



May 1, 2020

Archie Taotasi Soliai
Chair
Western Pacific Fishery Management Council
1164 Bishop St., Ste. 1400
Honolulu, HI 96813

Dear Mr. Soliai:

On May 1, 2020, the NOAA Assistant Administrator for Fisheries determined that, based on the best scientific information available, the Western and Central Pacific Ocean (WCPO) stock of oceanic whitetip is *subject to overfishing and is overfished*, and that the Western Pacific Fishery Management Council (Council) must make recommendations within the next year to address the status of this stock as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Background

In the Pacific Islands Region, the National Marine Fisheries Service (NMFS) and the Council manage the oceanic whitetip shark under the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific (FEP), adopted in 2009. In addition to management efforts by NMFS and the Council, management of the oceanic whitetip shark is also shared with the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC). The WCPFC has authority over fisheries operating in the WCPO and the IATTC has authority for fisheries operating in the eastern Pacific Ocean (EPO). The FEP specifies one Pacific-wide stock of oceanic whitetip shark and does not identify separate WCPO and EPO stocks. Currently, only oceanic whitetip sharks in the WCPO have been assessed; sharks in the EPO remain unassessed. To date, neither the WCPFC nor the IATTC has adopted criteria for determining when oceanic whitetip sharks are subject to overfishing or overfished. Therefore, in accordance with Section 304(e) of the Magnuson-Stevens Act, NMFS relies on the SDCs in the FEP for recommending stock status.

Criteria for Stock Status Determination

National Standard 1 of the Magnuson-Stevens Act defines maximum sustainable yield (MSY) as the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological, environmental conditions and fishery technological characteristics (e.g., gear selectivity), and the distribution of catch among fleets. The MSY fishing mortality rate (F_{MSY}) is the fishing mortality rate that, if applied over the long term, would result in MSY. Stock biomass at MSY (B_{MSY}) means the long-term average size of the stock or stock complex that would be achieved by fishing at F_{MSY} . Size of the stock can be measured in terms of spawning biomass or other appropriate measure of the stock's reproductive potential.



Consistent with National Standard 1, the FEP contains overfishing and overfished status determination criteria (SDC) based on MSY for pelagic management unit species, including the oceanic whitetip shark. Under this FEP, a stock is overfished if stock biomass (B) falls below the minimum stock size threshold (MSST). The MSST equals $(1-M) \times B_{MSY}$, where M is the natural mortality rate. A stock is subject to overfishing under the FEP if the fishing mortality rate (F) exceeds the maximum fishing mortality threshold (MFMT). The value of MFMT changes depending on whether the stock is overfished or not. If a stock is not overfished, then MFMT = F_{MSY} . If a stock is overfished, then the MFMT declines from F_{MSY} in proportion to $B/MSST$.

Basis for Stock Status Determination

In 2019, the Shark Working Group of the WCPFC completed a stock assessment for the portion of the oceanic white tip shark in the WCPO, using data through 2016. The 2019 assessment provides an update of the previous stock assessment by Rice and Harley (2012), including seven years of additional data and a revised assessment model within the same modeling framework (Stock Synthesis v.3.30.08.03). This stock assessment included participation by NMFS scientists. This assessment was discussed, reviewed, and approved by the Scientific Committee of the WCPFC in August 2019, and by the WCPFC in December 2019. Based on this review, PIFSC determined on April 10, 2020 that this assessment meets requirements under National Standard 2 of the Magnuson-Stevens Act as the best scientific information available, and is applicable for judging the status of the oceanic whitetip shark stock in the WCPO and for use in management of this stock.

Although the WCPFC has not adopted SDC for determining stock status, the stock assessment considered the stock to be overfished and experiencing overfishing. This assessment also supports a domestic determination that the stock is subject to overfishing because F_{2016} (0.177) is greater than the MFMT (0.057) and overfished because the SB_{2016} (298 t) is less than the MSST of 2,661 t (Table 1).

Table 1. Estimates of fishing mortality, biomass, and other reference points for the WCPO oceanic whitetip shark. Threshold stock status determination criteria are in italics, and metrics that exceed thresholds are in boldface.

<i>F_{MSY}</i>	<i>F_{2016}</i>	<i>SB_{MSY} (t)</i>	<i>Mortality</i>	<i>$MSST$ (t)</i>	<i>SB_{2017} (t)</i>
0.057	0.117	3,245	0.18	2,661	298

Other management considerations

International management measures for WCPO oceanic whitetip shark are adopted through the WCPFC. The United States domestically implements WCPFC decisions through the WCPFC Implementation Act. Under WCPFC conservation and management measures implemented by NMFS on February 19, 2015 (80 FR 8807), retention of whole or any part of oceanic whitetip sharks is prohibited, so catch of this species is incidental rather than targeted. Vessels must release any oceanic whitetip shark as soon as possible, and take reasonable steps for its safe release. The IATTC has adopted and NMFS has implemented similar measures for oceanic whitetip shark incidentally captured in the EPO. The oceanic whitetip shark was listed as threatened throughout its global range under the Endangered Species Act on March 1, 2018 (83

FR 4153, January 30, 2018). Factors for listing included inadequate regulations to protect the stock, and life history characteristics that make the oceanic whitetip shark particularly vulnerable to overexploitation from fishing pressure.

The Scientific Committee of the WCPFC published estimates of bycatch of oceanic whitetip sharks in the WCPO by fishery (Table 2). Since the WCPFC enacted CM-2011-04 to prohibit retention of oceanic whitetip sharks in 2013, preliminary estimates of average catch of this species from 2013 through 2017 are 566 individuals per year in purse-seine fisheries (Peatman et al. 2018a), 16,920 individuals in shallow set fisheries, and 36,020 individuals in deep-set fisheries (Peatman et al. 2018b). For fisheries under Council jurisdiction, estimated average annual catch over this period in the American Samoa longline fishery was 617 individuals, or 1.7 percent of deep-set catch in the WCPO. In the Hawaii deep-set longline fishery, catch was 1,725 individuals, or 4.8 percent of the deep-set catch in the WCPO. In the Hawaii shallow-set longline fishery, catch was 26 individuals, or 0.15 percent of shallow-set catch in the WCPO (WPFMC 2019).

Table 2. Median estimated catch in number of individuals by fishery since 2013. (Sources: WPFMC shallow-set (SS) longline (LL) and Hawaii (HI) deep-set (DS) LL and SS LL, WPFMC 2019; WCPO purse seine, Peatman et al. 2018a; WCPO longline fisheries, Peatman et al. 2018b.

Year	WPFMC managed fisheries			WCPFC managed fisheries				
	AS LL	HI DS LL	HI SS LL	WPRM C total	WCPO Purse seine	WCPO LL Shallow	WCPO LL Deep	WCPO total
2013	454	961	27	1,442	414	18,500	36,000	54,914
2014	536	1,798	21	2,355	677	17,400	32,100	50,177
2015	764	2,578	22	3,364	520	19,600	41,700	61,820
2016	1,015	2,104	32	3,151	498	17,900	40,300	58,698
2017	315	1,186	29	1,530	721	11,200	30,000	41,921
Ave.	617	1,725	26	2,368	566	16,920	36,020	53,506

Because the 2019 WCPO oceanic whitetip shark stock assessment supports a determination that WCPO oceanic whitetip shark is overfished and subject to overfishing despite conservation and management measures adopted by the WCPFC, NMFS has determined the stock is overfished and experiencing overfishing due to excessive international fishing pressure and that the international management measures are not effective to end overfishing.

Council Obligations

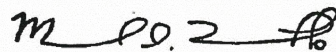
Per Section 304(i) of the Magnuson-Stevens Act, the Council is obligated to respond to this determination because the overfishing of the oceanic whitetip shark in the WCPO is due largely to excessive international fishing pressure, and because it has not been determined that management measures adopted by the WCPFC will end overfishing and rebuild the stock. Consistent with Magnuson-Stevens Act section 304(i), the 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 WCPO oceanic whitetip shark stock, and

2. Develop and submit recommendations to the Secretary of State and to Congress for international actions that will end overfishing and rebuild the WCPO oceanic whitetip shark stock, taking into account the relative impact of vessels of other nations and vessels of the United States on the stock.

My Sustainable Fisheries staff are ready to work with the Council in its efforts to make recommendations regarding the status of the oceanic whitetip shark. If you have any questions, please contact Dr. Brett Schumacher at 808-725-5185 or brett.schumacher@noaa.gov.

Sincerely,



Michael D. Tosatto,
Regional Administrator

cc: Kitty Simonds, Executive Director, Western Pacific Fishery Management Council
Michael Seki, Director, NMFS Pacific Islands Fisheries Science Center
Frederick Tucher, Section Chief, NOAA General Counsel, Pacific Islands Section
Jenni Wallace, Director, NMFS Office of Sustainable Fisheries

References

- Peatman T., Allain V., Caillot S., Park T., Williams P., Tuiloma I., Panizza A., Fukofuka S. and N. Smith (2018a) Summary of purse seine fishery bycatch at a regional scale, 2003-2017, as revised 24 July 2018 (WCPFC-SC14-2018/ST-IP-04). Report to the 14th Regular Session of the Science Committee of the Western and Central Pacific Fisheries Commission. 14 p.
- Peatman T., Bell L., Allain V., Caillot S., Williams P., Tuiloma I., Panizza A., Tremblay-Boyer L., Fukofuka S. and N. Smith (2018b) Summary of longline fishery bycatch at a regional scale, 2003-2017, as revised through 15 April 2019 (WCPFC-SC14-2018/ST-WP-03). Report to the 14th Regular Session of the Science Committee of the Western and Central Pacific Fisheries Commission. 61 p.
- Rice J., and S. Harley (2012) Stock assessment of oceanic whitetip sharks in the western and central Pacific Ocean (WCPFC-SC8-2012/SA-WP-06 Rev 1). Report to the 8th Regular Session of the Science Committee of the Western and Central Pacific Fisheries Commission. 53 p.
- WPFMC Western Pacific Fishery Management Council (2019) Annual Stock Assessment and Fishery Evaluation Report Pacific Island Pelagic Fishery Ecosystem Plan 2018. Remington, T., Fitchett, M., Ishizaki, A., Spalding, S. (Eds.) Western Pacific Fishery Management Council. Honolulu, HI 96813. 374 p. + Appendices.