

Appendix 2:Table 1. Discard to Kept ratio (D_K),number of tows observed, and total discards (mt) of Atlantic cod in the USA otter trawl and gill net fleet in NAFO Division 52, 53, and 56 as estimated from Domestic Sea Sample Observations, 1989-2004. (italics-value borrowed from adjacent cell)

Otter trawl

D_K ratio	Qrt 1	Qrt 2	Qrt 3	Qrt 4
year				
1989	0.027	0.046	0.070	0.054
1990	0.041	0.052	0.019	0.021
1991	0.010	0.032	0.020	0.078
1992	0.018	0.003	0.053	0.035
1993	0.031	0.018	0.088	0.029
1994	0.006	0.008	0.002	0.003
1995	0.003	0.029	0.009	0.010
1996	0.010	0.001	0.009	0.008
1997	0.008	0.001	0.004	0.013
1998	0.012	0.001	0.005	0.013
1999	0.012	0.006	0.008	0.018
2000	0.020	0.028	0.022	0.011
2001	0.121	0.018	0.017	0.003
2002	0.010	0.009	0.026	0.031
2003	0.022	0.057	0.022	0.040
2004	0.033	0.047	0.082	0.056

Otter trawl

mt landed	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Total
year					
1989	4535	7043	3737	3612	18927
1990	4957	7661	4941	5340	22899
1991	5245	8036	2431	2870	18582
1992	3599	4259	1519	2931	12308
1993	2864	4136	1485	2722	11207
1994	2118	2781	1118	1122	7139
1995	669	1398	934	779	3780
1996	779	1915	869	484	4047
1997	713	2432	852	620	4617
1998	518	2167	702	696	4083
1999	764	2543	781	673	4760
2000	1152	2537	1399	1274	6362
2001	1365	2734	1252	1705	7057
2002	1504	3193	904	816	6417
2003	1332	2535	502	670	5039
2004	784	1358	232	424	2799

Discarded mt in otter trawl fleet

year	Qrt 1	Qrt 2	Qrt 3	Qrt 4	total
1989	122.4	324.0	261.6	195.0	903.1
1990	203.2	398.4	93.9	112.1	807.6
1991	52.5	257.2	48.6	223.9	582.1
1992	64.8	12.8	80.5	102.6	260.7
1993	88.8	74.4	130.7	78.9	372.9
1994	12.7	22.2	2.2	3.4	40.6
1995	2.0	40.5	8.4	7.8	58.7
1996	7.8	1.9	7.8	3.9	21.4
1997	5.7	2.4	3.4	8.1	19.6
1998	6.2	2.2	3.5	9.0	20.9
1999	9.2	15.3	6.2	12.1	42.8
2000	23.0	71.0	30.8	14.0	138.9
2001	165.1	49.2	21.3	5.1	240.7
2002	15.0	28.7	23.5	25.3	92.6
2003	29.3	144.5	11.1	26.8	211.6
2004	25.9	63.8	19.0	23.8	132.5

Gill net

D_K ratio	Qrt 1	Qrt 2	Qrt 3	Qrt 4
year				
1989	0.017	0.001	0.011	0.067
1990	0.017	0.017	0.072	0.142
1991	0.115	0.01	0.032	0.101
1992	0.033	0.045	0.029	0.044
1993	0.059	0.073	0.004	0.055
1994	0.118	0.028	0.043	0.07
1995	0.193	0.028	0.029	0.081
1996	0.016	0.08	0.146	0.05
1997	0.068	0.049	0.02	0.093
1998	0.111	0.111	0.08	0.046
1999	0.046	0.037	0.044	0.04
2000	0.021	0.022	0.064	0.089
2001	0.047	0.005	0.037	0.152
2002	0.012	0.097	0.123	0.062
2003	0.098	0.097	0.038	0.102
2004	0.071	0.167	0.113	0.118

Gill net

mt landed	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Total
year					
1989	325	997	1901	312	3535
1990	311	861	1294	186	2652
1991	185	746	1235	392	2558
1992	277	462	1134	297	2170
1993	131	561	579	275	1546
1994	102	325	611	280	1318
1995	120	366	627	187	1300
1996	89	547	634	283	1552
1997	59	776	589	177	1601
1998	110	342	257	148	858
1999	131	664	472	185	1452
2000	503	251	291	193	1238
2001	500	1284	947	304	3035
2002	284	289	482	148	1204
2003	130	171	594	126	1021
2004	81	113	160	26	380

Discarded mt in gill net fleet

year	Qrt 1	Qrt 2	Qrt 3	Qrt 4	total
1989	5.5	1.0	20.9	20.9	48.3
1990	5.3	14.6	93.2	26.4	139.5
1991	21.3	7.5	39.5	39.6	107.8
1992	9.1	20.8	32.9	13.1	75.9
1993	7.7	41.0	2.3	15.1	66.1
1994	12.0	9.1	26.3	19.6	67.0
1995	23.2	10.3	18.2	15.1	66.8
1996	1.4	43.7	92.5	14.1	151.8
1997	4.0	38.0	11.8	16.5	70.3
1998	12.3	37.9	20.6	6.8	77.6
1999	6.0	24.6	20.8	7.4	58.8
2000	10.6	5.5	18.7	17.2	51.9
2001	23.5	6.4	35.0	46.3	111.2
2002	3.4	28.0	59.3	9.2	100.0
2003	12.7	16.6	22.6	12.8	64.8
2004	5.7	18.9	18.1	3.1	45.8

Otter trawl - Number of Tows observed

Qrt 1	Qrt 2	Qrt 3	Qrt 4	
year				
1989	133	335	238	175
1990	240	150	130	207
1991	268	173	167	214
1992	241	181	67	121
1993	59	240	70	138
1994	286	209	55	60
1995	284	252	130	135
1996	148	306		58
1997	152	1	158	100
1998	66		71	
1999	1	81	69	118
2000	188	182	129	195
2001	286	267	269	198
2002	133	257	700	1121
2003	885	1008	653	669
2004	840	931	486	1190

Gill net - Number of tows observed

No.Tows	Qrt 1	Qrt 2	Qrt 3	Qrt 4
year				
1989		3	58	36
1990	8	37	15	21
1991	4	218	486	129
1992	29	355	250	199
1993	84	145	14	196
1994	90	24	112	
1995	53	67	71	60
1996	33	25	6	50
1997	28	23	22	26
1998	58	34	12	87
1999	56	79	56	28
2000	24	65	54	53
2001	60	35	17	27
2002	39	18	31	14
2003	6	100	148	107
2004	35	280	185	112

Discarded	Landed	Total	Final
Catch	Catch	landings	Discards
OT + GN	OT + GN	bumpup	
1989	951.4	22462	25097
1990	947.1	25551	28193
1991	689.9	21140	24175
1992	336.5	14478	16855
1993	439.0	12753	14594
1994	107.6	8458	9893
1995	125.5	5080	6759
1996	173.2	5599	7020
1997	89.9	6219	7537
1998	98.5	4941	6959
1999	101.5	6212	8061
2000	190.8	7600	7617
2001	352.0	10092	10635
2002	192.5	7620	8997
2003	276.4	6060	6646
2004	178.3	3179	3471