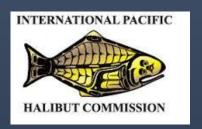
Halibut DMRs

For in-season management of non-target groundfish fisheries
In 2019









Methods

- Based on observer assessments of halibut viability
- Expanded to the haul, trip, and fishery
- Calculated within each sampling stratum then combined across strata
- Data from EM and halibut deck-sorting EFP were excluded
- Rockfish Program trips better identified

EM

- DMR estimation methods on observer-based viability assessments
- EM reviewers record information on halibut condition
- FMA considering eliminating EM assessments of halibut condition

TOTAL								
TOTAL	CEAR	25.07.0.0	200	2012	2014	2015	2016	2017
AREA	GEAR	SECTOR	RPP	2013	2014	2015	2016	2017
	POT	CP and CV	N	62	59	51	59	69
	HAL	СР	N	33	31	31	32	29
BSAI	HAL	CV	N	30	18	17	14	14
	NPT	СР	N	26	28	25	24	22
	NPT	CV	N	53	48	52	56	58
	POT	CP and CV	N	130	103	117	119	129
	HAL	СР	N	11	14	13	13	12
GOA	HAL	CV	N	344	339	336	327	293
GUA	NPT	СР	N	14	11	10	13	10
	NPT	CV	N	60	59	57	59	52
	NPT	CV	Υ	29	28	27	27	24
EM								
AREA	GEAR	SECTOR	RPP	2013	2014	2015	2016	2017
	HAL	CV	N			16	33	61
	POT	CV	N					25

			2018						
Operational Group									
Area	Sector	Sector RPP		Estimate DMR?	DMR				
	POT	None	N	548	Y	9%			
	HAL	CP	N	9,547	Y	8%			
BSAI		CV	N	832	Y	17%			
	NPT	CP	N	2,025	Y	84%			
		CV	N	2,456	Y	60%			
	POT	None	N	602	Y	7%			
	HAL	CP	N	1,631	Y	10%			
COA	HAL	CV	N	3,286	Y	17%			
GOA	NPT	CP	N	132	N	84%			
		CV	N	755	Y	67%			
		CV	Y	176	Y	62%			

			2019				
	Operati	onal Grou	ıp				
Area	Gear	Sector	RPP	Mean Annual N_viabilities	Estimate DMR?	DMR	
	POT	None	N	380	Y	19%	10%
	HAL	CP	N	6,886	Y	8%	0%
BSAI		CV	N	360	Y/ <u>N ?</u>	4%	-13%
		CP	N	2,844	Y	78%	-6%
	NPI	CV	N	2,736	Y	59%	-1%
	POT	None	N	450	Y	4%	-3%
	TTAT	CP	N	1,672	Y	11%	1%
COA	HAL	CV	N	2,367	Y	21%	4%
GOA		CP	N	1,300	Y	79%	-5%
	NPT	CV	N	1,106	Y	67%	0%
		CV	Y	389	Y	49%	-13%

Viabilities														
AREA	GEAR	SECTOR	RPP	2009	2010	2011	2012	2013	2014	2015	2016	2017	2014-2016	2016-2017
	POT	CP and CV	N	231	616	1259	1502	491	498	723	424	335	548	380
	HAL	CP	N	11394	9790	12666	14303	17284	11149	10268	7224	6548	9547	6886
BSAI	HAL	CV	N						1052	612		360	832	360
	NPT	CP	N	8967	7375	2363	1410	2868	1928	463	3685	2003	2025	2844
	NPT	CV	N	765	2151	2972	2228	2090	2780	1977	2611	2860	2456	2736
	POT	CP and CV	N	78	179	1067	1070	363	179	895	732	168	602	450
	HAL	CP	N	1367	1921	2326	367	740	1546	1785	1562	1781	1631	1672
GOA	HAL	CV	N	90	180	18	147	2025	4385	2687	2786	1948	3286	2367
	NPT	CP	N	1170	569	903	591	424	164	1	232	2367	132	1300
	NPT	CV	N	1628	2256	1558	2726	533	487	346	1433	778	755	1106
	NPT	CV	Υ	155	113	106	156	124	58	94	375	402	176	389
				'										

Noteworthy results:

Operational Group	2018 DMR*	2019 DMR	Comments
BSAI POTs	9%	19%	
BSAI HAL CV	17%	4%	No viabilities in 2016
BSAI CP NPT	84%	78%	
GOA NPT CP	84%	79%	10x increase in N_viabilities
GOA NPT CV RPP	62%	49%	

^{*}specified value

Recommendations

- Maintain current methods
- 2-year reference period (2016-2017)
- Average of most recent 2 years (2015,2017) for BSAI HAL CVs

Question for Plan Teams

- Support combined groupings?
- Support updated reference period?
- Recommend newly estimated DMRs for 2019?

Future Directions

- IPHC study on HAL release methods
- Increased use of EM
- Deck sorting
- Improved basis studies for DMRs