NOAA FISHERIES

Office of Sustainable Fisheries

Draft Three-Year Review of Individual Bluefin Quota (IBQ) Program

September 5 & 6, 2018

Highly Migratory Species Advisory Panel Meeting

Three-Year Review of IBQ Program- Intro

Formal Review of the IBQ Program pursuant to MSA requirement for periodic review of catch share programs

Purpose of 3-Year Review

- Describe and analyze the impacts of the IBQ Program, 2015 – 2017, since the "baseline" period (2012 – 2014; prior to implementation)
- Determine whether, and to what degree the objectives of the IBQ program (and MSA) have been met due to implementation of the program
- Evaluate components of the catch share program

Three-Year Review of IBQ Program- Intro

Timing of 3-Year Review of IBQ Program

- March 2018 – Preliminary data presented to AP
- Fall 2018 – Exec. summary and presentation; AP input
  - Draft document available soon; AP Input
- Spring 2019 – Final document

IBQ Program Objectives

- Provide strong incentives for vessel owners and operators to avoid bluefin interactions and thus reduce dead discards
- Provide flexibility in the quota system to enable vessel operators to obtain needed IBQ allocation from other vessels, enable full accounting for landings and dead discards, and minimize effects on fishing for target species (e.g., swordfish)
- Balance the objective of limiting landings and dead discards with the objective of optimizing fishing opportunities and maintaining profitability
- Balance above objectives with potential impacts on directed permit categories that target bluefin, and broader objectives of the FMP and MSA

Limit the amount of bluefin landings and dead discards

Objective Achieved:

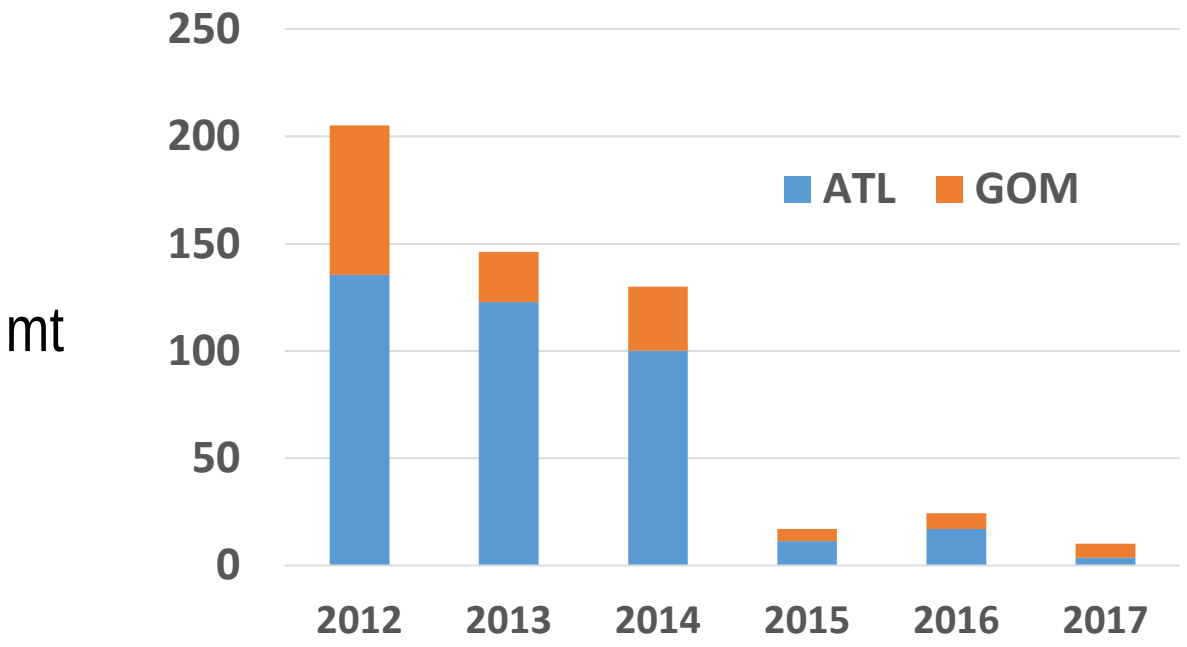
- Total bluefin catch declined, and is substantially less than the amount of quota allocated to the Longline category for bluefin tuna bycatch;
- Number of vessels landing bluefin declined (and percentage of active vessels landing bluefin declined);
- Dead discards declined dramatically:
- Dead discard CPUE declined;
- Decreased numbers of bluefin interactions on observed trips;
- Proportion of total landings from Gulf of Mexico declined

Limit the amount of bluefin landings and dead discards – cont.

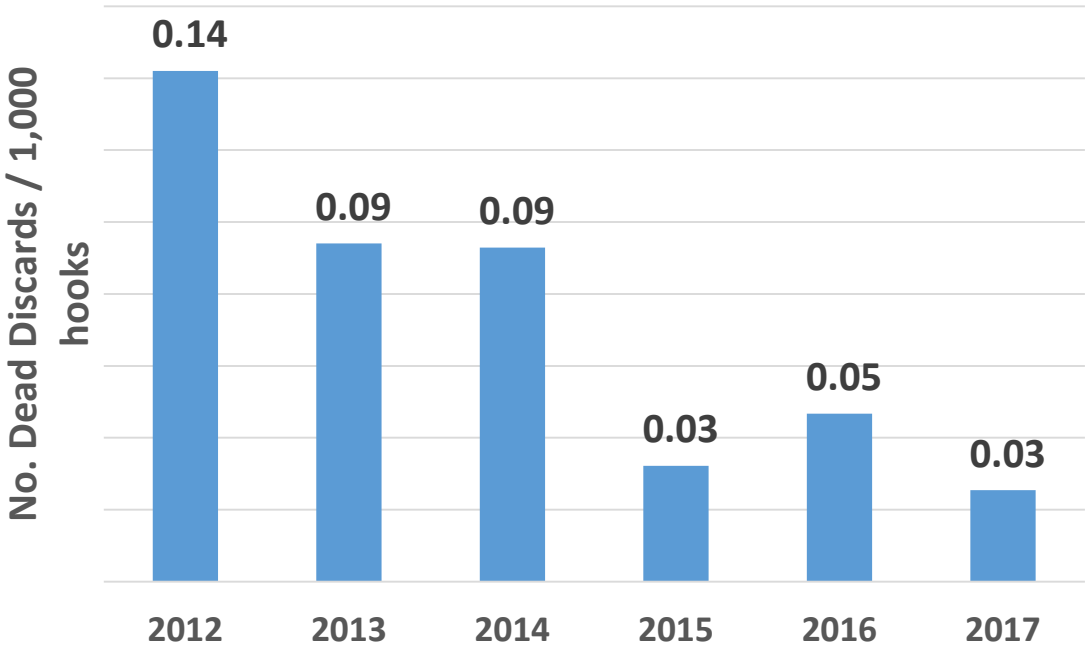
Additional patterns noted:

- Distribution of bluefin landings among the fleet changed; more vessels landing zero bluefin; some vessels landing more bluefin (dead discards converted to landings)
- Seasonality of bluefin landings shifted from first six months of year, to all year long, with a peak in summer;
- Increased landings from NED

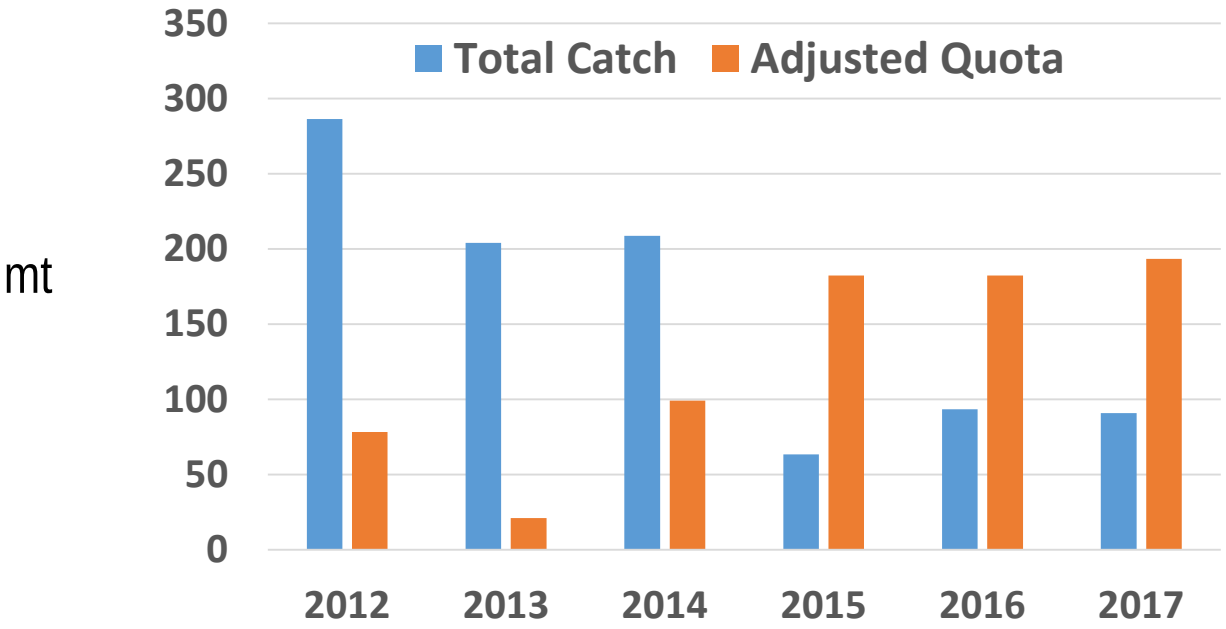
Bluefin dead discards (mt) in Atlantic and Gulf of Mexico by Year



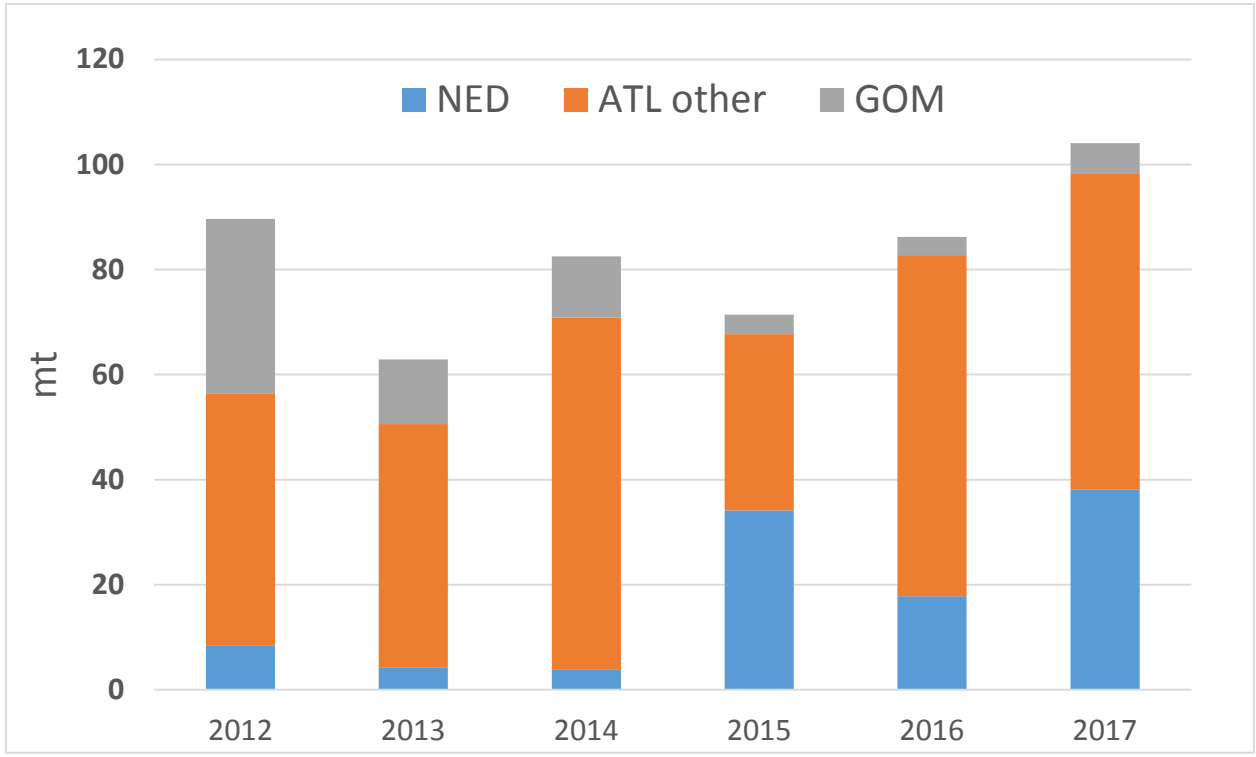
Dead Discards (number) per Unit Effort (CPUE), All Areas (2017 data preliminary)



Total Bluefin Catch (Landings and Dead Discards) and Adjusted Quota (mt) (not including NED)

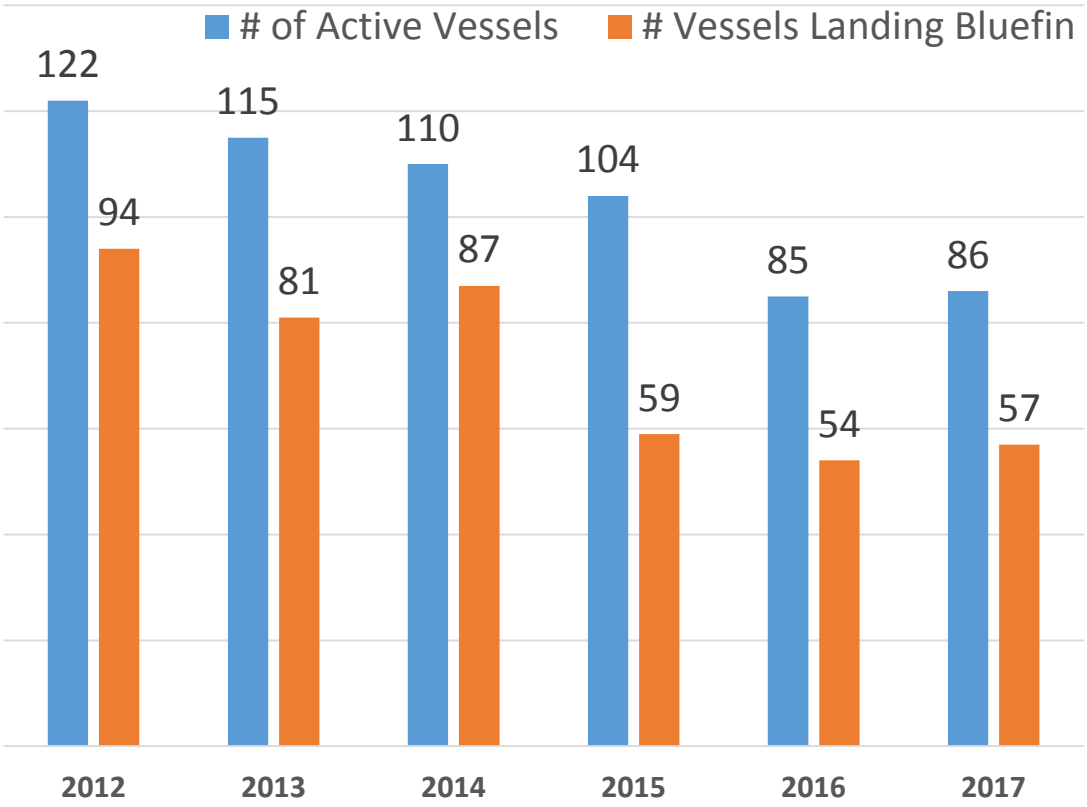


Bluefin Landings by Area (mt), Including NED



Note regarding related data: No increase in fishing effort in the NED during 2015 through 2017 compared to baseline

Number of Active Vessels and Vessels Landing Bluefin



Year	% of Active Vessels Landing Bluefin
2012	77%
2013	70%
2014	79%
2015	57%
2016	64%
2017	66%

Landing based on Dealer Data, # Active Vessels based on Logbook Data 2012 to 2015; Logbook and VMS data for 2016 - 2017

Provide Incentives to Avoid Bluefin

Objective Achieved:

- Total bluefin catch declined;
- Percentage of active vessels landing bluefin declined;
- Percentage of active vessels with no interactions increased;
- Change in seasonality of bluefin landings

Provide flexibility in the quota system to enable pelagic longline vessels to obtain bluefin quota from other vessels with available IBQ in order to enable full accounting for bluefin landings and dead discards, and minimize constraints on fishing for target species

Objective Achieved:

- Participation in the IBQ leasing market (substantial and increasing participation, decreasing average price of leased IBQ);
- In-season allocations of IBQ to vessels to facilitate IBQ leasing
- Regulatory changes (i.e., authority to distribute in-season allocation to only active vessels; quarterly accountability in 2018)

Summary Data on IBQ Leases by Year

Year	Total lb Leased	# Transactions	# Unique Participants (lessors and lessees)	% of Active Vessels Leasing
2015	126,407	49	44	42%
2016	141,183	81	63	74%
2017	152,050	85	52	60%

Price per Pound of Leased IBQ (weighted average) and Average Ex-Vessel price of Bluefin (from pelagic longline vessels)

Year	Weighted Average Lease Price	Bluefin Average Ex-Vessel Price*	# Transactions used to Calculated Lease Price	Total # of Lease Transactions
2015	$ 3.46	$ 4.01	14	49
2016	$ 2.52	$ 4.08	45	81
2017	$ 1.67	$ 3.99	27	85

*Round weight ex-vessel price, not including Purse Seine data; leasing price including purse seine.
Lease price not including zeros; Less than one half of lease transactions provided data on lease price. 2015: 2016: 2017:

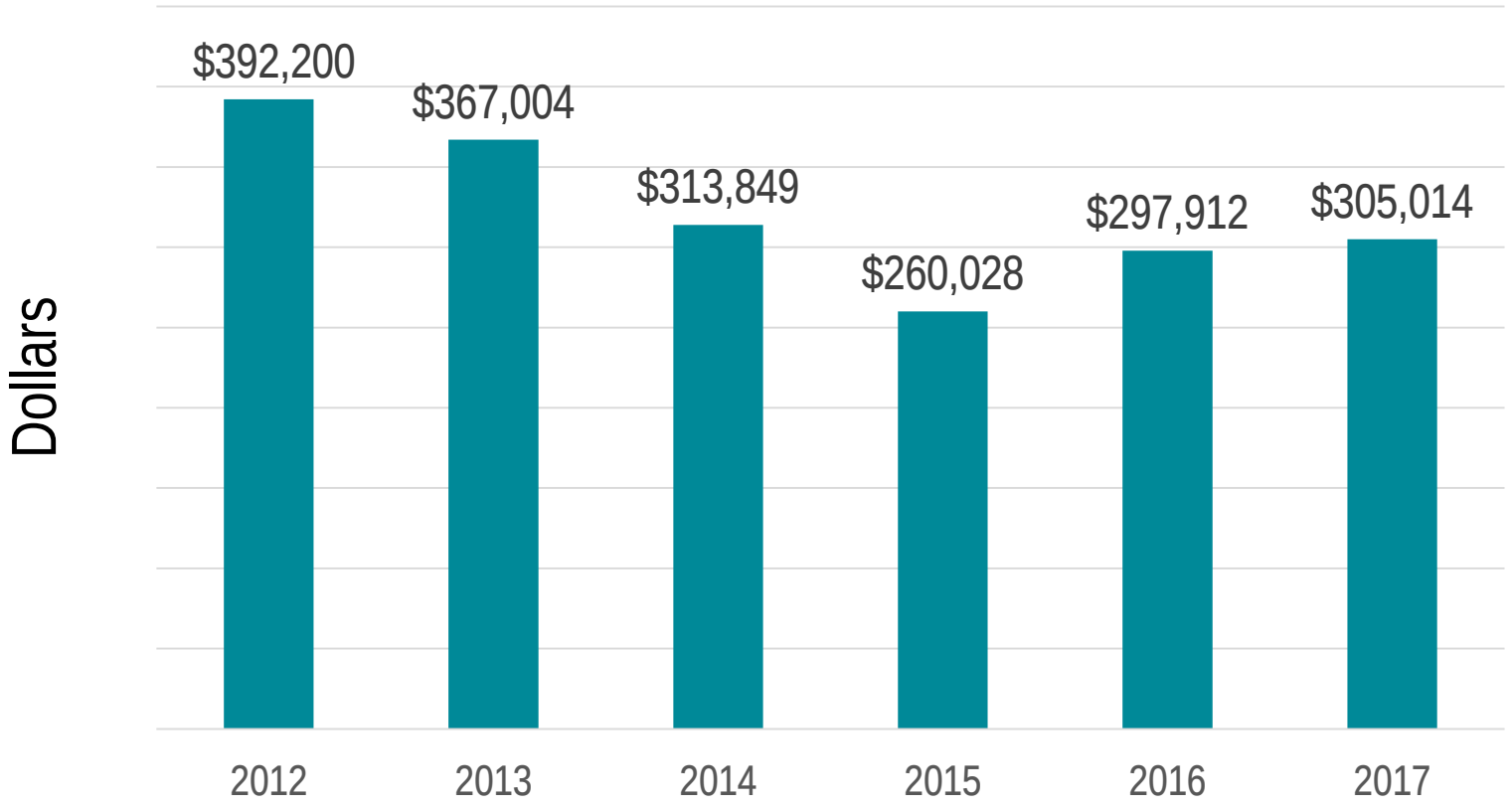
Balance the objective of limiting bluefin landings and dead discards with the objective of optimizing fishing opportunities and maintaining profitability

Objective Partially Achieved*:

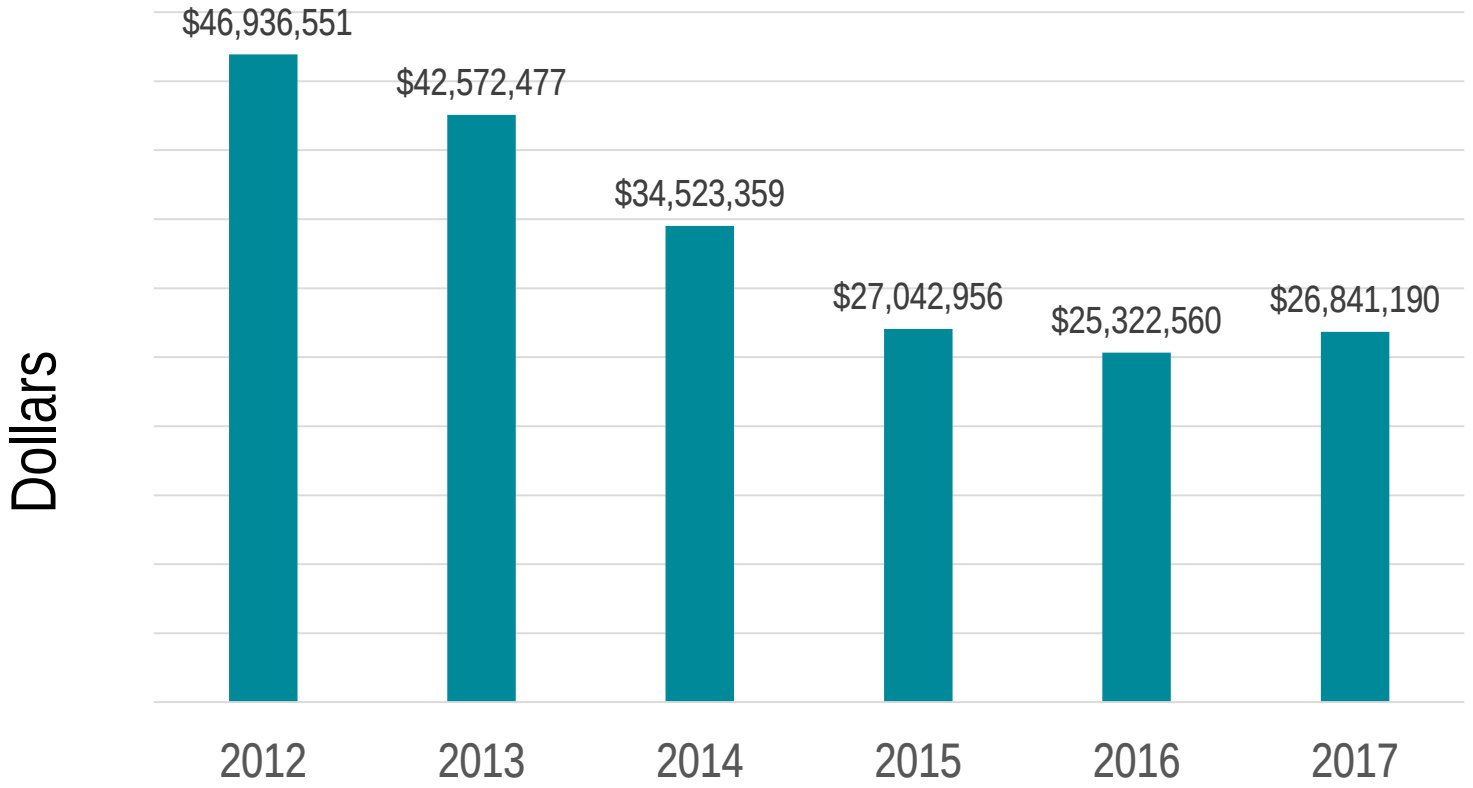
- Annual total revenue appears to be stable compared to baseline period;
- Increase in average annual revenue per active vessel from 2015 to 2017;
- Average Trip Operating Income (proxy for profit) during IBQ Program higher than or equal to baseline period;
- Long term trend of declining target species fishing effort slowed under IBQ program
- Total revenue and effort remains substantially lower than the base years although multiple factors contribute

*It is difficult to determine the scope and importance and role of the IBQ Program in the overall 'health' of the pelagic longline fleet, given the importance of other factors/variables to the fishery, including swordfish imports, other regulations such as closed areas, as well as target species availability

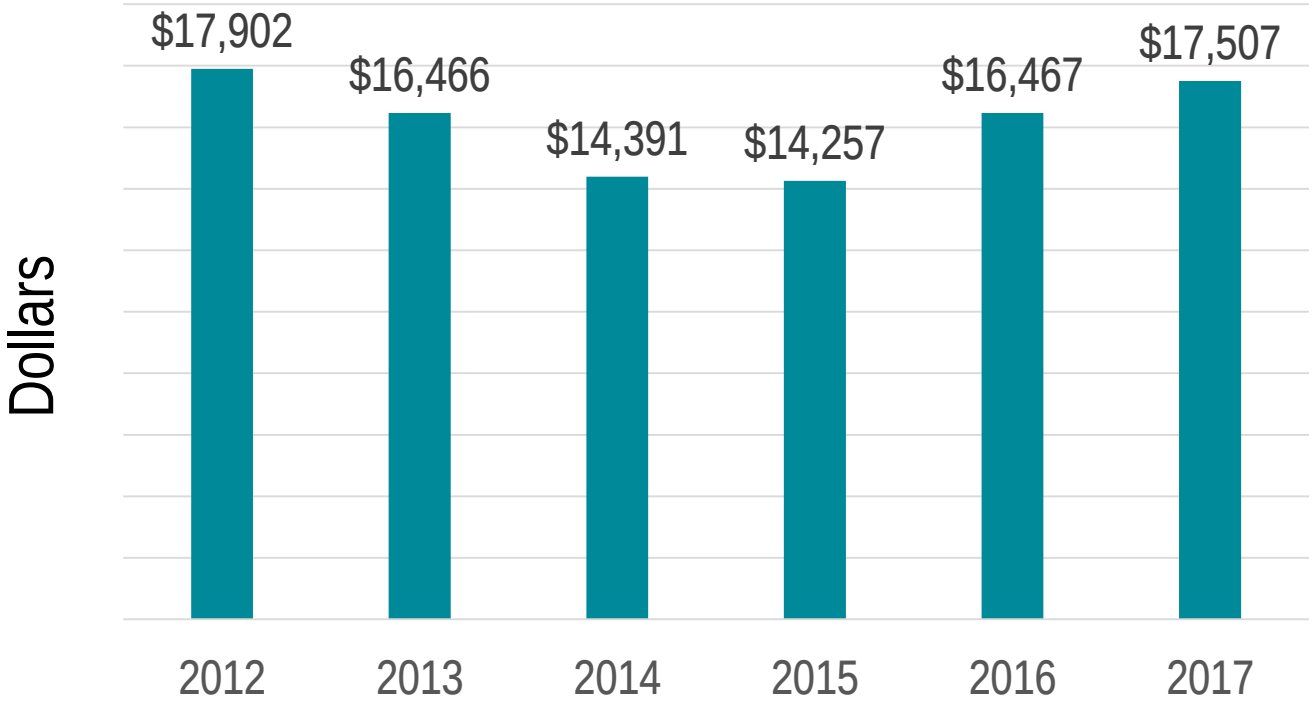
Average Revenue per vessel



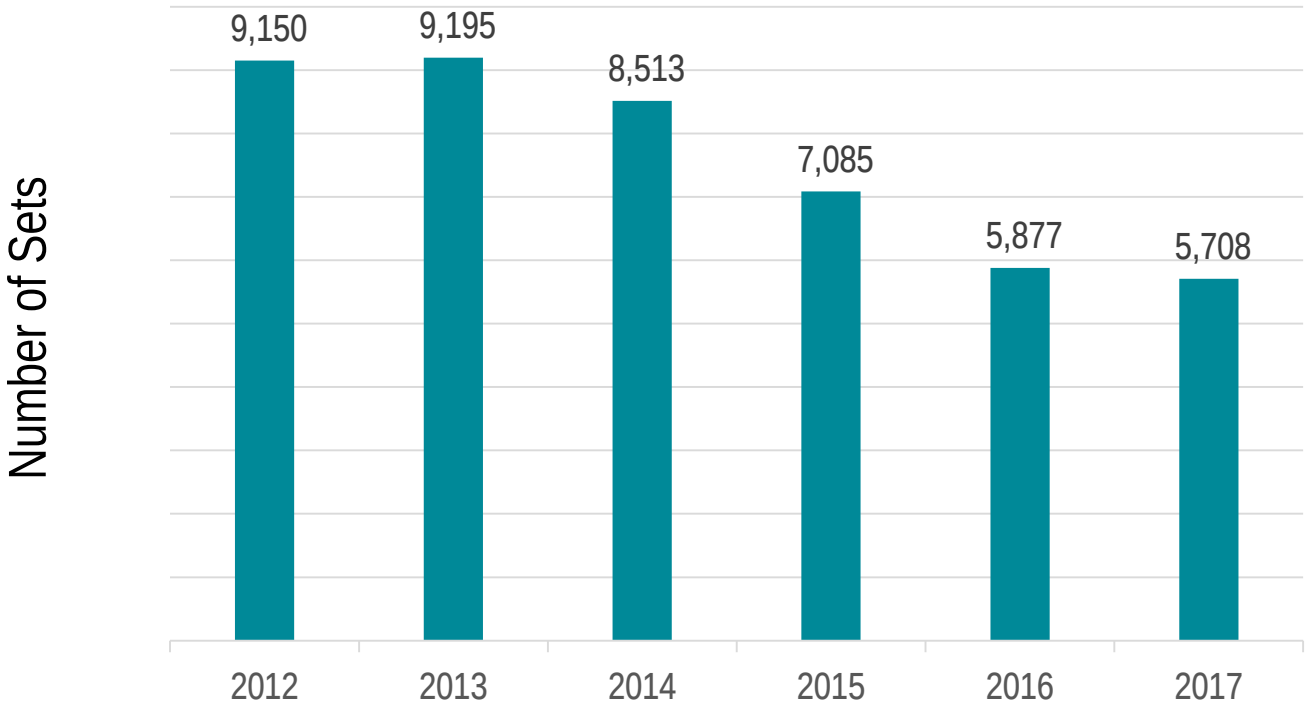
Total Revenue



Average Trip Operating Income (revenue minus expenses)



Fishing Effort – Number of Pelagic Longline Sets; (January through October)



Balance the above objectives with potential impacts on the directed permit categories that target bluefin tuna, and the broader objectives of the 2006 Consolidated HMS FMP & MSA

Objective Achieved:

- Longline category no longer exceeded its bycatch quota and therefore is not dependent on non-longline quota. Prior to the IBQ Program (under-harvest of directed categories and carry-forward was used to account for Longline category dead discards estimates);
- In-season transfers of bluefin quota from Reserve to both incidental and directed quota categories;
- Some impacts on dealers: The number of dealers purchasing bluefin from pelagic longline vessels declined, and the amount of bluefin handled by the top bluefin dealers increased.

Evaluation of IBQ Program Components*

- Allocations;
- Accountability rules;
- Eligibility;
- Catch and Sustainability;
- Accumulation Caps;
- Data Collection, reporting, monitoring and enforcement;
- Duration;
- New entrants;
- Auctions and royalties;
- Cost recovery

*Standard components of a catch share program, based on NOAA guidance; Not all components summarized in this presentation; All components will be discussed in draft 3-year review document

Allocations

- Vessels were able to account for bluefin tuna catch using a combination of allocations and leased IBQ;
- The total amount of IBQ allocation was sufficient to account for bluefin catch and contribute to the functioning of the IBQ leasing market. Still some concerns regarding availability early in the season;
- The amount of IBQ allocation (high, medium, or low) mattered, as evidenced by the different metrics associated with the three IBQ share tiers (e.g., amount of bluefin landed by each tier, numbers of vessels leasing, percent of total leased IBQ, percent of total quota debt, etc);

Allocations - continued

- The design principle stated in Amendment 7 (that the IBQ allocation be used by active vessels to account for bluefin), was only partially achieved, given the number of shareholders that were inactive;
- A tiered system of allocation of catch shares based on historical catch, which is typical of many catch share programs, may have limited relevance or disadvantages when implemented in the context of a bycatch quota catch share program (e.g., perceived unfairness, distribution of allocation may not represent distribution of catch, etc.);
- Given the number of shareholders that were inactive, and the total number of active vessels, a simpler allocation system based on active vessels could be considered again, as has been suggested by HMS Advisory Panel members.

Accountability Rules

- The different accountability rules provided varying degrees of flexibility for vessel operators and shareholders, which were reflected in the amount and timing of quota debt, and in the patterns of IBQ leasing.

- Under quarterly accountability the average time between accrual of quota debt and resolution of quota debt went up slightly, and there was a higher ratio of quota debt to landings;

- Quarterly accountability may represent the best balance between the amount of flexibility provided to vessel owners and important considerations regarding an accountability system that works. Such considerations include an accountability system that maintains strong incentives to avoid interactions with bluefin, takes into account the dynamics of the IBQ leasing market, and reflects the diversity of the PLL fishery

Eligibility Criteria

- The eligibility criteria resulted in a larger pool of eligible vessels (shareholders) than the number of active vessels during the IBQ Program;
- The eligibility criteria appears to not have been excessively restrictive, as indicated by the small number of active vessels without shares (6 vessels).

Data Collection, Reporting, Monitoring, and Enforcement

- IBQ records on landed bluefin were cross-checked against dealer records to ensure that all bluefin landed were accounted for in the IBQ system;
- The compliance with the VMS reporting requirement increased over time, based on comparisons to dealer data (landings), and logbook data (number of sets);
- During 2018, NMFS automated the process (connecting the VMS database to the IBQ database) so that the VMS-reported data on dead discards 'automatically' results in accounting for the dead discards in the IBQ system;
- Electronic monitoring (EM) program able to verify vessel-reported data on bluefin tuna; No instances where a vessel was prohibited from taking a fishing trip due to a non-functioning EM system, and only a couple of cases where a trip was slightly delayed or waivers requested.

New Entrants

- The IBQ Program does not appear to preclude new entrants, nor presents unreasonable barriers to new entrants;
- Six active vessels were not shareholders, and 5 new entities that were shareholders were active in the fishery;
- The cost of an Atlantic Tunas Longline permit (and other required limited access permits, for non-permit holders) appears to be a greater barrier to entry than any particular aspect of the IBQ Program;
- To date, NMFS has incurred the cost of installation for all new electronic monitoring systems for new entrants (future ability depends on appropriate funding)

Cost Recovery

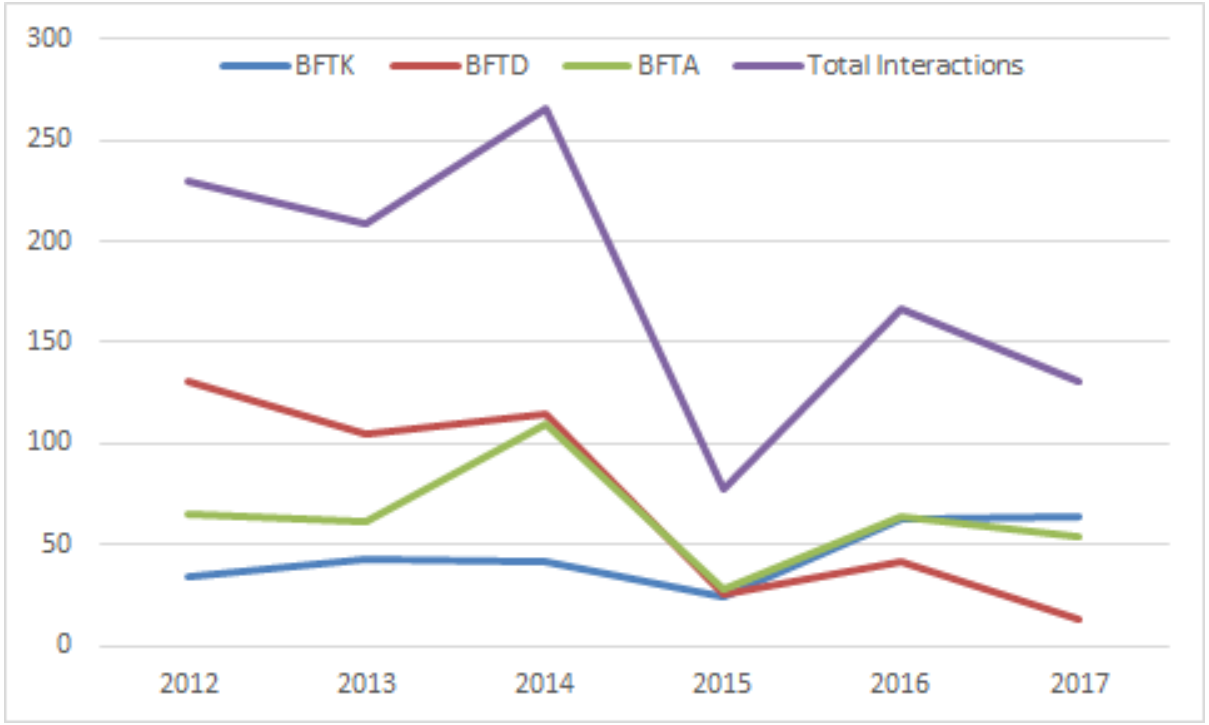
- The total ex-vessel value of bluefin bycatch landed by the pelagic longline fishery is relatively low;
- Therefore, the maximum recoverable amount from the fishery under a cost recovery program may also be low (and constrained by MSA at a maximum of 3% of the ex-vessel value of bluefin);
- The costs associated with annual implementation of a cost recovery program for a bycatch species may equal or exceed the recoverable costs

- END OF PRESENTATION -

ADDITIONAL DATA

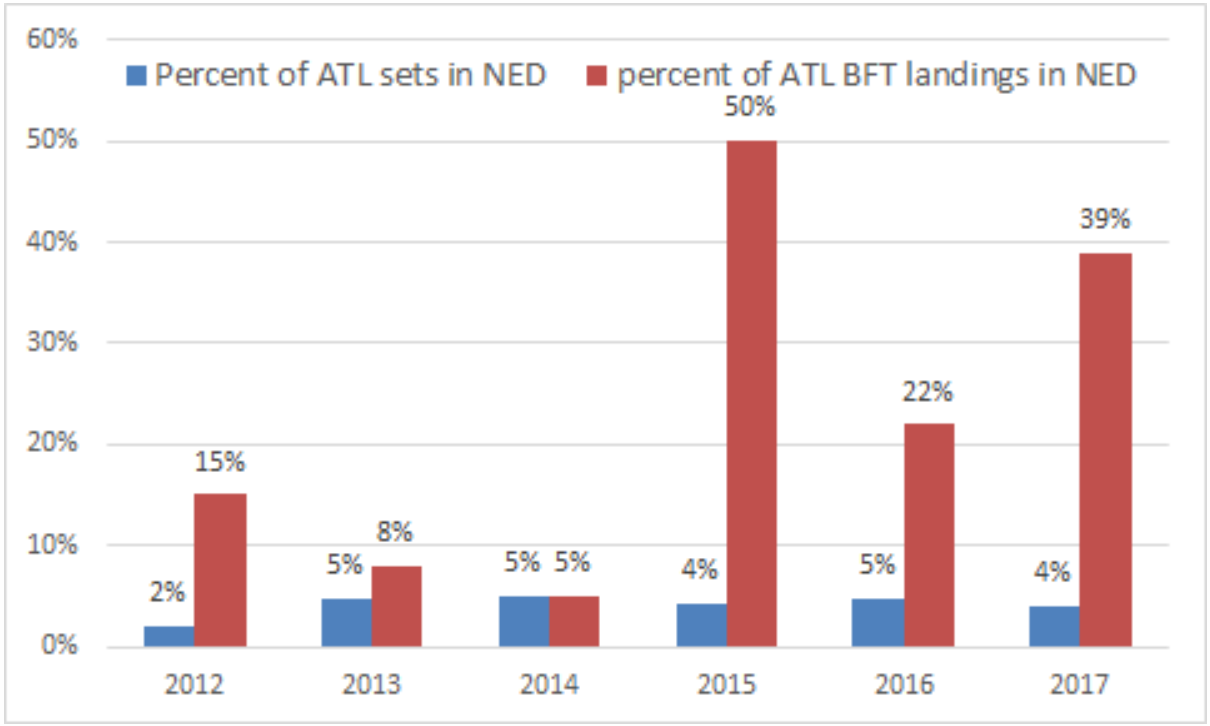
Number of Bluefin Interactions on Observed Trips (2012 through 2017)

Number of bluefin



Percentage of Atlantic PLL Sets and Landings in NED (Logbook data)

%



Number of Shareholders, Vessels Distributed IBQ and Active Vessels

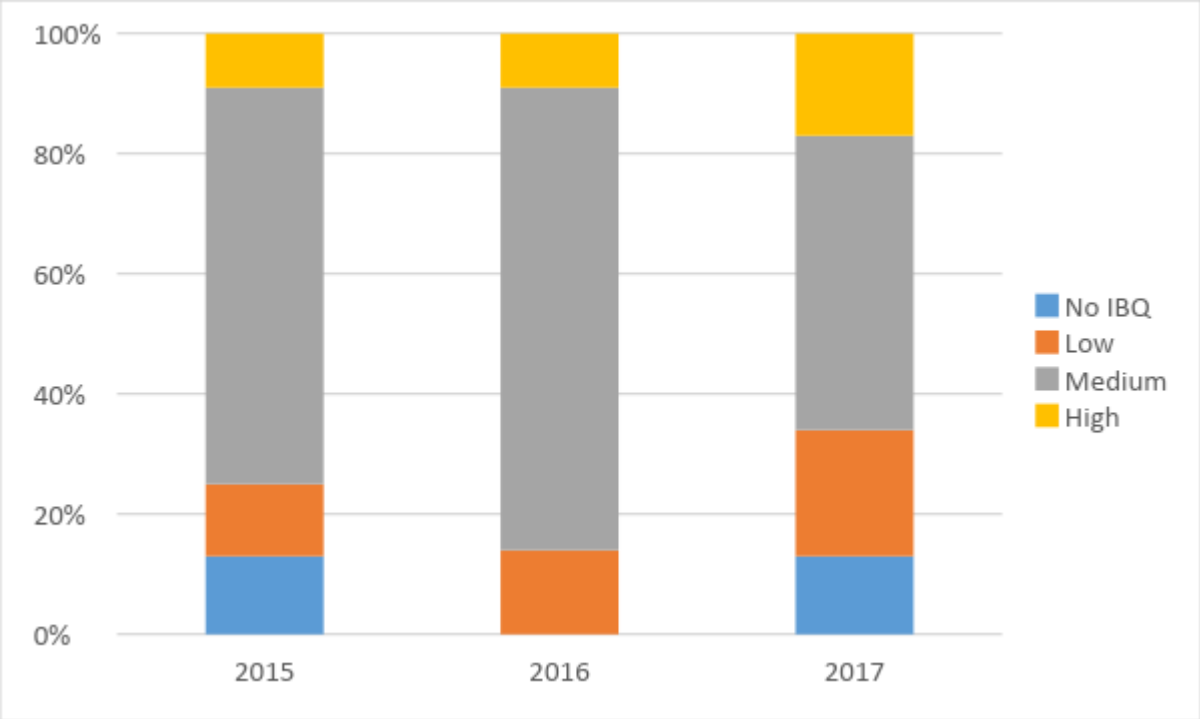
Year	# Share - holders	# Vessels Distributed IBQ	# Active Vessels	Percent of vessels distributed IBQ that were active	Percent of shareholders that were active
2015	135	131	104	79%	77%
2016	136	126	85	67%	63%
2017	136	122	86	70%	63%

IBQ Accountability; Comparing metrics, including 2018 data; January through June Totals

	2015 (Jan-Jun) annual accountability	2016 (Jan-Jun) trip-level accountability	2017 (Jan-Jun) quarterly accountability	2018 (Jan-Jun) quarterly accountability
Bluefin landings	51,561	121,638	116,411	139,827
Quota debt (lbs)	14,045	27,132	8,491	53,150
Leased (lbs)	69,753	67,347	87,396	132,422
QD to landings ratio	0.27	0.22	0.07	0.38
# Lease transactions	17	47	53	62
# Distinct shareholders Leasing	20	48	48	46

Percentage of Total Quota Debt by Tier (by weight)

%



Cost of a Lease Transaction as a Percentage of Trip Revenue – Vessel Level

Year	Average Pounds IBQ per Lease Transaction	Weighted Average Lease Price	Calculated Cost Per Transaction	Average Revenue per Trip per Vessel*	Cost of Lease as % of Trip Revenue
2015	2,580	$ 3.46	$ 8,927	$ 26,421	34 %
2016	1,743	$ 2.52	$ 4,392	$ 32,710	13 %
2017	1,789	$1.67	$ 2,988	$ 29,775	10 %

*For those vessels that leased IBQ

Comparison of Frequency of Bluefin Tuna: Observer, Electronic Monitoring and VMS Data

	2015	2016	2017
% of observed sets with bluefin	4 %	9 %	10 %
% of audited sets (EM) with bluefin*	10 %	7 %	10 %
% of VMS set reports indicating bluefin	5 %	7 %	6 %

*audits sets for 2015 and 2016 based on: 6/15 - 11/15; 3/16 - 11/16

END