

PDT Report: Atlantic Halibut OFLs and ABCs for FY2018-FY2020

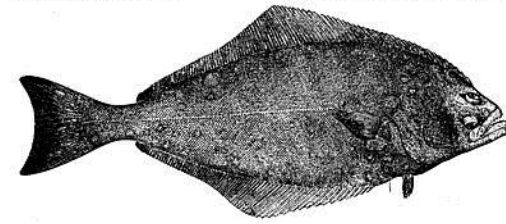
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**SSC Meeting
December 18, 2017**



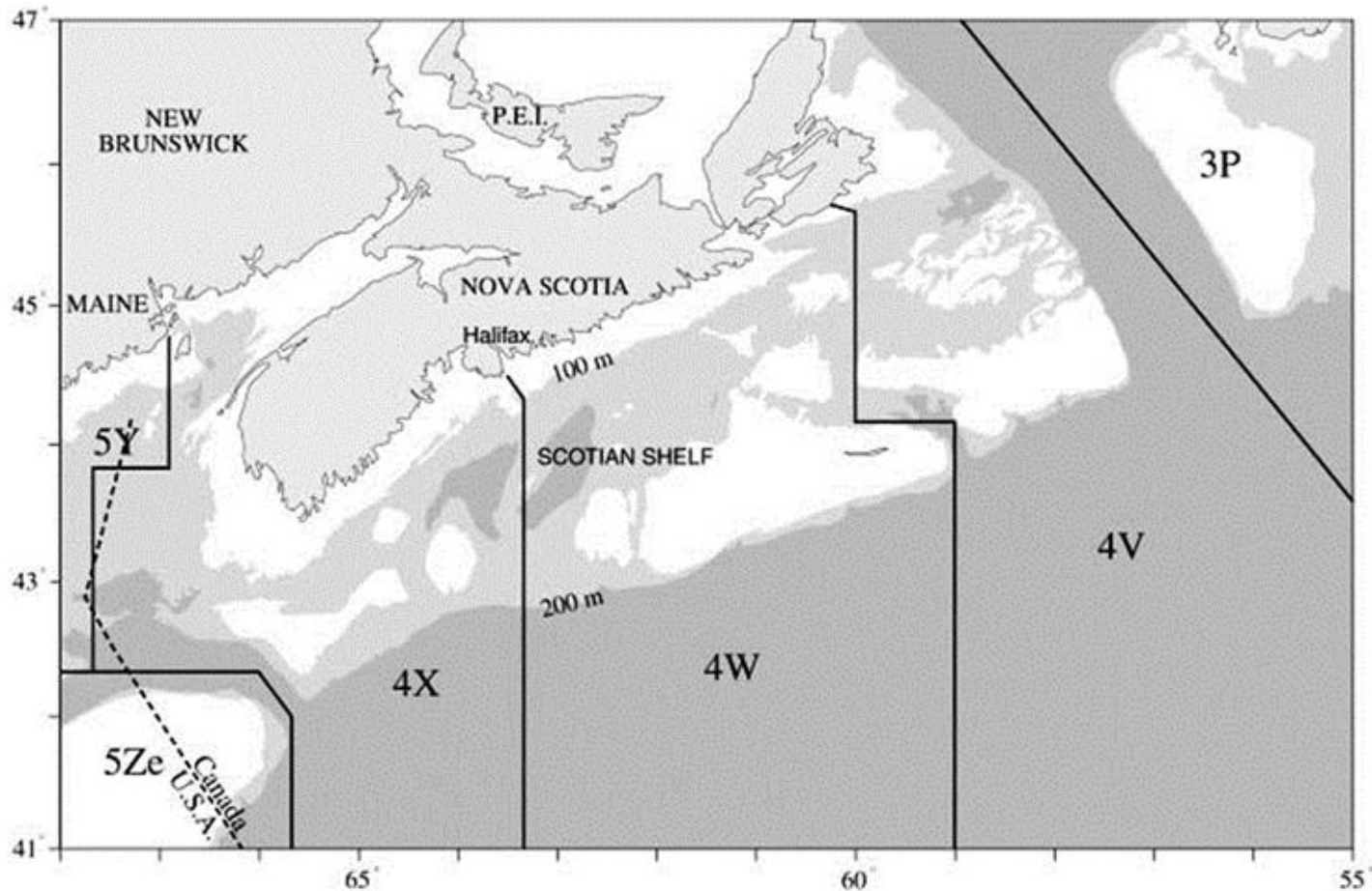
Halibut



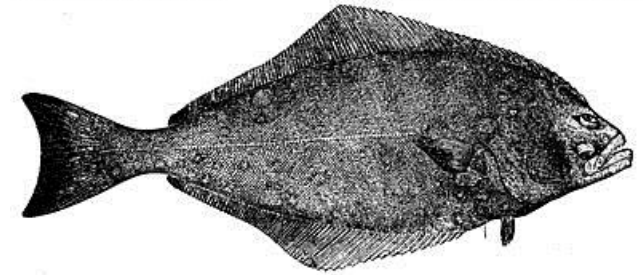
<i>MODEL</i>	Plan B (Replacement Yield Model Rejected in 2015)
<i>STOCK STATUS</i>	Overfished & overfishing not occurring in 2014
<i>REBUILDING</i>	2056 (No Projection)
<i>RETROSPECTIVE ADJUSTMENT</i>	NA
<i>UNCERTAINTIES</i>	Data limited assessment, stock structure
<i>REVIEWER COMMENTS</i>	Peer review recommended that in 2016 the stock status of overfished and overfishing unknown.

Halibut

Terminal year	assessment type	is 5y included	is 5z included	Discards	Discard mortality rate	Total Dealer Landing	recreational
2007	GARM 3	Yes	Yes	trawl & gillnet	100%	yes	No
2010	Operational	No	Yes	trawl & gillnet	100%	yes	No
2014	Operational	No (but adj OFL)	Yes	trawl & gillnet	100%	yes	No
2016	Plan-B	in projection	in projection	trawl & gillnet	by gear type	yes	No

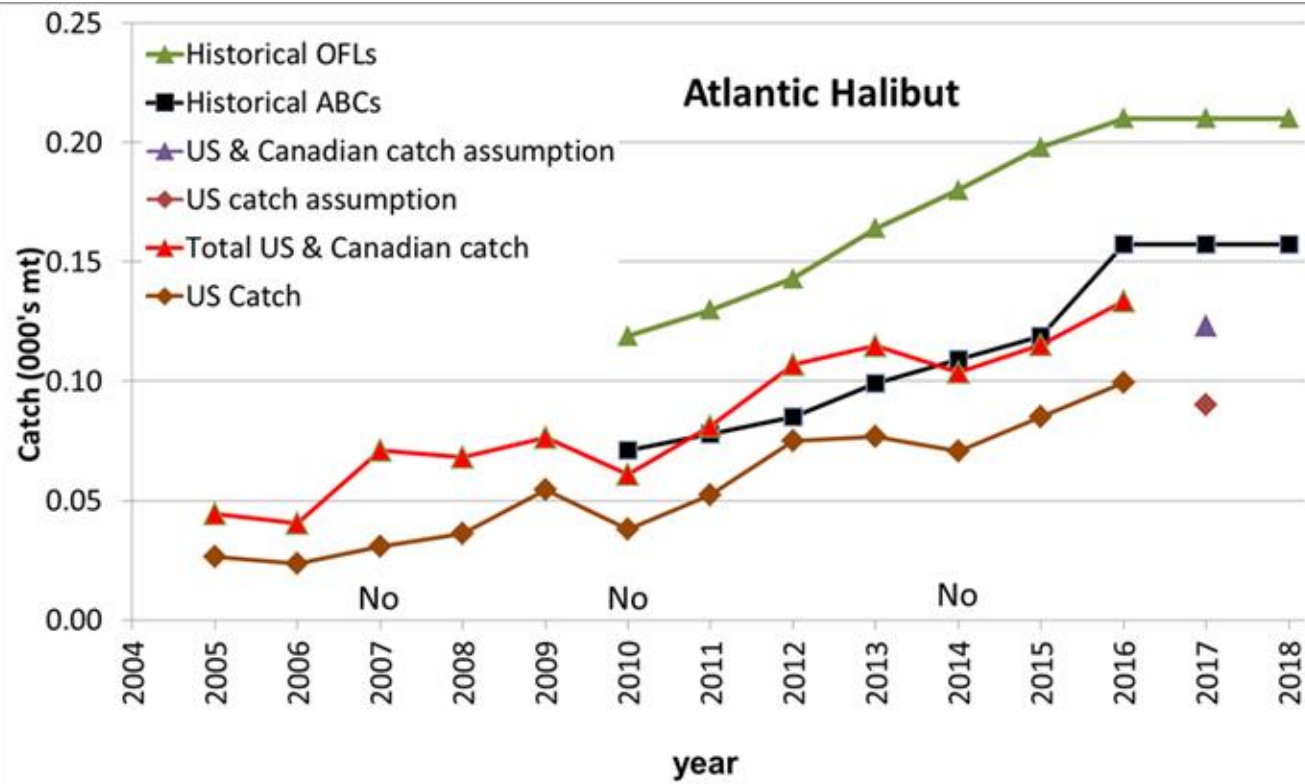


Halibut

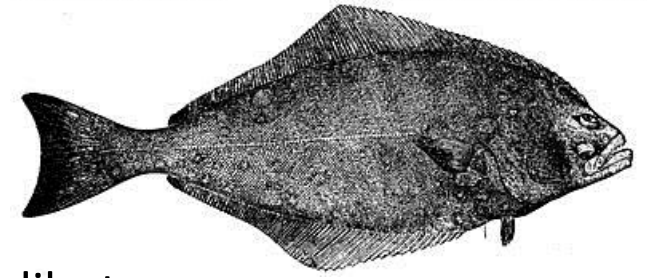


Year	US Catch	Canadian Catch (5y & 5z)	US & Canadian Catch	Historical OFLs	Historical ABCs	US Catch Assumption	US&Canadian Catch Assumption
2010	38	23	61	119	71		
2011	52	29	81	130	78		
2012	75	32	107	143	85		
2013	77	38	115	164	99		
2014	71	33	104	180	109		
2015	85	30	115	198	119		
2016	99	34	133	210	158		
2017				210	158	90	123
2018				210	158		

Halibut

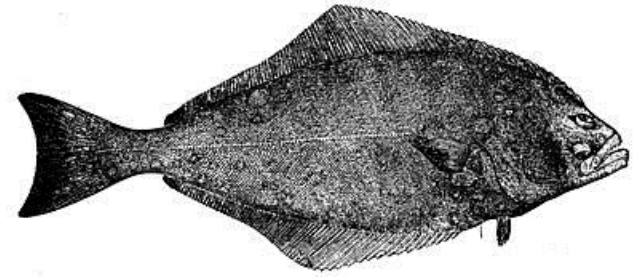


Halibut- Sources of Uncertainty



- Stock structure and stock identity for Atlantic halibut
- Selection of indices in the model because fishery dependent data does not cover the full range of the stock boundary
- Assumption on gillnet discard mortality at 30%
- If the dynamics of the halibut fishery change (e.g., the relative proportion of halibut discarded in the trawl fishery decrease) it could have implications for halibut management.
- High-grading for legal-sized fish does occur in the trawl and gillnet fishery and appears to be increasing in recent years in the trawl fishery. This could run counter to assumptions on discard mortality by gear type.
- Preliminary State of Maine 2017 data suggests lower landings than assumed in the PDT's 2017 bridge year estimate. However, the PDT still recommends using the 2017 bridge year estimate in the projections, as the final CY2017 data is not yet available.
- This approach relies on adjusting the catch relative to the bridge year, holding the quota constant in the out-years is a source of uncertainty (i.e., catch advice could be lower or higher).

Halibut- Catch Advice



OFL

- Based on 2017 peer review - **unknown.**

ABC

- Following the recommendation of the 2017 peer review and as a starting point for SSC consideration of catch advice as an ABC for FY2018, bootstrap analyses of the model forecasts suggest an 80% confidence interval of **121mt to 154mt and median of 137mt.** Note that this assumes a $K_p=0.75$ and $K_d=0.5$.
- As a sensitivity with 100% discard mortality assumes, bootstrap analyses of the model forecasts suggest an 80% confidence interval of 141mt to 180mt and median of 160mt. Note that this assumes a $K_p=0.75$ and $K_d=0.5$.
- Under either approach, the **total ABC would be reduced by Canadian catch**, in this case **33mt**, to determine a US ABC.