

How Are Halibut Catch Limits Determined?

A fishery catch limit is the result of a multi-step process which has the objective of determining how much can be harvested by the directed fisheries, while accounting for all other removals, and still meet the Commission's goals for stock conservation. The process starts in the fall, with the Commission staff conducting the annual stock assessment, which estimates the coastwide stock size (in numbers of fish at each age) and the female spawning biomass in pounds. Based on the current harvest policy, the coastwide exploitable biomass (Ebio) is calculated and is then divided among the IPHC regulatory areas through a process called biomass apportionment. Catch rate information from the annual IPHC assessment survey and the halibut habitat of each regulatory area form the basis of the apportionment.

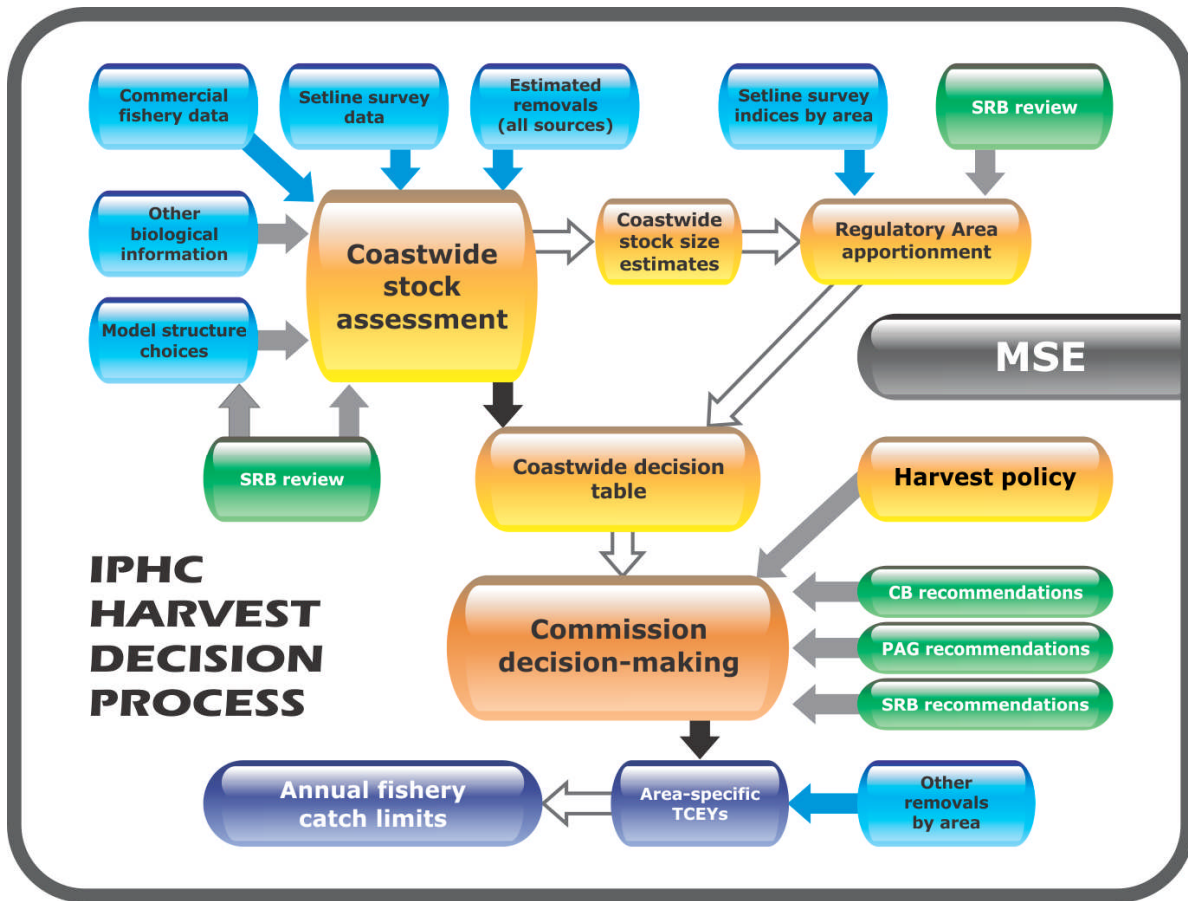
Now that Ebio has been determined for each area, the next step involves applying the Commission's target harvest rate for each area to the Ebio estimates. The result of Ebio times target harvest rate is referred to as the Total Constant Exploitation Yield, or TCEY.

Next, the Other Removals by area are subtracted from the TCEY to determine the Fishery CEY or FCEY. It is the FCEY which forms the basis of the directed fishery catch limits. Other Removals include catches which either have no explicit limits to their amounts, or catches which do not fall under IPHC jurisdiction. The makeup of Other Removals varies somewhat by area, but in general, this includes sport and subsistence/personal use harvest, wastage from the commercial halibut fishery, and bycatch mortality. Exceptions to this occur for Areas 2A, 2B, 2C, and 3A where some or all of the sport fisheries are included in the Commission's fishery catch limit because of allocation plans adopted by the national governments. Additionally, for bycatch and wastage, only that portion of the catch which is greater than 26 inches is included in this step.

The coastwide total mortality, TCEY and area-specific TCEYs are the basis of the staff's harvest advice to the Commission and stakeholders. The information is provided in a decision-making table, composed of rows representing the projected consequences to stock and fishery trends from different levels of harvest, including a row representing the mortality resulting from application of the Commission's current harvest policy. This latter row is referred to as the Blue Line, as it is highlighted in blue in the staff's presentations and handouts. An example is shown on the reverse side of this sheet.

The Commission staff distributes the assessment information and decision-making table in advance of the IPHC Annual Meeting, allowing the halibut industry to discuss and provide comment back to the Commission. Once the Annual Meeting commences, the Conference Board and Processor Advisory Group further discuss the harvest advice, which results in formal recommendations to the Commission. The Commission considers all of the input – public comments, the advisory body's recommendations and staff harvest advice – and adopts a directed fishery catch limit by vote for each area.

Flow chart of the Catch Limit Determination Process



An example of Harvest Advice provided by IPHC Staff in a Decision Table

	Total removals (M lb)	Fishery CEY (M lb)	Harvest rate	Stock Trend				Stock Status				Fishery Trend				Fishery Status
				Spawning biomass				Spawning biomass				Fishery CEY from the harvest policy				Harvest rate
				in 2015		in 2017		in 2015		in 2017		in 2015		in 2017		in 2014
				is less than 2014	is 5% less than 2014	is less than 2014	is 5% less than 2014	is less than 2014	is less than 20%	is less than 30%	is less than 20%	is less than 2014	is less than 10% 2014	is less than 10% 2014	is above target	
2014 Alternative No removals FCEY = 0	0.0	0.0	0.0%	5/100	<1/100	23/100	4/100	3/100	<1/100	1/100	<1/100	0/100	0/100	0/100	0/100	0/100
	11.4	0.0	5.0%	31/100	<1/100	32/100	18/100	3/100	<1/100	2/100	<1/100	0/100	0/100	0/100	0/100	<1/100
	20.0	8.5	10.1%	33/100	<1/100	37/100	24/100	4/100	<1/100	3/100	<1/100	<1/100	<1/100	<1/100	<1/100	<1/100
Blue Line	30.0	18.2	15.9%	39/100	<1/100	66/100	41/100	4/100	<1/100	5/100	<1/100	5/100	2/100	8/100	4/100	7/100
	36.4	24.5	19.7%	56/100	1/100	82/100	63/100	5/100	<1/100	6/100	1/100	43/100	20/100	74/100	47/100	50/100
	40.0	28.0	21.8%	68/100	1/100	87/100	73/100	5/100	<1/100	8/100	1/100	85/100	52/100	96/100	84/100	92/100
status quo	45.0	32.8	24.7%	82/100	4/100	93/100	83/100	6/100	1/100	10/100	1/100	>99/100	95/100	>99/100	99/100	>99/100
	48.5	36.1	26.7%	88/100	8/100	95/100	87/100	6/100	1/100	13/100	1/100	>99/100	>99/100	>99/100	>99/100	>99/100
	55.0	42.6	30.5%	95/100	23/100	98/100	94/100	6/100	1/100	19/100	2/100	>99/100	>99/100	>99/100	>99/100	>99/100
	60.0	47.5	33.5%	98/100	38/100	99/100	97/100	7/100	1/100	26/100	2/100	>99/100	>99/100	>99/100	>99/100	>99/100
				a	b	c	d	e	f	g	h	i	j	k	l	m

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