

## **WASHINGTON DEPARTMENT OF FISH AND WILDLIFE REPORT ON SCOPING HALIBUT CATCH SHARING PLAN ALLOCATION CHANGES**

The Washington Department of Fish and Wildlife (WDFW) would like to provide this update on the Puget Sound recreational halibut fishery for the Council's consideration on whether to move forward with potential Catch Sharing Plan allocation changes. Specifically, this report describes our revised catch estimation methods, updated catch estimates for 2011-2015, and plans to improve our catch accounting process.

### Background

WDFW manages the Puget Sound recreational halibut fishery through an annual season-setting process and produces a post-season catch estimate using a combination of catch data from creel surveys and effort derived from a random phone survey. Shortly after the International Pacific Halibut Commission's (IPHC's) annual meeting to set the Total Allowable Catches (TACs, or quotas), WDFW calculates the number of days available for the upcoming season based on recent catch rates and holds a stakeholder meeting to collaboratively identify the specific season dates; these recommended dates are communicated to the National Marine Fisheries Service for consideration through their rulemaking process. In recent years, as catch rates and effort has increased while the subarea quota has remained constant, the recreational halibut season has lasted about eight days and primarily occurs in the month of May.

### Catch Estimation Methods

WDFW port samplers conduct angler interviews to collect catch information, but until recently, did not attempt to produce total effort estimates by counting all boats leaving and returning to port. The Puget Sound halibut fishery typically occurs in only a few Marine Catch Areas (MCAs)—particularly MCAs 5, 6, 7, and 9. Sampling coverage had been driven by a requirement to maintain a minimum of a 20% sampling rate on marked-selective Chinook salmon fisheries and was limited by funding availability. However, as the halibut season has been constrained to relatively few days that typically do not overlap with the peak salmon fishery, we have been able to achieve a sampling rate of 25-50% for the Puget Sound halibut fishery.

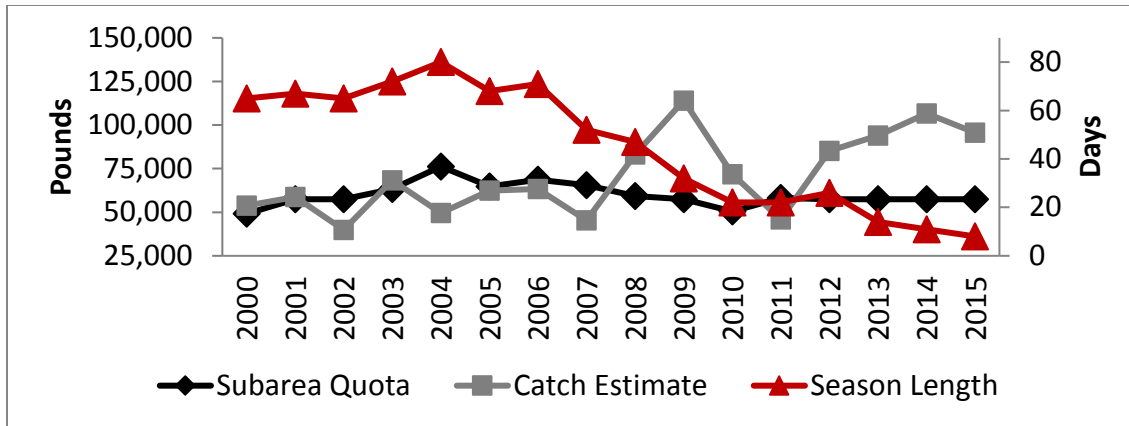
Beginning in 2012, in response to a recommendation by the federal Marine Recreational Information Program (MRIP), WDFW revised its port sampling site selection process to apply weights to the different sites. The weight values were developed to assist the sampling program in selecting the sites to be sampled and to correct for the sites that have a low probability of being selected; however, there was still some subjectivity involved in site selection, and initial weight values were assigned based on the likelihood of being sampled with the intent of achieving the required 20% sampling rate for chinook salmon.

Through a fairly lengthy process, WDFW reviewed its site weighting procedures with MRIP representatives and, collectively, determined that the weighting method being employed was not appropriate. As an interim measure, it was decided that using the unweighted halibut estimates would be a suitable alternative to using the past weights that were in error. As such, the final WDFW catch estimates for the Puget Sound recreational halibut fishery for 2011-2015 are in Table 1, and represent the unweighted values.

**Table 1 WDFW final catch estimates for the Puget Sound recreational halibut fishery, 2011-2015.**

<b>Catch (numbers)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
MCA 5	870	2,700	1,184	1,673	1,666
MCAs 6-10	1,149	2,720	5,121	4,569	3,625
Total	2,019	5,420	6,305	6,242	5,291
<b>Avg Weight (lbs)</b>	22.71	15.73	14.9	17.07	18.07
<b>Catch (lbs)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
MCA 5	19,760	42,467	17,643	28,558	30,099
MCAs 6-10	26,096	42,782	76,307	77,994	65,492
Total	45,856	85,249	93,950	106,552	95,591

For reference, the Puget Sound subarea quota was 58,155 lbs. in 2011 and 57,393 lbs. in 2012-2015. Catches during this period were 21% under the quota in 2011 with overages occurring in the last four years ranging from 49% (in 2012) to 85% (in 2014). In an attempt to address these overages, WDFW has reduced the season length in subsequent years (Figure 1); however, effort and catch has continued to increase, particularly as other fishing opportunities have been constrained.



**Figure 1: Comparison of the Puget Sound recreational halibut subarea quota, WDFW catch estimates, and corresponding season lengths, 2000-2015.**

Revised Catch Estimation Method

Beginning in 2016, WDFW plans to use a revised site weighting procedure for Puget Sound recreational fisheries, including halibut. The changes affect estimation of catch per unit of effort (CPUE)—specifically the selection of baseline sampling sites, data collection, and estimation of target species-MCA-specific CPUEs. The CPUE for a domain (i.e., a MCA-target species combination) is estimated from the proportion of catch and anglers observed in a site-day that came from a particular domain. Catch is expanded by the proportion of effort (angler trips) actually interviewed out of the total for the site-day. Total catch for a species from a site-day is expanded by the probability that a site is selected for that day while total effort will continue to be estimated from the phone survey. The intent of these revisions is to reduce the uncertainty in our catch estimates; however, the issue of catches substantially exceeding the subarea quota still needs to be addressed.

Future Plans for Catch Accounting

In 2015, WDFW received a grant to fund an “intensive sampling” project for the Puget Sound recreational halibut fishery, which allowed us to conduct boat exit counts in MCA 5 to independently calculate a CPUE, rather than relying on effort estimates from the phone survey. For 2016, we were able to expand this pilot project to include MCAs 6-10 using overflights to calculate boat counts. Later this fall, we will produce a report describing the project, the catch and effort results, and how those results compare to our catch estimates using the methods described above.

Based on our preliminary discussions about the expanded project in 2016, there is a strong possibility we could use this method to monitor subarea quota attainment inseason for 2017. As this would require dedicated funding within WDFW’s budget for this purpose, we are still undergoing internal discussions on how to fund this activity for the long-term.

Additionally, WDFW received a proposal from Puget Sound Anglers, a recreational stakeholder group that has been actively involved in Puget Sound halibut fishery management and promotion of rockfish descending devices in the Sound and on the coast, to create a dedicated Puget Sound halibut catch record card (CRC). This new CRC is proposed to have a separate fee, would be required to be submitted to WDFW shortly after the halibut season ended, and may include a penalty fee for non-returns. The intent of having fees for the CRCs is to identify those who are seriously intending to fish for halibut in Puget Sound and provide an incentive for angler catch reporting. We believe this proposal has merit and plan to include this in our legislative budget package for the 2017-2019 Biennium. If approved, the CRC would allow us to identify the “universe” of Puget Sound halibut anglers and provide an independent dataset with which to compare our sampling program information.

WDFW will provide updates on our catch accounting plans for the Puget Sound halibut fishery as our internal discussions and legislative process moves forward.