

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON PRELIMINARY 2014
RECREATIONAL BLUEFIN TUNA CATCH INFORMATION

In response to attainment of the 2014 IATTC Convention Area 5,000 MT commercial limit on Pacific Bluefin Tuna (PBF) and Mexico's unilateral closure of both its commercial and recreational fishery on July 14, 2014, the California Department of Fish and Wildlife (CDFW) has conducted an initial examination of available catch and effort information from its data sources for the Council's use in considering whether immediate action to adjust recreational bag limits in 2014 is warranted. Agenda Item G.4.b, CDFW Report 1, provides an overview of available data sets, collection methods and catch estimates for recent years. This Report 2 attempts to document what preliminary data is available in 2014 to date, and what inferences might be drawn from this information. Data from 2013 is provided as a reference point, noting that PBF recreational catches in that year far outpaced recent averages. In 2013, 89 percent of the catch made by the California CPFV fleet – the largest component of the recreational PBF fishery - was reported to have occurred in Mexican waters (Agenda Item E.4.b, Supplemental HMSMT Report, June 2014).

The Mexico bluefin closure may be expected to reduce total 2014 recreational catches made by California-based CPFV and private vessels. These vessels experienced high fishing success in 2013 – reportedly due in large part to fishing activity conducted in the vicinity of floating grow-out pens. These pens are maintained in Mexican waters and hold PBF taken in the Mexican commercial purse seine fishery earlier this year, and appear to have the effect of serving as fish aggregation devices that are effective for recreational anglers targeting PBF.

However, now that the Mexican recreational fishery has closed, preliminary information available to CDFW suggests that fishing effort may have shifted to U.S. waters off California, where PBF are occasionally abundant. The summary below serves to outline the best available information on this question to date.

CPFV Logbook Records

CPFVs account for the largest portion of California-based recreational catch of PBF. As described in Agenda Item G.4.b, CDFW Report 1, CPFV operators are required to submit daily fishing activity records to CDFW only once per month, on or before the 10th day of the following month. Logbook records include information on the date, the number of fishers aboard, the number of hours fished in the day, the number of fish retained (by species) and the fishing location (by CDFW block). CDFW relies on this logbook information as the estimate of PBF catch for the CPFV mode. Ultimate logbook compliance has been estimated at better than 80 percent every year for the past decade.

Data entry of CPFV logbooks is driven by timelines for California Recreational Fisheries Survey (CRFS) estimate production for non-HMS species. CRFS estimates are produced about six weeks following the end of each fishing month, and utilize effort information from CPFV logbook data that is entered and available to date. Due to the delay in data transmission once the fishing month is over, submission of late logbooks, data entry, QA/QC editing and corrections, etc., CPFV logbook data that are available for use in estimate production at the end of the following month are only about 60 percent of the logbook records that ultimately will be received and entered in the database for the year. As an example, for July 2014 in the table below, at the end of August 2014 CDFW would expect to have only about 60 percent of the total records in the system that it would ultimately expect to receive for July 2014.

As a result of the factors causing delay, CPFV logbook information available in CDFW's database at this time is largely incomplete for 2014 bluefin tuna catch. Tuna fishing activity peaks in the summer months

and can be highly variable year to year. However, in an attempt to tabulate as much of the logbook information received by CDFW to date, staff hand-sorted records positive for PBF and tallied the reported catches in order to augment information available in the CPFV logbook database. Regardless, information presented below for July and August 2014 is incomplete, and should be viewed as a minimum estimate of CPFV catch in these months. Logbook records for the month of July were not due to the Department until August 10th, and the hand tallies for July 2014 provided below were completed on August 13th. State regulations also accept the postmark date as the submission date for logbook records that are delivered by mail.

Table 1. CPFV PBF landings by region, 2013-2014. 2014 data is preliminary.

| Month | Fishing Area | 2013 Reported Number Kept | 2014 Reported Number Kept | 2013 Cumulative Total | 2014 Cumulative Total |
|--------------|--------------|---------------------------|---------------------------|-----------------------|-----------------------|
| Jan | US | 0 | 0 | 0 | 0 |
| | US/MX | 0 | 0 | | |
| | MX | 0 | 0 | | |
| Feb | US | 0 | 0 | 0 | 0 |
| | US/MX | 0 | 0 | | |
| | MX | 0 | 0 | | |
| Mar | US | 12 | 0 | 12 | 3 |
| | US/MX | 0 | 0 | | |
| | MX | 0 | 3 | | |
| Apr | US | 0 | 0 | 12 | 3 |
| | US/MX | 0 | 0 | | |
| | MX | 0 | 0 | | |
| May | US | 0 | 0 | 12 | 778 |
| | US/MX | 0 | 0 | | |
| | MX | 0 | 775 | | |
| June | US | 9 | 54 | 3,045 | 1,399 |
| | US/MX | 49 | 9 | | |
| | MX | 2,975 | 558 | | |
| July | US | 865 | 5,101 | 23,090 | 9,845 |
| | US/MX | 311 | 1,142 | | |
| | MX | 18,869 | 2,203 | | |
| Aug | US | 2,097 | 87 | 46,142 | 9,933 |
| | US/MX | 227 | 0 | | |
| | MX | 20,728 | 1 | | |
| Sept | US | 2,117 | | 58,806 | 9,933 |
| | US/MX | 58 | | | |
| | MX | 10,489 | | | |
| Oct | US | 319 | | 63,185 | 9,933 |
| | US/MX | 409 | | | |
| | MX | 3,651 | | | |
| Nov | US | 0 | | 63,185 | 9,933 |
| | US/MX | 0 | | | |
| | MX | 0 | | | |
| Dec | US | 0 | | 63,185 | 9,933 |
| | US/MX | 0 | | | |
| | MX | 0 | | | |
| Total | | 63,185 | 9,933 | | |

Table 1: CPFV PBF landings, by region, for 2013-2014. 2014 data is preliminary.

2013 Source - CDFW Marine Logs System (MLS), CPFV Logbook data; extracted July 18, 2014.

2014 Source - Preliminary counts as of August 13, 2014.

As reflected above, preliminary catch information from 2014 CPFV logbooks received to date suggests that the total catch taken in the 2014 CPFV fishery may be tracking much like 2013, given that the July and August data are preliminary and likely incomplete based on annual compliance data. However, unlike 2013, July/August catches of PBF in 2014 are reported as occurring primarily in U.S. waters. From preliminary information above, more than two-thirds of the July 2014 CPFV catch occurred in U.S. waters, compared with over 90 percent of the catch occurring in Mexican waters during July 2013. Moreover, the 5,101 fish reported to date as being taken by CPFVs in U.S. waters in July 2014 is the second-highest monthly U.S. total available in CDFW's CPFV database, dating back to 1980.

Logbook records do not allow CDFW to determine if these U.S. catches are being made in response to a fishery effort shift into to U.S. waters driven by Mexico's closure of PBF, or simply due to increased local availability of PBF off the Southern California coast. Regardless, CDFW expects that a substantially greater volume of CPFV catch in 2014 will be attributed to U.S. waters than in prior years.

CRFS Private/Rental Information (PR1 Mode)

The Southern California private vessel fleet operates from a number of public launch ramp sites, as described in Agenda Item G.4.b, CDFW Report 1. Although offshore fishing effort for HMS target species is commonplace, many vessels departing from San Diego-area launch ramps to target HMS head south into Mexican waters. However, CRFS does not produce catch estimates for U.S. vessels fishing in Mexican waters, although samplers do interview those vessels returning from Mexican waters and collect their catch information. Observed or reported bluefin tuna catches by anglers launching out of PR1 and also PR2 sites is generally a very rare event. Prior to 2013, only 202 total observations or reports of bluefin have been recorded by CRFS samplers as coming from PR1 launch sites since the CRFS sampling regime began in 2004, and these reports included fish taken both in the U.S. and Mexico.

Last year, CDFW CRFS samplers observed 15 PBF (2 from California waters and 13 from Mexican waters) and anglers reported keeping another 104 PBF (20 from California waters and 84 from Mexican waters) at PR1 sites (no reports from PR2 sites) - considerably higher than any other year in the past decade. These high 2013 observation rates corroborate the high estimates of PBF catch documented in the CPFV logbook database for 2013.

CDFW is reviewing the average weight estimates for PBF that are used to estimate volume of landings (MT) over the entire time series. Also, default RecFIN-generated estimates exclude data from fish taken in Mexico, which comprise the majority of PBF PR1 records prior to 2014. How these Mexico-based catch records might be analyzed is an area for future work.

However, in July 2014, CRFS samplers noted a marked increase in the number of PBF observations at PR1 locations, at public launch sites throughout Los Angeles, Orange and San Diego Counties. In an attempt to tabulate the information collected by CDFW CRFS samplers to date, staff hand-sorted those sample data records positive for PBF, and tallied reported catches independently of the CRFS sample database (Table 2). Notably, many of these records indicate the catch as being made in U.S. waters. Considering the available sampling information below, it is expected that CRFS catch estimates for PBF in 2014 will be substantially greater than estimates produced for prior years. CDFW's CRFS estimates for PR1 catch are expected to be available before the 2014 September PFMC meeting in Spokane.

Table 2. CRFS PR1 bluefin tuna counts from sample data, 2013 and 2014. 2013 Source - CRFS database extract; 2014 Source - Preliminary counts completed August 15, 2014.

| Fishing Area | 2013 Sampler Observed + Reported Kept (A+B1) | 2014 Sampler Observed + Reported Kept (A+B1) <i>PRELIMINARY THROUGH July 31, 2014</i> |
|----------------------------|---|--|
| Offshore California | 22 | 103 |
| Both US/Mexico | | 22 |
| Mexico | 97 | 16 |
| TOTAL | 119 | 141 |

CRFS Private/Rental Boat, Private Access or Night Modes (PR-PAN)

In addition to public launch sites, a great deal of recreational HMS fishing activity by non-CPFV vessels originates from vessels that depart from private marinas, home-based boat slips and other locations that CRFS samplers are not able to access. Recently, CDFW estimated that there is nearly as much fishing effort occurring from these locations as from public launch ramps in District 1 (San Diego, Orange and Los Angeles Counties). Additionally, CRFS is aware that sample data collected from PR1 sites is likely under-estimated because oftentimes, HMS vessels will return to launch ramps late into the evening after CRFS samplers have completed their work assignment for the day. These known biases or absences in sampling coverage are addressed by estimating what is termed the Private/Rental Boat Private Access or Night – “PR-PAN” modes of fishing. This fishing activity is estimated based on the fishing effort level determined from the random telephone survey component of CRFS, and the results of this survey are not available for use in catch estimation processes until at least six weeks following the month’s end.

CDFW compared preliminary PR1 sample data for 2014 with 2013 CRFS PR1 effort estimates . According to CRFS data, trips targeting HMS (all) in US waters in PR1 mode for CRFS District 1 were estimated at 2040 angler trips in 2013 (pers. comm. Kevin Hitchcock and Connie Ryan). Preliminary data for summer 2014 collected at PR1 sites in District 1 indicates tuna effort will be dramatically greater this year. In the hand tallies for tuna effort trips occurring only in US waters, CDFW staff counted 418 vessels and 1087 anglers in the raw unexpanded sample data just for the month of July 2014. Although monthly effort estimates may vary significantly across years, it is likely that 2014 effort for tuna-target trips will be considerably higher than estimated effort levels for 2013, corroborating online and media reports of excellent offshore tuna fishing activity this summer.

Conclusions

While information on 2014 catch and effort is very preliminary, there are indications that substantial catch of PBF has occurred this summer in U.S. waters to date. In light of recent attainment of the IATTC commercial catch limits for 2014 and the likelihood of lower limits in 2015, along with potential recreational harvest limits in the IATTC convention area for 2015, the Council may wish to consider recommending NMFS take immediate action to reduce bag limits in the EEZ off California to ensure adequate protection of the PBF stock off California and mitigate against any effort shift in response to Mexico’s closure of its fishery.