

ROP-BFT Implementation Report

ICCAT
ZI1946

October 2022

Submitted by

MRAG

In association with

 **COFREPECHE**



MRAG Ltd is an independent fisheries and aquatic resource consulting company dedicated to the sustainable use of natural resources through sound, integrated management practices and policies.

Established in 1986, MRAG has successfully completed projects in more than 60 countries. Our in-house experts have a wide variety of technical expertise and practical experience across all aspects of aquatic resource management, policy and planning, allowing us to take a multi-disciplinary approach to every project. Our capability to service an extensive array of resource management needs is further extended through our network of associations with internationally acclaimed experts in academic institutions and private organisations worldwide.

MRAG Ltd

18 Queen Street
London
W1J 5PN
United Kingdom

T: +44 (0) 20 7255 7755
F: +44 (0) 20 7499 5388
W: www.mrag.co.uk
E: enquiry@mrag.co.uk

COFREPECHE is a consultancy company specialising in fisheries, aquaculture and marine environment. COFREPECHE was created in 1980 by sector professionals, financial institutions and IFREMER.

COFREPECHE has built an exceptional network of contact points and specialized partners for its clients : a head office in Paris - one of the major meeting points of European seafood trading, a network of partners covering all the Member States of the European Union, representation agreements and expatriates in several countries, industrial, financial, commercial partners, experts linked to all aspects of fisheries and aquaculture.

COFREPECHE

32 Rue de Paradis
75010 Paris
France

T: +33 (0)1 42 68 17 10
F: +33 (0)1 42 68 17 11
W: www.cofrepeche.fr
E: <mailto:info@cofrepeche.fr>

Document Control		
Title	ROP-BFT	
Document ID	ICCAT ROP-BFT Implementation Report	
MRAG ID	Z11946	
Version	V005_REV1	
Prepared by: TF, OC, JLC, HH	Approved by	
TF, OC, JLC, HH, KM, AB	RW, JMC	
12/10/2022	14/10/2022	
Internal Use Only	Client Only	General Release
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Table of Contents

Table of Contents.....	i
List of Tables.....	iii
List of Figures	v
Acronyms	vi
Executive Summary.....	1
1 Introduction.....	2
2 Programme Development and Activities.....	4
2.1 Programme Development.....	4
2.2 Operational.....	4
2.2.1 Deployments on Purse Seiners.....	4
2.2.2 Deployments on Farms	6
2.2.3 Deployments on Traps	7
3 Estimating Number and Weight of Tuna	8
3.1 By Operators.....	8
3.1.1 On Purse Seiners	8
3.1.2 On Traps	8
3.1.3 On Farms	8
3.2 By Observers	9
3.2.1 On Purse Seiner Operations	9
3.2.2 On Traps	11
3.2.3 On Farms	12
4 Potential Non-Compliance Events	18
4.1 Purse seine vessels	18
4.1.1 Cage sealing Operations.....	20
4.2 Traps.....	21
4.2.1 Cage sealing Operations.....	21
4.3 Farms.....	21
4.3.1 Cagings	21
4.3.2 Inter-farm transfers.....	22
4.3.3 Releases	22
4.3.4 Harvests and general compliance.....	23
5 Submission of Deployment Outputs.....	24
6 Scientific Monitoring and Activities.....	25
6.1 Length and Weight Sampling	25
6.1.1 Purse seine deployments	25
6.1.2 Harvest deployments.....	25
6.2 Tag recoveries and sampling	26
6.3 Bycatch observations	29
7 Conclusions and Recommendations.....	31
7.1 Logbook familiarisation	31
7.2 Feasibility of software use for transfer and caging estimates.....	31
7.3 Reporting PNCs leading to voluntary transfers	31
7.4 Observer involvement in control transfers	32

7.5	Sealing of cages	32
7.6	At sea releases	32
7.7	Consultation with CPCs.....	32
7.8	Use of InReach Device - PNCs	32
7.9	MARPOL	32
Annex 1	Farm Deployments in the Current Contract included in this report.....	33
Annex 2	Farm Deployments in the Previous Contract Year included in this report..	34
Annex 3	PNC Codes Used for the Current Contract.....	35

List of Tables

Table 1: List of regional partners and hubs.....	1
Table 2: Report Content.....	3
Table 3: Observer coverage on purse seiners monitoring fishing and transfer operations (excluding Norway)	4
Table 4: Observer coverage on purse seiners monitoring fishing and transfer operations for Norway 2021.....	6
Table 5: Observer coverage on farms during the current contract	6
Table 6: Observer coverage on farms between the previous report and commencement of the current contract.....	7
Table 7: Observer coverage on traps monitoring transfer operations.....	7
Table 8: Observer estimations of number of BFT transferred from purse seine transfers	9
Table 9: Observer estimations of number of BFT transferred from purse seine Voluntary transfers	10
Table 10: Summary of release operations performed during the 2021 fishing season.....	11
Table 11: Observer estimations of quantity of BFT following initial transfers from traps.	11
Table 12: Observer estimations of quantity of BFT following voluntary transfers from traps.	12
Table 13: Observer estimations of quantity of BFT following initial caging operation	12
Table 14: Observer estimations of quantity of BFT following control caging operation	13
Table 15: Observer estimations of quantity of BFT during caging between the previous report and commencement of the current contract	13
Table 16: Summary of inter-farm transfers carried out during the current contract	14
Table 17: Summary of inter-farm transfers carried out between the previous report and commencement of the current contract	14
Table 18: Release operations current contract year	16
Table 19: Release operations between the previous report and the current contract year...	16
Table 20: Harvest operations during the current contract year.....	16
Table 21: Harvest operations between the previous report and the current contract year ...	17
Table 22: PNCs preventing the observer from signing the ITD during the 2022 purse seine season	18
Table 23: Other PNCs detected during the 2022 purse seine season.....	19
Table 24: Summary of cage sealing operations performed during the 2022 fishing season	20
Table 25: PNCs occurring during the current contract relating to caging operations.....	22

Table 26: PNCs reported between the previous report and the current contract relating to harvests and general compliance.	23
Table 27: Summary of sampling during 2022 fishing season	25
Table 28: Summary of sampling during the current harvesting season	25
Table 29: Summary of sampling after submission of the previous report and before the current contract	26
Table 30: Summary of tags recovered to date since submission of the previous annual report	26
Table 31: Summary of discarded and retained bycatch.....	29
Table 32: Interactions with associated species.....	29

List of Figures

Figure 1: Distribution of fishing and transfer operations in 2022 purse seine fishing season (excluding Norway).	5
Figure 2: Screenshot of cage seal during sealing operation,	21

Acronyms

CFL	Curved fork length
COVID-19	Coronavirus disease 2019
CPC	Contracting and Cooperating Non-contracting Parties (ICCAT)
eBCD	electronic Bluefin (tuna) catch document
EU	European Union
GBYP	ICCAT Atlantic wide research programme for Bluefin Tuna
ICD	ICCAT caging declaration
ITD	ICCAT transfer declaration
MoU	Memorandum of Understanding
PNC	Potential Non-compliance (event)
ROP-BFT	ICCAT Regional Observer Programme for Bluefin Tuna
SCRS	Standing Committee on Research and Statistics
SFL	Straight fork length

Executive Summary

The service provider for implementing year thirteen (April 2022 / March 2023) of the ICCAT ROP-BFT (hereafter the Programme) comprises of a Consortium led by MRAG based in London and COFREPECHE in Paris, assisted by regional partners (Sur-Koop in Turkey and Oceanis in Italy and Malta), as well as regional hubs staffed by associate personnel in Portugal, Spain, Croatia and Algeria (hereafter the Consortium) (Table 1).

Table 1: List of regional partners and hubs

Region	CPC Coverage	Consortium & Associates Coverage
Eastern Mediterranean and Adriatic Sea	Türkiye Croatia Egypt Syria Libya Albania	MRAG (UK) Cofrepeche (France) Sür-Koop (Türkiye) MRAG Associate staff (Croatia)
Southern Mediterranean	Türkiye Libya Algeria Tunisia Morocco	Cofrepeche (France) Cofrepeche Associate staff (Algeria) Sür-Koop (Türkiye) Oceanis (Malta)
Western Mediterranean	Spain France Italy Malta Cyprus Portugal	MRAG (UK) Cofrepeche (France) Bluemoki Marine (Spain) MRAG Associate staff (Portugal) Oceanis (Italy and Malta)

The Programme allows the Commission to assess compliance with the regulatory framework. This report summarises the 192 deployments on authorised purse seiners during the 2022 fishing season, as well as the 37 farm and 3 trap deployments completed to date since the start of the current contract. In addition, 42 farm deployments are included from the previous season following the submission of the last annual report and the start of the current contract.

One hundred percent observer coverage has been achieved on all authorised purse seiners, farms and traps within the remit of the Programme, which included monitoring all fishing, transfer, caging and harvesting activities, apart from the Norwegian fleet in 2021, which, as was the case in 2020, the Norwegian Authorities did not permit the deployment of ROP observers due to health and safety concerns relating to COVID-19.

This report describes the key issues and developments in implementing the Programme in year thirteen in line with the requirements. These are divided into operational and technical categories and provide perspective on issues that affected the observer role during deployments. The ability of observers to estimate numbers of tuna and comparisons with official estimates during transfer and caging operations are reviewed. Potential non-compliance events recorded by observers are summarised, including both those reported for transfer and caging operations as well as for general events.

This year the COVID-19 pandemic had a far reduced impact than in 2020 and 2021, and regional travel of observers was less restricted, allowing observers of other nationalities to embark vessels across all CPCs with the exception of Türkiye.

1 Introduction

This was the thirteenth year that the Consortium has implemented the Regional Observer Programme for bluefin tuna (ROP-BFT). The Consortium adapted their approach incorporating lessons learned over previous years. This report covers key activities and deployments required under the contract for services to implement the Programme for 2022/2023.

The principal role of the Consortium remains to implement the main clauses of Para. 84 of [Recommendation 19-04](#) (which was superseded by Para. 101 of [Recommendation 21-08](#) on the 17th of June) (jointly referred to the Recommendation) relating to the implementation of a Regional Observer Programme to ensure 100% coverage of:

- Activities on purse seine vessels authorised to fish bluefin tuna;
- Transfers of bluefin tuna from traps to transport cages; and
- On farms, transfers from one farm to another, cagings, harvesting and release operations.

Specifically, as set out in the Recommendation, the regional observer shall:

- Report on any events, including of other vessels, which are potentially non-compliant with ICCAT Recommendations as soon as possible;
- Record and report on fishing and transfer activities, observe and estimate catches and verify logbook entries, and estimate tuna transferred and caged through the review of video recordings;
- Sign the ICCAT Transfer Declarations (hereafter ITD), ICCAT Caging declaration (hereafter ICD) and electronic Bluefin Catch Documentation (hereafter eBCD) when in agreement that the information is consistent with their own observations and compliant with ICCAT conservation and management measures, including a compliant video record; and,
- Carry out scientific work as required by the Commission.

Additional roles introduced to the regional observer role as set out by Recommendation 21-08 included:

- Validate the information in the release declaration (as specified by Para 6 of Annex 6 of Rec. 21-08);
- In the event that the quality of the transfer video and any subsequent voluntary transfers does not allow determination of the number of individuals transferred, provide a minimum of 3 seals to the donor operator for the purposes of sealing the cage in line with Para. 128 and Annex 14 of Rec. 21-08;
- Input their estimates of number of tuna transferred and caged in the ITD and ICD in line with Annex 8 and Annex 12 of Rec. 21-08 respectively;
- Validate the processing and/or harvesting declarations in line with Para. 193 of Rec. 21-08.

In order to achieve the above, the Consortium has managed the recruitment, training and subsequent deployment of observers in the Mediterranean Sea and eastern Atlantic Ocean, and submission of the observer deployment outputs within 20 days of the completion of the respective period of monitoring.

Technical components of the Programme cover monitoring the fishing, transfer and caging phases of the eastern Atlantic and Mediterranean bluefin tuna fishery. Harvesting is ongoing at the time of writing for this season and is expected to continue throughout the first quarter of 2023.

The structure of the report is presented in Table 1.

Table 2: Report Content.

Implementation Activity	Section	Main Content
Programme Development and Implementation	2	Outline of development activities Summary of observer coverage on purse seiners and farms
Estimating the amount of tuna	3	Techniques used by operators and observers to estimate number of tuna for purse seine, trap and farm operations. Summary of operations.
Potential Non-Compliance Events (PNCs)	4	Summary of PNCs
Programme outputs	5	Submitting deployment outputs
Scientific monitoring activities	6	Scope of biological sampling
Summary and Recommendations	7	Suite of recommendations distinguishing those which are the responsibility of the Service Provider and those of ICCAT: Improving the general operational framework Improving monitoring tasks and observer duties
Annexes	Annex	Response to COVID-19 pandemic Listing farm deployments PNC codes

2 Programme Development and Activities

2.1 Programme Development

Ongoing programme development comprised of the following components:

- Consultation with the ICCAT Secretariat, CPCs and SCRS on operational, technical and reporting requirements;
- Production of an updated Programme Manual and training material in line with updated tasks and requirements, as well as incorporating lessons learned during previous years' implementation;
- Update of supplementary online training tools;
- Complete observer recruitment;
- Procure and distribute observer equipment (including cage seals) that required replacement and purchase additional sets; and
- Deliver training prior to the purse seine season.

2.2 Operational

2.2.1 Deployments on Purse Seiners

During the 2022 purse seine fishing season, observers were deployed on 192 purse seine vessels (Table 3). Observers were mobilised to:

- Thirty-two ports to fishing vessels fishing in the eastern Atlantic and Mediterranean. The observer designated to the Cypriot vessels embarked in Malta; 12 observers designated to Libyan vessels embarked in Malta; and one observer designated to a Moroccan vessel embarked in Maroc;
- Thirteen Turkish and one Moroccan port to the Turkish, Libyan, Egyptian and Moroccan fishing vessels fishing in the eastern Mediterranean Sea and the eastern Atlantic and Mediterranean. Two of the three observers designated to Libyan vessels, and all the observers on the Egyptian, Moroccan and Syrian fleet embarked on a transfer vessel in Türkiye and were transferred at sea to their respective purse seine vessels; and
- Five Croatian ports to fishing vessels fishing in the Adriatic Sea.

The deployments by flag State / CPC are set out in Table 3. Excluding Norway, a total of 4,174 observer sea days were completed on 192 purse seine vessels in 2022 with 496 fishing operations; 303 transfer operations and 3 voluntary transfers (Figure 1). This represents a decrease of 1,434 observer sea days relative to 2021.

Table 3: Observer coverage on purse seiners monitoring fishing and transfer operations (excluding Norway)

Flag State / CPC	Vessels (n)	Obs. Sea Days*(n)	Fishing operations (n)	Transfer operations (n)	Voluntary / control operations
Albania	2	64	8	4	0
Algeria	29	842	29	15	1
Egypt	1	4	1	1	0
EU.Croatia	17	708	114	97	0
EU.Cyprus	1	18	0	0	0

Flag State / CPC	Vessels (n)	Obs. Sea Days*(n)	Fishing operations (n)	Transfer operations (n)	Voluntary / control operations
EU.Spain	6	83	25	16	0
EU.France	21	342	38	20	0
EU.Italy	20	419	41	26	0
EU.Malta	1	43	0	0	0
Libya	15	291	13	10	0
Maroc	4	62	5	2	0
Syrian Arab Republic	1	3	1	1	0
Tunisie	48	696	27	15	2
Türkiye	26	599	194	97	0
Total	192	4,174	496	304	3

* Sea days are defined as the days between the observer embarking and disembarking, with days spent alongside in port included.

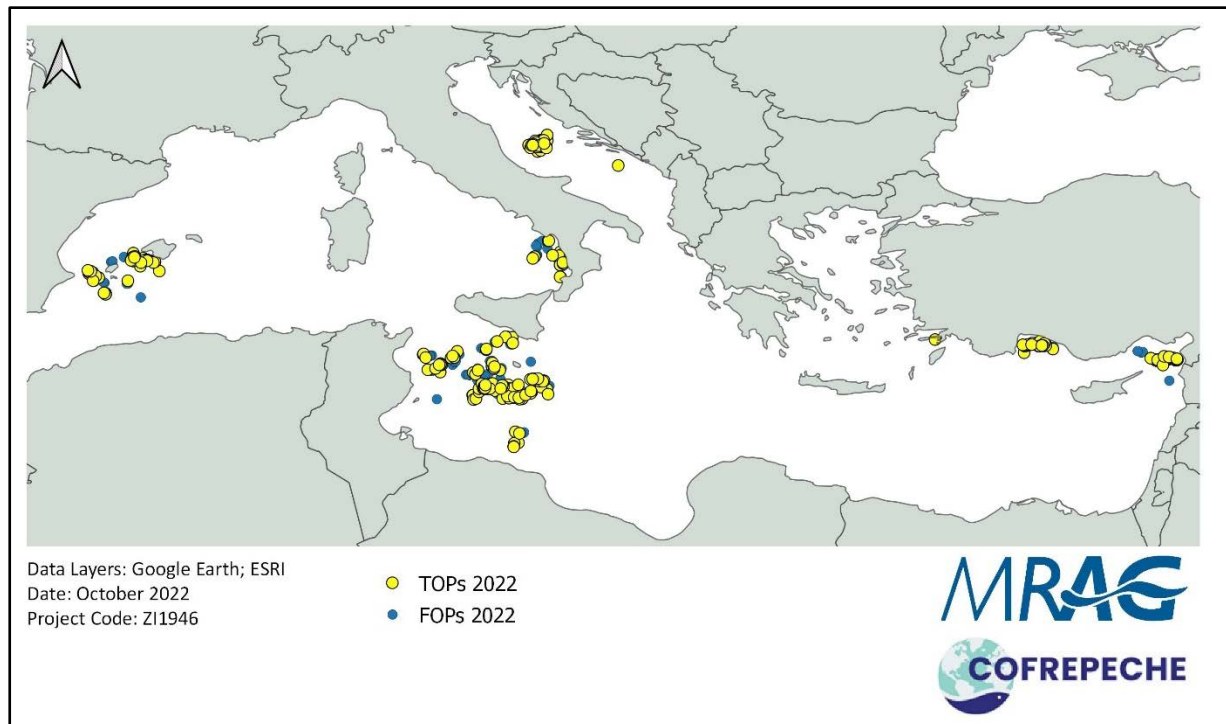


Figure 1: Distribution of fishing and transfer operations in 2022 purse seine fishing season (excluding Norway).

All deployment requests were met on time with no issues experienced with either the arrival of the observer or corresponding safety equipment. Two deployments (000EU038 and 000EU041) required the observer to be replaced before deployment completion. One was due to COVID, and the other was due to observer illness. Both observer replacements were provided within one day causing minimal impact on the vessel’s operations.

2.2.1.1 Norway

In the previous year, four Norwegian vessels were active in the bluefin tuna fishery, and were still active at the time of submission for the 2021 Annual Report. Subsequently details of the implementation of the ROP-BFT for the Norwegian purse seine blue fin tuna fishing season in

2021 are included in this report. In 2021, as with 2020, the Norwegian Ministry of Fisheries did not permit the embarkation of a ROP observer onboard due to the COVID-19 pandemic. Instead, alternative measures were developed involving the designation of one crew member from each vessel to liaise with the Consortium to ensure that all data can be included in the ROP data base. Details from the 2021 Norwegian purse seine bluefin tuna season are included in Table 4.

Table 4: Observer coverage on purse seiners monitoring fishing and transfer operations for Norway 2021

Flag State / CPC	Vessels (n)	Total days active (n)	Obs. Sea Days (n)	Number of fishing operations
Norway (2021)	4	103	0	32

In 2022, four requests for deployments have been made (seven were originally made but three were subsequently cancelled) with one vessel still active at the time of submission. As such, details of the implementation of the ROP-BFT in the Norwegian purse seine fleet for the 2022 season will be included in next year's annual report.

2.2.2 Deployments on Farms

The farm deployments by farm State / CPC completed with outputs submitted during the current contract year are set out in Table 5. There were a total of 1,211 observer days completed for 37 deployment requests, over 28 different farms. Of the 37 requests, all started during the current contract year. The deployment requests included in Table 5 are listed in Annex 1 .

Table 5: Observer coverage on farms during the current contract

Farm State	Deployments requests (n)	Farms (n)	Obs. days (n)
Albania	1	1	12
EU.Croatia	5	4	252
EU.Spain	8	3	251
EU.Malta	8	6	325
EU.Portugal	3	2	39
Maroc	3	3	169
Tunisie	4	3	76
Türkiye	8	6	87
Total	37	28	1,211

Those farm deployments which occurred during the previous contract but were not completed with outputs submitted by the time of the previous report are summarised in Table 6. There were a total of 1,926 observer days completed for 40 deployment requests, over 26 different farms. The deployment requests included in Table 6 are listed Annex 2 .

Table 6: Observer coverage on farms between the previous report and commencement of the current contract

Farm State	Deployment requests (n)	Farms (n)	Obs. days (n)
Albania	3	1	26
EU.Croatia	4	4	184
EU.Spain	9	3	607
EU.Malta	11	6	633
EU.Portugal	1	1	13
Maroc	2	2	76
Tunisie	5	3	153
Türkiye	5	6	234
Total	40	26	1,926

2.2.3 Deployments on Traps

The trap deployments by trap State are set out Table 7. There were 89 observer days completed on 7 deployment requests, over a total of 19 different traps. However, for Maroc, the trap deployments fell under a farm deployment request and therefore the number of days (139) spent by observers on Moroccan farms during that period are included above in the corresponding farm deployment.

Table 7: Observer coverage on traps monitoring transfer operations

Trap State	Deployment requests (n)	Traps (n)	Obs. days (n)
EU.Italy	3	3	89
Maroc	3	15	0 (139)
Total	7	18	89 (228)

In addition, the deployment on the two Portuguese farms involved cagings direct from the trap to the farm, and therefore were monitored as cagings as part of a farm deployment. For this reason, these deployments are not included above.

3 Estimating Number and Weight of Tuna

3.1 By Operators

3.1.1 On Purse Seiners

While methods for estimation are not specified, it is generally believed that the prior transfer notification estimates are made by use of underwater visual estimates by divers but other tools such as acoustics may also be used. Following the transfer, the vessel estimates recorded in the ITD, eBCD and logbook are usually based from the same video record provided to the observer, although stereoscopic video footage is now also used to estimate the length and subsequently calculate the weight of a sample of fish, and at times number of fish.

Quality of video footage continues to improve significantly which is likely at least in part due to increased pressure on vessel operators to provide accurate estimates in the ITD, and subsequently avoid potential sanctions resulting from significant differences in estimates at caging, as well as of course increased experience.

Operator estimates are recorded in the eBCD, the ITD and the logbook. The estimates for both weight and number in the eBCD can also be retrospectively amended following definitive estimates made during caging. In cases that the observer is informed of these amended figures during deployment, the updated figure is included in the report.

3.1.2 On Traps

As with purse seine vessels, the prior transfer notification estimates are usually based on underwater visual estimates by divers. Similarly, following the transfer the trap estimates recorded in the ITD and eBCD are usually based from the same video record provided to the observer, although again stereoscopic video footage is used to calculate weight as well as number of fish transferred.

Operator estimates are recorded in the ITD and the eBCD.

3.1.3 On Farms

3.1.3.1 Caging and transfers

The farm provides an estimate of the number and weight of tuna caged with the eBCD and the ICD and the number and weight of tuna transferred within the ITD. These estimates are based on video records made at the time of the operation. The exact mechanism for this varies between and even within CPCs. In the case of cagings, some CPCs submit an initial eBCD and ICD based on initial estimates from the regular video footage of the caging or even the initial transfer estimates from the purse seine vessel. These estimates may be amended at a later date following more accurate estimates from the stereoscopic footage, including definitive estimates of the average weight. In other instances, the eBCD may not be produced until the definitive number and weight of tuna caged is obtained from the stereoscopic video footage. While this offers the advantage of the observer being able to compare their figures with the definitive estimate, the time delay in receiving these official estimates has created problems on some deployments, particularly those of shorter duration as the observer is only able to verify these eBCDs while actively deployed. However, it should be noted, the duration between caging operation and issue of eBCD and ICD has greatly reduced and no issues were experienced this year with eBCDs being unsigned at the date of the observer's departure.

All farm National Authorities have used stereoscopic camera systems at caging and in all cases an ICCAT caging declaration was produced in line with the requirements of Para 168

and Annex 12 of Rec 21-08. Farm estimates are recorded in the eBCD and the ICD.

In the case of transfers, these are produced at the time of the operation, in accordance with Para 130 of Rec. 21-08.

3.1.3.2 Harvests

Harvest estimates based on numbers of fish removed, which are weighed, usually whole on the farm or processing vessel. In some cases, fish are partially processed and later weighed as processed weight, particularly in the case of fresh harvests, on discharge in port. This processed weight then has the relevant conversion factor applied to obtain the whole weight.

Farm estimates are recorded in the eBCD and the harvest/processing declaration.

3.2 By Observers

3.2.1 On Purse Seiner Operations

3.2.1.1 Fishing and Transfer Operations

Observers rely on standard video records of transfers to estimate the number of tuna transferred. In the case of landed fish or incidental mortalities, observers estimate the number of fish either landed or discarded, and if possible, weighing the dead fish if scales are available onboard the purse seine vessel.

From the total of 304 transfers conducted (Table 8), all were recorded by video. Following review of the video, it was possible for the observer to estimate the number of fish transferred for 296 transfers. Of these 296 transfers, the observer's estimate was within 10% of the vessel's estimate for 295 transfers. In line with the Recommendation (Para 92 of Rec. 19-04 and Paras 124 -127 of Rec. 21-08), the vessel operator has an opportunity to perform voluntary transfers should the quality of the initial transfer video not permit an accurate estimate. There were 3 voluntary transfers performed. On the other 5 occasions, no voluntary transfer was performed and a PNC was sent.

Of note, one transfer operation undertaken by a Turkish vessel was conducted on behalf of the GBYP tagging programme. Live fish were transferred to a cage for later tagging and eventual release. No ITD was produced.

Table 8: Observer estimations of number of BFT transferred from purse seine transfers

Flag State	Number of Transfers (n)	Recorded by video	Estimate of BFT by number possible (n)	Observer estimate within 10% of vessel estimate (n)	ITD Signed (n)	PNC submitted (n)	Voluntary transfer (n)
Albania	4	4	4	4	4	0	0
Algeria	15	15	14	14	14	0	1
Egypt	1	1	1	1	1	0	0
EU.Croatia	97	97	95	95	95	2	0
EU.Spain	16	16	14	13	13	3	0
EU.France	20	20	20	20	20	0	0
EU.Italy	26	26	26	26	26	0	0
Libya	10	10	10	10	10	0	0

Flag State	Number of Transfers (n)	Recorded by video	Estimate of BFT by number possible (n)	Observer estimate within 10% of vessel estimate (n)	ITD Signed (n)	PNC submitted (n)	Voluntary transfer (n)
Maroc	2	2	2	2	2	0	0
Syrian Arab Republic	1	1	1	1	1	0	0
Tunisie	15	15	13	13	13	0	2
Türkiye	97	97	96	96	95	1	0
Total	304	304	296	295	294	6	3

Of the 3 voluntary transfers carried out, the observer was able to estimate the amount of tuna transferred for all transfers and the ITD was subsequently signed (Table 9).

Table 9: Observer estimations of number of BFT transferred from purse seine Voluntary transfers

Flag State	Number of voluntary transfers (n)	Recorded by video	Estimate of BFT by number possible (n)	Observer estimate within 10% of vessel estimate (n)	ITD Signed (n)	PNC submitted (n)	Control transfer (n)
Algeria	1	1	1	1	1	0	0
Tunisie	2	2	2	2	2	0	0
Total	3	3	3	3	3	0	0

While becoming increasingly rare, factors that prevented a reliable estimate of the number of tuna included:

- The density of tuna obscured individual fish and therefore prevented an accurate count, especially with large catches;
- Poor video quality and/or water clarity; and
- Densely packed fish moving in both directions during the transfer.

As with previous seasons, observers have commented that estimating the weight of fish remains impossible for the following reasons:

- Broad range of size variability between tuna;
- Quality of the video image;
- Density of fish obstructed the view of individual fish; and
- Lack of size reference tool combined with depth of field of the image.

Comparing final observer and vessel estimates, observers estimated less than the vessel on 105 occasions, equivalent to 35% of the total and more than the vessel on 166 occasions, equivalent to 56% of the total (including once when the observer's estimate was more than 10% higher than the vessel's). The exact same amount was estimated on 28 occasions (9% of total).

As soon as possible following transfer, the electronic storage device containing the original

video record is provided (or shown) to the observer to ensure no manipulation occurs. The original copy is then eventually retained by the towing vessel and accompanies the tuna to the receiving farm. A copy of the video record is given to the observer for submission at debrief. Observers received the electronic storage device and copies of the videos for review in a timely fashion.

3.2.1.2 Release Operations

There were a total four release operations following release order from purse seine vessel reported in 2021 (Table 10). In accordance with Para 118 and Annex 10 of Rec. 21-08, vessels are required to complete a release declaration, which in turn shall be validated by the observer. While all release operations occurred prior to the coming into force of Rec. 21-08, all release operations had a release report produced which in turn was validated by the observer.

Table 10: Summary of release operations performed during the 2021 fishing season

Trap State / CPC	Number of release operations (n)	Release report produced	Release report validated
Albania	1	1	1
EU.Spain	1	1	1
EU.France	2	2	2
Total	4	4	4

3.2.2 On Traps

As with the purse seine vessels, observers rely on standard video records of transfers to estimate the numbers of tuna transferred. The traps have an opportunity to perform a voluntary transfer should the quality of the initial transfer video not permit an accurate estimate. Of the total of 29 transfers conducted, the number of fish transferred was able to be estimated for 25 operations, all of which were within 10% of the operator's estimate (Table 11).

Table 11: Observer estimations of quantity of BFT following initial transfers from traps.

Trap State / CPC	Number of Transfers (n)	Estimate of BFT by number possible (n)	Estimate within 10% of trap estimate (n)	ITD Signed (n)	PNC submitted (n)	Voluntary transfer (n)
EU.Italy	9	9	9	9	0	0
Maroc	20	16	16	16	0	4
Total	29	25	25	25	0	4

Voluntary transfers carried out on four occasions on Moroccan traps when no observer estimate had been possible due to video quality. The subsequent voluntary transfers were compliant and the observer estimate was within 10% of the trap operator's estimate, with the ITD subsequently signed on all occasions (Table 12).

Table 12: Observer estimations of quantity of BFT following voluntary transfers from traps.

Trap State / CPC	Number of voluntary transfers	Estimate of BFT by number possible (n)	Estimate within 10% of trap estimate (n)	ITD Signed	PNC submitted (n)
Maroc	4	4	4	4	0
Total	4	4	4	4	0

Reviewing observer and trap estimates, observers estimated more than the trap on 10 occasions and less than the trap on 19 occasions. On no occasion did the difference between estimates exceed 10% of the trap's estimate.

3.2.3 On Farms

3.2.3.1 Caging

There was a total of 199 caging operations performed in 2022 (Table 13). Of these, the observer was able to estimate the number of tuna caged on 191 occasions, with the observer estimate being within 10% of the farm's estimate as recorded in the eBCD on 186 occasions. The eBCD and ICD was signed for those operations that the observer had been able to make an estimate and their estimate was within 10% of the declared estimate.

In some cases, the farm's estimate as recorded in the ICD varied from that recorded in the eBCD, although in each of these cases, the observers' estimates were 10% within both the eBCD and ICD recorded estimates.

A PNC following non-signing of the eBCD and ICD was sent on 12 occasions. For the two cagings carried out on Albanian farms, while the observer was able to estimate the amount of tuna caged, the competent authorities ordered a control caging, and no estimate was provided after the initial cagings.

Table 13: Observer estimations of quantity of BFT following initial caging operation

Farm State/CPC	No. Caging Ops (n)	Estimate of number of BFT caged possible (n)	Estimate within 10% of farm estimate (n)	eBCD Signed (n)	ICD signed (n)	PNC submitted
Albania	2	2	0	0	0	0
EU.Croatia	17	17	17	17	17	0
EU.Spain	42	35	32	32	32	10
EU.Malta	69	69	69	69	69	0
EU.Portugal	4	4	4	4	4	0
Maroc	20	19	19	19	19	1
Tunisie	17	17	17	17	17	0
Türkiye	28	28	28	28	28	1
Total	199	191	186	186	186	12

Two control operations were performed following cagings, while there were also 4 control cagings carried out prior to the caging in Spain (Table 14). The single control operation in Albania corresponded to both of the caging operations that had been carried out. Following these control operations, the observer was able to sign the eBCD and ICD.

No control operations were performed following the PNCs sent in Spain and Türkiye.

Table 14: Observer estimations of quantity of BFT following control caging operation

Farm State/CPC	No. Control caging Ops (n)	Estimate of number of BFT caged possible (n)	Estimate within 10% of farm estimate (n)	eBCD Signed (n)	ICD signed (n)	PNC submitted
Albania	1	1	1	1	1	0
EU.Spain	4	4	4	0	0	0
Maroc	1	1	1	1	1	0
Total	6	6	6	2	2	0

As with purse seine video estimations, the difference between observer and farm estimates varied significantly. Of the 191 initial caging operations when the observer was able to estimate the amount of tuna caged and compare this with the recorded estimates, the observer estimated more than the farm on 103 occasions (55% of the total) (of which 3 estimates were more than 10% different to the farm's), the same on 2 occasions (1%) and less on 84 occasions (44% all less than 10% different to the farm's). In Albania, the farm did not provide an initial estimate for the 2 cagings, instead a control operation was carried out on the request of the control authorities.

Of the two control operations carried out following the caging, the observer's estimate was more than the farm's estimate on both occasions. In the case of the four control operations carried out in Spain prior to the caging operation, the observer's estimate was less than the farm's estimate on each occasion. All estimates following control operations were within 10% of the farm estimate.

In addition to above, the data from four caging operations was received following the submission of the previous annual report and before the current contract (Table 15). All of these operations occurred following inter-farm transfer operations. For all operations, the observer was able to estimate the number of tuna caged, and the eBCD and ICD were signed.

Table 15: Observer estimations of quantity of BFT during caging between the previous report and commencement of the current contract

Farm State / CPC	No. Caging Ops (n)	Operation videoed (n)	Estimate of number of BFT caged possible (n)	Estimate within 10% of farm estimate (n)	eBCD and ICD Signed (n)	PNC submitted (n)
EU.Malta	1	1	1	1	1	0
Türkiye	3	3	3	3	3	0
Total	4	4	4	4	4	0

3.2.3.2 Inter-Farm Transfers

There were two inter-farm transfer operations performed during the current contract year

(Table 16). The observer was able to estimate the number of tuna caged for all operations, with the estimate being within 10% of the farm's estimate as recorded in the ITD. The ITD was signed for all operations.

Table 16: Summary of inter-farm transfers carried out during the current contract

Farm State / CPC	Number of Transfers (n)	Estimate of BFT by number possible (n)	Estimate within 10% of trap estimate (n)	ITD Signed (n)	PNC submitted (n)
Türkiye	2	2	2	2	0
Total	2	2	2	2	0

In addition to above, the data from four inter-farm transfer operations was received following the submission of the previous annual report and before the current contract (Table 17). The observer was able to estimate the number of tuna transferred, with the estimate being within 10% of the farm's estimate as recorded in the ITD for all of these operations. The ITD was signed for all of these operations.

Table 17: Summary of inter-farm transfers carried out between the previous report and commencement of the current contract

Farm State / CPC	Number of Transfers (n)	Estimate of BFT by number possible (n)	Estimate within 10% of trap estimate (n)	ITD Signed (n)	PNC submitted (n)
EU.Malta	1	1	1	1	0
Türkiye	3	3	3	3	0
Total	4	4	4	4	0

3.2.3.3 Release operations

For the current contract to date, 22 release operations from farms have been carried out (

Table 18). All releases were conducted in line with the requirements of Annex 10 of the Recommendation. In accordance with Rec. 21-08 Annex 10, releases now must be preceded by a prior-release segregation operation, which itself must comply with the video requirements outlined in Annex 8, while the release itself must be carried out at least 10nm from the farm facilities (or 5nm may be permitted if the fish to be released weigh less than 5 tonnes). All releases were conducted in line with these requirements except for the release in Portugal.

In addition, a release report/declaration must also be produced as outlined in the appendix of Annex 10, which itself must be validated by the regional observer. All release reports were validated except for that produced in Portugal, as the release had not complied with the requirements established in Annex 10.

Table 18: Release operations current contract year

Farm State/CPC	Number of releases	Pre-release segregation Op (n)	Release report produced (n)	Release report validated (n)	Required distance from farm (n)
EU.Croatia	1	1	1	1	1
EU.Spain	2	2	2	2	2
EU.Malta	13	13	13	13	13
EU.Portugal	1	0	1	0	0
Tunisie	3	3	3	3	3
Türkiye	2	2	2	2	2
Total	22	21	22	21	21

A total of 20 releases were carried out after the submission of the previous annual report and the start of the current contract year (Table 19). All releases were conducted in line with the requirements of Annex 10 of the Recommendation in force at the time, although 13 releases related to caging operations were carried out more than 3 weeks after the end of caging operations.

Table 19: Release operations between the previous report and the current contract year

Farm State/CPC	Number of releases	Observer present (n)	Video record (n)	Accurate copy provided (n)
Albania	2	2	2	2
EU.Spain	10	10	10	10
EU.Malta	8	8	8	8
Total	20	20	20	20

3.2.3.4 Harvests

Harvest operations for the current contract year have been carried out on Spanish and Maltese farms (Table 20). During harvest operations, observers typically monitor operations on the carrier vessel for bulk harvests, or on the farm vessel for fresh exports. To date for the current contract year, only fresh harvests and natural mortalities have been reported.

In all instances of harvesting, an accurate count of tuna removed and individual or average weight for fish harvested was permitted. For fresh harvests, the observer was provided with the eBCD as soon as possible after the operation for verification and the eBCD was signed. In the case of natural mortalities, the eBCD bypassed observer verification and instead was signed by the national authorities, or if the fish was not commercialised, no eBCD was produced.

Table 20: Harvest operations during the current contract year

Farm State/CPC	Number of requests	Number of farms	Total N° of harvest operations	N° of fresh harvest operations	N° of bulk harvest operations	N° of natural mortalities	eBCD signed
EU.Spain	5	2	129	127	0	2	127
EU.Malta	1	1	1	1	0	0	1
Total	6	3	130	128	0	2	128

In accordance with Para 188 of Rec. 21-08, harvests (with the exception of incidental mortalities / dying fish), require a harvest authorisation. All fish harvests observed during the current calendar year had a harvest authorisation. In addition, in accordance with Para 192 and 193 of Rec. 21-08, all harvests must have a harvest or processing declaration completed, which in turn must be validated by the regional observer. All fresh harvests had a harvest declaration produced, but this was only validated on 50 occasions, as early versions of this document had not included a space for the observer's signature, or these harvests occurred before the requirement came into force.

In addition to above, the data from 1,821 harvest operations was received following the submission of the previous annual report and before the current contract (Table 21). The eBCD was signed for 1,772 of these harvests. The eBCDs were not signed on 49 occasions. For 28 occasions, all of which were in Croatia, the eBCDs were not signed as they included tuna that was under 30kg live weight or 115cm fork length. PNCs were sent on each of these occasions. On one further occasion in Croatia, the eBCD was not signed by the observer by mistake, and was instead signed by the ICCAT Secretariat on his behalf. On 20 occasions, all of which were in Spain, the eBCDs were not signed as these bypassed the observer as natural mortalities.

Table 21: Harvest operations between the previous report and the current contract year

Farm State/CPC	Number of requests	Number of farms	Total N° of harvest operations	N° of fresh harvest operations	N° of bulk harvest operations	N° of natural mortalities	eBCD signed
Albania	2	1	15	0	15	0	15
EU.Croatia	4	4	141	17	124	0	112
EU.Spain	9	3	412	179	213	20	392
EU.Malta	11	6	598	122	475	1	598
EU.Portugal	1	1	5	0	5	0	5
Maroc	2	2	98	0	98	0	98
Tunisie	5	3	137	0	137	0	137
Türkiye	4	6	415	11	404	0	415
Total	38	26	1,821	329	1,471	21	1,772

4 Potential Non-Compliance Events

Observers record and report PNCs under the codes listed in Annex 3 of this report. Note that PNCs either were amended or introduced by Rec. 21-08. In such cases, the PNC relevant to 19-04 which is being amended or replaced, is highlighted in orange and the new or amended PNC is highlighted in yellow.

4.1 Purse seine vessels

On purse seine vessels, in the case of the observer being unable to sign the ITD following a transfer operation, Paragraph 93 of Rec. 19-04 / Annex 4 of Rec. 21-08 requires observers to indicate their presence on transfer declarations and eBCDs and include reference to the specific measure/s which has not been respected, on the unsigned document. Those PNCs resulting in the observer not signing the ITD are shown in Table 22.

Table 22: PNCs preventing the observer from signing the ITD during the 2022 purse seine season

	PNC codes								Total	Total unsigned ITDs
	TITN	TLTO	TODT	TOGO	TRAT	TSEP	TTNP	TVRO		
EU.Croatia	1	1	1	0	0	0	1	0	4	2
EU.Spain	1	1	0	1	1	0	1	0	5	3
Türkiye	1	1	1	0	0	1	1	1	6	1
Total	3	3	2	1	1	1	3	1	15	6

Note that several PNCs may be related to a single transfer, hence there being more PNCs than unsigned ITDs.

While becoming increasingly unusual for a PNC to result in the observer to not sign the ITD, the most common PNC relating to review of video records is being unable to make an independent estimate due to video quality or clarity (TTNP). This year also saw a number of occasions when an ITD was not produced (TITN), with the observer unable to input their name, ICCAT number and reasons for disagreement.

As with previous years, other PNCs included the video record not showing the closure of the door at the beginning and/or end of the transfer (TODT), as well as the video record not being continuous and covering the entire operation (TLTO). This year also had one occasion when the observer's estimate was more than 10% different to the vessel's (albeit only just outside the margin of error at + 10.47%).

There was also one occasion when the transfer authorisation was not shown at the start or end of the video (TRAT) and another, when the electronic storage device was not provided to the observer as soon as possible to ensure no manipulation occurs (TVRO).

Finally, and as a new PNC this year relating to Para. 127 of Rec. 21-08, one observer reported that the transport cage had separated from the purse seine (to the extent that the vessel had left the area and returned to port) before being able to complete their duties (TSEP), in this case they did not sign the ITD and input the corresponding information.

Otherwise, the number of PNCs were low in comparison with previous years, largely due to improved video quality as well as the use of voluntary transfers when applicable (albeit these were also only used rarely).

In addition, the observer is also required to report on any other potential non-compliance with ICCAT conservation and management measures (Table 23).

Table 23: Other PNCs detected during the 2022 purse seine season

	PNC Codes							Total	
	FLBI	FLBN	FOBS	FMOR	GDNI	TLBI	TNAC		TSEV
Albania	0	0	0	2	0	0	0	0	2
Algeria	0	0	0	1	0	0	0	0	1
EU.Croatia	7	5	0	53	0	3	1	1	70
EU.España	0	0	0	3	0	0	0	0	3
EU.France	1	0	0	7	0	0	0	0	8
EU.Italy	0	0	0	10	5	0	0	0	15
Libya	2	0	2	5	0	0	0	0	9
Tunisie	0	0	0	9	0	0	0	0	9
Türkiye	0	0	0	12	0	0	0	0	12
Total	10	5	2	102	5	3	1	1	129

The majority of these PNCs related to dead tuna not being recorded in the eBCD or being incorrectly recorded in accordance with the procedures established in Annex 11 of Rec. 19-04 / 21-08 (FMOR). In the majority of these cases, sections 2 and 3 of the eBCD both included live and dead fish. Consequently, the quantities declared in sections 3 and 4 are not equal to the quantity declared in section 2, while in the first case, the quantity declared in section 3 is not equal to the number of bluefin tuna transferred in the ITD.

On other occasions, section 2 included live and dead fish, section 3 live fish only, and section 4 did not include dead fish. This PNC was observed across the fleet, whenever there were dead fish following a transfer.

Two PNCs were sent relating to Libyan vessels that were active in the fishery before the observer had been able to embark (FOBS). While these vessels had not conducted fishing operations, they were, as part of a JFO, operating in the fishery, and other vessels in the fleet had conducted fishing operations, both successful and unsuccessful (followed by voluntary releases).

A number of unidentified small-scale vessels operating in the fishery, without apparently being on the ICCAT record of fishing vessels (GDNI), were also noted by observers in the Italian fleet. These vessels were actively hindering the vessels' fishing activities and in some cases, the Coastal Guard had to intervene. This issue seems to be very serious and frequent along the coast of Calabria in southern Italy where several of the fishing operations are usually carried out.

Other PNCs related to:

- incorrect logbook information (FLBI), including allocated catch not being recorded or being recorded inaccurately, bycatch discards not being recorded;

- incorrect positions of the transfer (TLBI), or no logbook entry being made for that day (FLBN); and
- A transport cage was observed with duplicate numbers (TNAC) although this was rectified before the transfer was carried out.

Finally, and as a new PNC this year, one observer reported that he was unable to verify that the sealing operation had been carried out in accordance with Para. 128 and Annex 14 of Rec. 21-08 (TSEV), as the vessel had returned to port before this operation had been completed.

4.1.1 Cage sealing Operations

There were 3 cage sealing operations carried out following transfers from purse seine vessels, in line with Para 128 and Annex 14 of the Recommendation (Table 24).

Table 24: Summary of cage sealing operations performed during the 2022 fishing season

Trap State / CPC	Number of release operations (n)	Operation videoed (n)	Video record provided to observer (n)
EU.Croatia	2	2	1
EU.Italy	1	1	1
Total	2	2	2

In one case in Croatia the observer did not receive the video of the sealing operation immediately following the operation, in accordance with Rec. 21-08, Para 128, Annexes 8 and 14. However, the observer was provided with a copy later in the deployment.

For the Italian fleet, the observer provided seals on the request of the national authorities. The observer had been able to sign the ITD, but due to the difference approaching the limit of the margin of error (9.92%) the competent authorities decided to seal the cage.

This was the first year that cage seals had been used in this context, and the functionality of these seals had not yet been assessed. Initial evaluation of the tags and the visibility of the logo and number (Figure 2), indicate that they are appropriate for the task. However, on one occasion, for sealing operations on Italian traps (see below), the observers were notified that the seals were a little bit fragile with a broken seal returned to the observer.



Figure 2: Screenshot of cage seal during sealing operation,

4.2 Traps

Observers are required to report on any observed PNCs during trap transfers. PNCs relating directly to the transfer operation mean that the observer cannot sign the ITD. In such a case the trap has the opportunity to carry out a voluntary transfer. If the resulting transfer is performed with satisfactory results, the observer may sign the ITD, and the PNC shall not be reported. Four voluntary transfers were carried out in Moroccan traps, each resulting in a satisfactory video record, with the ITD subsequently signed. As such, no PNCs were reported during trap deployments in 2022.

4.2.1 Cage sealing Operations

During the deployments on the Italian traps, seals were used instead of the national authority's seals following all nine transfer operations conducted across the 3 traps, albeit this was not due to any observed PNC by the observer.

4.3 Farms

4.3.1 Cagings

One hundred percent observer coverage is required for all cagings, and the observer monitors compliance with ICCAT Recommendations, as well as reviews the associated video and report on any PNCs. PNCs relating directly to the caging operation mean that the observer cannot sign the eBCD or ICD and must indicate the reasons for not signing on the document. Unlike transfer operations, the farm is unable to perform a voluntary operation for cagings and a PNC must be sent. In the case that the national authorities deem it necessary following investigation, a control operation is performed.

Under the current contract, the following observed PNCs meant that the observer was unable to sign the corresponding eBCD and/or ICD (Table 25).

Table 25: PNCs occurring during the current contract relating to caging operations.

	PNC codes				Total
	CBDD	CCNP	CODO	CTNM	
Albania	1	0	0	0	1
EU.Spain	1	7	3	0	11
EU.Malta	2	0	0	0	2
Maroc	0	0	0	1	1
Total	4	7	3	1	15

The most common PNCs observed during caging operations was the observer estimate being more than 10% different to the farm's (CODO) and video quality not being sufficient to allow an estimate (CCNP). One PNCs related to the video record not including the caging authorisation at the start nor end of the video (CTNM).

Other PNCs were also observed during caging, relating to inconsistent information being contained within the ICD and/or eBCD (CBDD) with differences in the amount declared between the eBCD and ICD, including both live and dead fish.

In addition, 4 cagings occurred between the submission of last year's annual report and the current contract year. These cagings, each occurring after the 7th of August, were in potential non-compliance with Para. 95 of Rec. 19-04 which requires all tuna to be caged before 22nd of August, or if force majeure applies, not after 7th of September (CLAT). Noting that each of these cagings were from inter-farm transfers, these would not be considered as PNCs under the Rec. 21-08 Para 161.

4.3.2 Inter-farm transfers

One hundred percent observer coverage is required for all inter-farm transfers to a transport cage for later delivery to another farm. Any PNCs relating to the video record mean the observer is unable to sign the ITD, but as with transfers from purse seine vessels and traps, the donor farm has an opportunity to carry out a voluntary transfer to produce a compliant video record.

To date, two inter-farm transfers have been carried out during the current contract period, with no PNCs have been reported. The corresponding ITDs were signed by the observer.

In addition, four inter-farm transfers were carried out between submission of the previous report and the current contract period. Again, no PNCs have been reported and the corresponding ITDs were signed.

4.3.3 Releases

One hundred percent observer coverage is required for all releases of tuna from farms. In accordance with the release protocol of Annex 10 of Rec. 21-08, farms must now segregate fish into an empty transport cage, prior to the release and the release itself must be carried out at least 10nm from the farm, or in the case of releases of less than 5 tonnes, a minimum of 5nm. Both the prior-release segregation operation and the release operation shall comply also with the minimum standards in Annex 8. In addition, for each release operation, a release report/declaration, which the observer shall validate if the operation is compliant.

One release operation was carried out in Portugal, with no prior release segregation operation performed (RSEG), and tuna released directly from the farm facilities (RDIS). As a consequence, the observer did not sign the release declaration but rather put her name, ROP-BFT identification number and the corresponding PNC codes.

There were a total of 20 releases that occurred after the submission of the previous annual report and the start of the current contract year. Of these, thirteen release operations were of excess fish following caging operations, and these did not occur within 3 weeks of completion of the caging operations (RRLI).

4.3.4 Harvests and general compliance

In addition to the above, observers are also required to monitor 100% of harvest operations on farms, as well as general compliance, such as vessels involved in operations being included on the ICCAT active vessel register.

To date, no PNCs relating to harvest operations or general compliance have been observed during the current contract year.

Between the submission of the previous report and the commencement of the current contract, the following PNCs have been observed on farms relating to general compliance (Table 26). A total of 25 PNCs were reported for undersized fish being harvested and landed in Croatia (HUND). In each case the undersized fish were included in the corresponding eBCD for that harvest, and consequently, the eBCD was not signed by the observer.

A further three PNCs related to vessels not on the on ICCAT record of authorized vessels involved in operations were also reported. Specifically, this related to vessels supporting farm operations, including transport of harvested fish, transport of divers and logistical support in Albania and Türkiye.

Table 26: PNCs reported between the previous report and the current contract relating to harvests and general compliance.

	PNC code		Total
	GONI	HUND	
Albania	1	0	1
EU.Croatia	0	25	25
Türkiye	2	0	2
Total	3	25	28

5 Submission of Deployment Outputs

Paragraph 7d) of Annex 6 The Recommendation requires that observer deployment reports are submitted to the Secretariat within 20 calendar days from the end of the period of observation. In 2022, 188 of the 192 purse seine deployment reports were submitted within 20 days. Four reports from purse seine deployments, 000EU069; 000TN140; 000TN148; and 000DZ189 were submitted between 1 and 3 days after the submission date.

For the reports for the 40 farm requests completed during the current contract period, 37 of the 40 were submitted within 20 days. Three reports from farm deployments, 001MA0679, 001EU0687 and 001TN0699 were submitted 3 to 9 days after the submission date. It should be noted that the observer on 001TN0699 was deployed immediately afterwards to 001TN0704 and both these reports were submitted together as soon as possible following completion of 001TN0704. For the reports for the 42 farm requests completed following the submission of last year's annual report and the start of the current contract, all were submitted within the 20-day deadline.

For the reports for the three trap deployment requests, all were submitted with 20 days.

The consortium wishes to communicate that in response to the late submission of four purse seine reports and three farm reports, we have carried out an internal review and developed measures to strengthen procedures to ensure this does not occur again.

6 Scientific Monitoring and Activities

6.1 Length and Weight Sampling

6.1.1 Purse seine deployments

Observers were instructed to collect length and weight data on all accessible bluefin tuna which had died and were brought onboard during purse seine operations, prioritising tagged fish. Weight is only recorded when scales allow independent estimate of the weight. Length is usually measured as curved fork length using flexible tape, although if a calliper is available, straight fork length is also taken. A total of 339 fish were measured for length and 228 weighed (Table 27). No tags were recovered and no biological samples were taken.

Table 27: Summary of sampling during 2022 fishing season

Flag State	Number of fish measured for length	Number of fish weighed	Number of tags	Number of samples
Albania	3	0	0	0
Algeria	19	6	0	0
EU.Croatia	214	142	0	0
EU.Spain	11	11	0	0
EU.France	8	5	0	0
EU.Italy	26	26	0	0
Tunisie	26	26	0	0
Türkiye	32	13	0	0
Total	339	228	0	0

6.1.2 Harvest deployments

To date a total of 5,424 fish have been weighed and measured during the current 2022 harvest season (Table 28). Usually, the length measurement taken is SFL, but CFL may be taken if no calipers are available. The weight of fish taken varies depending on availability of scales, and is only taken if fish are able to be weighed individually. Fish may be weighed whole if scales are available onboard the processing vessel and fish are able to be weighed before processing, or on land as processed fish (usually gilled and gutted or dressed) when discharged.

Table 28: Summary of sampling during the current harvesting season

Farm State	Number of fish measured for length	Number of fish weighed	Number of tagged fish	Number of samples
EU.Spain	5423	5423	6	3
EU.Malta	1	1	0	0
Total	5424	5424	5	3

Samples were taken following submission of last year's annual report and the beginning of the current contract (Table 29).

Table 29: Summary of sampling after submission of the previous report and before the current contract

Farm State	Number of fish measured for length	Number of fish weighed	Number of tagged fish	Number of samples
Albania	442	442	2	0
EU.Croatia	6,947	6,945	0	0
EU.Spain	22,051	30,303	32	11
EU.Malta	13,309	13,323	19	5
EU.Portugal	1,067	1,068	2	0
Maroc	1,251	1,251	1	1
Tunisie	2,394	2,395	10	0
Türkiye	5,168	5,168	10	0
Total	52,629	60,895	76	17

6.2 Tag recoveries and sampling

During training, the Consortium outlined the research necessary for improving the scientific advice that the Scientific Committee provides to the Commission which includes a tagging and recovery programme. Observers were also requested by GBYP to retain the heads of tagged tuna for subsequent collection and otolith and genetic analysis. No tags were recovered nor were any samples taken during the purse seine deployments.

Six tags have been recovered during the current harvesting season to date and a further 76 tags after submission of the previous report and before the current contract (Table 30). These were reported in real time, and for 17 of the tags, a sample was recovered and stored at the farm for later recovery by GBYP.

While observers prioritise sampling of tagged fish, on occasion, the fish is processed before the tag has been identified, and no biometric records can be taken.

Table 30: Summary of tags recovered to date since submission of the previous annual report

Farm state	Harvest season	Length (cm)	Weight (kg)	Tag #	Tag Type	Sample
EU.Spain	2022	200 SFL	120 DR	BYP080936	SS	Yes
EU.Spain	2022	208 SFL	158.5 DR	BYP079043	SS	Yes
EU.Spain	2022	209 SFL	162 DR	BYP078993	SS	Yes
EU.Spain	2022	210 SFL	186 DR	BYP052825	SS	Yes
EU.Spain	2022	223 SFL	192 DR	Illegible	SS	Yes
EU.Spain	2022	249 SFL	196.5 DR	21282810	ET	Yes
Albania	2021	269 CFL	305 WHO	BYP 077339	SS	No
Albania	2021	124 CFL	42 WHO	HM100523	SS	No
EU.Malta	2021	198 CFL	138 WHO	BYP 080661	SS	Yes
EU.Malta	2021	210 CFL	163 WHO	BYP 074163	SS	Yes
EU.Malta	2021	225 CFL	199 WHO	BYP 000781	SS	Yes

Farm state	Harvest season	Length (cm)	Weight (kg)	Tag #	Tag Type	Sample
EU.Malta	2021	218 CFL	164 WHO	BYP 057443, BYP 017443	DS	Yes
EU.Malta	2021	227 CFL	172 WHO	BYP 077529	ET	Yes
EU.Malta	2021	268 CFL	370 WHO	BYP078461	SS	No
EU.Malta	2021		140 WHO	BYP057065 / BYP017065	DS	No
EU.Malta	2021	210 CFL	162 WHO	BYP057048	SS	No
EU.Malta	2021			BYP009968	SS	No
EU.Malta	2021	218 CFL	194 WHO	BYP007545	SS	No
EU.Malta	2021	221 CFL	216 WHO	BYP006889	SS	No
EU.Malta	2021	228 SFL	205 WHO	BYP080644	SS	No
EU.Malta	2021	248 SFL	272 WHO	BYP073004	SS	No
EU.Malta	2021	223 SFL	185 WHO	BYP001187	SS	No
EU.Malta	2021			BYP 057033	SS	No
EU.Malta	2021	235 CFL	240 WHO	FL 33310	SS	No
EU.Malta	2021	235 CFL	232 WHO	BYP 080184	SS	No
EU.Malta	2021	241 CFL	181 DR	078923	SS	No
EU.Malta	2021	215 CFL	141 DR	053491	SS	No
EU.Portugal	2021	195 CFL	150 WHO	HM 082577	SS	No
EU.Portugal	2021			BYP 057221	SS	No
EU.Spain	2021	251 CFL	275 WHO	KAA@DIFRES DK A9, ICCAT.BYP 079992	DS	No
EU.Spain	2021	166 CFL	81 WHO	ICCAT USA HM100684	SS	No
EU.Spain	2021	143 CFL	49 WHO	AZTI 20110 PASAIA SPAIN AAA002582	SS	No
EU.Spain	2021	225 SFL	274 WHO	BYP080032 / PA737 PH34-91-416-5600	DS	No
EU.Spain	2021	256 SFL	303 DR	BYP078092	SS	No
EU.Spain	2021	256 SFL	323 DR	BYP078022	SS	No
EU.Spain	2021	212 SFL	165 DR	BYP053639	SS	No
EU.Spain	2021	207 SFL	217 WHO	BYP051163 / BYP003163	DS	No
EU.Spain	2021	207 SFL	160 DR	BYP050148	SS	No
EU.Spain	2021	197 SFL	140 DR	BYP050073 / BYP000673	DS	Yes
EU.Spain	2021	202 SFL	155 DR	BYP018655	SS	Yes
EU.Spain	2021	205 SFL	196 WHO	BYP018495	SS	No
EU.Spain	2021	190 SFL	160 DR	AAB006514	SS	No
EU.Spain	2021	219 SFL	222 DR	00047	SS	Yes
EU.Spain	2021	215 CFL	195 WHO	BYP 078905	SS	Yes

Farm state	Harvest season	Length (cm)	Weight (kg)	Tag #	Tag Type	Sample
EU.Spain	2021	250 CFL	303 WHO	BYP 031302	SS	Yes
EU.Spain	2021			34-91-416-5600	ET	No
EU.Spain	2021	237 CFL	216 WHO	BYP 07012	SS	No
EU.Spain	2021	235 CFL	251 WHO	BYP 062095	SS	No
EU.Spain	2021	272 CFL	325 WHO	BYP08172	SS	No
EU.Spain	2021		243 WHO	Unclear	ET	No
EU.Spain	2021	216 CFL	195 WHO	BYP 80194	SS	Yes
EU.Spain	2021	273 CFL	403 WHO	BYP 080355	SS	Yes
EU.Spain	2021	239 CFL	233 WHO	BYP 077550	SS	Yes
EU.Spain	2021			BYP 051125	SS	No
EU.Spain	2021	272 CFL	374 WHO	BYP 029680	SS	Yes
EU.Spain	2021			BYP 029494	SS	No
EU.Spain	2021	223 CFL	192 WHO	BF523352 (billfish.org)	SS	Yes
EU.Spain	2021	262 CFL	309 WHO	2161 (billfish.org)	SS	Yes
EU.Spain	2021	228 SFL	242 DR	PH3491416-5600 / BYP 079143	DS	No
EU.Spain	2021	162 SFL	80 DR	AAB004810	SS	No
EU.Spain	2021	213 SFL	165 DR	AAA006867	SS	No
Maroc	2021	269 CFL	340 WHO	BYP 053610	SS	Yes
Tunisia	2021	261 CFL	307 WHO	HM083366	SS	No
Tunisia	2021	249 CFL	253 WHO	BYP05881	SS	No
Tunisia	2021	214 CFL	180 WHO	BYP057831	SS	No
Tunisia	2021	210 CFL	180 WHO	BYP057779	SS	No
Tunisia	2021	227 CFL	213 WHO	BYP057769	SS	No
Tunisia	2021	225 CFL	200 WHO	BYP056965	SS	No
Tunisia	2021	221 CFL	185 WHO	BYP054045	SS	No
Tunisia	2021	155 CFL	71 WHO	BYP 031550	SS	No
Tunisia	2021	225 CFL	245 WHO	BYP 018329	SS	No
Tunisia	2021	180 CFL	115 WHO	BF530660	SS	No
Turkey	2021	200 CFL	185 WHO	BYP 080545	SS	No
Turkey	2021	196 CFL	168 WHO	BYP 080146	SS	No
Turkey	2021	242 CFL	294 WHO	BYP 080010	SS	No
Turkey	2021	234 CFL	250 WHO	BYP 078046	SS	No
Turkey	2021	230 CFL	215 WHO	BYP 018185	SS	No
Turkey	2021	220 CFL	195 WHO	SN 18P0302	ET	No
Turkey	2021	170 CFL	86 WHO	HM103234	SS	No
Turkey	2021	248 CFL	266 WHO	BYP 007678	SS	No
Turkey	2021	221 CFL	200 WHO	BYP05320	SS	No

Farm state	Harvest season	Length (cm)	Weight (kg)	Tag #	Tag Type	Sample
Turkey	2021	158 CFL	82 WHO	0066	SS	No

SFL: Straight fork length; CFL: Curved fork length.

WHO: Whole; GG = Gilled and Gutted; DR: Dressed - Gilled and gutted with head off.

SS: Single spaghetti tag; DS: Double spaghetti tag; ET: Electronic tag (including archival internal tags and pop-up satellite archival tags)

6.3 Bycatch observations

Observers also record bycatch, either retained onboard or discarded, and whether this is recorded in the logbook in line with the requirements of Annex 2 of the Recommendation. Only a small amount of bycatch was recorded within the fishery for 2022, shown in Table 31. This included albacore (ALB – *Thunnus alalunga*) and swordfish (SWO – *Xiphias gladius*) as retained, and bullet tuna (BLT – *Auxis rochei*), unidentified billfish (BIL – Istiophoridae) and stingrays (STT – Dasyatidae).

Table 31: Summary of discarded and retained bycatch.

CPC / flag state	Species code	Discarded		Retained	
		Number of operations	Number	Number of operations	Number
Albania	SWO	0	0	1	1
EU.Croatia	BLT	3	18	0	0
EU.Croatia	STT	1	1	0	0
EU.Spain	BIL	1	1	0	0
EU.Spain	SWO	0	0	1	1
Türkiye	ALB	0	0	1	2
Türkiye	SWO	0	0	1	1

In all cases, retained species were recorded in the logbook, the bullet tuna discarded in Croatia was not recorded.

Since 2020, Observers have also monitored interactions with other species, including live releases from the net or observations of associated species in the transfer video (Table 32).

Table 32: Interactions with associated species

CPC / flag state	Species code	Observed in transfer video (N° of operations)	Released alive from the net (N° of operations)
EU.Croatia	BSH	0	1
EU.Croatia	BLT	3	0
EU.Croatia	TTL	2	1
EU.Croatia	STT	6	1
EU.Croatia	SWO	3	0
EU.France	SWO	1	0
EU.Italy	BLT	1	0
EU.Italy	MOX	0	6
EU.Italy	MOX	1	0

CPC / flag state	Species code	Observed in transfer video (N ^o of operations)	Released alive from the net (N ^o of operations)
Türkiye	STT	1	0

7 Conclusions and Recommendations

The Consortium has sought to continually improve and develop the Programme since its implementation through consultation and providing feedback to CPCs and the Secretariat on all technical and operational components.

In general, the operation of the Programme was successful with all deployment requests being met. Observers were provided access to transfer and caging videos, and were able for the majority of times to make estimates of the amount of tuna transferred or caged. PNCs when detected are reported, and in relation to transfers or caging, input onto the ITD/eBCD respectively.

There remain a number of outstanding issues, however, usually relating to documentation or procedures, especially in specific circumstances such as at sea releases and voluntary transfers. In consequence, the Consortium has made several observations on how the Programme could be improved for next season.

A summary of key points for this year's operations, and recommendations for future improvements are presented below. They cover both the general operational framework of the Programme and specific technical improvements associated with observer monitoring tasks and duties.

7.1 Logbook familiarisation

Due to the considerable difference of logbook formats between different flag states, and over different years, it would be useful for training purposes for the Consortium to obtain access to logbook templates and formats so that key data may be identified and recorded by the observers.

7.2 Feasibility of software use for transfer and caging estimates

The consortium has experience in determining feasibility of software use, specifically electronic monitoring and use of artificial intelligence, to complement observer tasks. Noting that this may be able to apply to estimating of the number of tuna from transfer, caging and release video records, the consortium proposes conducting a feasibility study of the use of electronic monitoring technology for this purpose. In particular, is it capable of fulfilling the required function; is the software able to be made available to all observers; can it operate autonomically; and can the process be standardised?

This would be considered as a testing phase and the information collected in it may only be used to ensure this process could be verified and reviewed by the Secretariat, CPCs and operators should any query arise. Accompanying records could be provided caging, transfer and release video reviews in order to maintain transparency, verify counts and estimates and identify possible errors.

7.3 Reporting PNCs leading to voluntary transfers

Currently the observer does not report, nor record, beyond including comments, the potential non-compliance resulting in a voluntary transfer, if the subsequent voluntary transfer produces a compliant video record. The Consortium would like to recommend that a mechanism for reporting these PNCs is established, noting that they have been nulled by a voluntary transfer so that a full transparency of the potential reasons leading to potentially non-compliant video records can be established.

7.4 Observer involvement in control transfers

The Consortium requests clarification on how observers are to determine if the transfer is a voluntary or a control transfer. Considering that the ITD only records the operational details of the final transfer in the case of a series of transfers, voluntary transfers and control transfers, it would be useful to have the type of transfer identified.

7.5 Sealing of cages

The Consortium requests clarification on what circumstances aside from those outlined in Rec. 21-08 Annex 14 and Para 128 may lead to the sealing of the cage, and therefore a request for the observer to provide seals.

Furthermore, considering that each cage may have several different doors, should the observer be aware of the number of doors on each cage?

7.6 At sea releases

Several at sea releases from purse seine vessels were conducted in 2022, and some of these from the transport cage immediately following transfer. The reason for this was that the transfer authorization had been withdrawn. However, this scenario is not specifically covered under the release protocol of Annex 10 nor the conditions of Para 117-118. Furthermore, the tasks of the ROP outlined in Para 101 does not specifically cover this.

Can the Consortium have clarification for the ROP procedures to be followed in such an event and what specifically must be recorded in the release record?

7.7 Consultation with CPCs

In previous years the Consortium found consultation with CPCs and the Secretariat on operational and technical components of the Programme informative for improving the Programme and also for communicating and receiving direction on specific areas of data collection and reporting. This approach was reintroduced in 2019 and partially carried on in 2020 and 2021, albeit restrictions due to the COVID-19 pandemic limited the possibilities. It is hoped that communication with the CPCs and Secretariat can continue in future.

7.8 Use of InReach Device - PNCs

The InReach device provided to observers during the 2022 season satisfied the requirements of Rec. 19-10. However, the device itself also offers further potential applications, such as real time reporting of transfer activities, and potential non-compliances, particularly in the event that the vessels have no satellite communications onboard. The Consortium continues to explore these potential further applications, in particular to improve the observers' ability to report without delay and potential non-compliances.

Furthermore, any feedback from the various CPCs on specific PNCs that should be prioritised would assist with any protocol.

7.9 MARPOL

Several observers have commented over potential non-compliances of vessels with MARPOL requirements, at times including plastic and oil waste, with no waste management procedures onboard several vessels. The Consortium understands that monitoring such activity is not within the remit of the ROP, but suggests that ad hoc observations of potential non-compliance may be included informally in any report to the CPC with the Secretariat in copy.

Annex 1 Farm Deployments in the Current Contract included in this report

Request Nº	Farm ICCAT number/s	Date start	Date end
001EU0676b	ATEU1ESP00005	08/05/2022	10/06/2022
001MA0679	AT001MAR00004	28/04/2022	15/06/2022
001MA0680	AT001MAR00002	29/04/2022	27/06/2022
001MA0681	AT001MAR00003	29/04/2022	27/06/2022
001EU0682	ATEU1HRV00006	28/05/2022	26/07/2022
001EU0683	ATEU1HRV00008	01/06/2022	22/07/2022
001EU0684	ATEU1HRV00011	01/06/2022	27/08/2022
001EU0685	ATEU1HRV00012	01/06/2022	22/07/2022
001EU0686	ATEU1ESP00005	11/06/2022	09/09/2022
001EU0687	ATEU1ESP00001	08/06/2022	22/06/2022
001EU0688	ATEU1ESP00001	09/06/2022	23/06/2022
001EU0689	ATEU1MLT00008	09/06/2022	06/08/2022
001TR0690	AT001TUR00004 / AT001TUR00005 / AT001TUR00013	11/06/2022	15/07/2022
001EU0691	ATEU1MLT00007	10/06/2022	30/06/2022
001EU0692	ATEU1MLT00003	15/06/2022	23/07/2022
001EU0693	ATEU1ESP00003	14/06/2022	31/07/2022
001EU0694	ATEU1MLT00002	16/06/2022	21/07/2022
001TN0695	AT001TUN00002	15/06/2022	15/07/2022
001EU0696	ATEU1PRT00002 / ATEU2PRT00001	27/06/2022	15/07/2022
001TR0697	AT001TUR00011	21/06/2022	17/07/2022
001EU0698	ATEU1MLT00004	22/06/2022	30/08/2022
001TN0699	AT001TUN00004	27/06/2022	06/07/2022
001EU0700	ATEU1MLT00007	01/07/2022	12/08/2022
001TR0701	AT001TUR00014	03/07/2022	09/07/2022
001TR0702	AT001TUR00010	04/07/2022	18/07/2022
001AL0703	AT001ALB00001	04/07/2022	15/07/2022
001TN0704	AT001TUN00001	07/07/2022	01/08/2022
001EU0705	ATEU1ESP00001	11/07/2022	11/08/2022
001EU0706	ATEU1PRT00002 / ATEU2PRT00001	16/07/2022	30/07/2022
001EU0707	ATEU1MLT00001	19/07/2022	26/08/2022
001EU0708	ATEU1MLT00003	28/07/2022	08/08/2022
001EU0711	ATEU1PRT00003	08/08/2022	12/08/2022
001TN0712	AT001TUN00002	01/08/2022	08/08/2022
001EU0713	ATEU1ESP00003	01/08/2022	07/08/2022
001EU0715	ATEU1ESP00001	12/08/2022	21/08/2022
001TR0718	AT001TUR00010	25/08/2022	26/08/2022
001TR0719	AT001TUR00011	29/08/2022	29/08/2022

Annex 2 Farm Deployments in the Previous Contract Year included in this report

Request N°	Farm ICCAT number/s	Start date	End date
001EU0639	ATEU1ESP00001	02/08/2021	30/10/2021
001EU0640	ATEU1MLT00008	04/08/2021	02/10/2021
001EU0641	ATEU1ESP00005	11/09/2021	10/12/2021
001MA0642	AT001MAR00002	14/08/2021	20/09/2021
001MA0643	AT001MAR00003	14/08/2021	20/09/2021
001EU0644	ATEU1MLT00002 / ATEU1MLT00001	01/09/2021	25/10/2021
001EU0645	ATEU1ESP00003	09/09/2021	07/12/2021
001EU0646	ATEU1ESP00001	11/09/2021	16/10/2021
001EU0647	ATEU1ESP00004 / ATEU1ESP00007	30/09/2021	28/12/2021
001EU0648	ATEU1MLT00001 / ATEU1MLT00002	23/09/2021	30/10/2021
001EU0649_a	ATEU1MLT00003	27/09/2021	14/12/2021
001EU0649_b	ATEU1MLT00003	16/12/2021	24/12/2021
001TN0650	AT001TUN00002	27/09/2021	26/12/2021
001EU0651	ATEU1MLT00008	10/10/2021	07/01/2022
001EU0652	ATEU1PRT00002	18/10/2021	30/10/2021
001EU0653	ATEU1HRV00012	22/10/2021	19/01/2022
001EU0654	ATEU1MLT00008	24/10/2021	12/11/2021
001EU0655	ATEU1ESP00001	31/10/2021	31/12/2021
001TN0656	AT001TUN00004	18/11/2021	07/12/2021
001TR0657	AT001TUR00010	23/11/2021	05/01/2022
001TR0658	AT001TUR00014	28/11/2021	15/12/2021
001AL0659	AT001ALB00001	30/11/2021	13/12/2021
001TR0660	AT001TUR00011	02/12/2021	13/02/2022
001EU0661	ATEU1ESP00003	08/12/2021	07/03/2022
001EU0662_a	ATEU1ESP00005	11/12/2021	14/12/2021
001EU0662_b	ATEU1ESP00005	15/12/2021	11/03/2022
001TN0663	AT001TUN00001	03/12/2021	07/12/2021
001EU0664	ATEU1HRV00006	13/12/2021	09/01/2022
001TR0665	AT001TUR00004 / AT001TUR00005 / AT001TUR00013	07/12/2021	31/01/2022
001EU0666	ATEU1ESP00004 / ATEU1ESP00007	29/12/2021	10/02/2022
001EU0667	ATEU1MLT00003	27/12/2021	29/01/2022
001EU0668	ATEU1HRV00008 / ATEU1HRV00011	12/01/2022	17/02/2022
001TN0669	AT001TUN00002	27/12/2021	09/01/2022
001TR0670	AT001TUR00014	03/01/2022	13/02/2022
001EU0671	ATEU1MLT00008	08/01/2022	18/02/2022
001AL0672	AT001ALB00001	08/01/2022	12/01/2022
001EU0673	ATEU1HRV00012	20/01/2022	18/02/2022
001AL0674	AT001ALB00001	27/01/2022	02/02/2022
001TN0675	AT001TUN00001	03/02/2022	25/02/2022
001EU0676_a	ATEU1ESP00005	12/03/2022	07/05/2022
001EU0677	ATEU1MLT00008	19/02/2022	30/04/2022
001EU0678	ATEU1ESP00003	08/03/2022	06/04/2022

Annex 3 PNC Codes Used for the Current Contract

Potential Non-Compliance [PNC] Event and Codes - General		
PNC Event	Reference	Code
General events:		
Observer obstructed, intimidated, interfered with, bribed or attempted to bribe in the performance of his/her duties	Rec. 19-04; Annex 6 – Para 11. Rec. 21-08; Annex 6	GOBS
Unauthorised transshipment	Rec. 19-04; Para 77 / 78 Rec. 21-08; Para 89 / 90	GTRP
Observer prevented from taking size measurements, biological samples or examining tags	Rec. 19-04; Para 85; Annex 6 – Para 11. Rec. 21-08; Annex 6	GOBP
Landing in non-designated port	Rec. 19-04; Para 71 Rec. 21-08; Para 82	GLDP
Vessel(s) not on ICCAT record of authorized vessels involved in operations.	Rec. 19-04; Para 49 Rec. 21-08; Para 48	GDNI

Potential Non-Compliance [PNC] Event and Codes - Purse seiner		
PNC Event	Reference	Code
Specific events:		
Fishing outside designated season	Rec. 19-04; Para 29 and 39 Rec. 21-08; Para 28 and 29	FFOS
Carrying out fishing operations without an observer onboard-	Rec. 19-04; Para 84 Rec. 21-08; Para 101	FOBS
Fish below minimum size retained, transferred or landed	Rec. 19-04; Para 34 Rec. 21-08; Para 33	FUNT
Aerial support used during searching operations (e.g. drone, plane)	Rec. 19-04; Para 48 Rec. 21-08; Para 47	FAER
Problems with the Official documentation (Logbook, eBCD, ITD etc.):		
No electronic BFT Catch document (eBCD) produced	Rec. 18-13	FBDA
Dead tuna incorrectly recorded in the vessel logbook and/or eBCD	Rec. 19-04; Para 63; Annex 2 / Annex 11 Rec. 21-08; Para 74; Annex 2 / Para 139; Annex 11 Paras 3-5..	FMOR
Information in the eBCD is incorrect or inconsistent (operation dates, vessel/cage details, number and weight of fish transferred)	Rec. 18-13; Annex 1	FBIN
No logbook entry made for that day	Rec. 19-04; Para 63 / Annex 2 Rec. 21-08; Para 74; Annex 2	FLBN
No logbook entry for a fishing operation (even when the catch is zero) before 09:00 the following day	Rec. 19-04; Para 63 and 66. Annex 2. Rec. 21-08; Para 74 and 77; Annex 2	FLBF

Potential Non-Compliance [PNC] Event and Codes - Purse seiner		
PNC Event	Reference	Code
Incomplete <u>and/or</u> incorrect logbook information	Rec. 19-04; Para 63; Annex 2 Rec. 21-08; Para 74; Annex 2	FLBI
Transfer:		
Transfer not monitored by observer	Rec. 19-04; Para 84 Rec. 21-08; Para 101	TOBS
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86 Rec. 21-08; Para 112	TTRN
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87 Rec. 21-08; Para 113	TTRA
Transport cage without a unique identifiable number	Rec. 19-04; Para 86 Rec. 21-08; Paras 147 and 148	TNAC
ICCAT Transfer declaration (ITD) not completed correctly	Rec. 19-04; Para 89; Annex 4 Rec. 21-08; Paras 130 and 131 Annex 4	TITN
Logbook not completed correctly following transfer operation	Rec. 19-04; Para 63; Para 89c / Annex 2 Rec. 21-08; Paras 74 and 110 / Annex 2	TLBI
Observer estimate for the transfer more than 10% different than vessel's	Rec. 19-04; Para 92; Rec. 21-08; Para 134 a)	TOGO
Voluntary or control transfer not carried out into an empty cage	Rec. 21-08; Para 126; Annex 8 3 a)	TEMP
The transport cage was separated from the purse seine net before the observer completed their tasks	Rec. 21-08; Para 127	TSEP
Cage not sealed following unsuccessful control and/or voluntary transfer	Rec. 21-08; Para 128; Annex 14	TSEL
Video of sealing operation does not identify the seal numbers and show that these have been properly placed.	Rec. 21-08; Para 128; Annex 14	TSEV
Transfer video: (for a voluntary or control transfer add the letter "C" before the PNC code). Note, the vessel has the opportunity to carry out a voluntary transfer in order to provide a compliant video record (Rec. 19-04; Para 92 / Rec. 21-08; Para 124). <i>If video record of voluntary transfer is acceptable, no PNCs should be submitted and the ITD can be signed</i>		
Transfer not monitored by video	Rec. 19-04; Para 91 Rec. 21-08; Para 119	TNVT
The electronic storage device not provided to the observer after the end of the transfer operation	Rec. 19-04; Para 92; Annex 8 i Rec. 21-08; Para 119; Annex 8 Para 1 h)	TVRO
Video record of transfer did not include opening <u>and/or</u> closure of door at the start <u>and/or</u> the end of transfer	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 119; Annex 8 Para 1 d)	TODT
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92; Annex 8 v Rec. 21-08; Para 119; Annex 8 Para 1 b)	TDDT

Potential Non-Compliance [PNC] Event and Codes - Purse seiner		
PNC Event	Reference	Code
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii Rec. 21-08; Para 119; Annex 8 Para 1 c)	TLTO
Video record of transfer did not show whether the receiving and donor cage already held tuna	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 119; Annex 8 Para 1 d)	TVDS
Video record of transfer did not show Transfer Authorisation number at beginning and/or end of the video	Rec. 19-04; Para 92; Annex 8 iv Rec. 21-08; Para 119; Annex 8 Para 1 a)	TRAT
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii Rec. 21-08; Para 119; Annex 8 Para 1 e)	TTNP
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii Rec. 21-08; Paras 119, 120 and 123; Annex 8 Para 1 g)	TTTO
Release during fishing season:		
Tuna not released following release order	Rec. 19-04; Para 88; Rec. 21-08; Paras 117 and 118	RORD
Release not monitored by observer	Rec. 19-04; Para 88; Annex 10 Rec. 21-08; Annex 10	ROBS
Release report not produced	Rec. 21-08; Annex 10 Para 6	RRPT
Release report not validated by the observer	Rec. 21-08; Annex 10 Para 7	RVAL

Potential Non-Compliance [PNC] Event and Codes - Farm		
PNC Event	Reference	Code
Caging:		
Electronic BFT Catch document (eBCD) not produced or incomplete following caging.	Rec. 18-13; Annex 1	CBDA
Bluefin tuna catches not placed in separate cages or series of cages, on the basis of flag CPC origin (outside of JFOs)	Rec. 18-13; Para 5	CQUF
A group BCD reference number was allocated to fish from more than one JFO, or from more than one vessel not in the same JFO, or one caging operations occurring over more than one day or more than one farm cage.	Rec. 18-13; Para 6	CJCD
ICCAT Caging Declaration not produced or incomplete following caging.	Rec. 19-04; Annex 6, Para. 7b ii and iv Rec. 06-07 2 b)	CICD
To be superseded by		
ICCAT Caging Declaration incomplete or not produced within 1 week after the actual caging operation.	Rec. 21-08; Para 168 Annex 12	CICE

Potential Non-Compliance [PNC] Event and Codes - Farm		
PNC Event	Reference	Code
Observer observations of caging operation do not agree with those in the eBCD (for example, different dates, cage numbers, numbers of tuna).	Rec. 18-13; Annex 1 Rec. 19-04; Para 85 Rec. 21-08; Annex 6	CBDX
Observer observations of caging operation do not agree with those in the caging declaration (for example, different dates, cage numbers, numbers of tuna).	Rec. 19-04; Para 85 Rec. 21-08; Annex 6; Annex 12	CBDD
Tuna caged before authorisation received	Rec. 19-04; Para 95 Rec. 21-08; Para 151	CDPA
Transport cage anchored within 0.5 nm of farming facilities prior to start of caging operations	Rec. 19-04; Para 94	CQAF
To be superseded by		
Transport cage within 1 nm of farming facilities before the farm CPC competent authority is physically present.	Rec. 21-08; Para 156 a)	CQAG
Transport/Farm cage without a unique identifiable number	Rec. 19-04; Para 86 Rec. 06-07 Para 2a Rec. 21-08 Para 147	CNAC
Caging not covered by stereoscopical video	Rec. 19-04; Para 99 Rec. 21-08; Para 162	CQSV
Carried over tuna from previous year/s not placed in separate cages	Rec. 18-13; Para 8 Rec. 21-08; Para 201	CQUY
Caging after 22 nd of August without valid reasons including force majeure Caging after 7 th of September	Rec. 19-04; Para 95 Rec. 21-08; Para 161	CLAT
Observer estimate of tuna caged not within 10% of the farm's estimate	Rec. 19-04; Para 98	CODO
To be superseded by		
Observer estimate of number of tuna caged not consistent with farm's estimate	Rec. 21-08; Annex 6 and Annex 12	CODP
Control transfer not carried out into an empty cage	Rec. 21-08; Paras 163 and 164; Annex 8 3 b)	CEMP
Cage not sealed following unsuccessful caging	Rec. 21-08; Para 164	CSEL
Caging video: (for a control caging add the letter "C" before the PNC code)		
Caging not monitored by video	Rec. 19-04; Para 97 Rec. 21-08; Para 162	CNVD
The electronic storage device containing the original caging video record was not provided to the regional observer after the end of operation	Rec. 19-04; Para 97 Annex 8 i Rec. 21-08; Para 162; Annex 8 Para 1 h)	CFVA
Video record of caging did not show opening and/or closing of the door at the start and/or end of the operation	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 162; Annex 8 Para 1 d)	CODN
Video record of the caging did not show date and/or time continuously	Rec. 19-04; Para 92; Annex 8 v Rec. 21-08; Para 162; Annex 8 Para 1 b)	CDDT
Video record of caging was not continuous or did not cover the entire operation	Rec. 19-04; Para 92; Annex 8 vii Rec. 21-08; Para 162; Annex 8 Para 1 c)	CFTO

Potential Non-Compliance [PNC] Event and Codes - Farm		
PNC Event	Reference	Code
Video record did not show the receiving and donor cage to see if they already hold tuna.	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 162; Annex 8 Para 1 d)	CVDS
Video record did not show the Caging Authorisation number at beginning or end of each video	Rec. 19-04; Para 92; Annex 8 iv Rec. 21-08; Para 162; Annex 8 Para 1 a)	CTNM
Independent observer estimate of amount caged was not possible due to video quality	Rec. 19-04; Para 92; Annex 8 viii Rec. 21-08; Para 162; Annex 8 Para 1 e)	CCNP
An accurate copy of the video record of the caging was not provided to the observer on the farm	Rec. 19-04; Para 92; Annex 8 iii Rec. 21-08; Para 165	CNTO
Harvest:		
No harvest request / processing notification sent, no harvest / processing authorization received, prior to harvest	Rec. 21-08; Paras 187 and 188	HNOT
No harvest / processing declaration produced or does not include all required information	Rec. 21-08; Paras 192 and 193	HDEC
eBCD not completed following a harvest or Harvested fish not allocated to an eBCD	Rec. 18-13; Annex 1	HBDA
Observer observations of harvest do not agree with eBCD records (e.g., number and weight of harvested tuna, date, cage)	Rec 18-13; Annex 1 Rec. 19-04; Para 85 Rec. 21-08; Annex 6	HMSH
Observer observations of harvest do not agree with harvest / processing declaration records (e.g., number and weight of harvested tuna, date, cage)	Rec. 21-08; Para 193, Annex 6	HDEV
Farm cage without a unique identifiable number	Rec. 19-04; Para 86 Rec. 06-07 Para 2a Rec. 21-08; Paras 147 and 148	HNAC
No traceability for internal transfers of tuna within a farm	Rec. 19-04; Para 103 Rec. 21-08; Para 197	HITV
Fish below minimum size harvested	Rec. 19-04; Para 34 Rec. 21-08; Para 33.	HUND
Release on a farm:		
Tuna not released within 3 weeks (21 days) following completion of caging operations (note this does not apply to tuna released following completion harvesting operations).	Rec. 19-04; Para 88 Annex 10	RRLI
To be superseded by		
Tuna not released within 3 months of the last caging operation of the fish concerned (note this does not apply to tuna released following completion harvesting operations).	Rec. 21-08; Para 185; Annex 10	RRLJ
Release not conducted at a minimum distance of 10 miles from the farm, or in the case of less than 5 tonnes of tuna, a minimum of 5 miles.	Rec. 21-08; Para 185; Annex 10	RDIS
Release not monitored by observer	Rec. 19-04; Para 88; Annex 10 Rec. 21-08; Para 185 and 204; Annex 10	ROBS

Potential Non-Compliance [PNC] Event and Codes - Farm		
PNC Event	Reference	Code
Release not videoed	Rec. 19-04; Para 88; Annex 10 Rec. 21-08; Paras 185 and 204; Annex 10	RNVR
Copy of video record of release not provided to the observer.	Rec. 19-04; Para 88; Annex 10 Rec. 21-08; Paras 185 and 204; Annex 8 and Annex 10	RVOR
No prior segregation of tuna to be released, into an empty transport cage occurred	Rec. 21-08; Paras 185 and 204; Annex 10	RSEG
Release report not produced, includes inaccurate information, or does not include all required information	Rec. 21-08; Paras 185 and 204; Annex 10	RRPT
Release report contains information inconsistent with observer's observations and not validated by the observer	Rec. 21-08; Paras 185 and 204; Annex 10	RVAL
Video of prior segregation prior to Release		
Operation not monitored by video	Rec. 21-08; Para 162	SNVD
No copy of video record of prior segregation provided to the observer.	Rec. 21-08; Paras 185 and 204; Annex 8 and Annex 10	SVOR
The electronic storage device containing the original video record was not provided to the regional observer after the end of the operation	Rec. 21-08; Para 162; Annex 8 Para 1 h)	SFVA
Video record of operation did not show opening and/or closing of the door at the start and/or end of the operation	Rec. 21-08; Para 162; Annex 8 Para 1 d)	SODN
Video record of the operation did not show date and/or time continuously	Rec. 21-08; Para 162; Annex 8 Para 1 b)	SDDT
Video record was not continuous or did not cover the entire operation	Rec. 21-08; Para 162; Annex 8 Para 1 c)	SFTO
Video record did not show the release order reference number at beginning or end of each video	Rec. 21-08; Para 162; Annex 8 Para 1 a)	STNM
Independent observer estimate of amount caged was not possible due to video quality	Rec. 21-08; Para 162; Annex 8 Para 1 e)	SCNP
Observer estimate of number of tuna transferred not consistent with farm's estimate	Rec. 21-08; Annex 6 and Annex 12	SODP
Inter-farm transfer (donor farm):		
Transfer not monitored by observer	Rec. 19-04; Para 84 Rec. 21-08; Para 101	POBS
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86 Rec. 21-08; Para 112	PTRN
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87 Rec. 21-08; Para 113	PTRA
Transport cage without a unique identifiable number	Rec. 19-04; Para 86 Rec. 21-08; Paras 147 and 148	PNAC
ICCAT Transfer declaration (ITD) not completed correctly.	Rec. 19-04; Para 89; Annex 4 Rec. 21-08; Paras 130 and 131 Annex 4	PITN
Observer estimate for the transfer more than 10% different than farm's	Rec. 19-04; Para 92 Rec. 21-08; Para 134 a)	POGO
Voluntary or control transfer not carried out into an empty cage	Rec. 21-08; Para 126; Annex 8 3 a)	PEMP

Potential Non-Compliance [PNC] Event and Codes - Farm		
PNC Event	Reference	Code
The transport cage was separated from the farm cage before the observer completed their tasks	Rec. 21-08; Para 127	PSEP
Cage not sealed following unsuccessful control and voluntary transfer	Rec. 21-08; Para 128; Annex 14	PSEL
Video of transfer does not include the sealing operation	Rec. 21-08; Para 128; Annex 14	PSEV
<p>Inter-farm transfer video: (for a voluntary or control transfer add the letter “C” before the PNC code).</p> <p>Note, the farm has the opportunity to carry out a voluntary transfer in order to provide a compliant video record (Rec. 19-04; Para 92 / Rec. 21-08; Para 124). <i>If video record of voluntary transfer is acceptable, no PNCs should be submitted and the ITD can be signed</i></p>		
Transfer not monitored by video	Rec. 19-04; Para 91 Rec. 21-08; Para 119	PNVT
The electronic storage device not provided to the observer after the end of the transfer operation	Rec. 19-04; Para 92; Annex 8 i Rec. 21-08; Para 119; Annex 8 Para 1 h)	PVRO
Video record of transfer did not show opening <u>and/or</u> closure of door at the start <u>and/or</u> the end of transfer	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 119; Annex 8 Para 1 d)	PODT
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92; Annex 8 v Rec. 21-08; Para 119; Annex 8 Para 1 b)	PDDT
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii Rec. 21-08; Para 119; Annex 8 Para 1 c)	PLTO
Video record of transfer did not show whether the receiving and donor cage already held tuna	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 119; Annex 8 Para 1 d)	PVDS
Video record of transfer did not show Transfer Authorisation number at beginning <u>and/or</u> end of the video	Rec. 19-04; Para 92; Annex 8 iv Rec. 21-08; Para 119; Annex 8 Para 1 a)	PRAT
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii Rec. 21-08; Para 119; Annex 8 Para 1 e)	PTNP
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii Rec. 21-08; Paras 119, 120 and 123; Annex 8 Para 1 g)	PTTO

Potential Non-Compliance [PNC] Event and Codes - Trap		
PNC Event	Reference	Code
Transfer:		
Fish below minimum size landed	Rec. 19-04; Para 34 Rec. 21-08; Para 33	AUNT

Potential Non-Compliance [PNC] Event and Codes - Trap		
PNC Event	Reference	Code
Transfer not monitored by observer	Rec. 19-04; Para 84 Rec. 21-08; Para 101	AOBS
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86 Rec. 21-08; Para 112	ATRN
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87 Rec. 21-08; Para 113	ATRA
Transport/Farm cage without a unique identifiable number	Rec. 19-04; Para 86 Rec. 21-08; Paras 147 and 148	ANAC
ICCAT Transfer declaration (ITD) not completed correctly	Rec. 19-04; Para 89; Annex 4 Rec. 21-08; Paras 130 and 131 Annex 4	AITN
Observer estimate for the transfer more than 10% different than trap's	Rec. 19-04; Para 92 Rec. 21-08; Para 134 a)	AOGO
Voluntary or control transfer not carried out into an empty cage	Rec. 21-08; Para 126; Annex 8 3 a)	AEMP
The transport cage was separated from the trap before the observer completed their tasks	Rec. 21-08; Para 127	ASEP
Cage not sealed following unsuccessful control and voluntary transfer	Rec. 21-08; Para 128; Annex 14	ASEL
Video of transfer does not include the sealing operation	Rec. 21-08; Para 128; Annex 14	ASEV
<p>Transfer video: (for a control transfer add the letter "C" before the PNC code). Note, the trap has the opportunity to carry out a voluntary transfer in order to provide a compliant video record (Rec. 19-04; Para 92 / Rec. 21-08; Para 124). <i>If video record on second transfer is acceptable, no PNCs should be submitted for the first transfer and the ITD can be signed</i></p>		
Transfer not monitored by video	Rec. 19-04; Para 91 Rec. 21-08; Para 119	ANVT
The electronic storage device not provided to the observer after the end of the transfer operation	Rec. 19-04; Para 92; Annex 8 i Rec. 21-08; Para 119; Annex 8 Para 1 h)	AVRO
Video record of transfer did not show opening <u>and/or</u> closure of door at the start <u>and/or</u> the end of transfer	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 119; Annex 8 Para 1 d)	AODT
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92 Annex 8 v Rec. 21-08; Para 119; Annex 8 Para 1 b)	ADDT
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii Rec. 21-08; Para 119; Annex 8 Para 1 c)	ALTO
Video record of transfer did not show whether the receiving and donor cage already held tuna	Rec. 19-04; Para 92; Annex 8 vi Rec. 21-08; Para 119; Annex 8 Para 1 d)	AVDS
Video record of transfer did not show Transfer Authorisation number at beginning and/or end of the video	Rec. 19-04; Para 92; Annex 8 iv Rec. 21-08; Para 119; Annex 8 Para 1 a)	ARAT

Potential Non-Compliance [PNC] Event and Codes - Trap		
PNC Event	Reference	Code
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii Rec. 21-08; Para 119; Annex 8 Para 1 e)	ATNP
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii Rec. 21-08; Paras 119, 120 and 123; Annex 8 Para 1 g)	ATTO