

## How Are Halibut Catch Limits Determined?

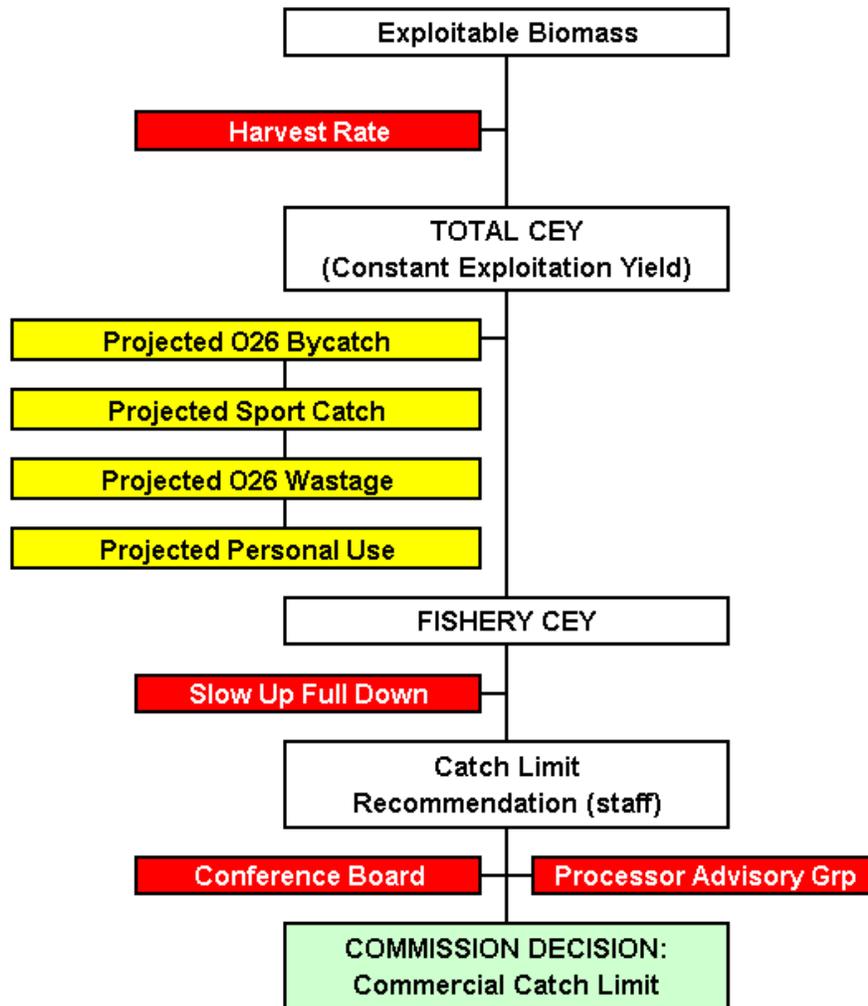
A fishery catch limit is the result of a multi-step process which has the objective of determining how much can be harvested by the directed fishery, given the Commission's goals for stock conservation. The process starts with the Commission staff determining the size of the coastwide exploitable biomass (Ebio) and then apportioning it into regulatory area Ebio using objective scientific procedures. Ebio is defined as the fraction of the Total biomass, or Tbio, which is catchable by hook and line gear. Generally, this is composed of fish greater than 32 inches in length (the current legal limit for commercial removals).

Next, the amount of yield available for harvest is calculated by applying the Commission's target harvest rate to the Ebio estimate. This resulting yield is referred to as the Total Constant Exploitation Yield, or TCEY (Ebio times target harvest rate). The target harvest rate differs between Areas 2A-3A and Areas 3B-4, with the latter being lower. In addition, any given harvest rate responds to two stock reference points, the threshold and limit reference points. Harvest rates are constant above the threshold reference point (30% of estimated unfished spawning biomass) and decrease linearly to zero if the spawning biomass decreases to the limit reference point (20% of estimated unfished spawning biomass).

The third step is to subtract from TCEY what is referred to as Other Removals in order 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 on the amount of harvest, or catches which IPHC has no authority to manage. The former category includes sport and subsistence/personal use harvest, and wastage from the commercial halibut fishery; the latter includes bycatch mortality. Exceptions to this occur for Areas 2A and 2B because of the allocation plans among fishery sectors in those areas. Additionally, for bycatch and wastage, only that portion of the catch which is greater than 26 inches is included in this step, because of the impact those sizes have on the removals from the stock, which are essentially the same as removals over 32 inches.

The next step is for the IPHC staff to determine its recommendation for an area's catch limit, i.e., Catch Limit Recommendation (CLR), based on the current year's FCEY and the trajectory of the stock since the preceding year. Within its Harvest Policy, the Commission has a harvest control rule termed Slow Up/Full Down (SUFULLD). It works in the following manner: if the current FCEY is greater than the previous year's catch limit, the staff's CLR would be the previous year's Catch Limit PLUS one third of the difference between the two; if the Fishery CEY is less than the previous year's Catch Limit, then the CLR is equal to the Fishery CEY.

The Commission staff distributes its CLRs 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 CLRs, which results in formal recommendations to the Commission. The Commission considers all of the input – public comments, recommendations from its advisory bodies, and staff CLRs – and then adopts fishery catch limits and other measures which seek to balance the advice it has received, with stock conservation being the primary consideration.



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