



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

August 17, 2016

AR: 150404WCR201SF00284

Mr. Herb Pollard, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Dear Mr. Pollard:

This letter is to notify you that the National Marine Fisheries Service (NMFS) has determined that the Western and Central North Pacific Ocean (WCNPO) stock of striped marlin (*Kajikia audax*) is overfished and subject to overfishing, and that appropriate action must be taken to address the status of this stock by the Pacific Fishery Management Council (Pacific Council) with respect to fishing under the Pacific Council's jurisdiction.

Background

Striped marlin is a management unit species under the Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species (HMS FMP), which was developed by the Pacific Council. Similarly, the species is a management unit species under the Fishery Ecosystem Plan for Pacific Pelagic Fisheries of the Western Pacific Region (Pelagic FEP), developed by the Western Pacific Fishery Management Council (Western Pacific Council). As a general matter, fishing by U.S. vessels out of U.S. West Coast ports or in the exclusive economic zone (EEZ) off the U.S. West Coast is under the jurisdiction of the Pacific Council. All known U.S. fishing on the WCNPO stock of striped marlin is under the jurisdiction of the Western Pacific Council.

The best scientific information available indicates that striped marlin is separated into four separate stocks based on empirical patterns in the spatial distribution of fishery catch-per-unit effort and genetic studies. The stocks are split into the WCNPO stock, the Eastern North Pacific Ocean stock, the Eastern Pacific stock, and the Southwest Pacific stock. The geographic range of the WCNPO stock occurs in Pacific Ocean waters west of 140°W and north of the equator (See Figure 1).



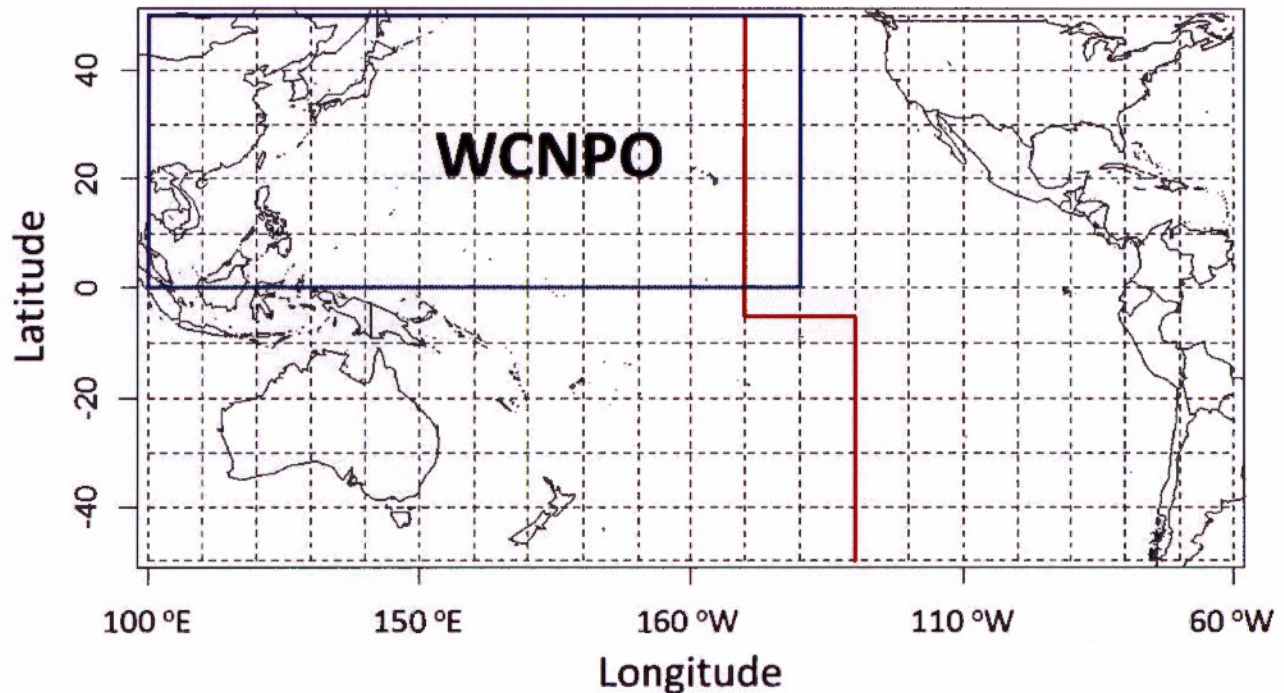


Figure 1. Stock boundary for the stock assessment of Western and Central North Pacific Ocean striped marlin is indicated by the blue rectangle. The area west of the red line is the WCPFC Convention Area.¹

The WCNPO stock is subject to both domestic and international management efforts. The portion of the WCNPO stock's range that exists to the east of 150°W and between 50°N and 50°S is in the Inter-American Tropical Tuna Commission (IATTC) Convention Area and is subject to the authority of the IATTC. The greater portion of the WCNPO stock's range is west of 150°W and north of the equator in the Western and Central Pacific Fisheries Commission (WCPFC) Convention Area and is subject to the authority of the WCPFC.

Basis for Stock Status Determination

NMFS has concluded that the best scientific information available comes from an assessment by the International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean (ISC) conducted and finalized in 2015. This assessment was accepted by the WCPFC. The assessment uses a Stock Synthesis model with similar parameters to previous assessments and was completed by the Billfish Working Group of the ISC using data through 2013.

The HMS FMP and the Pelagic FEP set forth status determination criteria to determine potential overfishing and overfished status for fish stocks. Both use a maximum fishing mortality threshold (MFMT) to determine an overfishing status and a minimum stock size threshold (MSST) to determine an overfished status. Under both plans, $MSST = cB_{MSY}$ where c is 1 minus the natural mortality rate (M) or 0.5, whichever is greater, and B_{MSY} is the biomass needed for

¹ ISC. 2015. Stock Assessment Update for striped marlin (*Kajikia audax*) in the Western and Central North Pacific Ocean Through 2013. Report of the Billfish Working Group. July 15-20, 2015. Kona, Hawaii, U.S.A.

maximum sustainable yield. Expressed as a ratio, a stock is overfished when $B_{\text{year}}/B_{\text{MSY}} < 1-M$ or 0.5, whichever is greater. Overfishing occurs when fishing mortality (F) exceeds the fishing mortality rate that produces MSY (F_{MSY}) for a period of one year or more. Expressed as a ratio, the MFMT for the stock is exceeded when $F_{\text{year}}/F_{\text{MSY}} > 1.0$.

The results of the 2015 ISC assessment support NMFS' determination that the striped marlin stock in the WCNPO is both overfished and subject to overfishing. NMFS uses estimates of spawning biomass in determining stock status whenever possible per NMFS National Standard 1 guidelines at 50 CFR 600.310(e)(i)(C). The 2015 assessment indicates that the stock is overfished because the most recent estimate of spawning stock biomass (SB) is less than half of the SB_{MSY} . The most recent estimate of SB is from 2013 and was estimated at 1,094 metric tons (mt); SB_{MSY} was estimated in 2013 at 2,819 mt. The stock is experiencing overfishing as $F=0.94$, which exceeds the MFMT of 0.63. The numerical values for biomass, fishing mortality, and reference points determined in the assessment are listed in Table 1 below.

Table 1. Summary of estimates and year of fishing mortality, biomass, and reference points for the WCNPO stock of striped marlin.

	F₂₀₁₀₋₂₀₁₂	F_{MSY}	F₂₀₁₀₋₂₀₁₂/F_{MSY}	SB₂₀₁₃	SB_{MSY}	SB₂₀₁₃/SB_{MSY}
WCNPO	0.94	0.63	1.49	1,094 mt	2,819 mt	0.39

Total Catch

Japan, the United States, Taiwan, and China are the primary countries fishing within the range of the WCNPO striped marlin stock. Japan accounts for the largest percentage of foreign catch of WCNPO striped marlin (approximately 38 percent of the total catch), then Taiwan (8 percent of the total catch), and China (7 percent of the total catch), with Belize, Cook Islands, Korea, Spain, Fiji, Federated States of Micronesia, Guam, Kiribati, Marshall Islands, Philippines, New Caledonia, Papua New Guinea, and Vanuatu each contributing small amounts to the total catch.

The U.S. catch accounts for approximately 14 percent of the total catch of the WCNPO striped marlin stock, which is primarily comprised of longline landings in Hawaii as well as a small amount of landings in the Northern Mariana Islands. A prohibition on the sale of striped marlin on the U.S. West Coast prevents landings from U.S. West Coast commercial fishermen. The U.S. West Coast recreational landings for billfish are primarily striped marlin, but neither the U.S. West Coast EEZ nor fishing effort by the U.S. West Coast recreational fleet occurs within the range of the WCNPO stock. Therefore, landings of the U.S. West Coast recreational fleet are considered catch from one of the Eastern Pacific stocks.²

Pacific Council Obligations

Per Section 304(i) of the Magnuson-Stevens Act (MSA), the Pacific Council is obligated to respond to this determination because the overfishing and overfished status of the WCNPO stock of striped marlin is due largely to excessive international fishing pressure and because the

² Based on the results of the IATTC 2010 assessment, the Eastern North Pacific stock is not currently overfished and is not subject to overfishing.

IATTC and WCPFC do not have measures in place to adequately end overfishing or rebuild this overfished stock. While the WCPFC adopted conservation and management measure (CMM) 2010-01 in 2010, which required participating countries to reduce their catch of striped marlin from their highest total catch between 2000 and 2003 by 20 percent in 2013 and beyond, the recent 2015 assessment results indicate that recent fishing mortality ($F_{2010-2012}$) has not decreased from previous years ($F_{2007-2009}$). The U.S. reduced its catch to comply with CMM 2010-01, and the recent 2015 assessment results indicate a slight increase in biomass since the 2012 assessment. Nonetheless, the stock is still subject to overfishing and remains overfished. The IATTC has not adopted any management measures to address fishing in the eastern Pacific Ocean (EPO) that may be contributing to the status of the WNCPO stock.

Consistent with MSA section 304(i), the Pacific Council is required to:

- (1) within one year, develop and submit recommendations to the Secretary of Commerce for domestic regulations to address the relative impact of fishing vessels of the United States on the WCNPO stock if the Pacific Council determines that any fishing under the HMS FMP catches striped marlin from the stock, and
- (2) develop and submit recommendations to the Secretary of State and to Congress for international actions that will end overfishing on the WCNPO stock.

As indicated earlier, U.S. West Coast fleets do not fish within the geographic range of this stock. However, the portion of the WCNPO stock that falls within the IATTC Convention Area is not subject to any current measures, while the rest of the stock remains subject to measures implemented by the WCPFC. National Standard 3 of the MSA requires individual stocks to be managed as a unit throughout their range, to the extent practicable (50 CFR 600.320(a)).

The MSA 304(i) requirements also apply to the Western Pacific Council, and NMFS already notified the Western Pacific Council of its obligations. In response, the Western Pacific Council recommended a U.S. catch limit of 457 mt of striped marlin consistent with WCPFC CMM 2010-01. The Western Pacific Council also recommended an annual international catch limit of 3,600 mt to be set by the WCPFC and an annual 500 mt limit for WCPFC members catching less than 500 mt of striped marlin annually. I encourage discussion between the two Councils in developing appropriate management recommendations.

My staff in the Sustainable Fisheries Division is ready to work with the Pacific Council on these efforts. Please contact Heidi Taylor with any questions by email (Heidi.Taylor@noaa.gov) or phone (562-980-4039).

Sincerely,



William W. Stelle, Jr.
Regional Administrator

cc: NMFS Pacific Islands Regional Office – M. Tosatto
Western Pacific Fishery Management Council – K. Simonds
Pacific Fishery Management Council – C. Tracy
NOAA General Counsel, Southwest Section – J. Feder