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PROPORTION OF SBT CATCHES IN SPAWNING AREA FROM INDONESIA FLEETS 2019

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Summary

This paper provide update information on data validation from SBT catches data to confirmed location where SBT catch in spawning area. Data validation process conducted by same method from previous year, overlay various data such as Fishing Vessel's Logbook, VMS data to verify catch location declared in CDS data. Result analysis from CDS data 2019 showed that proportion number of SBT catches with less than 160 cmFL slightly decreased (29%) compared with the previous season in 2018 (34%).

Size structure SBT catches from harvesting year 2019

Southern Bluefin Tuna (*Thunnus maccoyii*) was not primary target by Indonesia longline fishery, therefore historically caught as by-catch from yellowfin and bigeye fishery. Since Indonesia implement Catch Documentation Scheme to improve data collection and monitoring SBT catch, fishing company shall fulfilled information related fishing location and size frequency into CDS form.

However, in some cases, fishermen provide inaccurate catch information whether the SBT was caught in area 1 or outside area 1. This is happen due to several companies / skipper operated their vessel to catch tuna in areas 1 and 2 in one trip or fishermen's awareness of the boundaries CCSBT convention area. In order to answer these problems, a validation process was carried out to provide valid information related to the size structure of SBT that confirmed caught in area 1.

Based on Indonesia's CDS data 2011-2019, it was reported that number of proportion SBT size less than 160 cmFL increased since 2012, this happened commonly due to LL fishery operated outside spawning area. However in 2015-2016 CDS data, even though all SBT catches declared from spawning area, number of small SBT (less than 160 cmFL) catches still record and increased in recent years (Appendix 1).

Data Validation Method

Data analysis had been conducted to confirmed the captured of SBT size less than 160 cmFL in spawning area by utilized data from observer program, logbook and VMS tracking. Data cleaning and truncation primarily based on VMS data tracking, classified if number of tracking vessel more than 70% from all tracking data in one trip was classified operated in spawning area (Appendix 1).

Based on latest analysis result, we can confirmed number of SBT less than 160 cmFL catches in spawning area since 2015-2018 were 214, 350, 621 and 701 respectively, meanwhile in 2019

number of SBT less than 160 cmFL was 651 (Appendix 3). Length frequency distribution from 2019 data mostly ranged from 130 – 160 cmFL.

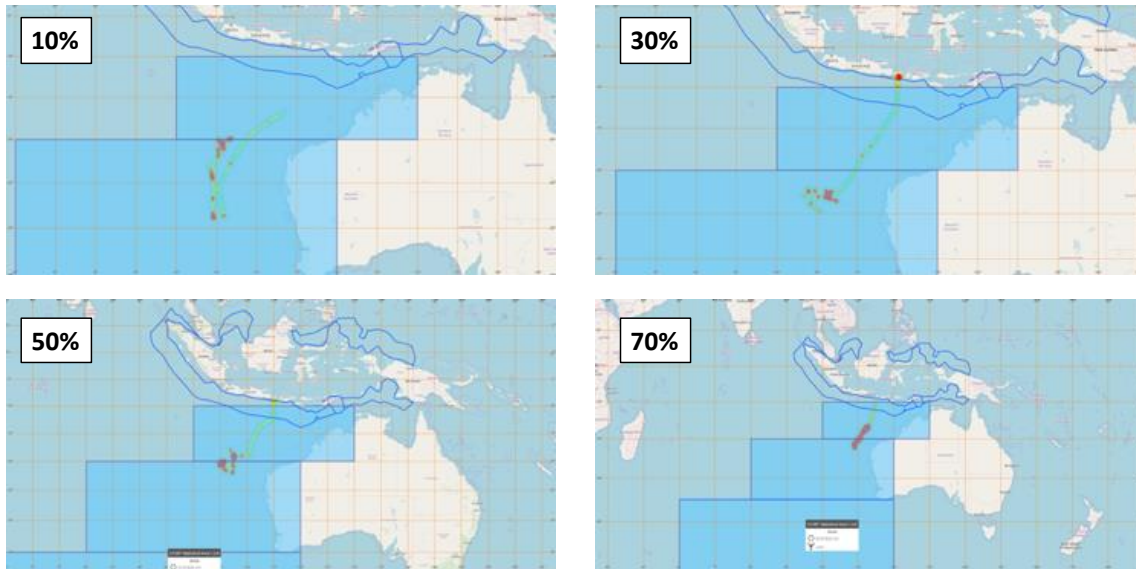
Update information based on latest result analysis provide several importance information as follows :

1. Catches of Indonesian SBT reported through CDS data submission 2015-2018 recorded an increased in number of small SBT (<160 cmFL) in the recent years with the proportion from total catches were 36.2% (2,107 fish), 37.3% (2,392 fish), 50.4% (4,851 fish) and 33.57% (3,637 fish) consecutively. Meanwhile number of SBT less than 160 cmFL from harvesting year 2019 was 22.48% (2,884 fish).
2. Size frequency of SBT less than 160cmFL confirmed being caught from spawning area in 2019 ranged between 130 – 160 cmFL.
3. The proportion from total catches of SBT less than 160 cmFL originated from spawning area from harvesting year 2019 was 5.07%.

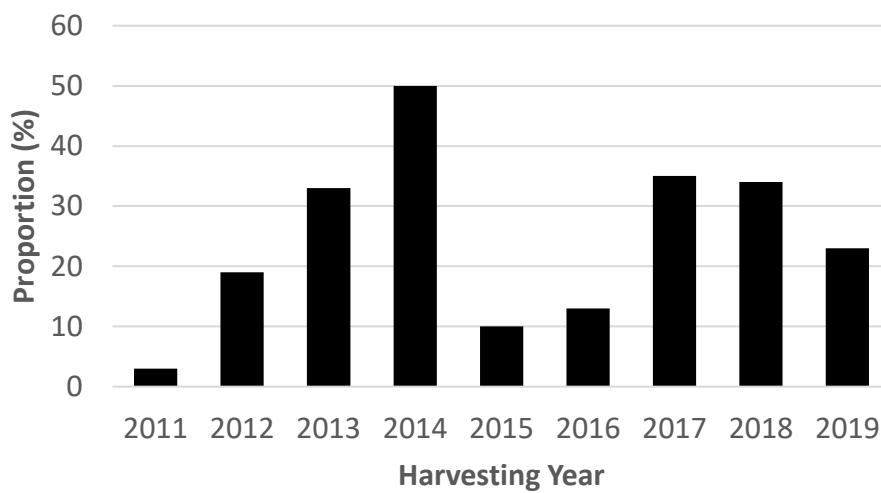
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Appendix 1. Classification of proportion number of tracking in one trip from Indonesia LL vessel based on VMS data



Appendix 2. Proportion of SBT less than 160 cmFL small SBT (<160 cmFL) caught in during harvesting year 2011-2019.



Appendix 3. Size frequency SBT catches less than 160 cmFL in spawning area 2015-2019

Length (cmFL)	Harvesting Year				
	2015	2016	2017	2018	2019
70	0	0	0	1	0
75	0	0	41	1	0
80	0	0	0	1	0
85	0	0	0	0	0
90	0	0	0	0	1
95	0	0	0	0	0
100	3	0	0	0	0
105	1	0	0	0	0
110	3	0	16	0	0
115	3	0	10	0	0
120	6	2	1	5	0
125	7	3	3	30	3
130	19	16	15	20	10
135	40	33	112	34	9
140	42	64	170	33	44
145	37	78	71	82	59
150	53	72	103	115	107
155	0	82	79	246	170
160	0	0	0	133	248