INTERNATIONAL COMMISSION FOR

THE NORTHWEST ATLANTIC FISHERIES

Serial No. 1297 D. c. 2

DOCUMENT NO. 8

ANNUAL MEETING - JUNE, 1964

HALIBUT OTOLITH EXCHANGE PROGRAMME

By: B. F. Calvin DeBaie

Following a recommendation from the Ninth Annual Meeting of ICNAF in June, 1959, a Halibut Otolith Exchange Programme was carried out during 1959-1962. Four samples of halibut otoliths, each containing ten otoliths from commercial-sized fish and/or ten otoliths from smaller fish were exchanged among interested scientists in three member countries. This was reported upon in Serial No. 943 (Document No. 7) at the Annual Meeting in Moscow in June, 1962.

Since that time the International Pacific Halibut Commission has co-coperated in this programme by reading the four samples previously circulated. The results of those readings were incorporated into the original document and reported upon in Serial No. 1044 dated October 16, 1962.

In October, 1962, the ICNAF Secretariat requested the International Pacific Halibut Commission to submit a sample from their laboratory for circulation to those who had originally participated in the programme. Mr. William H. Hardman, a Biologist with that Commission, has been most co-operative in supplying ICNAF with a sample and, as a result, a report of the readings of this exchange is appended for your perusal.

In the tables which follow, where two or more age-estimates are given and no indication is made as to which is the more probable, one has been chosen randomly for use in determining the mode and the deviation from the mode. Where no single age dominated, either the median was chosen instead of the mode or the nearest whole number to the median.

The results of these readings show a very high rate of agreement amongst the scientists who have co-operated in this otolith exchange programme.

It might be well, at this point, to reiterate some of the pertinent information concerning these samples, which has already been passed on to the readers in an earlier communication. This is outlined below:

- (1) The large otoliths were obtained from "market sampling" of commercial landings in Petersburg, Alaska and originated from catches by the boat Unimak from Salisbury Sound off the west coast of Chicagof Island near Sitka, Alaska. The market sampling program of the International Pacific Halibut Commission is conducted in most of the major landing ports as well as by samplers at sea on commercial vessels. It has been a continuous survey since 1933 and provides that Commission with good age and length series for all important grounds throughout the range of the commercial longline fisheries for Pacific Halibut.
- (2) The small otoliths were taken from samples of sub-commercial-sized halibut obtained during annual surveys of small fish grounds made with small-mesh trawls by Mr. R. A. Kautz for Commission recruitment studies.
- (3) The samples were packaged in the respective manner in which they are stored, in fifty percent glycerine solution with thymol preservative. Samples are put in this solution as soon as possible to prevent the opaqueness which ensues drying.
- (4) In sampling, only the left otolith has been retained in favor of volume and further because the right otolith is not considered as legible.
- (5) Since these samples were both taken in mid-summer, the otoliths have a broad current year's growth and aging has been judged by the International Pacific Halibut Commission to the last "birthday" or January 1.

..../2

HALIBUT OTOLITH EXCHANGE PROGRAMME

SAMPLE: A

LOCATION: Salisbury Sound, West Coast of Chichage

Island, Southeastern Alaska

DATE COLLECTED: August, 1962

COLLECTED BY: IPHC "Market Sampling" Crew

GEAR: Longline

Serial	Length	Estimated Age								
		IPHC	Canada	Denmark	Denmark	Iceland		Total	Mean	
No.	cm.	Hardman	Kohler-McFarlane	Hansen	Horsted	Sigurösson	Mode			
1	132	12	12	13	12(?)	11-12	12	1	.2	
2	109	8	8	8	8	8	8	0	_	
3	128	17	16	17	16	17	17	2	.4	
4	62	5-7	6	8(?)	7(7)	7	7	2	.4	
5	149	18	18	18	18	17	18	_ 1	.2	
6	78	8	8	8	l 8	8	8	ō	'-	
7	91	12	11	12	11(12)	10-12	12	1	.2	
8	97	9	9	10	10	9-10	9	2	4	
9	162	16	16	16	16	15-16	16	ו ה	- 3	
10	172	15	15]	(14)15(16)		15	1	2	

SAMPLE: B

LOCATION: Kachemak Bay, Cook Inlet, Alaska

DATE COLLECTED: August 10, 1957

COLLECTED BY: R. A. Kautz

GEAR: Small fish sampling net; 12 inch stretch-

mesh otter trawl

	Length	Estimated Age								
		IPHC	Canada	Denmark	Denmark	Iceland		Total	Mean	
No.	mm .	Hardman	Kohler-McFarlane	Hansen	Horsted	Sigurōsson	Mode			
1	160	1	1	2(1)	1	1	1	0	-	
2	182	2	2	3	2	2	2	l i	.2	
3	252	2(3)	4	4	3	3	3	2	.4	
4	145	1	1	1	1	li	l i	1 - 5		
5	162	1	1	1(0)	1	1 <u>1</u>	l ī	ا م	_	
6	141	1	1	1	1	i i	l ī	Ιň	_	
7	250	2	2	2	2(3)	2	2	i	_	
.8	290	3	3	3	3	3	3	١،	_	
9	171	1	i	li	1 1	1	;	l š	_	
10	316	I з	3	3	٦	3	3	l š	_	