



CCSBT-ESC/1107/04

Secretariat Review of Catches (ESC agenda item 4.2)

This paper provides an update of global SBT catch estimates.

1) Global SBT Catch by Flag

The global catch by flag is provided at Attachment A. The estimated catch for the 2010 calendar year was 10450t.

The figures in Attachment A that differ from those in the report of the 2010 Extended Scientific Committee meeting are shown in bold type. These differences are due to Taiwan providing revised figures for their total catch for 2009.

For the Global Catch Table, the following should once again be noted:

- The column for “Retrospective unreported catch estimate scenarios” is separated into a surface fisheries catch scenario and a longline fisheries catch scenario. However, due to confidentiality that still exists in relation to these catch scenarios, the Secretariat recommends that the global catch table in the ESC report should:
 - exclude the retrospective catch estimate scenarios; and
 - contain the following explanatory text:

“Reviews of southern bluefin tuna data presented to a Special Meeting of the Commission in 2006 suggested that the catches may have been substantially under-reported over the previous 10 to 20 years, and the data presented here do not yet include estimates for this unreported catch”

In addition, due to confidentiality concerns, the Secretariat recommends that Attachment A of the present paper be excluded from the public domain.

2) Trade Information and Catch Documentation Scheme statistics

At ESC12, the meeting requested that the Secretariat provide Trade Information Scheme (TIS) information for future meetings of the ESC.

The complete details of the TIS scheme are available on the CCSBT web site at:

http://www.ccsbt.org/docs/pdf/about_the_commission/trade_information_scheme.pdf

It should be noted that the TIS was not designed for estimating global catches and that the TIS has a number of major limitations in relation to estimation of global catches. These limitations include:

- The scheme only considers exports of SBT. Domestically consumed SBT are not covered by the scheme;
- For tuna farms, the scheme records the final weight of the farmed product, not the weight of the original catch (there are however, separate national TIS reporting requirements for farmed tuna).

- Japan does not treat landings from the New Zealand charter fleet as being imports, so the catch of these vessels often does not appear in the TIS.
- There are significant time lags between catch, export and import for some SBT fisheries. This results in lengthy delays (up to 2 years) before full catch information is available.
- The scheme involves reporting of net weights and product types on TIS documents, but no conversion factors have been agreed for converting these to whole weight estimates.
- Full details (including catching year, area and product type) from the TIS are only received when SBT are exported to a CCSBT Member or Cooperating Non-Member. When SBT is exported to a non member, the Secretariat receives net weight and export date from the exporter, but there is no requirement to provide product type or any catch details.

The Trade Information Scheme ended on 31 December 2009, and was replaced by the Catch Documentation Scheme as of 1 January 2010. Subsequently, data reported for 2010 are taken from the CDS scheme.

The complete details of the CDS scheme are available on the CCSBT web site at:
http://www.ccsbt.org/userfiles/file/docs_english/operational_resolutions/Resolution_CDS.pdf

As the CDS Scheme is designed to document all catch of SBT (including Domestic Landings as well as Trade/Exports), the figures for 2010 (taken from the CDS scheme) should much more accurately reflect the actual catch of SBT as shown in Attachment A. However, there are some limitations to the CDS that should be noted:

- The time lags between catch, landing, export and import for some SBT fisheries can result in lengthy delays before all catch information is available
- The scheme involves reporting of net weights and product types on CDS documents, but no conversion factors have been agreed for converting these to whole weight estimates. Conversion Factors are provided on the CDS form in some cases, for some product types.

Bearing in mind the above limitations of the TIS and CDS, Table 1 of Attachment B provides a summary of the catch per year and flag. Table 1(a) uses data obtained from importers under the TIS scheme. Table 1(b) uses data from both Catch Monitoring Forms (for Wild Caught SBT) and Farm Stocking Forms (for Farmed SBT) under the CDS Scheme.

Comparing Member specific catches for 2010 between Attachment A and Table 1b of Attachment B, it can be seen that the CDS catch estimates for the Members with distant water fleets (Korea, Japan, Taiwan) are lower (75% to 84% of the nationally reported catch) than those Members with near-shore fleets (Indonesia, Australia, New Zealand) in which the CDS catch estimates ranged from 90% to 100% of the nationally reported figures. The reduced CDS catch estimates for distant water fleets is presumably due to the time lag between catch and when the first CDS documents are produced (i.e. landing or exporting etc.). It is therefore expected that the 2010 CDS catch estimates will be higher for these fleets when these figures are produced again in 2012.

Table 2 shows the conversion factors used in producing Table 1.

Table 3 shows the net weight of SBT exported to different importing countries. The first full export year for which this type of data is available is 2003. For each year from 2003 to 2010, over 98% of SBT exports were sent to Japan.

3) Methods used by CCSBT Members to raise processed weights to whole weights for reporting total catches

The following table details conversion factors that were supplied as a part of the 2008 Data Exchange, or have been provided since.

Member / CNM	Response																																												
Australia	<p>The total catch by fleet statistics for the Australian longline fishery are calculated as whole weight by applying conversion factors to the weights reported on the Catch Disposal Records (Form CR4A). See Working Paper CCSBT-ESC/0709/32 for a copy of this form. The conversion factor applied depends on the process form code of the landed fish: Code A is for gilled and gutted fish with gill plates and tail removed; Code B is for gilled and gutted fish without gill plates or tail removed; Code W is for whole fish. The purse seine fishery catch is calculated by multiplying average live weights of the forty fish sample by the fish counts from the tow cage to farm cage transfers (including numbers of mortalities).</p> <p>Type A gutted, gill plate and tail wholly removed: $1.176 * \text{processed weight} + 1.0\text{kg per fish}$ Type B gutted, gill plate and tail not removed: $1.12 * \text{processed weight} + 1.0\text{kg per fish}$</p>																																												
Japan	Uses a conversion factor of 1.15 to convert gilled and gutted product to whole weights as agreed in the Trilateral workshop in 1994.																																												
New Zealand	<p>The conversion factors used by New Zealand for converting processed weights of SBT to whole weights are below:</p> <table border="1"> <thead> <tr> <th>State</th> <th>Description</th> <th>Conversion Factor</th> <th>Used in the last 2 years</th> </tr> </thead> <tbody> <tr> <td>DRE</td> <td>Dressed</td> <td>1.8</td> <td>Y</td> </tr> <tr> <td>FIL</td> <td>Fillets skin on</td> <td>2.5</td> <td>Y</td> </tr> <tr> <td>GRE</td> <td>Green</td> <td>1</td> <td>Y</td> </tr> <tr> <td>GUT</td> <td>Gutted</td> <td>1.1</td> <td>Y</td> </tr> <tr> <td>HGU</td> <td>Headed and gutted</td> <td>1.5</td> <td>Y</td> </tr> <tr> <td>GGO</td> <td>Gilled and gutted tail on</td> <td>1.1</td> <td>Y</td> </tr> <tr> <td>GGT</td> <td>Gilled and gutted tail off</td> <td>1.15</td> <td>Y</td> </tr> <tr> <td>MEA</td> <td>Fish meal</td> <td>5.6</td> <td>Y</td> </tr> <tr> <td>SKF</td> <td>Fillets skin off</td> <td>3.1</td> <td>Y</td> </tr> <tr> <td>SUR</td> <td>Surimi</td> <td>4.3</td> <td>N</td> </tr> </tbody> </table>	State	Description	Conversion Factor	Used in the last 2 years	DRE	Dressed	1.8	Y	FIL	Fillets skin on	2.5	Y	GRE	Green	1	Y	GUT	Gutted	1.1	Y	HGU	Headed and gutted	1.5	Y	GGO	Gilled and gutted tail on	1.1	Y	GGT	Gilled and gutted tail off	1.15	Y	MEA	Fish meal	5.6	Y	SKF	Fillets skin off	3.1	Y	SUR	Surimi	4.3	N
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Taiwan	Taiwan uses a conversion factor of 1.15 to convert processed (GG) weights to whole weights.																																												
Indonesia	No Information. Conversion factors of 1.15 for GG and 1.8 for DR are used by the Secretariat to convert to whole weights.																																												
Korea	Provides processed weights, which are raised by the Secretariat by applying a conversion factor of 1.15.																																												
Philippines	Provides processed weights, which are raised by the Secretariat by applying a conversion factor of 1.15.																																												
South Africa	No Information. Conversion factors of 1.15 for GG and 1.8 for DR are used by the Secretariat to convert to whole weights.																																												
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* Highlighted cells indicate that no information has been provided on the conversion factor to use, so the Secretariat is using default conversion factors to convert to whole weights.

Attachment A

This attachment is only available in the Member's version of this document.

Summary Statistics from the CCSBT Trade Information Scheme and Catch Documentation Scheme

Table 1: Catch estimates from TIS & CDS Documents (for 2010 only). The conversion factors shown in Table 2 were used to convert processed weights into whole weight estimates. Data for 2010 are likely to be incomplete due to time lags in the CDS. No correction is made for missing documents. Due to limitations of the TIS, the TIS will usually underestimate the true weight of the catch. Highlighted cells show cases where TIS estimates are higher than nationally reported catch, which is unexpected.

Table 1(a): Estimated Whole Weight of Catch (tonnes) from TIS											
Catch Year ⁽ⁱ⁾	Australia (farms)	Australia (capture)	Japan	New Zealand	Korea	Taiwan	Indonesia	Philippines	South Africa	CCSBT RMA	Other
2001	9,166	83	0	368	735	1,380	172	43	0	0	286
2002	9,705	21	9	279	966	1,030	74	82	0	9	94
2003	9,697	33	0	306	197	1,148 ⁽ⁱⁱ⁾	49	68	5	9	26
2004	9,110	227	80	390	192	1,196	43	70	0	5	0
2005	10,534	29	84	259	19	750	37	50	0	1	0
2006	9,955	2	32	123	192	732	0	50	0	1	0
2007	11,052	3	0	160	633	723	0	45	25	0	0
2008	8,153	16	3	104	1,321	618	112	50	0	0	0
2009	8,546	150	0	183	597	438	22	47	0	0	0

Table 1(b): Estimated Whole Weight of Catch (tonnes) from CDS											
Catch Year ⁽ⁱⁱⁱ⁾	Australia (farms) ^(iv)	Australia (capture)	Japan	New Zealand	Korea	Taiwan	Indonesia	Philippines	South Africa	CCSBT RMA	Other
2010	3,931	162	1,742	501	652	1,026	491	43	29	0	0

⁽ⁱ⁾ Catch year is not recorded on the TIS for farms, so for farms, export year has been used as a proxy for the catch year. With the exception of December catches, the catch for farms and the subsequent export usually occur in the same year.

⁽ⁱⁱ⁾ Taiwan advised that the single case where its reported catch (in 2003) was lower than the TIS estimate was due to weights for the TIS being measured at sea, which is not as accurate as its landed weight measurements (which were lower). According to Taiwan's regulations, fishers are requested to report landed weight after the sale of the catch relating to each TIS document. Taiwan advised that the landed whole weight was not higher than its reported catch.

⁽ⁱⁱⁱ⁾ Catch Year is taken from the Harvest Data provided on the Catch Monitoring Form or Farm Stocking Form (for Farms)

^(iv) Catch data from Farms is taken from the Farm Stocking Forms

Table 2: Conversion factors which were actually used to convert processed weights to whole weights in Table 1.

Flag	Product Type	Conversion Factor
NZ,ID,TW	Round	1
NZ,ID,JP,KR, TW,PH,ZA	Gilled and gutted	1.15
NZ,ID,ZA	Dressed	1.8
AU	Dressed	1.2
AU	Gilled and gutted, tail removed	1.176 x processed weight + 1kg per fish
AU	Gutted, gill plate and tail not removed	1.12 x processed weight + 1kg per fish
ID,JP,AU	Fillets	2.5
ID,JP,PH	Other	1.15

Table 3: SBT imports by country and year of export. Quantities are expressed in net weights, not whole weights. Re-exports are not included in this table.

Table 3(a): Net Weight of Imports by Country (tonnes) from TIS													
Export Year	Japan	USA	Korea	Belgium	Thailand	United Kingdom	Hong Kong	Australia	Indonesia	Netherlands	France	Singapore	Others*
2003	10,668.7	42.4	8.5	0.0	0.0	0.0	0.8	0.0	0.0	0.1	0.0		0.5
2004	10,155.8	73.3	0.7	4.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0		0.7
2005	10,319.8	81.0	72.5	10.8	3.7	0.0	0.0	0.2	0.1	0.0	0.1		1.2
2006	9,703.6	73.5	68.3	0.0	0.1	2.8	0.2	1.3	0.0	0.0	0.0		0.7
2007	10,743.4	26.0	33.8	0.0	0.0	0.0	0.1	0.1	0.9	0.0	0.0		0.0
2008	9,560.2	38.5	99.6	0	0	7.2	0.7	1.2	23.2	4.7	11.1	0.4	5.8
2009	9,677	55	4	0	0	2	1	1	0	1	2	4	6

Table 3(b): Net Weight of Imports by Country (tonnes) from CDS													
Export Year	Japan	USA	Korea	Belgium	Thailand	United Kingdom	Hong Kong	Australia	Indonesia	Netherlands	France	Singapore	Others*
2010**	9,141	80	48	0	0	0	0	0	0	0	0	15	7

* Includes: Canada, China, Italy, Germany, Philippines, Portugal, Spain, Switzerland, United Arab Emirates.

** Figures for 2010 are taken from CDS Catch Monitoring Forms where the Export Destination is known