

## HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM (HMSMT) REPORT ON BIENNIAL HARVEST SPECIFICATIONS AND MANAGEMENT MEASURES

The Highly Migratory Species Management Team (HMSMT) reviewed the latest assessment information for management unit species in the Highly Migratory Species Fishery Management Plan (HMS FMP) as presented in [Supplemental NMFS Report 1](#), and considered the workload related to updating the HMS Stock Assessment and Fisheries Evaluation (SAFE). Three key discussion topics are highlighted with considerations for the Council. The first pertains to reference points used for status determinations and the next steps the Council may wish to consider. The second covers the proposed stock boundary changes for swordfish and the relevance to fishing by West Coast-based vessels. The third considers a potential management need for opah caught in HMS FMP fisheries.

### **Reference Points for Stock Status Determinations**

The HMSMT does not see a need at this time for the Council to revise status determination criteria listed in the HMS FMP. The HMSMT recommends the Council approve the use of proxies for maximum sustainable yield (MSY) based reference points for determining maximum fishing mortality threshold (MFMT) and minimum stock size threshold (MSST). For this biennial management cycle, this pertains to the status determinations for Pacific bluefin tuna and skipjack in the Eastern Pacific Ocean (EPO). Prior to approving the proxies proposed in the NMFS report for those stocks, the Council may desire further evaluation by the Scientific and Statistical Committee (SSC) as these proxies differ slightly from those considered by the SSC in the past.

### **Boundaries for Pacific Swordfish Stocks**

After reviewing the proposed boundaries for assessments of North Pacific Ocean (NPO) and South Pacific Ocean stocks of swordfish, which were formerly considered as the Western and Central North Pacific Ocean (WCNPO) and EPO stocks, (shown in Figure 1 of Supplemental NMFS report 1), the HMSMT offers the following comments.

- A 2023 assessment of the NPO stock will include a known area of mixing among what were formerly considered the WCNPO and EPO stocks.
- All fishing effort by vessels fishing under the HMS FMP is expected to fall within the boundaries of the NPO stock.
- The International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean<sup>1</sup> took into account new movement information from tagging studies when determining stock boundaries. This included work by Pflieger Institute of Environmental Research<sup>2</sup> in waters off California which has been presented to the Council in the past.

### **Potential Management Need for Opah**

When updating the HMS FMP for compliance with revised National Standard 1 guidelines in 2011, the Council decided not to include opah as a management unit or ecosystem component species.

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<sup>1</sup> [https://isc.fra.go.jp/pdf/ISC22/ISC22\\_PLENARY\\_REPORT\\_FINAL.pdf](https://isc.fra.go.jp/pdf/ISC22/ISC22_PLENARY_REPORT_FINAL.pdf)

<sup>2</sup> Sepulveda, C.A., Wang, M., Aalbers, S.A., and Alvarado-Bremer, J.R., 2020. Insights into the horizontal movements, migration patterns, and stock affiliation of California swordfish. *Fisheries Oceanography* 29:152-168.

In the process of preparing the current SAFE report, the HMSMT noticed a significant increase in opah landings in California starting in 2014, including by vessels fishing under the HMS FMP. From 2014-2022, opah landings to California ranged from roughly 145 to 400 metric tons, nearly all from pelagic longline vessels. Further, among species landed by pelagic longline to the West Coast, opah represents the second highest source of ex-vessel revenue in recent years. The proportion of opah landings by vessels fishing under the HMS FMP ranged from approximately 17 to 40 percent of the total opah landings, with the remainder landed by longline vessels fishing under the Western Pacific Fishery Management Council's Pelagic Fishery Ecosystem Plan. Considering these trends, the HMSMT sees value in taking a proactive approach to evaluate potential management needs for opah. The HMSMT could therefore review and evaluate additional information to help inform Council consideration of whether to add opah to the HMS FMP.

PFMC  
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