# ISC/22/ANNEX/15



# **ANNEX 15**

22nd Meeting of the International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean Hawaii, United States of America July 12-18, 2022

# REPORT OF THE STATWG WORKSHOP

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#### Annex 15

# REPORT OF THE STATISTICS WORKING GROUP

International Scientific Committee for Tunas and Tuna-like Species in the North Pacific Ocean

# 1.0 Opening of Meeting

The Statistics Working Group (STATWG) meeting was held July 8, 2022 prior to the 22nd meeting of the ISC Plenary. The STATWG Chair, Felipe Carvalho opened the meeting and welcomed participants from Canada, Japan, Korea and USA (Attachment 1). In support of the STATWG, Kirara Nishikawa continued to fulfill the roles of both the ISC Data Administrator (DA) and ISC Webmaster (WM).

A data revision working paper from Japan was reviewed at the meeting (Attachment 2).

- 2.0 Review of the STATWG Work
- 2.1 Status of the STATWG Work Plan
- 2.2 Report on ISC Data Systems

The DA provided a report on the status of the ISC data systems as of July 2022. The DA noted that the old server was turned off at the end of February 2021. The DA reported that the "Assessment Data Storage" structure was revised (Figure 1). All stock assessment data were archived on one directory previously. The directories for each WG were created, and year and species information are required when the user submit the stock assessment data.

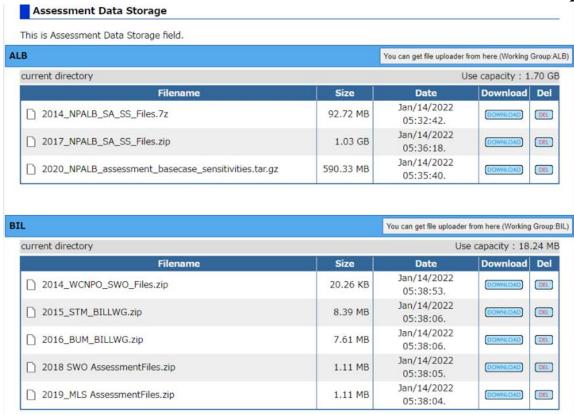


Figure 1. New structure of ISC "Assessment data storage".

# 2.3 Report on ISC Website

The WM provided a report on the status of the ISC website as of July 2022. The WM noted following improvements to the ISC website:

(1) Regular information updates. The website now incorporates regular updates to information on the ISC meeting schedule, news, and WG papers (Figure 2).



**Figure 2.** Regular updates to the ISC website as of July 2022.

(2) Updated fishery statistics. The updated ISC fishery statistics include graphs of historical catches by country and gear along with an update of the ISC public domain data and the publication of ISC data inventory.

# (3) SSL certificate

SSL certificate has been applied since April 2022. It ensures the security of ISC website. Accordingly, the URL of ISC website was changed to "https://isc.fra.go.jp/".

WM suggested that the MSE result be made more accessible. It was pointed out that how the information is used is different for assessment and MSE and current structure seems adequate. No revision was decided and the current space of the MSE will be announced on the plenary.

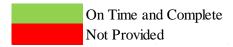
#### 3.0 Review of ISC Members Statistics

#### 3.1 Data Submission Condition

The DA reviewed 2022 data submissions for Category Ic, Ie, II, and III, by member country and by gear. Data submissions are due by June 1 annually, followed by metadata updates and submissions on July 1 annually. As in previous years, China did not submit data to the ISC but its data can be obtained from the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC). All other Member countries submitted their data by June 30, 2022 (Tables 1, 2, and 3).

**Table 1.** Report card of 2022 ISC data submission by data category (CAT) and by country (CAN is Canada, CHN is China, JPN is Japan, KOR is Korea, MEX is Mexico, TWN is Chinese Taipei, USA is United States of America).

Member	CAT Ic	CAT Ie	CAT II	CAT III
CAN				
CHN				
JPN				
KOR				
MEX				
TWN				
USA				



# ISC Gear Codes\*

Code	Gear	Name	LX	Hook-and-line	Hooks and lines (not specified)
FPN	Set-net	Stationary uncovered pound nets	MIS	Other gears	Miscellaneous gear
GND	Gill-net	Driftnets	NK	Not specified	Gear not known or not specified
GN	Gill-net	Unspecified Gill-net	PS	Purse-seine	Supporting nets with purse lines (purse-seine)
HAR	Harpoon	Harpoons	RG	Sport	Recreational fishing gears
LH**	Handline	Handline gear	TX	Trawl	Trawl (not specified)
LLD	Longline	Drifting longlines		TIMIT	Train (not specifica)
LP**	Pole-and-line	Pole-and-line	* FAO 19	99. Definition and cl	lassification of fishing gear categories. FAO Fish. Tec. Pap. 222
LTR	Troll	Trolling lines	** IATTO	code.	
	-				

<sup>\*\*</sup> IATTC code.

**Table 2**. Status of 2022 ISC data submission by data category, country and gear. During the STATWG review of this table, some discrepancies were identified. These discrepancies will be corrected by the end of ISC22 Plenary prior to publication of this report on the ISC website.

Submitted in 2022( by 2022/07/08)															
Countr	Category							Gea							
y		FPN	GN	GND	HAR	LH	LLD	LP	LTR	LX	MIS	NK	PS	RG	TX
CAN	1c								*						
	1e								*						
	2								*						
	3								*						
CHN	1c														
	1e														
	2														
	3														
JPN	1c	*		*			*	*	*		*	*	*		
	<b>1e</b>						*	*	*				*		
	2						*	*					*		
	3			*			*	*							
KOR	1c	*					*						*		*
	1e						*						*		
	2						*						*		
	3						*						*		
MEX	1c												*		
	1e												*		
	2												*		
	3												*		
TWN	1c	*	*		*		*				*		*		
	1e				, ,		*						*		
	2						*						*		
	3						*						*		
USA	1c			*	*	*	*		*	*	*		*	*	
	1e			*	*	*	*		*	*			*		
	2			*			<b>*</b>		<b>+</b>	*			*	*	
	3						÷		*					<b>*</b>	

**Table 3**. Status of submission of 2019-2021 data, by data category, country and gear. During discussion of this table at the STATWG meeting, some discrepancies were identified for correction by the end of ISC22 Plenary and prior to publication of this report on the ISC website.

			Gear													
Year	Country	Category	FPN	GN	GND	HAR	LH	LLD	LP	LTR	LX	MIS	NK	PS	RG	TX
2019	CAN	1c								*						
2020	CAN	1c								*						
2021	CAN	1c								*						
2019	CHN	1c														
2020	CHN	1c														
2021	CHN	1c														
2019	JPN	1c	*		*			*	$\star$	*		*	*	$\star$		
2020	JPN	1c	*		*			*	*	*		*	*	*		
2021	JPN	1c	*		*			*	*	*		*	*	*		
2019	KOR	1c	*					*						*		*
2020	KOR	1c	*					*						*		*
2021	KOR	1c	*					*						*		*
2019	MEX	1c												*		
2020	MEX	1c												*		
2021	MEX	1c												*		
2019	TWN	1c	*	*		*		*				*		*		
2020	TWN	1c	*	*		*		*				*		*		
2021	TWN	1c	*	*		*		*				*		*		
2019	USA	1c			*	*	*	*		*	*	*		*	*	
2020	USA	1c			*	*	*	*		*	*	*		*	*	
2021	USA	1c			*	*	*	*		*	*	*		*	*	

 Table 3. Continued.

			Gear													
Year	Country	Category	FPN	GN	GND	HAR	LH	LLD	LP	LTR	LX	MIS	NK	PS	RG	TX
2019	CAN	1e								*						
2020	CAN	1e								*						
2021	CAN	1e								*						
2019	CHN	1e														
2020	CHN	1e														
2021	CHN	1e														
2019	JPN	1e						*	*	*				*		
2020	JPN	1e						*	*	*				*		
2021	JPN	1e						*	*	*				*		
2019	KOR	1e						*						*		
2020	KOR	1e						*						*		
2021	KOR	1e						*						*		
2019	MEX	1e												*		
2020	MEX	1e												*		
2021	MEX	1e												*		
2019	TWN	1e						*						*		
2020	TWN	1e						*						*		
2021	TWN	1e						*						*		
2019	USA	1e			*	*	*	*		*	*			*		
2020	USA	1e			*	*	*	*		*	*			*		
2021	USA	1e			*	*	*	*		*	*			*		

 Table 3. Continued.

			Gear													
Year	Country	Category	FPN	GN	GND	HAR	LH	LLD	LP	LTR	LX	MIS	NK	PS	RG	TX
2019	CAN	2								*						
2020	CAN	2								*						
2021	CAN	2								*						
2019	CHN	2														
2020	CHN	2														
2021	CHN	2														
2019	JPN	2						*	*					*		
2020	JPN	2						*	*					*		
2021	JPN	2						*	*					*		
2019	KOR	2						*								
2020	KOR	2						*						*		
2021	KOR	2						*						*		
2019	MEX	2												*		
2020	MEX	2												*		
2021	MEX	2														
2019	TWN	2						*						*		
2020	TWN	2						*						*		
2021	TWN	2						*						*		
2019	USA	2				*		*		*	*			*	*	
2020	USA	2			*	*		*		*	*			*	*	
2021	USA	2			*			*		*	*			*	*	

Table 3. Continued.

									Ge	ar						
Year	Country	Category	FPN	GN	GND	HAR	LH	LLD	LP	LTR	LX	MIS	NK	PS	RG	TX
2019	CAN	3								*						
2020	CAN	3								*						
2021	CAN	3								*						
2019	CHN	3														
2020	CHN	3														
2021	CHN	3														
2019	JPN	3			*	*		*	*							
2020	JPN	3			*			*	*							
2021	JPN	3			*			*	*							
2019	KOR	3	*					*						*		
2020	KOR	3						*						*		
2021	KOR	3						*						*		
2019	MEX	3												*		
2020	MEX	3												*		
2021	MEX	3												*		
2019	TWN	3						*						*		
2020	TWN	3						*						*		
2021	TWN	3						*						*		
2019	USA	3						*		*					*	
2020	USA	3						*		*					*	
2021	USA	3						*		*					*	

# 3.2 Metadata and Data Collection System

The DA reviewed metadata submission (table) by member countries. Currently Canada, Chinese Taipei, Korea, Japan, and USA have submitted their metadata. The metadata are scheduled to be published on August 1, 2022.

# 3.3 Total Catch Tables

The STATWG members requested that the DA distribute this table to National Data Correspondents for confirmation and explanation of the discrepancies before the end of ISC22 Plenary meeting as authoritative catch figures will be included in the ISC22 Plenary report.

# 3.4 Data Revision Report of Japan

After July 1, 2021, Japan revised the catch in weight (mt) data "Category 1c" including catch for blue shark for 1994-2020 due to the update of benchmark stock assessment for blue shark (ISC, 2022). (ISC22/STATWG/WP-01). The revisions were conducted in association with the updates of annual CPUEs for longline fleets and proportions of the catch for blue shark to all sharks in the estimation of catches for other gears. The estimates of the annual catches were largely affected by the values of annual CPUEs and the proportion of the catches. The STATWG recommends that the ISC22 Plenary approve the data revisions submitted by Japan.

# 4.0 Review of Issues Relating to Species Working Groups

# 4.1 Archive of Stock Assessment Reports

The DA presented the status of submission of stock assessment files that are due to be submitted by November 1 each year (Figure 4). These data files include input data file, control file, forecast file, starter file of Stock Synthesis, and related various model runs completed for each species assessment.

**Figure 4.** The data submission status of stock assessment files by the ISC species Working Groups from 2017 to 2022.

	ALBWG		BILLWG		PBFWG	SHAR	RKWG			
	ALB	SWO	MLS	BUM	PBF	BSH	SMA			
2017										
2018										
2019										
2020						Sensitivity				
2021							Indicator			
2022										
	Stock assessm	Stock assessment was done, and stock assessment files will be submitted by November 2022.								
	Stock assessment was done, and stock assessment files were submitted.									

#### 4.2 Use of Category II and III data

In ISC21 the plenary expressed interest in harmonizing the data submission formats with those used by WCPFC and IATTC. The Plenary requested the STATWG to report back at ISC22 on the use of Category II and III data, including the nature of data requests and usage by both ISC working groups and external parties. The STATWG completed this request. All WGs collect the data for stock assessment for itself rather using ISC database and no external party requested the Category II and III data from ISC Website.

# 4.3 Draft Non-Disclosure Agreement for Stock Assessment Data and Modeling Files

The ISC21 plenary requested the STATWG to investigate procedures used in other RFMOs along with further developing a draft NDA and report back at ISC22. The STATWG investigated in other RFMOs, and the results are presented in Figure 5.

	SA files at Open Public space	Access to the SA files	Memo					
CCSBT	No	Request to the scientific committee through secretariat.	Member scientists and meeting pa	articipants share t	he SA fi	les.		
ICCAT	No	Request to the scientific committee through secretariat.	Member scientists and meeting pa	articipants share t	he SA fi	les.		
WCPFC	Yes	-	Available on the SPC website.					
IATTC	Yes	-	Available on the IATTC SAC website	e.				
IOTC	No	Request to the scientific committee through secretariat.	Some SA data are available on the	IOTC website for	recent S	SA, but r	not all th	ne files.

#### **5.0 Future Work Plan and Recommendations**

# 5.1 Function of STATWG and Future Work Plan

The STATWG members agreed there is an ongoing need for the STATWG with functions of (1) maintaining the ISC database and the quality of data submitted by members; (2) maintaining the proper function of ISC website; and (3) internal data sharing and developing protocols for answering external data requests. Although these functions were partially performed by the DA, the STATWG is responsible for overseeing these functions and providing a link to the ISC Plenary as well as recommending appropriate actions when needed, with collective efforts by all members and chairs of all species WGs.

The STATWG members developed the following work plan for 2022-2023:

- 1. The DA will continue to distribute the ISC data inventory for Category I, II, and III to ISC Data Correspondents for review by September 30, 2022. The DA will then distribute the ISC data inventory to Chairs of the species WG by October 15, and publish on the ISC website by October 31, 2022.
- 2. The DA will continue to archive stock assessment files from all 2021-2022 ISC assessments, which are required to be submitted by Chairs of species WG by November 1, 2022.
- 3. After the Data Correspondents have reviewed and updated their metadata prior to the ISC22 Plenary, this metadata will be published on the ISC researcher's website by August 31, 2022. For 2021-2022, the DA will continue to distribute the WG member's new metadata by March 30, 2023. The Data Correspondents will review and update their new

- metadata by July 1, 2023 prior to the ISC23 Plenary, and this new metadata will be published on the ISC researcher's website by August 31, 2023.
- 4. The DA and the Chair of the STATWG will annually review the responsibilities, duties and deliverables of the DA to ensure that they are accurate and practical, and revise them as necessary.
- 5. The STATWG Steering Group will hold an intersessional meeting or conference call/webinar January 2023 to conduct work to complete this work plan.
- 6. The STATWG Chair, Vice-Chair and other interested parties will continue to develop a NDA for data sharing requests. This NDA will incorporate comments from ISC22 and will be reviewed at the next STATWG meeting. A standard operating protocol will be developed to handle data sharing requests, which will include ISC point of contact information.

# **6.1** Recommendations to the Plenary

- 1. The STATWG recommends approval of the data revisions to blue shark catches presented by Japan in 2022.
- 2. The STATWG recommends that Species WG chairs review the species pages and update information, if necessary, to improve the utility and information content.
- 3. The STATWG recommends that the ISC22 Plenary will discuss the development of a standard protocol for sharing confidential stock assessment files with external parties and provide guidance to the STATWG on this matter. It is expected that this protocol would include a NDA and rules governing the process and use of shared files.
- 4. It is recommended there is an ongoing need for the STATWG with functions of
  - (1) Maintaining the ISC database and the quality of data submitted by members
  - (2) Maintaining the proper function of ISC website
  - (3) Supporting internal data sharing and developing protocols for external requests for sharing confidential ISC data.

#### 7.0 Administrative Matters

# 7.1 Update of Organization Chart

The organization chart of the STATWG (Attachment 3) was reviewed and updated. The updates were:

- (1) Mi Kyung Lee replaces Sung Il Lee
- (2) Hiroki Yokoi replaces Koji Uosaki for Japan

The Chair also noted that the next STATWG meeting is planned to be held prior to ISC23 plenary for one and a half days in July 2023, at a time and place to be determined.

# Attachment 1 List of Participants

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Attachment 3
STATWG Organization Chart as of July 10, 2022

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