

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON PACIFIC BLUEFIN TUNA MONITORING
AND FISHERIES MANAGEMENT ACTIVITIES

Background

At the September Council meeting, California Department of Fish and Wildlife (CDFW) submitted a report ([Agenda Item G.1.a Supplemental CDFW Report 2](#)) to address concerns and update the Council and management entities on current Pacific bluefin tuna (PBT) landings and ongoing CDFW efforts to improve data collection. CDFW continues to monitor landings of PBT and work toward expanding and improving data collection for the recreational and commercial PBT fisheries. Below is an updated summary of efforts and currently available data, along with updates on final 2014 and current 2015 landings in both recreational and commercial fisheries.

Biological Data Summary

In 2015, CDFW worked in coordination with NMFS and the Sportfishing Association of California (SAC) to expand and improve biological data collection and characterize size distribution for BFT landed in California fisheries. As reported in the September CDFW Supplemental Report, 2, 179 lengths and weights from commercial landings of PBT were obtained by CDFW in coordination with NMFS. CDFW's CRFS program encountered historically high numbers of PBT landings at launch ramps due to the unusual occurrence of persistent nearshore schools of PBT off California. CRFS collected 230 lengths in 2015 from 4 sampling districts (San Diego to the Bay Area) at sites sampled as PR1 (primary launch ramp sites). In comparison, only 67 lengths were collected from 2004 to 2014 combined; 63 of these from 2014 alone. Moreover, all 67 samples seen over that 11-year period were observed in District 1 (San Diego, Orange and Los Angeles Counties). Additionally, SAC initiated their HMS biological data collection effort this summer and has provided CDFW with preliminary length-weight data collected through their pilot sampling program, contributing 193 samples from dockside intercepts of Commercial Passenger Fishing Vessels (CPFVs).

These length-weight data collected from all of these sources have been pooled, and graphed in comparison to the trend line from IATTC CPFV dockside sampling data collected from 1993-2012 (Figure 1) which is comprised of collected lengths and calculated weights. The IATTC size data has served as the basis to estimate tonnage removed in the recreational fishery for management, and concerns have been expressed that the IATTC samples may be biased toward larger fish as sampling was conducted at San Diego landings and was largely comprised of longer range vessels fishing far south in Mexican waters. The IATTC sample consists of 30,783 lengths and weights collected over 19 years. The graph shows that data collected on California catch from the various sources in 2015 generally fits the length-weight relationship as defined by the IATTC data. Last year, the algorithm was updated to reflect that used in the stock assessment, which produces a smaller length-weight relationship.

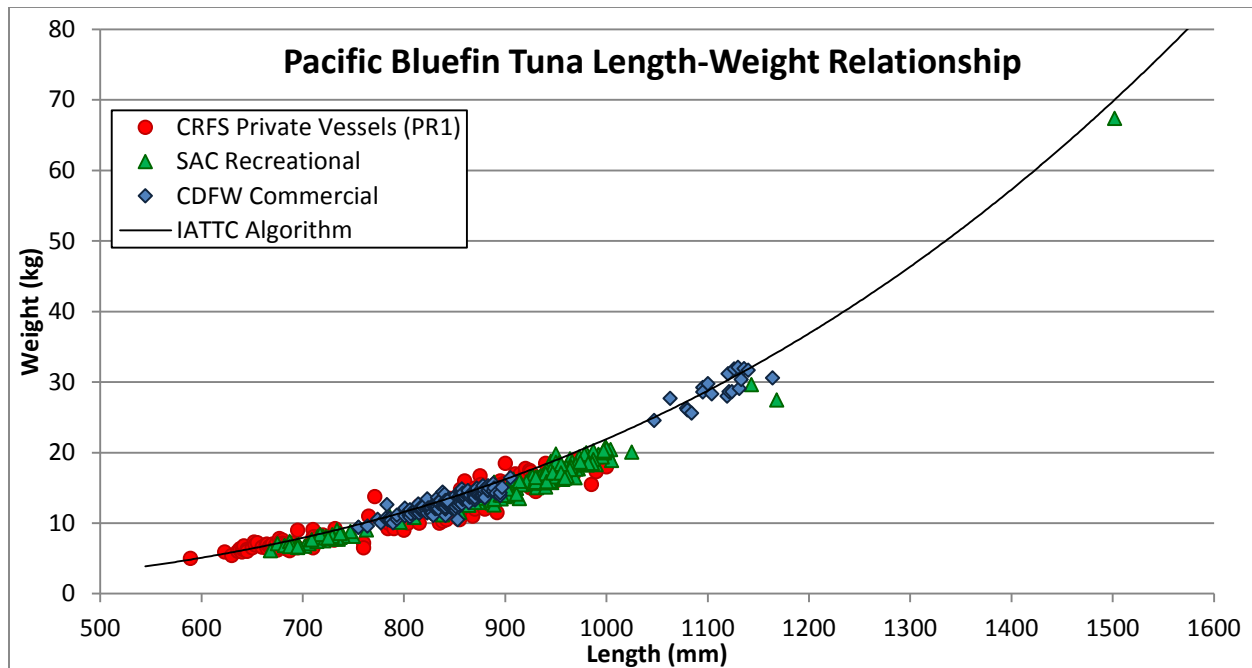


Figure 1. Summary of preliminary biological length-weight data for Pacific bluefin tuna as collected by multiple sources. *Data Source: IATTC dockside sampling (1993-2012); CDFW CRFS Data Portal (PR 1 sample data 2012-2015, extracted 11/3/15); SAC CPFV dockside sampling (2015); CDFW Commercial port sampling (2015)*

Commercial Landings Update

Domestic regulations enacted within the last year in accordance with international IATTC resolution C-14-06, accompanied by low market demand for PBT, has resulted in minimal directed fishing effort thus far. As of September 1, 2015, preliminary estimates of California commercial landings for PBT in 2015 totaled 71.6 mt from 42 landings and 24 vessels. Since September 1st, commercial landings have increased to 91 mt, from 79 landings from 42 vessels. The majority of landings were from Los Angeles port area, but landings have been made as far north as Morro Bay and as far south as San Diego. Table 1 displays commercial landings by month for 2014 and 2015.

Table 1. California commercial Pacific bluefin tuna landings (metric tons) for 2014 and 2015 (preliminary).

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Total</i>
2014	2	0	0	0	-	-	1	371	32	0	1	1	408
2015	1	-	-	-	49	-	4	36	-				91

Data from fewer than three vessels has been omitted to protect confidentiality. *Source: 2014 data from the California Fisheries Information System (CFIS), Preliminary 2015 data from CDFW commercial landing receipts as of 10/30/15.*

Recreational Landings

CPFV Electronic Logbook Update

CDFW is making steady progress on the development and implementation of electronic logbooks (e-logs), with the goal of centralizing and securing all marine logbook databases into one web-based data system. CDFW is nearing completion of the Commercial Passenger Fishing Vessel (CPFV) application.

Beta testing of the external user interface for the CPFV e-log application was completed in October 2014. This phase involved five vessels and their operators, with much valuable input and collaboration from SAC. Approximately 140 vessels in southern California are now using the e-log application instead of paper logbooks. All participants are providing feedback to CDFW for “bug” fixes and additional enhancements. The submission timeline for e-logs is much shorter than paper logbooks, which must be provided to the Department only once a month. However, while the CPFV e-log data can provide a real-time indication of catch trends, it is preliminary and cannot be used for management until it has undergone all QA/QC, summarization, and catch estimation processes.

Landings Update

CDFW is keeping a daily log of industry-reported catches provided to Sportfishingreport.com in order to monitor anecdotal catch trends in real-time (Table 2). Current Sportfishingreport.com totals as of October 30, 2015 are approximately 22,747 PBT. The difference between this number and official logbook data reported to CDFW may be due to reporting biases for marketing purposes, as well as lags in submission of CPFV logbook data. For logs submitted to the Department in hard-copy form, there is an approximate two month lag from the day of fishing to data entry into CDFW databases (due to submission time and data processing requirements). As of November 2, 2015, 21,845 fish have been reported to CDFW through logbooks.

Table 2. Preliminary monthly comparison of recreational landings of PBT for 2015 from Sportfishingreport.com and CPFV logbooks. *Data Source: CDFW MLS CPFV logbooks and Sportfishingreport.com as of 10/30/2015*

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Totals
Sportfishing.com	616	928	59	9	435	1,101	4,275	10,898	4,374	52	22,747
CPFV Logbooks	420	268	20	11	716	867	4,242	7,969	4,630	25	21,845
Difference	196	660	39	-2	-281	234	33	2,929	-256	27	902

CRFS Field Sampling Update

Table 3 provides a breakdown of annual catch by trip type and primary fishing effort (U.S. versus Mexican waters). As mentioned previously, CDFW’s CRFS program is encountering BFT and other HMS species in unprecedented numbers from boat modes in 2015, and samplers are encountering BFT in the survey from San Diego to the Bay Area. Field samplers are taking extra precautions to verify BFT and other HMS coming into central California through photographs of sampled catch and spending extra time on training and verifying species identification with supervisors and HMS staff, as well as educating anglers on regulations and responding to questions in the field. CRFS has also distributed an HMS ID “cheat sheet” to its samplers to help differentiate between the unusual species that are currently being seen off of California.

Table 3. Preliminary California recreational Pacific bluefin tuna landings (number of fish) by majority effort area for 2015.
 Source: CDFW MLS CPFV logbooks and PRELIMINARY CRFS estimate data for PR1 sites. CPFV data is through October 11, 2015; Private Vessel data is through September 2015.

	CPFV				Private Vessels				Totals	
	2014		<i>Preliminary 2015</i>		2014		<i>Preliminary 2015</i>		2014	<i>Preliminary 2015</i>
	U.S.	Mex	U.S.	Mex	U.S.	Mex	U.S.	Mex		
Number of Fish	18,460	7,851*	17,445	1,723*	2,691	203*	4,370	30*	29,205	21,845

*NOTE: Landings in this table under “Mex” may not have actually been taken in Mexican waters. CPFV logs record the CDFG block for the MAJORITY of effort, not necessarily where specific fish were taken. Data for private vessels is similarly classified. THE ABOVE TABLE DOES NOT IMPLY THAT THERE WAS ILLEGAL FISHING ACTIVITY IN MEXICO DURING BLUEFIN CLOSURES.

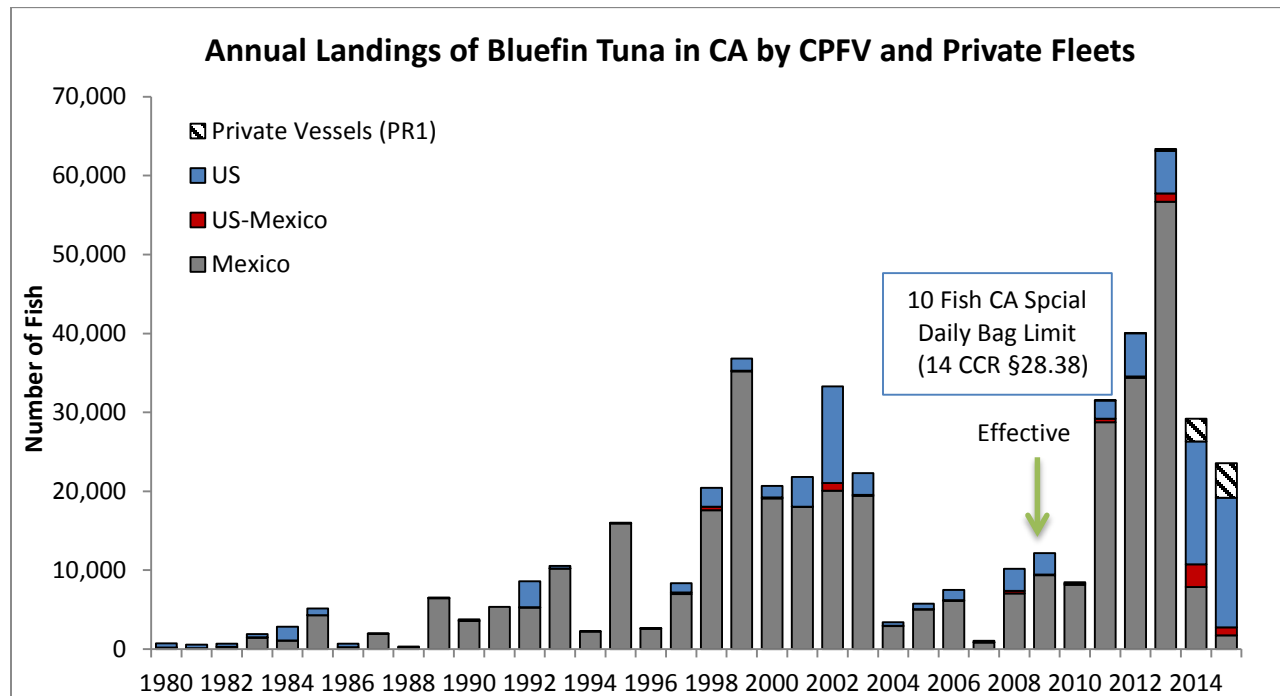


Figure 2. Historical recreational landings of Pacific bluefin tuna by CA CPFV fleet and private vessels (sampled at primary [PR1] sites) in U.S., Mexico, and CDFG blocks straddling the U.S.-Mexico border. PR1 landings not divided by catch location. 2015 data are PRELIMINARY. Data Source: CDFW MLS CPFV logbook database and RecFIN. Updated 11-02-2015.

*NOTE: Landings in this table under “Mex” may not have actually been taken in Mexican waters. CPFV logs record the CDFG block for the MAJORITY of effort, not necessarily where specific fish were taken. Data for private vessels is similarly classified. THE ABOVE TABLE DOES NOT IMPLY THAT THERE WAS ILLEGAL FISHING ACTIVITY IN MEXICO DURING BLUEFIN CLOSURES.

As reported in the September CDFW report, CDFW continued examination of catch per unit effort (CPUE) of recreational anglers fishing onboard CPFVs. An updated summary of average fish caught per angler (for all anglers on CPFV trips which kept at least 1 PBT per trip), by month, was compiled (Table 4) in order to compare catch per unit fishing effort in 2014 to that of the first half of 2015. Both catch and angler numbers were considerably higher in the beginning of 2015 than those of 2014 due to unusual presence of fish in close range, but effort in September and October is less than 2014, and catch is considerably less. Overall CPUE is reduced in 2015 from 2013 -2014 despite high availability of BFT schools off California. This reduction may be partially attributed to three things: 1) Implementation of the 2 fish limit in state and federal waters at the end of July 2015; 2) Educational efforts on the bag limit reduction and stock status undertaken by NOAA, CDFW, and SAC that may have influenced voluntary bag limit reductions; and 3) The continued recreational closure of BFT in Mexican waters.

Table 4. Average catch of Pacific bluefin tuna per CPFV angler for 2013, 2014 and 2015 (as of 11-02-15, preliminary). As of July 30, 2015 the daily bag limit is 2 PBF. Source: CDFW MLS CPFV logbook database. Updated 11-02-2015

Month	2013			2014			2015		
	Total Anglers	Total Bluefin	Average Fish/Angler	Total Anglers	Total Bluefin	Average Fish/Angler	Total Anglers	Total Bluefin	Average Fish/Angler
Jan	0	0	0.0	0	0	0.0	384	420	1.1
Feb	0	0	0.0	32	16	0.5	423	268	0.6
Mar	0	0	0.0	30	3	0.1	32	20	0.6
Apr	0	0	0.0	0	0	0.0	22	11	0.0
May	0	0	0.0	474	822	1.7	1,137	716	0.6
Jun	2,693	3,033	1.1	2,016	599	0.3	2,385	863	0.4
Jul	12,454	20,059	1.6	10,746	12,930	1.2	10,669	4,242	0.4
Aug	17,767	23,052	1.3	9,646	7,354	0.8	9,758	7,973	0.8
Sep	10,273	13,150	1.3	2,359	2,940	1.2	4,669	4,630	1.0
Oct	2,800	4,408	1.6	1,208	1,182	1.0	63	25	0.4
Nov	0	0	0.0	619	426	0.7			
Dec	0	0	0.0	251	39	0.2			
Totals	45,987	63,702	1.4	27,381	26,311	1.0	29,542	19,168	0.6