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**PRECAUTIONARY MANAGEMENT FRAMEWORK FOR  
SWORDFISH IN THE NORTH PACIFIC OCEAN**

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**WCPFC-NC11-2015/DP-04**

**UNITED STATES OF AMERICA**

# **PRECAUTIONARY MANAGEMENT FRAMEWORK FOR SWORDFISH IN THE NORTH PACIFIC OCEAN**

**Proposal by the United States of America  
to the  
Eleventh Regular Session of the Northern Committee**

**Commission for the Conservation and Management of  
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

## **Introduction and scope**

This precautionary management framework has been prepared in accordance with the Commission's Conservation and Management Measure on Establishing a Harvest Strategy for Key Fisheries and Stocks in the Western and Central Pacific Ocean, and is a "harvest strategy" in that context.

This framework applies to swordfish stocks that occur in the Convention Area north of 20° North latitude, and associated fisheries. The Northern Committee may determine the boundaries of such stocks for the purpose of applying this management framework and recommending conservation and management measures. Although the provisions of this framework are expressed in terms of a single stock, they may be applied to multiple stocks as appropriate and as determined by the Northern Committee.

## **1. Management objectives**

The management objective is to support thriving fisheries while maintaining the stock size at levels capable of producing maximum sustainable yield.

## **2. Reference points**

Because the recent stock assessments for swordfish in the North Pacific Ocean have relied on surplus production models, and the estimates of intrinsic growth rate used in those models have been adequately precise,<sup>1</sup> under the Commission's hierarchical approach for setting biological limit reference points:<sup>2</sup>

- The limit reference point for the exploitation rate (F-limit) is  $F_{MSY}$  (or  $H_{MSY}$ ).

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<sup>1</sup> See the information provided by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (WCPFC-NC9-2013/IP-03) in response to a request made by the Northern Committee at its Eighth Regular Session (Attachment F of the report of NC8).

<sup>2</sup> If future assessments use models other than surplus production models, the Northern Committee will revisit the reference points in light of the Commission's hierarchical approach for setting reference points.

- The Northern Committee will develop more refined management objectives, conduct any necessary further analysis, and specify a target reference point for the stock size (B-target) and/or the exploitation rate (F-target).

### **3. Acceptable levels of risk**

In accordance with Article 6.1(a) of the Convention, the NC will recommend conservation and management measures as needed to ensure that the risk of the F-limit being exceeded is low.

### **4. Monitoring strategy**

The ISC and SC will periodically evaluate the stock size and exploitation rate with respect to the established reference points with a target frequency of no lower than once every three years.

### **5. Decision rules**

F-limit rule: In the event that, based on information from the ISC and SC, the average exploitation rate for the most recent period of at least one year (on average) has been found, with at least 50 percent probability, to exceed the F-limit, the Northern Committee will, at its next regular session or intersessionally if warranted, formulate conservation and management recommendations that are designed to reduce, with greater than 50 percent probability, the fishing mortality rate below the F-limit within one year of adopting the recommendations.

### **6. Performance evaluation**

If and as more refined management objectives are developed for the stock and/or associated fisheries, the Northern Committee will work with the ISC and SC to evaluate the likely performance of candidate target reference points and/or harvest control rules, including, if appropriate, through a rigorous management strategy evaluation.