



**NORTHER COMMITTEE
FIFTEENTH REGULAR SESSION**

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Rebuilding Plan for North Pacific Striped Marlin

WCPFC-NC15-2019/DP-13

Consultative Draft Proposal by the United States of America

REBUILDING PLAN FOR NORTH PACIFIC STRIPED MARLIN

Explanatory Note

This paper presents a consultative draft rebuilding plan for North Pacific striped marlin. As North Pacific striped marlin is generally not targeted, but is caught in other fisheries, we believe that it would be more appropriate to develop a rebuilding plan for this stock rather than a harvest strategy. This rebuilding plan could be incorporated if appropriate into harvest strategies for other fisheries. Although North Pacific striped marlin has not been designated a northern stock, we have submitted this paper to stimulate discussion from members of the Northern Committee that could be helpful in progressing a rebuilding plan for this stock.

The primary objective in any rebuilding plan is to rebuild the stock to a specific level (“rebuilding target”) in a specific time (“rebuilding period”) with a specific probability.

Given the WCPFC’s hierarchical approach for setting reference points, and that the stock recruitment relationship for North Pacific striped marlin is not well known, the rebuilding target should be expressed in terms relative to the estimated unfished spawning stock size.

With respect to the specific proportion of the unfished spawning stock size that should be the rebuilding target, we note that Article 6.1 of the WCPF Convention, by reference to Annex II of the UN Fish Stocks Agreement, provides that “For overfished stocks, the biomass which would produce maximum sustainable yield [B_{MSY}] can serve as a rebuilding target.” Twenty percent of the unfished spawning stock size has been recommended as a reasonable proxy for B_{MSY} for stocks with at least average resilience,¹ and it has been used as a reference point in place of B_{MSY} in various fisheries. The WCPFC has adopted $20\%SSB_{current,F=0}$ as the limit reference point—as a proxy for B_{MSY} —for the three tropical tuna stocks and for North Pacific and South Pacific albacore.

As North Pacific striped marlin is expected to be highly productive due to its rapid growth and high resilience, we have chosen 10 years for the rebuilding period and a probability of 60%.

¹ For example: Mace P.M. 1994. Relationships between common biological reference points used as thresholds and targets of fisheries management strategies. *Can. J. Fish. Aquat. Sci.* 51:110-122.

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The Western and Central Pacific Fisheries Commission (WCPFC):

Recognizing that the latest stock assessment of North Pacific striped marlin, completed by the International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean (ISC) in 2019, indicated that current spawning stock biomass is depleted ($SSB_{2018}/SSB_0 = 0.05$) and the average fishing mortality rate in 2015-2017 was greater than the fishing mortality rate associated with MSY ($F/F_{MSY} = 1.07$);

Adopts in accordance with Article 10 of the WPCF Convention, the following rebuilding plan for North Pacific striped marlin:

Rebuilding Objective

The rebuilding target for North Pacific striped marlin is $20\%SSB_{F=0}$, to be reached by 2029, with at least 60% probability.

Rebuilding Strategy

The Commission will develop and adopt conservation and management measures that are expected, based on the best scientific information available, to rebuild the stock in accordance with the rebuilding objective.