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Summary of Statistics on Discards and Industrial Fish  
(ICNAF Statistics Form 4), 1966

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At their 1967 meetings, the Subcommittee on Statistics and the Standing Committee on Research and Statistics recommended:

"that the Secretariat prepare the 1966 discard data for detailed evaluation before the next Annual Meeting." (Redbook 1967, Pt.1, p. 54)

Discard data for the year 1966 submitted by Canada (M), Canada (N), France (M), Germany, Poland, Portugal, Spain, UK and USA are summarized in the following table. Data on industrial fish turned into fish meal at sea for 1966 supplied by Germany, Poland and ~~Spain~~ <sup>Portugal</sup> are shown separately in the table.

Denmark (G) reported no information available on discards and no fish meal production at sea for 1966. USSR reported in 1964 that "the Soviet fishing vessels do not carry on any discard." Denmark (F), France (S.P.), Iceland and Norway have not reported their data. Italy did not fish in the Convention Area in 1966.

In comparison with 1965 Summary of Statistics on Discards (ICNAF Res. Doc.67/7) some modifications of a design of the table have been introduced to make use of data reported on revised ICNAF Stat. Form 4. The species discarded or turned into fish meal (industrial fish) have been shown in the heading of the table which makes it possible to watch the data of a particular species of groups of species through all divisions. Discards subtotals for subareas and total for the Convention Area have been given. Industrial fish data have been shown by division and by Convention Area.

Data on discards and industrial fish have been given separately because the first ones, according to the STANA forms instructions, should not be calculated into the nominal catch, while industrial fish should be reported in the nominal catch.

A column with sampling rate data in per cent has been added and a column with quarter data has been deleted.

The data on discard, industrial fish and nominal catch presented in the following table are to the nearest metric ton, round fresh. The rates of discard and of industrial fish are shown to the nearest per cent or as a magnitude known to be more than zero but less than half of one per cent.

The abbreviations and symbols used in the table have been taken from the ICNAF Statistical Bulletins Vol. 15 for 1965 and Vol. 16 for 1966 and repeated here for convenience in reference.

In addition to its tabulated submissions Canada (M) noted that: "It remains normal practice to discard 100% of all silver hake, argentines, sculpins, lumpfish, searobins, eelpouts, and dogfish. Skates are landed occasionally but normally are discarded 100%. Very few anglers are retained. Most of cusk are taken on long-lines with practically no discards. Atlantic halibut discards are negligible."

*nominal catch = nominal + Discard  
nominal = Catch + 2 subtotals*

ABBREVIATIONS AND SYMBOLS USED

Species:

Had	-	haddock
Red	-	redfish
Flo	-	flounders
Pla or (p)	-	American plaice
Wit or (w)	-	witch
Yel or (y)	-	yellowtail
Gro	-	groundfish
Pol	-	pollock
Her	-	herring
Sha	-	sharks
Mix	-	mixed

Gear:

OT	-	otter trawl
PT	-	pair trawl
DS	-	Danish seine

Tonnage Class:

1	0 -	50 GRT
1b	26 -	50 GRT
2	51 -	150 GRT
3	151 -	500 GRT
4	501 -	900 GRT
5	901 -	1800 GRT
6		over 1800 GRT

Country:

Can (M)	-	Canada (Maritime and Quebec)
Can (N)	-	Canada (Newfoundland)
Fr (M)	-	France (Metropolitan)
Ger	-	Germany
Pol	-	Poland
Por	-	Portugal
Spa	-	Spain
UK	-	United Kingdom
USA	-	United States of America

Source of information:

Log	-	logbook
Int	-	dockside interview
Rep	-	current reports

Symbols:

...	-	not available or not reported
-	-	magnitude known to be nil or zero
ϕ	-	magnitude known to be more than zero but less than half the unit

**SUMMARY OF STATISTICS ON DISCARDS AND INDUSTRIAL FISH, 1966**  
(ICNAF Stat. Form 4)

**A. Discards**

Division	Main Species Sought	Gear and Tonnage Class	Country	C O D			H A D D O C K			R E D F I S H			F L O U N D E R S			M I X E D					Source of Information	Sampling Rate in %
				Dis-card in Tons	Nominal Catch in Tons	Rate of Dis-card (%)	Dis-card in Tons	Nominal Catch in Tons	Rate of Dis-card (%)	Dis-card in Tons	Nominal Catch in Tons	Rate of Dis-card (%)	Dis-card in Tons	Nominal Catch in Tons	Rate of Dis-card (%)	Dis-card in Tons	Nominal Catch in Tons	Rate of Dis-card (%)	Dis-card in Tons	Nominal Catch in Tons		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1B	Cod	OT 5	Fr(M)	661	30897	2				3	-	100	∅	-	100	∅		353	∅	Log	100	
	Cod	OT 4,5,6	Ger	155	16363	1				∅	192	∅								Rep	100	
	Cod	OT 6	Pol	20	468	4														Int	33	
	Cod	OT 6	Por													5				Log	100	
	Cod	OT 5	Por	2	838	∅										2				Log	100	
	Cod	PT 3	Spa	∅	887	∅										24				Log	100	
1C	Cod	OT 5	Fr(M)	222	5609	4				2	-	100	∅	-	100					Log	100	
	Cod	OT 4,5,6	Ger	258	20402	1				25	2860	1				24				Rep	100	
	Cod	OT 5	Por	1	271	∅										2				Log	100	
	Cod	PT 3	Spa													10				Log	72	
1D	Cod	OT 5	Fr(M)	38	2872	1				16	-	100	∅	-	100					Log	100	
	Cod	OT 4,5,6	Ger	376	23760	2				13	2948	∅				58				Rep	100	
	Cod	PT 3	Spa													11				Log	72	
1E	Cod	OT 5	Fr(M)	41	1992	2				3	-	100	∅	-	100					Log	100	
	Cod	OT 4,5,6	Ger	39	11527	∅				15	2655	1				29				Rep	100	
	Cod	OT 5	Por													1				Log	100	
	Cod	OT 5	Spa	1	43	2										1				Log	60	
1F	Cod	OT 5	Fr(M)	2	39	5														Log	100	
	Cod	OT 4,5,6	Ger	175	10172	2				33	5795	1				64				Rep	100	
	Cod	OT 5	Por													1				Log	100	
1B-1F	Mix	OT 4,5	UK													1298	Cod	19326	6	Int	7	
Subarea 1				1991	126140	2				110	14450	1	∅		100	1530		21449	7			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
2G	Cod	OT	5	Fr(M)	1	38	2															
	Cod	OT	4,5,6	Ger	40	4660	1										8		64	11	Log	100
2H	Cod	OT	5	Fr	132	5770	2									100					Log	100
	Cod	OT	4,5,6	Ger	200	22350	1									100					Log	100
	Cod	OT	6	Pol	400	11884	3										39		364	10	Rep	100
	Cod	OT	5	Por	108	6615	2									1					Int	33
	Cod	OT	5	Spa	22	4600	∅										38			100	Log	100
																	76			100	Log	53
2J	Cod	OT	5	Fr(M)	858	25395	3									100					Log	100
	Cod	OT	4,5,6	Ger	324	36395	1									100			503	11	Rep	100
	Cod	OT	6	Pol	500	17866	3									2					Int	33
	Cod	OT	6	Por	55	3011	2										50			100	Log	100
	Cod	OT	5	Por	443	33444	1										174			100	Log	100
	Cod	OT	5	Spa	506	43289	1										968			100	Log	57
	Cod	PT	3	Spa													10			100	Log	72
2G-2J	Mix	OT	4,5	UK													1664	Cod	9577	15	Int	7
Subarea 2					3589	215317	2				137	3760	4	31	888	3	3090		10508	23		
3K	Cod	OT	5	Fr(M)	268	17649	2									100					Log	100
	Cod	OT	4,5,6	Ger	5	2394	∅										2		52	4	Rep	100
	Cod	OT	6	Por	198	1131	15										50			100	Log	100
	Cod	OT	5	Por	64	11333	1										59			100	Log	100
	Cod	OT	5	Spa	72	9304	1										293			100	Log	55
	Cod	PT	3	Spa													1			100	Log	72
	Red	OT	6	Pol	50	4454	1													100	Int	33
3L	Cod	OT	4	Can(N)	∅	388	∅														Log	20
	Cod	OT	3	Can(N)	21	3217	1														Log	19
	Cod	OT	5	Fr(M)	464	21703	2														Log	100
	Cod	OT	4,5,6	Ger	11	6303	∅										114			100	Log	100
	Cod	OT	6	Por	9	4534	∅										4			2	Rep	100
	Cod	OT	5	Por	167	33632	1										92			100	Log	100
	Cod	OT	5	Spa	162	20053	1										353			100	Log	100
	Cod	PT	3	Spa	10	12636	∅										721			100	Log	59
	Pla	OT	4	Can(N)	∅	995	∅										160			100	Log	72
	Pla	OT	3	Can(N)	38	1813	∅														Log	33
	Gro	OT	3	Can(M)			2														Log	19
																					Log	2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3M	Cod	OT	5	Fr(M)	7	4082	φ			150	-	100								Log	100
	Cod	OT	4,5,6	Ger	φ	195	φ			φ	11	φ				52			100	Rep	100
	Cod	OT	5	Por	17	422	4									158			100	Log	100
	Cod	OT	5	Spa	45	4268	1												100	Log	68
3N	Cod	OT	3	Can(N)	17	1012	2	73	φ				(P) φ	572	φ					Log	12
	Cod	OT	5	Fr(M)	20	591	3			9	-	100								Log	100
	Cod	OT	5	Por	6	2611	φ									16			100	Log	100
	Cod	OT	5	Spa	9	2736	φ									120			100	Log	69
	Cod	PT	3	Spa	70	29237	φ	668	5							696			100	Log	72
	Had	OT	3	Can(N)			φ	115	φ											Log	30
	Red	OT	6	Pol	5	613	1			30	2476	1								Int	33
	Pla	OT	4	Can(N)	φ	1056	φ			φ	96	φ	(P) φ	6989	φ					Log	22
	Pla	OT	3	Can(N)	23	1691	1						(P)944	15726	6					Log	18
	Wit	OT	3	Can(N)	φ	21	φ						(P) 29	111	21					Log	32
	Yel	OT	3	Can(N)	φ	73	φ	22	φ				(X) φ	1353	φ					Log	13
	Gro	OT	3	Can(M)			φ						840	7703	10					Log	9
3O	Cod	OT	4	Can(N)	φ	92	φ	8	φ				(P) φ	78	φ					Log	100
	Cod	OT	3	Can(N)	φ	210	φ	77	φ											Log	11
	Cod	OT	5	Fr(M)	4	159	3													Log	100
	Cod	OT	5	Spa	8	205	4									20			100	Log	59
	Cod	PT	3	Spa	113	20355	1	378	7							550			100	Log	72
	Red	OT	6	Pol						5	452	1								Int	33
	Pla	OT	3	Can(N)	5	392	1			5	34	13(P)1267	3060	29						Log	18
	Wit	OT	3	Can(N)	φ	140	φ	76	φ				φ	1191	φ					Log	3
3Pn	Cod	OT	3	Can(N)	6	1065	1			φ	236	φ	φ	104	φ					Log	8
	Cod	OT	5	Fr(M)	49	3310	2		100	56	9	86	φ	-	100				100	Log	100
	Cod	OT	5	Spa												7			100	Log	89
	Cod	PT	3	Spa												28			100	Log	72
	Red	OT	3	Can(N)	φ	168	φ			φ	3465	φ								Log	11
3Ps	Cod	OT	3	Can(N)	69	4230	2	237	φ	2	489	φ	φ	358	φ					Log	7
	Cod	OT	5	Fr(M)	68	4269	2	2	60	194	-	100	1	-	100					Log	100
	Cod	OT	5	Por	6	519	1									2			100	Log	100
	Cod	OT	5	Spa	11	1287	1									19			100	Log	85

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3Ps	Cod	PT	3	Spa	115	22391	1	49	517	9	77	8695	1		320				100	Log	72
	Red	OT	3	Can(N)	566	100	100	67	67	67										Log	13
	Red	OT	1,2,3	USA	1															Int	...
	Pla	OT	3	Can(N)	83	16	16	24	24	24	39	39	2	435	41					Log	32
	Wit	OT	3	Can(N)	16			24	24	24	25	25	2	77	41					Log	33

Subarea 3 2213 259604 1 184 2775 6 1007 26889 4 3664 56230 6 3837 216 95

4R	Cod	OT	4	Can(N)	611	1	1	112	42	42	42	10	10	10	100					Log	20
	Cod	OT	3	Can(N)	4482	1	1	112	846	846	846	137	137	137	100					Log	12
	Cod	OT	5	Fr(M)	9643	4	4	27	72	72	72	100	16	100	100					Log	100
	Cod	OT	6	Por	1163	3	3								200					Log	100
	Cod	OT	5	Por	9198	1	1								13					Log	100
	Red	OT	2	Can(M)					583	4103	12	12								Log	3
	Red	OT	3	Can(N)	320	3	3			12143	12143	12143								Log	14
	Gro	OT	3	Can(M)	915	3	3													Log	10

4S	Cod	OT	5	Fr(M)	4	7	7													Log	100
	Cod	OT	5	Por	32	9	9								7					Log	100
	Red	OT	3	Can(M)					369	3963	9	9								Log	9
	Red	OT	2	Can(M)					2299	12915	15	15								Log	11
	Red	OT	1b	Can(M)					432	3667	11	11								Log	7
	Red	OT	3	Can(N)					824	824	824	824								Log	31

4T	Cod	OT	3	Can(N)	340	22	22													Log	4
	Cod	OT	5	Fr(M)	47	5	5	21	2	94	94	100	60	100	100					Log	100
	Red	OT	3	Can(M)					504	1173	30	30								Log	2
	Red	OT	2	Can(M)					258	3972	8	8								Log	6
	Red	OT	1b	Can(M)					511	1773	22	22								Log	9
	Gro	OT	3	Can(M)	122	5	5													Log	15
	Gro	OT	3	Can(M)									180	916	16					Log	6
	Gro	OT	1b	Can(M)	334	3	3						1422	2432	37					Log	1
	Gro	OT	1b	Can(M)									585	384	60					Log	8
	Gro	DS	2	Can(M)																Log	1
	Gro	DS	1b	Can(M)	130	6	6						665	2016	25					Log	4
	Gro	DS	1b	Can(M)																Log	7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
4Vn	Cod	OT	4	Can(N)	φ	517	φ	φ	24	φ	φ	-	100	φ	3	φ	10				Log	12
	Cod	OT	3	Can(N)	φ	58	φ	7	-	φ	17	-	100	φ	-	100	10				Log	18
	Cod	OT	5	Fr(M)	135	2803	5	138	-	100	100	-	100	φ	-	100	1				Log	100
	Cod	OT	5	Por	5	138	3										1				Log	100
	Cod	PT	3	Spa	47	2205	2										72				Log	72
	Red	OT	3	Can(M)						70	3061	2									Log	2
	Red	OT	3	Can(N)						φ	1750	φ									Log	22
	Wit	OT	3	Can(N)						φ	φ	φ									Log	13
	Gro	OT	3	Can(M)	141	6722	2			φ	φ	30	φ	φ	113	φ					Log	8
	Gro	OT	3	Can(M)										306	2250	12					Log	3
	Gro	OT	1b	Can(M)	10	446	2														Log	10
	Gro	OT	1b	Can(M)										5	164	3					Log	1
	Gro	DS	1b	Can(M)										1037	702	60					Log	1
4Vs	Cod	OT	4	Can(N)	φ	276	φ	φ	3	φ	φ	16	φ	φ	9	φ					Log	6
	Cod	OT	3	Can(N)	φ	710	φ														Log	8
	Cod	OT	5	Fr(M)	74	1412	5				9	-	100								Log	100
	Cod	OT	5	Spa	φ	19	2										8				Log	100
	Cod	PT	3	Spa	49	18902	φ	49	935	5							464				Log	72
	Red	OT	3	Can(N)						φ	φ	612	φ								Log	21
	Red	OT	1,2,3	USA													6	Sha			Int	33
	Gro	OT	3	Can(M)	512	4655	10														Log	4
	Gro	OT	3	Can(M)				77	1357	5											Log	6
	Gro	OT	3	Can(M)										912	8839	9					Log	5
	Gro	DS	1b	Can(M)										19	183	9					Log	2
4W	Cod	OT	5	Fr(M)	1	82	1														Log	100
	Cod	PT	3	Spa	108	24236	φ	60	1885	3							527				Log	72
	Red	OT	1,2,3	USA													125	Her			Log	33
	Gro	OT	3	Can(M)	513	6226	8														Log	6
	Gro	OT	3	Can(M)				311	7058	4											Log	3
	Gro	OT	3	Can(M)																	Log	9
	Gro	OT	3	Can(M)										195	712	21					Log	1
	Gro	DS	1b	Can(M)										198	464	30					Log	1
4X	Cod	PT	3	Spa	4	803	φ	2	143	1							22				Log	72
	Had	OT	2,3	USA				21	1701	1											Int	67
	Red	OT	1,2,3	USA													64	Her			Int	33

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
4X	Gro	OT	3	Can(M)	427	7195	6	5014	7867	39											Log	1
	Gro	OT	3	Can(M)																	Log	1
Subarea 4					3606	120421	3	5589	21085	20	5126	50684	9	5600	19334	22	1847	4758		28		
5Y	Red	OT	1,2,3	USA													17	Sha	-	100	Int	33
	Gro	OT	3	Can(M)	3	90	3														Log	10
	Gro	OT	3	Can(M)				2	390	∅											Log	48
5Z	Cod	PT	3	Spa	1	8375	∅	90	1111	9							111		-	100	Log	72
	Had	OT	2,3	USA				27	38452	∅											Int	67
	Flo	OT	1,2	USA																	Int	3
	Her	OT	6	Pol	3	269	1														Int	33
	Gro	OT	3	Can(M)	1242	11887	9										100	Her	14473	1	Log	1
	Gro	OT	3	Can(M)				1801	15936	10											Log	2
Subarea 5					1249	20621	6	1920	55889	3				6968	22722	23	228	14473		2		

A. Discards

Subarea 1					1991	126140	2			110	14450	1		∅		100	1530	21449		7		1
Subarea 2					3589	215317	2			137	3760	4		31	888	3	3090	10508		23		∞
Subarea 3					2213	259604	1	184	2775	6	1007	26889	4	3664	56230	6	3837	216		95		1
Subarea 4					3606	120421	3	5589	21085	20	5126	50684	9	5600	19334	22	1847	4758		28		
Subarea 5					1249	20621	6	1920	55889	3				6968	22722	23	228	14473		2		
Convention Area					12648	742103	2	7693	79749	9	6380	95783	6	16263	99174	16	10532	51404		21		



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<b>B. Industrial Fish</b>																						
1B	Cod	OT	4,5,6	Ger	4259	30897	12										308		353	47	Rep	100
	Cod	OT	6	Pol	30	468	6														Int	33
1C	Cod	OT	4,5,6	Ger	2942	20402	13				203	2860	7				331		387	46	Rep	100
1D	Cod	OT	4,5,6	Ger	2057	23760	8				113	2948	4				528		590	47	Rep	100
1E	Cod	OT	4,5,6	Ger	232	11527	2				213	2655	7				324		390	45	Rep	100
1F	Cod	OT	4,5,6	Ger	1110	10172	10				378	5795	6				369		403	48	Rep	100
2G	Cod	OT	4,5,6	Ger	354	4660	7										51		64	44	Rep	100
2H	Cod	OT	4,5,6	Ger	1756	22350	7										254		364	41	Rep	100
	Cod	OT	6	Pol	800	11884	6				25	1101	2								Int	33
2J	Cod	OT	4,5,6	Ger	2837	36395	7				364	1353	21				410		503	45	Rep	100
	Cod	OT	6	Pol	800	17866	4				15	679	2								Int	33
3K	Cod	OT	4,5,6	Ger	332	2394	12				102	215	32	5	629	1	51		52	50	Rep	100
	Red	OT	6	Pol	40	4454	1				100	10490	1								Int	33
3L	Cod	OT	4,5,6	Ger	1004	6303	14				∅	143	∅				156		164	49	Rep	100
3M	Cod	OT	4,5,6	Ger	37	195	16				10	11	91				8		-	100	Rep	100
3N	Red	OT	6	Pol	5	613	1				40	2476	2								Int	33
5Z	Her	OT	6	Pol	5	269	2														Int	33
1A-4Vn	Cod	OT	5	Por	460	99582	∅														Log	∅
<b>Convention Area</b>					19060	304191	6				1563	30726	5	5	629	1	2790		3270		46	

Office of Commission  
March 1968