



**U.S. DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration** Agenda Item H.5

**NATIONAL MARINE FISHERIES**

Attachment 4

Pacific Islands Regional Office

June 2017

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April 28, 2017

Mr. Edwin Ebisui  
Chair  
Western Pacific Fishery Management Council  
1164 Bishop St. 1400  
Honolulu, HI 96813

Dear Mr. Ebisui:

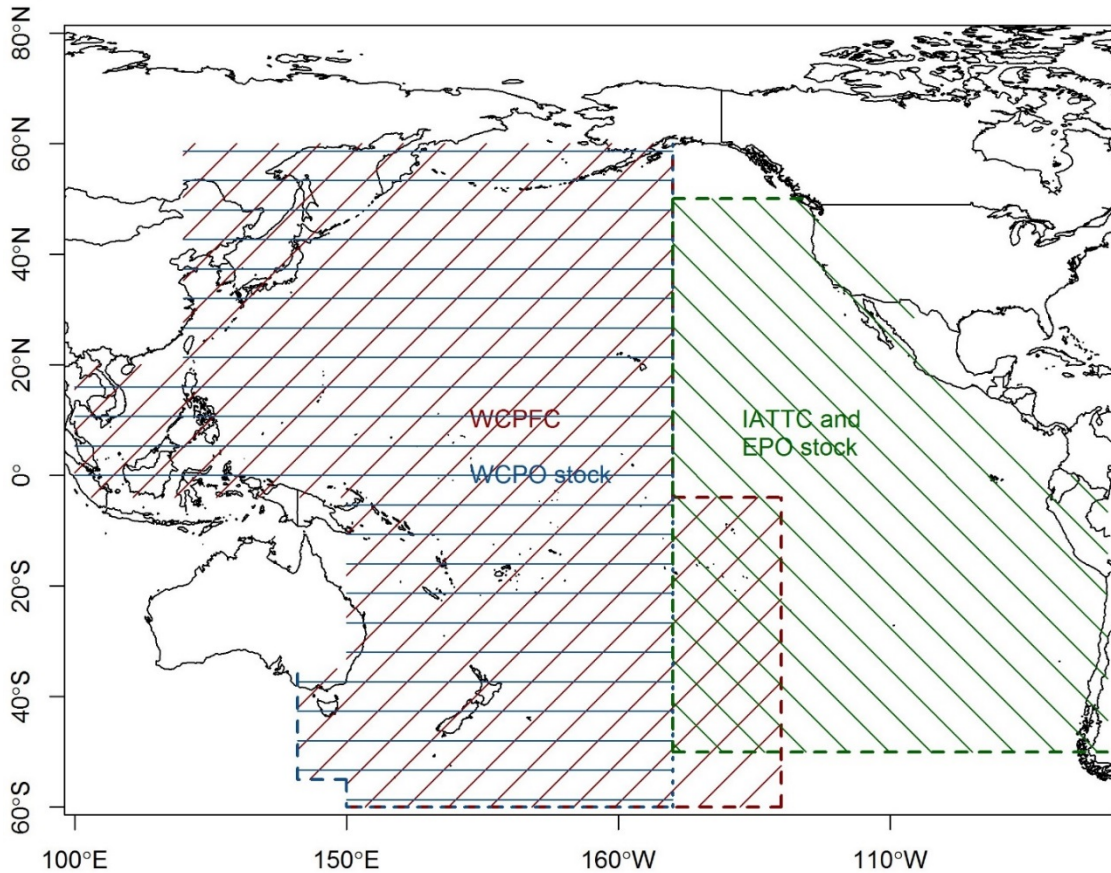
This letter is to inform you that the National Marine Fisheries Service (NMFS) will begin monitoring and reporting stock status of bigeye tuna (*Thunnus obesus*) separately for the Western and Central Pacific Ocean (WCPO) stock and the Eastern Pacific Ocean (EPO) stock. NMFS has determined that the EPO stock is not subject to overfishing and not overfished. For the WCPO stock, NMFS has determined that it is subject to overfishing, but not overfished.

Bigeye tuna are distributed throughout tropical and sub-tropical waters of the Pacific Ocean. International management measures for bigeye tuna in the Pacific Ocean are adopted through two regional fishery management organizations, the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC). The WCPFC's Convention Area is the western and central Pacific Ocean (WCPO), which extends generally, west of 150° W longitude, while the IATTC's Convention Area is the eastern Pacific Ocean (EPO), which is generally east of the 150° W longitude (Figure 1). The United States domestically implements internationally agreed upon management measures by the WCPFC and the IATTC through the Western and Central Pacific Fisheries Convention Implementation Act and the Tuna Conventions Act, respectively. Since bigeye tuna are listed as a management unit species in both the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region (Pelagic FEP), and the Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species (HMS FMP), the Western Pacific Fishery Management Council (WCFMC) and Pacific Fishery Management Council (PFMC) may also recommend NMFS implement domestic management measures under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Because of the separate management jurisdictions of the WCPFC and the IATTC, stock assessments for bigeye tuna in the WCPO and EPO have been prepared separately, with the boundaries of each stock conforming to the area of authority of the WCPFC and IATTC. Historically, NMFS has reported the results of the separate EPO and WCPO stock assessments as one status determination for Pacific bigeye tuna. While genetic analyses have not revealed significant evidence of population subdivisions in the Pacific Ocean, tagging studies indicate that bigeye tuna in the far eastern and far western Pacific have relatively little exchange. Further, there have been no Pacific-wide stock assessments for Pacific bigeye tuna, nor are there plans to conduct any in the future. For these reasons, NMFS will now monitor and report stock status for



bigeye tuna in the Pacific Ocean separately for the EPO and WCPO stocks, consistent with the way the stocks are assessed and managed.



**Figure 1. Convention Areas of the WCPFC (red) and IATTC (green), and boundaries for WCPO (blue) and EPO (green) bigeye tuna stocks.**

The Pelagic FEP and the HMS FMP include criteria for overfishing and overfished status determinations. Under both plans, overfishing occurs when the fishing mortality rate ( $F$ ) for one or more years is greater than the maximum fishing mortality threshold (MFMT), which is the fishing mortality rate that produces MSY ( $F_{MSY}$ ). In other words, EPO and WCPO bigeye tuna are subject to overfishing when  $F/F_{MSY} > 1.0$ . Under both plans, a stock is considered overfished when its biomass ( $B$ ) (or when available, spawning stock biomass, SSB) has declined below the minimum stock size threshold (MSST), the biomass level which jeopardizes the capacity of the stock to produce MSY on a continuing basis ( $B_{MSY}$ ). For these stocks,  $MSST = cB_{MSY}$  where  $c$  is the difference of 1 minus the natural mortality rate ( $M$ ) or 0.5, whichever is greater. Based on a  $M$  of 0.4 for EPO and WCPO bigeye tuna,  $B_{MSST} = 0.6 * B_{MSY}$ . In other words, EPO and WCPO bigeye tuna are overfished when  $B/B_{MSY} < 0.6$ . Although the IATTC and WCPFC may establish different thresholds to determine the overfished status for stocks under their respective jurisdictions, NMFS relies on domestic criteria contained in the Pelagic FEP and HMS FMP above for making stock status determinations.

## WCPO Stock of Bigeye Tuna

The most recent stock assessment for the WCPO stock was conducted in 2014 by the Secretariat of the Pacific Community (SPC) using data through 2012. The SPC is a scientific provider to the WCPFC. The Scientific Committee of the WCPFC reviewed and accepted the assessment at its 10<sup>th</sup> meeting held August 6-14, 2014. Table 1 provides a summary of the assessment results and support a determination that the WCPO stock is subject to overfishing but not overfished based on stock status determination criteria in the Pelagic FEP and HMS FMP.

**Table 1. Results from the current stock assessment for the WCPO stock of bigeye tuna.**

Assessment Parameters	Results
Year assessment was finalized	2014
Most recent data year used in assessment	2012
Model used	MULTIFAN-CL
*F <sub>year</sub> /MFMT	1.57 – <b>subject to overfishing</b>
SSB <sub>year</sub> /MSST	1.28 – <b>not overfished</b>
MSST	207,240 mt
SSB <sub>MSY</sub> or proxy	345,400 mt
SSB <sub>year</sub> estimate	265,599 mt
SSB <sub>year</sub> /SSB <sub>MSY</sub>	0.77

\*The stock assessment only provides the ratio of F<sub>year</sub>/F<sub>MSY</sub> to support overfishing status, not a separate estimate of F<sub>year</sub> or MFMT.

## EPO Stock of Bigeye Tuna

The most recent stock assessment for the EPO stock was conducted in 2016 by the staff of the IATTC using data through 2015 (Ref). The Scientific Advisory Committee of the IATTC reviewed and accepted the assessment at its 7<sup>th</sup> meeting held May 15, 2016. Table 2 provides a summary of the assessment results and support a determination that the EPO stock is not subject to overfishing and not overfished based on stock status determination criteria in the Pelagic FEP and HMS FMP.

**Table 2. Results from the current stock assessment for the EPO stock of bigeye tuna.**

	Current Assessment
Year assessment was finalized	2016
Most recent data year used in assessment	2015 (F) 2016 (SSB)
Model used	Stock Synthesis v. 3.23b
*F <sub>year</sub> /MFMT	0.95 – <b>not subject to overfishing</b>
SSB <sub>year</sub> /MSST	1.92 – <b>not overfished</b>
MSST	47,551 mt
SSB <sub>MSY</sub> or proxy	95,101 mt
SSB <sub>year</sub> estimate	91,297 mt
SSB <sub>year</sub> /SSB <sub>MSY</sub>	0.96

\*The stock assessment only provides the ratio of F<sub>year</sub>/F<sub>MSY</sub> to support overfishing status, not a separate estimate of F<sub>year</sub> and MFMT.

On December 15, 2016, the NMFS Pacific Islands Fisheries Science Center and Southwest Fisheries Science Center determined that the best scientific information available for the WCPO bigeye tuna stock comes from the 2014 stock assessment update conducted by the SPC, and accepted by the WCPFC. The BSIA for the EPO stock comes from the 2016 stock assessment update conducted by the IATTC scientific staff and accepted by the IATTC.

NMFS anticipates that the scientific provider to the WCPFC will prepare a new stock assessment for the WCPO stock and present the assessment results to the Scientific Committee of the WCPFC in July 2017. We also anticipate that the assessment results and the recommendations of this committee will also be presented to the full WCPFC plenary in December 2017. In accordance with WCPFC conservation and management measures to end overfishing of bigeye tuna in the WCPO (CMM 2015-01), the 2017 U.S. longline bigeye tuna catch limit in the WCPO is 3,345 mt. Because CMM 2015-01 expires at the end of this year, we also anticipate the WCPFC will likely agree to establish a comparable longline bigeye tuna catch limit for 2018 and beyond.

Section 304(i) of the Magnuson-Stevens Act applies because the overfishing of bigeye tuna in the WCPO is due largely to excessive international fishing pressure. We encourage the Council continue to work with NMFS to develop and submit recommendations to the Secretary of State and to the Congress for international actions that will end overfishing and rebuild the stock, taking into account the relative impact of vessels of other nations and vessels of the United States on the relevant stock.

Sincerely,



Michael Tosatto  
Regional Administrator

cc: NMFS West Coast Regional Office – B. Thom  
Western Pacific Fishery Management Council – K. Simonds  
Pacific Fishery Management Council – D. McIssac