A Summary of the IOTC Regional Observer Programme During 2020

IOTC

Annual Contractor's Report

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Submitted by:

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Acronyms

ATF	Authorisation to Fish
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CDS	Catch Documents Scheme
CMF	Catch Monitoring Form
CV	Carrier Vessel
EEZ	Exclusive Economic Zone
ICCAT	International Commission for the Conservation of Atlantic Tunas
IOTC	Indian Ocean Tuna Commission
IRCS	International Radio Call Sign
LSTLV	Large Scale Tuna Longline Fishing Vessel
RAV	Record of Authorised Vessels
ROP	Regional Observer Programme
VMS	Vessel Monitoring System

1 Introduction

During the calendar year 2020, the Regional Observer Programme (ROP) monitored a total of 354 transhipments from Large Scale Tuna Longline Fishing Vessels (LSTLVs) within the Indian Ocean Tuna Commission's (IOTC) Area of Competence.

A further 1,261 transhipments took place in the Indian Ocean which were not monitored due to the suspension of observer deployments owing to the Coronavirus pandemic. These transhipments proceeded under *force majeure.*

Unobserved transhipment data were recorded in the ROP database. Transhipment declarations submitted to the IOTC Secretariat were made available to the Consortium through the Consortium and Secretariat cloud-based shared folder. These were manually entered into deployment databases for each deployment request, and from these deployment reports were produced. The integrity of the contracted reporting obligations under the ROP were upheld following this procedure. As with observed deployments, regular reports were submitted to the Secretariat summarising transhipments over that period. On occasion, the Consortium would follow up with the vessel operators and vessel captains directly to request missing information or seek clarification over the amounts of product, date/time and location of transhipments.

The total number of at-sea transhipments was higher than previous years during 2020 at 1,615. This was 298 more than recorded during 2019. This was the highest number of transhipments recorded within a year since the ROP started and greater than the average number of transhipments (1,291) from 2016-2019.

The distribution of transhipments by LSTLV fleets during 2020 was broadly similar to previous years. As shown in Figure 1a for percentage contribution in 2020 and Figure 1b for percentage contribution averaged across 2016-2019. Due to most transhipments in 2020 being unobserved because of the Coronavirus pandemic, Figure 1b (not previously reported) has been included to draw comparison with previous years.

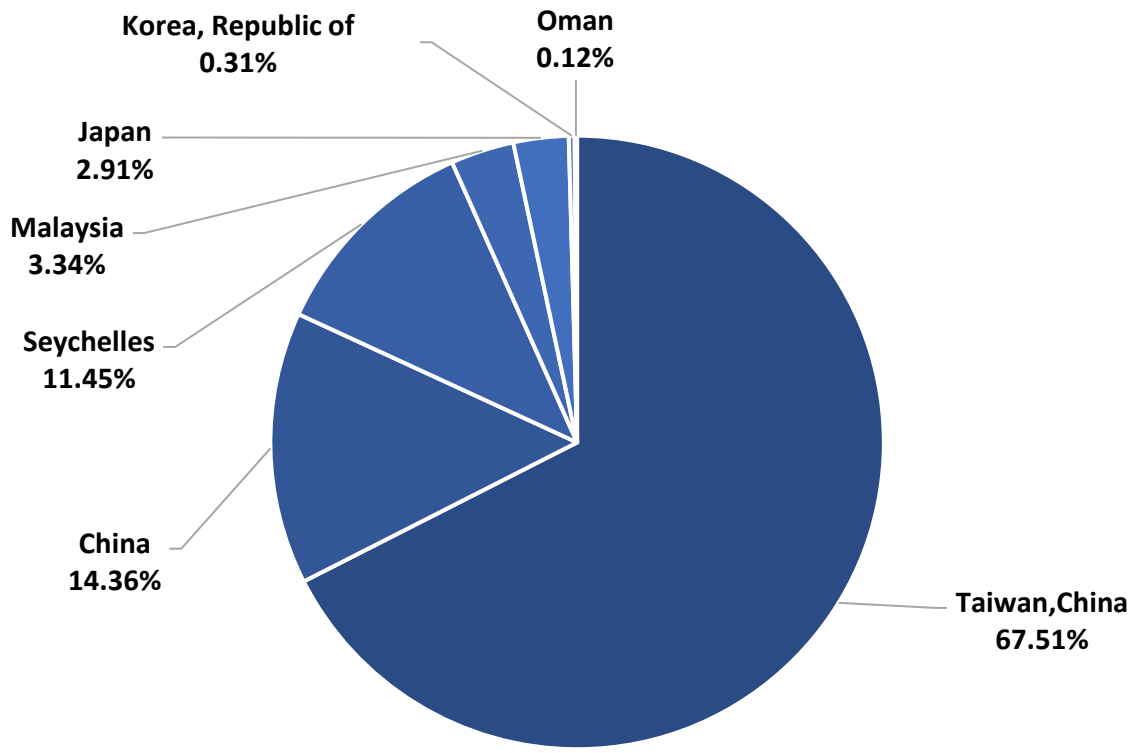

Figure 1a Percentage contribution by fleet to the total number of IOTC transhipments during 2020.

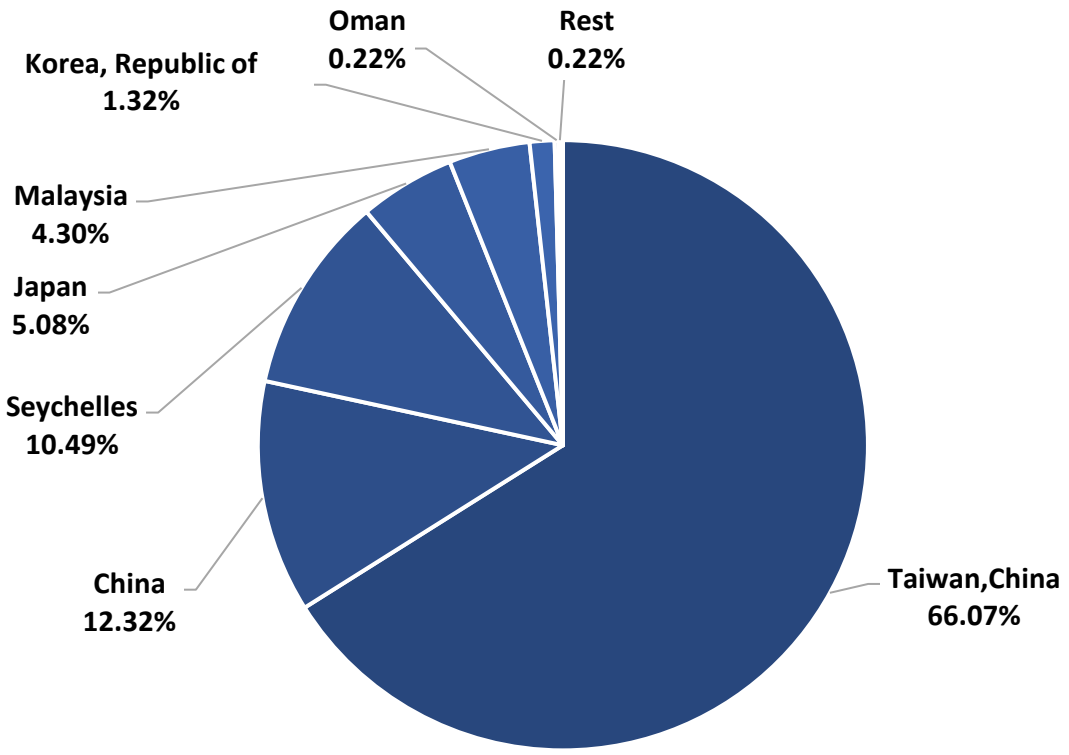

Figure 2b Percentage contribution by fleet to the total number of IOTC transhipments averaged across 2016-2019[1].

Deployments started during 2020 (both observed and unobserved) were broadly similar to previous years by percentage contribution of vessel fleets. These occurred with CVs predominantly flagged to Taiwan, Province of China (30%), followed by Panama (29%), Malaysia (14%), Republic of Korea (11%), Japan (8%), Liberia (6%), and Singapore (3%). The biggest increase was noted in deployment requests for Carrier Vessel flagged to Panama (up 10%, 6 deployments on 2019), whereas deployment requests for Carrier Vessels flagged to Liberia and Singapore were fewer.

A summary of the ROP deployment requests (i.e., the number of CV trips) during 2020 is shown in Figure 2**Error! Reference source not found.**. In total, 63 Carrier Vessel deployments commenced their voyage during 2020, this started with ROP request 603/20 and concluded with ROP request 668/20. Of these, 14 deployments were monitored by an IOTC ROP observer, 49 proceeded under *force majeure* as a non-observed deployment due to the Coronavirus pandemic. Three deployment requests were cancelled. Due to the Coronavirus pandemic and the closure of repatriation ports available to the observers, a number of observers remained perpetually deployed for some months, either remaining onboard and redeploying on the same vessel or transferring to another CV. This happened across seven deployments.

Three observer deployments continued directly onto or came from the regulatory area of the International Commission for the Conservation of Atlantic Tunas (ICCAT) without making a port call at the point of crossing. The number of deployments requests were highest during May-June, peaking with 18 active Carrier Vessels (both observed and unobserved). Figure 3**Error! Reference source not found.** shows the annual cycle of deployments in 2020, for observed and unobserved deployments as well as an average for deployments across 2015-2019 as a comparison.

IOTC ROP observer deployments were suspended in March of 2020 due to the Coronavirus pandemic. Prior to this, Carrier Vessel activity was beneath the average for this time of year, probably due to the early impacts of the spread of the virus across east Asia. Following the suspension, the number of active Carrier Vessels increased to greater than the average from previous years between 2015-2019.

[1] Rest including transhipments with Tanzania, Kenya, Panama and Singapore flagged Carriers and LSTLVs conducted between 2016 and 2019.

This could be in-part due to vessels looking to make lost time in the first quarter of the year, but also a factor of the aggregation of deployment requests, with Carrier Vessels remaining 'active' for a longer period where they would normally be limited by the duration an observer can be deployed at sea. Aggregation in this fashion would have been expected to decrease the total number of deployments requests, instead, 2020 exhibited a similar number of requests to previous years, suggesting that transhipment activity remained high despite the pandemic. Additionally, two new Carrier Vessels joined the IOTC ROP.

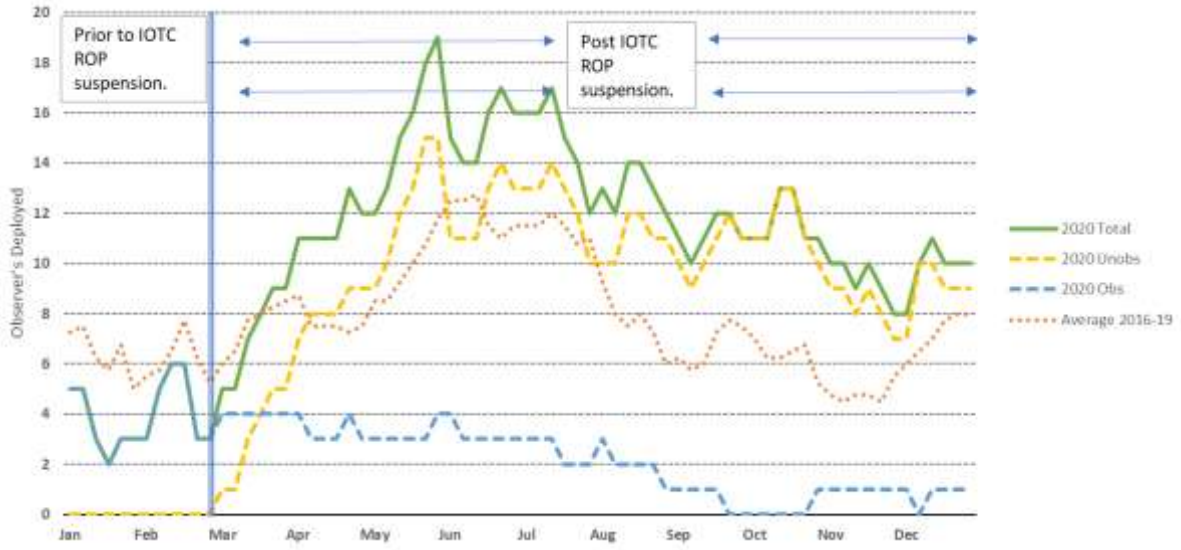

Figure 3 Active deployments showing Observer's deployed and vessels unobserved in the IOTC ROP during 2020. The average number of deployments for 2015-2019 has been shown for comparison.

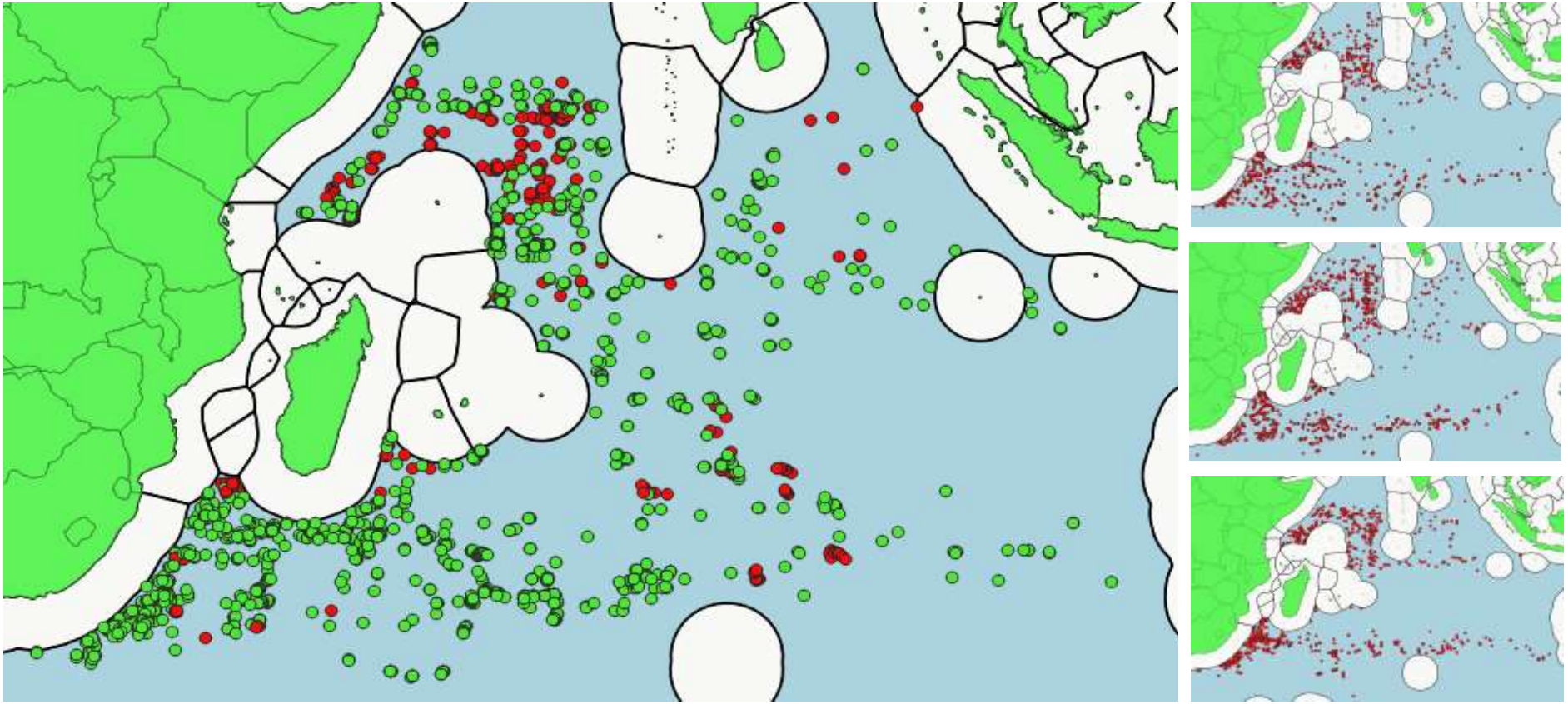

Figure 4 Transhipment locations in 2020 (main image), in 2019 (top right), 2018 (middle right) and 2017 (bottom right).

NB: The spatial distribution of transhipments is similar to previous years with distinctive ‘bands’ of transhipments at around 12° and 34° south, though with a greater number of transhipments occurring in the western Indian Ocean. Transhipments indicated by red dots were observed under the ROP during 2020. Transhipments indicated by green dots were unobserved, these data have been included in the database from the provided transhipment declarations.

2 Sampling

2.1 Weight estimations

Weight estimation procedures have been previously discussed in the Review of the IOTC Regional Observer Programme[2]. The percentage difference between the overall observed weight and the vessel declared weight are shown in Figure 5 and for tuna species only in Figure 6. Note, these figures only apply to the observed transhipments (deployments 603/20, 604/20, 605/20, 606/20, 607/20, 608/20 610/20, 611/20, 620/20, 622/20, 633/20, 646,20 650/20 and 666/20). The percentage differences between observed and vessel declared weights follow the same pattern of previous years.

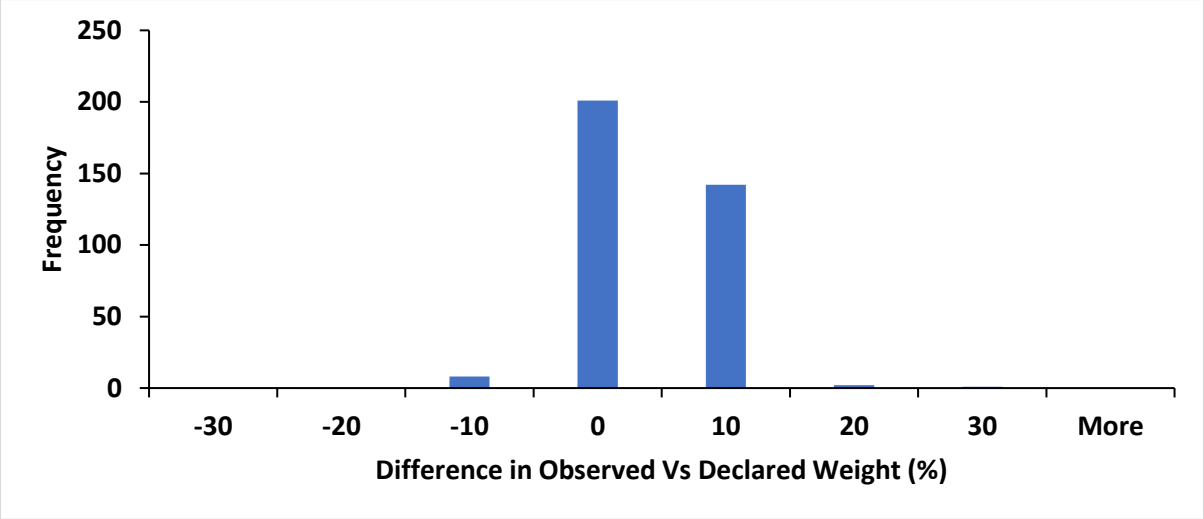

Figure 5 Percentage difference in observed weight compared to vessel declared weight (all species)

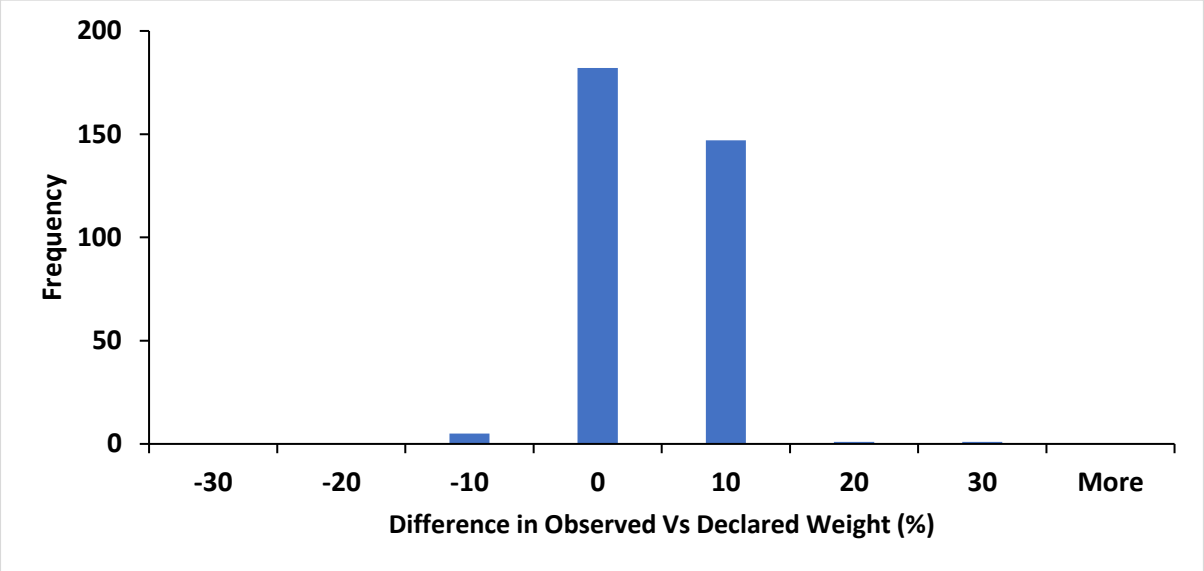

Figure 6 Percentage difference in observed weight compared to vessel declared weight (tuna species only)

Positive differences represent transhipments where the observer's estimate is higher than the vessel's declaration, negative differences are where the observer's estimate is lower.

[2] MRAG and CapFish (2010). Review of the IOTC Regional Observer Programme. CoC48_Add1[E]

For all fish, 99% of estimates were within 10% of the vessel's declaration, with the vessel declaring more than the observer's estimate approximately 2% (8 out of 354 vessels) of the time. A similar trend is seen if only tuna and tuna like species products are considered, with 98% of observer estimates falling within a 10% difference of the vessel's declaration. However, in these cases, only 1.5% (5 out of 336) of vessels declared more tuna products transhipped than the observer's estimates. For the main causes in discrepancies between declared and observed weights see previous contractor's reports.

2.2 Species Transhipped

Due to the Coronavirus pandemic 354 (22%) transhipments were monitored by at-sea observers. For this report the data has been taken from the vessel declared figures. The total quantity of tuna and tuna like species transhipped in 2020 was 74,230.72t. A breakdown of the species transhipped by product-type is shown in Table 1. Species of less than one tonne transhipped have not been included in the table, and the declared weight values were rounded to the nearest whole tonne. A number of Atlantic species were declared to be caught and transhipped by fishing vessels.

Table 1 Declared quantity (tonnes) of transhipped species by product type during 2020.

Species Group	English Name	Species Name	Total Tonnes Transhipped	Product Type				
				Gilled & gutted	**Rounded Weight**	**Dressed weight**	**Headed various**	**Other various**
IOTC Managed Species								
Temperate and tropical tunas	Albacore	*Thunnus alalunga*	17,157	10	16,882	19	57	189
	Bigeye tuna	*Thunnus obesus*	17,810	17,333	0	209	267	0
	Skipjack tuna	*Katsuwonus pelamis*	47	0	23	6	18	0
	Southern bluefin tuna	*Thunnus maccoyii*	1,893	1,893	0	0	0	1
	Yellowfin tuna	*Thunnus albacares*	15,542	14,869	0	174	499	0
Billfish	Black marlin	*Makaira indica*	373	12	46	248	67	0
	Indo-Pacific blue marlin	*Makaira mazara*	817	8	0	366	443	0
	Indo-Pacific sailfish	*Istiophorus platypterus*	107	0	3	50	52	2
	Marlins,sailfishes,etc. nei	*Istiophoridae*	16	0	0	5	10	0
	Striped marlin	*Tetrapturus audax*	228	148	0	44	36	0
	Swordfish	*Xiphias gladius*	4,021	7	0	2,678	1,264	72
Neritic tunas and mackerels (seerfishes)	Narrow-barred Spanish mackerel	*Scomberomorus commerson*	24	0	0	9	15	0
Non-IOTC Managed Species								
Billfish	Atlantic blue marlin	*Makaira nigricans*	141	10	0	131	0	0
	Atlantic white marlin	*Tetrapturus albidus*	5	0	0	5	0	0
	Shortbill spearfish	*Tetrapturus angustirostris*	5	0	0	3	3	0

Species Group	English Name	Species Name	Total Tonnes Transhipped	Product Type				
				Gilled & gutted	**Rounded Weight**	**Dressed weight**	**Headed various**	**Other various**
Neritic tunas and mackerels (seerfishes)	Butterfly kingfish	*Gasterochisma melampus*	28	0	0	28	0	0
	Wahoo	*Acanthocybium solandri*	15	7	0	3	4	0
Other Target Species	Dorado/Mahi Mahi	*Coryphaena hippurus*	11	0	9	1	1	0
	Escolar	*Lepidocybium flavobrunneum*	249	41	0	37	171	0
	Oceanic Sunfish	*Mola mola*	1	0	0	1	0	0
	Oilfish	*Ruvettus pretiosus*	11,650	13	4	5,206	6,404	23
	Opah	*Lampris guttatus*	264	0	0	89	175	0
	Other fish Unclassified	*N/A*	1,690	5	380	501	547	259
	Pomfret	*Brama spp.*	2	0	1	1	0	0
	Tunas nei	*Thunnini*	7	0	0	7	0	0
Sharks	Blacktip shark	*Carcharhinus limbatus*	2	0	0	2	0	0
	Blue shark	*Prionace glauca*	241	0	0	71	128	43
	Mako sharks	*Isurus spp*	94	0	0	49	14	32
	Pelagic Sharks nei	*Pelagic Sharks nei*	6	0	0	0	6	0
	Requiem sharks nei	*Carcharhinidae*	1	0	0	1	0	0
	Shortfin mako	*Isurus oxyrinchus*	114	0	0	21	88	5
	Silky shark	*Carcharhinus falciformis*	24	0	1	8	5	10
	Various sharks nei	*Selachimorpha(Pleurotremata)*	1,646	0	0	438	913	295

3 Southern bluefin tuna

Since the adoption of the Resolution on the Implementation of a CCSBT (Commission for the Conservation of Southern Bluefin Tuna) Catch Documentation Scheme (CDS) on 1st January 2010, any southern bluefin tuna transhipped must be accompanied by a catch monitoring form (CMF) which is countersigned by the observer to verify they have monitored the transhipment. During 2020 transhipments of southern bluefin tuna were declared on 72 occasions (62 unobserved) during 13 different deployments, with around 1,910 tonnes recorded by the vessels as being transhipped (Table 2). These transhipments represent an 167% increase on the number of transhipments involving southern bluefin tuna, and a 136% increase in the total quantity transhipped compared to 2019. Furthermore, 2020 saw the highest number of southern bluefin tuna transhipments, and the largest quantity transhipped since the conception of the ROP.

Table 2 Transhipments of southern bluefin tuna (*Thunnus maccoyii*) declared by vessels during 2020.

Deployment No.	CV Name	CV IOTC #	Observer Name	Number of transhipments	Total Declared Weight (t)
592	CHITOSE	15114	Peet Botes	1	0.995
619	SHENG HONG	900080040	Unobserved Deployment	2	9.926
626	CHIKUMA	14788	Unobserved Deployment	1	1.946
627	MEITA MARU	8461	Unobserved Deployment	5	102.164
634	CHITOSE	15114	Unobserved Deployment	18	394.885
636	TAISEI MARU NO.15	8465	Unobserved Deployment	3	141.966
640	HSIANG HAO	17244	Unobserved Deployment	18	509.874
642	SEIBU	16637	Unobserved Deployment	4	248.287
649	YACHIYO	17140	Unobserved Deployment	6	47.003
650	IBUKI	14787	Tony Dimitrov	7	211.338
658	MEITA MARU	8461	Unobserved Deployment	3	128.784
661	CHITOSE	15114	Unobserved Deployment	3	50.428
666	MEITA MARU	8461	Martin Emanuel	2	63.186

4 Vessel checks

The roles and responsibilities of the observers with regards to at sea vessel checks are outlined in Annex IV of Resolution 19/06 and the differences in the procedures for vessel checking were highlighted in the 2013 ROP report (IOTC-2013-CoC10-04b).

A total of 1,615 transhipments were undertaken by 372 different LSTLVs during 2020. On 287 occasions the LSTLV was boarded for checks. On 1,328 occasions the vessel was not boarded, either due to the absence of an observer onboard or due to precautions taken to not board vessels, minimizing the risk of spreading the Coronavirus. Where possible, logbooks and the Authorisation to Fish (ATF) were passed over to the observer on the CV. The number of times individual LSTLVs were checked in 2020 is shown in Figure 7, this is denoted by the blue bars. Red bars denote vessels that also transhipped but were not checked.

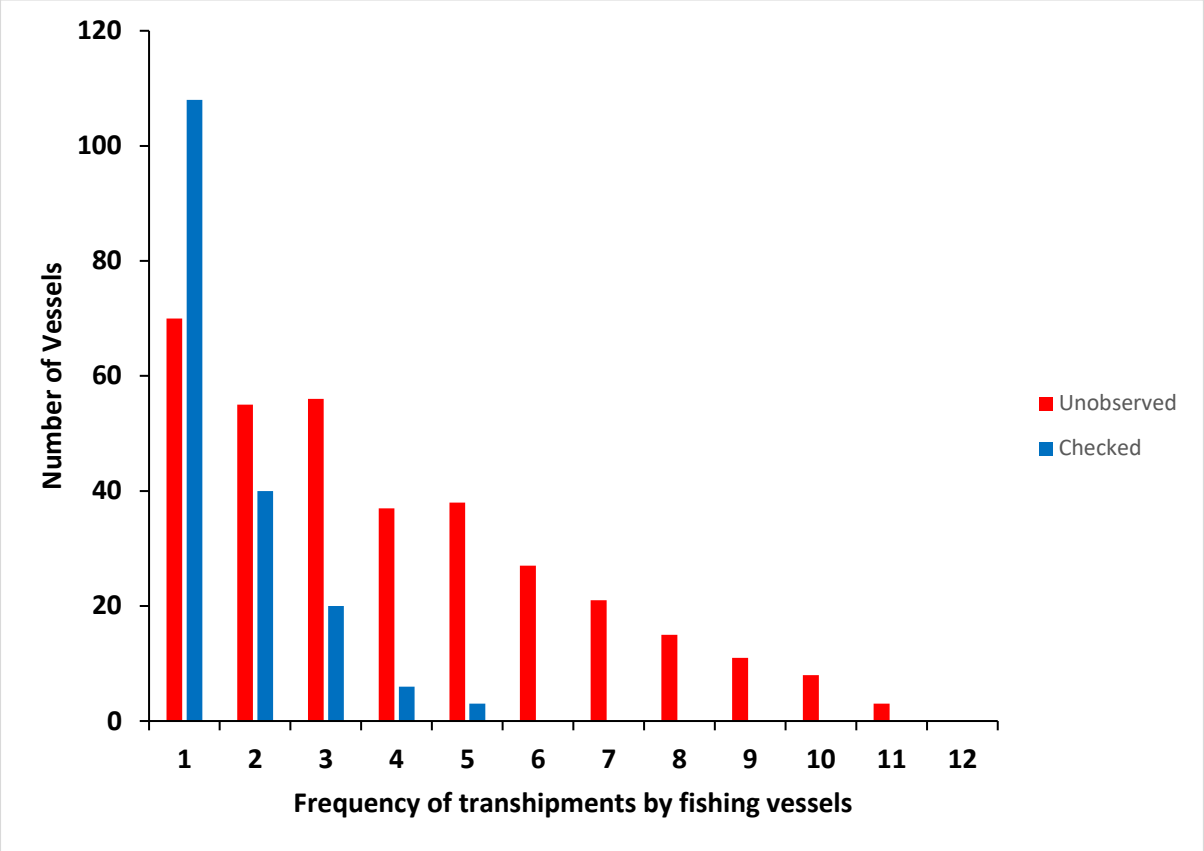

Figure 7 Number of times vessels (LSTLVs) checked in 2020.

A brief summary of the results of the LSTLV checks are given below. Remarks have been made against each regarding the impact of the Coronavirus pandemic checks made by observers. Full details of the reported infractions for 2020 can be found in the IOTC-2021-WPICMM04-04a report. CPC responses to the infractions have been documented in IOTC-2021-WPICMM04-04b.

a. Check the validity of the fishing vessel's authorisation or licence to fish tuna and tuna like species in the IOTC area. Flag States are required, under Resolution 19/04, to submit to the IOTC Secretariat, templates of their official Authorisation to Fish (ATF) outside national jurisdictions. The provision of templates assists observers in identifying valid ATFs when conducting vessel checks. The ROP currently has examples of ATFs from all participating fleets.

For each transhipment where an observer was present, an ATF was provided. On five occasions the ATF was faxed or emailed through to the observer on the CV after the transhipment had taken place. On no occasions were the ATFs shown to be out of date at the time transhipment.

On 20 occasions, errors were identified in the ATF's documented National Registration Number and the IOTC vessel record. These were included in the deployment reports and highlighted to the IOTC Secretariat.

The validity of ATFs were not determined under the ROP for unobserved transhipments during 2020. In order to verify the ATF, copies of ATFs would have had to been made available to the Consortium for each transhipping vessel. The Consortium's remit was to capture data provided through transhipment declarations and in the process verify that the vessels were authorised to tranship on the Record of Authorised Vessels (RAV).

b. Check and note the total quantity of catch on board, and the amount to be transferred to the carrier vessel. This is done through direct interview with the vessel captain or fishing master (using translation sheets where appropriate). Observers do not check the holds for reasons of health and safety. Furthermore, it is outside the remit of the programme.

Validating the total quantity of catch in the vessel holds was restricted during the Coronavirus pandemic due to the suspension of the programme and because of mitigation measures taken to not board LSTLVs during 2020. Observers were unable to board fishing vessels to interview the vessel captains or fishing master; however, the questionnaire and translation sheets were passed across for completion by the vessel captain or fishing master.

c. Check the Vessel Monitoring System (VMS) is functioning. The observers were able to verify all VMS units were present and had power where an observer was able to board the LSTLV.

Observers continue to record the type of unit used on each vessel according to a guide completed in 2017. A copy of the guide can be found annexed to the 2018 Contractor's report. (IOTC-2018-CoC15-04b).

Verifying the functioning of VMS units was not possible during the Coronavirus pandemic where observers were unable to board. This was at times overcome by requesting the vessel captain or fishing master to take photographs of the VMS unit using the observer's camera. For unobserved deployments, verifying the functioning of VMS units was not possible.

d. Examine the logbook. All LSTLVs transhipped with an observer present also had their logbook examined. A summary of logbooks observed by category is shown in Table 3.

Table 3 Summary of logbook checks made in 2020.

Logbook format	Number
Logbooks Shown	354
Matching the Fleet's template	354
Printed	339
Electronic	15
Unbound (Printed)	0
Unnumbered / Inconsecutively numbered (Printed)	4
Unnumbered (Electronic)	2
Erroneous or missing entries	12

Verifying the contents of logbooks was possible during the Coronavirus pandemic where observers were unable to board. These logbooks or print outs of the logbook were passed over to the observer on the CV or they were photographed using the observer's camera passed to the vessel captain or fishing master. For unobserved deployments, verifying the contents and format of logbooks was not possible.

e. Verify whether any of the catch on board resulted from transfers from other vessels, and check on documentation on such transfers. There was no evidence presented to the observers of LSTLVs transhipping fish with other LSTLVs during 2020.

For unobserved deployments this would have been impossible to discern without further external information provided. One such instance was reported to the Consortium and Secretariat during deployment 668-20. Due to a refrigeration failure and consequent risk of lost product, catch from the LSTLV Jin Sheng No.1 was transhipped to the LSTLV Jin Sheng No.2, before being transhipped to the Carrier Vessel Feng Lu.

f. In the case of an indication that there are possible infractions involving the fishing vessel, immediately report the possible infractions to the carrier vessel master. While the CV vessel master is normally notified of any possible infractions, it is through the observer's final report that the IOTC Secretariat is notified. The IOTC Secretariat will then report the possible infractions to the relevant fleet. Due to a request from the fleets, copies of the verification reports are also offered to the vessel captain so it can be returned to the fleet.

For unobserved transhipments, any indication of infractions in the submitted TDs, such as for errors in vessel identification or transhipment position, were cross-examined and verified directly with the Carrier Vessel Operators. In all instances these were corrected through the above process, informing the IOTC Secretariat of the outcome.

g. Report the results from these duties on the fishing vessel in the observer's report. The results of the vessel checks undertaken by observers are summarised in their final report and any discrepancies are elaborated on. In addition, a photographic record of all vessel authorisations, VMS units and logbooks as well as external vessel markings is maintained.

For unobserved transhipments, any infractions verified with the operators were included in the unobserved deployment report.

h. Identifying the LSTLV. In addition to the above, observers are also required to verify and record the name of the LSTLV concerned along with its IOTC number, International Radio Call Sign (IRCS) and national registration number, and determine how consistent the markings are with the requirements of Resolution 19/04. The results of these vessel identification checks are shown in Table 4 and indicate the number of occasions where the observer either could not verify the information against that given in the IOTC Record of Authorised Vessels or considered that the documents or markings on the vessel were either not correctly displayed, or were worn or otherwise obscured and so were not legible.

Table 4 Summary of checks on LSTLV identifiers

Identification check	Number of occasions
Vessel name obscured / unreadable	12
Vessel name not consistent with database	0
IRCS obscured / unreadable	2
IRCS not consistent with database	4

Validating the quantity of vessel identifiers was able to continue as normal for all observed deployments as this did not require vessel boarding.

5 Other Possible Infractions

None recorded.

6 Observer Training

There are currently 133 observers who have received IOTC training since 2009, some of whom were trained directly through the IOTC whilst others crossed over from ICCAT with prior approval from IOTC Secretariat. All observers are also trained to monitor CCSBT transhipments. Not all observers who have been trained are currently active and many have left the programme. There are currently 49 observers trained and actively participating on rotation in the IOTC ROP. It is therefore necessary to continue to hold observer courses on a regular basis to replace those who drop out, and to ensure the increasing demand is met. All courses are now run-in conjunction with ICCAT, with observers being eligible to work in ICCAT and IOTC as well as monitoring CCSBT transhipments. No additional observers were trained in 2020 due to decreased demand as a result of the suspension of the observer programme. As a consequence of the programme's suspension, the number of observers considered active and able to deploy within the year had retracted. The state of the current observer pool will need to be assessed once transhipment deployments resume to ensure that there are still sufficient observers available to cover deployments in the Indian Ocean, especially if transhipment activities remain high in 2021.

7 Other Issues

7.1 Health and Safety

During 2020 there were no deployments refused by an observer on the grounds of safety.

However, safety issues that have been raised include:

- **Lack of safety drills**. This was previously raised in the Contractor's 2019 report and safety drills continue to rarely take place for observed deployments. It is the Consortium's recommendation that vessels must include observer participation in safety drills upon boarding the vessel.

- **Working in high-risk areas**. Some vessels operate within the high-risk area in the north western Indian Ocean, on the high seas off the horn of Africa. It is common practice for vessels operating in this area considered a high piracy risk to board armed security personnel.

- **The Coronavirus pandemic.** The Coronavirus pandemic created a significant concern for the welfare of observers and vessel crew during 2020. In discussion with the IOTC Secretariat, the ROP was suspended in March of 2020, invoking Article 16 of the ROP contract (force majeure), suspending all future observer deployments until further notice. This decision was based on the closure of borders to international travel, unavailability of flights to dispatch and repatriate observers, and the health and safety advice being dispensed at the time, in an effort to limit the spread of the virus.

  Some observers were forced to remain onboard for protracted periods where port closures prevented disembarkation. All vessels where observers remained took steps to increase the level of hygiene on board and the Consortium put in place measures for mitigating the risk to the observer and vessel crews, including the suspension of at-sea boardings. All observers able to repatriate followed precautions against the spread of the virus in line with national and international requirements. This included but was not limited to PCR testing and quarantine periods. No ROP observers on deployment presented a positive Covid-19 PCR test.

  The Consortium and Secretariat continued to closely monitor the state of the global pandemic and availability of international travel. When observer deployments started to become feasible again, the IOTC Secretariat and the Consortium agreed to resume at-sea deployments, reviewing each observer deployment request on a case-by-case basis. Under the right conditions, and with the approval of the IOTC Secretariat, the Consortium was able to successfully deploy two observers, one in late October 2020 and the other around mid-December 2020, to monitor transhipments in the IOTC Area.

All the above incidents have been reported in the observer's final reports.

7.2 Repatriation Due to *force majeure*

At the end of one particular trip, it was necessary to get an observer home promptly due to a family bereavement. The Consortium would like to thank the Secretariat, the Republic of Korea and Carrier Vessel Operator for their efforts in facilitating this. The observer was repatriated in time to be with her family.

7.3 Waste disposal

Waste disposal methods vary among Carrier Vessels and most have operational waste disposal plans in place which includes having an incinerator on board, instructions and containers to separate and store different waste products. No instances of waste pollution were reported in 2020.

7.4 Vessel cooperation

Cooperation from both LSTLVs and Carrier Vessels has again generally been good. The Consortium has no issues to raise on difficulties operating with the vessels. The Consortium would like to extend their gratitude to the vessel operators for their assistance and cooperation in maintain the reporting objectives of the ROP during the Coronavirus pandemic and suspension of observed transhipments.

7.5 Impact of the Coronavirus pandemic on the programme.

The Coronavirus pandemic, and subsequent rapid border and port closures that followed presented a number of challenges to the Consortium, both in terms of deploying observers but also in recovering those already out at sea in a safe and cost-effective manner. Discussions were held with the IOTC Secretariat, and on 19th March 2020 the decision was made to temporarily suspend the at-sea observer programme (IOTC Ref:2020-063) due to growing concerns over logistics, observer and vessel safety. As part of the continued management of the contract, the Consortium provided ongoing support to the Secretariat through the maintenance of the ROP database, regular data upkeep, verification and reporting of transhipment activities and liaison with the Carrier Vessel Operators.

Despite the pandemic, 2020 proved to be a bumper year for the programme, continuing it's upward trend of recent years in increasing transhipment activity; as measured by the number of transhipments, the quantity of transhipped products, the number of active Carrier Vessels and the number of observer deployment requests.

The suspension of the at-sea observer programme remained for the full duration of 2020. With the enablement of crew changes and with the effects of the pandemic beginning to ease for many countries during the first quarter of 2021, the at-sea observer suspension was lifted in March 2021, enabling the gradual resumption of observers to be deployed on vessels. Consideration will be given on a case-by-case basis to protect the health and safety of observers and vessel crew. (IOTC Ref: 2021-51).