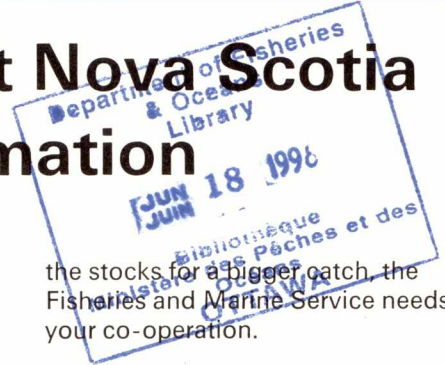




# Fishermen's Information

Bulletin 76-2E

## Bay of Fundy and Northeast Nova Scotia Herring Quota Information



In the **Cape Breton** area, Canadian fishermen have a herring quota of 33,000 metric tons for the winter of 1976-77. Since ICNAF (the International Commission for the Northwest Atlantic Fisheries) set a Total Allowable Catch of 36,000 metric tons for all countries combined, the Canadian quota leaves only 3,000 metric tons for other countries. (A metric ton is 2,205 pounds.)

For the winter of 1977-78, Canada's quota will be 33,400 metric tons out of a Total Allowable Catch (TAC) of 33,500. Other countries may then do no directed fishing for herring in the Cape Breton area; the 100 tons is set aside to allow for their unavoidable by-catches.

In the **Bay of Fundy—western Nova Scotia** fishery for 1977, ICNAF set a Total Allowable Catch of 84,000 metric tons. Canada's quota takes almost all of this: 82,000 metric tons, to be shared among seiners and inshore gears. The U.S.A. gets 1,000 metric tons, and 1,000 tons are allowed for by-catches.

Even though we are getting almost all the fish which may safely be caught as our quota, we are only getting a bigger share of a smaller total catch. The TAC's, set on scientific advice, have been dropping. Although the foreign fleets are leaving this fishery, we have to be careful not to overfish it ourselves, as Canadians have done in other herring fisheries. For example, in British Columbia the herring fishery closed down almost completely in 1967 and 1968 because of overfishing by Canadian fishermen.

In the Bay of Fundy, despite some decline, we still have a fairly healthy

stock of herring. In fact, this body of fish is in better shape than any other stock of herring in the northwest Atlantic. With more Bay of Fundy herring being used for food, and with scarcities of herring in other parts of the world, these fish could become still more valuable.

With proper care, the herring in the Bay of Fundy and off northeast Nova Scotia could give you a bigger catch than you're now getting. To rebuild

the stocks for a bigger catch, the Fisheries and Marine Service needs your co-operation.

### International Quotas:

There are no **international** quota restrictions on juvenile herring (generally those under nine inches long from nose to tip of tail) in the area. The main fishery for juveniles is on the New Brunswick side of the Bay of Fundy, area 4X(B) on the map



below. We do have a **national** quota of 4,000 metric tons for the juveniles caught by purse seiners in the Bay of Fundy between 1 January and 15 April. (These juveniles later provide raw material for the sardine industry in New Brunswick and the State of Maine. They grow fast; an individual "brit" normally doubles in size between January and July, from 0.4 oz to 1.0 oz, and by the following July the increase is almost ten-fold, to 3.7 oz).

The main stock of adult herring under ICNAF quota regulation is fished by Canadians in summer and fall off southwestern Nova Scotia (area 4X(A) on the map), and in winter in the Chedabucto Bay area

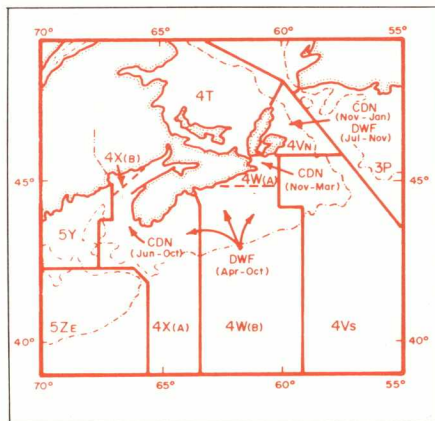


Fig. 1. Map showing the approximate times of fishing for herring in Div. 4VWX by Canadian (CDN) and distant water fleets (DWF). (For illustrative purposes only).

between Point Michaud and Country Harbour (roughly area 4W(A) on the map).

It was formerly thought that two different stocks of herring supplied the fishery in these areas. Although we are seeking more evidence to make sure, we now believe there is one main Chedabucto-Bay of Fundy stock of herring. (A separate leaflet in this series gives details of the research that suggests there is one main stock).

The stock is still managed under two ICNAF quotas. The Chedabucto herring come under the same quota (for ICNAF Division 4VWa) as the Sydney Bight herring, to which they appear to have little relation.

The Bay of Fundy herring come under a separate quota (for Division 4XWb), even though tagging results suggest that they are the same fish that appear in the Chedabucto Bay area earlier in the year. Having these herring fall under two quotas complicates management.

The following table shows catches of adult herring in recent years by all fleets and types of gear, from the Bay of Fundy-Chedabucto stock and from the Sydney Bight area. Figures are given for time periods from November (when the season starts in the Sydney Bight and Chedabucto areas) to October (when the season ends in the Bay of Fundy—southwestern Nova Scotia area). The table shows how catches and TAC's have been dropping.



	4VWa Quota Area		
	Sydney Bight (4Vn)	Chedabucto (4Wa)	Fundy (4XWb)
Actual catch, Nov. 1972 - Oct. '73	18,276	7,921	90,789
Actual catch, Nov. 1973 - Oct. '74	16,643	27,107	103,633
Actual catch, Nov. 1974 - Oct. '75	17,945	27,030	98,714
*TAC and catch Nov. 1975 - Oct. '76	5,771 (catch)	37,197 (catch)	89,200 (TAC)
*Projected TAC Nov. 1976 - Oct. '77	36,000		84,000
Projected TAC Nov. 1977 - Oct. '78	33,500		
	Chedabucto-Fundy stock area		

\*TAC (Total allowable catch by all fleets and gear) includes an estimated 15,000 metric tons inshore weir and gillnet catch for 4XWb.

**Note:** Figures are in metric tons. One metric ton (or "tonne", as it should be called) equals 2204.6 lbs.

**Source:** St. Andrews, N.B., Biological Station, Fisheries and Marine Service.



The information available from research, catch statistics, and fishermen's log books shows that the Bay of Fundy-Chedabucto Bay stock of herring needs careful management to avoid a more drastic decline.

Although the Total Allowable Catches by all nations have dropped, Canada's quota for this stock has

stayed fairly stable. We may be able to increase our catch if we manage the stock carefully over the next few years.

**Sharing the Catch Among Canadians:**

Everybody concerned with the herring fishery in the Sydney Bight,

Chedabucto and Bay of Fundy areas has to take into account the complication of having one stock fall under two quotas. The table shows the ICNAF quotas now set for herring.

**Canadian Quotas**

4VWa Quota Area		
Sydney Bight (4Vn)	Chedabucto (4Wa)	Fundy (4XWb)
Nov. '75 - Oct. '76	39,800	61,700 (& 15,000) *
Nov. '76 - Oct. '77	33,000	82,000 **
		Chedabucto-Fundy stock area

Nov. '75 - Oct. '76

Nov. '76 - Oct. '77

(Note: 4XWb quotas are set for calendar year, but season ends by the end of October.)

\*Estimated inshore catch of adult herring by gillnets and weirs.

\*\*To be allocated between seiners and inshore gears.

If the eastern fleet this winter found few fish above Chedabucto, and instead caught the whole 4VWa quota of 33,000 from the Bay of Fundy-Chedabucto stock wintering in Chedabucto Bay, the fisheries managers would have to make up for the extra winter catch by reducing the summer quota in the Bay of Fundy. In fact, that already happened this season; without the extra-high catch in Chedabucto last winter, the

Bay of Fundy quota could have been higher in 1976.

A way has been suggested to prevent this complication. The Fisheries and Marine Service could divide our present ICNAF quota for Cape Breton into two separate Canadian quotas—one for Sydney Bight and one for the Chedabucto Bay area. Then, if the fleet in the Sydney Bight area east caught less than the assigned quota there, the new system would prevent

them making up the ICNAF quota for the whole Cape Breton area by taking the extra fish from the Chedabucto area.

Limiting the catch in Chedabucto should ensure that the herring which winter there would migrate back to the Bay of Fundy in the expected numbers.

The two separate Canadian quotas suggested for the Cape Breton area are as follows:

4VWa Quota Area		
Sydney Bight (4Vn)	Chedabucto (4Wa)	Fundy (4XWb)
Nov. '76 - Oct. '77	10,100	82,000 *
Nov. '77 - Oct. '78	11,000	to be set
		Chedabucto-Fundy stock area

Nov. '76 - Oct. '77

Nov. '77 - Oct. '78

(projected estimate)

\*To be allocated between seiners and inshore gears.

In future years, as Canada takes over jurisdiction, we could stop managing the Cape Breton area herring under an overall quota. We could instead make a separate quota for Sydney Bight. Another would cover the whole Chedabucto-Fundy fishery for adult herring, and could

be divided between the fleets in these two areas.

**Addendum:** Since the above was written, the Atlantic Herring Management Committee recommended that we divide the 4VWa quota for 1976-77 as mentioned on page 3, into Sydney Bight and Chedabucto Bay

sections. This Committee is made up of federal Fisheries and Marine Service officials and has provincial fisheries officials, processors and fishermen among its advisors. The mailing address of the Atlantic Herring Management Committee is: P.O. Box 550, Halifax, Nova Scotia.

## Catches and Quotas in Recent Years

### 1. Quota area 4XW(b) – Western Nova Scotia and Bay of Fundy

	1971	1972	1973		1974		1975		1976		1977	
	Catch	Catch	Quota	Catch	Quota	Catch	Quota	Catch	Quota	Catch	Quota	Catch
CANADA	46,000 (68,412)	51,000 (135,368)	57,000	58,589 (102,131)	67,500	79,150 (120,810)	68,500	75,192 (126,357)	61,700		82,000 *	
JAPAN	768	922	1,350	921	1,000	1,043	1,000	200			0	
U.S.S.R.	23,390	22,693	31,050	31,042	20,000	23,008	19,000	19,189	11,800		0	
U.S.A.					1,000		1,000		500		1,000	

\*To be allocated between seiners and inshore gears.

### 2. Quota area 4VW(a) – Chedabucto Bay and Sydney Bight

	1971	1972	1973	1974		Jan-June '75		1975/76		1976/77		1977/78	
	Catch	Catch	Catch	Quota	Catch	Quota	Catch	Quota	Catch	Quota	Catch	Quota	Catch
CANADA	64,576	30,389	28,123	39,800	39,645	26,500	30,453	39,800	40,585	33,000		33,400	
FED. REP. GER.	38	511	1,232	1,500	637	1,000		1,500		800			
U.S.S.R.			1,021	3,000		2,000		3,000	2,761	1,800			

NOTE: Quotas are given for adult herring caught in purse seines only.

Catches: figures in brackets are the total of all herring; figures outside of brackets are for adults.

It is assumed that only the Canadian fishery catches juveniles.

Data provided by St. Andrews Biological Station and recent ICNAF compilations; minor catch figures omitted.

NOTE: Although the references to fisheries regulations are correct at time of writing, these can change quickly. For current information, check with your Fishery Officer.

This is one of a series of Fishermen's Information leaflets produced by the Information Branch, Fisheries and Marine Service, Fisheries and Environment Canada, Ottawa, Ontario K1A 0H3. Readers are invited to send in suggestions on subjects to be dealt with in other Information leaflets.

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