CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON THE 2015 PACIFIC HALIBUT SPORT FISHERY

At the November 2014 Pacific Fishery Management Council (Council) meeting, changes were made to the Pacific halibut Area 2A Catch Sharing Plan (CSP) affecting the California sport fishery. Those changes included an increase to the California allocation amount of the non-tribal Area 2A Total Allowable Catch (TAC); modifying the season structure to keep to that allocation; and implementing an inseason tracking and monitoring program with a provision for inseason action to close the fishery if and when the California quota is projected to be attained. The International Pacific Halibut Commission (IPHC) set the Area 2A TAC at 970,000 net pounds, which resulted in a 2015 California recreational Pacific halibut quota of 25,220 net pounds. This report provides a detailed summary of the performance of the 2015 Pacific halibut sport fishery off of California after implementing these changes, considering data available to date.

The inseason tracking and projection methodology proved to be successful in monitoring the fishery progression. An inseason fishery closure was implemented on August 13, based on projected early attainment of the 2015 California quota. During the 57 days the fishery was open, the fishery is projected to have taken 22,740 pounds. This projection includes estimates for catch in the months of May and June, and catch projections for July and August, using the methods described in the November 2014 CDFW Supplemental Report 2[1]. The California Department of Fish and Wildlife (CDFW) expects monthly estimates of Pacific halibut catches through August should be available by the November 2015 Council meeting.

Season Dates in 2015

Final 2015 season dates recommended by CDFW to the National Marine Fisheries Service (NMFS), and implemented by NMFS were: May 1-15; June 1-15; July 1-15; August 1-15; and September 1- October 31; or until the quota is projected to be attained, whichever is earlier. The season was designed to provide some opportunity earlier in the year (May and June) with the bulk of the catch expected in July and August, then some residual late opportunity in September and October when salmon fishing is over. However, partially due to excellent weather during the open days in July, the fishery closed early through an inseason action effective August 13 for the remainder of the year. The fishery was actually open during 2015 on May 1-15, June 1-15, July 1-15, and August 1-12 (57 days).

Sample Data

The CDFW's California Recreational Fisheries Survey (CRFS) sampling program is designed to provide 20 percent coverage for primary sample sites and modes [party-charter (PC), or private-rental (PR)] and 10 percent coverage for secondary sample sites. CRFS samplers are assigned a day, site, and mode to sample, and collect catch and effort data for the full day for that site and mode. During the 57 days that the Pacific halibut fishery was open, there were 196 sample

[1] http://www.pcouncil.org/wp-content/uploads/G1b_Sup_CDFW_Rpt2_NOV2014BB.pdf

assignments for the areas (Figure 1) and fishing modes where Pacific halibut could be encountered (Table 1). This represents more than three sample assignments per open day of fishing. Approximately 54 percent of sample assignments were for primary private/rental (PR1) mode locations, 36 percent were for the PC mode, and 11 percent were for secondary private/rental (PR2) mode locations. During the 2015 season, 217 Pacific halibut were examined by CRFS samplers. Similar to other years, forty-six percent of sampler-examined Pacific halibut (99 fish) were encountered in Trinidad (Figure 1). Consistent with previous years' sample data, the majority of sampler examined fish were from the PR1+2 modes, and the remainder was from the PC mode (Table 2).

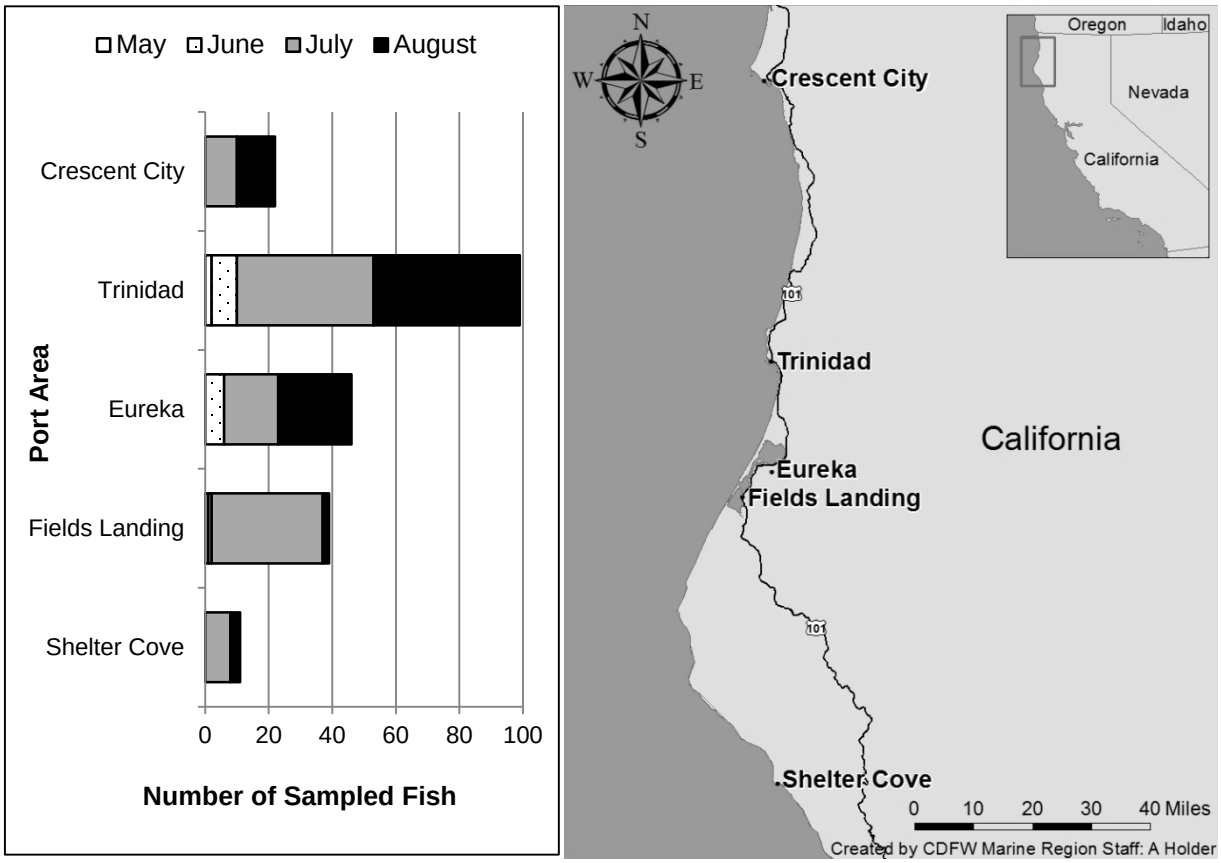

Figure 1. Northern California port areas where Pacific halibut are most often encountered and number of sampler examined Pacific halibut by month and port area during 2015. Sample data are from CRFS.

Table 1. Number of CRFS sample assignments occurring during the open season dates in 2015 for port areas where Pacific halibut are encountered in northern California.

Total	May 1-15	June 1-15	July 1-15	August 1-12	Full Season
Crescent City (*Crescent City Harbor,*	10	11	13	10	44

Inner Boat Basin PR, Inner Boat Basin PC)					
Trinidad (*Trinidad Harbor, Trinidad Pier PR, Trinidad Pier PC*)	11	13	11	9	44
Eureka *(Eureka Marina, Woodley Island Marina, Samoa Bridge "T" Street Ramp)*	6	6	8	9	29
Fields Landing	3	4	4	2	13
Shelter Cove (*Shelter Cove PR, Shelter Cove PC)*	8	8	8	6	30
Fort Bragg *(Noyo River, North Noyo Harbor, Fort Bragg, Van Damme, Pt. Arena)*	6	10	12	8	36
All Ports	44	52	56	44	196

Table 2. Proportion of sampler examined Pacific halibut by mode (primary and secondary private/rental or party/charter) during 2015. Data are from CRFS.

Fishing Mode	Proportion of Sampled Fish
Private/Rental	91%
Party/Charter	9%

Weather and ocean conditions are variable and strongly influence anglers' ability to fish on the ocean off of California's north coast. Catches of Pacific halibut in 2015 exhibited a very strong correlation with the weather: when the weather was good, catches tended to be higher, and when the weather was poor, catches tended to be lower or zero. During July 2015, a record number of 113 Pacific halibut were sampled over only 15 days, and 96 of those were encountered between July 6 and July 12. An analysis of daily sampled fish and weather conditions (Figure 2) shows that higher catches occurred on days when weather and ocean conditions were good, and days with poor or variable weather generally experienced lower or no catch.

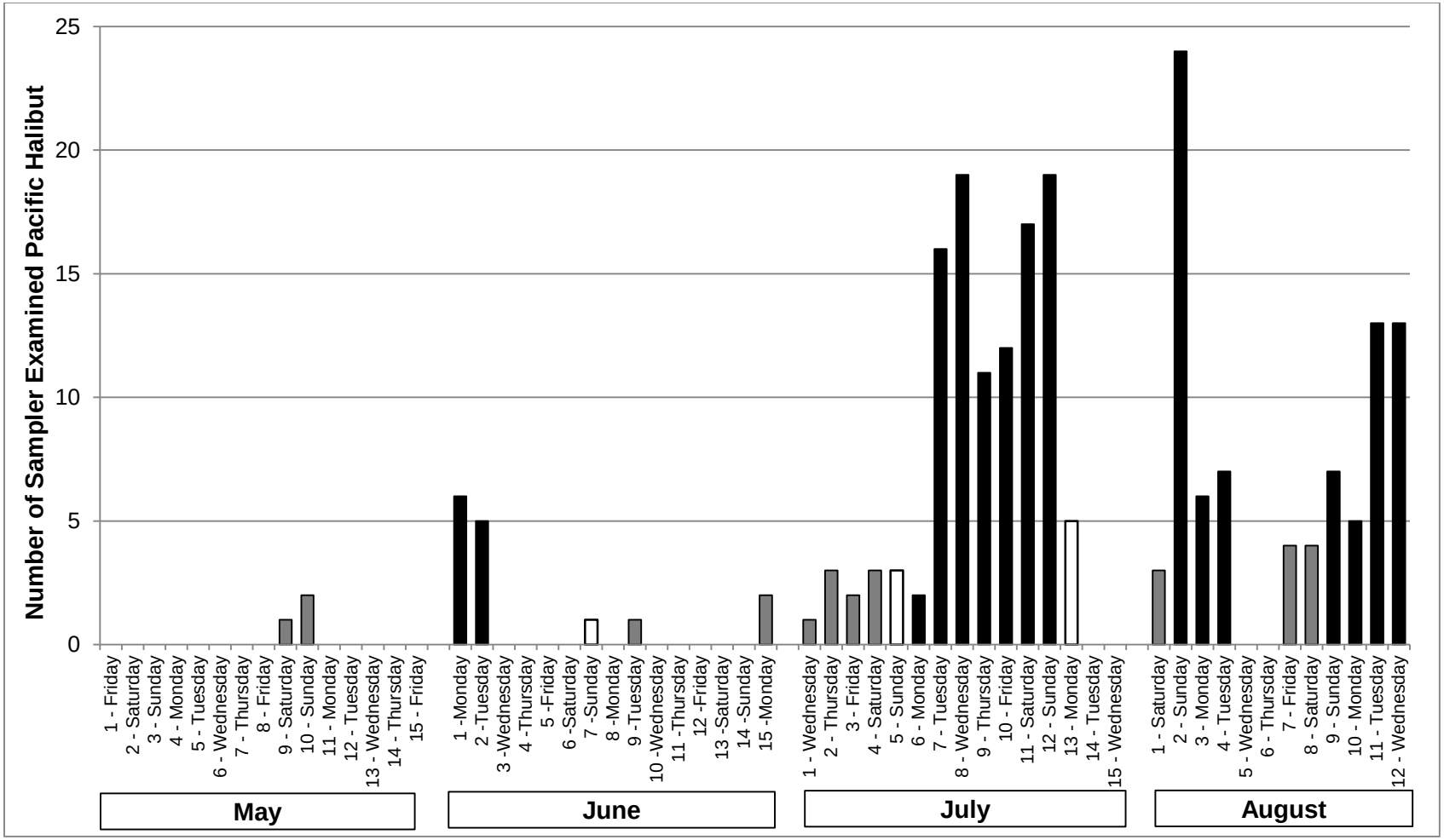

Figure 2. Daily number of sampler-examined Pacific halibut in California during the open periods from May through August 2015. Bar color indicates prevailing weather and ocean conditions: black indicates good conditions; grey indicates mixed conditions from different ports; and white indicates poor conditions. Sample data are from CRFS. Daily weather and ocean conditions are assigned from CRFS weekly sampler reports and may be subjective. Except for May 13 and 14, and June 8, days with zero sampled Pacific halibut experienced poor or variable weather conditions. No sample assignments occurred on July 15.

Catch Projections and Estimates

In 2015, CDFW conducted inseason tracking and monitoring of the Pacific halibut fishery in California to ensure catch did not exceed the quota[2]. Each week, CDFW's CRFS staff tallied observations of sampler examined (A) fish and angler reported kept fish (B1) from the prior week and multiplied this number by 103.4 pounds to generate a projected estimate of total catch for the prior week. This projection was provided weekly by CDFW staff to NMFS and the IPHC. CDFW also provided weekly updates to its Pacific halibut webpage (http://www.dfg.ca.gov/marine/pacifichalibut.asp) and Pacific halibut inseason catch tracking "thermometer" to inform the public of projected catch to date throughout the season.

Monthly estimates produced by CRFS serve as CDFW's best estimate of catch. However, production of monthly CRFS catch estimates involves a six-week lag time, so weekly projections must be used to estimate catch for any months for which monthly CRFS estimates are not yet available – allowing for very timely estimation of cumulative catch during the season (i.e., with one week lag time rather than six weeks). As the CRFS estimates for a given month become available, those monthly estimates replace the weekly projection values for that month. As of the end of August 2015, monthly CRFS estimates for May and June were available and had replaced the weekly projected catch values in calculating the total projected take for the season (Table 3). As monthly estimates for July and August become available in September and October, respectively, the weekly projection values for those months will also be replaced with the monthly estimates.

Table 3. Preliminary 2015 Pacific halibut catch estimates in California by month. CDFW projection values for May and June are provided in ~~strikeout~~ to illustrate the process of replacing the projections with CRFS estimates when those estimates became available. Data are from CRFS. Data are preliminary and subject to change.

Month	Net Pounds Accrued	
	CDFW Projection	CRFS Estimate
May	~~310~~	379
June	~~1,551~~	1,784
July	11,684	
August	8,892	
Total	**22,740**	

Through June, a comparison between 2015 weekly projections and the CRFS-generated catch estimates show the CRFS estimates are 13 to 18 percent greater than the weekly projections, although these variations are well within expected deviations. Final 2015 season catch estimates should be available by the November Council meeting.

[2] For a detailed description of CDFW's inseason tracking and monitoring process, see the November 2014 Supplemental CDFW Report 2 on Pacific Halibut Management Measures and Catch Tracking for 2015 at http://www.pcouncil.org/wp-content/uploads/G1b_Sup_CDFW_Rpt2_NOV2014BB.pdf

Fishery Closure

Provisions in the CSP allow for flexible inseason management of the recreational Pacific halibut fisheries in Area 2A. The flexible inseason management provisions include modifications to sport fishing periods, or the length of the season. Notice of the inseason action is provided by NMFS on their halibut hotline.

During the May through August open periods, CDFW coordinated weekly with NMFS and the IPHC on the status of projected catch amounts to date. Catch projections through August 2 showed more than 70 percent of the quota had already been taken. Good weather forecasts and the potential for high catch rates, similar to those seen during the July open period, prompted CDFW to hold conference calls with NMFS and the IPHC on August 6 and August 10 to review recent catch information and determine if predicted catch rates for the remainder of the August open period would lead to catches that exceeded the California quota. Based on current fishery trends and predicted weather conditions, CDFW, NMFS and IPHC determined that a fishery closure effective Thursday, August 13 was necessary to avoid exceeding the quota.

The CDFW provided notice to its constituents via a news release (Figure 3), information on its Pacific halibut webpage (http://www.dfg.ca.gov/marine/pacifichalibut.asp), CDFW Marine Region blog, CDFW groundfish regulations hotline, and a flyer posted at local harbors, launch ramps, and tackle shops (Figure 4 and Figure 5). NMFS updated its Pacific halibut hotline with the closure information, and the IPHC posted a news release about the closure to its website. CDFW staff is also aware that a number of local organizations posted the information online or in printed media, and provided notice by marine radio.

FISHING, SPORT FISHING

Recreational Pacific Halibut Fishery to Close August 13

AUGUST 11, 2015

The California Department of Fish and Wildlife (CDFW) announces the recreational Pacific halibut fishery will close Thursday, Aug. 13 at 12:01 a.m. for the remainder of 2015. The last full day of Pacific halibut fishing will be Wednesday, Aug. 12.

Based on the latest catch projections, CDFW expects the 2015 quota of 25,220 pounds will be exceeded unless the fishery is closed. Authority to close the fishery resides with the International Pacific Halibut Commission (IPHC) and the National Marine Fisheries Service (NMFS), which took action to close the fishery following consultation with CDFW.

A technician with the California Recreational Fisheries Survey measures a Pacific halibut. CDFW photo by Ed W. Roberts III.

Although poor weather limited fishing following the May 1 opener, excellent ocean conditions during the July 1-15 open period resulted in record Pacific halibut catch rates for California.

California's recreational quota and season dates for 2015 were the result of negotiations with anglers, the fishing industry, local community leaders and other state and federal partners. Beginning in 2015, CDFW committed to tracking the fishery during the season to ensure catch amounts would not exceed the California quota. The quota amount is determined annually, and is largely driven by results from the annual stock assessment conducted by the IPHC.

Pacific halibut occupy a large geographic range, from the Aleutian Islands eastward through Alaska to British Columbia and throughout ocean waters of the Pacific Northwest. Along the West Coast, they are commonly found as far south as Point Arena in Mendocino County. In recent years, catches in northern California have increased, consistent with a general shift of the stock to the south and east.

CDFW field staff sampled public launch ramps and charter boat landings to monitor catches of Pacific halibut along with other marine sportfish throughout the season. Using this information, CDFW conferred with NMFS and IPHC on a weekly basis to review projected catch amounts and determine when the quota would be attained.

For current information about the Pacific halibut fishery, science or management, please check the following resources:

- NMFS Hotline, (800) 662-9825
- CDFW Recreational Groundfish Regulations Hotline, (831) 649-2801
- CDFW website, www.dfg.ca.gov/marine/pacifichalibut.asp
- IPHC website, www.iphc.int

Figure 3. CDFW news release announcing the August 13, 2015 closure of the recreational Pacific halibut fishery in California.

Pacific Halibut Fishery in California CLOSED, Effective Thursday August 13

The California Department of Fish and Wildlife (CDFW) announces that the recreational **Pacific halibut fishery in California will close Thursday, August 13 at 12:01 a.m. for the remainder of 2015**.

Based on the latest catch projections, CDFW expects the 2015 quota of 25,220 pounds will be exceeded unless the fishery is closed. Authority to close the fishery resides with the International Pacific Halibut Commission (IPHC) and the National Marine Fisheries Service (NMFS), which took action to close the fishery following consultation with CDFW.

During this season, CDFW field staff sampled public launch ramps and charter boat landings to monitor catches of Pacific halibut along with other marine sportfish. Using this catch information, CDFW conferred with NMFS and the IPHC on a weekly basis to review projected catch amounts and determine when the quota would be attained.

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- IPHC website, www.iphc.int

Version 08/10/15

Figure 4. CDFW flyer announcing the August 13, 2015 closure of the recreational Pacific halibut fishery in California. The flyer was posted at launch ramps and marinas, and provided to tackle shops and the public to notify them of the early season closure.

Figure 5. CRFS sampler Dani Schaut posting the CDFW Pacific Halibut Closure Notice flyer at the Eureka Public Marina on August 11, 2015. Photo by Shannon Walkenhauer.

Angler Compliance with Closed Time Periods

The CRFS program continues its sampling coverage in north coast ports at the same rate when the Pacific halibut fishery is closed, due to the need to collect information on open fisheries (i.e., salmon, groundfish). This continuous sampling coverage provided an opportunity to examine angler compliance with the closures in 2014 and 2015.

One element of the CRFS survey plan is to collect information from anglers at the end of their trip on fish they released. Anglers are asked for the species of fish, and whether the fish was released alive or dead. The August 2014 fishery closure was the first time anglers experienced a mid-season closure, and during that closure, all fish reported as caught during that month were also reported as released alive (Table 4). No fish were reported by CRFS samplers as kept, or reported by anglers as being kept or released dead during the August 2014 closure.

Extensive public outreach by CDFW and an active online community of anglers on California's north coast prior to and during the 2015 Pacific halibut season in California helped educate anglers about the new season structure, the season dates and the inseason closure. To date in 2015, CDFW CRFS samplers have received two reports of a fish caught and released during closed time periods (Table 4). No other fish were examined by samplers, or reported by anglers as caught and kept, or caught and released during any of the closed periods of the fishing season, including the period from August 13-15 when the fishery was originally scheduled to be open but through inseason action was closed to prevent catches from exceeding the quota.

In the weeks following the August 12th closure, these sampler and angler reports from all five major port areas suggest that anglers were complying with the closure, and that agency, industry and community outreach to raise awareness of the inseason closure worked effectively. Additionally, CDFW enforcement officers along the north coast reported good compliance with the closure; no violations or warnings for Pacific halibut take out of season have been issued in 2015 to date, nor were any CalTIP reports received.

Table 4. Number of kept and released Pacific halibut examined by or reported to CRFS samplers during periods of time closed to Pacific halibut fishing off of California in 2014 and 2015. Data are from CRFS.

	Number of Fish	
Closed Period	**Kept**	**Released**
August 1-31, 2014	0	5
May 16-31, 2015	0	1
June 16-30, 2015	0	1
July 16-31, 2015	0	0
August 13-31, 2015	0	0

Fishery Trends

CDFW worked closely with constituents to develop a season structure and season dates for 2015 that would be geared towards allowing the most opportunity possible throughout the months of May through October while also avoiding exceeding the quota. The 57 open fishing days during 2015 was almost a 70 percent decrease compared to the annual number of open fishing days from 2008-2013 (Figure 6 andFigure **7**).

Unsurprisingly, changes to California's recreational Pacific halibut season length have coincided with changes in average estimated daily catches. From 2008 to 2013, an average of 60 to 200 pounds of Pacific halibut was caught per day (Figure 7). In 2014, the season length was reduced by one month from 184 days to 153 days, and average daily catch was just over 200 pounds per day. In 2015, when the season length was further reduced to only 57 days, average daily catch rose steeply to almost 400 pounds per day (Figure 7). The abrupt increase in the average daily estimated catch from 2014 to 2015 may be an indication that the recreational Pacific halibut fishery in California is transitioning to a derby style fishery, much like many areas of Oregon and Washington's recreational Pacific halibut fisheries. In addition, it indicates that even with increased effort on open days, there is no shortage of Pacific halibut available.

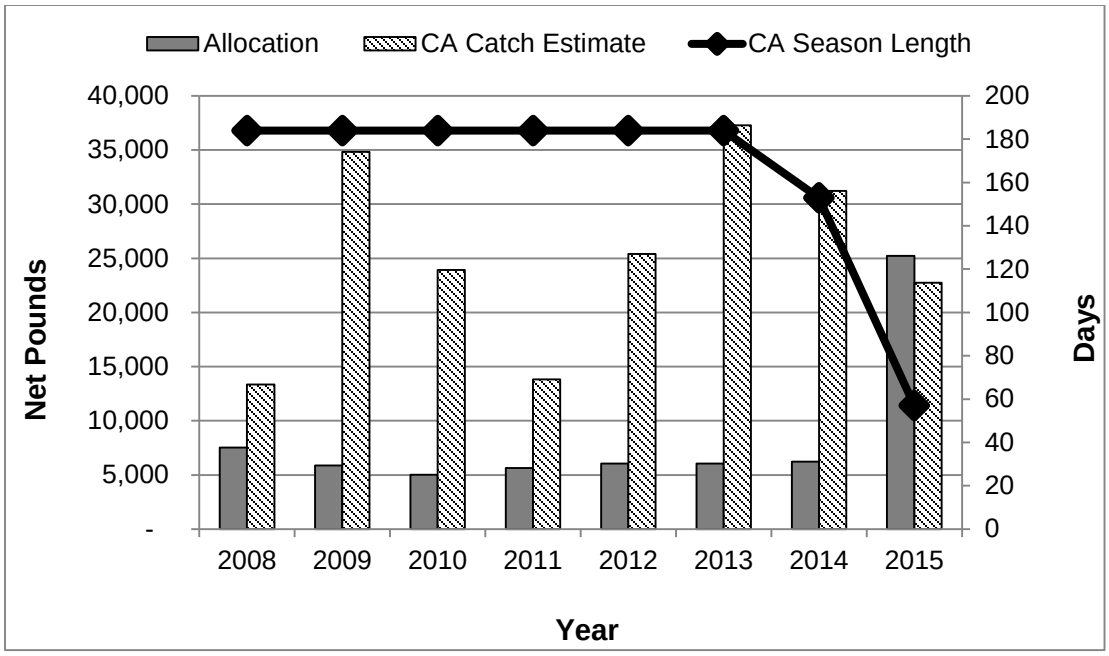


Figure 6. California quota, catch estimates, and number of days open to fishing by year from 2008-2015. Quota prior to 2014 was shared with Southern Oregon. Catch data for 2015 are preliminary.

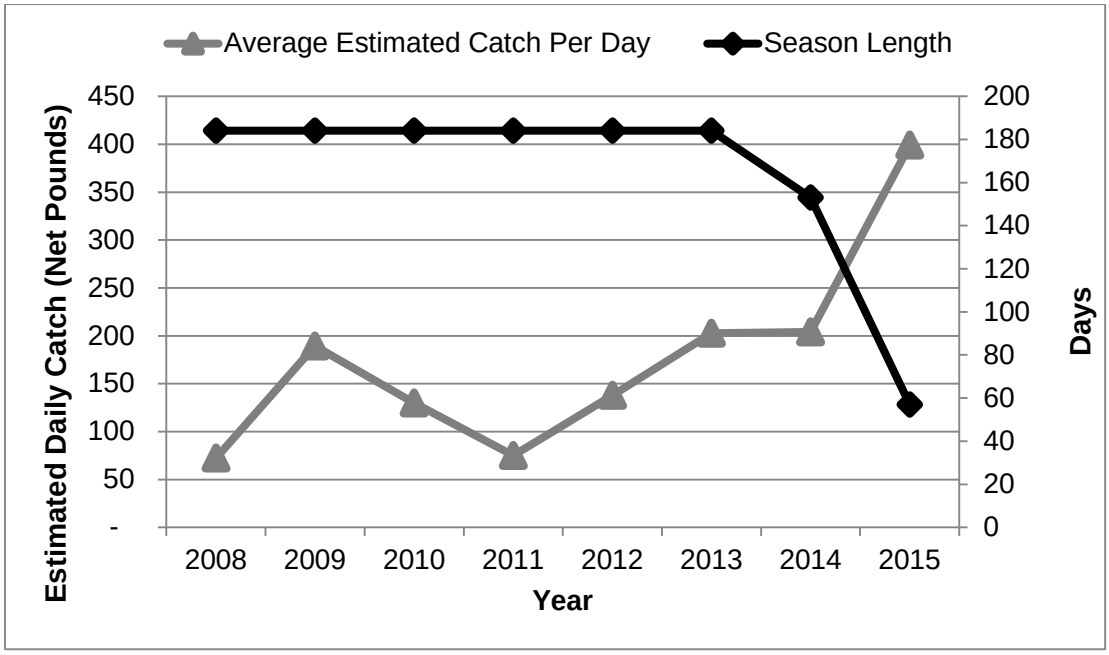
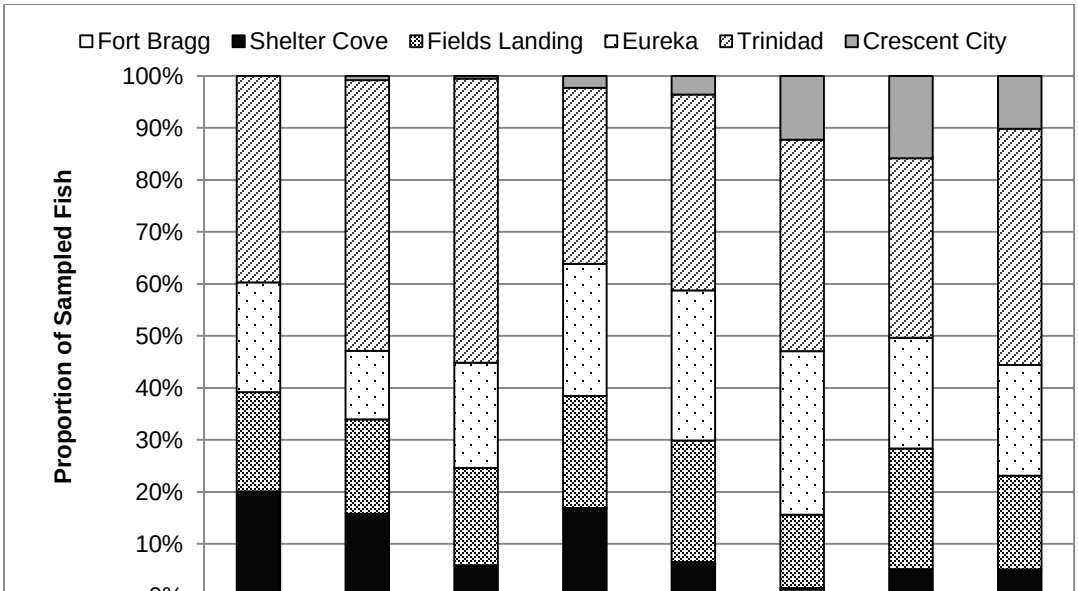


Figure 7. Average estimated volume (net pounds) of Pacific halibut caught per day and number of open days per year from 2008-2015. Data are from CDFW and CRFS. Catch data for 2015 are preliminary.

Despite the recent changes in catch and fishing effort, the proportion of fishing activity by general locations of catch in California has remained fairly steady. From 2008 to 2015, 85 percent of the sampler-examined Pacific halibut have come from three port areas: Trinidad, Eureka, and Fields Landing (Figure 8). The amount of sampling coverage in each area during each year has remained the same: 20 percent of days per month for the PR1 and PC modes, and 10 percent of days per month for the PR2 mode.



	2008	2009	2010	2011	2012	2013	2014	2015
Crescent City	0	3	1	3	11	40	49	22
Trinidad	81	201	111	44	116	133	107	98
Eureka	43	51	41	33	89	103	66	46
Fields Landing	39	70	38	28	72	46	72	39
Shelter Cove	41	61	12	22	20	1	16	11
Fort Bragg	0	0	0	0	0	4	0	0

Figure 8. Annual proportion of sampler examined Pacific halibut (chart) and number of individual sampler examined Pacific halibut (table) by port area in California. Data from CRFS.

CRFS data also provides information on average weight of fish. Although preliminary data suggests average weight was somewhat lower in 2015 than in 2014, there is a slight positive trend in the average weight of fish caught from 2008 to 2015 (Figure 9). However, it is not known whether this increase is just normal variability in size distribution, or if it represents positive local environmental conditions leading to growth of resident fish, or changes in distribution of larger fish.

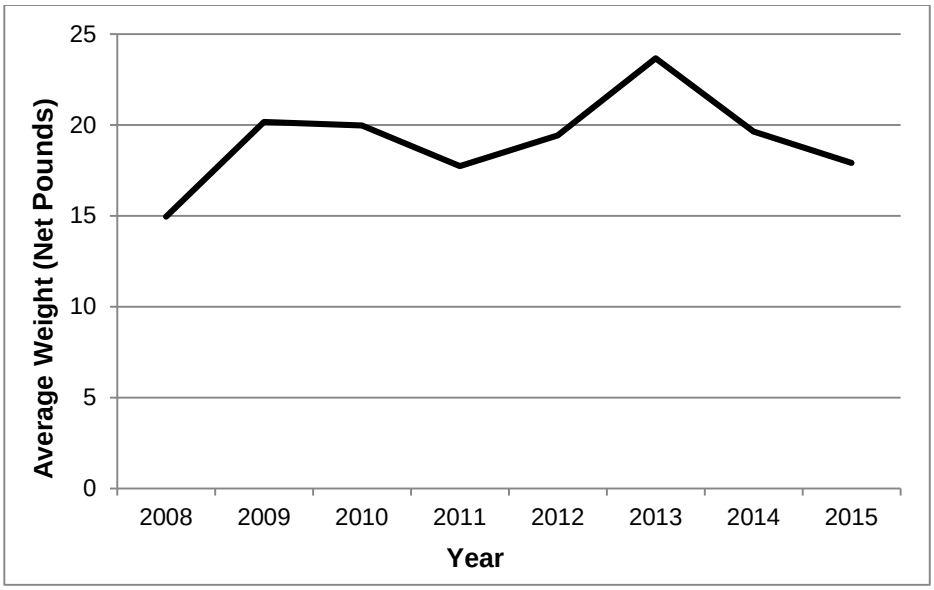


Figure 9. Average weight (net pounds) of Pacific halibut by year from 2008-2015. Data for 2015 are preliminary and incomplete and do not include August 2015. Data are from CRFS.