

Multispecies Monitoring Report

1999

Appendix IV

The Gulf of Maine Cod Fishery

Number of vessels and landings by selected Ports, States, Gear Sector, and Vessel Sizes

Multispecies Monitoring Report

1999

Appendix V

**Expected change in DAS usage for 1999 DAS allocation Options
(Analysis reprinted from 1998 MSMC report)**

Appendix Table 5.1. Expected change in DAS usage for 1999 DAS allocation options based on 1997 VMS/call-in data. Shaded areas represent the status quo allocation of DAS.

Analysis is repeated from last year's report. DAS in 1998 did not decline expected

d by
7.4%

Fleet DAS permits

DAS allocation	100	97	93	88	84
Nominal effort reduction from 1997	114%	110%	106%	100%	95%
Effective effort reduction	6%	6%	6%	6%	7%
Expected 1999 DAS	29,360	29,353	29,346	29,328	29,173

Individu al DAS permits

Nominal reduction form 1993	Effective reduction from 1997	Expected 1999 DAS					
43%	9%	14,636	43,996	43,989	43,982	43,964	43,809
45%	9%	14,636	43,996	43,989	43,982	43,964	43,809
47%	9%	14,636	43,996	43,989	43,982	43,964	43,809
50%	9%	14,631	43,991	43,984	43,977	43,959	43,804
53%	11%	14,427	43,787	43,780	43,773	43,756	43,601
55%	13%	13,987	43,347	43,340	43,333	43,315	43,160
58%	17%	13,411	42,771	42,764	42,757	42,739	42,584
60%	20%	12,911	42,271	42,264	42,257	42,239	42,084
62%	24%	12,193	41,554	41,547	41,539	41,522	41,367
65%	29%	11,433	40,793	40,786	40,779	40,761	40,606
67%	34%	10,651	40,011	40,004	39,997	39,979	39,824
70%	39%	9,864	39,224	39,217	39,210	39,192	39,037
73%	44%	9,050	38,410	38,403	38,396	38,378	38,223
75%	48%	8,433	37,793	37,786	37,779	37,761	37,606
77%	53%	7,600	36,960	36,953	36,946	36,928	36,773
80%	58%	6,757	36,117	36,110	36,103	36,085	35,930
82%	63%	5,901	35,261	35,254	35,247	35,229	35,074
85%	69%	5,039	34,399	34,392	34,385	34,367	34,212
87%	74%	4,176	33,536	33,529	33,522	33,504	33,349
90%	80%	3,307	32,667	32,660	32,653	32,635	32,480

92% 84% 2,654|| 32,014 32,007 32,000 31,982 31,827

Table 7.4. Expected change in DAS usage for 1999 DAS allocation on options based on 1997 VMS/cal I-in data. Shaded areas represent the status quo allocation of DAS.

Total		Individual			Fleet			
Expected DAS usage	Effective reduction from 1997	Nominal reduction from 1993	Expected 1999 DAS	Effective reduction from 1997	Nominal effort reduction from 1996	DAS allocation	Expected 1999 DAS	Effective effort reduction
47,477	0%	1997 DAS used	16,133	0%	1997 DAS used		31,344	0%
43,996	7%	43%	14,636	9%	114%	100	29,360	6%
43,989	7%	45%	14,636	9%	110%	97	29,353	6%
43,982	7%	47%	14,636	9%	106%	93	29,346	6%
43,959	7%	50%	14,631	9%	100%	88	29,328	6%
43,601	8%	53%	14,427	11%	95%	84	29,173	7%
42,841	10%	55%	13,987	13%	90%	79	28,854	8%
41,778	12%	58%	13,411	17%	85%	74	28,367	9%
40,813	14%	60%	12,911	20%	81%	71	27,902	11%
39,373	17%	62%	12,193	24%	75%	66	27,180	13%
37,782	20%	65%	11,433	29%	70%	62	26,349	16%
36,038	24%	67%	10,651	34%	65%	57	25,387	19%

34,159	28%	70%	9,864	39%	60%	53	24,295	22%
32,121	32%	73%	9,050	44%	55%	48	23,072	26%
30,494	36%	75%	8,433	48%	51%	45	22,061	30%
28,181	41%	77%	7,600	53%	46%	40	20,582	34%
25,699	46%	80%	6,757	58%	40%	35	18,942	40%
23,056	51%	82%	5,901	63%	35%	31	17,155	45%
20,240	57%	85%	5,039	69%	30%	26	15,201	52%
17,252	64%	87%	4,176	74%	25%	22	13,076	58%
14,061	70%	90%	3,307	80%	20%	17	10,755	66%
11,535	76%	92%	2,654	84%	15%	13	8,882	72%

The MSMC did not have time to update this Table from last year's report. The Table is included to allow Council members an approximation to DAS allocations if DAS are reduced. The Groundfish Plan Development Team can update these analyses if the Council decides to reduce DAS in the annual adjustment.

The MSMC notes that total DAS increased to 52,025 in 1998, a 19% increase over predicted 1998 usage of 43,854 DAS.

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Appendix VI

Summary of Framework 30 Area Closures Measures for Georges Bank Cod

Options 3 and 4 require additional closures for Georges Bank cod. The MSMC did not have time to complete area closure analyses for Georges Bank cod. Framework 30 proposed closures to achieve a the $F_{0.1}$ target for Georges Bank cod. These proposals are summarized below.

SUMMARY OF FRAMEWORK 30 CLOSED AREA PROPOSALS

Options 1 and 2 do not require a trip limit to keep landings below the 1999 FY target TAC. Options 3 and 4 use a 2,000 pounds per day trip limit year-round.

Closed areas

The Council considered four primary area closure alternatives, some in combination with a trip limit, and two area closure alternatives to be implemented in conjunction with Framework 31. It adopted one of the latter two.

Closed Area Option 1

This option would close the following block/month combinations:

Block	Month(s)
98	June – September
111	April, May
109	May
110	May
113	June, July, September
114	May, June

Discussion: This option is based on incrementally picking the block/month combinations with the highest landings, using the two-bin effort displacement analysis model, until the projected landings do not exceed the TAC. This option would not require a trip limit.

Closed Area Option 2

This option would close Blocks 98, 99 and 113 year round, and block 114 during May and June.

Discussion: This option differs from Option 1 in that it is based on incrementally selecting contiguous block/month combinations with the highest landings, using the two-bin effort displacement model, to stay below the TAC without a trip limit. Selecting contiguous blocks reduces enforcement problems and costs.

Closed Area Option 3

This option would close blocks 109-114 year round.

Discussion: The Council directed the staff to include an option that closes these specific blocks for sufficient time to keep projected landings below the TAC without a trip limit. The two-bin

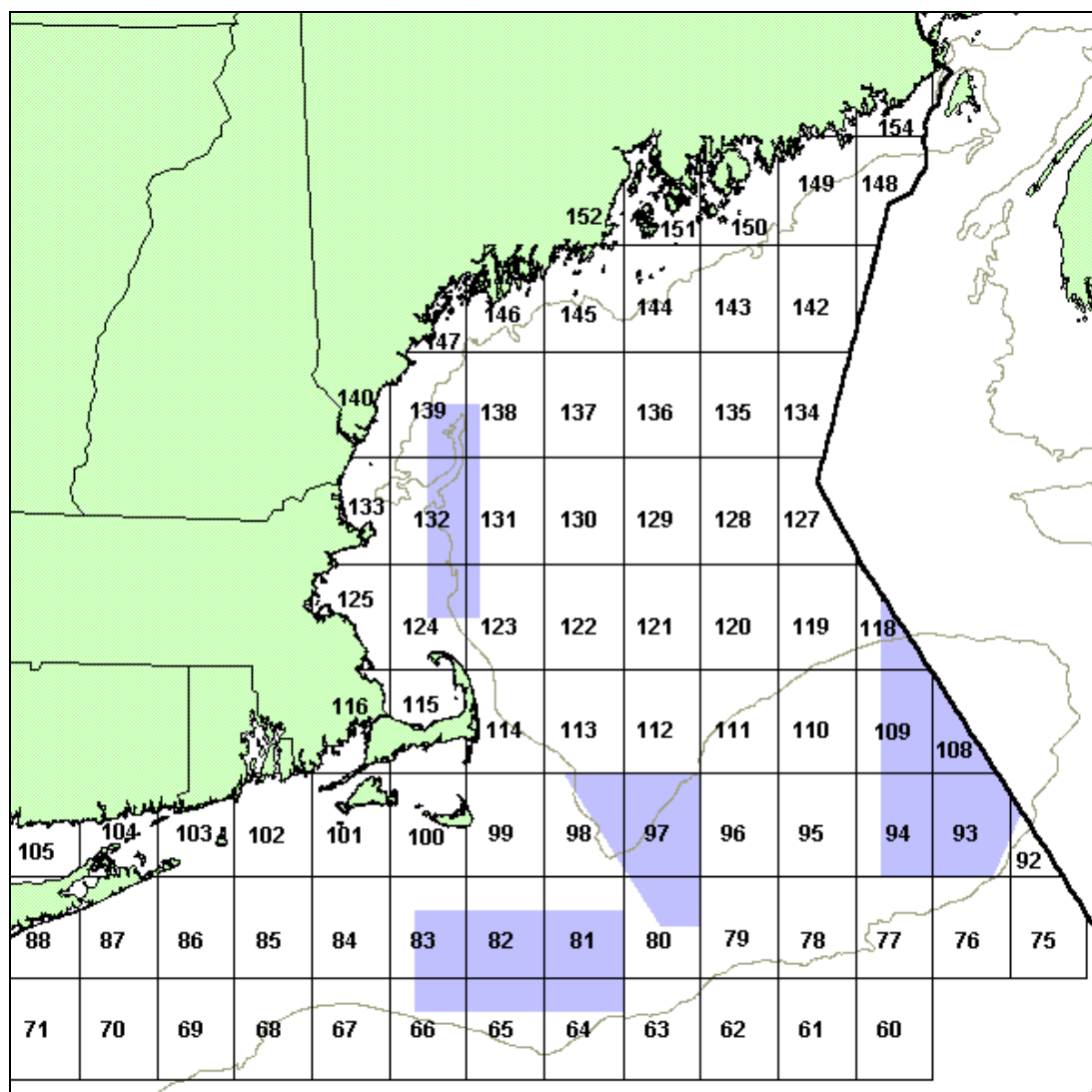
analysis, that displaces effort from the closed areas into the open areas, indicated that even if these blocks were to be closed year round, a trip limit of 2,000 pounds per day would be necessary to keep projected landings below the TAC.

Closed Area Option 4

This option would close the following block/month combinations, in addition to a 2,000 pound per day trip limit:

Block	Month
98	July, August
110	May
111	April, May
113	July
114	June

Discussion: This option is similar to Option 1, except that the analysis started with the application of a 2,000 pound per day trip limit. The model incrementally selected the block/month combinations of highest cod landings until the projected landings were below the TAC with a 2,000 pound per day trip limit.



**Table 1:
Number
of
Vessels*
in the
Gulf of
Maine
Cod
Fishery
by Gear
Sector
and
Vessel
Class
May
98 - April
99
Fishing
Year.**

GEAR SECTOR & VESSEL CLASS	MAINE			NEW HAMPSHIRE	MASSAC HUSSETTS					
	Portland	Other	Total		Boston	Gloucester	New Bedford	Other	Total	
Otter Trawl Sector:										
	<51 GRT	33	59	92	33	8	40	1	57	10
	51-150 GRT	34	20	54	2	5	34	13	20	7
	>150 GRT	6	0	6	0	5	7	3	1	1
	SUM	73	79	152	35	18	81	17	78	15
Gillnet Sector:										
	<51 GRT	15	18	33	27	0	53	1	35	8
	51-150 GRT	2	0	2	2	0	4	0	0	
	>150 GRT	0	0	0	0	0	0	0	0	
	SUM	17	18	35	29	0	57	1	35	9
Hook Sector:										
	<51 GRT	5	3	8	2	3	24	0	20	4
	51-150 GRT	2	1	3	0	0	0	0	0	
	>150 GRT	0	0	0	0	0	0	0	0	
	SUM	7	4	11	2	3	24	0	20	4
Other Gears:										
	<51 GRT	2	9	11	10	0	35	0	47	8
	51-150 GRT	0	0	0	2	0	1	0	5	
	>150 GRT	1	0	1	0	0	0	1	0	
	SUM	3	9	12	12	0	36	1	52	8
Total of All Gear Sectors:										
	<51 GRT	55	89	144	72	11	152	2	159	32
	51-150 GRT	38	21	59	6	5	39	13	25	8
	>150 GRT	7	0	7	0	5	7	4	1	1

	SUM	100	110	210	78	21	198	19	185	42
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Source:
 Vessel Trip
 Reports
 * This
 number
 represents a
 certain
 amount of
 double
 counting
 because
 vessels may
 land at
 different
 ports and
 use different
 gears within
 a fishing
 year.
 The unique
 count of
 vessels for
 all gears
 was 554
 vessels for
 the 98-99
 fishing year.

Table 2:
Gulf of
Maine Cod
Landings
in
thousands
of lbs.* by
gear
sector and
vessel
class
May
98 - April
99 Fishing
Year.

GEAR SECTOR & VESSEL CLASS	MAINE			NEW HAMPSHIRE	MASSAC HUSSETTS				
	Portland	Other	Total		Boston	Gloucester	New Bedford	Other	Tot
Otter Trawl Sector:									
<51 GRT	123	202	325	550	45	510	0	540	1,0
51-150 GRT	485	88	573	23	54	587	84	173	8
>150 GRT	118	0	118	0	24	150	7	4	7
SUM	726	290	1,016	573	123	1,247	91	717	2,7

Gillnet Sector:

	<51 GRT	227	245	472	718	0	976	0	320	1,4
	51-150 GRT	64	0	64	42	0	154	0	0	
	>150 GRT	0	0	0	0	0	0	0	0	
	SUM	291	245	536	760	0	1,130	0	320	1,4

Hook Sector:

	<51 GRT	23	2	25	0	2	76	0	91	
	51-150 GRT	26	1	27	0	0	0	0	0	
	>150 GRT	0	0	0	0	0	0	0	0	
	SUM	49	3	52	0	2	76	0	91	

Other Gears:

	<51 GRT	6	18	24	7	0	62	0	95	
	51-150 GRT	0	0	0	0	0	2	0	1	
	>150 GRT	33	0	33	0	0	0	0	0	
	SUM	39	18	57	7	0	64	0	96	

Total of All

Gear Sectors:

	<51 GRT	379	467	846	1,275	47	1,624	0	1,046	2,7
	51-150 GRT	575	89	664	65	54	743	84	174	1,0
	>150 GRT	151	0	151	0	24	150	7	4	
	SUM	1,105	556	1,661	1,340	125	2,517	91	1,224	3,7

Source:

Vessel Trip
Reports and
Dealer
Database
* Landed
Weight

**Table 3:
Number
of
Vessels*
in the
Georges
Bank
Cod
Fishery
by Gear
Sector
and
Vessel
Class
May
98 - April
99
Fishing
Year.**

GEAR SECTOR &	MAINE
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NEW	MASSAC HUSSETTS
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VESSEL CLASS		Portland	Other	Total	HAMPSHIRE	Boston	Gloucester	New Bedford	Other	Total
Otter Trawl Sector:										
	<51 GRT	5	0	5	1	4	5	3	19	3
	51-150 GRT	18	1	19	0	6	23	100	38	16
	>150 GRT	6	0	6	0	9	17	32	10	6
	SUM	29	1	30	1	19	45	135	67	26
Gillnet Sector:										
	<51 GRT	6	1	7	2	0	17	1	33	5
	51-150 GRT	1	0	1	0	0	1	0	1	
	>150 GRT	0	0	0	0	0	0	0	0	
	SUM	7	1	8	2	0	18	1	34	5
Hook Sector:										
	<51 GRT	1	3	4	0	0	3	0	39	4
	51-150 GRT	1	0	1	0	0	2	0	0	
	>150 GRT	0	0	0	0	0	0	0	0	
	SUM	2	3	5	0	0	5	0	39	4
Other Gears:										
	<51 GRT	2	1	3	0	0	3	1	112	11
	51-150 GRT	0	0	0	0	0	0	3	1	
	>150 GRT	1	0	1	0	0	0	3	0	
	SUM	3	1	4	0	0	3	7	113	12
Total of All Gear Sectors:										
	<51 GRT	14	5	19	3	4	28	5	203	24
	51-150 GRT	20	1	21	0	6	26	103	40	17
	>150 GRT	7	0	7	0	9	17	35	10	7
	SUM	41	6	47	3	19	71	143	253	48

Source:
Vessel Trip
Reports
* This
number
represents a
certain
amount of
double
counting
because
vessels may
land at
different
ports and
use different
gears within
a fishing
year.
The unique
count of
vessels for
all gears
was 594
vessels for
the 98-99
fishing year.

Table 4:
Georges
Bank Cod
Landings
in
thousands
of lbs.* by
Gear
Sector
and
Vessel
Class
May 98
- April 99
Fishing
Year.

GEAR SECTOR & VESSEL CLASS	MAINE			NEW HAMPSHIRE	MASSAC HUSSETTS	Boston	Gloucester	New Bedford	Other	Tot
	Portland	Other	Total							
Otter Trawl Sector:										
	<51 GRT	7	0	7	2	5	24	3	79	
	51-150 GRT	172	2	174	0	287	697	3,433	179	4,591
	>150 GRT	217	0	217	0	596	999	2,232	146	3,933
	SUM	396	2	398	2	888	1,720	5,668	404	8,112
Gillnet Sector:										
	<51 GRT	15	2	17	25	0	189	7	1,392	1,613
	51-150 GRT	13	0	13	0	0	15	0	216	239
	>150 GRT	0	0	0	0	0	0	0	0	0
	SUM	28	2	30	25	0	204	7	1,608	1,862
Hook Sector:										
	<51 GRT	0	17	17	0	0	373	0	3,026	3,406
	51-150 GRT	0	0	0	0	0	279	0	0	279
	>150 GRT	0	0	0	0	0	0	0	0	0
	SUM	0	17	17	0	0	652	0	3,026	3,685
Other Gears:										
	<51 GRT	16	3	19	0	0	2	0	1,324	1,345
	51-150 GRT	0	0	0	0	0	0	8	0	8
	>150 GRT	66	0	66	0	0	0	1	0	67
	SUM	82	3	85	0	0	2	9	1,324	1,436
Total of All Gear Sectors:										
	<51 GRT	38	22	60	27	5	588	10	5,821	6,453
	51-150 GRT	185	2	187	0	287	991	3,441	395	5,906
	>150 GRT	283	0	283	0	596	999	2,233	146	3,957
	SUM	506	24	530	27	888	2,578	5,684	6,362	15,993

Source:
Vessel Trip

Reports and
Dealer
Database
* Landed
Weight

**Table 5: Frequency
Distribution of Vessels'
Annual GOM Cod Landings
May 1998 - April
1999 Fishing Year.**

Annual Cod Landings (in thousands of lbs)	Number of Vessels	%	Landings (thousand lbs)	%
<1	100	18%	19	0%
>0-1	65	12%	67	1%
>1-5	93	17%	310	4%
>5-10	78	14%	615	9%
>10-20	93	17%	1,340	19%
>20-30	53	10%	1,331	19%
>30-40	36	6%	1,239	18%
>40-50	15	3%	656	9%
>50-60	9	2%	484	7%
>60-70	6	1%	387	6%
>70-80	4	1%	297	4%
>80	2	0%	213	3%
Total	554	100%	6,957	100%

Source: Vessel Trip Reports and
Dealer Database

**Table 6: Frequency
Distribution of Vessels'
Annual GB Cod Landings
May 1998 - April
1999 Fishing Year.**

Annual Cod Landings (in thousands of lbs)	Number of Vessels	%	Landings (thousand lbs)	%
<1	155	26%	21	0%
>0-1	66	11%	64	0%
>1-5	86	14%	255	2%
>5-10	44	7%	345	2%
>10-20	64	11%	1,008	6%
>20-30	34	6%	874	5%
>30-40	31	5%	1,081	6%
>40-50	11	2%	504	3%
>50-60	11	2%	597	4%
>60-70	18	3%	1,180	7%
>70-80	16	3%	1,205	7%
>80	58	10%	9,583	57%
Total	594	100%	16,717	100%

Source: Vessel Trip Reports and
Dealer Database

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Appendix VII

Management Proposal from David T. Goethel