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Canadian herring fishery in Div. 4V

by

W.T. Stobo
Department of the Environment
Fisheries and Marine Service
Biological Station
St. Andrews, N.B., Canada

Introduction

Catches in the Div. 4V herring fishery have declined dramatically since 1968. During the 1968/69 fishery over 114,000 tons were taken, but then the catch declined quickly and since the 1970/71 season the catch has been less than 20,000 tons (Table 1). During this period the nature of the fishery also changed considerably. The largest catches were taken in Div. 4Vs in the 1968/69 and 1969/70 seasons but more recently only relatively small catches have been made there. Currently, over 90% of the catch is made within 25 km of the Canadian coast by the Canadian fleet.

The results of tagging experiments have indicated that the management unit Div. 4VWa is inappropriate (Redbook, 1975, pg 37) and at the 1975 Annual Meeting, STACRES recommended that Div. 4V be managed as a discrete unit. The fishery operates on a migrating component of an, as yet, undetermined stock which presumably is also exploited elsewhere. An analytical assessment of only this component would be of limited value and thus until stock relationships are resolved the fishery is being managed on a catch and effort basis. Although catches had remained at 16,000 - 18,000 tons since 1971/72, the catch-per-effort had steadily declined (Table 1) from 115 tons to 76 tons between the 1971/72 and 1974/75 fishing seasons. In view of the declining catch rates, an 11,000 ton 1976/77 TAC was recommended.

1975/76 Fishery

A review of the recommended 1976/77 TAC was requested for the 1976 Annual meeting. Catches are not available for the complete 1975/76 season except for the Canadian fishery which has taken over 90% of the catch in recent years. The Canadian 1975/76 catch was only 5583 tons and the catch-per-effort only 52 tons (Table 1). The catch in numbers-at-age are given in Table 2 and indicate that the 1970 year class again contributed substantially (37.5%) to the catch, and that older fish also contributed substantially (43.1%) to the catch.

The 1975/76 catch level and catch-per-effort figure however may not necessarily indicate reduced abundance. The weather severely hampered all fishing activity in Div. 4V during the herring season and substantially reduced effort both in the number of nights fished and in the hours fished each night.

Catch Projection

Considering the substantial effect that weather had on the 1975/76 fishery, the decline in catch and catch-per-effort may not indicate a need for, nor justify, an adjustment in the 1976/77 TAC of 11,000 tons, nor a reduction for 1977/78.

Table 1. Seasonal catches (mt) and Canadian catch per effort (boat night) in the 4V herring fishery 1968-69 to 1975-76. Effort figures given in parentheses.

	<u>1968-69</u>	<u>1969-70</u>	<u>1970-71</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>	<u>1975-76</u>
Total catch	114224	56243	9277	16106	18276	16643	17945	5583 *
Canadian catch	2276	4992	3065	10662	17179	15347	16522	5537
Canadian C/E	-	-	-	115.2 (56)	93.8 (149)	78.6 (193)	76.4 (211)	51.6 (105)

*To end of 1975 only.

Table 2. Canadian 1975-76 removals at age (thousands) of herring from ICNAF Div. 4V.

	A G E											
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>10+</u>	<u>T.</u>
1975												
November		336	442	576	2738	1287	686	601	737	1016	1964	10382
December	1	310	1051	1209	4845	1199	399	261	235	134	185	9830
Total	1	645	1493	1785	7583	2486	1085	863	972	1150	2149	20212