42nd ANNUAL MEETING – SEPTEMBER 2020
Annual Fisheries and Compliance Review 2020
(Compliance Report for Fishing Year 2019)

1.0 Introduction

The scope of this review covers the fishing activities of NAFO-registered vessels which operated in the NAFO Regulatory Area in 2019[1] (see Figure 1.0).

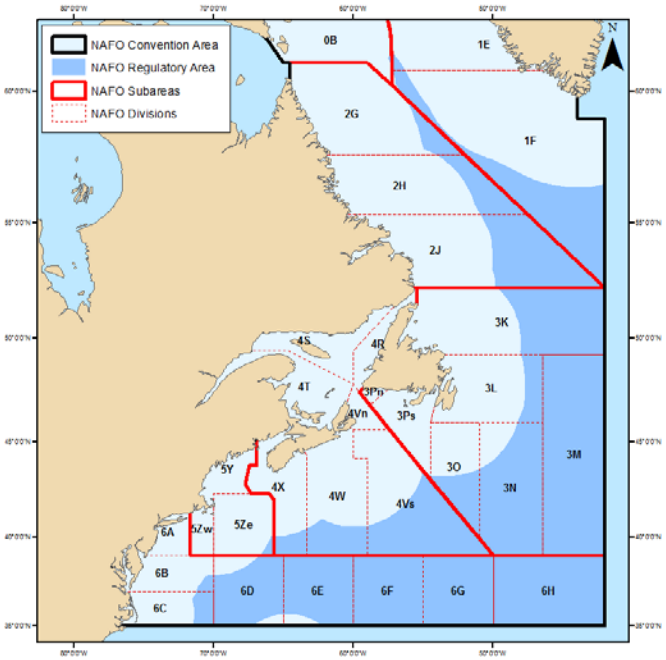

Figure 1.0. *Divisions of the NAFO Convention Area and the Regulatory Area (dark blue).*

This review is being undertaken in accordance with NAFO Rules of Procedure 5.1 and 5.2. As part of the review process, the Secretariat compiled 2019 information from the following sources: vessel monitoring system (VMS) and hail messages delivered by the vessels (Vessel Transmitted Information – VTI), electronic logbook (haul by haul) reports, Port Inspection Reports, At-sea Inspection Reports and Reports on Dispositions of Infringements provided by the Contracting Parties, and Trip Observer Reports sent to the Secretariat.

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[1] According to Article 1.7 of the 2019 NAFO Conservation and Enforcement Measures (NCEM), a fishing trip includes "*the time from its entry into until its departure from the Regulatory Area and continues until all catch on board from the Regulatory Area is unloaded or transhipped*". All article and annex numbers mentioned in this report have reference to the 2019 NCEM. Quantitative information presented in this report are summarized according to 2019 calendar year, unless otherwise indicated.

2.0 Fisheries in the NAFO Regulatory Area

2.1 Fishing effort by gear type

NAFO traditionally identifies three main fisheries in its Regulatory Area: the groundfish (GRO - primarily in Div. 3LMNO), shrimp (PRA - primarily in Div. 3L and Div. M) and pelagic redfish fisheries (REB - primarily in Div. 1F and Div. 2J). The PRA and the REB fisheries have been under moratoria. In 2019, fisheries in the NAFO Regulatory Area (NRA) comprised demersal fisheries and the pelagic fisheries on alfonsinos and redfish. There were 131 trips by 47 fishing vessels spending a total of 4674 days in the NRA (Table 2.1.1). One vessel (class size 5) spent 10 fishing days, as part of its fishing trip, in Division 6G catching alfonsinos. Another four vessels spent 46 fishing days in Div. 1F targeting pelagic redfish (REB) under the unilateral quota established by the Russian Federation.

Smaller vessels (<500 MT) tend to use longlines to fish for cod in Div. 3M and Atlantic halibut. The vast majority of the effort comes from larger vessels (> 500 MT) which account for 93% of fishing effort in terms of fishing days. The larger vessels use bottom trawl and fish in Divisions 3LMNO. The major species caught by the bottom trawlers are cod, Greenland halibut, yellowtail flounder, redfish, and thorny skate (see Table 2.3.1).

Table 2.1.1. *Fishing Effort in the NAFO Regulatory Area in 2019.*

Vessel Class	# of fishing vessels	# of fishing trips	Main Gear	f = Total Fishing Days	Fishing Trip Range (days)	Main Species	Fishing Area
Class 4 vessels (less than 500 MT)	5	11	Longline, bottom trawl	176	12-25 days	Cod, Yellowtail flounder	Flemish Cap (for cod); Tail of the Grand Banks (for yellowtail flounder)
Class 5 vessels (500-1000 MT)	14	40	Bottom Trawl, longline	1431	5-81 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
Class 6 vessels (1000-2000 MT)	24	74	Bottom Trawl	2829	2-98 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
Class 7 vessels (> 2000 MT)	4	6	Bottom Trawl	238	20-68 days	Cod, Greenland halibut, redfish, skates	Flemish Cap; Tail and Nose of the Grand Banks
Total	**47**	**131**		**4674**			

2.2 Effort Distribution by depth of groundfish vessel

The requirement of providing the speed and course information in the position reports of Vessel Monitoring System (VMS). Hourly positions are required to be transmitted. However, activities, whether steaming or fishing, are not indicated in the position reports. In this analysis, speeds

between 0.5 and 5 knots were assumed to be fishing speeds. Figure 2.2.1 shows the distribution of fishing effort in hours of groundfish vessels is presented. About half of all groundfish effort is at depths 400 meters and shallower (longliners and trawlers catching skates, redfish and cod). Figure 2.2.1 also shows a concentration of fishing effort around 1000 meters and this can be attributed to the Greenland halibut fishery.

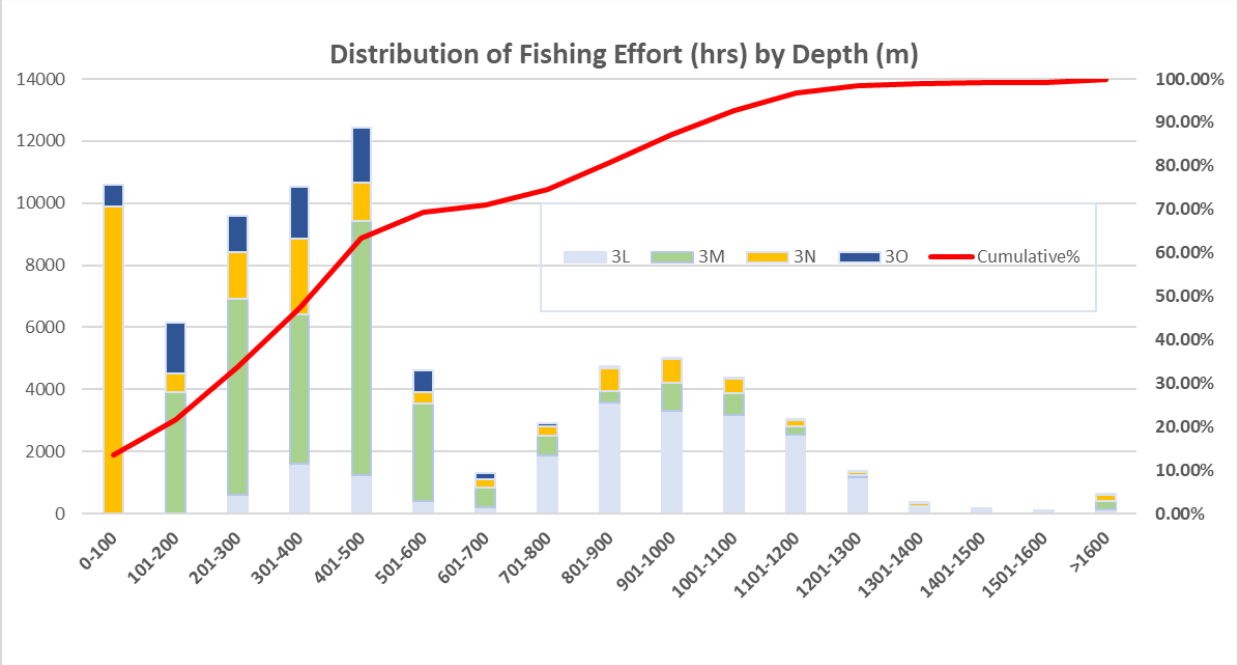

Figure 2.2.1. *Distribution of fishing effort (in hours) by depth (m) in the NRA in 2019. Vessels are assumed to be fishing at speed in the range of 0.5-5.0 knots.*

2.3 Catches in the NAFO Regulatory Area

A grand total of 72 350 t of fish (71 110 t retained + 1 240 t rejected) were caught by vessels authorized to fish in the Regulatory Area in 2019 (Tables 2.3.1 and 2.3.2). In terms of quantities caught, the stocks 3M Cod, 3LMNO Greenland halibut, 3M Redfish, 3LN Redfish, 3O Redfish, 3LNO Yellowtail flounder and 3NO Skates constitute the major groundfish fishery in the NRA.

Table 2.3.1 *Total reported retained catches (in tonnes) of species (in FAO 3-alpha code) by Division in calendar 2019 (Source: CA field of CAT Reports).*

Division	1F	3L	3M	3N	3O	6G	Total
Species subject to catch limitations (as listed in the Quota Table)							
CAP							
COD		51.2	16039.1	346.7	98.4		**16535.4**
GHL		7486.3	1267.8	909.5	6.3		**9669.8**
HKW				13.6	86.8		**100.4**
PLA		33.9	266.6	915.5	138.5		**1354.5**
REB	1382.5						**1382.5**
RED		4470.7	10590.4	7018.1	5113.0		**27192.3**
SKA		46.5	46.6	1820.5	1103.6		**3017.2**
SQI			1.0	52.0	122.3		**175.2**
WIT		22.6	145.5	174.4	213.9		**556.4**
YEL		1.3	0.0	9510.7	68.4		**9580.4**
Subtotal	**1382.5**	**12112.4**	**28357.0**	**20760.9**	**6951.1**		**69564.0**
Selected species not listed in the Quota Table							
ALF						1.4	**1.4**
ANG				0.2	4.8		**5.0**
CAT		3.1	29.3	1.0			**33.4**
HAD			0.0	0.1	2.4		**2.5**
HAL		66.7	159.9	325.8	186.5		**738.9**
HKS				46.4	447.8		**494.2**
RHG		77.9	16.7	27.6	0.0		**122.2**
RNG		23.9	12.6	0.3	0.0		**36.9**
Subtotal		**171.7**	**218.6**	**401.4**	**641.5**	**1.4**	**1434.5**
Sharks							
BSK							**0.0**
DGX							**0.0**
GSK							**0.0**
POR			0.4				**0.4**
SHX							**0.0**
SMA							**0.0**
SRX							**0.0**
CFB							**0.0**
Subtotal		**0.0**	**0.4**				**0.4**
MZZ		**8.1**	**19.5**	**72.5**	**9.6**	**0.2**	**109.8**
TOTAL	**1382.5**	**12292.2**	**28595.5**	**21234.8**	**7602.2**	**1.6**	**71108.7**

Table 2.3.2 *Total reported rejected catches (in tonnes) of species (in FAO 3-alpha code) by Division in calendar year 2019 (Source: RJ field of CAT Reports).*

Rejected (RJ)					
Division	3L	3M	3N	3O	Total
Species subject to catch limitations (as listed in the Quota Table)					
CAP			1.87	0.005	1.88
COD	0.2	0.6	9.9		10.70
GHL	0.0	0.0	0.0		0.06
HKW	0.3			0.6	0.93
PLA	0.1	5.0	1.3	0.1	6.47
REB	0.3				7.75
RED	2.2	14.3	3.2	30.8	43.00
SKA	19.2	5.3	313.5	0.0	337.93
SQI			0.0	0.4	0.39
WIT	0.2	3.9	2.3	2.0	8.32
YEL			10.2	0.0	10.23
Subtotal	**22.4**	**29.1**	**342.3**	**33.9**	**427.65**
Selected species not listed in the Quota Table					0.00
ALF					0.00
ANG				0.0	0.01
CAT	24.7	26.6	6.8	3.7	61.90
HAD				0.3	0.26
HAL	0.1	1.6	0.0	0.0	1.81
HKS			2.7	11.9	14.61
RHG	260.4	42.2	9.2	0.1	311.93
RNG	48.3	23.8	4.0		76.10
Subtotal	**333.5**	**94.3**	**22.7**	**16.1**	**466.61**
Sharks					0.00
BSK		4.2		3.5	7.70
DGX	5.7	1.4	0.2	0.2	7.46
GSK	54.6	38.2	39.6	41.1	173.54
POR	0.2	0.1	0.4	4.6	5.29
SHX	1.0	0.8			1.80
SMA			0.7	7.2	7.90
SRX		2.2			2.18
CFB		0.1	0.1		0.16
Subtotal	**61.4**	**47.0**	**41.1**	**56.5**	**206.02**
MZZ	**21.6**	**10.4**	**105.9**	**1.6**	**139.48**
TOTAL	**439.0**	**180.9**	**511.9**	**108.1**	**1239.75**

3.0 Inspection and Surveillance

Chapter VI of the NCEM outlines the general provisions and protocol of the at-sea inspection and surveillance in the NRA. Inspectors from Canada, the European Union, and the United States of America were deployed onboard of patrol vessels of Canada (Canada, EU and USA NAFO Inspectors) and European Union (EU and Canada inspectors). The inspectors are tasked to carry out NAFO inspection duties at sea.

3.1 Patrol Activity

Five (5) patrol vessels were deployed by the CPs with inspection presence. In all 358 patrol-days were spent in the NRA. The total length of time each patrol vessel exercised its patrol duties in 2019 varied between 12 days and 177 days. However, there were 105 days when no patrol vessel, 175 days when there was one patrol vessel, 85 days when there was more than one patrol vessel present in the NRA. Figure 3.1 shows the time of the year the patrol vessels were present in the NRA.

In addition, in 2019, Canada deployed surveillance planes, collectively flying 202 hours with 698 vessel sightings in the NRA. No vessel from non-Contracting Party suspected of conducting IUU fishing activities was spotted.

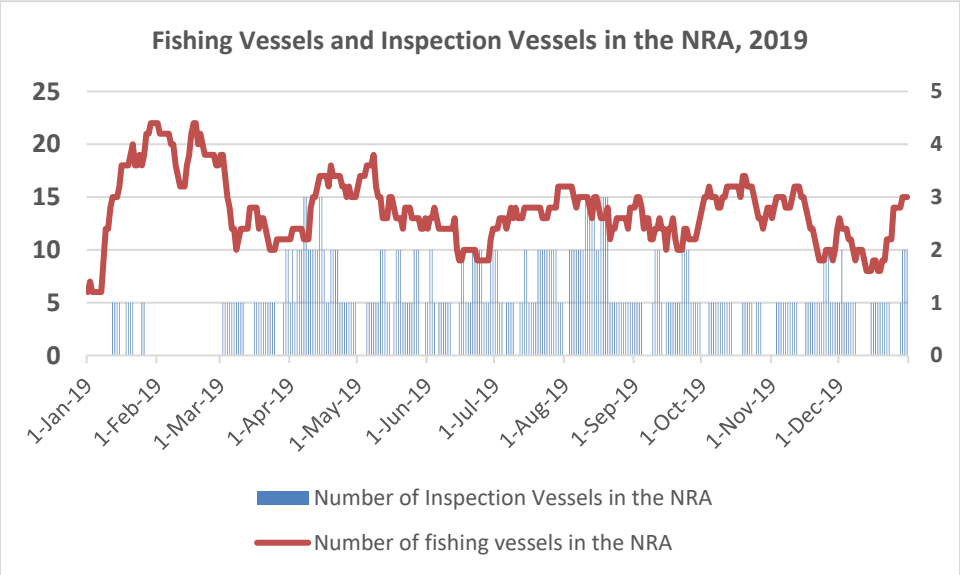

Figure 3.1 *Inspection Vessel Presence in the NRA in 2019.*

3.2 At-sea inspections

A total of 106 at-sea inspections were conducted. In five of these inspections at sea, 11)Apparent Infringements (AI) were detected – two (2) serious and nine (9) non-serious AI as per Article 38 definition. Details of the apparent infringements and their disposition can be found in Section 4.2.

3.3 Port Inspections

According to Article 43.10, the port State Contracting Party shall carry out inspections of at least 15% of all such landings or transhipments during each reporting year, unless otherwise required in a recovery plan in which case 100% coverage is required. Greenland halibut (GHL) is the only species which presence in the landing would require a port inspection (see Article 10). Port inspection reports are accomplished by port States using a PSC3 form (Annex IV.C).

In evaluating the compliance of port State authorities to Article 10, only trips with GHL onboard were considered. Table 3.3.1 shows the coverage levels (based on the number of trips) of port inspections for vessels that had GHL onboard. One landing of a Russian flagged vessel in DFG-Faroe Islands was not inspected by the port Contracting Party.

Table 3.3.1 *Fishing trips with Greenland halibut (GHL) catch (based on the Catch-on-Exit (COX) for the trip) and percent coverage of port inspections for that trip.*

CP	Number of trips with GHL > 0	Total amount of GHL (t)	Number of trips with GHL > 0 and PSC3	Total amount of reported landed GHL (t)	Port Inspection Coverage (% based on number of trips)
CAN	2	2.3	2	2.3	100%
EU	47	6964.2	47	6964.2	100%
DFG	1	211.6	1	235	100%
JPN	6	1104.9	6	1104.9	100%
RUS	9	1557.2	8	1493.3	89%
Overall	**65**	**9840.2**	**64**	**9799.7**	**99.58%**

In evaluating compliance with Port State Control measures outlined in Chapter VII of the NCEM, a review of the submission of Port State Control Prior Request (PSC1) and Port Inspection reports (PSC3) is presented in Table 3.3.2. The minimum coverage is 15% (Article 43.10).

Table 3.3.2 *The number of PSC1s and corresponding PSC3s received by the NAFO Secretariat port States.*

Port State	PSC1 (prior request)	Number of PSC1s with intention to land catch	PSC3 (port inspection report from port State authority)	% Coverage (#PSC3 received /#PSC1 received)
Canada	16	8	8	100%
DFG (Faroe Islands)	4	4	4	100%
EU	5	5	5	100%
FRA (St. Pierre et Miquelon)	8	8	3	38%
Iceland	10	6	1	17%

4.0 Compliance

In this section, reporting obligations and apparent infringements (AIs) are examined. AIs are detected by at-sea inspectors and by port inspection authorities (see Section 3).

4.1 Reporting Obligations

The NCEM requires fishing vessels and flag State Contracting Parties (through the Fisheries Monitoring Centre) and port State Contracting Parties to provide reports on the fisheries activity within a determined time frame. Compliance of port State Contracting Parties to reporting requirements is discussed in Section 3.3.

4.1.1 Vessel Activity Reporting

4.1.1.1 Vessel Transmitted Information (VTI) – Catch-on-Entry (COE), Daily Catch Reports (CAT), and Catch-on-Exit (COX)

The Fisheries Monitoring Centres (FMCs) of flag States are responsible for transmitting the VTI reports to the Secretariat. The COE and COX are transmitted identifying the catches on board when entering and leaving the NRA. COE-COX information is used to estimate the fishing-days effort in a fishing trip. The CATs are daily catch quantities reported by species and by Division while on a fishing trip. CATs are used to monitor the quota uptakes by the fleet of the Contracting Parties.

In Table 4.1.1.1, the number of COE, COX, and CAT, as well as of fishing trips and fishing effort-days in the NRA, is presented. All identified 2019 fishing trips had corresponding COE and COX.

In total 4 481 CATs were received within the calendar year 2019, lower than the number of fishing days. That is because mere presence on a particular date (as reflected by the VMS position reports) is considered as a fishing day, as per Article 1.6 definition.

Table 4.1.1.1 *Fishing effort and VTI statistics in the NRA, 2019.*

Number of fishing trips identified	131
Fishing Days	4674
Number of Daily Catch Reports (CATs)	4481
Number of Trips with Catch on Entry Reports (COEs)	131
Number of Trips with Catch on Exit Reports (COXs)	131

No major technical issue was encountered in transmission and receipt of the VTI reports. All expected reports, including the Daily Catch reports (CAT), were received by the Secretariat.

The timely receipt of the CATs allowed an effective monitoring of the quota uptakes and the effective implementation of quota transfers and charter arrangements.

4.1.1.2. Catch reporting on sharks

Article 28.6.g requires that all shark catches be reported at the species level, to the extent possible. When species specific reporting is not possible shark species shall be recorded as either large sharks (SHX) or dogfishes (DGX).

The 2019 CAT reports were examined and not all shark catches were reported to the species level. It is not known how many species of the retained sharks were reported within the code SHX. Greenland shark constitutes the bulk of the total shark catches by weight (see table 4.1.1.2).

Table 4.1.1.2. *Amount of shark catches (t) as reported in CATs in 2019.*

3-Alpha Code	Scientific name	Common Name	Retained (t)	Rejected (t)	Total (t)	Percentage
BSK	*Cetorhinus maximus*	Basking shark	0.0	7.7	7.7	3.8%
DGX	*Squalidae*	Dogfishes	0.0	7.5	7.5	3.7%
GSK	*Somniosus microcephalus*	Boreal (Greenland) shark	0	173.5	173.5	86.0%
POR	*Lamna nasus*	Porbeagle	0.4	5.3	5.7	2.8%
SHX	*Squaliformes*	Large sharks (NS)	0.0	1.8	1.8	0.9%
SMA	*Isurus oxyrinchus*	Shortfin mako shark	0.0	7.9	7.9	3.9%
CFB	*Centroscyllium fabricii*	Black dogfish	0.0	0.2	0.2	0.1%
Subtotal			**0.4**	**203.8**	**206.2**	**100.0%**

4.1.1.3 Electronic Fishing logbook (haul by haul) Reports

The submission of logbook data on a haul by haul basis became mandatory in 2015 (Article 28.8.b). The electronic fishing logbook information (haul by haul data) must be submitted to the Secretariat in the format prescribed in Annex II.N. for all hauls of the fishing trip (Article 288.c). The Secretariat has received haul by haul reports for all 131 trips that were completed in 2019.

4.1.1.4 Position reporting – Vessel Monitoring System (VMS)

According to Article 29, every fishing vessel operating in the NRA shall be equipped with a satellite monitoring device capable of continuous automatic transmission of position to its land-based Fisheries Monitoring Centre (FMC) of the flag States, which in turn is transmitted to the Secretariat in real time. The transmission of position reports (POS) shall be no less frequently than once an hour.

The Secretariat can confirm that the requirement is fully complied with. In 2019, a total of 138 317 POS reports were received. Occasionally, technical problems were encountered by the fishing vessels or FMCs. During these occasions, the POSs were transmitted manually. Technical issues were usually resolved within a few days through the coordination between the Secretariat and the FMC.

4.1.1.5 Closed Areas and Exploratory Fisheries

As of 2019, in total 20 areas in NAFO have been closed to bottom fishing including six seamounts and 14 areas with significant concentration of coral, sponges and sea pens, one coral protection zone, and six seamounts. The measures concerning the protection of Vulnerable Marine Ecosystems (VMEs) from bottom fishing are stipulated in Chapter II of the NCEM.

Based on the VMS positions, no bottom fishing was detected within the closed areas.
The Secretariat did not receive a notification from a Contracting Party concerning its intention to conduct exploratory fisheries (as defined in Article 18) in 2019.

4.1.1.6 Vessel activity after 3M redfish 50%- and 100%-TAC uptake notifications

The stock 3M redfish is the only stock listed in the Quota table which Total Allowable Catch (TAC) is considerably less than the sum of the quotas. The Secretariat monitors the TAC uptake through the daily catch reports it receives from the vessels and FMCs. When the TAC is projected to be reached, CPs are notified and are required to instruct their vessels to cease directed fishery on the stock starting on the date projected by the Secretariat.

Figure 4.1.1.6 shows the total daily catches and the percentage of cumulative catch derived from CAT reports. According to Article 5.5.d of the NCEM, not more than 50% of the TAC may be fished before 01 July. A total of 19 vessels were targeting 3M redfish in early 2019. On 02 April 2019, the five-day prior notification of 50%-TAC uptake was circulated, projecting that the 50%-uptake of the TAC would be taken by 07 April 2019, at which time the fishery would be suspended until 30 June. On 31 July 2019, the 96-hour notification was circulated, advising that 100% of the TAC was projected to be reached by 04 August. By the projected closure date, 100.3% of the 10500 t-TAC was fished. No directed fishery on this stock was conducted after the closure.

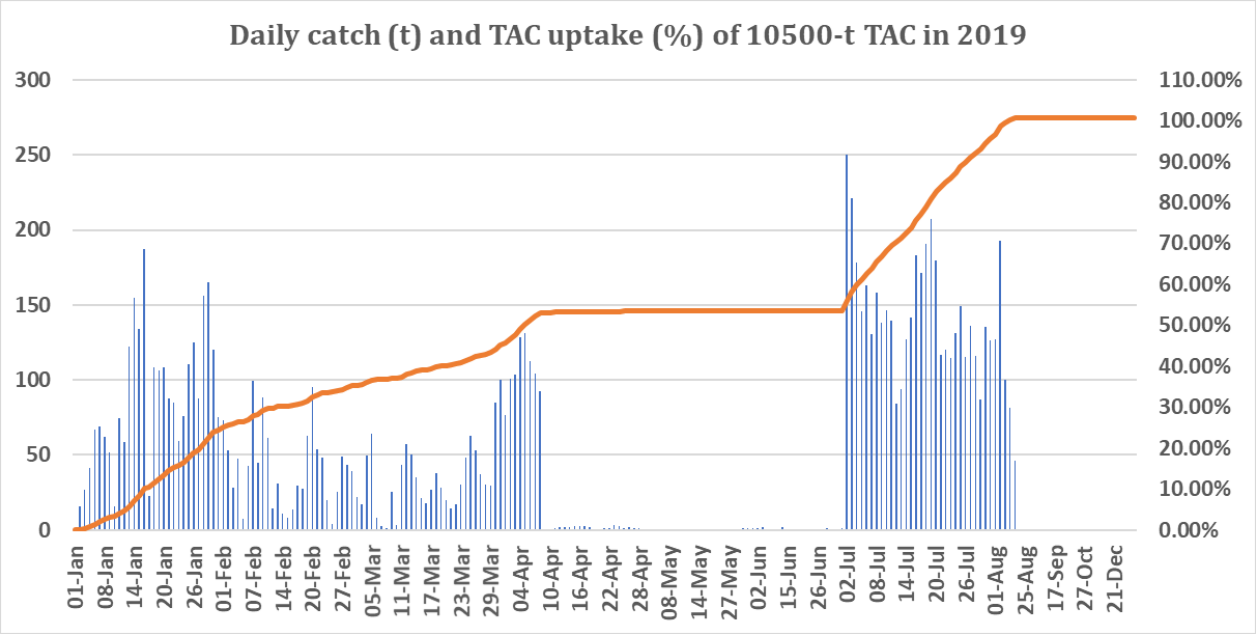

Figure 4.1.1.6 *Daily catches of 3M redfish and TAC uptake in 2019. Source: 2019 CATs.*

4.1.1.7 Chartering arrangement

Article 26 allows chartering arrangements between two CPs – the chartering CP (with quota) and the flag State CP (with fishing vessel). Catches by the vessel are counted against the quota of the chartering CP. In 2019 one (1) arrangement was made with a fishing possibility of 340 t of yellowtail founder.

Through the daily catch reports of the vessel where chartering catches are identified, the Secretariat could monitor the implement of the arrangement. According to the daily catch reports, the charter catches amounted to 357 t. With regards to the submission of the documentations (Article 26.7 and

26.8) and reporting of implementation dates (Article 26.9), both Parties of the charter complied to the requirements.

4.1.2 Observer Reports

In 2019, the NAFO Observer Scheme outlined in Article 30 was revised. Flag State Contracting Parties are required to have 100% observer coverage under Article 30.5, however, may allow its vessels to carry an observer for less than 100%, but not less than 25% of the fishing trips conducted by its fleet (Article 30.6).

In evaluating the compliance to observer trip report submission (see Article 30.14.a), trips were grouped according to the implementation of Article 30.5 or 30.6 which requires 100% or >25% coverage, respectively.

Under Article 30.5, there were 111 fishing trips identified. From these, trip observer reports from 106 trips were received by the Secretariat, a 94.6% coverage. The five (5) missing reports could be attributed to the non-submission by the Russian Federation. The Russian Federation agreed to submit the outstanding reports following the 2020 Annual Meeting.

Under Article 30.6, there were 16 trips from the fleet of a CP and only one (1) trip had an observer report submitted, a 6.5% coverage. Another CP had four (4) trips from its fleet and two (2) had an observer report, a 50% coverage.

4.2 Apparent Infringements detected at-sea and at-port

In 2019, a total of five (5) vessels were cited with AI by inspectors at sea and port authorities. Details on the nature of the AIs and their disposition are provided in Table 4.2.

Table 4.2 *Details of Apparent Infringements (AI) detected by inspectors at-sea and by port authorities in 2019 and their disposition. AIs presented in bold were considered "serious" by the inspectors as per Article 38 definition.*

CP	Vessel code	Inspection Date	AI's detected at-sea. Serious AIs are indicated in bold.	Confirmation in port of AI detected at sea	AI's detected in port (PSC3: Section E.1.B. c.	Follow-up to AI (Article 40)
DFG	9	08-Mar-20			**Misrecording of catches**	**Case Closed - fine 350000 Danish krona + 733000 Danish krona for the illegal fish (121000 EUR)**
DFG	6	24-Apr-19	**Stowage Plan - Art.28.5(a)(i); 28.5 (b); 38 (m)**			**CASE CLOSED - The vessel paid the fine of 25.000 Danish krona (3.400 €).**
EU	1	14-Aug-19	Capacity Plan - Art. 25.9			CASE CLOSED - Preliminary investigation concluded that the capacity plan was in order and certified.
DFG	8	05-Aug-19	**Stowage Plan and No observer on board - Art. 28.3; 28.5 (b); 28.5 (c); 25.8 (i); 25.9; 25.10; 30.5; 38.1.(r); 38.1 (m)**	-	-	**CASE PENDING Fined 75.000 Danish krona (10.200 €). The Master did not accept, and the case was send to court on 6 Mrch 2020.**
EU	41	06-Nov-19	Product labelling - Art. 27.1. (e)			CASE CLOSED Port verification concluded that labelling of cod product was in order. OTH was used instead of GUH since cod presentation had collars on.
EU	43	07-Nov-19	-	Art. 28.2 (b); 28.3 (a); 28.5 (a)	**Mis-recording of catch Art. 28.2 (b)**	CASE PENDING - Enforcement procedure on-going

4.3 Follow-up to apparent infringements

NCEM Article 39 spells out obligations of a flag State Contracting Party that has been notified on an apparent infringement. It includes taking immediate judicial or administrative action in conformity with the national legislation of the flag State Contracting Party and ensuring that sanctions applicable in respect of infringements are adequate in severity.

Article 40 requires Contracting Parties to report on the disposition of the AIs. The legal resolution of AIs may take more than a year. Contracting Parties shall continue to list such infringements on each subsequent report until it reports the final disposition of the infringement. In Table 4.3, a summary of status of AI cases in the last five years (2015-2019) and their resolution are presented.

Table 4.3 *Resolution of citations (by at-sea inspectors and port authorities) against vessels fishing in the NAFO Regulatory Area by year in which the citations were issued (as of May 2020). A citation is an inspection report that lists one or more apparent infringement. Inspections carried out for confirming a previous citation are not included.*

Year	Number of Inspection Reports with AI citation/s	Number of Resolved Cases	Number of Pending Cases*	% Resolved
2015	3	2	1	67%
2016	11	8	3	73%
2017	7	7	0	100%
2018	6	5	1	83%
2019	5	3	2	60%

** still under investigation, litigation, or appeal.*

5.0 Trends and Analysis

Five-year trends (2015-2019) on effort and catch, reporting obligations of CPs and observers, compliance by fishing vessels, and at-sea inspections and AIs are presented in this section.

5.1 Effort and Catch

Trends in fishing effort and catches are presented in Table 5.1, Figures 5.1.1, 5.1.2 and 5.1.3.

Observations:

- Fishing effort (in fishing days) is the highest in 2019 in the 2015-2019 period. The increase in fishing effort can be attributed to the increase of TAC for 3M Cod and 3LN Redfish. (Table 5.1). For 3M Cod, the TAC increase in 2019 was 57% from the previous year (from 11145 t to 17500). For 3LN, the TAC increase was 27% from 14200 t to 18100 t.

- In Divisions 3LMNO, Greenland halibut, cod, yellowtail flounder, and redfish continue to be the most dominant catch in their respective divisions. Redfish is the second most dominant catch in Divisions 3LNO.

- Catch and Catch per unit effort (CPUE is t/fishing day) was also observed to the highest in 2019. The increase can also be attributed to the increase of TAC of 3M Cod and 3LN Redfish.

Table 5.1. *Fishing days, as defined by Article 1.6, by fishing gear.*

	Longline	Midwater-trawl	Bottom-Trawl	TOTAL
2015	272	93	3785	4150
2016	260	181	3873	4314
2017	314	0	3558	3872
2018	304	82	3719	4105
2019	321	56	4297	4674

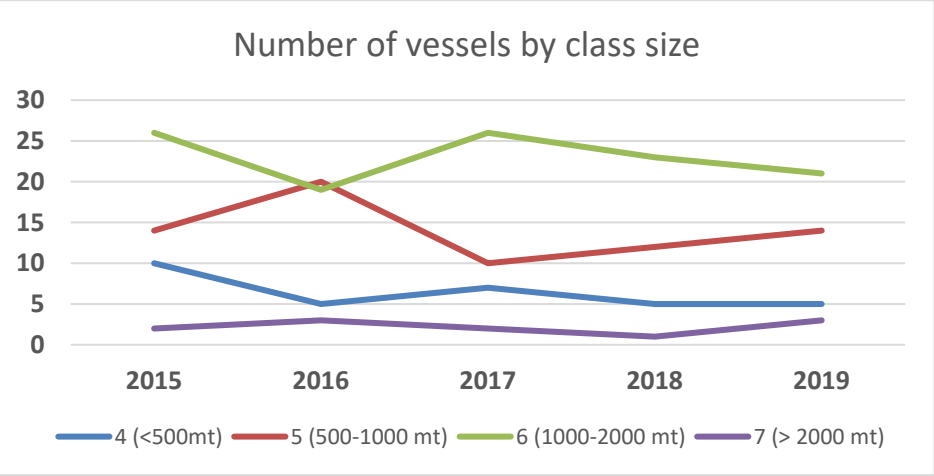

Figure 5.1.1 *Number of fishing vessels in Divisions 3LMNO by class size, 2015-2019. The class sizes are based on the STATLANT classification.*

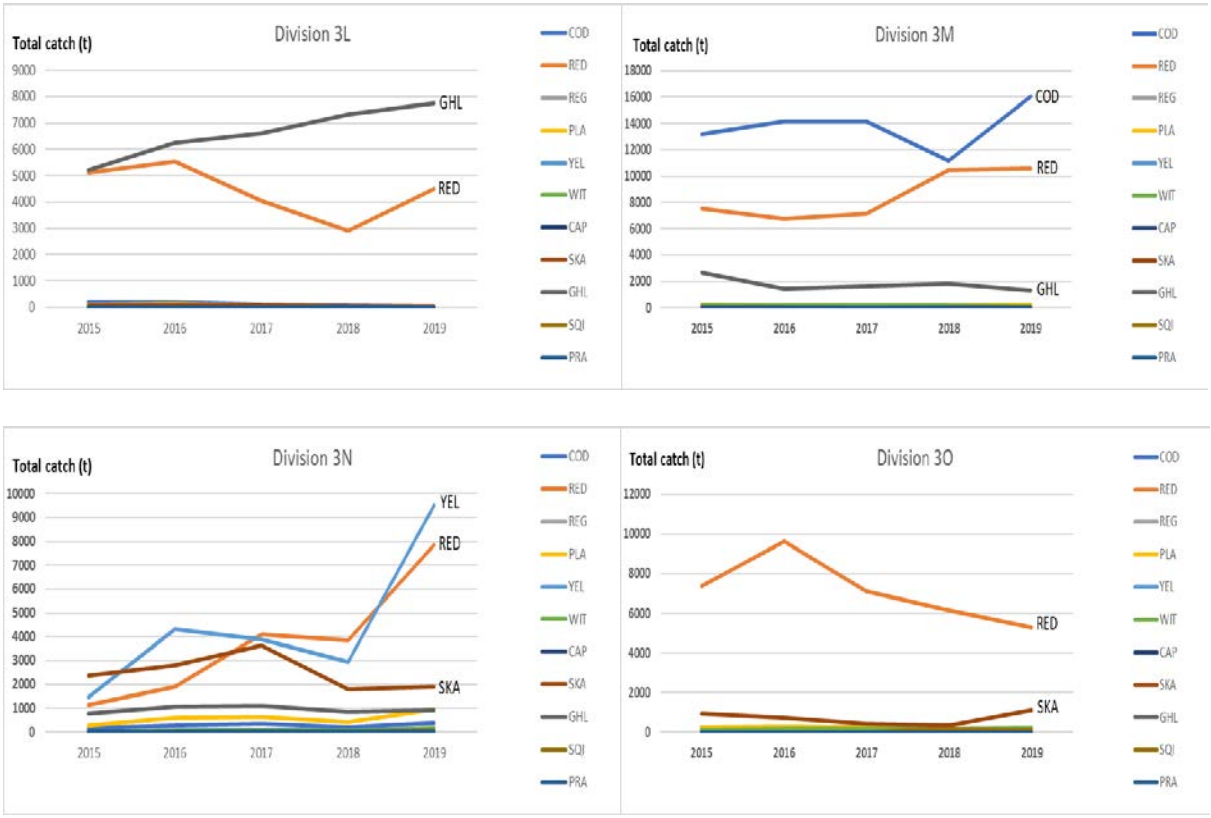

Figure 5.1.2 *Catches (in tonnes) by Division of selected species managed by TAC, 2014-2019 (Source: CATs).*

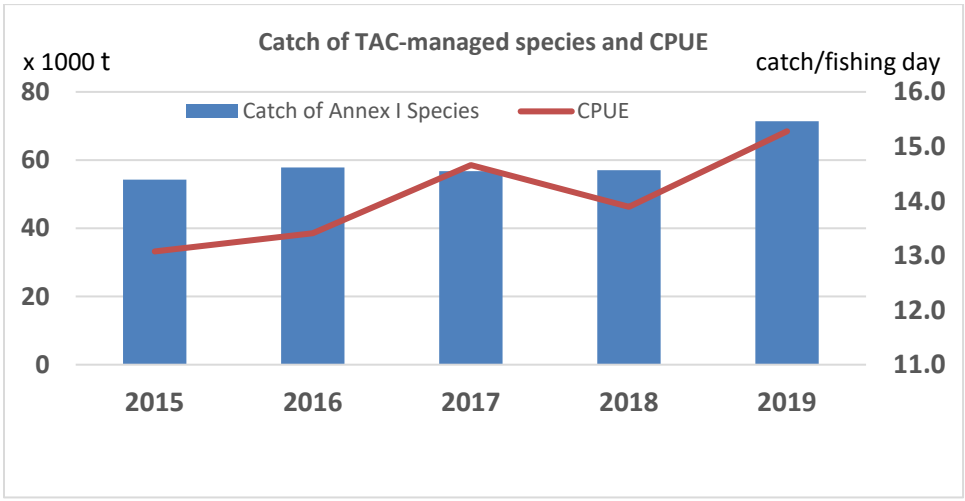

Figure 5.1.3 *Catch of TAC-managed species and CPUE in 2015 -2019, expressed in total catch of TAC-managed species per fishing day. Data Source: CATs and VMS reports.*

5.2 Reporting Obligations by Contracting Parties

Compliance to reporting obligations is quantified as a percentage coverage – the ratio of the fishing trips accounted for by the reports and of the total number of relevant fishing trips. A 100% coverage would mean that all expected reports were delivered to the Secretariat, less than 100% means some fishing trips did not have a corresponding report. Figure 5.2 presents the percentage coverage of port inspections reports on vessels with Greenland halibut landings (in accordance to Article 10.4), observer reports from vessels operating under Article 30.5 (flag Sate CPs did not apply Article 30.6), and electronic fishing logbook reports in accordance with Article 28.8.b.

The year 2019 saw the marked improvement in the submission rates of reports which require 100% coverage. In 2019, the submission rates of electronic logbook reports (Article 28.8.b), trip observer reports (Article 30.5), and port inspections reports (Article 10.4) are 100%, 94.6%, and 96.9%, respectively.

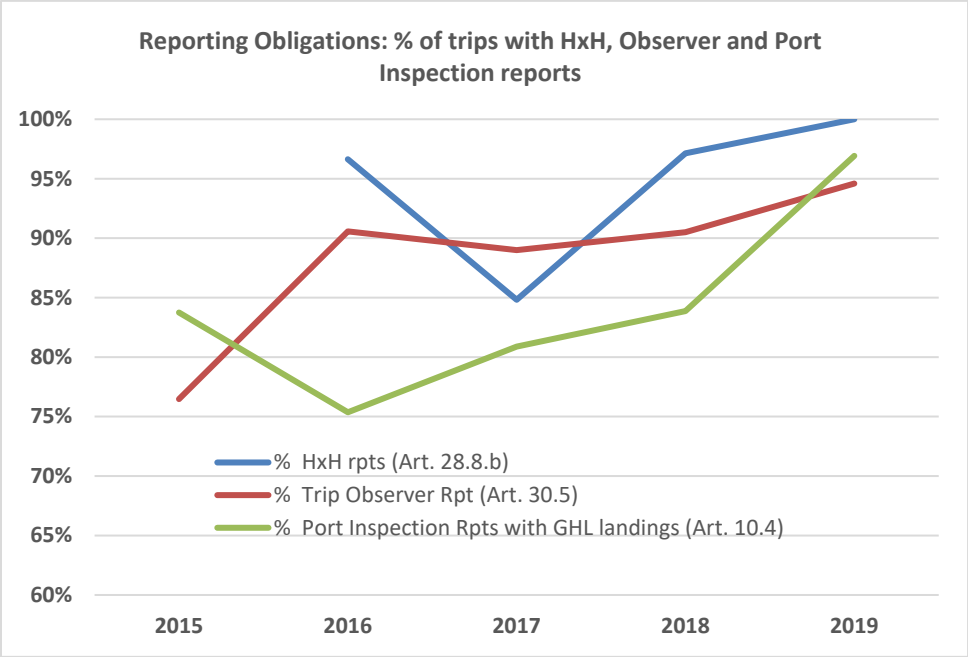

Figure 5.2 *Percentage coverage of Port Inspections reports with Greenland halibut landings reports (Arts. 10.4 and 42.10), Observer Trips Reports on fishing vessels operating under Article 30.5 (flag State CPs did not apply Article 30.6), and Haul by Haul reports (Article 28.8.b and Annex II.N), 2015-2019.*

5.3 Compliance by Fishing vessels

In the 5-year review period, VMS and VTI requirements (Article 28 and 29) have been fully complied with.

Hourly position reports (POS), as well as the Daily Catch Reports by Division (CATs), were transmitted to the Secretariat while the vessels were in the NRA. The Catch-on-Entry (COE) and Catch-on-Exit (COX) reports for each fishing trip were also transmitted.

5.4 Inspections and Apparent Infringements

At-sea inspection rates, computed as a ratio of the number of at-sea inspections and the total fishing effort (fishing days), in the period 2015-2019 are presented in Figure 5.4.1. Frequency of AI cases in the period 2015-2019 are presented in Figure 5.4.2.

Inspection rates have remained steady with less than 1% inter-annual difference. The 2019 inspection rate (2.27%) is the lowest in five years.

With regards to AIs detected at sea and at port, mis-reporting of catches have remains to be the most common AI (Figure 5.4.2). There is no other discernable trend with regards to the nature and frequency of the AIs.

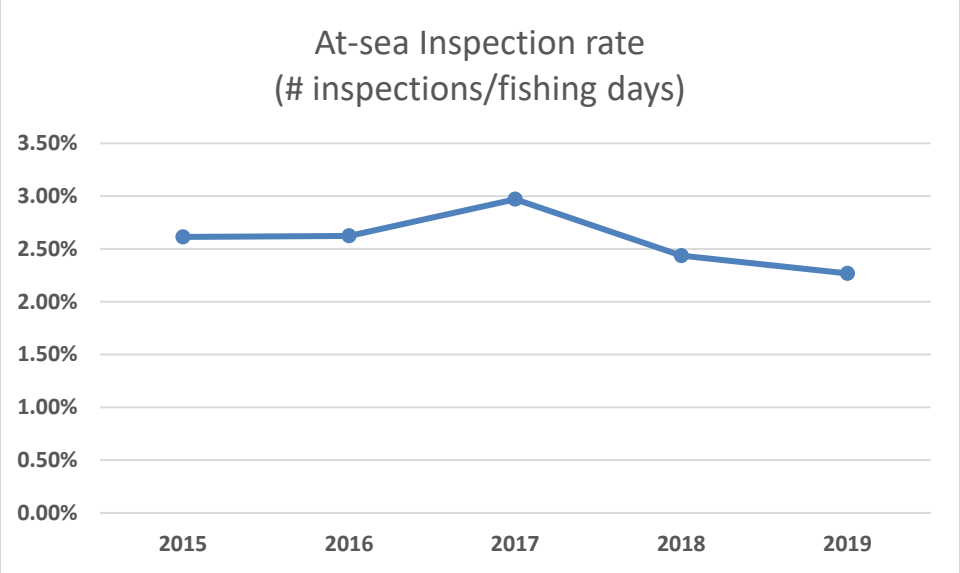

Figure 5.4.1 *Inspection rates (number of at-sea inspections/fishing days) in the NAFO Regulatory Area, 2015-2019.*

	2015	2016	2017	2018	2019
By-catch requirements	●	●●●●	●●		
Catch communication violations		●			
Directed fishing of moratorium stock		●	●		
Directed fishing of stock without quota allocation				●	
Evidence tampering		●			
Fishing after date of closure		●			
Gear requirements - mesh size, illegal attachments			●		
Inspection protocol	●	●			
Mis-recording of catches - inaccurate recording	●●	●●●●●● ●●	●●●●	●●●●	●●
Mis-recording of catches -stowage	●	●	●●●	●	●●●●●●
Product labelling			●	●●	●●
Quota requirements		●●			
Vessel requirements - capacity plans		●		●●	●●
Committing an infringement where there is no observer on board					●

Figure 5.4.2 *Frequency of apparent infringement cases detected by at-sea inspectors and port authorities in 2015-2019. Black and blue dots represent apparent infringement issued at sea and at port, respectively.*

6.0 Conclusions

In NAFO, there are three main fisheries conducted mainly with trawl gear and a limited presence of longline gear. The total catches increased from around 56,000 tonnes in 2018 to approximately 72,000 tonnes in 2019.

Overall compliance with reporting obligations is high and has continued to improve in recent years. Contracting Parties are providing the required compliance indicators necessary to complete the compliance review process.

7.0 Recommendations

STACTIC recommends that all Contracting Parties continue to strive for coordination and collaboration.

STACTIC recommends that all Contracting Parties maintain and continue efforts to protect stocks that are subject to moratorium.

STACTIC includes in its Compliance Review the observers' compliance to Article 30.14.j, a new article in the 2020 NCEM concerning the collection of biological information on Greenland shark.

STACTIC recommends Contracting Parties to continue to urge masters to improve recording of sharks at species level (Section 4.1.1.2).

STACTIC recommends Contracting Parties continue to strive towards 100% submission of Observer Trip reports, the electronic logbook data reports (haul by haul) and Port Inspection reports, as the catch information contained in these reports are utilized by the Scientific Council and other working groups (e.g. CESAG, WG-BDS) in the fish stock assessment work (Section 5.2 and Figure 5.2).

STACTIC reflects whether the 5-yr average at-sea inspection rate of 2.5%. is adequate and also notes a slow decrease in overall at-sea inspections (Sec 5.4 and Fig 5.4.1). STACTIC encourages Contracting Parties to continue to maintain inspection presence in the NRA (Section 3.1) and to continue to cooperate among them for at-sea deployments.

STACTIC reminds Contracting Parties about the requirement to inspect 100% of GHL landings.

STACTIC recommends Contracting Parties to continue cooperation and discussions on best practices for both at sea and port inspections.

STACTIC recognizes a marked improvement in report submission rates in 2019.

STACTIC encourages Contracting Parties to continue to explore ways to address repeated non-compliance by vessels in the NRA, as noted in the 2018 Performance Review.

STACTIC recommends Contracting Parties continue to ensure the protection of Vulnerable Marine Ecosystems.