



ISC16/STATWG/INFO-2

# Common data issues for the Data Correspondents

Statistics Working Group of ISC

July 2016

Working document submitted to the ISC Statistics Working Group, International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean (ISC), 8-9 July 2016, Sapporo, Hokkaido, Japan.

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## **ISC Statistics Working Group Common data issues for the Data Correspondents**

**John Childers and Darryl Tagami**  
NOAA Fisheries  
USA

July 2015

- U.S. Pacific HMS Fisheries Data Sets
- Issues with Uploading Data
- Suggestions for Improving ISC Data Management
- Suggestions for Improving STATWG Web Page



## U.S. Pacific HMS Fisheries Data Sets

- 12 different U.S. fisheries for HMS in the Pacific Ocean
- Annual submissions to 3 RFMOs (IATTC, WCPFC, ISC)
- Categories I, II, III
- Other submissions and reports (north Pacific albacore 6-month, treaties, etc.)

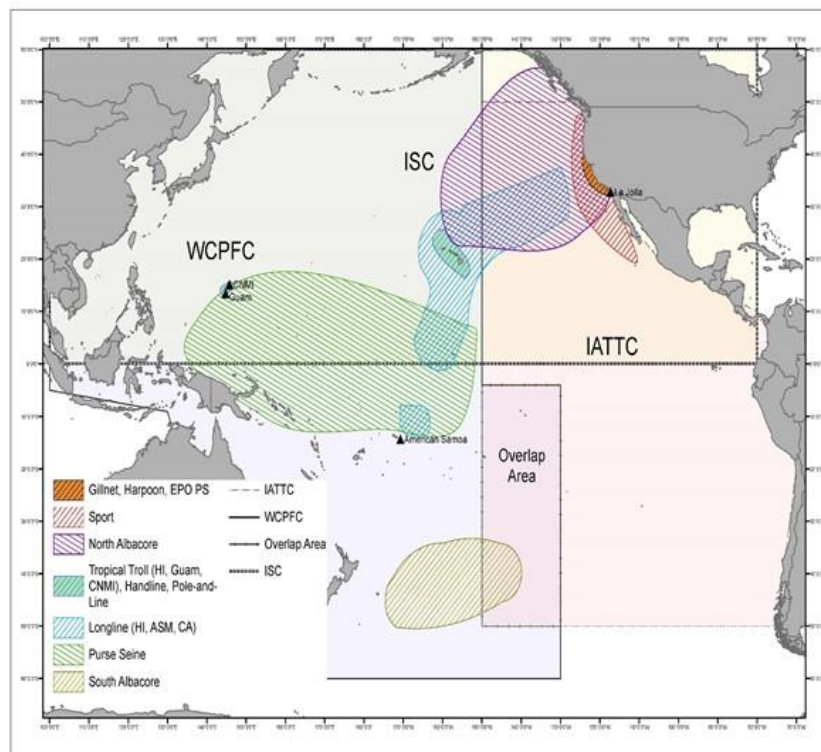


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## RFMO Areas and U.S. Fishery Extents



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## Pacific HMS Fisheries Data Sets

Fishery	Logbooks	Observer	Landings	Size Composition
North Pacific Albacore Troll	X		X	X
South Pacific Albacore Troll	X		X	
WCPO Purse Seine	X	X	X	X
EPO Purse Seine	X	X	X	X
California-based Longline	X	X	X	X
Large-mesh Drift Gillnet	X	X	X	X
California Harpoon	X		X	
Sport (private and commercial)	X			X
Hawaii-based Longline	X	X	X	X
American Samoa-based Longline	X	X	X	X
Tropical troll (Hawaii, Guam, CNMI)			X	X
Tropical Handline			X	X



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## Pacific HMS Reporting

12 fisheries x 4 data sets x 4 offices x 3 RFMOs x 3 Categories of data

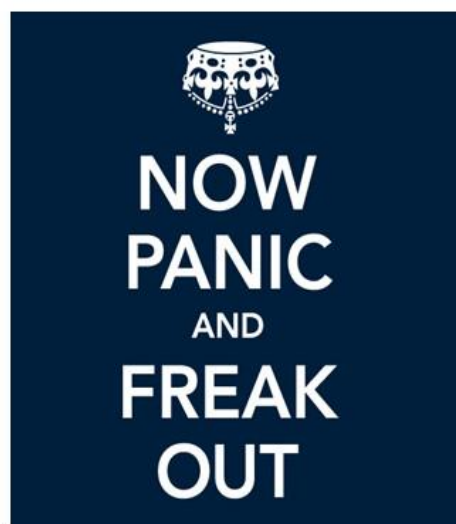
NP Albacore Troll  
SP Albacore Troll  
WCPO Purse Seine  
EPO Purse Seine  
CA Longline  
Drift Gillnet  
CA Harpoon  
Sport  
HI Longline  
AS Longline  
Tropical troll  
Tropical Handline

Logbook  
Observer  
Landings  
Size  
Composition

PIFSC  
PIRO  
SWFSC  
WCRO

ISC  
WCPFC  
IATTC

Category I  
Category II  
Category III





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## **Issues with Uploading Data : Representations of no catch**

### **ISC:**

- 0 Fishing effort was reported but no catch
- + Below 499 kg catch
- Unreported catch or catch information not available

### **SPC:**

- 0 No catches with positive effort
- No catches because of no fishing effort
- ... Potential missing values

### **IATTC:**

- 0 means no effort or catch  $<0.5$  t;
- means no data collected;
- \* means data missing or not available.

### **FAO:**

- 0 More than zero but less than half the unit used
- None; magnitude known to be nil or zero
- ... Data not available; unobtainable; data not separately available but included in another category



## Issues with Uploading Data : Codes

- Inconsistencies in the representation of no value (N/A) by ISC codes

Area size code	<b>99</b>	not in manual
Data source code	OTH	Other (specify it in notes)
Fleet code	99	Unclassified fleet
Gear code	NK	Not specified
Length type code	OTH	Other (specify in notes)
Sex code	3	Undetermined
Species code	NRF	Neritic fishes
Weight type code	OT	Other (specify it in notes)
<i>Selection of stock codes will be decided in species WGs in the future.  <b>Blank</b> is acceptable for this code until code decisions can be made.</i>		





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## Issues with Uploading Data : Codes

- AREA SIZE CODE- blanks not accepted, code for no value is not listed in data preparation manual, users must use 99 for no value
- FLEET CODE- blanks are not accepted, manual says use 99 for no value

### Data Registration

---

Error happened for this reason

This page show where this file have erro. This operation couldn't continue any more. Please fix these error and try again.

[more info...](#)

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Line: 824 column:area\_size is not found.  
Line: 825 column:area\_size is not found.  
Line: 826 column:area\_size is not found.  
Line: 827 column:area\_size is not found.

Line: 1177 column:Fleet not found in master.[]  
Line: 1178 column:Fleet not found in master.[]  
Line: 1179 column:Fleet not found in master.[]  
Line: 1180 column:Fleet not found in master.[]

## Issues with Uploading Data : Codes

- The species codes changed between the May 19 version of the manual and the June 9 version. Code PEF was changed to PEL but PEF remains in the database.
- The researchers web site does not allow uploading of species code PEF so matching rows for deleting them from the database does not work

### Data Registration

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Error happened for this reason

This page show where this file have erro. This operation couldn't continue any more. Please fix these error and try again.

[more info...](#)

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Line: 1 column:Species not found in master.[PEF]  
Line: 2 column:Species not found in master.[PEF]  
Line: 3 column:Species not found in master.[PEF]  
Line: 4 column:Species not found in master.[PEF]  
Line: 5 column:Species not found in master.[PEF]  
Line: 6 column:Species not found in master.[PEF]

## Issues with Uploading Data : Cat III

- Units of measure for length and weight classes are not listed in the manual and no field is available in the database
- Values for weight class that are over 999 are not accepted

### Data Registration

---

Error happened for this reason

This page show where this file have erro. This operation couldn't continue any more. Please fix these error and try again.

[more info...](#)

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Line: 484 column:Weight class over max.[1000]  
Line: 485 column:Weight class over max.[1025]  
Line: 486 column:Weight class over max.[1050]  
Line: 487 column:Weight class over max.[1075]



## Issues with Uploading Data : Key Codes

“When users import some data (as a set of records) into the database, the system automatically starts searching for duplicate records based on **4 key codes (Country, Year, Gear, and Species)**. “

CAT IE	CAT IC	CAT II	CAT III
Year Country Gear Fleet Ocean	Year Country Gear Fleet Ocean Catch disposition Species	Year Country Gear Fleet Ocean Catch Disposition Species Time Period Area size Quadrant Latitude Longitude : :	Year Country Gear Fleet Ocean Catch Disposition Species Time Period Area size Quadrant Latitude Longitude : : :

## Issues with Uploading Data : Key Codes

### ISC Category II Data

SC Category II Data

Key Codes

Year	Country	Gear	Fleet	Time Period	Ocean	Area size	Quadrant	Latitude	Longitude	Number of vessels	Amount of effort	Effort type	Data type	Catch disposition	Species 1	Amount of catch 1	Stock 1	Species 2	Amount of catch 2	Stock 2
2009	USA	LLD	20	2	1	6	4	30	140	3	12655	1	1	1 ALB		6		BET		15
2009	USA	LLD	20	2	1	6	4	30	140	3	12655	1	1	2 ALB		1		BET		6
2009	USA	LLD	20	2	1	6	4	30	145	14	116215	1	1	1 ALB		222		BET		110
2009	USA	LLD	20	2	1	6	4	30	145	14	116215	1	1	2 ALB		132		BET		14
2009	USA	LLD	20	2	1	6	4	30	150	5	12470	1	1	1 ALB		34		BET		12
2009	USA	LLD	20	2	1	6	4	30	150	5	12470	1	1	2 ALB		1		BET		1

Need to add Time Period, Lat, Long, Fleet and Catch Disposition to Key Codes

### IATTC Category II Data

COUNTRY	IATTC-GEAR	Year	MONTHS	AREA	LAT	LONG	RESOLUTION	VESSEL-DAYS	HOOKS	FAO-SPECIES	NUMBER	DISPOSITION
USA	GN	2013	1	EPO-NP	30.5	-135.5	1	17		ALV	22	RETAINED
USA	GN	2013	1	EPO-NP	30.5	-135.5	1	17		LAG	18	RETAINED
USA	GN	2013	1	EPO-NP	30.5	-135.5	1	17		LAG	1	DISCARDED
USA	GN	2013	1	EPO-NP	30.5	-135.5	1	17		LMD	8	RETAINED
USA	GN	2013	1	EPO-NP	30.5	-135.5	1	17		LVM	1	RETAINED

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## Suggestions for Improving ISC Data Management

- Maintain data with extended precision so that aggregated values maintain precision
- Display/report data using reporting conventions
- When representing values less than 0.5 metric tons with '+' those values cannot be aggregated.

3,815.50	3,816
3,653.50	3,654
3,660.50	3,661
3,565.50	3,566
3,576.40	3,577
<b>18,271.40</b>	<b>18,274</b>

0.5	+
0.5	+
0.5	+
<b>1.5</b>	<b>0.0</b>

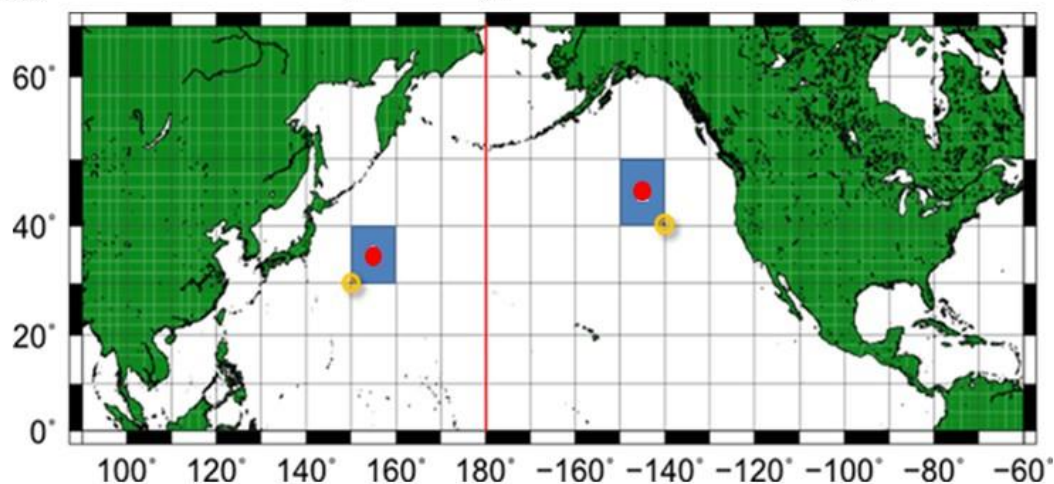




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## Suggestions for Improving ISC Data Management



Ocean	Area size	Quadrant	Latitude	Longitude
1	10	1	30	150
1	10	4	40	140

Area size	Latitude	Longitude
10	35.0	155.0
10	45.0	-145.0

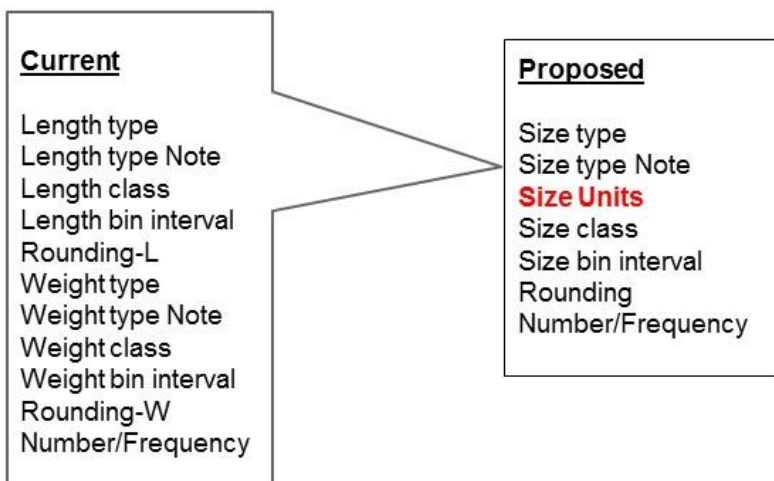


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## Suggestions for Improving ISC Data Management

### Category III Data Structure Suggestions



### Options

1. combine Length and Weight into Size
2. Specify the unit of measure to be used for length (e.g. cm) and weight (e.g. kg) in submission data
3. Add columns for unit of measure to be used for length and weight



## **Suggestions for Improving ISC Data Management**

- Revisions to the data preparation manual should be reviewed and approved by the working group prior to distribution.
- Distribution of the final draft of the manual for the current reporting year should be distributed by an appropriate date determined by the working group
- Instead of replacing values in the database, use versioning to maintain copies of all data that have been submitted by members
- Each change to codes or protocols (like quadrant code, fleet code and species code) may require a revision to the entire time series. Do users need to make changes to the previous years' data or can the DA make changes?
- New shark species have been added to the ISC species list but in previous years shark species were combined into a single shark group (SHK). The species distinction may not be available for previous years



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## Current Web Page

[http://isc.ac.affrc.go.jp/working\\_groups/statistics.html](http://isc.ac.affrc.go.jp/working_groups/statistics.html)



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ISC Schedule of Meetings

**9-10 July 2015**  
Statistics Working Group  
Workshop  
Hawaii, USA  
(Workshop)

**15-20 July 2015**  
ISC15  
Hawaii, USA  
(Plenary)

> Continue

July 2015

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Home > Working Groups > Statistics

### Statistics Working Group

#### General Information

The Statistics Working Group (STATWG) was established in 2006. The ISC has no standing Secretariat, so the STATWG oversees the tasks of data collection, compilation archival and dissemination. The STATWG is also responsible for the development and maintenance of the ISC centralized database and ISC website.

#### Data Reporting

ISC Members are required to annually report the following data:

**Category I:** total annual catch (round weight by species) and total annual effort (number of active vessels) by fishery

**Category II:** catch-effort aggregated by spatial and temporal strata (summary of logbook data)

**Category III:** biological data (size composition, length or weight frequencies, sex information)

**See more information about Data Reporting.**

#### DATA REPORTING AND EXCHANGE REQUIREMENTS AND PROTOCOL

##### DATA REPORTING AND EXCHANGE

The minimum data required for ISC fishery monitoring and resource assessment fall into three categories:

Category I: total annual catch (round weight by species) total annual effort (active vessels by fishery)

Category II: catch-effort (summary of logbook data)

Category III: biological data, (size composition, length or weight frequencies, sex information).

**CATEGORY I (Total annual catch and total annual effort):**

Total annual catch in metric tons (round weight) should be reported by gear, species and country for fisheries in the North Pacific (north of the equator). When established, data should be reported by subarea (see Section 2). If round weight is estimated from processed weight, the conversion procedure is to be noted. Total nominal effort in numbers of active vessels fishing should be reported by fishery, gear and size category for fisheries in the North Pacific. As with catch, reporting should be done by subarea of the North Pacific. However, if effort cannot be reported by subarea or even for the North Pacific, effort



## **Suggestions for Improving STATWG Web Page**

- Add a hit counter to track how many times the page is accessed.
- Outline
  - Introductory section with charter and purpose of the group
  - Describe the reporting of Cat I, II, III from members
  - Describe the coordination with working groups
  - Describe the coordination with other RFOs and obtaining non-member data.
- Add hyperlinks to each country's fisheries statistics
- Provide charts and plots.