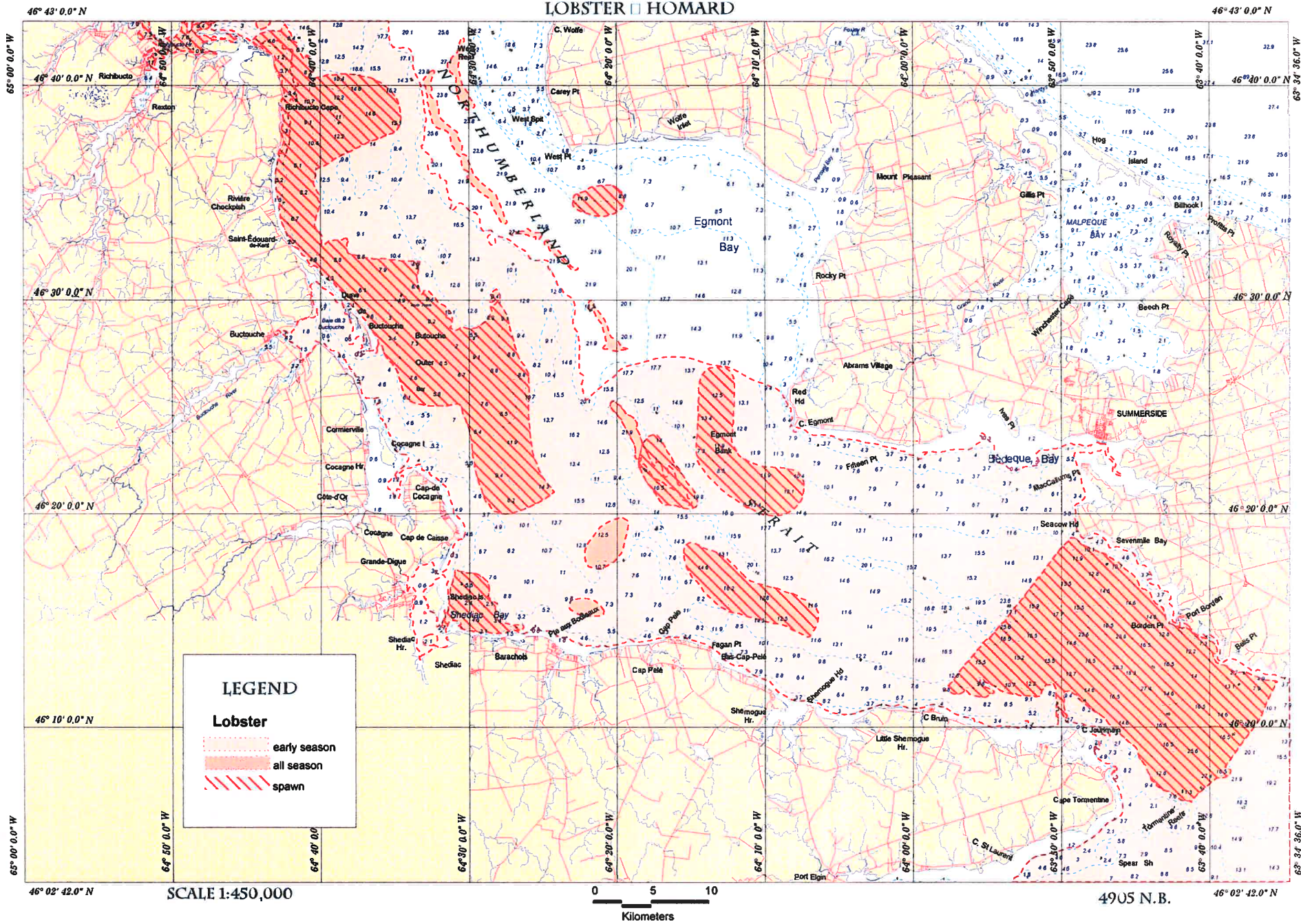
# HERRING □ MACKEREL





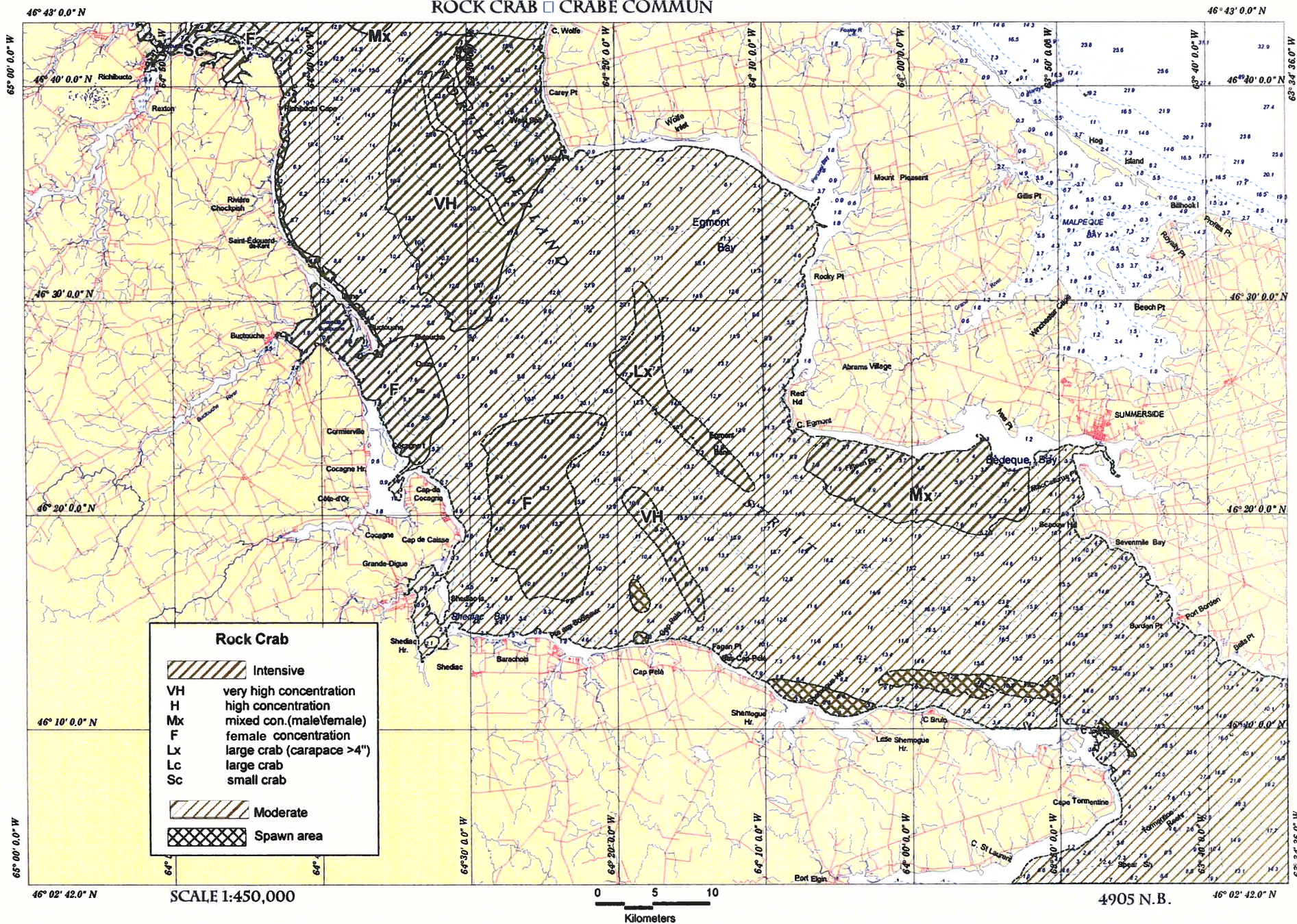


# LOBSTER HOMARD

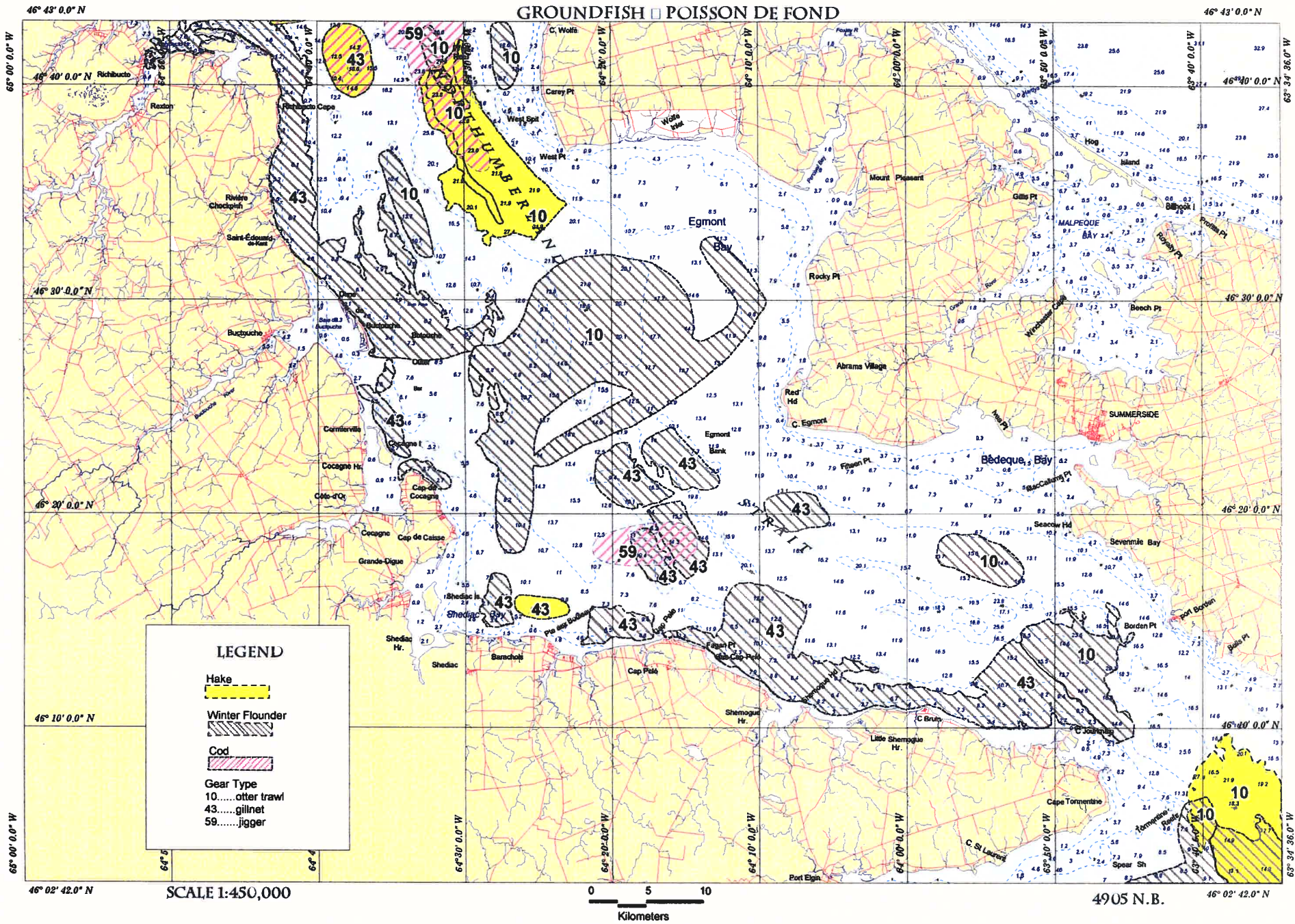




# ROCK CRAB $\square$ CRABE COMMUN



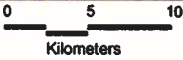
GROUND FISH □ POISSON DE FOND



**LEGEND**

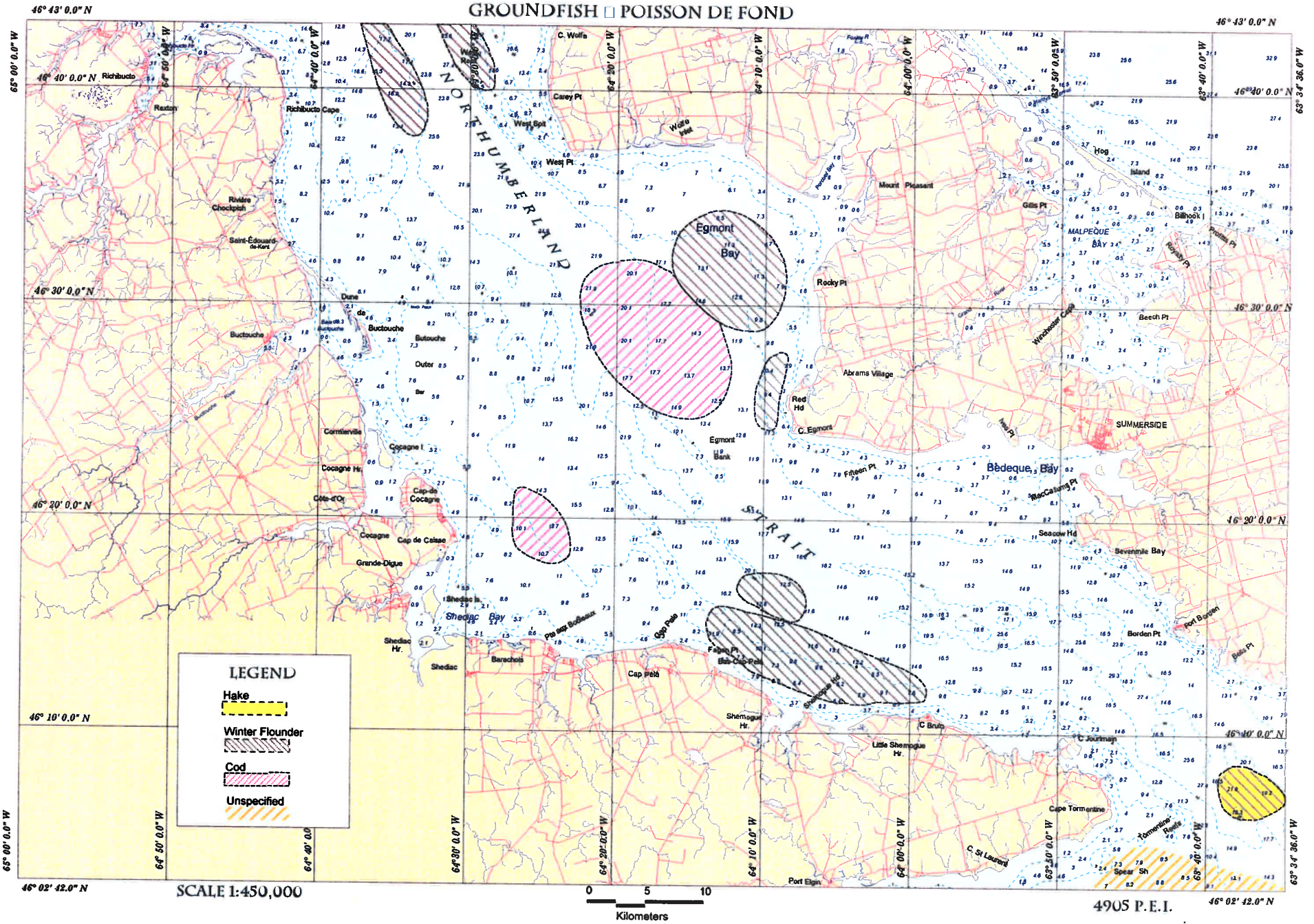
- Hake
- Winter Flounder
- Cod
- Gear Type
  - 10.....otter trawl
  - 43.....gillnet
  - 59.....jigger

SCALE 1:450,000

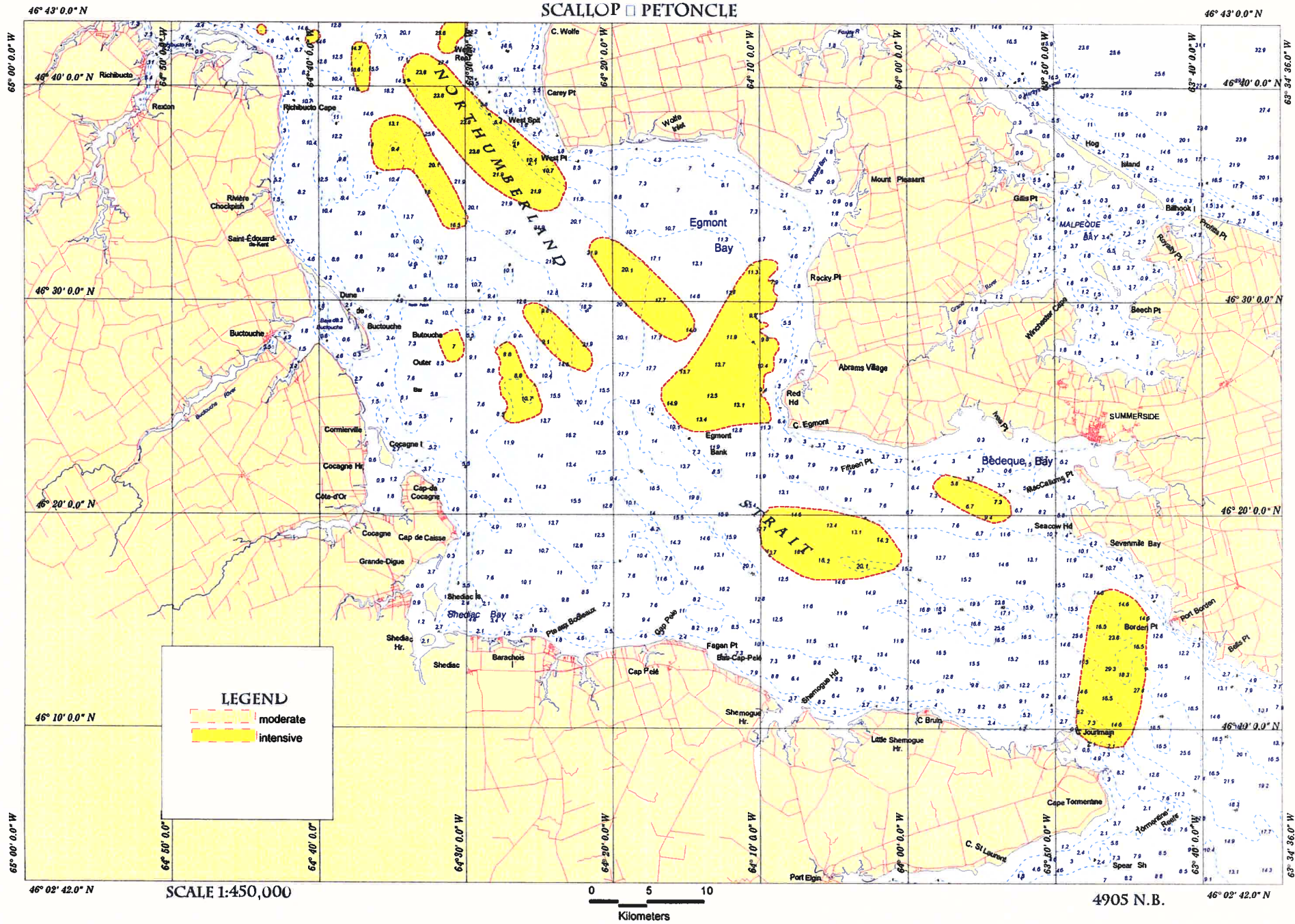


4905 N.B.

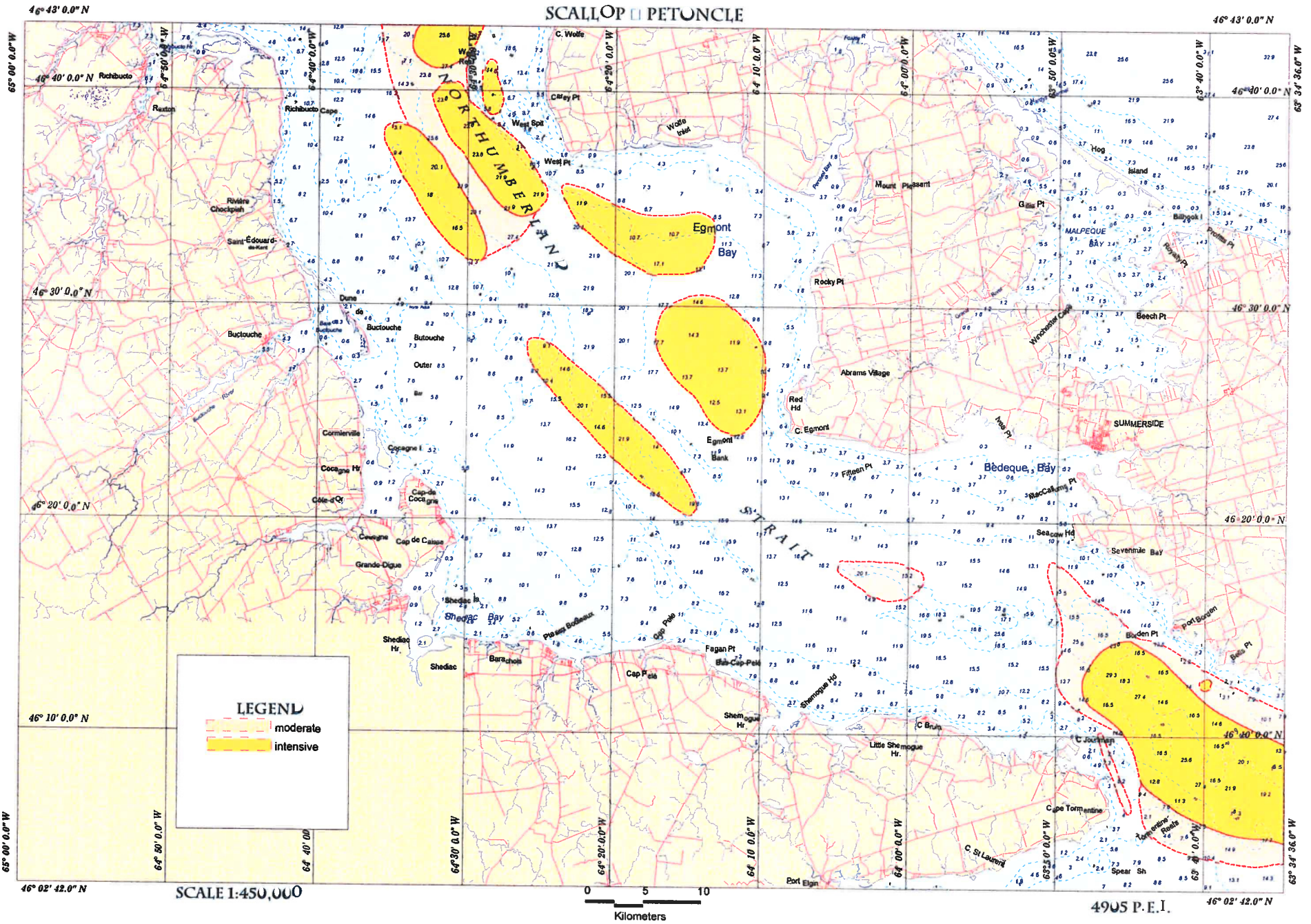
GROUND FISH □ POISSON DE FOND



# SCALLOP □ PETONCLE

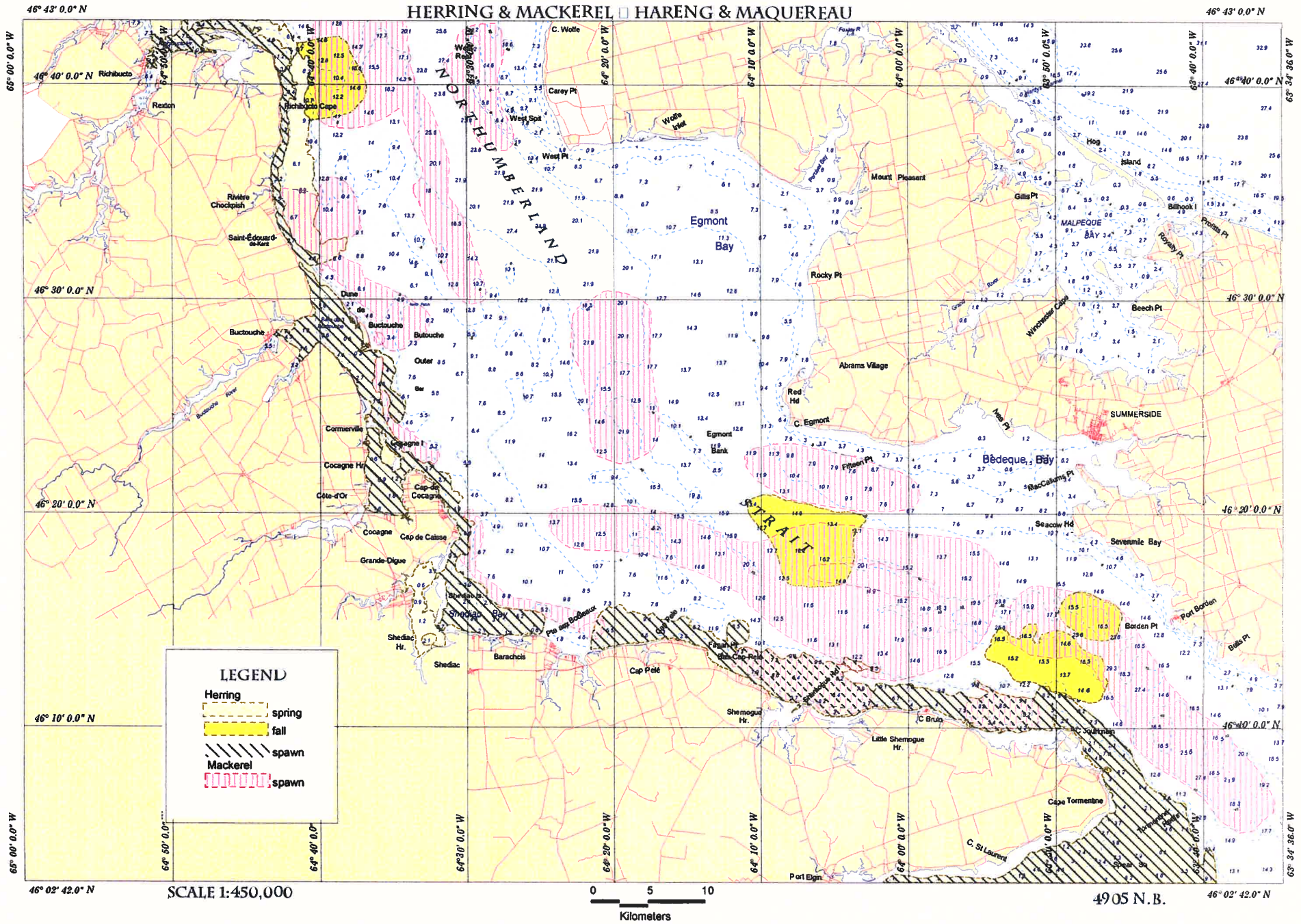


# SCALLOP PETONCLE

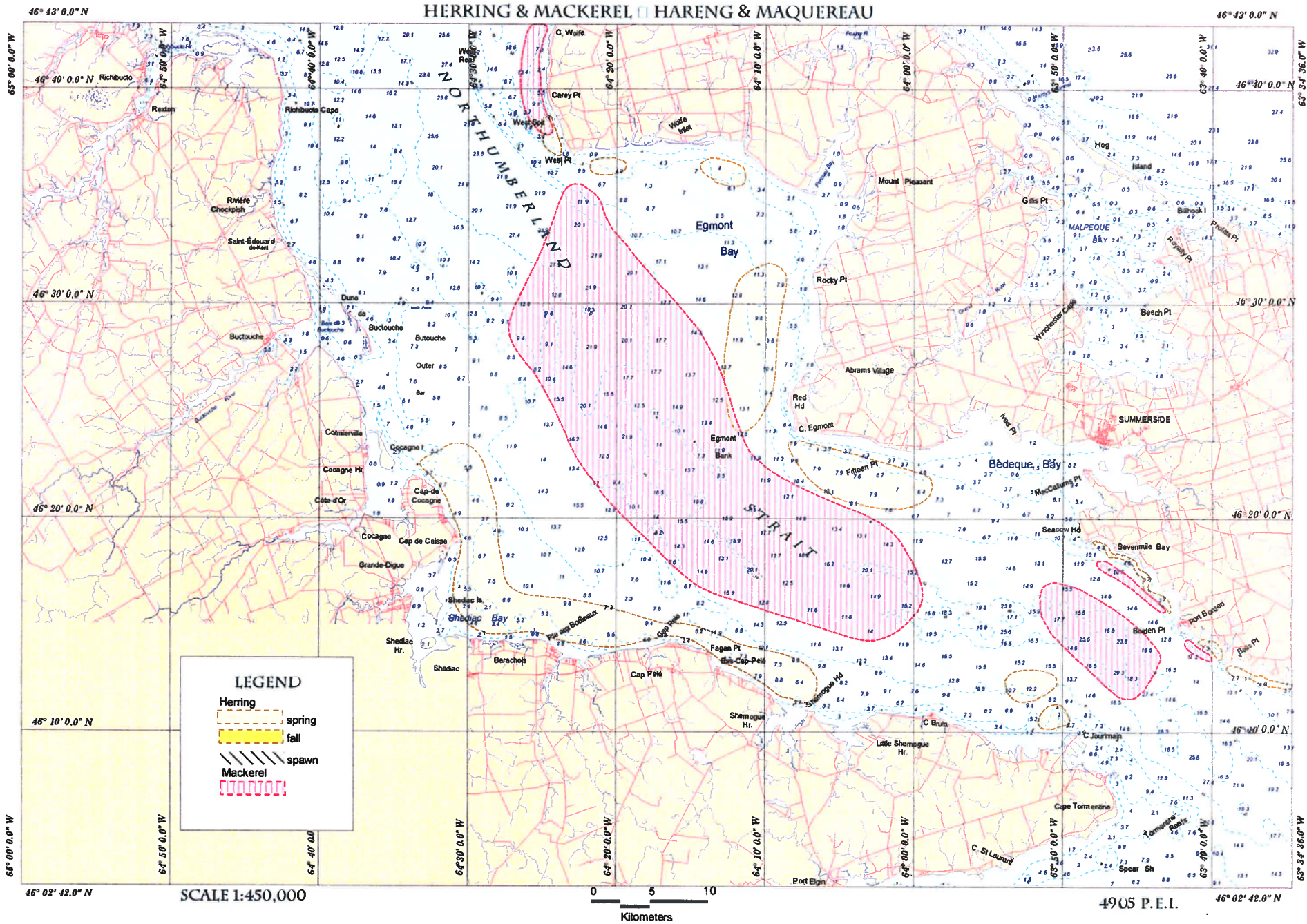


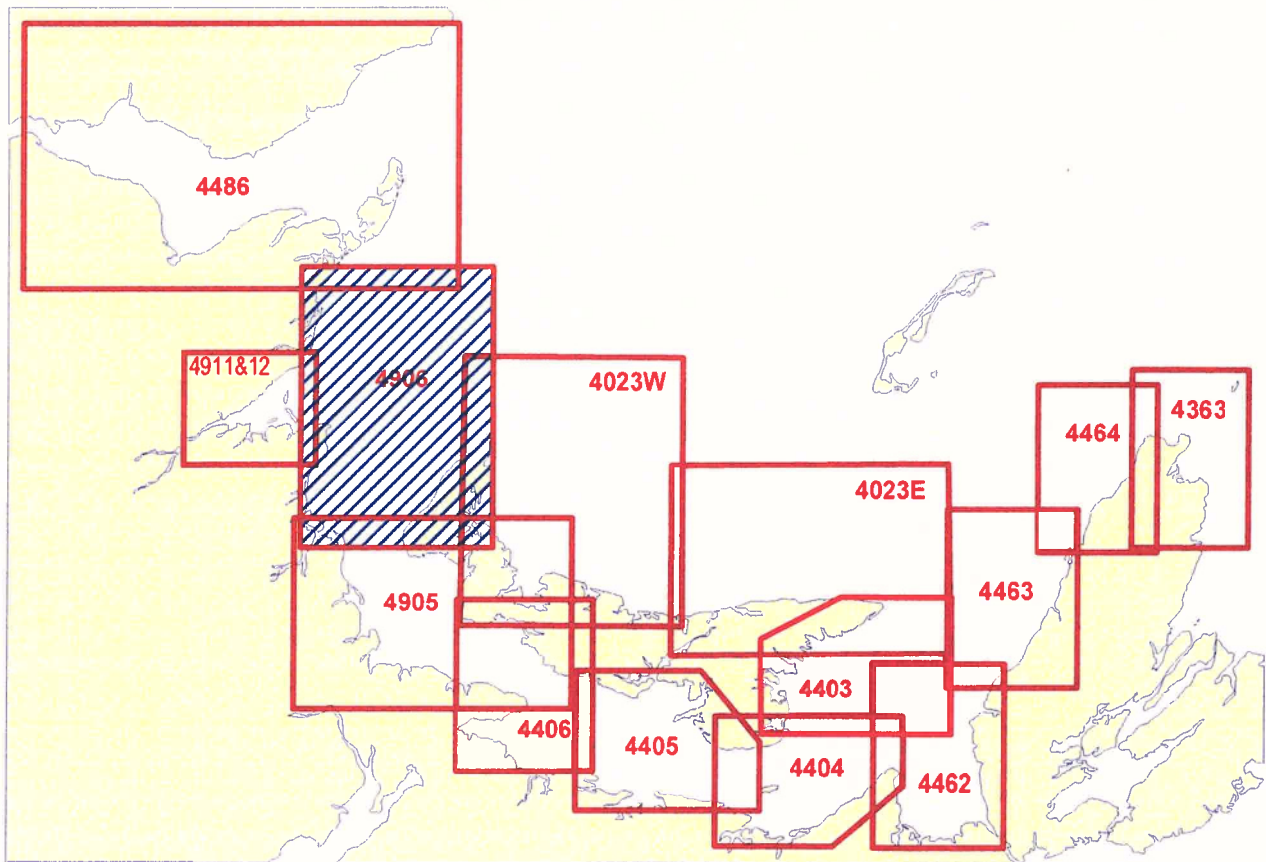


# HERRING & MACKEREL HARENG & MAQUEREAU

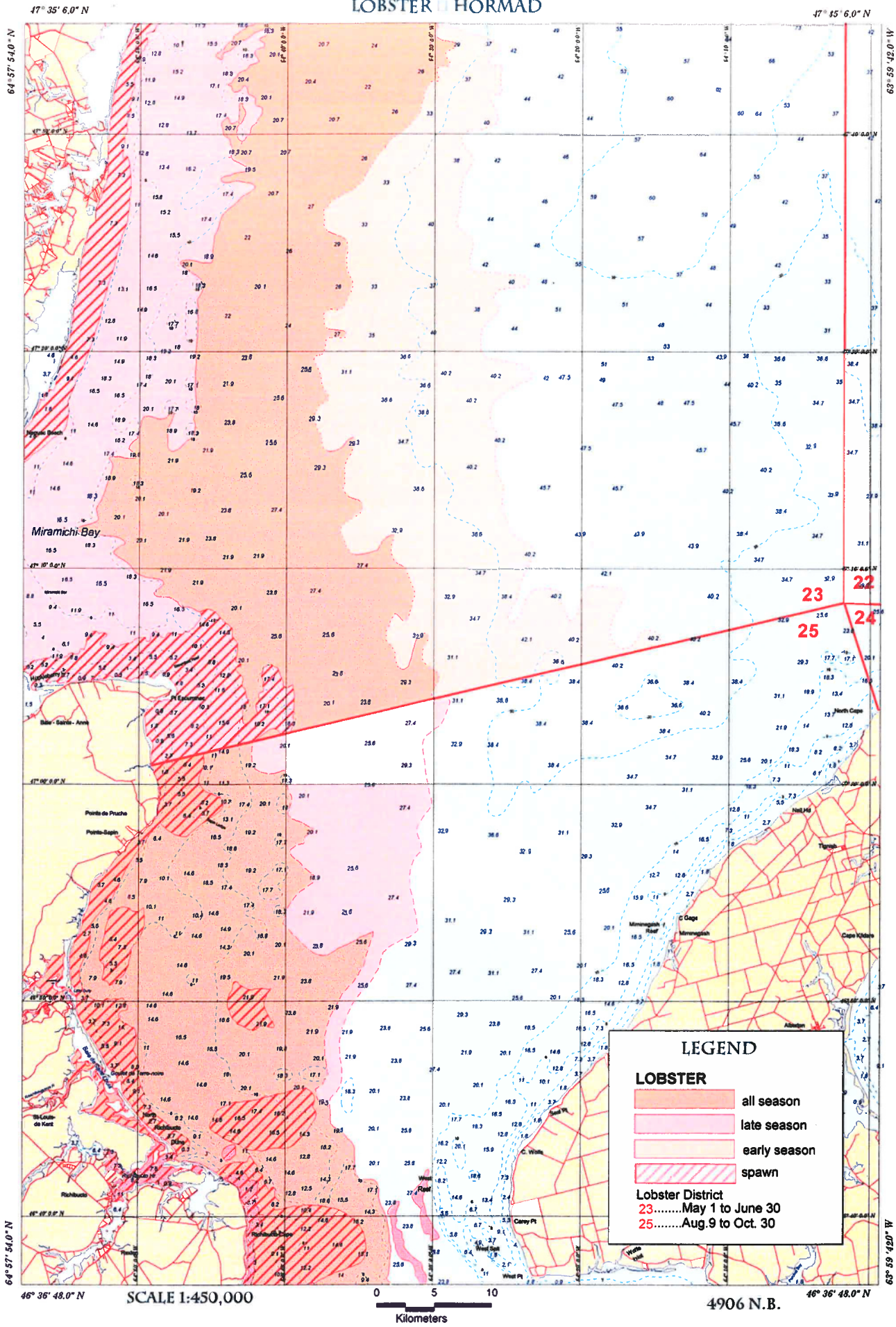


# HERRING & MACKEREL HARENG & MAQUEREAU





# LOBSTER HORMAD



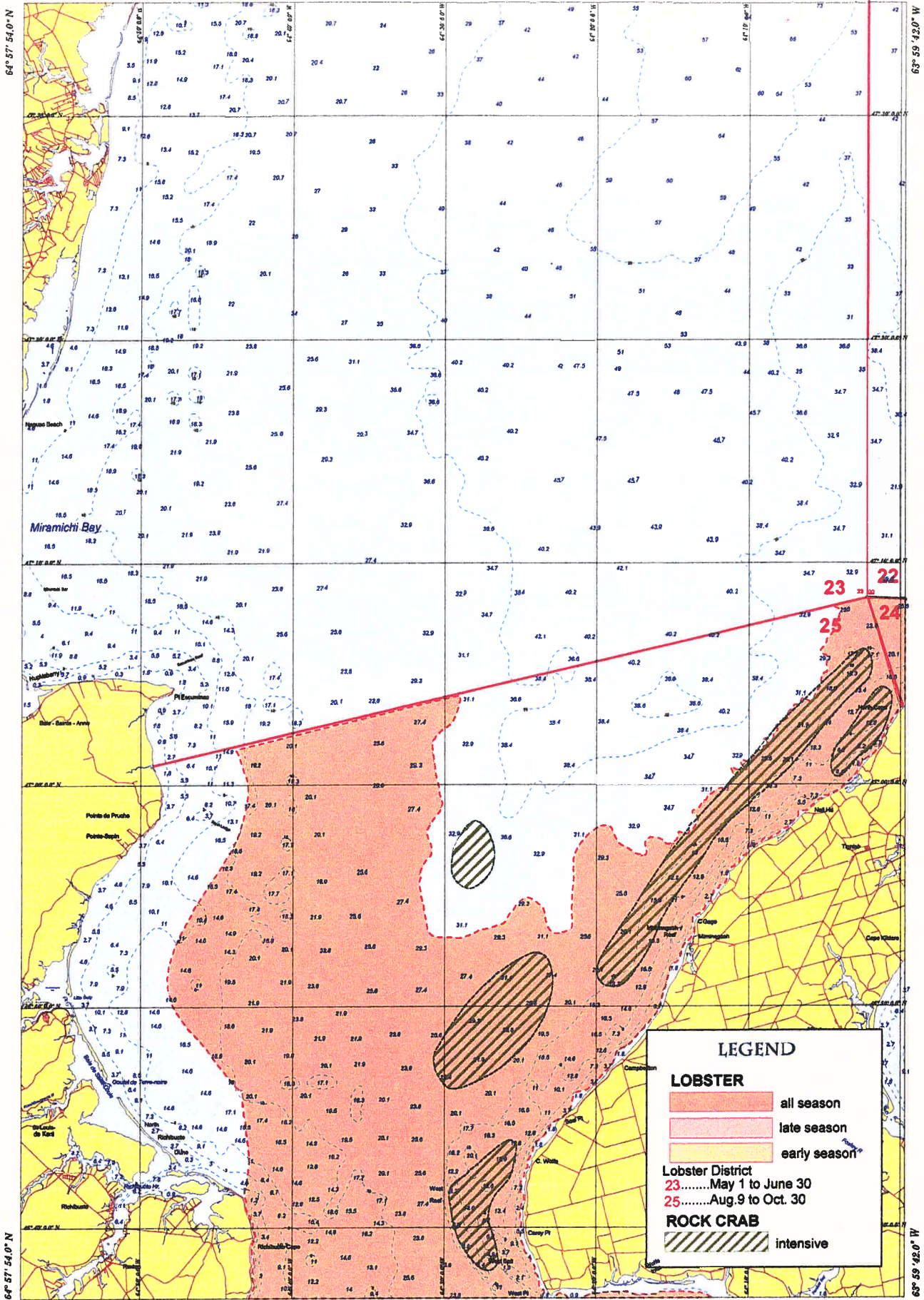
47° 35' 6.0" N

# LOBSTER & ROCK CRAB □ HOMARD & CRABE COMMUN

17° 35' 6.0" W

64° 57' 54.0" N

65° 59' 43.0" W



**LEGEND**

**LOBSTER**

- all season
- late season
- early season\*

Lobster District

- 23.....May 1 to June 30
- 25.....Aug.9 to Oct. 30

**ROCK CRAB**

- intensive

64° 57' 54.0" N

65° 59' 43.0" W

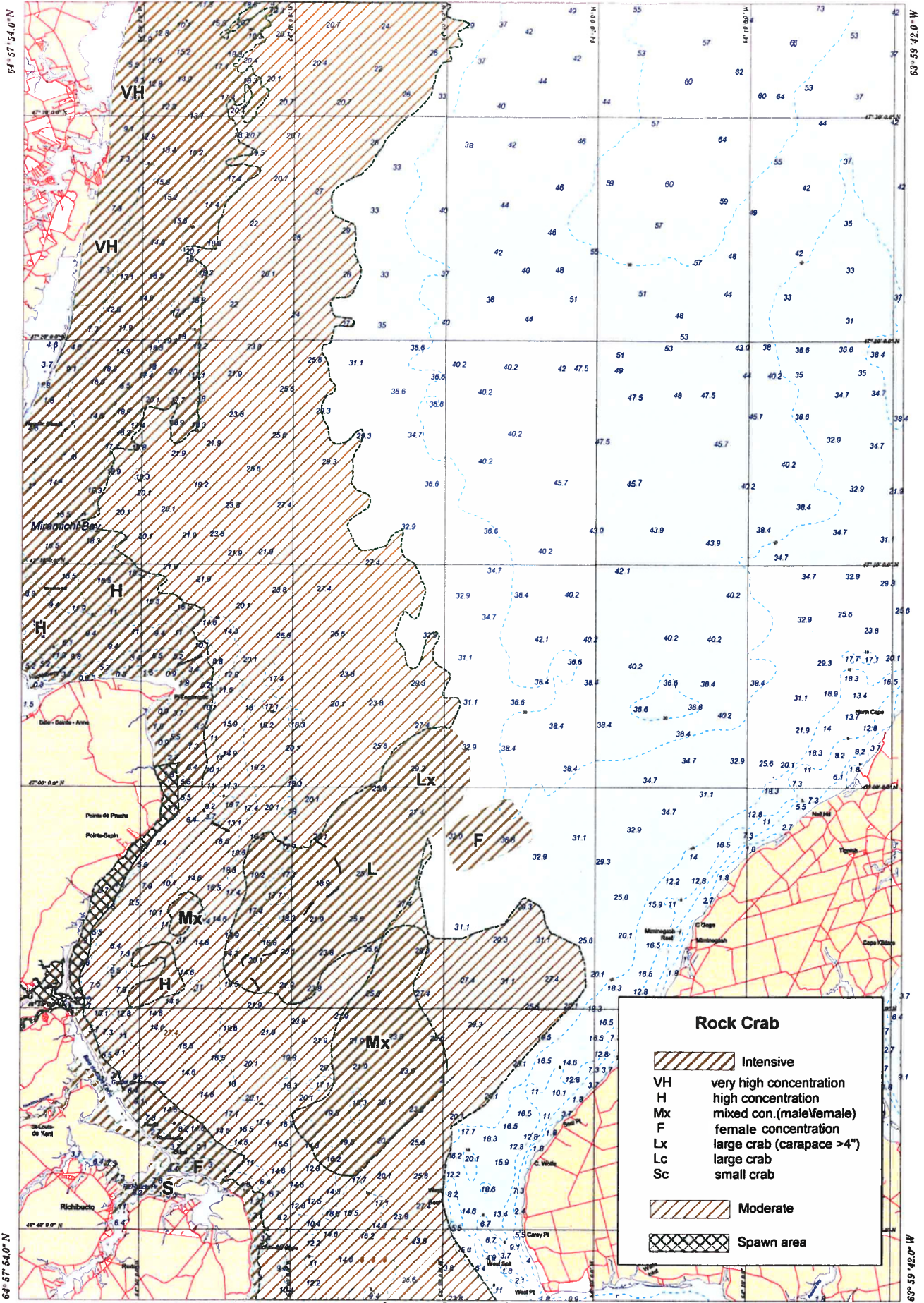
46° 36' 48.0" N

SCALE 1:450,000



4906 P.E.I.

46° 36' 48.0" N



**Rock Crab**

Intensive

VH very high concentration

H high concentration

Mx mixed con. (male/female)

F female concentration

Lx large crab (carapace >4")

Lc large crab

Sc small crab

Moderate

Spawn area

SCALE 1:450,000

Kilometers

4906 N.B.

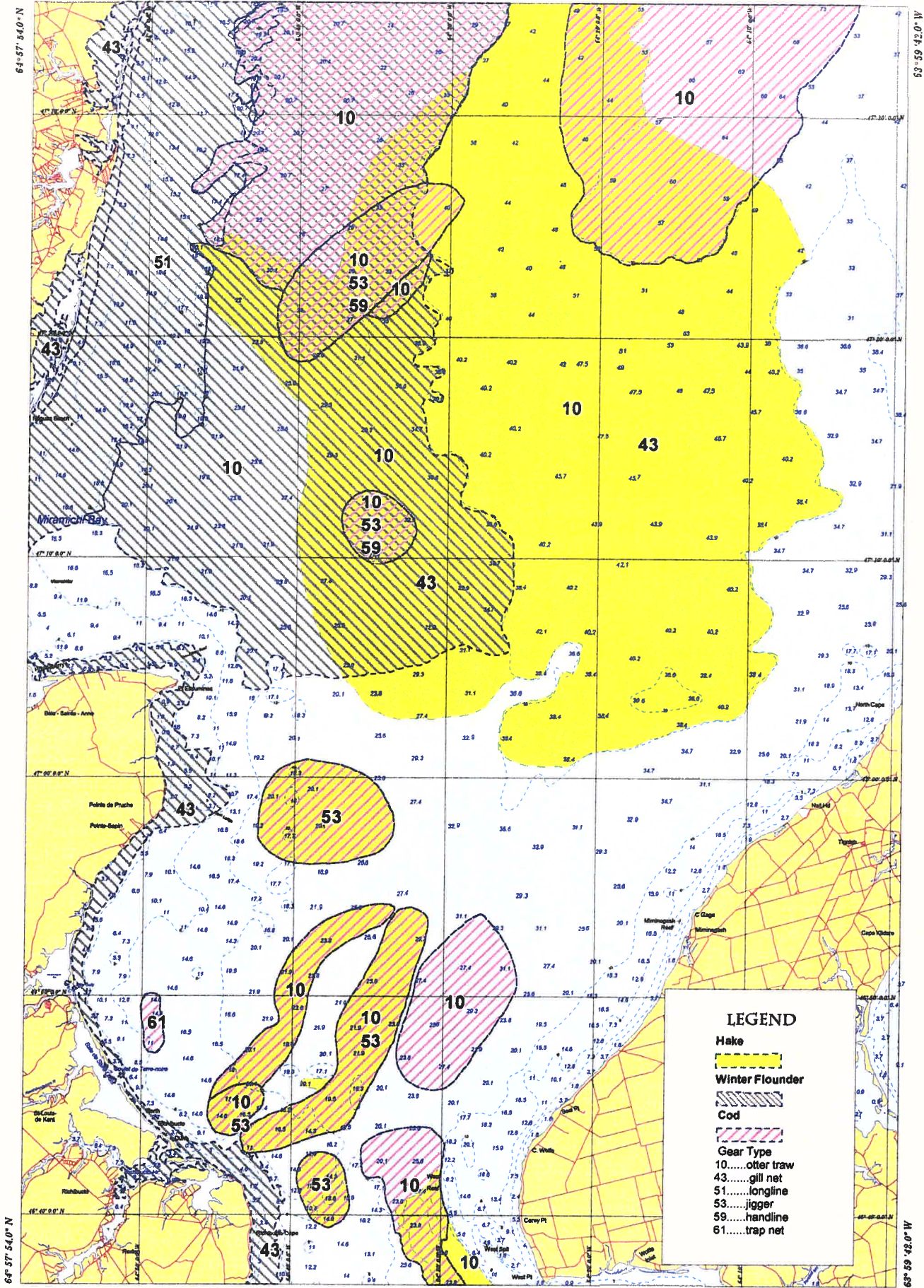
47° 35' 6.0" N

# GROUND FISH POISSON DE FOND

47° 35' 6.0" N

64° 57' 54.0" N

63° 59' 42.0" W



64° 57' 54.0" N

63° 59' 42.0" W

46° 36' 48.0" N

SCALE 1:450,000

0 5 10

Kilometers

4906 N.B.

46° 36' 48.0" N

47° 35' 6.0" N

# GROUND FISH POISSON DE FOND

47° 35' 6.0" N

64° 57' 54.0" N

63° 59' 42.0" W

47° 35' 0.0" N

47° 30' 0.0" W

47° 30' 0.0" N

47° 25' 0.0" W

47° 25' 0.0" N

47° 20' 0.0" W

47° 20' 0.0" N

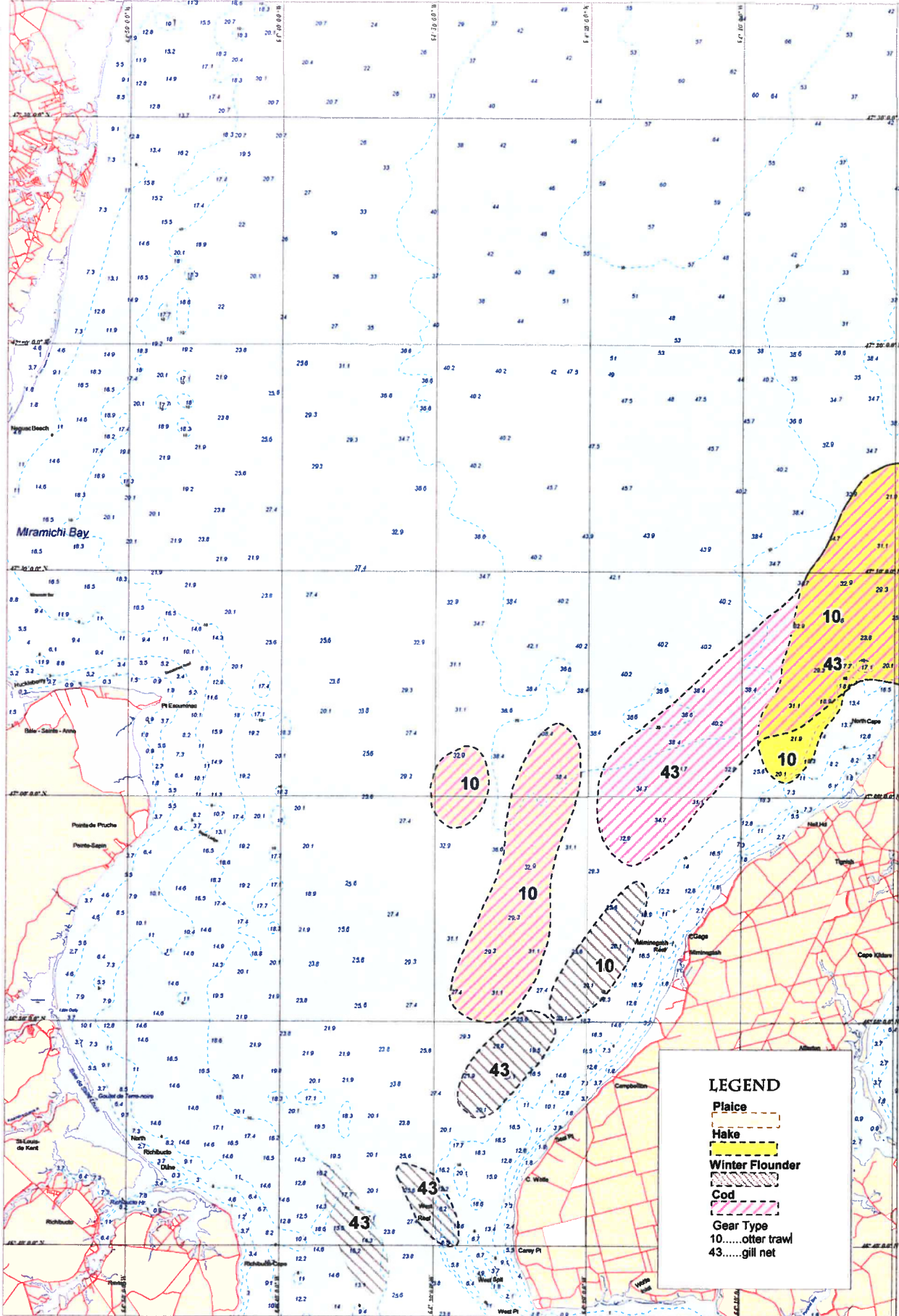
47° 15' 0.0" W

47° 15' 0.0" N

47° 10' 0.0" W

64° 57' 54.0" N

63° 59' 42.0" W



46° 36' 48.0" N

SCALE 1:450,000



4906 P.E.I.

46° 36' 48.0" N



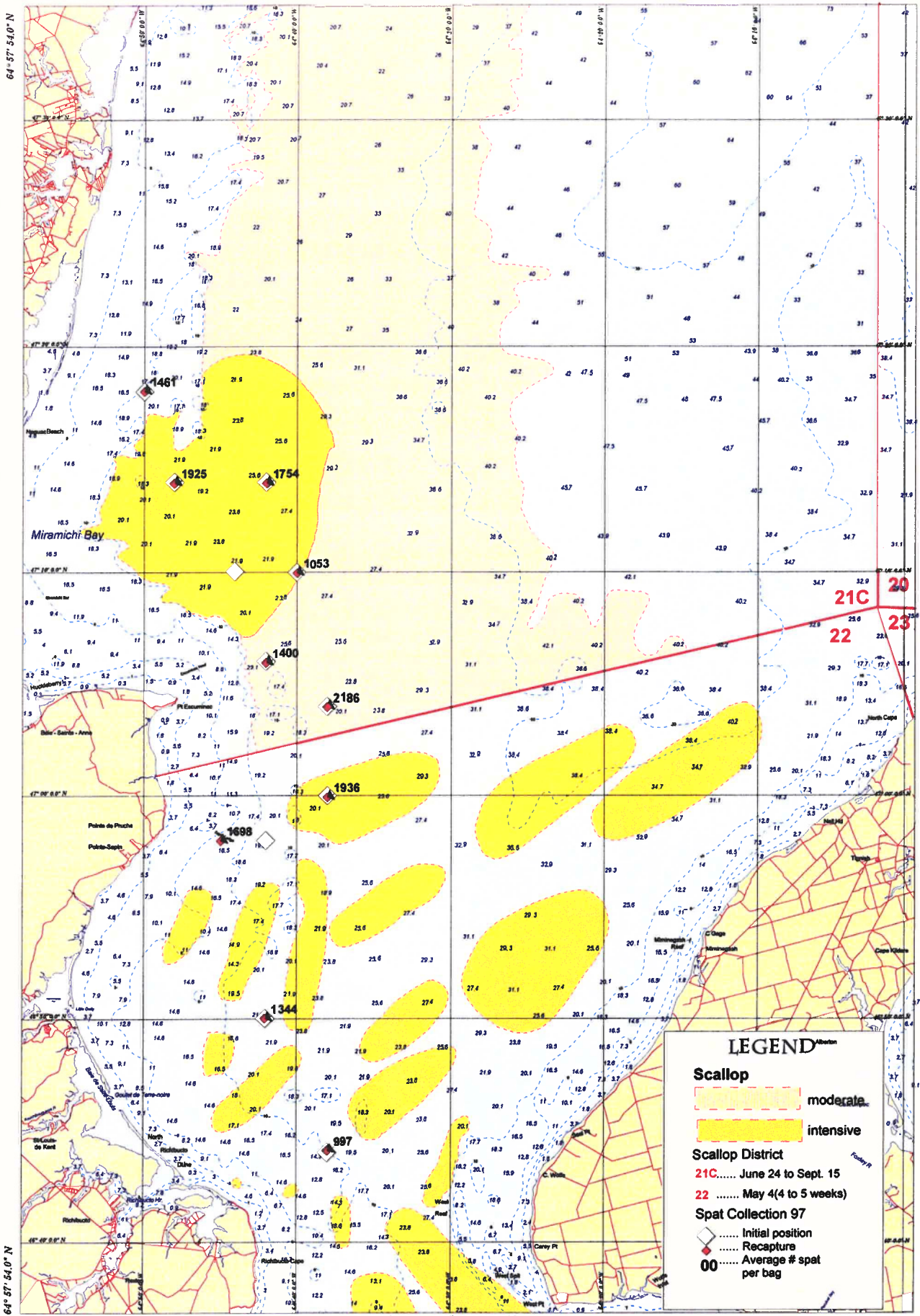
SCALLOP | PETONCLE

47° 35' 6.0" N

47° 35' 6.0" N

64° 57' 54.0" N

64° 57' 54.0" N



SCALE 1:450,000

Kilometers

4906 N.B.

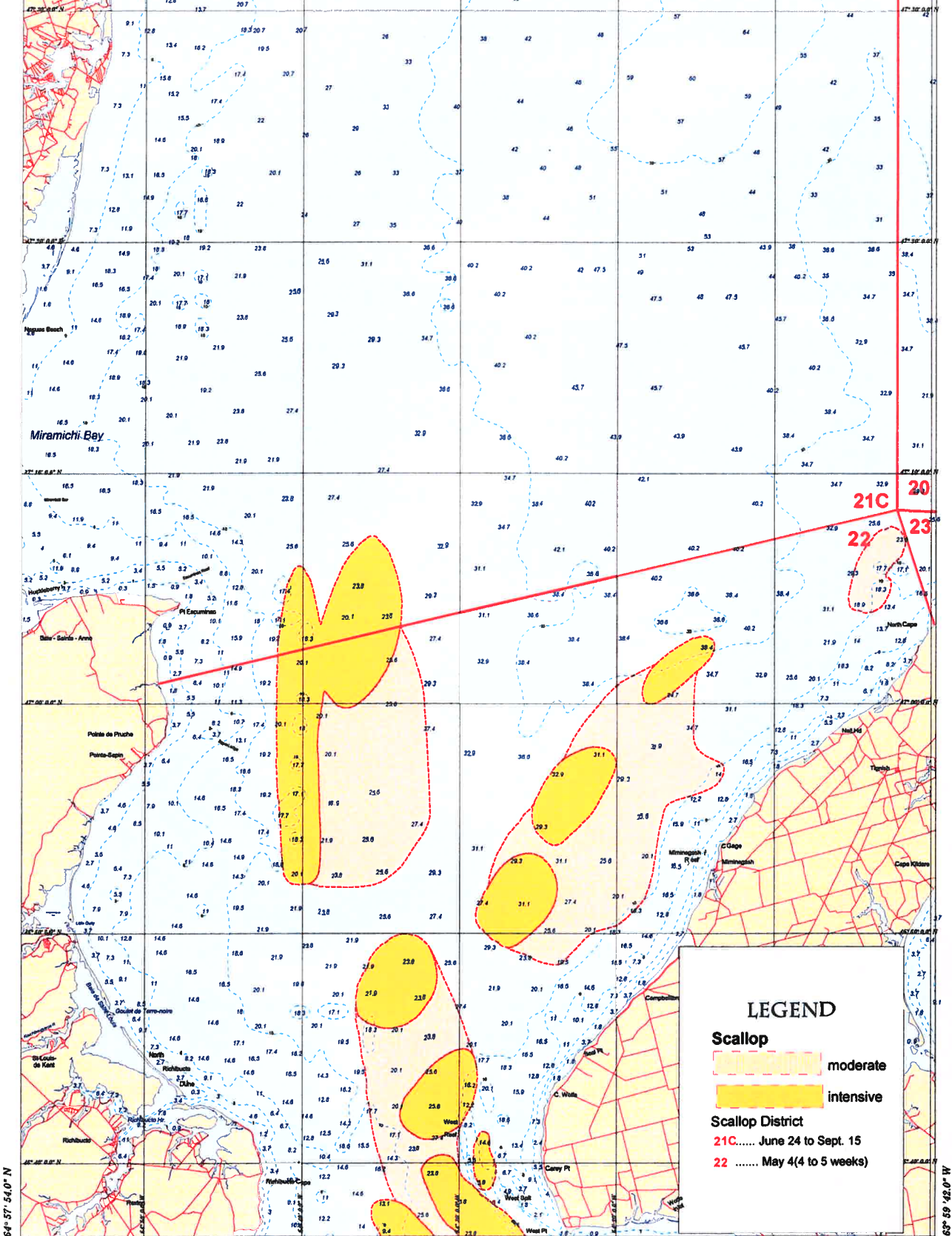
47° 35' 6.0" N

# SCALLOP PETONCLE

17° 35' 6.0" N

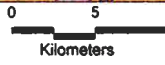
64° 57' 54.0" N

69° 59' 48.0" W



46° 36' 48.0" N

SCALE 1:450,000



4906 P.E.I.

46° 36' 48.0" N

**LEGEND**

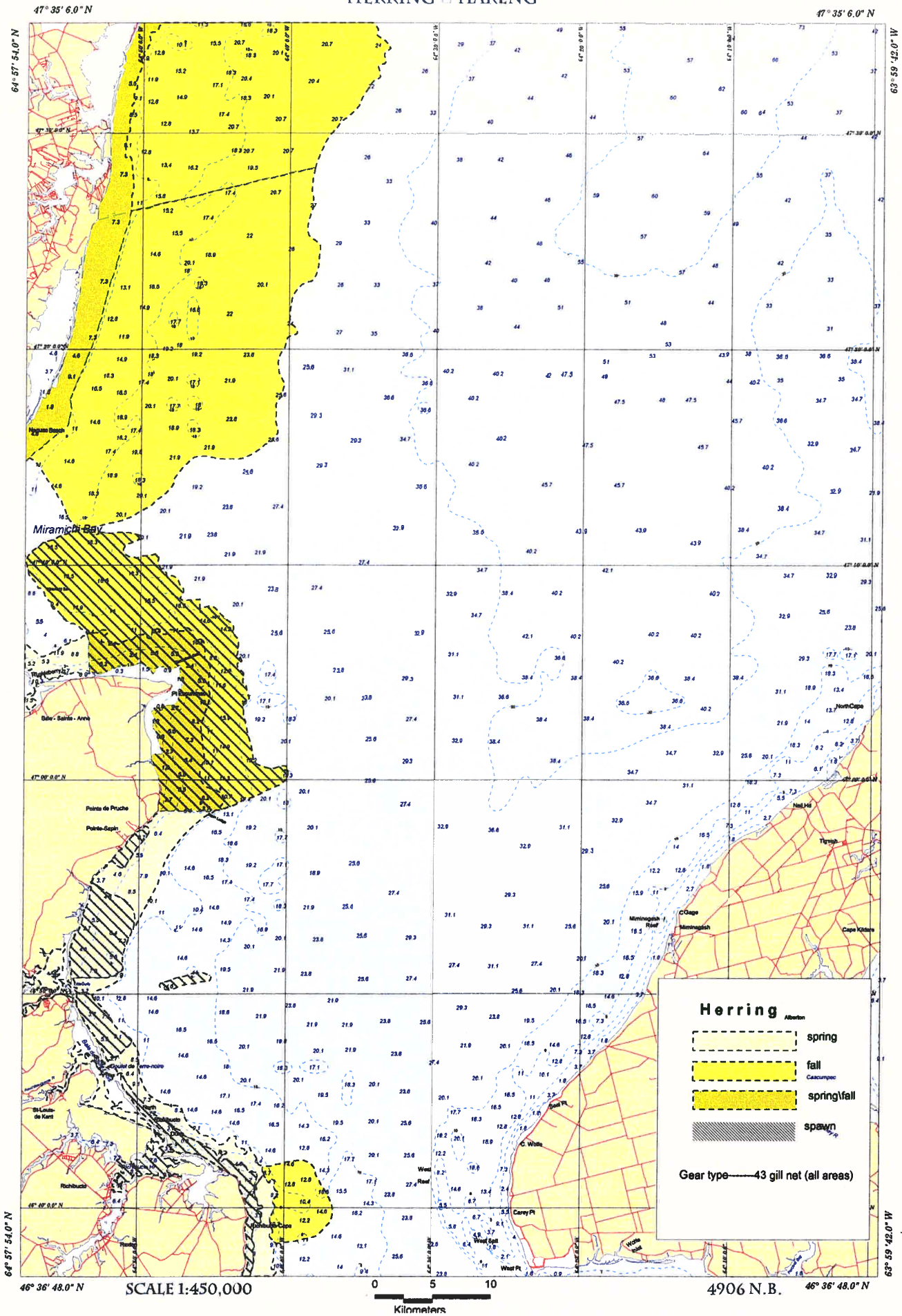
**Scallop**

- moderate
- intensive

**Scallop District**

- 21C..... June 24 to Sept. 15
- 22 ..... May 4(4 to 5 weeks)

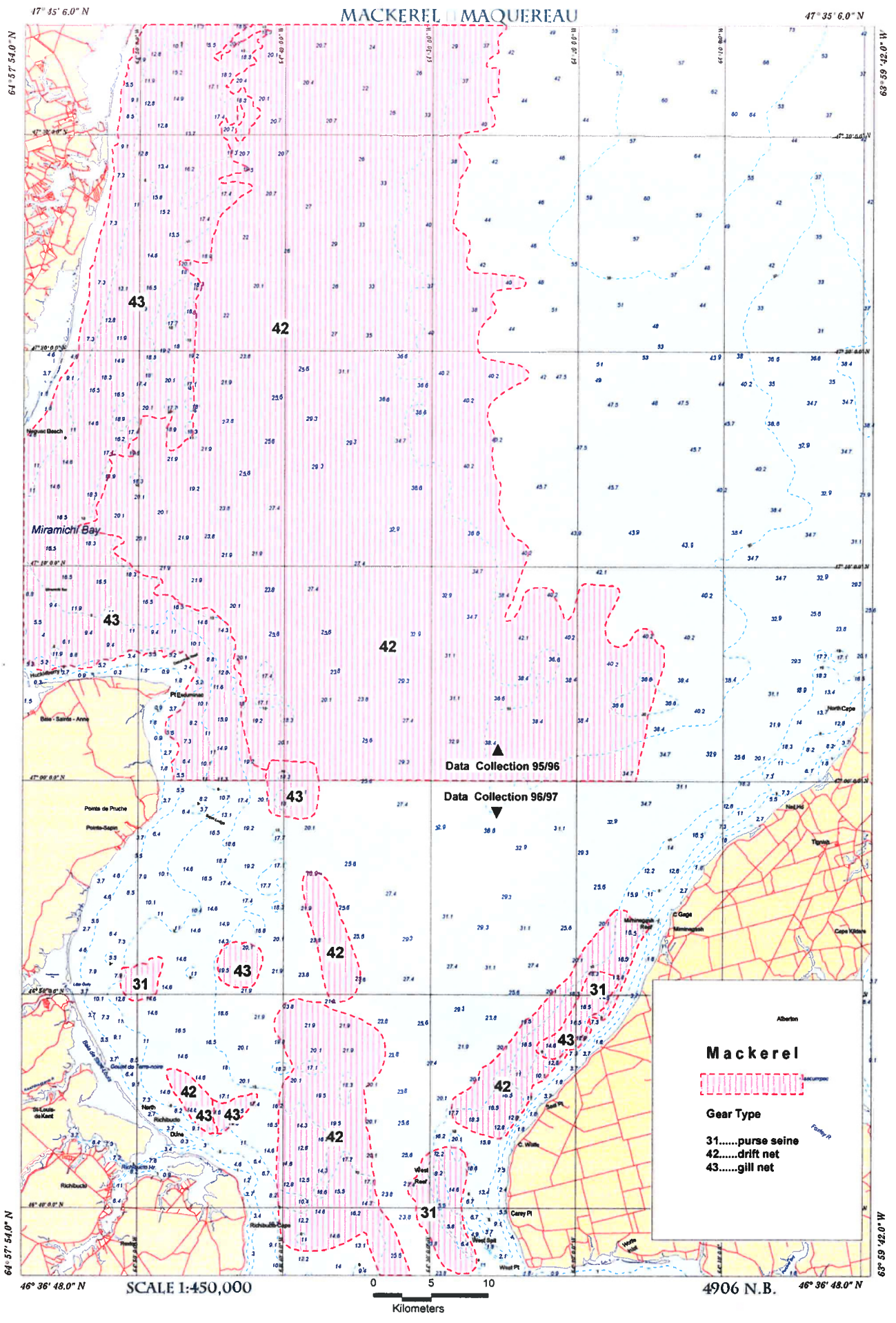
# HERRING HARENG



**Herring** Alburnus

- spring
- fall
- spring/fall
- spawn

Gear type — 43 gill net (all areas)



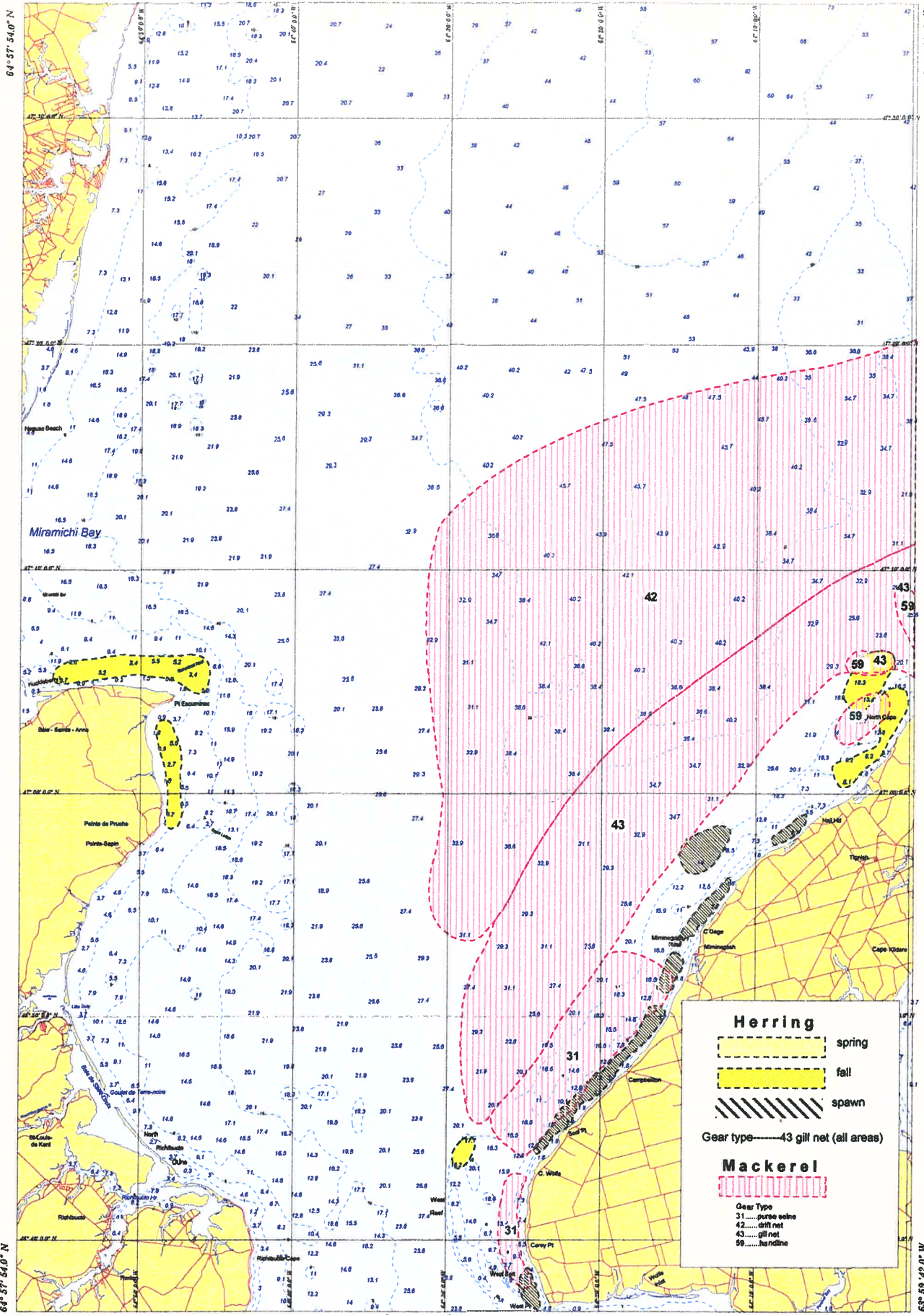
# HERRING & MACKEREL HARENG & MAQUEREAU

47° 35' 6.0" N

47° 35' 6.0" N

66° 57' 54.0" N

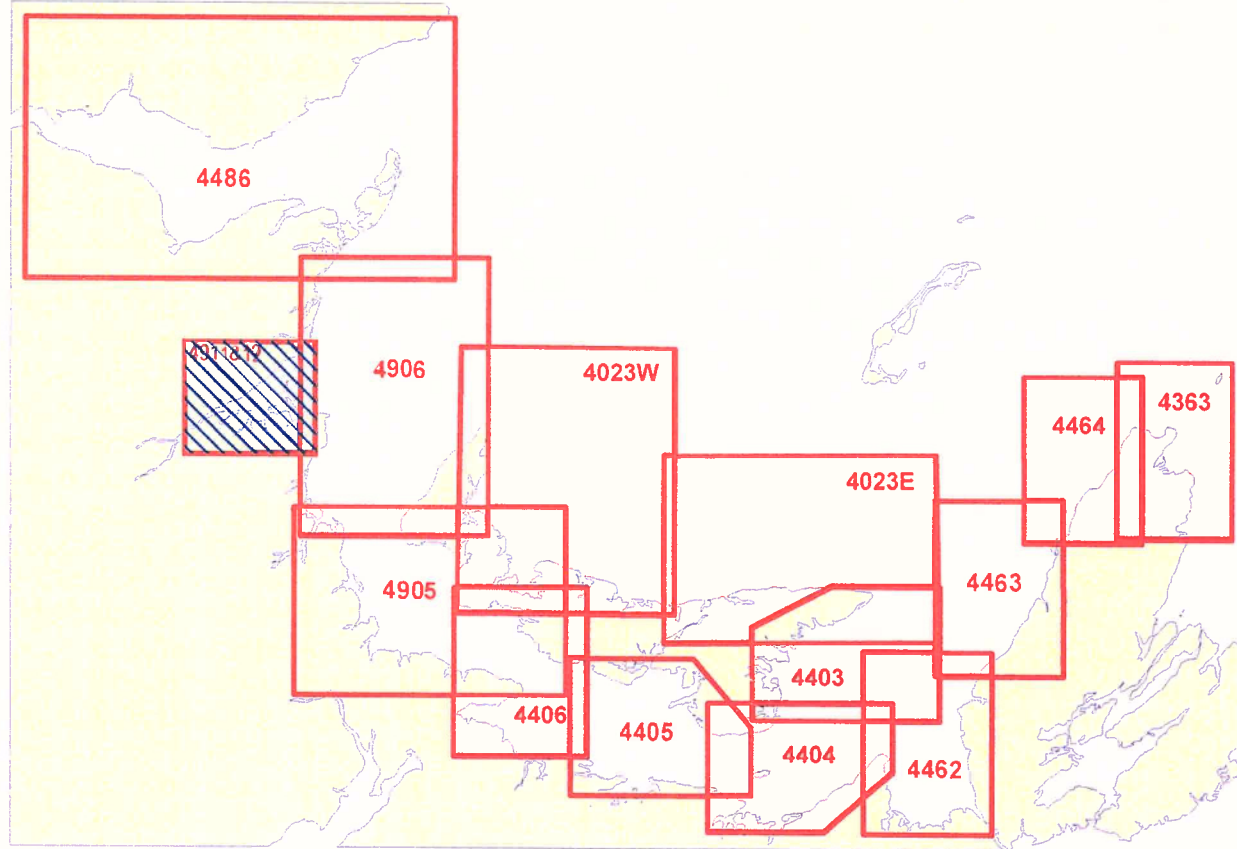
63° 59' 42.0" W



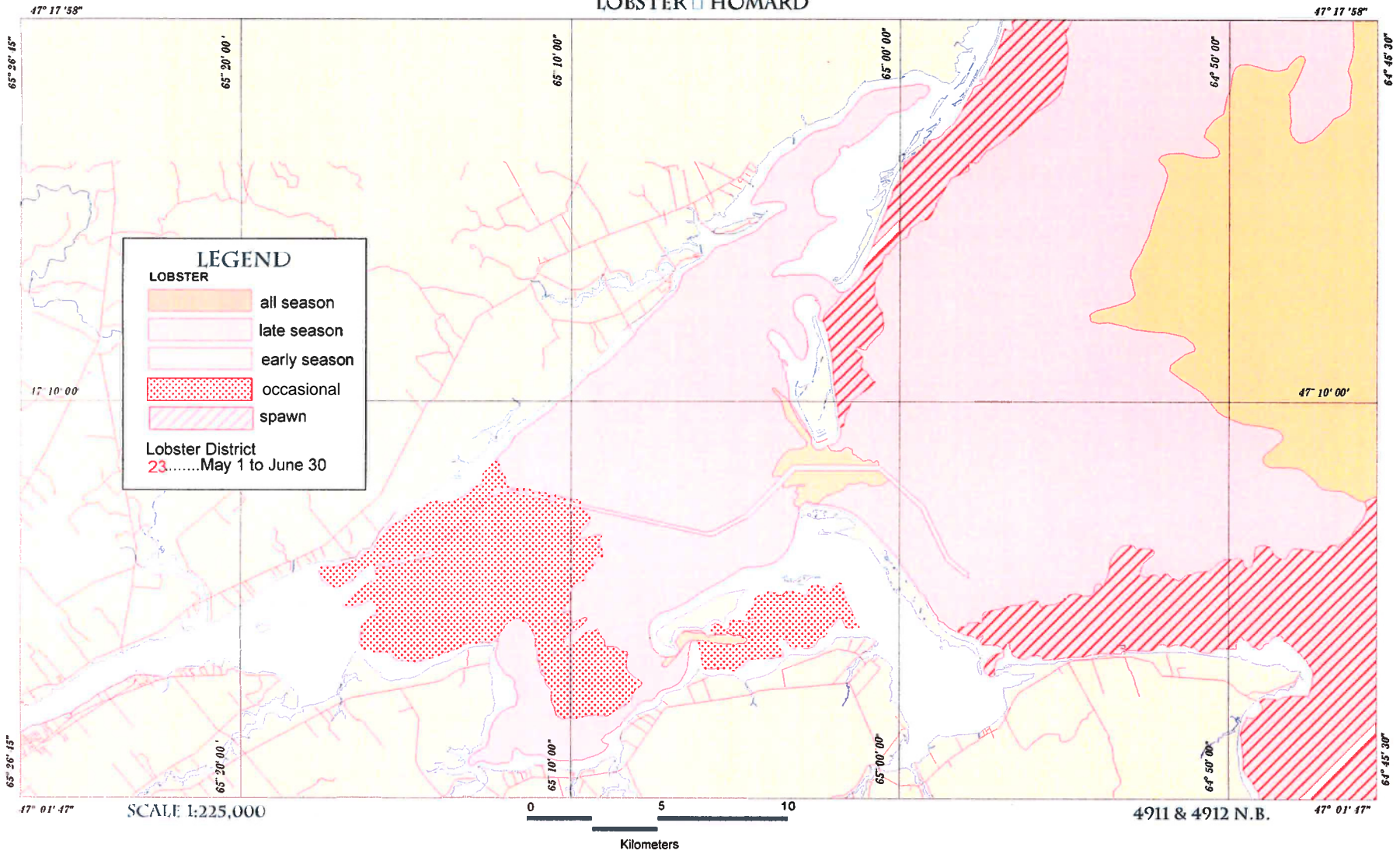
SCALE 1:450,000

0 5 10  
Kilometers

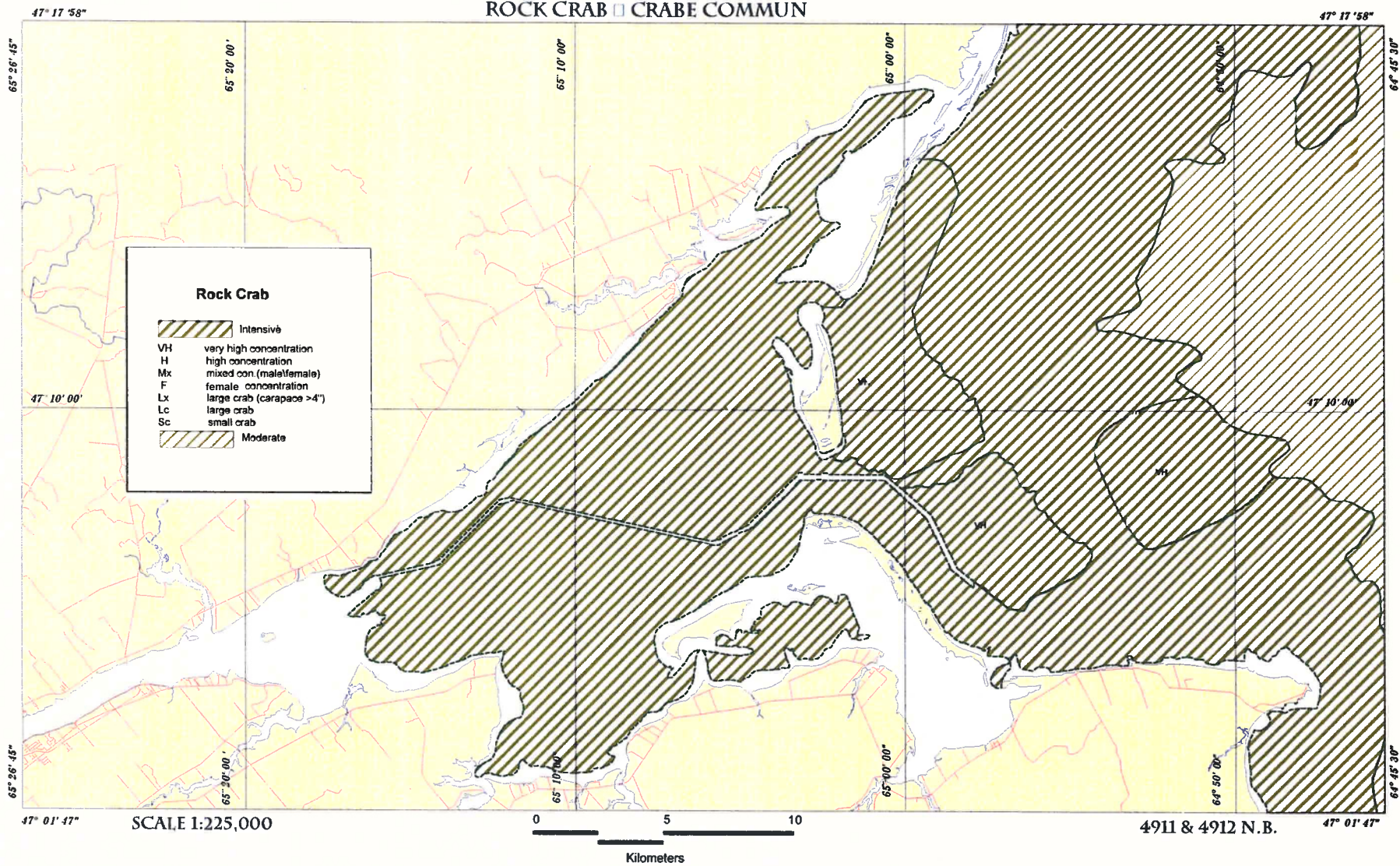
4906 P.E.I.



LOBSTER □ HOMARD

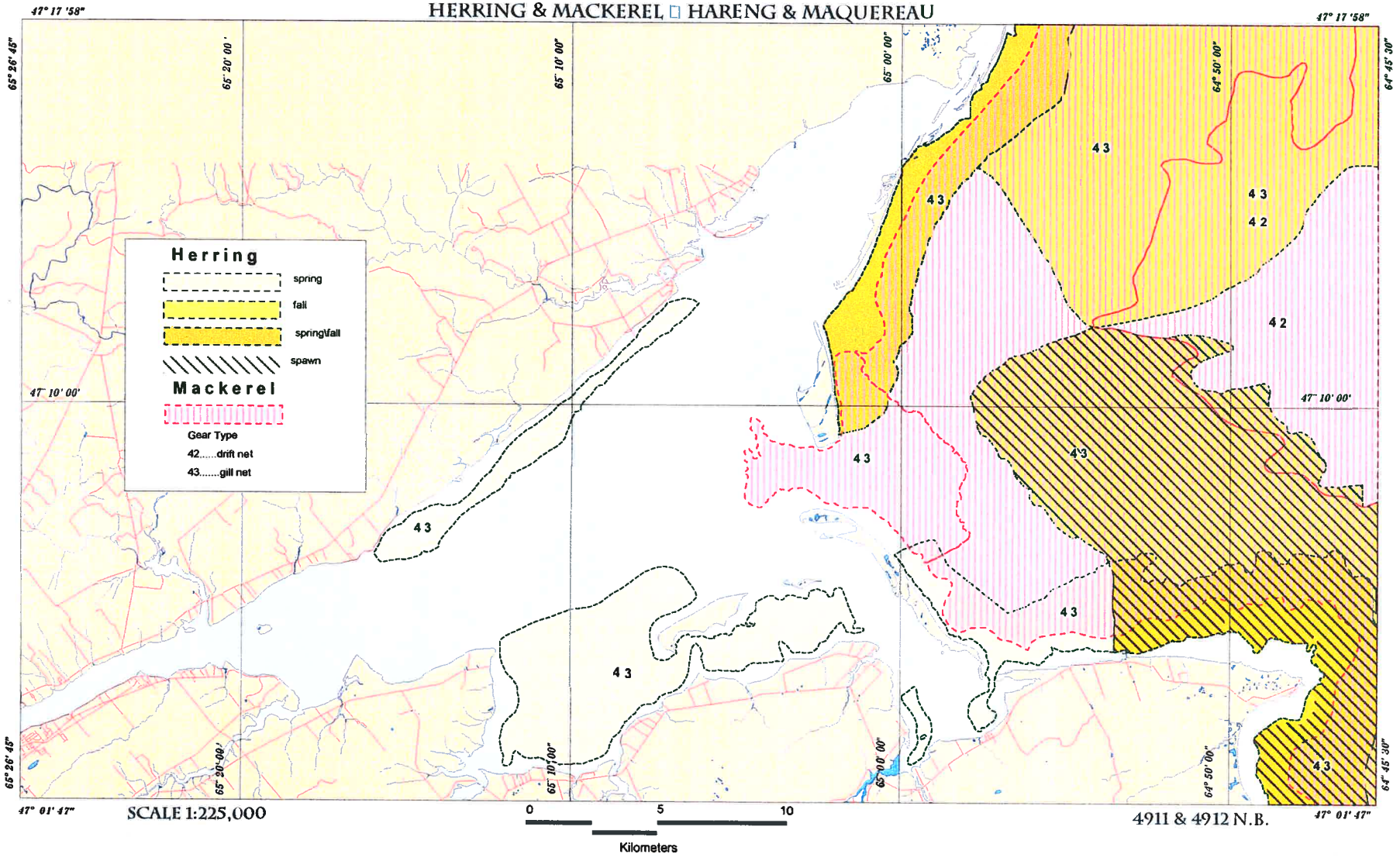


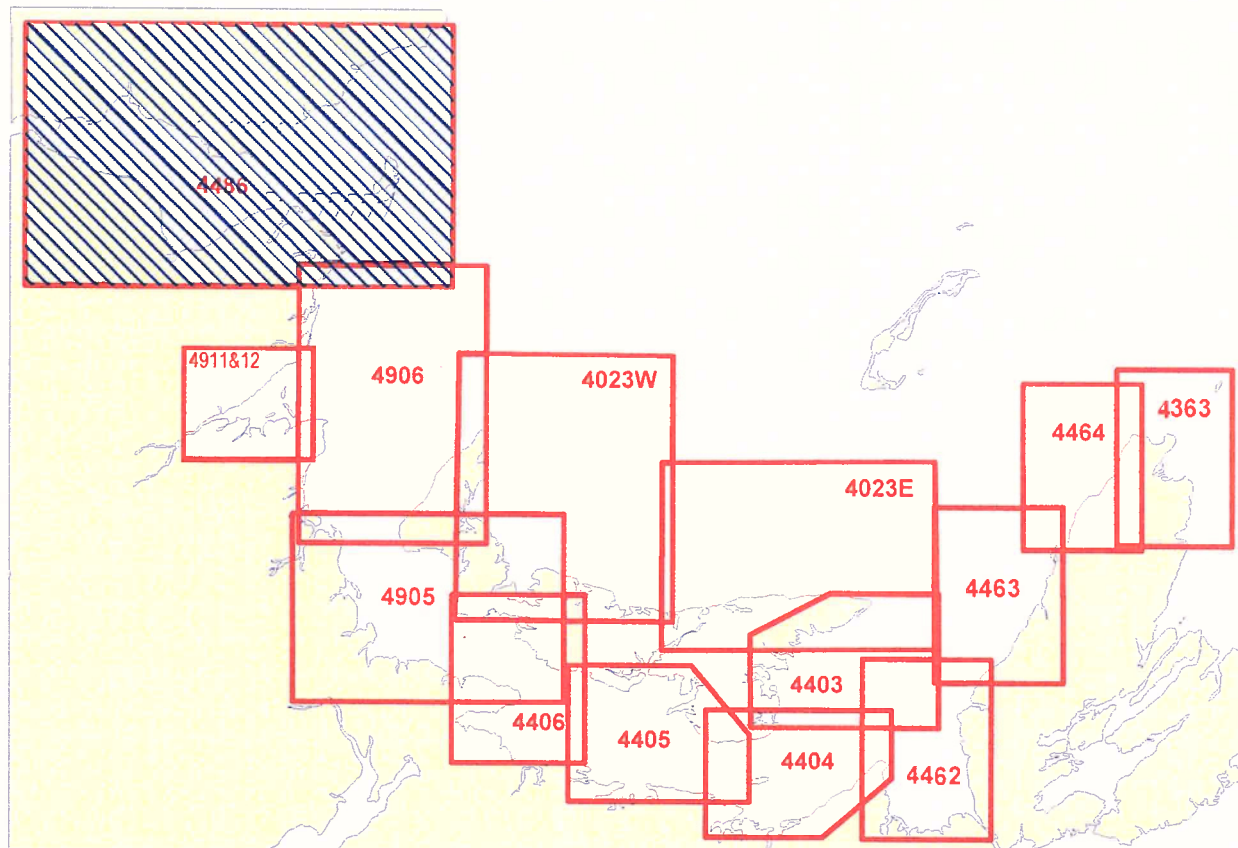
# ROCK CRAB CRABE COMMUN



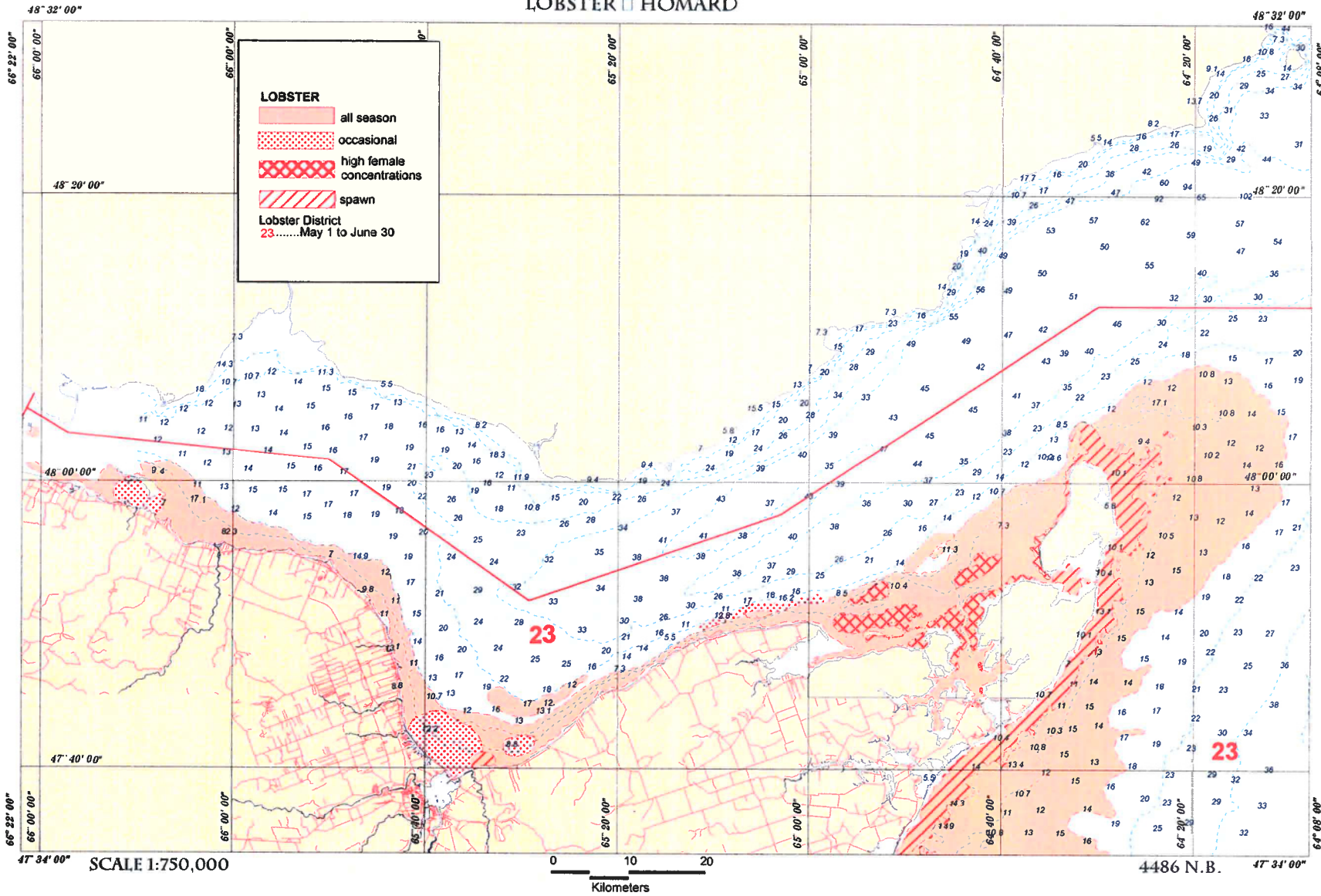


HERRING & MACKEREL □ HARENG & MAQUEREAU

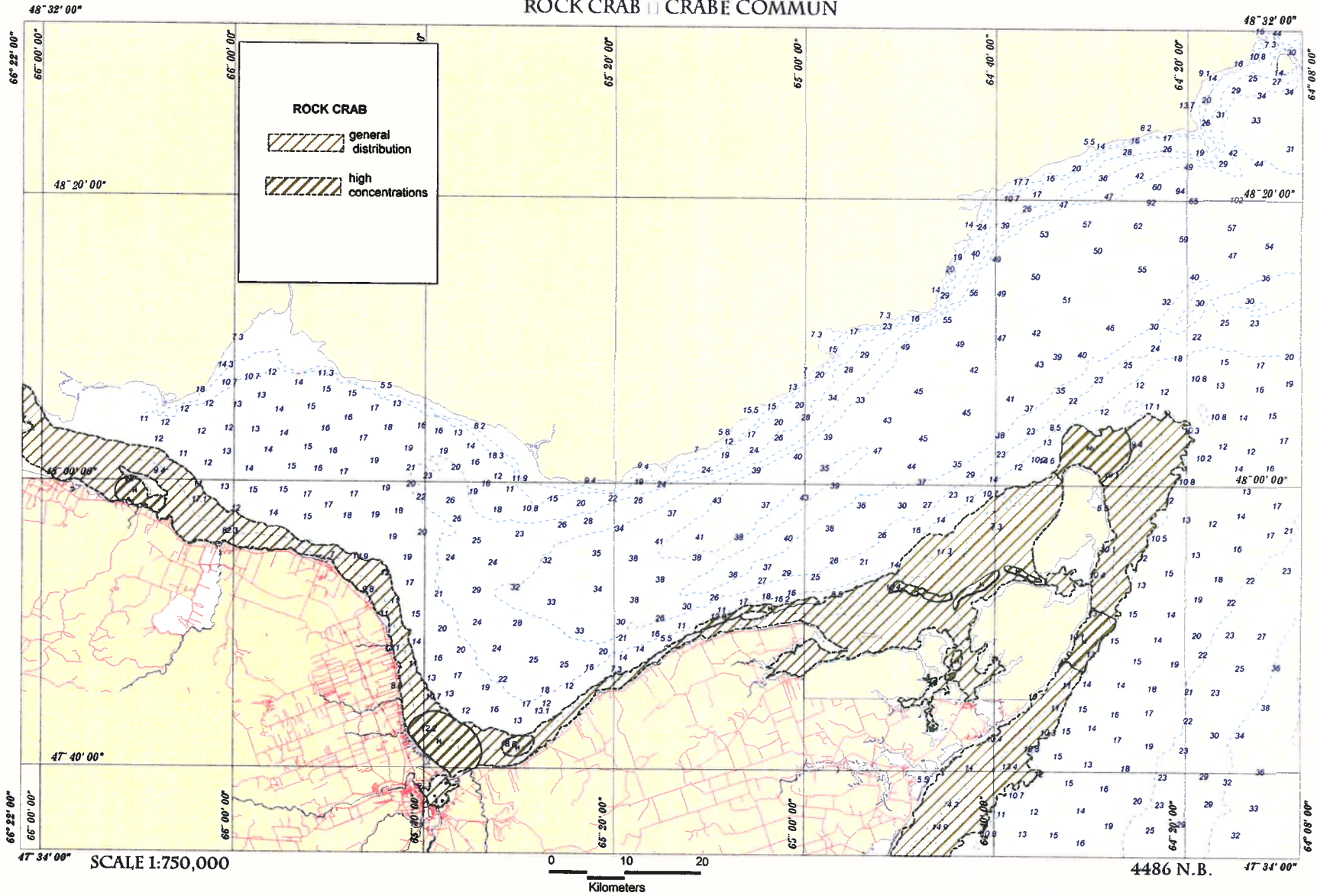




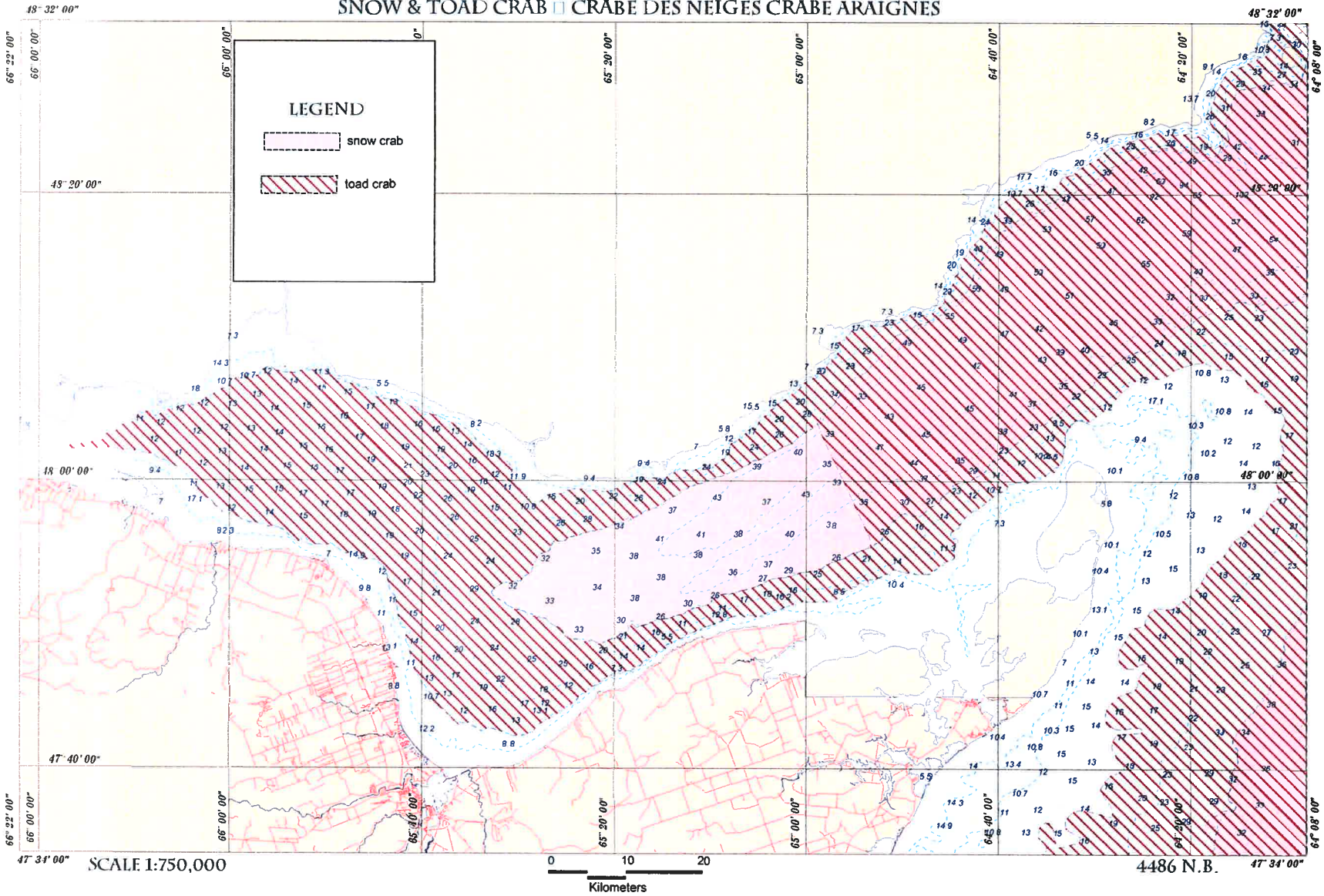
# LOBSTER HOMARD



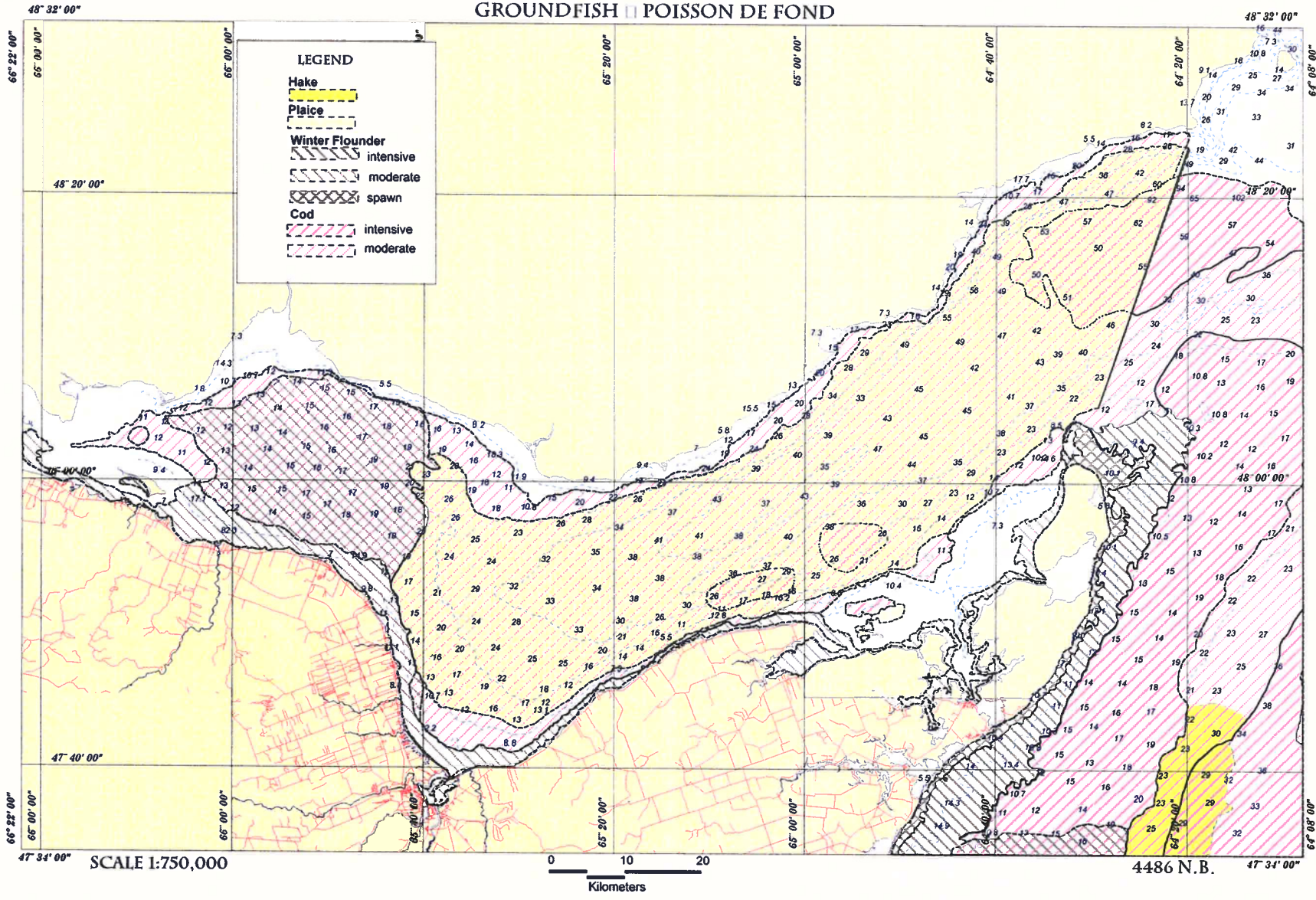
# ROCK CRAB CRABE COMMUN



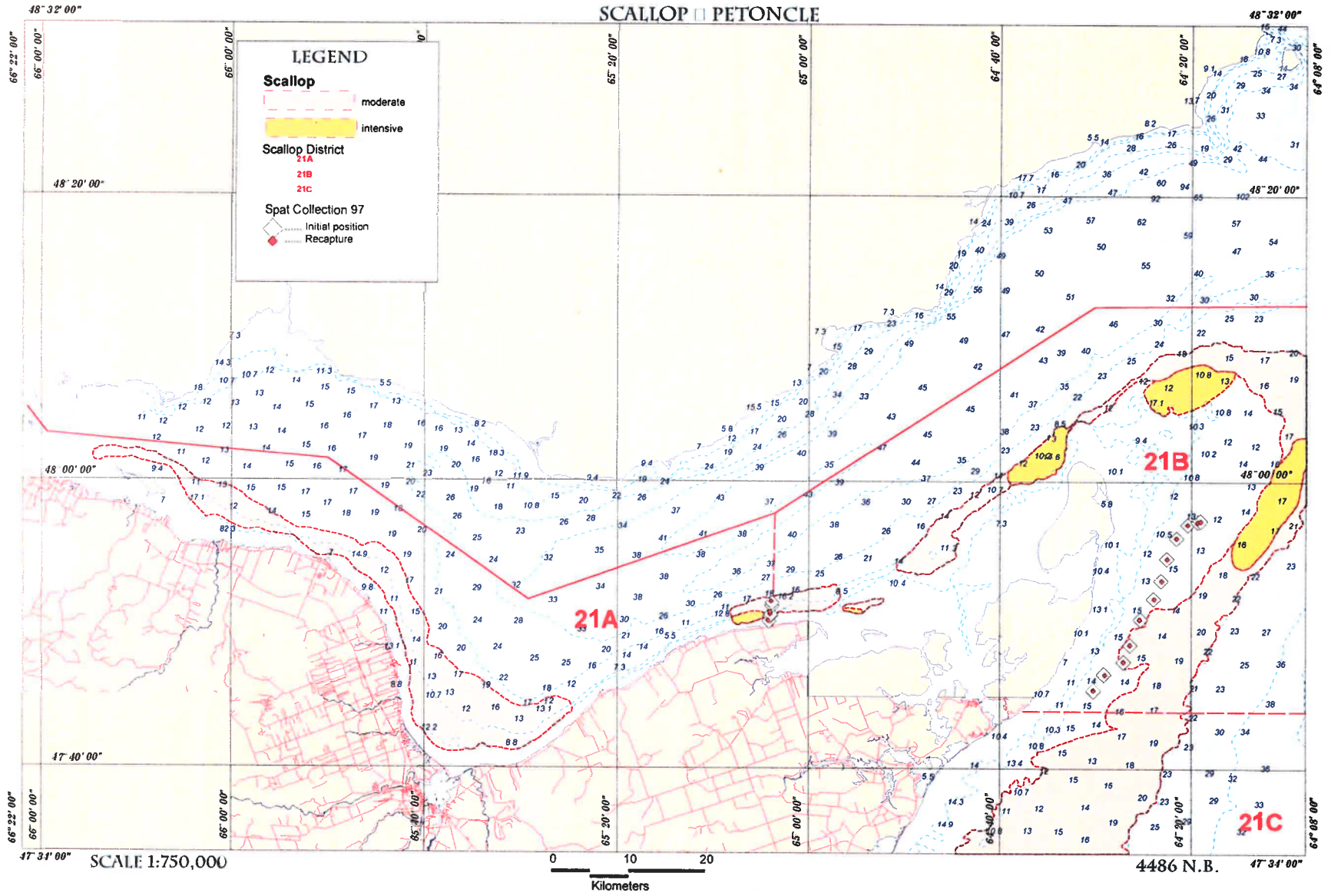
SNOW & TOAD CRAB □ CRABE DES NEIGES CRABE ARAIGNES



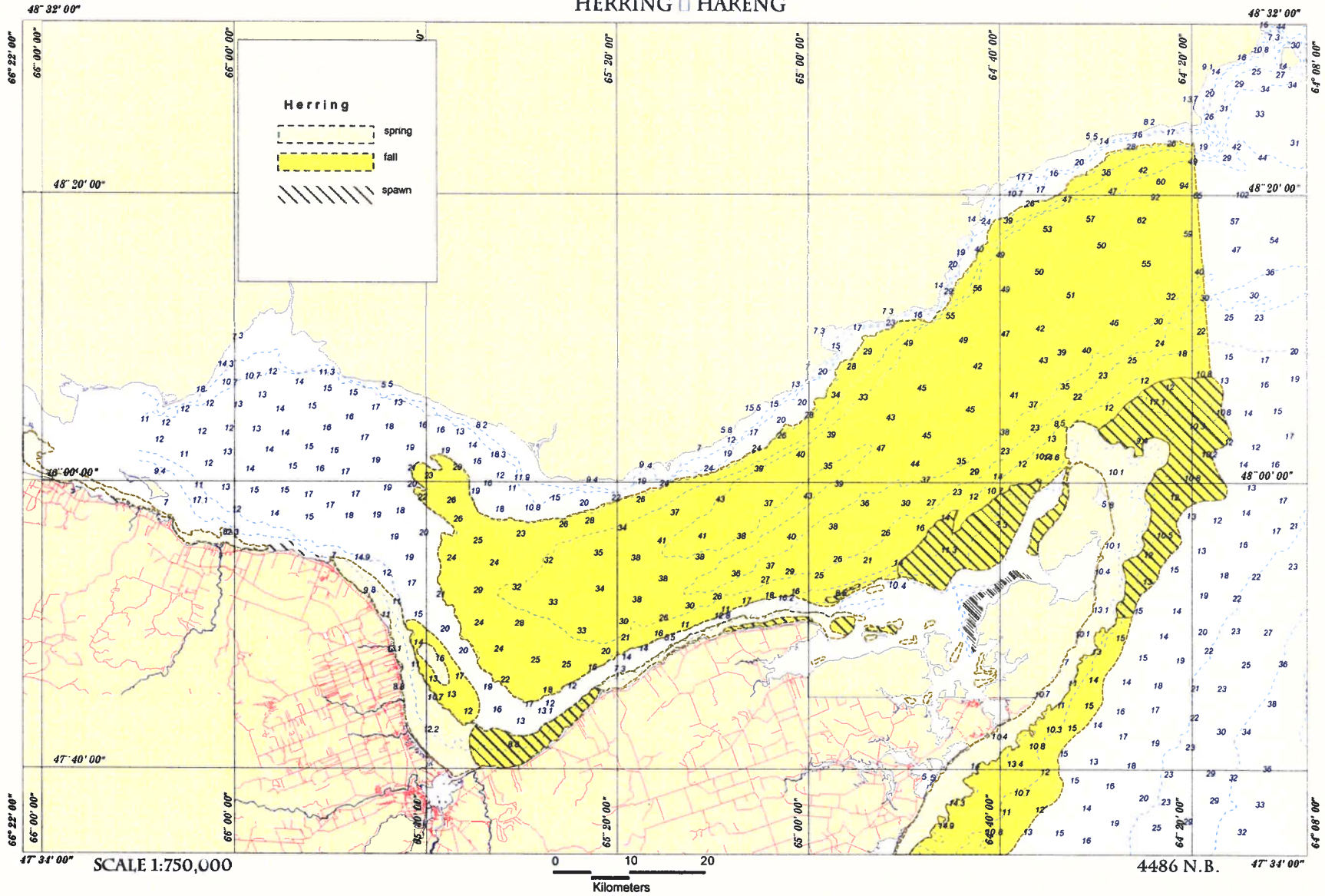
# GROUNDFISH POISSON DE FOND



# SCALLOP PETONCLE

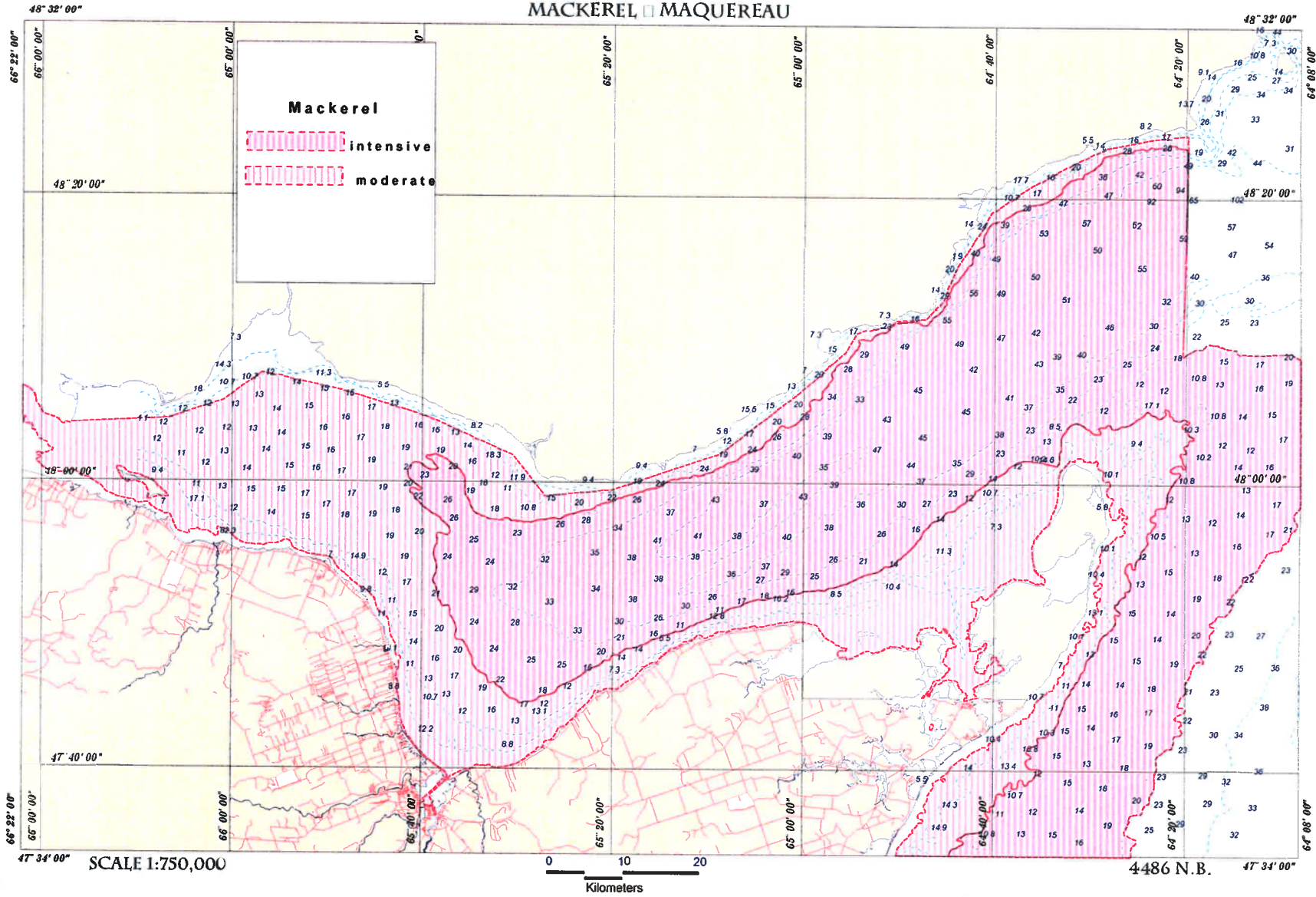


# HERRING HARENG





MACKEREL □ MAQUEREAU



Provisional document modified by the Aquatic Ecosystems sector of Gulf Region of the Department of Fisheries and Oceans

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