A Summary of the IOTC Regional Observer Programme During 2023

Indian Ocean Tuna Commission

Annual Contractor's Report

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Submitted by:

MRAG

CapFish

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Acronyms

Acronym	Description
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
TD	Transhipment Declaration
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
NRN	National Registration Number
RAV	Record of Authorised Vessels
ROP	Regional Observer Programme
VMS	Vessel Monitoring System

1 Introduction

During the calendar year 2023, the Regional Observer Programme (ROP) monitored a total of 1599 transhipments from Large Scale Tuna Longline Fishing Vessels (LSTLVs) within the Indian Ocean Tuna Commission's (IOTC) Area of Competence.

Table 1 No. of transhipments and deployments from the last 5 years

Year	Number of Deployments	Number of Transhipments	Average Deployment Days
2019	67	1303	39.34
2020	66	1615	65.67
2021	60	1531	70.35
2022	51	1677	61.96
2023	46	1599	56.91

The distribution of transhipments by LSTLV fleets during 2023 was similar to previous years; as shown in Figure 1 below.

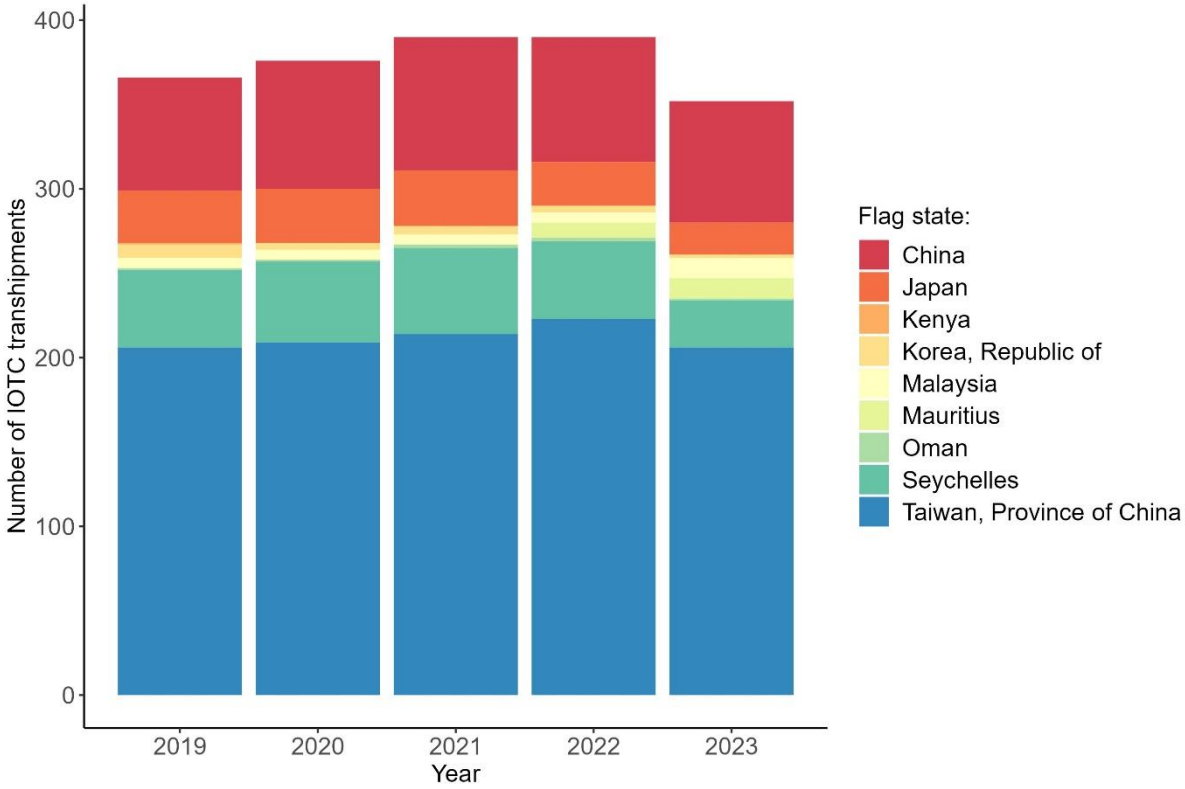

Figure 1 The total number of IOTC transhipments by fleet during 2023 and for comparison the previous 4 years.

Deployments during 2023 were broadly similar to previous years, with 45 being approved (request 779/23 to 824/23), all of which were monitored by an IOTC ROP observer; no deployment requests were cancelled. These occurred with Carrier Vessels (CVs) predominantly flagged to Taiwan, Province of China (38%), followed by Panama (29%), Malaysia (18%), Republic of Korea (7%), Japan (4%), Liberia (2%), and Singapore (2%).

The number of observers deployed during each five day period over 2023 is shown in Figure 2. Two observer deployments continued directly to, or 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. Deployment requests were highest during January and July, peaking with 14 total active CVs in both months. Figure 2 shows the annual cycle of deployments in 2023.

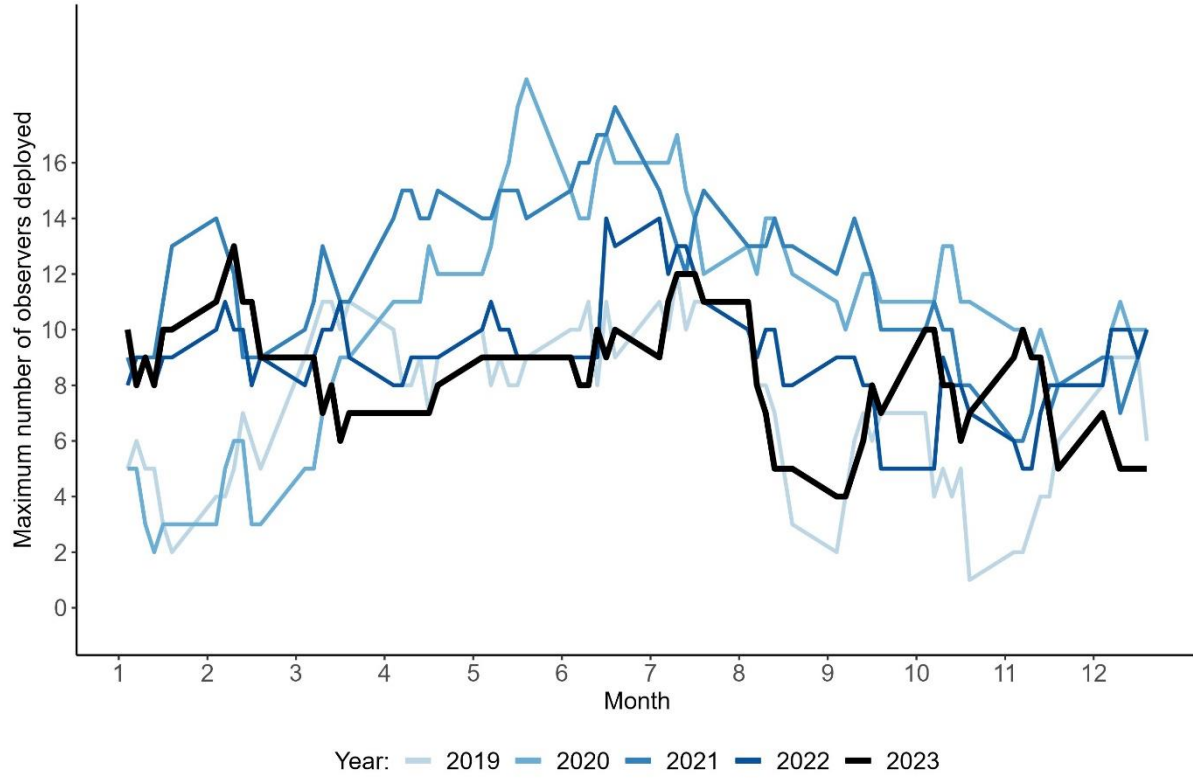

Figure 2 Active deployments showing Observer's deployed in the IOTC ROP during 2023 compared to the previous 4 years, figures represent the maximum number of observers deployed during the month broken into 5-day periods.

The location of transhipments during 2023 is shown in Figure 3 and follows a broadly similar pattern to previous years, with the majority of transhipments occurring in the western Indian Ocean and a distinctive 'band' at around 30 degrees south. There has been a shift in the pattern of transhipments from north to south of 20 degrees, with 38.40% of transhipments occurring north of 20 degrees south in 2023, compared to 53.94% in 2022 and 56.44% in 2021. This is probably due to the species being transhipped shifting from yellowfin and bigeye tuna to albacore, a more temperate species (Figure 6). Observed transhipments are represented by green dots, unobserved by orange dots, transhipments from the previous four years are shown below the main map.

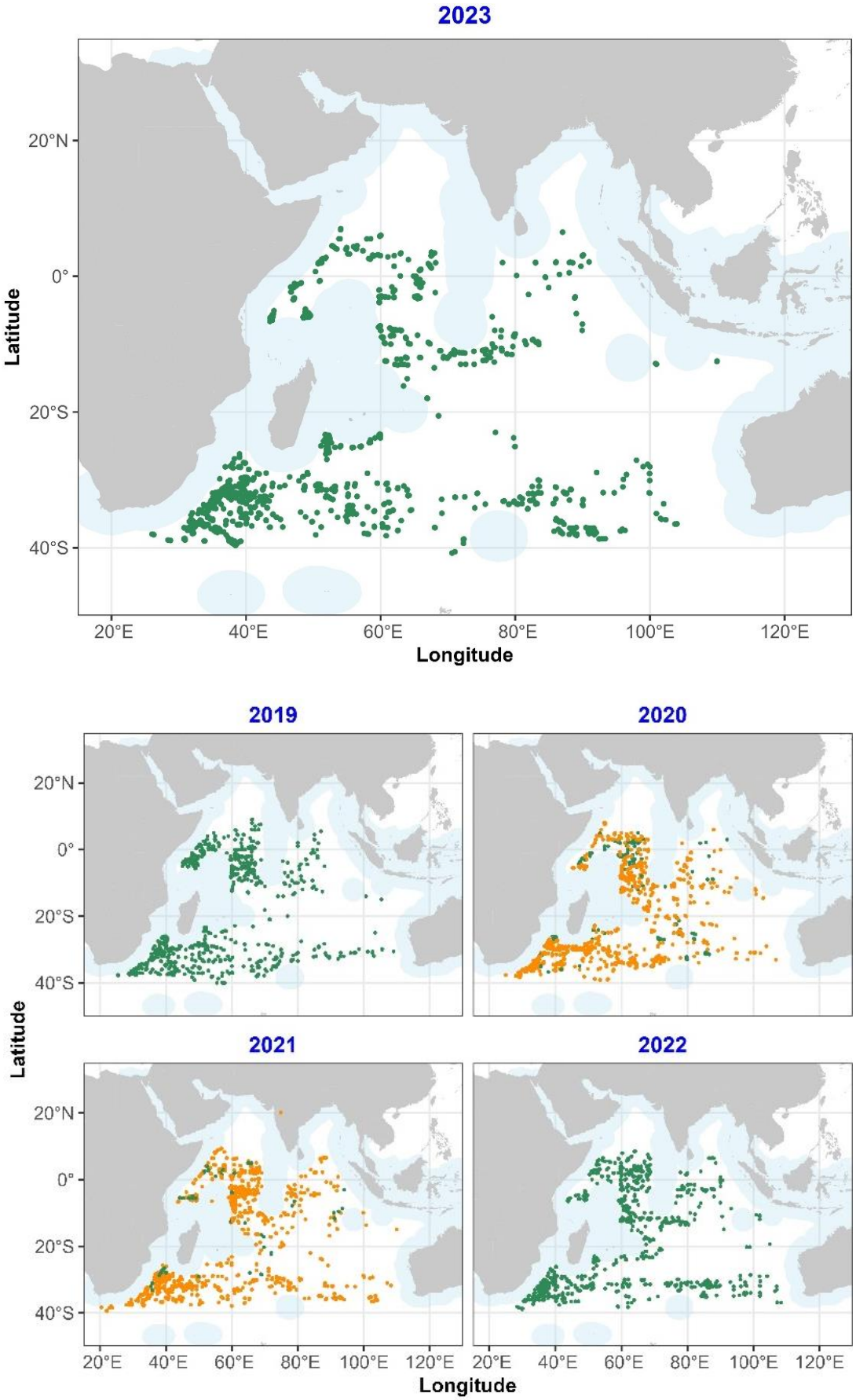

Figure 3 Transhipment locations in 2023 (top) and the previous 4 years (bottom). Observed transhipments are shown in green and unobserved transhipments are shown in orange.

2 Sampling

2.1 Weight estimations

Weight estimation procedures have been previously discussed in the Review of the IOTC ROP[1]. The percentage difference between the overall observed weight and the vessel declared weight are shown in Figure 4 and for tuna species only in Figure 5.

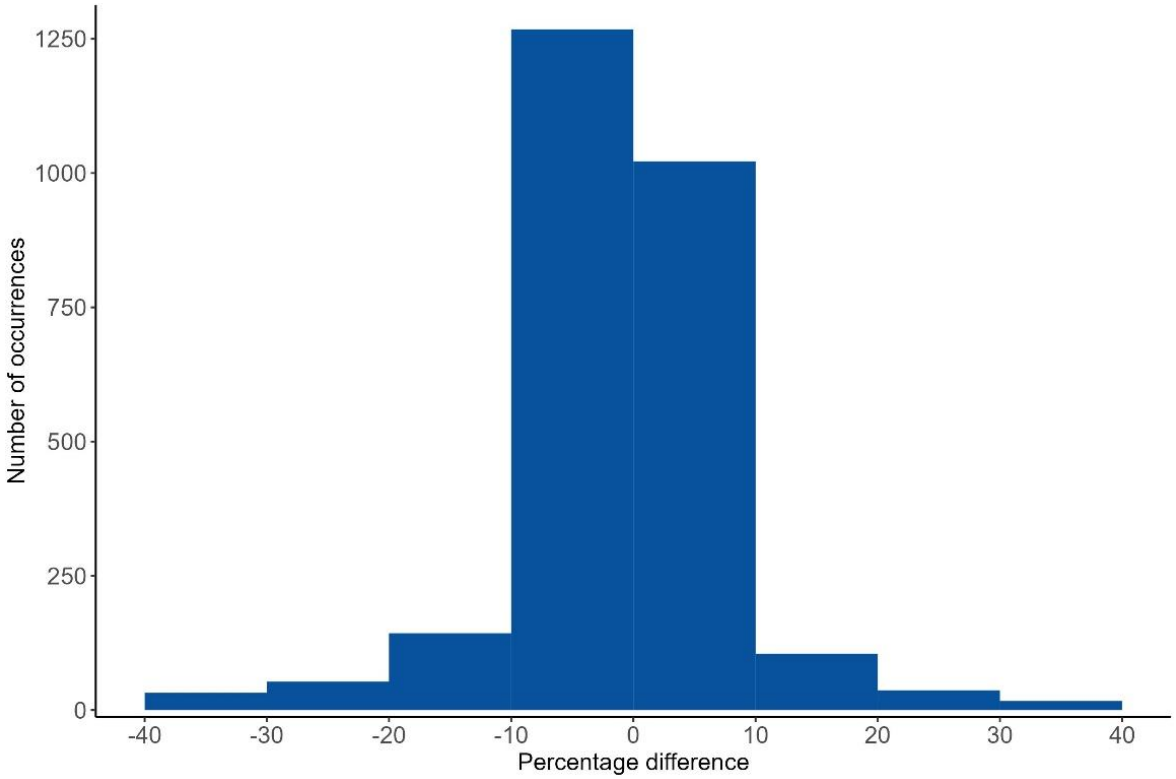

Figure 4 Percentage difference in observed weight compared to vessel declared weight (all species) based on the occurrences of each species being transhipped.

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

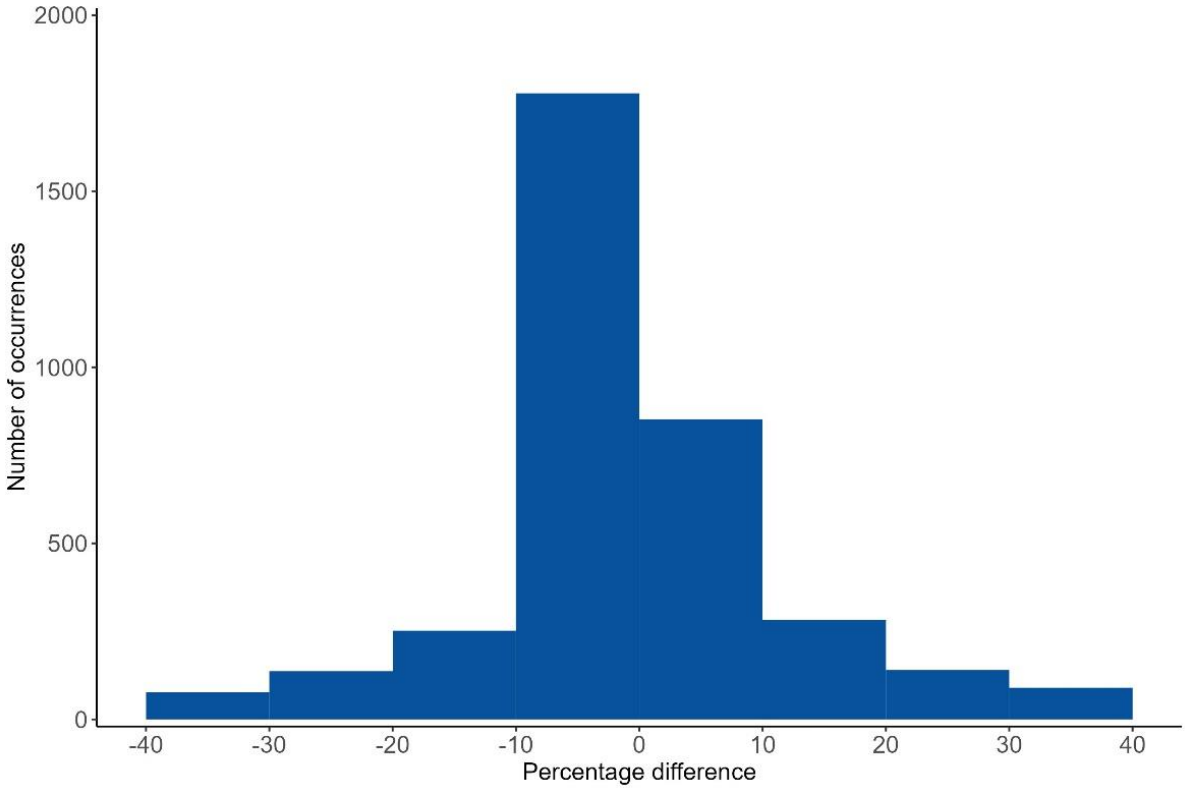

Figure 5 Percentage difference in observed weight compared to vessel declared weight (tuna species only) based on the occurrences of each species being transhipped.

Positive differences in the percentage represent transhipments where the observer's estimate is higher than the vessel's declaration, negative differences are where the observer's estimate is lower. The main differences occurred where small amounts were being transferred (less than 20 tonnes).

2.2 Species Transhipped

Table 2 shows the species transhipped by product type according to the TDs. Albacore was the most commonly transhipped species by weight, followed by yellowfin and bigeye tuna. This year has seen albacore again overtake bigeye and yellowfin tuna as the most transhipped species (by weight) by around 30 - 50%. This is likely due to the overall reductions in catches by participating fleets as a result of the stock rebuilding and management plans introduced for both these species. Figure 6 shows the overall transhipment trends for these three main species since the start of the programme in 2009, with the drop in bigeye being most significant, to around half its original value.

Table 2 Declared quantity (tonnes) of transhipped IOTC managed species by product type during 2023.

English Name	Species Name	Total	Gilled And Gutted	Rounded Weight	Dressed Weight	Headed Various	Other Various
Albacore	*Thunnus alalunga*	19,283.906		19,281.668	2.238		
Bigeye tuna	*Thunnus obesus*	12,816.075	12,172.852		270.528	168.312	204.383
Skipjack tuna	*Katsuwonus pelamis*	73.752		66.690	4.399	2.663	
Southern bluefin tuna	*Thunnus maccoyii*	941.769	941.769				
Yellowfin tuna	*Thunnus albacares*	14,388.910	13,076.741		435.281	586.206	290.682
Black marlin	*Makaira indica*	206.892	2.252		155.242	49.398	
Indo-Pacific blue marlin	*Makaira mazara*	595.144			475.116	120.028	
Indo-Pacific sailfish	*Istiophorus platypterus*	160.774			132.419	28.355	
Marlins, sailfishes, etc. nei	*Istiophoridae*	8.371	0.300		8.071		
Striped marlin	*Tetrapturus audax*	112.188	46.123		52.370	13.695	
Swordfish	*Xiphias gladius*	2,816.203	7.576	9.757	2,346.426	424.876	27.568
Narrow-barred Spanish mackerel	*Scomberomorus commerson*	30.104		0.312	22.629	7.163	

Table 3 Declared quantity (tonnes) of transhipped non-IOTC managed species by product type during 2023.

English Name	Species Name	Total	Gilled And Gutted	Rounded Weight	Dressed Weight	Headed Various	Other Various
Longbill spearfish	*Tetrapturus pfluegeri*	0.098			0.098		
Shortbill spearfish	*Tetrapturus angustirostris*	42.745	0.295	2.115	18.156	22.179	
Butterfly kingfish	*Gasterochisma melampus*	10.338			0.450	9.888	
Japanese Spanish mackerel	*Scomberomorus niphonius*	2.693			2.693		
Wahoo	*Acanthocybium solandri*	48.452		0.061	38.755	9.476	0.160
Barracudas nei	*Sphyraena spp*	2.297			2.297		
Dorado/Mahi Mahi	*Coryphaena hippurus*	37.995		36.410	0.548	1.023	0.014
Escolar	*Lepidocybium flavobrunneum*	3,304.020			2,473.676	830.344	
Oceanic Sunfish	*Mola mola*	1.565			1.565		
Oilfish	*Ruvettus pretiosus*	6,722.860		0.263	4,815.704	1,906.893	
Opah	*Lampris guttatus*	649.371		0.169	222.923	426.279	
Other fish Unclassified	N/A	1,425.566	2.189		444.623	599.998	378.756
Pomfret	*Brama spp.*	3.212			0.380	2.832	
Pomfrets, ocean breams nei	*Bramidae*	9.759		0.564	8.994	0.201	
Tunas nei	*Thunnini*	1.057					1.057
Blacktip shark	*Carcharhinus limbatus*	3.859			3.859		
Blue shark	*Prionace glauca*	1,844.417			948.297	194.887	701.233
Hammerhead sharks nei	*Sphyrna spp*	0.380			0.380		
Longfin mako	*Isurus paucus*	0.831			0.740	0.091	
Mako sharks	*Isurus spp*	55.850			55.790	0.060	
Pelagic Sharks nei	N/A	0.630			0.630		
Scalloped hammerhead	*Sphyrna lewini*	0.160			0.160		
Shortfin mako	*Isurus oxyrinchus*	189.156			73.718	2.165	113.273
Silky shark	*Carcharhinus falciformis*	97.966			44.172	1.815	51.979
Tiger shark	*Galeocerdo cuvier*	0.210					0.210
Various sharks nei	*Selachimorpha(Pleurotremata)*	186.194			114.930	5.417	65.847
Mixed Fish Species	N/A	204.889			0.400		204.489

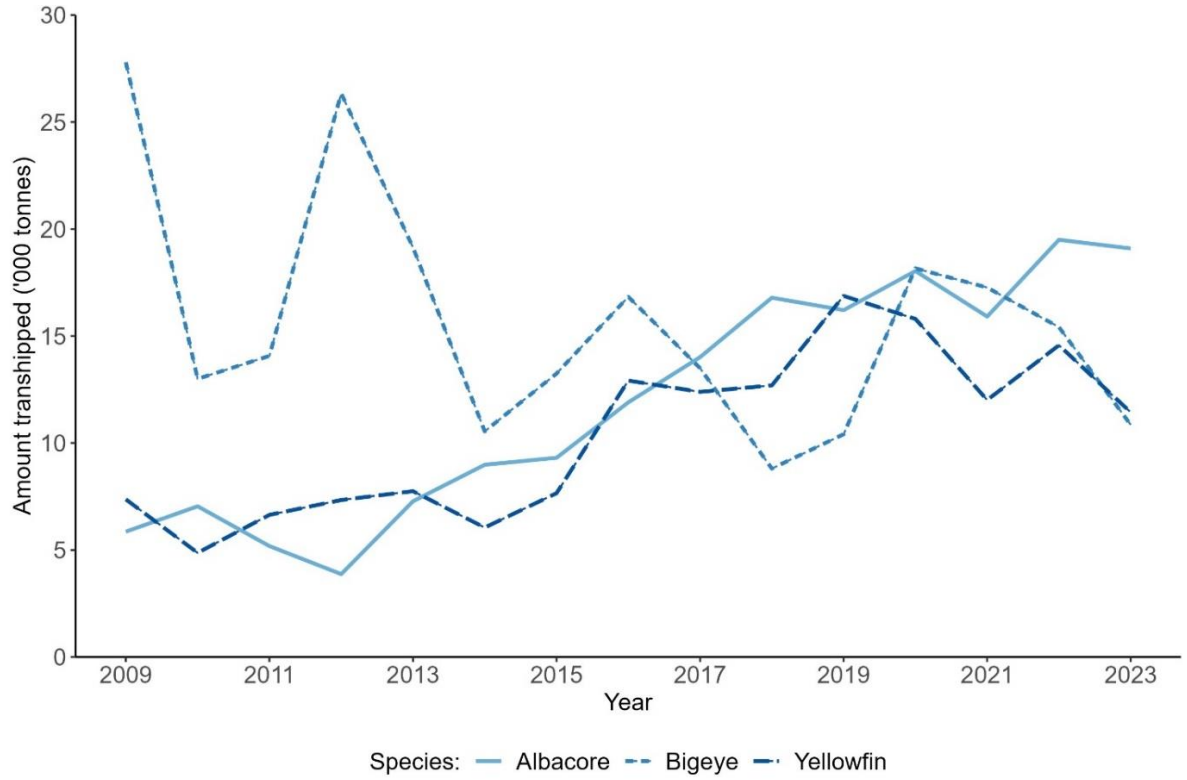

Figure 6 Trends in transhipments of albacore, bigeye and yellowfin tuna since the start of the ROP.

3 Southern bluefin tuna

Since adoption of the Resolution on the Implementation of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) Catch Documentation Scheme (CDS) on 1st January 2010, any southern bluefin tuna transhipped must be accompanied by a catch monitoring form (CMF). This form is countersigned by the observer to verify they have monitored the transhipment. During 2023 transhipments of southern bluefin tuna were declared on 44 occasions within 6 different deployments, with around 941.769 tonnes recorded by the vessels as being transhipped (**Error! Reference source not found.**).

Table 4 Transhipments of southern bluefin tuna (*Thunnus maccoyii*) declared by vessels during 2023.

Deployment Id	CV Name	CV IOTC Ref No	No Of Transhipments	Total Weight (tonnes)
785	IBUKI	14787	1	68.65
798	CHITOSE	15114	19	218.00
800	SEI SHIN	14094	1	1.66
810	IBUKI	14787	13	236.85
813	CHEN YU NO.7	900080046	4	4.48
814	TAISEI MARU NO.15	8465	6	412.13

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 (superseded by Resolution 23/05). A total of 1485 inspections were undertaken on 349 different LSTLVs during 2023, Figure 7 shows the number of times individual vessels were checked.

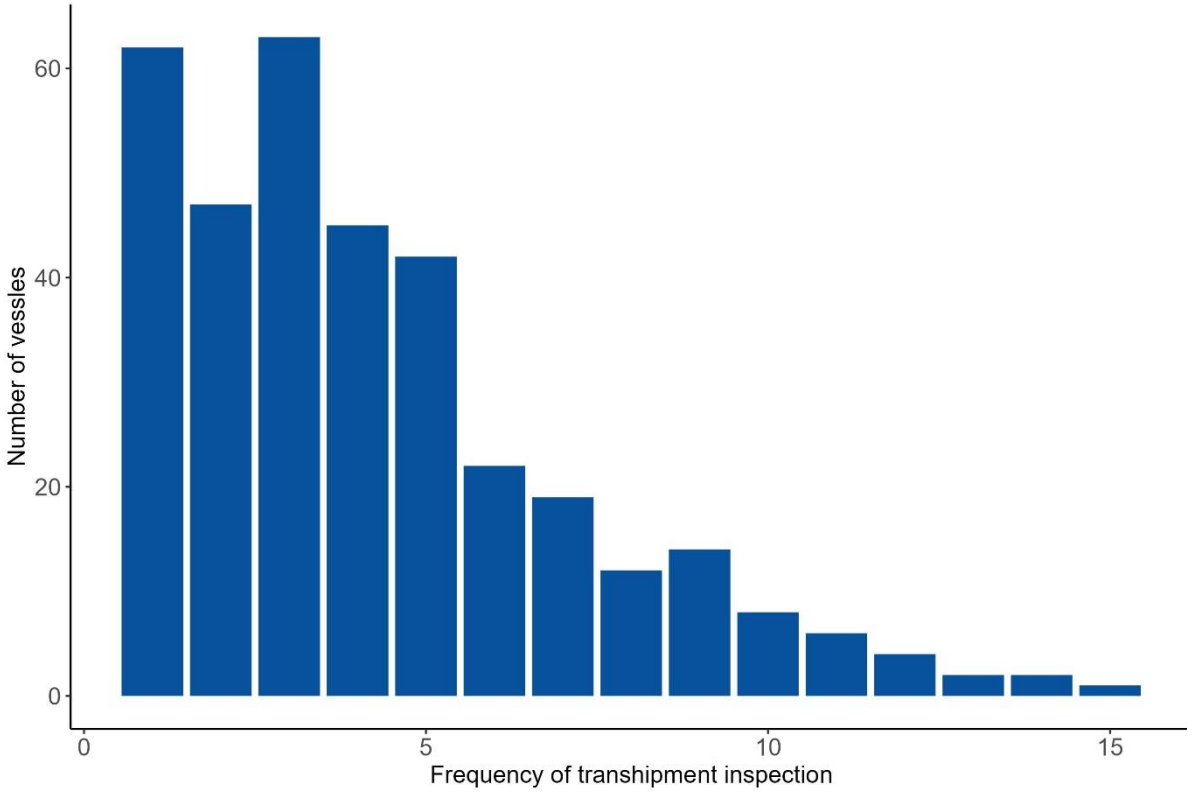

Figure 7 Number of times vessels (LSTLVs) were inspected in 2023.

A summary of the results of the LSTLV checks, along with the results of the investigations conducted by the concerned fleets, are given in IOTC-2024-WPICMM07-04.

5 Other Possible Infractions

None recorded.

6 Observer Training

There are currently 169 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 the 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 around 52 observers trained and actively participating on rotation in the IOTC ROP, although many are involved in other programmes and not always available. 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 as well as provide refresher training for current observers. Courses have been run in conjunction with ICCAT and CCSBT for a number of years, allowing observers to be eligible to work in ICCAT and IOTC as well as monitoring CCSBT transhipments.

7 Other Issues

7.1 Health and Safety

During 2023 there were no deployments refused by an observer on the grounds of safety.

7.2 Waste disposal

Waste disposal methods vary among CVs 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. The methods for doing this continue to be recorded by observers.

7.3 Vessel cooperation

Cooperation from both LSTLVs and CVs continues to be good and no negative reports have been received from observers. As in previous years the Consortium would like to extend their gratitude to the vessel operators for their assistance and cooperation in maintaining the reporting objectives of the ROP in the aftermath of the pandemic.