



CCSBT-ESC/0509/09

## 8. Data Exchange データの交換

### Purpose 目的

To review that 2005 data exchange and to determine the data exchange requirements for 2006.  
2005年に行われたデータの交換を再考し、2006年のデータ交換に必要な事項を決定する。

#### (1) Review of Data Exchange in 2005 2005年のデータ交換のレビュー

The Data Exchange Requirements (DER) for 2005 was specified at Attachment 11 of the SC9 report. The SC9 report provided recommendations for future data exchanges and these were followed as far as possible in 2005.

2005年用のデータ交換の要件(DER)はSC9報告書の別紙11に指定されている。SC9報告書は将来におけるデータの交換について勧告しており、2005年は可能な限り右に従った。

From the Secretariat's view point, the 2005 data exchange went far more smoothly than data exchanges in the last few years. The majority of data was provided on time and only in rare cases was data provided more than 2 weeks late.

事務局の感想としては、2005年のデータ交換は、過去数年よりかなり円滑に進んだ。大部分のデータは時間通りに提出され、まれに2週間以上遅れて提出されたものもあった。

Judging from reduced questions to the Secretariat during the data exchange, the new practise of placing the data on the web site appears to have reduced confusion regarding what data had been provided and which were the most up to date versions of the data.

データ交換期間中の事務局に対する質問が減少したことから判断して、ウェブサイトにデータを掲載したことは、すでにデータが提供されたのか、どれが最新のデータなのかといった混乱を減らしたようである。

While the 2005 data exchange was an improvement over recent years, there is still room for further improvement, in particular:

ここ数年と比べ2005年のデータ交換は改善されたが、まだ改善すべき余地は残っており、これらは特に：

- We should be aiming for all data to be provided on time. If deadlines are not achievable, the deadlines and/or data collection mechanisms should be revised. In particular, Korea has yet to provide its catch effort and size data, and the timely submission of these data has been a reoccurring problem for Korea.

我々は全てのデータが時間通りに提出されることを目指すべきである。仮に期限が守れないのであれば、期限及び/又はデータ収集方法を再考すべきである。特に、韓国は漁獲努力量及び体長データをまだ提出していないので、期限までにこれらデータを提出するという問題は再度韓国に対して提起される問題となっている。

- There are still some instances of incorrect data being submitted, requiring revised data sets to be submitted.  
修正したデータの提出をお願いしても、間違ったデータが提出された例が幾つかあった。
- In some cases, the catch effort or size data provided were incomplete in that they did not contain all the fields of information required. This was described in paper CCSBT-ESC/0509/07 (Characterisation of SBT catch), so it is not considered further here.  
幾つか提出された漁獲努力又は体長データの中には、要求されている漁場の全ての情報を含んでいない不完全なものがあつた。これについてはペーパーCCSBT-ESC/0509/07 (SBT 漁獲の特徴) に詳しく説明しているのでここでは省略する。

Another area where improvement would be beneficial is greater uniformity and robustness in the format of data provision. In recent years, members have tried to provide data in the same format as they have in previous years. However, each members still provides data in a different format than other members and some of the formats used (particularly Microsoft Excel) have inherent problems that can cause corruption of data when loading to databases. As a consequence, it is a large task for members and the Secretariat to convert the multitude of exchanged data sets into a consolidated form suitable for analyses. It is therefore worthwhile to consider the option of using identical and robust data provision formats. One option would be for the Secretariat to develop an empty MS-Access database (perhaps along the lines of that on the CCSBT Data CD) which members could populate with the data that they are required to exchange<sup>1</sup>. The empty database could contain pre-defined rules which would ensure that data provided by members conformed to standards (e.g. codes) used by the CCSBT. If this option was adopted, a significant lead time would be needed to enable all members to conform, so it is unlikely that this mechanism could be fully operational before the 2007 data exchange.

他の分野で改善が有益となるものは、より均一かつ強固な様式によるデータの提出である。最近までメンバーは過去提出していたものと同じ様式でデータを提出しようとした。未だに各国は他の国と異なる様式のデータを提出しており、使用されているいくつかの様式（特にマイクロソフトエクセル）はデータベースに取り込む際データが壊れるという固有の問題を有している。結果として、解析のために適した形にするため、大量のデータを変換しなければならず、これはメンバー及び事務局にとって大きな負担となっている。従って、全く同じかつ固定されたデータ提出の様式を考えることは価値あることと思われる。一つのオプションとしては、メンバーがデータ交換の時に要求され扱っている MS-Access の空の物を（おそらく CCSBT データ CD に焼いているものに沿って）事務局が作るということが考えられる。空のデータベースには、メンバーが提供するデータを CCSBT が使用する基準（例えば、コード）に沿うように、あらかじめ規則が設定されるだろう。仮にこのオプションが採用された場合、全てのメンバーが従うまで十分な導入期間が必要となるので、おそらくこのシステムを 2007 年のデータ交換前に完全に実施することは不可能と思われる。

---

<sup>1</sup> In fact, Japan already submits some of its data in this manner.  
日本は実際にすでにこれらのデータを提出している。

## **(2) Requirements for Data Exchange in 2006**

### **2006年のデータ交換要件**

A set of draft data exchange requirements for 2006 is provided in Attachment A. These requirements are based on the 2005 data exchange requirements. Some changes have been recommended for the due dates to better reflect the timing of workflows and in some cases, to provide more achievable goals. Previously unspecified data items that were either required or provided in the 2005 data exchange have been added to the list of requirements.

2006年用のデータ交換要件案を別紙Aに示した。これら要件は2005年データ交換要件に基づいている。期日に関し、幾つかの場合作業の流れをより反映しているタイミングがあり、より達成可能なものがあることから幾つかの変更が推薦された。2005年のデータ交換で、要求又は提供のあった特に指定されていなかったデータに関しても要件リストに加えられた。

Attachments B and C specify the catch effort and catch at size information that should be provided.

別紙B及びCに提出が求められている漁獲努力量及び体長別漁獲量に関するデータの詳細を指定している。

## **(3) Data Exchange Workshop**

### **データ交換ワークショップ**

The data exchange working group at SC9 considered that there would be value in holding a two day data review workshop to revise and properly document the data preparation practises adopted by the CCSBT. However, given the workload for 2005, it was felt that such a workshop could not be held before 2006.

SC9においてデータ交換ワーキンググループは、CCSBTの採択のために、データ準備規定の改訂及びその適切な文書化をレビューするため、2日間程度のレビューワークショップの開催について検討した。しかし、2005年の作業を考慮すると、このようなワークショップを2006年より前に開催することは不可能であるという印象であった。

An alternative to a workshop might be to identify data preparation practises that needed improved documentation and tasking appropriate individuals/groups to produce detailed documentation for the next meeting of the Stock Assessment Group or Extended Scientific Committee.

ワークショップの代替としては、文書化すべきデータ準備規定について確認し、次の会合である資源評価グループ又は拡大科学委員会用に詳細な議論ペーパーの提出を個人/グループに依頼することかもしれない。

**Prepared by the Secretariat**

**事務局作成資料**

### Draft Data Exchange Requirements for 2006

The following table shows the data that is to be provided during 2006 and the dates and responsibilities for the data provision. The main changes from the 2005 requirements (excluding incrementing the year) are shaded (for insertions) or are crossed out (for deletions).

Catch effort and size data should be provided in the identical format as it was provided in 2006. If the format of the data provided by a member is changed, then the new format and some test data in that format must be provided to the Secretariat by 31 January 2006 to allow development of the necessary data loading routines.

Data listed in the following table should be provided for the complete 2005 calendar year plus any other year for which the data has changed. If changes to historic data are more than a routine update of the 2004 data or very minor corrections to older data, then the changed data will not be used until discussed at the next SAG/SC meeting (unless there was specific agreement to the contrary). Changes to past data (apart from a routine update of 2004 data) must be accompanied by a detailed description of the changes.

Type of Data to provide <sup>2</sup>	Data Provider(s)	Due Date	Description of data to provide
CCSBT Data CD	Secretariat	31 Jan 06	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 2004 data exchange and any additional data (e.g. tag/recapture) received since that time. <i>The Secretariat will provided additional updates of the tag-recapture data during 2006 on request from individual members.</i>
Total catch by Fleet	all members and cooperating non-members	30 Apr 06	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.
Total Indonesian catch by month and % of Indonesian LL catch that is SBT	IOTC/ Secretariat	30 Apr 06	The Secretariat is to liaise with the IOTC to obtain the required data for 2005.
SBT import statistics	Japan	30 Apr 06	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 06	The mortality allowance (kilograms) that was used in the 2005 calendar year. Data is to be separated by RMA and SRP mortality allowance. If possible, data should also be separated by month and location.
Global SBT catch by flag and by gear	Secretariat	14 May 06	Global SBT catch by flag and gear as provided in recent reports of the Scientific Committee.
Catch and Effort	all members (& Secretariat)	23 Apr 06 (New Zealand) <sup>3</sup> 30 Apr 06 (other members & Secretariat) 31 May 06 (Korea) <sup>4</sup>	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. A template showing the required information is provided in Attachment B.

<sup>2</sup> 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.

Type of Data to provide <sup>2</sup>	Data Provider(s)	Due Date	Description of data to provide
Non-retained catches for 1995 and 1996	Japan (Australia)	30 Apr 05	The following data concerning non-retained catches will be provided by year, month, and 5*5 degree for the Japanese longline fishery: <ul style="list-style-type: none"> <li>• Number of SBT reported to JFA as being non-retained;</li> <li>• Raised number of non-retained SBT taking into consideration vessels and periods in which there was no reporting of non-retained SBT;</li> <li>• Estimated size frequency of non-retained SBT after raising;</li> <li>• An agreed mortality rate for estimating the number of retained SBT that died (<i>CSIRO to locate the agreed percentages</i>)</li> </ul>
RTMP catch and effort data	Japan	30 Apr 06	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.
NZ joint venture catch and effort data at 1*1 spatial resolution	Secretariat	30 Apr 06	Aggregated New Zealand catch and effort data, to 1*1 degrees of resolution instead of 5*5 degrees. The Secretariat will produce and provide these data to Japan only for use in the W <sub>0.5</sub> and W <sub>0.8</sub> CPUE indices produced by Japan. <i>Other members may request approval from New Zealand to be provided with access to these data for necessary analyses.</i>
Raised catch data for AU, NZ and KR catches	Australia, <del>New Zealand,</del> Secretariat, Korea,	30 Apr 06 (Australia, Secretariat)  31 May 06 (Korea)	Aggregated raised catch data should be provided at a similar resolution as the catch and effort data. Japan 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.
Split of Taiwanese catch into LL1 and LL2 <b>For MP/OM</b>	Taiwan	24 May 06 <sup>3</sup>	Provide the split of the Taiwanese catch (in numbers and weight) into LL1 (target) and LL2 (non-target) for 2005.  <b>THERE HAS BEEN SOME DISCUSSION ON THE SPLIT BETWEEN LL1 and LL2 IN RELATION TO SELECTIVITY. THERE MAY BE AN ARGUMENT THAT ALL OF TAIWAN'S CATCH BELONGS IN LL2. A DECISION ON THE SPLITTING IS REQUIRED.</b>
Total catch per fishery each year from 1952 to 2004. <b>For MP/OM</b>	Secretariat ( <del>Taiwan</del> )	31 May 06	The Secretariat will use the various data sets provided above together with previously agreed calculation methods to produce the necessary total catch by fishery data required by both the Management Procedure and the Operating Model. <del>In producing these data sets, it will be assumed that all of Taiwan's catch will be attributed to the LL2 fishery. Taiwan will need to confirm this, and if the assumption is not valid for 2005, Taiwan will need to update the rule of thumb for separating the target and non-target SBT fisheries in 2005.</del>

<sup>3</sup> 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.

<sup>4</sup> Korea has been unable to meet the 30 April deadline in recent years, so a more achievable deadline for Korea is proposed.

<sup>5</sup> The date is set 1 week before 31 May to provide sufficient time for the Secretariat to process this data and produce the data required by the MP/OM on 31 May.

Type of Data to provide <sup>2</sup>	Data Provider(s)	Due Date	Description of data to provide
Observer length frequency data	New Zealand	30 Apr 06	Raw observer length frequency data as provided in previous years.  <b>Now that New Zealand provides raised length data, is there still a requirement for providing the raw observer length frequency data?</b>
Raised Length Size Data	Australia, Taiwan, Japan, New Zealand	30 Apr 06 (Australia, Taiwan, Japan)  7 May 06 (New Zealand) <sup>6</sup>	Raised length size composition data should be provided using the CCSBT agreed method 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.  <b>New Zealand provided a complete time series in 2005, but it is possible that the SAG/SC may request some changes in the calculation methods. If so, New Zealand will provide a revised time series and it is proposed that the revised series be accepted for assessment use in 2006 prior to SAG7.</b>
RTMP Length size data	Japan	30 Apr 06	The length size data from the real time monitoring program should be provided in the same format as the standard length size data is provided.
Raw Size Data	Korea	<del>30 Apr 06</del> 31 May 06 <sup>7</sup>	Raw length/weight measurement size frequency data should be provided by Korea instead of raised length size data because Korea does not yet have a suitable sample size to produce raised length sized data. <i>However, Korea is encouraged to improve its sample sizes of length size frequency data in the future.</i>
Raised Catch-at-length (2 cm bins) for Taiwan split into LL1 and LL2 <b>For OM</b>	Taiwan	24 May 06 <sup>8</sup>	Provide the raised catch-at-length data split into the LL1 and LL2 fisheries.  <b>SEE EARLIER NOTE REGARDING SPLITTING OF TAIWAN'S CATCH INTO LL1 and LL2</b>
Catch at age data	Australia, Taiwan, Japan, New Zealand	14 May 06	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.  <b>New Zealand provided a complete time series in 2005, but it is possible that the SAG/SC may request some changes in the calculation methods. If so, New Zealand will provide a revised time series and it is proposed that the revised series be accepted for assessment use in 2006 prior to SAG7.</b>
Indonesian LL SBT age and size composition	Australia	30 Apr 06	<del>Annual</del> Estimates of both the age and size composition (in percent) is to be generated by for the spawning season (July 2004 to June 2005) rather than and the 2005 calendar year. 2004 calendar year age frequency also needs to be provided. <del>Estimates will be shown for the seasons from 1994/95 to 2004/05.</del>

<sup>6</sup> 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.

<sup>7</sup> Korea has been unable to meet the 30 April deadline in recent years, so a more achievable deadline for Korea is proposed

<sup>8</sup> The date is set 1 week before 31 May to provide sufficient time for the Secretariat to process this data and produce the data required by the OM on 31 May.

Type of Data to provide <sup>2</sup>	Data Provider(s)	Due Date	Description of data to provide
Raised catch-at-age (ages 0 – 30) for Australia surface and Indonesia spawning ground fisheries. <b>For OM</b>	Australia	<del>31 May 06</del> 24 May 06 <sup>9</sup>	These data will be provided to June 2005 in the same format as previously provided for the initial management procedure data exchange.
Catch-at-length (2 cm bins) and catch-at-age proportions for OM	Secretariat (Taiwan)	31 May 06	The Secretariat will use the various catch at length size and catch at age data sets provided above to produce the necessary length frequency and age proportion data required by the operating model (for LL1, LL2, LL3, LL4 – separated by Japan and Indonesia, and the surface fishery). <del>In producing these data sets, it will be assumed that all of Taiwan's catch will be attributed to the LL2 fishery. Taiwan will need to confirm this, and if the assumption is not valid for 2005, Taiwan will need to provide an update of length frequency data for the LL2 fishery in 2005.</del>
Global catch at age	Secretariat	31 May 06	Calculate the total catch-at-age in 2005 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.  <b>This was requested in 2005 for 2004 data for a specific purpose. There may not be a need to provide this in future years.</b>
CPUE input data	<del>Australia, Japan, New Zealand</del>  Secretariat	31 May 06 (Japan, New Zealand)  2 June 06 (Secretariat)	Catch (number of SBT and number of SBT in each age class from 0-20+ using proportional aging) and effort (sets and hooks) data <sup>10</sup> by year, month, and 5*5 lat/long for use in CPUE analysis. Japan will provide an update of the CPUE input data for its longline fishery and New Zealand will provide a revised time series for its joint venture fishery. <b>It is proposed that the revised series from New Zealand be accepted for assessment use in 2006 prior to SAG7.</b>  The Secretariat will combine the updated CPUE inputs from Japan and New Zealand, with the CPUE inputs file provided at the 2005 data exchange by Australia to produce an amalgamated inputs file.  <i>For 2006, this data will be produced by both Australia and Japan. However, it is considered appropriate for the Secretariat to take over this role at some stage in the future (maybe 2007). In 2004, minor differences were discovered in the proportional aging data produced by Australia and Japan. It is possible that this was due to the time of month used in these calculations and it is recommended that Australia and Japan investigate this possibility for the differences during 2004</i>

<sup>9</sup> The date is set 1 week before 31 May to provide sufficient time for the Secretariat to incorporate these data in the data set it provides for the OM on 31 May.

<sup>10</sup> Data restricted to months April to September, SBT statistical areas 4-9, and the Japanese, Australian joint venture and New Zealand joint venture fleets.

Type of Data to provide <sup>2</sup>	Data Provider(s)	Due Date	Description of data to provide
CPUE series. <b>For OM/MP</b>	Australia / Japan	31 May 06	5 CPUE series are to be provided for ages 4+, as specified below: <ul style="list-style-type: none"> <li>• Nominal (Australia)</li> <li>• Laslett Core Area (Australia)</li> <li>• B-Ratio proxy (W0.5) (Japan)</li> <li>• Geostat proxy (W0.8) (Japan)</li> <li>• ST Windows (Japan)</li> </ul> The operating model uses the median of these series.
Direct ageing data	All members <b>Is Korea able to contribute?</b>	30 Apr 06	Updated direct age estimates from otolith collections. <b>Data must be provided</b> for at least the 2003 calendar year (see paragraph 95 of the 2003 ESC report). <b>The Suggested</b> format for each otolith is: Flag, Year, Month, Lat, Long, Length, Otolith ID, Age estimate, Comments.
Tag return summary data	Secretariat	30 Apr 06	Updated summary of the number tagged and recaptured per month and season.
Tag releases / recoveries and reporting rates. <b>For OM</b>	Australia	31 May 06	The RMP tag/recapture data for the period 1991-1997 will be updated for any changed/new data in the database.
Acoustic index of age 1 SBT off Western Australia	Japan	31 May 06	Estimates from the 2005/06 season sampling.
Aerial survey index	Australia	31 Jul 06	Estimates from the 2005/06 fishing season.
Mean length-at-age by year and season, and CV of length-at-age	-	-	<del>There are no plans for updating these data for the</del> <b>This</b> was not updated during the 2005 data exchange. This item has only been included in this table as a reminder that discussion still needs to be held between members on the need for updating these data.



**Template for Aggregated catch and effort data.**

- Notes: (1) **This information should be recorded for all commercial fishing that targeted SBT, or that caught SBT while targeting other species**  
 (2) Contact the Secretariat for details of the required codes  
 (3) You can provide catch data for multiple species by placing the catch of each species on a separate line and duplicating the "effort" information (the gray shaded columns) for each line. Alternatively, you may wish to add the catch of extra species as extra columns across this spreadsheet. If you choose this option, you will need to duplicate the last 6 columns **shaded in blue** for each species you add.  
 (4) If aggregating DATE to the month, you should enter the first day of the month as the date (e.g. enter Jan-02 as 01-Jan-02)  
 (5) If you do not record the SBT STAT\_AREA\_CODE, but are providing latitude and longitude, then you can leave the statistical area blank because the Secretariat can easily calculate this.  
 (6) The LATITUDE should be in decimal degrees with S<0 and N>0. The position you supply should be the northern border of the grid  
 (7) The LONGITUDE should be in decimal degrees with W<0 and E>0. The position you supply should be the western border of the grid  
 (8) The field "N\_DAYS\_SEARCHED" should be considered optional until we agree on a standard method for estimating this.  
 (9) Certain fields are only required for certain gear types. When a field is only required for a few gear types, the codes of the required gear types are listed in **red**  
 (10) GEAR\_LENGTH should be provided in metres, as total length of net set for PS and GILL, and as total length of line for LL.  
 (11) GEAR\_DEPTH should be provided in metres, as net depth for PS and GILL, and line depth for LL. However, this should only be provided if all shots used the same depth. In this case, provide the single depth of the net/line, NOT the sum of the depths for all shots.  
 (12) SPOTTER\_TYPE\_CODE should only be provided if a single code applied to all shots in the record.  
 (13) **Important:** If fishing was conducted in the aggregated strata, but nothing was caught (or if no "relevant" species were caught), then you must record the fishing effort information, and specify the CATCH\_SPECIES as "NIL". In this case, all the other catch fields would be left empty.  
 (14) WEIGHT\_RETAINED is the whole weight of fish (of the relevant species) retained in kilograms.  
 (15) CONVERSION\_FACTOR is the value by which processed weights were multiplied to estimate the whole weight.  
 (16) SCALING\_FACTOR is the amount by which a sample weight was multiplied to calculate the weight retained. This is "1" if no scaling was required.

																Details of the catch of a species								
DATE	COUNTRY_CODE	FLEET_CODE	GEAR_CODE	TARGET_SPECIES	STAT_AREA_CODE	LATITUDE	LONGITUDE	N_BOATS	N_DAYS_SEARCHED Optional - see point "8"	N_DAYS_FISHED	N_SETS_SHOTS (GILL,LL, MWT,PS, TRAP)	N_HOOKS (LL,TROL,HAND)	N_BASKETS (LL)	N_HOURS (TROL & desirable for all methods)	GEAR_LENGTH see point "10" (PS,GILL, optional for LL)	GEAR_DEPTH see point "11" (PS,GILL, optional for LL)	SPOTTER_TYPE_CODE (PS,BB)	NUMBER_OF_POLES (BB)	CATCH_SPECIES	WEIGHT_RETAINED	CONVERSION_FACTOR	SCALING_FACTOR	NUMBER_RETAINED	NUMBER_DISCARDED

**Template for Shot by Shot catch and effort data.**

- Notes: (1) **This information should be recorded for all commercial fishing that targeted SBT, or that caught SBT while targeting other species**  
 (2) Contact the Secretariat for details of the required codes  
 (3) You can provide catch data for multiple species by placing the catch of each species on a separate line and duplicating the "effort" information (the gray shaded columns) for each line. Alternatively, you may wish to add the catch of extra species as extra columns across this spreadsheet. If you choose this option, you will need to duplicate the last 6 columns **shaded in blue** for each species you add.  
 (4) For DATETIME, provide either the date & time at the start of the shot, or just the date. The date/time should be provided in the format DD-MON-YY:HH:MM (e.g 15-Jan-01:16:05)  
 (5) If you do not record the SBT STAT\_AREA\_CODE, but are providing latitude and longitude, then you can leave the statistical area blank because the Secretariat can easily calculate this.  
 (6) The LATITUDE can be noon position, start of shot, end position, and should be in decimal degrees with S<0 and N>0. The position you supply should be the northern border of the grid  
 (7) The LONGITUDE can be noon position, start of shot, end position, and should be in decimal degrees with W<0 and E>0. The position you supply should be the western border of the grid  
 (8) The field "N\_DAYS\_SEARCHED" should be considered optional until we agree on a standard method for estimating this.  
 (9) VESSEL\_ID should be a unique identifier for the vessel. This can be a registration number, or a unique vessel key that hides the true identity of the vessel etc..  
 (10) Certain fields are only required for certain gear types. When a field is only required for a few gear types, the codes of the required gear types are listed in **red**  
 (11) GEAR\_LENGTH should be provided in metres, as total length of net set for PS and GILL, and as total length of line for LL.  
 (12) GEAR\_DEPTH should be provided in metres, as net depth for PS and GILL, and line depth for LL.  
 (13) **Important:** If fishing was conducted, but nothing was caught (or if no "relevant" species were caught), then you must record the fishing effort information, and specify the CATCH\_SPECIES as "NIL". In this case, all the other catch fields would be left empty.  
 (14) WEIGHT\_RETAINED is the whole weight of fish (of the relevant species) retained in kilograms.  
 (15) CONVERSION\_FACTOR is the value by which processed weights were multiplied to estimate the whole weight.  
 (16) SCALING\_FACTOR is the amount by which a sample weight was multiplied to calculate the weight retained. This is "1" if no scaling was required.

																Details of the catch of a species						
DATETIME	COUNTRY_CODE	FLEET_CODE	GEAR_CODE	TARGET_SPECIES	STAT_AREA_CODE	LATITUDE	LONGITUDE	N_DAYS_SEARCHED Optional - see point "8"	VESSEL_ID	N_HOOKS (LL,TROL,HAND)	N_BASKETS (LL)	N_HOURS (TROL & desirable for all methods)	GEAR_LENGTH see point "11" (PS,GILL, optional for LL)	GEAR_DEPTH see point "12" (PS,GILL, optional for LL)	SPOTTER_TYPE_CODE (PS,BB)	NUMBER_OF_POLES (BB)	CATCH_SPECIES	WEIGHT_RETAINED	CONVERSION_FACTOR	SCALING_FACTOR	NUMBER_RETAINED	NUMBER_DISCARDED

## Template for Catch at Size data.

- Notes:** (1) **You should provide adjusted (raised and substituted according to agreed CCSBT protocols) catch at size data. If you are not able to adjust your raw data, then you should provide the raw (individual) length (and weight) data. Notes below in blue relate specifically to the provision of raw measurement data.**
- (2) Contact the Secretariat for details of the required codes
- (3) If aggregating CAPTURE\_DATE to the month, you should enter the first day of the month as the date (e.g. enter Jan-02 as 01-Jan-02). If aggregating to the half month, you should enter the first half month with a day of "1" and the second half month with a day of "16".
- (4) If you do not record the SBT STAT\_AREA\_CODE, but are providing latitude and longitude, then you can leave the statistical area blank because the Secretariat can easily calculate this.
- (5) The field "OTHER\_AREA\_CODE" should be completed where appropriate (e.g. Australia should record the State where these fish were captured)
- (6) The LATITUDE should be in decimal degrees with S<0 and N>0. The position you supply should be the northern border of the grid
- (7) The LONGITUDE should be in decimal degrees with W<0 and E>0. The position you supply should be the western border of the grid
- (8) LENGTH\_CLASS is the lower end of the length class in centimetres. **For raw measurement data, simply record the length of the particular fish.**
- (9) **WEIGHT is only relevant when raw (individual measurements) size data is provided, in which case, it is the weight of the fish in kilograms.** When length frequency data is provided, the weight should be left empty.
- (9) CLASS\_PRECISION is the size of the length class in millimetres. **This is not relevant (so leave empty) for raw measurement data.**
- (10) FREQUENCY\_RAW. **For raw measurement data, this should be "1".** Otherwise, this is the number of SBT in this length class that were actually measured including any SBT that were measured in other units (e.g. weight) and placed in this length class after a conversion to length (i.e. this includes numbers reported in the next field).
- (11) FREQUENCY\_RAW\_CONVERTED. In most cases, this will be zero. It is the number of SBT that have been placed in this length class after a conversion from different units (such as weight).
- (12) FREQUENCY\_ADJUSTED is the actual adjusted (raised and substituted) number of SBT in this length class. Because this is a calculated value, often involving small fractions of fish, this should be reported as a real number with up to six decimal places. **Naturally, this field should be left empty for raw measurement data.**

CAPTURE_ DATE	COUNTRY_ CODE	FLEET_ CODE	GEAR_ CODE	STAT_ AREA_ CODE	OTHER_ AREA_ CODE	LATITUDE	LONGITUDE	LENGTH_ CLASS	WEIGHT	CLASS_ PRECISION (=class size)	FREQUENCY_ RAW	FREQUENCY_ RAW_ CONVERTED	FREQUENCY_ ADJUSTED
------------------	------------------	----------------	---------------	------------------------	-------------------------	----------	-----------	------------------	--------	--------------------------------------	-------------------	---------------------------------	------------------------