

# ROP-BFT

ICCAT

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## Implementation Report

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**MRAG**

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 **COFREPECHE**



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## Table of Contents

<b>Table of Contents</b> .....	<b>1</b>
<b>List of Tables</b> .....	<b>3</b>
<b>List of Figures</b> .....	<b>5</b>
<b>Acronyms</b> .....	<b>6</b>
<b>Executive Summary</b> .....	<b>7</b>
<b>1 Introduction</b> .....	<b>8</b>
<b>2 Programme Development and Activities</b> .....	<b>10</b>
<b>2.1 Programme Development</b> .....	<b>10</b>
<b>2.2 Operational</b> .....	<b>10</b>
2.2.1 Deployments on Purse Seiners.....	10
2.2.2 Deployments on Farms.....	12
2.2.3 Deployments on Traps.....	13
<b>3 Estimating Number and Weight of Tuna</b> .....	<b>14</b>
<b>3.1 By Operators</b> .....	<b>14</b>
3.1.1 On Purse Seiners .....	14
3.1.2 On Traps.....	14
3.1.3 On Farms.....	14
<b>3.2 By Observers</b> .....	<b>15</b>
3.2.1 On Purse Seiner Operations .....	15
3.2.2 On Traps.....	17
3.2.3 On Farms.....	18
<b>4 Potential Non-Compliance Events</b> .....	<b>23</b>
<b>4.1 Purse seine vessels</b> .....	<b>23</b>
<b>4.2 Traps</b> .....	<b>26</b>
<b>4.3 Farms</b> .....	<b>26</b>
4.3.1 Current Contract .....	26
4.3.2 During Previous Report and Commencement of the Current Contract .....	27
<b>5 Submission of Deployment Outputs</b> .....	<b>28</b>
<b>6 Scientific Monitoring and Activities</b> .....	<b>29</b>
<b>6.1 Length and Weight Sampling</b> .....	<b>29</b>
6.1.1 Purse seine deployments.....	29
6.1.2 Harvest deployments .....	29
<b>6.2 Tag recoveries and sampling</b> .....	<b>30</b>
<b>6.3 Bycatch observations</b> .....	<b>32</b>
<b>7 Conclusions and Recommendations</b> .....	<b>34</b>
<b>7.1 ICCAT Caging Declarations (ICDs)</b> .....	<b>34</b>
<b>7.2 Documenting Voluntary Control and Control Transfers</b> .....	<b>34</b>
<b>7.3 Recording of non-compliances leading to voluntary transfers</b> .....	<b>34</b>
<b>7.4 Observer involvement in control transfers</b> .....	<b>35</b>
<b>7.5 At sea releases</b> .....	<b>35</b>
<b>7.6 Consultation with CPCs</b> .....	<b>35</b>

<b>7.7</b>	<b>Use of InReach Device.....</b>	<b>35</b>
<b>7.8</b>	<b>MARPOL.....</b>	<b>35</b>
<b>Annex 1</b>	<b>Response to the COVID-19 Pandemic - 2021.....</b>	<b>36</b>
	Training and Recruitment.....	36
	Mobilisation for Purse Seine Deployments.....	37
	Mobilisation for Farm and Trap Deployments.....	37
	Observer Debrief.....	38
	Notable Incidents.....	39
<b>Annex 2</b>	<b>Farm Deployments in the Current Contract included in this report.....</b>	<b>40</b>
<b>Annex 3</b>	<b>Farm Deployments in the Previous Contract Year included in this report..</b>	<b>41</b>
<b>Annex 4</b>	<b>PNC Codes Used for the Current Contract.....</b>	<b>42</b>

## List of Tables

Table 1: Report Content.....	9
Table 2: Observer coverage on purse seiners monitoring fishing and transfer operations (excluding Norway).....	10
Table 3: Observer coverage on purse seiners monitoring fishing and transfer operations for Norway 2020.....	12
Table 4: Observer coverage on farms during the current contract.....	12
Table 5 Observer coverage on farms between the previous report and commencement of the current contract.....	13
Table 6: Observer coverage on traps monitoring transfer operations during the current contract.....	13
Table 7: Observer estimations of number of BFT transferred from purse seine transfers ....	15
Table 8: Observer estimations of number of BFT transferred from purse seine voluntary control transfers.....	16
Table 9: Summary of release operations performed during the 2021 fishing season.....	17
Table 10: Observer estimations of quantity of BFT following initial transfers from traps. ....	17
Table 11: Observer estimations of quantity of BFT following voluntary control / control transfers from traps.....	17
Table 12: Observer estimations of quantity of BFT following initial caging operation.....	18
Table 13: : Observer estimations of quantity of BFT following control caging operation .....	19
Table 14: Observer estimations of quantity of BFT during caging between the previous report and commencement of the current contract .....	19
Table 15: Summary of inter-farm transfers carried out during the current contract .....	20
Table 16: Summary of inter-farm transfers carried out between the previous report and commencement of the current contract.....	20
Table 17: Harvest operations during the current contract year .....	21
Table 18: Harvest operations between the previous report and the current contract year ...	21
Table 19: Release operations current contract year .....	22
Table 20:PNCs preventing the observer from signing the ITD during the 2020 purse seine season .....	23
Table 21: Other PNCs detected during the 2021 purse seine season .....	24
Table 22: PNCs occurring during the current contract relating to compliance of caging operations.....	26
Table 23: PNCs reported during the current contract relating to general compliance. ....	27

Table 24: PNCs reported during after submission of the previous report and before the current contract.....	27
Table 25: Summary of sampling during 2020 fishing season.....	29
Table 26: Summary of sampling during the current harvesting season .....	29
Table 27: Summary of sampling after submission of the previous report and before the current contract.....	30
Table 28: Summary of tags recovered to date since submission of the previous annual report .....	30
Table 29: Summary of discarded and retained bycatch.....	32
Table 30: Interactions with associated species.....	33
Table 31: Training of new and returning observers .....	36
Table 32: Summary of observer debrief following purse seine season .....	38
Table 33: Summary of observer debrief following farm / trap deployments.....	39

## List of Figures

Figure 1: Distribution of fishing and transfer operations in 2021 purse seine fishing season (excluding Norway). ..... 11

## 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 twelve (April 2021 / March 2022) 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 located around the Mediterranean. This is the twelfth year that the Consortium has been awarded the contract to implement the Programme and experience gained in previous years has been used to enhance the systems in place for recruitment, training and deployment of observers and overall performance of the Programme.

The Programme allows the Commission to assess compliance with the regulatory framework. This report summarises the 190 deployments on authorised purse seiners during the 2021 fishing season, as well as the 27 farm deployments and 1 trap deployment completed to date since the start of the current contract. In addition, 34 farm deployments are included from the previous season.

One hundred percent observer coverage has been achieved on authorised purse seiners, farms and traps within the remit of the programme, which included monitoring all fishing, transfer, caging and harvesting activities and the Norwegian fleet which, as was the case in 2020, has not had the deployment of ROP observers permitted by the Norwegian Authorities.

This report describes the key issues and developments in implementing the Programme in year eleven 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 was heavily impacted the COVID-19 pandemic although these impacts were mitigated by greater experience and improved availability of resources and services. The effect on the programme and measures taken by the consortium in cooperation with the Secretariat and respective CPCs are reviewed.

## 1 Introduction

This was the twelfth year that the Consortium (Service Provider) has been awarded the contract for the provision of services to implement the Programme. The Consortium adapted their approach incorporating lessons learned through implementing the Programme during previous years. The report covers key activities conducted in preparation for the Programme and deployments under the contract for services to implement the Programme for 2021/2022.

The principal role of the Service Provider remains to implement the main clauses of Para. 84 of 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 by Para 85, 92, 93, 98 and Annex 6, the regional observer role shall be:

- 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) and electronic Bluefin Catch Documentation (hereafter eBCD) when in agreement that the information is consistent with their own observations and ICCAT conservation and management measures, including a compliant video record
- and carry out scientific work as required by the Commission.

In order to achieve the above, the Service Provider 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 2022.

The structure of the report is presented in Table 1.

**Table 1: Report Content.**

<b>Implementation Activity</b>	<b>Section</b>	<b>Main Content</b>
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 for approval incorporating lessons learned during implementation;
- Respond to the restrictions and requirements of the COVID-19 pandemic (more detail in 7.8);
- Further development of supplementary online training tools;
- Complete observer recruitment;
- Procure and distribute observer equipment 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 2021 Programme, observers were deployed on 190 purse seine vessels (Table 2). Observers were mobilised to:

- Twenty-eight ports to fishing vessels fishing in the eastern Atlantic and Mediterranean. The observer designated to the Cypriot and Egyptian vessels embarked in Malta; Ten observers designated to Libyan vessels embarked in Malta and 2 from Tunisia.
- Seven ports to fishing vessels fishing in the eastern Mediterranean Sea and the eastern Atlantic and Mediterranean. Of these, the three observers designated to Libyan vessels embarked a transfer vessel in Turkey and were transferred at sea to their respective purse seine vessels.
- Six ports to fishing vessels fishing in the Adriatic Sea; and
- Two ports to fishing vessels fishing in waters limited to the jurisdiction of the Kingdom of Morocco.

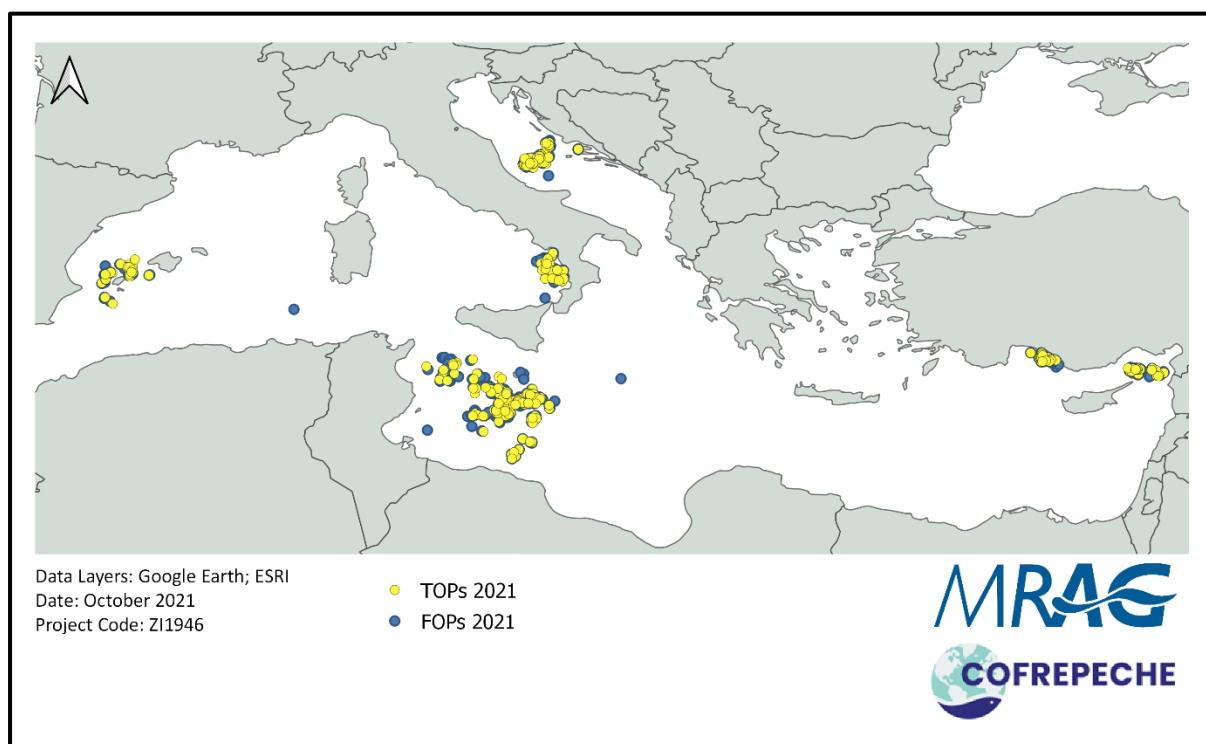
The deployments by flag State / CPC are set out in Table 2. Excluding Norway, 5,608 observer sea days were completed on 190 purse seine vessels in 2021 with 742 fishing operations and 405 transfer operations and 14 voluntary control or control transfers (Figure 1). This represents an increase of 110 observer sea days relative to 2020.

**Table 2: 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 / control operations
Albania	2	70	7	4	0
Algeria	21	965	29	12	1
Egypt	1	22	0	0	0
EU.Croatia	18	560	160	125	2
EU.Cyprus	1	42	0	0	0

Flag State / CPC	Vessels (n)	Obs. Sea Days*(n)	Fishing operations (n)	Transfer operations (n)	Voluntary control / control operations
EU.Spain	6	74	21	13	6
EU.France	22	430	42	24	1
EU.Italy	21	472	33	26	2
EU.Malta	1	13	1	1	1
Libya	15	322	21	18	0
Morocco	4	172	0	0	0
Tunisia	47	1,373	37	16	1
Turkey	31	1,093	391	166	0
<b>Total</b>	<b>190</b>	<b>5,608</b>	<b>742</b>	<b>405</b>	<b>14</b>

\* 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 2021 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 (000EU001 and 000EU125) required the observer to be replaced before deployment completion. These were unrelated to COVID and observer replacements were provided within one day causing minimal impact on the vessel's operations.

### 2.2.1.1 Norway

In the previous year, eight Norwegian vessels were active in the bluefin tuna fishery, and were still active at the time of submission for the 2020 Annual Report. Subsequently details of the implementation of the ROP-BFT for the Norwegian purse seine blue fin tuna fishing season in 2020 are included in this report. In 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 2020 Norwegian purse seine bluefin tuna season are included in Table 3.

**Table 3: Observer coverage on purse seiners monitoring fishing and transfer operations for Norway 2020**

Flag State / CPC	Vessels (n)	Total days active (n)	Obs. Sea Days (n)	Number of fishing operations
Norway (2020)	8	276	0	99

As with last year, no observers have been deployed onto Norwegian vessels for the fishing season in 2021 (still ongoing), as the Norwegian Ministry of Fisheries decided it would not be permitted to have an ROP observer onboard due to the COVID-19 pandemic. To the consortium's knowledge, two of the six of the Norwegian vessels are still active at the time of submission, so details of the implementation of the ROP-BFT in the Norwegian purse seine fishery will be reported in next year's annual report.

## 2.2.2 Deployments on Farms

The farm deployments by flag State / CPC completed with outputs submitted during the current contract year are set out in Table 4. There were 1,173 observer days completed for 27 deployment requests, over 26 different farms. Of the 27 requests, all started during the current contract year. The deployment requests included in Table 4 are listed in Annex 2 .

**Table 4: Observer coverage on farms during the current contract.**

Farm State	Deployments requests (n)	Farms (n)	Obs. days (n)
Albania	1	1	7
EU.Croatia	4	4	224
EU.Spain	3	3	219
EU.Malta	7	6	298
EU.Portugal	1	1	26
Morocco	4	2	259
Tunisia	3	3	83
Turkey	4	6	57
<b>Total</b>	<b>27</b>	<b>26</b>	<b>1,173</b>

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 5. There were 2,045 observer days completed for 34 deployment requests, over 24 different farms. The deployment requests included in Table 5 are listed Annex 3 .

**Table 5 Observer coverage on farms between the previous report and commencement of the current contract**

Farm State	Deployment requests (n)	Farms (n)	Obs. days (n)
EU.Croatia	7	4	329
EU.Spain	8	3	750
EU.Malta	9	6	458
EU.Portugal	1	1	34
Morocco	1	1	45
Tunisia	3	3	183
Turkey	5	6	246
<b>Total</b>	<b>34</b>	<b>24</b>	<b>2,045</b>

Two observers had to be replaced for 2 separate deployments (001EU0575 and 001EU0584) due to COVID diagnosis of the observer. The replacement of observers for two farm deployments occurred in line with procedures described for the safe replacement of observers due to COVID diagnosis. Details of the event and the procedures are outlined in Annex 1 .

### 2.2.3 Deployments on Traps

The trap deployments by trap state are set out Table 6. There were 223 observer days completed on 4 deployment requests, over a total of 15 different traps. However, for Morocco, the trap deployments fell under a farm deployment request and therefore the number of days (193) spent by observers on Moroccan farms during that period are included above in the corresponding farm deployment. Activities over 14 traps in Morocco were monitored, with the requests themselves covering 18 traps, albeit 4 did not require observer coverage.

**Table 6: Observer coverage on traps monitoring transfer operations during the current contract.**

Trap state	Deployment requests (n)	Traps (n)	Obs. days (n)
EU.Italy	1	1	30
Morocco	3	14	0 (193)
<b>Total</b>	<b>4</b>	<b>15</b>	<b>30 (223)</b>

In addition, the deployment on a Portuguese farm involved cagings direct from the trap to the farm, and therefore are considered cagings as part of a farm deployment. For this reason, this deployment is not included above.

### **3 Estimating Number and Weight of Tuna**

#### **3.1 By Operators**

##### **3.1.1 On Purse Seiners**

The prior transfer notification estimates are generally made by use of diver visual estimates 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 increasingly used to estimate the weight of a sample of fish. Estimation based on diver estimates may also be used to estimate average weight.

Quality of video footage has improved significantly over the years which may be 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.

Operator estimates are recorded in the eBCD, the ITD and the logbook. The definitive estimates for both weight and number also be retrospectively amended following caging. In cases that the observer is informed of these amended figures, 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 diver visual estimates. 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 increasingly used to calculate weight.

Operator estimates are recorded in the ITD and the eBCD.

##### **3.1.3 On Farms**

###### **3.1.3.1 Caging**

The farm provides an estimate of the number and weight of tuna caged with the eBCD and the ICD. These estimates are based on video records made at the time of caging. The exact mechanism for this varies between and even within CPCs. 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. 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 ICCAT Rec. 06-07. Farm estimates are recorded in the eBCD and the ICD.



### 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.

## 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.

Of the 405 transfers conducted (Table 7), all but one was recorded by video. Following review of the video, it was possible for the observer to estimate the number of fish transferred for 388 transfers. Of these estimates, the observer's estimate was within 10% of the estimate recorded in the ITD on 387 occasions. In line with Para. 92 of the Recommendation, the vessel operator has an opportunity to perform a voluntary control transfer should the quality of the initial transfer video not permit an accurate estimate. Voluntary control transfers were carried out on 11 occasions and a PNC sent on 8 occasions as no voluntary control transfer was conducted.

**Table 7: 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	12	12	11	10	10	0	2
EU.Croatia	125	125	118	118	118	5	2
EU.Spain	13	13	12	12	12	0	1
EU.France	24	24	23	23	23	1	1
EU.Italy	26	26	24	24	24	0	2
EU.Malta	1	0	0	0	0	0	1
Libya	18	18	18	18	18	0	0
Tunisia	16	16	14	14	14	0	2
Turkey	166	166	164	164	164	2	0
<b>Total</b>	<b>405</b>	<b>404</b>	<b>388</b>	<b>387</b>	<b>387</b>	<b>8</b>	<b>11</b>

Of the eleven voluntary control transfers carried out, the observer was able to estimate the amount of tuna transferred on 9 of these occasions, after which the ITD was signed.

For the remaining 2 voluntary control transfers, the video record was not compliant for one transfer, and the subsequent ITD was not signed. For the other (000TN146), upon review of

the video record by the consortium, it was agreed that the PNC relating to the video record for the original and subsequent voluntary control transfer were inaccurate and were recalled. The ITD had since been signed by the national authorities.

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

Flag State	Number of voluntary control 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	2	2	2	2	2	0	0
EU.Croatia	2	2	2	2	2	0	0
EU.Spain	4	4	4	4	1	0	2
EU.France	1	1	0	0	0	1	0
EU.Italy	2	2	2	2	2	0	0
Tunisia	2	2	2	1	1	1	0
<b>Total</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>2</b>	<b>2</b>

In the case of the voluntary transfers occurring on the Spanish vessel, the vessel concerned initially transferred catch into a towing cage, and the transfer video was not of sufficient quality to make an independent estimate. As such a voluntary transfer was performed, although at this stage the catch, due to the large size, had been split into 2 cages. As such, the voluntary transfers occurred in parallel, and because the total amount was unable to be transferred for neither cage, a second voluntary transfer was performed for each cage, with 4 voluntary transfers conducted in total which corresponded to a single initial transfer operation. Following completion of the operation, a control operation for each cage was conducted following request by the national authorities.

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.

Reviewing observer and vessel estimates, observers estimated less than the vessel on 105 occasions and more than the vessel on 237 occasions (including once when the observer's estimate was more than 10% higher than the vessel's). The exact same amount was estimated on 48 occasions.

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, except for two occasions when PNCs were submitted.

### 3.2.1.2 Release Operations

There were four release operations following release order from purse seine vessel reported in 2021 (Table 9).

**Table 9: Summary of release operations performed during the 2021 fishing season**

Trap State / CPC	Number of release operations (n)	Operation videoed	Video record provided to observer
EU.Spain	1	1	1
EU.France	3	0	0
<b>Total</b>	<b>4</b>	<b>1</b>	<b>1</b>

### 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 control transfer should the quality of the initial transfer video not permit an accurate estimate. Of the 27 transfers conducted, the number of fish transferred was able to be estimated for 22 operations, each within 10% of the operator's estimate (Table 10).

**Table 10: 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)
EU.Italy	5	5	5	5
Morocco	22	17	17	17
<b>Total</b>	<b>27</b>	<b>22</b>	<b>22</b>	<b>22</b>

Voluntary control transfers carried out on five occasions on Moroccan traps when no observer estimate had been possible due to video quality. The subsequent voluntary control 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 11).

**Table 11: Observer estimations of quantity of BFT following voluntary control / control transfers from traps.**

Trap State / CPC	Number of voluntary control transfers	Number of control transfers	Estimate of BFT by number possible (n)	Estimate within 10% of trap estimate (n)	ITD Signed
Morocco	5	0	5	5	5
<b>Total</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>5</b>

Reviewing observer and trap estimates, observers estimated more than the trap on 21 occasions (a maximum of 8.7% difference), less than the trap on 5 occasions (a maximum of

8.51% difference) and the same amount once. 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 were 213 caging operations performed (Table 12). Of these, the observer was able to estimate the number of tuna caged on 193 occasions, with the observer estimate being within 10% of the farm's estimate as recorded in the eBCD on 185 occasions. The eBCD was signed for the corresponding operations for all 185 operations.

In the case of the ICD, this was not provided to the observer for 29 caging operations. Potential non-compliances were reported for these cases. Furthermore, in some cases the farm's estimate as recorded in the ICD varied from that recorded in the eBCD. On six occasions, ICDs were signed when the corresponding eBCD was not, as the figures within the ICD were consistent with the observer's estimates, while the eBCDs were not. On one occasion, the eBCD was signed when the corresponding ICD was not, as the estimates within the eBCD were consistent with the observer's estimates, while the ICD was not.

**Table 12: 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)
Albania	2	2	2	2	2
EU.Croatia	23	21	20	20	20
EU.Spain	45	33	32	32	16
EU.Malta	74	73	67	67	72
EU.Portugal	3	3	3	3	3
Morocco	22	22	22	22	22
Tunisia	18	15	15	15	15
Turkey	26	24	24	24	24
<b>Total</b>	213	193	185	185	174

Potential non-compliances were reported for 29 caging operations when the observer had been either unable to estimate the amount of tuna caged, the video record was non-compliant, or the observer's estimate was more than 10% different to the operator's. Of these potential non-compliances, seven were followed by control operations. A further 3 control operations were performed on request from the farm or national authorities and did not follow a PNC reported by the observer. Following all of these control operations, the observer was able to sign the eBCD and ICD for all operations (Table 13).

**Table 13: 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)
EU.Croatia	2	2	2	2	2
EU.Spain	2	2	2	2	2
EU.Malta	1	1	1	1	1
Tunisia	3	3	3	3	3
Turkey	2	2	2	2	2
<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

As with purse seine video estimations, the difference between observer and farm estimates varied significantly. Of the 193 initial caging operations when the observer was able to estimate the amount of tuna caged from, the observer estimated more than the farm on 113 occasions (of which 3 estimates were more than 10% different to the farm's), the same on 3 occasions and less on 77 occasions (of which 5 estimates were more than 10% different to the farm's). Of the 10 control operations carried out, the observer estimate was more than the farm's on 4 occasions and less on 6. All estimates following control operations were within 10% of the farm estimate.

In addition to above, the data from nineteen caging operations was received following the submission of the previous annual report and before the current contract (Table 14). All of these operation occurred following inter-farm transfer operations. These occurred between 05/09/2020 and 11/03/2021, with 13 occurring after the 7<sup>th</sup> of September, the last possible date a caging may occur in line with Para 95 of Rec. 19-04. For 6 operations, the observer was able to estimate the number of tuna caged, and the eBCD and ICD were signed.

Thirteen of these cagings occurred following inter-farm transfers which were conducted due to force majeure. In all of these cases, the donor cages were physically moored at the recipient farm, and no video of the operation was taken, nor was an ICD or eBCD produced for verification by the observer. No control operations were carried out.

**Table 14: 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 Signed (n)	ICD signed (n)
EU.Croatia	2	2	2	2	2	2
EU.Spain	13	0	0	0	0	0
EU.Malta	1	1	1	1	1	1
Turkey	3	3	3	3	3	3
<b>Total</b>	<b>19</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>

In addition, paragraph 85 of the Recommendation states observers should be provided with ‘access to stereoscopic camera footages at the time of caging that enables the measuring of length and estimating the corresponding weight’. However, after reviewing requirements, it currently is not feasible for observers to be provided with exclusive access, software and training to carry out a fully independent and accurate estimate of fish weight during cagings. As such, the observer remains unable to estimate the weight of tuna caged.

### 3.2.3.2 Inter-Farm Transfers

There were three inter-farm transfer operations performed during the current contract year (Table 15). 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 15: 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)
EU.Croatia	3	3	3	3
<b>Total</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

In addition to above, the data from thirteen inter-farm transfer operations was received following the submission of the previous annual report and before the current contract (Table 16). For five of these operations, 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. The ITD was signed for all of these operations. For one operation, no estimate was possible, and the ITD was not signed, instead being signed by the national inspectors.

For the remaining seven operation., cages were moved between farms due to force majeure, and no physical transfer of tuna between cages occurred. Furthermore, no ITD was produced.

**Table 16: 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)
EU.Croatia	2	1	1	1
EU.Spain	7	0	0	0
EU.Malta	1	1	1	1
Turkey	3	3	3	3
<b>Total</b>	<b>13</b>	<b>5</b>	<b>5</b>	<b>5</b>

### 3.2.3.3 Harvests

During harvest operations, observers can conduct monitoring activities from a number of locations. Typically these are on the harvesting platform, or carrier vessel for bulk harvests, or on the farm vessel for fresh exports. In all instances of harvesting, facilities both at farms and on the carrier vessels permitted an accurate count of tuna removed and individual or average

weight for fish harvested. For bulk and fresh harvests, the observer was provided the eBCD as soon as possible after the operation for verification. In the case of natural mortalities, the eBCD often would bypass observer verification and instead was signed by the national authorities, or if the fish was not commercialized, no eBCD was produced. For all fresh and bulk harvests, the eBCD was signed.

**Table 17: 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 harvest operations	eBCD signed
EU.Croatia	1	1	4	4	0	0	4
EU.Spain	2	2	110	85	0	25	85
Morocco	1	1	45	15	30	0	45
Tunisia	1	1	1	0	0	1	1
<b>Total</b>	<b>5</b>	<b>5</b>	<b>160</b>	<b>104</b>	<b>30</b>	<b>26</b>	<b>135</b>

In addition to above, the data from 1,704 harvest operations was received following the submission of the previous annual report and before the current contract (Table 18). The eBCD was signed on 1,696 of these occasions, with the eBCDs for 5 operations for natural mortalities being signed by the respective authorities, and for 3 operations, no eBCD was issued, as the tuna was harvested as part of the GBYP Research Mortality Allowance.

**Table 18: 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 harvest operations	eBCD signed
EU.Croatia	6	4	235	100	135	0	235
EU.España	8	3	434	274	160	0	434
EU.Malta	9	6	408	323	80	5	403
EU.Portugal	1	1	7	0	4	3	4
Morocco	1	1	42	0	42	0	42
Tunisia	3	3	146	10	136	0	146
Turkey	4	5	432	26	406	0	432
<b>Total</b>	<b>32</b>	<b>23</b>	<b>1,704</b>	<b>1,206</b>	<b>490</b>	<b>8</b>	<b>1,696</b>

### 3.2.3.4 Release operations

For the current contract for all completed deployments, 10 release operations from farms have been carried out. All releases were conducted in line with the requirements of Annex 10 of the Recommendation.

**Table 19: Release operations current contract year**

<b>Farm State/CPC</b>	<b>Number of releases</b>	<b>Observer present</b>	<b>Video record</b>
EU.Spain	2	2	2
EU.Malta	8	8	8
<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>



## 4 Potential Non-Compliance Events

### 4.1 Purse seine vessels

Observers record and report PNCs under the codes listed in Annex 4 of this report. In the case of the observer being unable to sign the ITD following a transfer operation, Paragraph 93 of the Recommendation requires observers to indicate his/her presence on transfer declarations and eBCDs and include reference to the specific measure/s which has not been respected, on the unsigned document. These PNCs related to the ITD are shown in Table 20.

**Table 20: PNCs preventing the observer from signing the ITD during the 2020 purse seine season**

	PNC code				Total
	TLTO	TODT	TTNP	TVRO	
<b>EU.Croatia</b>	0	1	4	1	6
<b>EU.France</b>	0	0	1	1	2
<b>Turkey</b>	1	1	0	0	2
<b>Total</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>10</b>

The most common PNC relating to review of video records was being unable to make an independent estimate due to video quality or clarity (TTNP). This was the first year also when observers experienced significant delays in being provided with the electronic storage device following the end of the transfer operation (TVRO), including following on voluntary control, operation. Other issues related to 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).

Otherwise the number of PNCs were low in comparison with previous years, largely in part due to improved video quality as well as the use of voluntary control transfers when applicable.

To note also, the PNCs related to deployment on a Tunisian vessel, for which the ITD was subsequently signed by the Tunisian authorities, have been rescinded.

In addition the observer is also required to report on any other potential non-compliance with ICCAT conservation and management measures (Table 21).

**Table 21: Other PNCs detected during the 2021 purse seine season**

	PNC code										TOTAL
	FLBI	FMOR	FLBF	TITN	RNVR	FBIN	FLBN	GDNI	GOBS	FVTS	
Albania	2	0	0	0	0	0	0	0	0	0	2
Algeria	0	1	0	0	0	1	0	0	1	0	3
EU.Croatia	14	0	2	1	0	0	0	0	0	0	17
EU.España	5	0	0	0	0	0	0	0	0	0	5
EU.France	1	0	1	0	3	0	0	0	0	0	5
EU.Italy	4	0	1	1	0	2	0	1	0	1	10
EU.Malta	1	0	0	0	0	0	0	0	0	0	1
Libya	1	0	0	0	0	0	0	0	0	0	1
Tunisia	0	2	0	2	0	2	0	0	0	0	6
Turkey	51	21	5	0	0	0	1	0	0	0	78
<b>Total</b>	<b>79</b>	<b>24</b>	<b>9</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>128</b>

The majority of the other PNCs related to administrative errors on official paperwork. Notably this included:

- Incorrect or inconsistent information in the logbook (FLBI) – including incomplete logbook, not correctly recording allocated catch or bycatch;
- Dead tuna incorrectly recorded in the eBCD and not in line with the guidance of Annex 11 of the Recommendation. In other instances, dead fish was not recorded at all in the logbook (FMOR);
- No logbook entries made, in particular for unsuccessful fishing operations (FLBF);
- Incorrect information in the ITD relating to logbook reference (TITN);
- Release operation not being videoed by camera (RNVR);
- Incorrect or inconsistent information in the eBCD when compared with observations or information in the vessel's logbook or ITD (FBIN);
- No logbook entries made (FLBN), particularly when in port;

Other significant occurrences involving other vessels were:

- Vessels not authorized engaged in the fishery (GDNI); and

- Transhipments at sea between other vessels (FVTS).

There was also a PNC reported for obstruction, intimidation, interference or brining of the observer in the performance of his/her duties on an Algerian vessel. This came about as the captain tried to initially to coerce the observer to record the capture of another vessel as the observer's own vessel, and sign the corresponding ITD. In such a case, an entirely fraudulent ITD and video would have been produced. The observer categorically refused and warned the captain that he would present a PNC. Following this event, the observer received several verbal threats from the second captain in charge of fishing operations and from certain crew members.

## 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 as described in Para. 92 of the Recommendation. If the resulting transfer is performed with satisfactory results, the observer may sign the ITD, and the PNC shall not be reported. Five voluntary transfers were carried out in Moroccan traps, resulting in a satisfactory video record, with the ITD subsequently signed. As such, no PNCs were reported during trap deployments in 2021.

## 4.3 Farms

### 4.3.1 Current Contract

Observers are required to monitor 100% of all caging, inter-farm transfers and release operations for compliance with ICCAT Recommendations, as well as in the case of caging and transfer operations, review the associated video and report on any PNCs. PNCs relating directly to the caging operation mean that the observer cannot sign the eBCD nor ICD, must indicate the reasons for not signing on the document and shall send a PNC report. Unlike transfer operations, the farm is unable to perform a voluntary control operation for caging operations. In the case that the national authorities deem necessary following investigation, a control operation must be performed.

In the case of PNCs relating directly to the transfer operation, the observer cannot sign the ITD: As with transfers from purse seine and traps, the farm has the opportunity to carry out a voluntary transfer as described in Para. 92 of the Recommendation. If the resulting transfer is performed with satisfactory results, the observer may sign the ITD, and the PNC shall not be reported.

Under the current contract, the following observed PNCs meant that the observer was unable to sign the corresponding eBCD, ICD or ITD (Table 22).

**Table 22: PNCs occurring during the current contract relating to compliance of caging operations.**

	PNC code				Total
	CICD	CCNP	CODO	CODN	
EU.Croatia	0	2	1	0	3
EU.Spain	29	12	0	1	42
EU.Malta	0	0	7	1	8
Tunisia	0	2	0	1	3
Turkey	0	2	0	0	2
<b>Total</b>	<b>29</b>	<b>18</b>	<b>8</b>	<b>3</b>	<b>58</b>

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). Other PNCs included the opening or closing of the cage door not being shown (CODN). For 29 caging operations, no ICD was produced (CICD). As such the observer was unable to sign the ICD and reported this PNC, although did sign the corresponding eBCDs. For the three inter-farm transfers carried out on Croatian farms, no PNCs were detected and the corresponding ITDs were signed.

Two PNCs were observed on farms relating to general compliance, specifically cages without unique identifiable numbers (CNAC) being used for transfers within the same farm and control operations. A further two PNCs related undersize tuna being harvested (HUND) (Table 25).

**Table 23: PNCs reported during the current contract relating to general compliance.**

	PNC code		Total
	CNAC	HUND	
EU.Croatia	0	2	2
EU.Malta	2	0	2
<b>Total</b>	<b>2</b>	<b>2</b>	<b>4</b>

#### 4.3.2 During Previous Report and Commencement of the Current Contract

Several PNCs were detected and reported between the submission of last year's report and the beginning of the new contract (Table 24). A large number of these related to the inter-farm transfers and subsequent cagings of tuna due to force majeure, occurring between two Spanish farms. As no physical movement of tuna occurred, no video record was produced. Furthermore, no associated ITD for the transfer, nor ICD and eBCD for the subsequent cagings were produced.

In addition, a large number of release operations occurred later than 3 weeks after the completion of caging operations (RRLI). All of these release operations involved the release of tuna caught during the 2020 fishing campaign, and were not tuna remaining in the farm following completion of harvest operations.

**Table 24: PNCs reported during after submission of the previous report and before the current contract.**

	PNC code								Total
	CBDA	CICD	CNVD	HBDA	RRLI	PITN	PNVT	PODT	
EU.Croatia	0	0	0	0	1	0	0	1	2
EU.Spain	6	6	13	0	5	7	7	0	44
EU.Malta	0	0	0	0	11	0	0	0	11
EU.Portugal	0	0	0	1	0	0	0	0	1
<b>Total</b>	<b>6</b>	<b>6</b>	<b>13</b>	<b>1</b>	<b>17</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>58</b>

## **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 2021, 100% of reports were submitted within 20 days, and is the fourth consecutive year in which this has been the case.

## 6 Scientific Monitoring and Activities

### 6.1 Length and Weight Sampling

#### 6.1.1 Purse seine deployments

Observers were instructed to perform length and weight sampling on all accessible bluefin tuna which had died and were brought onboard during purse seine operations. In particular, observers are told to prioritise tagged fish. Table 25 summarises sampling activities during the 2021 fishing season. Weight is only recorded when scales allow independent estimate of the weight, and only when whole. Length is measured as curved fork length using flexible tape. A total of 562 fish were measured for fork length and 200 weighed.

**Table 25: Summary of sampling during 2020 fishing season**

Flag State	Number of fish measured for length	Number of fish weighed	Number of tags	Number of samples
Albania	17	0	0	0
Algeria	24	1	0	0
EU.Croatia	356	150	0	0
EU.Spain	3	3	0	0
EU.France	9	6	0	0
EU.Italy	63	30	0	0
Libya	2	0	0	0
Tunisia	27	0	0	0
Turkey	61	10	0	0
<b>Total</b>	<b>562</b>	<b>200</b>	<b>0</b>	<b>0</b>

#### 6.1.2 Harvest deployments

A total of 6,198 fish were sampled for length (usually SFL but with CFL if no calipers were available) and/or weight to date during the current 2021 harvest season (Table 26).

**Table 26: 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.Croatia	59	59	0	0
EU.Spain	4,922	4,922	4	0
Morocco	1,214	1,214	1	0
Tunisia	3	0	0	0
<b>Total</b>	<b>6,198</b>	<b>6,195</b>	<b>5</b>	<b>0</b>

In addition, a large number of samples were taken following submission of last year's annual report and the beginning of the current contract.

**Table 27: 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
EU.Croatia	17,936	28,274	0	0
EU.Spain	19,387	19,565	14	3
EU.Malta	7,444	11,490	34	11
EU.Portugal	1,211	1,213	62	0
Morocco	900	900	0	0
Tunisia	5,515	5,514	4	0
Turkey	5,419	5,419	2	0
<b>Total</b>	<b>57,812</b>	<b>72,375</b>	<b>116</b>	<b>14</b>

The large number of tags recovered in Portugal were part of the growth in farm programme being conducted by the national authorities.

## 6.2 Tag recoveries and sampling

During training, the consortium outlined the research necessary for improving the scientific advice that the 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 54 tags after submission of the previous report and before the current contract (Table 28). These were reported in real time, and for 14 of the tags, a sample was recovered and stored at the farm for later recovery by GBYP. The tags recovered in Portugal as part of the growth in farm programme are not included below.

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 28: 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	2020-21	226 (SFL)	270 (WHO)	FL 33310	SS	No
EU.Spain	2020-21	237 (CFL)	256 (WHO)	BYP073940	SS	No
EU.Spain	2020-21	211 (CFL)	146 (WHO)	BYP051278	SS	No
EU.Spain	2020-21		290 (WHO)	UNH0078 / B5042	ET	No
EU.Malta	2020-21		251 (WHO)	BT011000	SS	No
EU.Malta	2020-21		211 (WHO)	BYP009095	SS	No
EU.Malta	2020-21	170 (CFL)	87 (WHO)	BYP022425	SS	Yes



Farm state	Harvest season	Length (cm)	Weight (kg)	Tag #	Tag Type	Sample
EU.Malta	2020-21		228 (WHO)	BYP018196	SS	No
EU.Malta	2020-21	210 (SFL)	183 (WHO)	BYP009934	SS	No
EU.Malta	2020-21	283 (CFL)	461 (WHO)	FDN BF 433691	SS	No
EU.Malta	2020-21			BYP060133	SS	No
EU.Malta	2020-21	182 (CFL)	111 (WHO)	BYP055487 / BYP010491	DS	Yes
EU.Malta	2020-21	172 (CFL)	98 (WHO)	BYP014666	SS	Yes
EU.Malta	2020-21	229 (CFL)	228 (WHO)	BYP 050267 / 000867	DS	Yes
EU.Malta	2020-21	227 (CFL)	219 (WHO)	BYP057780 / BYP017789	DS	Yes
EU.Malta	2020-21			BYP 012754	SS	No
EU.Malta	2020-21	244 (CFL)	315 (WHO)	BYP080050 / ID90821300123	SS	Yes
EU.Malta	2020-21			BYP000828	SS	Yes
EU.Malta	2020-21	194 (CFL)	157 (WHO)	BYP053270	SS	No
EU.Malta	2020-21	212 (CFL)	188 (WHO)	BYP051116	SS	Yes
EU.Malta	2020-21		220 (WHO)	BYP009229	SS	Yes
EU.Malta	2020-21	211 (CFL)	224 (WHO)	BF52490	SS	Yes
EU.Malta	2020-21			BYP009630	SS	Yes
EU.Malta	2020-21	202 (CFL)	134 (WHO)	BYP009948	SS	No
EU.Malta	2020-21	219 (CFL)	181 (WHO)	BYP052942	SS	No
EU.Malta	2020-21	239 (CFL)	240 (WHO)	BYP007192 / BYP027635 / BYP077564 / WATLANTIC / EATLANTIC	DS	No
EU.Malta	2020-21	279 (CFL)	364 (WHO)	AG03716 (IN WESTERN ATLANTIC)	ET	No
EU.Malta	2020-21	205 (SFL)	200 (WHO)	BYP008385 / BYP000629	DS	No
EU.Malta	2020-21	235 (SFL)	329 (WHO)	BYPUnknown..480	SS	No
EU.Malta	2020-21	211 (CFL)	157 (WHO)	BYP0057317 / BYP0017317	DS	No
EU.Malta	2020-21	243 (CFL)	282 (WHO)	BYP052871	SS	No
EU.Malta	2020-21	227 (CFL)	204 (WHO)	BYP 008859	SS	No
EU.Malta	2020-21	222 (CFL)	198 (WHO)	BYP008117 / BYP053617	DS	No
EU.Malta	2020-21	231 (CFL)	236 (WHO)	BYP009249	SS	No
EU.Malta	2020-21	221 (CFL)	187 (WHO)	BYP 053883 / BYP 008383	DS	No
EU.Malta	2020-21	204 (CFL)	159 (WHO)	BYP 057472 / BYP 017472	DS	No
EU.Malta	2020-21	251 (CFL)	193 (WHO)	BYP 053726	SS	No
EU.Malta	2020-21	216 (CFL)	190 (WHO)	BYP 008892	SS	No
EU.Spain	2020-21	167 (SFL)	80	AAB004802	SS	No

Farm state	Harvest season	Length (cm)	Weight (kg)	Tag #	Tag Type	Sample
EU.Spain	2020-21	207 (SFL)	146 (WHO)	BYP000961	SS	No
EU.Spain	2020-21	198 (SFL)	162	BYP054574- BYP012250	DS	No
EU.Spain	2020-21	226 (CFL)	192 (WHO)	BYP017848 / BYP057848	DS	Yes
EU.Spain	2020-21	240 (CFL)	233 (WHO)	BYP053544 / BYP008544	DS	Yes
EU.Spain	2020-21	263 (CFL)	317 (WHO)	BYP079990	ET	Yes
EU.Spain	2020-21	207 (SFL)	190	053957	DS	No
EU.Spain	2020-21	196 (SFL)	193	007979	SS	No
EU.Spain	2020-21	201 (SFL)	182	05709	DS	No
Tunisia	2020-21	209 (CFL)	154 (WHO)	BYP053888 / BYP 008388	DS	No
Tunisia	2020-21	216 (CFL)	171 (WHO)	BYP056610	SS	No
Tunisia	2020-21	255 (CFL)	257 (WHO)	BF520494	SS	No
Tunisia	2020-21	248 (CFL)	193 (WHO)	BYP000233	SS	No
Turkey	2020-21	205 (CFL)	151 (WHO)	BYP 057964	SS	No
Turkey	2020-21			BYP 017964	SS	No
EU.Spain	2021-22	205 (SFL)	133 (DR)	Illegible	SS	No
EU.Spain	2021-22	163 (SFL)	107 (DR)	HM103426	SS	No
EU.Spain	2021-22	167 (SFL)	68 (DR)	HM103415	SS	No
Morocco	2021-22	237 (CFL)	240 (WHO)	BYP 080037	SS	No
EU.Spain	2021-22	259(SFL)	306 (DR)	BF179833	SS	No
EU.Spain	2020-21	226 (SFL)	264 (WHO)	PAR000007	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

In addition to monitoring catches of bluefin tuna, 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 2021 Table 29. This included albacore (ALB – *Thunnus alalunga*), bullet tuna (BLT – *Auxis rochei*), Mediterranean spearfish (MSP – *Tetrapturus belone*) and whiptail stingray (STT – *Dasyatidae*).

**Table 29: Summary of discarded and retained bycatch.**

CPC / flag state	Species code	Discarded		Retained	
		Number of operations	Number	Number of operations	Number
EU.Spain	ALB	0	0	5	5
EU.France	ALB	0	0	1	2
EU.Italy	ALB	1	1	0	0

CPC / flag state	Species code	Discarded		Retained	
		Number of operations	Number	Number of operations	Number
EU.Croatia	BLT	2	332	0	0
EU.Croatia	MSP	0	0	1	1
EU.Croatia	STT	1	35	0	0

Observers since 2020 have also monitored interactions with other species, including live releases from the net or observations of associated species in the transfer video (Table 30). These interactions, while not resulting in mortalities, may provide information on levels of interactions within the fishery.

**Table 30: Interactions with associated species**

CPC / flag state	Species code	Observed in transfer video (N° of operations)	Released alive from the net (N° of operations)
Albania	BSH	0	1
EU.Croatia	BSH	0	2
EU.Croatia	JDP / MYL / PLS / RAY / STT	18	13
EU.Croatia	RMM / RMV	0	2
EU.France	RMM / RMV	1	1
EU.Croatia	TTL	2	14
EU.Italy	TTL	0	1
EU.Croatia	MOX	0	6
EU.Italy	MOX	0	1
EU.Croatia	SWO	3	1
EU.Italy	SWO	1	1

## **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 are provided access to transfer and caging videos, and are able for the majority of times able 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.

However, some issues remain, usually relating to documentation or procedures, especially in specific circumstances such as at sea releases and voluntary control transfers, while the consortium has also made 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 ICCAT Caging Declarations (ICDs)**

The ICCAT Caging Declaration is not always produced in line with the requirements of the Recommendation; Annex 6, Para. 7b ii and iv; and Rec. 06-07; Para 2d). The consortium recommends that the need for producing the ICD is clarified and consistent between CPCs and the observers role in signing these is clarified..

### **7.2 Documenting Voluntary Control and Control Transfers**

While voluntary control transfers occurred less frequently than in 2019 when the procedure was first introduced through Rec. 18-02, and also 2020, these continue to provide a useful mechanism for purse seine operators and reducing potential non compliances associated with transfers. However, the specific procedure for documenting these original and subsequent voluntary control and control transfers in not consistent, and indeed, often the original transfers are not recorded. Furthermore, it is not always clear if te the transfer is a voluntary control, or a control transfer, and the conditions under which a voluntary control transfer may occur are not always consistent.

The consortium recommends that the definitions, reporting procedure and documentation involved for voluntary control transfers and control transfers, particularly with respect to the recording the corresponding operations in the ITD is clarified and consistent.

### **7.3 Recording of non-compliances leading to voluntary transfers**

Currently the observer does not report, nor record, beyond including comments, the potential non-compliance resulting in a voluntary control transfer, if the subsequent voluntary control transfer produces a compliant video record. The consortium would like to recommend that a mechanism for reporting this PNCs, noting that they have been nulled by a voluntary control transfer, is established, 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 greater clarity in the observer involvement and duties in monitoring any control transfers at sea. The consortium understands that following a control transfer, the video record shall be provided to the observer. But should the observer review this video and sign the ITD if considered compliant? If this is the case, how shall the ITD be signed - should the original and subsequent PNC related to the original transfer and subsequent voluntary control transfer still be input on the ITD in line with Para 93 of the Recommendation?

If these control transfers are documented in the ITD, in which section shall the observer expect to see these be recorded by the vessel?

In addition, control transfers often occur considerable time after the original operations, between which time the observer's vessel may have left the area and the ROP has not been able to monitor the cage and any associated operations associated with that cage. Can the consortium obtain clarification on whether the observer shall be expected to monitor this operation considering that the observer cannot confirm that it is the same cage nor tuna from the original transfer?

## **7.5 At sea releases**

Several at sea releases from purse seine vessels were conducted in 2021, and most of these were not videoed. Para 88 of the Recommendation does require releases from catching vessels to be in conformance with Annex 10, but Annex 10 makes no explicit mention of the requirements for releases from catching vessels, only farms. The consortium requests that clarity over whether the requirements specified in Annex 10, specifically that release shall be videoed, shall apply to releases from catching vessels.

## **7.6 Consultation with CPCs**

During previous years the Consortium found the 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 continued communication with the CPCs and Secretariat can continue.

## **7.7 Use of InReach Device**

The InReach device provided to observers during the 2021 contract 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 hopes that these potential further applications can be explored to improve observer ability to meet the requirements of the ROP established in Annex 6; Para 7 of The Recommendation, in particular reporting without delay and potential non-compliances.

## **7.8 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 observations of potential non-compliance may be included informally in any report to the CPC with the Secretariat in copy.

## Annex 1 Response to the COVID-19 Pandemic - 2021

Most significantly this year, with increased services available, all observers were PCR tested prior to training and subsequent mobilisation. A small number of observers were also fully vaccinated at the time of deployment but were in any case PCR tested prior to mobilisation. In addition, as with last year, the consortium required all observers to undertake a self-assessment of any symptoms before travel as well as be equipped with appropriate hygienic equipment such as face mask and hand sanitiser and be up to date on best practices. All observers were required to declare previous movements and any potential risk exposure in a self-declaration as outlined in the MoU. Both this self-declaration and the PCR test results were available to the operators on request.

The consortium also continues to support and develop the capacity of various hubs in Tunisia, Morocco, Croatia, Portugal, Italy, Spain, Turkey and Malta, which allowed efficient distribution of safety equipment and localised briefing, trainings and debriefings. Currently the consortium has capacity to deploy observers directly to a number of sites and receive equipment and briefing on site through senior observers supported remotely by staff, or staff based in these regional hubs.

### Training and Recruitment

In 2020, in response to the COVID-19 pandemic the consortium developed online training and learning tools, and webinar resources which allowed remote training of both returning and new observers. This proved to be a useful tool which has continued to be developed. This year, conditions permitted in person training in a number of countries. However, the online training tools continue to be a valuable resource in providing support and reference information, as well as a medium to exchange files and outputs.

A total of 239 observers were trained for the 2021 observer pool; 62 new observers who underwent in-person 5-day training courses and 177 returning observers who underwent 1 day refresher courses (67 via webinar and 110 in person). When held in person, several smaller training sessions were held in different locations, held as close to deployment dates as possible to allow deployment direct from training, and overall reduce the amount of travel required. Training locations included Ankara, Lisbon, Valencia, Sete, Marsaxlokk, Naples, Split, and Azeffoun.

**Table 31: Training of new and returning observers**

Training type	Returning observer	New observer	Total
Webinar	67	0	67
Azeffoun, Algeria	14	20	34
Ankara, Turkey	44	0	44
Lisbon, Portugal	5	0	5
Marsaxlokk, Malta	3	5	8
Naples, Italy	21	11	32
Sete, France	3	0	3
Split, Croatia	9	5	14
Valencia, Spain	11	21	32
Total	177	62	239

At the time of the start of training (end of April), there was an anticipated 203 vessel operating in the 2021 fishery, which would have required 244 active observers. Late unavailability of observers was countered by availability of consortium staff to cover any possible shortfall.

### **Mobilisation for Purse Seine Deployments**

As in previous years, observers were assigned to vessels where possible on the basis of nationality and language skills so as to adhere to the requirements of the programme. In 2020, the main consideration was to limit the amount of travel required and subsequent risks associated with COVID-19, as well as adapt to the travel restrictions in place. This meant a high number of observers of the same nationality were deployed on vessels. In 2021, while restrictions did limit the ability to deploy observers of different nationalities in some fleets, observers of different nationality were deployed on all vessels on the Albanian, Egyptian Libyan and European (Croatian, Cypriot, French, Italian, Maltese and Spanish) fleets.

However, due to travel restrictions in place and in accordance with the ICCAT circular 1885/2021, 103 observers of same nationality were deployed to the Algerian, Moroccan and Tunisian fleets due to COVID-19 travel restrictions. As in previous year's observers of the same nationality were also deployed to the Turkish fleet.

In all cases, deployment letters issued by respective national authorities, the Secretariat and the consortium were issued to travelling observers in order to facilitate movement, particularly across borders as required.

Observers in all cases undertook a PCR test prior to deployment. On 4 occasions observers had to be removed from the pool either for testing positive, or having close contact with a positive case. In addition, deployment requests often involved observers arriving earlier to port to allow testing and subsequent self-isolation until negative test results were obtained.

### **Mobilisation for Farm and Trap Deployments**

As with purse seine deployments, and as in previous years, observers were assigned to farms and traps wherever possible on the basis of nationality and language skills so as to adhere to the requirements of the programme, although as with purse seine deployments, the main consideration was to limit the amount of travel required and subsequent risks associated with COVID-19.

As such, and in accordance with the ICCAT circular 1885/2021, observers of the same nationality as the farm and trap's flag were deployed in several instances during the 2021 season, notably on all Moroccan, Tunisian and Turkish farm and trap deployments included in this report. Observers of different nationality were have been deployed on all Albanian and European (Croatian, Italian, Maltese, Portuguese and Spanish) farm and trap deployments during the current contract. Croatian observers were used on Croatian farms up to the start of March 2021, when it became possible for non-Croatian observers to deploy. As of August 2021, it has also become possible to deploy observers of different nationality to farms in Morocco and Tunisia, although these deployments are not included in this report.

Observer briefing for farm deployments occurred either remotely or deploying through regional hubs to limit travel.

In the case of positive cases detected on a farm, either of the observer or farm personnel, the following actions were taken and involved receiving written assurance from the farm operators, describing the actions taken and how these are in line with national requirements. This included but were not necessarily limited to:

- Identification and PCR testing of personnel who have come into close contact with the infected person, and self-isolation in line with national requirements;

- Assessment and identification of any COVID symptoms in personnel, with corresponding self-isolation of any possible cases until a negative PCR test obtained;
- Sterilisation of all equipment, clothing and work areas where the infected person has or may have been working;
- Obligation and availability of mitigation measures such as use of masks and availability of hand wash and/or sterilisation wash facilities.
- In the case of accommodation or equipment being affected, this is sterilised and cleaned professionally, and not used until at least 96 hours afterwards.

### Observer Debrief

Similarly, debriefing was held in several locations, often immediately or soon after disembarkation and as close as possible to the port of disembarkation or observer homebase to reduce requirement for travel. These include Lisbon, Oliva, l’Ametlla de Mar, Sete, Montpellier, Paris, Split and Tunis.

At the end of the fishing season, the restrictions associated with COVID-19 were considerably less, allowing in some cases debrief in person. The following table summarises observer debrief following the purse seine season.

**Table 32: Summary of observer debrief following purse seine season**

Flag / CPC	Number of observers		
	Web-conference	Senior observer / Web-conference	In person
Albania	1	0	1
Algeria	0	21	0
Egypt	0	0	2 <sup>1</sup>
EU.Croatia	1 <sup>2</sup>	0	18
EU.Cyprus	0	1	0
EU.Spain	0	0	6
EU.France	0	0	22
EU.Italy	0	0	21
EU.Malta	0	1	0
Libya	0	2	13
Morocco	0	4	0
Tunisia	0	1	46
Turkey	0	0	31
<b>Total</b>	<b>2</b>	<b>30</b>	<b>160</b>

<sup>1</sup> While there was only one request for Egypt, the observer was replaced mid-way through the season, and 2 debriefs were required.

<sup>2</sup> As one observer required replacement, the replaced observer was debriefed remotely, and the replacement observer in person.



Likewise, for farm and trap debriefings, restrictions were less than they were at the start of the season, allowing in person debrief.

**Table 33: Summary of observer debrief following farm / trap deployments**

Flag / CPC	Number of observers		
	Web-conference	Senior observer / Web-conference	In person
Albania	1	0	0
EU.Croatia	6	1	3
EU.Italy	0	0	1
EU.Spain	6	0	5
EU.Malta	10	1	5
EU.Portugal	0	0	2
Morocco	5	0	0
Tunisia	6	0	0
Turkey	8	0	0
<b>Total</b>	<b>42</b>	<b>2</b>	<b>16</b>

### Notable Incidents

Throughout the farm deployments, the following notable incidents related to COVID-19 occurred.

- An observer deployed on a Croatian farm (001EU0575) tested positive for COVID-19 during the deployment and was replaced. The first observer ceased monitoring operations on 07/09/2020 and the replacement observer started monitoring operations on 14/09/2020. The replacement observer then also experienced symptoms of COVID-19 (later tested negative) towards the end of the deployment. Rather than replacing the observer, the deployment was ended 2 days earlier and the new request started a few days earlier; and
- An observer deployed on a Maltese farm (001EU0584) tested positive for COVID-19 during the deployment and was replaced. The first observer ceased monitoring operations on 20/11/2020 and the replacement observer started monitoring operations on 24/11/2020.

In all cases, replacement observers were deployed following appropriate assurances and measures made by the farm regarding the safety of the farm and accommodation facilities and outlined above.

- No observer required to be replaced during purse seine or trap deployments. However, as previously noted, 5 observers became unavailable for deployments due to a positive COVID-19 test, either of the observer or a close family member;
- Two observers were replaced during the purse seine season (000EG001 and 000EU125) but these were unrelated to COVID-19; and
- One observer embarked on the Tunisian fleet tested positive after the deployment and prior to the debriefing and as such was debriefed remotely with a senior observer following the main Tunisian debrief.

## Annex 2 Farm Deployments in the Current Contract included in this report

Request number	Farm ICCAT number/s name	Date start	Date end
001EU0612	ATEU1HRV00006	01/06/2021	25/07/2021
001EU0613	ATEU1HRV00011	01/06/2021	26/07/2021
001EU0614	ATEU1HRV00012	01/06/2021	26/07/2021
001EU0615	ATEU1HRV00008	01/06/2021	27/07/2021
001EU0616	ATEU1ESP00005	12/06/2021	10/09/2021
001MA0617	AT001MAR00002	29/04/2021	08/07/2021
001MA0618	AT001MAR00002	29/04/2021	28/06/2021
001MA0619	AT001MAR00003	29/04/2021	28/06/2021
001EU0620	ATEU1MLT00001	03/06/2021	02/07/2021
001EU0621	ATEU1ESP00003	11/06/2021	08/09/2021
001EU0622	ATEU1MLT00008	06/06/2021	03/08/2021
001EU0623	ATEU1ESP00001	07/06/2021	14/07/2021
001EU0624	ATEU1MLT00003	11/06/2021	11/09/2021
001EU0625	ATEU1MLT00004	14/06/2021	14/08/2021
001EU0626	ATEU1MLT00002	22/06/2021	16/07/2021
001EU0627	ATEU1PRT00002	21/06/2021	16/07/2021
001TN0628	AT001TUN00002	28/06/2021	05/08/2021
001MA0629	AT001MAR00002	27/06/2021	31/08/2021
001TR0630	AT001TUR00011	29/06/2021	14/07/2021
001TR0631	AT001TUR00004 / AT001TUR00005 / AT001TUR00013	01/07/2021	12/07/2021
001TN0632	AT001TUN00004	06/07/2021	30/07/2021
001TR0633	AT001TUR00014	10/07/2021	24/07/2021
001EU0634	ATEU1MLT00007	12/07/2021	20/07/2021
001TR0635	AT001TUR00010	10/07/2021	23/07/2021
001TN0636	AT001TUN00001	13/07/2021	01/08/2021
001EU0637	ATEU1MLT00001 / ATEU1MLT00002	26/07/2021	14/08/2021
001AL0638	AT001ALB00001	20/07/2021	26/07/2021

### Annex 3 Farm Deployments in the Previous Contract Year included in this report

Request number	Farm ICCAT number/s	Start date	End date
001EU0570	ATEU1ESP00005	12/09/2020	11/12/2020
001MA0572	AT001MAR00002	23/08/2020	06/10/2020
001EU0575	ATEU1HRV00012	30/08/2020	01/12/2020
001EU0579	ATEU1MLT00008	04/09/2020	02/12/2020
001EU0581	ATEU1ESP00001	05/09/2020	03/12/2020
001EU0582	ATEU1ESP00003	14/09/2020	12/12/2020
001TN0583	AT001TUN00002	15/09/2020	11/12/2020
001EU0584	ATEU1MLT00004 / ATEU1MLT00007	19/09/2020	20/12/2020
001EU0585	ATEU1MLT00001 / ATEU1MLT00002	01/10/2020	21/11/2020
001EU0586	ATEU1MLT00002 / ATEU1MLT00001	01/10/2020	14/11/2020
001EU0587	ATEU1MLT00003	26/09/2020	27/12/2020
001EU0588	ATEU1ESP00001	05/10/2020	04/11/2020
001EU0590	ATEU1PRT00002	15/11/2020	18/12/2020
001TN0591	AT001TUN00004 / AT001TUN00001	20/11/2020	15/12/2020
001EU0592	ATEU1ESP00005	12/12/2020	12/03/2021
001TR0593	AT001TUR00014	23/11/2020	19/12/2020
001EU0594	ATEU1MLT00008	14/11/2020	26/12/2020
001TR0595	AT001TUR00011	21/11/2020	24/02/2021
001TR0596	AT001TUR00004 / AT001TUR00005 / AT001TUR00013	26/11/2020	26/02/2021
001EU0597	ATEU1HRV00012	02/12/2020	03/03/2021
001EU0598	ATEU1MLT00008	02/12/2020	11/12/2020
001EU0599	ATEU1ESP00003	13/12/2020	12/03/2021
001EU0600	ATEU1MLT00004 / ATEU1MLT00007	21/12/2020	10/01/2021
001EU0601	ATEU1HRV00006	27/12/2020	20/01/2021
001TN0602	AT001TUN00002	22/12/2020	28/02/2021
001EU0603	ATEU1HRV00008	02/01/2021	03/02/2021
001TR0604	AT001TUR00010	22/01/2021	15/02/2021
001EU0605	ATEU1MLT00003	28/01/2021	09/02/2021
001EU0606	ATEU1HRV00011 / ATEU1HRV00008	04/02/2021	13/03/2021
001TR0607	AT001TUR00014	04/02/2021	08/02/2021
001EU0608	ATEU1ESP00005	13/03/2021	11/06/2021
001EU0609	ATEU1HRV00008	27/02/2021	20/03/2021
001EU0610	ATEU1HRV00012	04/03/2021	02/04/2021
001EU0611	ATEU1ESP00003	13/03/2021	10/06/2021

## Annex 4 PNC Codes Used for the Current Contract

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

<b>Potential Non-Compliance [PNC] Event and Codes- Purse seiner</b>		
<b>PNC Event</b>	<b>Reference</b>	<b>Code</b>
<b>Relative to YOUR fishing vessel</b>		
<b>Specific events:</b>		
Fishing outside designated season	Rec. 19-04; Para 29	FFOS
Carrying out fishing operations without an observer onboard-	Rec. 19-04; Para 84	FOBS
Fish below minimum size retained, transferred or landed	Rec. 19-04; Para 34	FUNT
<b>Problems with the official documentation (Logbook, eBCD, ITD etc.):</b>		
No electronic BFT Catch document (eBCD) produced	Rec. 11-20	FBDA
Dead tuna incorrectly recorded in the vessel logbook and/or eBCD	Rec. 19-04; Annex 11	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 (as per requirements of Annex 2 of Rec. 19-04)	Rec. 19-04; Para 63; Annex 2	FLBN
No logbook entry for a fishing operation (successful or not) before 09:00 the following day	Rec. 19-04; Para 66	FLBF
Incomplete <u>and/or</u> incorrect logbook information	Rec. 19-04; Para 63; Annex 2	FLBI
<b>Problems with the transfer:</b>		
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86	TTRN
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87	TTRA
Transport cage without a unique identifiable number	Rec. 19-04; Para 86	TNAC
ICCAT Transfer declaration (ITD) not completed in accordance with Para. 89 and Annex 4 of Rec. 19-04.	Rec. 19-04; Para 89; Annex 4	TITN

<b>Potential Non-Compliance [PNC] Event and Codes- Pursue seiner</b>		
<b>PNC Event</b>	<b>Reference</b>	<b>Code</b>
Logbook not completed in line with requirements of Annex 2 of Rec. 19-04 following transfer operation	Rec. 19-04; Para 63; Para 89c / Annex 2	TLBI
<p><b>Problems with the video during a Transfer: (for a control transfer add the letter “C” before the PNC code).</b></p> <p>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).. <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	TNVT
The electronic storage device not provided to the observer as soon as possible after transfer operation	Rec. 19-04; Para 92; Annex 8 i	TVRO
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	TODT
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92; Annex 8 v	TDDT
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii	TLTO
Video record of transfer did not show the receiving and donor cage to see if they already held / still hold tuna before and after the transfer operation	Rec. 19-04; Para 92; Annex 8 vi	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	TRAT
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii	TTNP
Observer estimate for the transfer more than 10% different than vessel's	Rec. 19-04; Para 92	TOGO
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii	TTTO
Transfer not monitored by observer	Rec. 19-04; Para 84	TOBS
<b>Problems during a release during fishing season:</b>		
Release not monitored by video	Rec. 19-04; Para 88; Annex 10	RNVR
Copy of video record of release not provided to the observer.	Rec. 19-04; Para 88; Annex 10	RVOR
Release not monitored by observer	Rec. 19-04; Annex 10	ROBS
<b>Relative to OTHER vessel(s) / aerial support</b>		
Aerial support used during searching operations (e.g. drone, plane)	Rec. 19-04; Para 48	FAER
Transshipment at-sea (dead tuna) – between vessels	Rec. 19-04; Para 77	FVTS

<b>Potential Non-Compliance [PNC] Event and Codes - Farm</b>		
<b>PNC Event</b>	<b>Reference</b>	<b>Code</b>
<b>Problems with the caging:</b>		
Electronic BFT Catch document (eBCD) not produced or incomplete following caging.	Rec. 18-13; Annex 1	CBDA
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	Rec. 18-13; Para 6	CJCD
A group BCD reference number was allocated to caging operation > 1 day	Rec. 18-13; Para 6	COCD
A group BCD reference number was allocated to more than one farm cage	Rec. 18-13; Para 6	CCCD
ICCAT Caging Declaration not produced or incomplete following caging.	Rec. 19-04; Annex 6, Para. 7b ii and iv; and Rec. 06-07; Para 2d)	CICD
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; and Rec. 19-04; Para 85	CBDX
Tuna caged before authorisation received	Rec. 19-04; Para 95	CDPA
Fish below minimum size caged	Rec. 19-04; Para 34	CUND
Transport cage anchored within 0.5 nm of farming facilities prior to start of caging operations	Rec. 19-04; Para 94	CQAF
Transport/Farm cage without a unique identifiable number	Rec. 19-04; Para 86; and Rec. 06-07 Para 2a	CNAC
Caging not covered by stereoscopic video	Rec. 19-04; Para 99	CQSV
Tuna caged are not separated by JFO	Rec. 18-13; Para 5	CQJF
Tuna caged are not separated by flag of the catching vessel (outside of JFO)	Rec. 18-13; Para 5	CQUF
Carried over tuna from previous year/s not placed in separate cages	Rec. 18-13; Para 8	CQUY
Unauthorised caging after 22 <sup>nd</sup> of August, or any caging after 7 <sup>th</sup> of September	Rec. 19-04; Para 95	CLAT
Independent observer estimate of amount caged was not possible due to video quality	Rec. 19-04; Annex 8 viii	CCNP
Observer estimate more than 10% different than farm's (caging)	Rec. 19-04; Para 98	CODO
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	CNTO
Internal transfer of bluefin tuna between farm cages not authorized or not in presence of CPC control authorities	Rec. 19-04; Para 100	CIAC
<b>Problems with the video during a caging: (for a control caging add the letter "C" before the PNC code)</b>		
<i>Note, the farm may conduct one additional voluntary transfer after the initial transfer. If video record on second transfer is acceptable, no PNCs should be submitted for the first transfer and the eBCD can be signed</i>		

<b>Potential Non-Compliance [PNC] Event and Codes - Farm</b>		
<b>PNC Event</b>	<b>Reference</b>	<b>Code</b>
Caging not monitored by video	Rec. 19-04; Para 97	CNVD
The electronic storage device containing the original caging video record was not provided to the regional observer as soon as possible after the operation	Rec. 19-04; Para 92; Annex 8 i	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	CODN
Video record of the caging did not show date and/or time continuously	Rec. 19-04; Para 92; Annex 8 v	CDDT
Video record of caging was not continuous or did not cover the entire operation	Rec. 19-04; Para 92; Annex 8 vii	CFTO
Video record did not show the receiving and donor cage to see if they already held / still hold tuna before and after the caging operation.	Rec. 19-04; Para 92; and Annex 8 vi	CVDS
Video record of transfers did not show the Caging Authorisation number at beginning or end of each video	Rec. 19-04; Para 92; Annex 8 iv	CTNM
<b>Problems during a Harvest:</b>		
Information in the electronic BFT Catch document (eBCD) not completed following a harvest / Harvested fish not allocated to an eBCD	Rec. 18-13; Annex 1	HBDA
Observer observations of harvested tuna do not agree with those in the eBCD (for example, date, cage, number harvested).	Rec. 18-13; Annex 1; and Rec. 19-04; Para 85	HBCW
Observer observations of number and weight of harvested tuna inconsistent with that in the eBCD.	Rec 18-13; Annex 1; and Rec. 19-04; Para 85	HMSH
Internal transfer of bluefin tuna between farm cages not authorized or not in presence of CPC control authorities	Rec. 19-04; Para 100	HIAC
Farm cage without a unique identifiable number	Rec. 19-04; Para 86; and Rec. 06-07 Para 2a	HNAC
No traceability for internal transfers of tuna within a farm	Rec. 19-04; Para 103	HITV
Fish below minimum size harvested	Rec. 19-04; Para 34	HUND
<b>Problems during a Release:</b>		
Release not monitored by video	Rec. 19-04; Para 88; Annex 10	RNVR
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
Copy of video record of release not provided to the observer.	Rec. 19-04; Para 88; Annex 10	RVOR
Release not monitored by observer	Rec. 19-04; Para 88; Annex 10	ROBS
<b>Problems with an inter-farm transfer (donor farm):</b>		

<b>Potential Non-Compliance [PNC] Event and Codes - Farm</b>		
<b>PNC Event</b>	<b>Reference</b>	<b>Code</b>
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86	PTRN
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87	PTRA
Transport cage without a unique identifiable number	Rec. 19-04; Para 86	PNAC
ICCAT Transfer declaration (ITD) not completed in accordance with Para. 89 and Annex 4 of Rec. 19-04.	Rec. 19-04; Para 89; Annex 4	PITN
<p><b>Problems with the video during an Inter-Farm Transfer: (for a control transfer add the letter “C” before the PNC code).</b></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).. <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	PNVT
The electronic storage device not provided to the observer as soon as possible after transfer operation	Rec. 19-04; Para 92; Annex 8 i	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	PODT
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92; Annex 8 v	PDDT
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii	PLTO
Video record of transfer did not show the receiving and donor cage to see if they already held / still hold tuna before and after the transfer operation	Rec. 19-04; Para 92; Annex 8 vi	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	PRAT
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii	PTNP
Observer estimate for the transfer more than 10% different than farm's	Rec. 19-04; Para 92	POGO
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii	PTTO

<b>Potential Non-Compliance [PNC] Event and Codes - Trap</b>		
<b>PNC Event</b>	<b>Reference</b>	<b>Code</b>
<b>Problems with the transfer:</b>		
Fish below minimum size transferred or landed	Rec. 19-04; Para 34	AUNT
Prior-transfer notification not sent (or not sent prior to transfer)	Rec. 19-04; Para 86	ATRN
Transfer conducted before receiving transfer authorisation	Rec. 19-04; Para 87	ATRA



<b>Potential Non-Compliance [PNC] Event and Codes - Trap</b>		
<b>PNC Event</b>	<b>Reference</b>	<b>Code</b>
Transport/Farm cage without a unique identifiable number	Rec. 19-04; Para 86	ANAC
ICCAT Transfer declaration (ITD) not completed in accordance with Para. 89 and Annex 4 of Rec. 19-04.	Rec. 19-04; Para 89; Annex 4	AITN
<p><b>Problems with the video during a Transfer: (for a control transfer add the letter “C” before the PNC code).</b></p> <p>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).. <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	ANVT
The electronic storage device not provided to the observer as soon as possible after transfer operation	Rec. 19-04; Para 92; Annex 8 i	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	AODT
Video record of transfer did not show date <u>and/or</u> time continuously	Rec. 19-04; Para 92; Annex 8 v	ADDT
Video record of transfer was not continuous or did not cover the entire transfer operation	Rec. 19-04; Para 92; Annex 8 vii	ALTO
Video record of transfer did not show the receiving and donor cage to see if they already held / still hold tuna before and after the transfer operation	Rec. 19-04; Para 92; Annex 8 vi	AVDS
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	ARAT
Independent observer estimate of transfer amount was not possible due to video quality or clarity	Rec. 19-04; Para 92; Annex 8 viii	ATNP
Observer estimate for the transfer more than 10% different than vessel's	Rec. 19-04; Para 92	AOGO
Copy of video record of transfer not provided to the observer during deployment	Rec. 19-04; Para 92; Annex 8 iii	ATTO