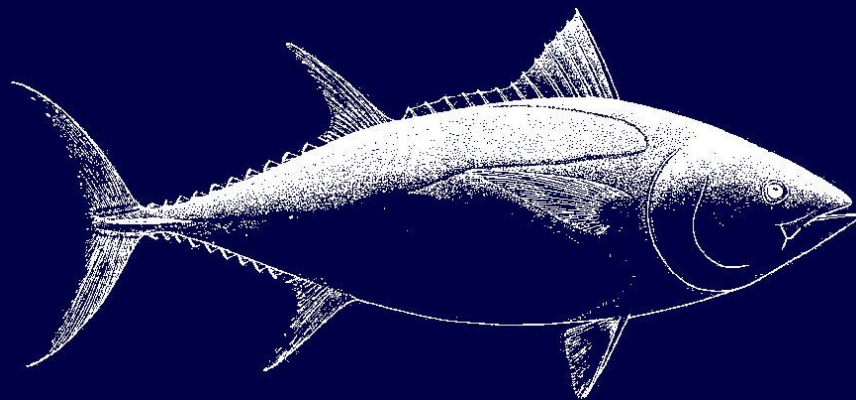


# CCSBT's Catch Documentation Scheme (CDS)

Commission for the Conservation  
of Southern Bluefin Tuna



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IOTC, CDS Working  
Group meeting, Nairobi,  
Kenya  
10 - 11 February, 2020

# CCSBT Catch Documentation Scheme (CDS)

- CCSBT's **Catch Documentation Scheme (CDS)** is one of its key compliance measures
- CCSBT's CDS records catch/ harvest of one high-value tuna species – **Southern Bluefin Tuna (SBT)**
- It records information about both wild-caught and farmed SBT
- It is paper-based
- One of the guiding principles of CDS development was that:
  - it should be capable of accounting for at least 95% of all sources of SBT mortality caused by fishing

## Purpose of the CDS

- The main objectives of the CCSBT CDS are:
  - “to provide for the tracking and validation of legitimate product flow from catch to the point of first sale on domestic or export markets”
  - Verify the level of southern bluefin tuna (SBT) catches by CCSBT Members and CNMs
  - Provide an accurate and relatively timely record of these SBT catches
  - Provide tools to prevent SBT caught by IUU fishing from entering Members’ markets

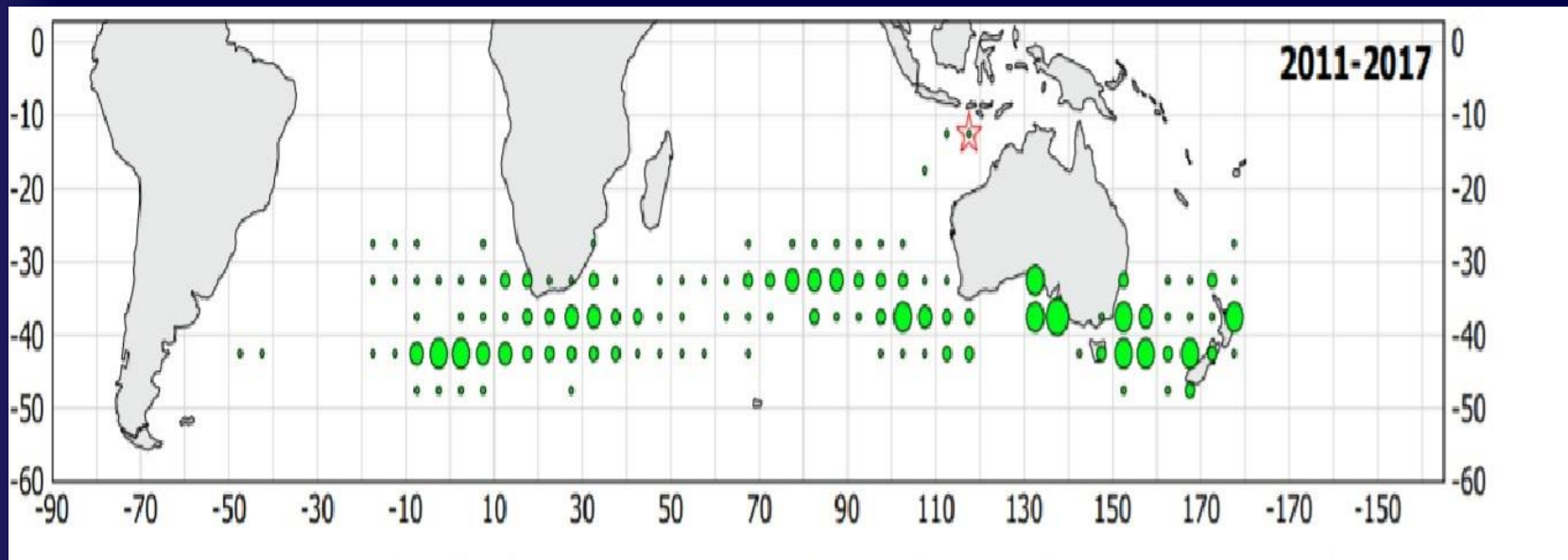
# Setting the Scene: CCSBT Membership

- CCSBT has only 8 Members, most of which are developed States
- All are required to comply with the CDS
- The USA is a non-Member market that has chosen to voluntarily comply with the CDS importer requirements

State/Entity	Year Became a Member
Australia	1994
Japan	1994
New Zealand	1994
South Korea	2001
Taiwan (Fishing Entity of)	2002
Indonesia	2008
European Union	2015
South Africa	2016

# Setting the Scene: SBT Fishery

- SBT: Catch Distribution – overlaps with the IOTC Area of Competence



# Setting the Scene: Size of SBT Fishery

- Fishery size:
  - Current (2020) global SBT TAC = 17,647t
  - In terms of the CDS, this equates to approximately:
    - » 440,000 – 540,000 SBT caught and tagged per year
    - » 350-400 vessels (mostly longliners) catching SBT per year
    - » 2800+ – 3700+ scanned forms received per year
    - » 5200 – 6500 electronic tagging forms received per year

# CDS Data Received

\* Not including a small number of farm stocking/ transfer forms (6-7 per year)

Year	No. of paper CDS Documents Received per Year*	Total No. Data Entry (including filing) Days
2015	2858	30
2016	3243	35
2017	3543	36
2018	3735	39

Year	No. of CDS Electronic Tagging Documents Received per Year	No. of SBT Tagged per Year
2015	5202	463,386
2016	5653	480,797
2017	5516	441,829
2018	6458	536,937

## Why was the CDS Introduced?

- Prior to the CDS, the CCSBT had a Trade Information Scheme (TIS)
- The TIS only documented international trade of SBT
- There was an information gap about domestic landings for domestic consumption
- The CDS eliminates this gap because it records both international trade and domestic sales
- A benefit of the CDS evolving from the TIS was that many of the required data structures for the CDS were already in place, e.g. database tables of authorised vessels, people, companies, gear, etc



# Development of CCSBT's CDS

- **CCSBT's CDS:**
  - Was agreed in 2008,
  - Systems were developed in 2009,
  - It has been in operation since 1 January 2010, i.e.10 years
  
- **Associated Documents**
  - The CDS Resolution sets out the CDS requirements
  
  - The Minimum Performance Requirements (MPRs) set out the CDS obligations and what is required to meet them in more detail

# CCSBT CDS: Key Characteristics

- There are 5 CDS form types:
  - Catch Monitoring Form (CMF),
  - Re-export/ Export after Landing of Domestic Product Form (REEF),
  - Catch Tagging Form (CTF)
  - Farm Stocking Form (FSF),
  - Farm Transfer Form (FTF)
  
- **Note:**  
The CDS is not required to be used for trade of fish parts such as eyes, roe, guts and tails

## CDS Benefits: Information Captured

- CDS forms record many items including:
  - Weights, numbers, processed type of SBT caught/ harvested
  - When and where SBT caught/ harvested
  - Key reference data e.g. vessels/ farms/ organisations/ people (e.g validators, certifiers, exporters, importers, masters, observers)
  - Certifications and validations
  - Transhipment information
  - Domestic landing, export, re-export, and import information

## Benefits: Certification & Validation

- Every CDS document needs to be **certified** (signed) to confirm various information provided is, 'complete, true and correct'
- Almost every CDS document (except tagging and farm transfer forms) also need to be **validated** (signed) by an authorised validator
- Validation comprises an overall check of a CDS form to confirm all details have been fully and accurately recorded and match the shipment
- Validation is carried out by an authorised validator who is either:
  - A Government official, or
  - An individual delegated to act as an authorised validator on the Government's behalf

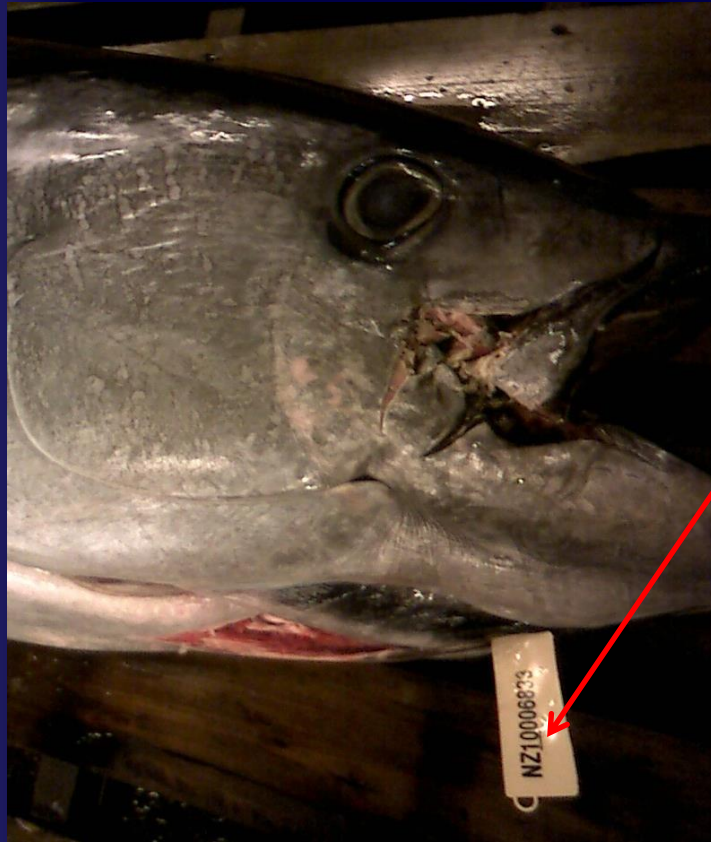
# Example Form – Catch Monitoring Form (CMF)

Commission for the Conservation of Southern Bluefin Tuna		<b>CATCH MONITORING FORM</b>		Document Number		
Catch Logging Form Document Numbers		Catch Documentation Scheme		CM -		
<b>CATCH / HARVEST SECTION - Tick and complete only one part</b>						
<input type="checkbox"/> For Wild Fishery Name of Catching Vessel Registration Number Flag State/Fishing Entity						
Or						
<input type="checkbox"/> For Farmed SBT CCSBT Farm Serial Number Name of Farm						
Document Number(s) of associated Farm Stocking (FS) Form(s)						
Description of Fish						
Product: F (fresh) / FR (frozen)	Type: RD/GGQ/GG/CRQ/CR/FL/OT*	Month of Catch/ Harvest (mmyy)	Gear Code	CCSBT Statistical Area	Net Weight (kg)	Total Number of whole fish (including RD/GGQ/GG/CRQ/CR)
* For Other (OT): Describe the Type of Product				* For Other (OT): Specify Conversion Factor		
Name of Processing Establishment (if applicable)			Address of Processing Establishment (if applicable)			
Validation by Authority (not required for exports transhipped at sea): I validate that the above information is complete, true and correct to the best of my knowledge and belief.						
Name and Title				Signature		
<b>INTERMEDIATE PRODUCT DESTINATION SECTION - (only for transhipments and/or exports) - tick and complete required part(s)</b>						
<input type="checkbox"/> Transhipment Certification by Master of Fishing Vessel: I certify that the catch/harvest information is complete, true and correct to the best of my knowledge and belief.						
Name		Date		Signature		
Name of Receiving Vessel Registration Number Flag State/Fishing Entity						
And /						
Certification by Master of Receiving Vessel: I certify that the above information is complete, true and correct to the best of my knowledge and belief.						
Name		Date		Signature		
Signature of Observer (only for transhipment at sea):						
Name		Date		Signature		
<input type="checkbox"/> Export						
City		State or Province		State/Fishing Entity		
				Licence/Issued (State/Fishing Entity)		
* For transhipments on the high seas, enter the CCSBT Statistical Area instead of State/Fishing Entity and leave other fields blank.						
Certification by Exporter: I certify that the above information is complete, true and correct to the best of my knowledge and belief.						
Name		Licence No. / Company Name		Date		
				Signature		
Validation by Authority: I validate that the above information is complete, true and correct to the best of my knowledge and belief.						
Name and Title				Signature		
<b>FINAL PRODUCT DESTINATION SECTION - tick and complete only one destination</b>						
<input type="checkbox"/> Landing of Domestic Product for Domestic sale. Certification of Domestic Sale: I certify that the above information is complete, true and correct to the best of my knowledge and belief.						
Name		Address		Date		
				Signature		
				Type: RD/GGQ/GG/CRQ/CR/FL/OT		
				Weight (kg)		
Or						
<input type="checkbox"/> Import						
City		State or Province		State/Fishing Entity		
Certification by Importer: I certify that the above information is complete, true and correct to the best of my knowledge and belief.						
Name		Address		Date		
				Signature		
				Type: RD/GGQ/GG/CRQ/CR/FL/OT		
				Weight (kg)		

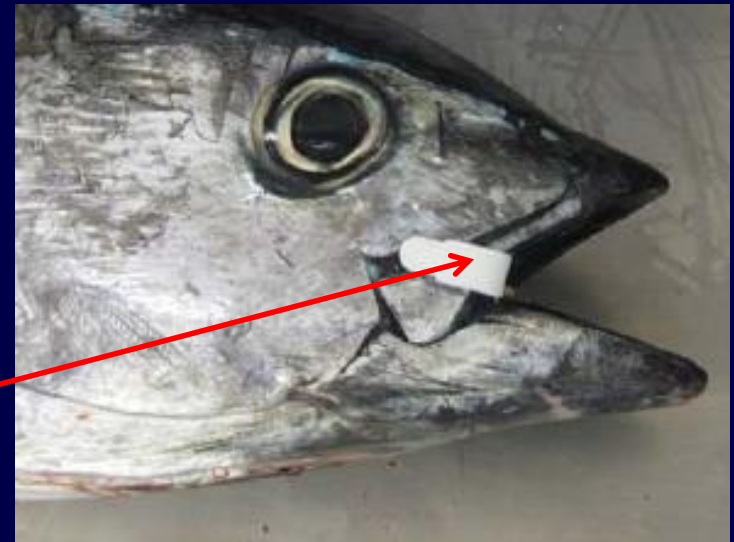
## CDS Benefits: Unique Tags for Each 'Whole' SBT

- Tags are mandatory for 'whole' SBT
- All SBT wild-caught or harvested from farms must immediately be tagged upon kill unless no longer 'whole' e.g. filleted – additional traceability
- Tags must meet defined CCSBT standards
- Tags are either ordered from CCSBT's tag manufacturer or manufactured by the Member
- Tags stay on 'whole' fish until at least the first point of sale

# CCSBT Tags



Centralised tag



Australian tag

# Artisanal Fisheries

- The only SBT artisanal fishery recorded to date is for Indonesia – SBT is unintended bycatch
- There is no special treatment for Indonesia's artisanal fishery
- Any SBT that is caught is required to be recorded on CDS forms and tagged
- It is possible that some artisanal catch enters the CDS by being transferred from small artisanal to larger Indonesian fishing vessels
- NZ provides a best estimate of any 'customary' catch – which was 0t for 2018/19



## Paper-Based CCSBT CDS: What Does it Mean?

- The CCSBT CDS is primarily a paper-based system
- Most information is recorded on paper forms by the Member and the Secretariat receives scanned copies of those forms
- The scanned copies are then manually data entered by the Secretariat and the data is stored in a SQL database
- Australia is an exception – it submits most of its information in standardised Excel spreadsheets:
  - these are uploaded into the Secretariat's SQL database

# Data Entry Screen for a Catch Monitoring Form (CMF)

CDS - Catch Monitoring Form

System ID:

Document Number:

Change Entry Dates

Catch Country:

View Record History

Catch Country:

Catch Country:

Final Destination:

Received from Catch Country

Received from Final Destination

Catch Tagging Form(s):

Wild

Farm

Description of Fish:

Use a Range of Harvest Dates

Total Weight: 0

Total Number: 0

Processor ID:

Validator ID:

Seal:

Validator Signed:

Validation Date:

Date Guessed:

Transshipment

Export

FV Master ID:

Carrier ID:

CV Master ID:

Observer ID:

Master Signed:

Date:

Date Guessed:

High Seas Transshipment:

Stat Area of Transshipment:

Export City:

Export State:

Export Country:

Destination:

Exporter ID:

Validator ID:

Seal:

Validator Signed:

Validation Date:

Date Guessed:

Domestic

Total Weight: 0

Label12

Errors/Additional Information:

Secretariat Comments:

Members Comments:

Document Number Validation

CMF Document Number:

Catch Tagging Form Numbers:

Check CTFs

Finalised?

No Follow Up

Data incomplete

Save

Cancel

## Paper-Based CDS: What Does it Mean? (contd)

- All Members submit tagging data to the Secretariat in standardised Excel spreadsheets
- These spreadsheets are also uploaded into the Secretariat's database
- Once in the database, data can be queried and different data sets reconciled against each other to check for discrepancies

## Disadvantages of CCSBT's Paper-based CDS

- Members:
  - Generally must record all information on paper forms
  - Paper forms or scanned copies must be submitted at set times
  - Significant effort may be spent responding to Secretariat data queries
- Secretariat:
  - Generally requires a high percentage of Secretariat resources to manage many manual processes, e.g.
    - coordinating receipt of data and data entry
    - following-up late and missing data submissions
    - checking data quality
    - running reconciliations/ checking for discrepancies
    - potentially storing a large volume of paper forms

# Disadvantages contd



# General Disadvantages of a Paper-based CDS

## General:

- There are more likely to be data issues e.g. due to data not being automatically checked as initially recorded or from data entry errors
- There may be a long time-lag (9 months+) in CDS data being available to the Secretariat/ Commission – if so:
  - CDS alone cannot be used to monitor catch against allocation real-time
- A significant learning period may be required for new Members to understand and comply with CDS processes
- Member understanding of CDS processes can be lost with personnel changes if handovers are not conducted thoroughly

## Advantages of Paper CDS: General

- May not require Members to have/ use their own complex data systems
- May not require Members to have regular internet access
- Still works if mobile technologies fail
- May be easier to fill in paper at sea

## Advantages of an eCDS: General

- Data will generally be collected and stored electronically as soon as the fish is captured
- Automated checks on data can be made as data are entered into the system – often in real-time
- There is little or no time-lag in having CDS data available – catch against allocation may potentially be monitored in real-time
- An automated audit trail can be kept of any amendments to data
- Will likely require less resources to administer



## CCSBT CDS: Development Costs

- The CDS was developed in-house by the Secretariat's Data Manager
- Therefore no special funding or other support was provided for the CDS
- Any financial costs were covered within the existing CCSBT budget
- Secretariat personnel development effort was approximately:
  - 75% of the Data Manager's (DM's) hours over 6-8 months
  - followed by approx. 10% of DM's hours thereafter
- Development time/effort was reduced because:
  - the CDS used all the reference data (e.g. people, vessels, farms) and related systems that already existed for the preceding TIS,
  - Most of the new development needed for the CDS was only to design and code data entry/viewing windows

# CCSBT CDS: Annual Running Costs

- Members:

There are generally no financial costs outside of the regular CCSBT budget  
- except for buying tags: approx. 31-35 Yen/tag or AUD 45c/tag

- Software costs:

- Very minor – generally only free software products or software purchased historically have been used

- Secretariat Personnel time:

Data Manager: approx. 10-20% of hours/ annum

Compliance Manager

(prior to having assistant): approx. 30-40% of hours/ annum

(after having assistant): approx. 20-25% of hours/ annum

Casual Staff: Data Entry+CDS Assistant approx. AUD \$15,000/annum

## Upcoming Developments at CCSBT

- CCSBT is now in a period of potential change with respect to its CDS
- In 2019 the CCSBT commenced updating its existing database systems to the Pacific Community's TUFMAN 2 software which is a suitable platform on which to develop an eCDS
- In Oct 2019, Members also agreed to set funds aside (AUD \$150,000 ) to build a trial electronic CDS (eCDS) based on the current CDS Resolution (delivery due by 30 Sep 2020)
- The majority of the development work will be done by a contractor, with some assistance from the Secretariat's Data Manager

# Points of Consideration for IOTC

## (1. General)

- It is better to agree a CDS Resolution before CDS development starts
- Check if there are opportunities to harmonise with other RFMOs
- Define at what point the CDS starts and stops
  - Do you want traceability from vessel to plate or vessel to first point of sale, etc?
  - What happens in the CDS when product is exported to a non-cooperating non-Member
- Decide if the system is to be used to assist with monitoring real-time catch against allocation?
- Decide species/ product types be covered by the CDS?

# Points of Consideration for IOTC

## (1. General)

- Consider what is necessary in the CDS to cater for import markets?
- Consider how much catcher/ exporter CDS information importers should be able to see/ have access to
- If necessary, decide whether data captured by the CDS can be used as inputs into scientific analyses

# Points of Consideration for IOTC

## (2. Resources)

- Financial implications to Members – do benefits outweigh costs in the long-term?
- Consider the administrative requirements on Members and the Secretariat:
  - Do all parties have the capacity to implement the proposed system?
  - Would additional Member/ Secretariat personnel resources be required?  
(likely greater burden with a paper-based system)
- Would workshops/training be required?  
Who would do the training?

# Points of Consideration for IOTC

## (3. IT/ Technology)

- Know what you want to develop: have clear requirements and specifications
- Check if existing software can be shared from another organisation to avoid 're-inventing the wheel'
- Know what data/ systems are already in place that could potentially be utilised e.g. the Secretariat or some Members might already have their own systems or databases that could feed directly into a central depository
- Consider if the CDS/eCDS is to be developed in-house or out-sourced and to what extent should any software and hardware be housed at the Secretariat?  
(consider cloud hosting versus physical server)

# Points of Consideration for IOTC

## (3. IT/ Technology – continued)

- Design the system so new modules can be added easily if required
- Incorporate purpose-built reporting if possible
- Ensure strong data security and backup

### Paper Versus eCDS

- It will likely more efficient to go straight to an eCDS rather than have a paper-based system first
- Consider:
  - Potential technological difficulties of implementing an eCDS e.g. internet access requirements and any bandwidth costs, etc
  - Should the system operate on mobile devices such as phones/ tablets?
  - Does there need to be a back-up paper CDS process in case an eCDS is not accessible, available, etc



QUESTIONS?

# Smoke heading for Canberra!

