
**MEMORANDUM OF UNDERSTANDING BETWEEN THE INTER-AMERICAN
TROPICAL TUNA COMMISSION (IATTC) AND THE NATIONAL DATA CENTER
FOR DISTANT-WATER FISHERIES OF CHINA, SHANGHAI OCEAN UNIVERSITY
(SHOU) ON PROVISION OF LONGLINE OPERATIONAL-LEVEL LOGBOOK DATA
FOR COLLABORATIVE WORK REGARDING LONGLINE CATCH RATE
STANDARDIZATION**

The Inter-American Tropical Tuna Commission (IATTC) and the National Data Centre for Distant-water Fisheries of China, Shanghai Ocean University (SHOU), hereafter referred to as the Parties, desirous to further their collaboration in conformity with their respective mandates and objectives, have agreed the terms of this Memorandum of Understanding to conduct collaborative work on longline catch rate analyses using Chinese logbook data, as follows:

Background

The objective of the IATTC PROJECT H.1.d(ext) ([IATTC-102-02a pag.69](#)): Improve the indices of abundance based on catch rate analysis of longline for tropical tuna species (bigeye tuna and yellowfin tuna) in the eastern Pacific Ocean (EPO). This project was endorsed at the 93rd Meeting of the IATTC. The IATTC Secretariat and SHOU, have mutually confirmed to conduct collaborative work on longline catch rate analysis using Chinese logbook data, as described below. The collaborative work between SHOU and IATTC is expected to improve the accuracy and precision of standardized longline indices of relative abundance for bigeye and yellowfin tuna. Considering that there are still some remaining issues with the yellowfin assessment and improvements could also be made for the bigeye assessment, the collaboration between the IATTC and SHOU is important to further improve the two stock assessments in the EPO.

Purpose

The collaborative work is one research component under the umbrella of the IATTC Project listed above, and the first purpose of the collaborative work is to apply and compare many kinds of CPUE standardization methodologies to longline data to discuss the appropriate catch rate

standardization process for the tropical tuna species to support IATTC-mandated stock assessments. Examples of standardization methodologies that could be considered include Generalized Linear Models (GLMs), Generalized Additive Mixed Models (GAMMs), and cutting-edge vector-autoregressive spatio-temporal (VAST) models, among others. In addition, analyses may be carried out to detect spatial structure of the bigeye and yellowfin tuna stock in order to produce better stock assessments of bigeye and yellowfin tuna. The second purpose of the collaborative work is to undertake comparative analyses that include similar data from other IATTC cooperating parties (CPCs) to develop joint indices of abundance for tropical tunas in the EPO.

Agreement

The Parties have agreed on the usage of the longline logbook data stored in SHOU, for the EPO, only for the purpose mentioned in item 4 below.

The following procedures and conditions shall be followed in the implementation of this work:

1. This MOU shall enter into force on the date of the second signature and shall remain in effect for a period of five (5) years from that date.
2. The format of the longline logbook data to be prepared for this collaborative work should be appropriate to investigate the catch-rate analyses of tropical tuna species. The Parties will share these data immediately after this MOU comes into effect.

Logbook data

A selection of high-quality operational-level-logbook data, unraised, for the EPO from 2015 to 2023, includes the following information.

- a. Year, month, day
- b. Hooks between floats (where available)
- c. Position (latitude, longitude)
- d. Number of hooks
- e. Catch, in number, of bigeye, yellowfin, albacore, and swordfish (zero-catch sets that had a positive number of hooks will also be included)
- f. Vessel identifier (where available)
- g. The company of Vessel (where available)

Note: Data of species other than bigeye and yellowfin will be used for supporting analyses, such as cluster analyses, to develop fishery targeting indicators.

3. The participants in the collaborative work are listed below. In the event of staff changes, these shall be notified in writing to the Parties.

SHOU

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Qinqin Lin: qqin@shou.edu.cn

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IATTC

All staff in the stock assessment group

4. For the purpose of the collaboration on tropical tunas' CPUE standardization research, the data can be used only under the following conditions and confidentiality arrangements:
 - The usage of the data is strictly limited to the purpose and period of this collaborating work;
 - The data is allowed to be accessed only by participants listed above in item 3, or the participants could be replaced with the written consent of both parties;
 - The data shall be held in the PCs of each participant listed above in item 3, and any copy of the data from those PCs is not permitted (except that of the China side participant's own original data file);
 - The IATTC staff shall not disseminate the data or uploaded it to any internet website or email address;
 - If the MOU is terminated, all data (except the China side participant's own original data file) and intermediate work files which can reconstruct the original data should be completely deleted;
 - Any document or presentation that could expose intermediate results of this collaborative work should be shared, with reasonable time for comments, among Parties prior to release, which requires a mutual approval of IATTC and SHOU.
5. Copies of the procedures shall be provided to Jiangfeng Zhu (Shanghai Ocean University), Feng Wu (Shanghai Ocean University), Alexandre Aires-da-Silva (Inter-American Tropical

Tuna Commission).

6. This Memorandum of Understanding shall not be construed as creating any legally binding rights or obligations on the part of either Party and shall not be enforceable in law or equity in any court or tribunal for any purpose.

Signed on behalf of the Inter-American Tropical Tuna Commission (IATTC) and the Shanghai Ocean University (SHOU):

President - Shanghai Ocean University

Rong Wang



(DD/MM/YYYY: 17 January 2025)

Director - Inter-American Tropical Tuna Commission

Arnulfo Franco



(DD/MM/YYYY: 21 / 01 / 2025)