

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE REPORT ON THE
CALCULATION OF HALIBUT INDIVIDUAL BYCATCH QUOTA FOR THE
TRAWL RATIONALIZATION PROGRAM

In June 2009, the Washington Department of Fish and Wildlife (WDFW) proposed, and the Council unanimously adopted, the following motion (with amendments underlined) on Amendment 21 Intersector Allocation and the halibut individual bycatch quota (IBQ) component of the trawl rationalization program:

The trawl mortality limit for legal and sublegal halibut is set at 15% of the Area 2A Total Constant Exploitation Yield not to exceed 130,000 lbs, each year, for the first 4 years of the trawl rationalization program, and not to exceed 100,000 lbs beginning in the 5th year of the program. This total bycatch limit may be adjusted through the biennial management process. Halibut IBQ will apply on an individual basis and will be based on halibut bycatch mortality, not on total halibut catch.

As described, the purpose of this motion was to:

- Set a trawl halibut sector quota amount for the first four years of the program that acknowledges the reduction in the Total CEY for 2A in recent years and provides an incentive for halibut bycatch reduction and reduction of discarded mortality;
- Provide a mechanism to adjust the trawl sector bycatch quota (up or down) through the biennial management process; and
- Promote individual accountability for halibut bycatch by applying an individual mortality rate to halibut discards.

At the September 2010 meeting, we noted that there was considerable confusion on the part of some members of the Council and the Groundfish Advisory Subpanel (GAP) as to how the halibut IBQ quota pounds would be calculated for distribution to the trawl fleet under rationalization. This confusion is understandable given that not everyone is familiar with how the halibut quotas are calculated by the International Pacific Halibut Commission (IPHC).

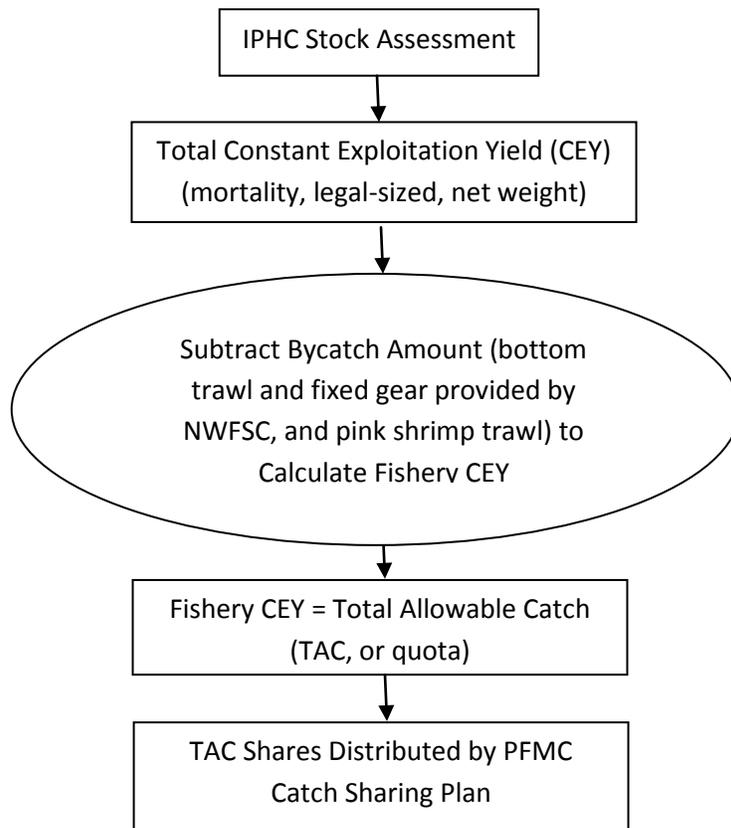
Figure 1 is a flow chart that describes how the Area 2A halibut quota is calculated by IPHC. IPHC conducts an annual survey and produces a stock assessment that establishes the Total CEY for each management area. Importantly, the CEY is expressed in terms of the mortality of legal-

sized halibut in net weight. From the Total CEY, IPHC subtracts the Council’s best estimate of halibut bycatch.

The Council annually receives a report from the Northwest Fisheries Science Center (NWFSC) that includes post-season bottom trawl and fixed gear halibut bycatch estimates. The NWFSC’s estimates are derived from the West Coast Groundfish Observer Program (WCGOP) data. Bycatch estimates are for mortality of all halibut (legal and sublegals); mortality rates for the trawl fleet are based on the condition of the released fish, whereas a fleetwide mortality rate for fixed gear (provided by IPHC) is applied. For trawl, WCGOP observers measure some of the halibut brought aboard, so an estimate of the proportion of legal-sized fish can be calculated.

The NWFSC post-season estimate is forwarded to IPHC and is combined with an estimate of pink shrimp trawl bycatch to produce a total 2A bycatch amount. The 2A bycatch amount is subtracted from the Total CEY (i.e., it comes off the top) to produce the Fishery CEY, or quota, for the following season, which is allocated among the different directed and incidental fisheries in accordance with the Council’s Catch Sharing Plan; therefore, reducing the amount of trawl bycatch results in a higher quota for the directed fisheries.

Figure 1. IPHC halibut quota calculation for Area 2A.

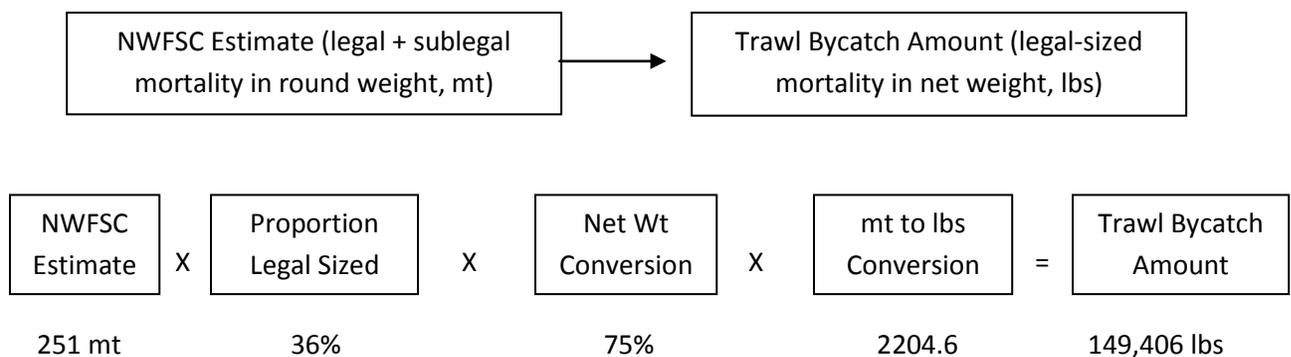


Because the trawl sector will be held to a quota under the trawl rationalization program, the Council decided to use this preseason quota (i.e., the 130,000 pounds), rather than the post-season estimate, as the trawl bycatch amount that would be subtracted from the Total CEY in calculating the Area 2A quota beginning in 2011.

In September, there was also concern expressed by members of the Council and the GAP that the amount set aside for the trawl sector was considerably less than the amount of halibut harvested by the trawl sector in recent years. We believe this to be a misunderstanding as well. As with the confusion over the IBQ calculation, this misunderstanding seems related to the two different units of measurement to discuss the amount of the trawl set aside and the amount of IBQ. The trawl set aside that is subtracted from the IPHC’s Total CEY (i.e., the 130,000 pounds) is expressed in mortality of legal-sized halibut in net weight. The amount of the halibut IBQ, on the other hand, is expressed in mortality of legal and sublegal sized halibut in round weight.

To determine how the amount of the trawl set aside (i.e., the 130,000 pounds) relates to the amount recently harvested by the trawl sector, we must first convert the amount harvested by trawl, as provided in the annual NWFSC report (expressed in total mortality for legal and sublegal sized halibut), into the same unit of measurement as the set aside amount (legal-sized mortality only). The legal size for halibut is 32 inches, which is approximately 81 cm. The steps for this calculation are outlined in Figure 2.

Figure 2. Steps to convert NWFSC estimate into IPHC unit of measurement to compare the NWFSC’s estimate for 2009 with the trawl set aside.

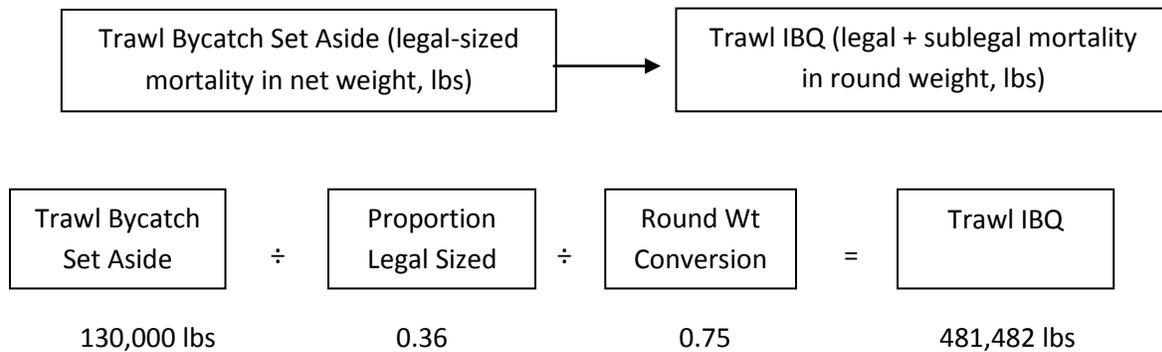


For this example, we used the most recent estimate of trawl discard mortality (legal and sublegal combined) for 2009, which was 251 mt. We also used 36% as the proportion of the trawl total mortality in the NWFSC report that was estimated to be legal-sized (Agenda Item D.2.b, NMFS Report, September 2010). This percentage was derived by calculating the proportion of halibut sampled that were longer than 80 cm, as the length data were grouped into 5 cm intervals. We also used 75% as the conversion factor for round weight to net weight, as was provided to us by IPHC in testimony at the September meeting.

We note that the trawl bycatch amount increased from 209 mt in 2007 to 251 mt in 2009. However, even when we use the higher value from 2009 (149,406 pounds), the difference between that amount and the amount set aside for trawl (130,000 pounds) is 19,406 pounds, which is only a 13% reduction.

Next, to determine how the trawl set aside amount (i.e., the 130,000 pounds) translates into the amount of halibut quota pounds available for the IBQ program, we must first convert the set aside into the trawl rationalization unit of measurement (see Figure 3).

Figure 3. Steps to convert trawl set aside into trawl IBQ unit of measurement.



Therefore, the overall amount of the trawl sector IBQ pounds is 481,482 pounds, each year, for the first four years of the program. This number is 71,873 pounds, or 13%, less than what is estimated to have been caught in 2009 (i.e., 251 mt, which equals 553,355 pounds).

The Council also set aside 10 mt of halibut to account for the catch occurring in the at-sea whiting fishery and bottom trawl fishery south of 40 degrees, 10 minutes. If we subtract the 10 mt set aside from the trawl sector total, there would be 459,436 pounds distributed to the individual permit holders under the trawl rationalization program.

To put the 13% reduction into perspective, the trawl bycatch mortality has remained relatively stable for the past five years, except for the increase in 2009, whereas the Area 2A quota (after the bycatch has been subtracted) has declined each year for the past five years. All other Area 2A halibut fisheries (tribal, commercial, incidental, and recreational) have experienced reductions in the range of 30-100%. The recreational quota has been reduced by 30%, the tribal, directed commercial, and incidental troll quotas have been reduced by about 40%, and the incidental sablefish quota was zero in 2010 (see Figure 4).

WDFW prepared this report to explain our rationale behind our proposed amount of halibut to be set aside for trawl IBQ and we hope that the Council and GAP find it informative and helpful. Given that the quotas for the non-trawl fisheries in Area 2A have been significantly reduced, WDFW recommends the Council keep the trawl halibut set aside at 130,000 pounds, which

equates to 481,482 halibut IBQ pounds, in place for the first four years of the program. As described previously, this amount may be adjusted through the biennial management process.

Figure 4. Trawl halibut bycatch mortality for 2006-2009, and sector halibut quotas for 2006-2010. The 2010 projection for trawl represents the initial trawl IBQ amount.

