

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT ON BIENNIAL  
HARVEST SPECIFICATIONS AND MANAGEMENT MEASURES

The Highly Migratory Species Management Team (HMSMT) reviewed the National Marine Fisheries Service Report which provides proxies for maximum fishing mortality threshold (MFMT) and options for calculating or using proxies for minimum stock size threshold (MSST) from the 2020 stock assessments and risk analyses for eastern Pacific Ocean (EPO) yellowfin and bigeye tunas, which were conducted by scientific staff of the Inter-American Tropical Tuna Commission (IATTC).

***Based on the SSCs findings ([H.5.a, Supplemental SSC Report 1](#)), the HMSMT recommends the Council approve the MFMT proxy and the second proxy for MSST in Option 3 for both stocks' proxies so that overfished and overfishing status determinations can be completed for these stocks.*** Should the Council approve these proxies, the HMSMT would report the status of these stocks in the 2021 Stock Assessment and Fishery Evaluation. Tables 1 and 2 below are provided as examples.

**Table 1.** Stock assessment information for the purposes of determining whether HMS stocks are subject to overfishing

Management Unit Species	Assessment Overview			Overfishing					
Stock	Assessment or Indicator Analysis	Assessment Year	Assessment Lead	MFMT (F <sub>MSY</sub> or Proxy)	Current F <sub>MSY</sub> or proxy estimate	Current F quantity estimate	RFMO Ref. point (if adopted)	F/F <sub>MSY</sub> ratio	Subject to Overfishing?
Bigeye tuna in the EPO	Assessment	2017	IATTC	F <sub>MSY</sub>	NA	F <sub>2014-16</sub> = NA	NA	F <sub>2014-16</sub> /F <sub>MSY</sub> = 0.87	No
Bigeye tuna in the EPO	Assessment and Risk Analysis	2020	IATTC	P(F <sub>CUR</sub> >F <sub>MSY</sub> ) > 50% or median of F <sub>CUR</sub> /F <sub>MSY</sub> > 1	NA	F <sub>2017-19</sub> = NA	NA	P(F <sub>CUR</sub> >F <sub>MSY</sub> ) = 50%; median of F <sub>2017-19</sub> /F <sub>MSY</sub> = 1.00	No
Yellowfin tuna in the EPO	Assessment	2018	IATTC	F <sub>MSY</sub>	NA	F <sub>2015-17</sub> = NA	NA	F <sub>2015-17</sub> /F <sub>MSY</sub> = 1.01	Yes
Yellowfin tuna in the EPO	Assessment and Risk Analysis	2020	IATTC	P(F <sub>CUR</sub> >F <sub>MSY</sub> ) > 50% or median of F <sub>CUR</sub> /F <sub>MSY</sub> > 1	NA	F <sub>2017-19</sub> = NA	NA	P(F <sub>CUR</sub> >F <sub>MSY</sub> ) = 9%; median of F <sub>2017-19</sub> /F <sub>MSY</sub> = 0.65	No

**Table 2.** Stock assessment information for the purposes of determining whether HMS stocks are overfished

Management Unit Species	Assessment Overview			Overfished						
	Assessment or Indicator Analysis	Assessment Year	Assessment Lead	B <sub>MSY</sub> or proxy	Current B <sub>MSY</sub> or proxy estimate	Current B quantity estimate	MSST (1-MxB <sub>MSY</sub> or 0.5B <sub>MSY</sub> )	Current B/MSST or proxy	RFMO Ref. point (if adopted)	Overfished ?
Bigeye tuna in the EPO	Assessment	2017	IATTC	B (biomass of age 3+ quarters old fish) at <sub>MSY</sub>	96,360 mt	B (age 3+ quarters old fish at start of 2017) = 118,523	48,130 mt	2.9	NA	No
Bigeye tuna in the EPO	Assessment	2020	IATTC	S <sub>MSY</sub> (S= unitless spawning biomass index)	N/A	NA	NA	$S_{2020}/0.5*S_{MSY}=1.84$	NA	No
Yellowfin tuna in the EPO	Assessment	2018	IATTC	S <sub>MSY</sub> (S= unitless spawning biomass index)	3,634	S = 3,925 (S= unitless spawning biomass index)	1,817	2.1	NA	No
Yellowfin tuna in the EPO	Assessment	2020	IATTC	S <sub>MSY</sub> (S= unitless spawning biomass index)	N/A	NA	NA	$S_{2020}/0.5*S_{MSY}=3.16$	NA	No