

2009 IPHC Workshops

IPHC Workshops

The Commission held two workshops in 2009:

- ❖ Biomass Apportionment Workshop April 29-30, 2009
- ❖ Halibut Bycatch Workshop September 30, 2009

Biomass Apportionment Workshop

April 29-30, 2009

❖ Goals of Workshop

- ❖ Workshop offered means to evaluate policy, not provide short-term forecasting
- ❖ Outlined criteria and basis for evaluation
- ❖ Identified candidate methods and simulated their use
- ❖ Scored methods relative to evaluation criteria
- ❖ Provided staff with additional suggestions for investigation
- ❖ **Not a decision-making meeting**

Agenda and Process

- ❖ Background on policy performance evaluation
- ❖ Interactive staff presentations and open discussions.

Day 1

- ❖ Staff presentations
 - ❖ Widget evaluation tool – Juan Valero
 - ❖ Performance evaluation and candidate methods – Steven Hare and Bruce Leaman
 - ❖ Evaluation process – Bruce Leaman
- ❖ Interactive simulation of dynamics and harvest
 - ❖ Baseline zero harvest scenarios
 - ❖ Target harvest rate (i.e. survey apportionment)
 - ❖ Historical catch shares
 - ❖ Other
- ❖ Iteration and refinement

Agenda and Process

Day 2

- ❖ Review of Day 1
- ❖ Discussion of alternative scenarios and additional simulations
- ❖ Building the report card
- ❖ Evaluation of alternatives

Characteristics of Candidate Apportionment Methods

- ❖ Should address coastwide and area stock management
- ❖ Should have apportionment ‘Sum to 1’, i.e., be consistent across all regulatory areas of the coast
- ❖ Should achieve target harvest rate and provide protection for area-specific spawning contributions
- ❖ Should be sensitive to stock changes, i.e., provide feedback for ongoing apportionment
- ❖ Should be precautionary and robust to uncertainty about stock structure and stock status

Initial Apportionment Scenarios Investigated

- ❖ Survey WPUE x Bottom Area
- ❖ Survey WPUE x Bottom Area, hook competition adjustment applied
- ❖ 2008 Closed Area (CA) Assessment proportions applied to Coastwide Total
- ❖ 2008 CA Assessment proportions applied to CA Total
- ❖ Historical age-eight recruitment proportions from CA Assessments
- ❖ Share of total removals (3-year average)
- ❖ Share of total removals (10-year average)
- ❖ **Share of total removals (15-year average)**
- ❖ Share of Bottom area (0-300 fathoms, excluding EBS shelf outside 4C and 4D Edge)
- ❖ Commercial WPUE x Bottom Area

Additional Investigations Suggested During Workshop

- ❖ Adding an adjustment to accommodate differences in timing of the survey among areas
- ❖ Hook competition
- ❖ Weighted combination of surveys and historical shares (2:1)
- ❖ Dynamic blending of survey data and historical shares
- ❖ Methods to reduce the variance in Area 2A survey data
- ❖ The form of averaging of survey data (simple average vs. reverse weighted average)

Performance Metrics

- ❖ Spawning biomass relative to unfished spawning biomass
- ❖ Realized harvest rate
- ❖ Percentage change from historical catch shares
- ❖ Relative yield
- ❖ Age composition
- ❖ Alternative performance metrics: average age of females; % <11yr; % 11-16 yr; % >16 yr; % >20 yr
- ❖ Report cards based on harvest reference points and changes from baseline scenario

Simulation Widget Features

- ❖ Migration: Simple eastward movement; matrix based on tag recoveries
- ❖ Fishing options: trended harvest rate (HR); balanced HR; unbalanced HR; historical harvest shares
- ❖ Size at age: common growth among regions; area-specific growth
- ❖ Recruitment: averages from 1996-2005 closed-area assessments; 1998-2004 survey average; share of bottom area; juvenile projection

Survey:Historical (15 yr) shares of total removals (2:1)

Fixed Survey proportions as of 2009

APPORTIONMENT METHOD		RECRUITMENT SCENARIO											
		CA Estimates (1996-2005)				Survey (1998-2004)				Juvenile movement			
		Area	SB/SB0	HR	CHCS ¹	SB/SB0	HR	CHCS ¹	SB/SB0	HR	CHCS ¹	SB/SB0	HR
Survey	ALL	33%	0.20		33%	0.20		33%	0.20		33%	0.20	
	4A	41%	0.20	-68%	51%	0.20	-4%	47%	0.20	-37%	47%	0.20	-37%
	3B	33%	0.20	32%	35%	0.20	56%	29%	0.20	-20%	34%	0.20	-10%
	3A	34%	0.20	19%	32%	0.20	1%	34%	0.20	-10%	38%	0.20	-42%
	2C	37%	0.20	-53%	37%	0.20	-51%	38%	0.20	-42%	32%	0.20	80%
	2B	29%	0.20	2%	29%	0.20	1%	32%	0.20	80%	33%	0.20	115%
	2A	33%	0.20	-19%	33%	0.20	-29%	33%	0.20	115%			
Survey:HCS (2:1) ³	ALL	34%	0.20	-1%	33%	0.20	0%	34%	0.19	-1%	34%	0.19	-1%
	4A	18%	0.90	120%	49%	0.24	12%	31%	0.50	74%	31%	0.50	74%
	3B	32%	0.20	-1%	39%	0.15	-17%	8%	0.90	39%	8%	0.90	39%
	3A	34%	0.19	-3%	28%	0.26	12%	16%	0.51	27%	16%	0.51	27%
	2C	21%	0.52	54%	23%	0.46	48%	31%	0.30	27%	31%	0.30	-26%
	2B	39%	0.11	-30%	39%	0.11	-30%	62%	0.04	-60%	62%	0.04	-27%
	2A	42%	0.14	-12%	33%	0.20	0%	79%	0.03	-67%	79%	0.03	-27%

¹ % Change from Historical Catch Shares (15 yr: 1993-2007 average proportion of total removals)
² % change in Yield from Method A
³ Apportionment based on blending 2 parts Survey proportions (fixed as of 2009), and 1 part 15 yr (1993-2007) average

IPHC Bycatch Workshop

IPHC Bycatch Workshop Goals

- ❖ Review history and treatment of halibut bycatch and treatment of fish < 32 inches (U32).
- ❖ Changes in understanding and potential treatment of bycatch impacts, based on new understanding of halibut movements
- ❖ Investigate options for future treatment of bycatch in halibut management
- ❖ **No changes planned for 2010 management year**

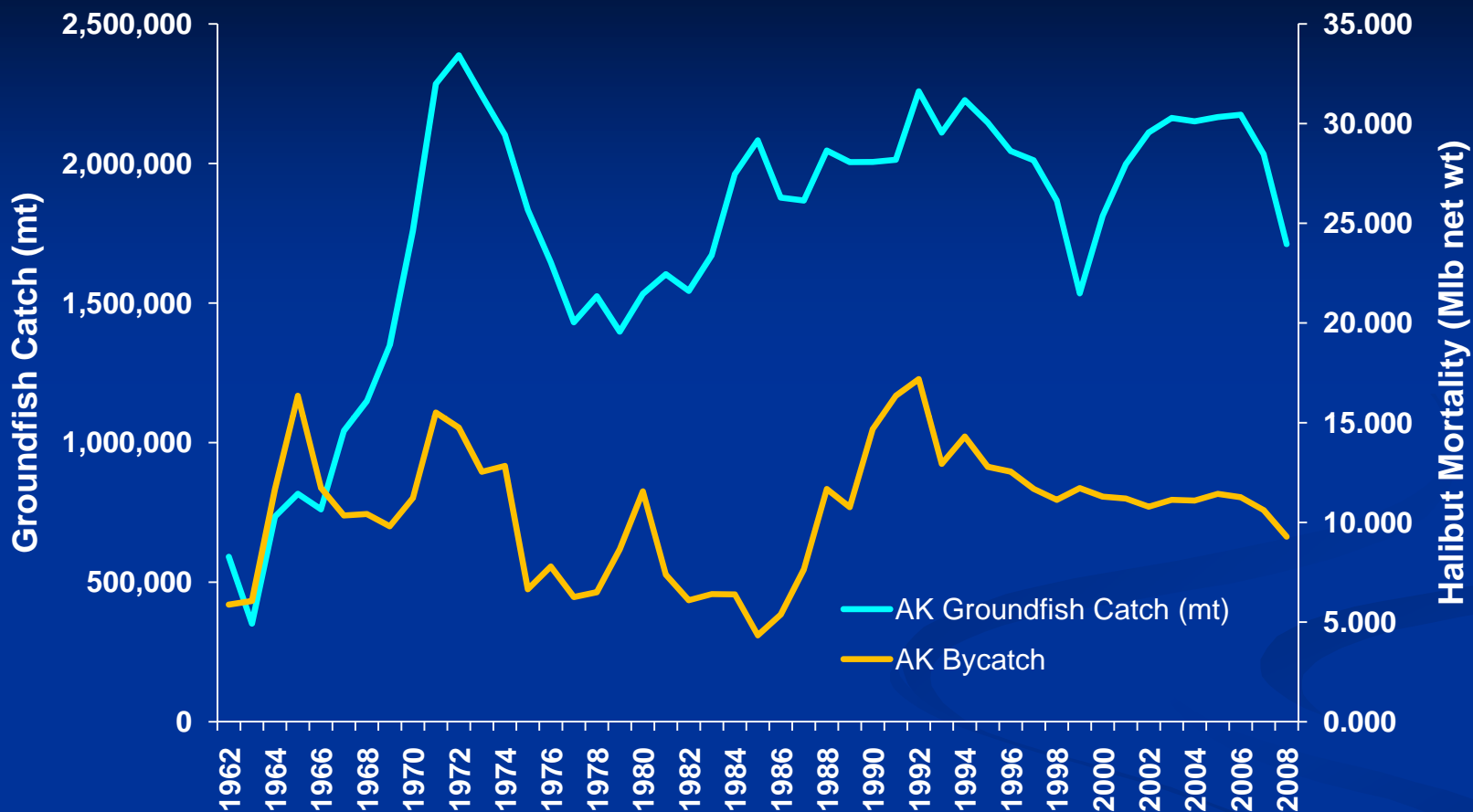
IPHC Bycatch Workshop Topics

- ❖ Current and historical levels of halibut bycatch mortality
- ❖ Historical methods by which the Commission has accounted for bycatch mortality in management of the halibut stock
- ❖ Methods of estimation of bycatch mortality in other fisheries
- ❖ Incorporation and impacts of bycatch mortality estimates and non-commercial removals on halibut productivity and yield
- ❖ Impacts of non-local bycatch mortality on fisheries yield of individual IPHC Regulatory Areas
- ❖ Progress on halibut bycatch control and management in other fisheries
- ❖ Methods employed to reduce halibut bycatch mortality in the northeast Pacific Ocean
- ❖ Future of halibut bycatch management

Major Issues Arising from Workshop

- ❖ Present bycatch estimates separately for Bering Sea and Gulf of Alaska
- ❖ Re-examine validity of historical estimates of bycatch in the Bering Sea and Gulf of Alaska
- ❖ Examine bycatch levels in relation to halibut abundance
- ❖ Reconvene the 1991 Halibut Bycatch Work Group and re-examine recommendations and progress
- ❖ Change in the estimated impacts of non-local bycatch on local yield

Alaska Groundfish Catch and Halibut Bycatch 1962-2008



1971 - Peak of Bering Sea Foreign Trawl Fishery

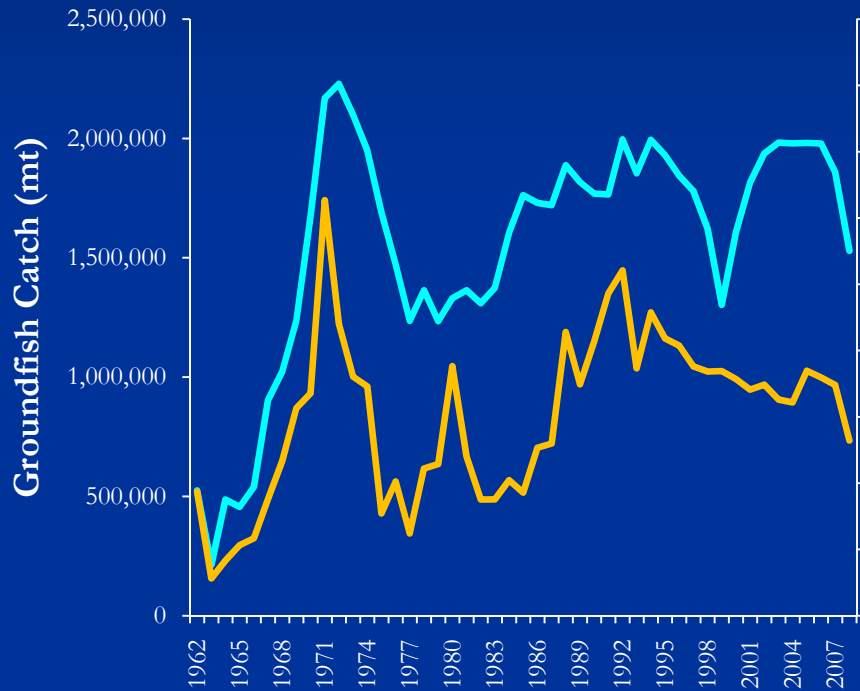
1977 - 200 Mile Limit and EEZ

1980 - Beginning of buildup in JV fishing

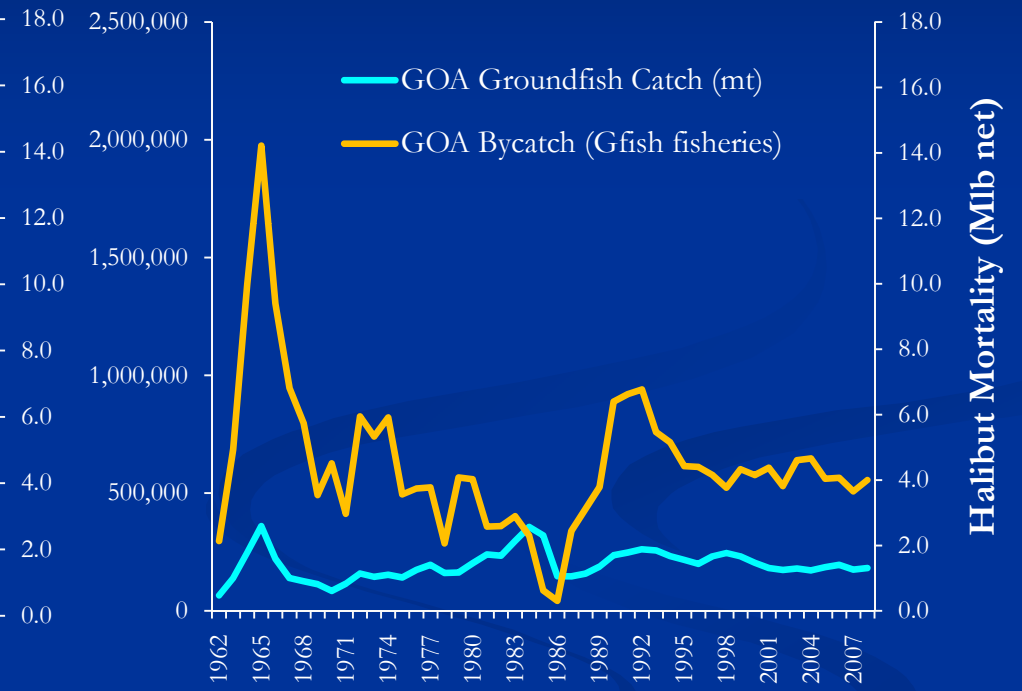
1990 - Full "Americanization" of fishery

Groundfish Catch vs. Halibut Mortality

Bering Sea/Aleutian Is.

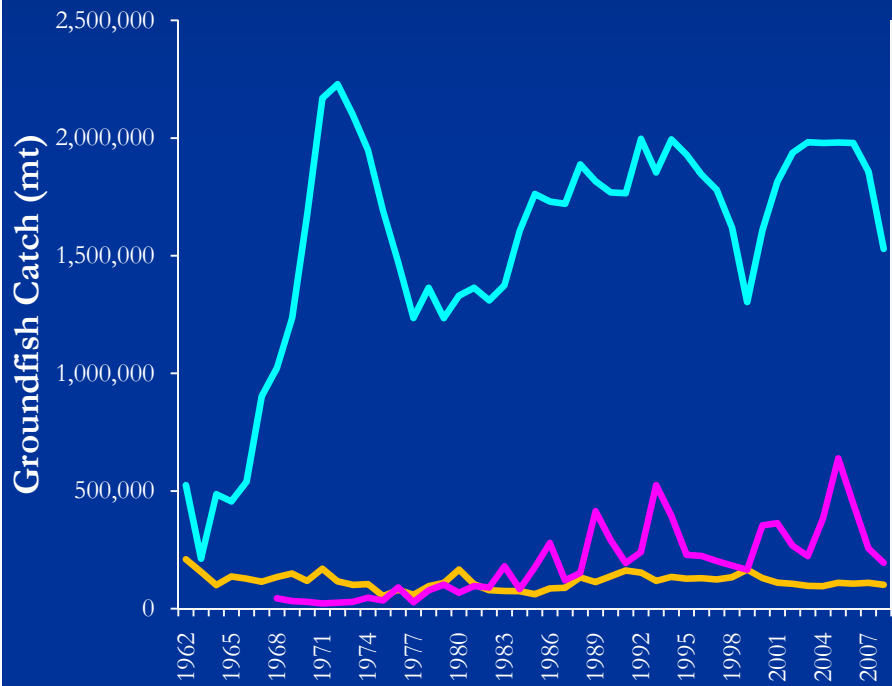


Gulf of Alaska

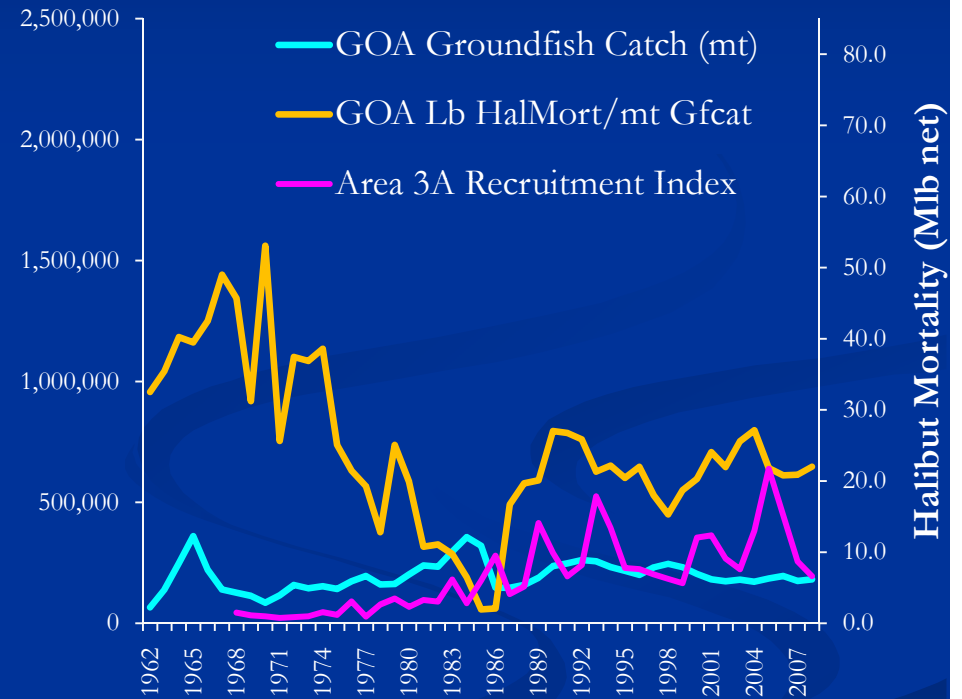


Groundfish Catch vs. Ratio of Halibut Mortality to Groundfish Catch

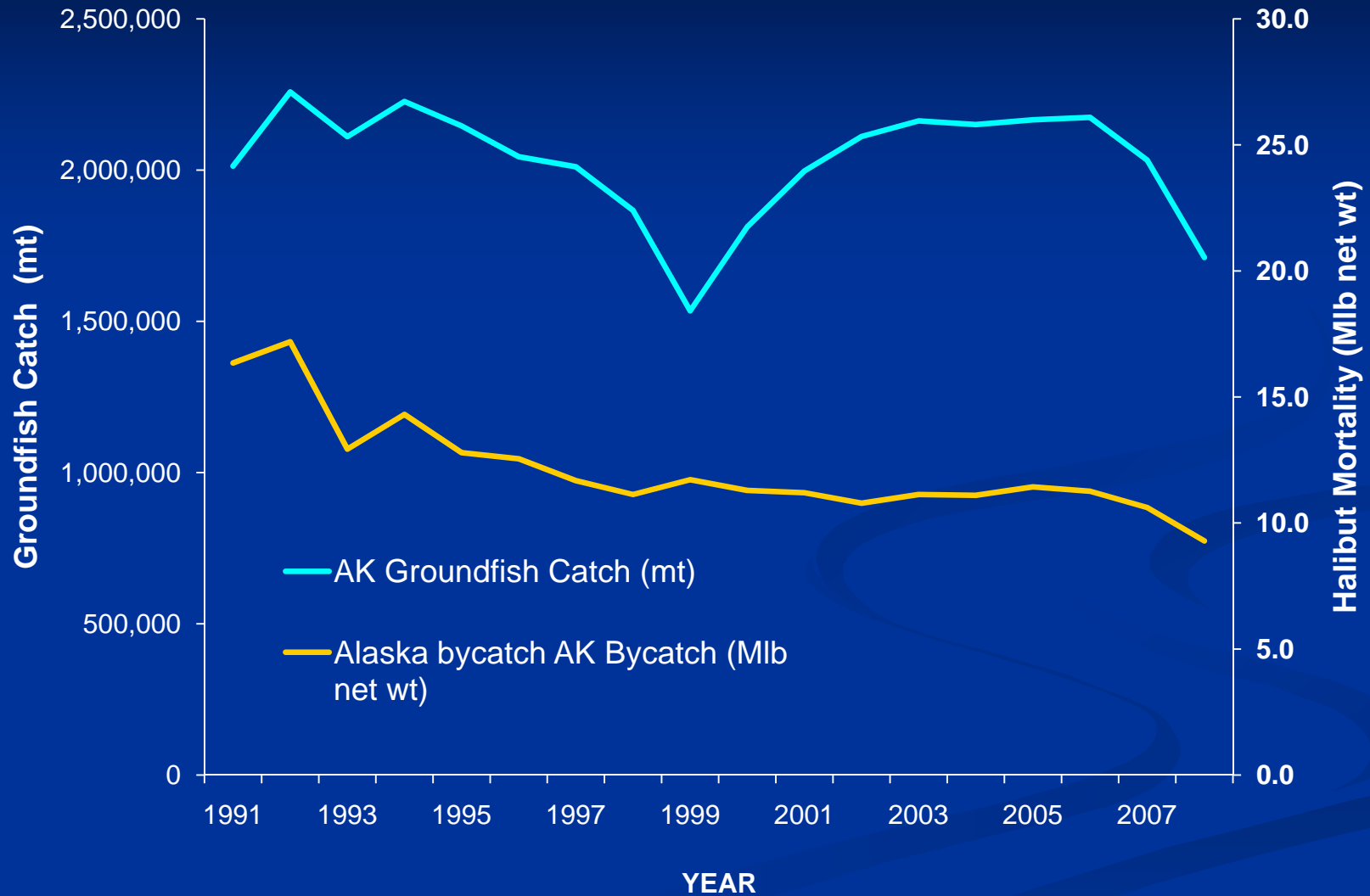
Bering Sea/Aleutian Is.



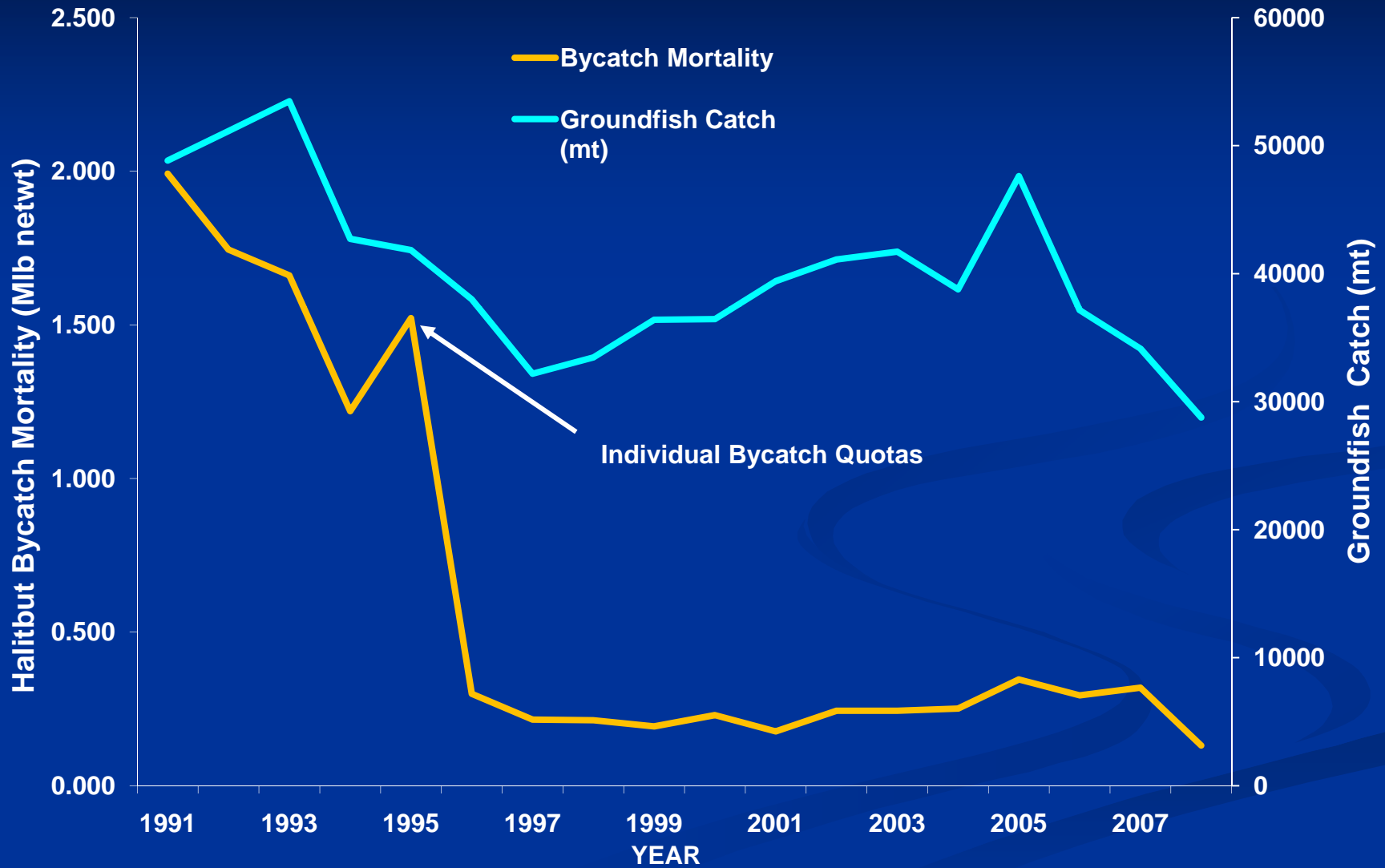
Gulf of Alaska



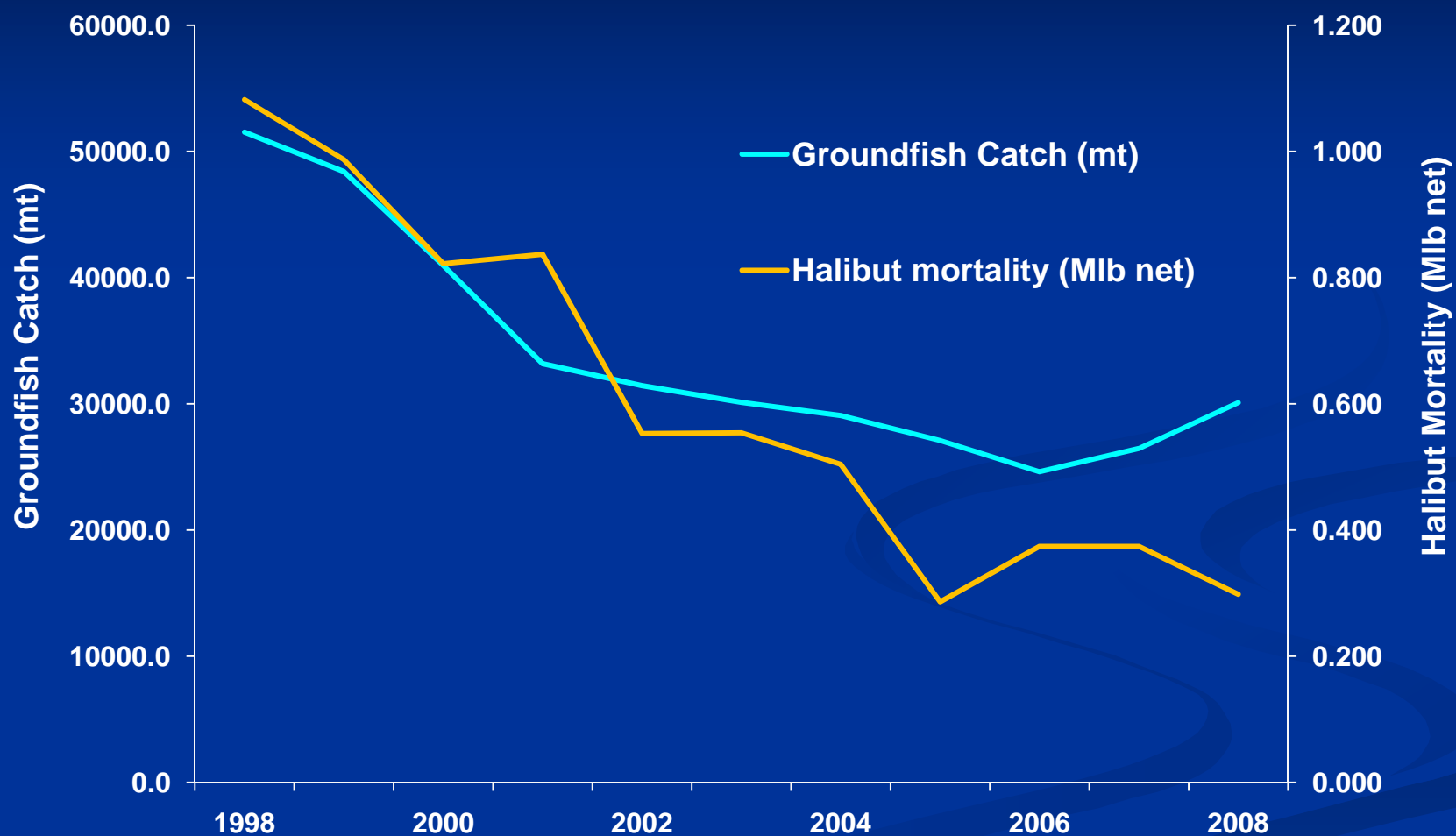
Progress on Alaskan Halibut Bycatch Reduction Since 1991



Progress on Canadian Halibut Bycatch Reduction Since 1991



Progress on Area 2A Halibut Bycatch Reduction Since 1998



Workshops Output

- ❖ Reports of workshops: presentations, summary minutes, and staff responses to major comments and questions posted on the IPHC website:

<http://www.iphc.washington.edu/halcom/meetings/workshops.htm#reports>

- ❖ Discussions from the IPHC online Forum are also posted on the website:

<https://tundra.iphc.washington.edu/iphc/blog/>

- ❖ All material from workshops on Commission annual CD