

Gulf of Maine Cod and Haddock**Table 1. Gulf of Maine Recreational Catch Estimates¹**

	FY2021	FY2022 ²	
Cod/Haddock Angler Trips ³	313,210	256,415	-18%
Cod Catch (numbers, a+b1+b2)	503,532	486,174	-3%
Cod Landings (numbers, a+b1)	31,664	27,244	-14%
Cod Released Alive (numbers, b2)	471,868	458,930	-3%
Cod Removals (numbers, a+b1+(b2*0.15))	102,444	96,084	-6%
Cod Removals (weight⁴, mt)	146	163	11%
Cod Avg. Catch Per Trip (numbers)	1.6	1.9	18%
Cod Avg. Weight of Caught Fish (lbs)	2.88	3.42	19%
Haddock Catch (numbers, a+b1+b2)	1,342,470	820,797	-39%
Haddock Landings (numbers, a+b1)	868,383	599,569	-31%
Haddock Released Alive (numbers, b2)	474,088	221,228	-53%
Haddock Removals (numbers, a+b1+(b2*season/size release mortality))	1,138,400	721,163	-37%
Haddock Removals (weight⁴, mt)	902	666	-26%
Haddock Avg. Catch Per Trip (numbers)	4.3	3.2	-25%
Haddock Avg. Weight of Caught Fish (lbs)	1.6	1.8	13%

FY2022 Cod Rec Sub-ACL = 192 mt

FY2022 Haddock Rec Sub-ACL = 3,634 mt

¹Source: Available MRIP data as of Jan 9, 2023²Wave 6, 2021 and Wave 2, 2022 used as a proxies for FY 2022.³Angler trips = number of trips that targeted and/or caught cod or haddock⁴All weights are based on round weights calculated from MRIP length frequencies and length to weight equations used in the assessments**Table 2. Percent of Gulf of Maine Cod and Haddock Recreational Removals by Mode (in terms of numbers of fish)**

	FY2021	FY2022
Cod Removals (numbers, a+b1+(b2*0.15))		
Head	10	12
Charter	4	3
Private	86	84
Shore	0	1
Haddock Removals (numbers, a+b1+(b2*season/size release mortality))		
Head	13	23
Charter	10	8
Private	78	69
Shore	0	0

Haddock Release Mortality

Spring (waves 1, 2, 3), small (<50cm, <=19inches) = 0.321

Spring (waves 1, 2, 3), large (>=50cm, >19inches) = 0.113

Fall (waves 4, 5, 6), small (<50cm, <=19inches) = 0.742

Fall (waves 4, 5, 6), large (>=50cm, >19inches) = 0.459

Georges Bank Cod**Table 3. Georges Bank Cod Recreational Catch Estimates¹**

	FY2021	FY2022 ²	
Cod/Haddock Angler Trips ³	92,823	105,318	13%
Cod Catch (numbers, a+b1+b2)	207,725	201,440	-3%
Cod Landings (numbers, a+b1)	92,617	90,421	-2%
Cod Released Alive (numbers, b2)	115,108	111,019	-4%
Cod Removals (numbers, a+b1+(b2*0.30))	127,149	123,727	-3%
Cod Removals (weight⁴, mt)	236	218	-8%
Cod Avg. Catch Per Trip (numbers)	2.2	1.9	-15%
Cod Avg. Weight of Caught Fish (lbs)	2.42	2.38	-1%
FY2022 GB cod rec target = 75 mt			

¹Source: Available MRIP data as of Jan 9, 2023²Wave 6, 2021 and Wave 2, 2022 used as a proxies for FY 2022.³Angler trips = number of trips that targeted and/or caught cod⁴All weights are based on round weights calculated from MRIP length frequencies and length to weight equations used in the assessments**Table 4. Percent of Georges Bank Cod Recreational Removals by Mode (in terms of numbers of fish)**

	FY2021	FY2022
Cod Removals (numbers, a+b1+(b2*0.30))		
Head	4	2
Charter	15	22
Private	81	76
Shore	0	0

Table 5. Federal Recreational Measures for Georges Bank Cod

	FY 2021	FY 2022
Min Size	22 inches	22 inches
Max Size		28 inches
Possession Limit	10 fish per person per day	5 fish per person per day
Open Season	May 1 through Apr 30	Aug 1 - Apr 30
Closed Season		May 1 - July 31

Projected FY 2022 Georges Bank cod removals = 218 mt.

FY 2023 catch target = 113 mt (48% lower than FY 2022 removals).

Table 6. Proportion of Georges Bank Recreational Cod Mortality (mt) by State (FY20-FY22)

	Landing Proportion	Release Mortality Proportion	Total Mortality Proportion
CT	0.01	0.04	0.03
DE	0.00	-	0.00
MA	0.16	0.23	0.20
NJ	0.16	0.17	0.16
NY	0.57	0.35	0.46
RI	0.09	0.21	0.15

NY and NJ anglers are still fishing under FY 2021 cod regulations. Assuming conditions are similar in FY 2023, and NY and NJ continue to fish under FY 2021 regulations, removals from NY and NJ are estimated to approximate 135 mt ($218 * .62$). The FY 2023 catch target is 113 mt.

Table 7. Proportion of Georges Bank Recreational Cod Mortality (mt) by Month (FY20 - FY22)

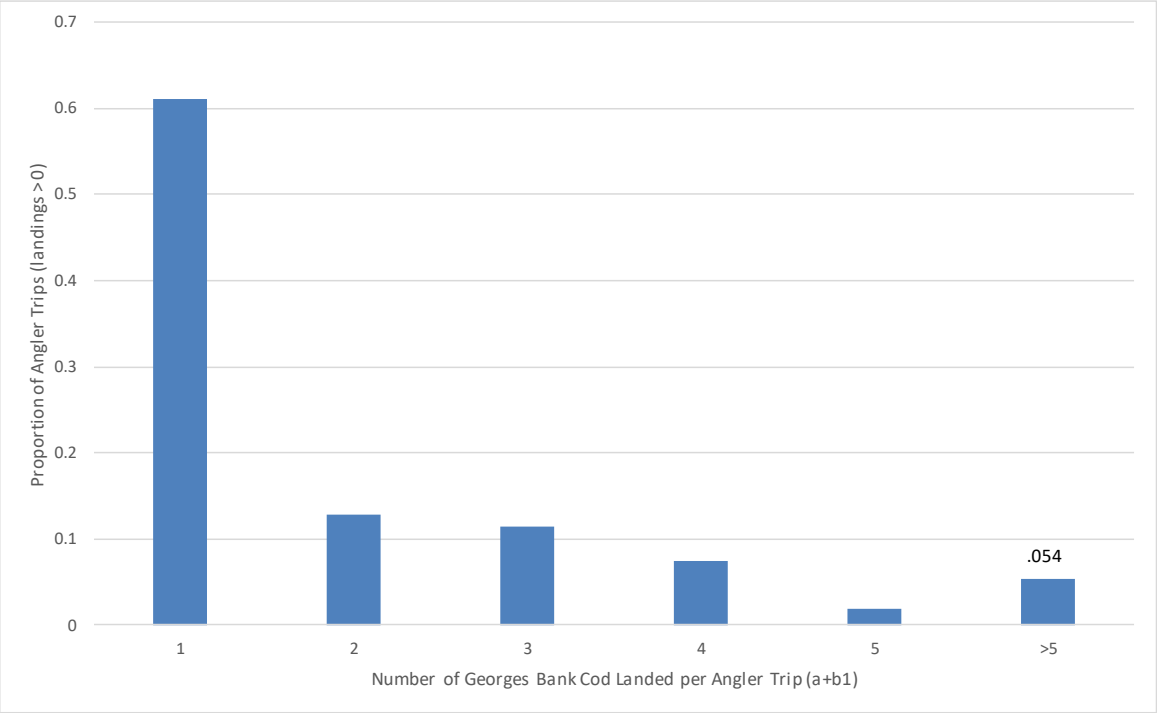
Month	Landing Proportion	Release Mortality Proportion	Total Mortality Proportion
3	0.06	0.02	0.06
4	0.07	0.06	0.07
5	0.03	0.12	0.05
6	0.19	0.13	0.18
7	0.12	0.21	0.13
8	0.16	0.33	0.18
9	0.03	0.01	0.02
10	0.15	0.03	0.14
11	0.17	0.09	0.16
12	0.02	0.00	0.01

FY 2022 federal measures were published on July 15, 2022

May, June, 1/2 July = 28% of total fishing year landings (FY20-FY22).

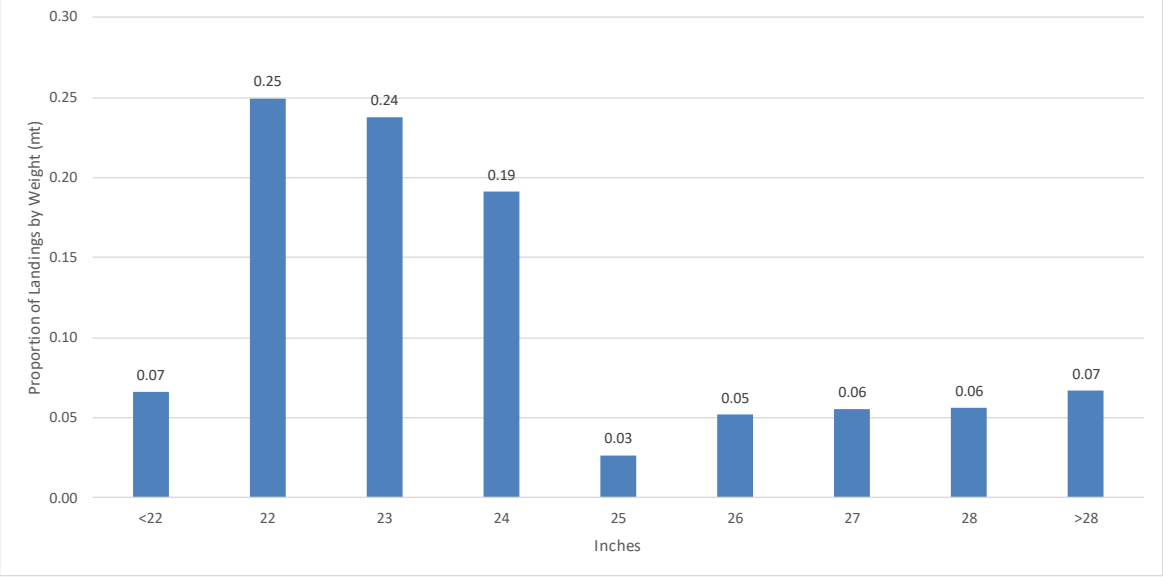
Assuming conditions are similar in FY23, expected landings would be ~28% lower if all states implement the federal regs.

Figure 1. NY Cod Recreational Landing Frequencies (FY20 - FY22)



If NY implemented a 5 fish possession limit, ~ 5% of the fish landed in NY would no longer be landed. This would approximate an overall reduction in GB landings (numbers of fish) of about 3% (.57*.054).

Figure 2. Size Frequencies of Georges Bank Cod Landings by Weight (mt) (FY20 - FY22)



Current size limit = 22" to 28"

	Estimated reduction in landings (mt)	Estimated reduction in overall mortality (30% release mortality)
1) if change to 23" to 28"	25%	18%
2) If change to 23" min	18%	13%
3) If change to 24" min	42%	29%