

Groundfish Committee Report

NEFMC Groundfish Staff

**NEFMC
Meeting
*January 31, 2018***



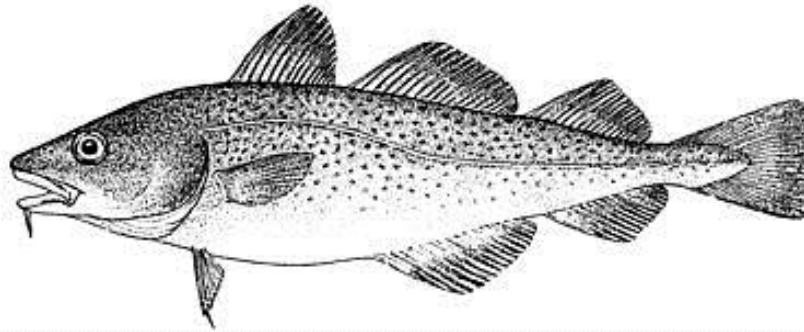


Recreational Measures for Gulf of Maine Cod and Haddock for Fishing Year 2018

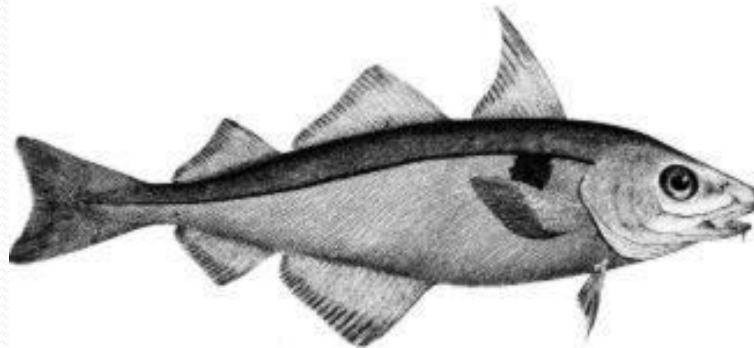
Proposed FY 2018 Recreational Sub-ACLs

If Framework Adjustment 57 ACLs are implemented:

220 mt for Gulf of Maine cod



3,358 mt for Gulf of Maine haddock



Bioeconomic Modeling

- Incorporates available MRIP data and 2018 biological assessment projections
- Incorporates new post-release haddock mortality rates
- Evaluates how status quo measures affect mortality in FY2018
- Evaluates how alternative measures affect mortality in FY2018

Gulf of Maine haddock post-release mortality estimates for the recreational fishery by season and size class (Mandelman *et al.* 2017)

| Season | Waves | Size Class | Estimated Mortality |
|--------|---------|-----------------------|---------------------|
| Spring | 1, 2, 3 | Small (<50 cm) | 0.321 |
| | | Large (\geq 50 cm) | 0.113 |
| Fall | 4, 5, 6 | Small (<50 cm) | 0.742 |
| | | Large (\geq 50 cm) | 0.459 |

How accurate is the model for cod?

| GOM Cod | ACL (mt) | Actual | Model |
|---------|---------------|--------|------------------|
| FY 2013 | 486 | 639 | 409 (36% lower) |
| FY 2014 | 486 | 623 | 422 (32% lower) |
| FY 2015 | 121 | 85 | 132 (55% higher) |
| FY 2016 | 157 | 286 | 132 (54% lower) |
| FY 2017 | 157 | 244* | 147 (40% lower) |
| FY 2018 | 220 - payback | | |

*Preliminary

How accurate is the model for haddock?

| GOM Had | ACL (mt) | Actual | Model |
|---------|----------|--------|--------------------|
| FY 2013 | 74 | 232 | 57 (407% lower) |
| FY 2014 | 87 | 659 | 80 (824% lower) |
| FY 2015 | 372 | 382 | 323 (13% lower) |
| FY 2016 | 928 | 1,031 | 709 (32% lower) |
| FY 2017 | 1,160 | 740* | 1,160 (56% higher) |
| FY 2018 | 3,358 | | |

*Preliminary

Fishing Year 2018 Mortality Projections

FY 2018 Gulf of Maine Cod and Haddock Simulation Projections

| Option | Haddock | | | | Cod | | | Angler Trips (Median) | % Under Had ACL (out of 100 Simulations) | % Under Cod ACL (out of 100 Simulations) |
|---|-----------|----------|----------------------------------|---------------------------------|-----------|-------------------|---------------------------------|-----------------------|--|--|
| | Had Limit | Had Size | Had Closed Season | Had Total Mortality mt (Median) | Cod Limit | Cod Closed Season | Cod Total Mortality mt (Median) | | | |
| 0 (Status Quo) | 12 | 17" | Mar-Apr 14, Sep 17 - Oct 31 | 920 | 0 | May-Apr | 226 | 155,733 | 100 | 19 |
| 1 (Status Quo, no MA Cod Possession) | 12 | 17" | Mar-Apr 14, Sep 17 - Oct 31 | 916 | 0 | May-Apr | 193 | 155,160 | 100 | 56 |
| 2 (Additional May Had Closure) | 12 | 17" | Mar-Apr 14, May, Sep 17 - Oct 31 | 822 | 0 | May-Apr | 194 | 150,713 | 100 | 57 |

FY 2018 rec sub-ACLs: haddock = 3,358 mt, cod = 220 mt - payback

RAP and Committee recommendation

| Option | Had Limit | Had Size | Had Closed Season | Had Total Mortality (Median) | Cod Limit | Cod Closed Season | Cod Total Mortality (Median) | Angler Trips (Median) | % Under Had ACL (out of 100 Simulations) | % Under Cod ACL (out of 100 Simulations)* |
|---|----------------|----------|---|------------------------------|-----------|-------------------|------------------------------|-----------------------|--|---|
| 0 (Status Quo) | 12 | 17" | Mar-Apr 14, Sep 17 - Oct 31 | 920 | 0 | May-Apr | 226 | 155,733 | 100 | 19 |
| 1 (Status Quo, no MA Cod Possession) | 12 | 17" | Mar-Apr 14, Sep 17 - Oct 31 | 916 | 0 | May-Apr | 193 | 155,160 | 100 | 57 |
| 2 (Additional May Had Closure) | 12 | 17" | Mar-Apr 14, May, Sep 17 - Oct 31 | 822 | 0 | May-Apr | 194 | 150,713 | 100 | 56 |
| 3 (No MA Cod Possession, no Had Minimum Size) | 12 | | Mar-Apr 14, Sep 17 - Oct 31 | 979 | 0 | May-Apr | 213 | 162,543 | 100 | 34 |
| 4 (Additional May Had Closure, no Had Minimum Size) | 12 | | Mar-Apr 14, May, Sep 17 - Oct 31 | 864 | 0 | May-Apr | 203 | 157,731 | 100 | 45 |
| 5 (Additional May Had Closure, 16" Had Minimum Size) | 12 | 16" | Mar-Apr 14, May, Sep 17 - Oct 31 | 835 | 0 | May-Apr | 198 | 153,441 | 100 | 51 |
| 6 (Additional May Had Closure, 15" Had Minimum Size) | 12 | 15" | Mar-Apr 14, May, Sep 17 - Oct 31 | 854 | 0 | May-Apr | 200 | 157,203 | 100 | 50 |
| 7 (Split Measures by Mode) | 10 FH 12 PR | 17" | Mar-Apr 14, Sep 17 - Oct 31 Mar-Apr 14, May, Sep 17 - Oct 31 | 839 | 0 | May-Apr | 198 | 152,091 | 100 | 51 |

FY 2018 rec sub-ACLs: haddock = 3,358 mt, cod = 220 mt - payback

*Assumes a cod sub-ACL of 200 mt

For Today

The Council will consider recommending recreational measures for Gulf of Maine cod and Gulf of Maine haddock for fishing year 2018.





Recreational Measures for Georges Bank Cod for Fishing Year 2018

FW57 - Section 4.3.1

Recreational Management Measures - Georges Bank Cod Management Measures for the Recreational Fishery

Option 1: No Action

Option 2: Temporary administrative measure to allow the Regional Administrator authority to adjust the recreational measures for Georges Bank cod (*Preferred Alternative*)

For FY2018 and FY2019 only

**Calculation of the catch target for the recreational fishery. Data source:
Recreational catches in 2017 groundfish operational assessments, NEFSC.**

| Catch (mt) | Calendar Year | | | | | Recreational Average 12-16 |
|-----------------------------|---------------|--------------|--------------|--------------|--------------|-------------------------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Commercial landings | 2,007 | 1,312 | 1,514 | 1,300 | 1,109 | |
| Commercial discards | 120 | 83 | 19 | 31 | 33 | |
| Recreational landings | 56 | 6 | 88 | 124 | 369 | sum = 643 |
| Recreational discards | 1 | 1 | 2 | 15 | 30 | sum = 49 |
| Canadian landings | 395 | 384 | 430 | 472 | 428 | |
| Canadian discards | 75 | 39 | 28 | 20 | 12 | + _____ |
| Catch for Assessment | 2,653 | 1,824 | 2,081 | 1,962 | 1,982 | 692 |
| | | | | | | 5-yr avg 138.4 |

FW57 PDT Analysis suggests:

- 10 fish bag limit for all modes – private, charter, and party
- Increase the minimum fish size from 22 in up to 24 in

For Today

The Council will possibly consider recommending recreational measures for Georges Bank cod.





Control Date

Background

The current “control date” is March 30, 2006 and may be used for establishing eligibility criteria for determining levels of future access to the charter/party fishery subject to Federal authority.

- Helps to distinguish from established participants from speculative entrants
- Additional qualification criteria may apply
- Weighted criteria may be used
- Does not commit the Council to take action
- Can be revised or rescinded
- Gives the public notice to locate and preserve records to verify activity



For Today

The Council will consider recommending a new control date for the charter/party fishery.





Amendment 23: Groundfish Monitoring

Amendment 23 Timeline

| 2018 | |
|------------------|--|
| JAN 30-31 | NEFMC – Receives progress report |
| TBD | Groundfish PDT meeting |
| TBD | Groundfish Advisory Panel meeting |
| TBD | Groundfish Committee meeting |
| APR 17-19 | NEFMC – Approves range of alternatives |
| TBD | Groundfish PDT meeting |
| TBD | Groundfish Advisory Panel meeting |
| TBD | Groundfish Committee meeting |
| JUN 12-14 | NEFMC – Receives progress report (or approves range of alternatives, if not in April) |

A23 Alternatives Outline (Draft)

| | |
|---|---|
| <u>Introduction</u> | <ul style="list-style-type: none"> • Purpose and need • Background on Groundfish Sector Monitoring Program |
| <u>Alternatives</u> | |
| <i>Monitoring Cover Levels</i> <i>*input from Sept Committee meeting</i> | <ul style="list-style-type: none"> • Re-evaluate 30% CV precision standard • Alternatives methodologies for determining total monitoring coverage levels • Knowing total monitoring coverage level at a time certain |
| <i>Improving monitoring of discards</i> <i>*input from Sept Committee meeting and Nov AP meeting</i> | Electronic monitoring (EM) – in place of ASM, audit-based, maximum retention-based |
| <i>Improving monitoring of landings</i> <i>*input from Sept Committee meeting and Nov AP meeting</i> | <ul style="list-style-type: none"> • Dockside monitoring program • EM for landings verification (maximum retention) |
| <u>Streamlining Sector Reporting</u> | <ul style="list-style-type: none"> • Weekly sector reporting • Other sector reporting requirements |
| <u>Funding for Groundfish Monitoring</u> <i>*input from Sept Committee meeting</i> | Funding source ideas |

Optimized Retention Discussion

GAP Motion (from Nov 28, 2017)

AP Motion #16:

To include an Optimized Retention approach for EM, where EM runs on 100% of trips and a subset of hauls or trips is reviewed to verify vessel trip reported (VTR)-reported discards. The optimized retention model would eliminate minimum fish size restrictions, but fishermen could choose which fish to keep based on their marketability, and/or the difficulty handling and sorting on deck—modeled upon the West Coast EM program.

GF Committee Motion (from Nov 29, 2017)

Committee Motion #15:

To explore an Optimized Retention approach for EM, where EM runs on 100% of trips and a subset of hauls or trips is reviewed to verify vessel trip reported (VTR)-reported discards. The optimized retention model would eliminate minimum fish size restrictions, but fishermen could choose which fish to keep based on their marketability, and/or the difficulty handling and sorting on deck—modeled upon the West Coast EM program.

Monitoring Workshop/Working Group

2018 Council Priorities:

To amend the priorities for Groundfish for 2018 to include all regulatory requirements and Amendment 23 and by clarifying that work on Amendment 23 includes utilization of workshops/expanded PDT meetings for development of technical elements i.e. EM, DSM etc. and a working group to discuss the topic of how fishery dependent data can be used to inform stock abundance.

Discussed at Executive Committee meeting Jan 26, 2018

Will receive summary from ExCom today

Fishery Dependent Data Workgroup

Tom Nies

New England Fishery Management Council

January 31, 2018



New England
Fishery Management Council

Background

- September 2017: to request that the Executive Committee discuss convening a working group to identify and/or improve methods for using monitoring data in stock assessments to estimate stock biomass.
- December 2017: to amend the priorities for Groundfish for 2018 to include ... **a working group to discuss the topic of how fishery dependent data can be used to inform stock abundance.**

Tasking

- Explain how assessments use data
- Summarize theoretical utility and limitations of CPUE as an index of abundance
- Identify fishery factors and data needed to create a reliable CPUE
- Compare desired factors with existing conditions
- Identify next steps and provide recommendations or other FDD approaches that could be explored

Logistics

- 10 members:
 - NEFSC Scientists: 2
 - NEFSC nominated scientists: 2
 - Council nominated scientists: 2
 - Industry: 2
 - NMFS and Council staff: 2
- Consensus report, reviewed by SSC
- Preliminary report by June 2018



Extra Slides

Table 1. Gulf of Maine Recreational Catch Estimates¹

| | FY2016 | (PSE) | FY2017 ² | (PSE) |
|---|-----------|--------|---------------------|--------|
| Cod/Haddock Angler Trips ³ | 162,596 | (12.1) | 150,799 | (13.1) |
| Cod Catch (numbers, a+b1+b2) | 960,353 | (15.7) | 768,134 | (22.9) |
| Cod Kept/Released Dead (numbers, a+b1) | 34,995 | (23.6) | 13,513 | (29.1) |
| Cod Released Alive (numbers, b2) | 925,357 | (15.8) | 754,621 | (23.2) |
| Cod Removals (numbers, a+b1+(b2*0.15)) | 173,799 | | 126,706 | |
| Cod Removals (weight ⁴ , mt) | 286 | | 244 | |
| Cod Avg. Catch Per Trip (numbers) | 5.9 | | 5.1 | |
| Cod Avg. Weight of Caught Fish (lbs) | 3.2 | | 4.1 | |
| Haddock Catch (numbers, a+b1+b2) | 1,733,327 | (20.2) | 1,281,109 | (19.7) |
| Haddock Kept/Released Dead (numbers, a+b1) | 521,621 | (23.6) | 443,537 | (22.2) |
| Haddock Released Alive (numbers, b2) | 1,211,706 | (20.7) | 837,572 | (20.9) |
| Haddock Removals (numbers, a+b1+(b2*season/size release mortality)) | 1,190,253 | | 899,309 | |
| Haddock Removals (weight ⁴ , mt) | 1,031 | | 740 | |
| Haddock Avg. Catch Per Trip (numbers) | 10.7 | | 8.5 | |
| Haddock Avg. Weight of Caught Fish (lbs) | 1.7 | | 1.3 | |

¹Source: Available MRIP data as of Dec. 26, 2017

²Wave 6, 2016 and wave 2, 2017 used as proxies for those waves in FY2017.

³Angler trips = number of trips that targeted and/or caught cod or haddock

⁴All weights are based on round weights calculated from MRIP length frequencies and length to weight equations used in the assessments.

Figure 1. Gulf of Maine Cod Catch by Fishing Year (numbers)

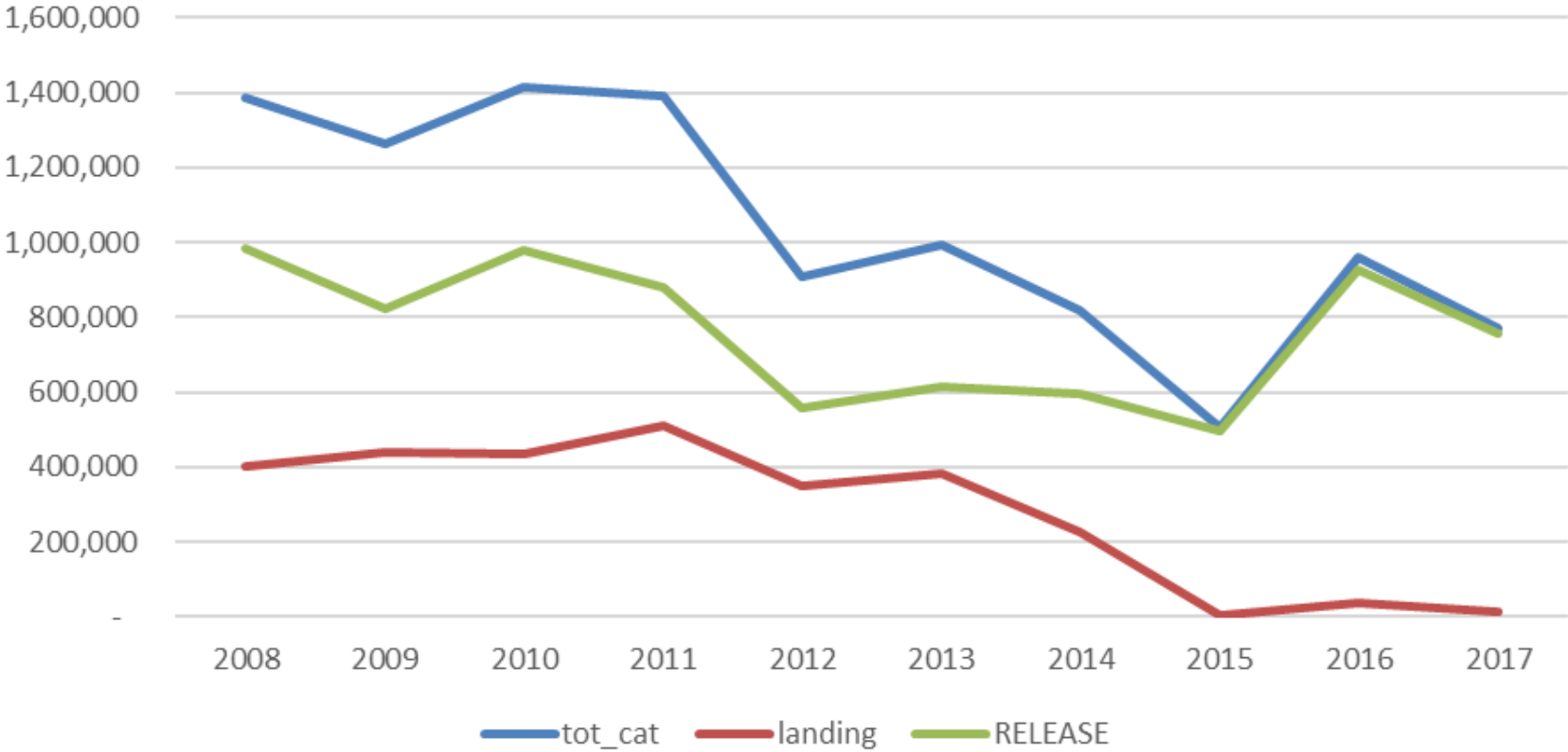


Figure 2. Gulf of Maine Haddock Catch by Fishing Year
(numbers)

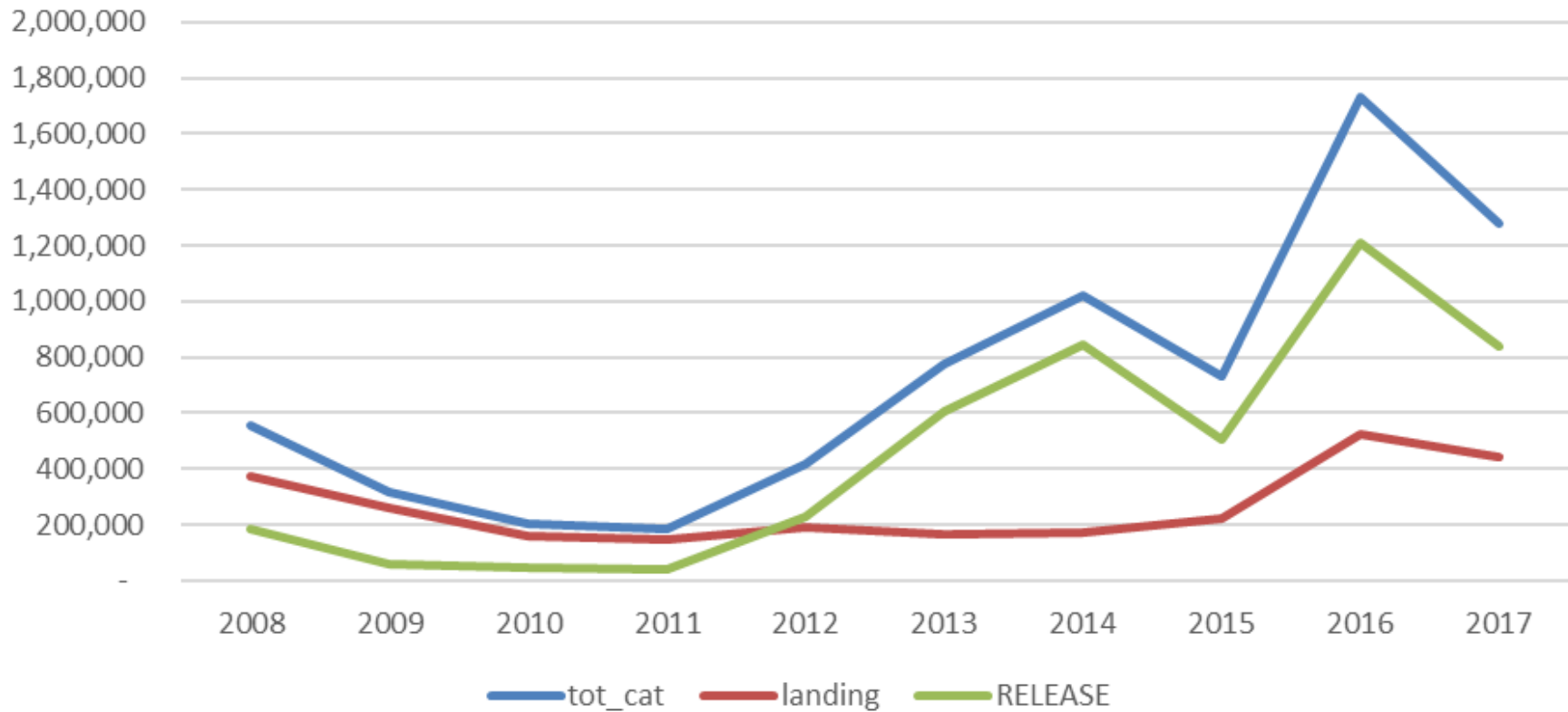


Figure 3. Gulf of Maine Angler Trips by Fishing Year

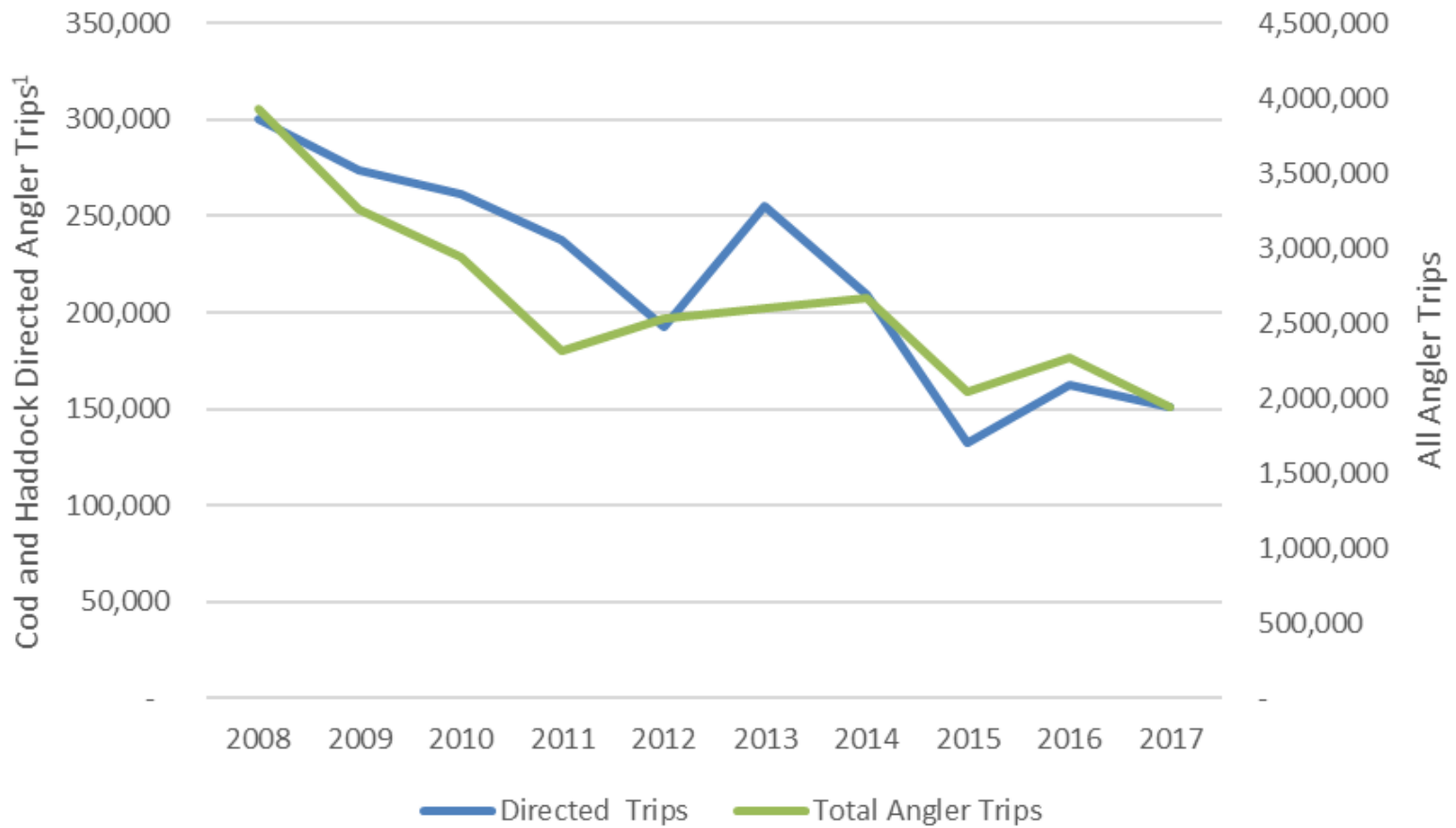


Table 1. George's Bank Cod Recreational Catch Estimates¹

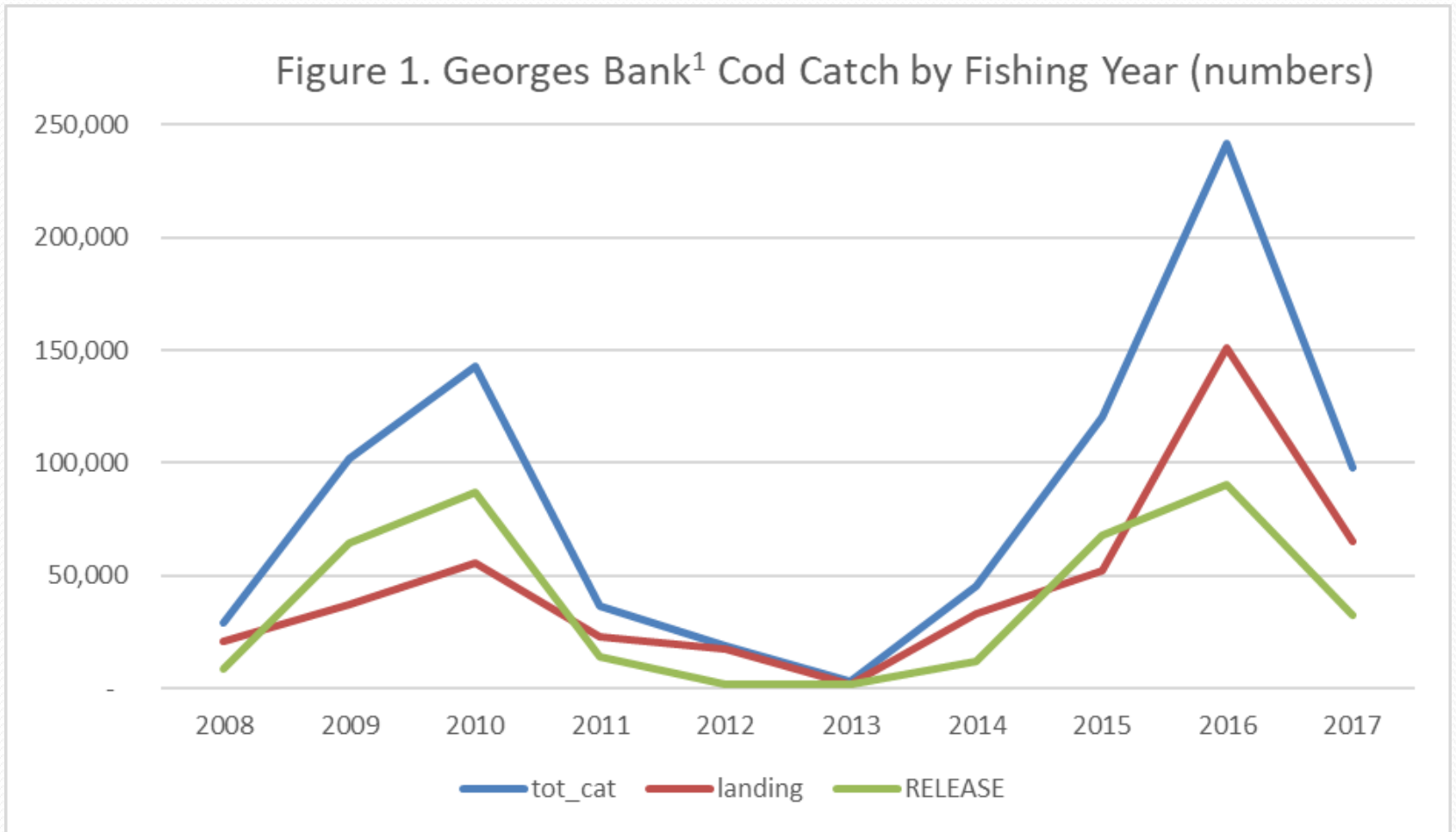
| | FY2016 | (PSE) | FY2017 ² | (PSE) |
|---|---------|--------|---------------------|--------|
| Cod Angler Trips ³ | 92,319 | (21.4) | 61,841 | (25.7) |
| Cod Catch (numbers, a+b1+b2) | 241,720 | (23.9) | 97,871 | (31.4) |
| Cod Kept/Released Dead (numbers, a+b1) | 151,067 | (25.1) | 65,407 | (32.1) |
| Cod Released Alive (numbers, b2) | 90,653 | (26.7) | 32,464 | (36.4) |
| Cod Removals (numbers, a+b1+(b2*0.30)) | 178,263 | | 75,146 | |
| Cod Removals (weight ⁴ , mt) | 451 | | 198 | |
| Cod Avg. Catch Per Trip (numbers) | 2.6 | | 1.6 | |
| Cod Avg. Weight of Caught Fish (lbs) | 4.9 | | 5.2 | |

¹Source: Available MRIP data as of Dec. 22, 2017

²Wave 6, 2016 and wave 2, 2017 used as proxies for those waves in FY2017.

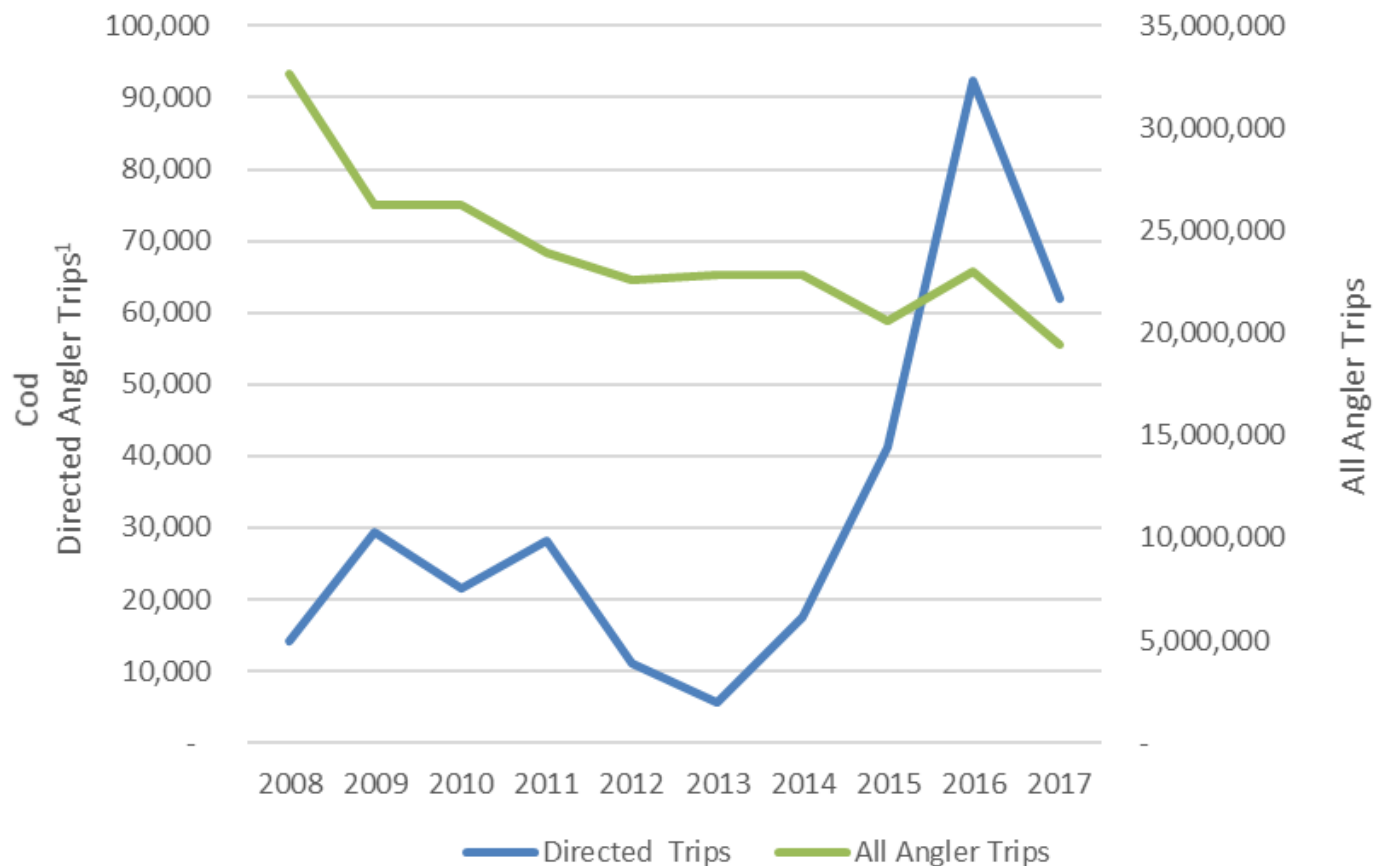
³Angler trips = number of trips that targeted and/or caught cod

⁴All weights are based on round weights calculated from MRIP length frequencies and length to weight equations used in the assessments.



¹Includes catch from Massachusetts anglers (south of Cape Cod) through North Carolina

Figure 2. George's Bank Angler Trips by Fishing Year



¹Angler trips that targeted and/or caught cod.

Figure 4. FY 2016 George's Bank Recreational Cod Landings Frequencies

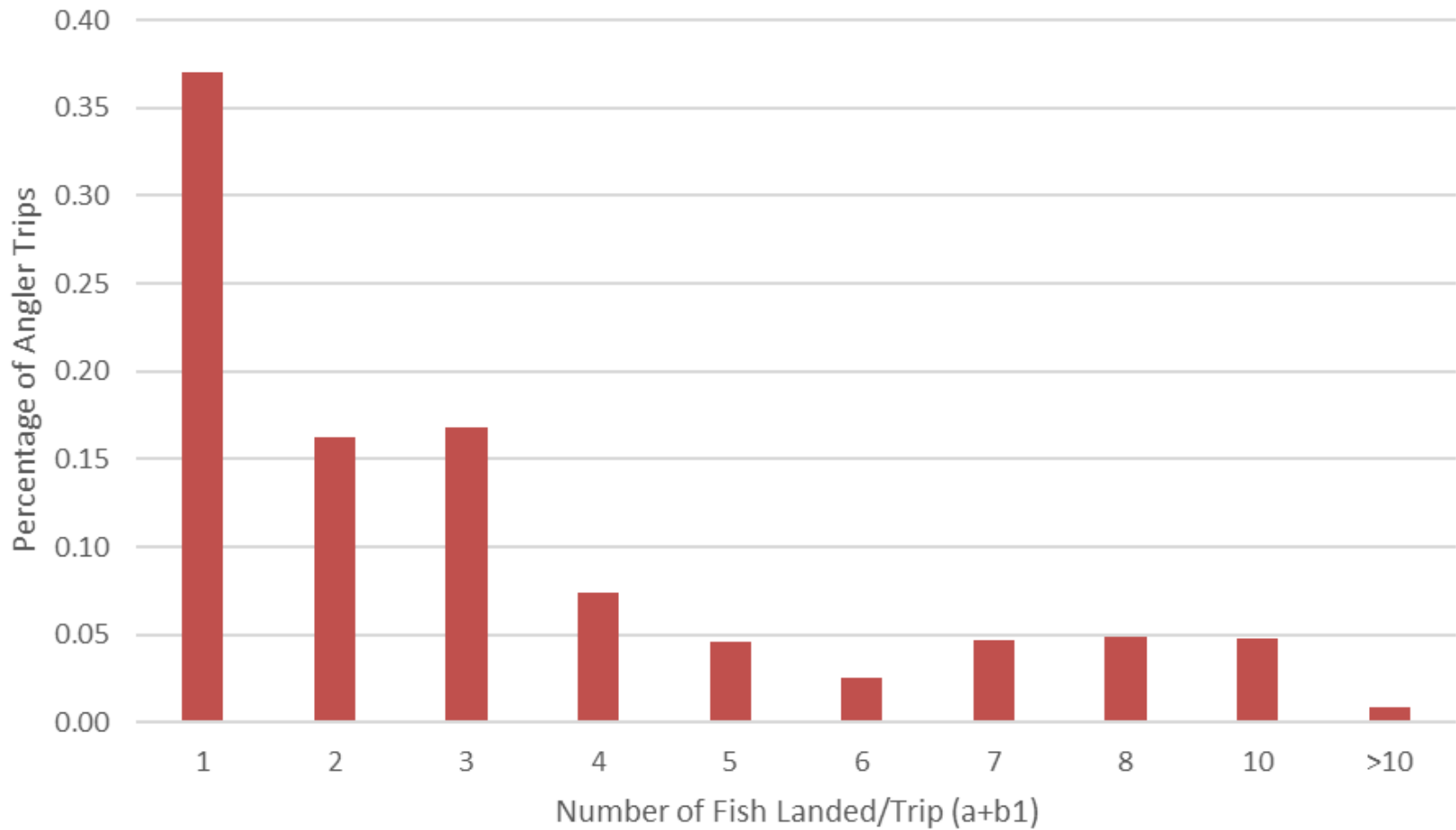
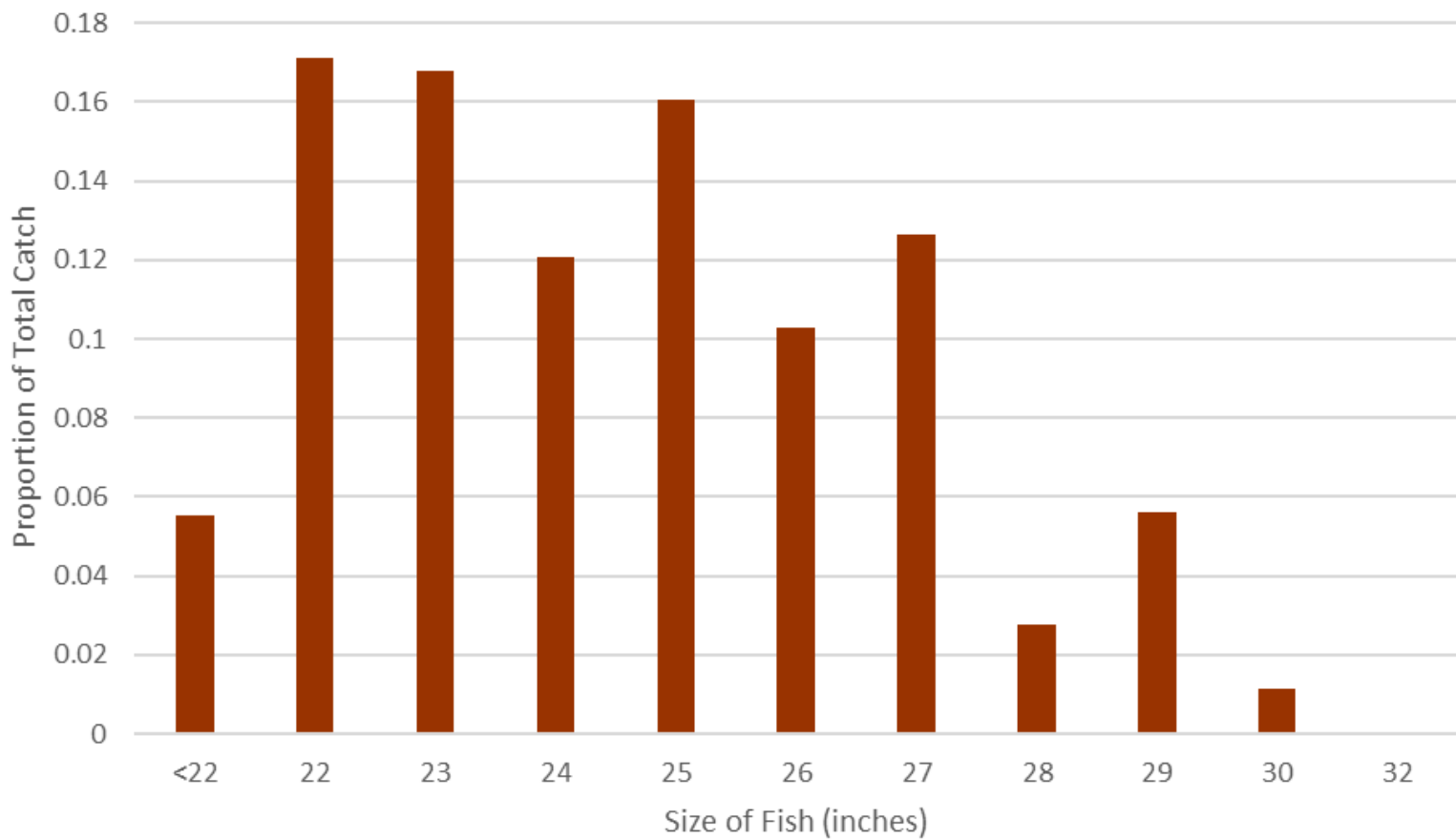


Figure 5. FY 2016 GB Recreational Cod Landings Size Frequencies



FY16 & FY17 to Date Active Party/Charter Permits

| FISHING_YEAR | FISHERY_GROUP | PERMIT_TYPE | VESSELS | TOTAL_TRIPS | GROUNDFISH_TRIPS |
|--------------|-----------------|--------------|------------|---------------|------------------|
| 2016 | PCHARTER | A | 25 | 1,486 | 691 |
| 2016 | PCHARTER | C or HA | 11 | 264 | 115 |
| 2016 | PCHARTER | D | 10 | 569 | 113 |
| 2016 | PCHARTER | I | 332 | 20,441 | 3,655 |
| 2016 | PCHARTER | TOTAL | 378 | 22,760 | 4,574 |
| 2017 | PCHARTER | A | 26 | 1,282 | 471 |
| 2017 | PCHARTER | C or HA | 11 | 251 | 52 |
| 2017 | PCHARTER | D | 8 | 425 | 71 |
| 2017 | PCHARTER | I | 288 | 16,641 | 2,289 |
| 2017 | PCHARTER | TOTAL | 333 | 18,599 | 2,883 |

- held permit at any time during fishing year
- total trips - landed any species
- groundfish trips - landed groundfish

FY16 & FY17 All Groundfish Party/Charter Permits

| AP_YEAR | FISHERY_PLAN | FISHERY_VESSELS | |
|---------|-----------------|-----------------|--------------|
| 2016 | MUL | A | 745 |
| 2016 | MUL | C | 14 |
| 2016 | MUL | D | 47 |
| 2016 | MUL | E | 48 |
| 2016 | MUL | F | 15 |
| 2016 | MUL | HA | 104 |
| 2016 | MUL | I | 661 |
| | 2016 MUL | TOTAL | 1,631 |
| 2017 | MUL | A | 705 |
| 2017 | MUL | C | 12 |
| 2017 | MUL | D | 42 |
| 2017 | MUL | E | 49 |
| 2017 | MUL | F | 12 |
| 2017 | MUL | HA | 103 |
| 2017 | MUL | I | 637 |
| | 2017 MUL | TOTAL | 1,557 |

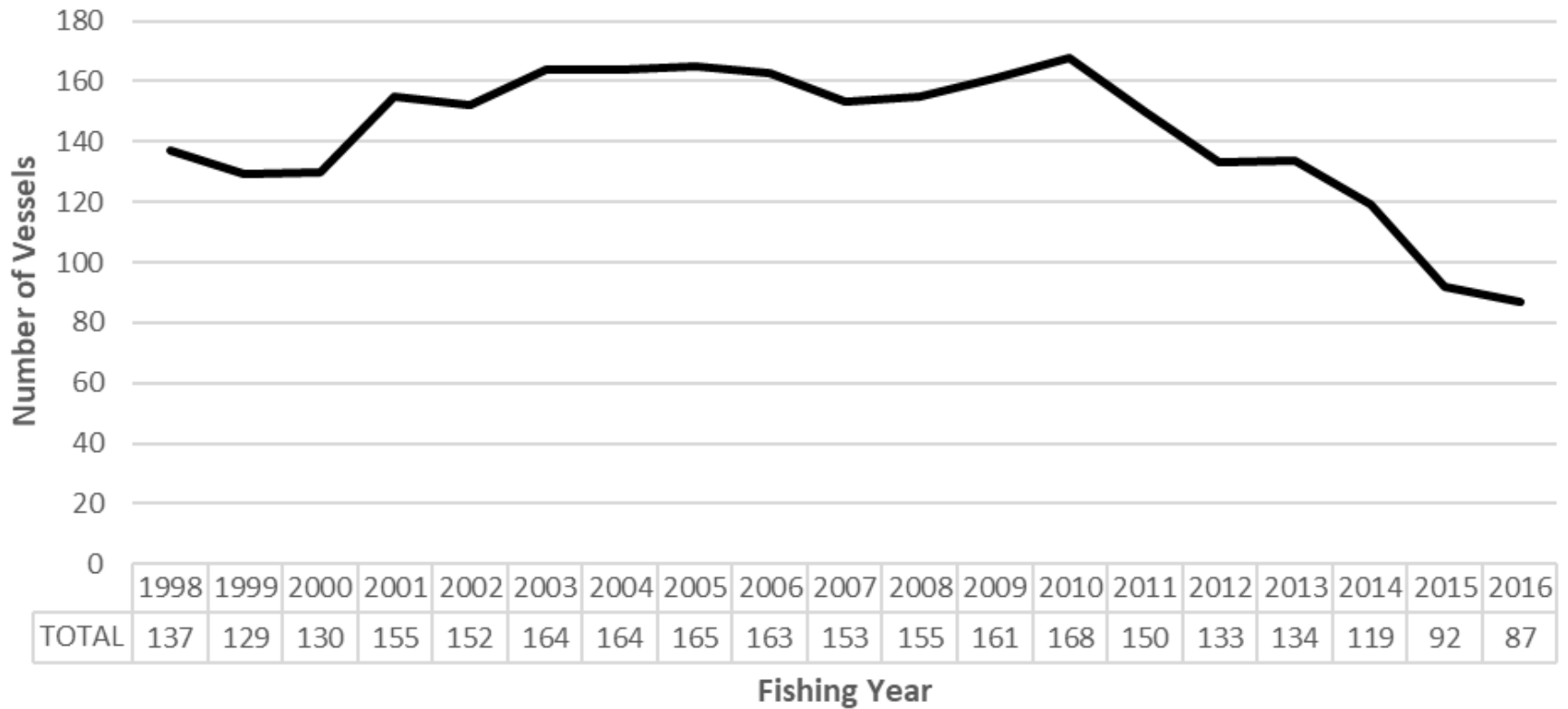
- held permit at any time during fishing year

Groundfish Party/Charter Permits on March 30, 2006

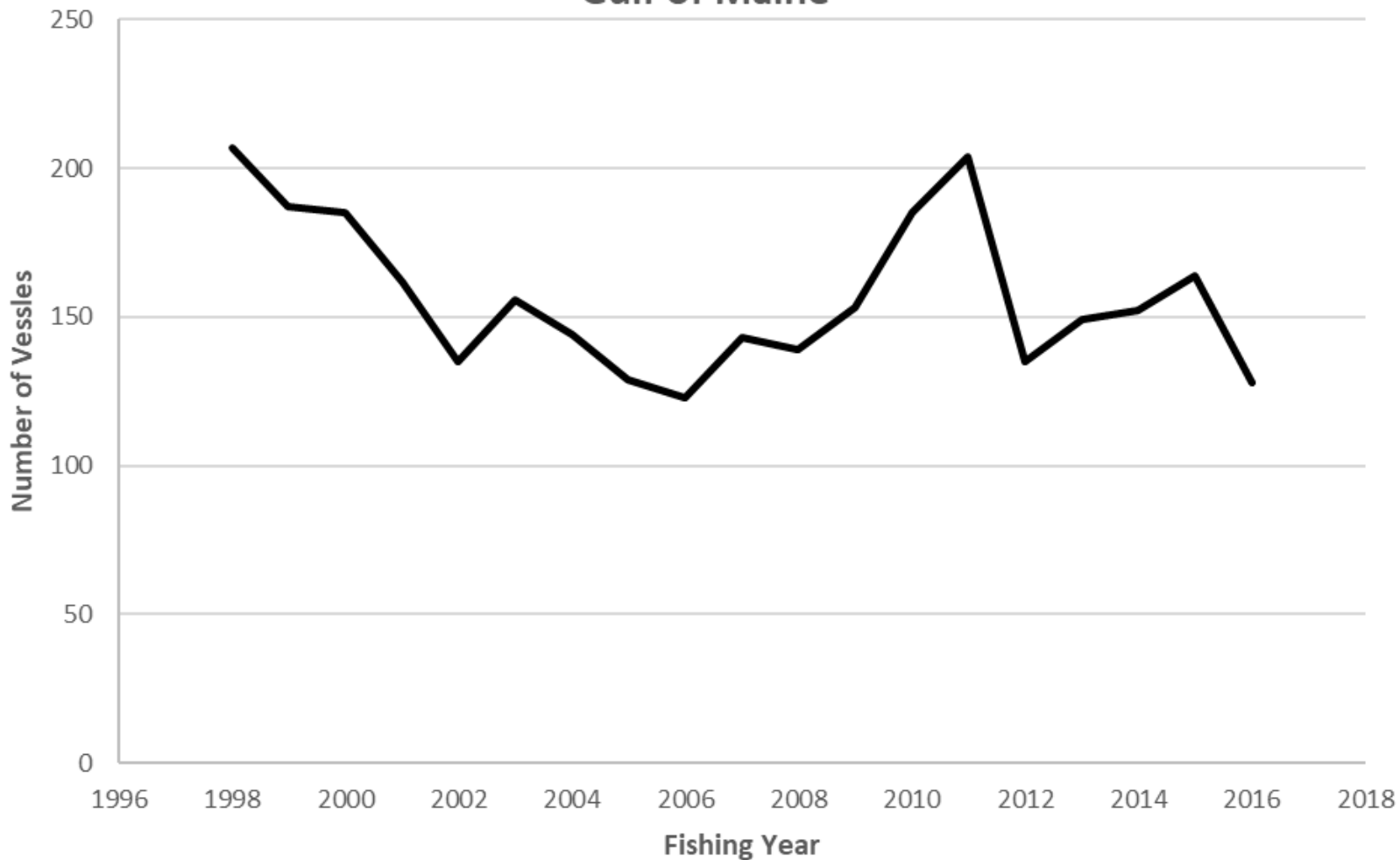
| AP_YEAR | FISHERY_PLAN | FISHERY_CAT | VESSELS |
|-------------|--------------|-------------|--------------|
| 2005 | MUL | A | 1,123 |
| 2005 | MUL | C | 8 |
| 2005 | MUL | D | 94 |
| 2005 | MUL | E | 46 |
| 2005 | MUL | F | 44 |
| 2005 | MUL | HA | 160 |
| 2005 | MUL | I | 696 |
| 2005 | Total | | 2,168 |

49 fishery category I permits were issued during FY17 to date to vessels which did not hold any multispecies permit during FY16

For-Hire Recreational Vessels Catching Cod or Haddock from the Gulf of Maine



For-Hire Recreational Vessels Catching Groundfish Outside the Gulf of Maine



List of 2018 Priorities

Council set 2018 priorities in December 2017

| <i>Legal/Regulatory Requirement- Annual</i> |
|--|
| • Set ABCs/ACLs for US/CA stocks |
| • Revise rebuilding plans as needed (ocean pout, GB winter flounder, witch flounder, GOM/GB windowpane flounder, and SNE/MA yellowtail flounder) |
| • Address Status Determination Criteria issue when analytic assessments fail |
| • Additional guidance on sector overages |
| • TRAC/TMGC |

List of 2018 Priorities

Annual

- Address allocation issues if raised by new MRIP data
- Get input on different ways to manage recreational fishery in light of highly variable catch estimates: for example, consideration of catch error estimates under MRIP, and errors in bioeconomic model used to determine measures
- Specify allocation review triggers
- Sector five-year review

Multi-Year

- ASM action/Amendment 23 (including work groups/workshops necessary and working group on how fishery dependent data can be used to inform stock abundance).
- Scope limited entry in groundfish party/charter fishery
- Cod Stock Structure Working Group