



**WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL**

MEMORANDUM

TO: Interested Parties

February 9, 2016

FROM: Kitty M. Simonds

A handwritten signature in black ink that reads "Kitty M. Simonds". The signature is written in a cursive style.

SUBJECT: **Action Items for 165th Council Meeting**

- 1. Overfishing of Eastern Pacific Ocean Swordfish**
- 2. Fishery Ecosystem Modifications**

The Council will consider the issues summarized below, including any public comments on this initiative. The Council is expected to take action on this at its 165th Council Meeting to be held between March 15 and 17, 2016 at the Laniakea YWCA Hall, 1040, Richards St, Honolulu. Written comments should be received by the Council's Executive Director by 5:00 p.m. (Hawaii time) March 11, 2015 by mail, FAX or email as indicated below.

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1. Overfishing of Eastern Pacific Ocean Swordfish

Swordfish (*Xiphias gladius*) is a management unit species in the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region (Pelagic FEP) developed by the Western Pacific Fishery Management Council (Council). Based on the best scientific information available, the swordfish population in the North Pacific is comprised of two stocks, separated by a diagonal boundary extending from Baja, California, to the Equator. These are the Western and Central North Pacific Ocean (WCNPO) stock, distributed in the western and central Pacific, and the EPO stock, distributed in the eastern Pacific (Figure 1).

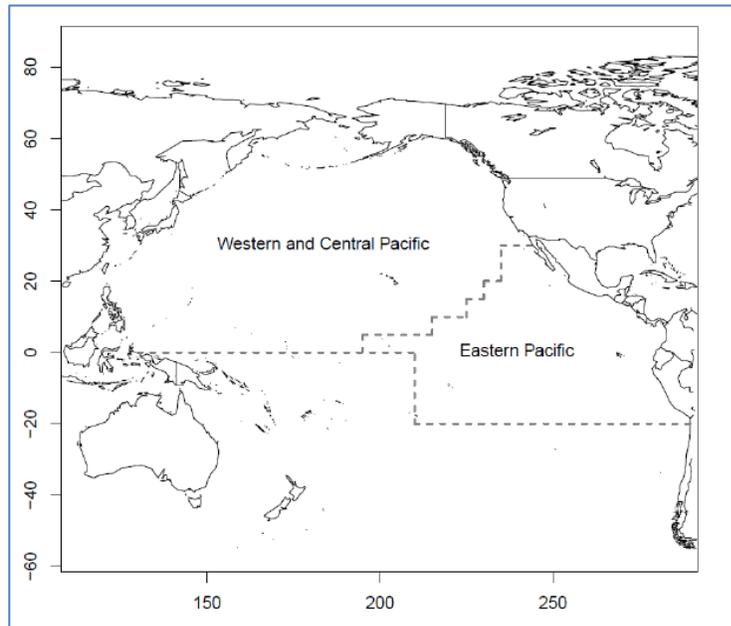


Figure 1. Two-stock structure for swordfish (*Xiphias gladius*) in the North Pacific Ocean, indicating separate stocks in the Western and Central Pacific Ocean and in the Eastern Pacific Ocean.

On June 18, 2015, the National Marine Fisheries Service (NMFS) determined that the Eastern Pacific swordfish stock in the Eastern Pacific Ocean (EPO) is subject to overfishing. NMFS based this decision on a 2014 stock assessment that used data up to 2012². The Western Pacific Council was informed that it must take appropriate action to address overfishing of this stock pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) Section 304(i).

In addition to domestic management efforts by the Western Pacific and Pacific Fishery Management Councils, the management of the WCNPO stock of swordfish is shared between the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC). The WCPFC has authority over fisheries operating north of the Equator and west of the 150° W., and the IATTC has authority for fisheries operating in an area east of 150° W in the area bounded by 50° N, 50° S, and the coast of the Americas.

² ISC. 2014. North Pacific Swordfish (*Xiphias gladius*) Stock Assessment in 2014. Report of the Billfish Working Group. International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean. 16-22 July 2014, Taipei, Chinese-Taipei. 85 pp.

The boundary of the EPO stock is almost entirely within the IATTC Convention Area, except for a small area within the extending from the Equator to approximately 5° N, and between 150° and 170° W, encompassing a portion of the U.S. exclusive economic zone around the unincorporated islands of Palmyra Atoll and Kingman Reef, south of the Hawaiian Islands.

The majority of catch of the EPO stock of swordfish is taken by longline fishing vessels from Japan, Spain, China, Korea, and Taiwan, which together accounted for over 9,200 mt of the total 9,910 mt harvest in the EPO in 2012. The remaining catch was taken by Belize, Mexico, Chile, French Polynesia, Peru, Vanuatu, and the United States. Based on Hawaii longline logbook records, the 2012 catch of EPO swordfish by the U.S. was 4.0 mt and caught by Hawaii longline vessels, representing 0.04% of the catch total.

The Pelagic FEP includes criteria for overfishing and overfished status determinations. Under the plan, overfishing occurs when the fishing mortality rate (F) for one or more years is greater than the maximum fishing mortality threshold (MFMT), which is the fishing mortality rate that produces maximum sustainable yield (MSY) or F_{MSY} . Thus, if the F/F_{MSY} ratio is greater than 1.0, overfishing is occurring. In the case of the EPO swordfish the fishing mortality in 2012 or $F_{2012}=0.19$, while the fishing mortality at $F_{MSY}=0.18$. Thus $0.19/0.18 = 1.1$ and thus overfishing is occurring. Interestingly, the stock appears to be in good shape since the ratio of current biomass (B_{2012}) to the MSY Biomass (B_{MSY}) is $58,590 \text{ mt}/31,200 \text{ mt} = 1.9$, although catches in 2012 of 9,910 mt are almost 50% higher than the MSY of 5,490 mt, hence the need for Council action.

Section 304(i) of the Magnuson-Stevens Fishery Conservation and Management Act applies because the overfishing of North Pacific swordfish in the EPO is due largely to excessive international fishing pressure and the IATTC and WCPFC have inadequate measures in place to correct the problem. Therefore, the Western Pacific Council is required within one year to develop recommendations for domestic regulations to address the relative impact of the domestic fishing fleet on the stock, and develop recommendations to the Secretary of State and Congress for international actions to end overfishing of EPO stock of swordfish.

Based on the stock boundary shown in the stock assessment that the Hawaii swordfish fleet fishes exclusively on the WCNPO stock and that any EPO swordfish caught by Hawaii longline vessels are incidentally caught by the tuna targeting deep-set bigeye fishery. Catch data from the Pacific Islands Fisheries Science Center shows that this incidental EPO swordfish catch amounts to between 0 and 4 mt from 2004 to 2014, with an average of 2 mt. As noted above, Hawaii's contribution to the catch in 2012 represents 0.04 % of the total fishing mortality.

Moreover, Hawaii's small incidental catch has been stable with only 1 year (2012) when the 2 mt catch was exceeded. The EPO swordfish fishery has expanded rapidly over the period 2004-2012, from around 4000-5000 mt to 10,000 mt, but none of this being was driven by US longline vessels.

The Council will consider potential management options to address the international overfishing of EPO swordfish at its 165th Council Meeting in March 2016.

Options will include the following:

Domestic

1. Continue to monitor the incidental catch of EPO swordfish by the Hawaii deep set longline fishery and for NMFS to report this catch annually to the Council.

2. Prohibit the retention of EPO swordfish caught incidentally by the Hawaii deep set longline fishery and continue to monitor catches for compliance.

International

1. Recommend that the US Delegation to the IATTC put forward a recommendation that the IATTC take action to limit catches of the EPO swordfish stock to no greater than 5,490 mt annually, which is the estimated MSY for the stock.

2. Fishery Ecosystem Plan Modifications

The Pacific Pelagic Fishery Ecosystem Plan, Pacific Remote Island Areas Fishery Ecosystem Plan, and the Hawaii, American Samoa, and Mariana Archipelago Fishery Ecosystem Plans (FEPs), comprise the framework that the Council uses to manage management unit species in U.S. federal waters in the western Pacific. The Council amends parts of its archipelagic and pelagic FEPs on an on-going basis, as new information, requirements, or conditions warrant, and undertakes a comprehensive, top-to-bottom review of them every five years.

The Council began a five-year review of its five FEPs in late 2014, and has since held a number of publicly-noticed meetings in Hawaii, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands to solicit input on potential changes to the current plans. We also contracted an Oahu-based outside consulting group to provide an independent, external review of the plans. From these efforts have come new draft FEPs that will serve as more strategic management blueprints, and that contain more measurable and specific management objectives and important ecosystem elements, such as protected species, fish habitat, socioeconomic and cultural considerations, and marine planning and climate change issues.

At its 164th meeting (October, 2015), the Council voted to accept the revised management policy, goals, and objectives, as well as formatting and other non-regulatory modifications. In mid-January, the Council sent the revised draft FEPs to the Pacific Islands Regional Office (PIRO) of the National Marine Fisheries Service to initiate government review.

The Council will consider potential management actions at its 165th Council Meeting in March 2016. These may include the following:

1. Accepting certain minor revisions to the management objectives that were put before the Council at its 164th meeting.
2. Directing that the new plans be transmitted for Secretarial review prior to the 166th meeting (June, 2016).