



**NORTHERN COMMITTEE
NINETEENTH REGULAR SESSION**

Fukuoka, Japan
4 – 5 July 2023

Proposed Revisions to the Harvest Strategy for North Pacific Albacore Fishery

WCPFC-NC19-2023/DP-02 (Rev.02)

Canada and the United States

PROPOSED REVISIONS TO THE HARVEST STRATEGY FOR NORTH PACIFIC ALBACORE FISHERY

Proposal by Canada and the United States of America to the Nineteenth Regular Session of the Northern Committee

Explanatory Note

In 2022, WCPFC revised its harvest strategy for North Pacific albacore fisheries, and tasked itself to adopt harvest control rules as part of the harvest strategy for North Pacific albacore in 2023. The United States is proposing the following revisions to the harvest control rule section of the harvest strategy for North Pacific albacore fishery:

- Defining the scope of the harvest control rules to apply to fisheries harvesting North Pacific albacore in the Convention Area north of the equator. This scope is consistent with the management objectives of the harvest strategy, and the scope of CMM 2019-03.
- Prescribing harvest control parameters that detail the level of fishing intensity allowed based on stock status levels relative to the adopted reference points. These parameters are based on the formulas used in the MSE. The minimum fishing intensity, F_{\min} , is defined to be F_{94} , which was calculated using the formula in the MSE report (see page 65) that multiplies the F at the LRP by 0.25. F at the LRP is defined as the formula for E_{SSBlim} in the MSE Report, but H_{Target} in that formula is replaced by the TRP as follows: $F_{\min} = 0.25 * F_{LRP} = 0.25 * (TRP * (LRP / ThRP))$.
- Specifying that fishing intensity for surface gears will be controlled by effort. This proposal does not currently specify how fishing intensity will be managed for other fleets. We welcome input from other members with longline fleets on preferences for managing fishing intensity for those fleets by effort or catch.
- Limiting changes to catch and effort limits to 20% from the previous year to promote stability.
- Defining that changes to fishing intensity will apply from the year after the stock assessment is completed to the year following the next stock assessment, and tasking the Northern Committee to recommend changes to the CMM as appropriate to ensure fishing intensity is set below the levels recommended.

CMM 2019-03 currently restricts fishing effort for vessels targeting North Pacific albacore, which is a level expected to maintain fishing intensity around the TRP in the near future. Recognizing that there may be a need to further translate fishing intensity into fleet specific catch or effort limits, the Northern Committee may consider requesting the ISC to provide options for converting fishing intensity to effort and catch as appropriate for various fleets.

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

NORTHERN COMMITTEE
~~NINETEENTH~~~~EIGHTEENTH~~ REGULAR SESSION

~~ELECTRONIC MEETING~~

~~4–6 October 2022~~

HARVEST STRATEGY FOR NORTH PACIFIC ALBACORE FISHERY

Harvest Strategy 2023~~2~~-XX

Introduction and scope

This Harvest Strategy, applicable to all fisheries that harvest North Pacific albacore, was developed based on the results of the Management Strategy Evaluation (MSE) completed by the International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean (ISC) in 2021.

1. Management objectives

Considering the overarching objective of ensuring the sustainability of North Pacific albacore tuna and current fisheries supported by the stock in the Western and Central Pacific Ocean, the following management objectives are established:

- (a) Maintain Spawning Stock Biomass (SSB) above the Limit Reference Point (LRP), with a probability of at least 80% over the next 10 years.
- (b) Maintain depletion of total biomass around historical (2006-2015) average depletion over the next 10 years.
- (c) Maintain fishing intensity (F) at or below the target reference point with a probability of at least 50% over the next 10 years.
- (d) To the extent practicable, management changes (e.g., catch and/or effort) should be relatively gradual between years.

2. Reference points

For the purpose of the North Pacific albacore tuna harvest strategy, the following reference points are established.:

- (a) Target reference point (TRP) = $F_{45\%}$, which is the fishing intensity (F) level that results in the stock producing 45% of spawning potential ratio (SPR)
- (b) Threshold reference point ($SSB_{\text{threshold}}$) = $30\% SSB_{\text{current}, F=0}$, which is 30% of the dynamic unfished spawning stock biomass
- (c) Limit reference point (LRP) = $14\% SSB_{\text{current}, F=0}$, which is 14% of the dynamic unfished spawning stock biomass.

3. Acceptable levels of risk

The risk of breaching the Limit Reference Point based on the most current estimate of SSB shall be no greater than 20%.

4. Monitoring strategy

The ISC will conduct a stock assessment every three years, at which time the status relative to the reference points established under paragraph 2 will be evaluated.

When performing a stock assessment, the ISC will consider the criteria for identification of exceptional circumstances developed by the ISC, and notify the Northern Committee if these exceptional circumstances have occurred.~~if the biology, environmental conditions, data sources, status of the stock, and/or other underlying assumptions have changed substantially enough to warrant revisiting the components in this harvest strategy.~~

5. Harvest Control Rules (HCR)

The harvest control rules apply to all fisheries harvesting albacore in the EEZ and high seas in the Convention Area north of the equator.

The harvest control rule parameters produce a relationship between stock status and fishing intensity as shown in Figure 1 and are as follows with the minimum allowed fishing intensity (F_{min}) equal to ~~F94~~87%, which is the fishing intensity (F) level that results in the stock producing ~~94%~~87% of spawning potential ratio (SPR). $SSB_{current}$ refers to spawning stock biomass in the terminal year of the assessment and $SSB_{current, F=0}$ to the terminal year dynamic unfished spawning stock biomass.

- If $SSB_{current}/SSB_{current, F=0}$ is above or equal to $SSB_{threshold}$ with a probability of at least 50%, fishing intensity shall be maintained ~~around the TRP~~ at or below the TRP on average over 10 years.
- If $SSB_{current}/SSB_{current, F=0}$ is below $SSB_{threshold}$ with a probability greater than 50%, and is above the LRP with a probability of at least ~~80%~~50%, fishing intensity shall be reduced¹ to a level in accordance with following formula:

$$F = \frac{TRP - F_{min}}{SSB_{threshold} - LRP} * (SSB_{current}/SSB_{current, F=0} - LRP) + F_{min}$$

- If $SSB_{current}/SSB_{current, F=0}$ is at or below the LRP with a probability greater than ~~20%~~50%, ~~then fishing intensity is set at F_{min} .~~ In addition, the WCPFC shall, in collaboration with the IATTC, consult with the ISC and adopt rebuilding measures that will rebuild SSB to levels of at least the $SSB_{threshold}$ with a probability of ~~80~~ at least 65 % within 10 years of $SSB_{current}/SSB_{current, F=0}$ having been identified to be at or below the LRP with a probability greater than ~~20%~~50%. In the absence of such rebuilding measures, fishing intensity shall be set at F_{min} .²

~~Fishing intensity shall be managed by effort for fisheries using troll and pole and line gears.~~

¹ When adopting proposed revisions to the conservation and management measures proposed, which may include *inter alia* reductions in fishing effort, CCMs will take into account historical fishing activity and the source of increased fishing mortality in reference to the average effort referenced in CMM 2019-03.

² Ibid.

If $SSB_{current}/SSB_{current, F=0}$ is above the LRP and below $SSB_{threshold}$, the maximum increase or decrease in catch or effort between ~~any one year within~~ the three-year management periods shall be 20% relative to the catch and effort levels specified for the previous year.

In the year following the relevant ISC stock assessment, the Northern Committee will recommend adjustment to the existing CMM for North Pacific Albacore to ensure fishing intensity is at or below the level set forth by this HCR using the latest ISC stock assessment. Changes to fishing intensity in accordance with the harvest control parameters shall apply between assessments starting the year after the stock assessment was completed, until the year following the next stock assessment that provides an estimate of unfished SSB.

~~By 2023, the Commission shall adopt harvest control rules as part of the harvest strategy for North Pacific albacore, consistent with Figure 1.~~

- ~~(a) The harvest control rules adopted pursuant to paragraph 5(a) shall outline inter alia the actions the Commission will take to manage North Pacific albacore tuna.~~
- ~~(b) The actions referenced under paragraph 5(b) shall be determined by the position of the most recent fishing intensity and biomass estimates relative to the reference points established pursuant to this CMM.~~

Other Provisions

The Commission shall promote compatibility between the harvest strategy adopted herein and the harvest strategy adopted by the Inter-American Tropical Tuna Commission with respect to North Pacific albacore tuna.

~~The ISC is requested to develop criteria for identification of exceptional circumstances in 2023.~~

This Harvest Strategy replaces the “~~Interim~~ Harvest Strategy for North Pacific Albacore Fishery” adopted as Harvest Strategy 2022~~17~~-01.

A review of the performance of the Harvest Strategy by the Northern Committee and the ISC shall be completed by 2030 and 2033. The aim of the review is to ensure the Harvest Strategy is performing as expected and to determine whether there are conditions that justify its continuation, or that warrant: reconditioning the MSE operating models; retuning the existing Harvest Strategy; including new indices into a new Harvest Strategy; and/or considering alternate candidate management procedures or development of a new MSE framework. Based on those reviews and subsequent ISC advice, the Northern Committee in 2030 and 2033 shall decide on the future of the Harvest Strategy.

|

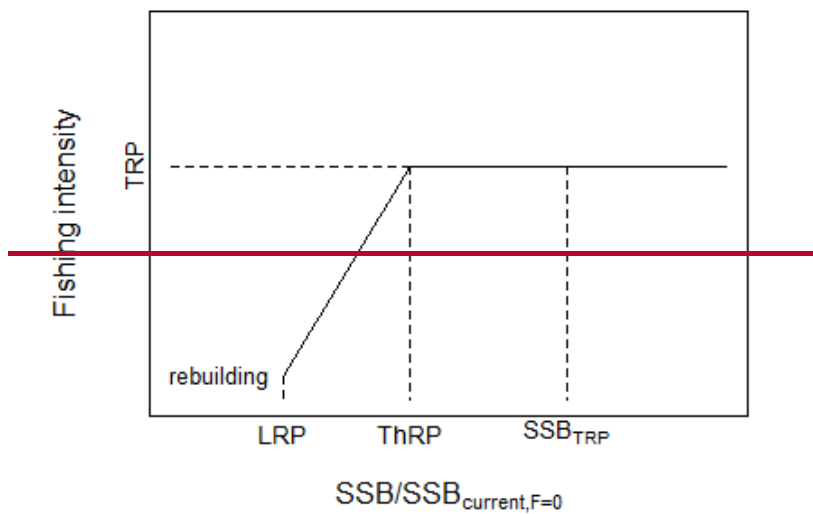
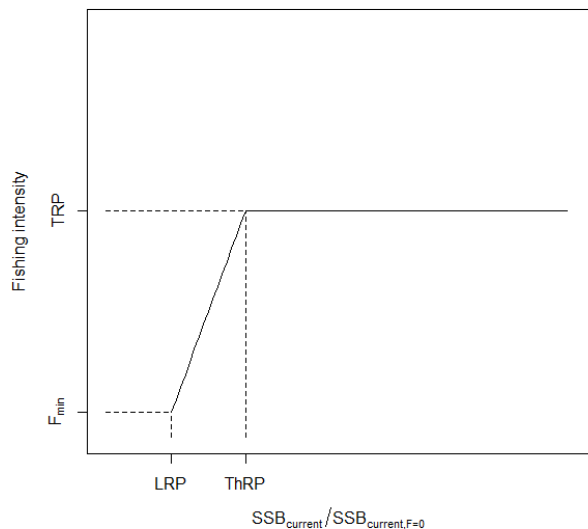


Figure 1. Illustration of the harvest control rules with target reference point (TRP), threshold reference point (ThRP), limit reference point (LRP), and the minimum allowed fishing intensity (Fmin) expected SSB when fishing at the TRP (SSB_{TRP}). The harvest control rules ~~to be adopted pursuant to paragraph 5(a) are intended to~~ include the triggering of a rebuilding plan measure if the $SSB_{current}/SSB_{current,F=0}$ falls below the LRP.