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Portuguese Research Report for 1990

by

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A. Status of the Fisheries

The Portuguese nominal catches recorded an overall increase of 30% from 1989 to 1990, although the cod catches declined from 24 thousand tons to 17 thousand tons in the same period.

The main reason for this increase was the very high level of skates in the by-catch of directed trawl fisheries for cod and red fish, along with the uprising of the declared landings of species such as greenland halibut, witch flounder, grenadiers and wolfishes.

An increase of the same level (32%) was observed in the fishing hours for trawlers, concentrated (85%) in Div 3L and 3M.

A similar trend occurred with the gillnet effort that also showed an increase of 13%, concentrated (70%) in the same divisions.

The nominal catches and effort for 1990 are presented, by gear and division, in Tables I and II.

B. Portuguese Annual Sampling Program

1. Introduction

The intensity of sampling during 1990 is presented in Table III.

The collection, on a daily basis, of the catch and fishing effort data, as well as length and age composition of the main species in the catch, were attained in 1990 through the sampling of four trawl and two gillnet trips.

For the red fish fishery in Div. 3L, 3M and 3N biological sampling has been properly done by species (*S. marinus* and *S. mentella*). Also the gillnet catches of american plaice and yellowtail, usually reported together in the statistical nominal catches, were split by sampling.

Catch and effort data have been made available through direct consultation on board of the log-book records.

Age composition of red fish in Div. 3M were derived from the age/length keys obtained in the Flemish Cap 1990 EEC research cruise as well as the length/weight relationship used to get the mean weights at age for american plaice.

From sampling data (see sampling weights of *S. marinus* and *S. mentela* in Tables IX and X) and apart the red fish trawl catches in Div. 3N in January and September, it was assumed that for the other months/divisions sampled red fish catches were entirely made up of *S.mentella*.

2.Results obtained

Directed effort, catch rates and by-catch for cod, red fish, american plaice and greenland halibut fisheries are presented in tables IV and VI.

The red fish fisheries data above and below the 400 m depth line, including the respective cod by-catch rates, are presented in tables V.

CPUE's at age for cod, red fish and american plaice are presented in Table VII.

Length composition for cod, red fish (Sebastes marinus and S. mentella), greenland halibut, american plaice, yellowtail flounder and witch flounder are presented from tables VIII to tables XIV.

Age composition and mean weight at age for each division are presented in Tables XV (A, B, C, D, and E) for cod, in Tables XVI (A and B) for red fish (S. mentella) and in Tables XVII (A,B,C and D) for american plaice. Annual length and age compositions for the same species are also represented in Fig.1 to 8 for cod, Fig.11 to 14 for red fish and Fig.17 to 24 for american plaice.

Annual length composition for the species not aged are represented graphically (by sex) in the following figures: red fish Div. 3L in Fig.9 and 10; greenland halibut Div. 3L in Fig.15 and 16 and yellowtail (gillnets) Div. 3N in Fig.25 and 26.

3. Comments on catch and effort data

DIVISION 3L

For the four trawl trips surveyed, cod and red fish were the target species in Div.3L. High trawl catch rates for cod, with values ranging from 0.9 ton. to 1.4 ton. per hour, were recorded in January, February and April of 1990. Nevertheless in the same division the directed effort and cpue's for greenland halibut showed a downward trend along 1990 when compared with the catch and effort data collected for this species in 1989. As for the redfish trawl fishery, the higher catch rates are recorded for the hauls below the 400m depth line.

DIVISION 3M

In Div. 3N cod was the main by-catch species in the redfish fishery although with a serious decline of its rate in the catch above 400m, from 40% in 1989 to 15% in 1990 (Table V-C). Unlike 1989, the catch rates for this fishery, above and below the 400m depth line, are within the same range of values.

DIVISION 3N

In Div. 3N cod was , as usual, the target species in the gillnet fishery, with the observed monthly catch rates showing no signs of decline, when compared with the previous year.

American plaice continues to be the main by-catch species in this fishery but the proportion of yellowtail flounder in the gillnet flatfish catches doubled from 1989 to 1990 (from 15% in 1989 to 31% in 1990).

4. Comments on length and age composition

DIVISION 3L

The 1986 year class, with 4 years old, and the 33cm to 45cm length group dominated the cod catches (Fig.1 and 2).

Red fish (S. mentella) catches were dominated by fishes with a modal length at 29 cm for males and 28 cm for females (Fig.9 and 10). Comparatively with 1989, red fish catches in this division were composed of smaller fish in 1990.

Greenland halibut catches were composed, for both males and females, by fish with lengths ranging from 28 cm to 90 cm (Fig.15 and 16), with a mode at 44-46 cm for males and 46-50 cm for females. Mean length of the catches was also smaller in 1990.

DIVISION 3M

Age composition of cod catches were dominated by the 1986 year class (age 4) followed by the 1985 one (Fig.4). Cod older than 5 years was very rare in the catches.

Age composition of the red fish catches (Fig.13 and 14) were dominated by the strong 1981 year class, followed by the 1982 and 1980 ones. Another young and relatively strong year class was also evident in the Portuguese catches, with 4 years old and about 18-20 cm in 1990. It is feasible that the relatively strong year class identified in the 1989 EEC and USSR research cruises with about 14-17cm and assumed to belong to the 1985 year class is in fact from 1986 and has started to be recruited in 1990.

Another age group with 16 years and older was also evident in the red fish catches, namely for females, and are probably the remainder the successful year-classes of the early 1970's.

DIVISION 3N

Length composition of the trawl cod catches were bimodal with lengths around 36 cm and 72 cm (around 4 and 9 years old) dominant (Fig.5 and 6).

Ages 9 to 12 were the bulk of the cod gillnet catches, although the presence of older fish was recorded (Fig.7 and 8).

A larger proportion of males is observed in the american plaice trawl catches , with a mode at age 7.

Female catches spread up to older ages, although its modal class was at age 5 (Fig.19 and 20).

Ages 6 to 10 were the more representative in the gillnet catches of this species for both sexes. Nevertheless age groups 13 - 17 were also well represented for females.

TABLE I : PORTUGUESE NOMINAL CATCHES (mt) IN NAFO AREA, 1990

SPECIES	DIVISION 3L		3M		3N		3O		TOTAL 1990	TOTAL 1989	TOTAL 1988
	OT	GNS	OT	GNS	OT	GNS	OT	GNS			
Cod	11156.1	1287.2	512.5	37	1026.6	1043.5	42.7	31.9	15138	24129	12931
Redfish	4760.2	60.8	11294.3	377.7	1224.7	9.3	82.8	0	17810	18870	17072
American plaice(1)	102	39.3	287.1	70.3	161.5	24.7	29.6	0	714	1821	1791
Yellowtail(2)	0	0	0	0	0	11.2	0	0	11	5	
Witch flounder	636.4	19.2	404	54.4	1012.1	90.3	28.6	1.5	2254	16	12
Greenland halibut	8181.3	69	2053.5	63.5	789.3	0	13	0	11170	3614	4194
Atlantic halibut(3)	16.4	10.8	15.1	21.6	26	0	1.4	0	91		
Roundnose grenadier	2201.8	7.8	686.1	3.1	311.9	0	0.8	0	3211	290	914
Anarhichas spp.(3)	643.5	25.2	1039.7	46.2	185.6	0	0	0	1940		
Hadocck(3)	0	0	0	0	2	7.1	7.5	0	17		
Pollock(3)	0.1	3	0	8.1	0	0	0	0	11		
Red hake(3)	13.3	107.2	0	215.7	109	10	11.8	0	467		
Capelin(3)	0	0	14.1	0	62.6	0	0	0	77		
Monkfish(3)	0	0	0	0	0	1.8	0	0	2		
Skates	6789	105.8	2989.9	91.3	3563.8	8.4	21	0	13569	663	1097
Unidentified(3)	267.2	60.9	317.8	30.7	69.2	106	0	0	852		
TOTAL	34767.3	1796.2	19614.1	1019.6	8551.3	1312.3	239	33.4	67333	49408	38011

(1) From the 1990 sampling, yellowtail catches mixed with american plaice are not significant, except for div.3N/gillnets. The mean rate of yellowtail flounder in the mixed american plaice/yellowtail gillnet catches, sampled by the INIP from May to December 1990, is 31.1%.

(2) Yellowtail 3N catches from gillnets estimated from the catch composition by species of the two gillnetters sampled by the INIP during 1990.

(3) Catches not included in the Portuguese Research Report for 1989. These species represented 5% of the total catch of the portuguese fleet in 1990.

TABLE II : PORTUGUESE EFFORT IN FISHING DAYS AND FISHING HOURS (TRAWL) OR NUMBER OF NETS (GILLNETS), IN NAFO AREA IN 1990.

	DIVISION																							
	3L				3M				3N				3O				TOTAL 1990				TOTAL 1989			
	OT		GNS		OT		GNS		OT		GNS		OT		GNS		OT		GNS		OT		GNS	
MONTH	DAYS	HOURS	DAYS	NETS	DAYS	HOURS	DAYS	NETS	DAYS	HOURS	DAYS	NETS	DAYS	HOURS	DAYS	NETS	DAYS	HOURS	DAYS	NETS	DAYS	HOURS	DAYS	NETS
JAN.	88	1070	20	4993	11	135	2	499	17	208	3	748	7	86			123	1616	25	6241	351	4612		
FEB.	125	1608	5	1248	30	338	11	2746					1	13			155	2255	16	3994	348	5063		
MAR.	147	1848	21	5243	120	1507	22	5492	150	1884			1	13			418	5705	43	10735	302	5287		
APR.	360	4561	23	7487	148	1875	15	4883	15	189	7	2279					523	7019	45	14648	375	5033	6	1760
MAY	212	3038	15	4883	226	3236	10	3255	9	129	49	15950	1	14			448	5833	74	24087	383	4987	127	43917
JUN.	213	3674	21	7768	150	2447	14	5179	34	555	35	12947	3	49	11	4069	400	5780	81	28962	501	7239	161	63144
JUL.	172	3146	88	33009	118	2177	31	11628	2	37	45	16868					293	4867	164	61516	301	4774	112	44834
AUG.	292	4098	45	16880	196	3405	68	25587	4	69	13	4876					492	6271	126	47263	178	3054	176	73251
SEP.	261	3907	18	6752	190	2844	12	4501	18	269	9	3376					469	7663	39	14629	219	3578	52	19680
OCT.	204	2968	19	4361	247	3473	31	7115	15	211	17	3902					486	6431	67	15377	361	4902	36	13885
NOV.	308	3853	4	1262	375	4691	7	2208	277	3465	18	5994	8	100			968	13358	30	9464	270	3726	22	8495
DEC.	36	510			86	1218			156	2209	4	816	3	42			291	3870	4	816	181	2498		
TOTAL	2608	34507	279	83883	1998	27345	223	73013	697	9226	201	67766	23	304	11	4069	5026	72537	714	238731	3850	54833	692	268885

Note: Fishing hours and number of nets estimated from their monthly rates to fishing days observed in the trawlers and gillnetters sampled by the INIP.
Monthly effort of gillnetters is given by the sum of the number of nets per fishing day.

TABLE III: Intensity of sampling during 1990, by gear, species, division and month.

A- STERN TRAWL

SPECIES	DIV.	MONTH	No OF SAMPLES	No FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS No	LENGTH RANGE
COD	3L	JAN.	8	1662	867.5	32	23-88 cm
		FEB.	5	905	567	107	25-94 cm
		MAR.	1	186	119	23	29-59 cm
		SEP.	1	5	25.5	5	26-114 cm
		OCT.	6	67	248.1	67	27-112 cm
	3N	JAN.	11	1823	1557.5	199	20-81 cm
		FEB.	2	333	269	90	33-74 cm
		MAR.	11	2007	1681.5	176	30-105 cm
		APR.	4	825	743	168	29-69 cm
		MAY	11	2579	1900	254	18-87 cm
		SEP.	5	253	423.8	119	42-88 cm
	3N	DEC.	2	48	145.84	48	33-114 cm
REDFISH	3L	MAR.	1	203	155	-	
		SEP.	9	1595	788.2	-	
		OCT.	29	3573	1635.9	-	
		NOV.	7	655	320.9	-	
	3N	JAN.	3	763	221	-	
		FEB.	7	1736	606.5	-	
		MAR.	16	3667	1564.5	-	
		APR.	15	3783	1274	-	
		SEP.	6	1705	713.2	-	
	3N	JAN.	2	465	126.5	-	
		SEP.	2	183	102.3	-	
		NOV.	9	871	348.9	-	
		DEC.	7	695	328.4	-	
AMERICAN PLAICE	3L	NOV.	1	8	4.39	8	30-51 cm
	3N	SEP.	1	10	15.9	10	42-55 cm
	3N	JAN.	1	153	21	85	14-46 cm
	3N	NOV.	6	183	159.95	185	19-70 cm
	3N	DEC.	6	260	202.92	212	13-75 cm
WITCH FLOUNDER	3L	OCT.	8	197	155.38	150	27-62 cm
	3L	NOV.	4	76	66.84	72	36-56 cm
	3N	SEP.	1	29	11.1	29	32-48 cm
	3N	NOV.	7	205	102.3	149	31-58 cm
	3N	DEC.	4	137	61.96	94	32-59 cm
GREENLAND HALIBUT	3L	SEP.	10	330	415.38	-	
		OCT.	19	659	766.36	-	
		NOV.	9	325	552.16	-	
	3N	SEP.	1	36	31.1	-	
		NOV.	7	210	178.32	-	
		DEC.	3	92	105.4	-	

B- SIDE TRAWL

SPECIES	DIV.	MONTH	No OF SAMPLES	No FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS No	LENGTH RANGE
COD	3L	FEB.	14	1891	1891.5	103	32-91 cm
		MAR.	3	558	429	31	29-58 cm
		APR.	23	4225	3261	174	21-94 cm
		AUG.	8	488	676.85	224	32-124 cm
		SEP.	4	154	246	136	33-132 cm
		OCT.	6	92	377.5	92	36-123 cm
		NOV.	1	26	87	26	34-103 cm
	3N	APR.	2	318	274	-	
		MAY	9	1321	1309	192	28-75 cm
		JUL.	10	1155	1058.05	176	29-79 cm
		AUG.	15	1010	1496.15	222	36-130 cm
		SEP.	3	150	250.8	123	44-99 cm
		OCT.	1	28	52	23	46-69 cm
	3N	MAR.	2	220	313	-	
REDFISH	3L	FEB.	2	238	167	-	
		APR.	1	149	142	-	
		MAY	2	198	77	-	
		AUG.	34	5679	2026.5	-	
		SEP.	27	4177	1950	-	
		OCT.	61	11486	5613	-	
		NOV.	35	6855	2732	-	
	3N	FEB.	1	138	77	-	
		MAR.	2	316	108	-	
		APR.	16	2736	1016	-	
		MAY	12	2374	782.5	-	
		JUL.	9	1310	768	-	
		AUG.	19	3572	1420.5	-	
		SEP.	14	2774	1150	-	
	3N	MAR.	1	152	40	-	
		SEP.	6	921	220	-	
		NOV.	6	863	323	-	
		DEC.	4	678	293	-	
	3O	NOV.	1	144	43.5	-	
AMERICAN PLAICE	3N	AUG.	9	442	367.7	104	30-52 cm
	3N	MAR.	13	1604	668	62	26-55 cm
		SEP.	2	46	28.25	46	25-60 cm
GREENLAND HALIBUT	3L	OCT.	1	50	49	-	
		NOV.	7	396	308	-	
	3N	NOV.	2	83	83	-	

C- GILLNETS

SPECIES	DIV.	MONTH	No OF SAMPLES	No FISH MEASURED	SAMPLING WEIGHT(Kg)	OTOLITHS No	LENGTH RANGE
COD	3N	MAY	24	1550	21489	196	78-137 cm
		JUN.	17	708	7030	259	62-131 cm
		JUL.	24	1421	17975	159	89-136 cm
		OCT.	12	534	6508.1	219	41-135 cm
		NOV.	13	725	9227.3	294	61-146 cm
		DEC.	2	35	398.8	35	77-126 cm
	3O	JUN.	11	580	6536	175	70-130 cm
		OCT.	1	11	172.4	11	89-129 cm
AMERICAN PLAICE	3N	MAY	17	494	475	274	25-70 cm
		JUN.	10	454	730.35	197	31-77 cm
		JUL.	14	646	596.5	206	30-68 cm
		OCT.	11	177	163	171	27-68 cm
		NOV.	13	219	205.9	218	30-72 cm
		DEC.	1	10	12.2	10	39-67 cm
	3O	JUN.	5	217	186	172	30-71 cm
		OCT.	1	8	7.4	8	37-62 cm
YELLOWTAIL FLOUNDER	3N	MAY	12	541	198	109	26-44 cm
		JUN.	1	21	8.9	21	30-40 cm
		JUL.	17	1588	656	280	26-55 cm
		OCT.	8	128	50.45	107	27-47 cm
		NOV.	13	126	49.6	123	27-47 cm
		DEC.	1	8	4.2	8	32-38 cm
	3O	JUN.	2	128	69	101	26-59 cm

TABLE IV - A : Portuguese stern trawl fisheries (from 2 vessels sampled): directed effort, cpue and by-catch by month and division, for 1990.

DIVISION	MONTH	GEAR	TARGET SPECIES	DIRECTED EFFORT	FISHING DAYS	NUMBER HAULS	C.P.U.E. (ton/hour)	MAIN BY-CATCH SPECIES	MEAN BY-CATCH (%) MAIN SPECIES	TOTAL
3L	JAN.	OT6	COD	82h	7	28	1.184	SKATE	3.3	3.9
3L	FEB.	OT6	COD	53h	5	22	0.891	SKATE	10.3	16.8
3L	MAR.	OT6	RED-FISH	13h	2	5	0.972	COD	10.7	23.4
3L	AUG.	OT6	RED-FISH	25h	2	12	0.379	G.HALIBUT	20.4	21.1
3L	SEP.	OT6	RED-FISH	118h	8	57	0.755	G.HALIBUT	6.1	9.0
3L	SEP.	OT6	G.HALIBUT	160h	10	47	0.542	RED-FISH	1.7	2.0
3L	OCT.	OT6	RED-FISH	438h	30	229	0.713	G.HALIBUT	6.8	13.2
3L	OCT.	OT6	G.HALIBUT	14h	1	6	0.147	RED-FISH	41.7	48.7
3L	NOV.	OT6	RED-FISH	116h	9	61	0.539	SKATE	10.0	19.5
3L	NOV.	OT6	G.HALIBUT	59h	4	19	0.451	A.HALIBUT	0.1	0.1
3M	JAN.	OT6	RED-FISH	14h	2	6	1.240	PLAICE	12.9	28.6
3M	FEB.	OT6	RED-FISH	64h	5	19	0.377	COD	10.2	29.9
3M	MAR.	OT6	RED-FISH	173h	16	52	0.352	COD	12.5	25.7
3M	APR.	OT6	RED-FISH	151h	10	46	0.349	COD	6.7	11.6
3M	MAY	OT6	RED-FISH	4h	1	2	0.444	PLAICE	9.6	21.0
3M	SEP.	OT6	RED-FISH	100h	6	31	1.038	COD	10.6	11.4
3M	JAN.	OT6	RED-FISH	22h	3	10	0.240	PLAICE	23.2	45.0
3M	JAN.	OT6	PLAICE	8h	1	3	0.169	RED-FISH	39.8	48.5
3M	SEP.	OT6	RED-FISH	26h	2	11	0.336	SKATE	10.8	30.1
3M	NOV.	OT6	RED-FISH	114h	9	41	0.586	G.HALIBUT	8.6	22.9
3M	NOV.	OT6	PLAICE	18h	1	7	0.360	COD	12.3	28.2
3M	DEC.	OT6	RED-FISH	116h	7	51	0.363	SKATE	9.9	43.7
3M	DEC.	OT6	PLAICE	80h	6	31	0.526	G.HALIBUT	5.5	22.5

TABLE V-A : Portuguese red-fish stern trawl fishery (from 2 vessels sampled): directed effort, cpue and by-catch above and below the 400m depth line, by month and division, for 1990.

DIVISION	MONTH	GEAR	DEPTH	TARGET SPECIES	DIRECTED EFFORT	FISHING DAYS	NUMBER HAULS	C.P.U.E (ton/hour)	MAIN BY-CATCH SPECIES	MEAN BY-CATCH (%) MAIN SPECIES	TOTAL
3L	MAR.	OTB	<400	REDFISH	9h	1	4	1.274	COD	21.4	46.8
3L	AUG.	OTB	>400	REDFISH	25h	2	12	0.379	G.HALIBUT	20.4	21.1
3L	SEP.	OTB	>400	REDFISH	98h	6	47	0.813	G.HALIBUT	6.8	8.1
3L	OCT.	OTB	>400	REDFISH	364h	25	192	0.708	SKATE	6.3	12.5
3L	NOV.	OTB	>400	REDFISH	116h	9	61	0.539	SKATE	10.0	19.5
3M	JAN.	OTB	<400	REDFISH	14h	2	6	1.240	A.PLAICE	12.9	28.8
3M	FEV.	OTB	<400	REDFISH	14h	1	4	0.111			
3M	FEV.	OTB	>400	REDFISH	51h	4	15	0.449	COD	12.7	37.4
3M	MAR.	OTB	>400	REDFISH	141h	13	42	0.374	SKATE	10.0	26.7
3M	APR.	OTB	<400	REDFISH	14h	1	3	0.370	COD	6.0	10.0
3M	APR.	OTB	>400	REDFISH	137h	10	43	0.344	COD	5.8	11.8
3M	MAY	OTB	<400	REDFISH	4h	1	2	0.444	A.PLAICE	9.6	21.0
3M	SEP.	OTB	<400	REDFISH	35h	2	10	1.130	COD	17.1	17.5
3M	SEP.	OTB	>400	REDFISH	14h	1	4	1.153	G.HALIBUT	1.2	1.6
3N	JAN.	OTB	<400	REDFISH	4h	1	3	0.482	SKATE	29.4	31.6
3N	SEP.	OTB	>400	REDFISH	26h	2	11	0.336	SKATE	10.8	30.1
3N	NOV.	OTB	>400	REDFISH	98h	8	55	0.576	G.HALIBUT	8.5	23.3
3N	DEC.	OTB	>400	REDFISH	90h	6	44	0.419	SKATE	11.2	41.7

TABLE IV - 8 : Portuguese side trawl fisheries (from 2 vessels sampled): directed effort, cpue and by-catch by month and division, for 1990.

DIVISION	MONTH	GEAR	TARGET SPECIES	DIRECTED EFFORT	FISHING DAYS	NUMBER HAULS	C.P.U.E. (ton/hour)	MAIN BY-CATCH SPECIES	MEAN BY-CATCH (%) MAIN SPECIES	TOTAL
3L	FEB.	OT6	COD	190h	15	65	1.104	SKATE	13.9	23.9
3L	FEB.	OT6	G.HALIBUT	2?h	2	9	0.271	GRENADIER	51.4	65.3
3L	MAR.	OT6	COD	56h	4	19	0.358	SKATE	30.3	54.5
3L	MAR.	OT6	RED-FISH	12h	1	5	0.117	COD	34.9	74.1
3L	APR.	OT6	COD	208h	16	90	1.414	SKATE	23.5	31.4
3L	APR.	OT6	RED-FISH	22h	2	10	0.907	COD	27.1	43.4
3L	MAY	OT6	G.HALIBUT	47h	3	13	0.264	RED-FISH	28.0	43.7
3L	AUG.	OT6	RED-FISH	295h	17	98	0.351	SKATE	20.8	39.6
3L	SEP.	OT6	RED-FISH	169h	13	73	0.584	SKATE	7.0	20.4
3L	OCT.	OT6	RED-FISH	412h	30	192	0.516	SKATE	9.7	25.4
3L	NOV.	OT6	RED-FISH	255h	20	135	0.434	SKATE	12.8	39.6
3M	FEB.	OT6	RED-FISH	18h	3	6	0.425	G.HALIBUT	1.3	2.0
3M	MAR.	OT6	RED-FISH	41h	5	15	0.459	COD	9.1	29.0
3M	APR.	OT6	RED-FISH	64h	7	33	1.852	COD	5.7	6.8
3M	MAY	OT6	RED-FISH	91h	9	46	1.047	COD	18.9	19.3
3M	JUL.	OT6	RED-FISH	78h	4	19	0.340	COD	8.8	13.8
3M	AUG.	OT6	RED-FISH	200h	11	50	0.363	COD	16.4	32.9
3M	SEP.	OT6	RED-FISH	104h	6	34	0.693	COD	19.4	34.0
3M	OCT.	OT6	RED-FISH	8h	1	2	0.384	SKATE	10.4	25.6
3N	MAR.	OT6	COD	144h	8	49	0.282	SKATE	54.5	77.2
3N	MAR.	OT6	PLAICE	163h	11	57	0.238	SKATE	66.6	84.5
3N	MAR.	OT6	SKATE	224h	15	78	1.391	PLAICE	13.8	33.0
3N	SEP.	OT6	RED-FISH	41h	3	18	0.474	SKATE	6.3	21.2
3N	NOV.	OT6	RED-FISH	33h	4	16	0.573	G.HALIBUT	14.0	21.8
3N	DEC.	OT6	RED-FISH	23h	2	11	0.288	G.HALIBUT	13.0	40.6
3O	NOV.	OT6	RED-FISH	5?h	1	2	0.304	A.HALIBUT	4.2	6.0

TABLE IV - C : Portuguese gillnet fishery (from two trips sampled): directed effort, cpue and by-catch by month and division, for 1990.

DIVISION	MONTH	GEAR	TARGET SPECIES	DIRECTED EFFORT(1)	FISHING DAYS	NUMBER SETS	C.P.U.E (kg/net/day)	MAIN BY-CATCH SPECIES	MEAN BY-CATCH (%) MAIN SPECIES	TOTAL
3N	MAY	GN6	COD	9440	29	24	8.460	SKATE	4.8	10.1
	JUN.	GN6	COD	6646	13	17	3.396	SKATE	3.5	14.8
	JUL.	GN6	COD	10878	29	25	6.803	SKATE	9.5	22.0
	OCT.	GN6	COD	4270	16	12	5.850	SCULPINS	2.2	5.1
	NOV.	GN6	COD	6340	22	16	9.270	SKATE	1.1	3.5
	DEC.	GN6	COD	1020	5	2	1.941	SKATE	2.4	2.9
3O	JUN.	GN6	COD	4080	11	11	5.005	Y.FLOUNDER	3.1	10.4
	OCT.	GN6	COD	320	1	1	0.539	A.PLAICE	4.1	4.1

(1) sum number of nets per fishing day.

TABLE V-B : Portuguese red-fish side trawl fishery (from 2 vessels sampled): directed effort, cpue and by-catch above and below the 400m depth line, by month and division, for 1990.

DIVISION	MONTH	GEAR	DEPTH	TARGET SPECIES	DIRECTED EFFORT	FISHING DAYS	NUMBER HAULS	C.P.U.E (ton/hour)	MAIN BY-CATCH SPECIES	MEAN BY-CATCH (%) MAIN SPECIES	TOTAL
3L	MAR.	OTB	>400	REDFISH	12h	1	5	0.117	COD	34.9	74.1
3L	AUG.	OTB	<400	REDFISH	265h	15	83	0.322	SKATE	23.2	43.6
3L	AUG.	OTB	>400	REDFISH	30h	2	15	0.707	GRENADIER	3.7	9.5
3L	SEP.	OTB	<400	REDFISH	82h	6	33	0.465	SKATE	11.7	29.2
3L	SEP.	OTB	>400	REDFISH	66h	5	30	0.764	GRENADIER	3.8	7.3
3L	OCT.	OTB	<400	REDFISH	97h	7	39	0.448	GRENADIER	11.4	31.9
3L	OCT.	OTB	>400	REDFISH	250h	19	127	0.593	SKATE	8.8	20.7
3L	NOV.	OTB	<400	REDFISH	9h	1	4	0.231	GRENADIER	17.8	47.9
3L	NOV.	OTB	>400	REDFISH	246h	19	131	0.409	SKATE	12.7	39.1
3M	FEB.	OTB	>400	REDFISH	18h	3	6	0.425	G.HALIBUT	1.3	2.0
3M	MAR.	OTB	>400	REDFISH	41h	5	5	0.459	COD	9.1	28.0
3M	APR.	OTB	>400	REDFISH	64h	7	33	1.852	COD	5.7	6.8
3M	MAY	OTB	<400	REDFISH	24h	2	6	0.794	COD	43.8	44.6
3M	MAY	OTB	>400	REDFISH	55h	6	36	1.372	COD	9.3	9.7
3M	JUL.	OTB	<400	REDFISH	78h	4	16	0.340	COD	8.8	19.8
3M	AUG.	OTB	<400	REDFISH	200h	11	50	0.363	COD	16.4	32.9
3M	SEP.	OTB	<400	REDFISH	87h	5	29	0.731	COD	14.2	18.2
3M	SEP.	OTB	>400	REDFISH	19h	1	5	0.216	COD	8.8	25.7
3M	OCT.	OTB	<400	REDFISH	8h	1	2	0.384	SKATE	10.4	25.6
3M	SEP.	OTB	<400	REDFISH	29h	2	13	0.519	SKATE	8.3	24.4
3M	NOV.	OTB	>400	REDFISH	14h	2	7	0.643	G.HALIBUT	9.2	14.1
3M	DEC.	OTB	>400	REDFISH	11h	1	5	0.358	G.HALIBUT	11.1	39.3
3O	NOV.	OTB	>400	REDFISH	5h	1	2	0.304	A.HALIBUT	4.2	6.0

TABLE V-C: Portuguese red-fish trawl fishery (from 2 stern trawlers and 2 side trawlers sampled): mean by-catch (%) of cod, above and below the 400m depth line by month in Div. 3N, for 1990.

DEPTH / MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUL.	AUG.	SEP.	OCT.	MEAN(*)
< 400	6.1	0.0		6.0	32.2	8.8	16.4	15.0	6.2	14.7
> 400		8.5	10.7	6.3	9.3			4.5		8.5

Note (*) weigthed by the number of fishing days in each month.

TABLE VI-A : Portuguese stern trawl fisheries (from 2 vessels sampled): C.P.U.E.(ton/h),mean wheight (Kg) in the catch, sex ratio and C.P.U.E. in number for males , females and total , by month and division, for 1990.

DIVISION	TARGET SPECIES	MONTH	C.P.U.E (ton/hour)	MEAN WEIGHT (kg)	SEX RATIO	C.P.U.E. (number/hour) males	females	total
3L	COD	JAN.	1.184	0.510				2322
3L	COD	FEB.	0.851	0.847				1052
3L	REDFISH	MAR.	0.872	0.813	0.158	170	903	1073
3L	REDFISH	AUG.	0.379	0.359	0.523	552	504	1056
3L	REDFISH	SEP.	0.765	0.476	0.468	752	855	1607
3L	REDFISH	OCT.	0.713	0.483	0.512	748	713	1461
3L	REDFISH	NOV.	0.539	0.407	0.506	670	654	1324
3L	G.HALIBUT	SEP.	0.542	1.259	0.470	203	228	431
3L	G.HALIBUT	OCT.	0.147	1.150	0.509	65	63	128
3L	G.HALIBUT	NOV.	0.451	1.193	0.494	187	191	378
3N	REDFISH	JAN.	1.240	0.290	0.579	2476	1800	4276
3N	REDFISH	FEB.	0.377	0.365	0.573	592	441	1033
3N	REDFISH	MAR.	0.352	0.420	0.574	481	357	838
3N	REDFISH	APR.	0.349	0.351	0.576	573	421	994
3N	REDFISH	MAY	0.444	0.330	0.785	1056	289	1345
3N	REDFISH	SEP.	1.038	0.412	0.525	1322	1197	2519
3N	REDFISH	JAN.	0.240	0.263	0.586	535	378	913
3N	REDFISH	SEP.	0.336	0.319	0.395	416	637	1053
3N	REDFISH	NOV.	0.586	0.403	0.495	589	865	1454
3N	REDFISH	DEC.	0.369	0.453	0.481	392	423	815
3N	A.PLAICE	JAN.	0.169	0.137	0.359	443	791	1234
3N	A.PLAICE	NOV.	0.360	0.874	0.568	234	178	412
3N	A.PLAICE	DEC.	0.526	0.780	0.512	345	329	674

TABLE VI-B : Portuguese side trawl fisheries (from 2 vessels sampled): C.P.U.E.(ton/h),mean wheight (Kg) in the catch, sex ratio and C.P.U.E. in number for males , females and total , by month and division, for 1990.

DIVISION	TARGET SPECIES	MONTH	C.P.U.E (ton/hour)	MEAN WEIGHT (kg)	SEX RATIO	C.P.U.E. (number/hour) males	females	total
3L	COD	FEB.	1.104	0.847				1303
3L	COD	MAR.	0.358	0.737				486
3L	COD	APR.	1.414	0.766				1846
3L	REDFISH	MAR.	0.117	0.813	0.158	23	121	144
3L	REDFISH	APR.	0.907	0.953	0.463	441	511	952
3L	REDFISH	AUG.	0.361	0.359	0.523	525	480	1006
3L	REDFISH	SEP.	0.584	0.476	0.468	474	653	1127
3L	REDFISH	OCT.	0.516	0.488	0.512	541	515	1057
3L	REDFISH	NOV.	0.404	0.407	0.506	502	491	993
3L	G.HALIBUT	FEB.	0.271	1.188	0.495	113	115	228
3L	G.HALIBUT	MAY	0.264	1.188	0.495	110	112	222
3M	REDFISH	FEB.	0.425	0.365	0.573	667	497	1164
3M	REDFISH	MAR.	0.459	0.420	0.574	627	466	1093
3M	REDFISH	APR.	1.852	0.351	0.576	3039	2237	5276
3M	REDFISH	MAY	1.047	0.330	0.785	2491	682	3173
3M	REDFISH	JUL.	0.340	0.402	0.550	465	381	846
3M	REDFISH	AUG.	0.363	0.398	0.543	495	417	912
3M	REDFISH	SEP.	0.693	0.412	0.525	883	799	1682
3M	REDFISH	OCT.	0.384	0.412	0.525	489	443	932
3N	COD	MAR.	0.282	1.445				195
3N	REDFISH	SEP.	0.474	0.319	0.395	587	899	1486
3N	REDFISH	NOV.	0.573	0.403	0.405	576	846	1422
3N	REDFISH	DEC.	0.286	0.453	0.481	306	330	636
3N	A.PLAICE	MAR.	0.238	0.416	0.611	349	223	572

TABLE VII-A: COD, DIVISION 3L, 1990: cpue in number at age per hour, for the portuguese trawl fishery.

DIVISION	TARGET SPECIES	GEAR	MONTH	AGE 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
3L	COD	STERN	JAN.	2.8	599.9	1533.9	135.8	16.9	15.2	12.7	4.2	1.4	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3L	COD	STERN	FEB.	0.0	79.9	868.3	171.0	33.0	43.3	40.3	8.7	3.8	0.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3L	COD	SIDE	FEB.	0.0	99.0	829.0	211.8	41.8	53.6	48.9	10.7	4.5	0.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3L	COD	SIDE	MAR.	0.0	78.8	288.2	89.2	18.1	17.6	14.2	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3L	COD	SIDE	APR.	0.4	115.1	1367.2	232.5	41.0	54.5	44.3	7.7	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE VII-B: REDFISH, DIVISION 3N, 1990: cpue in number at age per hour, for the portuguese trawl fishery.

DIVISION	TARGET SPECIES	SEX	MONTH	GEAR	AGE 4-	5	6	7	8	9	10	11	12	13	14	15	16+
3N	REDFISH	MALE	JAN.	STERN	162.5	95.3	48.0	98.5	513.0	573.0	432.5	204.2	110.1	45.0	36.1	56.2	123.6
3N	REDFISH	MALE	FEB.	STERN	41.9	8.3	9.2	26.8	100.2	98.3	79.2	45.0	43.2	20.8	10.7	27.7	63.4
3N	REDFISH	MALE	MAR.	STERN	1.3	2.5	2.1	9.5	69.0	86.1	73.8	45.6	41.1	27.6	21.1	30.2	71.5
3N	REDFISH	MALE	APR.	STERN	1.4	1.3	2.2	20.5	146.8	126.5	78.7	42.6	34.4	20.7	14.7	24.6	53.3
3N	REDFISH	MALE	MAY	STERN	0.0	1.7	8.3	75.9	328.5	240.8	124.2	48.9	29.8	18.4	10.1	25.3	127.1
3N	REDFISH	MALE	SEP.	STERN	10.1	12.6	12.3	45.0	180.8	202.1	304.2	185.6	122.3	55.2	33.9	48.3	71.8
3N	REDFISH	FEMALE	JAN.	STERN	72.8	112.8	72.3	125.8	214.5	394.4	218.8	188.8	188.3	77.8	78.8	36.6	82.1
3N	REDFISH	FEMALE	FEB.	STERN	46.9	13.2	6.9	26.8	56.8	71.6	31.5	23.3	18.6	14.4	20.4	15.5	99.1
3N	REDFISH	FEMALE	MAR.	STERN	0.2	0.2	0.5	9.6	38.4	80.7	42.8	34.7	28.8	20.2	25.4	15.8	88.9
3N	REDFISH	FEMALE	APR.	STERN	0.8	0.4	0.9	22.7	68.8	186.2	63.2	30.3	21.1	17.4	23.4	15.5	78.6
3N	REDFISH	FEMALE	MAY	STERN	0.8	0.4	1.1	18.8	58.3	87.8	36.1	24.8	13.9	9.8	13.8	6.8	22.9
3N	REDFISH	FEMALE	SEP.	STERN	68.6	14.9	17.3	74.3	145.5	228.1	165.1	134.2	88.3	65.2	61.8	31.6	98.7
3N	REDFISH	MALE	FEB.	SIDE	47.2	9.3	10.3	29.8	112.8	111.8	89.2	51.6	48.6	32.3	21.8	31.2	71.5
3N	REDFISH	MALE	MAR.	SIDE	1.8	3.3	2.7	12.4	88.8	112.3	86.4	58.5	53.8	36.8	27.6	38.3	93.3
3N	REDFISH	MALE	APR.	SIDE	7.3	8.7	13.8	151.3	378.4	671.3	417.8	225.1	182.8	188.6	78.1	114.8	283.1
3N	REDFISH	MALE	MAY	SIDE	8.8	4.8	18.5	178.2	777.4	587.8	293.1	115.3	78.2	43.4	42.7	58.7	288.8
3N	REDFISH	MALE	JUL.	SIDE	42.1	5.3	3.8	9.7	78.7	184.7	87.4	41.8	31.6	15.8	8.8	12.2	28.2
3N	REDFISH	MALE	AUG.	SIDE	48.6	5.3	1.2	8.7	55.1	88.2	88.8	55.2	47.8	24.8	13.6	18.4	38.3
3N	REDFISH	MALE	SEP.	SIDE	6.8	8.4	8.2	38.1	187.4	188.4	283.2	118.6	81.6	36.8	22.7	32.3	48.8
3N	REDFISH	FEMALE	FEB.	SIDE	52.8	14.8	7.8	38.3	81.8	88.7	35.5	26.2	18.7	18.2	23.8	17.5	111.6
3N	REDFISH	FEMALE	MAR.	SIDE	8.3	8.2	8.8	12.5	51.4	185.2	55.8	45.3	35.1	28.4	33.1	18.8	78.4
3N	REDFISH	FEMALE	APR.	SIDE	8.8	2.3	4.8	128.3	371.1	583.8	228.3	188.7	111.8	82.2	124.4	82.1	376.8
3N	REDFISH	FEMALE	MAY	SIDE	8.8	1.8	2.5	42.4	132.8	287.2	85.2	58.4	32.8	23.3	38.8	11.3	54.1
3N	REDFISH	FEMALE	JUL.	SIDE	1.3	1.8	8.5	8.7	38.4	78.5	48.1	34.8	18.4	17.8	28.4	28.7	88.4
3N	REDFISH	FEMALE	AUG.	SIDE	8.3	1.1	8.8	8.8	32.5	78.9	57.4	46.4	32.6	28.1	35.1	22.2	77.3
3N	REDFISH	FEMALE	SEP.	SIDE	45.8	18.8	11.5	49.8	97.2	153.8	118.3	89.8	58.8	43.5	41.2	21.1	85.9

TABLE VII-C: AMERICAN PLAICE, DIVISION 3N, 1990: cpue in number at age per hour, for the portuguese trawl fishery.

DIVISI	TARGET SPECIES	SEX	MONTH	GEAR	AGE 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25+
3N	A.PLAICE	MALE	NOV.	STERN	0.0	2.3	17.8	38.3	38.2	43.1	22.8	21.8	15.2	8.2	8.8	8.8	8.5	3.8	1.5	5.4	1.1	8.8	8.8					
3N	A.PLAICE	MALE	DEC.	STERN	5.2	41.4	38.8	35.7	48.8	81.8	35.1	34.8	15.5	7.4	8.8	8.5	7.8	3.5	8.8	1.8	1.3	8.8	1.7					
3N	A.PLAICE	FEMALE	NOV.	STERN	0.0	8.8	6.8	32.3	8.2	18.1	13.5	13.5	8.3	18.8	11.2	6.4	18.8	7.8	8.8	6.2	5.5	2.8	7.5	8.8	8.8	2.3	8.8	3.8
3N	A.PLAICE	FEMALE	DEC.	STERN	5.2	14.1	18.1	28.2	8.8	33.3	37.2	31.7	28.4	31.8	28.5	7.3	51.7	11.8	8.8	13.8	12.8	4.8	3.5	8.8	8.8	8.8	8.8	4.3

TABLE VIII-A : COD, DIVISION 3L, 1990: length composition of the trawl catches

LENGTH GROUP	JANUARY	FEBRUARY	MARCH	APRIL	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	1st QUARTER	2nd QUARTER	3rd QUARTER	4th QUARTER	TOTAL 1990	LENGTH GROUP
21	1.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.3	21
24	10.8	1.8	2.7	4.0	0.0	6.3	0.0	0.0	4.8	4.0	1.5	0.0	4.2	24
27	33.1	6.1	29.6	23.5	0.0	0.0	6.3	0.0	18.1	23.5	0.0	5.4	19.0	27
30	130.6	22.9	84.7	54.5	4.1	0.0	0.0	0.0	66.1	54.5	3.1	0.0	56.2	30
33	207.6	76.5	103.5	100.4	51.2	75.5	18.9	115.4	122.3	100.4	57.2	32.4	107.5	33
36	248.1	176.3	173.4	149.0	116.3	125.8	37.7	38.5	199.2	149.0	119.0	37.8	170.5	36
39	194.9	274.2	201.6	171.8	153.8	195.0	94.3	192.3	206.3	171.8	168.5	108.1	181.9	39
42	94.5	187.7	131.7	142.2	131.1	125.8	186.8	76.9	138.2	142.2	128.8	102.7	133.2	42
45	38.5	121.6	83.3	114.7	137.3	113.2	62.9	38.5	88.6	114.7	131.4	59.5	102.1	45
48	16.2	68.3	64.5	77.8	110.7	62.9	50.3	76.9	51.1	77.8	98.9	54.1	65.2	48
51	2.4	25.4	34.9	50.5	49.2	94.3	56.6	0.0	19.4	50.5	60.3	48.6	35.4	51
54	4.8	18.6	13.4	30.6	51.2	31.4	12.6	38.5	13.5	30.6	46.4	16.2	22.6	54
57	2.4	17.2	21.5	15.5	34.8	31.4	18.9	0.0	13.1	15.5	34.0	16.2	15.5	57
60	3.0	9.7	13.4	15.7	20.5	18.9	25.2	0.0	8.1	15.7	20.1	21.6	12.2	60
63	1.2	16.8	13.4	16.0	20.5	6.3	18.9	0.0	11.3	16.0	17.0	16.2	13.7	63
66	0.6	15.7	10.8	12.2	20.5	0.0	50.3	0.0	10.2	12.2	15.5	43.2	12.0	66
69	3.0	15.0	10.8	10.1	8.2	8.0	6.3	0.0	10.6	10.1	6.2	5.4	10.0	69
72	1.8	8.7	2.7	5.2	16.4	12.6	6.3	0.0	6.2	5.2	15.5	5.4	6.3	72
75	1.2	4.3	2.7	2.6	10.2	6.3	31.4	76.8	3.1	2.6	9.3	37.8	3.9	75
78	1.2	2.8	0.0	1.6	6.1	6.3	44.0	38.5	1.8	1.8	6.2	43.2	2.8	78
81	0.0	4.3	1.3	0.7	6.1	0.0	56.6	0.0	2.5	0.7	4.8	48.6	2.7	81
84	0.6	2.5	0.0	0.5	8.2	25.2	56.6	76.9	1.5	0.5	12.4	59.5	2.8	84
87	1.2	1.1	0.0	0.2	4.1	6.3	44.0	0.0	1.0	0.2	4.8	37.8	1.6	87
90	0.0	0.7	0.0	0.2	4.1	0.0	44.0	115.4	0.4	0.2	3.1	54.1	1.5	90
93	0.0	0.7	0.0	0.2	6.1	12.6	37.7	76.9	0.4	0.2	7.7	43.2	1.6	93
96	0.0	0.0	0.0	0.0	6.1	6.3	18.9	0.0	0.0	0.0	6.2	16.2	0.7	96
99	0.0	0.0	0.0	0.0	4.1	6.3	31.4	0.0	0.0	0.0	4.6	27.0	0.8	99
102	0.0	0.0	0.0	0.0	2.0	0.0	18.9	38.5	0.0	0.0	1.5	21.6	0.5	102
105	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.2	105
108	0.0	0.0	0.0	0.0	2.0	12.6	25.2	0.0	0.0	0.0	4.6	21.6	0.7	108
111	0.0	0.0	0.0	0.0	2.0	0.0	6.3	0.0	0.0	0.0	1.5	5.4	0.2	111
114	0.0	0.0	0.0	0.0	0.0	12.6	6.3	0.0	0.0	0.0	3.1	5.4	0.3	114
117	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	117
120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	120
123	0.0	0.0	0.0	0.0	2.0	0.0	6.3	0.0	0.0	0.0	1.5	5.4	0.2	123
126	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	126
129	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	129
132	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	1.5	0.0	0.1	132
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	8	19	4	23	8	5	12	1	31	23	13	13	80	
SAMPLING WEIGHT(kg)	847.5	2368.5	548	3281	878.9	271.5	825.6	87	3764	3281	948.4	712.6	8686	
No.F.MEASURED	1862	2796	744	4255	498	159	159	26	5202	4255	847	185	10289	
MEAN LENGTH(cm)	37.5	43.8	41.6	43	49.2	49.5	48.2	47.1	41.5	43	49.3	45.6	43.1	
MEAN WEIGHT (g)	510	847	737	766	1307	1700	1935	1346	724	786	1466	1052	844	
DEPTH RANGE (m)	305-420	261-461	273-453	270-464	289-410	282-565	303-558	362-403	261-461	270-464	289-565	303-558	261-565	

TABLE VIII-B : COD, DIVISION 3N, 1990: length composition of the trawl catches

LENGTH GROUP	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JULY	AUGUST	SEPTEMBER	OCTOBER	1st QUARTER	2nd QUARTER	3rd QUARTER	4th QUARTER	TOTAL 1990	LENGTH GROUP
18	0.5	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.2	0.8	0.0	0.0	0.4	18
21	0.5	0.0	0.0	0.0	14.6	0.0	0.0	0.0	0.0	0.2	11.3	0.0	0.0	4.9	21
24	1.6	0.0	0.0	0.0	42.8	0.0	0.0	0.0	0.0	0.7	32.9	0.0	0.0	14.3	24
27	15.9	0.0	0.0	1.7	22.1	0.9	0.0	0.0	0.0	7.0	17.4	0.4	0.0	10.0	27
30	32.4	0.0	2.5	7.0	33.8	2.6	0.0	0.0	0.0	15.4	27.8	1.2	0.0	17.5	30
33	73.0	18.0	22.4	30.6	63.1	15.6	0.0	0.0	0.0	44.2	55.7	7.0	0.0	40.9	33
36	81.7	87.1	121.6	99.7	89.7	54.5	6.9	0.0	0.0	101.4	92.0	27.3	0.0	81.0	36
39	130.0	201.2	211.3	159.2	113.6	140.3	47.5	0.0	0.0	174.9	123.9	81.8	0.0	132.4	39
42	184.3	240.2	215.7	196.2	126.2	211.3	95.0	18.9	0.0	203.9	161.6	135.5	0.0	161.9	42
45	154.1	218.2	155.5	155.7	120.3	222.5	126.7	81.9	71.4	159.7	128.3	162.8	71.4	148.8	45
48	136.6	96.1	101.1	101.5	113.3	168.8	152.5	193.5	35.7	118.3	140.6	166.3	35.7	124.6	48
51	88.1	81.1	68.3	86.6	89.0	88.3	150.5	163.8	142.9	77.1	88.4	126.6	142.9	92.4	51
54	52.7	18.0	40.9	63.9	66.4	50.2	128.7	183.6	214.3	44.2	65.8	102.0	214.3	66.4	54
57	31.8	24.0	23.9	51.6	42.1	27.7	95.0	138.0	178.6	27.4	44.2	71.1	178.6	44.6	57
60	12.1	9.0	10.9	24.5	28.2	6.9	38.2	99.3	142.9	15.1	27.4	49.5	142.9	29.5	60
63	4.9	3.0	6.5	18.4	20.0	6.1	51.5	87.0	142.9	5.5	19.6	33.5	142.9	18.0	63
66	0.0	3.0	2.5	4.4	9.2	1.7	33.7	32.3	0.0	1.4	8.1	19.1	0.0	8.1	66
69	0.0	0.0	2.0	0.9	3.1	0.0	21.8	2.5	71.4	1.0	2.6	9.0	71.4	3.6	69
72	1.1	3.0	0.5	0.0	0.0	0.9	4.0	7.4	0.0	1.0	0.0	3.1	0.0	1.0	72
75	0.0	0.0	0.0	0.0	1.0	0.9	1.0	2.5	0.0	0.0	0.8	1.2	0.0	0.6	75
78	0.0	0.0	1.0	0.0	0.0	0.9	1.0	2.5	0.0	0.5	0.0	1.2	0.0	0.4	78
81	0.5	0.0	1.5	0.0	0.5	0.0	2.0	0.0	0.0	1.0	0.4	0.8	0.0	0.7	81
84	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	84
87	0.0	0.0	0.5	0.0	0.3	0.0	1.0	2.5	0.0	0.2	0.2	0.8	0.0	0.3	87
90	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.2	90
93	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	93
96	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.3	96
99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.4	0.0	0.1	99
102	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	102
105	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	105
108	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	108
111	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	111
114	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114
117	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	117
120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	120
123	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	123
126	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	126
129	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	129
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	11	2	11	6	20	10	15	8	1	24	26	33	1	84	
SAMPLING WEIGHT(kg)	1557.5	269	1681.5	1017	3209	1098.1	1496.2	674.6	52	3508	4226	3268.9	52	11054.9	
No.F.MEASURED	1823	333	2007	1163	3900	1155	1018	403	28	4163	5041	2568	28	11802	
MEAN LENGTH(cm)	44.3	44.6	44.8	45.9	44.3	45.9	52.8	54.8	57.5	44.8	44.6	50	57.5	45.8	
MEAN WEIGHT (g)	954	808	938	890	823	951	1481	1674	1857	843	838	1273	1857	937	
DEPTH RANGE (m)	224-380	203-535	248-646	270-697	158-670	280-335	243-385	280-480	300-326	203-646	158-697	280-480	300-326	158-697	

TABLE VIII-C : COD, DIVISION 3N, 1990: length composition of the trawl catches.

LENGTH GROUP	MARCH 1st Q.	DECEMBER 4th Q.	TOTAL 1990	LENGTH GROUP
27	4.5	0.0	3.7	27
30	68.2	0.0	56.0	30
33	72.7	83.3	74.8	33
36	140.8	41.7	123.1	36
39	131.8	62.5	119.4	39
42	118.2	20.8	100.7	42
45	81.8	83.3	82.1	45
48	50.0	125.0	63.4	48
51	27.3	20.8	26.1	51
54	13.6	62.5	22.4	54
57	38.4	0.0	28.9	57
60	13.6	125.0	33.6	60
63	22.7	0.0	18.7	63
66	45.5	20.8	41.0	66
69	45.5	20.8	41.0	69
72	54.5	41.7	52.2	72
75	45.5	62.5	48.5	75
78	22.7	62.5	28.0	78
81	4.5	41.7	11.2	81
84	0.0	0.0	0.0	84
87	0.0	62.5	11.2	87
90	0.0	0.0	0.0	90
93	0.0	0.0	0.0	93
96	0.0	20.8	3.7	96
99	0.0	0.0	0.0	99
102	0.0	0.0	0.0	102
105	0.0	0.0	0.0	105
108	0.0	20.8	3.7	108
111	0.0	0.0	0.0	111
114	0.0	20.8	3.7	114
TOTAL	1000	1000	1000	
No. SAMPLES	2	2	4	
SAMPLING WEIGHT(kg)	310	165.0	463.0	
No.F.MEASURED	220	40	260	
MEAN LENGTH(cm)	48.9	61.1	51.1	
MEAN WEIGHT (g)	1445	3038	1731	
DEPTH RANGE (m)	234-720	100-725	100-725	

TABLE VIII-D : COD DIV.3N, 1990: length composition of the gillnet catches.

LENGTH GROUP	MAY	JUNE	JULY	OCTOBER	NOVEMBER	DECEMBER	2nd QUARTER	3rd QUARTER	4th QUARTER	TOTAL 1990	LENGTH GROUP
39	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.9	0.2	39
42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45
48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48
51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51
54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54
57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57
60	0.0	1.6	0.0	0.0	1.6	0.0	0.4	0.0	0.0	0.4	60
63	0.0	1.6	0.0	1.9	1.6	0.0	0.4	0.0	1.5	0.6	63
66	0.0	5.0	0.7	0.0	0.0	0.0	1.0	0.7	3.9	2.0	66
69	0.0	16.9	2.0	1.9	0.0	0.0	5.3	2.0	4.6	4.4	69
72	0.0	28.2	1.4	0.0	0.0	0.0	8.8	1.4	3.9	5.4	72
75	0.0	50.0	2.1	3.7	10.3	28.0	15.0	2.1	13.1	11.3	75
78	0.0	78.3	7.7	3.7	12.4	28.0	26.4	7.7	9.3	15.7	78
81	0.0	50.0	1.4	13.1	17.9	0.0	16.4	1.4	15.5	11.9	81
84	8.5	53.7	4.2	16.8	28.2	28.0	21.3	4.2	22.4	16.7	84
87	2.8	35.3	7.7	26.2	28.0	85.7	12.0	7.7	28.4	15.7	87
90	8.5	26.0	10.3	43.1	60.0	85.7	12.0	10.3	42.5	21.7	90
93	22.7	74.0	27.6	80.5	57.0	57.1	42.5	27.6	67.2	44.8	93
96	92.9	84.8	86.7	80.0	92.8	85.7	83.6	86.7	85.0	89.9	96
99	196.8	155.4	225.8	110.0	89.7	142.9	182.5	225.8	102.8	174.1	99
102	110.7	97.5	150.6	100.6	95.2	114.3	112.8	150.6	101.2	128.2	102
105	107.7	77.7	155.5	133.8	99.3	57.1	98.3	155.5	112.1	119.2	105
108	112.9	49.4	111.8	95.5	88.3	85.7	93.8	111.8	91.2	97.9	108
111	78.3	55.1	82.3	74.9	95.2	57.1	65.5	82.3	85.8	75.6	111
114	88.1	28.2	57.7	76.8	88.7	85.7	78.2	57.7	84.2	73.8	114
117	85.2	9.9	23.2	48.7	36.5	28.6	47.8	23.2	48.2	38.8	117
120	43.2	2.8	15.5	28.1	35.9	0.0	30.6	15.5	31.7	26.5	120
123	25.2	5.6	4.8	11.2	27.6	0.0	19.0	4.8	20.1	15.3	123
126	11.5	2.8	4.2	16.8	23.4	28.6	10.2	4.2	20.8	11.3	126
129	1.9	1.4	2.1	1.9	0.3	0.0	1.8	2.1	5.4	2.8	129
132	0.8	0.0	1.4	3.7	0.0	0.0	0.4	1.4	1.5	1.0	132
135	10.3	0.0	1.4	1.9	1.4	0.0	7.1	1.4	1.5	4.0	135
138	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.2	138
141	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	141
144	0.0	0.0	0.7	0.0	1.4	0.0	0.0	0.7	0.0	0.4	144
TOTAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
No. SAMPLES	24	17	24	12	13	2	41	24	27	92	
SAMPLING WEIGHT(kg)	21480	7030	17975	6500	9227	390	28510	17975	16134	62620	
No.F.MEASURED	1558	700	1421	534	725	35	2258	1421	1294	4973	
MEAN LENGTH(cm)	107.2	95.3	104.3	104.1	103.8	100.6	103.5	104.3	103.8	103.8	
MEAN WEIGHT (g)	13864	8829	12658	12197	12727	11394	12630	12658	12488	12594	
DEPTH RANGE (m)	55	55	49-88	55-87	84-86	84-88	55	49-87	63-85	49-87	

TABLE VIII-E : COD , DIVISION 3O , 1990: length composition of the gillnet catches.

LENGTH GROUP	JUNE 2nd Q.
69	3.8
72	1.7
75	8.8
78	39.7
81	34.5
84	56.9
87	55.2
90	62.1
93	63.8
96	57.2
99	112.4
102	94.8
105	100.8
108	77.6
111	60.3
114	46.8
117	27.6
120	12.1
123	5.2
126	3.4
129	3.4
TOTAL	1000
No. SAMPLES	11
SAMPLING WEIGHT(kg)	6536
No.F.MEASURED	500
MEAN LENGTH(cm)	89.5
MEAN WEIGHT (g)	11269
DEPTH RANGE (m)	51-137

TABLE II-A : RED-FISH (S.mentella), DIVISION 3L, 1990: length composition of the trawl catches.

LENGTH GROUP	FEBRUARY M	FEBRUARY F	MARCH M	MARCH F	APRIL M	APRIL F	MAY M	MAY F	AUGUST M	AUGUST F	SEPTEMBER M	SEPTEMBER F	OCTOBER M	OCTOBER F	NOVEMBER M	NOVEMBER F	1st QUART. M	1st QUART. F	2nd QUART. M	2nd QUART. F	3rd QUART. M	3rd QUART. F	4th QUART. M	4th QUART. F	TOTAL 1990 M	TOTAL 1990 F	LENGTH GROUP
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.2	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.1	0.5	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.5	0.5	2.0	0.0	0.3	0.0	0.0	0.0	0.0	0.2	0.3	0.3	1.4	0.5	1.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.7	1.7	3.5	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.4	1.1	2.5	0.6	1.7	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.2	0.7	2.1	2.4	5.5	0.3	0.8	0.0	0.0	0.0	0.0	1.9	1.1	1.7	3.9	1.7	2.9	19
20	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.6	2.0	2.8	3.2	6.3	1.3	0.8	0.0	0.0	0.0	0.0	3.9	2.2	2.6	4.5	2.9	3.6	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1	8.4	8.7	4.5	6.4	6.4	4.8	2.1	0.0	0.0	0.0	0.0	15.2	6.4	5.9	5.0	8.9	5.3	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.2	19.7	16.5	10.0	13.0	7.5	14.5	3.9	0.0	0.0	0.0	0.0	25.6	14.0	13.5	6.3	17.2	8.9	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.1	26.2	16.5	15.1	17.1	12.2	27.4	13.8	0.0	0.0	0.0	0.0	28.6	20.5	20.6	12.8	22.7	15.0	23
24	0.0	0.0	0.0	4.9	6.7	0.0	15.2	5.1	44.5	35.9	20.4	21.3	20.1	13.6	34.7	23.9	0.0	2.3	11.5	2.9	32.3	28.5	25.0	16.9	27.8	20.4	24
25	0.0	0.0	0.0	4.9	6.7	6.7	15.2	15.2	51.5	41.1	23.4	28.6	22.3	18.6	43.9	31.8	0.0	2.3	11.5	11.5	37.2	34.7	29.6	23.0	31.5	26.5	25
26	0.0	0.0	0.0	0.0	6.7	6.7	35.4	5.1	48.3	48.2	29.8	35.9	30.6	24.8	52.9	47.1	0.0	0.0	23.1	5.8	38.6	38.0	38.1	32.3	37.7	33.5	26
27	0.0	0.0	9.9	4.9	0.0	0.0	126.3	20.2	34.1	35.0	31.0	41.4	33.7	30.2	52.1	48.3	4.5	2.3	72.0	11.5	32.5	38.2	39.6	36.2	33.2	36.2	27
28	0.0	0.0	29.6	9.9	0.0	0.0	131.3	35.4	41.1	30.8	37.4	45.6	42.9	34.8	51.1	53.9	13.6	4.5	74.9	20.2	39.2	32.3	45.7	41.2	43.4	39.6	28
29	12.6	4.2	19.7	9.9	6.7	0.0	99.8	30.3	35.9	21.7	43.8	37.8	44.3	40.1	50.7	50.7	15.9	6.8	54.8	17.3	39.9	29.5	46.4	43.6	44.0	36.3	29
30	42.0	12.6	24.6	4.9	0.0	13.4	80.8	5.1	33.4	24.8	38.5	38.1	45.4	38.8	42.9	42.8	34.0	9.1	46.1	8.6	36.5	31.5	44.6	40.2	41.8	36.6	30
31	46.2	21.0	14.8	9.9	6.7	13.4	70.7	45.5	31.4	25.1	38.7	33.8	38.4	35.2	31.5	36.6	31.7	15.9	43.2	31.7	34.1	29.5	36.1	35.7	35.4	32.3	31
32	46.2	16.8	9.9	19.7	13.4	6.7	65.7	5.1	28.9	31.2	33.8	37.4	40.9	34.8	21.5	25.9	29.5	13.1	43.2	5.8	31.6	34.4	34.4	31.8	33.4	32.2	32
33	46.2	25.2	4.9	64.0	26.8	0.0	50.5	15.2	17.6	28.8	28.8	28.8	33.8	30.8	18.5	21.6	27.2	43.1	40.3	8.6	23.3	29.9	28.7	27.7	27.8	28.1	33
34	126.1	54.6	14.8	147.6	73.8	33.6	45.5	15.2	16.7	25.3	28.6	30.8	28.2	25.7	10.4	18.2	74.8	97.5	57.5	23.1	23.3	28.1	25.6	23.2	25.8	25.8	34
35	67.2	75.6	14.8	147.8	87.2	20.1	15.2	0.0	12.9	20.1	22.0	28.8	25.0	23.8	9.1	15.0	43.1	108.8	46.1	8.6	17.5	23.5	19.7	20.9	19.5	22.8	35
36	88.2	67.2	4.9	69.0	80.5	20.8	10.1	5.1	10.0	14.8	18.5	22.7	20.8	21.2	8.6	11.8	49.9	68.0	40.3	14.4	14.4	18.9	15.9	16.1	16.1	18.9	36
37	21.0	37.8	9.9	44.3	73.8	26.8	20.2	5.1	5.0	11.1	10.6	20.1	14.9	18.9	5.9	11.8	15.9	40.8	43.2	14.4	7.8	15.7	11.9	16.5	10.9	16.6	37
38	46.2	33.6	0.0	59.1	33.6	20.1	10.1	5.1	1.6	8.1	10.0	13.7	10.5	13.8	5.4	10.1	24.9	45.4	20.2	11.5	5.9	10.5	9.1	12.5	8.4	12.4	38
39	21.0	12.6	0.0	44.3	20.1	26.8	5.1	0.0	1.4	5.4	4.8	7.6	6.1	10.7	4.6	6.0	11.3	27.2	11.5	11.5	2.7	6.5	5.5	9.1	4.7	8.5	39
40	29.4	12.8	0.0	73.9	6.7	33.6	0.0	0.0	0.5	5.8	2.1	6.1	4.3	7.2	2.7	3.8	15.9	40.8	2.9	14.4	1.3	5.8	3.7	6.0	3.1	6.5	40
41	12.6	21.0	0.0	29.8	6.7	53.7	0.0	0.0	0.4	2.5	0.0	5.5	1.8	6.7	1.8	2.7	6.8	24.8	2.9	23.1	0.2	4.1	1.9	5.6	1.4	4.5	41
42	0.6	0.0	0.0	29.6	0.6	13.6	0.0	0.0	0.2	2.8	0.5	3.3	1.2	4.4	0.8	1.6	0.6	13.6	0.0	35.3	0.4	3.1	1.0	3.5	0.8	3.8	42
43	0.0	0.0	0.0	29.8	0.0	60.4	0.0	0.0	0.4	5.0	0.0	2.9	0.6	3.4	0.5	2.5	0.0	13.8	0.0	25.9	0.2	4.0	0.6	3.1	0.4	3.8	43
44	0.0	0.0	0.0	19.7	6.7	47.0	0.0	0.0	0.0	3.6	0.3	2.8	0.3	3.3	0.8	2.1	0.0	9.1	2.9	20.2	0.2	2.8	0.5	2.6	0.4	3.1	44
45	0.0	0.0	0.0	4.9	0.0	53.7	0.0	0.0	0.2	1.3	0.0	2.3	0.1	1.6	0.1	1.7	0.0	2.3	0.0	23.1	0.1	1.8	0.1	1.6	0.1	1.9	45
46	0.0	0.0	0.0	4.9	0.0	6.7	0.0	0.0	0.0	1.4	0.0	0.7	0.2	0.8	0.0	0.4	0.0	2.3	0.0	2.9	0.0	1.1	0.1	0.7	0.1	0.8	46
47	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.7	0.0	0.4	0.0	0.3	0.0	2.3	0.0	0.0	0.1	0.4	0.0	0.4	0.0	0.4	47
48	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	2.9	0.0	0.3	0.0	0.3	0.0	0.3	48
49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	49
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50
51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51
52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	52
53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53
54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	54
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	55
56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	56
57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57
58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58
59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	59
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	60
61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61
62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	62
TOTAL	605.0	395.0	157.6	842.4	463.1	538.8	787.6	212.1	523.0	477.0	468.3	531.7	512.0	488.0	506.8	494.0	399.1	603.9	648.4	351.6	495.2	504.8	518.0	490.0	505.1	494.9	

TABLE II-A : (cont.)

	FEBRUARY		MARCH		APRIL		MAY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		1st QUART.		2nd QUART.		3rd QUART.		4th QUART.		TOTAL 1990	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
No. SAMPLES	2	2	1	1	1	1	2	2	34	34	36	36	88	89	42	42	3	3	3	3	70	70	131	131	207	207
SAMPLING WEIGHT(Kg)	98	64	17	140	52	90	60	17	903	1100.5	1157.1	1501.1	3418.1	3775.8	1301.7	1055.3	118	212	112	107	2060.1	2891.8	4707.8	5431.1	7005.8	8461.7
No.F.MEASURED	144	94	32	171	69	80	150	42	2916	2659	2703	3069	7542	7189	3772	3602	176	265	225	122	5619	5720	11314	10071	17334	16008
MEAN LENGTH(cm)	35.1	35.9	31.6	36.9	35.7	40.3	30.4	30.4	27.8	29.9	30.2	31.0	30.4	31.1	28.9	30.1	34.4	36.5	32.0	36.9	29.0	30.5	29.9	30.8	29.7	30.8
MEAN WEIGHT (g)	688	681	531	865	754	1125	385	465	310	414	428	518	453	525	366	450	659	800	498	877	367	470	424	500	409	497
MEAN WEIGHT(M+F)	685		813		953		389		359		476		488		407		744		631		419		461		452	
DEPTH RANGE (m)	241-950		273-452		307-774		389-867		289-860		282-951		303-696		382-845		241-950		307-867		282-951		303-845		241-951	

TABLE IX-6 : RED-FISH (S.mentella), DIVISION 3N, 1990: length composition of the trawl catches.

LENGTH GROUP	JANUARY M	JANUARY F	FEBRUARY M	FEBRUARY F	MARCH M	MARCH F	APRIL M	APRIL F	MAY M	MAY F	JULY M	JULY F	AUGUST M	AUGUST F	SEPTEMBER M	SEPTEMBER F	1st QUART. M	1st QUART. F	2nd QUART. M	2nd QUART. F	3rd QUART. M	3rd QUART. F	TOTAL 1990 M	TOTAL 1990 F
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.7
16	0.0	0.0	1.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.5	0.6	0.0	0.0	0.0	4.0	0.1	1.7
17	0.0	1.3	4.8	11.7	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.5	2.8	0.0	0.0	6.3	1.4	3.5	0.0	0.0	2.5	2.9	1.3	2.0
18	2.6	5.2	13.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	9.9	0.5	11.2	0.0	0.4	3.6	4.2	4.8	0.0	0.0	5.1	1.7	2.5	1.9
19	13.1	10.5	12.8	16.5	0.0	0.3	0.6	0.0	0.0	0.0	20.9	0.5	14.6	0.3	1.1	4.2	5.1	6.0	0.6	0.0	9.7	2.1	5.3	2.4
20	22.3	19.7	7.5	10.1	1.5	0.0	0.6	0.2	0.0	0.0	11.0	1.0	16.0	0.8	2.5	3.3	5.6	5.1	0.4	0.1	8.9	2.0	5.1	2.2
21	17.0	18.3	4.3	6.4	2.0	0.3	1.1	0.3	0.0	0.4	4.7	0.5	5.3	0.8	3.1	5.8	4.4	4.1	0.8	0.3	4.2	3.0	3.1	2.6
22	15.7	17.0	11.2	8.0	3.0	1.3	0.6	1.7	3.8	1.7	4.7	0.0	1.4	1.1	5.6	8.9	6.8	5.0	1.5	1.7	3.9	4.4	2.8	3.6
23	14.4	13.1	14.9	11.2	4.8	3.0	7.2	5.5	20.2	3.4	5.8	2.6	3.1	1.4	12.5	18.1	8.3	6.5	10.7	4.9	7.8	9.1	9.0	7.0
24	15.7	13.1	29.3	29.9	10.5	7.8	38.8	20.7	75.6	12.2	9.4	5.8	7.6	4.8	24.8	23.2	16.5	14.7	49.7	18.4	15.7	13.3	27.4	15.4
25	61.8	23.6	52.3	29.3	38.4	20.6	90.2	46.6	150.8	25.3	28.8	16.2	20.4	12.6	17.0	23.9	43.8	23.6	106.4	40.9	20.5	18.4	56.5	27.6
26	82.8	34.1	81.4	28.9	65.5	37.9	100.9	63.7	170.9	35.4	89.6	23.0	36.1	20.2	22.8	32.4	66.3	34.9	127.9	56.1	36.5	26.2	76.2	38.8
27	95.7	39.3	47.0	36.8	66.8	56.7	74.1	82.6	98.6	41.3	92.7	50.8	54.0	31.4	42.9	28.6	66.5	49.1	80.6	56.9	56.4	32.9	67.0	45.5
28	70.8	52.4	40.6	26.7	38.7	48.0	30.2	33.6	48.0	24.9	73.8	50.8	69.7	45.1	75.2	33.7	42.9	42.4	35.0	34.2	73.0	41.1	54.9	39.0
29	35.6	24.9	34.2	15.5	38.4	30.6	23.8	16.3	21.5	13.5	49.7	51.3	70.0	49.0	86.6	51.8	36.9	25.7	23.2	15.5	73.6	50.7	46.4	31.9
30	35.4	34.7	35.8	9.5	48.2	18.3	32.1	10.6	16.8	4.2	30.4	31.9	57.7	46.2	77.2	47.1	43.2	18.0	27.6	8.9	61.2	43.9	44.9	24.9
31	31.5	30.1	36.8	10.1	44.7	28.6	34.2	9.2	19.0	5.9	31.9	16.2	44.5	36.7	44.7	48.2	40.9	23.6	30.1	8.3	42.2	27.9	37.6	23.3
32	11.8	19.7	39.5	13.3	37.9	24.4	26.7	19.2	13.9	9.7	31.4	12.6	43.7	33.0	32.4	32.6	35.3	20.7	23.3	16.6	36.2	28.9	31.5	22.5
33	14.4	14.4	24.5	13.3	40.7	25.6	23.8	19.9	10.1	7.8	22.0	13.6	32.2	22.7	31.0	21.0	33.1	20.8	20.1	16.6	29.7	20.2	27.2	19.1
34	14.4	15.7	29.9	16.0	36.2	25.4	21.9	17.8	16.4	11.0	12.6	20.8	21.6	31.1	21.9	15.9	31.9	21.6	20.5	16.0	20.0	23.6	23.2	20.5
35	9.2	11.8	28.8	13.9	35.4	22.3	21.0	17.8	21.1	1.3	13.1	33.0	14.6	33.6	11.4	13.6	30.5	18.7	21.0	13.4	12.5	24.5	20.3	19.1
36	7.9	7.8	15.5	20.8	28.9	19.3	14.4	19.0	24.9	3.4	7.3	31.9	7.8	29.1	6.5	15.0	22.7	18.4	17.2	14.8	7.1	23.3	14.7	19.1
37	3.9	3.9	10.7	22.4	15.6	16.6	9.8	17.3	14.3	2.5	3.7	23.6	3.4	19.9	2.7	10.3	12.8	16.8	11.0	13.4	3.1	16.3	8.4	15.4
38	5.2	2.6	5.3	21.9	11.3	16.6	5.7	12.0	13.9	2.1	3.7	10.5	1.7	13.2	1.6	6.3	3.9	16.5	8.7	9.3	2.0	9.5	6.1	11.3
39	1.3	0.0	4.3	19.2	4.3	8.6	4.1	10.9	11.4	2.5	1.6	11.0	1.7	10.4	1.6	4.2	3.9	10.2	6.1	8.7	1.6	7.7	3.8	9.8
40	2.6	0.0	2.7	10.1	1.0	5.5	2.0	5.7	7.6	2.5	1.6	8.4	0.3	3.9	0.4	2.0	1.7	6.2	3.5	4.8	0.6	3.9	1.9	4.8
41	0.0	0.0	2.1	4.3	1.5	3.0	1.5	4.9	5.5	1.3	1.0	5.2	0.6	3.6	0.0	0.7	1.5	3.0	2.6	3.9	0.4	2.6	1.5	3.2
42	0.0	0.0	1.1	2.1	0.5	2.3	0.6	1.7	6.7	1.3	0.0	3.1	0.0	1.1	0.0	1.1	0.6	2.0	2.2	1.6	0.0	1.5	0.9	1.6
43	0.0	2.6	0.5	2.1	0.3	1.0	0.6	1.4	2.5	0.0	0.0	3.7	0.0	1.1	0.0	0.9	0.3	1.5	1.1	1.0	0.0	1.5	0.5	1.3
44	0.0	0.0	0.0	0.5	0.5	0.3	0.2	1.2	0.8	0.4	1.0	3.1	0.3	0.6	0.0	0.4	0.3	0.3	0.3	1.0	0.3	1.0	0.3	0.8
45	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2	2.1	0.8	0.0	2.6	0.6	0.6	0.0	0.0	0.2	0.0	0.6	0.3	0.2	0.7	0.3	0.4
46	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.0	2.1	0.3	0.3	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.5	0.1	0.2
47	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.2	0.1	0.1
48	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.1
49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1
52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.2
54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1
55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
TOTAL	584.5	415.5	573.1	428.9	574.4	425.6	576.0	424.0	785.2	214.8	550.3	449.7	563.1	436.9	525.8	474.2	575.2	424.8	631.9	360.2	536.7	483.3	579.9	428.1
No. SAMPLES	3	3	8	8	18	18	31	31	12	12	9	9	19	19	20	20	29	29	43	43	48	48	120	120
SAMPLING WEIGHT(Kg)	128	93	374	309.5	920	752.5	1246.5	1073.5	600	182.5	341	427	664	756.5	915.7	931	1422	1155	1816.5	1256	1920.7	2114.5	5159.2	4525.5
No.F.MEASURED	446	317	1074	800	2288	1695	3755	2784	1864	510	1051	859	1940	1632	2355	2124	3808	2812	5619	3274	5348	4615	14773	10701
MEAN LENGTH(cm)	27.7	28.1	29.0	29.5	30.7	31.2	29.0	30.3	28.6	29.0	28.3	32.2	29.2	32.1	29.8	29.2	29.0	30.4	28.9	30.1	29.2	30.8	29.3	30.5
MEAN WEIGHT (g)	287	293	348	387	402	444	324	388	322	358	324	497	342	484	389	438	373	411	323	384	359	458	348	423
MEAN WEIGHT(M+F)		290		365		420		351		338		402		398		412		389		345		405		388
DEPTH RANGE (m)		224-380		203-669		249-723		311-755		133-717		200-335		243-385		260-693		203-723		133-755		200-693		133-755

TABLE IX-C : RED-FISH (S.mentella), DIVISION 3N, 1998: length composition of the trawl catches.

	MARCH-1st Q.		SEPT.-3rd Q.		NOVEMBER		DECEMBER		4th QUARTER		TOTAL 1998		
LENGTH GROUP	M	F	M	F	M	F	M	F	M	F	M	F	LENGTH GROUP
12	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.3	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.7	0.0	0.5	14
15	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.7	0.0	0.7	0.0	0.5	15
16	0.0	0.0	0.0	0.0	0.0	1.8	0.0	2.9	0.0	2.3	0.0	1.8	16
17	0.0	0.0	0.0	0.0	1.8	6.0	1.5	4.4	1.6	5.3	1.3	4.1	17
18	0.0	0.0	0.0	1.5	1.2	4.2	3.6	8.0	2.3	5.9	1.8	4.9	18
19	0.0	0.0	0.0	0.0	1.8	9.0	5.1	8.7	3.3	8.9	2.6	7.0	19
20	6.6	6.6	3.0	7.5	5.4	9.6	7.3	15.3	6.3	12.2	5.7	11.2	20
21	46.1	19.7	14.9	8.9	7.8	16.9	7.3	21.1	7.6	18.8	10.4	17.1	21
22	72.4	6.6	25.3	20.3	15.1	19.9	18.2	16.8	16.5	18.5	20.2	18.4	22
23	78.3	65.8	59.6	44.7	17.5	20.5	38.6	26.2	27.8	23.1	34.8	28.5	23
24	78.9	65.9	77.5	76.0	35.5	34.3	36.4	24.8	35.9	30.0	44.9	39.4	24
25	72.4	72.4	83.5	93.9	47.0	63.8	30.6	34.3	38.8	50.4	48.5	58.9	25
26	98.7	46.1	37.3	74.5	58.6	85.6	28.4	45.2	48.6	58.4	42.3	59.1	26
27	72.4	32.9	31.3	56.8	50.6	58.8	38.6	37.8	45.2	47.8	43.8	48.8	27
28	13.2	13.2	17.9	31.3	69.9	56.8	27.8	32.1	34.6	45.2	30.9	41.5	28
29	6.6	26.3	8.9	25.3	28.9	34.3	35.7	21.8	32.8	28.7	27.8	28.8	29
30	13.2	19.7	8.8	25.3	25.3	48.9	42.3	31.3	33.8	38.6	28.8	34.8	30
31	13.2	19.7	1.5	50.7	22.8	43.9	32.8	49.8	27.4	46.2	22.3	45.9	31
32	0.0	0.0	3.8	26.8	17.5	32.5	28.4	38.8	22.4	35.3	18.2	32.4	32
33	6.6	6.6	6.8	16.4	18.8	23.5	17.5	24.8	13.8	24.1	12.2	22.8	33
34	6.6	6.6	7.5	19.4	5.4	13.8	17.5	18.7	10.8	16.5	10.1	16.6	34
35	0.0	0.0	7.5	13.4	4.2	12.8	11.7	5.1	7.6	8.9	7.3	9.3	35
36	8.8	0.0	0.0	6.8	1.8	6.6	9.5	10.2	5.3	8.2	4.1	7.5	36
37	0.0	0.0	0.0	1.5	6.6	6.8	18.2	8.5	8.2	7.8	6.5	6.2	37
38	0.0	0.0	1.5	1.5	2.4	6.8	13.1	8.8	7.3	6.9	6.8	5.7	38
39	0.0	6.6	0.0	3.0	1.2	3.6	0.0	5.8	4.3	4.6	3.4	4.4	39
40	0.0	0.0	0.0	0.0	1.2	1.2	3.8	2.2	2.3	1.6	1.8	1.3	40
41	0.0	0.0	0.0	0.0	0.6	1.2	3.8	3.6	2.0	2.3	1.6	1.8	41
42	0.0	0.0	0.0	0.0	0.0	1.2	2.2	4.4	1.0	2.8	0.8	2.1	42
43	0.0	0.0	0.0	0.0	0.0	2.4	1.5	2.2	0.7	2.3	0.5	1.8	43
44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	1.0	0.0	0.8	44
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.3	0.0	0.3	45
46	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.5	0.3	0.7	0.3	0.5	46
47	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.3	0.0	47
TOTAL	585.5	414.5	394.9	605.1	404.6	595.4	481.0	519.0	439.2	560.0	437.2	562.8	
No. SAMPLES	1	1	0	0		15	11	11		26		35	
SAMPLING WEIGHT(Kg)	22	16	67.3	146.5	253.0	415.0	285.25	336.15	539.1	751.2	820.4	915.7	
No.F.MEASURED	89	83	285	406	872	999	660	712	1332	1701	1686	2170	
MEAN LENGTH(cm)	25.3	28.3	25.8	27.6	27.8	28.1	29.1	28.8	28.5	28.4	27.9	28.2	
MEAN WEIGHT (g)	247	286	254	381	378	420	432	472	405	442	373	422	
MEAN WEIGHT(M+F)		263		319		403		453		425		400	
DEPTH RANGE (m)		234-720		289-800		230-893		180-838		180-938		180-938	

TABLE X-A : RED-FISH (S.marinus), DIVISION 3L, 1990: length composition of the trawl catches.

LENGTH GROUP	AUGUST-3rd Q. M	AUGUST-3rd Q. F	OCTOBER M	OCTOBER F	NOVEMBER M	NOVEMBER F	4th QUARTER M	4th QUARTER F	TOTAL 1990 M	TOTAL 1990 F	LENGTH GROUP
19	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	19
20	0.0	0.0	6.1	0.0	0.0	0.0	5.2	0.0	4.1	0.0	20
21	28.8	28.8	12.2	0.0	0.0	0.0	10.4	0.0	14.3	6.1	21
22	38.5	67.3	45.7	6.1	0.0	0.0	39.1	5.2	38.9	18.4	22
23	57.7	38.5	61.0	9.1	17.9	0.0	54.7	7.0	55.3	14.3	23
24	144.2	67.3	27.4	24.4	53.6	17.9	31.3	23.4	55.3	32.8	24
25	76.9	28.8	18.3	18.3	71.4	53.6	26.0	23.4	36.9	24.6	25
26	67.3	48.1	30.5	36.6	35.7	71.4	31.3	41.7	38.8	43.0	26
27	48.1	57.7	57.9	27.4	0.0	35.7	49.5	28.6	49.2	34.8	27
28	28.8	9.6	51.8	33.5	160.7	71.4	67.7	38.1	59.4	32.8	28
29	38.5	9.6	45.7	39.6	107.1	89.3	54.7	46.8	51.2	38.9	29
30	9.6	0.0	33.5	29.3	71.4	53.6	38.1	35.5	32.8	59.4	30
31	9.6	9.6	48.8	39.6	35.7	35.7	46.8	39.1	38.8	32.8	31
32	0.0	9.6	33.5	39.6	17.9	0.0	31.3	33.8	24.6	28.7	32
33	0.0	28.8	36.6	30.5	0.0	0.0	31.3	26.0	24.6	26.6	33
34	0.0	0.0	18.3	15.2	0.0	0.0	15.6	13.0	12.3	10.2	34
35	0.0	0.0	12.2	18.3	0.0	0.0	10.4	15.6	8.2	12.3	35
36	0.0	9.6	0.0	18.3	0.0	0.0	0.0	15.8	0.0	14.3	36
37	0.0	9.6	3.0	6.1	0.0	0.0	2.6	5.2	2.0	6.1	37
38	9.6	9.6	3.0	3.0	0.0	0.0	2.6	2.6	4.1	4.1	38
39	0.0	0.0	0.0	6.1	0.0	0.0	0.0	5.2	0.0	4.1	39
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40
41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41
42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42
43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43
44	0.0	0.0	3.0	0.0	0.0	0.0	2.6	0.0	2.0	0.0	44
TOTAL	567.3	432.7	568.0	451.2	571.4	428.6	552.1	447.9	555.3	444.7	
No. SAMPLES	1	1	7	7	3	3	10	10	11	11	
SAMPLING WEIGHT(Kg)	13	12	58.5	58.5	9	7	67.5	65.5	80.5	77.5	
No.F.MEASURED	50	45	180	148	32	24	212	172	271	217	
MEAN LENGTH(cm)	25.7	26.6	28.3	30.3	28.2	28.3	28.3	30.0	27.7	28.9	
MEAN WEIGHT (g)	220	267	325	385	281	292	310	381	287	357	
MEAN WEIGHT(M+F)		240		357		286		346		324	
DEPTH RANGE (m)		324-330		353-448		382-471		353-471		324-471	

TABLE X-B : RED-FISH (S.marinus), DIVISION 3N, 1990 : length composition of the trawl catches.

LENGTH GROUP	SEPT.- TOTAL M	SEPT.- TOTAL F	LENGTH GROUP
24	21.3	0.0	24
25	0.0	0.0	25
26	42.6	0.0	26
27	21.3	0.0	27
28	276.6	63.8	28
29	63.8	42.6	29
30	21.3	106.4	30
31	42.6	106.4	31
32	42.6	0.0	32
33	42.6	42.6	33
34	21.3	0.0	34
35	0.0	0.0	35
36	0.0	0.0	36
37	21.3	21.3	37
TOTAL	617.0	393.0	
No. SAMPLES	3	3	
SAMPLING WEIGHT(Kg)	9.5	7	
No.F.MEASURED	23	18	
MEAN LENGTH(cm)	29.7	31.1	
MEAN WEIGHT (g)	328	389	
MEAN WEIGHT(M+F)		351	
DEPTH RANGE (m)		357-422	

TABLE X-C : RED-FISH (S.marinus), DIVISION 3N, 1990: length composition of the trawl catches.

	JAN.-1st Q.		SEP.-2nd Q.		NOV.-3rd Q.		TOTAL 1990		
LENGTH GROUP	M	F	M	F	M	F	M	F	LENGTH GROUP
16	0.0	2.2	0.0	0.0	0.0	0.0	0.0	1.1	16
17	10.8	6.5	0.0	0.0	0.0	0.0	5.5	3.3	17
18	53.8	34.4	0.0	0.0	0.0	0.0	27.4	17.6	18
19	75.3	53.8	9.2	0.0	0.0	0.0	42.8	27.4	19
20	28.0	21.5	9.2	2.3	0.0	0.0	18.7	12.1	20
21	43.0	32.3	27.7	9.2	76.9	0.0	36.2	20.9	21
22	28.0	36.6	30.0	16.2	76.9	0.0	29.6	26.3	22
23	55.9	43.0	64.7	30.0	153.8	0.0	61.5	36.2	23
24	45.2	34.4	97.0	53.1	0.0	76.9	69.2	43.9	24
25	36.6	25.8	120.1	101.6	230.8	153.9	79.0	63.7	25
26	32.3	23.7	67.0	76.2	0.0	0.0	48.3	48.3	26
27	25.8	17.2	32.3	57.7	0.0	76.9	28.5	37.3	27
28	10.8	17.2	25.4	30.0	76.9	76.9	18.7	24.1	28
29	8.6	17.2	9.2	23.1	0.0	0.0	8.8	19.8	29
30	2.2	21.5	9.2	20.8	0.0	0.0	5.5	20.9	30
31	8.6	17.2	6.9	4.6	0.0	0.0	7.7	11.0	31
32	4.3	6.5	4.6	20.8	0.0	0.0	4.4	13.2	32
33	8.6	8.6	2.3	4.6	0.0	0.0	5.5	6.6	33
34	13.4	6.5	0.0	11.5	0.0	0.0	9.9	8.8	34
35	8.6	8.6	0.0	6.9	0.0	0.0	4.4	7.7	35
36	8.6	6.5	2.3	6.9	0.0	0.0	5.5	6.6	36
37	10.8	2.2	0.0	0.0	0.0	0.0	5.5	1.1	37
38	8.6	2.2	0.0	2.3	0.0	0.0	4.4	2.2	38
39	2.2	0.0	0.0	2.3	0.0	0.0	1.1	1.1	39
40	6.5	4.3	0.0	0.0	0.0	0.0	3.3	2.2	40
41	2.2	4.3	0.0	0.0	0.0	0.0	1.1	2.2	41
42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42
43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43
44	0.0	0.0	0.0	2.3	0.0	0.0	0.0	1.1	44
45	2.2	0.0	0.0	0.0	0.0	0.0	1.1	0.0	45
TOTAL	546.2	453.8	517.3	482.7	615.4	384.6	533.4797	466.5203	
NO. SAMPLES	2	2	5	5	1	1	6	8	
SAMPLING WEIGHT(Kg)	70	56.5	48.5	60	2	1	120.5	117.5	
NO.F.MEASURED	254	211	224	209	8	5	496	425	
MEAN LENGTH(cm)	24.9	25.1	25.3	27.2	24.5	26.3	25.0	26.1	
MEAN WEIGHT (g)	276	266	217	287	250	200	248	276	
MEAN WEIGHT(M+F)		272		251		231		261	
DEPTH RANGE (m)		146-385		277-494		409-423		146-494	

TABLE XI-A : GREENLAND HALIBUT (TURBOT), DIVISION 3L, 1990: length composition of the trawl catches.

LENGTH GROUP	SEPT.-3rd Q. M	SEPT.-3rd Q. F	OCTOBER M	OCTOBER F	NOVEMBER M	NOVEMBER F	4th QUARTER M	4th QUARTER F	TOTAL 1990 M	TOTAL 1990 F	LENGTH GROUP
24	0.0	0.0	2.8	0.0	0.0	0.0	1.4	0.0	1.1	0.0	24
26	3.0	0.0	1.4	0.0	0.0	0.0	0.7	0.0	1.1	0.0	26
28	0.0	0.0	4.2	4.2	0.0	0.0	2.1	2.1	1.7	1.7	28
30	0.0	0.0	2.8	1.4	0.0	0.0	1.4	0.7	1.1	0.6	30
32	0.0	0.0	9.9	1.4	0.0	0.0	4.9	0.7	4.0	0.6	32
34	3.0	0.0	12.7	8.5	5.5	4.2	9.1	6.3	8.0	5.1	34
36	21.2	3.0	14.1	9.9	13.9	4.2	14.0	7.0	15.3	6.3	36
38	18.2	9.1	31.0	9.9	40.2	6.9	35.7	8.4	32.4	8.5	38
40	30.3	9.1	24.0	16.9	48.5	26.4	36.4	21.7	35.2	19.3	40
42	45.5	15.2	43.7	28.2	38.6	48.5	41.3	38.5	42.0	34.1	42
44	69.7	30.3	48.0	26.8	63.8	65.2	55.9	46.2	58.5	43.2	44
46	48.5	33.3	56.4	45.1	59.6	69.3	58.0	57.3	56.3	52.8	46
48	45.5	33.3	48.0	40.9	40.2	61.0	44.1	51.0	44.3	47.7	48
50	39.4	60.6	53.6	55.0	33.3	48.5	43.4	51.7	42.6	53.4	50
52	30.3	42.4	31.0	43.7	26.4	40.2	28.7	42.0	29.0	42.0	52
54	30.3	75.8	39.5	36.7	18.0	38.8	26.7	37.8	29.0	44.9	54
56	21.2	36.4	21.2	25.4	16.6	26.4	18.9	25.9	19.3	27.8	56
58	33.3	51.5	26.8	22.6	15.3	12.5	21.0	17.5	23.3	23.9	58
60	15.2	33.3	9.9	22.6	15.3	8.3	12.6	15.4	13.1	18.8	60
62	6.1	24.2	14.1	26.8	12.5	8.3	13.3	17.5	11.9	18.8	62
64	3.0	12.1	5.6	15.5	12.5	2.8	9.1	9.1	8.0	9.7	64
66	3.0	18.2	1.4	12.7	1.4	6.9	1.4	9.8	1.7	11.4	66
68	3.0	15.2	4.2	15.5	2.8	4.2	3.5	9.8	3.4	10.8	68
70	0.0	3.0	2.8	7.1	1.4	1.4	2.1	4.2	1.7	4.0	70
72	0.0	3.0	0.0	1.4	0.0	5.5	0.0	3.5	0.0	3.4	72
74	0.0	6.1	0.0	4.2	11.1	2.8	5.6	3.5	4.5	4.0	74
76	0.0	6.1	0.0	4.2	5.5	2.8	2.6	3.5	2.3	4.0	76
78	0.0	3.0	0.0	1.4	4.2	2.8	2.1	2.1	1.7	2.3	78
80	0.0	6.1	0.0	2.8	1.4	0.0	0.7	1.4	0.6	2.3	80
82	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.7	0.0	0.6	82
84	0.0	0.0	0.0	0.0	4.2	1.4	2.1	0.7	1.7	0.6	84
86	0.0	0.0	0.0	0.0	0.0	2.8	0.0	1.4	0.0	1.1	86
88	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.7	0.0	0.6	88
90	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.7	0.0	0.6	90
92	0.0	0.0	0.0	0.0	1.4	0.0	0.7	0.0	0.6	0.0	92
TOTAL	489.7	530.3	509.2	490.8	493.8	506.2	501.4	498.6	495.5	504.5	
No. SAMPLES	10	10	20	20	16	16	36	36	46	46	
SAMPLING WEIGHT(Kg)	154.1	261.2	367.8	447.6	417.3	442.8	785.1	890.4	939.3	1151.6	
No.F.MEASURED	155	175	361	348	356	365	717	713	872	888	
MEAN LENGTH(cm)	48.7	55.4	48.4	53.0	49.8	50.8	49.1	51.9	49.0	52.6	
MEAN WEIGHT (g)	994	1493	1019	1286	1172	1213	1095	1249	1077	1297	
MEAN WEIGHT(M+F)		1259		1150		1193		1172		1188	
DEPTH RANGE (m)		282-1256		303-1193		362-1168		303-1193		282-1256	

TABLE XI-B : GREENLAND HALIBUT (TURBOT), DIVISION 3N, 1990: length composition of the trawl catches.

LENGTH GROUP	SEPT.-3rd Q. M	SEPT.-3rd Q. F	NOVEMBER M	NOVEMBER F	DECEMBER M	DECEMBER F	4th QUARTER M	4th QUARTER F	TOTAL 1990 M	TOTAL 1990 F	LENGTH GROUP
30	0.0	0.0	0.0	3.4	21.7	0.0	5.2	2.6	4.8	2.4	30
32	0.0	0.0	5.8	3.4	32.6	54.3	13.0	15.6	11.9	14.3	32
34	83.3	55.6	13.7	0.0	21.7	43.5	15.6	10.4	21.4	14.3	34
36	0.0	0.0	13.7	13.7	0.0	21.7	10.4	15.6	9.5	14.3	36
38	27.8	55.6	23.9	41.0	43.5	10.9	28.6	33.8	28.5	35.6	38
40	83.3	0.0	47.8	58.0	10.9	43.5	39.0	54.5	42.8	49.9	40
42	27.8	55.6	30.7	30.7	10.9	43.5	26.0	33.8	26.1	35.6	42
44	0.0	83.3	54.6	54.6	21.7	54.3	46.8	54.5	42.8	57.0	44
46	27.8	83.3	54.6	53.0	43.5	76.1	51.9	62.3	49.9	64.1	46
48	0.0	27.8	64.8	61.4	32.6	32.6	57.1	54.5	52.3	52.3	48
50	55.5	55.6	41.0	61.4	65.2	43.5	46.8	57.1	47.5	57.0	50
52	0.0	55.6	51.2	47.8	76.1	65.2	57.1	51.9	52.3	52.3	52
54	55.6	55.6	34.1	30.7	0.0	21.7	26.0	28.6	28.5	30.9	54
56	27.8	0.0	0.0	27.3	10.9	21.7	2.6	26.0	4.8	23.8	56
58	27.8	27.8	17.1	23.9	10.9	0.0	15.6	18.2	16.6	19.0	58
60	0.0	0.0	10.2	10.2	21.7	10.9	13.0	10.4	11.9	9.5	60
62	0.0	0.0	0.0	0.0	10.9	0.0	2.6	0.0	2.4	0.0	62
64	0.0	27.8	0.0	3.4	0.0	0.0	0.0	2.6	0.0	4.8	64
66	0.0	0.0	3.4	0.0	0.0	0.0	2.6	0.0	2.4	0.0	66
68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68
70	0.0	0.0	3.4	0.0	0.0	0.0	2.6	0.0	2.4	0.0	70
72	0.0	0.0	0.0	0.0	10.9	0.0	2.6	0.0	2.4	0.0	72
74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74
76	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76
78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80
82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82
84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84
86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86
88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88
90	0.0	0.0	0.0	0.3	0.0	10.9	0.0	2.6	0.0	2.4	90
TOTAL	416.7	583.3	471.0	529.0	445.7	554.3	464.9	535.1	460.8	539.2	
No. SAMPLES	1	1	9	9	3	3	12	12	13	13	
SAMPLING WEIGHT(Kg)	12.46	18.64	121.89	139.43	45.86	59.54	167.75	198.97	180.21	217.61	
No.F.MEASURED	15	21	138	155	41	51	179	206	194	227	
MEAN LENGTH(cm)	45.7	47.7	47.6	48.0	47.5	46.1	47.5	47.5	47.4	47.5	
MEAN WEIGHT (g)	831	888	883	900	1119	1167	937	966	929	959	
MEAN WEIGHT(M+F)		864		892		1146		953		945	
DEPTH RANGE (m)		209-500		230-693		100-930		100-930		100-930	

TABLE III-A : AMERICAN PLAICE, DIVISION 3L. 1990 : length composition of the trawl catches.

NOV.- TOTAL

LENGTH GROUP	M	F	LENGTH GROUP
30	125.0	0.0	30
32	0.0	125.0	32
34	125.0	0.0	34
36	0.0	0.0	36
38	250.0	125.0	38
40	0.0	125.0	40
42	0.0	0.0	42
44	0.0	0.0	44
46	0.0	0.0	46
48	0.0	0.0	48
50	0.0	125.0	50
TOTAL	500	500	
No. SAMPLES		1	
SAMPLING WEIGHT(Kg)	1.9	2.5	
No.F.MEASURED	4	4	
MEAN LENGTH(cm)	36	41	
MEAN WEIGHT (g)	675	825	
MEAN WEIGHT(M+F)		550	
DEPTH RANGE (m)		409-550	

TABLE III-B : AMERICAN PLAICE, DIVISION 3N, 1990: length composition of the trawl catches.

	AUGUST		SEPTEMBER		3rd Q.- TOTAL		
LENGTH GROUP	M	F	M	F	M	F	LENGTH GROUP
28	2.3	0.0	0.0	0.0	2.2	0.0	28
30	15.8	0.0	0.0	0.0	15.5	0.0	30
32	40.7	0.0	0.0	0.0	39.8	0.0	32
34	43.0	0.0	0.0	0.0	42.0	0.0	34
36	79.2	0.0	0.0	0.3	77.4	0.0	36
38	87.9	0.0	0.0	2.0	86.4	0.0	38
40	67.9	22.6	0.0	0.0	66.4	22.1	40
42	52.0	82.3	100.0	0.0	53.1	81.0	42
44	40.7	151.6	0.0	100.0	39.0	150.4	44
46	20.4	195.5	0.0	100.0	19.9	193.6	46
48	5.6	78.9	100.0	200.0	8.0	78.6	48
50	2.3	36.2	0.0	100.0	2.2	37.6	50
52	0.0	0.0	100.0	0.0	2.2	0.0	52
54	0.0	2.3	100.0	100.0	2.2	4.4	54
TOTAL	438.0	561.1	400.0	600.0	438.1	561.9	
No. SAMPLES		9		1		10	
SAMPLING WEIGHT(Kg)	114.3	253.4	0.3	0.6	120.6	263	
No.F.MEASURED	194	248	4	6	198	254	
MEAN LENGTH(cm)	39.3	48.1	50.0	49.2	39.5	48.2	
MEAN WEIGHT (g)	589	1022	1575	1000	609	1035	
MEAN WEIGHT(M+F)		832		1530		849	
DEPTH RANGE (m)		243-385		268-433		243-493	

TABLE XII-C : AMERICAN PLAICE, DIVISION 3N, 1990: length composition of the trawl catches.

	JANUARY		MARCH		SEPTEMBER		NOVEMBER		DECEMBER		1st QUARTER		3rd QUARTER		4th QUARTER		TOTAL 1990		
LENGTH GROUP	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	LENGTH GROUP
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.4	0.0	12
14	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	19.2	7.7	0.0	0.6	0.0	0.0	11.3	4.5	2.2	1.3	14
16	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	19.2	3.8	0.0	0.6	0.0	0.0	11.3	2.3	2.2	0.9	16
18	6.5	65.4	0.0	0.0	0.0	0.0	5.5	0.0	23.1	3.8	0.6	5.7	0.0	0.0	15.8	2.3	3.6	4.9	18
20	45.0	78.4	0.0	0.0	0.0	0.0	5.5	0.0	19.2	23.1	4.0	6.8	0.0	0.0	13.5	13.5	5.8	8.0	20
22	117.6	156.9	0.0	0.0	0.0	0.0	0.0	5.5	23.1	11.5	10.2	13.7	0.0	0.0	13.5	9.0	10.7	12.5	22
24	111.1	196.1	2.5	0.0	21.7	0.0	32.8	0.0	26.8	7.7	12.8	11.1	21.7	0.0	29.3	4.5	15.6	14.2	24
26	32.7	85.4	55.5	6.8	21.7	0.0	21.9	32.8	3.8	7.7	53.5	12.0	21.7	0.0	11.3	18.1	44.5	12.9	26
28	13.1	19.6	94.1	34.9	43.5	0.0	32.8	10.8	15.4	11.5	87.1	33.6	43.5	0.0	22.6	11.3	73.5	28.5	28
30	0.0	6.5	117.2	58.6	87.0	0.0	32.8	38.3	26.8	23.1	107.8	54.1	87.0	0.0	29.3	28.3	91.3	48.1	30
32	13.1	19.6	112.8	53.6	65.2	0.0	38.3	27.3	7.7	0.0	104.2	50.7	65.2	0.0	20.3	11.3	88.8	41.9	32
34	6.5	6.5	94.8	55.5	108.7	43.5	43.7	10.9	23.1	15.4	87.1	51.2	108.7	43.5	31.6	13.5	76.6	43.6	34
36	6.5	0.0	50.5	39.9	21.7	0.0	71.0	10.8	46.2	19.2	46.7	36.4	21.7	0.0	56.6	15.8	48.1	31.6	36
38	0.0	6.5	29.8	26.2	65.2	108.7	54.8	27.3	84.6	38.5	27.3	24.5	65.2	108.7	72.2	33.9	37.0	28.0	38
40	0.0	0.0	19.3	19.3	65.2	0.0	32.8	21.9	46.2	42.3	17.6	17.6	65.2	0.0	68.6	33.9	23.2	20.5	40
42	0.0	0.0	16.2	23.7	43.5	65.2	49.2	38.3	46.2	38.5	14.8	21.6	43.5	65.2	47.4	38.6	21.8	25.8	42
44	0.0	0.0	10.0	20.0	43.5	0.0	38.3	5.5	23.1	30.8	9.1	18.2	43.5	0.0	29.3	20.3	13.8	18.3	44
46	6.5	6.5	5.0	11.8	0.0	21.7	10.9	27.3	15.4	38.5	5.1	11.4	0.0	21.7	13.5	33.9	6.7	16.8	46
48	0.0	0.0	3.1	11.2	21.7	43.5	27.3	38.3	3.8	19.2	2.8	10.2	21.7	43.5	13.5	27.1	5.3	14.2	48
50	0.0	0.0	0.0	9.4	21.7	0.0	16.4	32.8	11.5	42.3	0.0	8.5	21.7	0.0	13.5	38.4	3.1	16.2	50
52	0.0	0.0	0.0	3.1	0.0	21.7	21.9	5.5	7.7	26.9	0.0	2.8	0.0	21.7	13.5	18.1	2.7	6.2	52
54	0.0	0.0	0.0	0.1	0.0	21.7	21.9	10.9	3.8	15.4	0.0	7.4	0.0	21.7	11.3	13.5	2.2	8.9	54
56	0.0	0.0	0.0	3.1	0.0	0.0	5.5	21.9	7.7	19.2	0.0	2.8	0.0	0.0	0.8	20.3	1.3	5.2	56
58	0.0	0.0	0.0	1.2	0.0	21.7	5.5	10.9	3.8	15.4	0.0	1.1	0.0	21.7	4.5	13.5	0.9	4.8	58
60	0.0	0.0	0.0	1.0	0.0	21.7	0.0	10.9	0.0	7.7	0.0	1.7	0.0	21.7	0.0	9.0	0.0	3.6	60
62	0.0	0.0	0.0	0.6	0.0	0.0	0.0	10.9	0.0	11.5	0.0	0.6	0.0	0.0	0.0	11.3	0.0	2.7	62
64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.4	0.0	3.8	0.0	0.0	0.0	0.0	0.0	3.8	0.0	1.8	64
66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66
68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.9	68
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.4	70
72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72
74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.4	74
TOTAL	359.5	640.5	611.0	389.0	630.4	369.8	588.3	431.7	511.5	488.5	589.1	410.9	630.4	368.6	535.0	485.0	578.3	420.7	
No. SAMPLES		1		13		2		6		6		14		2		12		28	
SAMPLING WEIGHT(Kg)	0	13	325	343	13.1	15.2	70.1	89.9	70.8	132.1	333	356	13.1	15.2	140.9	222	487	593.2	
No.F.MEASURED	55	98	980	624	29	17	104	79	133	127	1035	722	29	17	237	206	1301	945	
MEAN LENGTH(cm)	25.1	24.3	33.3	37.4	36.6	45.1	38.7	44.5	34.9	42.8	32.8	35.6	36.6	45.1	36.6	43.5	33.6	37.5	
MEAN WEIGHT (g)	145	133	332	550	452	894	674	1138	532	1040	322	493	452	894	595	1078	374	628	
MEAN WEIGHT(M+F)		137		416		615		874		780		392		615		819		481	
DEPTH RANGE (m)		146-665		234-720		209-564		230-600		100-930		146-720		209-564		100-930		100-930	

TABLE XII-D : AMERICAN PLAICE, DIVISION 3N, 1990: length composition of the gillnet catches.

LENGTH GROUP	MAY M	MAY F	JUNE M	JUNE F	JULY M	JULY F	OCTOBER M	OCTOBER F	NOVEMBER M	NOVEMBER F	DECEMBER M	DECEMBER F	2nd QUARTER M	2nd QUARTER F	3rd QUARTER M	3rd QUARTER F	4th QUARTER M	4th QUARTER F	TOTAL 1990 M	TOTAL 1990 F	LENGTH GROUP
22	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	1.0	0.0	22
24	2.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	4.6	0.0	0.0	0.0	2.0	0.0	24
26	2.0	0.0	0.0	0.0	3.1	0.0	0.0	5.6	0.0	0.0	0.0	0.0	1.1	0.0	3.1	0.0	0.0	2.5	1.5	0.5	26
28	0.0	0.0	0.0	0.0	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.1	0.0	0.0	1.0	1.0	28
30	22.3	0.1	6.6	0.0	12.4	13.8	5.6	33.9	0.0	9.1	0.0	0.0	14.8	4.2	12.4	13.8	2.5	19.7	11.5	10.5	30
32	28.3	10.1	22.8	4.4	26.3	28.4	33.9	22.6	18.3	41.1	0.0	0.0	25.3	7.4	26.3	29.4	24.6	32.8	25.5	19.5	32
34	52.6	56.7	59.5	26.4	74.3	32.5	39.5	28.2	54.8	45.7	0.0	0.0	55.8	42.2	74.3	32.5	46.8	36.8	60.0	38.0	34
36	68.8	48.6	74.9	19.8	71.2	48.0	50.8	62.1	68.5	36.5	0.0	0.0	71.7	34.8	71.2	48.8	59.1	46.8	69.8	41.5	36
38	68.8	52.6	39.6	24.2	66.8	38.7	45.2	62.1	63.9	63.9	200.0	0.0	54.9	39.8	66.8	38.7	59.1	61.8	59.5	43.5	38
40	56.7	58.7	33.8	48.5	80.5	38.7	73.4	62.1	45.7	73.1	200.0	0.0	45.4	53.8	80.5	38.7	61.6	66.5	60.8	51.5	40
42	26.3	40.5	19.8	35.2	46.4	52.6	56.5	62.1	45.7	45.7	0.0	100.0	23.2	38.8	46.4	52.6	49.3	54.2	36.8	46.8	42
44	28.3	76.9	17.6	57.3	46.4	24.8	28.2	45.2	50.2	41.1	100.0	100.0	23.2	67.5	46.4	24.8	41.8	44.3	34.5	49.8	44
46	8.1	56.7	6.6	28.6	21.7	37.2	16.9	22.6	27.4	45.7	100.0	0.0	7.4	43.2	21.7	37.2	24.6	36.5	15.5	39.5	46
48	0.0	46.8	2.2	41.8	7.7	20.1	22.8	39.5	27.4	22.8	0.0	0.0	1.1	44.3	7.7	28.1	24.8	28.6	8.8	33.5	48
50	2.8	22.3	0.0	38.6	8.3	17.0	0.0	28.2	0.0	22.8	0.0	0.0	1.1	38.8	8.3	17.8	0.0	26.6	3.5	25.8	50
52	0.0	18.2	0.0	24.2	1.5	17.0	0.0	16.8	0.0	13.7	0.0	0.0	0.0	21.1	1.5	17.8	0.0	14.8	0.5	18.5	52
54	2.0	16.2	0.0	30.8	3.1	15.5	0.0	22.6	4.6	18.3	0.0	100.0	1.1	22.2	3.1	15.5	2.5	22.2	2.0	20.0	54
56	2.8	42.5	0.8	57.3	4.6	28.3	0.0	22.6	0.8	41.1	0.0	0.0	1.1	48.6	4.6	28.3	0.0	32.8	2.0	38.5	56
58	2.0	20.2	0.0	59.5	0.0	34.1	0.0	56.5	0.0	22.8	0.0	0.0	1.1	38.8	0.0	34.1	0.0	38.8	0.5	37.8	58
60	0.0	6.1	0.0	41.8	0.0	23.2	0.0	5.6	0.0	18.3	0.0	0.0	0.0	23.2	0.0	23.2	0.0	12.3	0.0	21.0	60
62	2.0	16.2	0.0	50.7	0.0	17.0	0.0	16.9	0.0	4.6	0.0	0.0	1.1	32.7	0.0	17.0	0.0	8.8	0.5	23.0	62
64	4.0	16.2	0.0	50.7	0.0	13.8	0.0	0.0	0.0	13.7	0.0	0.0	2.1	32.7	0.0	13.8	0.0	7.4	1.0	21.5	64
66	0.0	8.1	0.0	33.0	0.0	7.7	0.0	5.6	0.0	4.6	0.0	100.0	0.0	20.0	0.0	7.7	0.0	7.4	0.0	13.5	66
68	0.0	0.0	0.0	37.4	0.0	1.5	0.0	5.6	0.0	4.6	0.0	0.0	0.0	17.8	0.0	1.5	0.0	4.8	0.0	10.0	68
70	0.0	2.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.5	0.0	0.0	0.0	1.0	70
72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.5	72
74	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	1.0	74
76	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.5	76
TOTAL	378.5	621.5	284.9	718.1	486.1	513.8	372.8	627.1	406.4	593.6	600.0	400.0	332.3	667.7	486.1	513.8	398.6	603.4	395.0	605.0	
No. SAMPLES	17	17	10	10	14	14	11	11	13	13	1	1	27	27	14	14	25	25	66	66	
SAMPLING WEIGHT(kg)	114.0	361.0	77.4	653.0	206.0	392.5	38.7	124.4	60.1	145.8	5.0	7.2	191.4	1014.8	206.0	392.5	103.8	277.4	501.1	1693.8	
No.F.MEASURED	187	387	128	328	314	332	66	111	89	130	6	4	315	833	314	332	161	245	790	1210	
MEAN LENGTH(cm)	39.0	46.8	38.1	53.4	39.5	46.5	40.1	45.1	40.7	45.5	42.0	52.5	38.8	49.8	38.5	46.5	40.5	45.4	39.4	48.8	
MEAN WEIGHT (g)	809.6	1175.8	804.3	2093.1	858.1	1182.2	585.6	1120.3	675.3	1121.5	833.3	1000.0	807.5	1601.8	858.1	1182.2	644.4	1132.8	836.3	1391.8	
MEAN WEIGHT (M+F)		961.5		1688.7		926.5		920.9		940.2		1220.0		1231.5		926.5		938.7		1092.5	
DEPTH RANGE (m)		55		55		49-80		55-87		64-88		84-86		55		49-80		55-87		49-87	

TABLE XII-E : AMERICAN PLAICE , DIVISION 3O, 1990 : length composition of the gillnet catches.

LENGTH GROUP	JUNE - TOTAL M	JUNE - TOTAL F	LENGTH GROUP
30	0.0	4.6	30
32	8.4	23.8	32
34	92.2	50.7	34
36	59.1	115.2	36
38	46.1	67.8	38
40	27.6	46.1	40
42	46.1	59.9	42
44	27.6	36.8	44
46	4.6	32.3	46
48	4.6	18.4	48
50	0.0	55.3	50
52	0.0	27.6	52
54	0.0	18.4	54
56	0.0	41.5	56
58	0.0	13.8	58
60	0.0	13.8	60
62	0.0	0.0	62
64	0.0	4.6	64
66	0.0	4.6	66
68	0.0	4.6	68
70	0.0	4.6	70
TOTAL	336.4	663.6	
No. SAMPLES		5	
SAMPLING WEIGHT(Kg)	44.5	141.5	
No.F.MEASURED	73	144	
MEAN LENGTH(cm)	38.6	44.4	
MEAN WEIGHT (g)	610	983	
MEAN WEIGHT(M+F)		953	
DEPTH RANGE (m)		55-137	

TABLE XIII-A :YELLOWTAIL FLOUNDER, DIVISION 3N, 1990: length composition of the gillnet catches.

LENGTH GROUP	MAY M	MAY F	JUNE M	JUNE F	JULY M	JULY F	OCTOBER M	OCTOBER F	NOVEMBER M	NOVEMBER F	DECEMBER M	DECEMBER F	2nd QUARTER M	2nd QUARTER F	3rd QUARTER M	3rd QUARTER F	4th QUARTER M	4th QUARTER F	TOTAL 1990 M	TOTAL 1990 F	LENGTH GROUP
24	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	24
26	9.2	7.4	0.0	0.0	3.8	8.2	0.0	7.0	31.7	7.0	0.0	0.0	8.9	7.1	3.8	8.2	15.3	7.6	8.2	7.8	26
28	24.0	12.9	0.0	0.0	39.7	19.5	31.3	39.1	31.7	23.8	0.0	0.0	23.1	12.5	39.7	19.5	30.5	30.5	34.8	19.1	28
30	83.2	118.3	95.2	85.2	122.2	80.6	46.9	93.8	95.2	74.4	0.0	0.0	83.6	117.4	122.2	80.6	68.7	60.2	107.4	88.1	30
32	110.8	164.5	0.0	285.7	132.9	118.4	85.9	148.4	95.2	134.9	125.0	125.0	186.8	169.0	132.9	118.4	91.6	141.2	122.3	132.7	32
34	101.7	171.9	0.0	285.7	96.3	135.4	101.6	171.9	47.6	119.0	0.0	375.0	97.8	176.2	96.3	135.4	72.5	152.7	96.1	146.8	34
36	38.8	92.4	0.0	190.5	32.7	71.8	15.6	46.9	47.6	79.4	125.0	125.0	37.6	96.1	32.7	71.8	34.4	64.9	34.0	76.7	36
38	5.5	25.6	0.0	0.0	18.3	48.3	7.8	31.3	31.7	55.6	0.0	125.0	5.3	28.5	18.3	48.3	19.1	65.8	15.3	38.1	38
40	5.5	9.2	0.0	47.6	4.4	27.7	23.4	70.3	7.8	47.6	0.0	0.0	5.3	18.7	4.4	27.7	15.3	57.3	5.8	26.9	40
42	3.7	9.2	0.0	0.0	0.8	13.2	7.8	15.6	7.8	39.7	0.0	0.0	3.6	9.9	0.8	13.2	7.6	28.7	2.1	13.7	42
44	0.0	1.8	0.0	0.0	0.8	17.0	0.8	31.3	0.0	15.9	0.0	0.0	0.0	1.8	0.8	17.0	0.0	22.8	0.4	14.1	44
46	0.0	0.0	0.0	0.0	1.3	6.8	0.0	23.4	0.0	7.9	0.0	0.0	0.0	0.0	1.3	6.9	0.0	15.3	0.0	6.2	46
48	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	2.5	48
50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	50
52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52
54	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	54
TOTAL	382.0	617.4	95.2	894.0	456.0	548.0	320.3	870.7	396.8	603.2	250.0	750.0	371.9	628.1	454.9	546.8	355.0	645.0	424.1	575.9	
No. SAMPLES		12		1		17		8		13		1		13		17		22		52	
SAMPLING WEIGHT(kg)	74	124	0.4	0.5	270.5	385.5	13.7	36.8	10.9	30.8	1.2	3	74.4	132.5	270.5	385.5	33.8	70.8	378.7	588.6	
No.F.MEASURED	287	334	2	19	721	867	41	97	50	76	2	6	289	353	721	867	93	169	1023	1389	
MEAN LENGTH(cm)	33.4	34.2	31.0	34.7	33.1	35.3	34.1	35.6	33.3	35.0	35.0	35.7	33.4	34.2	33.1	35.3	33.7	35.7	33.2	35.1	
MEAN WEIGHT (g)	357	371	280	447	375	445	334	423	378	405	680	500	358	375	375	445	363	418	370	424	
MEAN WEIGHT(M+F)		366		426		413		395		394		525		368		413		388		401	
DEPTH RANGE (m)		55		55		49-60		55-67		64-66		64-66		55		49-60		55-67		49-67	

TABLE XIII-B : YELLOWTAIL FLOUNDER, DIVISION 3O, 1990 : length composition of the gillnet catches.

LENGTH GROUP	JUNE - TOTAL M	JUNE - TOTAL F	LENGTH GROUP
26	7.8	0.0	26
28	15.6	0.0	28
30	78.3	7.8	30
32	132.8	31.3	32
34	148.4	7.8	34
36	78.1	23.4	36
38	148.4	54.7	38
40	85.9	39.1	40
42	15.6	31.3	42
44	7.8	39.1	44
46	0.0	31.3	46
48	0.0	15.6	48
50	0.0	0.0	50
52	0.0	0.0	52
54	0.0	0.0	54
56	0.0	0.0	56
58	0.0	7.8	58
TOTAL	710.9	289.1	
No. SAMPLES		2	
SAMPLING WEIGHT(Kg)	41.5	27.5	
No.F.MEASURED	81	37	
MEAN LENGTH(cm)	36.1	41.3	
MEAN WEIGHT (g)	456	743	
MEAN WEIGHT(M+F)		538	
DEPTH RANGE (m)		51-137	

TABLE XIV-A : WITCH FLOUNDER, DIVISION 3L, 1990: length composition of the trawl catches.

	OCTOBER		NOVEMBER		4th Q. - TOTAL		
LENGTH GROUP	M	F	M	F	M	F	LENGTH GROUP
28	5.1	5.1	0.0	0.0	3.7	3.7	28
28	5.1	5.1	0.0	0.0	3.7	3.7	28
30	5.1	0.0	0.0	0.0	3.7	0.0	30
32	10.2	5.1	0.0	0.0	7.3	3.7	32
34	0.0	10.2	0.0	0.0	0.0	7.3	34
36	0.0	15.2	13.2	0.0	3.7	11.0	36
38	20.3	10.2	0.0	13.2	14.7	11.0	38
40	40.6	20.3	26.3	26.3	36.6	22.0	40
42	60.9	60.9	39.5	26.3	54.9	51.3	42
44	60.8	66.0	39.5	39.5	54.9	58.6	44
46	71.1	60.9	78.9	105.3	73.3	73.3	46
48	86.0	60.9	92.1	92.1	73.3	69.6	48
50	88.0	86.0	131.6	78.9	84.2	88.6	50
52	50.8	50.8	13.2	78.8	40.3	58.6	52
54	35.5	30.5	26.3	26.3	33.8	29.3	54
56	0.0	15.2	52.6	0.0	14.7	11.0	56
58	5.1	5.1	0.0	0.0	3.7	3.7	58
60	0.0	5.1	0.0	0.0	0.0	3.7	60
62	0.0	5.1	0.0	0.0	0.0	3.7	62
TOTAL	502.5	497.5	513.2	486.8	505.5	494.5	
No. SAMPLES		8		4		12	
SAMPLING WEIGHT(Kg)	78.6	78.8	35.4	31.5	114	188.3	
No.F.MEASURED	99	98	38	37	138	135	
MEAN LENGTH(cm)	46.7	47.4	48.9	48.5	47.3	47.7	
MEAN WEIGHT (g)	794	784	988	951	826	802	
MEAN WEIGHT(M+F)		789		880		814	
DEPTH RANGE (m)		303-696		362-575		303-696	

TABLE XIV-B : WITCH FLOUNDER, DIVISION 3N, 1990: length composition of the trawl catches.

	SEP.-3rd Q.		NOVEMBER		DECEMBER		4th QUARTER		TOTAL 1990		
LENGTH GROUP	M	F	M	F	M	F	M	F	M	F	LENGTH GROUP
30	0.0	0.0	4.9	0.0	0.0	0.0	2.9	0.0	2.7	0.0	30
32	34.5	69.0	39.0	14.6	29.2	0.0	35.1	8.8	35.0	13.5	32
34	34.5	34.5	82.9	48.8	102.2	65.7	90.6	55.6	86.3	53.9	34
36	137.9	137.9	92.7	102.4	116.8	109.5	102.3	105.3	105.1	107.8	36
38	103.4	172.4	78.0	68.3	94.9	65.7	84.8	67.3	86.3	75.5	38
40	34.5	34.5	58.5	83.4	102.2	58.4	76.8	61.4	72.8	58.3	40
42	69.0	0.0	87.8	58.5	58.4	43.8	76.0	52.6	75.5	48.5	42
44	89.0	34.5	29.3	34.1	29.2	21.9	29.2	29.2	32.3	29.6	44
46	0.0	0.0	14.6	19.5	7.3	29.2	11.7	23.4	10.8	21.6	46
48	0.0	34.5	19.5	14.6	7.3	21.9	14.6	17.5	13.5	18.9	48
50	0.0	0.0	4.9	29.3	7.3	7.3	5.8	20.5	5.4	18.9	50
52	0.0	0.0	0.0	0.0	7.3	7.3	2.9	8.8	2.7	8.1	52
54	0.0	0.0	0.0	4.9	0.0	0.0	5.8	2.9	5.4	2.7	54
56	0.0	0.0	4.9	0.0	0.0	0.0	2.9	0.0	2.7	0.0	56
58	0.0	0.0	0.0	4.9	0.0	7.3	0.0	5.8	0.0	5.4	58
TOTAL	402.8	517.2	526.8	473.2	562.0	438.0	548.9	459.1	536.4	463.6	
No. SAMPLES		1		7		4		11		12	
SAMPLING WEIGHT(Kg)	5.4	5.7	51.3	50.8	32.1	29.9	83.4	80.7	88.8	86.4	
No.F.MEASURED	14	15	108	97	77	60	185	157	199	172	
MEAN LENGTH(cm)	39.3	38.6	39.9	41.2	39.2	40.7	39.6	41.0	39.6	40.8	
MEAN WEIGHT (g)	386	388	475	524	417	498	451	514	446	502	
MEAN WEIGHT(M+F)		383		498		453		480		472	
DEPTH RANGE (m)		289-900		230-893		188-930		188-930		188-930	

TABLE XV-A : COD, DIVISION 3L, 1990: age composition (%) and mean weight (Kg) at age in the trawl catches.

AGE	JANUARY		FEBRUARY		MARCH		APRIL		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		1st QUARTER		2nd QUARTER		3rd QUARTER		4th QUARTER		TOTAL 1990		AGE
	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	
2	1.2	0.085	0.0	0.000	0.0	0.000	0.2	0.065	3.7	0.424	10.2	0.213	0.0	0.000	0.0	0.000	0.4	0.085	0.2	0.085	5.3	0.311	5.4	0.179	3.1	0.306	2
3	258.4	0.270	76.0	0.310	161.7	0.287	62.4	0.242	205.7	0.456	238.6	0.452	1.9	0.539	305.1	0.455	146.5	0.280	62.4	0.242	213.8	0.455	191.9	0.520	271.5	0.387	3
4	660.6	0.464	636.2	0.552	595.1	0.524	729.8	0.556	416.5	0.699	408.1	0.667	0.0	0.000	238.5	0.759	638.1	0.518	729.8	0.556	414.5	0.691	240.5	0.924	517.1	0.578	4
5	58.1	0.786	162.5	0.904	142.4	0.931	126.0	1.104	225.0	1.204	203.5	1.189	2.1	2.764	33.3	1.331	126.3	0.898	126.0	1.104	219.7	1.201	81.1	1.751	124.0	1.095	5
6	6.4	1.393	32.1	1.393	33.2	1.380	22.2	1.652	35.3	2.185	19.5	1.906	3.6	3.443	11.0	3.904	24.8	1.391	22.2	1.652	31.4	2.141	54.1	2.720	23.4	1.843	6
7	6.5	2.516	41.1	2.402	36.3	2.193	29.5	2.128	27.1	2.563	7.9	2.312	9.5	4.852	33.0	3.904	29.4	2.372	29.5	2.128	22.4	2.522	16.2	3.904	21.6	2.329	7
8	5.5	2.467	38.3	2.515	29.2	2.254	24.0	3.024	37.0	3.706	34.8	4.166	63.3	6.545	136.2	5.098	26.5	2.470	24.0	3.024	36.5	3.811	162.2	5.010	25.0	3.178	8
9	1.8	4.800	8.2	4.597	1.5	4.283	4.2	4.066	16.2	5.091	22.1	6.747	188.9	8.317	131.4	6.470	5.2	4.606	4.2	4.066	17.7	5.567	124.3	6.451	7.5	5.097	9
10	0.6	6.049	3.4	6.198	0.6	3.448	1.8	4.468	9.4	6.849	9.8	6.552	240.6	9.681	73.1	7.758	2.1	6.151	1.8	4.468	9.5	6.773	59.5	8.215	3.3	5.898	10
11	0.0	0.000	0.7	7.521	0.0	0.000	0.0	0.000	10.1	8.469	12.9	7.858	180.6	11.106	19.2	8.689	0.4	7.521	0.0	0.000	10.8	8.287	27.0	10.520	1.3	8.951	11
12	0.8	5.977	1.4	5.752	0.0	0.000	0.0	0.000	4.3	9.618	5.8	10.810	114.6	12.047	9.6	7.521	1.0	5.810	0.0	0.000	4.6	9.972	5.4	7.521	0.6	7.837	12
13	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	3.6	10.764	1.8	9.297	78.2	13.366	0.0	0.000	0.0	0.000	0.0	0.000	3.1	10.427	10.8	12.387	0.4	11.379	13
14	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1.4	9.103	8.4	12.648	69.8	14.305	9.6	9.972	0.0	0.000	0.0	0.000	3.1	11.379	16.2	13.638	0.5	12.701	14
15	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.7	11.878	10.5	13.126	43.1	14.237	0.0	0.000	0.0	0.000	0.0	0.000	3.1	12.913	5.4	9.103	0.3	11.543	15
16	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	6.3	21.942	18.0	13.516	0.0	0.000	0.0	0.000	0.0	0.000	1.5	21.942	0.0	0.000	0.1	21.942	16
17	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.0	10.896	0.0	0.000	7.1	11.678	0.0	0.000	0.0	0.000	0.0	0.000	1.5	10.896	0.0	0.000	0.1	10.896	17
18	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	18
19	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	19
20	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	20
21	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.0	11.677	0.0	0.000	0.3	20.450	0.0	0.000	0.0	0.000	0.0	0.000	1.5	11.677	0.0	0.000	0.1	11.677	21
TOTAL	1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		
No FISH AGED																	292		174		362		184		1002		

LENGTH/WEIGHT RELATIONSHIP: log w = -5.2106+3.0343log l (Hodder,1964)

TABLE XV-B : COD, DIVISION 3N, 1990: age composition (%) and mean weight (kg) at age in the trawl catches.

AGE	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JULY		AUGUST		SEPTEMBER		OCT.-4th Q.		1st QUARTER		2nd QUARTER		3rd QUARTER		TOTAL 1990		AGE
	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	
1	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1.7	0.070	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1.3	0.070	0.0	0.000	0.5	0.063	1
2	0.0	0.000	0.0	0.000	0.0	0.000	0.4	0.179	61.7	0.120	0.9	0.246	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	47.3	0.120	0.4	0.246	15.6	0.121	2
3	25.5	0.260	6.3	0.674	6.5	0.606	31.5	0.373	81.0	0.287	105.7	0.461	23.3	0.519	0.0	0.000	0.0	0.000	16.8	0.328	69.8	0.295	56.7	0.470	66.5	0.348	3
4	727.9	0.621	803.1	0.680	778.8	0.633	601.6	0.634	489.5	0.617	704.3	0.796	485.4	0.935	410.1	1.077	267.9	1.113	758.5	0.630	514.9	0.622	572.1	0.870	615.4	0.686	4
5	241.9	1.260	184.2	1.223	201.6	1.306	328.6	1.204	319.4	1.226	182.1	1.212	427.6	1.588	532.0	1.614	285.7	1.662	217.9	1.278	321.5	1.220	333.6	1.495	271.6	1.321	5
6	4.0	2.102	6.2	2.734	7.2	2.601	34.2	2.025	41.3	2.181	5.7	2.149	54.3	2.576	47.4	2.408	446.4	2.030	5.7	2.453	39.2	2.150	31.3	2.499	26.1	2.238	6
7	0.5	3.484	0.2	2.298	1.6	4.096	3.1	2.371	4.7	2.674	1.0	4.039	3.6	3.989	7.0	4.422	0.0	0.000	1.0	3.922	4.3	2.622	3.0	4.152	2.6	3.188	7
8	0.1	4.935	0.0	0.000	1.4	6.020	0.5	2.298	0.8	2.659	0.3	3.904	2.7	3.774	3.5	7.259	0.0	0.000	0.7	5.924	0.7	2.596	1.7	4.719	0.9	4.312	8
9	0.0	0.000	0.0	0.000	3.0	8.287	0.0	0.000	0.0	0.000	0.0	0.000	2.0	7.521	0.0	0.000	0.0	0.000	1.4	8.287	0.0	0.000	0.8	7.521	0.6	8.287	9
10	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	10
11	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	11
12	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	12
13	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	13
14	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	14
15	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1.0	20.450	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.4	20.450	0.1	20.450	15
TOTAL	1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		
No FISH AGED																	23		463		522		553		1561		

TABLE Xv-C: COD, DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the December trawl catches.

	DECEMBER	
AGE	AGE COMP.	MEAN WEIGTH
1	0.0	0.000
2	125.0	0.357
3	104.2	0.611
4	208.3	1.086
5	125.0	1.440
6	62.5	1.981
7	62.5	3.448
8	104.2	4.196
9	145.8	4.778
10	20.8	8.287
11	0.0	0.000
12	0.0	0.000
13	20.8	14.010
14	0.0	0.000
15	20.8	11.876
16	0.0	0.000
17	0.0	0.000
18	0.0	0.000
19	0.0	0.000
20	0.0	0.000
21	0.0	0.000
22	0.0	0.000
23	0.0	0.000
24	0.0	0.000
25	0.0	0.000
TOTAL	1000	

No FISH AGED 48

LENGTH/WEIGHT RELATIONSHIP: log w = -5.2106+3.0849log l (Hodder,1964)

TABLE Xv-E: COD, DIVISION 3O, 1990: age composition (%) and mean weight (Kg) at age in the June gillnet catches.

	JUNE	
AGE	AGE COMP.	MEAN WEIGTH
1	0.0	0.000
2	0.0	0.000
3	0.0	0.000
4	0.0	0.000
5	0.0	0.000
6	4.3	3.329
7	1.7	3.904
8	105.5	5.432
9	273.0	6.921
10	274.5	9.238
11	118.3	11.071
12	93.4	11.707
13	60.1	12.668
14	47.1	14.845
15	16.1	15.042
16	1.7	17.677
17	3.4	20.450
18	0.0	0.000
19	0.0	0.000
20	0.0	0.000
21	0.0	0.000
22	0.0	0.000
23	0.0	0.000
24	0.0	0.000
25	0.0	0.000
TOTAL	1000	

No FISH AGED 180

LENGTH/WEIGHT RELATIONSHIP: log w = -5.2106+3.0845log l (Hodder,1964)

TABLE BV-8 : COD, DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the gillnet catches.

	MAY		JUNE		JULY		OCTOBER		NOVEMBER		DECEMBER		2nd QUARTER		3rd QUARTER		4th QUARTER		TOTAL 1990		
AGE	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE
3	0.0	0.000	0.0	0.000	0.0	0.000	1.9	0.539	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.9	0.539	0.2	0.539	3
4	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	4
5	0.0	0.000	4.4	2.427	0.3	3.029	2.1	2.764	12.2	2.836	1.7	3.904	1.4	2.427	0.3	3.029	7.7	2.833	3.1	2.807	5
6	0.0	0.000	9.3	2.989	1.2	2.945	3.6	3.443	18.3	3.442	10.1	3.904	2.8	2.989	1.2	2.945	10.8	3.453	5.5	3.397	6
7	3.7	7.730	47.7	4.195	6.0	5.757	9.5	4.852	21.4	4.439	29.9	4.561	17.5	4.624	6.0	5.757	16.3	4.531	15.3	4.604	7
8	38.3	8.277	169.7	5.285	53.6	7.529	63.9	6.545	80.4	6.033	116.3	6.075	79.5	6.175	53.6	7.529	74.6	6.212	66.8	6.296	8
9	135.8	8.978	233.1	6.835	156.9	8.810	188.9	8.317	183.1	8.143	217.8	7.733	166.3	7.987	156.9	8.810	175.2	8.206	164.3	8.343	9
10	151.1	9.533	187.3	8.249	173.2	9.394	240.6	8.681	204.4	9.765	212.2	9.308	156.2	9.088	173.2	9.394	219.6	9.715	192.6	9.488	10
11	165.3	10.771	118.9	9.744	173.0	10.436	160.6	11.106	169.2	11.359	144.1	10.979	150.7	10.511	179.0	10.436	153.8	11.240	161.9	10.712	11
12	137.7	11.528	83.1	10.530	151.1	11.161	116.6	12.047	113.0	12.204	100.4	11.692	123.7	11.289	151.1	11.161	113.3	12.171	126.3	11.551	12
13	110.3	12.870	58.1	11.299	99.9	11.748	78.2	13.366	81.7	13.258	83.7	12.988	94.8	12.396	99.9	11.748	79.7	13.502	88.7	12.643	13
14	121.6	14.510	41.8	13.098	78.9	13.405	69.8	14.385	83.6	14.809	43.2	13.505	96.3	14.316	78.9	13.405	76.7	14.598	83.1	14.121	14
15	83.6	13.021	33.3	11.880	58.2	12.240	43.3	14.237	68.0	14.815	39.4	13.703	67.8	13.508	58.2	12.240	45.8	14.582	56.0	13.336	15
16	41.1	12.760	20.9	10.918	36.0	11.539	16.8	13.516	19.9	15.955	14.7	13.029	34.8	12.397	36.0	11.539	18.5	14.943	27.9	12.578	16
17	5.7	14.063	1.7	13.237	3.5	12.781	7.1	11.678	5.9	11.658	6.6	10.141	4.4	13.961	3.5	12.781	6.4	11.623	6.0	11.963	17
18	1.3	17.677	0.3	17.677	0.3	17.677	0.0	0.000	0.0	0.000	0.0	0.000	1.0	17.677	0.3	17.677	0.0	0.000	0.3	17.677	18
19	4.5	15.935	1.1	15.642	1.9	15.129	0.0	0.000	0.0	0.000	0.0	0.000	3.5	15.904	1.9	15.129	0.0	0.000	1.6	15.672	19
20	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	20
21	0.0	0.000	0.0	0.000	0.0	0.000	0.3	20.450	1.2	20.450	0.0	0.000	0.0	0.000	0.0	0.300	0.3	20.450	0.2	20.450	21
TOTAL	1000		1000		1000		1000		1000		1000		1000		1000		1000		1000		
No FISH AGED													442		156		536		1134		

LENGTH/WEIGHT RELATIONSHIP: log w = -5.2106+3.0849log l (Hodder,1964)

TABLE XVI-A : REDFISH (males), DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the trawl catches.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JULY		AUGUST		SEPTEMBER		1st QUARTER		2nd QUARTER		3rd QUARTER		TOTAL 1990		
AGE	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE
4	38.8	0.122	40.6	0.105	1.5	0.120	1.4	0.121	0.0	0.000	49.7	0.108	44.5	0.111	4.0	0.122	16.9	0.111	1.0	0.121	27.3	0.112	15.4	0.112	4
5	22.3	0.154	8.8	0.159	3.0	0.156	1.3	0.153	1.3	0.170	6.3	0.154	5.8	0.151	5.0	0.157	6.6	0.156	1.3	0.157	5.5	0.154	4.3	0.155	5
6	11.2	0.173	8.9	0.177	2.5	0.179	2.3	0.207	6.1	0.195	3.6	0.175	1.3	0.182	4.9	0.180	5.3	0.176	3.3	0.202	3.4	0.180	3.8	0.185	6
7	23.0	0.218	25.7	0.215	11.4	0.226	28.7	0.226	56.5	0.222	14.6	0.222	7.4	0.223	17.9	0.209	16.8	0.220	36.1	0.224	12.9	0.214	22.0	0.221	7
8	120.2	0.266	97.0	0.257	82.3	0.271	147.7	0.258	245.0	0.254	90.6	0.277	60.4	0.283	63.9	0.272	90.8	0.266	173.7	0.256	67.8	0.277	110.7	0.265	8
9	134.0	0.303	96.2	0.304	102.7	0.312	127.2	0.289	185.0	0.279	123.7	0.312	107.7	0.330	112.0	0.338	104.5	0.308	142.7	0.286	112.7	0.330	121.0	0.306	9
10	101.1	0.339	76.7	0.352	88.2	0.356	79.2	0.337	92.4	0.314	103.4	0.343	109.4	0.360	120.8	0.364	86.4	0.352	82.7	0.330	113.4	0.355	95.7	0.349	10
11	47.8	0.372	44.3	0.401	56.4	0.401	42.7	0.387	36.4	0.355	49.5	0.378	60.5	0.398	65.7	0.398	50.8	0.398	41.0	0.380	60.7	0.395	51.3	0.391	11
12	25.7	0.430	41.0	0.459	49.0	0.463	34.6	0.451	22.1	0.415	37.3	0.447	51.5	0.455	48.5	0.449	44.3	0.460	31.3	0.444	47.5	0.451	41.0	0.452	12
13	10.7	0.537	27.3	0.532	32.9	0.539	20.8	0.535	13.7	0.554	18.8	0.520	26.3	0.518	21.9	0.521	29.8	0.537	18.9	0.538	22.9	0.520	23.1	0.531	13
14	8.4	0.580	18.1	0.575	25.2	0.585	14.8	0.580	13.4	0.617	10.6	0.559	14.9	0.552	13.5	0.553	21.3	0.582	14.4	0.589	13.4	0.554	15.8	0.575	14
15	13.1	0.565	26.8	0.578	36.0	0.582	21.7	0.578	18.8	0.605	14.4	0.563	20.2	0.556	19.2	0.553	30.8	0.580	20.9	0.584	18.6	0.555	22.6	0.573	15
16	28.9	0.668	61.4	0.681	85.3	0.675	53.6	0.686	94.5	0.780	38.9	0.674	33.2	0.640	28.5	0.604	72.0	0.676	64.6	0.722	30.6	0.631	53.2	0.665	16
TOTAL	504.5		573.1		574.4		576.0		785.2		550.3		543.1		525.8		575.2		631.8		536.7		579.9		
No FISH AGED																							528		

LENGTH/WEIGHT RELATIONSHIP: $w = 0.024734\ l^{2.8376}$ (Vázquez, 1990)

TABLE XVI-B : REDFISH (females), DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the trawl catches.

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JULY		AUGUST		SEPTEMBER		1st QUARTER		2nd QUARTER		3rd QUARTER		TOTAL 1990		
AGE	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE
4	17.0	0.108	45.6	0.098	0.3	0.113	0.0	0.000	0.0	0.000	1.6	0.098	0.3	0.113	27.2	0.081	15.0	0.099	0.0	0.000	12.6	0.081	8.8	0.085	4
5	26.4	0.137	12.7	0.136	0.2	0.164	0.4	0.152	0.3	0.163	1.2	0.132	1.2	0.130	5.9	0.142	6.8	0.137	0.4	0.154	3.3	0.141	3.2	0.139	5
6	16.9	0.154	6.7	0.150	0.6	0.172	0.9	0.175	0.8	0.168	0.6	0.163	0.9	0.157	6.9	0.161	4.2	0.157	0.8	0.173	3.5	0.161	2.8	0.161	6
7	29.6	0.200	26.0	0.210	11.5	0.232	22.8	0.232	13.6	0.229	7.9	0.234	6.6	0.230	29.5	0.205	17.7	0.216	20.3	0.232	17.1	0.211	18.6	0.220	7
8	50.2	0.266	53.2	0.252	47.1	0.283	70.3	0.263	41.8	0.268	63.0	0.290	35.6	0.301	57.8	0.268	49.1	0.271	62.7	0.264	47.0	0.282	53.0	0.272	8
9	92.2	0.316	69.3	0.298	96.3	0.316	106.8	0.295	65.3	0.296	92.8	0.324	84.3	0.336	91.0	0.324	88.2	0.312	95.7	0.295	88.9	0.328	91.1	0.312	9
10	51.4	0.359	30.5	0.333	51.1	0.352	43.5	0.328	26.8	0.328	58.1	0.357	63.8	0.375	65.6	0.372	45.3	0.349	39.0	0.328	63.2	0.370	50.1	0.354	10
11	42.1	0.385	22.5	0.365	41.4	0.384	30.5	0.352	18.4	0.350	48.2	0.378	58.9	0.402	53.3	0.401	36.2	0.381	27.2	0.353	49.9	0.397	38.4	0.382	11
12	25.8	0.457	16.0	0.475	32.1	0.473	21.2	0.473	10.3	0.453	22.8	0.471	35.8	0.476	35.1	0.466	26.8	0.471	18.3	0.470	33.0	0.471	26.3	0.471	12
13	18.0	0.488	13.9	0.535	24.1	0.513	17.5	0.523	7.3	0.497	20.1	0.533	30.8	0.514	25.9	0.491	20.5	0.515	14.8	0.520	26.5	0.507	20.9	0.512	13
14	18.4	0.553	18.8	0.577	30.3	0.564	23.8	0.567	9.6	0.548	31.2	0.587	38.5	0.568	24.5	0.549	26.0	0.566	19.9	0.565	30.8	0.565	25.7	0.565	14
15	8.6	0.615	15.0	0.643	17.9	0.626	15.6	0.633	3.6	0.606	24.4	0.639	24.3	0.632	12.5	0.626	16.0	0.630	12.4	0.631	19.0	0.632	15.9	0.631	15
16	18.2	0.717	85.9	0.705	72.6	0.756	71.0	0.775	17.1	0.835	105.7	0.830	84.8	0.766	19.2	0.739	73.1	0.765	56.6	0.760	68.3	0.777	65.4	0.775	16
TOTAL	415.5		426.9		425.6		424.0		216.8		449.7		456.9		474.2		424.8		360.2		463.3		420.1		
No FISH AGED																							574		

LENGTH/WEIGHT RELATIONSHIP: $w = 0.024734\ l^{2.8376}$ (Vázquez, 1990)

TABLE XVII-A : AMERICAN PLAICE (males), DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the trawl catches.

AGE	NOVEMBER AGE COMP.	NOVEMBER MEAN WEIGTH	DECEMBER AGE COMP.	DECEMBER MEAN WEIGTH	4th QUARTER AGE COMP.	4th QUARTER MEAN WEIGTH	AGE
2	0.0	0.000	7.7	0.028	4.5	0.028	2
3	5.6	0.063	61.4	0.047	38.4	0.047	3
4	42.7	0.170	54.5	0.116	49.7	0.134	4
5	93.0	0.274	53.0	0.241	69.5	0.259	5
6	87.8	0.460	73.5	0.526	79.4	0.495	6
7	104.6	0.562	90.5	0.615	96.3	0.590	7
8	54.9	0.643	52.1	0.662	53.3	0.654	8
9	53.0	0.903	50.5	0.815	51.5	0.852	9
10	36.9	1.106	23.0	1.010	28.7	1.060	10
11	15.0	1.109	11.0	1.044	12.6	1.075	11
12	0.0	0.000	0.0	0.000	0.0	0.000	12
13	21.3	1.411	9.6	1.290	14.4	1.363	13
14	23.0	1.467	11.5	1.578	16.3	1.512	14
15	9.1	1.785	5.1	1.817	6.8	1.799	15
16	3.6	1.660	1.3	1.660	2.3	1.660	16
17	13.1	1.872	2.3	1.872	6.8	1.872	17
18	2.7	2.350	1.9	2.350	2.3	2.350	18
19	0.0	0.000	0.0	0.000	0.0	0.000	19
20	1.8	2.101	2.6	2.101	2.3	2.101	20
TOTAL	568.3		511.5		535.0		

No FISH AGED 200

LENGTH/WEIGHT RELATIONSHIP: $w = 0.004265\ l^{3.242027}$ (Vázquez,1990)

TABLE XVII-B ; AMERICAN PLAICE (females), DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the trawl catches.

AGE	NOVEMBER AGE COMP.	NOVEMBER MEAN WEIGTH	DECEMBER AGE COMP.	DECEMBER MEAN WEIGTH	4th QUARTER AGE COMP.	4th QUARTER MEAN WEIGTH	AGE
2	0.0	0.000	7.7	0.028	4.5	0.028	2
3	0.0	0.000	20.9	0.069	12.3	0.069	3
4	16.6	0.216	28.3	0.140	23.4	0.160	4
5	78.3	0.261	43.3	0.241	57.8	0.252	5
6	19.8	0.368	13.0	0.484	15.8	0.421	6
7	43.9	0.546	49.4	0.596	47.1	0.576	7
8	32.7	0.802	55.2	0.798	45.9	0.799	8
9	32.7	0.833	47.0	0.839	41.1	0.837	9
10	22.5	0.924	42.2	0.944	34.0	0.939	10
11	40.2	1.255	46.9	1.251	44.2	1.252	11
12	27.1	1.503	30.4	1.572	29.1	1.545	12
13	10.8	1.604	10.8	1.673	10.8	1.644	13
14	24.3	2.057	17.3	1.665	20.2	1.853	14
15	17.0	2.087	17.5	2.054	17.3	2.068	15
16	0.0	0.000	0.0	0.000	0.0	0.000	16
17	15.0	2.037	20.2	1.913	18.1	1.955	17
18	13.3	2.469	19.7	2.230	16.5	2.308	18
19	6.7	2.167	6.8	2.192	6.8	2.182	19
20	18.2	3.413	5.1	2.760	10.5	3.217	20
21	0.0	0.000	0.0	0.000	0.0	0.000	21
22	0.0	0.000	0.0	0.000	0.0	0.000	22
23	5.5	3.217	1.3	3.217	3.0	3.217	23
24	0.0	0.000	0.0	0.000	0.0	0.000	24
25+	7.3	3.464	6.4	3.831	6.8	3.665	25+
TOTAL	431.7		488.5		465.0		

No FISH AGED 175

LENGTH/WEIGHT RELATIONSHIP: $w = 0.004265\ l^{3.242027}$ (Vázquez,1990)

TABLE XVII-C : AMERICAN PLAICE (males), DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the gillnet catches.

	MAY		JUNE		JULY		OCTOBER		NOVEMBER		DECEMBER		2nd QUARTER		3rd QUARTER		4th QUARTER		TOTAL 1990		
AGE	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE
4	0.0	0.000	0.0	0.000	3.1	0.111	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	3.1	0.111	0.0	0.000	1.0	0.111	4
5	8.4	0.224	1.8	0.351	13.0	0.204	22.2	0.365	12.5	0.424	0.3	0.814	4.2	0.268	13.0	0.204	16.6	0.391	10.1	0.300	5
6	59.7	0.438	49.2	0.447	62.5	0.454	73.6	0.511	83.5	0.515	93.8	0.644	54.7	0.442	62.5	0.454	78.5	0.517	68.0	0.485	6
7	100.2	0.489	80.0	0.498	106.5	0.515	84.4	0.562	96.9	0.547	112.1	0.658	90.5	0.493	106.5	0.515	90.7	0.556	95.3	0.527	7
8	78.0	0.572	68.8	0.544	97.4	0.595	75.1	0.704	73.1	0.697	122.0	0.714	73.5	0.559	97.4	0.595	75.1	0.701	79.5	0.614	8
9	58.8	0.711	40.5	0.636	80.6	0.736	58.8	0.875	83.0	0.932	150.7	0.921	48.9	0.706	80.6	0.736	63.8	0.906	58.7	0.785	9
10	30.1	0.795	25.7	0.820	62.3	0.845	38.3	0.850	47.6	0.977	76.3	0.934	32.7	0.804	62.3	0.845	44.2	0.965	48.5	0.871	10
11	14.3	0.914	8.7	0.879	31.5	1.061	7.5	1.095	7.9	1.138	0.0	0.000	11.6	0.902	31.5	1.061	7.5	1.119	16.0	1.046	11
12	6.7	0.856	4.0	0.907	14.2	0.987	13.2	1.140	23.9	1.246	26.7	1.030	5.0	0.874	14.2	0.987	19.3	1.208	11.5	1.089	12
13	0.4	1.606	2.4	1.085	15.0	1.505	0.0	0.000	0.0	0.000	0.0	0.000	5.5	1.480	15.0	1.505	0.0	0.000	5.0	1.562	13
14	1.0	2.350	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.5	2.350	0.0	0.000	0.0	0.000	0.3	2.350	14
15	2.0	2.907	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1.1	2.907	0.0	0.000	0.0	0.000	0.5	2.907	15
16	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	16
17	4.0	3.217	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	2.1	3.217	0.0	0.000	0.0	0.000	1.0	3.217	17
TOTAL	378.5		281.9		486.1		372.9		486.4		800.0		332.3		486.1		396.6		395.0		
No FISH AGED													200				159		359		

LENGTH/WEIGHT RELATIONSHIP: $w = 0.004265\ l^{3.242027}$ (Vázquez, 1990)

TABLE XVII-D : AMERICAN PLAICE(females), DIVISION 3N, 1990: age composition (%) and mean weight (Kg) at age in the gillnet catches.

	MAY		JUNE		JULY		OCTOBER		NOVEMBER		DECEMBER		2nd QUARTER		3rd QUARTER		4th QUARTER		TOTAL 1990		
AGE	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE COMP.	MEAN WEIGTH	AGE
5	0.0	0.000	0.0	0.000	3.1	0.235	33.0	0.330	27.6	0.393	0.0	0.000	0.0	0.000	3.1	0.235	29.8	0.361	12.5	0.350	5
6	16.8	0.479	9.6	0.520	20.8	0.418	88.7	0.557	101.5	0.550	18.5	0.843	13.3	0.483	20.8	0.418	97.2	0.553	46.2	0.532	6
7	67.8	0.498	28.6	0.545	83.3	0.437	112.7	0.611	100.4	0.613	43.1	0.881	49.6	0.505	83.3	0.437	104.3	0.614	68.2	0.563	7
8	108.9	0.688	83.8	0.725	82.2	0.652	81.1	0.710	79.2	0.736	50.5	0.840	87.2	0.701	82.2	0.652	79.5	0.731	78.5	0.705	8
9	140.2	0.834	94.5	0.872	89.4	0.793	60.8	0.914	62.8	0.930	53.3	0.835	118.3	0.848	89.4	0.793	66.1	0.927	90.9	0.859	9
10	86.2	0.954	67.4	1.005	53.1	0.926	26.7	1.172	24.6	1.153	23.8	1.331	77.2	0.975	53.1	0.926	25.5	1.165	49.5	1.007	10
11	31.1	1.191	33.2	1.291	19.7	1.102	40.8	1.162	36.3	1.138	23.8	0.914	32.1	1.240	19.7	1.102	37.9	1.145	32.2	1.193	11
12	21.2	1.627	33.5	1.967	18.6	1.862	23.8	2.118	18.8	2.048	12.5	1.872	27.1	1.823	18.6	1.862	28.5	2.075	23.4	1.929	12
13	42.4	1.787	72.3	2.036	34.9	1.895	39.7	1.658	38.1	1.826	37.5	1.872	56.7	1.936	34.9	1.895	37.7	1.646	44.9	1.823	13
14	19.8	2.043	38.8	2.154	18.5	2.097	15.8	1.807	14.2	1.699	12.5	1.872	29.4	2.118	18.5	2.097	15.1	1.745	21.7	2.007	14
15	27.1	2.289	50.3	2.448	27.2	2.331	28.7	2.511	25.2	2.494	50.0	3.549	42.5	2.393	27.2	2.331	27.3	2.544	34.9	2.435	15
16	18.7	2.336	52.5	2.698	18.8	2.426	23.7	2.377	18.5	2.398	25.0	1.872	34.9	2.594	18.8	2.426	21.5	2.372	27.6	2.511	16
17	23.0	2.570	68.7	2.761	27.9	2.567	13.5	2.487	27.1	2.865	50.0	3.549	44.8	2.709	27.9	2.567	21.7	2.664	34.5	2.723	17
18	7.4	2.827	28.9	2.937	10.5	2.762	12.8	2.789	8.8	2.692	0.0	0.000	18.7	2.911	10.5	2.762	9.5	2.745	14.2	2.898	18
19	1.5	2.818	19.8	3.181	6.2	2.688	3.4	2.987	5.5	3.164	0.0	0.000	10.3	3.135	6.2	2.688	4.4	3.076	8.8	3.011	19
20	5.7	3.378	14.8	3.268	6.1	3.148	6.8	2.907	8.4	4.118	0.0	0.000	10.1	3.289	6.1	3.148	6.4	3.523	8.5	3.292	20
21	2.8	3.217	15.7	3.616	2.1	3.335	0.0	0.000	0.0	0.000	0.0	0.000	8.6	3.565	2.1	3.335	0.8	0.000	3.8	3.522	21
22	0.0	0.000	2.2	5.572	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1.1	5.572	0.0	0.000	0.0	0.000	0.5	5.572	22
23	1.3	3.569	14.8	3.770	1.7	3.629	0.0	0.000	0.0	0.000	0.0	0.000	7.6	3.756	1.7	3.629	0.8	0.000	3.4	3.722	23
TOTAL	621.5		718.1		513.9		621.1		593.6		488.8		667.7		513.8		603.6		605.8		
No FISH AGED													355				231		586		

LENGTH/WEIGHT RELATIONSHIP: $w = 0.004265\ l^{3.242027}$ (Vázquez, 1990)

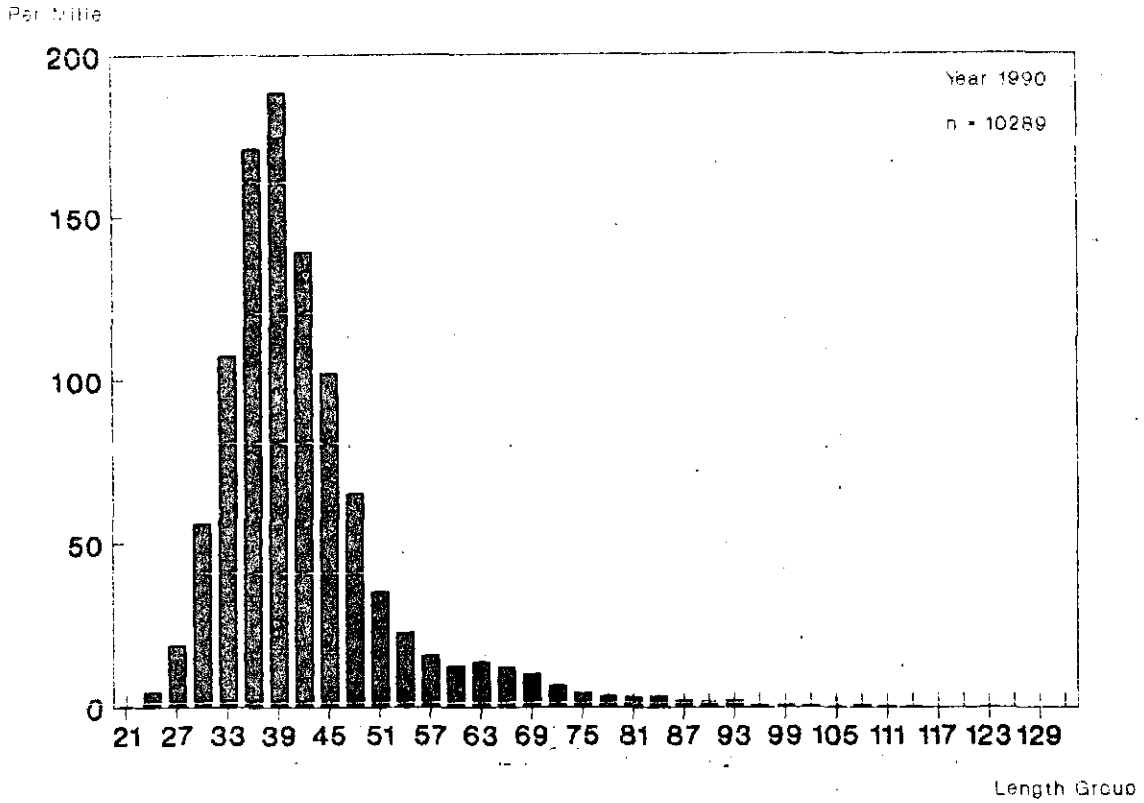

Fig. 1 - Annual length composition of Cod in Division 3L, trawl fishery in 1990.

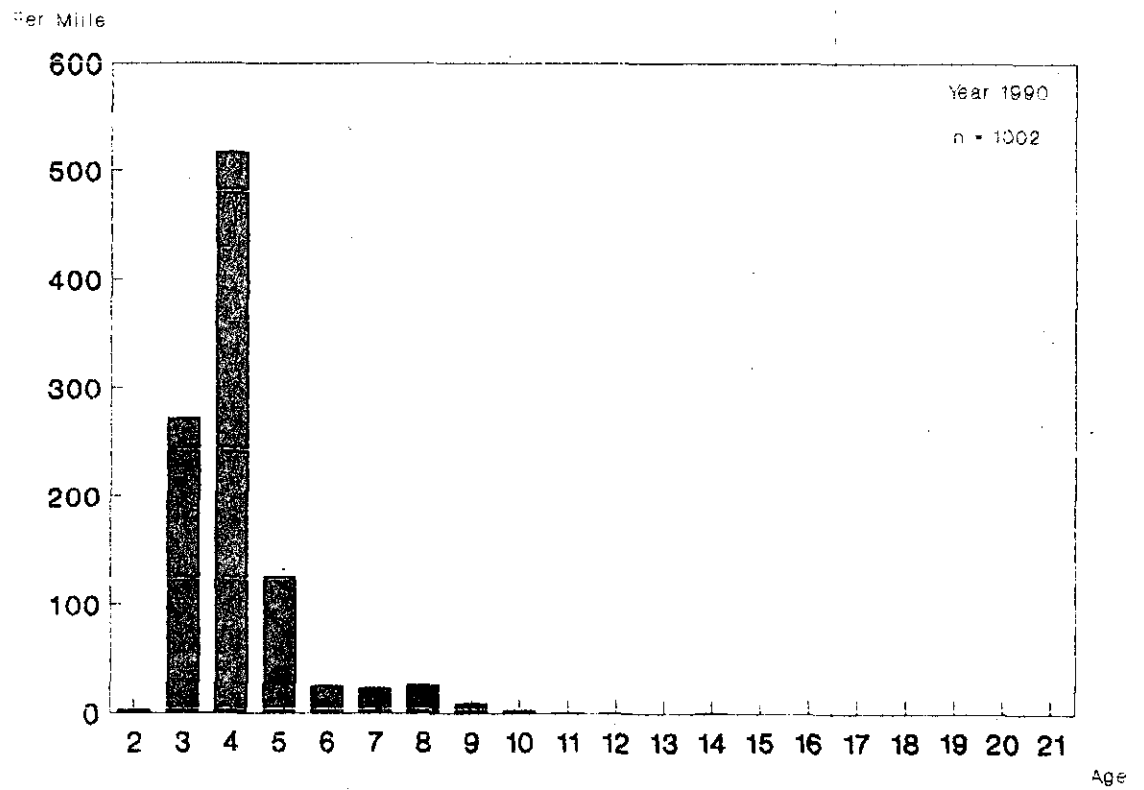

Fig. 2 - Annual age composition of Cod in Division 3L, trawl fishery in 1990.

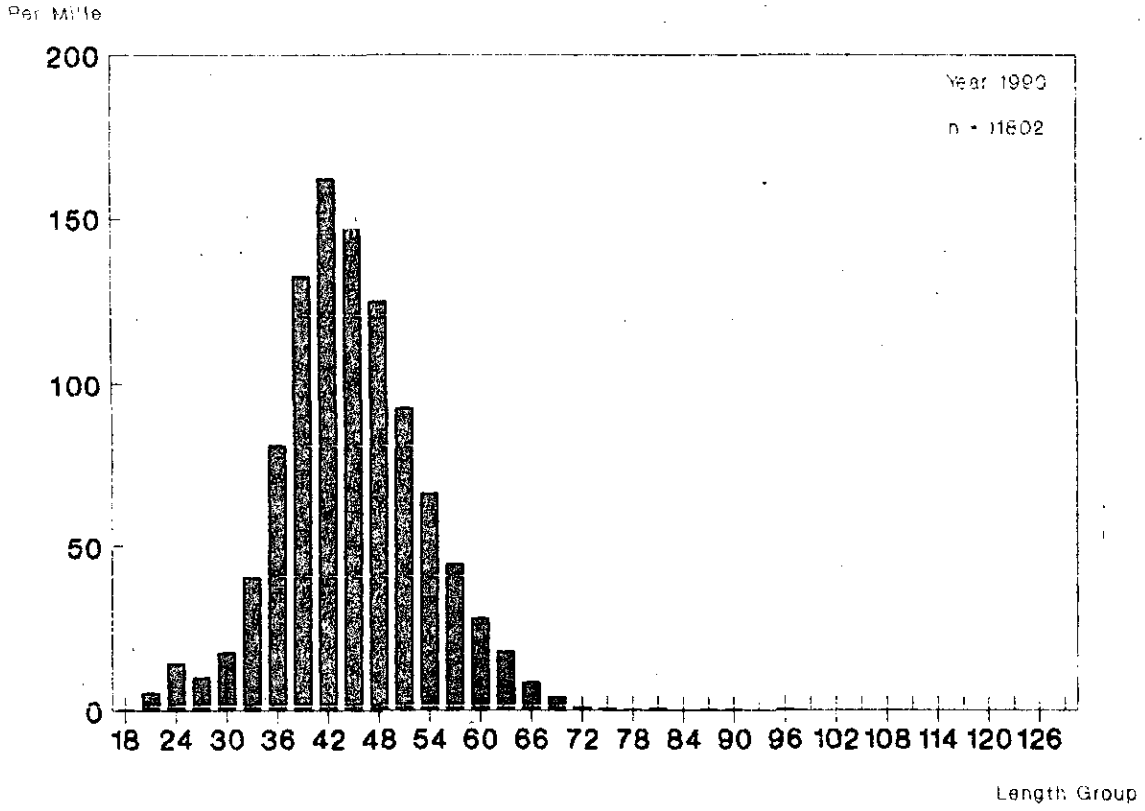

Fig. 3 - Annual length composition of Cod in Division 3M, trawl fishery in 1990.

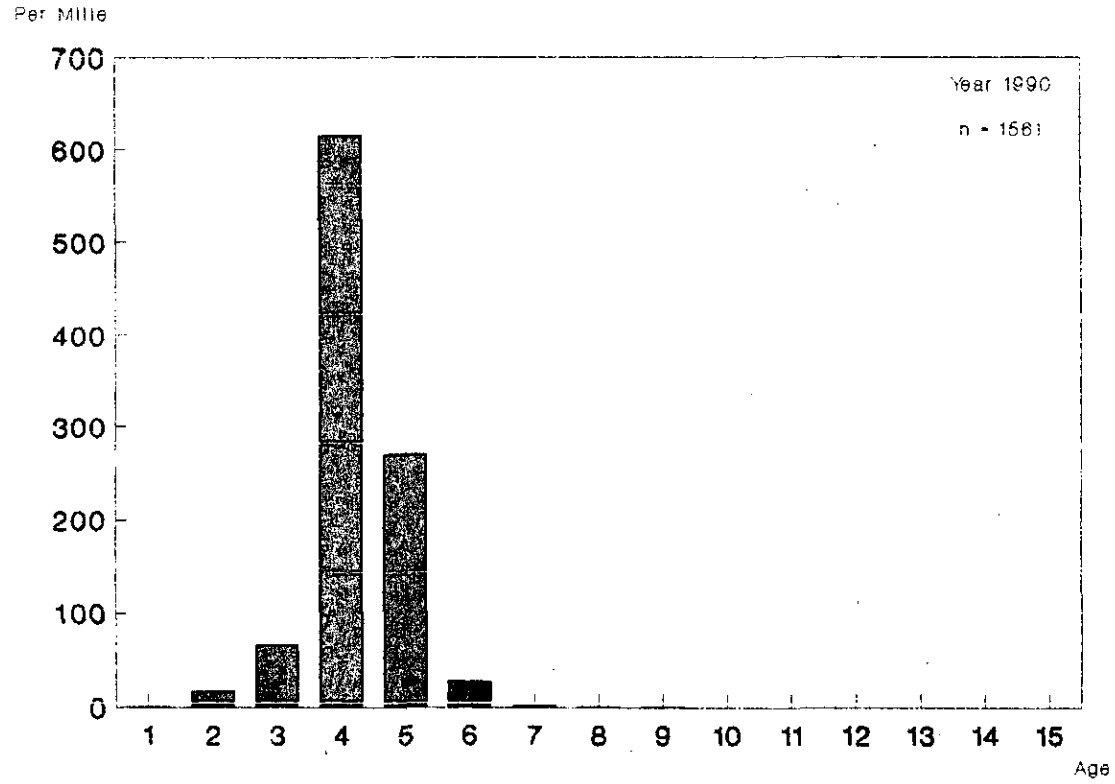

Fig. 4 - Annual age composition of Cod in Division 3M, trawl fishery in 1990.

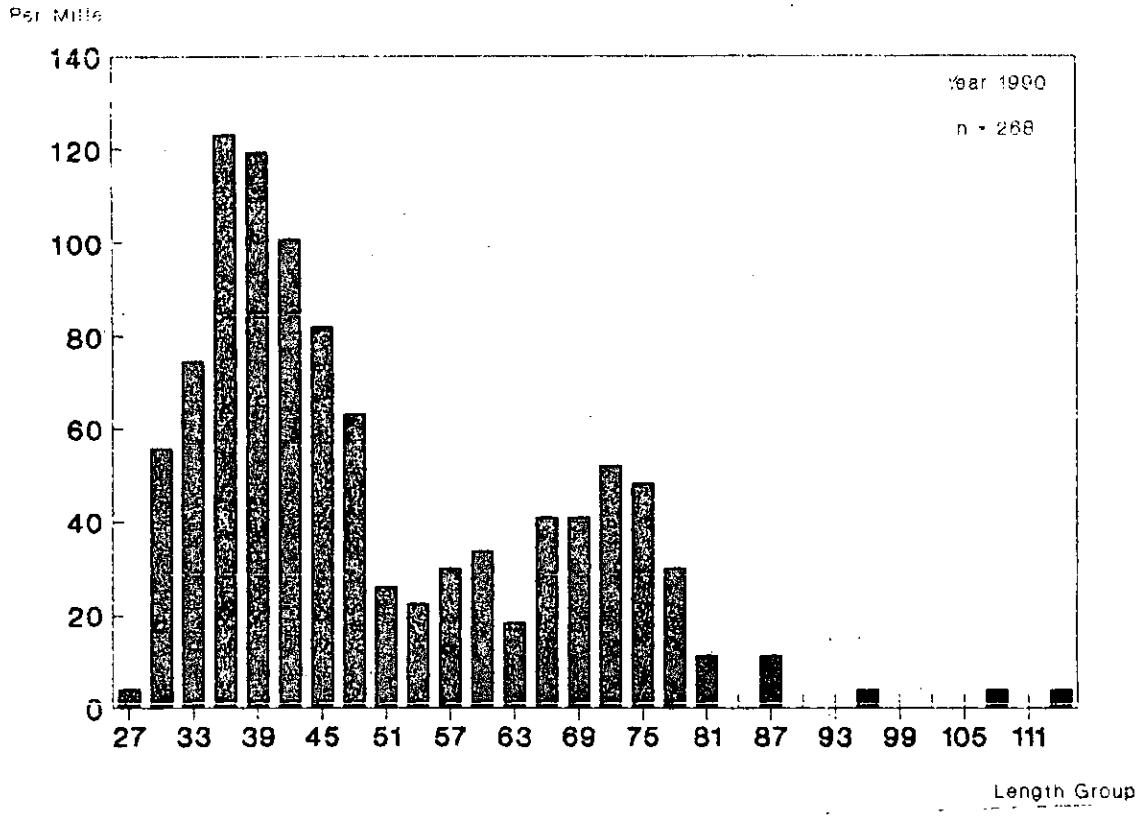

Fig. 5 - Annual length composition of Cod in Division 3N, trawl fishery in 1990.

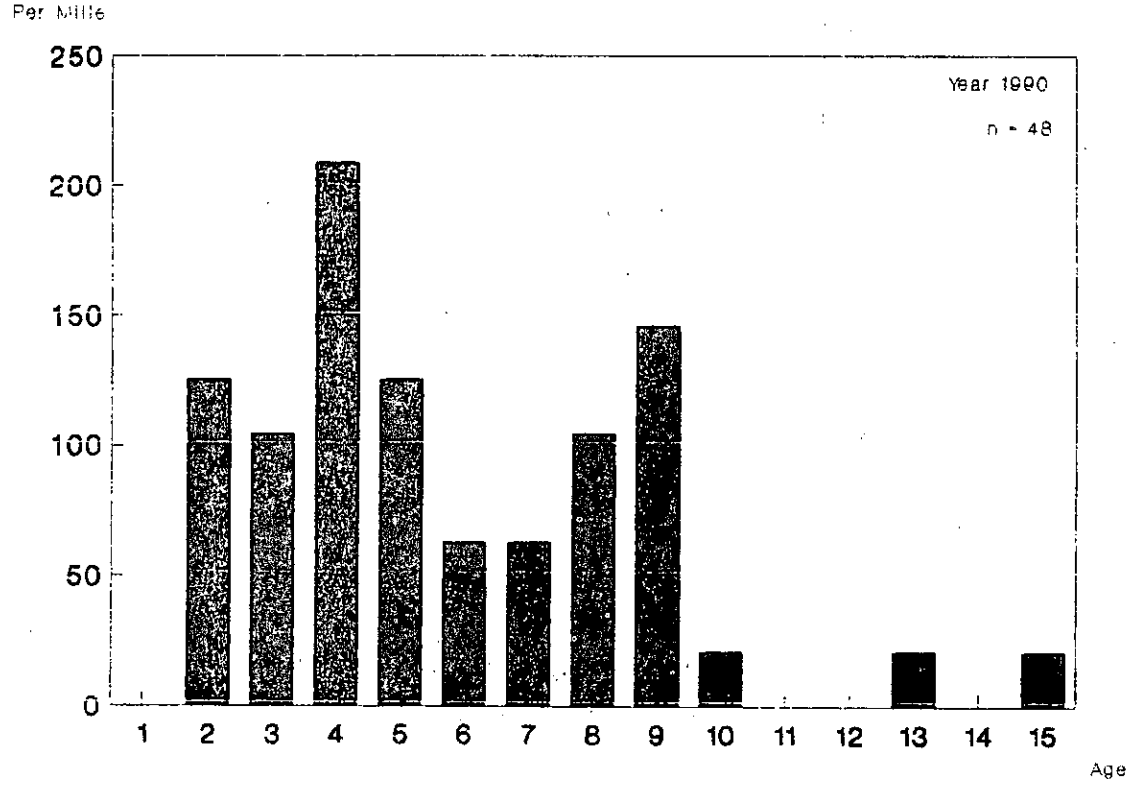

Fig. 6 - Annual age composition of Cod in Division 3N, trawl fishery in 1990.

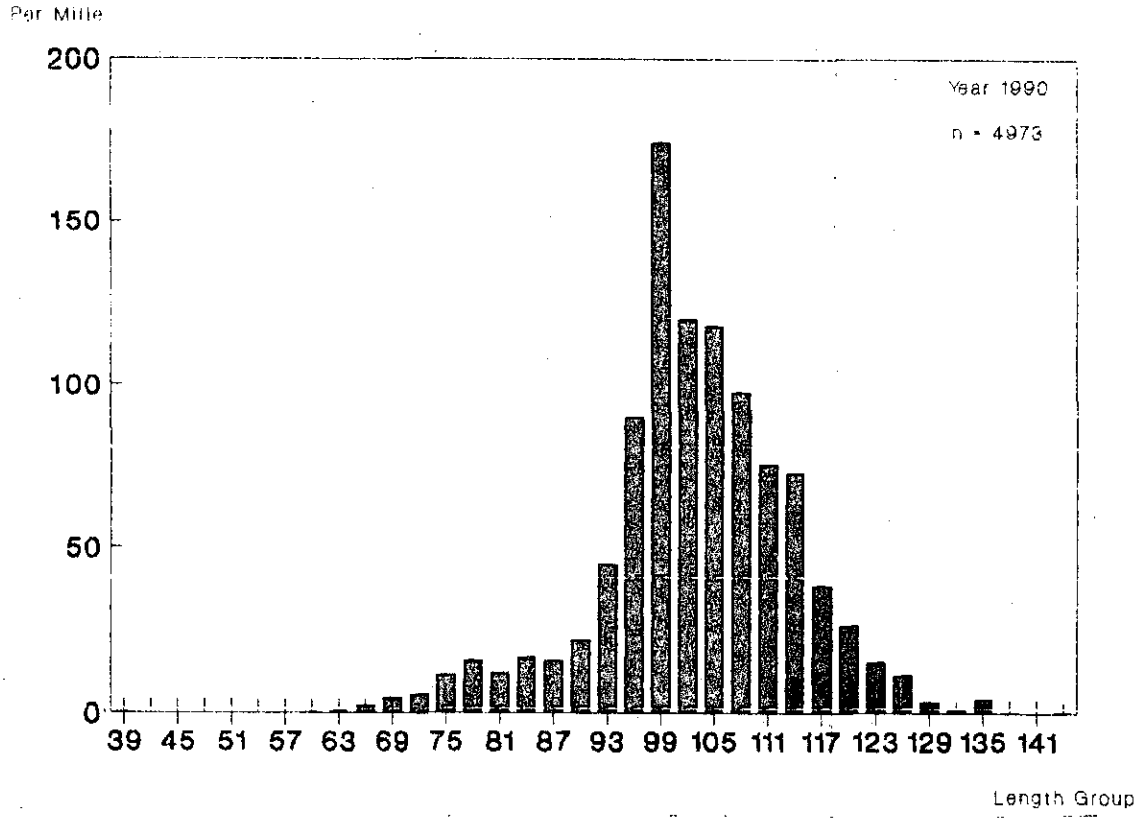

Fig. 7 - Annual length composition of Cod in Division 3N, gillnets fishery in 1990.

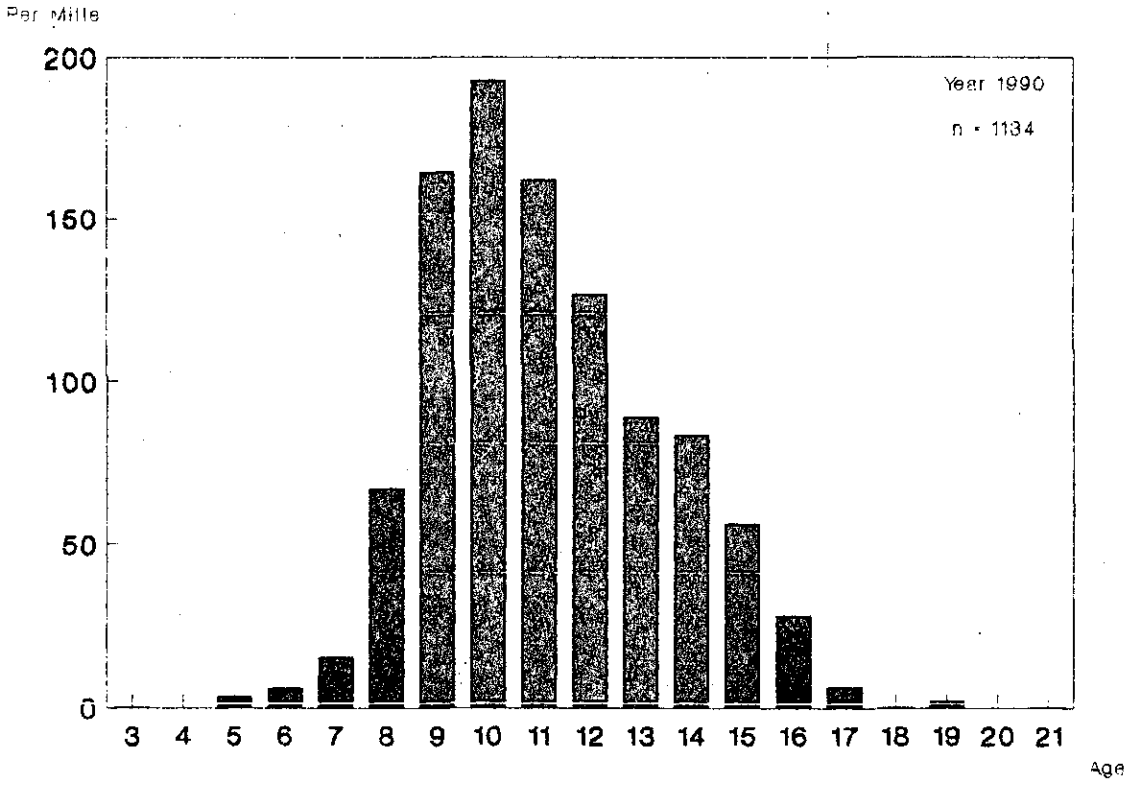

Fig. 8 - Annual age composition of Cod in Division 3N, gillnets fishery, in 1990.

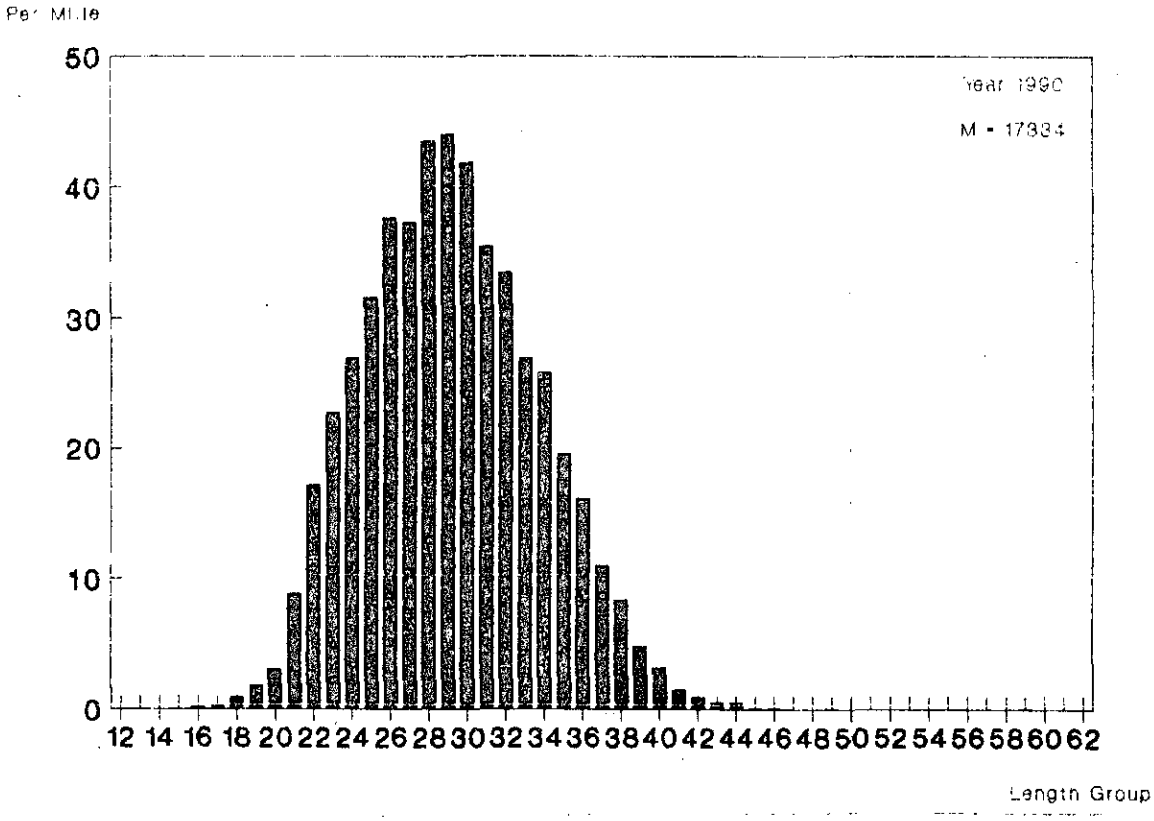

Fig. 9 - Annual length composition of Redfish, S. mentella (male) in Division 3L, trawl fishery in 1990.

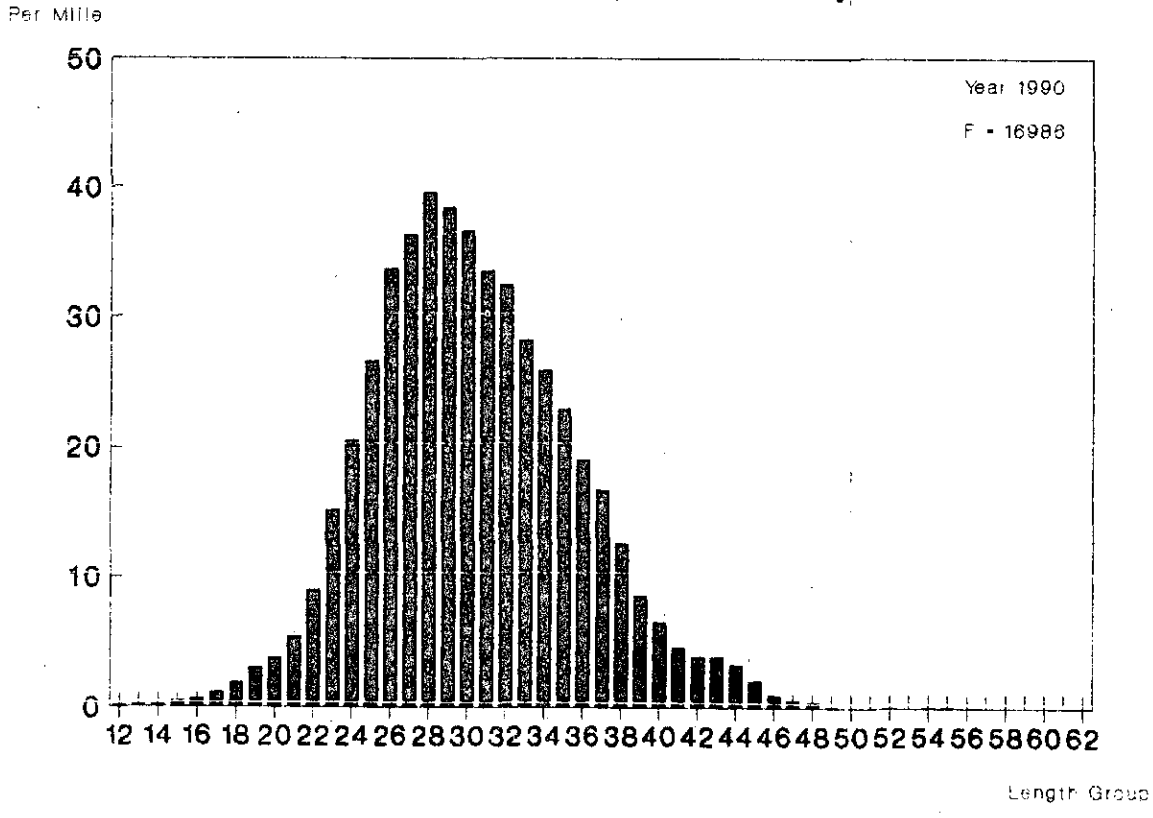

Fig.10 - Annual length composition of Redfish, S. mentella (female) in Division 3L, trawl fishery in 1990.

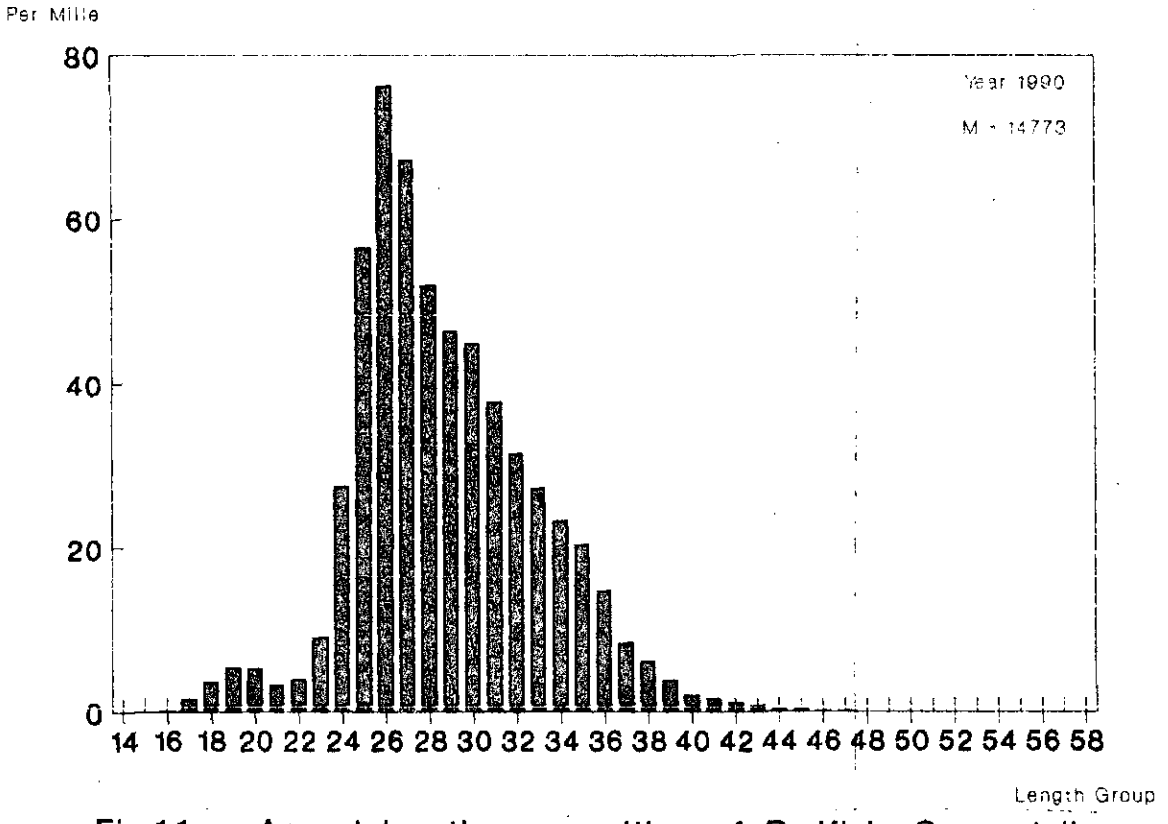

Fig.11 - Annual length composition of Redfish, S. mentella (male) in Division 3M, trawl fishery in 1990.

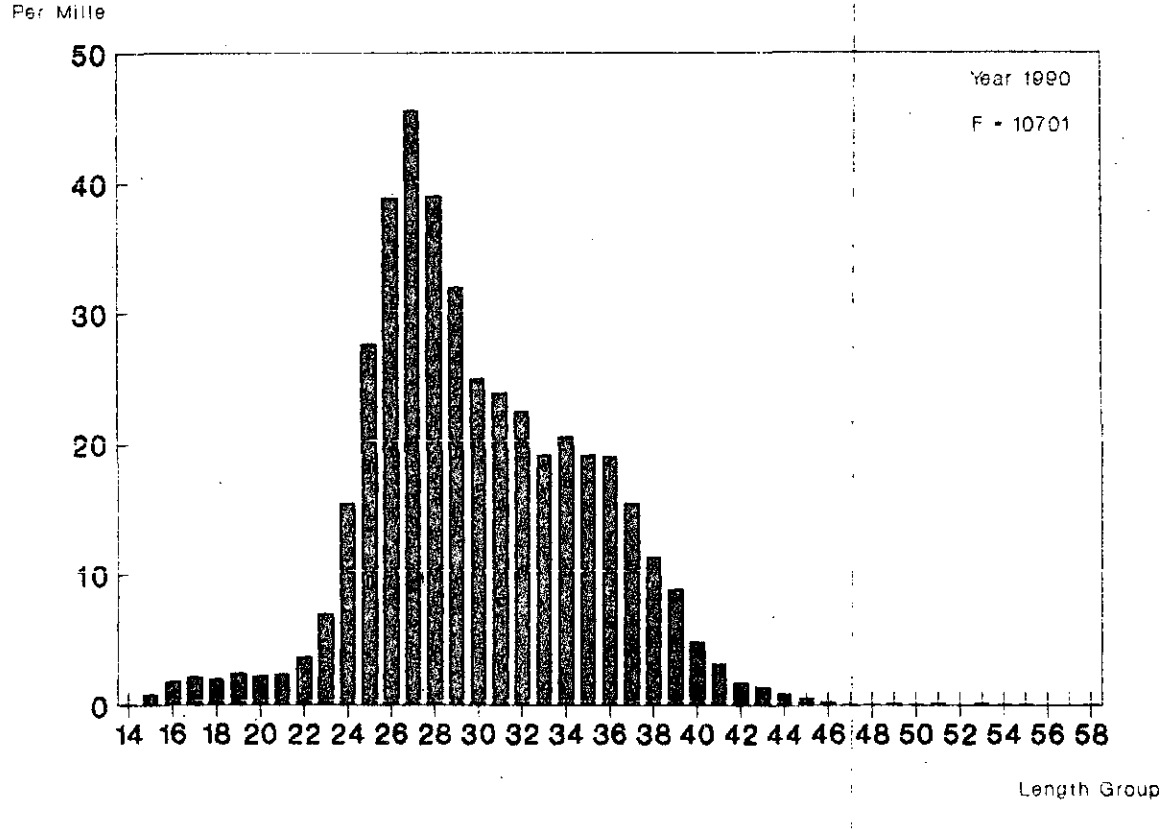

Fig.12 - Annual length composition of Redfish, S. mentella (female) in Division 3M, trawl fishery in 1990.

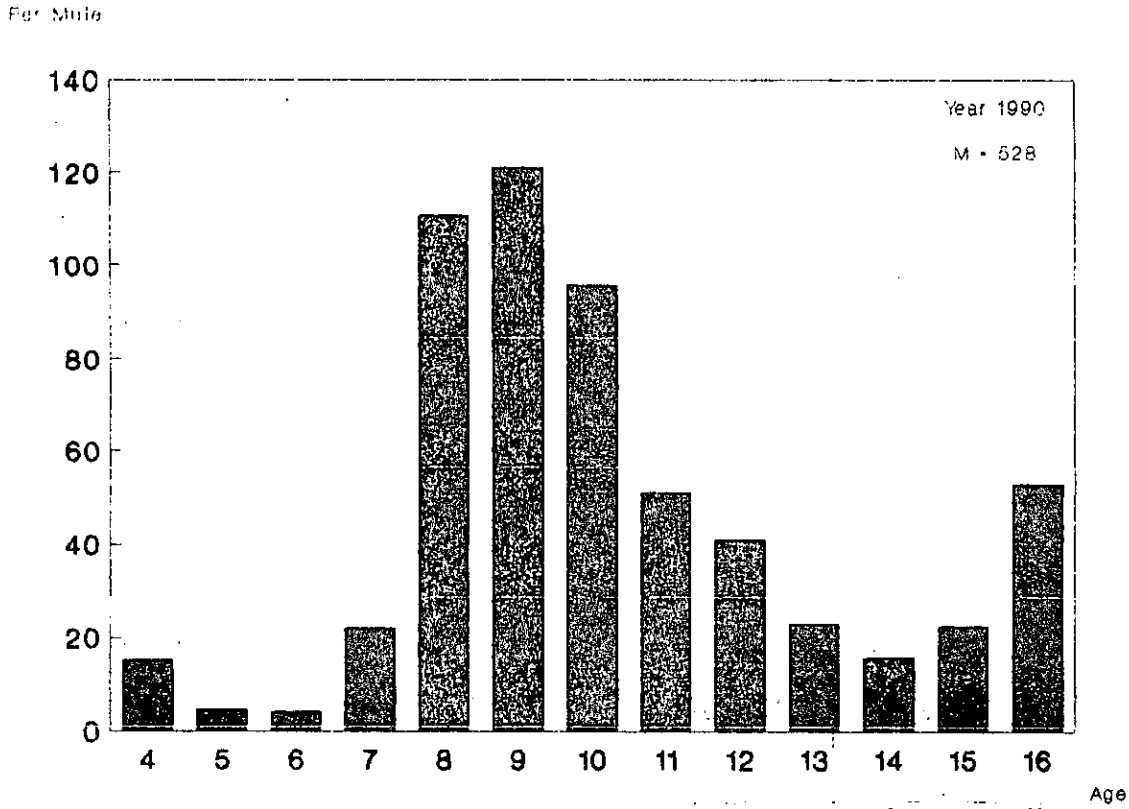

Fig.13 - Annual age composition of Redfish, S. mentella (male) in Division 3M, trawl fishery in 1990.

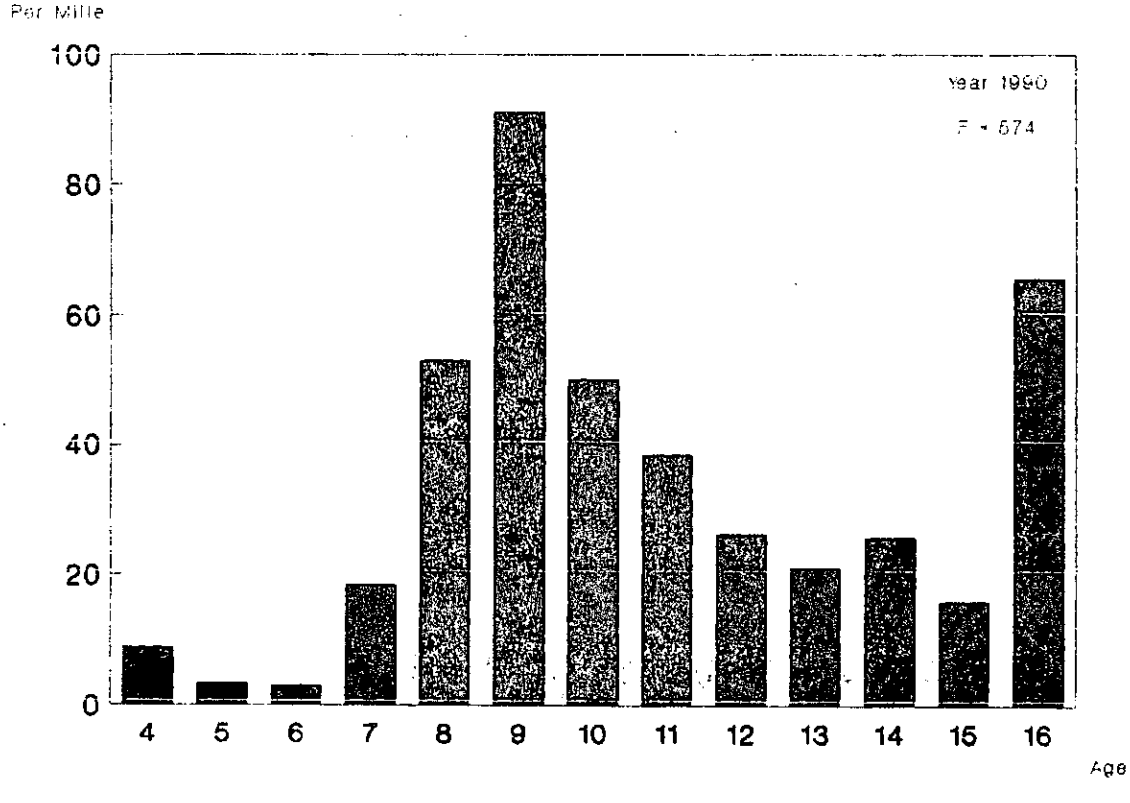

Fig.14 - Annual age composition of Redfish, S. mentella (female) in Division 3M, trawl fishery in 1990.

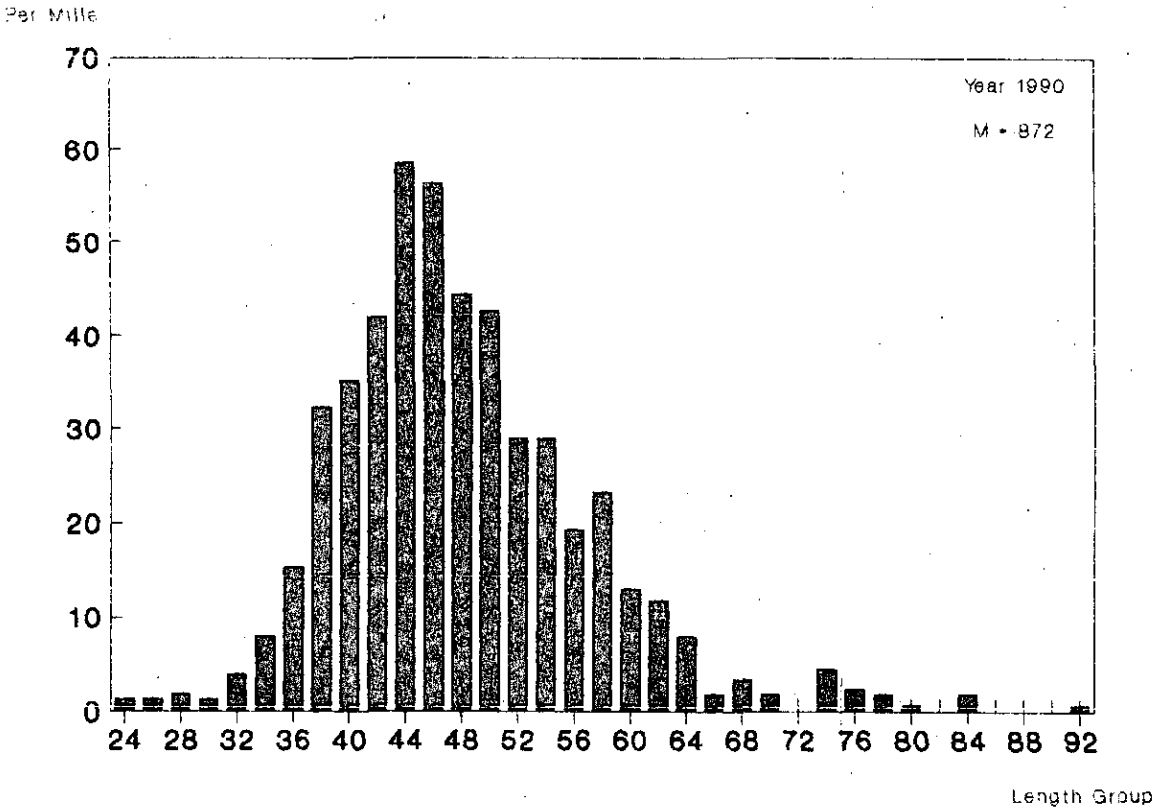

Fig.15 - Length composition of Greenland halibut, (male) in Division 3L for 3rd and 4th quarters, trawl fishery in 1990.

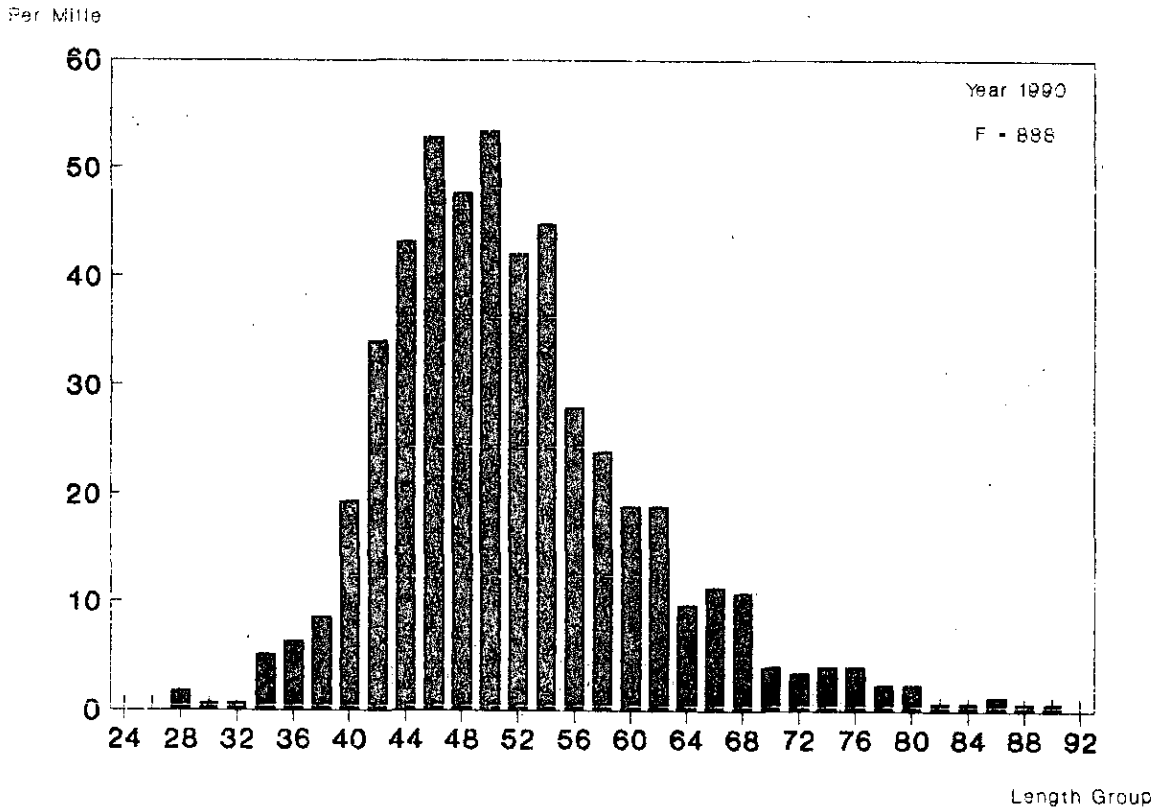

Fig.16 - Length composition of Greenland halibut, (female) in Division 3L for 3rd and 4th quarter, trawl fishery in 1990.

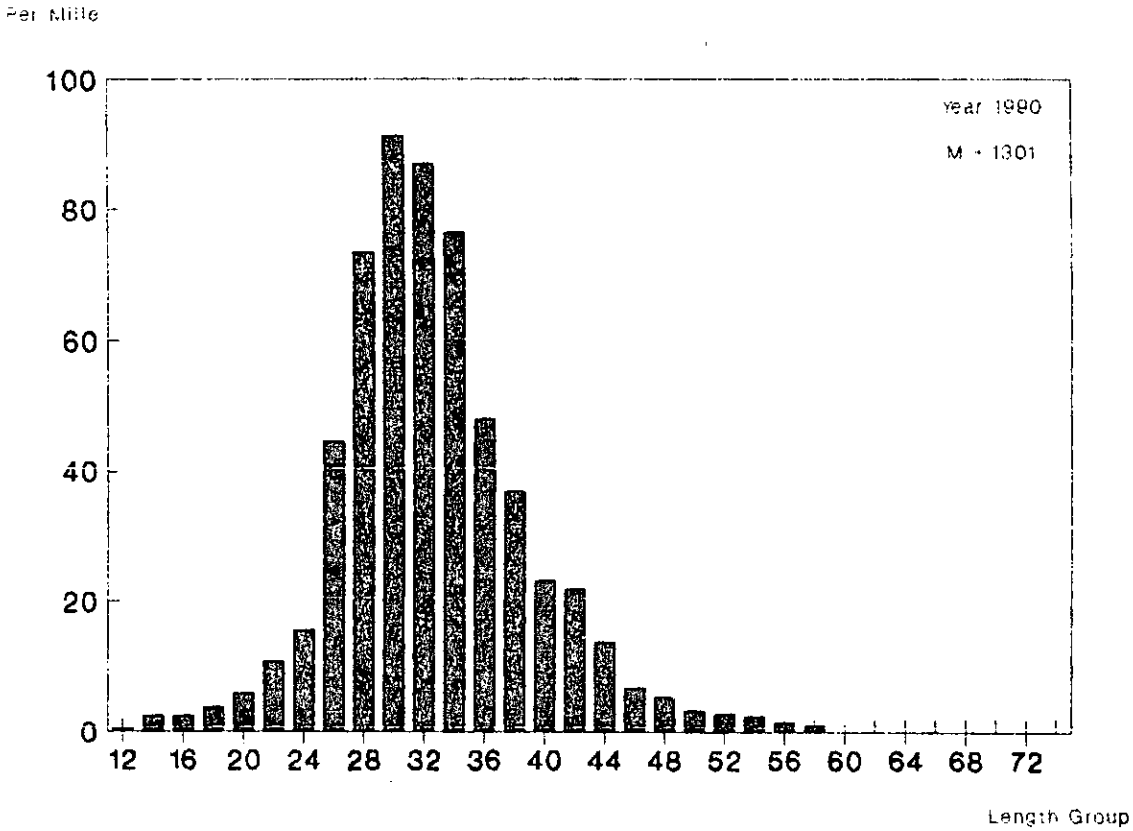

Fig.17 - Annual length composition of American plaice, (male) in Division 3N, trawl fishery in 1990.

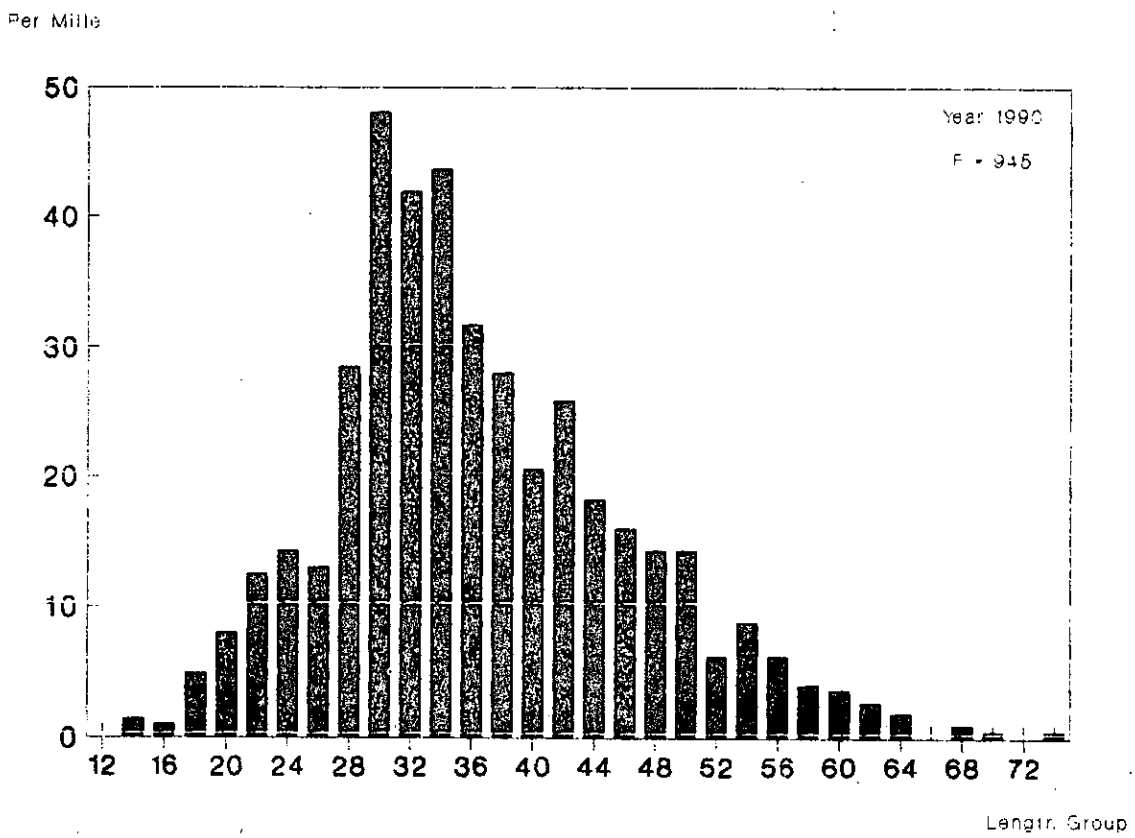

Fig.18 - Annual length composition of American plaice, (female) in Division 3N, trawl fishery in 1990.

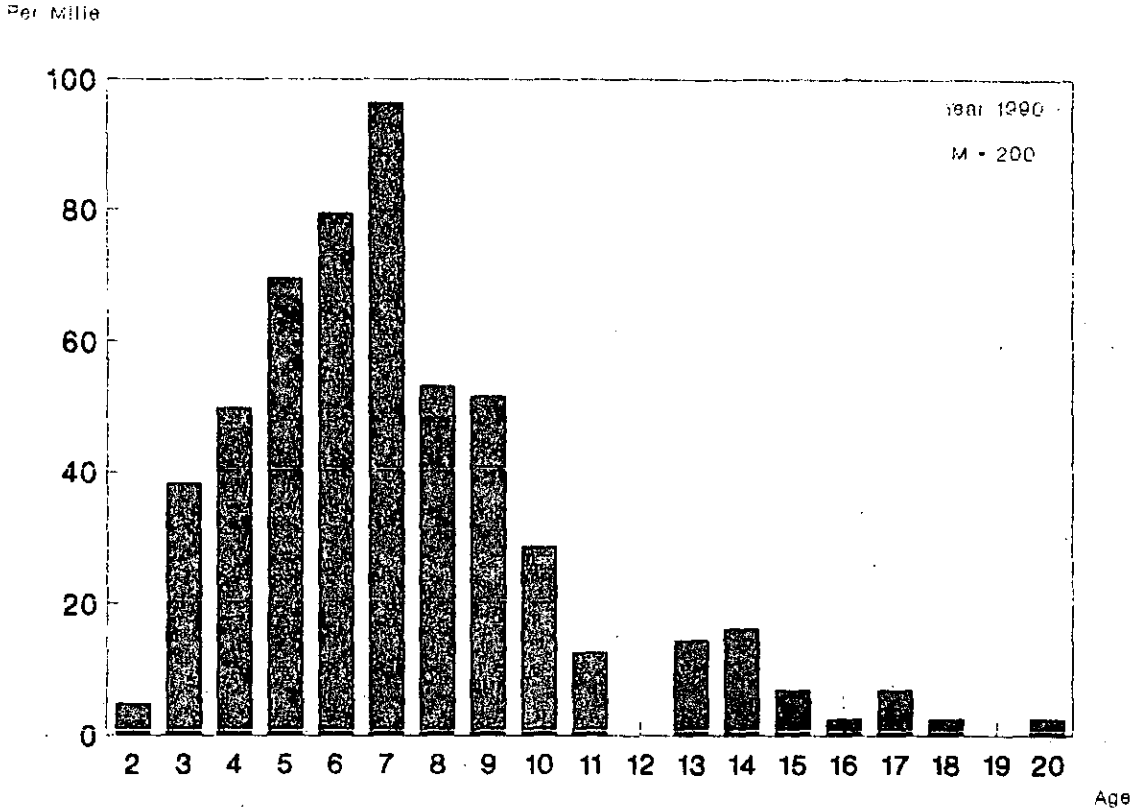

Fig.19 - Age composition of American plaice, (male) in Division 3N for 4th quarter, trawl fishery in 1990.

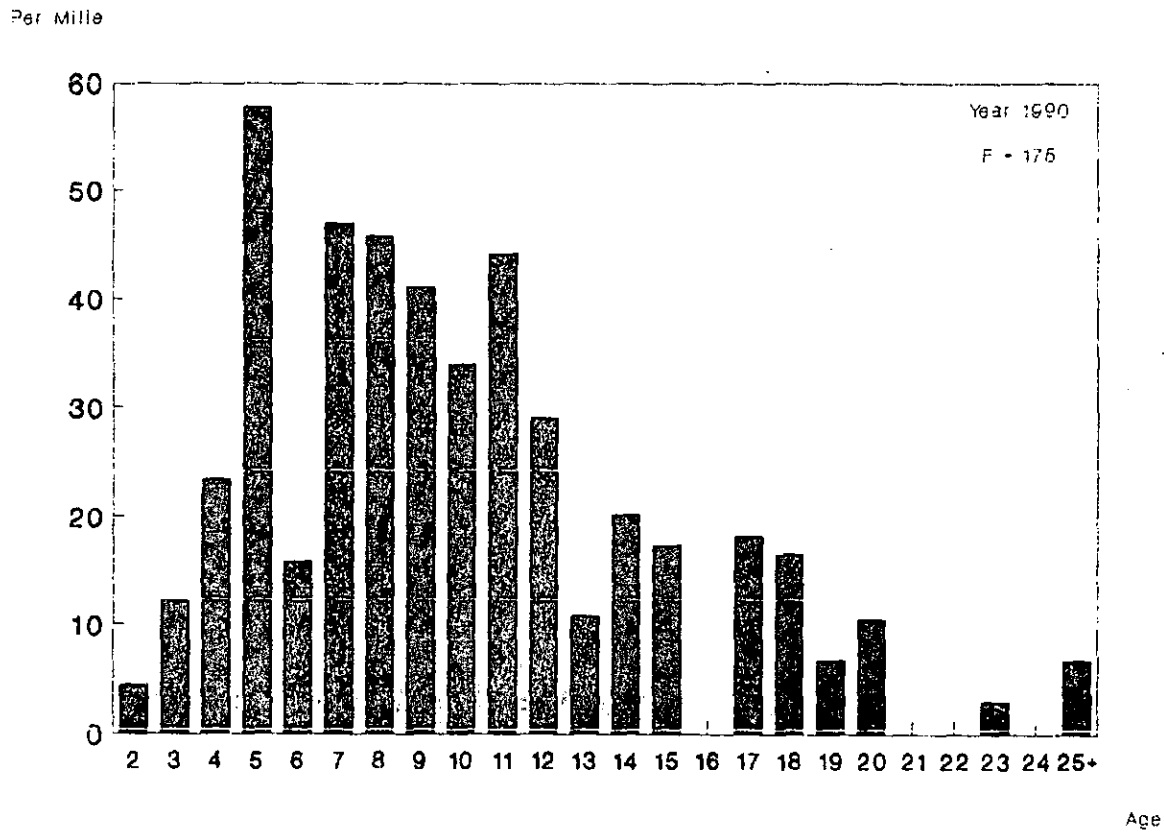

Fig.20 - Age composition of American plaice, (female) in Division 3N for 4th quarter, trawl fishery in 1990.

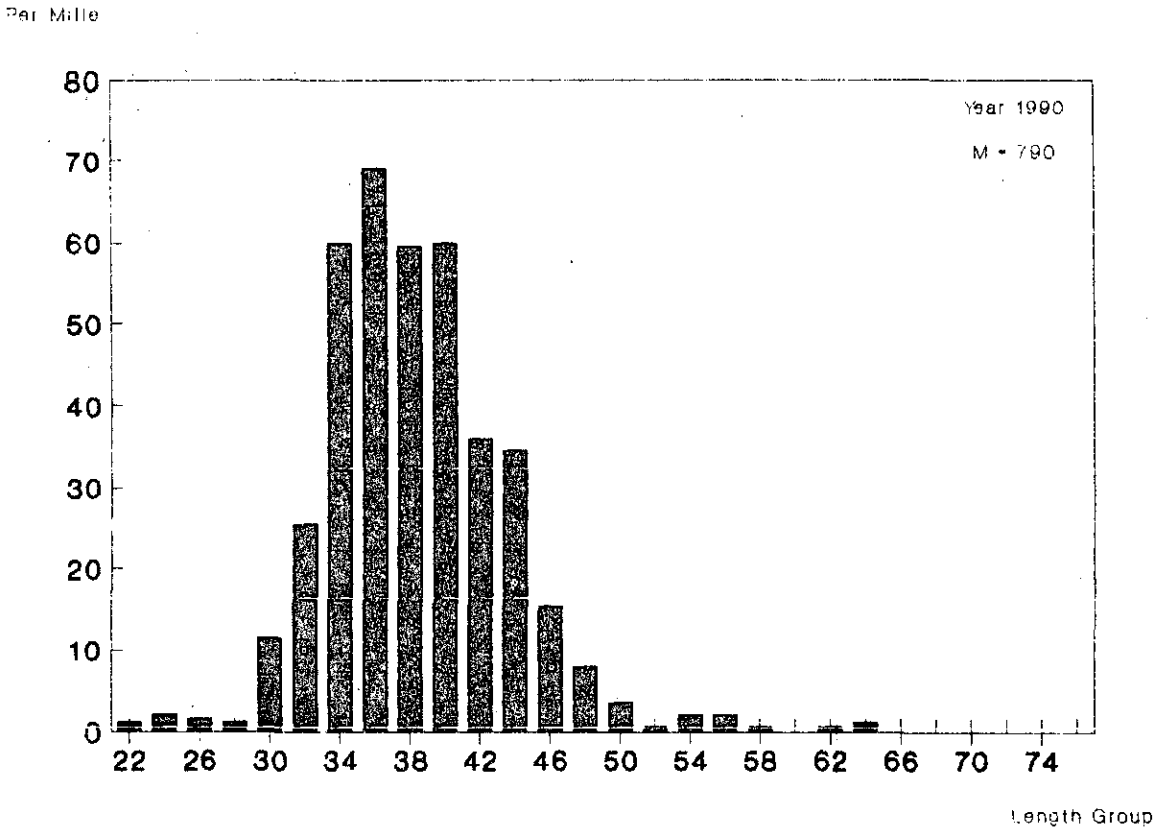

Fig.21 - Annual length composition of American plaice, (male) in Division 3N, gillnets fishery in 1990.

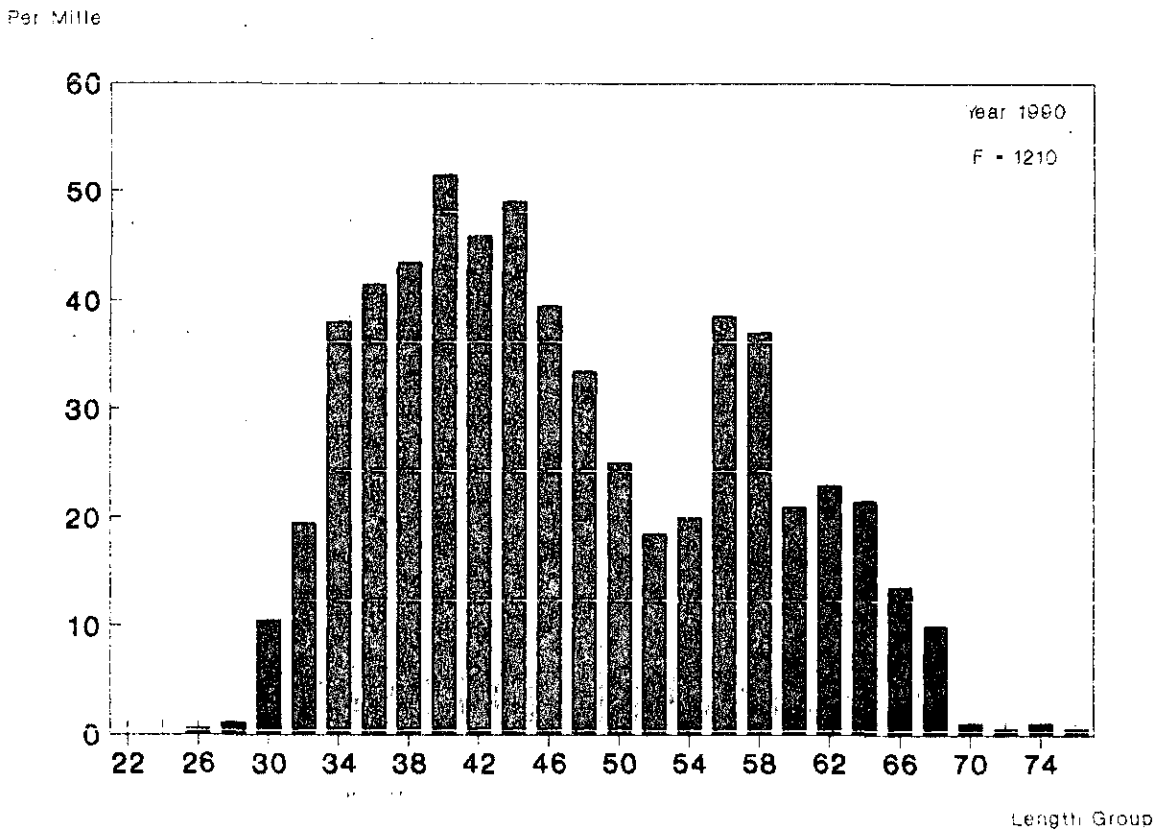

Fig.22 - Annual length composition of American plaice, (female) in Division 3N, gillnets fishery in 1990.

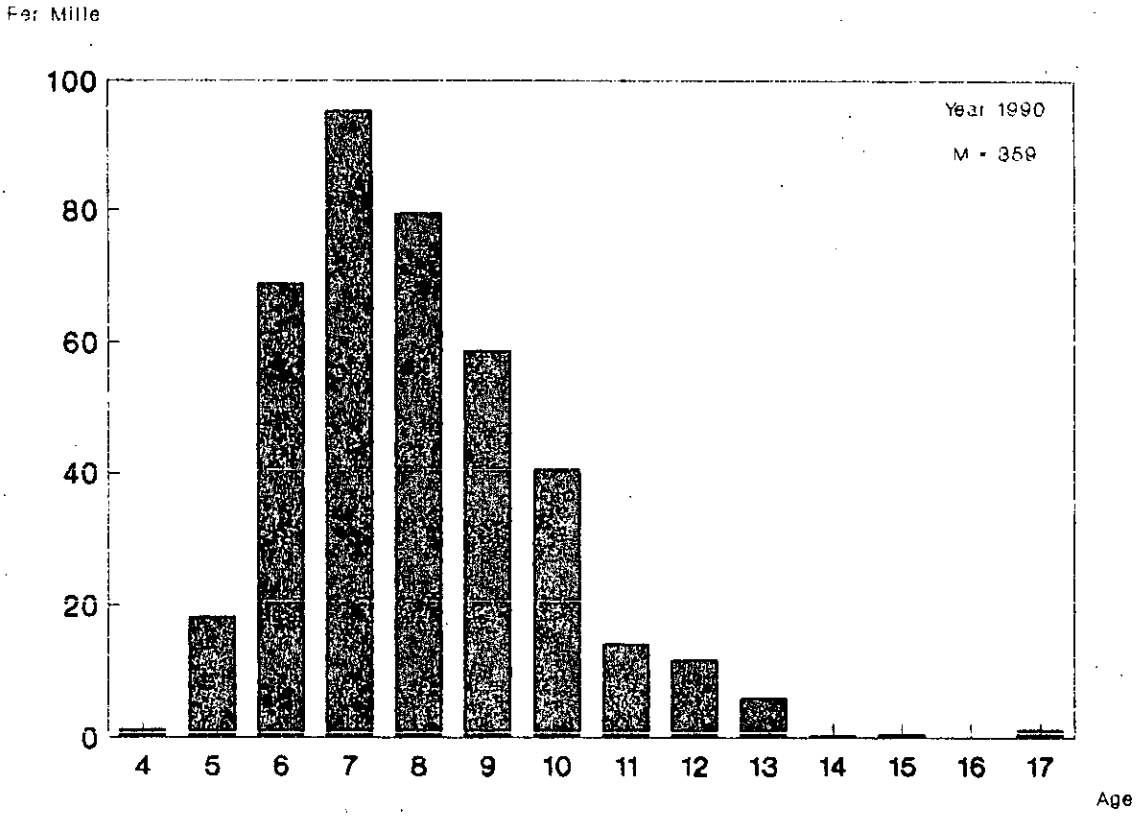

Fig.23 - Annual age composition of American plaice, (male) in Division 3N, gillnets fishery in 1990.

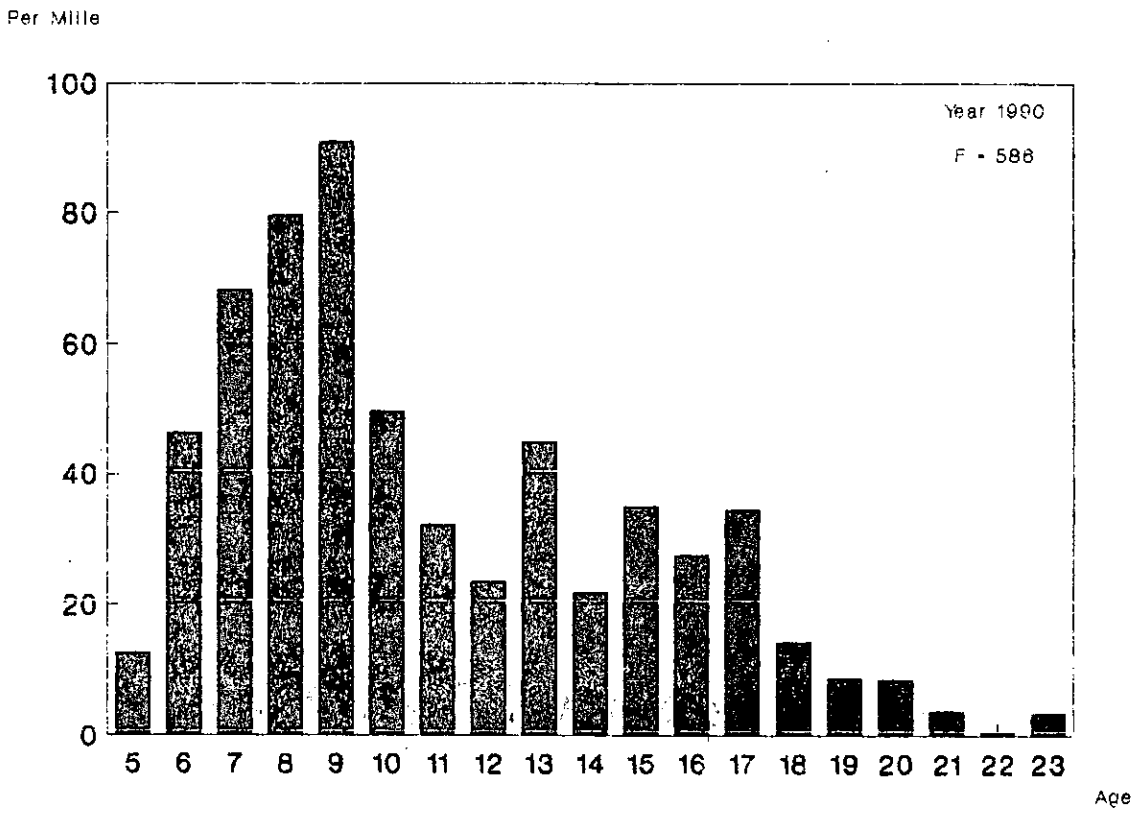

Fig.24 - Annual age composition of American plaice, (female) in Division 3N, gillnets fishery in 1990.

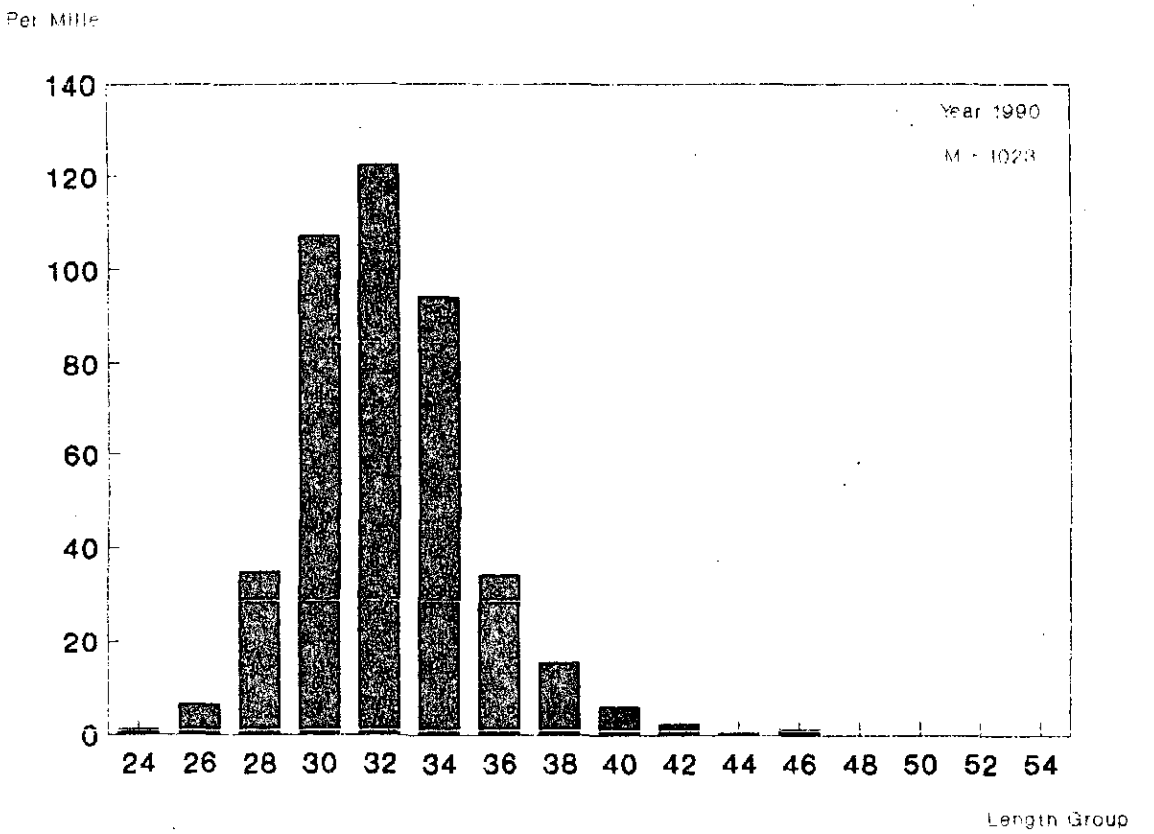

Fig.25 - Annual length composition of Yellowtail flounder, (male) in Division 3N, gillnets fishery in 1990.

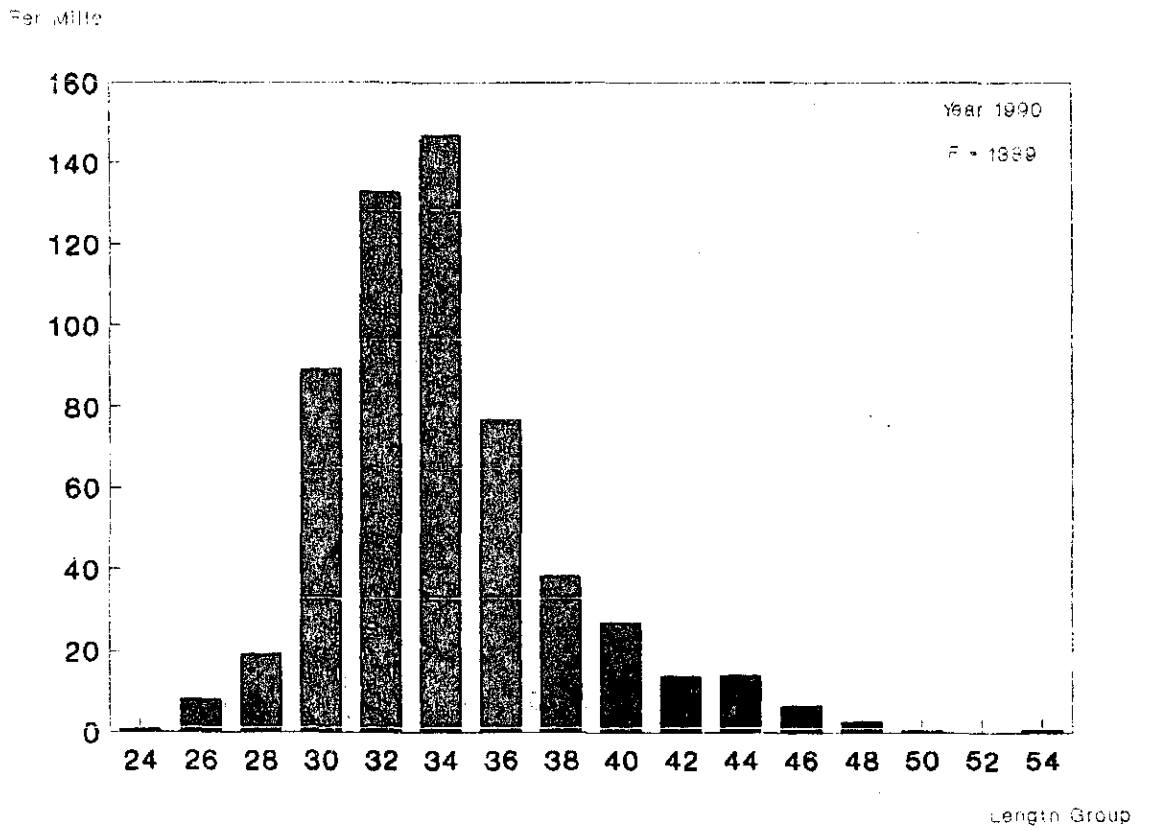

Fig.26 - Annual length composition of Yellowtail flounder, (female) in Division 3N, gillnets fishery in 1990.