



MEMORANDUM FOR: Chris Oliver
Assistant Administrator for Fisheries

CLEARED THROUGH: Michael Tosatto
Regional Administrator, Pacific Islands Regional Office
on April 28, 2020

FROM: Jennifer M. Wallace
Acting Director, Office of Sustainable Fisheries

SUBJECT: Recommended Stock Status Determination for Western and
Central Pacific Oceanic Whitetip Shark (*Carcharhinus
longimanus*)

For Western and Central Pacific Ocean (WCPO) oceanic whitetip shark, I recommend:

- Changing the overfishing status from unknown to subject to overfishing; and
- Changing the overfished status from unknown to overfished.

Please indicate below if you concur with this recommendation.

BACKGROUND

In the Pacific Islands Region, the National Marine Fisheries Service (NMFS) and the Western Pacific Fishery Management Council (Council) manage the oceanic whitetip shark under the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific (FEP). 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 has been assessed; sharks in the EPO remain unassessed.

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 in 2015, there is no targeted fishery, retention of oceanic whitetip sharks is prohibited, and 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 fisheries in the EPO.

On March 1, 2018, NMFS listed the oceanic whitetip shark as threatened throughout its global range under the Endangered Species Act. 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.

Amendment 8 to the Fishery Management Plan for Pelagic Fisheries of the Western Pacific (the predecessor to the FEP) specified the domestic overfishing and overfished status determination criteria (SDC) in 2003. A stock is overfished when the biomass (B) or spawning biomass (SB) has declined below the minimum stock size threshold (MSST), where $MSST = cB_{MSY}$, and where B_{MSY} is the biomass that produces maximum sustainable yield (MSY) and c is the difference of 1 minus the natural mortality rate (M) or 0.5, whichever is greater. A stock is subject to overfishing if the fishing mortality rate (F) for one or more years is greater than the maximum fishing mortality threshold (MFMT), which is the F that produces MSY (F_{MSY}). The value of MFMT changes depending on whether the stock is overfished. If the stock/stock complex is not overfished, then $MFMT = F_{MSY}$. If the stock/stock complex is overfished then the MFMT declines from F_{MSY} in proportion to $B/MSST$. To date, neither the WCPFC nor the IATTC have adopted criteria for determining when oceanic whitetip sharks are subject to overfishing or overfished. In accordance with Section 304(e) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), NMFS relies on the SDCs in the FEP for recommending stock status.

INFORMATION BASIS FOR CURRENT STATUS

- In 2012, the Secretariat of the Pacific Community, a science provider to the WCPFC, conducted a stock assessment for the WCPO oceanic whitetip shark, using a Stock Synthesis model (version 3.21B) with data through 2009.
- Although the WCPFC has not adopted SDC for determining stock status, the 2012 stock assessment considered the stock to be overfished if current spawning biomass (SB) is less than the spawning biomass that would produce MSY. The stock assessment considered a stock to be subject to overfishing if current F exceeds F_{MSY} .
- Based on the criteria used in the 2012 stock assessment, the stock was overfished because $SB_{2005-2008}$ (229 t) was less than SB_{MSY} (1,498 t) and subject to overfishing because $F_{2005-2008}$ (0.469) was greater than F_{MSY} (0.07).
- This assessment was discussed, reviewed, and approved by the WCPFC and its Scientific Committee (SC).
- This assessment was not determined to be best scientific information available and was not used to make a stock status determination.

INFORMATION BASIS FOR RECOMMENDED STATUS

- In 2019, the Shark Working Group of the WCPFC completed a stock assessment for WCPO oceanic whitetip shark, using data through 2016, which supports a determination that the stock is subject to overfishing and overfished. The assessment used a Stock Synthesis model (v. 3.30.08.03).
- This assessment supports a domestic determination that the stock is overfished because the SB_{2016} (298 t) is less than the MSST (2,661 t) and subject to overfishing because F_{2016} (0.177) is greater than the MFMT (0.057).

- This assessment was discussed, reviewed, and approved by the WCPFC and its SC, both of which included participation by NMFS scientists and staff. On April 10, 2020, the NMFS Pacific Islands Fisheries Science Center determined that the best scientific information available for WCPO oceanic whitetip shark comes from this assessment and associated conclusions by the SC.

Because the assessment supports a determination that WCPO oceanic whitetip shark is overfished and subject to overfishing despite conservation and management measures adopted by the WCPFC, Magnuson-Stevens Act section 304(i) applies in lieu of 304(e). 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.

RECOMMENDATION

For the WCPO oceanic whitetip shark, I recommend:

- Changing the overfishing status from unknown to subject to overfishing; and
- Changing the overfished status from unknown to overfished.

1. I concur. _____
Date

2. I do not concur. _____
Date