International Council for the
Exploration of the Sea

C.M. 1981/G:1
Administrative Report

DEMERSAL FISH COMMITTEE

by

A.C. Burd

1980

BELGIUM

(R. De Clerck & P. Hovart)

The determiantion of the density and the growth per year class of soles, plaice, dab, flounders and gadoids along the Belgian coast has been continued on the R.V.: "Hinders".

Two cruises were carried out for the demersal young fish survey in collaboration with the Netherlands, the Federal Republic of Germany and France.

The market sampling was continued covering cod - North Sea, whiting - North Sea, haddock - North Sea, plaice - North Sea/English Channel/ Celtic Sea/Irish Sea, sole - North Sea/English Channel/Celtic Sea and Irish Sea.

Species/ Area	Season	No of samples		No of samples	
		Research	Market	Measured	Aged
Sole IV	1	-	13	1 204	320
	2	-	10	894	400
	3	-	8	709	190
	4	-	11	1 284	210
VIIf,g	1	-	8	799	210
	2	-	6	701	60
	3	-	6	577	210
	4	-	9	1 062	140
VIIa	1	-	5	470	210
	2	-	4	280	280
	3	-	3	205	205
	4	-	5	485	210
VIId,e	1-4	-	9	1 030	270
Plaice IV	1	-	12	721	190
	2	-	8	470	150
	3	-	8	404	130
	4	-	11	713	210
VIIf,g	1-4	-	24	1 302	420
VIIa	1-4	-	16	665	470
VIId,e	1-4	-	9	523	130
Cod IV	1	-	8	385	285
	2	-	6	326	326
	3	-	5	268	268
	4	-	4	310	310
Whiting IV	1	-	8	240	240
	2	-	5	139	139
	3	-	5	170	170
	4	-	2	55	55
Haddock IV	1-4	-	4	320	-

CANADA

(R. G. Halliday)

There is nothing to report. A comprehensive report of Canadian work on demersal fish species is presented annually to the NAFO Scientific Council and is, therefore, not required for the ICES report.

DENMARK

(K. Hcydal & E. Ursin)

The RV "Havfisken" participated in the International Young Herring Survey February-March in the Kattegat-Skagerrak area

and

The FS "Lars A. Kruuse" in the Danish-Swedish Herring Acoustic Survey September in the Kattegat-Skagerrak area.

Cod Denmark 1980.

Area	Season	Type of fish	No of samples		No of fish		
			Research vessel	Market	Measured	Aged	Examined racially
North Sea	1	Mixed		21	644	644	0
	2	"		31	593	593	0
	3	"		22	577	577	0
	4	"		13	498	498	0
Skager-rak	1	Mixed		29	694	694	0
	2	"		24	423	423	0
	3	"		22	421	421	0
	4	"		32	498	498	0
Katte-gat	1	Mixed	15	39	1290	1290	0
	2	"		22	397	397	0
	3	"		30	809	809	0
	4	"		48	1016	1009	0

Plaice

Area	Season	Type of fish	No of samples		No of fish		
			Research vessel	Market	Measured	Aged	Examined racially
North Sea	1	Mixed		12	1238	1238	0
	2	"		12	1133	1133	0
	3	"		12	1058	1058	0
	4	"		12	1082	1082	0
Skager-rak	1	Mixed		8	1022	1022	0
	2	"		8	996	996	0
	3	"		8	946	946	0
	4	"		8	1007	1007	0
Katte-gat	1	Mixed		16	1766	1766	0
	2	"		16	1651	1651	0
	3	"		16	1314	1314	0
	4	"		16	1325	1325	0

Saithe Denmark 1980

Area	Season	Type of fish	No of samples		No of fish		
			Research vessel	Market	Measured	Aged	Examined racially
North Sea	1	Mixed		1	399	399	0
	2	"			0		0
	3	"		1	350	350	0
	4	"		1	197	197	0
Skager-rak	1	Mixed			0	0	0
	2	"			0	0	0
	3	"		1	20	20	0
	4	"			0	0	0

Haddock

Area	Season	Type of fish	No of samples		No of fish		
			Research vessel	Market	Measured	Aged	Examined racially
North Sea	1	Mixed		41	638	638	0
	2	"		22	450	450	0
	3	"		62	795	795	0
	4	"		88	992	992	0
Skager-rak	1	Mixed		13	136	136	0
	2	"		6	215	215	0
	3	"		8	27	27	0
	4	"		8	32	32	0
Katte-gat	1	Mixed		10	35	35	0
	2	"		1	1	1	0
	3	"		12	78	78	0
	4	"		13	42	42	0

Whiting

Area	Season	Type of fish	No of samples		No of fish		
			Research vessel	Market	Measured	Aged	Examined racially
North Sea	1	Mixed		45	491	489	0
	2	"		28	165	165	0
	3	"		36	364	362	0
	4	"		85	438	425	0
Skager-rak	1	Mixed		17	708	708	0
	2	"		12	41	41	0
	3	"		23	930	930	0
	4	"		19	1187	1155	0
Katte-gat	1	Mixed	15	20	1723	1723	0
	2	"		7	13	12	0
	3	"		7	757	757	0
	4	"		16	1637	1637	0

Norway Pout Denmark 1980.

Area	Season	Type of fish	No of samples		No of fish		
			Research vessel	Market	Measured	Aged	Examined racially
North Sea	1	Mixed		35	4250	4250	0
	2	"		12	938	938	0
	3	"		51	5252	5027	0
	4	"		87	9136	8988	0
Skager-rak	1	Mixed		7	152	152	0
	2	"		3	136	136	0
	3	"		5	291	255	0
	4	"		4	274	274	0
Katte-gat	1	Mixed		5	212	212	0
	2	"		0	0	0	0
	3	"		3	364	364	0
	4	"		0	0	0	0

Sandeel

Area	Season	Type of fish	No of samples		No of fish		
			Research vessel	Market	Measured	Aged	Examined racially
North Sea	1	Mixed		8	911	911	0
	2	"		85	9460	8254	0
	3	"		18	2289	2175	0
	4	"		2	243	243	0
Skager-rak	1	Mixed		1	121	121	0
	2	"		12	1519	1519	0
	3	"		8	1013	1013	0
	4	"		1	116	116	0
Katte-gat	1	Mixed		0	0	0	0
	2	"		1	102	0	0
	3	"		0	0	0	0
	4	"		0	0	0	0

FAROE ISLANDS

(K. Hoydal)

R/V J.Chr. Svabo worked in Faroese waters from april to october. The vessel will from next year be replaced by R/S "Magnus Heinasson", a rebuilt trawler,499 BRT and 1800 HP.

SAMPLING OF DEMERSAL SPECIES

All weights in the following tables are given as landed, gutted weights. Beside the tabulated species, occasional length samples of tusk, ling and blue ling have been taken.

COD ** FAROE PLATEAU * ICES subdiv Vb1 * 1980

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AREA NO.	YIELD TONS	CATCH KG./000	YIELD/ SAMP.WEIGHT	CATCH/ MEASUR	AV.WEI GHT KG
TRAWL>1000HP	6	7600	1967	.	1671	490	240	249	3.97
TRAWL<1000HP	6	8130	3033	.	2027	830	257	274	2.68
OPEN BOATS	2	3880	2618	.	388	690	358	340	1.48
GILL NETTERS	1	6730	1411	.	1342	270	199	191	4.77
LONGLINEBOAT	9	30060	20565	.	5499	3950	141	193	1.90
TRAWL BOATS	5	7630	3214	.	2147	1050	289	330	2.31
HANDLINESHIP	2	1240	471	.	779	280	621	594	2.63
LONGLINESHIP	3	4860	1409	.	1622	510	335	362	3.45
PAIRTRAWLER1	.	.	.	.	?	.	.	.	.
PAIRTRAWLER2	1	1490	514	.	971	156	317	292	3.50
TOTAL	35	80470	35202	1944	17295	8440	213	240	2.05

COD ** ICES subdiv Vb2 ** 1980 **

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AGED NO.	YIELD TONS	CATCH NO./1000	YIELD/ SAMP.WEIGHT	CATCH/ MEASUR	AV.WEIGHT KG
TRAWL>1000HP	.	.	.	.	41	.	.	.	.
TRAWL<1000HP	2	5770	1421	.	306	120	53	84	4.06
OPEN BOATS	.	.	.	.	2	.	.	.	.
GILL NETTERS	.	.	.	.	68	.	.	.	.
LONGLINEBOAT	.	.	.	.	30	.	.	.	.
TRAWL BOATS	.	.	.	.	61	.	.	.	.
HANDLINESHIP	.	.	.	.	75	.	.	.	.
LONGLINESHIP	1	650	100	.	59	10	91	100	6.50
PAIRTRAWLER1	.	.	.	.	.	.	.	.	.
PAIRTRAWLER2	.	.	.	.	.	.	.	.	.
TOTAL	3	6420	1521	100	642	130	100	85	4.94

HADDOCK ** FAROE PLATEAU * ICES subdiv Vb1 * 1980 **

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AGED NO.	YIELD TONS	CATCH NO./1000	YIELD/ SAMP.WEIGHT	CATCH/ MEASUR	AV.WEIGHT KG
TRAWL>1000HP	4	1650	1447	.	1567	1340	944	926	1.14
TRAWL<1000HP	6	3470	2857	.	1135	460	321	328	1.29
OPEN BOATS	.	.	.	.	.	.	.	.	
GILL NETTERS	.	.	.	.	.	.	.	.	
LONGLINEBOAT	10	29530	23634	.	5595	5660	190	237	1.24
TRAWL BOATS	4	2850	2107	.	777	580	273	275	1.35
HANDLINESHIP	.	.	.	.	.	.	.	.	
LONGLINESHIP	3	2680	1912	.	1173	1220	436	638	1.40
PAIRTRAWLER1	.	.	.	.	.	.	.	.	
PAIRTRAWLER2	.	.	.	.	.	.	.	.	
TOTAL	30	40230	32011	988	10790	9680	268	302	1.11

HADDOCK ** ICES subdiv Vb2 ** 1980 **

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AGED NO.	YIELD TONS	CATCH NO./000	YIELD/ SAMP.WEIGH	CATCH/ MEASUR	AV.WGT GHT KG
TRAWL>1000HP	1	310	283	.	78	70	252	247	1.10
TRAWL<1000HP	3	2770	2024	.	373	270	135	133	1.37
OPEN BOATS	.	.	.	.	1	.	.	.	.
GILL NETTERS	.	.	.	.	1	.	.	.	.
LONGLINEBOAT	.	.	.	.	21	.	.	.	.
TRAWL BOATS	.	.	.	.	105	.	.	.	.
HANDLINESHIP	.	.	.	.	1	.	.	.	.
LONGLINESHIP	1	550	422	.	42	30	76	71	1.30
PAIRTRAWLER1	.	.	.	.	1	.	.	.	.
PAIRTRAWLER2	.	.	.	.	.	.	.	.	.
TOTAL	5	3630	2729	202	623	370	171	136	1.68

SAITHE ** FAROE PLATEAU * ICES subdiv Vb1 * 1980

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AGED NO.	YIELD TONS	CATCH NO./000	YIELD/ SAMP.WEIGH	CATCH/ MEASUR	AV.WGT GHT KG
TRAWL>1000HP	10	22520	5021	.	8140	1970	363	392	4.49
TRAWL<1000HP	8	10610	3207	.	5213	1770	491	552	3.31
OPEN BOATS	.	.	.	.	.	.	.	.	.
GILL NETTERS	2	2010	391	.	1268	270	531	691	5.14
LONGLINEBOAT	.	.	.	.	.	.	.	.	
TRAWL BOATS	.	.	.	.	.	.	.	.	
HANDLINESHIP	4	7240	1153	.	2421	420	334	364	6.28
LONGLINESHIP	.	.	.	.	.	.	.	.	
PAIRTRAWLER1	.	.	.	.	.	.		0	3.40
PAIRTRAWLER2	3	3220	1041	.	2233	900	693	865	3.09
TOTAL	32	45653	10969	337	20924	5330	458	486	3.93

(excl. 277 tons taken on Faroe Bank)

SEBASTES mentella ** ICES div Vb ** 1980 **

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AGED NO.	YIELD TONS	CATCH NO.*000	YIELD/ SAMP.WEIGH	CATCH/ MEASUR	AV.WEI GHT KG
TRAWL>1000HP	4	1380	1836	.	544	770	394	419	0.75
TRAWL<1000HP	.	.	.	.	.	.	.	.	.
OPEN BOATS	.	.	.	.	.	.	.	.	.
GILL NETTERS	.	.	.	.	.	.	.	.	.
LONGLINEBOAT	.	.	.	.	.	.	.	.	.
TRAWL BOATS	.	.	.	.	.	.	.	.	.
HANDLINESHIP	.	.	.	.	.	.	.	.	.
LONGLINESHIP	.	.	.	.	.	.	.	.	.
PAIRTRAWLER1	.	.	.	.	.	.	.	.	.
PAIRTRAWLER2	.	.	.	.	.	.	.	.	.
TOTAL	4	1380	1836	0	544	770	394	419	0.71

SEBASTES marinus ** ICES div Vb ** 1980 **

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AGED NO.	YIELD TONS	CATCH NO.*000	YIELD/ SAMP.WEIGH	CATCH/ MEASUR	AV.WEI GHT KG
TRAWL>1000HP	8	10870	7685	.	4771	3350	439	436	1.41
TRAWL<1000HP	.	.	.	.	.	.	.	.	.
OPEN BOATS	.	.	.	.	.	.	.	.	.
GILL NETTERS	.	.	.	.	.	.	.	.	.
LONGLINEBOAT	.	.	.	.	.	.	.	.	.
TRAWL BOATS	.	.	.	.	.	.	.	.	.
HANDLINESHIP	.	.	.	.	.	.	.	.	.
LONGLINESHIP	.	.	.	.	.	.	.	.	.
PAIRTRAWLER1	.	.	.	.	.	.	.	.	.
PAIRTRAWLER2	1	350	252	.	36	30	103	119	1.39
TOTAL	9	11220	7937	0	4807	3350	428	425	1.44

GREENL. HALIBUT ** ICES div Vb ** 1980 **

VESSEL CAT	NO.MONTHS SAMPLED	WEIGHT SAMP.KG	MEASUR. NO.	AGED NO.	YIELD TONS	CATCH NO./000	YIELD/ SAMP.WEIGH	CATCH/ MEASUR	AV.WEI GHT KG
TRAWL>1000HP	3	3140	1408	.	1704	.	543	0	2.23
TRAWL<1000HP	.	.	.	.	.	.	.	.	.
OPEN BOATS	.	.	.	.	.	.	.	.	.
GILL NETTERS	.	.	.	.	.	.	.	.	.
LONGLINEBOAT	.	.	.	.	.	.	.	.	.
TRAWL BOATS	.	.	.	.	.	.	.	.	.
HANDLINESHIP	.	.	.	.	.	.	.	.	.
LONGLINESHIP	.	.	.	.	.	.	.	.	.
PAIRTRAWLER1	.	.	.	.	.	.	.	.	.
PAIRTRAWLER2	.	.	.	.	.	.	.	.	.
TOTAL	3	3140	1408	0	1704	0	542	0	2.23

FINLAND

(V. Sjöblom & E. Aro)

No work was carried out on demersal fish other than that reported to the Baltic Fish Committee.

FRANCE

(J. Guéguen)

L'échantillonnage des captures commerciales a été poursuivi dans les principaux ports de débarquement comme le montre le tableau ci-après.

Une étude des captures accessoires de poisson et des rejets de la pêcherie langoustinière de Mer Celtique et de la pêche crevettière de la côte charentaise a été débutée, elle comporte des embarquements réguliers sur les navires professionnels.

Les nurseries des zones côtières du sud de la Mer du Nord, de la Manche et de la côte de Bretagne-sud ont fait l'objet d'échantillonnages saisonniers.

Un travail sur la reproduction du merlu dans le Golfe de Gascogne est actuellement en cours.

MARQUAGES -

espèce	secteur	saison	type marque	nb marqués	types de poisson
lieu noir	IVa	2ème trim	Flag tag	521	adultes
dorade grise	VIIIa	1er trim	harpons	474	adultes
plie	VIId	4ème trim	disques Petersen	2 048	juvéniles
	VIIe	4ème trim	id	244	id
limande	VIId	4ème trim	id	1 400	id
	VIIe	4ème trim	id	1 300	id
sole	VIId	4ème trim	id	1 506	id
	VIIe	id	id	1 306	id
	VIIa	id	id	3 000	id
raie bouclée	VIId	4ème trim	id	310	id
	VIIe	id	id	1 249	id

CAMPAGNES D'INVENTAIRES DES NAVIRES DE RECHERCHE -

secteur	dates	objectif
IV	09.02 - 08.03.80	International young fish survey (IYHS)
VIIa, e, f, g,	23.11 - 16.12.80	Inventaire espèces démersales
VIId	29.09 - 03.10.80	Inventaire juvéniles poissons plats(DYFS
VIIe	03 - 23.06.80	Inventaire sur les nurseries de Manche-ouest
VIII	05 - 16.02.80	
	06 - 14.04.80	Inventaire des ressources
	05 - 14.08.80	en sole et en merlu
	21.11 - 10.12.80	
VIII	21.11 - 10.12.80	Estimation recrutement du merlu
VIII	08 - 25.07.80	Inventaire sur les nurseries du Nord-Gascogne

ECHANTILLONNAGES -

région	saison	type poissons	nb d'échantillons navire rech.	nb d'échantillons marché	nb poissons mesurés	âge déterminé
Scyliorhinus canicula						
VIIa	4	mélangé	x		609	
VIIe	4	"	x		12	
VIIf	4	"	x		279	
VIIg	4	"	x		113	
Squalus acanthias						
VIIa	4	"	x		14	
VIIg	4	"	x		209	
Raja naevus						
VIIa	4	"	x		21	
VIIf	4	"	x		7	
VIIg	4	"	x		9	
Raja clavata						
VIId	1	juvéniles	x		32	
	2	"	x		164	
	3	"	x		67	
VIIa	4	mélangé	x		302	
VIIe	2	juvénile	x		133	
	3	"	x		10	
	4	mélangé	x		1 553	
VIIf	4	mélangé	x		11	
VIIg	4	"	x		32	
VIIIa	2	juvénile	x		33	
	3	"	x		46	
	4	"	x		10	
Raja montagui						
VIIa	4	mélangé	x		40	
VIIe	4	"	x		9	
VIIf	4	"	x		29	
VIIg	4	"	x		21	
Raja micro ocellata						
VIIf	4	mélangé	x		16	

région	saison	type poissons	nb d'échantillons navire rech.	nb d'échantillons marché	nb poissons mesurés	âge déterminé
Merluccius merluccius						
VIa	4	adultes		x	209	
VII	1	mélangé		x	149	
	2	"		x	444	
	3	"		x	775	
	4	"	x	x	1 435	
VIIb	1	"	x		624	
VIIg	1	"	x		795	
	2	"	x		1 150	
	3	"	x		1 230	
	4	"	x		837	
VIIh	2	"	x		324	
VIIIab	1	"	x	x	4 137	
	2	"	x	x	13 308	
	3	"	x	x	10 789	
	4	"	x	x	10 830	
Trisopterus esmarcki						
IV	1	mélangé	x		10 971	73
	3	"	x		308	
VIa	1	"	x		29 384	146
VIIa	4	"	x		254	
VIIe	4	"	x		94	
VIIf	4	"	x		25	
VIIg	4	"	x		512	
Trisopterus luscus						
VIIa	4	mélangé	x		94	
VIIe	4	"	x		31	
VIIf	4	"	x		286	
VIIg	4	"	x		36	
VIIIa	2	"	x		1 208	
	3	"	x		348	
	4	"	x		20	

région	saison	type poissons	nb d'échantillons navire rech.	nb d'échantillons marché	nb poissons mesurés	âge déterminé
Merlangius merlangus						
IV	1	mélangé	x		68 568	552
	2	"	x		551	119
	3	"	x		812	105
	4	"	x		183	113
VIa	1	"	x	x	3 763	259
	2	"	x	x	564	103
	3	adultes		x	342	
	4	"		x	769	
VIIa	1	"		x	961	
	2	"		x	589	
	3	"		x	843	
	4	mélangé	x	x	2 113	138
VIIb	1	"	x		192	
VIId	1	"	x		17	
	2	"	x		42	
	3	"	x		213	
	4	"		x	340	
VIIe	2	"	x		177	
	3	"	x		129	
	4	"	x	x	296	
VIIf	1	adultes		x	906	
	2	"		x	881	
	3	"		x	796	
	4	mélangé	x	x	1 294	96
VIIg	1	"	x	x	1 049	
	2	"	x	x	1 397	
	3	"	x	x	1 296	
	4	"	x	x	2 056	157
VIIh	2	"	x		10	
VIIIab	1	"	x	x	340	
	2	"	x	x	1 161	
	3	"	x	x	13 179	
	4	"	x		1 258	
Gadus morrhua						
IV	1	"	x	x	3 254	622
	2	"	x		177	147
	3	"	x		111	96
VIa	1	"	x	x	795	69
	2	"	x	x	868	32
	3	adultes		x	887	
	4	"		x	1 053	
VIIa	1	mélangé		x	896	
	2	"		x	544	
	3	"		x	811	
	4	"	x	x	1 212	115

région	saison	type poisson	nb d'échantillons navire rech.	nb d'échantillons marché	nb poissons mesurés	âge déterminé
VIId	1	juvéniles	x		25	
	2	"	x		14	
	3	"	x		7	
VIIe	3	mélangé		x	29	
	4	"		x	44	
VIIf	1	"		x	897	
	2	"		x	805	
	3	"		x	774	
	4	"	x	x	847	13
VIIg	1	"	x	x	659	
	2	"	x	x	709	
	3	"	x	x	1 022	
	4	"	x	x	938	33
VIIh	2	"	x		14	
Pollachius virens						
IV	1	mélangé	x		106	106
	2	"	x		406	190
	3	"	x		195	52
VIa	1	"	x	x	945	213
	2	"	x	x	962	235
	3	"		x	1187	180
	4	"		x	1233	180
VIIg	1	"	x		12	
	2	"	x		16	
	3	"	x		18	
	4	"	x		13	
Pollachius pollachius						
VIIg	1	mélangé	x		78	
	2	"	x		115	
	3	"	x		120	
	4	"	x		87	
VIIh	2	"	x		12	
Melanogrammus aeglefinus						
IV	1	mélangé	x		38 238	408
	2	"	x		2 476	259
	3	"	x		791	151
	4	"		x	29	
VIa	1	"	x	x	14 233	379
	2	"	x	x	948	163
	3	adultes		x	691	
	4	"		x	882	
VIIg	1	mélangé	x		40	
	2	"	x		74	
	3	"	x		92	
	4	"	x		119	

région	saison	type poissons	nb d'échantillons navire rech.	nb d'échantillons marché	nb poissons mesurés	âge déterminé
Molva molva						
VIIg	1	mélangé	x		150	
	2	"	x		145	
	3	"	x		218	
	4	"	x		170	
VIIh	2	"	x		34	
Mullus surmuletus						
VIId	2	mélangé	x		6	
VIIe	2	"	x		112	
	4	"	x		6	
VIIIa	2	"	x		22	
	3	"	x		102	
	4	"	x		38	
Spondyliosoma cantharus						
VIIe	1	mélangé		x	2 524	332
	2	"		x	1 331	91
	3	"	x		38	38
	4	"		x	1 718	252
VIIIa	1	"	x	x	1 337	421
	4	"		x	2 879	544
VIIIb	1	"		x	547	9
	4	"		x	34	34
Eutrigla gurnardus						
VIIa	4	mélangé	x		54	
VIIe	4	"	x		170	
VIIf	4	"	x		25	
VIIg	4	"	x		75	
VIIIa	3	"	x		68	
Aspitrigla cuculis						
VIIa	4	mélangé	x		74	
VIIe	4	"	x		199	
Trigla lucerna						
IVc	2	"	x		15	
VIIa	4	"	x		41	
VIId	2	"	x		127	
	3	"	x		56	

région	saison	type poissons	nb d'échantillons navire rech.	nb d'échantillons marché	nb poissons mesurés	âge déterminé
VIIe	2	mélangé	x		79	
	3	"	x		16	
	4	"	x		338	
VIIf	4	"	x		13	
VIIIa	3	"	x		55	
	4	"	x		49	
Lepidorhombus whiff iagonis						
VIIb	1	mélangé	x		430	
VIIe	4	"	x		42	
VIIg	1	"	x		3 563	
	2	"	x		3 418	
	3	"	x		3 616	
	4	"	x		3 888	
VIIh	2	"	x		1 111	
Pleuronectes platessa						
IV	1	mélangé	x		1 628	
	3	"	x		897	141
	4	"		x	80	
IVc	2	"	x		568	
VIa	1	"	x		17	
VIIa	4	"	x		95	
VIIb	1	"	x		14	
VIId	1	"	x		262	
	2	"	x		2 404	105
	3	"	x	x	1 105	40
	4	"	x	x	696	
VII e	2	"	x		570	105
	3	"	x		138	
	4	"	x	x	1 141	
VIIf	4	"	x		43	
VIIg	3	"	x		14	
	4	"	x		20	
VIIIa	1	"	x		46	
	2	"	x		377	
	3	"	x		963	
	4	"	x		242	
Platichthys flesus						
IV	3	mélangé	x		288	
VIId	3	"	x		191	
VIIIa	2	"	x		45	
	3	"	x		129	
	4	"	x		25	

région	saison	type poissons	nb d'échantillons navire rech.	marché	nb poissons mesurés	âge déterminé
Hippoglossoïdes platessoïdes						
VIIg	4	mélangé	x		122	
Microstomus kitt						
VIIa	4	"	x		36	
VIIb	1	"	x		64	
VIIe	4	"	x		79	
VIIf	4	"	x		20	
VIIg	1	"	x		163	
	2	"	x		182	
	3	"	x		120	
	4	"	x		198	
Limanda limanda						
IV	1	"	x		3 298	
	3	"	x		1 240	
IVc	2	"	x		356	
VIIa	4	"	x		481	
VIId	1	"	x		121	
	2	"	x		1 456	
	3	"	x		3 705	
	4	"	x		2 567	
VIIe	2	"	x		151	
	3	"	x		15	
	4	"	x		26	
VIIf	4	"	x		33	
VIIg	4	"	x		60	
VIIIa	3	"	x		68	
Solea vulgaris						
IV	3	"	x		3 133	119
	4	"	x	x	2 447	
IVc	2	"	x		570	
VIIa	4	"	x		21	
VIIb	1	"	x		42	
VIId	1	"	x	x	337	
	2	"	x	x	592	
	3	"	x	x	518	
	4	"	x		1 966	121
VIIe	2	"		x	2 566	
	3	"	x		406	
	4	"		x	4 577	
VIIf	4	"	x		18	

région	saison	type poissons	nb d'échantillons navire rech.	nb d'échantillons marché	nb poissons mesurés	âge déterminé
Solea vulgaris (suite)						
VIIg	1	mélangé	x		29	
	2	"	x		52	
	3	"	x		116	
	4	"	x		62	
VIIIab	1	"	x	x	2 722	519
	2	"	x	x	4 718	384
	3	"	x	x	6 712	300
	4	"	x	x	4 586	422
Lophius piscatorius						
VIIa	4	mélangé	x		13	
VIIe	2	"	x		14	
	4	"	x		23	
VIIf	4	"	x		18	
VIIIab	1	"	x	x	618	
	2	"	x	x	632	
	3	"	x	x	217	
	4	"	x	x	1 181	
VIIg	4	"	x		22	

GEMRAN DEMOCRATIC REPUBLIC

(L. Danke)

Sampling Data

Species/ Area	Season	No. of Samples: Research-Vessel	Commercial Vessel	Market	No. of Fish: Measured	Aged
Redfish (S. mentella)						
II a	II-III	-	37	-	16 252	1 234
	IV	-	-	1	160	-
Redfisch (S. marinus)						
II a	I	1	-	-	32	-
Greenland Halibut						
II a	IV	-	-	1	77	77
	IV	-	3	-	601	-

FEDERAL REPUBLIC OF GERMANY

(G. Rauck)

The biological sampling programme on board research vessels, commercial vessels and fish markets for demersal species has been continued. These investigations include length frequency measurements, otolith sampling, single weights of fish, stomach analysis and fish density and distribution.

Joint investigations with vessels from the Netherlands and Belgium in the Wadden Sea area of Niedersachsen and Schleswig-Holstein have been continued in spring and autumn in order to assess the year class strength of mainly plaice and sole.

First experiments on beam trawl selectivity were carried out on board a small commercial cutter.

The research on Sebastes mentella and S. marinus, particularly in Greenland waters, has been intensified. (Sex, weight, age and length).

From August to October several groundfish surveys with emphasis on redfish, cod and species of less commercial value have been conducted by the charter trawler "Karlsburg" in ICES Sub-area XIV.

The age determination on North Sea whiting has been included in the 1980 programme.

Research vessel cruises related to the national sampling scheme of the demersal species were as follows :

R.V. "Walther Herwig"

Months	ICES area	No. of trips	Objectives
Jan.	VI + VII	1	Groundfish survey
June/July	XIV	1	Groundfish survey
Sept./Oct.	VI, V, XIV	1	Groundfish survey

R.V. "Anton Dohrn"

Months	ICES area	No. of trips	Objectives
Jan.	IV b	1	Groundfish survey and fish diseases
Febr.	IV	1	IYFS
June	IV b	1	Groundfish survey and fish diseases
June/July	I + II	1	Groundfish survey
Oct.-Dec.	NAFO/XIV	1	Groundfish survey

R.V. "Solea"

Jan.	IV a, b	1	Groundfish survey
Febr.	IV b, c	1	Groundfish survey
April/May	IV b	1	Sole, beamtrawl
May	IV b	1	electrified beam trawl
May/June	IV b	1	Sole, beamtrawl
July	IV b	1	Set net (turbot)
Aug.	IV b	1	Groundfish survey fish diseases
Nov.	IV b, c	1	Groundfish survey
Dec.	IV a, b	1	Groundfish survey

Charter vessel "Karlsburg"

Aug.-Oct.	V b_1, VI a	2	Groundfish survey

Species Area	Season	Research Vessel Samples				Market Samples		
		No. of Samples	No. of Fish Measured	No. of Fish Aged	Racial Investig-ationn	No. of Samples	No. Of Fish Measured	No. Of Fish Aged
Redfish								
IIa								
S. marinus	I					5	1600	378
	II					6	1929	546
	III					1	237	100
	IV					1	282	50
IIa								
S. mentella	I					2	421	95
	II					1	286	100
	IV					1	190	50
Vb								
S. marinus	IV					1	326	160
S. mentella	I					5	1372	322
	II					5	1672	200
	III					4	782	200
	IV					5	1673	400
XIV								
S. marinus	I					3	456	80
	II					5	1837	385
	III					2	672	-
XIV	IV					2	1236	-
S. mentella	I					1	197	-
	II					1	617	100
	III					1	505	-
I + II b								
S. marinus	III	1	158	-				
S. mentella	III	46	5813	1364				
XIV								
S. marinus	II	45	7864	809				
	III	13	2756	-				
	IV	82	14042	150				

Species Area	Season	Research Vessel Samples				Market Samples		
		No. of Samples	No. of Fish Measured	No. of Fish Aged	Racial Investigationn	No. of Samples	No. Of Fish Measured	No. Of Fish Aged
XIV								
S.mentella	II	10	2036	410				
	III	9	2463	-				
	IV	56	12723	-				
XIV								
Macrourus	II	16	1274	555				
berglax	IV	9	698	-				
VIa								
Coryphaenoides	I	18	2161	545				
rupestris	IV	11	969	-				
Cod:								
IIa	1					1	1404	816
	2					2	453	239
IIa_1, b_3	3	24	248	241				
IIa_4	3	4	26	26				
II b_1	3	13	102	102				
II b_2	3	24	356	356				
XIV	1					5	1218	352
	2	23	5314	821		4	712	310
	3	11	2692	-		2	524	383
	4	70	2469	577		-	-	-
IVa	1	33	846	287				
	4	9	85	15				

Species Area	Season	Research Vessel Samples				Market Samples		
		No. of Samples	No. of Fish Measured	No. of Fish Aged	Racial Investigationn	No. of Samples	No. Of Fish Measured	No. Of Fish Aged
Cod ctd.								
IVb	1	91	8127	1030		2	1156	800
	2	43	1932			1	1030	800
	3	11	1217			-	-	-
	4	52	8015	1486		2	1143	800
Va	1	4	245	161				
Vb_1	1	3	3	3				
VIa	1	12	217	193				
	3	14	79	79				
VIIb	1	8	35	27				
VIIg-k	1	8	18	14				
VIIk	3	6	23	23				
Haddock:								
IIa	1					4	1523	645
	2					2	639	300
IIa_4	3	6	105	103				
IIa_1-IIb_1	3	11	57	57				
XIV	3+4	10	142	58				
IVa	1	31	6155	1470				
IVb	1	45	3223	781				
	4	16	1037					
IVc	1	1	47	45				
Va	1	3	205	24				
Vb_1	1	9	894	461				

Species Area	Season	Research Vessel Samples				Market Samples		
		No. of Samples	No. of Fish Measured	No. of Fish Aged	Racial Investig-ationn	No. of Samples	No. Of Fish Measured	No. Of Fish Aged
Haddock	ctd.							
VIa	1	37	7161	1610				
	3	28	6179	891				
VIb	1	19	5074	915				
VIIb	1	5	292	29				
VIIc	1	6	265	63				
VIIg-k	1	18	141	20				
VIIk	3	7	403	125				
Whiting								
IVa	2	26	2827	655				
	4	9	295					
IVb	1	55	7412	281				
	2	34	520					
	3	3	557					
	4	20	2434					
IVc	1	7	504					
Saithe								
IIa	1					9	1792	976
	2					4	1570	938
	3	1	241	241		5	1652	951
	4					5	1438	1108
IVa	1	21	792	269		4	1673	760
	2					2	698	302
	3					5	1680	603
IVb	1	1	56	56				

Species Area	Season	Research Vessel Samples				Market Samples		
		No. of Samples	No. of Fish			No. of Samples	No. Of Fish	
			Measured	Aged	Racial Investig-ationn		Measured	Aged
Saithe etc.								
Vb	1	1	155	155		1	204	204
	2					4	1079	430
	3					1	160	87
	4					1	161	161
Blue Ling								
XIV	3					2	297	192
	4					3	514	321
Vb	1					5	908	326
	2					3	458	305
	3					-	-	-
	4					1	180	90
VI	1	1	228	228				
Norway Pout:								
IVa	1	23	3878					
IVb	1	14	558					
Poor cod								
IVb_1	1	11	144					
	4	5	63					
IVc	1	12	247					

Species Area	Season	Research Vessel Samples				Market Samples		
		No. of Samples	No. of Fish Measured	No. of Fish Aged	Racial Investigationn	No. of Samples	No. Of Fish Measured	No. Of Fish Aged
Whiting pout								
IVb	1	8	21					
	4	5	79					
IVc	1	11	54					
Plaice								
IVb	1	33	2625			4	1958	863
	2	181	27322			1	722	336
	3	4	434			3	1683	798
	4	31	684			1	638	266
IVc	1	12	1001					
Sole								
IVb	1	4	4			3	581	486
	2	167	8850	1884		1	211	168
	3	18	21	21		3	570	566
	4	22	274			2	976	379
Dab								
IVb	1	34	6242					
	2	103	21269					
	3	14	929					
	4	19	557					
IVc	1	10	403					

Species Area	Season	No. of Samples	No. of Fish Measured	Aged	Racial Investig-ationn	No. of Samples	No. Of Fish Measured	Aged
Flounder								
IVb	1	7	19					
	2	35	329					
	4	14	155					
IVc	1	12	36					
Turbot								
IVb	1	10	21			4	594	568
	2	69	133	55		3	757	546
	3	104	240	131		2	332	322
	4					1	43	42
IVc	1	3	3					
Brill								
IVb	1	1	3					
	2	2	7					
IVc	1	1	1					
Lemon sole								
IVb	1	10	122					
Long rough dab								
IVa	1	1	82					
IVb	1	1	197					

ICELAND

(J. Magnusson)

The research work on demersal species of fish was carried out in Iceland along the same lines as in previous years, both on landed demersal fish and on research vessel catches. There were no major changes in the research activities, and the research vessels were engaged in routine work.

The special research programmes on juvenile and spawning cod and on the behaviour of cod off NW Iceland were continued and the research programme on feeding habits of demersal fish was intensified. The collection of data on blue ling was increased in connection with the development of an aimed blue ling fishery.

The three branches of the Marine Research Institute were operated throughout the year with unchanged tasks. The fishery inspectors continued to collect data on demersal fish, particularly on cod, on board commercial vessels. One cruise of the R.V. "Bjarni Sæmundsson" was directed to the redfish nursery gounds off East Greenland. Cod research and tagging was also carried out in the same area during that cruise.

The number of sampled demersal fish is shown in the attached tables.

Iceland - Sampling data for Cod 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	371		67784	2325	577
"	"		61	9634	1700	-
"	Apr.-June	146		22666	837	297
"	"		19	2000	1205	-
"	July-Sept.	320		32791	2527	2690
"	"		7	599	300	-
"	Oct.-Dec.	325		33860	2225	111
"	"		19	2085	1200	-
Total		1162	106	171419	13219	3675
XIV	July-Sept	49		1255	352	1418

Iceland - Sampling data for Haddock 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.- March	97		12920	801	-
"	"		21	2842	899	-
"	Apr.-June	75		11152	799	-
"	"		4	640	200	-
"	July-Sept.	89		5469	492	-
"	"		5	894	200	-
"	Oct.-Dec.	142		14389	1013	-
"			13	2385	700	-
Total		403	43	50691	5104	-
XIV		9		252	100	-

Iceland - Sampling data for saithe 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	38		1871	661	-
"	"		9	1180	500	-
"	Apr.-June	18		1849	355	-
"	"		3	-	300	-
"	July-Sept.	22		1189	200	-
"			2	-	225	-
"	Oct.-Dec.	30		2336	74	-
"	"		5	495	296	-
Total		108	19	8920	2611	-

Iceland - Sampling data for whiting 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	4		71		
"	Apr.-June	7		88		
"	Oct.-Dec.	1		4		
Grand	total	12		163		

Iceland - Sampling data for blue ling 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	3		4	104	
"	"		2	375	100	
"	Apr.-June	36		1094		
"	Jul.-Sep.	1		1		
"	Oct.-Dec.	3		27		
"	"		2	543		
Grand total		43	4	2044	204	

Iceland - Sampling data for tusk 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	2		2		
"	Apr.-June	40		166		
"	Oct.-Dec.	2		3		
Sub total		44		171		
XIV	Jul.-Sep.	10		19		
Grand total		54		190		

Iceland - Sampling data for roundnose grenadier 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	1		70		
"	Apr.-June	12		1352	61	
Grand total		13		1422	61	

Iceland - Sampling data for roughhead grenadier 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Apr.-June	2		9		
XIV	Jul.-Sept.	10		34	5	
Grand total		12		43	5	

Iceland - Sampling data for Redfish 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
		S. marinus				
Va	Jan.-March	75		4621		
"	"		9	95	800	
"	Apr.-June	46		3078		
"	"		11	661	675	
"	Jul.-Sep	59		5218		
"	"		2	403		
"	Oct.-Dec.	85		6338	295	
"	"		8	1644		
Sub total		265	30	22058	1770	
XIV	Jul.-Sep.	67		3090	548	
"	Oct.-Dec.	2		2		
Sub total		69		3092	548	
		S. mentella				
Va	Jan.-March		1	81		
"	Apr.-June	37		3789		
"	"		1	259		
"	Jul.-Sep.	2		2		
"	Oct.-Dec.	1		1		
"	"		2	152		
Sub total		40	4	4284		
XIV	Jul.-Sep	52		5993	454	
"	Oct.-Dec.	4		200		
Sub total		56		6193	454	
		S. viviparus				
Va	Apr.-June	12		931		
"	Jul.-Sep.	6		284		
"	Oct.-Dec.	7		546		
Sub total		25		1761		
Grand total		455	34	37388	2772	

Iceland - Sampling data for Catfish (A.lupus) 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	3	2	1843	193	-
"	Apr.-June	1	-	9	349	506
"	Jul.-Sep.	5	1	1555	729	554
"	Oct.-Dec.	3	-	882	74	86
Grand Total		12	3	4289	1350	1146

Iceland - Sampling data for Catfish (A.minor) 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	1	1	100	-	-
"	Apr.-June	-	-	-	-	-
"	Jul.-Sep.	2	-	13	-	5
"	Oct.-Dec.	2	-	10	3	2
Grand Total		5	1	123	3	7

Iceland - Sampling data for Halibut 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Messured	Aged	Tagged
Va	Jan.-March	2	-	33	23	-
"	Apr.-June	2	-	5	51	-
"	July-Sept.	4	-	44	168	92
	Oct.-Dec.	3	-	156	1	5
Grand Total		11		238	243	97

Iceland - Sampling data for silver smelt 1980

Area	Season	No. of samples		No.of fish	
		Research vessels	Market samples	Measured	Aged
Va	Jan.-March	1		4	
"	Apr.-June	38		3244	191
"	Oct.-Dec.	3		121	
Sub total		42		3369	191
XIV	July-Sept.	6		9	66
Grand total		48		3378	257

Iceland - Sampling data for plaice 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	3		117	199	1000
"	Apr.-June	2			200	210
"	July-Sept.	3	56	5765	1381	190
"	Oct.-Dec.	13	25	2105	1203	1059
Grand Total		21	81	7987	2983	2459

Iceland - Sampling data for Greenland halibut 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March		6	934	103	
"	Apr.-May		42	6680	1350	
"	July-Sept.		3	530	152	
"	Oct.-Dec.		10	1391	398	
Grand Total			61	9535	2003	

Iceland - Sampling data for Norway pout 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	-	-	-	-	-
"	Apr.-June	-	-	-	-	-
"	July-Sept.	1	-	-	55	-
"	Oct.-Dec.	-	-	-	-	-
Total		1			55	

Iceland - Sampling data for ling 1980

Area	Season	No. of samples		No. of fish		
		Research vessels	Market samples	Measured	Aged	Tagged
Va	Jan.-March	11		18		
"	Apr.-May	31		121		
"	Oct.-Dec.	3		5		
Grand total		45		144		

I R E L A N D

(J.P. Hillis)

Cod, haddock, whiting, plaice and sole were sampled at the ports shown in the table. In addition, small scale sampling for discards in the gadoid fishery was undertaken at Killybegs (VIa) as was sampling of the whiting by-catch in the Nephrops fishery mainly based at Skerries (VIIa). A study on otolith reading was commenced during the year with a view to determining the extent to which otoliths of young gadoids could reliably be read directly, without microscopic inspection of a cross-section. (ICES Doc. CM1980/G50). This gave reasonably encouraging results with cod.

For plaice spring and autumn beam trawl surveys were again carried out in shallow water in Division VIIa and the Zoology Department, University College, Dublin, initiated a beach-seine survey of young flatfish in the same area.

SAMPLING DATA

Table 1

Species	Division	Port	Season	No. of samples	No. of fish	
					Measured	Aged*
Cod	VIa	Killybegs	1	6	450	313
			2	5	247	168
			4	6	266	234
		Greencastle	1	9	323	250
			2	10	493	233
			3	5	811	201
			4	7	281	173
		Total	-	48	2871	1572
	VIIa	Howth	1	4	421	295
			2	5	434	329
			3	5	761	486
			4	3	244	188
		Kilmore Quay	1	9	352	98
			2	5	189	139
			3	3	36	31
		Total	-	34	2437	1566
	VIIb,c	Galway	1	5	167	(125)
			4	5	149	(141)
		Total	-	10	316	(286)
	VIIg-k	Castletown-bere	(all 3)	7	149	(117)
	OVERALL TOTAL			99	5773	3138 (+403)

* Numbers in brackets indicate otoliths collected but not yet read.

Table 2

Species	Division	Port	Season	No. of samples	No. of fish	
					Measured	Aged*
Haddock	VIa	Killybegs	1	7	1090	267
			2	6	655	338
			3	3	1771	167
			4	4	1270	165
		Greencastle	2	3	240	174
			3	1	183	50
			4	2	530	167
		Total	-	26	5739	1328
	VIIb,c	Galway	(All 4)	2	172	(69)
	VIIg-k	Castletownbere	(All 3)	4	468	(169)
OVERALL TOTAL				32	6379	1328 (+238)

* Numbers in brackets indicates otoliths collected but not yet read

Table 3

Species	Division	Port	Season	No. of samples	No. of fish	
					Measured	Aged*
Whiting	VIa	Killybegs	1	5	789	256
			2	4	1164	150
			3	3	1176	83
			4	4	1463	149
		Greencastle	4	2	164	(82)
		Total	-	18	4756	638 (+82)
	VIIa	Howth	1	2	418	142
			2	3	674	141
			3	5	1374	414
			4	5	981	126
		Total	-	15	3447	823
	VIIb,c	Galway	1	4	505	(121)
			4	2	439	(125)
		Total	-	6	944	(246)
	VIIg-k	Castletownbere	(all 3)	5	989	(128)
	OVERALL TOTAL			44	10136	1461 (+456)

*Numbers in brackets indicate otoliths taken but not yet read

Table 4

Species	Division	Port	Season	No. of samples (all marked)	No. of fish Measured Male	Measured Female	Aged Male	Aged Female
Plaice	VIa	Killybegs	1	5	363	217	(153)	(152)
			2	3	263	336	(101)	(108)
			3	3	337	368	(126)	(148)
			4	4	386	355	(196)	(238)
		Greencastle	2	7	530	742	(181)	(270)
			4	2	242	247	(157)	(171)
		Total (Both sexes)		24	2121	2261	(914)	(1087)
					4382		(2001)	
	VIIa	Howth	1	1	5	27	5	27
			2	4	278	815	159	232
			3	3	233	300	86	116
			4	1	84	111	30	44
		Kilmore Quay	1	2	204	230	67	82
			2	5	241	818	116	253
			3	5	288	589	94	159
		Total (Both sexes)		21	1332	2890	499	836
					4222		1335	
	VIIb,c	Galway	1	3	356	152	(83)	(89)
			4	2	157	118	(79)	(53)
		Total (Both sexes)	-	5	513	270	(162)	(142)
					783		(304)	
	VIIg-k	Castletownbere /Unionhall	(all 3)	5	209	356	(141)	(214)
					565		(355)	
	OVERALL TOTAL (Both sexes)			55	4175	5777	(1716)	(2279)
					9952		3995	
Sole	VIIg-k	Castletownbere /Unionhall (Both sexes)	(all 3)	4	102	64	34	43
					166		77	

* Numbers in brackets indicate otoliths collected but not yet read

NETHERLANDS

(F. A. van Beek)

In 1980 R.V. "Tridens" made 3 cruises (10 weeks) in the North Sea in the framework of benthic fish surveys. The R.V. "Stern" and R.V. "Schollevaar" made 7 cruises (15 weeks) in the Dutch part of the Waddensea respectively 10 cruises (12 weeks) in the Zeeland estuary, dealing with demersal topics. Three chartered commercial cutters KW 34, GO 29 and WR 57 carried out 4 trips (14 weeks) in total. These ships were partially enlisted in survey work and partially in mesh experiments.

In April and in September/October the R.V. "Tridens", R.V. "Stern", R.V. "Schollevaar" and the cutter GO 29 made 2 joint standard surveys in cooperation with Belgian and German research vessels in the continental nursery areas of juvenile flatfish, gadoids and shrimps.

The R.V. "Tridens" participated in the ICES Young Fish Surveys in February for estimating the abundance of 1-year old gadoids. In addition R.V. "Tridens" made a cruise in September in the northern North Sea to estimate 0-group abundance of gadoids.

Because of the scarcity of soles between 15 and 30 cm bodylength in the North Sea, mesh selection experiments were carried out in the Irish Sea. In August the commercial 1000 HP cutter WR 57 made a trip of 3 weeks. In October the 1800 HP cutter KW 34 made a second trip of 3 weeks.

The analysis of the stocks of cod, whiting, haddock, sole and plaice by means of market sampling in the North Sea were continued. Compared with last year the market sampling of sole and plaice has been reduced with 50 %. The market sampling of saithe has stopped completely, due to absence of landings.

During all surveys length compositions were defined and otoliths sampled of sole, plaice, dab, turbot, brill, cod, whiting and haddock.

In the Waddensea R.V. "Stern" made several cruises to compare the efficiency of the different gears, used by the participating countries during the surveys in the nursery areas.

In the Zeeland estuary R.V. "Schollevaar" made 8 cruises in spring to collect data on migration of plaice larvae into the nursery areas.

1980 SAMPLING DATA FOR DEMERSAL FISH SPECIES

Species/area	Season	No. of samples for age determination only		Number of fish	
		research vessel	market	measured ')	aged ")
SOLE					
Golf de Biscay	2nd quarter	--	1		50
VII-a	1st quarter	--	2		90
	2nd "	--	7		501
	3rd "	1	--		111
	4th "	1	--		180
IV-b	1st quarter	--	10		501
	2nd "	15	18		1094
	3rd "	--	8		392
	4th "	11	8		742
IV-c	1st quarter	--	7		349
	2nd "	5	10		755
	3rd "	--	5		290
	4th "	6	4		505
Dutch Waddensea	2nd quarter	5			63
	4th "	5			100
Zeeland estuary	2nd quarter	2			84
	4th "	2			129
PLAICE					
VII-a	3rd quarter	1			129
	4th "	1			64
IV-b	1st quarter		28		2005
	2nd "	15	12		1923
	3rd "		13		893
	4th "	13	14		2171
IV-c	1st quarter		8		565
	2nd "	6	2		578
	3rd "		1		70
	4th "	6	2		644

1980 SAMPLING DATA FOR DEMERSAL FISH SPECIES (continued).

Species/area	Season	No. of samples for age determination only		Number of fish	
		research vessel	market	measured ')	aged ")
PLAICE (continued)					
Dutch Waddensea	2nd quarter	6			398
	4th "	6			318
Zeeland estuary	2nd quarter	3			124
	4th "	2			145
DAB					
IV-b	2nd quarter	15			712
	4th "	12			457
IV-c	2nd quarter	6			209
	4th "	6			158
Dutch Waddensea	2nd quarter	6			201
	4th "	6			169
Zeeland estuary	2nd quarter	2			31
	4th "	2			53
TURBOT					
IV	2nd quarter				8
	4th "				117
Dutch Waddensea	2nd quarter				15
VII-a	3rd quarter				40
	4th "				46
BRILL					
IV	2nd quarter				17
	4th "				32
Dutch Waddensea	2nd quarter				15
VII-a	3rd quarter				52
	4th "				46

1980 SAMPLING DATA FOR DEMERSAL FISH SPECIES (continued).

Species/area	Season	No. of samples for age determination only		Number of fish	
		research vessel	market	measured ')	aged ")
COD					
IV	1st quarter	21	8	3534	1174
	2nd "	13	12	3332	913
	3rd "	12	10	3367	977
	4th "	6	9	2632	660
HADDOCK					
IV	1st quarter	10	4	943	698
	2nd "	10	1	561	339
	3rd "	8	2	1349	323
	4th "	4	2	748	196
WHITING					
IV	1st quarter	14	4	2741	996
	2nd "	12	1	2750	689
	3rd "	11	2	2821	657
	4th "	6	2	1820	410
SAITHE					
IV	1st quarter	2	--	--	74
	2nd "	--	--	--	--
	3rd "	--	--	--	--
	4th "	--	--	--	--

') market only.

") market and research vessel.

Norway

(C.J. Rørvik)

Sub-areas I and II

The research activities at sea were nearly the same in 1980 as in the last years. The distribution of young cod and haddock were investigated during the combined acoustic and trawl survey in the Barents Sea in February-March. In February-March the concentrations of mature Arcto-Norwegian cod were charted in Lofoten. The investigations on the distribution and the drift of cod egg and larvae were continued in March-May with surveys in Lofoten. The feeding of cod larvae was investigated. In April-May the resources of redfish, Greenland halibut and blue whiting in the Vesterålen-Bear Island area were studied with one research vessel. In August-September the annual international 0-group fish survey was carried out in the Barents Sea and adjacent areas. In September-October the distribution and abundance of cod, haddock, redfish, Greenland halibut and blue whiting were investigated in the Bear Island - West Spitsbergen area. In July-August three vessels together surveyed the stock of blue whiting in the Norwegian Sea and adjacent waters. Tagging experiments of the major roundfish species were continued.

Sub-area IV

The sampling of Recommendation 2 fisheries in Division IVa was continued.

As part of international surveys the distribution and abundance of I- and II-group gadoids were studied in February, and 0-group gadoids and young sandeel in June-July. In April-May the distribution of blue whiting west of the British Isles were investigated. In June a survey on 0-group blue whiting in the fjords in Western Norway were carried out.

Note: Concerning the attached tables, the data for the last two quarters are preliminary.

SPECIES AREA	Season	RESEARCH VESSEL					MARKET			
		Aged		Measured		Tagged	Aged		Measured	
		No.of samples	No.of fish	No.of samples	No.of fish		No.of samples	No.of fish	No.of samples	No.of fish
Cod										
I	1	23	4111	39	7623		14	1635	21	4598
	2					1939	26	2674	16	6120
	3					104	3	282		
	4					19	3	301	3	584
IIa	1	24	2992	18	1234	1458	65	5176	31	5964
	2	9	521			1995	38	3485	17	2390
	3	7	120			611	2	138		
	4					422	3	301	2	259
IIb	3	2	229	2	162					
IVa	1	15	137						28	386
	2								17	294
	4			14	119					
IVb	1	23	101	25	218					
	4	6	233							

SPECIES AREA	Season	RESEARCH VESSEL					MARKET			
		Aged		Measured		Tagged	Aged		Measured	
		No.of samples	No.of fish	No.of samples	No.of fish		No.of samples	No.of fish	No.of samples	No.of fish
Haddock										
I	1	15	2357	35	2387		7	435	12	2346
	2						14	1398	3	570
	4								2	362
IIa	1	15	1742	13	617		9	932	16	2836
	2						15	1478	8	1228
	4	1	55						1	213
IIb	3			1	41					
IVa	1	15	323	22	1711				24	450
	2								7	84
	3								17	109
	4	4	290	16	1787					
IVb	1	23	276	15	498					
	4	4	285	4	581					

SPECIES AREA	Season	RESEARCH VESSEL					MARKET			
		Aged		Measured		Tagged	Aged		Measured	
		No.of samples	No.of fish	No.of samples	No.of fish		No.of samples	No.of fish	No.of samples	No.of fish
Saithe										
I	2						2	202	2	534
	3						5	501		
	4								1	184
IIa	1	1	100				9	819	13	2492
	2	4	401			535	5	509	8	1441
	3	3	305	4	1800	3259	19	1929	1	170
	4						9	649		
IVa	1						1	95	24	2404
	2						4	480	12	347
	3			2	611	1000	2	199		
	4	2	157	7	195		1	103	17	2796
IVb	2								1	94
Greenland Halibut										
I	2						1	56		
	4						1	104		
IIa	4								1	326
Ling										
IIa	1								1	382
IVa	1								4	48
	2								12	105

SPECIES AREA	Season	RESEARCH VESSEL					MARKET			
		Aged		Measured		Tagged	Aged		Measured	
		No.of samples	No.of fish	No.of samples	No.of fish		No.of samples	No.of fish	No.of samples	No.of fish
Tusk										
IVa	1								2	30
	2								7	72
Whiting										
IVa	1	13	157	11	255				36	723
	2								14	172
	4	1	116	10	795				24	107
IVb	1	18	166	32	1228					
	4			3	118					
Norway pout										
IIa	1			8	350				1	78
IVa	1	7	105	18	926		5	501	38	3899
	2						7	501	25	2206
	3						2	198	51	5151
	4	5	169	12	1167				43	4316
Blue whiting										
IIa	1			6	182				3	150
	2								6	330
	3								2	110
	4								2	132
IVa	1			8	125				20	317
	2								29	1607
	3								42	678
	4			13	665					

SPECIES AREA	Season	RESEARCH VESSEL					MARKET			
		Aged		Measured		Tagged	Aged		Measured	
		No.of samples	No.of fish	No.of samples	No.of fish		No.of samples	No.of fish	No.of samples	No.of fish
Silver smelt										
IIa	1			6	55				4	197
	4								1	52
IVa	1			5	21				17	168
	2								22	482
	3								27	246
	4			9	128				11	124
Sandeel										
IVa	1						5	445	5	504
	2						4	386	13	1306
	3						1	97	2	200
	4						2	200	6	204
Long rough dab										
I	1			14	827					
IIa	1			9	479					
IVa	1			23	372					
	4			10	235					
IVb	1			29	347					
Redfish										
I	1			18	1173					
IIa	1			18	1474					
	2								1	341
IIb	3			2	59					

POLAND

No report received.

PORTUGAL

During 1980 the Instituto Nacional de Investigação das Pescas (INIP) studied the principal demersal fisheries of the Portuguese coast with special attendtion to hake (Merluccius merluccius)and blue whiting (Micromesistius poutassou). These species were regularly sampled in the main fishing harbours (i.e. catches from Portuguese waters - ICES Sub-area IX) and on board the research vessels, during the surveys carried out for demersal stock studies.

Sampling on hake (Merluccius merluccius L)

Portuguese coast (ICES Sub-area IX) 1980.

Region	Quarter	Fishing harbour		Research vessel		TOTAL	
		No. of samples	No. of fishes measured	No of samples	No. of fishes measured	No. of samples	No. of fishes measured
IX	1st	284	11 154	58	9 888	342	21 042
IX	2nd	371	15 622	60	10 867	431	26 489
IX	3rd	340	14 132	50	4 339	390	18 471
IX	4th	538	19 613	94	11 291	632	30 904
TOTAL		1 533	60 521	262	36 385	1 735	96 306

Sampling on blue whiting (Micromesistius poutassou)

Portuguese coast(ICES Sub-area IX) 1980.

Region	Quarter	Fishing harbour		Research vessel		TOTAL	
		No. of samples	No of fishes measured	No. of samples	No. of fishes measured	No. of samples	No. of fishes measured
IX	1st	59	6 781	42	3 002	101	9 783
IX	2nd	52	6 271	32	1 896	84	8 167
IX	3rd	37	4 356	15	1 587	52	5 943
IX	4th	83	6 464	69	6 010	152	12 474
TOTAL		231	23 872	158	12 495	389	36 367

Research vessel surveys

Area	Date ( )	Objectives
Portuguese coast	March (2)	Demersal stocks
" "	May (1)	" "
" "	August (1)	" "
" "	September (1)	" "
" "	October (2)	" "
" "	November (1)	" "
" "	December (1)	" "

SPAIN

(R. Robles)

Spanish Institute of Oceanography

Some improvements have been made in the sampling of hake in the different areas, in the knowledge of selectivity factor of 40 mm mesh size and in the extension, for the first time, of the area surveyed by our research vessel "Cornide de Saavedra", along the Cantabrian Sea in the north of Spain to the French border.

Studies on biological parameters as fecundity food habits and growth referred to hake have also been developed during 1980.

In West-African waters an important number of samples of different species caught by bottom trawling have been taken.

Research Vessel Activities 1980

Area	Dates	Objectives
IXa - VIIIc west Galician waters	5-11 October	Recruitment estimates for hake.
VIIIc Cantabrian Sea	17-31 October	First demersal research survey in this area.

Species: HAKE	Area	Quarter	Samples		Number Fish measured	
			Research Vessel	Market	Research Vessel	market
	VIa	I		2		107
		II		2		153
		III		2		256
		IV		1		129
	VII	I		15		3655
		II		13		2048
		III		11		1522
		IV		9		1323
	VIIIab	I		21		1792
		II		20		1740
		III		14		1836
		IV		7		708
	VIIIc	I		37		2835
		II		60		4192
		III		50		2958
		IV	39	40	12536	2320
	IXa	I		29		2103
		II		28		2024
		III		22		2085
		IV	10	24	3283	3299

SPECIES: MEGRIM (Lepidorhombus boscii)

Area	Quarter	Nº Samples	Fish measured
		Research Vessel	Research Vessel
VIIIc	IV	13	451
IXa	IV	8	146

SPECIES: MEGRIM (Lepidorhombus wiffiagonis)

Area	Quarter	Nº Samples	Fish measured
		Research Vessel	Research Vessel
VIIIc	IV	12	635
IXa	IV	7	11

Species	Area	Quarter	Nº of Samples at sea.	Nº fish measured at sea.
Balistes capriscus	Central West Africa.	III	9	1292
Chloroscombrus chrysus			1	170
Sardinella eba			1	355
S. aurita			3	137
Decapterus punctatus			3	154
Brachydeuterus auritus			1	102
Merluccius merluccius	Northwest Africa	II	33	9012
Trachurus trecae	Southwest Africa	II and III	25	700
T. trachurus			29	1116
Trigla lineata			28	86
T. lyra			20	97
Dentex macrophthalmus			23	660
D. canariensis			18	96
Pagellus coupei			40	612
Diplodus sargus			21	88
Merluccius capensis			22	97
Lithognathus mormyrus			24	113
Solea sp.			22	35
Pagellus coupei	Northwest Africa	I and II	69	16533
Diplodus senegalensis			19	8176
Pagellus acarne			67	8913
Dentex gibbosus			25	544

Species	Area	Quarter	Nº of Samples at sea.	Nº fish measured at sea.
Dentex maroccanus	Northwest Africa	I and II	10	624
D. canariensis			10	411
D. macrophthalmus			9	191
Diplodus annularis			2	250
D. vulgaris			18	620
Pagellus erythrinus			19	1239
Spondyliosoma cantharus			46	1373
Sparus caeluleostictus			8	40
Diagrama mediterraneum			13	162
Sciaena canariensis			8	324
Pseudotolithus senegalensis	Central West Africa.	IV	24	2857
Lutjanus goreensis			28	222
Cynoglosus lagoensis			69	1761
Epinephelus aeneus			63	487
Pomadasis rogeri			69	1526
P. jubelini			33	834
Dentex gibbosus			115	15650
Pagellus coupei			57	21437
Sphyraena dubia			32	417
Auxis thazard			27	98
Psettodes belcheri			65	348
Caleoides decadatylus			23	5385

Institute of Fisheries Investigations

In the Bay of Vigo (Division IXa) work on the growth, fecundity and egg and larvae of the bib (Trisopterus luscus) has been carried out. The study has been completed on the distribution and abundance of the most important demersal species in Galician waters (hake, blue whiting, Nephrops, megrim, horse mackerel, octopus (Eledone sp.) and squids caught during some commercial and research surveys from 1972-1977.

Two longline and trap surveys have been made on the Galician Bank (128 miles from Cape Finisterre) in depths of over 600-700 m. The principal species caught were : Polyprion americanus, Beryx decadactylus, B. splendens, Helicolenus dactylopterus, Phycis phycis, P. blennioides, Epigonus telescopus, Conger conger, and the crustacea Geryon sp.

Sweden

(R. Rosenberg)

The only activity in 1980, owing to lack of resources, was the participation in the International Young Fish Survey.

United Kingdom

1. England and Wales

(A. C. Burd)

1. Sampling

COD

Area			No. of samples		No. of fish	
			Research vessel	Market	Measured	Aged
Faroe	105*			2	210	0
North Sea	104	(offshore)	+	379	57 093	5 150
	104B	(inshore)	+	243	31 563	3 186
	104C	(inshore)	+	56	6 820	674
North Sea	104	TOTAL	+	678	95 476	8 990
W. Scotland	106A			66	9 166	792
Irish Sea	107A	(offshore)		1	88	
	107A	(inshore)	+	108	14 066	1 976
	107A	TOTAL	+	109	14 154	1 976
English Channel E	107D		+	22	988	237
" " W	107E					
Bristol Channel	107F			8	892	12
S. Ireland	107G			2	229	27
Freezers						
NE Arctic	101,102,113			9	3 681	

HADDOCK

Area			No. of samples		No. of fish	
			Research vessel	Market	Measured	Aged
Faroe	105			2	244	
W. Scotland	106A		+	72	8 432	691
Rockall	106B			2	205	29
North Sea	104	(offshore)	+	191	28 941	5 531
	104B	(inshore)	+	159	16 893	1 122
	104C	(inshore)				7
North Sea	104	TOTAL	+	350	45 834	6 660
Irish Sea	107A	(offshore)		11	1 280	101
	107A	(inshore)	+	1	104	45
Irish Sea	107A	TOTAL	+	12	1 384	146

*Code 105 = Sub-area V, etc.

SAITHE

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
Faroe	105		2	49	
W. Scotland	106A		44	4 942	403
N. Sea	104	+	59	5 873	553

WHITING

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104 (offshore)	+	87	6 881	2 598
	104B (inshore)	+	165	11 508	877
	104C (inshore)	+			132
	104 TOTAL	+	252	18 389	3 607
Irish Sea	107A (inshore)	+	94	10 397	1 887
W. Scotland	106A		1	96	
English Channel E	107D		7	346	182
" " W	107E		114	11 528	528
Bristol Channel	107F		13	1 418	250
S. Ireland	107G		1	125	28

HAKE

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
Irish Sea	107A		14	2 683	
W. Scotland	106A		7	1 138	
North Sea	104		1	197	
Bristol Channel	107F		4	937	
English Channel W	107E		24	1 617	

PLAICE

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104 (offshore)		270	45 833	4 295
	104C (inshore)	±	4	478	76
	104 TOTAL	±	274	46 371	4 371
Irish Sea	107A (offshore)		2	509	
	107A (inshore)	±	69	11 238	2 038
	107A TOTAL	±	71	11 747	2 038
Bristol Channel	107F (offshore)		20	3 216	
	107F (inshore)	---	13	1 593	226
	107F TOTAL	---	33	4 809	226
S. Ireland	107G, 107H		2	233	
English Channel E	107D	+	58	4 128	463
" " W	107E		117	11 142	1 517

SOLE

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104 (offshore)		110	10 692	439
	104C (inshore)	±	23	2 877	778
	104 TOTAL	±	133	13 569	1 217
Irish Sea	107A (offshore)		1	217	
	107A (inshore)	±	69	11 007	953
	107A TOTAL	±	70	11 224	953
Bristol Channel	107F (offshore)		19	3 446	160
	107F (inshore)	---	9	820	53
	107F TOTAL	---	28	4 266	213
English Channel E	107D	+	89	3 607	544
" " W	107E		101	10 410	477

LEMON SOLE

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104C (inshore)	+			29
English Channel W	107E		111	10 895	485
Bristol Channel	107F		6	743	
S. Ireland	107H		1	115	

SPURDOGS

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104		118	8 585	
W. Scotland	106A		25	2 689	

SKATES AND RAYS

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
W. Scotland	106A		6	440	
Irish Sea	107A		50	6 811	
Bristol Channel	107F		6	1 003	
S. Ireland	107G		1	171	
North Sea	104C		2	98	

BLUE WHITING

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104A	3		2 667	164
West of Ireland	107B-C	2		915	145
West of Scotland	106A	1		161	57
Celtic Sea	107G-K	4		1 653	214
Bay of Biscay	108	11		2 723	547

NORWAY POUT

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104A	14		18 560	766

SANDEELS

Area		No. of samples		No. of fish	
		Research vessel	Market	Measured	Aged
North Sea	104B		3	1 078	205

2. Research vessel surveys

Area		Month	Objectives
North Sea	104	Jan/Feb	International Youngfish Survey
" "	104	Jan/Feb	Plaice fecundity survey
" "	104	Feb	" " "
" "	104	Feb/Mar	Plaice midwater trawling
Irish Sea	107A	March	I-Gp gadoid survey
North Sea	104	Apr/May	Groundfish survey
" "	104	Apr/May	Norway pout/Gadoid survey
" "	104	May/Jun	I-Gp Flatfish survey
" "	104	Aug/Sep	Groundfish survey
" "	104	Sep	Norway pout/Gadoid survey
North Sea	104	Sep	O-Gp Flatfish survey
Irish Sea	107A	Sep/Oct	I-Gp Gadoid survey
North Sea	104	Nov	Norway pout/Gadoid survey
" "	104	Nov/DEc	O + I-Gp survey
English Channel	107D-E	Dec	Groundfish survey

RELEASE OF ENGLISH TAGGED FISH IN I.C.E.S. AREAS DURING 1980

Species \ Regions	104A	104B	104C	107D	107E	107A	106A	Total
Plaice	-	-	2457	199	-	3460	-	6116
Cod	-	-	1993	-	-	3	-	1996
Coalfish	-	-	2	-	-	-	-	2
Sole	-	-	1339	142	-	-	-	1481
Turbot	-	-	-	-	-	410	-	410
Flounders	-	-	66	-	-	-	-	66
Total	-	-	5857	341	-	3873	-	10071

2. Scotland

(R. Jones)

1 Research Vessel Activities

FRV "Explorer" participated in the 1980 International Young Fish Survey in February. "Explorer" also carried out surveys of pre-recruit cod, haddock and whiting on the west coast of Scotland in March/April and in the North Sea in August.

In June FRV "Explorer" participated in the International 0-group Gadoid Survey in the North Sea.

Numbers of cod, haddock and whiting measured and aged are shown in Table 1.

2 Routine Monitoring of Demersal Fish Landings

Landings of cod, haddock, whiting, saithe, plaice and lemon sole were sampled at the major Scottish ports to obtain length and age data from all areas fished by Scottish trawlers, seiners, light trawlers and Nephrops trawlers.

The numbers of cod, haddock, whiting, saithe, plaice and lemon sole measured and aged are shown in Table 2.

3 Measurement of Discarding Rates

Fifty trips were made on Scottish commercial fishing vessels to estimate the numbers of cod, haddock and whiting discarded at each age. The numbers of each species measured and aged in each quarter are shown in Table 3.

4 Tagging Experiments

Two research vessel tagging experiments were made in 1980, both in the North Sea. Details are given in Table 4.

5 Sandeel and Norway pout Sampling

Samples of sandeels were obtained both from research vessels and from the commercial fishery at Shetland. Landings of Norway pout were sampled at Shetland and Stornoway.

Numbers of Norway pout and sandeels measured and aged are given in Table 5.

TABLE 1 Scottish research vessel sampling, 1980

Month	Area	Cod		Haddock		Whiting	
		Measured	Aged	Measured	Aged	Measured	Aged
Feb	North Sea	2565	440	67115	5355	100552	4424
Mar/Apr	Rockall/ West of Scotland	627	390	33317	1600	10870	1173
Aug	North Sea	729	550	69710	1288	46372	1549

TABLE 2 Scottish sampling of commercial landings, 1980

Area	Gear	Cod		Haddock		Whiting		Saithe	
		Measured	Aged	Measured	Aged	Measured	Aged	Measured	Aged
North Sea	Trawl	16598	3601	39133	3794	28827	2474	6630	2360
	Seine	23415	6916	62419	6599	39658	4383	1476	662
	Light trawl	18829	3965	43946	4002	28769	2651	2596	769
	Nephrops trawl	546	335	1056	197	1207	192		
West of Scotland	Trawl	3395	1389	10187	1864	6832	1068	1627	645
	Seine	1998	839	8380	1645	7016	1214	283	96
	Light trawl	2661	1355	9600	2163	6742	1314	1308	777
	Nephrops trawl	3255	1500	7138	2165	9472	1601	2444	961
Rockall	Trawl			569	104			150	73
Irish Sea	Light trawl	209	32	97	27	379	76		
	Nephrops trawl	189	94			336	91	24	16
Faroe	Trawl			1500	450	198	130	155	83

Plaice (all areas, all gears) Measured: 44091 Otolithed: 5366
Lemon sole (all areas, all gears) " 38943 " 3116

TABLE 3 Scottish sampling of discards, 1980

Sub-Area	Quarter	Number of boats sampled	Cod		Haddock		Whiting	
			Measured	Aged	Measured	Aged	Measured	Aged
IV	1	8	357	209	9013	238	3114	523
VIa	1	3	-	-	3046	784	1038	164
IV	2	13	1030	377	23570	1443	3399	840
VIa	2	2	274	70	3142	266	895	154
IV	3	10	257	149	9480	1007	4586	519
VIa	3	2	25	19	1488	315	334	105
IV	4	11	543	335	12568	1198	2003	472
VIa	4	0	-	-	-	-	-	-

TABLE 4 Numbers of fish tagged in 1980

Boat	Month	Area	Numbers of fish tagged			
			Cod	Haddock	Plaice	Sandeel
"Mara"	Feb.	Moray Firth	79	486	794	-
"Mara"	May	Moray Firth	48	1137	103	-
"Clupea"	June	Shetland	-	-	-	5064

TABLE 5 Sampling of sandeels and Norway pout, 1980

Area		Number of samples			
		Research vessel	Commercial landing	Measured	Aged
North Sea	Sandeels	71	36	11405	954
	N pout		10	1636	608
West of Scotland	Sandeels	7	-	863	360
	N pout	-	5	801	293

U.S.A.

(M.P. Sissenwine)

During 1980, the status of stock of more than thirty species or species groups exploited along the Atlantic coast of the USA north of Cape Hatteras was assessed. The demersal (at least partially demersal) fish stocks that were assessed are cod of the (1) Gulf of Maine and (2) Georges Bank - southern New England area; haddock of Georges Bank; redfish of the Gulf of Maine - Georges Bank area; silver hake of (1) the Gulf of Maine, (2) Georges Bank and (3) southern New England - mid-Atlantic area; red hake of (1) Georges Bank and (2) southern New England - mid-Atlantic area; pollock of Georges Bank - Gulf of Maine - Nova Scotia area; yellowtail flounder of (1) Georges Bank, (2) the Cape Cod area (3) southern New England and (4) the mid-Atlantic area; summer flounder, American plaice, witch flounder, and winter flounder for the USA Atlantic coast north of Cape Hatteras; scup, weakfish, bluefish, cusk, wolffish, dogfish, skates, and other finfish (excluding species already considered, menhaden and large pelagics) for the USA Atlantic coast north of Cape Hatteras. Stock assessments were based on length samples of commercial landings, research vessel trawl surveys, and age determinations of both commercial and research vessel catches. Commercial sampling, bottom trawl research survey and aging activity for 1980 is summarized in Tables 1, 2, and 3 respectively. Data from recreational fishery surveys and foreign fishery sampling programs was also considered.

The USA continued research on the biology of demersal fish larvae. At the Northeast Fishery Center, a new procedure and redesigned rearing system allowed the daily quantification of exact mortality rates of larval fish under controlled experimental conditions. Mortality rates for summer flounder, haddock, and winter flounder were established at constant temperature and varied prey densities. Furthermore, a controlled environmental chamber was used to monitor in-situ growth and mortality of first feeding larval winter flounder.

A complete nitrogen budget was determined biochemically for summer flounder larvae. This approach allowed the estimation of assimilation of food into growth and subsequent successful survival.

Fish food habits studies aim at quantitatively describing the predator-prey relationships for Northwest Atlantic demersal finfishes continued during 1980. A number of reports were completed which represent major steps forward in this area of study. One paper describes the prey of 15 members of the codfish order, Gadiformes, and identified the various populations as piscivore, mixed, or invertebrate feeders. A similar report was also completed on the flatfish order, the Pleuronectiformes.

Under the auspices of the National Marine Fisheries Service, a task force to study northeast fisheries management problems was established. The task force has continued to function during 1980. The task force has fostered a broad reaching discussion of the strategic and tactical basis of fisheries management. The discussions have encompassed such subjects as fisheries management objectives, the characteristics of fisheries management methods, the legal authority of fisheries management, the scientific

or technical basis of fisheries management, the definition of management units, and the decision process.

At the Southeast Fisheries Center, research was conducted on growth of juvenile spot. Studies were made on the utilization of seagrass, salt marsh and inter-tidal flats by juveniles and adult estuarine fishes; the availability of benthic food resources; and the periodicity of feeding and food consumed by juvenile fishes. Life history studies including reproduction, feeding, age and growth and mortality on selected important reef fishes along the southeastern United States were conducted. A study of the biology of reef fish on the Flower Gardens reef in the Gulf of Mexico was initiated. Studies were also conducted in the Flower Gardens on the impact of drilling on fishery stocks, specifically snapper. Fall and spring groundfish assessment cruises were conducted in Gulf of Mexico. Reef fish cruises were conducted off eastern Gulf of Mexico and in the Caribbean to determine character and distribution of these stocks in shallow and deep water areas. A fishery statistics collection plan was developed for the southeastern region of the USA.

Marine research laboratories of individual states and universities also conducted demersal fish research during 1980. The states of Maine, North Carolina and Massachusetts conducted inshore bottom trawl surveys. Maine tagged cod, sand dab, pollock (saithe), and haddock collected during its trawl survey. The state of Rhode Island conducted a bottom trawl survey of offshore yellowtail flounder fishing grounds during February of 1980. The survey is unique in that it was jointly sponsored by state and federal government and the fishing industry.

The state of Georgia conducted feeding habits, food preference, maturity, fecundity and migration pattern (through tagging) studies in 1980. Their research effort was directed at inshore species sought by recreational harvesters.

A more in depth description of USA demersal fish research is presented each June at the Northwest Atlantic Fisheries Organization Annual Meeting.

Table 1. Bottom Trawl Survey Cruises for 1980

Vessel	Date	No. of Stations	Area	Trawl Type
OFFSHORE				
Alb IV & Del II	16 Mar- 8 May	305	Nova Scotia-Cape Hatteras	#41 Yankee
Delaware II	20 Mar-25 Mar	26	Cape Hatteras-Cape Fear	#41 Yankee
Alb IV & Del II	11 Jul-18 Aug	162	Gulf of Maine-Cape Hatteras	#36 Yankee
Delaware II	14 Jul-18 Jul	21	Cape Hatteras-Cape Fear	#36 Yankee
Delaware II	17 Sep-14 Nov	272	Nova Scotia-Cape Hatteras	#36 Yankee
Delaware II	20 Sep-25 Sep	28	Cape Hatteras-Cape Fear	#36 Yankee
INSHORE				
Delaware II	25 Mar-22 Apr	100	Gulf of Maine-Cape Hatteras	#41 Yankee
Delaware II	20 Mar-25 Mar	37	Cape Hatteras-Cape Fear	#41 Yankee
Alb IV & Del II	14 Jul-18 Aug	103	Gulf of Maine-Cape Hatteras	#36 Yankee
Delaware II	14 Jul-18 Jul	39	Cape Hatteras-Cape Fear	#36 Yankee
Delaware II	25 Sep-15 Nov	88	Gulf of Maine-Cape Hatteras	#36 Yankee
Delaware II	20 Sep-23 Sep	38	Cape Hatteras-Cape Fear	#36 Yankee

Table 2. Fish Age Determination during 1980.

Species	1980
Redfish	2,044
Yellowtail	7,591
Mackerel	1,117
Cod	2,746
Haddock	6,134
Pollock	861
Scup	1,555
Silver hake	5,509
Blackback	0
Sea Herring	6,237
Alewives	1,754
Red hake	1,106
White hake	0
Butterfish	0
Fourspot flounder	0
Longhorn sculpin	0
Ocean pout	0
Bluefish	2,125
American plaice	200
Summer flounder	5,602
European hake	693

Table 3. USA Northwest Atlantic Commercial Landings Sampling Summary, 1980.

Species	# of Samples	# of Individuals
Cod	78	5,566
Haddock	138	10,443
Pollock	27	2,412
Redfish	54	5,458
Whiting	48	4,898
Sea herring	459	---
Witch flounder	1	164
American Dab	24	2,446
Sand Dab	---	---
Mackerel	30	3,185
Sea scallops	168	39,093
Winter flounder	71	8,093
Squid, Sp.	---	---
Squid, L.	31	3,858
Squid, I.	---	---
Industrial	11	2,502
Butterfish	36	4,054
Fluke	64	5,328
Red hake	2	318
Scup	26	3,478
Tilefish	1	37
Menhaden	---	---
Surf clams	---	---
Ocean quahog	---	---
Yellowtail	97	10,484
Bluefish	9	241
Cusk	---	---
Dogfish	---	---
Lobster	---	---
Red crab	---	---
Jonah crab	---	---
White hake	---	---
Total 1980	1,018	141,610

U.S.S.R.

In 1980 in the Barents Sea, Norwegian Sea and Greenland Sea investigations were carried out to determine the abundance of the main commercial fish by the trawl method; possible stock recruitment was estimated by means of young fish surveys in the area of the Barents Sea and adjacent waters. The amount, quality and peculiarities of ichthyoplankton distribution and the conditions of the young fish survival were studied.

Work was carried out to determine the relationship between peculiarities of fish distribution and behaviour on the one hand, and hydrographical conditions and nutritive base on the other hand. Methods of fishery forecasting were improved on this basis.

This year sampling was performed to characterise age-length composition, distribution and feeding pattern of cod, haddock, redfish and catfish, Greenland halibut and other fish in the ICES fishing areas I, IIa and IIb.

Data collected in 1980 by research vessels, scouting vessel and fishing vessles are given in Tables 1-8.

Table I

Data on cod sampling

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	46845	4979	2772
	II	I72II	2669	678
	III	84929	9935	4398
	IV	624I2	5806	I538
Bear Island - Spitsbergen area	I	I432	5	-
	II	8620	I740	900
	III	7I26	I2II	-
	IV	4935	I558	8I7
the Norwegian Sea Subarea	I	39670	3525	I80I
	II	7823	2956	I424
	III	274I	636	-
	IV	309I	275	-

Table 2

Data on haddock sampling

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	9418	1832	1423
	II	6262	1310	872
	III	7287	2343	1349
	IV	3730	975	200
Bear Island - Spitsbergen area	I	-	-	-
	II	192	75	-
	III	34	33	27
	IV	116	83	35
the Norwegian Sea Subarea	I	17285	2058	1233
	II	6289	2111	1762
	III	579	201	-
	IV	25	25	-

Table 3

Data on redfish sampling

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	3789	787	737
	II	8452	328	-
	III	11014	400	-
	IV	928	-	-
Bear Island - Spitsbergen area	I	4422	700	-
	II	12695	975	600
	III	13512	2652	550
	IV	8035	1019	969
the Norwegian Sea Subarea	I	24956	2375	2050
	II	47924	4184	2100
	III	15354	875	700
	IV	455	30	

Table 4

Data on Greenland halibut sampling

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	755	239	-
	II	II45	343	-
	III	I280	477	20I
	IV	I70	-	-
Bear Island - Spitsbergen area	I	I923	362	-
	II	8907	I55I	900
	III	5038	II36	550
	IV	I863	646	300
the Norwegian Sea Subarea	I	2I2	50	-
	II	225	59	I
	III	8I	25	-
	IV	-	-	-

Table 5

Data on catfish sampling

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	III2	-	-
	II	I4I4	260	I42
	III	2020	626	576
	IV	843	-	-
Bear Island - Spitsbergen area	I	375	-	-
	II	I244	-	-
	III	646	8	-
	IV	I560	-	-
the Norwegian Sea Subarea	I	550	-	-
	II	4I4	I28	I06
	III	53	I3	I3
	IV	-	-	-

Table 6

Data on plaice sampling

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	950	I30	26
	II	7II5	969	70I
	III	85I3	828	847
	IV	I327	468	300
Bear Island - Spitsbergen area	I	-	-	-
	II	-	-	-
	III	-	-	-
	IV	-	-	-
the Norwegian Sea Subarea	I	-	-	-
	II	-	-	-
	III	-	-	-
	IV	-	-	-

Data on long rough dab sampling Table 7

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	I0050	I59I	300
	II	I2250	I863	203
	III	I8445	746	I0
	IV	22606	I90I	300
Bear Island - Spitsbergen area	I	I076	75	-
	II	4643	350	300
	III	42I	I33	-
	IV	8764	649	-
the Norwegian Sea Subarea	I	2846	225	300
	II	6455	555	300
	III	II2I	-	-
	IV	-	-	-

Table 8

Data on saithe sampling

Area	Season	Number of specimens		
		Measured	Feeding sample	Aged
the Barents Sea Subarea	I	II	-	-
	II	20	-	-
	III	73	-	-
	IV	I		
Bear Island - Spitsbergen area	I	-	-	-
	II	-	-	-
	III	-	-	-
	IV	54	-	-
the Norwegian Sea Subarea	I	3	-	-
	II	2254	447	300
	III	442	150	-
	IV	-	-	-

In 1980 five cruises were made to different areas of the Central East Atlantic.

Area	Season	Objectives	Vessel
Sierra Leone Guineabissau 34.1.3	February March April-May	Trawl survey on fish abundance. Acoustic survey to determine state of fish resources. Oceanographic investigations. Biological sampling.	SRTM-1246
Morocco 34.1.3	May-June April-June		RTM Belogorsk
Morocco Guineabissau 34.1.3 Guineabissau	June-August August-September May-August May -June		SRTM-8004
Sierra Leone 34.1.3	June-July November		RTM Belogorsk
Benin 34.1.3	December November-December		SRTM-8018

A total of 862 hauls and 1085 hydrological stations was made.

Biological sampling

Species	Massive measurements, sp.	Biological analyses, sp.	Age samples, sp.
Merluccius sp.	10640	600	305
Sparidae	30442	9800	2800
Sciaenidae	4148	1813	300
Other	10500	1800	1200

The minimum biomass and abundance of 18 fish species were estimated: Pagellus acarne, Dentex polli, Dentex macrophthalmus, Pagellus coupei, Dentex anoplensis and Dentex congoensis prevailed among the groundfish