

## CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON THE 2021 RECREATIONAL PACIFIC HALIBUT FISHERY

Based on the preliminary catch projections available in late June, it was determined the California recreational quota of 39,260 net pounds would likely be exceeded unless the fishery was closed. On June 28, the California Department of Fish and Wildlife (CDFW), International Pacific Halibut Commission (IPHC), National Marine Fisheries Service (NMFS), and Pacific Fishery Management Council (PFMC) representatives met to discuss 2021 California recreational Pacific halibut take to date and determine a closure date for the fishery. CDFW then announced the recreational Pacific halibut fishery closure date of Wednesday, June 30 at 11:59 p.m. for the remainder of 2021.

### **Daily Catch Tracking**

In response to the unprecedented high catch rates experienced in some weeks during 2020, CDFW increased the reporting frequency of California Recreational Fishery Survey (CRFS) sample data from weekly to daily in 2021. This change in reporting and tallying practices allowed for more refined quota tracking. Preliminary catch projections are derived from the number of fish that CRFS samplers encounter each day in the field, which is then expanded to the expected net pounds landed, following the same methodology that has been used in past years. These catch projections are preliminary and are used to monitor quota attainment during the five- to eight-week period until the CRFS monthly catch estimates are produced.

The daily, rather than weekly, tallying of projected catch greatly improved CDFW's ability to monitor the fishery in near real time in 2021, and consequently improved our ability to respond quickly to high catch events.

### **June Catch**

While California's fishery performed much like past years in the month of May, CRFS recorded 286 Pacific halibut kept by anglers in June. This is the highest number of sampled fish for a single month on record. High catch events began the week of June 7 and continued throughout the month (Figure 1). Preliminary catch projections from May 1 through June 30 were 33,896 net pounds or 86.3 percent of the quota. Typically, quota attainment at the end of June is about 25 percent of the quota.

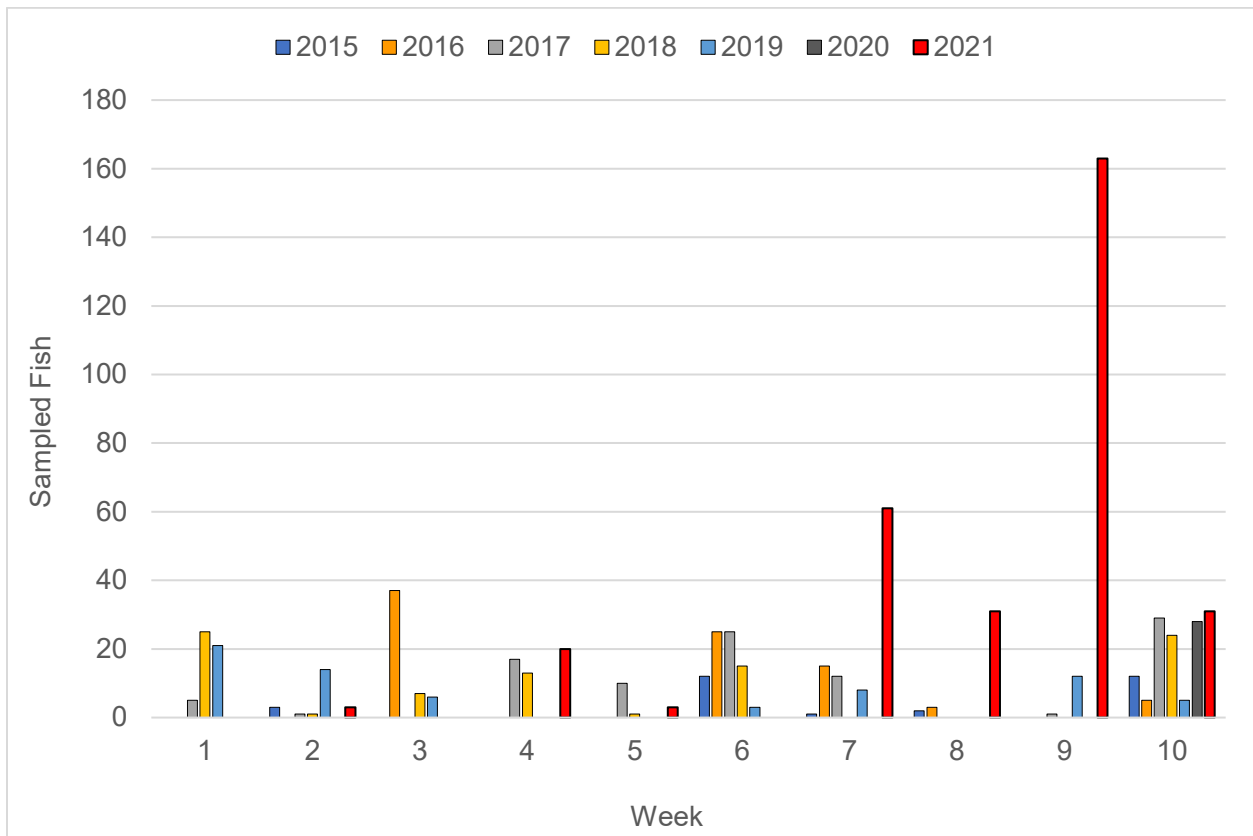


Figure 1. Weekly number of sampled Pacific halibut from 2015-2021. Week 1 begins May 1 and Week 10 ends June 30. There was consistently high catch throughout weeks 7-10 (June 7-30) that exceeded previous catch records for the month of June. Data are from CDFW.

Given the high catch events experienced first in 2020 and now again in June of 2021, it appears that rapid quota attainment might be expected whenever weather is favorable during the open season, and the number of open days each season might be expected to continue to shrink. This may warrant exploration of periodic seasonal closures to extend fishing opportunity across more months in the future.

### CRFS Estimates

Since 2016, CDFW has used a catch projection method to track catch against the quota in the current month and the month prior, using the relationship between the number of sampled fish by CRFS in a month, compared to the resulting CRFS estimate in that month, over the past five years (Figure 2). This method has been accurate in its predictive ability but is premised on the average fish size being relatively stable over the time period used in the regression analysis. CDFW staff were aware of anecdotal reports that the size of fish caught in 2020 and 2021 appeared to be smaller compared to prior years; however due to the COVID-19 pandemic, restrictive sampling protocols were implemented to ensure the safety of CRFS dockside samplers. This resulted in no length or weight data being recorded either to use in the 2020 monthly CRFS estimate calculations, or to inform an update to the regression at the start of the 2021 season. CRFS resumed taking length measurements of Pacific halibut on May 1, 2021, however, low catch which is typical for May meant that few length measurements were collected in that month.

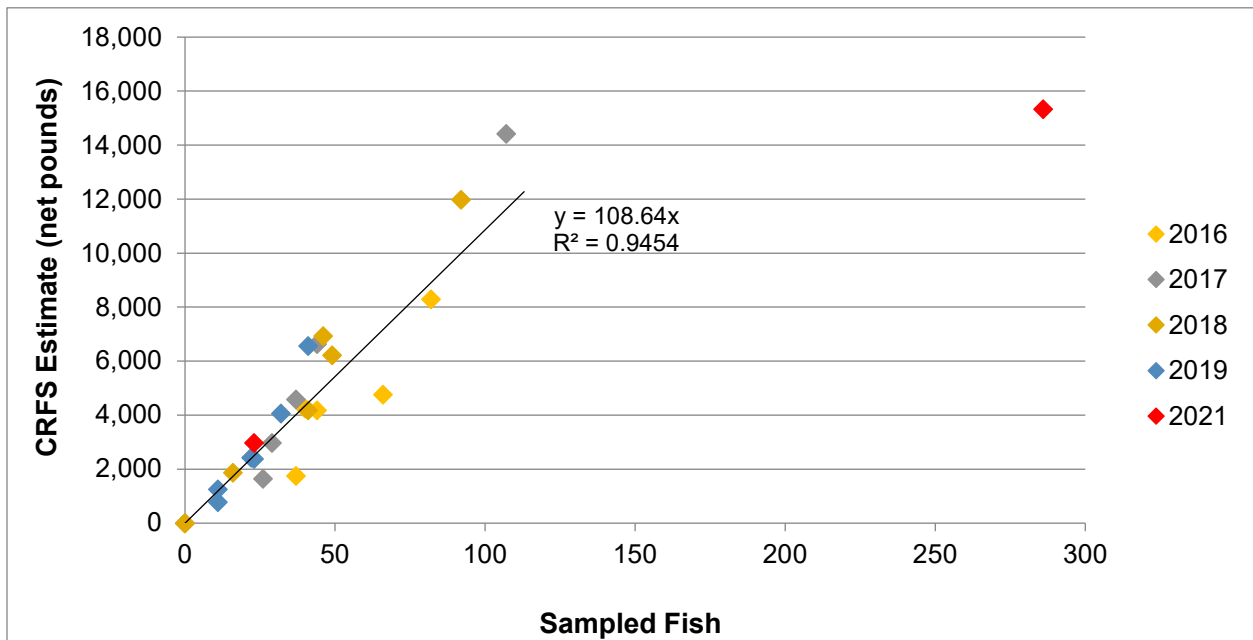


Figure 2. The number of sampled fish for each month compared to the CRFS estimate for the corresponding month during the fishing seasons for 2016-2019 & 2021. The regression is fit to the data for 2016-2019 and suggests that each sampled fish corresponds to 108.64 net pounds of quota attainment. The 2021 data points for May and June are included to show that the May CRFS estimate aligned with the historic relationship between the number of sampled fish in a month and the resulting monthly CRFS estimate, while June significantly deviated from that relationship.

In June, catch and number of recorded length measurements increased considerably. CRFS samplers measured lengths for 192 Pacific halibut and the resulting weights were calculated using the IPHC length/weight conversion factor. This robust sample size resulted in the average weight used to calculate June CRFS estimates changing from 10-12 kg used in past years to 5.02 kg per fish in 2021. The drop in average weight by approximately half resulted in a June CRFS estimate which was dramatically lower than the preliminary catch projection used to make the inseason closure decision with NMFS, PFMC staff and IPHC (Table 1). However, once the June CRFS estimate became available, it became apparent that 20,964 net pounds, or 53.4 percent of the 39,260 net pound quota was left unharvested (Table 1).

Table 1. Recreational Pacific halibut catch estimates in California for 2021 reported by month through June 30, 2021. At the time of fishery closure, only the projected catch data was available. Data from CRFS and CDFW. Data are preliminary and subject to change.

Month	Projected Catch	Monthly CRFS Estimate	Date CRFS Estimate Became Available
May	2,825	2,966	July 9
June	31,071	15,330	Aug 6
<b>Total</b>	<b>33,869</b>	<b>18,296</b>	

In response to the amount of fish that remained in the California quota once the June CRFS estimate was available, CDFW, in consultation with NMFS and IPHC, re-opened the fishery on September 3, 2021, to allow for additional opportunity to harvest the quota. This action is consistent and in accordance with the Catch Sharing Plan (CSP) provision to allow allocation objectives to be met. The fishery will remain open until November 15<sup>th</sup>, or until the quota is reached, whichever is earlier. CDFW has resumed monitoring of the fishery, including daily catch tracking, for the remainder of the season.

### **Catch Sharing Plan Alternatives or Revisions**

CDFW has no proposed amendments to the Catch Sharing Plan for 2022 but remains committed to incorporating angler input into future decisions affecting the recreational Pacific halibut season structure. As in prior years, the 2021 season structure was designed with input provided by anglers in an online survey conducted by CDFW at the beginning of February, following determination of California's quota amount at the IPHC's annual meeting. The same will be done for the 2022 season.