Technical Committee Report on the Southern New England/Mid-Atlantic Winter Flounder Fishery and Management Program Under Zero Possession

Paul Nitschke

TC Tasks

1) Review 2015 stock assessment update for SNE/MA: The Board asks that the TC review the current management measures and suggest alternatives, if necessary.
2) Investigate the effects on SNE/MA biomass during heightened federal restrictions (May 1, 2009 - April 30, 2013): At present the stocks are not responding to lower exploitation rates, the Board is interested in understanding if the stocks were beginning to see modest improvement while restrictions were in place. For example, when looking at data from 2009-2013, what was the effect of low fishing mortality on the SNE/MA biomass?

TC Tasks

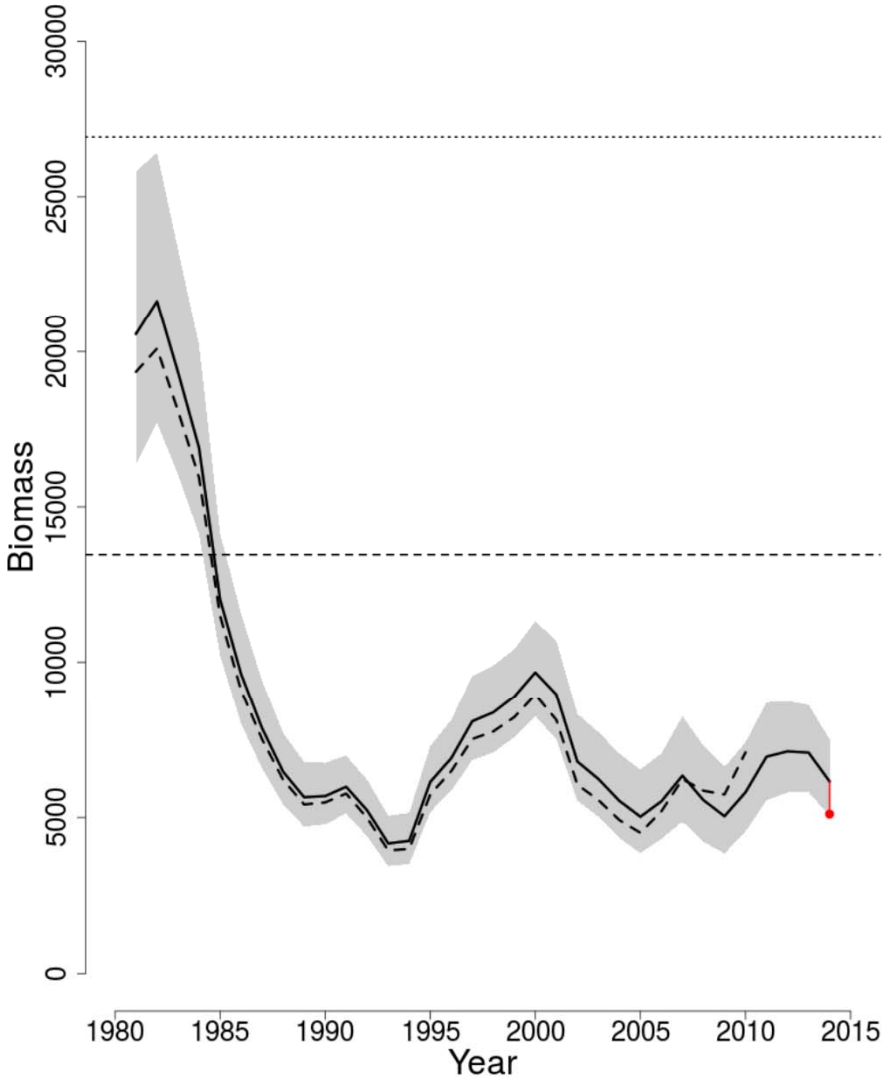
Two TC conference calls (Dec 9, 2015 and Jan 8, 2016)

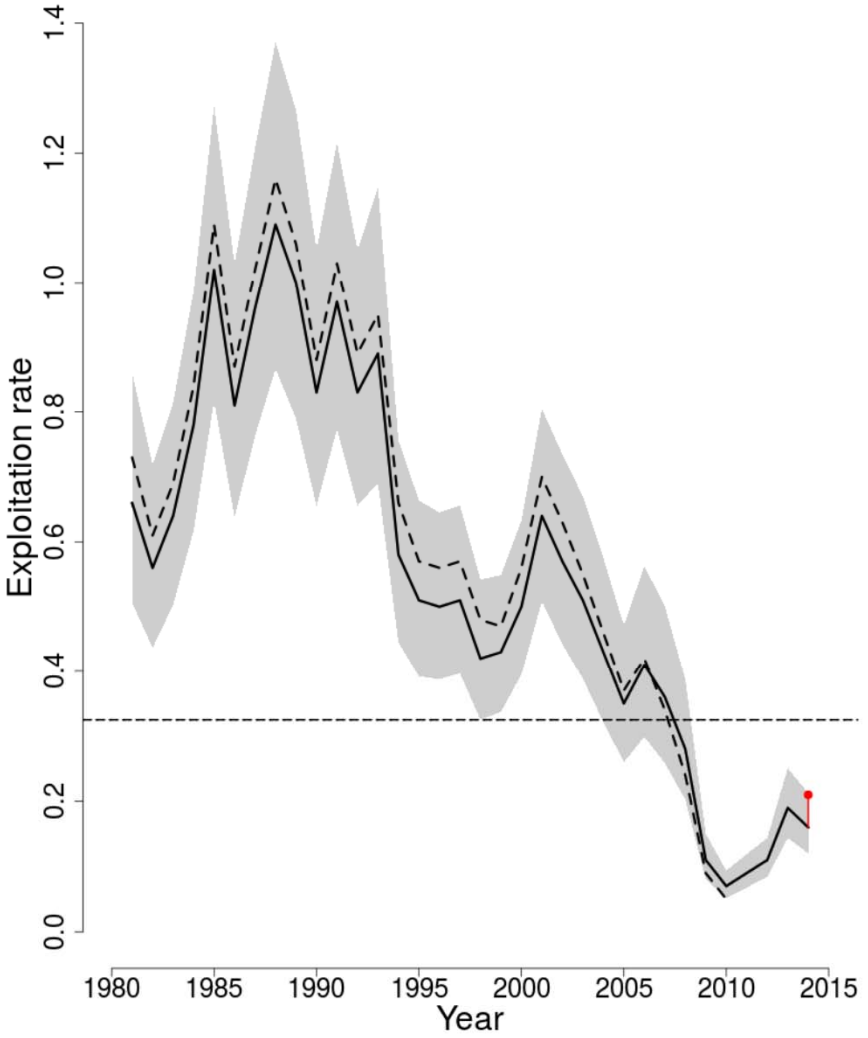
1) Review 2015 stock assessment update for GOM and SNE/MA.
2) Investigate data sources for the effects of zero possession in the federal fishery on SNE/MA winter flounder biomass.
3) Investigate the effects of management measures and develop a consensus statement on possible alternatives.

TC Methodology

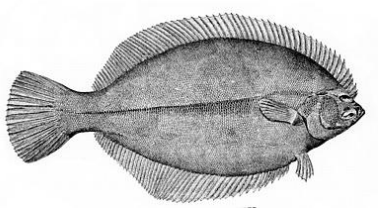
- Trend Examination:
  - (1) 2005-2008 (before the moratorium)
  - (2) 2009-2012 (during the moratorium)
  - (3) 2013-2015 (after the moratorium)
- Age Structure Examination 2008 to 2015:
  - (1)New Jersey ocean trawl survey
  - (2)CT trawl survey
  - (3)RI trawl survey
- Commercial Trip Species Composition: To determine management effects
  - (1) NEFOP and ASM catch data for the federal fishery.
  - (2) Landings data for Massachusetts state vessels.

Southern New England/Mid-Atlantic Winter Flounder

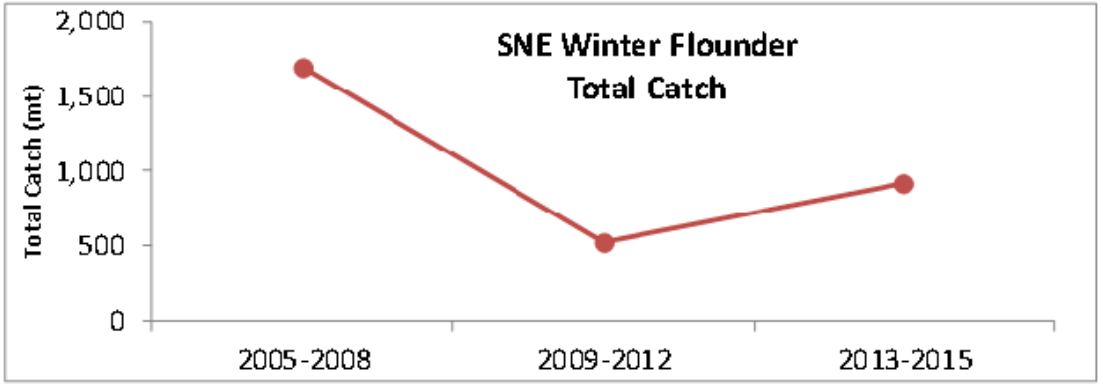


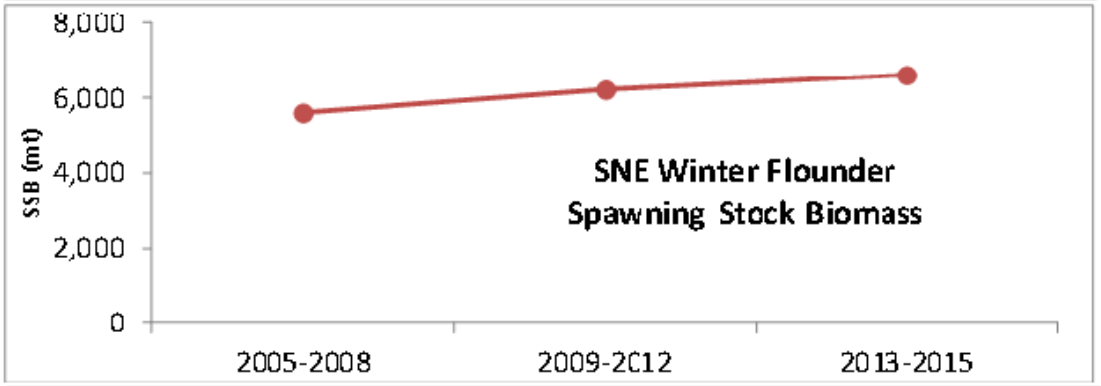


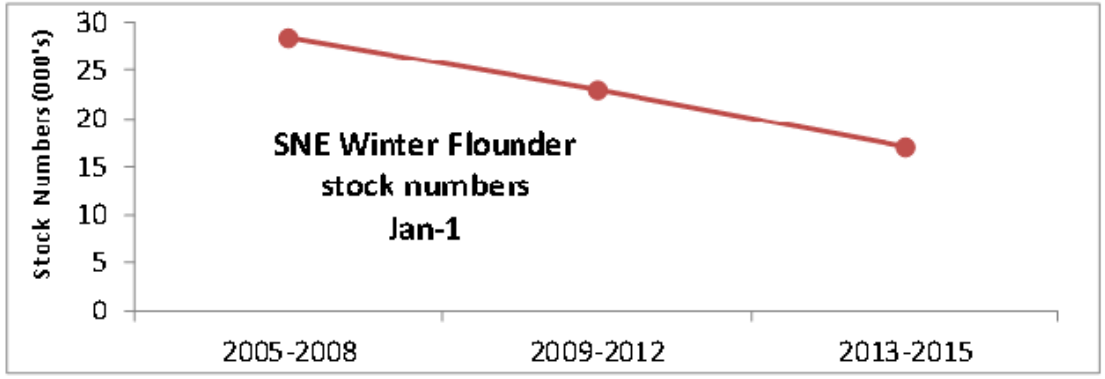
Age 1 Recruitment



Catch, SSB, and Jan-1 Abundance

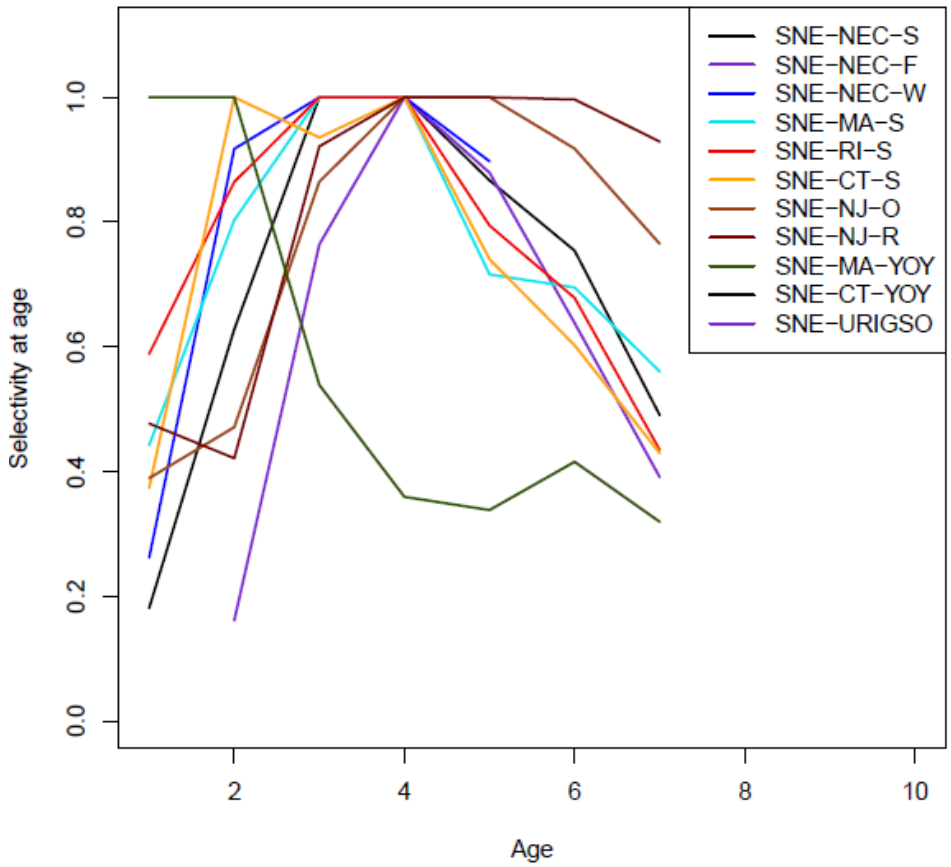


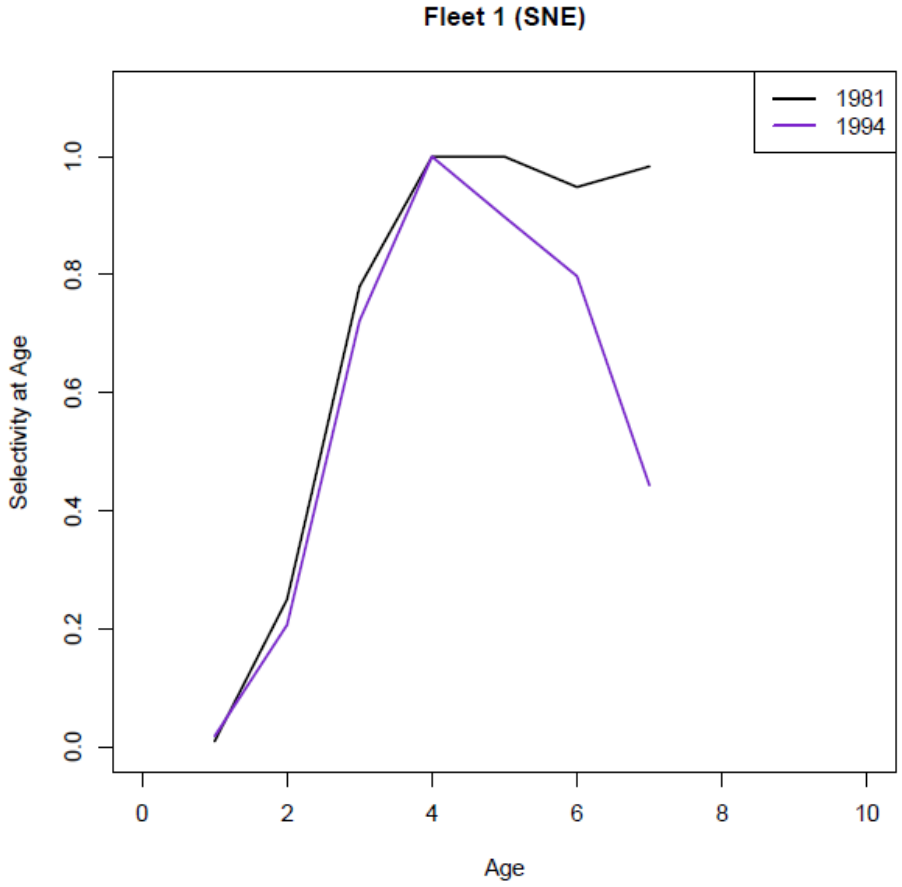




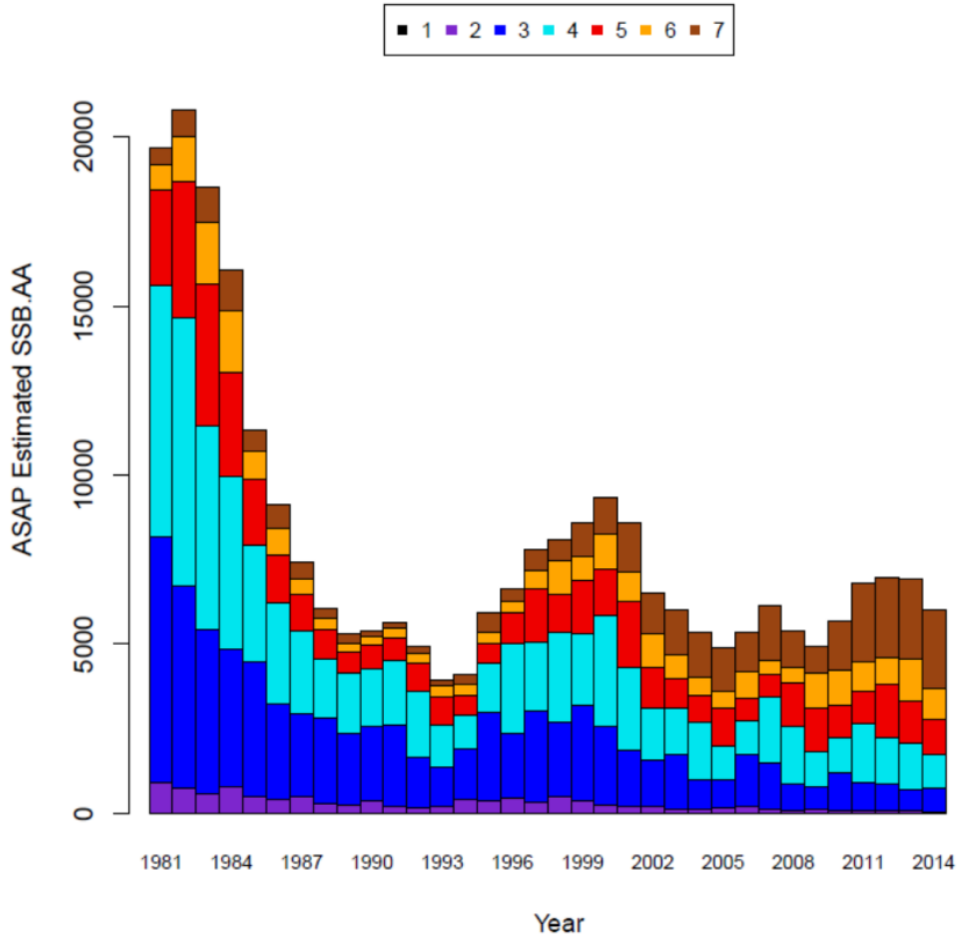
Average for three different time periods

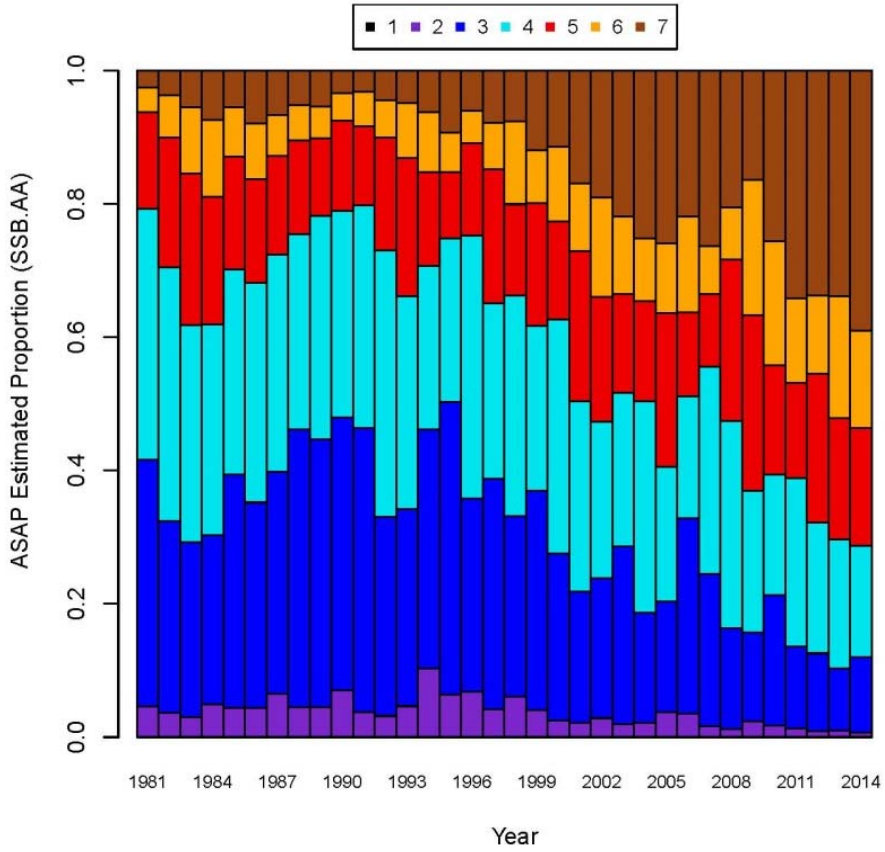
ASAP Model Selectivities



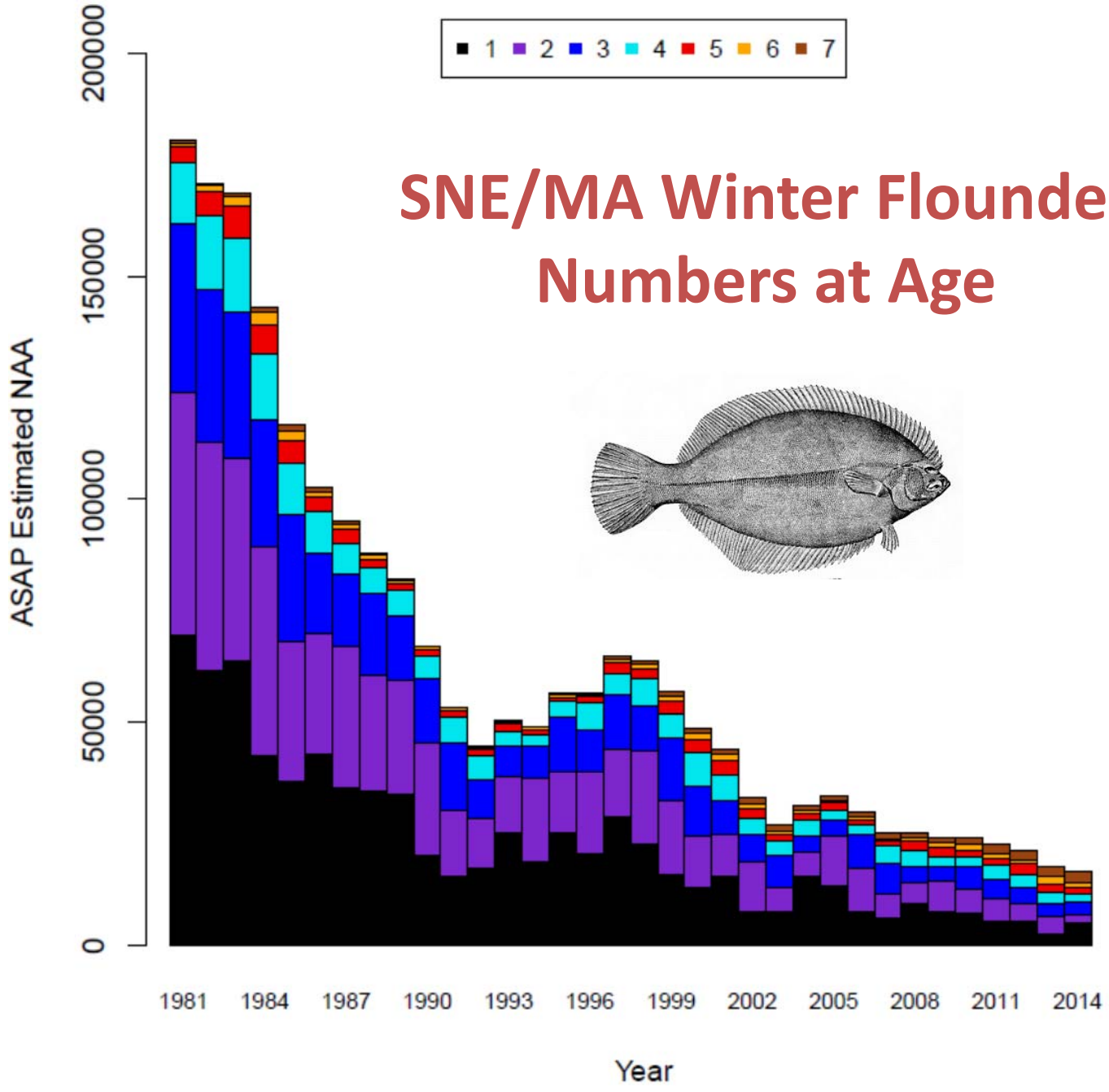


SNE/MA Winter Flounder SSB

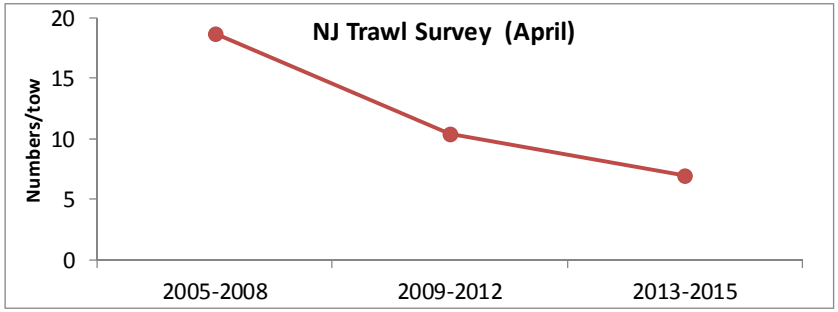


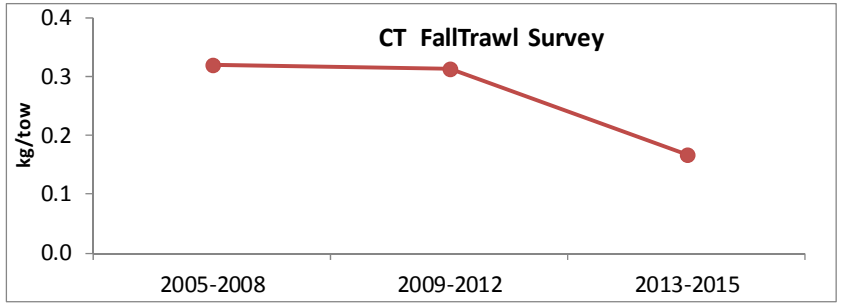


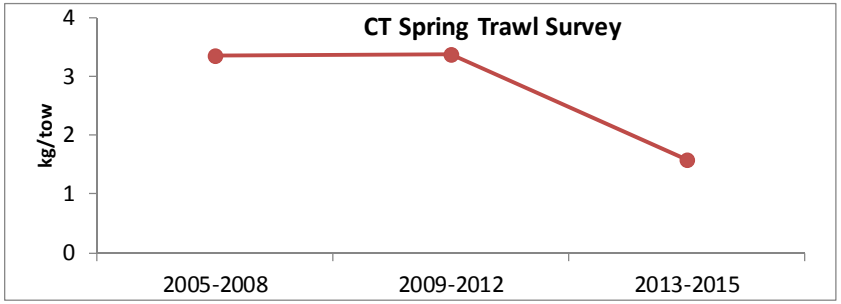
SNE/MA Winter Flounder Numbers at Age



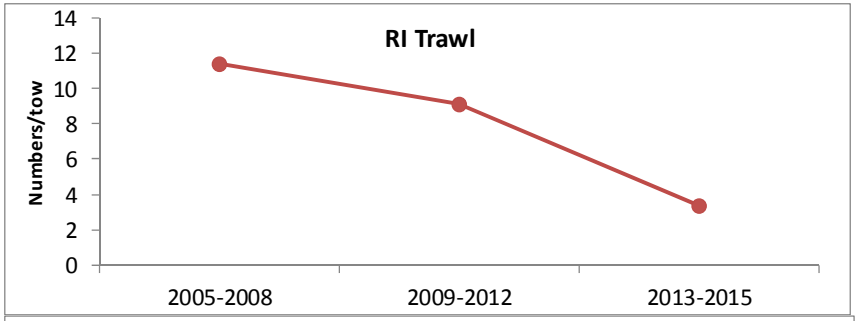
Survey Indices

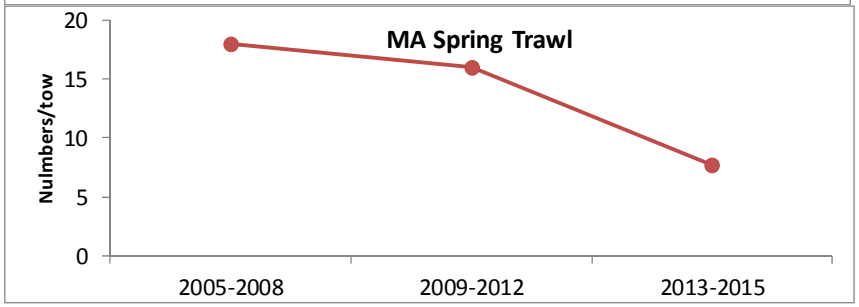


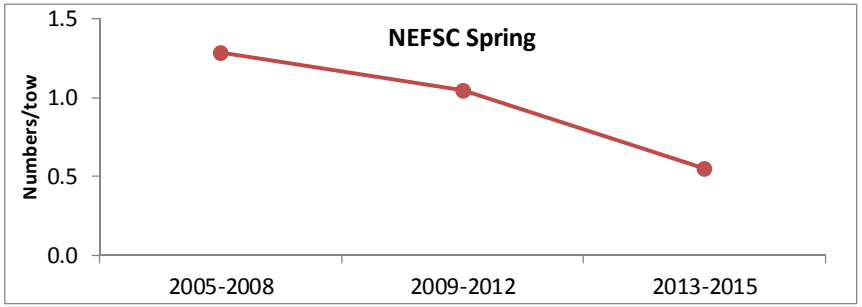


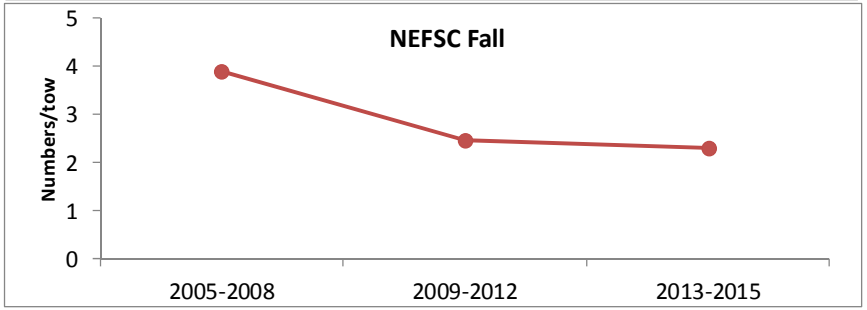


Average for three different time periods



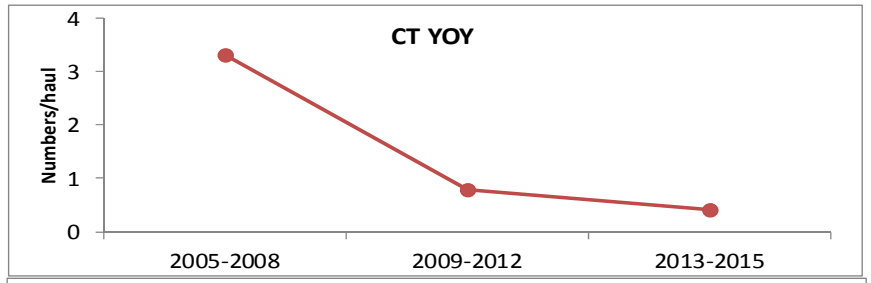


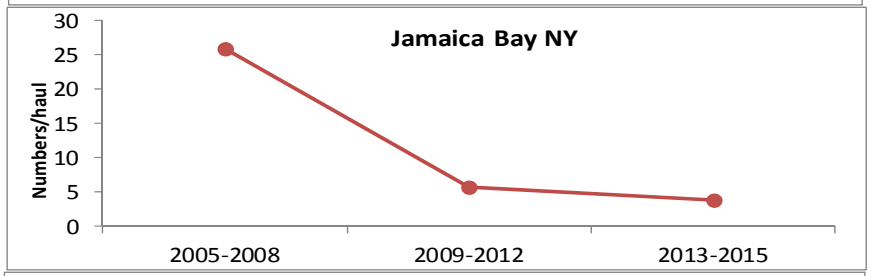


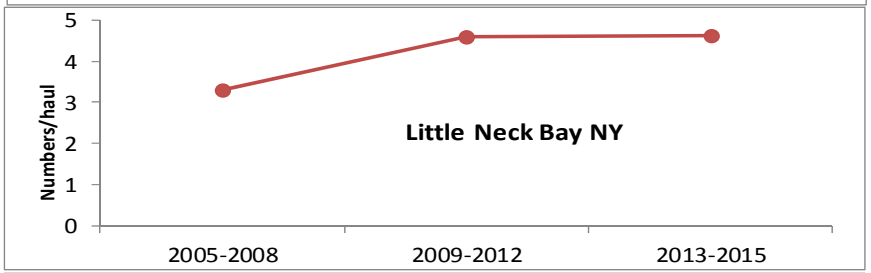


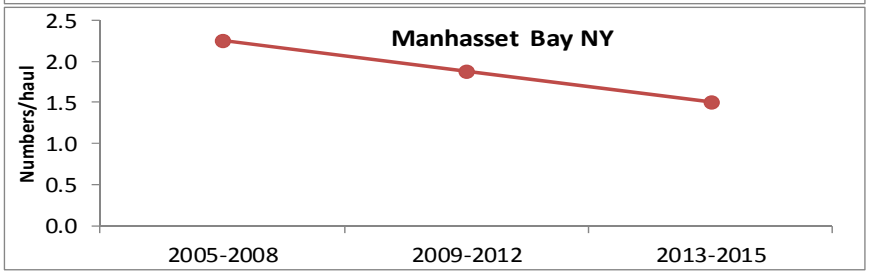
Average for three different time periods

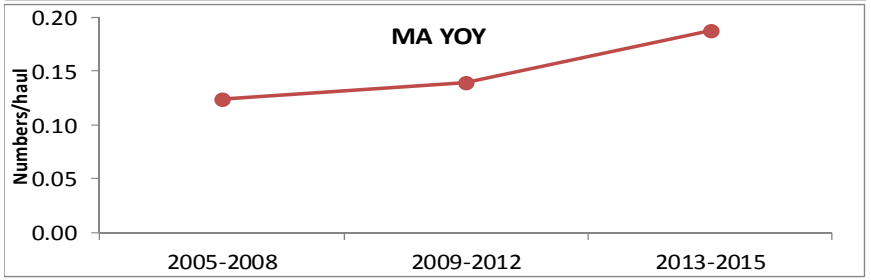
SNE/MA Winter Flounder YOY Indices











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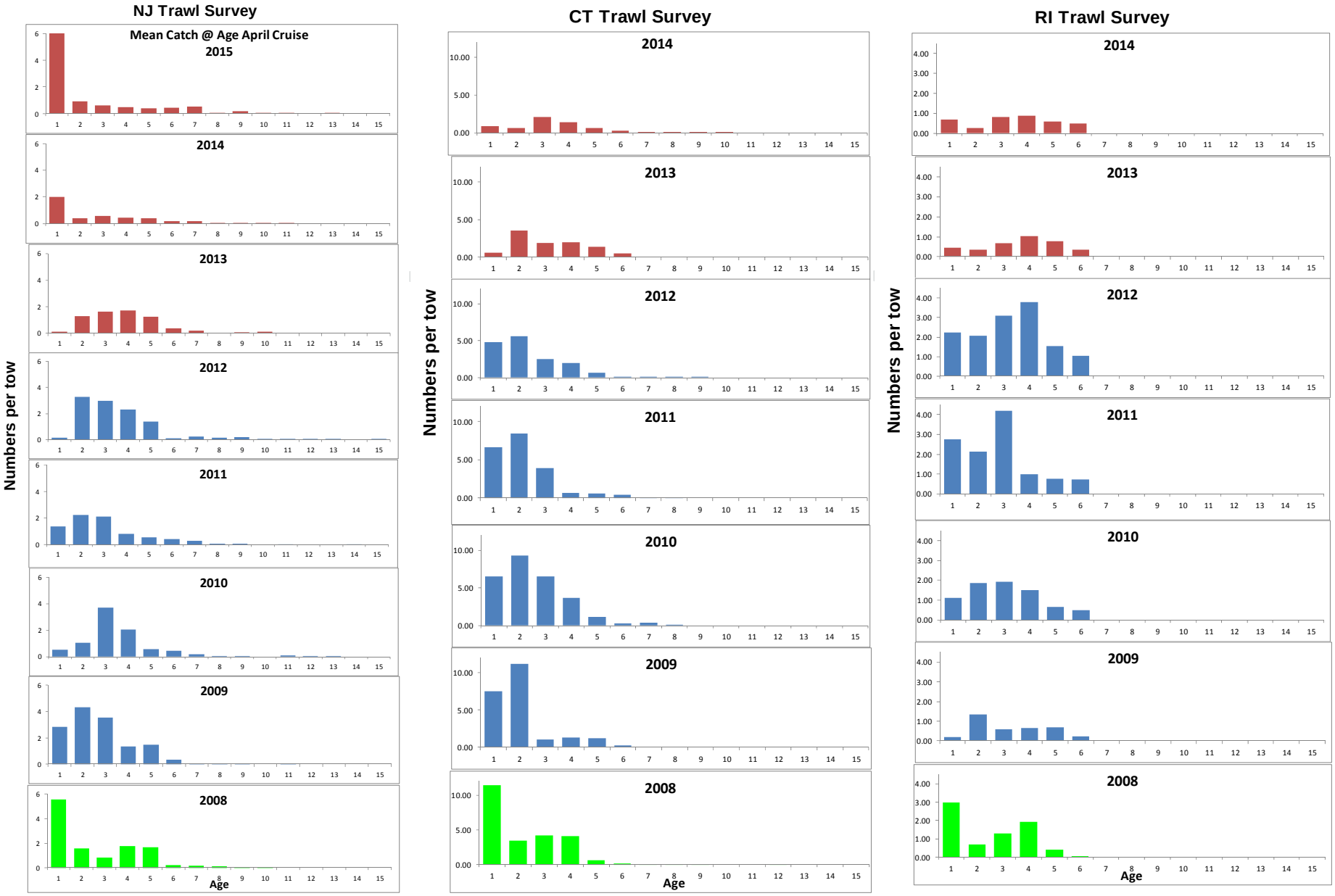
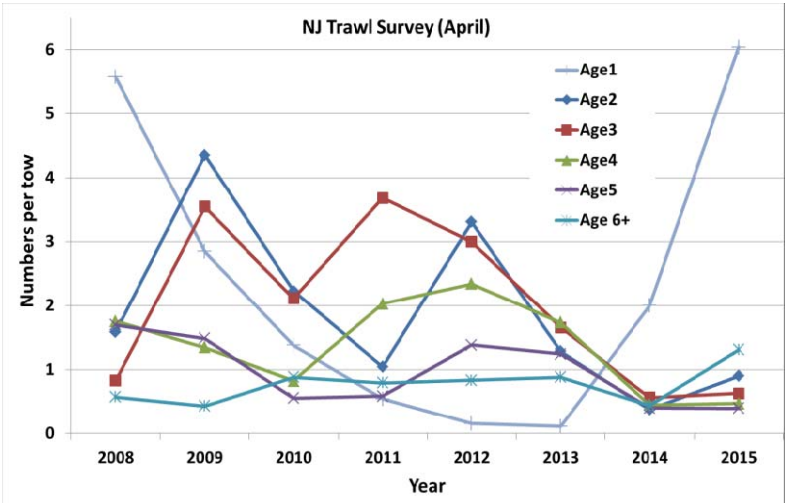
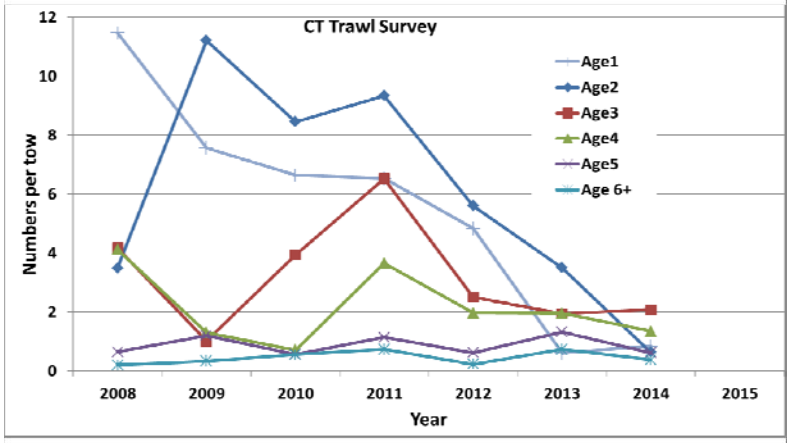
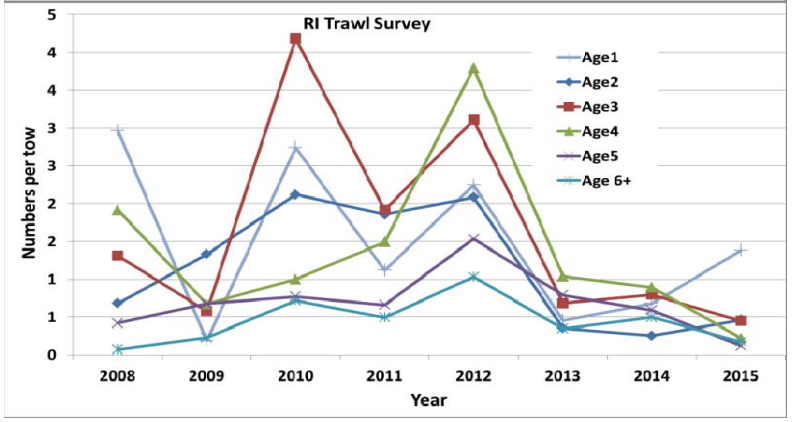

NJ Trawl Survey
Mean Catch @ Age April Cruise
2015
2014
2013
2012
2011
2010
2009
2008
Numbers per tow
Age
CT Trawl Survey
2014
2013
2012
2011
2010
2009
2008
Numbers per tow
Age
RI Trawl Survey
2014
2013
2012
2011
2010
2009
2008
Numbers per tow
Age

Numbers at age per tow indices 2008 to 2015







ASMFC Management Measures for Winter Flounder

Stock	Sector	Trip Limit/ Possession Limit	Size Limit	Season	Gear
GOM	Commerical	500 lbs per trip per day	12”	Maintain closures	Minimum 6.5” square or diamond mesh in cod-end
	Recreational	8 fish	12"	NA	
SNE/MA	Commerical	50 lbs/ 38 fish per trip per day	12”	Maintain closures	Minimum 6.5” square or diamond mesh in cod-end. 100-lb mesh trigger.
	Recreational	2 fish	12”	March 1 – December 31	

Implemented in Amendment 1 in 2005

Implemented in Addendum I in 2009

Implemented in Addendum II in 2012; GOM trip limit increased from 250 lbs (via Addendum I) to 500 lbs.

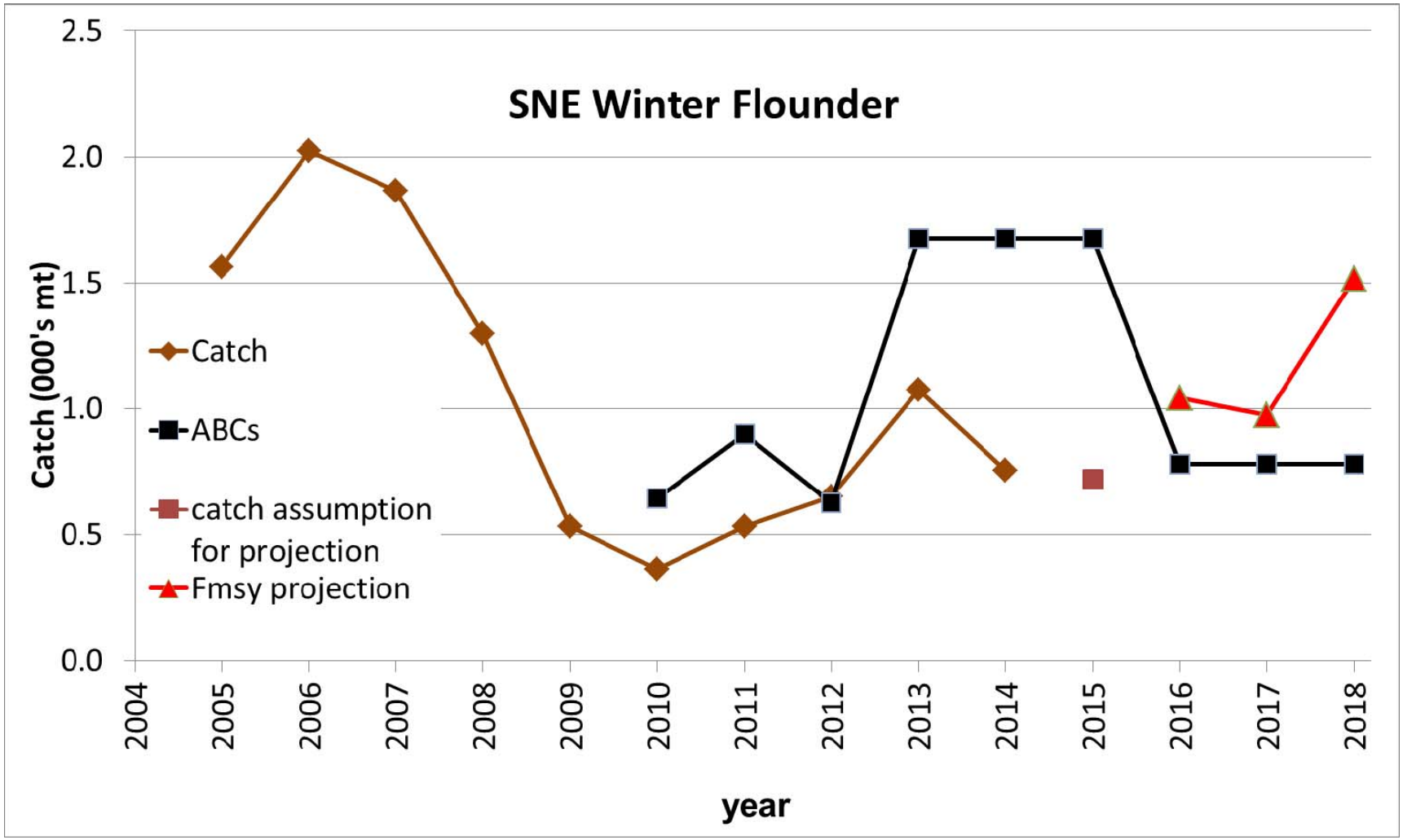
Varying closure dates were in place via Amendment 1, the new dates became effective through Board Action on Febuary 2014

Annual Catch Limits for Winter Flounder, in metric tons, by fishing year (2010-2018)

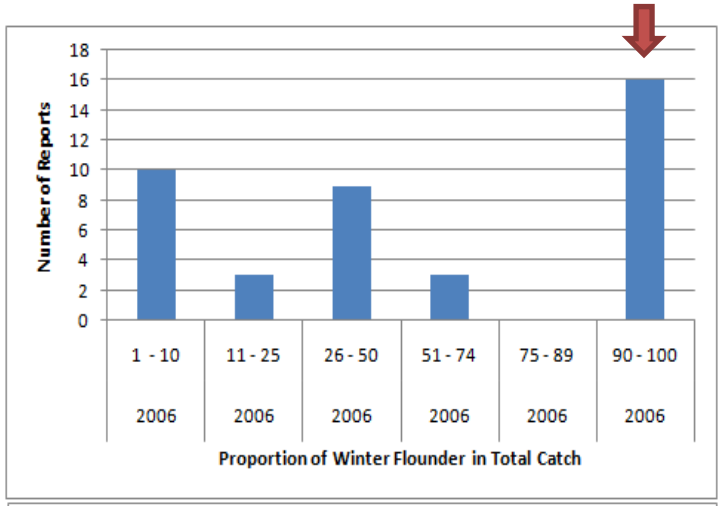
SNE/MA					
	Total ACL	Sector Sub-ACL	Common Pool Sub-ACL*	State Waters ACL Subcomponent	Other ACL Subcomponents
2010	605	NA	NA	53	32
2011	842	NA	726	72	45
2012	603	NA	303	175	125
2013	1612	1074	136	235	168
2014	1612	1063	147	235	168
2015	1607	1149	157	117	184
2016-18**	749	514	71	70	94

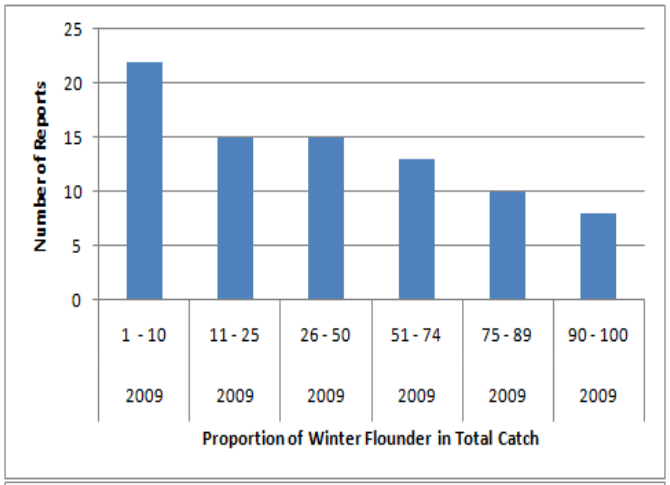
Common Pool Trip Limits for Winter Flounder in Federal Waters

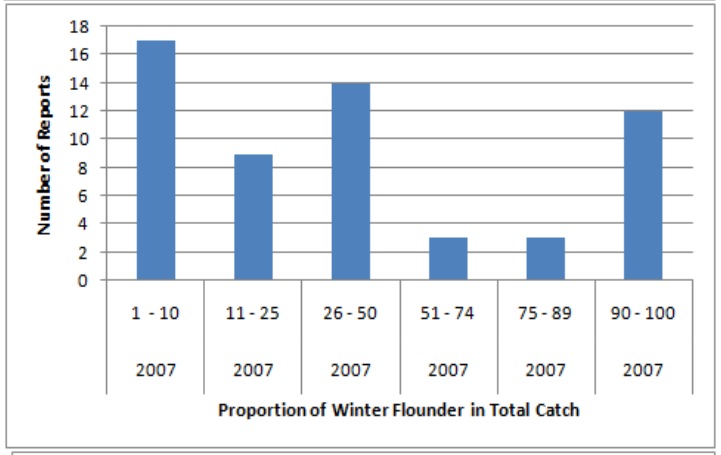
					2013				
	2009	**2010**	**2011**	**2012**	**2013a (May)**	**2013b (July)**	**2013c (Aug/Oct)**	**2014**	**2015**
GOM	Unlimited	250 lb/trip	100 lb/trip	250 lb/trip	500 lb/trip	500 lb/trip	2,000 lb/trip	1,000 lb/trip	1,000 lb/trip
SNE/MA	Zero	Zero	Zero	Zero	5,000 lb/DAS, up to 15,000 lb/trip	1,000 lb/trip	300 lb/trip	1,500 lb/DAS, up to 2,000 lb/trip	3,000 lb/DAS, up to 6,000 lb/trip

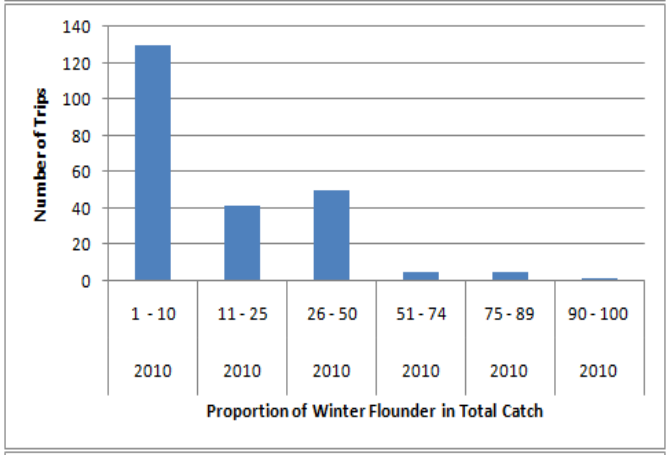

SNE Winter Flounder
Catch (000's mt)
2.5
2.0
1.5
1.0
0.5
0.0
Catch
ABCs
catch assumption for projection
Fmsy projection
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
year

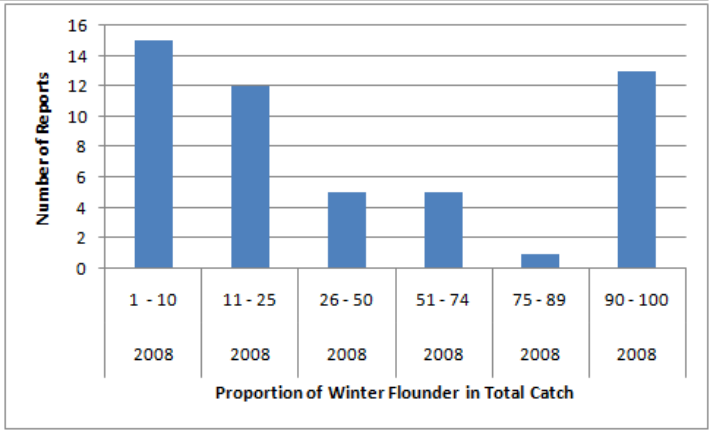
MA State Vessel Winter Flounder Landings Proportions

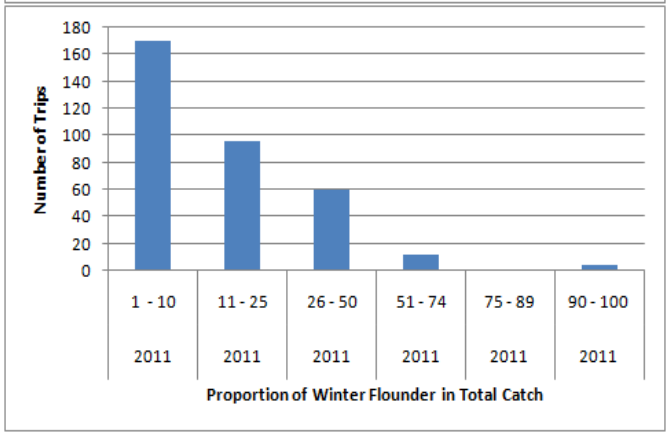




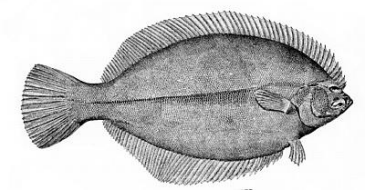


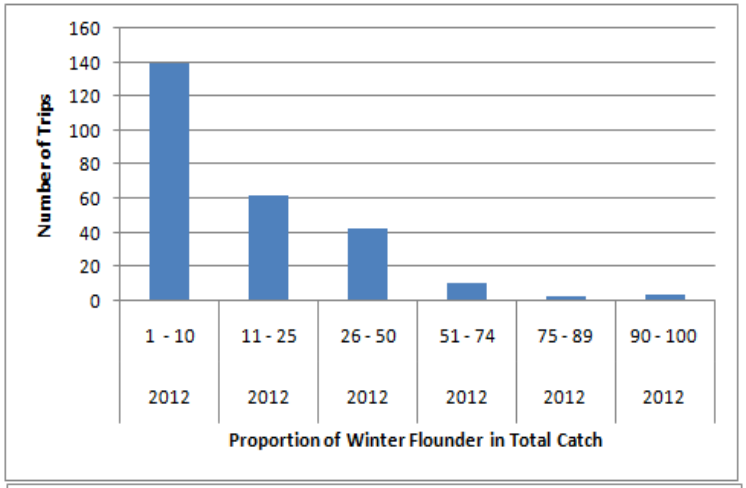


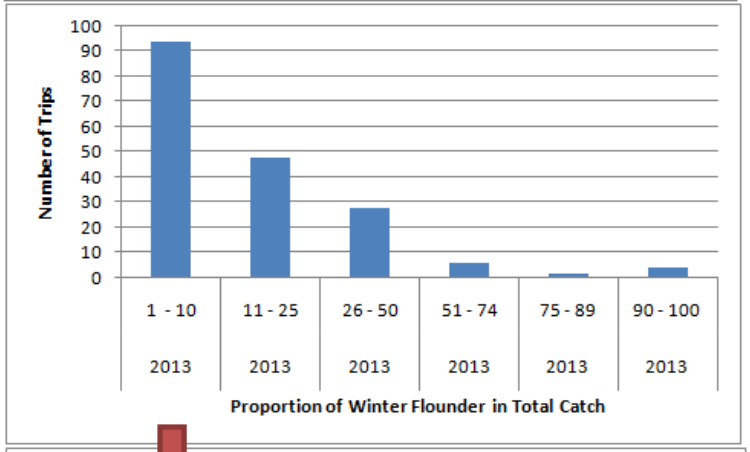


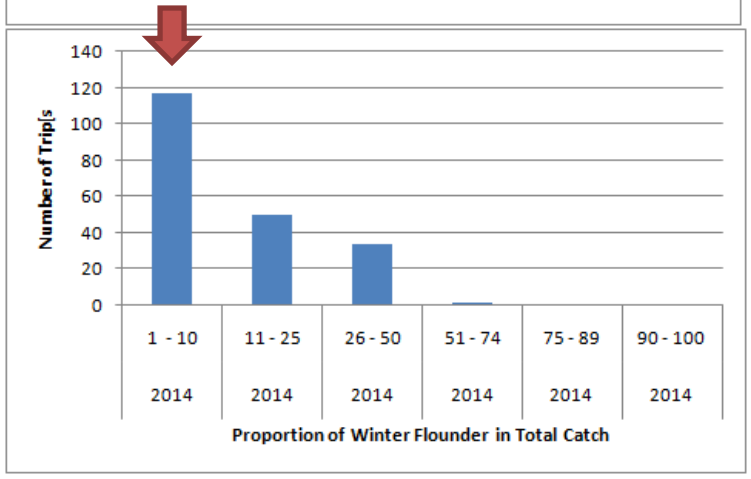


MA State Vessel Winter Flounder Landings Proportions

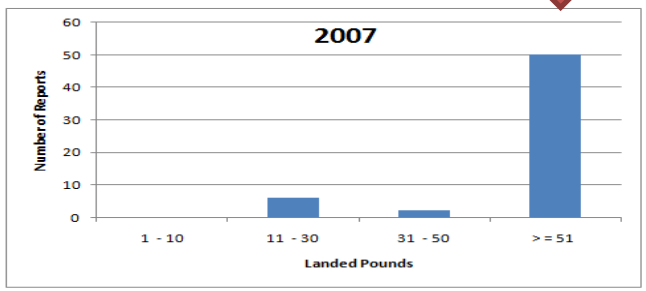


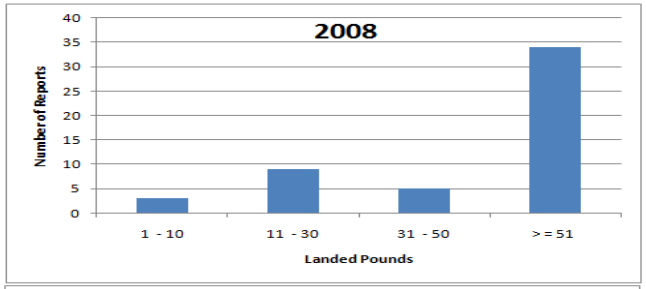


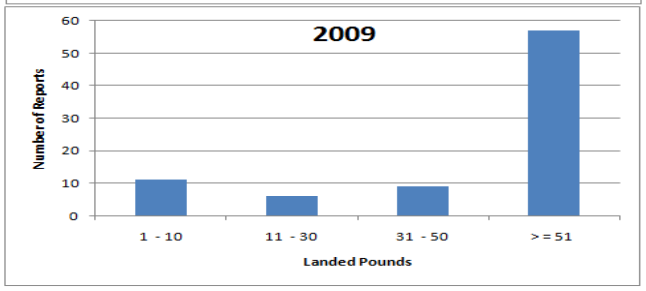


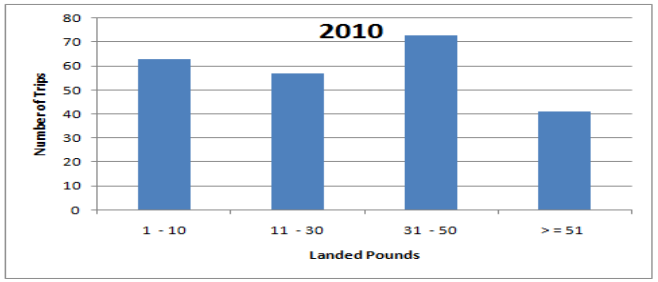


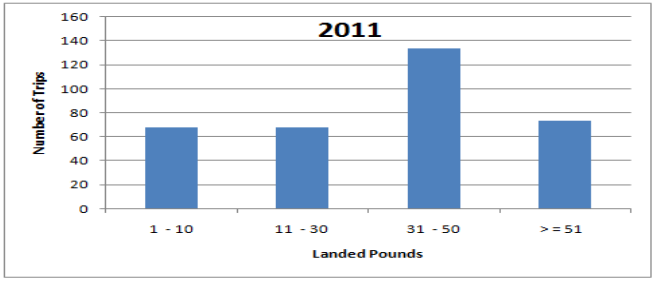
MA State Vessel
Winter Flounder
Trip Landings in Pounds
(1-10) (11-30) (31-50) (>= 51)

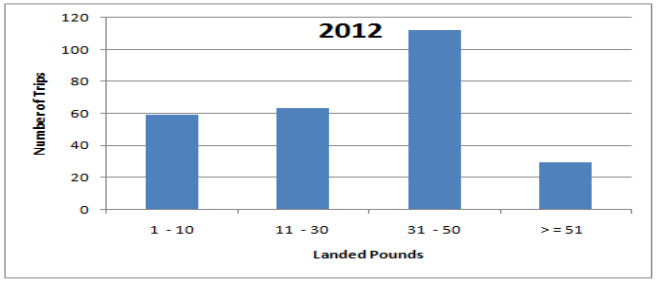


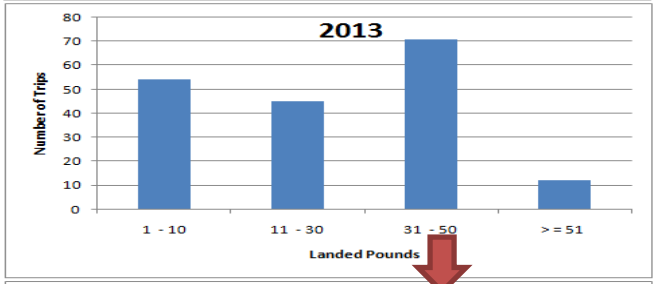


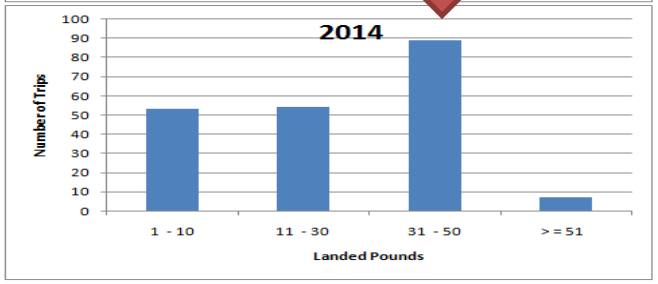


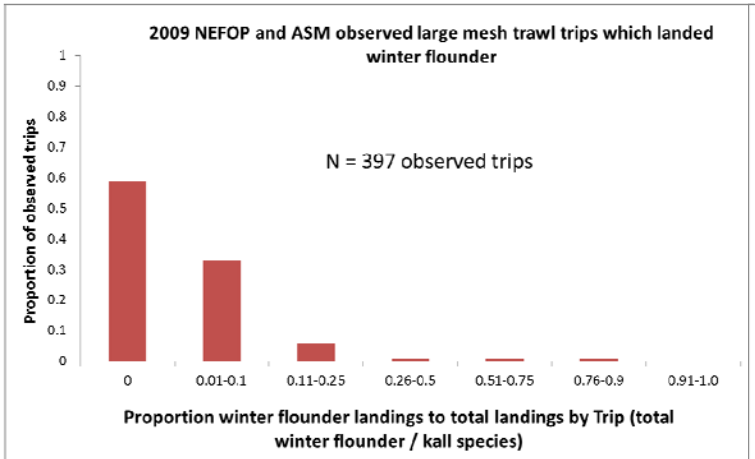


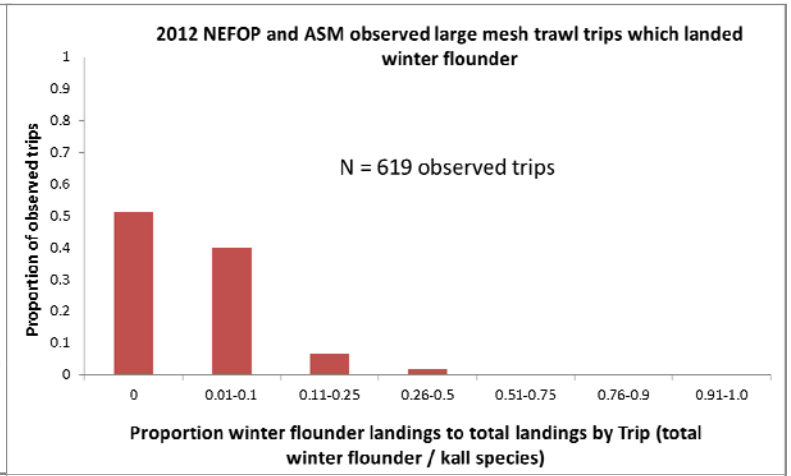


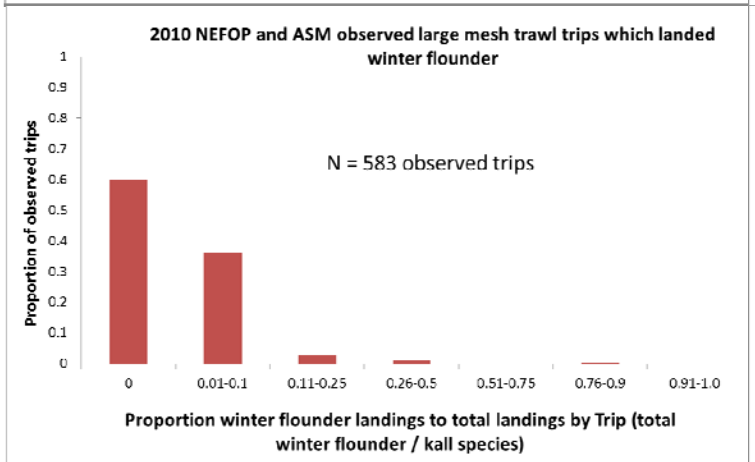


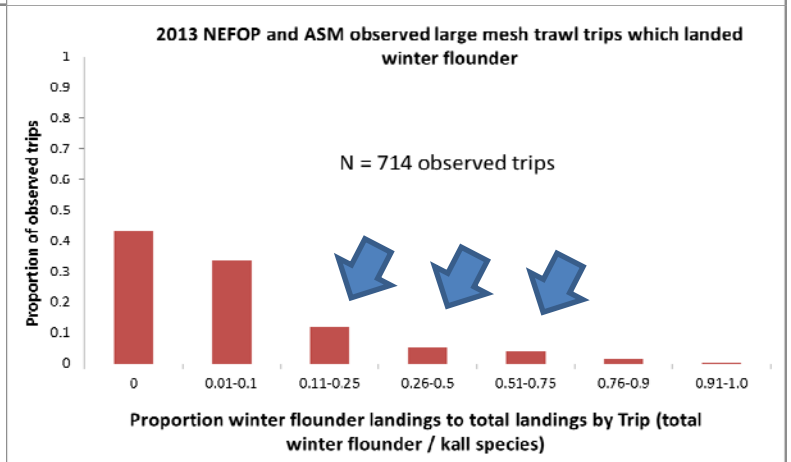


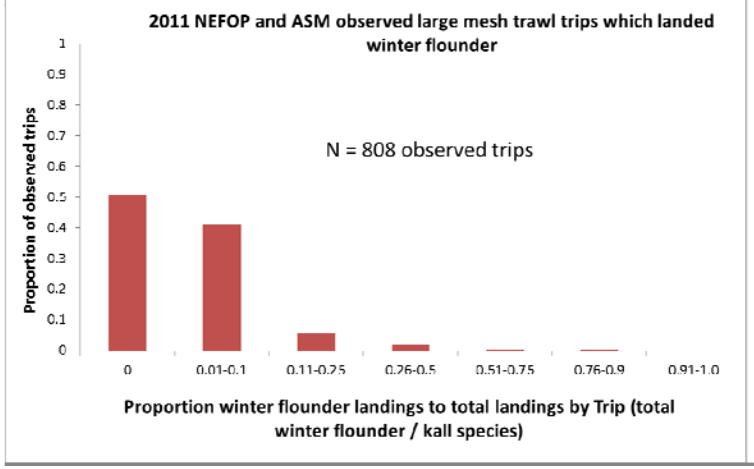


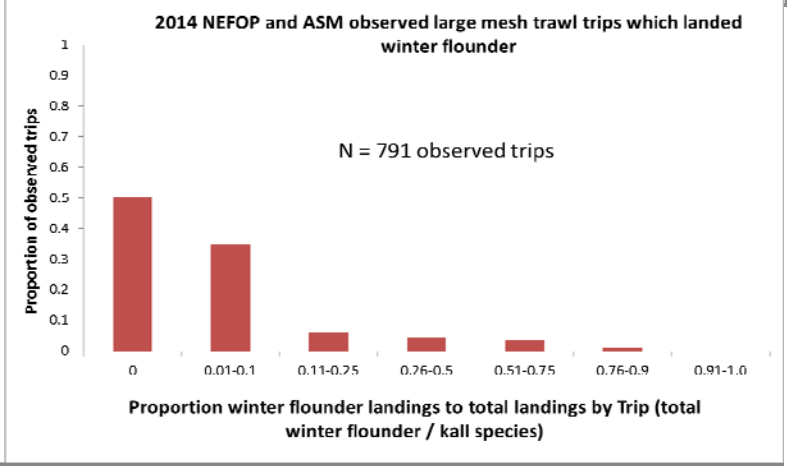

2009 NEFOP and ASM observed large mesh trawl trips which landed winter flounder
N = 397 observed trips
Proportion of observed trips
0
0.01-0.1
0.11-0.25
0.26-0.5
0.51-0.75
0.76-0.9
0.91-1.0
Proportion winter flounder landings to total landings by Trip (total winter flounder / kall species)


2012 NEFOP and ASM observed large mesh trawl trips which landed winter flounder
N = 619 observed trips
Proportion of observed trips
0
0.01-0.1
0.11-0.25
0.26-0.5
0.51-0.75
0.76-0.9
0.91-1.0
Proportion winter flounder landings to total landings by Trip (total winter flounder / kall species)


2010 NEFOP and ASM observed large mesh trawl trips which landed winter flounder
N = 583 observed trips
Proportion of observed trips
0
0.01-0.1
0.11-0.25
0.26-0.5
0.51-0.75
0.76-0.9
0.91-1.0
Proportion winter flounder landings to total landings by Trip (total winter flounder / kall species)


2013 NEFOP and ASM observed large mesh trawl trips which landed winter flounder
N = 714 observed trips
Proportion of observed trips
0
0.01-0.1
0.11-0.25
0.26-0.5
0.51-0.75
0.76-0.9
0.91-1.0
Proportion winter flounder landings to total landings by Trip (total winter flounder / kall species)


2011 NEFOP and ASM observed large mesh trawl trips which landed winter flounder
N = 808 observed trips
Proportion of observed trips
0
0.01-0.1
0.11-0.25
0.26-0.5
0.51-0.75
0.76-0.9
0.91-1.0
Proportion winter flounder landings to total landings by Trip (total winter flounder / kall species)


2014 NEFOP and ASM observed large mesh trawl trips which landed winter flounder
N = 791 observed trips
Proportion of observed trips
0
0.01-0.1
0.11-0.25
0.26-0.5
0.51-0.75
0.76-0.9
0.91-1.0
Proportion winter flounder landings to total landings by Trip (total winter flounder / kall species)

Winter Flounder TC Conclusion

- The TC is concerned about the SNE/MA stock due to a declining trend in recruitment over the time series.
- Further reductions in the ASMFC trip limit will likely result in increases in discards on trips targeting other species. This would likely result in additional uncertainty with estimated removals and fishing mortality.
- Trip limit controls are near their effective limits for controlling mortality. Further reduction in the trip limits may not result in a significant reduction in fishing mortality.

Winter Flounder TC Conclusion

- If further conservation measures are desired to increase the probability of improvements in recruitment then other management controls should be considered. However these additional controls (closed areas, seasonal closures, days at sea, quotas) will also result in reductions in catch and revenue from other fisheries.
- It is also no longer clear if these additional controls will result in improved SNE winter flounder stock productivity.

Winter Flounder TC Conclusion

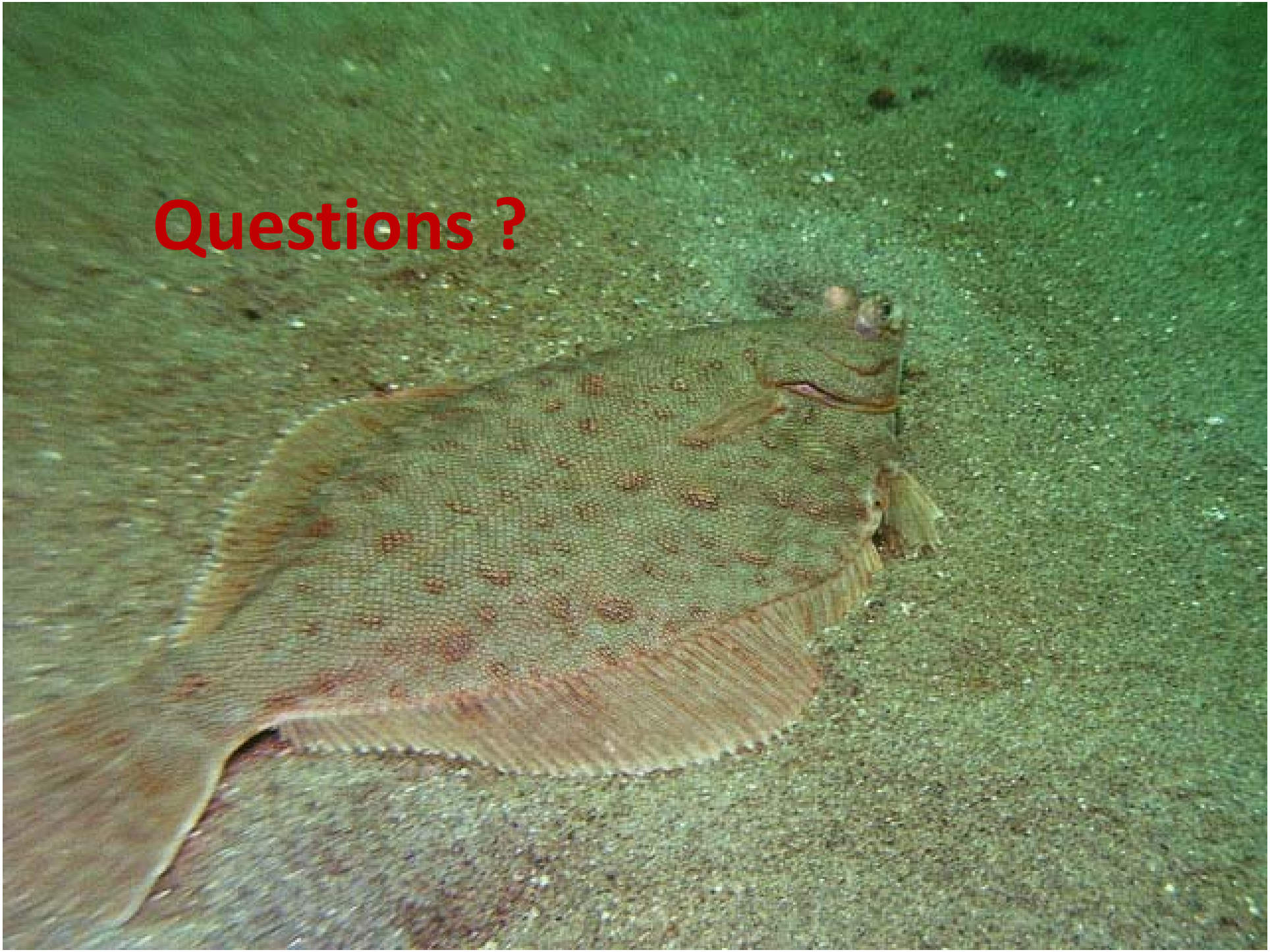
- 2016-2018 approved specifications include reduced ABCs (from 1,676 mt in 2015 to 708 mt in 2016) and further reductions in catch could also occur through a reduction in the updated SNE yellowtail ABC.
- Further reductions in the 2016 SNE winter flounder ABC will also likely start to reduce catch/revenue from other fisheries since this ACL may begin to limit the landings of other stocks.

Winter Flounder TC Conclusion

- The TC encourages the Board to choose management actions that continue to reduce targeting and fishing morality, in an effort for SNE/MA winter flounder to remain a bycatch fishery in state waters.
- Similar actions in federal waters could result in a positive effect on the resource.
- However whether further reductions in the ABCs or additional effort controls in state waters would result in improvements in recruitment is unknown.

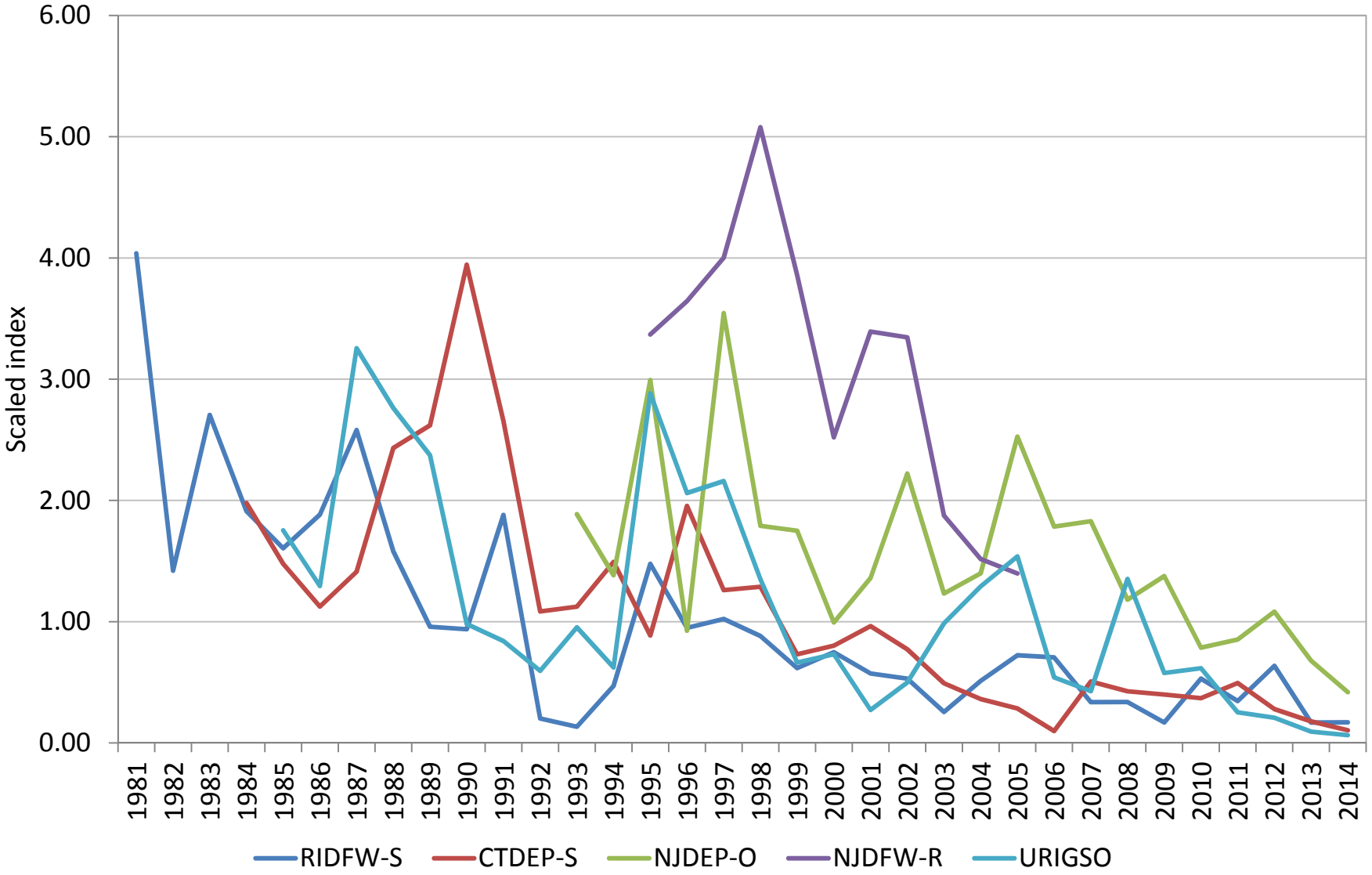
Winter Flounder TC Conclusion

- The TC acknowledges there are divergent management approaches among the state and federal SNE/MA winter flounder fisheries.
- The state fishery is managed through input controls (effort controls, trip limits, seasons, etc.) and the federal fishery is managed through output controls (quotas).
- While different in approach, complimentary management between state and federal fisheries moving forward could achieve a unified outcome that is beneficial to the resource and ultimately the fishery.

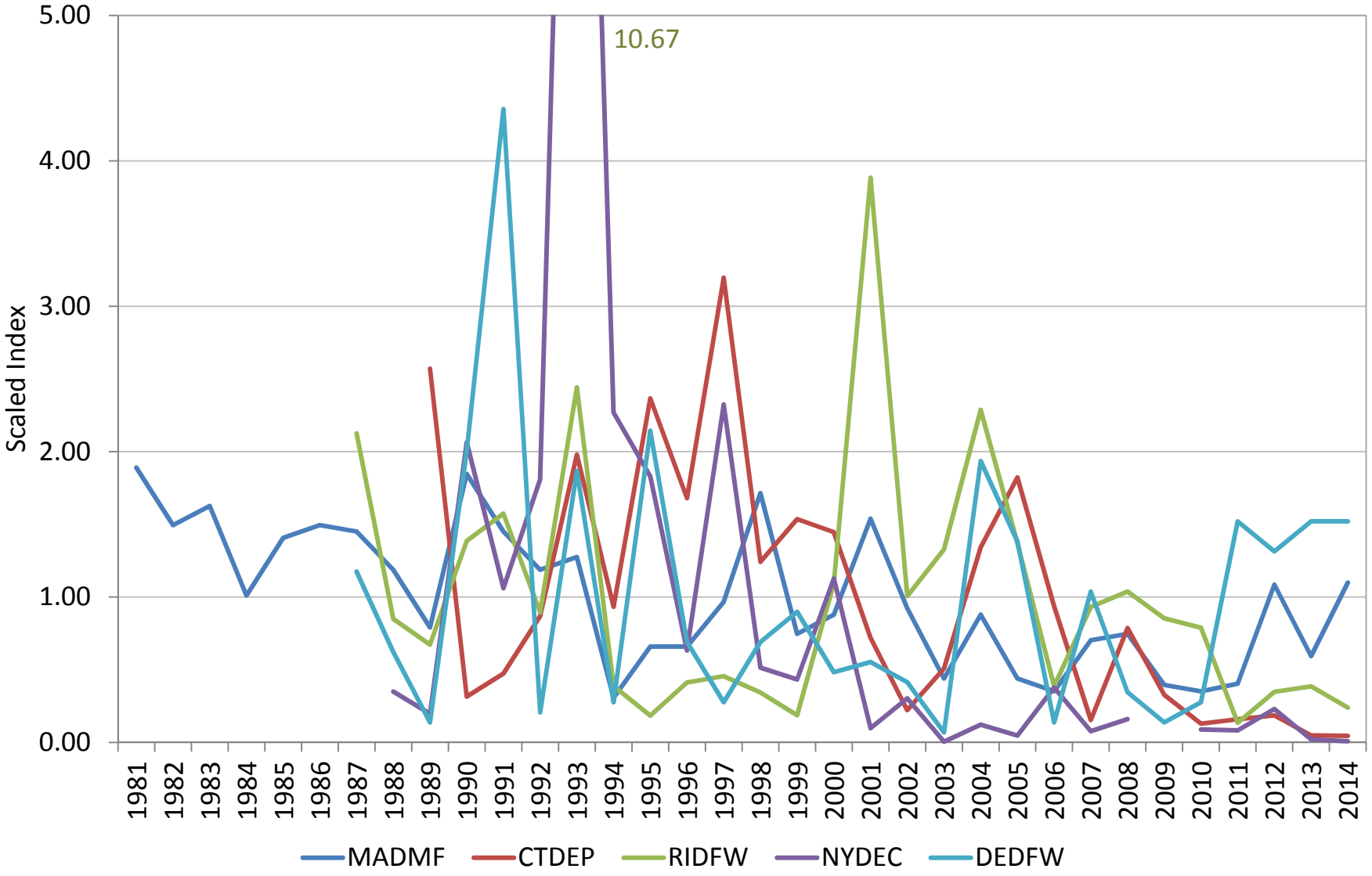

Questions ?

SNE/MA Winter Flounder
Extra Slides

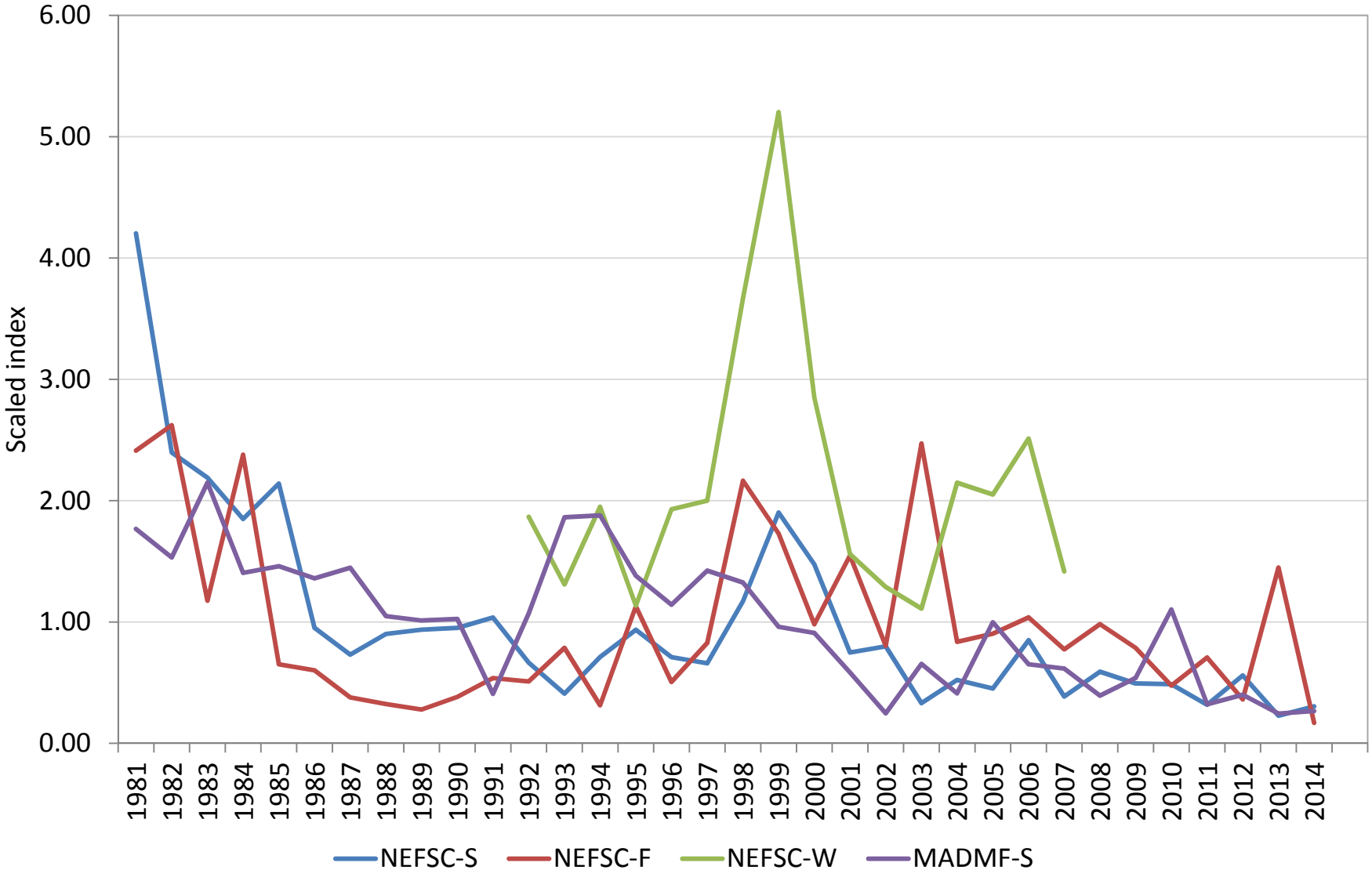
State survey indices



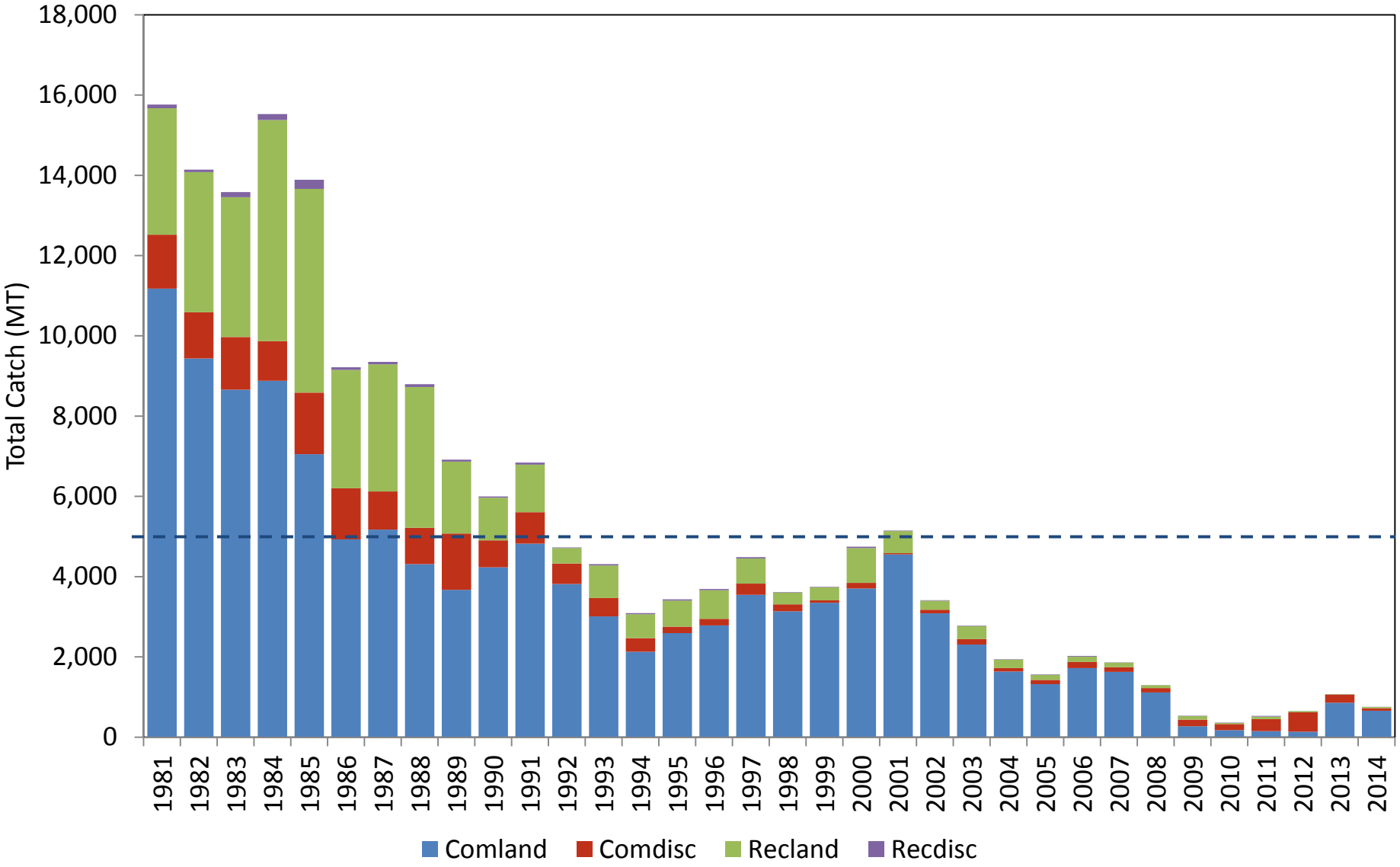
State Age 0 survey indices



NEFSC BTS and MADMF Spring survey indices



SNEMA WFL Total catch components 1981-2014



Overview of Federal Management Measures

FY 2016 – FY 2018 Gulf of Maine and Southern New England Winter Flounder

Jamie M. Cournane, PhD
Groundfish PDT Chair

ASMFC
Winter Meeting
February 4, 2016

New England
Fishery Management Council

Overlap between the Council and ASMFC Winter Flounder Board

- ASMFC Board Members also on the Council:
  - Mark Gibson
  - Mark Alexander
  - Terry Stockwell
  - David Pierce
  - Doug Grout
  - Eric Reid
  - NMFS/GARFO Representative
- Technical Committee Chair is a key member of the Groundfish Plan Development Team.

Federal Commercial Groundfish Fishery for Winter Flounder

- Three stocks of winter flounder: Gulf of Maine, Southern New England/Mid-Atlantic, and Georges Bank
- Mixed fishery for other species
- Management aims to achieve optimal yield while staying within biological limits
- Sectors and Common Pool –
  - Sectors – allocated and leased quota
  - Common Pool – limits on the number of days and landings
  - Both – accountability measures including potential fishery closures in-season for the entire stock area
  - Both – year-round and seasonal closures for groundfish species

Proposed Status for Winter Flounder Stocks Based on 2015 NEFSC Assessments

Stock	FY 2015	FY 2016	Change
GOM winter flounder	Not Overfishing/ Overfished Unknown	Not Overfishing/ Overfished Unknown	No Change
SNE/MA winter flounder	Not Overfishing/ Overfished	Not Overfishing/ Overfished	No Change

SSC's Approach for FY 2016 – FY 2018 ABCs for Winter Flounder Stocks

Stock	Approach	Notes
GOM winter flounder	75%F_{MSY} × 30+ cm biomass (constant)	• Stock does not appear to be responding to catches << ABC.
SNE/MA winter flounder	75%F_{MSY} × 2017 projected biomass (constant)	• The ABC would have decreased from 2016 to 2017 before increasing in 2018 using the default control rule of 75%F_{MSY}. • To account for the continued decline in recruitment for this stock, the ABC was held constant at the 2017 value for all three years 2016-2018.

Proposed FY 2016- FY 2018 OFLs/ABCs for Winter Flounder Stocks

Stock	OFL 2016	ABC 2016	OFL 2017	ABC 2017	OFL 2018	ABC 2018
GOM Winter Flounder	1,080	810	1,080	810	1,080	810
SNE/MA Winter Flounder	1,041	780	1,021	780	1,587	780

Proposed Changes in ABC (mt) for Winter Flounder Stocks

Stock	FY 2015	FY 2016
GOM winter flounder	510	810
SNE/MA winter flounder	1,676	780

Catch Distribution Steps for GOM and SNE/MA Winter Flounder

- Start with the **ABC**
- Next, **deduct expected catches** from:
  - State-waters and
  - Other sub-component
  - Expected catches are not allocations
- **Remaining amount** distributed to the **commercial fishery**
  - After being reduced by a 5% management uncertainty buffer
  - Based on annual Sector and Common Pool rosters

Expected Catches for GOM Winter Flounder

Fishing Year	U.S. ABC (mt)	State sub-Component		% of sub-Component Caught	State Waters Catch (mt)		
		% of ABC	Value (mt)		TOTAL	Commercial	Recreational
2010	238	25%	60	107%	64.2	20.1	46.4
2011	1,078	25%	163	70%	113.3	22.4	90.8
2012	1,078	25%	272	22%	60.2	37.0	23.1
2013	1,078	25%	272	25%	67.4	37.1	30.3
2014	1,078	25%	272	42%	113.3	62.8	50.4
2015	510	17%	87				
2016	810	15%	122				
2017							
2018							
Average Catch					83.7	35.9	48.2

Expected Catches for SNE/MA Winter Flounder

Fishing Year	U.S. ABC (mt)	State sub-Component		% of sub-Component Caught	State Waters Catch (mt)		
		% of ABC	Value (mt)		TOTAL	Commercial	Recreational
2010	644	8%	53	342%	**181.0**	**48.4**	**132.6**
2011	897	8%	72	56%	**40.0**	**24.9**	**15.1**
2012	626	28%	175	34%	**58.9**	**52.6**	**6.4**
2013	1,676	14%	235	24%	**55.7**	**48.0**	**7.7**
2014	1,676	14%	235	**30%**	**71.1**	**46.6**	**24.5**
2015	1,676	7%	117				
2016	**780**	**9%**	**70**				
2017							
2018							
Average Catch					**81.3**	**44.1**	**37.2**

Proposed Changes in Estimated Catch (mt) for State Waters

Stock	FY 2015	FY 2016
GOM winter flounder	87	122
SNE/MA winter flounder	117	70

Proposed Changes in Groundfish Commercial Quotas (mt) for the Federal Fishery

Stock	FY 2015	FY 2016
GOM winter flounder	392	639
SNE/MA winter flounder	1,306	585

Thank you.

Any questions?