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Fish Populations on the Flemish Cap

by

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Research vessel data are studied from surveys conducted during 1978-85 on the Flemish Cap, an isolated Bank where water temperatures near bottom usually vary with a range of 1°C. Distribution and abundance of groundfish, especially cod, are examined.

Data are presented of 75 fish species from 1,010 successful sets stratified over a depth range of 71-400 fathoms. Twenty-one species are noted to be predominant. Concentrations of cod appear to be randomly distributed at depths to 300 fathoms.

TABLE I. NUMBER OF SUCCESSFUL RESEARCH VESSEL SETS CONDUCTED ON THE FLEMISH CAP BY YEAR AND DEPTH RANGE

TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	YEAR												TOTAL	PERCENT	AREA (S.N.M.)	PERCENT
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989				
71-80	5	5	4	5	5	5	4	4	4	4	4	4	37	4	342	3
81-100	12	7	11	11	12	11	10	10	10	10	10	10	84	8	838	8
101-140	37	21	26	32	34	38	27	26	26	26	26	26	241	24	2175	21
141-200	41	27	44	45	43	41	43	45	45	45	45	45	329	33	3539	34
201-300	26	21	26	29	14	29	26	25	25	25	25	25	196	19	2187	21
301-400	13	14	19	20	1	18	19	19	19	19	19	19	123	12	1474	14
TOTAL	134	95	130	142	109	142	129	129	129	142	129	129	1010	100	10555	101

TABLE 2 . LIST OF SPECIES ENCOUNTERED IN RESEARCH VESSEL SETS ON THE FLEMISH CAP DURING THE 1978-85 PERIOD.

SCIENTIFIC NAME	COMMON NAME
SOMNIOSUS MICROCEPHALUS	GREENLAND SHARK
SQUALUS ACANTHIUS	SPINY DOGFISH
CENTROSCYLLIUM FABRICII	BLACK DOGFISH
RAJA RADIATA	THORNY SKATE
RAJA SENTA	SMOOTH SKATE
RAJA FYLLAE	ROUND SKATE
RAJA JENSENI	JENSENS SKATE
RAJA OCELLATA	WINTER SKATE
RAJA SPINICAUDA	SPINYTAIL SKATE
ALEPOCEPHALUS BAIRDII	BAIRDS SMOOTHHEAD
ARGENTINIDAE	ARGENTINES
ARGENTINA SILUS	ATLANTIC ARGENTINE
BATHYLAGUS EURYOPS	GOITRE BLACKSMELT
CHAULIODONTIDAE	VIPERFISH
STOMIAS BOA FEROX	BOA DRAGONFISH
MYCTOPHIDAE	LANTERNFISHES
MALACOSTEIDAE	LOOSEJAWS
PARALEPIDIDAE	BARRACUDINAS
PARALEPIS BREVIS	SHORT BARRACUDINA
PARALEPIS COREGONOIDES BOREALIS	BOREAL BARRACUDINA
NOTOLEPIS RISSOI KROYERI	SCALED LANCETFISH
ALEPISSAURUS FEROX	LONGNOSE LANCETFISH
SIMENCHELYS PARASITICUS	SNUBNOSE EELS
NESSORHAMPHUS INGOLFIANUS	DUCKBILL EEL
NEMICHTHYS SCOLOPACEUS	ATLANTIC SNIPE EEL
SERRIVOMER BEANI	SHORTNOSE SNIPE EEL
SYNAPHOBANCHUS KAUPI	LONGNOSE EEL
EURYPHARYNX PELECANOIDES	PELICAN GULPER
NOTACANTHUS NASUS	LARGE SCALE TAPIRFISH
LIPOGENYS	LIPOGENYS
ANTIMORA ROSTRATA	BLUE HAKE
MORA	MORA
LEPIDION EQUUS	LEPIDION
GADUS MORHUA	ATLANTIC COD
MICROMESISTIUS POUTASSOU	BLUE WHITING
MELANOGRAMMUS AEGLEFINUS	HADDOCK
UROPHYCIS CHESTERI	LONGFIN HAKE
UROPHYCIS CHUSS	RED HAKE
UROPHYCIS TENUIS	WHITE HAKE
GAIDROPSAURUS ENSIS	THREEBEARD ROCKLING
BROSME BROSME	CUSK
ENCHELYOPUS CIMBRIUS	FOURBEARD ROCKLING
MACROURUS BERGLAX	ROUGHHEAD GRENADIER
NEZUMIA BAIRDI	COMMON GRENADIER
CORYPHAENOIDES RUPESTRIS	ROUNDNOSE GRENADIER
DIRETMIDAE	SPINYFINS
APHANOPUS CARBO	BLACK SCABBARDFISH
BENTHODESMUS SIMONYI	FROSTFISH
RHECTIGRAMMA SHERBORNI	SHERBORNS CARDINALFISH
CHIASMODON NIGER	BLACK SWALLOWER
ANARHICHAS DENTICULATUS	BROADHEAD WOLFFISH
ANARHICHAS LUPUS	STRIPED WOLFFISH
ANARHICHAS MINOR	SPOTTED WOLFFISH
LYCODES ESMARKI	ESMARKS EELPOUT
LYCODES RETICULATUS	ARCTIC EELPOUT
LYCODES VAHLII	VAHLS EELPOUT
LYCODES ATLANTICUS	ATLANTIC EELPOUT
LYCENCHELYS	WOLFEEL
LYCENCHELYS PAXILLUS	NORTHERN WOLFEEL
SEBASTES	REDFISH
SEBASTES MARINUS	MARINUS REDFISH
SEBASTES MENTELLA & FASCIATUS	BEAKED REDFISH
TRIGLOPS MURRAYI	MAILED SCULPINS
COTTUNCULUS	DEEPSEA SCULPINS
COTTUNCULUS THOMPSONI	PALLID DEEPSEA SCULPIN
COTTUNCULUS MICROPS	ARCTIC DEEPSEA SCULPIN
CYCLOPTERUS LUMPUS	COMMON LUMPFFISH
HIPPOGLOSSOIDES PLATESSOIDES	AMERICAN PLAICE
GLYPTOCEPHALUS CYNOGLOSSUS	WITCH FLOUNDER
REINHARDTIUS HIPPOGLOSSOIDES	GREENLAND HALIBUT
HIPPOGLOSSUS HIPPOGLOSSUS	ATLANTIC HALIBUT
SCOPHTHALMUS AQUOSUS	WINDOWPANE
LOPHIFORMES	ANGLERS
CRYPTOSARAS COUESI	WARTED SEADEVIL
HIMANTOLOPHUS GROENLANDICUS	ATLANTIC FOOTBALLFISH

TABLE 3. Predominant fish species encountered on the Flemish Cap, 1978-85.

	Number	Weight	Occurrence	Average weight (kg)
Beaked redfish	1	1	1	.32
Marinus redfish	2	2	6	.85
Cod	3	3	3	.89
American plaice	4	4	2	.65
Striped wolffish	5	6	4	.79
Roughhead grenadier	6	10	11	.69
Common grenadier	7	19	12	.09
Blue hake	8	16	18	.24
Greenland halibut	9	8	9	2.03
Thorny skate	10	12	5	1.09
Long fin hake	11	22	13	.18
Witch	12	14	7	.76
Spotted wolffish	13	9	8	2.72
Broadhead wolffish	14	5	10	6.24
Lanternfish	15	36	19	.01
Greenland shark	50	7	50	9.50
Spinytail skate	22	11	17	7.21
Large scale tapir fish	16	13	16	1.58
Atlantic halibut	32	15	25	14.1
Vahl's eelpout	17	23	14	.23
Smooth skate	20	20	15	.7
Actual value rank 1	744,582	235,222	857	
Actual value rank 15	570	486	171	

TABLE 4. THE NUMBER OF SUCCESSFUL R/V SURVEY SETS FOR WHICH VARIOUS SPECIES OCCURRED ON THE FLEMISH CAP FOR THE 1978-85 PERIOD.

SPECIES	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
GREENLAND SHARK	0	0	0	0	0	1	2	0	3
SPINY DOGFISH	0	0	2	0	0	1	0	1	4
BLACK DOGFISH	5	3	7	2	0	4	1	8	30
THORNY SKATE	84	24	65	71	56	70	69	55	494
SMOOTH SKATE	35	6	26	18	17	20	23	26	171
ROUND SKATE	9	1	4	2	1	7	4	5	33
JENSEN'S SKATE	0	0	0	0	0	1	0	0	1
WINTER SKATE	0	1	0	0	0	0	0	0	1
SPINYTAIL SKATE	25	9	19	13	13	17	18	19	133
BAIRD'S SMOOTHHEAD	0	0	0	0	0	1	0	0	1
ARGENTINES (NS)	0	0	0	0	0	0	0	1	1
ATLANTIC ARGENTINE	2	0	0	0	0	2	0	0	4
GOITRE BLACKSMELT	0	0	0	0	0	4	0	3	7
VIPERFISH	0	7	0	6	2	6	1	5	27
BOA DRAGONFISH	0	0	0	5	1	6	1	8	21
LANTERNFISHES (NS)	0	4	6	32	1	16	6	6	71
LOOSEJAWS (NS)	0	0	0	0	0	5	1	2	8
BARRACUDINIAS (NS)	1	3	0	0	0	2	1	0	7
SHORT BARRACUDINA	0	0	1	2	0	1	1	1	6
BOREAL BARRACUDINA	0	0	0	0	0	2	0	0	2
SCALED LANCETFISH	0	0	1	5	2	5	2	2	17
LONGNOSE LANCETFISH	1	0	0	0	0	0	2	2	5
SNUBNOSE EELS (NS)	2	1	3	1	0	0	2	3	12
DUCKBILL EEL	0	0	1	0	0	0	0	0	1
ATLANTIC SNIPE EEL	2	1	0	0	0	1	0	4	8
SHORTNOSE SNIPE EEL	4	5	1	2	1	9	4	7	33
LONGNOSE EEL	1	3	12	4	0	2	3	4	29
PELICAN GULPER	0	1	0	0	0	0	0	0	1
LARGE SCALE TAPIRFISH	16	14	19	23	4	26	20	20	142
LIPOGENYS	0	0	0	0	0	0	0	1	1
BLUE HAKE	14	13	20	14	2	19	18	19	119
MORA (NCN)	0	0	0	0	0	0	1	1	2
LEPIDION (NCN)	0	1	0	0	0	1	0	0	2
ATLANTIC COD	126	81	104	105	94	104	97	105	816
BLUE WHITING	4	1	2	0	1	0	3	1	12
HADDOCK	0	0	0	0	7	7	5	3	22
LONGFIN HAKE	28	21	37	34	17	33	30	37	237
RED HAKE	0	0	0	0	0	0	0	1	1
WHITE HAKE	0	0	0	0	0	0	1	4	5
THREEBEARD ROCKLING	2	0	3	1	0	1	0	0	7
CUSK	2	0	0	1	1	2	0	0	6
FOURBEARD ROCKLING	0	0	6	0	0	2	1	1	10
ROUGHHEAD GRENADIER	37	25	40	50	16	47	39	39	293
COMMON GRENADIER	30	28	45	37	12	47	34	30	263
ROUNDNOSE GRENADIER	0	0	2	2	0	0	0	2	6
SPINYFINS (NS)	0	1	1	0	0	0	0	1	3
BLACK SCABBARDFISH	0	0	0	0	0	1	0	0	1
FROSTFISH	0	0	0	0	1	0	0	0	1
SHERBORN'S CARDINALFISH	0	0	0	1	0	0	0	0	1
BLACK SWALLOWER	1	0	0	0	0	0	0	0	1
BROADHEAD WOLFFISH	44	27	40	53	34	57	33	18	306
STRIPED WOLFFISH	95	56	83	82	87	88	83	89	663
SPOTTED WOLFFISH	55	29	36	45	32	59	37	33	326
ESMARK'S EELPOUT	9	3	11	6	6	8	5	4	52
ARCTIC EELPOUT	5	0	0	0	0	0	0	0	5
VAHL'S EELPOUT	26	15	29	26	8	37	20	24	185
ATLANTIC EELPOUT	1	0	0	0	0	0	0	0	1
WOLF EEL (NS)	1	0	0	0	0	0	0	0	1
NORTHERN WOLF EEL	0	0	0	1	0	0	0	0	1
REDFISH (NS)	3	0	0	0	0	0	0	0	3
MARINUS REDFISH	77	40	59	48	49	56	51	60	440
BEAKED REDFISH	102	79	112	121	97	129	110	107	857
MAILED SCULPINS	0	0	0	2	0	0	0	1	3
DEEPSEA SCULPIN (NS)	4	0	7	0	0	0	0	0	11
PALLID DEEPSEA SCULPIN	0	0	0	6	1	0	0	0	7
ARCTIC DEEPSEA SCULPIN	0	2	0	5	0	12	3	4	26
COMMON LUMPFISH	3	2	2	7	8	13	3	2	40
AMERICAN PLAICE	120	80	104	116	95	118	111	112	856
WITCH FLOUNDER	73	18	42	52	32	43	55	58	373
GREENLAND HALIBUT	31	28	43	37	21	61	43	46	310
ATLANTIC HALIBUT	2	1	2	9	4	8	2	2	30
WINDOWPANE FLOUNDER	1	0	0	0	0	0	0	0	1
ANGLERS	0	0	0	0	0	0	0	2	2
WARTED SEA DEVIL	0	0	0	1	0	1	0	0	2
ATLANTIC FOOTBALLFISH	0	0	0	0	0	1	0	0	1
TOTAL	1083	634	997	1048	723	1164	946	989	7584

TABLE 5. THE NUMBER OF SUCCESSFUL R/V SURVEY SETS FOR WHICH VARIOUS SPECIES OCCURRED BY DEPTH ON THE FLEMISH CAP FOR THE 1978-85 PERIOD COMBINED.

SPECIES	71-80	81-100	101-140	141-200	201-300	301-400	TOTAL
GREENLAND SHARK	0	0	0	0	1	2	3
SPINY DOGFISH	0	1	1	1	1	0	4
BLACK DOGFISH	0	0	0	3	2	25	30
THORNY SKATE	20	44	121	155	118	36	494
SMOOTH SKATE	1	12	67	66	23	2	171
ROUND SKATE	0	0	1	8	17	7	33
JENSEN'S SKATE	0	0	0	0	0	1	1
WINTER SKATE	0	0	0	0	0	1	1
SPINYTAIL SKATE	3	3	25	49	31	22	133
BAIRD'S SMOOTHHEAD	0	0	0	0	0	1	1
ARGENTINES (NS)	0	0	0	1	0	0	1
ATLANTIC ARGENTINE	0	0	0	1	1	2	4
GOITRE BLACKSMELT	0	0	0	0	0	7	7
VIPERFISH	0	0	0	1	2	24	27
BOA DRAGONFISH	0	0	0	2	3	16	21
LANTERNFISHES (NS)	0	0	4	31	14	22	71
LOOSEJAWS (NS)	0	0	0	0	1	7	8
BARRACUDINIANS (NS)	0	0	0	0	2	5	7
SHORT BARRACUDINA	0	0	0	0	0	6	6
BOREAL BARRACUDINA	0	0	0	0	0	2	2
SCALED LANCETFISH	0	0	0	3	5	9	17
LONGNOSE LANCETFISH	0	0	1	0	2	2	5
SNUBNOSE EELS (NS)	0	0	0	0	0	12	12
DUCKBILL EEL	0	0	0	0	0	1	1
ATLANTIC SNIPE EEL	0	0	0	0	0	8	8
SHORTNOSE SNIPE EEL	0	0	0	0	3	30	33
LONGNOSE EEL	0	0	0	0	3	26	29
PELICAN GULPER	0	0	0	0	0	1	1
LARGE SCALE TAPIRFISH	0	0	0	5	45	92	142
LIPOGENYS	0	0	0	0	0	1	1
BLUE HAKE	0	0	0	1	9	109	119
MORA (NCN)	0	0	0	0	0	2	2
LEPIDION (NCN)	0	0	0	0	0	2	2
ATLANTIC COD	37	82	228	321	137	11	816
BLUE WHITING	0	0	2	4	5	1	12
HADDOCK	5	8	9	0	0	0	22
LONGFIN HAKE	0	0	0	54	141	42	237
RED HAKE	0	0	0	0	0	1	1
WHITE HAKE	0	0	1	4	0	0	5
THREEBEARD ROCKLING	0	0	0	1	1	5	7
CUSK	0	0	1	2	3	0	6
FOURBEARD ROCKLING	0	0	4	5	1	0	10
ROUGHHEAD GRENADIER	0	0	3	19	153	118	293
COMMON GRENADIER	1	0	3	26	124	109	263
ROUNDNOSE GRENADIER	0	0	0	0	1	5	6
SPINYFINS (NS)	0	0	0	0	1	2	3
BLACK SCABBARDFISH	0	0	0	0	0	1	1
FROSTFISH	0	0	0	0	1	0	1
SHERBORN'S CARDINALFISH	0	0	0	0	1	0	1
BLACK SWALLOWER	0	0	0	0	0	1	1
BROADHEAD WOLFFISH	1	7	44	69	110	75	306
STRIPED WOLFFISH	33	69	205	294	61	1	663
SPOTTED WOLFFISH	1	4	54	128	130	9	326
ESMARK'S EELPOUT	0	0	0	2	22	28	52
ARCTIC EELPOUT	0	0	0	0	4	1	5
VAHL'S EELPOUT	0	0	5	32	103	45	185
ATLANTIC EELPOUT	0	0	0	0	0	1	1
WOLF EEL (NS)	0	0	0	0	0	1	1
NORTHERN WOLF EEL	0	0	0	0	1	0	1
REDFISH (NS)	0	0	1	2	0	0	3
MARINUS REDFISH	20	31	174	196	15	4	440
BEAKED REDFISH	10	31	181	316	196	123	857
MAILED SCULPIN	1	1	1	0	0	0	3
DEEPSEA SCULPIN (NS)	0	0	0	3	4	4	11
PALLID DEEPSEA SCULPIN	0	0	0	0	2	5	7
ARCTIC DEEPSEA SCULPIN	0	0	0	9	8	9	26
COMMON LUMPFISH	4	8	17	8	3	0	40
AMERICAN PLAICE	34	79	232	304	151	56	856
WITCH FLOUNDER	3	23	122	154	57	14	373
GREENLAND HALIBUT	0	0	16	55	134	105	310
ATLANTIC HALIBUT	6	5	9	9	1	0	30
WINDOWPANE FLOUNDER	0	0	0	0	1	0	1
ANGLERS	0	0	0	1	0	1	2
WARTED SEA DEVIL	0	0	0	0	1	1	2
ATLANTIC FOOTBALLFISH	0	0	0	0	0	1	1
TOTAL	180	408	1532	2345	1856	1263	7584

TABLE 6. THE TOTAL NUMBER CAUGHT OF VARIOUS SPECIES FROM SUCCESSFUL R/V SURVEY SETS ON THE FLEMISH CAP FOR THE 1978-85 PERIOD.

SPECIES	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
GREENLAND SHARK	0	0	0	0	0	1	2	0	3
SPINY DOGFISH	0	0	2	0	0	1	0	1	4
BLACK DOGFISH	43	19	31	27	0	17	2	39.2857	178.286
THORNY SKATE	205.2	38	122.111	141	109	141	132	111.364	999.675
SMOOTH SKATE	55.4	6	35	28	32	24	35	36	251.4
ROUND SKATE	9.2	1	4	2	1	8	4	6	35.2
JENSEN'S SKATE	0	0	0	0	0	1	0	0	1
WINTER SKATE	0	1	0	0	0	0	0	0	1
SPINYTAIL SKATE	36	10	26.3043	16	16	20	20	21.0714	165.376
BAIRD'S SMOOTHHEAD	0	0	0	0	0	1	0	0	1
ARGENTINES (NS)	0	0	0	0	0	0	0	1	1
ATLANTIC ARGENTINE	10.6	0	0	0	0	2	0	0	12.6
GOITRE BLACKSMELT	0	0	0	0	0	11	0	7	18
VIPERFISH	0	19	0	21.2857	3	29	8	72.0714	152.357
BOA DRAGONFISH	0	0	0	26.2143	1	289	2	100	418.214
LANTERNFISHES (NS)	0	8	83	376.429	1	60	25	16.1429	569.571
LOOSEJAWS (NS)	0	0	0	0	0	7	1	2	10
BARRACUDINIAS (NS)	1	3	0	0	0	4	1	0	9
SHORT BARRACUDINA	0	0	2	2	0	1	1	1	7
BOREAL BARRACUDINA	0	0	0	0	0	2	0	0	2
SCALED LANCETFISH	0	0	1	18	2	20	30	2.07143	73.0714
LONGNOSE LANCETFISH	1	0	0	0	0	0	2	2	5
SNUBNOSE EELS (NS)	4	2	4	1	0	0	3	3.07143	17.0714
DUCKBILL EEL	0	0	1	0	0	0	0	0	1
ATLANTIC SNIPE EEL	4	1	0	0	0	2	0	5	12
SHORTNOSE SNIPE EEL	9	6	8	3	1	53	6	24	110
LONGNOSE EEL	1	7	18.1111	4	0	3	5	8	46.1111
PELICAN GULPER	0	1	0	0	0	0	0	0	1
LARGE SCALE TAPIRFISH	66.4	43	65.1884	48.0714	39	110	57	101.143	529.803
LIPOGENYS	0	0	0	0	0	0	0	1	1
BLUE HAKE	182.4	92	210.05	101	12	144.348	241	220.143	1202.94
MORA (NCN)	0	0	0	0	0	0	1	1	2
LEPIDION (NCN)	0	1	0	0	0	1	0	0	2
ATLANTIC COD	13883.8	3243	5209	4778	1019	14623	3371.55	4490.18	50617.5
BLUE WHITING	54.2	1	2	0	1	0	3	1	62.2
HADDOCK	0	0	0	0	30	108	182	4	324
LONGFIN HAKE	164.6	67	122	67.0714	47	136	120	149.214	872.886
RED HAKE	0	0	0	0	0	0	0	1	1
WHITE HAKE	0	0	0	0	0	0	2	5	7
THREEBEARD ROCKLING	4	0	3	1	0	1	0	0	9
CUSK	2	0	0	1	1	2	0	0	6
FOURBEARD ROCKLING	0	0	6	0	0	2	1	1	10
ROUGHHEAD GRENADIER	432.4	197	369.133	364.5	138	364.043	266	205.286	2336.36
COMMON GRENADIER	611.2	199	287.643	221.071	62	301.13	184	151.286	2017.33
ROUNDNOSE GRENADIER	0	0	7	2	0	0	0	2	11
SPINYFINS (NS)	0	1	1	0	0	0	0	1.07143	3.07143
BLACK SCABBARDFISH	0	0	0	0	0	1	0	0	1
FROSTFISH	0	0	0	0	1	0	0	0	1
SHERBORN'S CARDINALFISH	0	0	0	1	0	0	0	0	1
BLACK SWALLOWER	1	0	0	0	0	0	0	0	1
BROADHEAD WOLFFISH	120.6	65	68.6693	95	53	128.609	48	29.0714	607.949
STRIPED WOLFFISH	687.2	299	396	320	417	686	508.091	527.091	3840.38
SPOTTED WOLFFISH	139.2	69	77	82	52	112	68	90	689.2
ESMARK'S EELPOUT	16	3	16.1111	6	8	8.30435	7	4	68.4155
ARCTIC EELPOUT	18.2	0	0	0	0	0	0	0	18.2
VAHL'S EELPOUT	48.4	47	90.3333	55	17	110	72	36.0714	475.805
ATLANTIC EELPOUT	1	0	0	0	0	0	0	0	1
WOLF EEL (NS)	1	0	0	0	0	0	0	0	1
NORTHERN WOLF EEL	0	0	0	1	0	0	0	0	1
REDFISH (NS)	60.8	0	0	0	0	0	0	0	60.8
MARINUS REDFISH	20395	3234	5454	1280	866	18161	1553.91	3293.36	54237.3
BEAKED REDFISH	87857.6	37196	111145	94904.7	121968	171123	63413	56974.6	744582
MAILED SCULPINS	0	0	0	2	0	0	0	1	3
DEEPSEA SCULPIN (NS)	5	0	7	0	0	0	0	0	12
PALLID DEEPSEA SCULPIN	0	0	0	6	1	0	0	0	7
ARCTIC DEEPSEA SCULPIN	0	2	0	5	0	12	3	4	26
COMMON LUMPFISH	3	2	2	7	11	18	3	3	49
AMERICAN PLAICE	2340.6	787	1631.63	1006	786	3055.13	2063.64	1893.64	13563.6
WITCH FLOUNDER	202.4	24	65	88	61	78	96.3636	109.727	724.491
GREENLAND HALIBUT	108.4	68	201.763	111.143	53	167.304	116	246.286	1071.9
ATLANTIC HALIBUT	3	1	2	10	4	17	2	2.36364	34.3636
WINDOWPANE FLOUNDER	1.2	0	0	0	0	0	0	0	1.2
ANGLERS	0	0	0	0	0	0	0	2	2
WARTED SEA DEVIL	0	0	0	1	0	1	0	0	2
ATLANTIC FOOTBALLFISH	0	0	0	0	0	1	0	0	1
TOTAL	127790	45763	125776	104231	125813	210162	72661.5	69008.6	881204

TOTAL NUMBERS

TABLE 7.

TABLE OF SPECIES BY RANGE

SPECIES	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
GREENLAND SHARK	0	0	0	0	1	2	3
SPINY DOGFISH	0	1	1	1	1	0	4
BLACK DOGFISH	0	0	0	4	5	169.286	178.286
THORNY SKATE	44.6	70	262	277.764	284.2	61.1111	999.675
SMOOTH SKATE	1.2	13	114	95	26.2	2	251.4
ROUND SKATE	0	0	1	8	18.2	8	35.2
JENSEN'S SKATE	0	0	0	0	0	1	1
WINTER SKATE	0	0	0	0	0	1	1
SPINYTAIL SKATE	3	4	30	58	37	33.3758	165.376
BAIRD'S SMOOTHHEAD	0	0	0	0	0	1	1
ARGENTINES (NS)	0	0	0	1	0	0	1
ATLANTIC ARGENTINE	0	0	0	9.6	1	2	12.6
GOITRE BLACKSMELT	0	0	0	0	0	18	18
VIPERFISH	0	0	0	1	3	148.357	152.357
BOA DRAGONFISH	0	0	0	11	5	402.214	418.214
LANTERNFISHES (NS)	0	0	15	226	138	190.571	569.571
LOOSEJAWS (NS)	0	0	0	0	1	9	10
BARRACUDINIANS (NS)	0	0	0	0	2	7	9
SHORT BARRACUDINA	0	0	0	0	0	7	7
BOREAL BARRACUDINA	0	0	0	0	0	2	2
SCALED LANCETFISH	0	0	0	3	18	52.0714	73.0714
LONGNOSE LANCETFISH	0	0	1	0	2	2	5
SNUBNOSE EELS (NS)	0	0	0	0	0	17.0714	17.0714
DUCKBILL EEL	0	0	0	0	0	1	1
ATLANTIC SNIPE EEL	0	0	0	0	0	12	12
SHORTNOSE SNIPE EEL	0	0	0	0	18	92	110
LONGNOSE EEL	0	0	0	0	3	43.1111	46.1111
PELICAN GULPER	0	0	0	0	0	1	1
LARGE SCALE TAPIRFISH	0	0	0	35	225.4	269.403	529.803
LIPOGENYS	0	0	0	0	0	1	1
BLUE HAKE	0	0	0	1	25.4	1176.54	1202.94
MORA (NCN)	0	0	0	0	0	2	2
LEPIDION (NCN)	0	0	0	0	0	2	2
ATLANTIC COD	1636.6	12944	16069	15828.3	4063.6	76	50617.5
BLUE WHITING	0	0	2	9.2	49	2	62.2
HADDOCK	199	103	22	0	0	0	324
LONGFIN HAKE.	0	0	0	133	601.6	138.286	872.886
RED HAKE	0	0	0	0	0	1	1
WHITE HAKE	0	0	1	6	0	0	7
THREEBEARD ROCKLING	0	0	0	3	1	5	9
CUSK	0	0	1	2	3	0	6
FOURBEARD ROCKLING	0	0	4	5	1	0	10
ROUGHHEAD GRENADIER	0	0	3	36	805.4	1491.96	2336.36
COMMON GRENADIER	1	0	3	55.2	666	1292.13	2017.33
ROUNDNOSE GRENADIER	0	0	0	0	1	10	11
SPINYFINS (NS)	0	0	0	0	1	2.07143	3.07143
BLACK SCABBARDFISH	0	0	0	0	0	1	1
FROSTFISH	0	0	0	0	1	0	1
SHERBORN'S CARDINALFISH	0	0	0	0	1	0	1
BLACK SWALLOWER	0	0	0	0	0	1	1
BROADHEAD WOLFFISH	1	7	59	102.2	248.4	190.349	607.949
STRIPED WOLFFISH	376.6	358	1423	1550.78	131	1	3840.38
SPOTTED WOLFFISH	2	7	90	247.2	333	10	689.2
ESMARK'S EELPOUT	0	0	0	2	28	38.4155	68.4155
ARCTIC EELPOUT	0	0	0	0	17.2	1	18.2
VAHL'S EELPOUT	0	0	5	37	286.4	147.405	475.805
ATLANTIC EELPOUT	0	0	0	0	0	1	1
WOLF EEL (NS)	0	0	0	0	0	1	1
NORTHERN WOLF EEL	0	0	0	0	1	0	1
REDFISH (NS)	0	0	8	52.8	0	0	60.8
MARINUS REDFISH	688	163	23472	29871.3	34	9	54237.3
BEAKED REDFISH	123	2620	208364	154744	257640	121090	744582
MAILED SCULPINS	1	1	1	0	0	0	3
DEEPSEA SCULPIN (NS)	0	0	0	3	4	5	12
PALLID DEEPSEA SCULPIN	0	0	0	0	2	5	7
ARCTIC DEEPSEA SCULPIN	0	0	0	9	8	9	26
COMMON LUMPFISH	5	13	20	8	3	0	49
AMERICAN PLAICE	306.4	1620	6491	3309.27	1597.2	239.763	13563.6
WITCH FLOUNDER	3	37	236	331.091	97.4	20	724.491
GREENLAND HALIBUT	0	0	28	80.2	416.2	547.496	1071.9
ATLANTIC HALIBUT	7	5	11	10.3636	1	0	34.3636
WINDOWPANE FLOUNDER	0	0	0	0	1.2	0	1.2
ANGLERS	0	0	0	1	0	1	2
WARTED SEA DEVIL	0	0	0	0	1	1	2
ATLANTIC FOOTBALLFISH	0	0	0	0	0	1	1

TABLE 8. THE TOTAL WEIGHT CAUGHT OF VARIOUS SPECIES FROM SUCCESSFUL R/V SURVEY SETS ON THE FLEMISH CAP FOR THE 1978-85 PERIOD.

SPECIES	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
GREENLAND SHARK	0	0	0	0	0	2000	850	0	2850
SPINY DOGFISH	0	0	4.85	0	0	1.7	0	1.3	7.85
BLACK DOGFISH	60.32	23.84	51.1	36.2	0	24.2	3	53.56	252.22
THORNY SKATE	224.59	43.3	129.878	117.68	119.33	146.9	169.75	138.528	1089.96
SMOOTH SKATE	33.576	5.92	25.1	16.8	26.05	13.9	26.25	27.7	175.296
ROUND SKATE	6.254	0.45	2.4	1.2	0.4	3.4	2.05	3	19.154
JENSEN'S SKATE	0	0	0	0	0	2.3	0	0	2.3
WINTER SKATE	0	2.72	0	0	0	0	0	0	2.72
SPINYTAIL SKATE	214.57	105.32	143.943	98.6	113	150.7	198.65	167.914	1192.7
BAIRD'S SMOOTHHEAD	0	0	0	0	0	0.15	0	0	0.15
ARGENTINES (NS)	0	0	0	0	0	0	0	0.1	0.1
ATLANTIC ARGENTINE	6.438	0	0	0	0	1.21	0	0	7.648
GOITRE BLACKSMELT	0	0	0	0	0	0.34	0	0.26	0.6
VIPERFISH	0	0.96	0	1.01714	0.35	1.04	0.3	2.35357	6.02071
BOA DRAGONFISH	0	0	0	6.77143	0.01	4.5	0.1	2.68	7.96714
LANTERNFISHES (NS)	0	0.26	1.21	4.87429	0.01	0.72	0.39	1.171429	7.63571
LOOSEJAWS (NS)	0	0	0	0	0	1	0.03	0.25	1.28
BARRACUDINIAs (NS)	0.09	0.28	0	0	0	0.11	0.1	0	0.58
SHORT BARRACUDINA	0	0	0.9	0.8	0	0.3	0.4	0.6	3
BOREAL BARRACUDINA	0	0	0	0	0	0.15	0	0	0.15
SCALED LANCETFISH	0	0	0.1	0.56	0.05	0.54	0.7	0.72143	2.02214
LONGNOSE LANCETFISH	7.71	0	0	0	0	0	12.1	5	24.81
SNUBNOSE EELS (NS)	1.81	0.68	1.7	0.1	0	0	1.25	1.06786	6.60786
DUCKBILL EEL	0	0	0.15	0	0	0	0	0	0.15
ATLANTIC SNIPE EEL	0.96	0.14	0	0	0	0.15	0	0.14	1.39
SHORTNOSE SNIPE EEL	2.72	1.1	1	0.22	0.25	7.05	1.7	2.2	16.24
LONGNOSE EEL	0.14	1.73	1.77222	0.4	0	0.35	1.5	0.82	6.71222
PELICAN GULPER	0	0.23	0	0	0	0	0	0	0.23
LARGE SCALE TAPIRFISH	91.404	66.83	117.761	68.75	80.5	160.7	88.75	161.364	836.06
LIPOGENYS	0	0	0	0	0	0	0	0.05	0.05
BLUE HAKE	36.098	27.28	71.3675	26.3	3.1	29.5565	59.3	40.8679	293.87
MORA (NCN)	0	0	0	0	0	0	0.05	0.02	0.07
LEPIDION (NCN)	0	0.32	0	0	0	0.2	0	0	0.52
ATLANTIC COD	14460.2	3710.88	5808.1	7225.7	1495.3	5210.5	3160.72	4067.95	45139.3
BLUE WHITING	24.494	0.23	1.2	0	0.3	0	0.15	0.08	26.454
HADDOCK	0	0	0	0	5.9	35.9	125.75	4.4	171.95
LONGFIN HAKE	27.264	15.08	30.5	10.9229	7.35	18.95	26.72	24.0057	160.793
RED HAKE	0	0	0	0	0	0	0	0.5	0.5
WHITE HAKE	0	0	0	0	0	0	18	0.85	18.85
THREEBEARD ROCKLING	1.14	0	0.5	0.4	0	0.8	0	0	2.84
CUSK	6.58	0	0	8.5	7.6	15.2	0	0	37.88
FOURBEARD ROCKLING	0	0	0.7	0	0	0.3	0.1	0.3	1.4
ROUGHHEAD GRENADIER	233.726	108.52	265.435	264.75	78.4	259.943	242.6	162.536	1615.91
COMMON GRENADIER	49.04	18.07	30.2161	19.7571	7.04	24.8913	20.57	13.3421	182.927
ROUNDNOSE GRENADIER	0	0	2.8	1.1	0	0	0	0.9	4.8
SPINYFINS (NS)	0	0.09	0.1	0	0	0	0	0.64286	2.54286
BLACK SCABBARDFISH	0	0	0	0	0	0.5	0	0	0.5
FROSTFISH	0	0	0	0	0.9	0	0	0	0.9
SHERBORN'S CARDINALFISH	0	0	0	0.03	0	0	0	0	0.03
BLACK SWALLOWER	0.05	0	0	0	0	0	0	0	0.05
BROADHEAD WOLFFISH	678.82	419.97	529.884	625.5	302.6	816.174	259.55	161.825	3794.32
STRIPED WOLFFISH	520.742	237.45	306.6	227.1	436.7	567.75	408.157	322.809	3027.31
SPOTTED WOLFFISH	331.664	226.55	185.92	207.3	156.35	239.6	201.65	327.15	1876.18
ESMARK'S EELPOUT	4.67	2.27	12.3556	3.4	3.9	5.6913	4.4	2.45	39.1369
ARCTIC EELPOUT	4.248	0	0	0	0	0	0	0	4.248
VAHL'S EELPOUT	8.368	13.4	17.9833	10.4	4.75	25.6	21.22	8.31857	110.04
ATLANTIC EELPOUT	0.45	0	0	0	0	0	0	0	0.45
WOLF EEL (NS)	0.14	0	0	0	0	0	0	0	0.14
NORTHERN WOLF EEL	0	0	0	0.05	0	0	0	0	0.05
REDFISH (NS)	19.59	0	0	0	0	0	0	0	19.59
MARINUS REDFISH	16687.7	2360.37	5136.09	1175.3	682.1	17174.8	1116.26	1805.06	46137.7
BEAKED REDFISH	43002.5	17641.2	43467.9	38794.8	15854.8	30630.1	24204.9	21625.6	235222
MAILED SCULPINS	0	0	0	0.02	0	0	0	0.01	0.03
DEEPSEA SCULPIN (NS)	0.51	0	0.83	0	0	0	0	0	1.34
PALLID DEEPSEA SCULPIN	0	0	0	1.7	0.5	0	0	0	2.2
ARCTIC DEEPSEA SCULPIN	0	0.32	0	0.42	0	1.64	0.44	0.47	3.29
COMMON LUMPFISH	6.12	2.27	9.8	35.9	46.1	68.4	12	13.5	194.09
AMERICAN PLAICE	1347.36	723.34	1865.26	778	512.8	1777.93	956.382	890.514	8851.59
WITCH FLOUNDER	170.084	20.45	58.1	68.45	43.75	55.45	75.9773	61.8373	554.099
GREENLAND HALIBUT	248.946	149.39	432.937	192.021	102	370.961	218.37	465.829	2180.45
ATLANTIC HALIBUT	14.52	4.09	14	132.5	84.3	112.9	64	59.6364	485.946
WINDOWPANE FLOUNDER	0.216	0	0	0	0	0	0	0	0.216
ANGLERS	0	0	0	0	0	0	0	9.5	9.5
WARTED SEA DEVIL	0	0	0	0.1	0	0.2	0	0	0.3
ATLANTIC FOOTBALLFISH	0	0	0	0	0	0.15	0	0	0.15

TABLE 9. THE TOTAL WEIGHT CAUGHT BY DEPTH ZONE OF VARIOUS SPECIES FROM SUCCESSFUL R/V SURVEY SETS ON THE FLEMISH CAP FOR THE 1978-85 PERIOD COMBINED.

SPECIES	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
GREENLAND SHARK	0	0	0	0	500	2350	2850
SPINY DOGFISH	0	1.3	1.7	2.75	2.1	0	7.85
BLACK DOGFISH	0	0	0	4.51	10.49	237.22	252.22
THORNY SKATE	67.338	70.79	245.96	260.038	348.252	97.5778	1089.96
SMOOTH SKATE	0.54	11.66	75.27	61.44	24.476	1.91	175.296
ROUND SKATE	0	0	0.4	4.91	9.994	3.85	19.154
JENSEN'S SKATE	0	0	0	0	0	2.3	2.3
WINTER SKATE	0	0	0	0	0	2.72	2.72
SPINYTAIL SKATE	47.06	15.49	182.8	403.24	314.75	229.358	1192.7
BAIRD'S SMOOTHHEAD	0	0	0	0	0	0.15	0.15
ARGENTINES (NS)	0	0	0	0.1	0	0	0.1
ATLANTIC ARGENTINE	0	0	0	5.988	1.2	0.46	7.648
GOITRE BLACKSMELT	0	0	0	0	0	0.6	0.6
VIPERFISH	0	0	0	0.09	0.15	5.78071	6.02071
BOA DRAGONFISH	0	0	0	0.12	0.06	7.78714	7.96714
LANTERNFISHES (NS)	0	0	0.25	3.08	1.65	2.65571	7.63571
LOOSEJAWS (NS)	0	0	0	0	0.15	1.13	1.28
BARRACUDINIANS (NS)	0	0	0	0	0.06	0.52	0.58
SHORT BARRACUDINA	0	0	0	0	0	3	3
BOREAL BARRACUDINA	0	0	0	0	0	0.15	0.15
SCALED LANCETFISH	0	0	0	0.09	0.54	1.39214	2.02214
LONGNOSE LANCETFISH	0	0	3	0	9.71	12.1	24.81
SNUBNOSE EELS (NS)	0	0	0	0	0	6.60786	6.60786
DUCKBILL EEL	0	0	0	0	0	0.15	0.15
ATLANTIC SNIPE EEL	0	0	0	0	0	1.39	1.39
SHORTNOSE SNIPE EEL	0	0	0	0	1.52	14.72	16.24
LONGNOSE EEL	0	0	0	0	0.35	6.36222	6.71222
PELICAN GULPER	0	0	0	0	0	0.23	0.23
LARGE SCALE TAPIRFISH	0	0	0	83.46	402.354	350.246	836.06
LIPOGENYS	0	0	0	0	0	0.05	0.05
BLUE HAKE	0	0	0	0.1	7.648	286.122	293.87
MORA (NCN)	0	0	0	0	0	0.07	0.07
LEPIDION (NCN)	0	0	0	0	0	0.52	0.52
ATLANTIC COD	1795.88	5076.42	13822.6	18251.6	6105.47	87.41	45139.3
BLUE WHITING	0	0	0.28	4.294	21.52	0.36	26.454
HADDOCK	105.2	56.2	10.55	0	0	0	171.95
LONGFIN HAKE	0	0	0	17.75	113.764	29.2786	160.793
RED HAKE	0	0	0	0	0	0.5	0.5
WHITE HAKE	0	0	0.2	18.65	0	0	18.85
THREEBEARD ROCKLING	0	0	0	0.23	0.4	2.21	2.84
CUSK	0	0	3.4	12.8	21.68	0	37.88
FOURBEARD ROCKLING	0	0	0.6	0.7	0.1	0	1.4
ROUGHHEAD GRENADIER	0	0	1.91	26.18	490.496	1097.32	1615.91
COMMON GRENADIER	0.2	0	0.29	4.468	57.482	120.487	182.927
ROUNDNOSE GRENADIER	0	0	0	0	0.4	4.4	4.8
SPINYFINS (NS)	0	0	0	0	0.1	.154286	.254286
BLACK SCABBARDFISH	0	0	0	0	0	0.5	0.5
FROSTFISH	0	0	0	0	0.9	0	0.9
SHERBORN'S CARDINALFISH	0	0	0	0	0.03	0	0.03
BLACK SWALLOWER	0	0	0	0	0	0.05	0.05
BROADHEAD WOLFFISH	10	60.63	426.13	803.116	1481.34	1013.1	3794.32
STRIPED WOLFFISH	219.402	210.33	1256.6	1218.7	120.47	1.81	3027.31
SPOTTED WOLFFISH	13	45	337.32	721.274	738.96	20.63	1876.18
ESMARK'S EELPOUT	0	0	0	3.63	15.61	19.8969	39.1369
ARCTIC EELPOUT	0	0	0	0	3.798	0.45	4.248
VAHL'S EELPOUT	0	0	0.57	6.61	60.838	42.0219	110.04
ATLANTIC EELPOUT	0	0	0	0	0	0.45	0.45
WOLF EEL (NS)	0	0	0	0	0	0.14	0.14
NORTHERN WOLF EEL	0	0	0	0	0.05	0	0.05
REDFISH (NS)	0	0	6.35	13.24	0	0	19.59
MARINUS REDFISH	128.18	63.61	17984.8	27912	38.23	10.84	46137.7
BEAKED REDFISH	16.37	94.67	11574.3	46319.7	103223	73994	235222
MAILED SCULPINS	0.01	0.01	0.01	0	0	0	0.03
DEEPSEA SCULPIN (NS)	0	0	0	0.27	0.53	0.54	1.34
PALLID DEEPSEA SCULPIN	0	0	0	0	0.2	2	2.2
ARCTIC DEEPSEA SCULPIN	0	0	0	0.55	1.15	1.59	3.29
COMMON LUMPFISH	19.5	55.06	78.94	34	6.59	0	194.09
AMERICAN PLAICE	279.342	938.59	4669.94	1924.64	876.532	162.54	8851.59
WITCH FLOUNDER	3.2	32.43	192.83	265.245	53.194	7.2	554.099
GREENLAND HALIBUT	0	0	42.7	153.994	916.882	1066.88	2180.45
ATLANTIC HALIBUT	45.59	42.3	166.93	176.126	55	0	485.946
WINDOWPANE FLOUNDER	0	0	0	0	0.216	0	0.216
ANGLERS	0	0	0	0.5	0	9	9.5
WARTED SEA DEVIL	0	0	0	0	0.1	0.2	0.3
ATLANTIC FOOTBALLFISH	0	0	0	0	0	0.15	0.15

TABLE 10. AVERAGE NUMBER PER SUCCESSFUL SET OF VARIOUS SPECIES TAKEN ON THE FLEMISH CAP FOR THE 1978-85 PERIOD.

SPECIES	YEAR	1978	1979	1980	1981	1982	1983	1984	1985
GREENLAND SHARK		0	0	0	0	0	.007042	.015504	0
SPINY DOGFISH		0	0	.015385	0	0	.007042	0	.007752
BLACK DOGFISH		.320896	0.2	.238462	.190141	0	.119718	.015504	0.30454
THORNY SKATE		1.53134	0.4	.939316	.992958	1	.992958	1.02326	.863284
SMOOTH SKATE		.413433	.063158	.269231	.197183	.293578	.169014	.271318	0.27907
ROUND SKATE		.068657	.010526	.030769	.014085	.009174	.056338	.031008	.046512
JENSEN'S SKATE		0	0	0	0	0	.007042	0	0
WINTER SKATE		0	.010526	0	0	0	0	0	0
SPINYTAIL SKATE		.268657	.105263	.202341	.112676	.146789	.140845	.155039	.163344
BAIRD'S SMOOTHHEAD		0	0	0	0	0	.007042	0	0
ARGENTINES (NS)		0	0	0	0	0	0	0	.007752
ATLANTIC ARGENTINE		.079104	0	0	0	0	.014085	0	0
GOITRE BLACKSMELT		0	0	0	0	0	.077465	0	.054264
VIPERFISH		0	0.2	0	.149899	.027523	.204225	.062016	.558693
BOA DRAGONFISH		0	0	0	.184608	.009174	2.03521	.015504	.775194
LANTERNFISHES (NS)		0	.084211	.638462	2.65091	.009174	.422535	.193798	.125138
LOOSEJAWS (NS)		0	0	0	0	0	.049296	.007752	.015504
BARRACUDINIANS (NS)		.007463	.031579	0	0	0	.028169	.007752	0
SHORT BARRACUDINA		0	0	.015385	.014085	0	.007042	.007752	.007752
BOREAL BARRACUDINA		0	0	0	0	0	.014085	0	0
SCALED LANCETFISH		0	0	.007692	.126761	.018349	.140845	.232558	.016058
LONGNOSE LANCETFISH		.007463	0	0	0	0	0	.015504	.015504
SNUBNOSE EELS (NS)		.029851	.021053	.030769	.007042	0	0	.023256	0.02381
DUCKBILL EEL		0	0	.007692	0	0	0	0	0
ATLANTIC SNIPE EEL		.029851	.010526	0	0	0	.014085	0	0.03876
SHORTNOSE SNIPE EEL		.067164	.063158	.061538	.021127	.009174	.373239	.046512	.186047
LONGNOSE EEL		.007463	.073684	.139316	.028169	0	.021127	0.03876	.062016
PELICAN GULPER		0	.010526	0	0	0	0	0	0
LARGE SCALE TAPIRFISH		.495522	.452632	.501449	.338531	.357798	.774648	0.44186	.784053
LIPOGENYS		0	0	0	0	0	0	0	.007752
BLUE HAKE		1.36119	.968421	1.61577	.711268	.110092	1.01653	1.86822	1.70653
MORA (NCN)		0	0	0	0	0	0	.007752	.007752
LEPIDION (NCN)		0	.010526	0	0	0	.007042	0	0
ATLANTIC COD		103.61	34.1368	40.0692	33.6479	9.34862	102.979	26.136	34.8076
BLUE WHITING		.404478	.010526	.015385	0	.009174	0	.023256	.007752
HADDOCK		0	0	0	0	.275229	.760563	1.41085	.031008
LONGFIN HAKE		1.22836	.705263	.938462	.472334	.431193	.957746	.930233	1.1567
RED HAKE		0	0	0	0	0	0	0	.007752
WHITE HAKE		0	0	0	0	0	0	.015504	0.03876
THREEBEARD ROCKLING		.029851	0	.023077	.007042	0	.007042	0	0
CUSK		.014925	0	0	.007042	.009174	.014085	0	0
FOURBEARD ROCKLING		0	0	.046154	0	0	.014085	.007752	.007752
ROUGHHEAD GRENADIER		3.22687	2.07368	2.83949	2.5669	1.26606	2.56369	2.06202	1.59136
COMMON GRENADIER		4.56119	2.09474	2.21263	1.55684	.568807	2.12064	1.42636	1.17276
ROUNDNOSE GRENADIER		0	0	.053846	.014085	0	0	0	.015504
SPINYFINS (NS)		0	.010526	.007692	0	0	0	0	.008306
BLACK SCABBARDFISH		0	0	0	0	0	.007042	0	0
FROSTFISH		0	0	0	0	.009174	0	0	0
SHERBORN'S CARDINALFISH		0	0	0	.007042	0	0	0	0
BLACK SWALLOWER		.007463	0	0	0	0	0	0	0
BROADHEAD WOLFFISH		0.9	.684211	.528225	.669014	.486239	.905695	.372093	0.22536
STRIPED WOLFFISH		5.12836	3.14737	3.04615	2.25352	3.82569	4.83099	3.93869	4.08598
SPOTTED WOLFFISH		1.03881	.726316	.592308	.577465	.477064	.788732	.527132	.697674
ESMARK'S EELPOUT		.119403	.031579	.123932	.042254	.073394	.058481	.054264	.031008
ARCTIC EELPOUT		.135821	0	0	0	0	0	0	0
VAHL'S EELPOUT		.361194	.494737	.694872	.387324	.155963	.774648	0.55814	.279623
ATLANTIC EELPOUT		.007463	0	0	0	0	0	0	0
WOLF EEL (NS)		.007463	0	0	0	0	0	0	0
NORTHERN WOLF EEL		0	0	0	.007042	0	0	0	0
REDFISH (NS)		.453731	0	0	0	0	0	0	0
MARINUS REDFISH		152.201	34.0421	41.9538	9.01408	7.94495	127.894	12.0458	25.53
BEAKED REDFISH		655.654	391.537	854.963	668.343	1118.97	1205.09	491.574	441.663
MAILED SCULPINS		0	0	0	.014085	0	0	0	.007752
DEEPSEA SCULPIN (NS)		.037313	0	.053846	0	0	0	0	0
PALLID DEEPSEA SCULPIN		0	0	0	.042254	.009174	0	0	0
ARCTIC DEEPSEA SCULPIN		0	.021053	0	.035211	0	.084507	.023256	.031008
COMMON LUMPFISH		.022388	.021053	.015385	.049296	.100917	.126761	.023256	.023256
AMERICAN PLAICE		17.4672	8.28421	12.551	7.08451	7.21101	21.515	15.9972	14.6794
WITCH FLOUNDER		1.51045	.252632	0.5	.619718	.559633	.549296	.747005	.850599
GREENLAND HALIBUT		.808955	.715789	1.55202	.782696	.486239	1.1782	.899225	1.90919
ATLANTIC HALIBUT		.022388	.010526	.015385	.070423	.036697	.070423	.015504	.018323
WINDOWPANE FLOUNDER		.008955	0	0	0	0	0	0	0
ANGLERS		0	0	0	0	0	0	0	0
WARTED SEA DEVIL		0	0	0	.007042	0	.007042	0	.015504
ATLANTIC FOOTBALLFISH		0	0	0	0	0	.007042	0	0

TABLE 11. AVERAGE WEIGHT PER SUCCESSFUL SET OF VARIOUS SPECIES TAKEN ON THE FLEMISH CAP FOR THE 1978-85 PERIOD.

SPECIES	1978	1979	1980	1981	1982	1983	1984	1985
GREENLAND SHARK	0	0	0	0	0	14.0845	6.58915	0
SPINY DOGFISH	0	0	.037308	0	0	.011972	0	.010078
BLACK DOGFISH	.450149	.250947	.393077	0.25493	0	.170423	.023256	.415194
THORNY SKATE	1.67604	.455789	0.99906	.828732	1.03477	1.03451	1.31589	1.07386
SMOOTH SKATE	.250567	.062316	.193077	0.11831	.238991	.097887	.203488	.214729
ROUND SKATE	.046672	.004737	.018462	.008451	0.00367	.023944	.015891	.023256
JENSEN'S SKATE	0	0	0	0	0	.016197	0	0
WINTER SKATE	0	.028632	0	0	0	0	0	0
SPINYTAIL SKATE	1.60127	1.10863	1.10726	.694366	1.0367	1.06127	1.53992	1.30166
BAIRD'S SMOOTHHEAD	0	0	0	0	0	.001056	0	0
ARGENTINES (NS)	0	0	0	0	0	0	0	7752E-7
ATLANTIC ARGENTINE	.048045	0	0	0	0	.008521	0	0
GOITRE BLACKSMELT	0	0	0	0	0	.002394	0	.002016
VIPERFISH	0	.010105	0	.007163	.003211	.007324	.002326	.018245
BOA DRAGONFISH	0	0	0	.004769	9174E-8	0.03169	7752E-7	.020775
LANTERNFISHES (NS)	0	.002737	.009308	.034326	9174E-8	0.00507	.003023	.001329
LOOSEJAWS (NS)	0	0	0	0	0	.007042	2326E-7	.001938
BARRACUDINIANS (NS)	6716E-7	.002947	0	0	0	7746E-7	7752E-7	0
SHORT BARRACUDINA	0	0	.006923	.005634	0	.002113	.003101	.004651
BOREAL BARRACUDINA	0	0	0	0	0	.001056	0	0
SCALED LANCETFISH	0	0	7692E-7	.003944	4587E-7	.003803	.005426	5592E-7
LONGNOSE LANCETFISH	.057537	0	0	0	0	0	.093798	0.03876
SNUBNOSE EELS (NS)	.013507	.007158	.013077	7042E-7	0	0	0.00969	.008278
DUCKBILL EEL	0	0	.001154	0	0	0	0	0
ATLANTIC SNIPE EEL	.007164	.001474	0	0	0	.001056	0	.001085
SHORTNOSE SNIPE EEL	.020299	.011579	.007692	.001549	.002294	.049648	.013178	.017054
LONGNOSE EEL	.001045	.018211	.013632	.002817	0	.002465	.011628	.006357
PELICAN GULPER	0	.002421	0	0	0	0	0	0
LARGE SCALE TAPIRFISH	.682119	.703474	.905857	.484155	.738532	1.13169	.687984	1.25089
LIPOGENYS	0	0	0	0	0	0	0	3876E-7
BLUE HAKE	.269388	.287158	0.54898	.185211	0.02844	.208145	0.45969	.316805
MORA (NCN)	0	0	0	0	0	0	3876E-7	1550E-7
LEPIDION (NCN)	0	.003368	0	0	0	.001408	0	0
ATLANTIC COD	107.912	39.0619	44.6777	50.8852	13.7183	36.6937	24.5017	31.5345
BLUE WHITING	.182791	.002421	.009231	0	.002752	0	.001163	6202E-7
HADDOCK	0	0	0	0	.054128	.252817	.974806	.034109
LONGFIN HAKE	.203463	.158737	.234615	.076922	.067431	.133451	.207132	.186091
RED HAKE	0	0	0	0	0	0	0	.003876
WHITE HAKE	0	0	0	0	0	0	.139535	.006589
THREEBEARD ROCKLING	.008507	0	.003846	.002817	0	.005634	0	0
CUSK	.049104	0	0	.059859	.069725	.107042	0	0
FOURBEARD ROCKLING	0	0	.005385	0	0	.002113	7752E-7	.002326
ROUGHHEAD GRENADIER	1.74422	1.14232	2.04181	1.86444	.719266	1.83059	1.88062	1.25997
COMMON GRENADIER	0.36597	.190211	.232431	.139135	.064587	.175291	.159457	.103427
ROUNDNOSE GRENADIER	0	0	.021538	.007746	0	0	0	.006977
SPINYFINS (NS)	0	9474E-7	7692E-7	0	0	0	0	4983E-7
BLACK SCABBARDFISH	0	0	0	0	0	.003521	0	0
FROSTFISH	0	0	0	0	.008257	0	0	0
SHERBORN'S CARDINALFISH	0	0	0	2113E-7	0	0	0	0
BLACK SWALLOW	3731E-7	0	0	0	0	0	0	0
BROADHEAD WOLFFISH	5.06582	4.42074	4.07603	4.40493	2.77615	5.7477	2.01202	1.25446
STRIPED WOLFFISH	3.88613	2.49947	2.35846	1.5993	4.00642	3.99824	3.16401	2.5024
SPOTTED WOLFFISH	2.4751	2.38474	1.43015	1.45986	1.4344	1.68732	1.56318	2.53605
ESMARK'S EELPOUT	.034851	.023895	.095043	.023944	0.03578	0.04008	.034109	.018992
ARCTIC EELPOUT	.031701	0	0	0	0	0	0	0
VAHL'S EELPOUT	.062448	.141053	.138333	.073239	.043578	.180282	.164496	.064485
ATLANTIC EELPOUT	.003358	0	0	0	0	0	0	0
WOLF EEL (NS)	.001045	0	0	0	0	0	0	0
NORTHERN WOLF EEL	0	0	0	3521E-7	0	0	0	0
REDFISH (NS)	.146194	0	0	0	0	0	0	0
MARINUS REDFISH	124.535	24.846	39.5084	8.27676	6.2578	120.949	8.65316	13.9927
BEAKED REDFISH	320.914	185.697	334.369	273.203	145.457	215.705	187.635	167.64
MAILED SCULPINS	0	0	0	1408E-7	0	0	0	7752E-8
DEEPSEA SCULPIN (NS)	.003806	0	.006385	0	0	0	0	0
PALLID DEEPSEA SCULPIN	0	0	0	.011972	.004587	0	0	0
ARCTIC DEEPSEA SCULPIN	0	.003368	0	.002958	0	.011549	.003411	.003643
COMMON LUMPFISH	.045672	.023895	.075385	.252817	.422936	0.48169	.093023	.104651
AMERICAN PLAICE	10.0549	7.61411	14.3481	5.47887	4.70459	12.5206	7.41381	6.90321
WITCH FLOUNDER	1.26928	.215263	.446923	.482042	.401376	.390493	.588971	.479359
GREENLAND HALIBUT	1.85781	1.57253	3.33029	1.35226	0.93578	2.6124	1.69279	3.61107
ATLANTIC HALIBUT	.108358	.043053	.107692	.933099	.773394	0.79507	.496124	.462297
WINDOWPANE FLOUNDER	.001612	0	0	0	0	0	0	0
ANGLERS	0	0	0	0	0	0	0	.073643
WARTED SEA DEVIL	0	0	0	7042E-7	0	.001408	0	0
ATLANTIC FOOTBALLFISH	0	0	0	0	0	.001056	0	0

TABLE 12.

DENSITY BY NUMBER

TABLE OF SPECIES BY RANGE

SPECIES	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
GREENLAND SHARK	0	0	0	0	.005102	0.01626
SPINY DOGFISH	0	.011905	.004149	0.00304	.005102	0
BLACK DOGFISH	0	0	0	.012158	0.02551	1.37631
THORNY SKATE	1.20541	.833333	1.08714	.844266	1.45	.496838
SMOOTH SKATE	.032432	.154762	.473029	.288754	.133673	0.01626
ROUND SKATE	0	0	.004149	.024316	.092857	.065041
JENSEN'S SKATE	0	0	0	0	0	0.00813
WINTER SKATE	0	0	0	0	0	0.00813
SPINYTAIL SKATE	.081081	.047619	.124481	.176292	.188776	.271348
BAIRD'S SMOOTHHEAD	0	0	0	0	0	0.00813
ARGENTINES (NS)	0	0	0	0.00304	0	0
ATLANTIC ARGENTINE	0	0	0	.029179	.005102	0.01626
GOITRE BLACKSMELT	0	0	0	0	0	.146341
VIPERFISH	0	0	0	0.00304	.015306	1.20616
BOA DRAGONFISH	0	0	0	.033435	0.02551	3.27003
LANTERNFISHES (NS)	0	0	.062241	0.68693	.704082	1.54936
LOOSEJAWS (NS)	0	0	0	0	.005102	.073171
BARRACUDINIANS (NS)	0	0	0	0	.010204	.056911
SHORT BARRACUDINA	0	0	0	0	0	.056911
BOREAL BARRACUDINA	0	0	0	0	0	0.01626
SCALED LANCETFISH	0	0	0	.009119	.091837	.423345
LONGNOSE LANCETFISH	0	0	.004149	0	.010204	0.01626
SNUBNOSE EELS (NS)	0	0	0	0	0	.138792
DUCKBILL EEL	0	0	0	0	0	0.00813
ATLANTIC SNIPE EEL	0	0	0	0	0	.097561
SHORTNOSE SNIPE EEL	0	0	0	0	.091837	.747967
LONGNOSE EEL	0	0	0	0	.015306	.350497
PELICAN GULPER	0	0	0	0	0	0.00813
LARGE SCALE TAPIRFISH	0	0	0	.106383	1.15	2.19027
LIPOGENYS	0	0	0	0	0	0.00813
BLUE HAKE	0	0	0	0.00304	.129592	9.56537
MORA (NCN)	0	0	0	0	0	0.01626
LEPIDION (NCN)	0	0	0	0	0	0.01626
ATLANTIC COD	44.2324	154.095	66.6763	48.1104	20.7327	.617886
BLUE WHITING	0	0	.008299	.027964	0.25	0.01626
HADDOCK	5.37838	1.22619	.091286	0	0	0
LONGFIN HAKE	0	0	0	.404255	3.06939	1.12427
RED HAKE	0	0	0	0	0	0.00813
WHITE HAKE	0	0	.004149	.018237	0	0
THREEBEARD ROCKLING	0	0	0	.009119	.005102	0.04065
CUSK	0	0	.004149	.006079	.015306	0
FOURBEARD ROCKLING	0	0	.016598	.015198	.005102	0
ROUGHHEAD GRENADIER	0	0	.012448	.109422	4.10918	12.1298
COMMON GRENADIER	.027027	0	.012448	.167781	3.39796	10.5051
ROUNDNOSE GRENADIER	0	0	0	0	.005102	.081301
SPINYFINS (NS)	0	0	0	0	.005102	.016841
BLACK SCABBARDFISH	0	0	0	0	0	0.00813
FROSTFISH	0	0	0	0	.005102	0
SHERBORN'S CARDINALFISH	0	0	0	0	.005102	0
BLACK SWALLOW	0	0	0	0	0	0.00813
BROADHEAD WOLFFISH	.027027	.083333	.244813	.310638	1.26735	1.54756
STRIPED WOLFFISH	10.1784	4.2613	5.90456	4.71362	.668367	0.00813
SPOTTED WOLFFISH	.054054	.083333	.373444	.751368	1.69898	.081301
ESMARK'S EELPOUT	0	0	0	.006079	.142857	.312321
ARCTIC EELPOUT	0	0	0	0	.087755	0.00813
VAHL'S EELPOUT	0	0	.020747	.112462	1.46122	1.19841
ATLANTIC EELPOUT	0	0	0	0	0	0.00813
WOLF EEL (NS)	0	0	0	0	0	0.00813
NORTHERN WOLF EEL	0	0	0	0	.005102	0
REDFISH (NS)	0	0	.033195	.160486	0	0
MARINUS REDFISH	18.5946	1.94048	97.3942	90.7941	.173469	.073171
BEAKED REDFISH	3.32432	31.1905	864.581	470.348	1314.49	984.473
MAILED SCULPINS	.027027	.011905	.004149	0	0	0
DEEPSEA SCULPIN (NS)	0	0	0	.009119	.020408	0.04065
PALLID DEEPSEA SCULPIN	0	0	0	0	.010204	0.04065
ARCTIC DEEPSEA SCULPIN	0	0	0	.027356	.040816	.073171
COMMON LUMPFISH	.135135	.154762	.082988	.024316	.015306	0
AMERICAN PLAICE	8.28108	19.2857	26.9336	10.0586	8.14898	1.9493
WITCH FLOUNDER	.081081	.440476	.979253	1.00636	.496939	.162602
GREENLAND HALIBUT	0	0	.116183	.243769	2.12347	4.45119
ATLANTIC HALIBUT	.189189	.059524	.045643	0.0315	.005102	0
WINDOWPANE FLOUNDER	0	0	0	0	.006122	0
ANGLERS	0	0	0	0.00304	0	0.00813
WARTED SEA DEVIL	0	0	0	0	.005102	0.00813
ATLANTIC FOOTBALLFISH	0	0	0	0	0	0.00813

TABLE 13.

DENSITY BY WEIGHT

TABLE OF SPECIES BY RANGE

SPECIES	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
GREENLAND SHARK	0	0	0	0	2.55102	19.1057
SPINY DOGFISH	0	.015476	.007054	.008359	.010714	0
BLACK DOGFISH	0	0	0	.013708	0.05352	1.92862
THORNY SKATE	1.81995	.842738	1.02058	0.79039	1.7768	.793315
SMOOTH SKATE	.014595	0.13881	.312324	.186748	.124878	.015528
ROUND SKATE	0	0	0.00166	.014924	0.05099	.031301
JENSEN'S SKATE	0	0	0	0	0	.018699
WINTER SKATE	0	0	0	0	0	.022114
SPINYTAIL SKATE	1.27189	.184405	.758506	1.22565	1.60587	1.8647
BAIRD'S SMOOTHHEAD	0	0	0	0	0	0.00122
ARGENTINES (NS)	0	0	0	3040E-7	0	0
ATLANTIC ARGENTINE	0	0	0	.018201	.006122	0.00374
GOITRE BLACKSMELT	0	0	0	0	0	.004878
VIPERFISH	0	0	0	2736E-7	7653E-7	.046998
BOA DRAGONFISH	0	0	0	3647E-7	3061E-7	0.06331
LANTERNFISHES (NS)	0	0	.001037	.009362	.008418	.021591
LOOSEJAWS (NS)	0	0	0	0	7653E-7	.009187
BARRACUDINIANS (NS)	0	0	0	0	3061E-7	.004228
SHORT BARRACUDINA	0	0	0	0	0	0.02439
BOREAL BARRACUDINA	0	0	0	0	0	0.00122
SCALED LANCETFISH	0	0	0	2736E-7	.002755	.011318
LONGNOSE LANCETFISH	0	0	.012448	0	.049541	.098374
SNUBNOSE EELS (NS)	0	0	0	0	0	.053722
DUCKBILL EEL	0	0	0	0	0	0.00122
ATLANTIC SNIPE EEL	0	0	0	0	0	.011301
SHORTNOSE SNIPE EEL	0	0	0	0	.007755	.119675
LONGNOSE EEL	0	0	0	0	.001786	.051725
PELICAN GULPER	0	0	0	0	0	0.00187
LARGE SCALE TAPIRFISH	0	0	0	.253678	2.05283	2.84753
LIPOGENYS	0	0	0	0	0	4065E-7
BLUE HAKE	0	0	0	3040E-7	0.03902	2.32619
MORA (NCN)	0	0	0	0	0	5691E-7
LEPIDION (NCN)	0	0	0	0	0	.004228
ATLANTIC COD	48.5372	60.4336	57.355	55.4761	31.1503	0.71065
BLUE WHITING	0	0	.001162	.013052	.109796	.002927
HADDOCK	2.84324	.669048	.043776	0	0	0
LONGFIN HAKE	0	0	0	.053951	.580429	.238037
RED HAKE	0	0	0	0	0	.004065
WHITE HAKE	0	0	8299E-7	.056687	0	0
THREEBEARD ROCKLING	0	0	0	6991E-7	.002041	.017967
CUSK	0	0	.014108	.038906	.110612	0
FOURBEARD ROCKLING	0	0	0.00249	.002128	5102E-7	0
ROUGHHEAD GRENADIER	0	0	.007925	.079574	2.50253	8.92134
COMMON GRENADIER	.005405	0	.001203	.013581	.293276	.979566
ROUNDNOSE GRENADIER	0	0	0	0	.002041	.035772
SPINYFINS (NS)	0	0	0	0	5102E-7	.001254
BLACK SCABBARDFISH	0	0	0	0	0	.004065
FROSTFISH	0	0	0	0	.004592	0
SHERBORN'S CARDINALFISH	0	0	0	0	1531E-7	0
BLACK SWALLOWER	0	0	0	0	0	4065E-7
BROADHEAD WOLFFISH	0.27027	.721786	1.76817	2.44108	7.55788	8.23661
STRIPED WOLFFISH	5.92978	2.50393	5.21411	3.70424	.614643	.014715
SPOTTED WOLFFISH	.351351	.535714	1.39967	2.19232	3.7702	.167724
ESMARK'S EELPOUT	0	0	0	.011033	.079643	.161763
ARCTIC EELPOUT	0	0	0	0	.019378	.003659
VAHL'S EELPOUT	0	0	.002365	.020091	.310398	.341642
ATLANTIC EELPOUT	0	0	0	0	0	.003659
WOLF EEL (NS)	0	0	0	0	0	.001138
NORTHERN WOLF EEL	0	0	0	0	2551E-7	0
REDFISH (NS)	0	0	.026349	.040243	0	0
MARINUS REDFISH	3.46432	.757262	74.6259	84.8388	.195051	0.08813
BEAKED REDFISH	.442432	1.12702	48.0263	140.789	526.647	601.577
MAILED SCULPINS	2703E-7	1190E-7	4149E-8	0	0	0
DEEPSEA SCULPIN (NS)	0	0	0	8207E-7	.002704	0.00439
PALLID DEEPSEA SCULPIN	0	0	0	0	0.00102	0.01626
ARCTIC DEEPSEA SCULPIN	0	0	0	.001672	.005867	.012927
COMMON LUMPFISH	.527027	.655476	.327552	.103343	.033622	0
AMERICAN PLAICE	7.54978	11.1737	19.3773	5.84997	4.4721	1.32146
WITCH FLOUNDER	.086486	.386071	.800124	.806214	.271398	.058537
GREENLAND HALIBUT	0	0	.177178	.468067	4.67797	8.67381
ATLANTIC HALIBUT	1.23216	.503571	.692656	.535338	.280612	0
WINDOWPANE FLOUNDER	0	0	0	0	.001102	0
ANGLERS	0	0	0	0.00152	0	.073171
WARTED SEA DEVIL	0	0	0	0	5102E-7	.001626
ATLANTIC FOOTBALLFISH	0	0	0	0	0	0.00122

TABLE 14. AVERAGE WEIGHT OF FISH IN THE CATCH FOR VARIOUS SPECIES TAKEN ON THE FLEMISH CAP FOR THE 1978-85 PERIOD.

SPECIES	YEAR							
	1978	1979	1980	1981	1982	1983	1984	1985
GREENLAND SHARK	0	0	0	0	0	2000	425	0
SPINY DOGFISH	0	0	2.425	0	0	1.7	0	1.3
BLACK DOGFISH	1.40279	1.25474	1.64839	1.34074	0	1.42353	1.5	1.36335
THORNY SKATE	1.09449	1.13947	1.0636	0.83461	1.09477	1.04184	1.28598	1.24393
SMOOTH SKATE	.606065	.986667	.717143	0.6	.814063	.579167	0.75	.769444
ROUND SKATE	.679783	0.45	0.6	0.6	0.4	0.425	0.5125	0.5
JENSEN'S SKATE	0	0	0	0	0	2.3	0	0
WINTER SKATE	0	2.72	0	0	0	0	0	0
SPINYTAIL SKATE	5.96028	10.532	5.47223	6.1625	7.0625	7.535	9.9325	7.96881
BAIRD'S SMOOTHHEAD	0	0	0	0	0	0.15	0	0
ARGENTINES (NS)	0	0	0	0	0	0	0	0.1
ATLANTIC ARGENTINE	.607358	0	0	0	0	0.605	0	0
GOITRE BLACKSMELT	0	0	0	0	0	.030909	0	.037143
VIPERFISH	0	.050526	0	.047785	.116667	.035862	0.0375	.032656
BOA DRAGONFISH	0	0	0	.025831	0.01	.015571	0.05	0.0268
LANTERNFISHES (NS)	0	0.0325	.014578	.012949	0.01	0.012	0.0156	.010619
LOOSEJAWS (NS)	0	0	0	0	0	.142857	0.03	0.125
BARRACUDINIAS (NS)	0.09	.093333	0	0	0	0.0275	0.1	0
SHORT BARRACUDINA	0	0	0.45	0.4	0	0.3	0.4	0.6
BOREAL BARRACUDINA	0	0	0	0	0	0.075	0	0
SCALED LANCETFISH	0	0	0.1	.031111	0.025	0.027	.023333	.034828
LONGNOSE LANCETFISH	7.71	0	0	0	0	0	6.05	2.5
SNUBNOSE EELS (NS)	0.4525	0.34	0.425	0.1	0	0	.416667	.347674
DUCKBILL EEL	0	0	0.15	0	0	0	0	0
ATLANTIC SNIPE EEL	0.24	0.14	0	0	0	0.075	0	0.028
SHORTNOSE SNIPE EEL	.302222	.183333	0.125	.073333	0.25	.133019	.283333	.091667
LONGNOSE EEL	0.14	.247143	.097853	0.1	0	.116667	0.3	0.1025
PELICAN GULPER	0	0.23	0	0	0	0	0	0
LARGE SCALE TAPIRFISH	1.37657	1.55419	1.80648	1.43016	2.0641	1.46091	1.55702	1.59541
LIPOGENYS	0	0	0	0	0	0	0	0.05
BLUE HAKE	.197906	.296522	.339765	.260396	.258333	.204759	.246058	.185642
MORA (NCN)	0	0	0	0	0	0	0.05	0.02
LEPIDION (NCN)	0	0.32	0	0	0	0.2	0	0
ATLANTIC COD	1.04152	1.14427	1.11501	1.51229	1.46742	.356322	.937469	.905965
BLUE WHITING	.451919	0.23	0.6	0	0.3	0	0.05	0.08
HADDOCK	0	0	0	0	.196667	.332407	.690934	1.1
LONGFIN HAKE	.165638	.225075	0.25	.162854	.156383	.139338	.222667	.160881
RED HAKE	0	0	0	0	0	0	0	0.5
WHITE HAKE	0	0	0	0	0	0	9	0.17
THREEBEARD ROCKLING	0.285	0	.166667	0.4	0	0.8	0	0
CUSK	3.29	0	0	8.5	7.6	7.6	0	0
FOURBEARD ROCKLING	0	0	.116667	0	0	0.15	0.1	0.3
ROUGHHEAD GRENADIER	.540532	.550863	.719078	.726337	.568116	.714045	0.91203	.791754
COMMON GRENADIER	.080236	.090804	.105047	0.08937	.113548	0.08266	.111793	.088192
ROUNDNOSE GRENADIER	0	0	0.4	0.55	0	0	0	0.45
SPINYFINS (NS)	0	0.09	0.1	0	0	0	0	0.06
BLACK SCABBARDFISH	0	0	0	0	0	0.5	0	0
FROSTFISH	0	0	0	0	0.9	0	0	0
SHERBORN'S CARDINALFISH	0	0	0	0.03	0	0	0	0
BLACK SWALLOWER	0.05	0	0	0	0	0	0	0
BROADHEAD WOLFFISH	5.62869	6.46108	7.71646	6.58421	5.70943	6.34618	5.40729	5.56646
STRIPED WOLFFISH	.757774	.794147	.774242	.709688	1.04724	.827624	.803315	.612435
SPOTTED WOLFFISH	2.38264	3.28333	2.41455	2.52805	3.00673	2.13929	2.96544	3.635
ESMARK'S EELPOUT	.291875	.756667	.766897	.566667	0.4875	0.68534	.628571	0.6125
ARCTIC EELPOUT	.233407	0	0	0	0	0	0	0
VAHL'S EELPOUT	.172893	.285106	.199077	.189091	.279412	.232727	.294722	.230614
ATLANTIC EELPOUT	0.45	0	0	0	0	0	0	0
WOLF EEL (NS)	0.14	0	0	0	0	0	0	0
NORTHERN WOLF EEL	0	0	0	0.05	0	0	0	0
REDFISH (NS)	.322204	0	0	0	0	0	0	0
MARINUS REDFISH	.818227	.729861	.941711	.918203	.787644	.945694	.718355	0.54809
BEAKED REDFISH	.489456	.474277	.391092	.408777	.129992	.178995	.381702	.379565
MAILED SCULPIN	0	0	0	0.01	0	0	0	0.01
DEEPSEA SCULPIN (NS)	0.102	0	.118571	0	0	0	0	0
PALLID DEEPSEA SCULPIN	0	0	0	.283333	0.5	0	0	0
ARCTIC DEEPSEA SCULPIN	0	0.16	0	0.084	0	.136667	.146667	0.1175
COMMON LUMPFISH	2.04	1.135	4.9	5.12857	4.19091	3.8	4	4.5
AMERICAN PLAICE	.575647	.919111	1.14319	0.77336	.652417	.581949	.463445	.470266
WITCH FLOUNDER	.840336	.852083	.893846	.777841	.717213	.710897	.788443	.563554
GREENLAND HALIBUT	2.29655	2.19691	2.14577	1.7277	1.92453	2.21728	1.8825	1.89142
ATLANTIC HALIBUT	4.84	4.09	7	13.25	21.075	11.29	32	25.2308
WINDOWPANE FLOUNDER	0.18	0	0	0	0	0	0	0
ANGLERS	0	0	0	0	0	0	0	4.75
WARTED SEA DEVIL	0	0	0	0.1	0	0.2	0	0
ATLANTIC FOOTBALLFISH	0	0	0	0	0	0.15	0	0

TABLE 15.

PERCENT OCCURANCE BY DEPTH ZONE

TABLE OF SPECIES BY RANGE

SPECIES	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
GREENLAND SHARK	0	0	0	0	.510204	1.62602
SPINY DOGFISH	0	1.19048	.414938	.303951	.510204	0
BLACK DOGFISH	0	0	0	.911854	1.02041	20.3252
THORNY SKATE	54.0541	52.381	50.2075	47.1125	60.2041	29.2683
SMOOTH SKATE	2.7027	14.2857	27.8008	20.0608	11.7347	1.62602
ROUND SKATE	0	0	.414938	2.43161	8.67347	5.69106
JENSEN'S SKATE	0	0	0	0	0	.813008
WINTER SKATE	0	0	0	0	0	.813008
SPINYTAIL SKATE	8.10811	3.57143	10.3734	14.8936	15.8163	17.8862
BAIRD'S SMOOTHHEAD	0	0	0	0	0	.813008
ARGENTINES (NS)	0	0	0	.303951	0	0
ATLANTIC ARGENTINE	0	0	0	.303951	.510204	1.62602
GOITRE BLACKSMELT	0	0	0	0	0	5.69106
VIPERFISH	0	0	0	.303951	1.02041	19.5122
BOA DRAGONFISH	0	0	0	.607903	1.53061	13.0081
LANTERNFISHES (NS)	0	0	1.65975	9.42249	7.14286	17.8862
LOOSEJAWS (NS)	0	0	0	0	.510204	5.69106
BARRACUDINIANS (NS)	0	0	0	0	1.02041	4.06504
SHORT BARRACUDINA	0	0	0	0	0	4.87805
BOREAL BARRACUDINA	0	0	0	0	0	1.62602
SCALED LANCETFISH	0	0	0	.911854	2.55102	7.31707
LONGNOSE LANCETFISH	0	0	.414938	0	1.02041	1.62602
SNUBNOSE EELS (NS)	0	0	0	0	0	9.7561
DUCKBILL EEL	0	0	0	0	0	.813008
ATLANTIC SNIPE EEL	0	0	0	0	0	6.50407
SHORTNOSE SNIPE EEL	0	0	0	0	1.53061	24.3902
LONGNOSE EEL	0	0	0	0	1.53061	21.1382
PELICAN GULPER	0	0	0	0	0	.813008
LARGE SCALE TAPIRFISH	0	0	0	1.51976	22.9592	74.7967
LIPOGENYS	0	0	0	0	0	.813008
BLUE HAKE	0	0	0	.303951	4.59184	88.6179
MORA (NCN)	0	0	0	0	0	1.62602
LEPIDION (NCN)	0	0	0	0	0	1.62602
ATLANTIC COD	100	97.619	94.6058	97.5684	69.898	8.94309
BLUE WHITING	0	0	.829876	1.21581	2.55102	.813008
HADDOCK	13.5135	9.52381	3.73444	0	0	0
LONGFIN HAKE	0	0	0	16.4134	71.9388	34.1463
RED HAKE	0	0	0	0	0	.813008
WHITE HAKE	0	0	.414938	1.21581	0	0
THREEBEARD ROCKLING	0	0	0	.303951	.510204	4.06504
CUSK	0	0	.414938	.607903	1.53061	0
FOURBEARD ROCKLING	0	0	1.65975	1.51976	.510204	0
ROUGHHEAD GRENADIER	0	0	1.24481	5.77508	78.0612	95.935
COMMON GRENADIER	2.7027	0	1.24481	7.90274	63.2653	88.6179
ROUNDNOSE GRENADIER	0	0	0	0	.510204	4.06504
SPINYFINS (NS)	0	0	0	0	.510204	1.62602
BLACK SCABBARDFISH	0	0	0	0	0	.813008
FROSTFISH	0	0	0	0	.510204	0
SHERBORN'S CARDINALFISH	0	0	0	0	.510204	0
BLACK SWALLOW	0	0	0	0	0	.813008
BROADHEAD WOLFFISH	2.7027	8.33333	18.2573	20.9726	56.1224	60.9756
STRIPED WOLFFISH	89.1892	82.1429	85.0622	89.3617	31.1224	.813008
SPOTTED WOLFFISH	2.7027	4.7619	22.4066	38.9058	66.3265	7.31707
ESMARK'S EELPOUT	0	0	0	.607903	11.2245	22.7642
ARCTIC EELPOUT	0	0	0	0	2.04082	.813008
VAHL'S EELPOUT	0	0	2.07469	9.72644	52.551	36.5854
ATLANTIC EELPOUT	0	0	0	0	0	.813008
WOLF EEL (NS)	0	0	0	0	0	.813008
NORTHERN WOLF EEL	0	0	0	0	.510204	0
REDFISH (NS)	0	0	.414938	.607903	0	0
MARINUS REDFISH	54.0541	36.9048	72.1992	59.5745	7.65306	3.25203
BEAKED REDFISH	27.027	36.9048	75.1037	96.0486	100	100
MAILED SCULPINS	2.7027	1.19048	.414938	0	0	0
DEEPSEA SCULPIN (NS)	0	0	0	.911854	2.04082	3.25203
PALLID DEEPSEA SCULPIN	0	0	0	0	1.02041	4.06504
ARCTIC DEEPSEA SCULPIN	0	0	0	2.73556	4.08163	7.31707
COMMON LUMPFISH	10.8108	9.52381	7.05394	2.43161	1.53061	0
AMERICAN PLAICE	91.8919	94.0476	96.2656	92.4012	77.0408	45.5285
WITCH FLOUNDER	8.10811	27.381	50.6224	46.8085	29.0816	11.3821
GREENLAND HALIBUT	0	0	6.639	16.7173	68.3673	85.3659
ATLANTIC HALIBUT	16.2162	5.95238	3.73444	2.73556	.510204	0
WINDOWPANE FLOUNDER	0	0	0	0	.510204	0
ANGLERS	0	0	0	.303951	0	.813008
WARTED SEA DEVIL	0	0	0	0	.510204	.813008
ATLANTIC FOOTBALLFISH	0	0	0	0	0	.813008

TABLE 18.

AVERAGE WEIGHT OF FISH IN CATCH

TABLE OF SPECIES BY RANGE

SPECIES	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
GREENLAND SHARK	0	0	0	0	500	1175
SPINY DOGFISH	0	1.3	1.7	2.75	2.1	0
BLACK DOGFISH	0	0	0	1.1275	2.098	1.4013
THORNY SKATE	1.50982	1.01129	.938779	.936185	1.22538	1.59673
SMOOTH SKATE	0.45	.896923	.660263	.646737	.934198	0.955
ROUND SKATE	0	0	0.4	0.61375	.549121	0.48125
JENSEN'S SKATE	0	0	0	0	0	2.3
WINTER SKATE	0	0	0	0	0	2.72
SPINYTAIL SKATE	15.6867	3.8725	6.09333	6.95241	8.50676	6.87198
BAIRD'S SMOOTHHEAD	0	0	0	0	0	0.15
ARGENTINES (NS)	0	0	0	0.1	0	0
ATLANTIC ARGENTINE	0	0	0	0.62375	1.2	0.23
GOITRE BLACKSMELT	0	0	0	0	0	.033333
VIPERFISH	0	0	0	0.09	0.05	.038965
BOA DRAGONFISH	0	0	0	.010909	0.012	.019361
LANTERNFISHES (NS)	0	0	.016667	.013628	.011957	.013936
LOOSEJAWS (NS)	0	0	0	0	0.15	.125556
BARRACUDINIANS (NS)	0	0	0	0	0.03	.074286
SHORT BARRACUDINA	0	0	0	0	0	.428571
BOREAL BARRACUDINA	0	0	0	0	0	0.075
SCALED LANCETFISH	0	0	0	0.03	0.03	.026735
LONGNOSE LANCETFISH	0	0	3	0	4.855	6.05
SNUBNOSE EELS (NS)	0	0	0	0	0	.387071
DUCKBILL EEL	0	0	0	0	0	0.15
ATLANTIC SNIPE EEL	0	0	0	0	0	.115833
SHORTNOSE SNIPE EEL	0	0	0	0	.084444	0.16
LONGNOSE EEL	0	0	0	0	.116667	.147577
PELICAN GULPER	0	0	0	0	0	0.23
LARGE SCALE TAPIRFISH	0	0	0	2.38457	1.78507	1.30008
LIPOGENYS	0	0	0	0	0	0.05
BLUE HAKE	0	0	0	0.1	.301102	.243189
MORA (NCN)	0	0	0	0	0	0.035
LEPIDION (NCN)	0	0	0	0	0	0.26
ATLANTIC COD	1.09732	.392183	0.8602	1.1531	1.50248	1.15013
BLUE WHITING	0	0	0.14	.466739	.439184	0.18
HADDOCK	.528643	.545631	.479545	0	0	0
LONGFIN HAKE	0	0	0	.133459	.189102	.211725
RED HAKE	0	0	0	0	0	0.5
WHITE HAKE	0	0	0.2	3.10833	0	0
THREEBEARD ROCKLING	0	0	0	.076667	0.4	0.442
CUSK	0	0	3.4	6.4	7.22667	0
FOURBEARD ROCKLING	0	0	0.15	0.14	0.1	0
ROUGHHEAD GRENADIER	0	0	.636667	.727222	.609009	.735491
COMMON GRENADIER	0.2	0	.096667	.080942	.086309	.093247
ROUNDNOSE GRENADIER	0	0	0	0	0.4	0.44
SPINYFINS (NS)	0	0	0	0	0.1	.074483
BLACK SCABBARDFISH	0	0	0	0	0	0.5
FROSTFISH	0	0	0	0	0.9	0
SHERBORN'S CARDINALFISH	0	0	0	0	0.03	0
BLACK SWALLOWER	0	0	0	0	0	0.05
BROADHEAD WOLFFISH	10	8.66143	7.22254	7.85828	5.96354	5.32233
STRIPED WOLFFISH	.582586	.587514	.883064	.785859	.919618	1.81
SPOTTED WOLFFISH	6.5	6.42857	3.748	2.91778	2.2191	2.063
ESMARK'S EELPOUT	0	0	0	1.815	0.5575	.517939
ARCTIC EELPOUT	0	0	0	0	.220814	0.45
VAHL'S EELPOUT	0	0	0.114	.178649	.212423	.285078
ATLANTIC EELPOUT	0	0	0	0	0	0.45
WOLF EEL (NS)	0	0	0	0	0	0.14
NORTHERN WOLF EEL	0	0	0	0	0.05	0
REDFISH (NS)	0	0	0.79375	.250758	0	0
MARINUS REDFISH	.186308	.390245	.766225	.934408	1.12441	1.20444
BEAKED REDFISH	.133089	.036134	.055549	0.29933	.400647	.611065
MAILED SCULPINS	0.01	0.01	0.01	0	0	0
DEEPSEA SCULPIN (NS)	0	0	0	0.09	0.1325	0.108
PALLID DEEPSEA SCULPIN	0	0	0	0	0.1	0.4
ARCTIC DEEPSEA SCULPIN	0	0	0	.061111	0.14375	.176667
COMMON LUMPFISH	3.9	4.23538	3.947	4.25	2.19667	0
AMERICAN PLAICE	.911691	.579377	.719448	0.58159	.548793	.677918
WITCH FLOUNDER	1.06667	.876486	.817076	.801123	0.54614	0.36
GREENLAND HALIBUT	0	0	1.525	1.92012	2.20298	1.94865
ATLANTIC HALIBUT	6.51286	8.46	15.1755	16.9946	55	0
WINDOWPANE FLOUNDER	0	0	0	0	0.18	0
ANGLERS	0	0	0	0.5	0	0.9
WARTED SEA DEVIL	0	0	0	0	0.1	0.2
ATLANTIC FOOTBALLFISH	0	0	0	0	0	0.15

TABLE 19. TOTAL WEIGHT BY YEAR AND DEPTH RANGE FOR ALL SPECIES COMBINED

TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	YEAR								
	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
71-80	951.32	313.02	409.2	298.92	221.45	120.1	288.15	148.65	2750.81
81-100	1154.09	528.69	843.91	1546.64	161.92	2076.31	252	210.95	6774.51
101-140	11913.6	4340.53	7576.88	11437.5	2470.95	11210.2	2316.52	2028.17	53294.3
141-200	21847	2369.87	14727.8	15463.6	4657.61	23929	10918.9	5537.64	99451.4
201-300	16969.7	12601.8	21510.6	14428	12410.6	15320.6	10454.1	12422.1	116118
301-400	25700.2	5782.26	13673.6	6994.17	268.35	10234.4	8385.37	10297.8	81336.1
TOTAL	78535.8	25936.2	58742	50168.8	20190.9	62890.6	32615.1	30645.3	359725

TABLE 20. TOTAL NUMBER BY YEAR AND DEPTH RANGE FOR ALL SPECIES COMBINED

TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	YEAR								
	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
71-80	752.4	440	504	361	600	214	377	150	3398.4
81-100	1480	327	745	1166	2618	10811	438	382	17967
101-140	15170	5869	8441	27919	79114	192932	6457	4564	340466
141-200	31289.4	3955	39025	31060	20217	57159	25514.5	11930.7	220151
201-300	37139.2	25883	56136	32985	22855	31833	27081	34766	268678
301-400	41959	9289	20930.2	10756.6	410	13907.6	13710	17240.1	128202
TOTAL	127790	45763	125781	104248	125814	306857	73577.5	69032.8	978863

TABLE 21. TOTAL DENSITY BY WEIGHT - ALL SPECIES

TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	YEAR								
	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
71-80	190.264	62.604	102.3	59.784	44.29	24.02	72.0375	37.1625	
81-100	96.1742	75.5271	76.7191	140.602	13.4933	188.755	25.2	21.095	
101-140	321.988	206.692	291.342	357.421	72.6162	237.016	85.797	78.0054	
141-200	532.853	87.773	334.613	343.443	108.075	566.499	253.818	123.057	
201-300	652.68	600.087	827.196	497.517	886.331	527.741	399.985	496.837	
301-400	1976.94	412.954	719.6	349.62	268.35	568.417	441.254	541.748	

TABLE 22. TOTAL DENSITY BY NUMBER - ALL SPECIES

TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	YEAR								
	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
71-80	150.48	88	126	72.2	120	42.8	94.25	37.5	
81-100	123.333	46.7143	67.7273	105.909	218.167	982.818	43.8	38.2	
101-140	410	279.476	324.615	872.469	2326.88	2873.79	239.148	175.538	
141-200	763.156	146.481	886.841	690.156	470.14	1079.76	591.408	265.105	
201-300	1428.43	1232.52	2159.08	1137.38	1632.5	1097.62	1010.38	1390.44	
301-400	3227.62	663.5	1101.59	537.225	410	768.423	720.474	906.414	

TABLE 23.

TOTAL NUMBER OF SETS BY YEAR AND DEPTH RANGE

QUADRANT=1

DEPTH RANGE (FATHOMS)	YEAR									TOTAL
	1978	1979	1980	1981	1982	1983	1984	1985		
81-100	1	1	0	1	0	1	0	0	4	
101-140	12	6	6	9	9	11	6	6	65	
141-200	15	8	15	15	14	15	15	14	111	
201-300	8	5	8	9	0	9	8	8	55	
301-400	5	2	5	5	0	5	5	5	32	
TOTAL	41	22	34	39	23	41	34	33	267	

QUADRANT=2

DEPTH RANGE (FATHOMS)	YEAR									TOTAL
	1978	1979	1980	1981	1982	1983	1984	1985		
81-100	6	1	5	3	3	4	4	5	31	
101-140	7	6	8	9	9	8	9	8	64	
141-200	5	6	10	9	9	11	10	10	70	
201-300	6	7	8	9	4	10	8	8	60	
301-400	3	6	8	9	0	7	8	8	49	
TOTAL	27	26	39	39	25	40	39	39	274	

QUADRANT=3

DEPTH RANGE (FATHOMS)	YEAR									TOTAL
	1978	1979	1980	1981	1982	1983	1984	1985		
71-80	5	5	4	5	5	5	4	4	37	
81-100	2	5	3	2	3	5	3	4	27	
101-140	6	3	4	5	5	5	4	4	36	
141-200	6	4	3	4	7	2	3	3	32	
201-300	5	3	3	3	3	2	3	3	25	
301-400	3	3	3	2	1	4	3	3	22	
TOTAL	27	23	20	21	24	23	20	21	179	

QUADRANT=4

DEPTH RANGE (FATHOMS)	YEAR									TOTAL
	1978	1979	1980	1981	1982	1983	1984	1985		
81-100	3	0	3	5	6	1	3	1	22	
101-140	12	6	8	9	11	14	8	8	76	
141-200	15	9	16	17	13	13	15	18	116	
201-300	7	6	7	8	7	8	7	6	56	
301-400	2	3	3	4	0	2	3	3	20	
TOTAL	39	24	37	43	37	38	36	36	290	

TABLE 24.

BEAKED REDFISH SUCCESSFUL SETS BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	1	50	108	55	32	246
2	0	13	52	69	60	49	243
3	10	8	22	30	25	22	117
4	0	9	57	109	56	20	251
TOTAL	10	31	181	316	196	123	857

BEAKED REDFISH NUMBERS BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	39	7543	39355	72296	29675.3	148908
2	0	91	2990	28630	78022.4	40771.7	150505
3	123	330	91444	16182.4	41377.8	32860.7	182318
4	0	2160	106387	70577	65944	17782.4	262850
TOTAL	123	2620	208364	154744	257640	121090	744582

BEAKED REDFISH WEIGHT BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	0.3	1238.6	9468.11	21949.7	17591.3	50247.9
2	0	8.2	222.97	7371.37	32113.5	23531	63247.1
3	16.37	38.85	2315.43	5409.49	24282.1	21037.9	53100.1
4	0	47.32	7797.34	24070.7	24877.5	11833.7	68626.6
TOTAL	16.37	94.67	11574.3	46319.7	103223	73994	235222

AVERAGE WEIGHT OF BEAKED REDFISH BY DEPTH RANGE AND QUADRANT
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
1	0	.007692	.164205	.240582	.303608	.592791
2	0	0.09011	.074572	0.25747	.411594	.577141
3	.133089	.117727	.025321	.334282	.586838	.640215
4	0	.021907	.073292	.341056	.377252	.665476

TABLE 25.

COD SUCCESSFUL SETS BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	4	64	109	42	4	223
2	0	31	61	68	36	2	198
3	37	27	36	31	15	4	150
4	0	20	67	113	44	1	245
TOTAL	37	82	228	321	137	11	816

COD NUMBERS BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	253	5117	4297	2233	11	11911
2	0	1164	3388	3672	710.8	8	8942.8
3	1636.6	10467	1303	3145.6	311.8	55	16919
4	0	1060	6261	4713.73	808	2	12844.7
TOTAL	1636.6	12944	16069	15828.3	4063.6	76	50617.5

COD WEIGHT BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	218.33	4804.26	4178.13	2949.58	15.34	12165.6
2	0	1059.43	1985.53	3096.32	1032.5	14.06	7187.84
3	1795.88	2377.37	833.42	3104.2	708.418	55.74	8875.02
4	0	1421.29	6199.34	7872.97	1414.97	2.27	16910.8
TOTAL	1795.88	5076.42	13822.6	18251.6	6105.47	87.41	45139.3

AVERAGE WEIGHT OF COD BY DEPTH RANGE AND QUADRANT
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
1	0	.862964	.938882	.972337	1.3209	1.39455
2	0	.910163	.586048	.843224	1.45259	1.7575
3	1.09732	0.22713	.639616	.986838	2.27203	1.01345
4	0	1.34084	.990152	1.67022	1.7512	1.135

TABLE 26.

AMERICAN PLAICE SUCCESSFUL SETS BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	2	65	109	55	23	254
2	0	30	60	59	41	19	209
3	34	26	35	24	11	7	137
4	0	21	72	112	44	7	256
TOTAL	34	79	232	304	151	56	856

AMERICAN PLAICE NUMBERS BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	69	1745	1325	612	79.1111	3830.11
2	0	325	678	316	127.2	23	1469.2
3	306.4	1028	2391	394	16	82.1304	4217.53
4	0	198	1677	1274.27	842	55.5217	4046.79
TOTAL	306.4	1620	6491	3309.27	1597.2	239.763	13563.6

AMERICAN PLAICE WEIGHT BY QUADRANT AND DEPTH RANGE
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
1	0	36.76	954.42	574.33	304.45	46.4033	1916.36
2	0	180.22	291.4	131.52	62.582	12.54	678.262
3	279.342	608.26	2466.58	470.596	10.4	62.2804	3897.46
4	0	113.35	957.54	748.195	499.1	41.3161	2359.5
TOTAL	279.342	938.59	4669.94	1924.64	876.532	162.54	8851.59

AVERAGE WEIGHT OF AMERICAN PLAICE BY DEPTH RANGE AND QUADRANT
TABLE OF QUAD BY RANGE

QUADRANT	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
1	0	.532754	.546946	.433457	.497467	.586559
2	0	.554523	.429794	.416203	.491997	.545217
3	.911691	.591693	1.03161	1.19441	0.65	.758311
4	0	.572475	.570984	.587155	.592755	.744143

TABLE 27.

COD NUMBERS

TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	YEAR								TOTAL
	1978	1979	1980	1981	1982	1983	1984	1985	
71-80	635.6	234	293	167	138	84	70	15	1636.6
81-100	593	192	553	985	132	10164	136	189	12944
101-140	4079	1733	2911	2384	241	2720	794	1207	16069
141-200	6572.6	815	1347	1182	465	1592	1964.55	1890.18	15828.3
201-300	1961.6	266	104	60	43	63	378	1188	4063.6
301-400	42	3	1	0	0	0	29	1	76
TOTAL	13883.8	3243	5209	4778	1019	14623	3371.55	4490.18	50617.5

TABLE 28.

COD WEIGHTS
TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	1978	1979	1980	1981	1982	1983	1984	1985	TOTAL
71-80	846.218	217.01	351	164.5	66.5	41.4	76	33.25	1795.88
81-100	587.41	451.06	668.5	1393.4	39.3	1749.1	80.25	107.4	5076.42
101-140	3834.24	1684.21	1935	3383.2	348.1	1136.55	944	557.25	13822.6
141-200	6463.28	867.13	2630.6	2038.6	869.9	2051.85	1634.22	1696.05	18251.6
201-300	2662.15	488.97	220	246	171.5	231.6	412.25	1673	6105.47
301-400	66.91	2.5	3	0	0	0	14	1	87.41
TOTAL	14460.2	3710.88	5808.1	7225.7	1495.3	5210.5	3160.72	4067.95	45139.3

TABLE 29.

COD DENSITY BY NUMBER
TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	1978	1979	1980	1981	1982	1983	1984	1985
71-80	127.12	46.8	73.25	33.4	27.6	16.8	17.5	3.75
81-100	49.4167	27.4286	50.2727	89.5455	11	924	13.6	18.9
101-140	110.243	82.5238	111.962	74.5	7.08824	71.5789	29.4074	46.4231
141-200	160.307	30.1852	30.6136	26.2667	10.814	38.8293	45.6871	42.004
201-300	75.4462	12.6667	4	2.06897	3.07143	2.17241	14.5385	47.52
301-400	3.23077	.214286	.052632	0	0	0	1.52632	.052632

TABLE 30.

COD DENSITY BY WEIGHT
TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	1978	1979	1980	1981	1982	1983	1984	1985
71-80	169.244	43.402	87.75	32.9	13.3	8.28	19	8.3125
81-100	48.9508	64.4371	60.7727	126.673	3.275	159.009	8.025	10.74
101-140	103.628	80.2005	74.4231	105.725	10.2382	29.9092	34.963	21.4327
141-200	157.641	32.1159	59.7864	45.3022	20.2302	50.0451	38.0051	37.6899
201-300	102.39	23.2843	8.46154	8.48276	12.25	7.98621	15.8558	66.92
301-400	5.14692	.178571	.157895	0	0	0	.736842	.052632

TABLE 31.

AVERAGE WEIGHT OF COD IN THE CATCH
TABLE OF RANGE BY YEAR

DEPTH RANGE (FATHOMS)	1978	1979	1980	1981	1982	1983	1984	1985
71-80	1.33137	.927393	1.19795	0.98503	.481884	.492857	1.08571	2.21667
81-100	.990573	2.34927	1.20886	1.41462	.297727	.172088	.590074	.568254
101-140	.939995	.971847	0.66472	1.41913	1.4444	.417849	1.18892	.461682
141-200	.983367	1.06396	1.95293	1.7247	1.87075	1.28885	.831856	.897292
201-300	1.35713	1.83823	2.11538	4.1	3.98837	3.67619	1.09061	1.40825
301-400	1.5931	.833333	3	0	0	0	.482759	1

TABLE 32. CONDITION FACTORS FOR COD (LENGTH > 50 CM.) ON THE FLEMISH CAP

A) BY YEAR

OBS	YEAR	ROUND	GUTTED	GONAD	LIVER	STOMACH
1	78	98.879	100.978	202.667	93.206	120.276
2	79	94.879	96.790	148.398	86.498	116.424
3	80	95.357	97.560	166.368	93.228	92.822
4	81	100.927	101.276	194.130	113.274	126.162
5	82	105.598	102.262	359.198	128.218	98.357
6	83	107.161	103.733	316.832	135.113	122.570
7	84	106.317	102.858	267.488	139.544	142.289
8	85	102.065	99.972	265.656	125.379	128.467

B) ALL YEARS COMBINED

VARIABLE	N	MEAN
ROUND	1273	100.59945
GUTTED	1273	100.32482
GONAD	1273	225.24278
LIVER	1273	110.90659
STOMACH	1273	118.51611

TABLE 33. CONDITION FACTORS FOR COD (ALL LENGTHS) ON THE FLEMISH CAP.

A) BY YEAR

OBS	YEAR	ROUND	GUTTED	GONAD	LIVER	STOMACH
1	78	100.407	101.921	367.544	114.170	117.093
2	79	96.064	97.349	141.541	89.008	105.394
3	80	95.504	97.633	164.259	85.028	90.275
4	81	102.257	102.268	255.213	131.204	128.378
5	82	107.460	103.717	355.731	133.329	118.541
6	83	106.812	103.489	330.350	156.395	142.983
7	84	104.248	102.119	276.032	147.227	135.326
8	85	101.631	100.130	278.063	124.515	120.477

B) ALL YEARS COMBINED

VARIABLE	N	MEAN
ROUND	2296	100.59887
GUTTED	2296	100.42414
GONAD	2296	248.87955
LIVER	2296	116.71356
STOMACH	2296	117.46738

TABLE 34. CONDITION FACTORS FOR COD (ALL LENGTHS) IN DIV. 3L DURING WINTER AS CALCULATED FROM AVERAGE CONDITIONS (1978-85) IN DIV. 3M.

A) BY YEAR

YEAR	ROUND	GUTTED	GONAD	LIVER	STOMACH
85	101.638	100.076	1115.91	132.275	154.955
86	106.325	103.718	254.64	136.837	162.469

B) BOTH YEARS COMBINED

VARIABLE	N	MEAN
ROUND	293	103.66925
GUTTED	293	101.65470
GONAD	293	742.59562
LIVER	293	134.25268
STOMACH	293	158.21193

TABLE 35. Fecundity estimates of cod on the Flemish Cap from 61 ovaries collected in 1979, 1982-85.

Length (cm)	Number of eggs (000)	Number of specimens
43	193	2
46	145	2
49	344	4
52	292	3
55	516	2
58	379	3
61	559	4
64	446	4
67	711	4
70	841	4
73	634	4
76	1178	4
79	1287	4
82	1362	5
85	1237	4
88	1835	2
91	1557	3
94	1643	1
97	2514	1
100	2643	1

TABLE 36.

LENGTH/FECUNDITY RELATIONSHIP FOR FLEMISH CAP COD 1
11:45 FRIDAY., SEPTEMBER 1, 1989.

DEP VARIABLE: LOG_FEC

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	1	5.41925396	5.41925396	223.913	0.0001
ERROR	59	1.42794888	0.02420252		
C TOTAL	60	6.84720284			
ROOT MSE		0.1555716	R-SQUARE	0.7915	
DEP MEAN		5.840534	ADJ R-SQ	0.7879	
C.V.		2.663654			

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > T
INTERCEP	1	0.06945426	0.38618560	0.180	0.8579
LOG_LEN	1	3.14590803	0.21023576	14.964	0.0001

TABLE 37.

NUMBER OF SUCCESSFUL SETS BY BOTTOM TEMPERATURE AND YEAR

TABLE OF TRANGE BY YEAR

TRANGE	YEAR								TOTAL
FREQUENCY	1978	1979	1980	1981	1982	1983	1984	1985	
2.6-3.0	0	0	0	0	0	0	0	5	5
3.1-3.5	4	9	21	41	27	12	0	19	133
3.6-4.0	128	38	77	101	75	69	25	55	568
4.1-4.5	1	48	32	0	6	59	68	47	261
4.6-5.0	1	0	0	0	0	1	17	1	20
5.1-5.5	0	0	0	0	0	0	15	0	15
6.1-6.5	0	0	0	0	0	0	1	0	1
7.1-7.5	0	0	0	0	0	0	2	0	2
TOTAL	134	95	130	142	108	141	128	127	1005

FREQUENCY MISSING = 5

TABLE 38.

AVERAGE TEMPERATURE BY YEAR

YEAR	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
1978	134	3.76	0.15	3.30	4.70
1979	95	3.96	0.30	3.40	4.50
1980	130	3.85	0.24	3.40	4.30
1981	142	3.69	0.19	3.30	4.00
1982	108	3.71	0.23	3.10	4.20
1983	141	3.99	0.29	3.20	4.80
1984	128	4.47	0.68	3.80	8.80
1985	127	3.85	0.38	2.70	4.70

TABLE 39. SUCCESSFUL SETS BY BOTTOM TEMPERATURE RANGE AND DEPTH RANGE

BOTTOM TEMP. RANGE	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
2.6-3.0	4	1	0	0	0	0	5
3.1-3.5	8	24	9	7	35	50	133
3.6-4.0	18	44	137	197	111	61	568
4.1-4.5	7	13	89	108	37	7	261
4.6-5.0	0	0	2	9	7	2	20
5.1-5.5	0	1	3	7	3	1	15
6.1-6.5	0	1	0	0	0	0	1
7.1-7.5	0	0	1	0	0	1	2
TOTAL	37	84	241	328	193	122	1005

FREQUENCY MISSING = 5

TABLE 40.

AVERAGE TEMPERATURE BY DEPTH RANGE (FATHOMS)

DEPTH RANGE (FATHOMS)	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
71-80	37	3.72	0.47	2.70	4.50
81-100	84	3.75	0.46	2.80	6.20
101-140	241	4.00	0.42	3.40	8.80
141-200	328	4.01	0.32	3.30	5.40
201-300	193	3.85	0.38	3.10	5.20
301-400	122	3.71	0.51	3.30	8.30

TABLE 41. Percentage distribution of surface temperatures (°C) over depth zones.

Temperature range	Depth zones					
	71-80	81-100	101-140	141-200	201-300	301-400
0.1-0.5					.5	
0.6-1.0			.4	2.7	1.5	4.1
1.1-1.5		2.4	4.1	5.8	11.7	10.6
1.6-2.0	2.7	8.3	5.8	4.9	8.7	10.6
2.1-2.5	8.1	1.2	1.2	4.0	3.1	6.5
2.6-3.0	2.7	7.1	7.9	8.2	10.7	8.9
3.1-3.5	37.8	19.0	17.8	19.1	12.8	13.0
3.6-4.0	16.2	32.1	24.1	18.5	10.7	14.6
4.1-4.5	-	11.9	12.0	9.4	11.2	12.2
4.6-5.0	27.0	15.5	17.8	14.6	15.3	8.9
5.1-5.5	2.7	2.4	5.4	5.8	3.6	1.6
5.6-6.0	2.7		.8	3.3	5.1	4.9
6.1-6.5			1.7	1.5	3.6	1.6
6.6-7.0			.8	1.2	.5	
7.1-7.5						.8
	99.9	99.9	99.8	99.0	99.0	98.3

TABLE 42. AVERAGE BOTTOM TEMPERATURE BY YEAR AND DEPTH RANGE

TABLE OF YEAR BY RANGE

YEAR	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
1978	3.98	3.75	3.8027	3.80244	3.66923	3.6
1979	4.38	4.31429	4.16667	4.02593	3.74286	3.51429
1980	4	3.9	4.08846	3.92273	3.66538	3.53158
1981	3.82	3.72727	3.84063	3.75111	3.54483	3.475
1982	3.32	3.41667	3.7	3.85349	3.42143	3.4
1983	3.54	3.45455	4.03158	4.11463	4	3.85556
1984	3.85	4.39	4.47778	4.57209	4.33846	4.32105
1985	2.8	3.34	4.14615	3.92667	3.808	3.4

TABLE 43. COD NUMBERS BY DEPTH AND TEMPERATURE RANGES

BOTTOM TEMP. RANGE	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
2.6-3.0	15	2	0	0	0	0	17
3.1-3.5	191	492	81	419	126	2	1311
3.6-4.0	1034	11972	7853	9769.78	2982.6	45	33656.4
4.1-4.5	396.6	416	7477	4636.55	640	0	13566.1
4.6-5.0	0	0	439	426	260	0	1125
5.1-5.5	0	48	144	549	53	29	823
6.1-6.5	0	14	0	0	0	0	14
7.1-7.5	0	0	75	0	0	0	75
TOTAL	1636.6	12944	16069	15800.3	4061.6	76	50587.5

FREQUENCY MISSING = 30

TABLE 44. COD WEIGHTS BY DEPTH AND TEMPERATURE RANGES

BOTTOM TEMP. RANGE	DEPTH RANGE (FATHOMS)						TOTAL
	71-80	81-100	101-140	141-200	201-300	301-400	
2.6-3.0	33.25	0.6	0	0	0	0	33.85
3.1-3.5	94.4	711	190.2	343.35	297.29	1.14	1637.38
3.6-4.0	1166.15	3501.26	7693.05	11588.2	4519.52	72.27	28540.5
4.1-4.5	502.078	838.56	5219.51	5677.57	912.76	0	13150.5
4.6-5.0	0	0	644.79	303.5	315	0	1263.29
5.1-5.5	0	14.5	60	295	51	14	434.5
6.1-6.5	0	10.5	0	0	0	0	10.5
7.1-7.5	0	0	15	0	0	0	15
TOTAL	1795.88	5076.42	13822.6	18207.6	6095.57	87.41	45085.4

FREQUENCY MISSING = 54

TABLE 45.

AVERAGE COD CATCH (NUMBERS) BY DEPTH AND TEMPERATURE RANGES

BOTTOM TEMP. RANGE	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
2.6-3.0	3.75	2	0	0	0	0
3.1-3.5	23.875	20.5	9	59.8571	3.6	0.04
3.6-4.0	57.4444	272.091	57.3212	49.5928	26.8703	.737705
4.1-4.5	56.6571	32	84.0112	42.931	17.2973	0
4.6-5.0	0	0	219.5	47.3333	37.1429	0
5.1-5.5	0	48	48	78.4286	17.6667	29
6.1-6.5	0	14	0	0	0	0
7.1-7.5	0	0	75	0	0	0

FREQUENCY MISSING = 29

TABLE 46.

AVERAGE COD CATCH (WEIGHT) BY DEPTH AND TEMPERATURE RANGES

BOTTOM TEMP. RANGE	DEPTH RANGE (FATHOMS)					
	71-80	81-100	101-140	141-200	201-300	301-400
2.6-3.0	8.3125	0.6	0	0	0	0
3.1-3.5	11.8	29.625	21.1333	49.05	8.494	0.0228
3.6-4.0	64.7861	79.5741	56.1536	58.8234	40.7164	1.18475
4.1-4.5	71.7254	64.5046	58.6462	52.5701	24.6692	0
4.6-5.0	0	0	322.395	33.7222	45	0
5.1-5.5	0	14.5	20	42.1429	17	14
6.1-6.5	0	10.5	0	0	0	0
7.1-7.5	0	0	15	0	0	0

FREQUENCY MISSING = 47

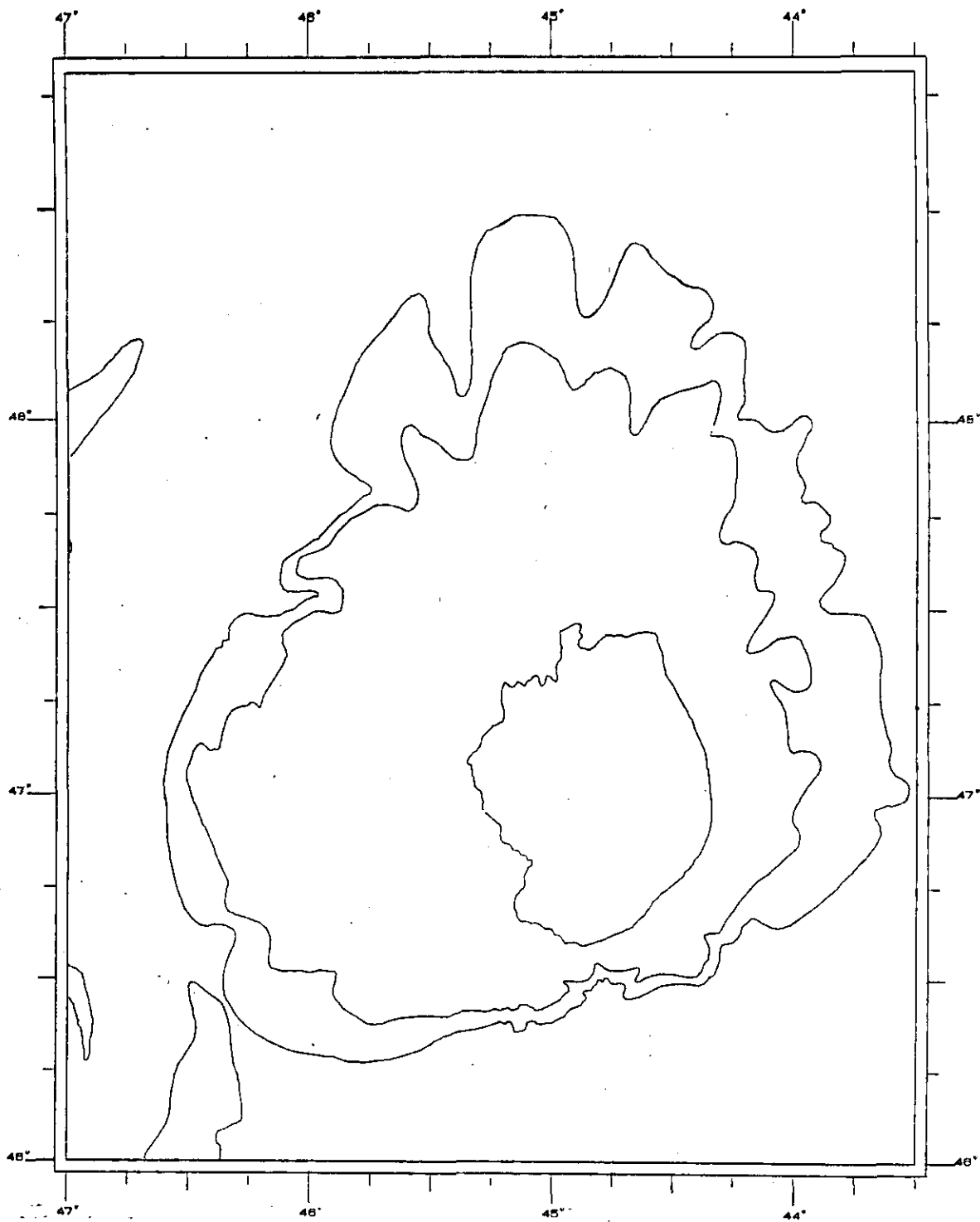


FIG. 1.

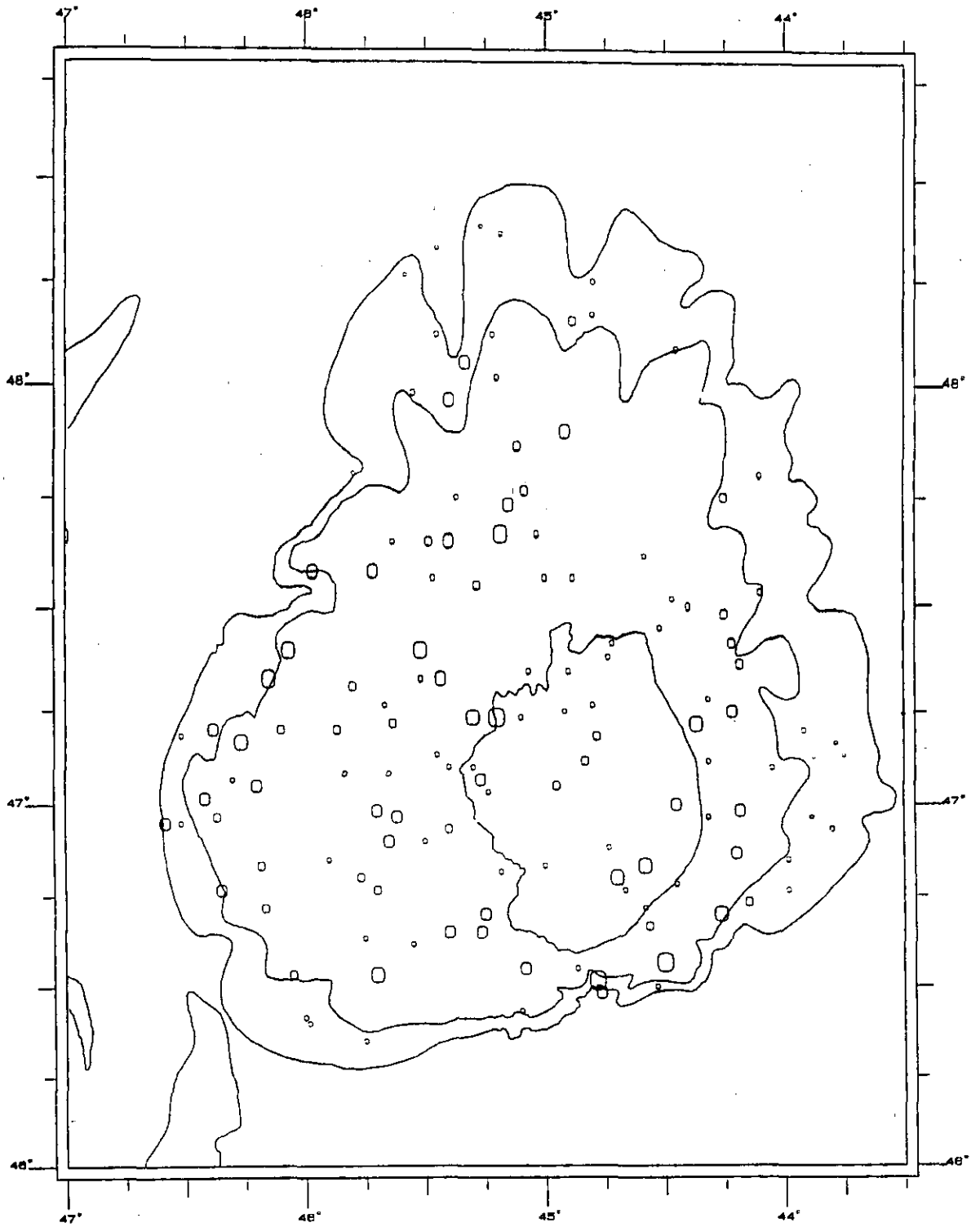


FIG. 2.

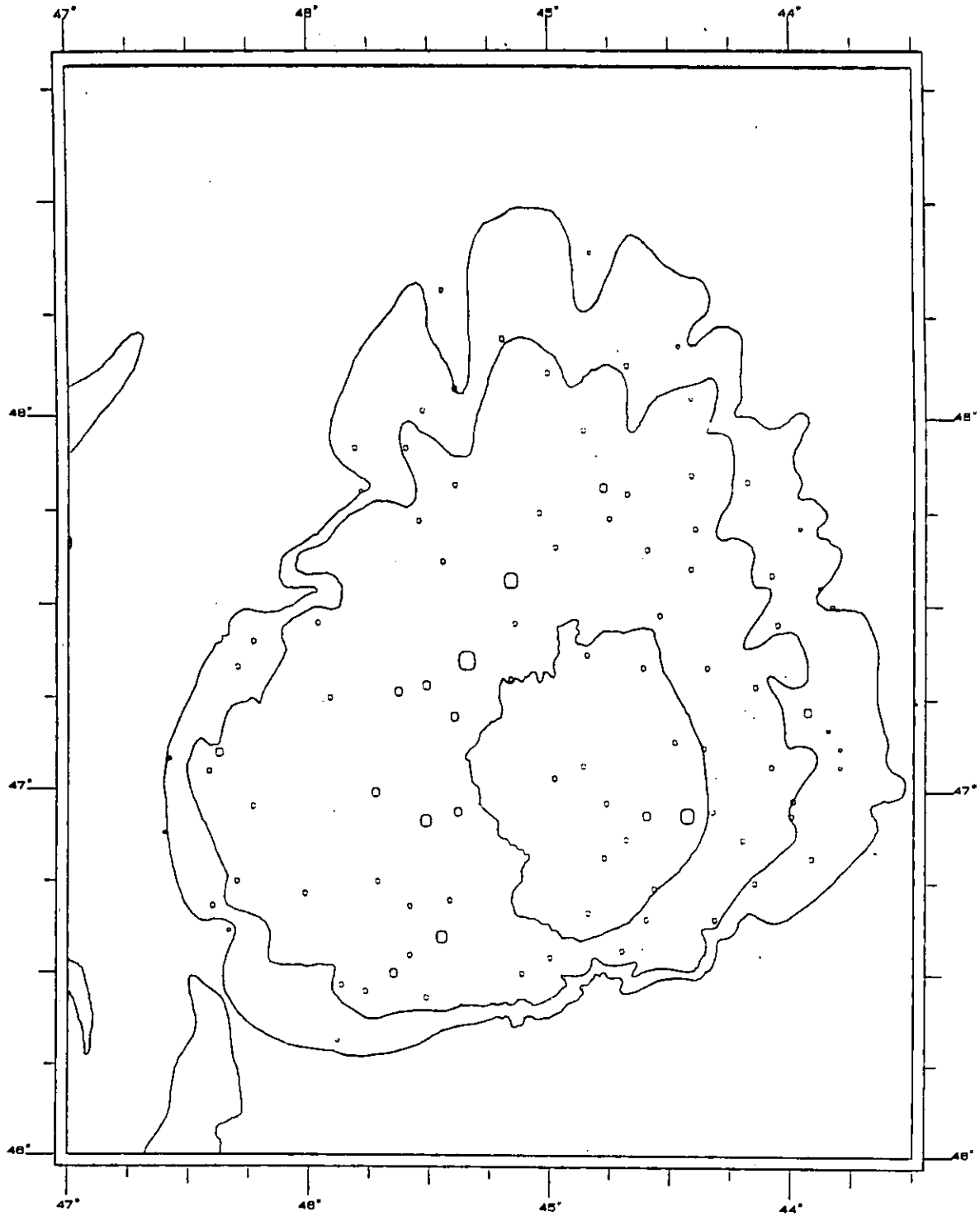


FIG. 3.

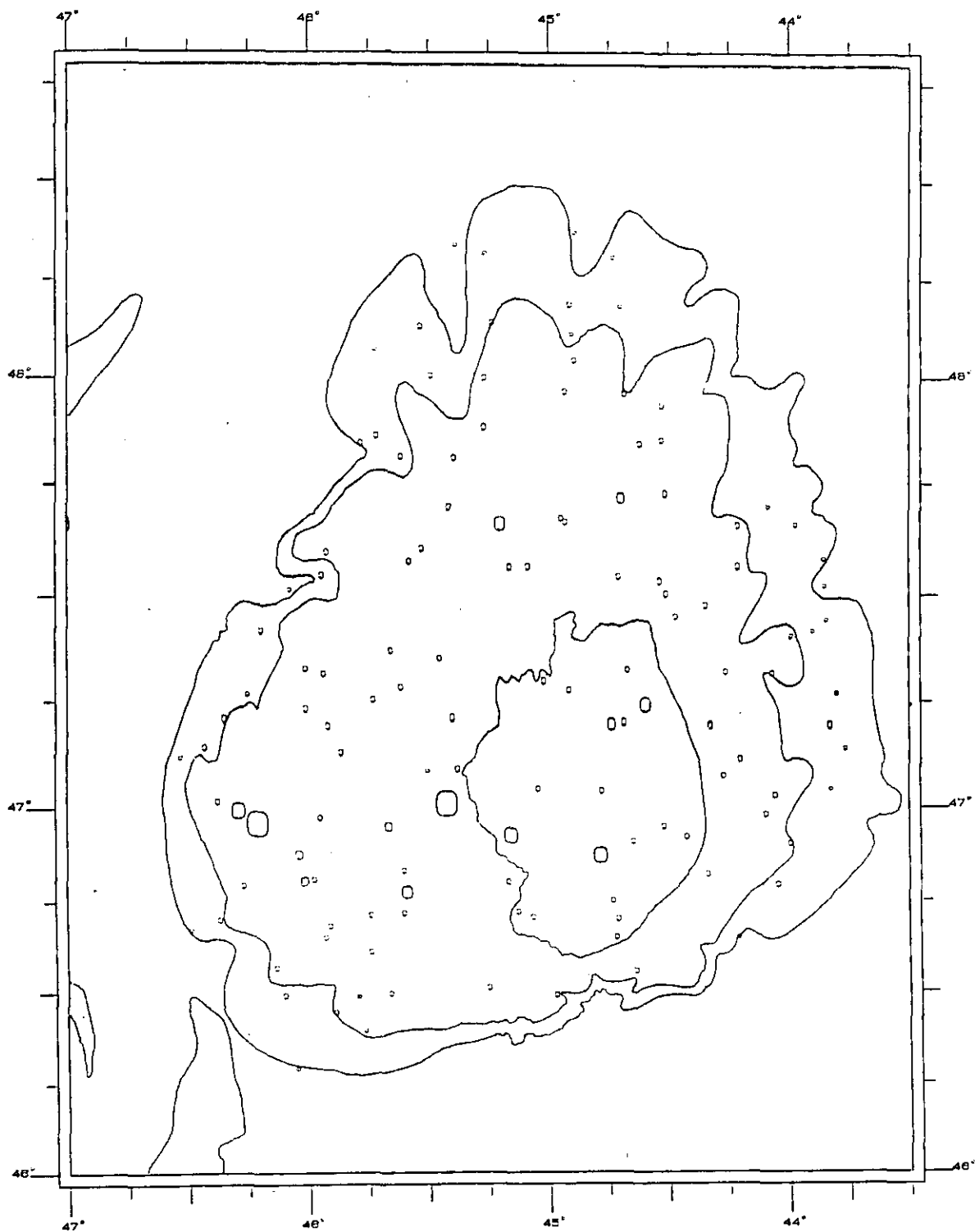


FIG. 4.

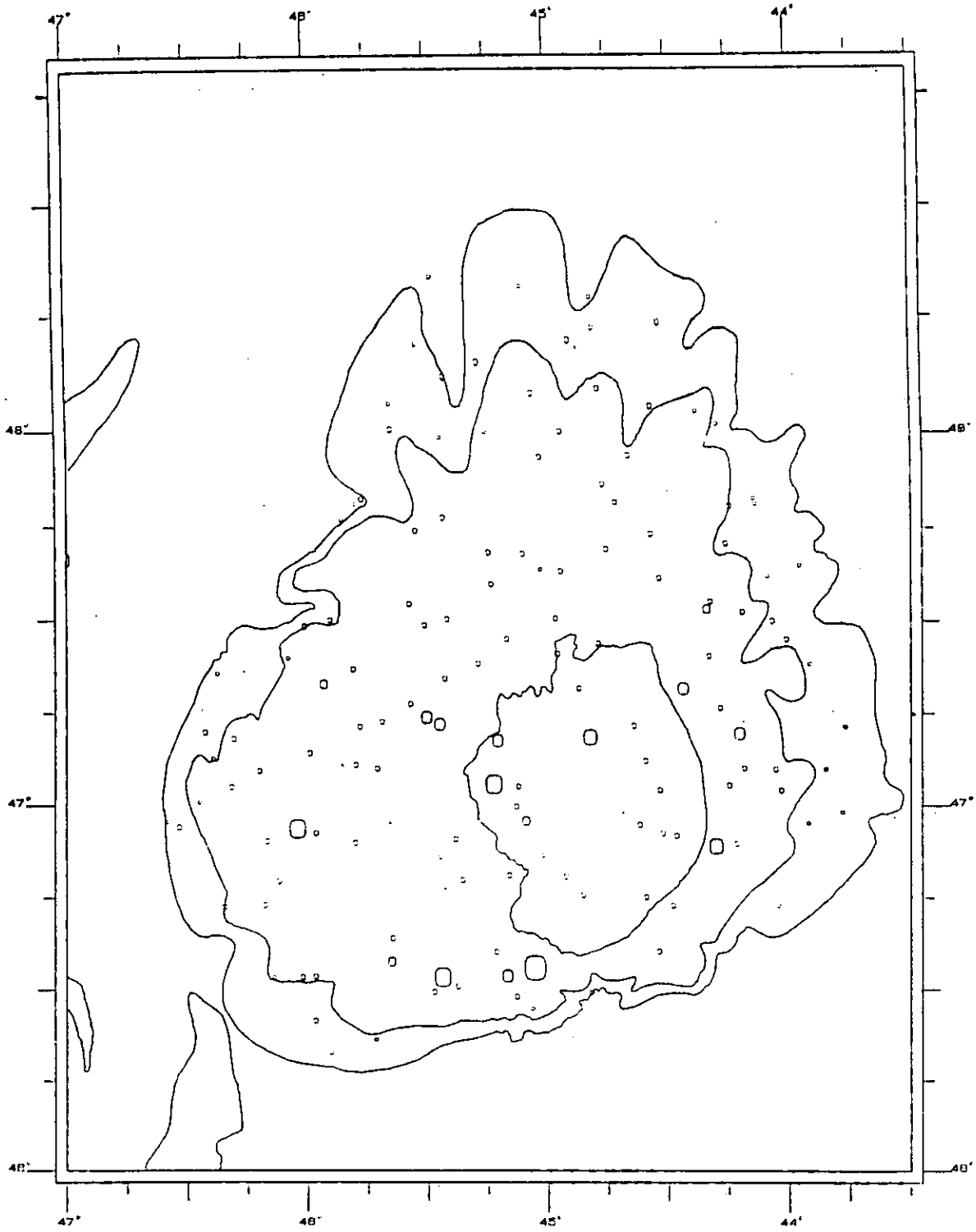


FIG. 5.

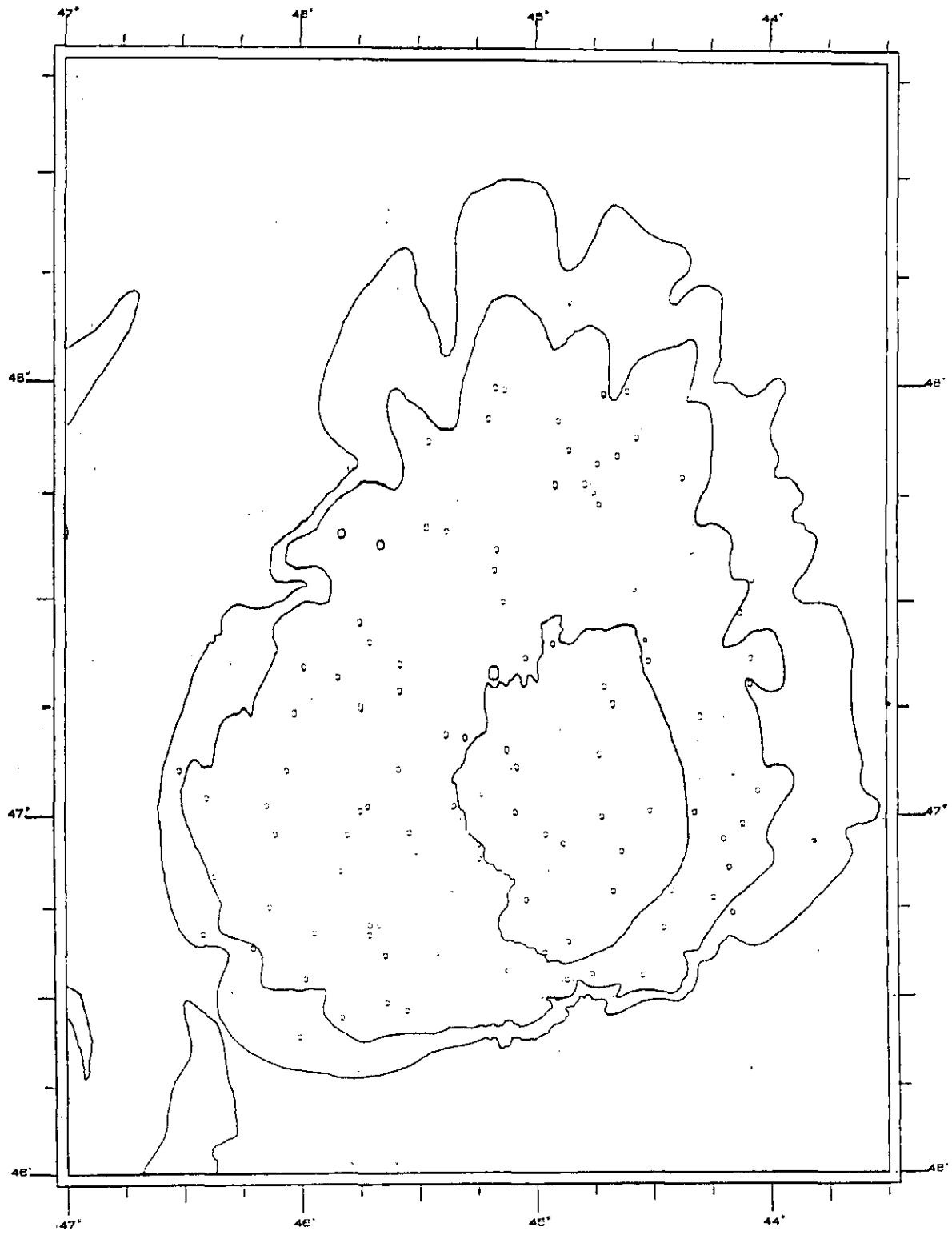


FIG. 6.

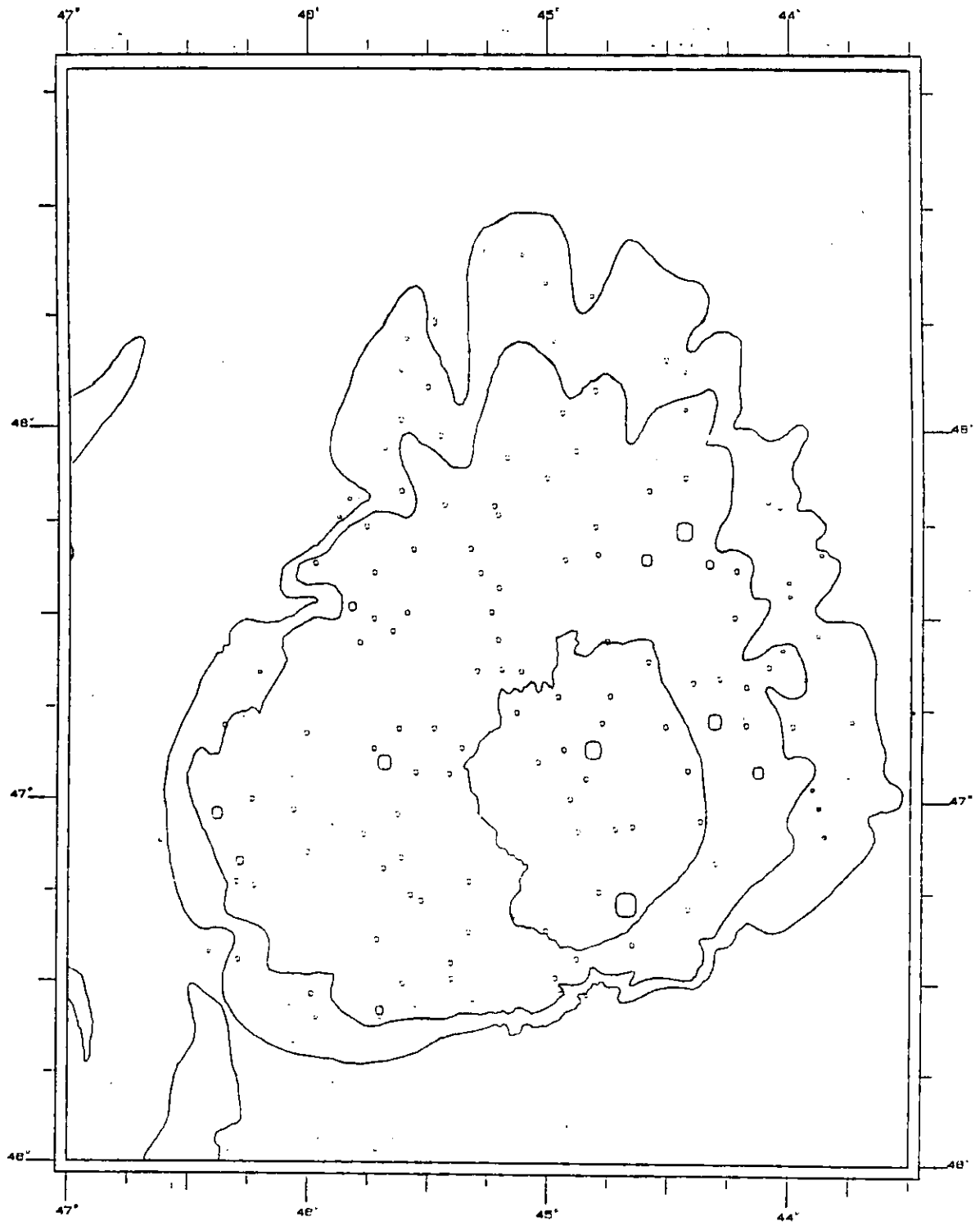


FIG. 7.

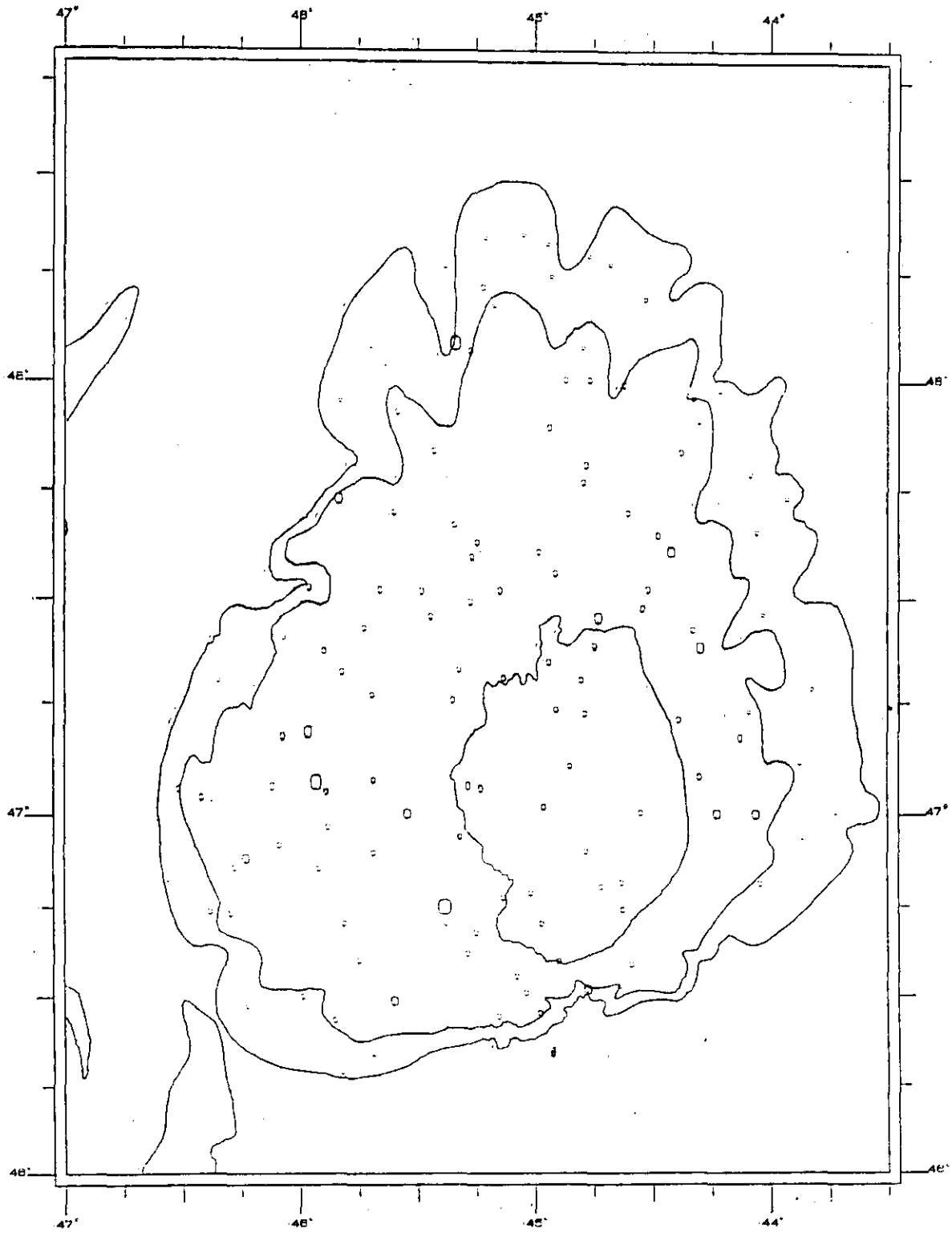


FIG. 8.