

## README FILE (T2SZ/T2CS: Task 2 size/weight frequencies)

ICCAT Secretariat

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### Summary

This document briefly describes the two Task 2 size/weight frequencies types, compiled by ICCAT and publicly available on the ICCAT webpage ([www.iccat.int/en/accesingdb.html](http://www.iccat.int/en/accesingdb.html)). The first one, T2SZ - Task 2 size/weight frequencies sampled (also known as actual [de facto] size samples) contains the species-based biological samples measured/weighted by the ICCAT CPCs and reported to ICCAT. The second one, T2CS – Task 2 catch-at-size, contains the species-based estimations of the size composition of the catches, extrapolated by the ICCAT CPCs and reported to ICCAT. Only 6 species (ALB - albacore; BFT - bluefin tuna, BET - bigeye tuna, YFT - yellowfin tuna, SKJ skipjack, SWO - swordfish) have this reporting requirement. And, for each species, only the ICCAT flag CPCs with relevant catches of that species on their fisheries within a given year, should do those estimations and report them together with the corresponding methodology to the SCRS. For each species-stock, the flag CPC list requiring T2CS, can be found on the SCRS species-stock based catalogues. The annual version is published on the Vol. 4 of the [ICCAT Biannual Reports](#), specifically the Appendix 1 of the Secretariat Report on Statistics & Research (e.g.: period 1989-2019 see page 235 of the [Report for biennial period, 2020-21 PART I \(2020\) – Vol. 4 Secretariat Reports](#)).

For both dataset types T2SZ and T2CS, it is given an overall view of the content, formats and file structures.

**CAVEAT:** the CSV (comma separated values) files, one for each of the major species and groups of species (small tunas, others), replaces temporarily the standalone MS-ACCESS database published in the past (due to limitations of MS-ACCESS). These files can be read with any text editor (e.g.: [Notepad++](#)), spreadsheet (e.g.: MS-EXCEL, [LibreOffice](#)) or other specialised software (such as [R-CRAN](#)).

The Secretariat is working to replace these CSV files (and the former MS-ACCESS database version) in the mid-term, with [SQLite](#) relational database versions (more powerful and efficient).

### Content

Both T2SZ and T2CS dataset types contains information for the period 1950 to 2019 reported by the ICCAT CPCs until December 2019. Some historical datasets collected by ICCAT (port sampling, special programmes, etc.) in the past are also included to complement the officially reported data. The field “FileTypeCode” categorises the origin of those data sources. **Table 1** presents the number of datasets per “FileTypeCode” and dataset type (T2SZ/T2CS).

Table 1. Number of datasets in T2SZ and T2CS by data source origin (FileTypeCode) together with the overall ratios (%). The column Published indicates if they were included in the CSV files or not. More than 90% in both T2SZ and T2CSm are CPC based size/weight data.

FileTypeCode	FileType	Dataset number		ratios (%)		Published (Yes/No)	Remarks
		T2SZ	T2CS	T2SZ	T2CS		
OF-REP	Normal (Off. Rep)	13233	4463	91	91	Yes	
WG-EST	WG estimations (CAS or CEF)	99	250	1	5	Yes	
REFF	Reference File (contains WG-RAW)	12		0	0	NO	Old Reference files (from SG-TROP)
OF-SEC	Secretariat estimates based on Official data	61	24	0	0	Yes	Raw t2sz (used in Tropical tunas CAS estimations)
IATTC	External IATTC	19		0	0	Yes	
P-SAMP	Port sampling (eq=11)	223		2	0	Yes	
GBYP	Recovered under GBYP Program	108		1	0	Yes	
ICC-SP	ICCAT Sampling Programme (old flgs: JPN.ICCAT/etc)	206		1	0	Yes	
DR-ICC	Data recovery (payed by ICCAT, e.g. SWO-M)	42		0	0	Yes	
WG-T2F	WG (samples obtained from farmed BFT at-wild)	69		0	0	NO	Only for the use of the SG-BFT
StCams	StereoCamera measurements (transfers to cage)	67		0	0	Yes	
szAvgW	t2sz obtained from mean weights (set based)	61		0	0	NO	Old SG-BFT estimations of T2SZ (mean weight based)
MXFIS0	Mixed (FIS) unknow port (?)	17	164	0	3	Yes	ongoing work to discriminate flags
MXFIS1	Mixed (FIS) PtNoire (Congo FRA?)	51		0	0	Yes	ongoing work to discriminate flags
MXFIS2	Mixed (FIS) Abidjan (CIV?)	49		0	0	Yes	ongoing work to discriminate flags
MXFIS3	Mixed (FIS) Dakar (SEN?)	76	3	1	0	Yes	ongoing work to discriminate flags
K+Punk	Mixed(KR+PA)[no port]	11		0	0	Yes	ongoing work to discriminate flags
K+Pabi	Mixed(KR+PA)[abidjan]	6		0	0	Yes	ongoing work to discriminate flags
K+Plpa	Mixed(KR+PA)[Las Palmas]	35		0	0	Yes	ongoing work to discriminate flags
K+Pten	Mixed(KR+PA)[Tenerife]	39		0	0	Yes	ongoing work to discriminate flags
K+Pma	Mixed(KR+PA)[St Maart]	25		0	0	Yes	ongoing work to discriminate flags
K+Pcum	Mixed(KR+PA)[Cumana]	2		0	0	Yes	ongoing work to discriminate flags
K+Pcto	Mixed(KR+PA)[Cape Town]	1		0	0	Yes	ongoing work to discriminate flags
NO-PUB	Not to be published (waiting SCRS approval)		24	0	0	NO	
TOTAL		14512	4928	100	100		

More than 90% in both T2SZ and T2CS dataset types are CPC based size/weight data reported to ICCAT.

The complementary detailed catalogue on this page (<https://www.iccat.int/en/accesingdb.html>) contains important information and the corresponding metadata of each dataset for both major tuna & tuna like species and small tunas.

## Formats & structure

The CSV formats published were based on the standard structures used by the ICCAT scientific Committee (SCRS) in the recent years. Each record identifies the number of fish within a size/weight class bin. All the remainder fields (fishing flag, gear, time strata, geographical strata, etc.) characterise each record. This format (vertical orientation) is usually more flexible than the horizontal one (class bins rotated as columns).

The structure of the CSV files, specifically the fields (name, type, constrains) and their short descriptions are presented in **Table 2**.

For additional questions please contact the ICCAT Secretariat ([STATS\\_info@iccat.int](mailto:STATS_info@iccat.int)).

**Table 2** Structure of the CSV files

Field	Type	Description	Constrains	Example
<b>InProcID</b>	integer	Data set unique identifier (internal) [equal to field "DSet" in the detailed catalogue file]	n/a	38398
<b>SpeciesCode</b>	string	Species code	ICCAT codes (= FAO ISSCFG codes)	SSP
<b>YearC</b>	integer	Year (calendar)	{1950, 2019}	2019
<b>Decade</b>	integer	Decade (natural decades: 2010-19, 2000-09, 1990-99, etc.)	{1950, 2010}	2010
<b>FlagName</b>	string	Flag name	ICCAT codes (Flags table)	Chinese Taipei
<b>FleetCode</b>	string	Fleet code	ICCAT codes (Fleets table)	TAI
<b>GearGrpCode</b>	string	Gear group code	ICCAT codes (gear group table)	LL
<b>GearCode</b>	string	Gear code	ICCAT codes (gear table)	LL
<b>LorD</b>	string	Catch type (landed, discarded)	{(L, D), (landings, discards)}	L
<b>FreqTypeCode</b>	string	Frequency type code	ICCAT codes (frequency types table)	LJFL
<b>SzInterval</b>	integer	Size/weight class interval	{[1, 2, 5, 10]cm, [1, 2, 5]kg}	1
<b>FreqsGroup</b>	string	Frequency group (cm, kg) & class boundary limit	{(ll, cp, ul, un), (lower, central point, upper, unknown)}	cm (ll)
<b>SizeInfoCode</b>	string	Size/weight information code (dataset type)	{(siz, cas), (T2SZ, T2CS)}	siz
<b>FileTypeCode</b>	string	File type code	ICCAT codes (see Table 1)	OF-REP
<b>StratalD</b>	integer	Stratum unique identifier (across all T2SZ and T2CS datasets)	n/a	1612883
<b>TimePeriodCatch</b>	integer	Time period of the catch (from which the sample was taken)	{month [1, ..., 12], quarter [13, 14, 15, 16], year[17]}	12
<b>TimeStrata</b>	string	Time period stratification type	{(mm, qq, yy), (monthly, quarterly, yearly)}	mm
<b>SchoolTypeCode</b>	string	School type code (fishing modes of tropical purse fisheries)	{(FAD, FSC, n/a), (on FADs, on free schools, not applicable)}	n/a
<b>Stock</b>	string	Species based stocks (or management unit)	ICCAT codes (see <a href="#">maps</a> ) [e.g.: ALB+ATS => ALB-S]	ATS
<b>SampAreaCode</b>	string	Sampling area codes (by species: ALB, BFT, BET, YFT, SKJ; rest of species: BIL areas)	ICCAT codes (see <a href="#">maps</a> )	BIL96
<b>GeoStrata</b>	string	Geographical stratification type (rectangles, squares, sampling areas)	ICCAT codes (Square Types table) [see <a href="#">maps</a> ]	5x5
<b>QuadID</b>	integer	Quadrant identifier (clockwise)	ICCAT codes (see <a href="#">maps</a> )	3
<b>Lat</b>	float	Latitude (always positive and dependent on fields QuadID)	{0, 70}	15
<b>Lon</b>	float	Longitude (always positive and dependent on QuadID)	{0, 99}	25
<b>FishSampWGT</b>	integer	Weight (kg) of the fish sampled/caught (T2SZ/T2CS) [caution: highly incomplete/unreliable INFO]	n/a	0
<b>FishSampNUM</b>	integer	Number of fish sampled/caught (T2SZ/T2CS) [caution: highly incomplete/unreliable INFO]	n/a	0
<b>ClassFrq</b>	integer	Size (cm)/weight (kg) class bins (some outliers under revision)	Watch global outliers outside ranges [10, 600]cm and [1, 800]kg	160
<b>SexCode</b>	string	Sex code (ICCAT codes)	{(M, F, I, U), (male, female, immature, unknow)}	U
<b>Nr</b>	float	Number of fish		1