Northwest Atlantic



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Annual Compliance Review 2017 (Compliance Report for Fishing Year 2016)

1. Introduction

This compliance review is being undertaken in accordance with Rules 5.1 and 5.2 of the NAFO Rules of Procedure. As part of the process of the review, the Secretariat compiled 2016 information from the following sources: vessel monitoring system (VMS) and hail messages delivered by the vessels (Vessel Transmitted Information – VTI), Port Inspection Reports, At-sea Inspection Reports and Reports on Dispositions of Apparent Infringements provided by the Contracting Parties, and Observer Reports sent to the Secretariat.

2. Fisheries in the NAFO Regulation Area

Fishing effort and fishing trends

NAFO traditionally identifies three main fisheries in its Regulatory Area: the groundfish (GRO - primarily in Div. 3LMNO), shrimp (PRA - primarily in Div. 3LM) and pelagic redfish fisheries (REB - primarily in Div. 1F and 2J). The PRA and the REB fisheries have been under moratoria. Some effort was exerted on REB fisheries by one Contracting Party (CP), which formally objected to the moratorium. In 2016, there were 47 fishing vessels spending a total of 4270 days in the NRA, and 120 trips¹ were identified (Table 1).

Smaller vessels (<500 GT) tend to fish in Divisions 3NO using mainly longlines. The vast majority of the effort comes from larger vessels (> 500 GT) which account for 96% 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, redfish, and thorny skate (see Table 1). There is no general change in the behavior of the fisheries compared to the previous year (see FC Doc 16-19).

For the purpose of this compliance analysis, only fishing trips which ended in 2016 were considered. Fishing trip for a fishing vessel 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" (NAFO CEM Art. 1.7).



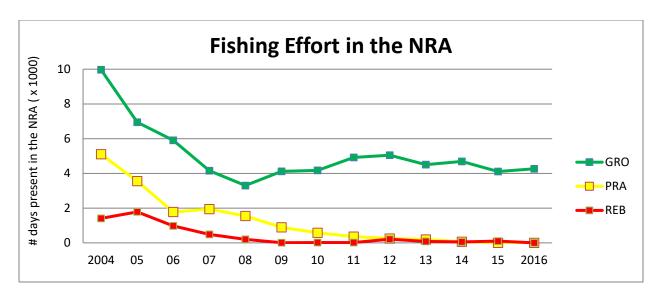
Table 1. Fishing Effort in the NAFO Regulatory Area in 2016.

Vessel Class	# of fishing vessels	# of fishin g trips	Main Gear	f = Total Fishing Days	Fishing Trip Range (days)	Main Spp.	Main Divs.
Class 3-4 vessels (less than 500 mt)	5	17	Longline	175	1-20	YEL, HKW, HAL	3NO
Class 5 vessels (500-1000 mt)	20	46	Bottom Trawl/Longline	1506	10-84	GRO*	3LMNO
Class 6 vessels (1000-2000 mt)	19	50	Bottom Trawl	2147	3-107	GRO*	3LMNO
Class 7 vessels (> 2000 mt)	3	7	Bottom Trawl	442	29-109	GRO*	3LMN0
Total:	47	120		4270			

^{*} Mix of species constituting major species as directed fishery: COD, GHL, RED and SKA.

Figure 1 illustrates the changes described above for each of the major fisheries in terms of effort (days present) and number of active vessels. NAFO fisheries remain dominated by the groundfish category. After five years of steep decline since 2004, the groundfish effort has been relatively stable since 2009.





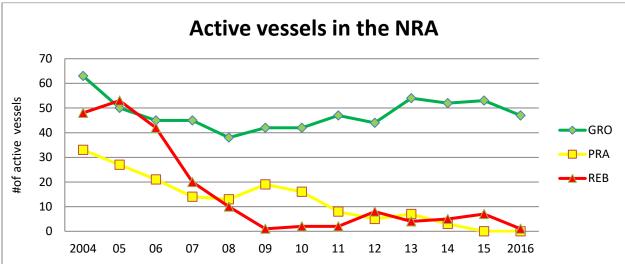


Figure 1. The trend of fishing effort in terms of days present and active vessels in the NAFO Regulatory Area in the period 2004-2016.

Effort distribution by depth of groundfish vessels

The requirement of providing the speed and course information in the Vessel Monitoring System (VMS) reports facilitated the estimation of fishing effort in terms of fishing hours. Speeds between 0.5 and 5 knots were assumed to be fishing speeds in this analysis. In Figure 2, the distribution of fishing effort in hours of groundfish vessels is presented. Figure 2 shows that about half of all groundfish effort is at depths 400 meters and below (skates, redfish and cod). Figure 3 shows the yearly comparison of the fishing depth distribution for 2014-2016. It suggests an increase of fishing effort at 300-700 m depth and a decrease at 700-2000 m.



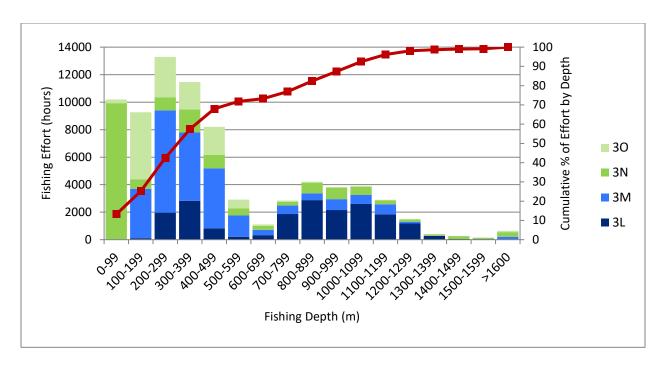


Figure 2. Distribution of groundfish fishing effort by depth in the NRA in 2016 (Divisions 3L, 3M, 3N, and 30).

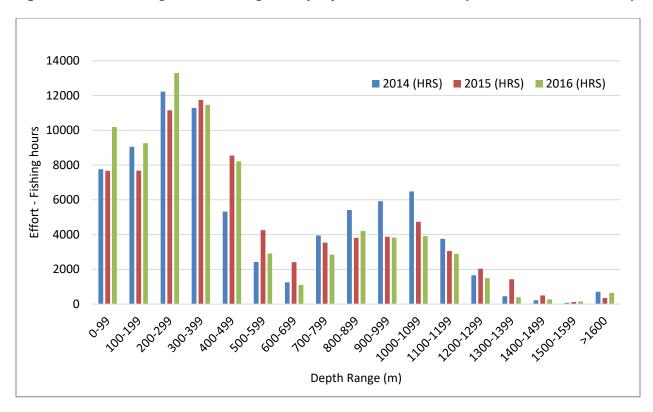


Figure 3. 2014-2016 Comparison of groundfish fishing effort distribution by depth in the NRA (Div. 3LMNO).

Catch Totals for 2016

In 2016, a grand total of 57 414 t of fish were caught by NAFO-registered vessels authorized to fish in the Regulatory Area (Table 2). In terms of quantities caught, the stocks 3M Cod, 2+3KLMNO Greenland halibut, 3M Redfish, 3LN Redfish, 3D Redfish, 3LNO Yellowtail flounder and 3NO Skates constitute the major groundfish fishery in the NRA.

Table 2. Total reported catches (in tonnes, retained and rejected) of species (in FAO 3-alpha code) by Division in 2016 (Source: CAT Reports)

Division	1F	3L	3M	3N	30	6G	Grand Total
Species in Annex I (TAC-regulated)*							
CAP				2.9	0.9		3.8
COD		177.2	13902.9	291.0	188.1		14559.3
GHL		6112.2	1425.5	1064.0	13.7		8615.4
HKW		0.0	3.5	169.3	205.6		378.5
PLA		131.7	187.3	592.1	253.3		1164.4
REB	49.8	0.1	1.4				51.3
RED		4768.7	6593.3	1690.2	8617.6		21669.9
SKA		63.5	50.3	2700.4	706.6		3520.9
WIT		48.1	167.2	57.8	139.1		412.2
YEL		1.3		4313.3	47.3		4361.9
Other "major" spec	cies	·	·				
ALF						127.4	127.4
ANG				9.3	55.0		64.3
CAT		18.0	30.9	35.0	4.5		88.4
HAD			130.7	18.8	89.8		239.3
HAL		69.5	92.4	202.9	177.9		542.7
RHG		144.6	82.2	29.7	0.1		256.6
RNG		61.3	51.8	10.6	0.0		123.6
Shark species		·	·				
BSK		5.0	4.5				9.5
CFB				2.2	0.0		2.3
DGS				0.0			0.0
DGX		7.6	15.8	1.3	0.9		25.6
GSK		80.9	31.7	74.6	16.0		203.2
POR				6.7	1.2		7.9
SHX					1.2		1.2
SMA					0.3		0.3
Misc. species							
ANT		2.2	0.5	5.7	0.2		8.5
CRQ				12.9	1.9		14.7
FIN				0.6			0.6
GDE		4.9	8.0	0.9			6.5
GPE		0.6		2.5			0.6
GRO				0.0			0.0
HKR		5.1	0.3	0.6			6.0
HKS				1.9	885.4		887.3
MZZ		7.6	7.4	35.0	0.2	2.7	52.8
OPT				0.0			0.0
SCU				1.7			1.7
SWO				0.2	0.4		0.6
USK			1.6	3.4	0.1		5.1
YFT		44=	00====	110000	0.2	4555	0.2
Grand Total	49.8	11709.9	22782.2	11335.0	11407.3	130.0	57414.3

^{*}Catches of stocks under moratorium are likely bycatches from other fisheries.



Table 2 also provides quick information that moratorium stocks (3L cod, 3NO cod, 3LNO American plaice, 3L witch flounder, and 3NO capelin) and stocks not managed by TAC-measure (e.g. 3M American plaice and 3M skate) are also caught as bycatch.

3. Compliance

Reporting Obligations of Contracting Parties (flag States and port States) and Observers

The NAFO CEM obliges vessels and Contracting Parties to provide reports on their activity within a determined time frame. The completeness and regular delivery of those reports in time are of key importance to evaluating overall compliance. In evaluating the completeness, reports were examined to determine which fishing trips were covered by the reports (Figure 6). Each fishing trip must have Vessel Transmitted Information and Observer reports; vessels landing Greenland halibut must have port inspection reports. The percentage coverage is computed as a ratio of fishing days accounted for by the reports and total fishing days effort in the NRA. Less than 100% coverage suggests (with caveats) that there were missing reports that should have been received by the Secretariat.

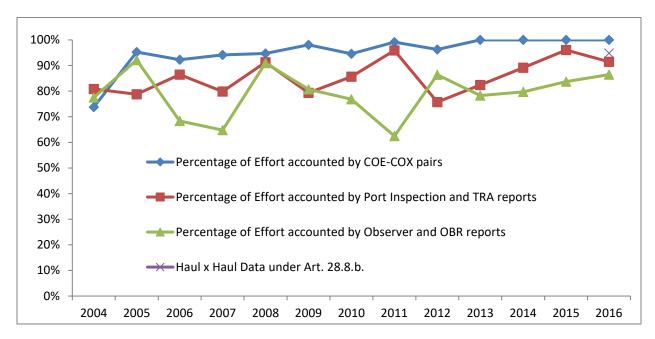


Figure 6. Percentage coverage of fishing effort by VTI (COE-COX Pairs), Port Inspection and Observer Reports as a measure of compliance to report submission requirements.

Vessel Transmitted Information (VTI) - Catch-on-Entry (COE), Catch-on Exit (COX), Daily catch reports (CAT)

The Fisheries Monitoring Centres (FMCs) of flag States are responsible for transmitting the Vessel Transmitted Information (VTI) reports to the NAFO Secretariat. The COE and COX are transmitted signifying the start and end of a fishing trip and 100% coverage would mean that all expected COEs are paired up with all expected COXs.

In Table 3, the number of COE, COX, and CAT, as well as of the fishing trips and fishing effort-day in the NRA, is presented. Ideally, the number of COE and COX should correspond to the number of fishing trips. The higher-than-expected numbers suggest that vessels left the NRA and returned while



still operating under the same trip, or that duplicates and erroneous reports were occasionally sent. The VMS-VTI system features a cancel report (CAN) which allow vessels and FMCs to withdraw or correct previously sent VTI report. Nonetheless, all identified fishing trips had the corresponding COE and COX report, representing 100% coverage.

Table 3. Fishing effort and VTI statistics in the NRA, 2016.

Number of fishing trips identified	120
Days Present in the Regulatory Area	4270
Number of Daily Catch Reports (CATs)	4200
Number of Catch on Entry Reports (COEs)	156
Number of Catch on Exit Reports (COXs)	157

In total 4200 CATs were received within the calendar year 2016, which is slightly less that the 4270 days present for fishing trips ending in 2016 in the Regulatory Area.

Port Inspection Reports

Prior to 2009, port State Contracting Parties were required to conduct port inspections on *all* vessels landing or transhipping fish species from the NRA, i.e. 100% coverage. Since the adoption of the Port State Control measures in 2009, the 100% coverage has been maintained for vessels landing NAFO species under recovery plans, in particular Greenland halibut. When landing catch species not under recovery plans, port inspections are not required if the vessel flag State Contracting Party and the port State Contracting Party are the same; if the flag State and the port State are different, the latter is required to conduct port inspections on 15% of the total fish landing port of call in a year.

For the 120 trips that ended in 2016, 96 port inspection reports were received by the Secretariat, all of which were associated with groundfish. Some port States submitted port inspection reports that were not required under the NAFO CEM.

In evaluating the compliance of port State authorities with Article 10 of the NAFO CEM, only trips with Greenland halibut onboard were considered. Table 4 shows the coverage levels (based on the number of trips, and days effort) of port inspections for vessels that had Greenland halibut onboard.

Table 4. The number of trips, fishing days, and catch amounts in tonnes of vessels that had Greenland halibut onboard (based on the COX for the trip) and the number and per cent coverage of port inspections for those trips.

	GHL onboard (COX)	Port Inspection Coverage	Percent Coverage
Number of Trips	65	61	93.84
Fishing Days	3090	3019	97.70
Amount (tonnes)	8667	8664.5	99.97

In evaluating compliance with the Port State Control measures outlined in Chapter VII of the NAFO CEM, a review of the submission of PSC1 and PSC3 reports has been completed in Table 5.



Table 5. The number of PSC1s and corresponding PSC3s received by the NAFO Secretariat by port State.

Port State	PSC1	PSC3	% Coverage
Canada	17	17	100
Denmark (FRO)	1	1	100
France (SPM)	3	0	0
Iceland	2	2	100
Netherlands	1	1	100
Spain	7	7	100

Observer reports

Under the "traditional" scheme, vessels are required to have an independent observer on board at all times (i.e. 100% coverage) during every fishing trip (NAFO CEM Art. 30.A). Observers in this scheme are committed to deliver within 30 days after their assignment period their observer report, which contains information on date of fishing trip as well as catch and effort.

Since 2007, Contracting Parties have the option of the electronic reporting scheme. Under this electronic scheme, CPs may allow their vessels in a single year to have observers onboard at least 25% of the time the vessels are on a fishing trip (NAFO CEM Art. 30.B). CPs must give prior notification to the Secretariat of which vessels participate in the electronic scheme. Observers under this scheme are required to report daily the catches and discards (OBR) while the fishing master transmits the daily catch reports (CAT) every trip. In 2016, seven vessels submitted OBR reports while fishing in the NAFO Regulatory Area.

In evaluating compliance of observer reports submission, only reports from vessels under the "traditional" scheme were considered. In 2016, of the 106 trips operating under Article 30.A, the Secretariat received 96observer reports in the format of Annex II.M. The outstanding reports were from trips completed by the European Union and the Russian Federation.

Haul by Haul reports

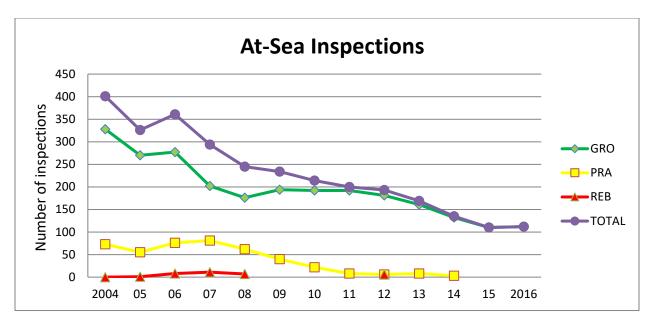
The submission of logbook data on a haul by haul basis became mandatory in 2015 (Article 28.8.b of the NAFO CEM). When analyzing the compliance with the submission of logbook data on a trip basis, the Secretariat has received logbook data for 115 of the 120 trips that were completed in 2016.

At-sea inspections (NCEM Chapter VI)

The NAFO Joint Inspection and Surveillance Scheme is implemented to ensure management and enforcement measures are complied with by fishing vessels fishing in the NRA. Inspectors are appointed by Contracting Parties and assigned to fishery patrol vessels tasked to carry out NAFO inspection duties at sea (Chapter VI of NAFO CEM).

The total number of at-sea inspections completed on vessels with trips ending in the 2016 calendar year was 112. The number of at-sea inspections completed and the inspection rate have remained very similar to 2015 (Figure 7).





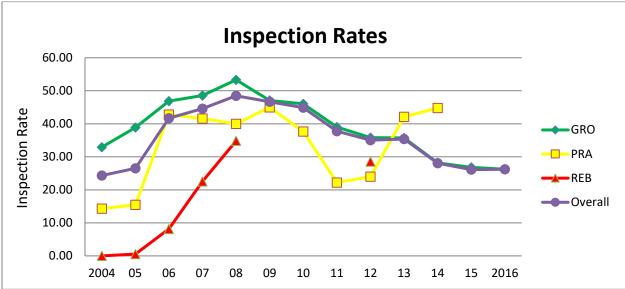


Figure 7. Number of At-Sea Inspections and Inspection rates (number of at-sea inspection/vessel-days) in the NAFO Regulatory Area by fishery type.

Position reporting - Vessel Monitoring System (VMS) (NAFO CEM Article 29)

Vessels in the NRA are required to transmit position reports at one hour intervals. In addition, the course and speed information must be included in the position reports. The position reports were received by the Secretariat in practically real-time through the Fisheries Monitoring Centres (FMC) of individual flag States. When technical difficulties were encountered by the vessels in complying with the position reporting requirements, the position reports were reported by FMCs every four hours as per NAFO CEM Article 29.8. Generally, the technical issues were resolved at most within a few days through the coordination and communication between the Secretariat and the FMCs. Based on daily monitoring by the NAFO Secretariat, compliance with this reporting requirement were met in 2016.



Vessel activity after 3M redfish 100%-TAC-uptake notification (NAFO CEM Article 5)

The stock 3M redfish is the only regulated stock 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 (CATs) it receives from the fishing vessels. When the TAC is projected to be reached, Contracting Parties are notified and are required to instruct their vessels to cease directed fishery on the stock on the date projected by the Secretariat.

Figure 8 shows the total daily catches and the percentage of cumulative catch derived from CAT reports. According to Article 5.5 d) of the 2016 NAFO CEM, not more than 50% of the TAC may be fished before 01 July. A total of 19 vessels were targeting 3M redfish in early 2016 and on 19 February 2016, a five day 50%-TAC uptake projection notification was circulated by the Secretariat, stating that 50% of the quota was projected to be taken by 25 February 2016, after which time the fishery would be suspended until 30 June. On 06 July 2016, the 96 hour projection notification was circulated by the NAFO Secretariat advising Contracting Parties that 100% of the TAC was projected to be reached by 10 July. By the projected closure date, the 94.1% of the TAC was fished. There were a total of 18 vessels targeting 3M redfish in July 2016.

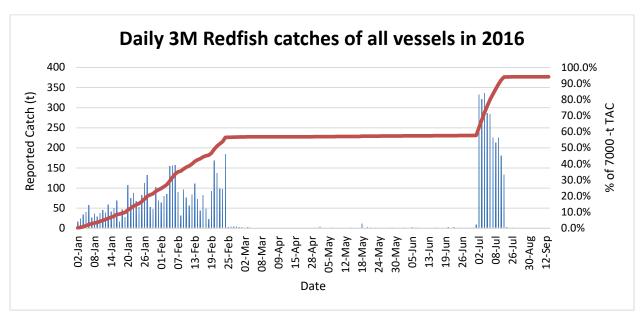


Figure 8. Daily 3M redfish catches of all vessels in 2016.

Closed areas and Exploratory Fisheries

As of 2016, in total 20 areas in NAFO have been closed to bottom fishing including 13 significant coral and sponge areas, 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 NAFO CEM.

An examination of the position reports from speeds between 0.5 -5.0 knots in the NRA shows that the vast majority of VMS reports were transmitted from beyond the boundaries of the areas closed to bottom fisheries (Figure 9). Some reports were transmitted from within the areas, however the activity in Division 6G (in the environs of the closed Corner Seamounts) for 12 days in February and 13 days in March 2017 (Fig. 9.D) was related to one particular vessel for which the observer report indicated that the fishing gear used was mid-water trawl (OTM) and the main species caught was



splendid alfonsino. Thus, the fishing closure does not apply in this case. In addition, there are a low number of VMS reports from the other areas however they don't necessarily relate to fishing activity, and could be attributed to vessels transiting at a speed lower than expected. The assumption that fishing consistently occurs between these speeds and that non-fishing activity consistently occurs outside of that range may not be entirely accurate and consideration of the different speeds of static and mobile fishing activity would enable further clarity. No reports of vessels violating the area closures were identified by aerial or sea patrol activity conducted in 2016. Therefore, it can be concluded that it appears there is a high level of compliance with the areas closed to bottom fisheries.

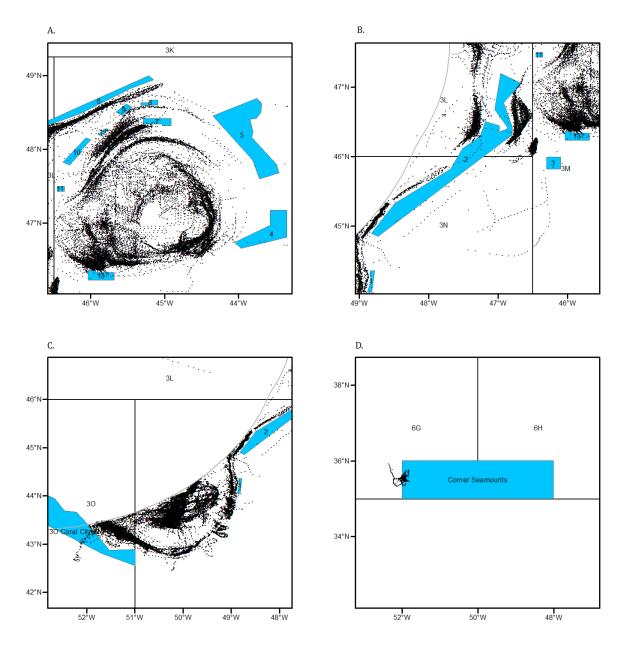


Figure 9. VMS position plots of all vessels at speed 0.5 -5.0 knots in the NRA in 2016 in relation to the VME closed areas and Corner Seamount. A: Flemish Cap, B: Flemish Pass, C: Division 30 Coral Zone, D: Corner Seamount.



Catch reporting on sharks (NCEM Article 12 and 28.6)

It has been noted that there has been a lack of species-specific reporting of shark catches in the NRA. In this regard, it became a requirement in 2012 to report, to the extent possible, all shark catches at the species level (NCEM Art. 28.6.g). The 2016 CAT reports were examined and not all shark catches were reported to the species level. A little more than half of all shark catches were reported as Greenland shark (Table 6). It is not known how many species of shark were lumped into DGX (See also Table 1).

Table 6. Amount of shark catches (t) as reported in CATs in 2016.

3-Alpha Code	Common name	Retained (t)	Rejected (t)	Total (t)	Percentage
BSK	Basking Shark	0.0	9.5	9.5	3.8%
CFB	Black Dogfish	0.0	2.3	2.3	0.9%
DGS	Spiny dogfish	0.0	0.0	0.0	0.0%
DGX	Dogfishes	23.4	2.2	25.6	10.2%
GSK	Greenland shark	14.6	188.6	203.2	81.3%
POR	Porbeagle	0.0	7.9	7.9	3.2%
SHX	Large sharks	0.0	1.2	1.2	0.5%
SMA	Shortfin mako shark	0.0	0.3	0.3	0.1%
TOTAL		38.0	211.9	249.9	100.0%

Apparent infringements detected at-sea and at port

Each citation issued by at-sea inspectors can list one or more apparent infringements (AI). In 2016, five vessels were issued apparent infringements at sea (Table 7), and eight vessels were issued apparent infringements in port (Table 8).

Table 7. Details of Apparent Infringements (AI) detected in 2016 by inspectors at-sea and confirmed in port and their disposition. Apparent Infringements that were considered serious are presented in bold.

Vessel Code	FS	Date of inspection report	Apparent Infringement	Details	Most recent status
FRO5	FRO	11-Feb-16	Exceeded allowable bycatch of COD in 3N contrary to Art. 6.3.b (considered serious by inspectors due to absence of an observer)	Warning given. Case closed	CLOSED
PRT1	PRT	3-Mar-16	Mis-recorded HAD in 3M and RED in 3N contrary to Articles 28.2 and 28.6.c	Case led by Portugal. Case Pending.	PENDING
ESP8	ESP	24 and 28 May - 16	Mis-recorded RED in 3M contrary to Art. 28.2 a&b and Art. 28.6.c.	Case led by Spain. Case Pending	PENDING
PRT9	PRT	15-Jun-16	Mis-recorded RED in 30, contrary to Arts. 28.2.a and 28.3.a.	Case led by Portugal. Case Pending.	PENDING
ESP8	ESP	5-Sep-16	Direct fishing for a stock [YEL in 3] under moratorium, or for which fishing is otherwise prohibited, contrary to Art. 6.	Case led by Spain. Case Pending	PENDING



Table 8. Details of Apparent Infringements (AI) detected in 2016 by inspectors in port and their disposition.

Vessel Code	FS	Start date of landing	Apparent Infringement (according to PSC3: Section E.1.B.c)	Details	Most recent status
EST1	EST	18-Feb-16	Art. 28 (Monitoring of Catch), Art. 38.1 (Serious Infringement)	Case led by Estonia in accordance with Article 39.1 of the CEM. Closed in accordance with EU legislation.	CLOSED
PRT3	PRT	14-Mar-16	Mis-recording of the following species: COD	Case led by Spain. Convicted and fined 60000 Euro. Case pending.	PENDING
PRT1	PRT	31-Mar-16	Art. 28.6.b (COX)	Case led by Portugal. Case pending.	PENDING
PRT9	PRT	20-Apr-16	COX message: quantities expressed aren't correct, Exceeded bycatch of 30 Cod, Failure to maintain accurate stowage plan, Catches offloaded aren't reported correctly.	Case led by Spain. Convicted and fined 45000 Euro. Case pending.	PENDING
ESP8	ESP	6-Jun-16	Article 38.1.d (fishing after date of closure).	Case led by Spain. Case pending.	PENDING
USA2	USA	21-Jul-16	Art. 25.9 (Capacity Plan), Art. 28.5.a (Stowage)	Submitted for prosecution. Case pending	PENDING
USA1	USA	25-Jul-16	Exceeded "Others Quota"	Civil Penalty Paid- \$1,220.00	CLOSED
USA1	USA	14-Sep-16	Conducting a directed fishery for HKW, a species subject to Others Quota which had been utilized following ES notification, in accordance with Art. 5 and classified as bycatch in accordance with Art. 6.2.(c). Considered serious under Art. 38.1.c.	Still under investigation. Interviews with the captain and the observer need to be completed before the case can be submitted for prosecution.	Submitted for prosecution pending adjudication
USA1	USA	20-Sep-16	Exceeded "Others Quota"	Civil Penalty Paid- \$408.00	CLOSED
USA2	USA	22-Sep-16	Exceeded PLA bycatch limits. Art. 6.6.b.ii.	Still under investigation	Submitted for prosecution pending adjudication
ESP4	ESP	28-Dec-16	COX Message is not in accordance with Art. 28.6.b	Case led by Spain. Case pending.	PENDING
PRT9	PRT	22-Dec-16	Following CAN Sea Inspection, Misreporting of catch, tampering with seals, obstruction to inspectors.	Case led by Portugal. Case pending.	PENDING

Follow-up to apparent infringements issued at-sea

The NAFO CEM Article 39 spells out obligations of a flag State Contracting Party that has been notified of an infringement. It includes taking immediate judicial or administrative action in conformity with their national legislations and ensuring that sanctions applicable in respect of infringements are adequate in severity. It must be noted that legal resolution of AIs may take more than a year. In Table 9, a summary of the status of AI cases detected <u>at-sea</u> in the last five years (2012-2016) and their resolution are presented.



Table 9. Legal resolution of citations against vessels fishing in the NAFO Regulatory Area by year in which the citations were issued (as of August 2017). A citation is an inspection report (from at-sea) that lists one or more infringements. Inspections carried out for confirming a previous citation are not included.

Year	Number of At-sea Inspection Reports with AI Citation/s	Number of Resolved Cases	Number of Pending Cases	% Resolved
2012	7	7	0	100%
2013	13	13	0	100%
2014	5	4	1	80%
2015	1	0	1	0%
2016	7	3*	4	43%
Total	34	27	6	79.41%

^{*}Two of the resolutions were that the AIs were not confirmed in port.

4. Trends, Conclusions and Recommendations

General Trends

The number of vessels active in the NAFO Regulatory Area has remained relatively stable in the past several years as highlighted in Figure 1. From 2004 to 2008 there has been an observed decline in fishing effort (the number of days a vessel is present in the NRA), a trend that appeared to stabilize in 2009 with \sim 5000 days of effort. During the years since 2009, fishing effort remained relatively stable with some fluctuation (Figure 1), with most of the fishing effort in the NAFO Regulatory Area being focused on the groundfish fishery.

In the shrimp fishery, with the exception of the 2007 and 2008 fishing years, the number of active vessels and the fishing effort has declined steadily since 2004, with zero activity or effort identified in 2015. Over the last three years, effort has gone from 7 (2013) to 3 vessels in 2014, in the 3L fishery. Subsequently, in 2013 and 2014, there were further declines in fishing effort from 190 days in 2013 to just 67 days in 2014, a reduction of 64.7%. As a result of the fishery closures in 2015, there were no shrimp vessels active in the NRA in 2016. The number of vessels participating in the pelagic redfish fishery (REB) decreased from seven vessels fishing in 2015 compared to one in 2016.

Analysis of groundfish activity by water depth shows that about half of all groundfish effort in 2016 occurred at depths of <500m (Figure 2), comparable to the profile of 2015. Fishing effort in water depths greater than 700m continue to present a declining trend, with approximately 70% of all fishing occurring below 700m. There is a notable overall decrease in effort in depths greater than 700m while the distribution in shallower depths (0-99 m), remains relatively unchanged.

Compliance by fishing vessels

For 2016, indications are that the VMS/VTI reporting requirements are being met by Contracting Party vessels (Table 3). Vessels were compliant with the VMS position reporting requirements as well as the VTI reporting requirements outlined in the NAFO CEM. Vessels also respected the VME closed areas when fishing in 2016 (Figure 9).



Port Inspection Reports

Port inspections are required if a vessel has Greenland halibut onboard (Article 10) or if a vessel is landing in a Port of a different Contracting Party (Chapter VII). Based on the amount of Greenland halibut by weight, the requirement under Article 10 is being met with 99.97% of the catches of Greenland halibut being inspected in port. Under Chapter VII, port State Contracting Parties are required to inspect 15% of the vessel that enter into its ports. Based on the receipt of PSC1 and PSC3 reports by the Secretariat, most port States have inspected more that 15% however, some port States have not met the 15% requirement.

The Secretariat also receives other port inspection reports that are not required under the NAFO CEM. Out of the 120 trips that were completed in 2017, 96 port inspections were received.

Reporting Obligations by CPs and Observers

Of the 120 trips that were completed in 2016, the NAFO Secretariat received 99 observer reports in the form of Annex II.M, 14 vessels operated under Article 30.B, with seven vessels transmitting OBR reports. In 2016, 84% of fishing days were covered by observer reports, which is similar coverage that was seen in 2014.

The reporting of logbook information by haul became a requirement in the NAFO CEM in 2015, and for the 120 trips that were completed in 2016, the Secretariat received logbook information for 115 of the trips. There are five trips missing logbook information for 2016.

At-Sea Inspections

The total number of at-sea inspections conducted in 2016 remained similar to 2015, with 112 inspections being conducted.

Apparent Infringements

In 2016, seven inspections resulted in the identification of seven apparent infringements. Two of those infringements were unsubstantiated by the flag CP, and the cases were closed. Five of those infringements were classified as "serious" under the NAFO CEM. With 122 total at-sea inspections, the resulting apparent compliance rate is 94.3%. In 2016, during a total of 96 port inspections, twelve apparent infringements were detected.

The majority of the apparent infringements detected in 2016 involve the mis-recording of catches. These are in varying degrees but many are serious.

Compared to 2015, the number of at-sea inspections identifying apparent infringements has significantly increased (from one), and is at its highest level since 2013.

Conclusions

The recent increase in the detection of apparent infringements is of concern, especially as many of them are considered serious. The majority of those infringements relate to the mis-recording of catch. Nonetheless, it is evident that the inspection services are conducting thorough and effective inspections to be able to detect such infringements. This works towards promoting a culture of compliance and demonstrates that the control system is robust.



STACTIC recognizes that some vessel positions recorded at speeds associated with fishing activity within the VME closures give the appearance that fishing activity could be occurring in these protected marine environments, however surveillance and sea-patrol activity has confirmed that this is unlikely to be the case.

Overall compliance with reporting obligations is high and improving over recent years. CP's are to be commended for their engagement in the compliance review process and their continued promotion of compliance with all aspects of CEM.

Recommendations

STACTIC recommends that at-sea inspection operations take a focused inspection approach towards vessels displaying fishing patterns and practices consistent with the mis-recording of catches.

STACTIC recommends incorporating a compliance assistance education element to at-sea and port inspections that highlight the vessel reporting/recording requirements and procedures.

STACTIC recommends that the Secretariat explores methods of providing context to CP's for VMS positional data within the VME closure areas when compiling the annual compliance review.

STACTIC recommends CP's review catch reporting information for the periods in which their vessels have VMS positions within the VME closure areas to ensure they are not engaged in fishing.

STACTIC recommends that CP's meet their obligations for the 15% port inspections as outlined in Chapter 7.

STACTIC recommends that CP's continue to improve compliance with their reporting obligations identified in the CEMs.

STACTIC recommends that the secretariat provide a summary of historical types of infringements to enable the review and identification of trends.

