



New England Fishery Management Council

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MEETING SUMMARY

Groundfish Recreational Advisory Panel

Doubletree Hotel, Danvers, MA

February 19, 2014

The Recreational Advisory Panel (RAP) met on February 19, 2014 in Danvers, MA to: 1) discuss potential FY2014 proactive accountability measures (AMs) for the Gulf of Maine (GOM) cod and haddock stocks and, 2) review the alternatives in Habitat Omnibus Amendment 2 and impacts analysis in the draft Environmental Impact Statement (DEIS) of interest to the recreational fishery.

MEETING ATTENDANCE: Barry Gibson (Chairman), Mr. Michael Sosik (Vice Chair), Mr. Richard Bellevance, Mr. Tom DePersia, Mr. Jason Colby, Mr. Peter Gawne, Mr. Patrick Paquette, Mr. Jonathan Sterrit, Mr. Donald Swanson, Mr. William Tower, and Mr. Kevin Twombly; Mr. Andy Applegate, Ms. Michelle Bachman, Dr. Jamie Cournane, Dr. Fiona Hogan (NEFMC staff); Ms. Moira Kelly, Mr. Michael Ruccio, Dr. William Whitmore (NMFS GARFO staff); Mr. Frank Blount (Groundfish Committee Chair). In addition, approximately 15 members of the public attended.

KEY OUTCOMES:

- RAP recommended potential AMs for FY2014 for GOM cod and haddock stocks.
- RAP recommended alternatives under consideration in the DEIS of Habitat Omnibus Amendment 2.

AGENDA ITEM #1: GULF OF MAINE HADDOCK AND COD

PRESENTATION: RECENT GROUND FISH PDT ANALYSIS OF THE GOM HADDOCK STOCK (JAMIE COURNANE, GROUND FISH PDT CHAIR)

Staff presented a summary of recent Groundfish Plan Development Team (PDT) analysis of the Gulf of Maine (GOM) haddock stock. The PDT was tasked by the Groundfish Committee to examine the issue of Georges Bank (GB) haddock spillover –the very large GB stock likely to overflow into the GOM. If haddock spillover was occurring, there were concerns that the ACL would be exceeded from there being more fish available in the GOM than expected based on the stock assessment. The PDT completed a literature review, a consequence analysis and a year class analysis. The PDT was unable to provide a technical basis for adjusting the quota between

the GOM and GB haddock stocks. Based on the review of recent survey information, comparison of t+1 estimates, and consequence analysis, the PDT recommended no change to the current 2013-2015 ABCs/OFLs until the next assessment is available. A benchmark assessment for GOM haddock is scheduled for July 14-19, 2014 in Woods Hole, MA.

The commercial sub-ACL for FY2013 had not been exceeded at the time of the RAP meeting; however, the common pool had exceeded its sub-ACL.

PRESENTATION: GULF OF MAINE COD AND HADDOCK: REVIEW OF FY2013 BIOECONOMIC MODEL AND POTENTIAL AMs FOR FY2014 (SCOTT STEINBACK, NEFSC/SSB)

The RAP heard a presentation on potential Accountability Measures (AMs) for FY 2014 for GOM cod and haddock. Compliance for cod was assumed to be 100% as SSB staff was unsure how to incorporate non-compliance into the model; non-compliance rates were thought to be low based on how the data are collected. The model was used to develop measures for FY2013, however, they were now known to be an underestimate; the trip number was suspected of being the cause of the underestimate. The age data could explain why the model is underestimating haddock. Uncertainty in the model was big for cod but was very large for haddock.

Tables provided at the end of the document were used in the discussion. There was an increase in the number of angler trips between FY2012 and FY2013; the FY2013 data included waves 3, 4 and 5 with data from waves 2 and 6 in FY2012 used as proxies for FY2013. Cod catch numbers were similar between FY2012 and FY2013; the average cod catch per trip per angler did decrease in FY2013. There was approximately a 70% change in haddock catch. It was thought that the recreational fleet could be encountering more haddock. Kept haddock may have decreased because of the increase in minimum size. Haddock removals fell in terms of numbers but increased in terms of weight because larger fish were being kept in FY2013 overall. When examined by mode, head boat catch went up while harvest by charter boats declined mostly because of fewer trips. Private boat catch increased in FY2013.

It was unknown at the time of the meeting why the number of charter boat trips taken in FY2013 had decreased. Based on the data presented it seemed that charter boats were the least efficient in terms of catch per trip per angler, which was the opposite to expectations. However SSB staff disagreed with that summary and concluded that they were still the most efficient, but efficiency had declined the most in that group. It was noted that the data collection method changed between 2012 and 2013 in MA. It was hypothesized that the increase in private angler catch might be an artefact of this change and increased effort to interview private anglers and improving the data. Landings by state are available on the MRIP website.

The RAP was very concerned about the data and considered it to be incorrect based on drastic differences between years. Only MRIP data were used in this analysis; VTR may be used to identify where fishing is occurring. The 0% discard mortality assumption for haddock was also questioned but it was thought this might be examined during the upcoming benchmark assessment. If the discard mortality assumption was changed in the benchmark may increase the estimate population biomass.

A RAP member questioned whether a small number of trips were skewing the data and might result in unnecessary reductions e.g. in bag number. An analysis of percentage of trips with a high haddock catch or higher number of haddock above the average was proposed to determine if this was an issue. SSB staff performed that analysis when developing FY2013 measures and concluded that a very low bag limit was necessary to have an impact on mortality; there were a small number of trips were found to be catching 15-20 fish.

SSB staff clarified that there is a conversion factor that is applied to convert file weight to whole fish weight. Converted measurements were not used in the model. A RAP member was concerned that fork length was used in analyses while fishermen report total length of fish.

RAP members reiterated that there were issues with location information provided on VTRs as only one location is allowed on the VTR; fishermen will report only one location despite fishing in many different spots on one trip. Staff informed the RAP that location data were not used here but VTR data was compared to MRIP data to ensure they were showing the same trends.

SSB Staff did not rerun the model, as formulated for FY2014, to see if observed FY2013 trends could be predicted by the model.

Public Comment:

- Mike Pierdinock, Charter boat captain – I'm assuming that the charter boat/head boat data is based on VTR? So, you do dockside interviews as well as phone calls? With the private boat when you do the dockside intercepts or the phone calls do you do that the same months of the year for the private boat as you do for the charter boats and head boats? Is everybody getting called in April, March, and May and so on or is it selectively different during different times of the season. Is it April 16 through November 1? Are you making the same number of phone calls from a statistical standpoint from a charter boat, head boat, private boat standpoint? Is there an equal amount interviewed per month to generate these numbers?
- Rip Cunningham, former Council member – Just going back to question on release mortality, is the benchmark assessment going to look at that this year? Theoretically if there were a number comparable to what is being used for cod fish, doesn't that mean there would be a larger spawning stock biomass out there?

1. MOTION: MR. TWOMBLEY/MR. BELLAVANCE

The RAP recommends to the Groundfish OSC/Council that the GOM cod and haddock AMs remain at status quo regulations for the recreational fishery in FY2014.

Discussion on the Motion:

There was some support of the motion because of sectors; large draggers were allowed to fish further inshore and recreational fishermen were forced to go to the Western Gulf of Maine (WGOM) closed area to fish. Considering the uncertainty in the data, some RAP members considered it difficult to construct concrete measures. However, other RAP members wanted a

discussion on all potential measures, in case more restrictive measures were required so the RAP could have some input. The widespread distribution of the large year class of small haddock was thought to contribute to the non-compliance estimates.

There was some hesitation regarding the motion as it was thought the Council would not receive it well. The model results were followed for FY2013 but were unsuccessful; concern was raised that if no changes were made more restrictive measure might be required for FY2015 as none of the measures in the available model runs appeared to be able to achieve the sub-ACL for FY2014 and prevent another overage. GARFO staff did think status quo would be hard to justify and suggested prioritizing measures to be changed in order of preference.

SSB staff reiterated that to affect the mortality on haddock the bag limit was going to have to be pretty low; a 9 or 10 fish haddock bag limit was not going to be sufficient. The RAP requested more scenarios to be run that would provide better guidance on what measures were necessary to meet the sub-ACL. There was some preference for a change in minimum size as reduced size limits or changes to seasons might limit the ability to sell trips but others preferred season to change before minimum size. SSB staff investigated closing wave 2 entirely and it wasn't sufficient to achieve the sub-ACL without an overage.

A RAP member proposed constructing different limits for private anglers and for profit anglers. However, other RAP members felt that private and for profit anglers have equal rights to be on the water and were hesitant to develop separate measures. The RAP chair noted that the RAP has declined to develop such measures in the past but assured the RAP that if they were developed they would be conservational equivalents.

MOTION #1 TABLED 10-0-0.

2. MOTION: MR. BELLAVANCE/MR. DEPERZIA

The RAP recommends to the Groundfish OSC/Council that for GOM haddock and cod separate measures be considered for the for-hire and private anglers that are conservational equivalents.

Rationale: This was proposed as a priority. The maker of the motion intended cod and haddock to be covered in the motion.

The RAP chair reiterated that this concept has been debated for years and the RAP has always chosen not to pursue separate measures. Some RAP members were not in favor of separate measures because it was not clear what the benefits would be. A RAP member was opposed to the motion because it didn't include an economic analysis or identified who was responsible to pay for monitoring.

A RAP member proposed Option 5 in the SSB presentation as an option to move forward. SSB staff was unsure if the Regional Administrator (RA) would consider Option 5 to be sufficient. The Groundfish Committee chair noted the potential of Option 5, especially if effort is made to address non-compliance in the fishery.

Public Comment:

- Mike Pierdinock – I think this does somewhat address this. We're all saying this private boat data doesn't make any sense. If you take that data and see how it goes down FY 2011 to FY 2012, and if FY2013 isn't really representative of the conditions and take that same frequency as it reduces as a ratio, would we still have trouble with the haddock and the cod or are we looking at a better status? Can you do that now? Where do we stand with the numbers for the projections? We don't have VTR data for private vessels to validate it. Just want to make sure we're making sound decisions on sound science. It will impact a lot of people and doesn't seem like we have the information to do that. I would like to address that motion and I agree, and I hope it doesn't go down that road. I want to see good statistics be the basis for decisions and we don't have that.

Motion #2 FAILED 3-6-1.

3. MOTION: MR. PAQUETTE/MR. STERRIT

To recommend to the Council that recreational measures for FY2014 include the following: close all fishing for cod and haddock from November 1 through April 21, and reduce minimum size GOM haddock to 20 inches.

Rationale: The motion was intended to be brought forward to the Council.

3a. MOTION FRIENDLY AMENDED

To recommend to the Council that recreational measures for FY2014 include the following: close all fishing for cod and haddock from October 15 through April 15, and reduce minimum size GOM haddock to 20 inches.

SSB staff thought this might be a positive step but it was hard to predict if it would be sufficient; it would be difficult to model as it was not consistent with the wave dates which the model was constructed on. Reductions in the minimum size would allow smaller fish to be retained and potentially decrease the total weight retained but was thought to cause further compliance issues.

With regards to seasons, the fall might provide more effective conservation based on preliminary data showing over 100,000 fish caught in wave 5 (fall) and 0 in the spring. Caution was suggested in case the closure affected the April opening. Synchrony in the regulations for cod and haddock was suggested as a way to increase compliance. Some RAP members were opposed to any measures that would effectively shut the fishery down for 6 months, if regulations for cod and haddock were matched.

MOTION #3a FAILED 2-3-4.

4. MOTION: MR. TOWER/MR. PAQUETTE

The RAP recommends to the Groundfish Committee/Council that for GOM haddock for FY2014 to close wave 2 and adopt option 5 size limits (22 in cod and 22 in haddock).

Rationale – This would result in no haddock fishing in March or April. Hoping the benchmark will do something but we have to bring something to the Council. The numbers are not right for private boats but have to go with what we have.

RAP members were concerned with the 22 inch minimum size as it would increase discards; last year they caught a lot of 19-21 inch fish. There was interest in preserving the April 15 opening date. A RAP member thought this might be sufficient to pass and if the benchmark indicated a larger GOM haddock population. There was hope that the sub-ACL might be increased and the discard mortality assumption revised. Another RAP member again expressed frustration that the RAP didn't know what was necessary to prevent another overage. A subsequent motion that would prioritize the order in which measures should be applied to prevent an overage was proposed.

4a. MOTION FRIENDLY AMENDED

The RAP recommends to the Groundfish OSC/Council that 1) for GOM haddock for FY2014 to close wave 2 (March and April) and 2) adopt up to a 22 in minimum size cod and up to a 22 in minimum size haddock).

Standardization between regulations was not considered to be mandatory.

MOTION 4a CARRIED 9-1-0.

CONSENSUS STATEMENT:

That the RAP inform the council that it has serious concerns with the 2013 MRIP private recreational cod and haddock data on number of trips.

The RAP agreed that the private recreational angler data was highly uncertain.

Agenda item #2: Habitat Omnibus Amendment 2

Staff provided an overview of the management alternatives that were most likely to impact the recreational fishery. These included alternatives for the Central GOM closed areas, GOM groundfish spawning alternatives, GB spawning alternatives and Designated Habitat Research Areas (DHRAs) alternatives.

The RAP had a lot of questions regarding the Omnibus alternatives and associated impacts. The RAP requested clarification on how the conclusion was drawn that there would be no impact on charter boats in the closed areas; the RAP raised concerns regarding location data reported on VTRs earlier in the meeting. Staff did not consider the alternatives to have no impact on charter fishing at all but the analysis did find in the whole GOM there's a much smaller subset of vessels using this area. A RAP member considered the DHRAs to be one of the most used areas by recreational fishermen despite what was reported on VTRs. It was suggested that analyses would have been more informed if they relied on statistical area reported as opposed to coordinate positions provided on VTR.

Correspondence from the Stellwagen Bank Sanctuary was referenced in the discussion; the PDT and Closed Area Technical Team (CATT) used the same VTR data and should be relied on in RAP discussion. RAP members considered the map provided by the Sanctuary to be outdated as it was done in 2010 and was probably more accurate for bluefish and bass fishing.

The Council could choose from a variety of combinations of alternatives and the impacts on the recreational fleet would be dependent on that final combination. Potential outcomes include removal of the WGOM closed area, designation of a DHRA within the current WGOM closed area or allowing all Groundfish fleets to fish in the area. These outcomes are not definitive but are potential alternatives for the Council's consideration.

The DHRA was designed to answer scientific questions on the impacts gear has on the seabed as current understanding is incomplete. A RAP member considered lobster gear to have an impact on the seabed and that continued allowance of access to areas with lobster gear could affect science. Lobster gear was thought to catch a large amount of Groundfish; according to staff, an analysis of this was provided in the document. RAP members were highly concerned with the lobster pot issue and the assumption that lobster effort was low with little impact on the resource. Any potential future research in the DHRAs is not currently mandated but a peer review would be conducted on any paper that is published in scientific journals. With regards to the Whaleback area, it has been closed for a number of years and no solid conclusions can be made on its effectiveness.

Public Comment

- Charlie Wade, Stellwagen Bank Charter Boat Association – We have more than 130 charter boats in our association. There seems to be a lot of confusion over VTRs. I brought my VTR book today. We're all similar in how we treat these things. There's only one location that you can report at the end of the day. The data you get from one type of fishery might be actionable and others not. Charter boats move around a lot. The other problem is we're given instructions from the government on how to fill these out. If multiple areas are fished then pick the center point of miles of ocean. Think of a square, if I fish the corners then the center is miles from where I actually fished. To use those to close areas is ridiculous. VTR reports are good for some things and bad for others.
- Mike Pierdinock – This proposed closure is going to be the straw that breaks the camel's back. This is the last area that holds cod and bottom fish for us. As a result of the failed catch share system and the constant pounding that was mentioned earlier by the large draggers, we're left with the situation here that come April 15 we have to go directly to those grounds to find any fish. Back to pre-2010 when we had sustainable levels of fish, we'd head to the west bank, catch our cod and go home. As the water temperature increases we go further east and end up in the closure area. One thing that's missing that isn't in the data in addition to the fact that the VTRs are flawed is that the more recent data will show that April 16 we're out 350 ft of water all fishing because that's the only place you can find them. To have a DHRA either alternative 1 or alternative 2 would push us to go even further than we're already going. Many of our clients are unhappy with how far we have to go. It will have a detrimental impact on us.

- Craig McDonald - The VTR data within the Sanctuary is primarily day boats. Boats that go further offshore, there's a lot more variability in the positioning and how that data are recorded. Taking it at face value that fishermen are choosing a single point in their VTR repeatedly. What we've done is we've looked at all of the data, by mobile gear, by fixed gear, by charter and by part. For mobile gear we compared the observer data with the VTR data and found it varies in the areas of the Sanctuary by 2-6 percent, very acceptable. When we look at the mobile VMS gear and compared to VTR gear we found a low tolerance between the difference. I hear the same thing from the captains of the mobile gear and fixed gear fleets. What we have concluded that at the scale of the Sanctuary, at the scale of this proposal that the VTR data are valid, they are not precise but they are valid. They provide a very reasonable picture of where the fleet is operating. Within the Sanctuary we have the added advantage we have some of the most complete multi-beam data anywhere within the GOM. When we map the party/charter boat over the multi-beam data, we find that most if not all of the fishing is directed over hard bottom. Looking at VTR data, we're concluding that within the two reference areas on an annual basis there's up to 30 or so permits, more than half of those trips are made by 4 boats. When you look at the impact analysis done by the SSB and how many permits account they concluded that it's 5 boats. These 2 sets of analysis are separate. Our work is supplemental.

5. MOTION: MR. DEPERZIA/MR. TOWER

The RAP recommends to the Groundfish Committee/Council for the habitat omnibus amendment 2 the selection of the no action alternative in the GOM area as preferred.

Staff informed the RAP that the current WGOM closed area is actually 2 areas: a mortality area that was designated in 1998 that was overlaid with a habitat closure designated in Amendment 13. If the RAP wanted to maintain the WGOM Groundfish closed area then they should recommend no action.

Public Comment

- Greg Cunningham, Conservation Law Foundation – I just want a point of clarification. It sounded like the motion intended to be related to the WGOM sub-region but as written it's more to the full GOM. I just hope it's clear to everyone that there are 3 sub-regions in the DEIS, western, central, eastern. This might suggest that the motion intends to apply to all 3 of those when I thought I heard you say you only wanted to aim it at the western area.
- Mike Pierdinock –that should say WGOM. If we go to page 26 it's WGOM. This no action alternative should be for WGOM

5a. MOTION FRIENDLY AMENDED

The RAP recommends to the GF OSC/Council for the Habitat Omnibus Amendment 2 the selection of alternatives that 1) maintain the WGOM Groundfish closure and 2) for DHRA alternatives – No Action – in the GOM Area as preferred.

A RAP member wanted to target the overall issue rather than just where recreational fishery is executed. The RAP debated the best construction of the motion that would best reflect RAP intent. A RAP member was strongly opposed to any changes to the WGOM closed area and strongly supported alt 1 no action to the proposed habitat protection measures being considered by the NEFMC.

Public Comment

- Greg Cunningham – The document is broken down by sub-region. You might want to make this your separate WGOM sub-region motion and have one for the central region and another area that has 2 new proposals. It does meet what you want to do but it doesn't address other areas.
- Mike Pierdinock – If you take the DHRA out then they could kick the DHRA in, which is the No Action for habitat so you need both.

MOTION 5a CARRIED 8-0-0.

6. MOTION: MR. TOWER/MR. PAQUETTE

The RAP recommends to the Groundfish Committee/Council for the Habitat Omnibus Amendment 2 the selection of alternative that maintain the Cashes Ledge Groundfish /habitat closure and Jeffreys Bank habitat closures as preferred.

MOTION #6 CARRIED 8-0-0.

7. MOTION: Mr. TOWER/MR. PAQUETTE

The RAP recommends to the Groundfish Committee/Council for the Habitat Omnibus Amendment 2 the selection of alternatives that maintain the Closed Area I and II as preferred.

The RAP was concerned this motion would not be well received by the Council but since it was a separate motion the Groundfish Committee could move forward with the previous two motions only.

MOTION #7 CARRIED 6-1-0.

The RAP decided against making a motion regarding Platt's Bank and making it a habitat area with mobile gear restrictions. Platt's bank is currently open to any type of fishing. The SASI model identified it as having hard bottom that's vulnerable. However, the RAP did not want to restrict commercial fishing and was in favor of allowing smaller boats to continue to access this area.

Spawning alternatives are addressed in a separate section of the Omnibus Amendment with regional alternatives for GOM and GB. Groundfish Committee intends to target spawning areas

and recreational gear could be included into what evolves as spawning alternatives based on large existing closures. There is an alternative that mirrors the MA bay spawning closure.

8. MOTION: MR. PAQUETTE/MR. TOWER

The RAP recommends to the Groundfish Committee/Council for the Habitat Omnibus Amendment 2 the designation of the Massachusetts Bay Cod Spawning Area as preferred.

MOTION #8 CARRIED 5-0-1.

9. MOTION: MR. STERRIT/MR. TOWER

That we recommend that recreational vessels are exempted from the rolling closures.

A RAP member was hesitant to support this but recreational vessels area already exempted from the closures.

9a. MOTION FRIENDLY AMENDED

The RAP recommends to the Groundfish OSC/Council for the Habitat Omnibus Amendment 2 that recreational vessels continue to be exempted from the rolling closures as preferred (either through No Action or Alternative 2A).

Staff advised that the RAP could add that continue to be exempted through no action or alternative 2a but there are elements of alternative 2 that the RAP doesn't support. There aren't any alternatives being considered that would completely eliminate the rolling closures.

MOTION #9a CARRIED 6-1-0.

Meeting adjourned at 4:53pm.

GOM Cod and Haddock Catch and Effort Tables
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Table 1. Gulf of Maine Recreational Catch Estimates by Fishing Year			
	FY2011	FY2012	FY2013 ²
Angler Trips ¹	234,042	182,999	225,624
Cod Catch (numbers, a+b1+b2)	1,389,408	876,655	879,366
Cod Kept (numbers, a+b1)	509,789	338,353	325,369
Cod Released (numbers, a+b1)	879,619	538,302	553,997
Cod Removals (numbers, a+b1+(0.3*b2))	773,085	486,859	491,568
Cod Removals (weight, mt)	2,116	702	706
Cod Avg. Catch Per Trip (numbers)	5.9	4.8	3.9
Cod Avg. Kept Per Trip (numbers)	2.2	1.8	1.4
Cod Avg. Released Per Trip (numbers)	3.8	2.9	2.5
Cod Avg. Weight of Kept Fish		3.8	4.0
Haddock Catch (numbers, a+b1+b2)	184,709	369,427	654,227
Haddock Kept (numbers, a+b1)	142,410	166,610	146,976
Haddock Released (numbers, a+b1)	38,352	202,817	507,251
Haddock Removals (numbers, a+b1)	146,042	166,610	146,976
Haddock Removals (weight, mt)	231	211	256
Haddock Avg. Catch Per Trip (numbers)	0.8	2.0	2.9
Haddock Avg. Kept Per Trip (numbers)	0.6	0.9	0.7
Haddock Avg. Released Per Trip (numbers)	0.2	1.1	2.2
Haddock Avg. Weight of Kept Fish	3.6	2.8	3.8
¹ Angler trips = number of trips that targeted and/or caught cod or haddock			
² Data available for wave's 3, 4, and 5 in FY2013. Data from wave's 2 and 6 in FY2012 used as proxies for FY2013.			

GOM Cod and Haddock Catch and Effort Tables
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Table 2. Gulf of Maine Cod Catch by Fishing Year and Mode (numbers of fish)									
Mode	Harvest (a+b1)			Released (b2)			Total Catch (a+b1+b2)		
	FY2011	FY2012	FY2013 ¹	FY2011	FY2012	FY2013 ¹	FY2011	FY2012	FY2013 ¹
Headboat	64,538	51,577	88,143	93,607	67,827	90,457	158,145	119,404	178,600
Charterboat	254,564	132,523	37,143	363,599	121,403	60,867	618,163	253,926	98,010
Privateboat	192,676	154,253	200,083	420,423	349,073	402,422	613,099	503,326	602,505
Shore	0	0	0	0	0	252	0	0	252

¹Data available for wave's 3, 4, and 5 in FY2013. Data from wave's 2 and 6 in FY2012 used as proxies for FY2013.

Table 3. Gulf of Maine Haddock Catch by Fishing Year and Mode (numbers of fish)									
Mode	Harvest (a+b1)			Released (b2)			Total Catch (a+b1+b2)		
	FY2011	FY2012	FY2013 ¹	FY2011	FY2012	FY2013 ¹	FY2011	FY2012	FY2013 ¹
Headboat	29,885	29,306	31,406	3,364	43,165	157,537	33,249	72,471	188,944
Charterboat	61,080	76,391	28,726	19,397	37,268	46,969	80,477	113,659	75,695
Privateboat	54,977	60,913	86,844	15,906	122,384	302,744	70,882	183,296	389,589
Shore	0	0	0	0	0	0	0	0	0

¹Data available for wave's 3, 4, and 5 in FY2013. Data from wave's 2 and 6 in FY2012 used as proxies for FY2013.

Table 4. Gulf of Maine Angler Trips ¹ by Fishing Year and Mode			
Mode	Angler Trips		
	FY2011	FY2012	FY2013 ²
Headboat	48,682	52,950	68,707
Charterboat	48,545	34,159	13,330
Privateboat	135,996	95,890	143,336
Shore	819	0	252

¹Angler trips = number of trips that targeted and/or caught cod or haddock

²Data available for wave's 3, 4, and 5 in FY2013. Data from wave's 2 and 6 in FY2012 used as proxies for FY2013.