Commission for the Conservation of
Southern Bluefin Tuna

みなみまぐろ保存委員会

CCSBT-ESC/2108/05

Data Exchange (ESC agenda item 13)

Introduction

Draft data exchange requirements for 2022 are provided in **Attachment A**. The attachment shows the proposed data that are to be provided during 2022 and the dates and responsibilities for the data provision.

These requirements are based on the 2021 data exchange requirements with all items rolled over and the dates incremented. There were no additional changes requested by ESC participants.

Catch effort and size data should be provided in the identical format as were provided in 2021. If the format of the data provided by a Member is changed, then the new format and some test data in that format should be provided to the Secretariat by 31 January 2022 to allow development of the necessary data loading routines.

Data listed in Attachment A should be provided for the complete 2021 calendar year plus any other year for which the data have changed. If changes to historic data are more than a routine update of the 2020 data or very minor corrections to older data, then the changed data will not be used until discussed at the next ESC meeting (unless there was specific agreement to the contrary). Changes to past data (apart from a routine update of 2020 data) must be accompanied by a detailed description of the changes.

Prepared by the Secretariat

Attachment A

Type of Data to provide[1]	Data Provider(s)	Due Date	Description of data to provide
CCSBT Data CD	Secretariat	31 Jan 22	An update of the data (catch effort, catch at size, raised catch and tag-recapture) on the data CD to incorporate data provided in the 2021 data exchange and any additional data received since that time, including: • Tag/recapture data (*The Secretariat will provide additional updates of the tag-recapture data during 2022 on request from individual members*); • Update the unreported catch estimates using the revised scenario (S1L1) produced at SAG9,
Total catch by Fleet	all Members and Cooperating Non-Members	30 Apr 22	Raised total catch (weight and number) and number of boats fishing by fleet and gear. These data need to be provided for both the calendar year and the quota year.
Recreational catch	all Members and Cooperating Non-Members that have recreational catches	30 Apr 22	Raised total catch (weight and number) of any recreationally caught SBT if data are available. A complete historical time series of recreation catch estimates should be provided (unless this has previously been provided). Where there is uncertainty in the recreational catch estimates, a description or estimate of the uncertainty should be provided.
SBT import statistics	Japan	30 Apr 22	Weight of SBT imported into Japan by country, fresh/frozen and month. These import statistics are used in estimating the catches of non-member countries.
Mortality allowance (RMA and SRP) usage	all Members (& Secretariat)	30 Apr 22	The mortality allowance (kilograms) that was used in the 2021 calendar year. Data is to be separated by RMA and SRP mortality allowance. If possible, data should also be separated by month and location.
Catch and Effort	all Members (& Secretariat)	23 Apr 22 (New Zealand)[2] 30 Apr 22 (other members & Secretariat) 31 July 22 (Indonesia)	Catch (in numbers and weight) and effort data is to be provided as either shot by shot or as aggregated data (New Zealand provides fine scale shot by shot data which is aggregated and distributed by the Secretariat). The maximum level of aggregation is by year, month, fleet, gear, and 5x5 degree (longline fishery) or 1x1 degree for surface fishery. Indonesia will provide estimates based on either shot by shot or as aggregated data from the trial Scientific Observer Program.

[1] The text "**For MP/OM**" means that this data is used for both the Management Procedure and the Operating Model. If only one of these items appears (e.g. **For OM**), then the data is only required for the specified item.
[2] The earlier date specified for New Zealand is so that the Secretariat will be able to process the fine scale New Zealand data in time to provide aggregated and raised data to members by 30 April.

Type of Data to provide[1]	Data Provider(s)	Due Date	Description of data to provide
Non-retained catches	All Members	30 Apr 22 (all Members except Indonesia) 31 July 22 (Indonesia)	The following data concerning non retained catches will be provided by year, month, and 5*5 degree for each fishery: • Number of SBT reported (or observed) as being non-retained; • Raised number of non-retained SBT taking into consideration vessels and periods in which there was no reporting of non-retained SBT; • Estimated size frequency of non-retained SBT after raising; • Details of the fate and/or life status of non-retained fish. Indonesia will provide estimates based on either shot by shot or as aggregated data from the trial Scientific Observer Program.
RTMP catch and effort data	Japan	30 Apr 22	The catch and effort data from the real time monitoring program should be provided in the same format as the standard logbook data is provided.
Raised catch data for AU, NZ catches	Australia, Secretariat	30 Apr 22	Aggregated raised catch data should be provided at a similar resolution as the catch and effort data. Japan, Korea and Taiwan do not need to provide anything here because they provide raised catch and effort data. New Zealand does not need to provide anything here because the Secretariat produces New Zealand's raised catch data from the fine scale data provided by New Zealand.
Raised number of hooks data for NZ catches	Secretariat	30 Apr 22	Raised New Zealand number of hooks data, to be provided to NZ only, generated from NZ fine scale data by the Secretariat.
Observer length frequency data	New Zealand	30 Apr 22	Raw observer length frequency data as provided in previous years.

Type of Data to provide[1]	Data Provider(s)	Due Date	Description of data to provide
Raised Length Data	Australia, Taiwan, Japan, New Zealand, Korea	30 Apr 22 (Australia, Taiwan, Japan, Korea) 7 May 22 (New Zealand)[3]	Raised length composition data should be provided[4] at an aggregation of year, month, fleet, gear, and 5x5 degree for longline and 1x1 degree for other fisheries. Data should be provided in the finest possible size classes (1 cm). A template showing the required information is provided in Attachment C of CCSBT-ESC/0609/08.
Raw Length Frequencies	South Africa	30 Apr 22	Raw Length Frequency data from the South African Observer Program.
RTMP Length data	Japan	30 Apr 22	The length data from the real time monitoring program should be provided in the same format as the standard length data.
Indonesian LL SBT age and size composition	Australia Indonesia	30 Apr 22	Estimates of both the age and size composition (in percent) is to be generated for the spawning season July 2020 to June 2021. Length frequency for the 2020 calendar year and age frequency for the 2020 calendar year is also to be provided. Indonesia will provide size composition in length and weight based on the Port-based Tuna Monitoring Program. Australia will provide age composition data according to current data exchange protocols.
Direct ageing data	All Members except the EU	30 Apr 22	Updated direct age estimates (and in some cases revised series due to a need to re-interpret the otoliths) from otolith collections. Data must be provided for at least the 2019 calendar year (see paragraph 95 of the 2003 ESC report). Members will provide more recent data if these are available. The format for each otolith is: Flag, Year, Month, Gear Code, Lat, Long, Location Resolution Code[5], Stat Area, Length, Otolith ID, Age estimate, Age Readability Code[6], Sex Code, Comments. It is planned that the Secretariat will provide the direct age estimates for Indonesia through a contract with CSIRO.
Trolling survey index	Japan	30 Apr 22	Estimates of the different trolling indices (piston-line index and grid-type trolling index (GTI)) for the 2021/22 season (ending 2022), including any estimates of uncertainty (e.g. CV).

[3] The additional week provided for New Zealand is because New Zealand requires the raised catch data that the Secretariat is scheduled to provide on 30 April.

[4] The data should be prepared using the agreed CCSBT substitution principles where practicable. It is important that the complete method used for preparing the raised length data be fully documented.

[5] M1=1 minute, D1=1 degree, D5=5 degree.

[6] Scales (0-5) of readability and confidence for otolith sections as defined in the CCSBT age determination manual.

Type of Data to provide[1]	Data Provider(s)	Due Date	Description of data to provide
Tag return summary data	Secretariat	30 Apr 22	Updated summary of the number tagged and recaptured per month and season.
Gene tagging data	Secretariat	30 Apr 22	An estimate of juvenile abundance and mark-recapture data from the pilot gene-tagging study through a contract with CSIRO. The mark-recapture data will include the tagging release data (e.g. date of tagging, length of fish), tag recapture data (e.g. recapture sample date, length) and whether or not a genetic match with a release tissue was found.
Close Kin Data	Secretariat	30 Apr 22	Updated dataset of identified SBT parent-offspring pairs and half-sibling using SNPs. This is a deliverable of the SBT annual close-kin tissue sampling, processing, kin identification and Indonesian ageing project conducted by CSIRO under contract to the CCSBT.
Catch at age data	Australia, Taiwan, Japan, Secretariat	14 May 22	Catch at age (from catch at size) data by fleet, 5*5 degree, and month to be provided by each member for their longline fisheries. The Secretariat will produce the catch at age for New Zealand and Korea using the same routines it uses for the CPUE input data and the catch at age for the MP.
Global SBT catch by flag and by gear	Secretariat	22 May 22	Global SBT catch by flag and gear as provided in recent reports of the Scientific Committee.
Raised catch-at-age for the Australia surface fishery. **For OM**	Australia	24 May 22[7]	These data will be provided for July 2020 to June 2021 in the same format as previously provided.
Raised catch-at-age for Indonesia spawning ground fisheries. **For OM**	Secretariat	24 May 22	These data will be provided for July 2020 to June 2021 in the same format as on the CCSBT Data CD.
Total catch per fishery and sub-fishery each year from 1952 to 2021. **For OM**	Secretariat	31 May 22	The Secretariat will use the various data sets provided above together with previously agreed calculation methods to produce the necessary total catch by fishery and total catch by sub-fishery data required by the Operating Model.

[7] The date is set 1 week before 1 June to provide sufficient time for the Secretariat to incorporate these data in the data set it provides for the OM on 1 June.

Type of Data to provide[1]	Data Provider(s)	Due Date	Description of data to provide
Catch-at-length (2 cm bins) and catch-at-age proportions. **For OM**	Secretariat	31 May 22	The Secretariat will use the various catch at length and catch at age data sets provided above to produce the necessary length and age proportion data required by the operating model (for LL1, LL2, LL3, LL4 – separated by Japan and Indonesia, and the surface fishery). The Secretariat will also provide these catch at length data subdivided by sub fishery (e.g. the fisheries within LL1).
Global catch at age	Secretariat	31 May 22	Calculate the total catch-at-age in 2021 according to Attachment 7 of the MPWS4 report except that catch-at-age for Japan in areas 1 & 2 (LL4 and LL3) is to be prepared by fishing season instead of calendar year to better match the inputs to the operating model.
CPUE input data	Secretariat	31 May 22	Catch (number of SBT and number of SBT in each age class from 0-20+ using proportional aging) and effort (sets and hooks) data[8] by year, month, and 5*5 lat/long for use in CPUE analysis.
CPUE monitoring and quality assurance series.	Australia, Japan, Taiwan, Korea	15 Jun 22 (earlier if possible)[9]	8 CPUE series are to be provided for ages 4+, as specified below: • Nominal (Australia) • B-Ratio proxy (W0.5)[10] (Japan) • Geostat proxy (W0.8)[10] (Japan) • GAM (Australia) • Shot x shot Base Model (Japan) • Reduced Base Model (Japan) • Taiwan Standardised CPUE (Taiwan) • Korean Standardised CPUE (Korea)
Core vessel CPUE series **for MP**	Japan	15 Jun 22 (earlier if possible)	Provide both the w0.5 and w0.8 Core Vessel CPUE Series, which are calculated from the GLM Base model
Core vessel CPUE series **for OM**	Japan	15 Jun 22 (earlier if possible)	Provide CS, VS w0.6 and w0.9 of Core Vessel CPUE Series, which are calculated from GAM.

[8] Data restricted to months April to September, SBT statistical areas 4-9, and the Japanese, Australian joint venture and New Zealand joint venture fleets.

[9] When there are no complications, it is possible to calculate the CPUE series less than two weeks after the CPUE input data is provided. Therefore, if there are no complications, Members should attempt to provide the CPUE series earlier than 15 June.

[10] This series is based on the standardisation model by Nishida and Tsuji (1998) using all vessel data. Due to loss of data from Japanese-flagged charter vessels in the New Zealand fishery from 2016 onward, these indices are calculated combining areas 4 and 5, areas 6 and 7, respectively.