

Pacific Bluefin Tuna Overfishing Overview

1. Background

On April 7, 2011, National Marine Fisheries Service sent a letter of notification to the Council that it had determined overfishing is occurring on Pacific bluefin tuna (*Thunnus orientalis*) pursuant to Section 304(i) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (see Annex 1). Section 304(i) applies to stocks where overfishing is the result of excessive international fishing pressure. It requires the Council, within 1 year of the notification, to

- Develop recommendations for domestic regulations to address the relative impact of fishing vessels of the United States on the stock, and
- Develop and submit recommendations to the Secretary of State, and to the Congress, for international actions that will end overfishing in the fishery and rebuild the affected stock, taking into account the relative impact of vessels of other nations and vessels of the United States.

The notification letter asks the Pacific Council to work closely with the Western Pacific Fishery Management Council (WPFMC) in developing measures and recommendations. A June 27, 2011, letter from the WPFMC Executive Director (Annex 2) contains a recommendation from the WPFMC calling on the PFMC to address the stock's overfishing status, given the larger domestic catches of Pacific bluefin in the Pacific Council area. However, it also asks that the WPFMC Pelagics Plan Team confer with the PFMC Highly Migratory Species Management Team in developing recommendations.

2. Stock Status

The 2010 HMS SAFE document (published September 2011) summarizes the current status of Pacific bluefin tuna:

The last full stock assessment of north Pacific bluefin tuna was conducted by the ISC [International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean] Pacific Bluefin Working Group (PBFWG) in 2008 using fishery data through 2005 and the Stock Synthesis 2 modeling framework (ISC 2008). The assessment was accepted by the ISC Plenary, but the Plenary tasked the PBFWG to examine the cause of some uncertainties in the modeling. Since then an update to the assessment was conducted in 2009 using the same data, a different natural mortality schedule and Stock Synthesis 3 (ISC 2009b). In 2010, another update to the assessment was conducted using Stock Synthesis 3 with fishery data through 2007 and all other modeling assumptions as in the 2009 update (ISC 2010a). A suite of sensitivity runs were also conducted. The analyses provided updates in relative trends in fishing mortality and biomass rather than estimates of absolute levels. Key results of the 2010 update as summarized in the ISC's Tenth Plenary Report (ISC 2010b) are listed below.

“The estimate of spawning biomass in 2008 (at the end of the 2007 fishing year) declined from 2006 and is estimated to be in the range of the 40-60 percentile of the historically observed spawning biomasses.

Average fishing mortality 2004-2006 ($F_{2004-2006}$) had increased from $F_{2002-2004}$ by 6 percent for age-0, approximately 30 percent for ages 1-4, and 6 percent for ages 5+.

30-year projections predict that at $F_{2004-2006}$, median spawning biomass is likely to decline to levels around the 25th percentile of historical spawning biomass, with approximately 5 percent of the projections declining to or below the lowest previously observed spawning biomass. At $F_{2002-2004}$, median spawning biomass is likely to decline in subsequent years but recover to levels near the median of the historically observed levels. In contrast to $F_{2004-2006}$, $F_{2002-2004}$ had no projections (0 percent) declining to the lowest observed spawning biomass. In both projections, long-term average yield is expected to be lower than recent levels.”

Based on the 2009 update when absolute estimates of F , biomass and spawning biomass were calculated, fishing mortality for 2002-04 ($F_{2002-04}$) was greater than most commonly used biological reference points that may serve, in principle, as potential target reference points. F_{MSY} is roughly equivalent to F_{MAX} , given the model assumptions. The recent estimation F , $F_{2002-2004}$ exceeded F_{MAX} by 46 percent (ISC 2009). Thus, based on the 2009 assessment update and considering F_{MAX} as a proxy to F_{MSY} , NMFS determined that overfishing of bluefin tuna was occurring.

Catch of bluefin tuna by U.S. West Coast fisheries constitutes less than one percent of the North Pacific-wide catch.

References

ISC. 2008. ANNEX 7 (Report of the Pacific Bluefin Tuna Working Group Workshop, May 28 – June 4 2008, Shimizu, Japan and continued July 17 - 18 2008, Takamatsu Japan) Report of the eighth meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, July 22-27, 2008 Takamatsu Japan. (http://isc.ac.affrc.go.jp/pdf/ISC8pdf/Annex_7_PBF_May08_ISC8.pdf).

ISC. 2009b. ANNEX 10 (Report of the Pacific Bluefin Tuna Working Group Workshop, 10-11 July 2009, Kaoshiung, Taiwan) Report of the ninth meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, July 15-20, 2009 Kaoshiung, Taiwan (http://isc.ac.affrc.go.jp/pdf/ISC9pdf/Annex_10_ISC9_PBFWG_July09.pdf).

ISC. 2010a. ANNEX 7 (Report of the Pacific Bluefin Tuna Working Group Workshop, 6-9 July 2010, Nanaimo, Canada) *of* Report of the tenth meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, 21-26 July 2010, Victoria, B.C. Canada (http://isc.ac.affrc.go.jp/pdf/ISC10pdf/Annex_7_ISC10_PBFWG_Jul10.pdf).

The PBFWG met twice in 2011 to begin preparatory work for the next full stock assessment, scheduled for 2012. This included updating catch estimates through 2010. (The catch data presented in the next section incorporates these updates.)

3. Catch

3.1. Stock-wide Catch

Table 1 shows catch of Pacific bluefin by country since 1990.¹ Japan has accounted for the largest share of catch during that period at 73 percent followed by Mexico at 12 percent. The past 5 years, however, show a marked change in the distribution; Japan’s share drops to 67 percent and Mexico’s increases to 21 percent. In addition, there is likely some under-reporting or non-reporting by other countries. For

¹ Data reported here are derived from the ISC11 Plenary Report, Table 14-2 (see Annex 3) and the ISC website.

example, at the 2011 meeting of the Western and Central Pacific Fisheries Commission's (WCPFC) Northern Committee Korea reported on the implementation of a 5-year research program and the classification of its commercial fisheries catching Pacific bluefin as part of this program. This is intended to improve catch reporting, suggesting that some level of under-reporting has occurred in the past. China has not provided catch statistics to the ISC for Pacific bluefin.

Table 1. Catch of Pacific bluefin tuna (mt) by country, 1990-2009 (Source: http://isc.ac.affrc.go.jp/fisheries_statistics/index.html updated by Table 14-2 ISC11 Plenary Report for 2002-2009).

Year	Japan	Korea	Chinese-Taipei	United States	Mexico	Non-ISC	Total
1990	6,282	132	653	1,537	50	0	8,653
1991	14,536	265	461	508	9	2	15,781
1992	11,063	288	545	2,099	0	0	13,995
1993	9,310	40	475	981	0	6	10,811
1994	15,186	50	559	1,054	65	2	16,916
1995	27,090	821	337	965	11	2	29,225
1996	14,008	102	956	4,749	3,700	4	23,519
1997	18,852	1,054	1,814	2,530	367	14	24,632
1998	11,179	188	1,910	2,465	1	20	15,763
1999	22,574	256	3,089	809	2,404	21	29,153
2000	24,482	1,976	2,782	1,096	3,118	21	33,475
2001	14,074	978	1,843	696	863	50	18,504
2002	14,006	768	1,527	716	1,710	65	18,792
2003	10,185	2,141	1,884	434	3,254	60	17,958
2004	13,837	636	1,717	60	8,894	77	25,221
2005	21,468	1,318	1,370	287	4,542	27	29,012
2006	13,862	1,012	1,150	98	9,806	24	25,952
2007	14,268	1,281	1,411	58	4,147	0	21,165
2008	17,412	1,866	981	94	4,407	0	24,760
2009	14,470	936	888	591	3,019	0	19,904
% of Total	72.8%	3.8%	6.2%	5.2%	11.9%	0.1%	100.0%
% of Total 2005-09	67.5%	5.3%	4.8%	0.9%	21.5%	0.0%	100.0%

3.2. U.S. Catch

U.S. catch has generally declined in the past decade compared to previous decades. As shown in Table 1 while U.S. catch accounted for 5 percent of the total for the period 1990-2009, in the last 5 years it has accounted for less than 1 percent of the total.

Figure 1 shows U.S. catch by fishery since 2000, based on the data in Table 2. Since 1990 purse seine accounted for the largest share at 75 percent of the total. However, in the last decade recreational catch has become more important, accounting for 64 percent of the total (note that U.S. charter recreational

vessels are permitted to fish in Mexican waters while commercial vessels are not). Purse seine and recreational catches are variable year to year.

ISC reports do not differentiate between U.S. west coast and U.S. western Pacific catch (which includes Hawaii), although U.S. purse seine vessels only target Pacific bluefin on the west coast.

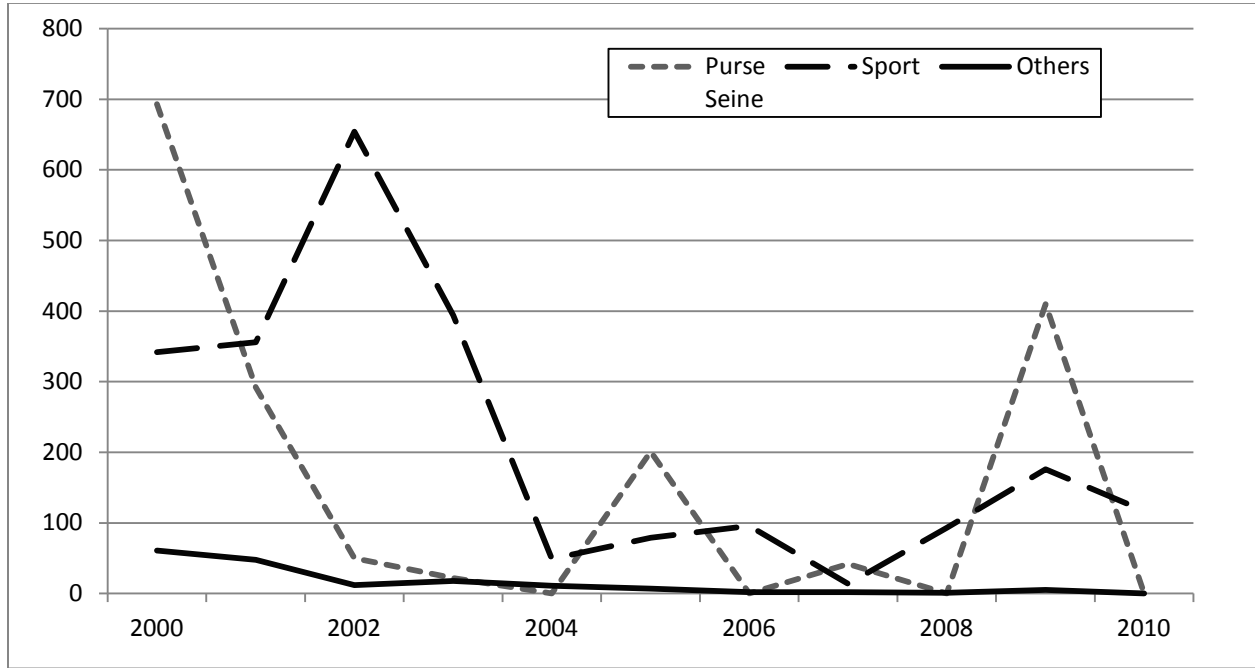


Figure 1. U.S. catch (mt) of Pacific bluefin tuna by fishery, 2000-2010 (Source: Table 14-2 ISC11 Plenary Report).

Table 2. U.S. catch (mt) by fishery, 1990-2010 (Source: Table 14-2 ISC11 Plenary Report, other includes catches from gillnet, troll, pole-and-line, and longline). Values in italic are provisional.

Year	Purse Seine	Sport	Others	Total
1990	1,380	65	92	1,537
1991	410	92	6	508
1992	1,928	110	61	2,099
1993	580	298	103	981
1994	906	89	59	1,054
1995	657	258	49	964
1996	4,639	40	70	4,749
1997	2,240	156	133	2,529
1998	1,771	413	281	2,465
1999	184	441	184	809
2000	693	342	61	1,096
2001	292	356	48	696
2002	50	654	12	716
2003	22	394	18	434
2004		49	11	60
2005	201	79	7	287
2006		96	2	98
2007	42	14	2	58
2008		93	1	94
2009	<i>410</i>	<i>176</i>	5	<i>591</i>
2010		<i>117</i>	0	<i>117</i>
% Total	74.8%	19.7%	5.5%	100.0%
% Total 2001-10	32.3%	64.4%	3.4%	100.0%

4. International Conservation Measures

4.1. Western and Central Pacific Fisheries Commission

In 2009 the WCPFC adopted CMM 2009-07, a 1-year measure which established an interim management objective for Pacific bluefin tuna “to ensure that the current level of fishing mortality rate [sic] is not increased in the Convention area.” It called on CCMs² to take measures necessary to ensure that total fishing effort by their vessels does not increase from the 2002-2004 level and to take into account the need to reduce effort on juveniles (age 0-3) to the 2000-2004 level. The measure included an exemption for “artisanal fisheries” and fisheries in the Korean EEZ.

² Commission Members, Cooperating Non-Members, and participating Territories.

In 2010 the WCPFC adopted CMM 2010-04 (see Annex 4), a 2-year measure (2011-2012) with the same management objective and fishing effort controls as the previous measure. It added a statement that “Korea shall take necessary measures to regulate the catches of juveniles (age 0-3) by managing [the] Korean fishery in accordance with this CMM.”

At the 2011 of the WCPFC Northern Committee meeting members discussed progress on implementing the measure was (see Annex 5). Japan inserted the exemption for artisanal fisheries in the measure in reference to their small boat fishery. Japan described progress on implementing a registration system and catch monitoring scheme for these artisanal vessels (which they describe as small vessels with one or two man crews using handline or troll). They have registered 5,000 vessels thus far and expect double that amount when the registration process is completed. They have also implemented a prohibition on catch of juvenile Pacific bluefin by purse seiners. Korea reported that they established a prohibition on the catch of juvenile Pacific bluefin (weighing less than 20 kg) but this claim was undercut somewhat when a rather large loophole was disclosed. The prohibition includes exemptions for scientific research and catch by vessels other than large purse seiners. Furthermore, Pacific bluefin caught under the research exemption can be subsequently used commercially. Since large purse seine catch is covered by the “research” exemption, in effect there is no catch prohibition. In addition, Japan presented an analysis of import statistics for Pacific bluefin (which come from Korea) that suggested Korean catch had not been materially reduced in 2011 compared to 2010.

4.2. *Inter-American Tropical Tuna Commission*

At the IATTC 82nd Meeting (July 4-18, 2011) the United States, Canada, the Republic of Korea, China, and Chinese Taipei tabled a proposed resolution for Pacific bluefin (Annex 6). The draft summary minutes of the meeting state:

Mexico disagreed with the proposed measure, and said that it would present an alternative proposal. It did that, but too late for the proposal to be discussed at the plenary session. Some delegations and representatives of non-governmental organizations (NGOs) complained that, because of this situation, no measure on bluefin tuna was adopted at this meeting. Six Members submitted a declaration in this regard, which is included as Annex 4b of these Minutes. Mexico said that it would share information on measures taken at the national level to limit the catches of this species, and added that the precarious situation of this species is due to overfishing in the western Pacific Ocean, rather than in the EPO.

The tabled resolution would have required CPCs³ to maintain average annual commercial Pacific bluefin catches in 2012 and 2013 below their average annual catch during the 1994-2007 period and would have required that CPCs take measures to prohibit the sale of Pacific bluefin tuna caught by recreational vessels.

5. U.S. Domestic Measures

Catch (or landings) monitoring of Pacific bluefin caught by U.S. vessels in the PFMC and WPFMC areas is achieved through state programs with the data collected in Federally supported data systems (for the west coast, the Pacific Fisheries Information Network, PacFIN, and for Hawaii and other U.S. affiliated islands the Western Pacific Fisheries Information Network, WPacFIN). The U.S. requires logbooks for various fisheries catching Pacific bluefin incidentally and may require observers under domestic arrangements or in conjunction with IATTC and WCPFC measures.

³ IATTC members and cooperating non-members.

On the west coast no management measures are applied specifically to commercial catch of Pacific bluefin (e.g., quota, harvest guideline, seasonal closure) although the general provisions of the HMS Fishery Management Plan (such as legal gear definitions) apply. On the U.S. west coast recreational catch is limited to a 10 fish per day bag limit and the sale of recreationally-caught Pacific bluefin is prohibited.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
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Long Beach, California 90802- 4213

APR 7 2011 150413SWR2010SF00372:MH

Mr. Mark Cedergreen, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Dear Chairman Cedergreen:

On behalf of the Secretary of Commerce, NOAA's National Marine Fisheries Service (NMFS) informs the Pacific Fishery Management Council (Council) that overfishing is occurring on Pacific bluefin tuna (*Thunnus orientalis*) in the North Pacific Ocean (NPO). This determination is made pursuant to section 304 (i) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

Pacific bluefin is a management unit species in the Council's *Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species* (HMS FMP) and the Western Pacific Fishery Management Council's (WPFMC) *Fishery Ecosystem Plan for Pacific Pelagic Fisheries of the Western Pacific Region* (Pelagics FEP). Mr. Michael Tosatto, NMFS Regional Administrator of the Pacific Islands Region, is similarly informing the WPFMC about this overfishing determination.

In the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean's (ISC's) 2008 stock assessment, as well as updates in 2009 and 2010, it was reported that the fishing mortality rate for Pacific bluefin was greater than many reference points commonly used as limits, including F_{max} . Consequently, on September 3, 2010, the NMFS Southwest Fisheries Science Center determined that the fishing mortality rate had exceeded the Maximum Fishing Mortality Threshold for at least one year. The determination was based on status determination criteria established by the Council's HMS FMP and the WPFMC's Pelagics FEP.

Pacific bluefin is considered a single North Pacific-wide pelagic stock, conservation and management of which are the responsibility of the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC). The United States is a member of both regional fisheries management organizations. At its 2010 meeting the WCPFC adopted a conservation and management measure that obligates its members to ensure that total fishing effort by their vessels fishing for Pacific bluefin in the WCPF Convention Area north of 20° N. latitude, except artisanal fisheries, stay below the 2002-2004 levels in 2011 and 2012. The measure also requires members,



except Korea, to reduce their catches of juveniles to below the 2002-2004 levels. This measure replaced a similar one adopted in 2009. For the Eastern Pacific Ocean, the IATTC has yet to take action.


Although internationally agreed management measures for Pacific bluefin are in place in the WCPFC Convention Area, international measures are currently inadequate to end overfishing for purposes of the MSA and its implementing regulations. Therefore, while the Council is not required to prepare an amendment to its HMS FMP, it must undertake actions under MSA Section 304(i)(2).

One action is to develop recommendations for domestic regulations addressing the relative impacts of U.S. fishing vessels on the Pacific bluefin stock, and submit such recommendations to NMFS. Based on the Pacific Council's most recent Stock Assessment and Fishery Evaluation report¹, the average annual fractional catch by both the U. S. West Coast commercial and recreational sectors has amounted to less than one-tenth percent of the catch in the NPO between 2004-2008. Even with this low catch, the Pacific Council took action a few years ago and recommended a 10-fish bag limit in the recreational fishery that NMFS implemented. However, fishing mortality on the stock stems predominantly from non-U.S. fleets in the NPO, and other unilateral management actions to end overfishing by the United States will have a proportionally diminutive effect in terms of reducing fishing mortality and ending overfishing. Nonetheless, the United States is party to both the IATTC and WCPFC and NOAA must implement domestic regulations as appropriate to fulfill its international obligations.

Another action is for the Council to develop and submit recommendations to the Secretary of State, and to the Congress, for international actions that will end overfishing on the stock. These recommendations must take into account the relative impact on the stock of vessels of other nations compared to that of U.S. vessels.

I strongly urge the Pacific Council to work closely and collaboratively with the WPFMC. The Southwest Regional and Pacific Islands Offices will support and provide coordinated assistance to the Councils in crafting and approving a set of unified recommendations to end overfishing of Pacific bluefin tuna. Please let me know if you or the Council staff have any questions.

Sincerely,


for Rodney R. McInnis
Regional Administrator

cc: F – E. Schwaab, S. Rauch

¹ Pacific Fishery Management Council. 2010. Status of the U. S. West Coast Fisheries for Highly Migratory Species through 2009: Stock Assessment and Fishery Evaluation. Portland, OR. 148 pp.

F/IA - R. Lent
F/SF - E. Menashes (Actg)
F/ST - S. Pooley (Actg)
NWR - W. Steele
PIRO - M. Tosatto, C. Karnella
SWFSC - C. Werner
PIFSC - M. Seki (Actg)

GCPI - F. Tucher
GCSW - J. Feder
DOS - D. Hogan, W. Gibbons-Fly
IATTC - G. Compean



**Western
Pacific
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JUN 30 2011

PFMC

June 27, 2011

Dr. Donald McIsaac
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Don:

At its recent 151st Meeting, the Western Pacific Regional Fishery Management Council made the following recommendation regarding Pacific bluefin tuna stocks:

The Council recommended the Pacific Fishery Management Council (PFMC) address the stock's overfishing status, given the requirement for the Council to take management action and the disparity in the U.S. fishery catches of Pacific bluefin tuna between the western and eastern Pacific Ocean, with dramatically higher catches in the latter. If appropriate, the Chair and appropriate members of the PPT will confer with the PFMC's Highly Migratory Species Plan Team to develop options that would assist in making recommendations to the Secretary of Commerce for domestic regulations to address the relative impact of U.S. fishing vessels on the stock. Furthermore, the teams could assist in the development of recommendations to the Secretary of State and Congress for international actions that will end overfishing.

This recommendation notes the great disparity between the catches of Pacific bluefin by fisheries in the Western Pacific which amount to about 1.00 mt and the higher catches of Pacific bluefin in your Council area. Even these more substantial catches, about 190 mt in total between 2004 and 2009, are a minor fraction of the total catch, 90% of which is taken by two countries, Japan and Mexico. Clearly, US action at this point should be confined to asking these two countries to take action to reduce overfishing on this species. As noted in the recommendation, our Council staff and Pelagic Plan Team Chair would be willing to work with their Pacific Council counterparts in developing responses as outlined in the recommendation.

Sincerely,

Kitty M. Simonds
Executive Director

Table 14-2. Annual catch of Pacific bluefin tuna (*Thunnus orientalis*) in metric tons for fisheries monitored by ISC for assessments of North Pacific Ocean stocks, 1952-2010.
Blank indicates no effort. - indicates data not available. 0 indicates less than 1 metric t

Year	Japan ¹								Korea ³		
	Purse Seine		Pole and Line	Set Net	Troll ²	Distant Water & Offshore Longline		Coastal Longline	Others	Purse Seine	Trawl
	Tuna PS	Small PS				NP	SP				
1952	7,680		2,198	2,145	667	2,694	9		1,700		
1953	5,570		3,052	2,335	1,472	3,040	8		160		
1954	5,366		3,044	5,579	1,656	3,088	28		266		
1955	14,016		2,841	3,256	1,507	2,951	17		1,151		
1956	20,979		4,060	4,170	1,763	2,672	238		385		
1957	18,147		1,795	2,822	2,392	1,685	48		414		
1958	8,586		2,337	1,187	1,497	818	25		215		
1959	9,996		586	1,575	736	3,136	565		167		
1960	10,541		600	2,032	1,885	5,910	193		369		
1961	9,124		662	2,710	3,193	6,364	427		599		
1962	10,657		747	2,545	1,683	5,769	413		293		
1963	9,786		1,256	2,797	2,542	6,077	449		294		
1964	8,973		1,037	1,475	2,784	3,140	114		1,884		
1965	11,496		831	2,121	1,963	2,569	194		1,106		
1966	10,082		613	1,261	1,614	1,370	174		129		
1967	6,462		1,210	2,603	3,273	878	44		302		
1968	9,268		983	3,058	1,568	500	7		217		
1969	3,236		721	2,187	2,219	313	20	565	195		
1970	2,907		723	1,779	1,198	181	11	426	224		
1971	3,721		938	1,555	1,492	280	51	417	317		
1972	4,212		944	1,107	842	107	27	405	197		
1973	2,266		526	2,351	2,108	110	63	728	636		
1974	4,106		1,192	6,019	1,656	108	43	1,069	754		
1975	4,491		1,401	2,433	1,031	215	41	846	808		
1976	2,148		1,082	2,996	830	87	83	233	1,237		
1977	5,110		2,256	2,257	2,166	155	23	183	1,052		
1978	10,427		1,154	2,546	4,517	444	7	204	2,276		
1979	13,881		1,250	4,558	2,655	220	35	509	2,429		
1980	11,327		1,392	2,521	1,531	140	40	671	1,953		
1981	25,422		754	2,129	1,777	313	29	277	2,653		
1982	19,234		1,777	1,667	864	206	20	512	1,709	31	
1983	14,774		356	972	2,028	87	8	130	1,117	13	
1984	4,433		587	2,234	1,874	57	22	85	868	4	
1985	4,154		1,817	2,562	1,850	38	9	67	1,175	1	
1986	7,412		1,086	2,914	1,467	30	14	72	719	344	
1987	8,653		1,565	2,198	880	30	33	181	445	89	
1988	3,583	22	907	843	1,124	51	30	106	498	32	
1989	6,077	113	754	748	903	37	32	172	283	71	
1990	2,834	155	536	716	1,250	42	27	267	455	132	
1991	4,336	5,472	286	1,485	2,069	48	20	170	650	265	
1992	4,255	2,907	166	1,208	915	85	16	428	1,081	288	
1993	5,156	1,444	129	848	546	145	10	667	365	40	
1994	7,345	786	162	1,158	4,111	238	20	968	398	50	
1995	5,334	13,575	270	1,859	4,778	107	10	571	586	821	
1996	5,540	2,104	94	1,149	3,640	123	9	778	570	102	
1997	6,137	7,015	34	803	2,740	142	12	1,158	811	1,054	
1998	2,715	2,676	85	874	2,865	169	10	1,086	700	188	
1999	11,619	4,554	35	1,097	3,387	127	17	1,030	709	256	
2000	8,193	8,293	102	1,125	5,121	121	7	832	689	1,976	0
2001	3,139	4,481	180	1,366	3,329	63	6	728	782	968	10
2002	3,922	4,981	99	1,100	2,427	47	5	794	631	767	1
2003	956	4,812	44	839	1,839	85	12	1,152	446	2,141	0
2004	4,934	3,323	132	896	2,182	231	9	1,616	514	636	0
2005	4,061	8,783	549	2,182	3,406	107	14	1,818	548	1,318	
2006	3,644	5,236	108	1,421	1,544	63	11	1,058	777	1,012	
2007	2,965	3,875	236	1,503	2,385	83	8	2,004	1,209	1,281	
2008	3,029	7,192	64	2,358	2,074	19	8	1,476	1,192	1,866	
2009	2,127	5,950	50	2,236	1,875	8	7	1,304	913	936	
2010	1,122	2,620	83	1,047	1,301	(-) ⁷	(-) ⁷	(806)	918	1,196	

1 Part of Japanese catch is estimated by the WG from best available source for the stock assessment use.

2 The troll catch for farming estimating 10 - 20 mt since 2000, is excluded.

3 Catch statistics of Korea derived from Japanese Import statistics for 1982-1999.

4 US in 1952-1958 contains catch from other countries - primarily Mexico. Other includes catches from gillnet, troll, pole-and-line, and longline

5 Catches by NZ are derived from the Ministry of Fisheries, Science Group (Compilers) 2006: Report from the Fishery Assessment Plenary, May 2006: stock assessments and yield estimates. 875 p. (Unpublished report held

6 Other countries include AUS, Cooks, Palau and so on. Catches derived from Japanese Import Statistics as minimum estimates.

7 The catch for Japanese coastal longline in 2008 includes that of the distant water and offshore longliners.

8 Catches in New Zealand and Other countries since 2007 are carry-over of that in 2005

Blue cell indicate the updated from last year (e.g new data and corrected value)

Table 14-2 (continued)

Year	Chinese-Taipei				United States ⁴			Mexico		non-ISC members		Grand Total
	Purse Seine	Distant Driftnet	Longline	Others	Purse Seine	Sport	Others	Purse Seine	Others	New Zealand ⁵	Others ⁶	
1952					2,076	2						19,172
1953					4,433	48						20,117
1954					9,537	11						28,575
1955					6,173	93						32,005
1956					5,727	388						40,383
1957					9,215	73						36,590
1958					13,934	10						28,610
1959					3,506	13	56	171	32			20,539
1960					4,547	1	0					26,079
1961					7,989	23	16	130				31,236
1962					10,769	25	0	294				33,195
1963					11,832	7	28	412				35,481
1964					9,047	7	39	131				28,631
1965			54		6,523	1	77	289				27,224
1966					15,450	20	12	435				31,161
1967			53		5,517	32	0	371				20,745
1968			33		5,773	12	8	195				21,623
1969			23		6,657	15	9	260				16,419
1970					3,873	19	0	92				11,432
1971			1		7,804	8	0	555				17,140
1972			14		11,656	15	45	1,646				21,216
1973			33		9,639	54	21	1,084				19,619
1974			47	15	5,243	58	30	344				20,685
1975			61	5	7,353	34	84	2,145				20,948
1976			17	2	8,652	21	25	1,968				19,381
1977			131	2	3,259	19	13	2,186				18,811
1978			66	2	4,663	5	6	545				26,863
1979			58		5,889	11	6	213				31,715
1980			114	5	2,327	7	24	582				22,634
1981			179		867	9	14	218				34,641
1982		2	207		2,639	11	2	506				29,387
1983	9	2	175		629	33	11	214				20,557
1984	5		477	8	673	49	29	166				11,573
1985	80	11	210		3,320	89	28	676				16,089
1986	16	13	70		4,851	12	57	189				19,266
1987	21	14	365		861	34	20	119				15,507
1988	197	37	108	25	923	6	50	447	1			8,989
1989	259	51	205	3	1,046	112	21	57				10,943
1990	149	299	189	16	1,380	65	92	50				8,653
1991		107	342	12	410	92	6	9		2		15,781
1992	73	3	464	5	1,928	110	61	0		0		13,995
1993	1		471	3	580	298	103				6	10,811
1994			559		906	89	59	63	2	2		16,916
1995			335	2	657	258	49	11		2		29,225
1996			956		4,639	40	70	3,700		4		23,519
1997			1,814		2,240	156	133	367		14		24,632
1998			1,910		1,771	413	281	1	0	20		15,763
1999			3,089		184	441	184	2,369	35	21		29,153
2000			2,780	2	693	342	61	3,019	99	21		33,475
2001			1,839	4	292	356	48	863		50		18,504
2002			1,523	4	50	654	12	1,708	2	55	10	18,794
2003			1,863	21	22	394	18	3,211	43	41	19	17,958
2004			1,714	3		49	11	8,880	14	67	10	25,221
2005			1,368	2	201	79	7	4,542		20	7	29,013
2006			1,149	1		96	2	9,806		21	3	25,952
2007			1,401	10	42	14	2	4,147		(21) ⁸	(3) ⁸	(21,189)
2008			979	2		93	1	4,392	15	(21) ⁸	(3) ⁸	(24,784)
2009			877	11	(410)	(176)	(5)	3,019		(21) ⁸	(3) ⁸	(19,928)
2010			(373)			(117)	(0)	(7,745)		(21) ⁸	(3) ⁸	(17,352)



SEVENTH REGULAR SESSION

Honolulu, Hawaii, USA

6-10 December 2010

**CONSERVATION AND MANAGEMENT MEASURE FOR
PACIFIC BLUEFIN TUNA**

Conservation and Management Measure 2010-04¹

The Western and Central Pacific Fisheries Commission (WCPFC):

Recognizing that WCPFC6 adopted Conservation and Management Measure for Pacific bluefin tuna (CMM2009-07);

Recalling that the WCPFC6 requested the Northern Committee to develop a new draft CMM applying to the Korean EEZ for consideration at the WCPFC7;

Taking account of the conservation advice from the 10th meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) on this stock, which highlighted the importance that the level of F is decreased below the 2002-2004 levels, particularly on juvenile age classes;

Also recognizing that the trend of spawning stock biomass has been influenced substantially by the annual level of recruitment and that collecting of fisheries data in an accurate and timely manner is critically important for the proper management of this stock, and;

Further recalling that paragraph (4), Article 22 of the WCPFC Convention which requires cooperation between the Commission and the IATTC to reach agreement to harmonize CMMs for fish stocks such as Pacific bluefin tuna that occur in the Convention Areas of both organizations;

Adopts, in accordance with Article 10 of the WCPFC Convention that:

1. The interim management objective for Pacific bluefin tuna is to ensure that the current level of fishing mortality rate is not increased in the Convention Area. Initially, control over fishing effort will be used to achieve this objective as follows:
2. The Commission Members, Cooperating Non-Members and participating Territories (hereinafter referred to as CCMs) shall take measures necessary to ensure that total fishing effort by their vessels fishing for Pacific bluefin tuna in the area north of the 20 degrees north shall stay below the 2002-2004 levels for 2011 and 2012, except for artisanal fisheries. Such measures shall include those to reduce catches of juveniles (age 0-3) below the 2002-2004 levels, except for Korea. Korea shall take necessary measures to regulate the catches of juveniles (age 0-3) by managing Korean fishery in accordance with this CMM. CCMs shall cooperate for this purpose.

¹ Replaces CMM 2009-07

3. CCMs shall also take measures necessary to strengthen data collecting system for Pacific bluefin tuna fisheries in order to improve the data quality and timeliness of all the data reporting;
4. CCMs shall report to Executive Director by 31 July 2011 and 2012 measures they used to implement paragraphs 2, 3, 6 and 7 of this CMM. The Northern Committee shall annually review reports CCMs submit pursuant to this paragraph;
5. The Northern Committee at its Regular session in 2012 shall review this CMM based on the new ISC stock assessment for Pacific bluefin tuna scheduled in 2012 and take appropriate actions;
6. The WCPFC Executive Director shall communicate this Conservation Management Measure to the IATTC Secretariat and its contracting parties whose fishing vessels engage in fishing for Pacific bluefin tuna and request them to take equivalent measures in conformity with paragraphs 2 and 3 above;
7. To enhance effectiveness of this measure, CCMs are encouraged to communicate with and, if appropriate, work with the concerned IATTC contracting parties bilaterally.
8. The provisions of paragraph 2 shall not prejudice the legitimate rights and obligations under international law of those small island developing State Members and participating territories in the Convention Area whose current fishing activity for Pacific bluefin tuna is limited, but that have a real interest in fishing for the species, that may wish to develop their own fisheries for Pacific bluefin tuna in the future.
9. The provisions of paragraph 8 shall not provide a basis for an increase in fishing effort by fishing vessels owned or operated by interests outside such developing coastal State, particularly Small Island developing State Members or participating territories, unless such fishing is conducted in support of efforts by such Members and territories to develop their own domestic fisheries.

NC7 Summary Report Excerpt

Excerpted from the Summary Report of the Seventh regular session of Northern Committee Western and Central Pacific Fisheries Commission, 6-9 September 2011, Sapporo Japan, pp. 2-5.

2.3.1 Pacific bluefin tuna (CMM-2010-04)

9. The NC reviewed the CCM's implementation of CMM 2010-04, which requires members to report on their implementation of this CMM.

10. The Philippines recalled that past research had indicated catches of PBF in Philippine waters but better data collection is needed to confirm whether any catches are currently occurring. They plan to implement measures to prevent the catch of juvenile PBF.

11. Canada stated that it did not submit a report because it had no recorded catch of PBF in 2010.

12. Japan introduced DP02 on its implementation of CMM 2010-04. Japan highlighted that it introduced (i) a catch limit for juvenile PBF and a voluntary catch limit for adult PBF by purse seine fishery, (ii) an administrative guidance not to increase the number of licenses of set-nets for PBF, (iii) a vessel registration system and mandatory reporting for artisanal fishery operating in the Sea of Japan and Eastern China Sea and (iv) a registration system and mandatory reporting of all PBF aquaculture sites. It explained that more than 5000 artisanal vessels were registered (almost same number of active vessels in WCPFC vessel registration) and this registration is scheduled to expand to vessels operating in pacific coast next year. It also explained the enhanced data collection of PBF import from Korea as well as Mexico. Further, Japan reported on the cooperation with IATTC members, noting that IATTC failed to agree a measure at this year's annual meeting.

13. Korea presented DP-03. It introduced that Korea enacted a Ministerial Directive which aims to initiate, as a first step, monitoring and managing the PBF fisheries in Korean waters, including prohibition of commercial catch of the juvenile PBF that is less than 20 kg. Korea explained that the directive has been established through series of domestic process and effective since May 26, 2011. Regarding the DP01, Korea appreciated Japanese effort for the provision of the statistics and analysis on the Korean PBF catch and expressed its different view on the use of the term "disguised exportation" in DP-01 in reference to PBF exported to Japan labeled as "skipjack." They explained that it might be the result of misidentification by fishermen and the fishery cooperative that handled the landed fish.

14. Japan presented DP-01 (Preliminary Analysis of Pacific Bluefin Tuna Import from Korea in 2011) and concluded that the PBF catch by Korea is not substantially lower than last year, although the new Korean directive came into force only in late May. They also stated that they could use a different term than "disguised exportation" in response to Korean concern. However, they noted that even if the fishermen were unable to identify the fish correctly, the exporter should be able to distinguish between the two species. This leads Japan to wonder whether this was merely a matter of misidentification.

15. In response to a question, Korea confirmed that they considered PBF weighing less than 20 kg as juveniles. The Chair consulted the ISC PBF Working Group Chair who stated that PBF weighs 25-30 kg around May or June of the third year (age-3). This indicates that fish weighing less than 30 kg should be considered juveniles.

16. Korea further noted that the prohibition of the juvenile PBF catch has the following exemptions: 1) The catch under scientific research, 2) The catch for the purpose of stock enhancement, 3) The catch

for fry for the aquaculture, and 4) incidental catch by other than large purse seiners. Korea also noted that the catches under research can be used commercially after the completion of the study on the catches. The study includes collection of the catch data by reporting from the permitted vessels before selling by the weight and number of PBF and by fishing gears, except for the PBF that is less than 20kg, whose data are recorded by boxes.

17. Chinese Taipei asked if Korean vessels also catch PBF outside their EEZ. Korea explained that the Ministerial Directive only applies to fisheries inside the EEZ.

18. The US presented DP-04, which states that the US does not have any vessels fishing for PBF. The NC Chair asked about PBF catch in Hawaiian waters, which are in the Convention Area. The U.S. noted small quantities are caught incidentally in the Hawaii longline fishery.

19. Chinese Taipei reviewed their report, distributed as DP-06, which explained that it set the limit for the number of longline vessels fishing for PBF and that it introduced Catch Documentation Scheme for the species.

20. The NC Chair asked what measures have been implemented to control juvenile catch. Chinese Taipei responded that their fisheries don't catch juveniles so they have not yet implemented management measures. The Chair then asked about how incidental catches are handled under the limited entry system. Chinese Taipei said a longline vessel that catches PBF without proper authorization would be sanctioned.

21. The Philippines presented DP-05. The Chair asked about the location of the closed area established on Tubbataha Reef and its effect on tuna conservation. The Philippines explained its location and noted that it is an important spawning and rearing area for a variety of tuna species, although more research will be needed to determine whether it is an area important to PBF.

Discussion

22. The U.S. complemented Japan and Korea on their efforts to implement CMM 2010-04 domestically and suggested that in a future measure the Committee should remove exemptions for artisanal fisheries and for Korea.

23. Japan stated that the artisanal fishery exemption should, at some point, be reviewed, but stressed that there are a very large number of artisanal vessels, likely in excess of 10,000, whose actual catch of each vessel is very small. This presents logistical difficulties in removing the exemption at this stage.

24. Vanuatu noted they have not recorded any PBF catch but their fisheries are monitored and they will report any catches. In this regard, Vanuatu requested other countries to inform them if they record imports of PBF from Vanuatu.

25. Korea responded to Japan's question by noting that purse seine catches of juvenile PBF (<20 kg) are exempted under the research program and that even though it is research catch it may still be exported. Regarding the Japanese concern, Korea stated that it is easier to identify PBF in the market, especially in the Japanese auction market, than in the local market place. Also they noted that there are various circumstances, including difficulties in species identification of juvenile tunas and quick processes of the trade on the fresh fish that may lead to misidentification of PBF and suggested the need for more cooperation between exporting and importing countries.

26. The Chair asked for further explanation of Korea's regulations for high seas catch of PBF. Korea responded that currently there is no information on purse seine vessels' PBF catch outside the Korean

EEZ.

27. The Chair asked Korea what types of activities are called research under Ministerial Directive. Korea responded that before the Directive was established there was no regulation of PBF fishing; After the Directive came into force anyone wishing to catch PBF has to have permission to catch it and the permission and reporting of the catch is under the auspices of their research program, which collects data relevant to PBF management. All fishermen, including the large purse seine vessels, are allowed to participate in the research program.

28. The Chair sought confirmation that under the research program fishermen only have to report catch and then they are exempted from any further limits on catch. Korea confirmed this situation. Japan asked if it is correct that after the introduction of the Directive the activity by purse seine fleet has not actually changed but rather is now renamed from commercial operation to research activity. Korea said that it is an accurate characterization of their management program and further stated that this is a remarkable turning point towards the monitoring and managing the PBF fisheries in Korea where there has not been any regulations on the PBF fishing.

29. Korea and Japan expressed their intention to strengthen cooperation on monitoring of PBF import-export. Japan asked Korea to establish more effective methods for regulating PBF fisheries by 2012 when CMM 2010-04 will be revised.

30. Korea said that it is their intention to comply with CMM 2010-04 and once complete the research programme they will be in full compliance with the measure. Japan noted that Korea described a 5-year research program while the CMM is due to be revised next year. Korea responded that even before completion of the 5-year research program they could accept the obligation at the same level as other members under the current CMM when sufficient data and information are secured, hopefully next year. They added that 2011 is the second year of 5-year programme.

INTER-AMERICAN TROPICAL TUNA COMMISSION

82ND MEETING

LA JOLLA, CALIFORNIA (USA)
4-8 JULY 2011

PROPOSAL IATTC-82-01**SUBMITTED BY JAPAN, CANADA, CHINA, CHINESE TAIPEI, KOREA,
AND THE UNITES STATES****DRAFT RESOLUTION ON THE CONSERVATION AND MANAGEMENT
MEASURE OF PACIFIC BLUEFIN TUNA IN THE EASTERN PACIFIC
OCEAN**

The Inter-American Tropical Tuna Commission (IATTC):

Recognizing the recommendations of the IATTC staff at the 81st and 82nd meetings of IATTC that the annual catches of Pacific bluefin tuna in the Convention Area by the commercial vessels of each member shall not exceed the average annual level of such catches during 1994-2007;

Aware that the WCPFC at its 7th Regular Session adopted Conservation and Management Measure for Pacific bluefin tuna (CMM2010-04) based on the conservation advice of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), which includes measures to reduce catches of juveniles (age 0-3) below the 2002-2004 levels;

Recognizing that Pacific bluefin tuna migrate throughout the North Pacific Ocean, for which conservation and management measures should be introduced in the entire North Pacific Ocean in a timely and consistent manner; and

Recalling that paragraph 1, Article XXIV of the Antigua Convention requires cooperation between the IATTC and other organizations including the WCPFC with the goal of promoting the achievement of the objective of this Convention, obtaining the best available scientific information;

Resolves as follows:

1. Members of the Commission and cooperating non-Members (hereinafter called "CPCs") shall take measures necessary to ensure that their average annual catches during the period of 2012-2013 of Pacific bluefin tuna in the Convention Area by their-flagged commercial vessels is below their average annual catch during the period '1994-2007.'
2. CPCs shall take measures necessary to prohibit the sale of Pacific bluefin tuna caught by recreational vessels.
3. The Commission shall review this resolution at its 2013 meeting based on recommendations from the 4th meeting of the Scientific Advisory Committee and the new ISC stock assessment for Pacific bluefin tuna and take appropriate actions.
4. CPCs shall also take measures necessary to strengthen data collecting systems for Pacific bluefin tuna fisheries in order to improve the data quality and timeliness of all the data reporting.

5. CPCs shall report to the Director by 30 April 2012 and 2013 measures they used to implement paragraphs 1 and 2 of this Resolution.