



NAFO Northwest Atlantic
Fisheries Organization

Committed to **Conservation** and **Management** of **Fisheries** and **Ecosystems** in the Northwest Atlantic

2016 Annual Report



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NORTHWEST ATLANTIC
FISHERIES ORGANIZATION

Annual Report 2016

This Annual Report summarizes and highlights discussions, decisions and events of NAFO during 2016. It does not replace the detailed NAFO meeting reports, such as *Scientific Council Reports and Meeting Proceedings of the General Council and Fisheries Commission*, which are accessible on the NAFO Website.

www.nafo.int



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June 2017

A YEAR IN REVIEW



Fred Kingston,
Executive Secretary

NAFO continued to progress in a number of areas in 2016. The 2016 Annual Report provides an opportunity to showcase these accomplishments.

The 2016 Annual Meeting in Varadero, Cuba resulted in a number of significant developments. In particular, NAFO agreed to launch its second Performance Review in 2017. This second Performance Review is intended to build upon NAFO's implementation of its first Performance Review, which NAFO undertook in 2011. This first Performance Review came up with 56 recommendations, all of which have been or are being addressed. As with the first Performance Review, this second one will be comprehensive, addressing conservation and management, compliance and enforcement, governance, science, international cooperation, financial and administrative matters.

Other significant decisions made at the 2016 Annual Meeting included the following:

- NAFO agreed to align its port state control measures with the 2009 Port State Measures Agreement (PSMA) that was concluded under the auspices of the Food and Agriculture Organization (FAO) of the United Nations. Port state measures are an important tool in the fight against illegal, unreported and unregulated (IUU) fishing. NAFO's alignment of its port state measures with the PSMA will also increase consistency amongst port states.
- As part of its commitment to safeguard the marine ecosystem, NAFO closed an additional 239 km² to bottom fishing to protect significant concentrations of sea pens. Sea pens are organisms that could indicate a vulnerable marine ecosystem (VME) under FAO Guidelines. NAFO has now closed about 380,511 km² to bottom fishing to protect VMEs and seamounts, representing over 14% of its Regulatory Area.
- To enhance NAFO's protection for sharks, NAFO banned the removal of shark fins on board vessels.
- NAFO launched a management strategy evaluation (MSE) for Greenland halibut, currently NAFO's most valuable commercial species. This MSE is set for completion at the 2017 NAFO Annual Meeting. This will mean a particularly busy 2017 for NAFO's Scientific Council which, on top of its normal work, is also revising how NAFO applies the precautionary approach and preparing for a benchmark assessment of the cod stock on the Flemish Cap (3M cod).

A number of the stocks currently under fishing moratorium are showing promising signs of recovery, although this year's Scientific Council assessments show that stocks of witch flounder on the northern Grand Bank and American plaice on the Grand Bank are not yet at a level that would allow fishing to resume. For those stocks which are currently fished, assessments by the Scientific Council found nothing to indicate a significant change in status and the Fisheries Commission agreed that fishing should continue at the same level in 2017. A notable exception is the Grand Bank redfish (ocean perch) stock (3LN redfish), which will see an increased level of fishing of about 35% in 2017.

In the lead up to the Annual Meeting, it was again a busy year with over 20 intersessional meetings. Many of these were joint meetings of fishery managers and scientists designed to prepare the ground for the decisions at the Annual Meeting. As in previous years these joint meetings focused on risk-based management strategies for particular fish stocks, including Greenland halibut, cod on the Flemish Cap and redfish on the Grand Bank, the implementation of the ecosystem approach framework to fisheries management, improving NAFO rules on bycatches, discards and selectivity and improving the quality of catch statistics.



The Secretariat continues its transition. In March 2016, we welcomed Tom Blasdale as the new Scientific Council Coordinator. Tom hails from Scotland. Prior to joining NAFO he worked for the Joint Nature Conservation Committee (JNCC), a United Kingdom Government conservation agency, where he led a team of fisheries specialists in delivering advice on conservation in the marine environment, particularly in relation to the impacts of commercial fisheries. He has 25 years of experience working in fisheries and marine science. NAFO also said goodbye to Mark Harley, NAFO's Database Manager, who was recruited by the Royal Canadian Mounted Police. NAFO wishes him all the best. NAFO welcomed his replacement, DJ Laycock, as NAFO's Database Developer/ Programmer Analyst. DJ comes with over 18 years of experience in the area.



OTHER HIGHLIGHTS OF 2016 INCLUDE:

- The 2007 amendments to the NAFO Convention inched closer to coming into force. These amendments are intended to modernize NAFO, in particular by incorporating an ecosystem approach to fisheries management. In practice, many of the obligations have already been applied provisionally, allowing NAFO, for instance, to put in measures to protect vulnerable marine ecosystems. These amendments will also streamline NAFO's decision-making process, strengthen the obligations of Contracting Parties, Flag States and Port States, and institute a formal dispute settlement mechanism.
- NAFO's public website was comprehensively revised and updated.
- NAFO's Monitoring, Control and Surveillance (MCS) website has been significantly updated.
- NAFO again has managed to be approximately \$80,000.00 under budget.
- NAFO continues to participate actively in various international initiatives related to ocean governance, including the 32nd session of the Committee on Fisheries (COFI) at the Food and Agriculture Organization (FAO) of the United Nations in Rome, and meetings at the United Nations Headquarters in New York, including the resumed Review Conference on the UN Fish Stocks Agreement, and the first Global Dialogue organized by the Secretariat on the UN Convention on Biodiversity with regional fishery management organizations, such as NAFO, and regional seas organizations.

Finally we want to thank Cuba very much for its excellent organization of the 2016 Annual Meeting in Varadero. The warmth and hospitality of our Cuban hosts were very much appreciated and helped to ensure the success of the Annual Meeting.



OFFICERS

CONTRACTING PARTIES OF NAFO



GENERAL COUNCIL



President of NAFO
General Council Chair
Stéphane Artano
(France-SPM)
(Sep. 2015–Sep. 2017)



General Council
Vice-Chair - Sylvie Lapointe
(Canada)
(Sep. 2015–Sep. 2017)



Fisheries Commission
Chair - Temur Tairov
(Russian Federation)
(Sep. 2015–Sep. 2017)



Fisheries Commission
Vice-Chair - Patrick Moran
(USA)
(Sep. 2015–Sep. 2017)



STACFAD Chair
Deirdre Warner-Kramer
(USA)
(Sep. 2012–Sep. 2018)



STACFAD Vice-Chair
Élise Lavigne
(Canada)
(Sep. 2013–Sep. 2017)



STACTIC Chair
Judy Dwyer
(Canada)
(Sep. 2015–Sep. 2017)



STACTIC Vice-Chair
Aronne Spezzani
(EU)
Jun 2012–Sep. 2017

SCIENTIFIC COUNCIL



Scientific Council Chair
Katherine Sosebee
(USA)
(Sep. 2015–Sep. 2017)



SC Vice-Chair &
STACREC Chair
Brian Healey
(Canada)
(Sep. 2015–Sep. 2017)



STACFIS Chair
Joël Vigneau
(EU)
(Sep. 2015–Sep. 2017)



STACFEN Chair
Andrew Cogswell
(Canada)
(Sep. 2014–Sep. 2017)



STACPUB Chair
Margaret Treble
(Canada)
(Sep. 2013–Sep. 2017)



ANNUAL MEETING

Varadero, Cuba - 19-23 September



Opening of NAFO's 38th Annual Meeting, Varadero, Cuba.

Martha Torres Soroa (Cuba), Maria del Carmen Concepción González (Minister of the Food Industry - Cuba), Stéphane Artano (NAFO President/Chair of General Council), Fred Kingston (Executive Secretary).



NAFO's 38th Annual Meeting was held in Varadero, Cuba in September 2016. The delegates were welcomed by the Cuban Minister of the Food Industry, Ms. Maria del Carmen Concepción González, and the President of NAFO, Mr. Stéphane Artano (France in respect of St. Pierre et Miquelon), welcomed delegates to Varadero.

To review the results of the Annual Meeting, read [NAFO's press release](#).



Heads of Delegation – left to right; back row: Fred Kingston (Executive Secretary), Sung Ho Kim (Korea), Kevin Stringer (Canada), John Bullard (USA), Kenro Iino (Japan), Konstantin Drevetnyak (Russia), Stéphane Artano (President of NAFO and GC Chair; France-SPM).

Front row: Sigrun Holst (Norway), Brynhildur Benediktssdóttir (Iceland), Nora Yong Mena (Cuba), Veronika Veits (EU), Yana Yemtseva (Ukraine), Ulla Sværre Wang (DFG), Mads Trolle Nedergaard (DFG).



GENERAL COUNCIL

FINANCIAL STATUS UPDATE

The Standing Committee on Finance and Administration (STACFAD) oversees the budget and administrative matters of the Organization. At the Annual Meeting in Varadero, Cuba, Deirdre Warner-Kramer (USA) led the committee throughout its deliberations.

STACFAD was pleased to report that the overall financial affairs of the Organization continue to be in a suitable position. The 2016 NAFO budget was set at \$1.997 million and the Secretariat managed to finish the fiscal year approximately \$80,000 under budget, before extraordinary items. Savings for the year can be attributed to personnel changes resulting in short term vacancies; equipment lease renewals at lower operating costs; annual meeting travel costs lower than budgeted and relocation costs for the SC Coordinator being lower than anticipated. Operating cash at year end was at a reasonable level with only one partial membership contribution of \$6,840 being outstanding.

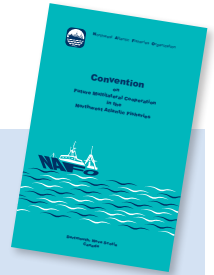
The Committee put forward a budget proposal for the 2017 fiscal year of \$2.126 million, representing an increase of 6.5% over the 2016 budget to cover additional funds required to launch NAFO's second Performance Review.

W|B|L|I Chartered Accountants performed the audit of the 2015 financial records for the fifth and final year of their contract and the statements were approved by the Organization at the 2016 Annual Meeting. The Organization appointed Grant Thornton LLP to audit NAFO'S financial records for the 2016 – 2020 fiscal periods.

At the 2016 Annual Meeting, STACFAD reviewed the revised Organizational Review Report from SJM Consulting, who was commissioned to review the existing NAFO Secretariat classification scheme, including salary scales and relevant employment benefits, to improve efficiency and support the priorities of the Organization and its Contracting Parties. The consultant's report was used as a basis to adopt several changes to the NAFO Staff Classification System. After years of also considering possible modifications to NAFO's separation indemnity benefits, the Committee agreed that existing employees would remain under NAFO's current system, but

STATUS OF RATIFICATION

In 2016, eight Contracting Parties had completed the ratification process for the NAFO amended Convention. NAFO needs nine of the twelve Contracting Parties to ratify the amended Convention in their own parliaments before it can become a legally binding instrument.

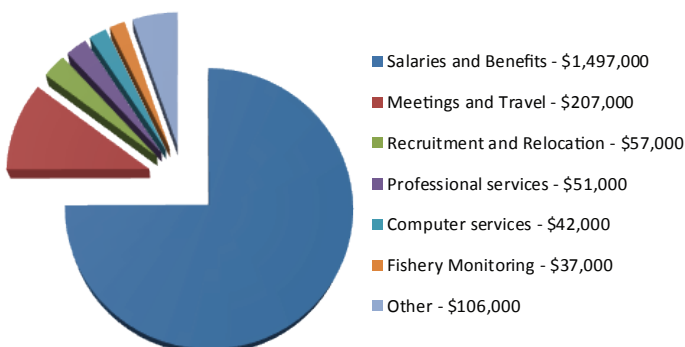


STACFAD, Annual Meeting 2016 - Left to right: Sarah Guile (Secretariat) Rasmus Bæk Pedersen (Denmark in respect of Faroe Islands and Greenland), Karen Eva Abrahamsen (EU), Deirdre Warner-Kramer (Chair, USA), Élise Lavigne (Vice-Chair, Canada), Stan Goodick (Secretariat), Elizabethann English (USA).

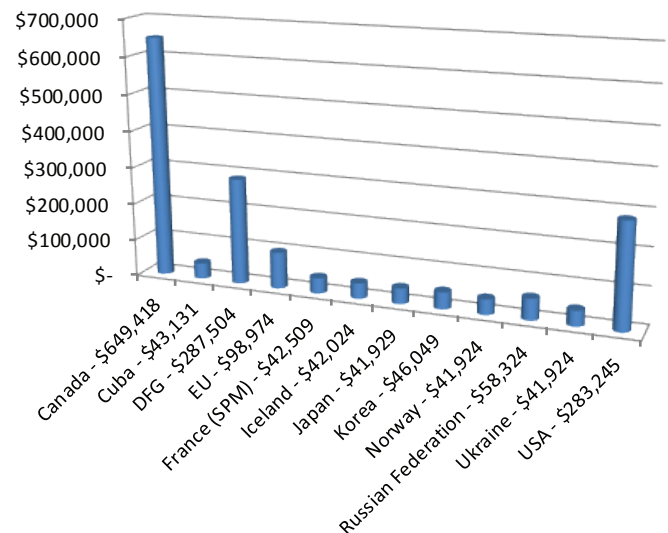
new hires would receive a reduced separation benefit of one (1) week per year of service.

The next meeting of STACFAD will be held during the 2017 Annual Meeting of NAFO in Montréal, Québec, Canada.

2016 Budget - \$1,997,000



2016 Membership Contributions - \$1,676,950



FISHERIES COMMISSION

FISHERY

2016 FISHING EFFORT

The fisheries in the NAFO Regulatory Area (NRA) is generally groundfish in Divisions 3LMNO.

In 2016, there were 47 fishing vessels spending a total of 4 270 days in the NRA. Smaller vessels tend to fish for Yellowtail flounder and White hake in Division 3NO using longline gears; and bigger vessels go on much longer fishing trips using trawls in Divisions 3LMNO (Table 1).

2016 CATCHES

In 2016, a grand total of 57 k tonnes was caught in the NRA. Redfish remains the predominant species, followed by cod and Greenland halibut. Table 2 shows the catch quantities of major species by Divisions.

COMPLIANCE

As required in the Fisheries Commission Rules of Procedure, the Standing Committee on International Control (STACTIC) conducts a compliance review. The Secretariat compiles all the relevant fisheries reports and information. Based on this compilation the STACTIC Annual Compliance Review is developed. A web link to the latest compliance review can be found here: www.nafo.int/Fisheries/Compliance. The information found in the Fishery Section of this Report were derived from the compilation which will serve as the basis of the *Annual Compliance Review 2017*.

The Joint Inspection and Surveillance Scheme is implemented to ensure compliance of NAFO-registered fishing vessels in the NAFO Regulatory Area. Inspectors are appointed by Contracting Parties and assigned to fishery patrol vessels tasked to carry out inspection duties at sea. In 2016, Canada and the European Union continued to deploy inspection vessels in the NRA.

In all, 112 at-sea inspections were conducted on the vessels during the 2016 fishing trips. From these inspections, nine (9) Apparent Infringements (AI) were issued to seven (7) vessels. The AIs pertained to mis-recording of catches and conducting fishing for stocks

Table 1. Table 1. Fishing Effort in the NRA in 2016.

Vessel Class	# of fishing vessels	Main Gear	f = Total Fishing Days	Fishing Trip Range	Main Species	Main Divisions
Class 3-4 vessels (less than 500 GT)	5	Longline	175	1-20 days	YEL, HKW, HAL	3NO
Class 5 vessels (500-1000 GT)	20	Trawl	1506	10-84 days	GRO*	3LMNO
Class 6 vessels (1000-2000 GT)	19	Trawl	2147	3-107 days	GRO*	3LMNO
Class 7 vessels (> 2000 GT)	3	Trawl	442	29-109 days	GRO*	3LMNO
Total:	47		4270			

* Mixed of species constituting major species as directed fishery: COD, GHL, RED and SKA.

Table 2. Total reported catches (retained and rejected(t)), by NAFO Division, of regulated and selected non-regulated species in 2016 (Source: CAT reports).

Division	1F	3L	3M	3N	3O	6G	Grand Total
Species (3-alpha FAO code)							
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	0.0	0.0		51.3
RED		4768.7	6593.3	1690.2	8617.6		21669.9
SKA		63.5	50.3	2689.8	706.6		3510.2
WIT		48.1	167.2	57.8	139.1		412.2
YEL		1.3	0.0	4313.3	47.3		4361.9
ALF						127.4	127.4
ANG				9.3	55.0		64.3
CAT		16.4	27.4	9.8	4.3		57.9
HAD		0.0	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
MZZ		115.4	66.3	183.6	907.9		1273.2
Grand Total	49.8	11 709.9	22 782.2	11 335.0	11 407.3	127.4	57 411.6

that had already been closed. As required by the NAFO Conservation and Enforcement Measures (NCEM), the Contracting Parties

of which the vessels belong reported the dispositions and follow-up actions undertaken to address the AIs.



FISHERIES COMMISSION

FISHERY TRENDS

For the period 2004–2016, the overall fishing activities in the NRA show a declining trend, from 134 active vessels in 2004 to 47 in 2016. Similarly, overall fishing days decreased over the same period from 16 480 days to 4 270 days in 2016.

Fig. 1 illustrates the changes in the fisheries in the NRA. Since 2010, the pelagic redfish and shrimp fisheries have declined and both fisheries remain under moratoria — the former since 2012 and the latter since 2015.

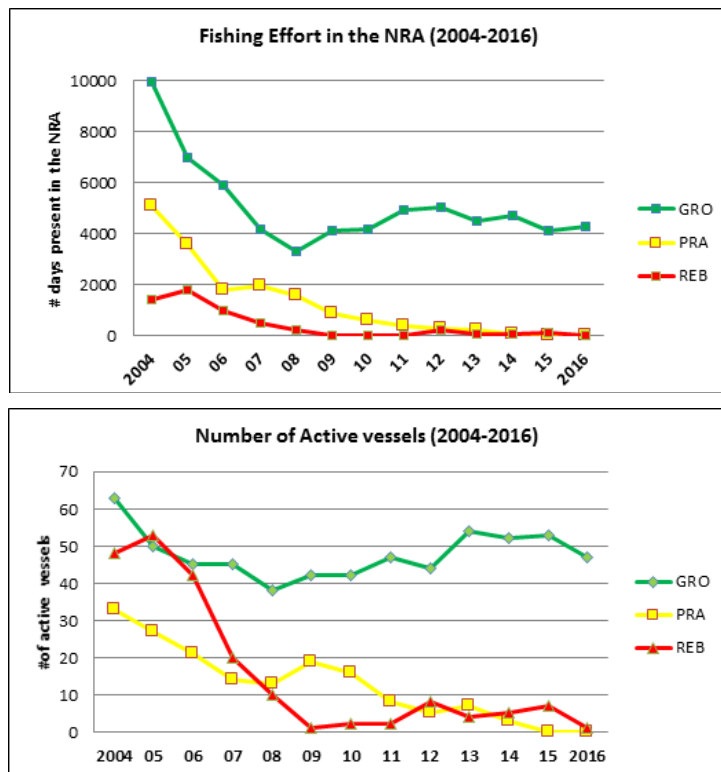


Fig. 1. The number of active vessels (top graph) and the fishing effort (bottom graph) trends from 2004 to 2016 for the groundfish (GRO) and pelagic redfish (REB) fisheries.

SPONGE/CORAL AND SEAMOUNT PROTECTION

In 2016, the Fisheries Commission agreed to create a new area (number 14 in Fig. 2 below) closure on the Eastern Flemish Cap to protect significant concentrations of sea pens. This area will remain closed to bottom trawling activities until 31 December 2018.

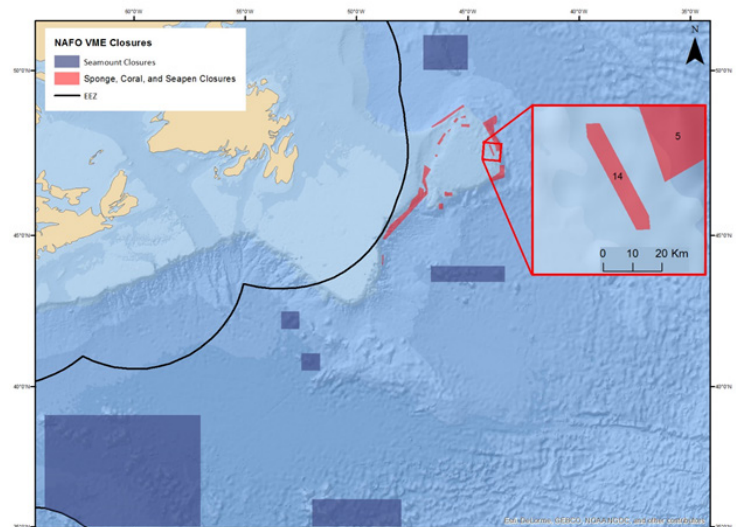


Fig. 2. The NAFO Vulnerable Marine Ecosystem (VME) Protection Areas.

TOTAL ALLOWABLE CATCH (TAC) TABLE 2016 AND 2017

(metric tonnes)

Based on scientific advice, existing moratoria were extended to allow rebuilding of depleted stocks and quotas for other stocks were set by the Fisheries Commission.

Stock/Year	2016	2017
3L Cod	*	*
3M Cod	13 931	13 931
3NO Cod	*	*
3LN Redfish	10 400	14 200
3M Redfish	7 000	7 000
3O Redfish	20 000	20 000
Sub-Area 2 and Div. 1F+3K Redfish	0	0
3LNO American plaice	*	*
3M American plaice	*	*
3LNO Yellowtail flounder	17 000	17 000
3L Witch flounder	*	*
3NO Witch flounder	2 172	2 225
3NO White hake	1 000	1 000
3NO Capelin	*	*
3LNO Skates	7 000	7 000
3LMNO Greenland halibut	10 966	10 966
Sub-areas 3+4 Squid (Illex)	34 000	34 000
3L Shrimp	0	0
3NO Shrimp	*	*
3M Shrimp	*	*

*Moratorium



FC-SC

Joint Fisheries Commission-Scientific Council Working Groups

In 2013, three joint Fisheries Commission-Scientific Council Working Groups (FC-SC WGs) – **NAFO Joint Fisheries Commission Scientific Council Working Group on Catch Reporting (WG-CR)**, **NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS)** and **NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM)** were established in response to the 2011 Performance Review recommendations. Not only do these Working Groups provide a forum for an improved dialogue between fishery managers and scientists, but they address major issues concerning ecosystem approach to fisheries management, risk-based management strategies, and catch reporting in a more holistic manner. In 2016, these WGs continued to meet and provided recommendations to FC and SC relating to the general objective of long term conservation, sustainable use of fishery resources and the safeguard of the marine ecosystems.

Among the 2016 major recommendations from these joint working groups, which the Fisheries Commission adopted, are additional area closures to protect VMEs and the development of catch estimation methods for stock assessment. The work on the new Greenland halibut Management Strategy Evaluation was also initiated in 2016. Documents and reports from the joint WGs are archived in a new series of documents entitled FC-SC Documents and can be found here: www.nafo.int/Library/FC-SC-documents

OTHER WORKING GROUPS

In addition to the joint WGs mentioned above, the *ad hoc* Fisheries Commission Working Group on Bycatches, Discards and Selectivity (WG-BDS) met and developed an Action Plan to address bycatch issues, which was adopted by Fisheries Commission. The WG will continue to elaborate on the Action Plan in 2017.

SCIENTIFIC COUNCIL

STOCK STATUS

NAFO's Scientific Council met during 3 –16 June 2016 at St Mary's University, Halifax, Nova Scotia, Canada, to produce advice to Fisheries Commission and Coastal States on the status of fish stocks, the implementation of NAFO's Roadmap to an Ecosystem Approach, and significant adverse impacts on vulnerable marine ecosystems. Seven of the stocks managed by NAFO received full assessments and the others were subject to interim monitoring.

The full assessments showed that the stock of witch flounder on the northern Grand Bank continues to recover slowly: recruitment during 2013 to 2015 was above average and fishing mortality was low, however the stock remains below the level where fishing can resume. Similarly, the Grand Bank stock of American plaice is recovering slowly but is still estimated to be well below its precautionary reference level.



SCIENTIFIC COUNCIL

The stock of redfish on the southern Grand Bank (3O) appears to have decreased from time series highs in 2012. There is insufficient information on which to base predictions of annual yield but current fishing mortality appears low and historic catches close to recent levels appear to have been sustainable. The redfish stock on the northern Grand Bank (3NL) has recovered strongly from depletion and is now considered to be well above the level that can produce maximum sustainable yield.

The stock of thorny skate on the Grand Bank has been increasing very slowly since the mid-1990s and fishing mortality is currently low. The northern stock component of shortfin squid has been in a state of low productivity since 1982 and surveys indicate that productivity continues to be low. The stock of roughhead grenadier appears to be stable or slightly declining and fishing mortality in recent years has been low.

Interim monitoring was undertaken for the remainder of the stocks managed by NAFO and this gave no indication of significant change in the status of any stock: management advice previously given was therefore considered to still apply.

The Council also considered the work done by the Working Group on Ecosystem Science and Assessment (WG-ESA). This year, SC completed the assessment of the risk of Significant Adverse Impacts (SAI) from bottom fishing activities on vulnerable marine ecosystems (VMEs). The results indicated that both large gorgonians and sponges VMEs have a low overall risk of SAI, while sea pen VMEs were assessed as having a high overall risk of SAI.

In September, the Council met in Bergen, Norway to advise on the status of shrimp stocks. Shrimps on the Grand Bank and Flemish Cap continue to be at low levels, with little sign of recovery.

During the NAFO Annual Meeting in Varadero, Cuba, Scientific Council agreed timetables for their ongoing work on Management Strategy Evaluation (MSE) of Greenland halibut, benchmark assessment of cod on the Flemish Cap and the review of the NAFO Precautionary Approach to Fisheries Management.



Tom Blasdale, Scientific Council Coordinator and Dayna Bell MacCallum, Scientific Information Administrator - June SC meeting 2016.



Katherine Sosebee, Chair of SC, handing Mariano Koen-Alonso his merit award for being Chair of WG-ESA for eight years.

ECOSYSTEM APPROACH

The Scientific Council Working Group on Ecosystem Science and Assessment (WG-ESA) met for their 9th meeting, 17–26 November, at the Portuguese Institute for Sea and Atmosphere (IPMA) in Lisbon, Portugal, to address requests for advice and its standing terms of reference. Over the course of the meeting many items were addressed including the ecosystem “roadmap” and the assessment of impacts other than fishing, as well as significant adverse impacts (SAI) on vulnerable marine ecosystems.

IN MEMORIAM



NAFO was saddened to hear of the passing of Mr. Michael C. S. Kingsley, an active and valued member of the NAFO Scientific Council and the NAFO/ICES *Pandalus* Assessment Group. Mr. Kingsley passed 22 December 2016, age 75, after a long illness.



MEETINGS

NAFO Meetings

January–December 2016

- **2016, NAFO Joint Fisheries Commission-Scientific Council Catch Data Advisory Group (CDAG).** The inaugural meeting was held 16 November 2015 in Dartmouth, Nova Scotia. The final WebEx meeting was adjourned on 7 July 2016
- **11 February 2016, NAFO Scientific Council Survey Working Group,** Virtual (Skype/WebEx)
- **12 February 2016, NAFO Working Group on Improving Efficiency of NAFO Working Group Process** held virtually via Skype/WebEx.
- **15–19 February 2016, ICES – NAFO Working Group on Deepwater Ecology** in Copenhagen, Denmark
- **3 March 2016, NAFO Scientific Council Precautionary Approach Working Group,** Virtual (WebEx).
- **15–16 March 2016, Joint Advisory Group on Data Management** in London, United Kingdom
- **16 March 2016, NAFO Performance Review virtual Working Group** held virtually via Skype/WebEx, additional meetings were held on 28 June 2016, and 29 August 2016
- **4–6 April 2016, NAFO Joint Fisheries Commission-Scientific Council Working Group on Risk-Based Management Strategies (WG-RBMS)** in Tórshavn, Faroe Islands
- **9–11 May 2016, NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting** in London, United Kingdom
- **31 May–1 June 2016, Joint Advisory Group on Data Management (JAGDM)** in Dartmouth, Nova Scotia, Canada
- **3–16 June 2016, NAFO Scientific Council and its Standing Committees** in Halifax, Nova Scotia, Canada
- **28–30 June 2016, NAFO STACTIC Observer Program Review Working Group (WG-OPR)** in Montreal, QC, Canada
- **9 August 2016, NAFO Fisheries Commission Ad Hoc Working Group on Bycatches, Discards and Selectivity (WG-BDS)** in Dartmouth, Nova Scotia, Canada
- **10–12 August 2016, NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM)** in Halifax, Nova Scotia, Canada
- **7–14 September 2016, Scientific Council and NAFO/ICES Pandalus Assessment Group** in Bergen, Norway
- **19–23 September 2016, NAFO 38th Annual Meeting** in Varadero, Cuba
- **17–18 October 2016, NAFO STACTIC Editorial Drafting Group of the NAFO CEM (EDG)** Hafnarfjörður, Iceland



Working Group on Risk-Based Management Strategies (WG-RBMS), 4–6 April, 2016, Reykjavik, Iceland



NAFO Standing Committee on International Control (STACTIC) Intersessional Meeting, 9–11 May 2016, London, United Kingdom



Joint Advisory Group on Data Management (JAGDM), 31 May–1 June 2016, Dartmouth, Nova Scotia, Canada



MEETINGS

- **18–20 October 2016, NAFO STACTIC Observer Program Review Working Group (WG-OPR)** in Hafnarfjörður, Iceland
- **8–17 November 2016, NAFO Scientific Council Working Group on Ecosystem Science and Assessment (WG-ESA)** in Lisbon, Portugal
- Reports of all NAFO meeting are finalized following the meeting end and are posted on the public NAFO website. (www.nafo.int/Publications)



Scientific Council and its Standing Committees, 3 June–16 June, 2016, Halifax, Nova Scotia, Canada



Working Group on Working Group on Bycatches, Discards and Selectivity, (WG-BDS), 9 August, 2016, Dartmouth Nova Scotia Canada



FC-SC Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM), 10–12 August 2016, Halifax, Nova Scotia Canada



Scientific Council and NAFO/ICES Pandalus Assessment Group (NIPAG), 7–14 September 2016, Bergen, Norway



SC Working Group on Ecosystem Science and Assessment (WG-ESA), 8–17 November, 2016, Lisbon, Portugal



MEETINGS

External Meetings January–December 2016

NEAFC Seminar on Allocation Criteria in International Fisheries Management, London (UK), 22 February

Executive Secretary, Fred Kingston, attended the NEAFC Seminar on Allocation Criteria in International Fisheries Management and gave a presentation of NAFO's allocation criteria experience.

FIRMS Technical Working Group Meeting (FIRMS-TWG5) Fifth session, Rome (Italy), 29 February–1 March

Scientific Information Administrator, Dayna Bell, attended the FIRMS Technical Working Group Meeting (FIRMS-TWG5) Fifth session. During the FIRMS-TWG, the group discussed the future perspectives of FIRMS, inventories minimum data requirements, FIRMS stocks and fisheries map viewer and the Global Record of Stocks and Fisheries (GRSF).

BlueBRIDGE Technical Working Group (TWG), Rome (Italy), 1–3 March

Database Manager, Mark Harley, attended the BlueBRIDGE Technical Working Group (TWG). The TWG discussed the Global Record of Stocks and Fisheries, a task under the Horizon 2020 EU funded BlueBRIDGE project, including objectives and overall vision.

International Fisheries Commissions Pension Society (IFCPS) Annual Meeting, Seattle, Washington (USA), 19–21 April

The annual meeting of the International Fisheries Commissions Pension Society (IFCPS) was hosted by the International Pacific Halibut Commission during 19–21 April 2016 in Seattle, Washington, USA. NAFO was represented by Fred Kingston, Executive Secretary, and Stan Goodick, Deputy Executive Secretary/Senior Finance and Staff Administrator. The next annual meeting of the IFCPS will be co-hosted by the Pacific Salmon Commission and the North Pacific Anadromous Fish Commission during 19–21 April 2017 in Vancouver, British Columbia, Canada.

ABNJ Deep Seas Project: 2016 World Wide Review of Bottom Fisheries in the High Seas, Rome (Italy), 3–5 May

Scientific Council Coordinator, Tom Blasdale, attended the Areas Beyond National Jurisdiction (ABNJ) Deep Seas Project: 2016 World Wide Review of Bottom Fisheries in the High Seas. The meeting focused on updating the World Wide Review of Bottom Fisheries in the High Seas produced in 2008 to better reflect the current situation in the deep seas.

Resumed Review Conference on the United Nations Fish Stocks Agreement, New York (USA), 23–27 May

Executive Secretary, Fred Kingston, attended two (2) days of the Resumed Review Conference on the United Nations Fish Stocks Agreement, 23–24 May, 2016.

ARVI International Conference on the Future of Fisheries, Vigo (Spain), 16 June

Senior Fisheries Commission Coordinator, Ricardo Federizon, gave a presentation on the protection of VMEs in the NAFO Regulatory Area at the ARVI (Cooperativa de Armadores de Pesca Del Puerto de Vigo) International Conference on the Future of Fisheries.

Sixth Meeting of the Regional Fishery Body Secretariats Network (RSN-6), Rome (Italy), 9 and 15 July

Executive Secretary, Fred Kingston, attended the Sixth Meeting of the Regional Fishery Body Secretariats Network (RSN-6).

Committee on Fisheries (COFI) - 32nd Session, Italy (Rome), 11–15 July

Executive Secretary, Fred Kingston, attended the 32nd Session of COFI - Committee on Fisheries. He also chaired a side event organized by the FAO on fishery statistics.



RSN, July 2016 - Rome, Italy, FAO Building



MEETINGS

Workshop on implementation of General Assembly resolutions addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, New York (USA), 1-2 August

Senior Fisheries Commission Coordinator, Ricardo Federizon, attended and served as a panelist in the Workshop on the implementation of General Assembly resolutions addressing the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks.

Convention on Biological Diversity Meeting, Seoul (Korea), 26-29 September

Tom Blasdale, Scientific Council Coordinator, attended the meeting, which discussed the Sustainable Ocean Initiative (SOI) - Global Dialogue with Regional Seas Organizations and Regional Fisheries Bodies on Accelerating Progress Towards the Aichi Biodiversity Targets.

Centro de Investigaciones Pesqueras (CIP), Havana (Cuba), 27 September

Executive Secretary, Fred Kingston, visited the Centro de Investigaciones Pesqueras (CIP) in Havana, Cuba.

CIP focuses on the assessment of management, culture and industrial processing of aquatic resources, as well as sustainable management policies, and scientific and technical services.



Photo by IISD/ENB
Angeles Estrada

Executive Secretary, Fred Kingston (centre), attending the Review Conference on the Agreement for the Implementation of the Provisions of the UN Convention on the Law of the Sea of 1982 (UNCLOS), relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, at the UN Headquarters in New York, USA, 23-27 May 2016. Also pictured, Secretary of the North East Atlantic Fisheries Commission (NEAFC), Stefán Ásmundsson (left), and Executive Secretary of the International Commission for the Conservation of Atlantic Tunas (ICCAT), Driss Meski (right).



Executive Secretary, Fred Kingston, visited the Centro de Investigacion Pesqueras in Havana, Cuba.

Featured in the photo (L-R): CIP Director, Dr. Gustavo Arencibia Carballo; NAFO Executive Secretary, Mr. Fred Kingston; Ms. Martha Torres Soroa from the Ministry of the Food Industry; Mr. Raul Bobadilla Gonzalez from the Maritime Fisheries Institute; Mr. Servando V. Valle Gomez from CIP; and Ms. Ofelia Morales Fadrugas from CIP.



SECRETARIAT ACTIVITIES

Secretariat Staff Members 2016

For the period of January – December 2016, the Secretariat was comprised of the following employees:

Executive Secretary	Fred Kingston
Deputy Executive Secretary and Senior Finance and Staff Administrator	Stan Goodick
Senior Fisheries Commission Coordinator	Ricardo Federizon
Scientific Council Coordinator	Tom Blasdale (from 1 March)
Executive Assistant to the Executive Secretary	Lisa LeFort
Scientific Information Administrator	Dayna Bell MacCallum
Fisheries Information Administrator	Jana Aker
IT Manager	Matthew Kendall
Senior Publications Manager	Alexis Pacey
Database Manager	Mark Harley (to 15 August)
Database Developer / Programmer Analyst	DJ Laycock (from 13 September)
Office Administrator	Sarah Guile



Left to right, back row: Jana Aker, Fred Kingston, Ricardo Federizon, Tom Blasdale, Matt Kendall, Alexis Pacey, Lisa LeFort

Front row: Dayna Bell MacCallum, Stan Goodick, DJ Laycock, Sarah Guile

Recruitment

The NAFO Secretariat is pleased to announce the appointment of two new employees in 2016 Mr. Thomas Blasdale, Scientific Council Coordinator, and Mr. DJ Laycock, Database Developer/Programmer Analyst.

TOM BLASDALE

Tom Blasdale began his work at the NAFO Secretariat in March 2016 as the new Scientific Council Coordinator. Tom hails from Aberdeen, Scotland and comes to the Secretariat with over 25 years experience working in fisheries and marine science. He has worked in stock assessment and delivery of advice on the management of commercial fish stocks developed through regular participation in the ICES advisory process, particularly the Working Group on Deep-sea Fisheries Resources (which he chaired from 2008 to 2013) and Working Group on Elasmobranch Fisheries. His extensive experience working at sea includes a period working in the NRA as an EU observer.



Tom provides support for the Scientific Council as well as technical editing of the *Journal of Northwest Atlantic Fishery Science*. His duties focus on the NAFO fishery science by assisting the work of the NAFO Scientific Council and by contributing to a better understanding of NAFO-related scientific topics and research results within and beyond NAFO.

DJ LAYCOCK

In August 2016, after over three years at the NAFO Secretariat, Database Manager, Mr. Mark Harley, said farewell to the Secretariat. Mark's contributions to NAFO were greatly appreciated and we wish him all the best in his future endeavors.

Since then, DJ Laycock began his appointment as Database Developer/Programmer Analyst at the Secretariat in September 2016. DJ has 18 years of experience with developing custom database and software applications for web, desktop and mobile platforms. DJ provides database security, extraction and design, along with maintaining all of the databases housed at the NAFO Secretariat.



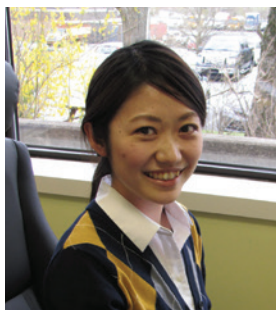
SECRETARIAT

ACTIVITIES

Internships

At the 2011 Annual Meeting, a NAFO Internship Program was adopted by the Organization. Since then five interns have taken part in the program. This year two interns were selected for the NAFO Internship Program. The interns focused on the work of Scientific Council, and Fisheries Commission, respectively. In turn, both interns had the opportunity to experience various meetings of NAFO including various Joint Fisheries Commission-Scientific Council meetings, the June Scientific Council meeting and the NAFO Annual Meeting.

YUMI OKOCHI



Yumi arrived at the NAFO Secretariat for a three-month internship from mid-May to mid-August 2016. She hails from Japan and was previously working on Pacific bluefin tuna biological studies at the National Research Institute of Far Seas Fisheries, Fisheries Research Agency Japan, as an associate researcher. During the course of her internship she had the opportunity to experience the extensive work of NAFO and the NAFO Secretariat.

MARTHA ASTRUP



Martha came to the NAFO Secretariat for a three-month internship from August to late October 2016. She hails from Norway where she worked in the Ministry of Trade, Industry and Fisheries.

During the course of her internship, Martha had the opportunity to gain international experience and contribute to various office duties and research in all areas and functions of the Secretariat

under the supervision of the Senior Fisheries Commission Coordinator and the Fisheries Information Administrator.

Outreach

Media

The Secretariat continued to circulate its annual press releases to a dedicated NAFO media contact list. This year, a press release was circulated shortly after the publication of the report of the June Scientific Council meeting, as well as following the closing of the Annual Meeting. The Secretariat continues to try to increase its outreach including outreach initiatives with various groups and universities and by updating its various social media platforms.

External Relations

During the past year, Executive Secretary - Fred Kingston has participated in meetings to discuss NAFO-related issues, including the following:

- 22 February, provided a presentation on NAFO's allocation criteria experience to a NEAFC *Seminar on Allocation Criteria*, at the NEAFC Headquarters, in London, UK.
- Attended the monthly meetings of the Nova Scotia Consular Corps. About two-thirds of the Consular Corps represent Contracting Parties or Members States of the European Union. At the 18 May meeting, the guest speaker was Ms. Catherine Blewett, then-Deputy Minister to the Premier of Nova Scotia, who was appointed the Canadian Deputy Minister of Fisheries and Oceans starting the following month. At the 19 October meeting, Mr. Kingston, gave a presentation on NAFO.
- 4 November, met with Wendy Watson-Wright of the Ocean Frontier Institute (OFI) at Dalhousie University. The OFI is a Canadian initiative created in 2016 to focus on research on ocean and ecosystem change in the Northwest Atlantic and the Arctic Ocean.
- The Executive Secretary met various times with Mr. Morley Knight, Regional Director General of the Department of Fisheries and Oceans Canada: Maritimes Region.



International Ocean Institute, 2016.





Dalhousie University Marine Affairs Group, 2016.

The Executive Secretary, Fred Kingston also continues to try to strengthen NAFO's relationship with the local academic community, in particular, Dalhousie University in Halifax.

- 9 March, gave a lecture on NAFO to the Law of the Sea class, at the Faculty of Law, Dalhousie University in Halifax, Nova Scotia.
- 8 June, gave a lecture on RFMOs and NAFO to students participating in the International Ocean Institute (IOI)'s 2016 training program on ocean governance at the NAFO Secretariat. The 15 IOI students, from various international backgrounds, had the opportunity to ask questions and learn about the practices of NAFO. The students also had the opportunity to liaise with various Secretariat staff to ask questions on different areas of the Organization and its initiatives.
- 26 October gave an additional lecture on NAFO to another Law of the Sea class, Faculty of Law, Dalhousie University.
- 2 November, gave a presentation on NAFO to Masters students of the Marine Affairs Program at Dalhousie University.

Senior Fisheries Commission Coordinator, Dr. Ricardo Federizon, gave a presentation entitled, *The Protection of Vulnerable Marine Ecosystems in the Northwest Atlantic: NAFO Processes and Regulations*, on the following dates:

- 16 June, at the III ARVI International Conference on the Future of Fisheries, in Vigo, Spain.
- 1 August, at the UN Workshop—Implementation of UNGA Resolutions 64/72 and 66/68: Addressing impacts of bottom fishing on VMEs and Long-Term Sustainability of deep-sea fish stocks, in New York City, USA.

GUESTS TO THE SECRETARIAT

The Secretariat had several visitors over the past year, during various parts of the year, including:

- 4 February, retired members of the Royal Canadian Navy visited the NAFO Secretariat and received a presentation from the Executive Secretary about NAFO.
- 5 February, representatives from the Office of the Auditor General of Canada visited the NAFO Secretariat to inquire about NAFO's relationship and Canada's participation in NAFO.
- 21–23 March, Mr. Matthias Petofalvi from the European Union visited the NAFO Secretariat to meet with the IT Team. During his visit, the EU FLUX transportation layer was installed to allow the e-flow of tow-by-tow data from EU vessels to the Secretariat.
- 20–21 of April, Mr. Jon Lansley (EU) visited the Secretariat to meet with the Fisheries and IT Teams regarding the submission of fishery reports on the MCS website.

The NAFO Secretariat continues to hold smaller working group meetings in its boardroom whenever possible as well as offer the use of the space to affiliated groups for a nominal fee. In the past, universities and Fisheries and Oceans Canada have used the space for meetings including the joint Working Group on the Northwest Atlantic Regional Sea (WG-NARS).

SECRETARIAT ACTIVITIES

INTERNATIONAL OCEANS DAY

The NAFO Secretariat continued to participate in World Oceans Day 2016. Two Secretariat staff members, Jana Aker, Fisheries Information Administrator, and Yumi Okochi, NAFO Intern, attended the local Oceans Day in Halifax, Nova Scotia on 3 June at the Maritime Museum of the Atlantic on the Halifax waterfront.

INFORMATION REQUESTS

The NAFO Secretariat regularly responds to requests from various international sources. During the last year, the Secretariat has responded specifically to:

- Request for input to the UN Secretary-General's Report on oceans and the law of the sea, Part I, pursuant to the UNGA draft resolution A/70/L.22 on "Marine Debris, plastics and microplastics".
- Request for input to the UN Secretary-General's report on the actions of States and regional fisheries management organizations and arrangements addressing the impacts of bottom fishing on vulnerable marine ecosystems.
- Request for contributions to "an inventory of available information on recent and ongoing assessments and other processes at the regional and global levels relevant to the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects," pursuant to paragraph 286 of General Assembly resolution 70/235 on "Oceans and the law of the sea" (provisionally available as A/70/L.22), adopted on 23 December 2015.
- Contribution to the Regional Fishery Body Secretariats Network (RSN) Newsletters.

Throughout the year various simple and informal requests are made to the Secretariat regarding specific information, procedures of NAFO, etc. by students, educational institutes, RFMOs, CPs representatives or other organizations. These are answered as time permits by various members of the NAFO Secretariat.

IT

SECURITY

NAFO implemented encryption for all NAFO laptops to increase security measures including full disk encryption on all travelling laptops that may hold any NAFO data.

SERVER ROOM

This past year, the Secretariat replaced an important end of life server in December. The server's uses include hosting websites, FTP, accounting and SharePoint. The new replacement servers are virtual servers that take advantage of the latest hardware, monitoring and redundancy technologies.



Yumi Okochi and Jana Aker attending Oceans Day, June 2016 at the Maritime Museum of the Atlantic

MONITORING, CONTROL & SURVEILLANCE (MCS) WEBSITE

The NAFO Secretariat has updated the MCS website (mcs.nafo.int) to facilitate the new uploading requirements that were adopted at the 2016 NAFO Annual Meeting (FC Doc. 16-08). Users of the website can now read and upload data (e.g. Observer Reports, Port Inspection Reports, Vessel Transmitted Information, etc.) based on their individual security authorization.

HAUL-BY-HAUL

All Haul-by-Haul information received from the European Union Flag States is now being processed, analyzed and reported for various compliance and scientific meetings.

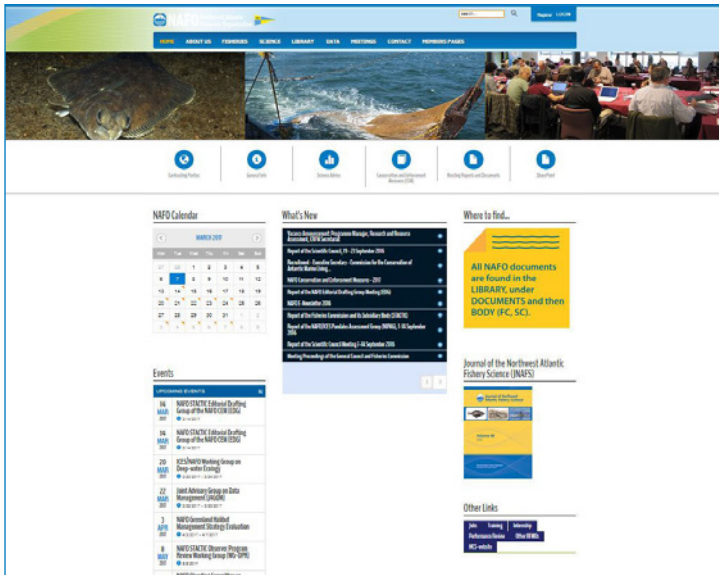
SHAREPOINT

The NAFO SharePoint continues to be a valuable resource allowing access to the meeting documentation before, during and after meeting hours.



NAFO WEBPAGES

NEW NAFO PUBLIC WEBSITE



The NAFO Secretariat web team successfully completed the update of the new NAFO public website (Phase I) and launched it in October 2016. It is a content management system website, which features new elements, such as a calendar and events pages, full search functionality of the website, easy-to-use pages, streamlined content, and a cleaner, refreshed look and feel. Most users have responded positively to the new site. Since the launch, there have been minor adjustments to the search function and additional enhancements have been made regarding ease-of-use.

The ICNAF pages will be transferred over in 2017 and is part of Phase III. The Members' pages will be discussed in 2017 within a small ad hoc working group and is part of Phase II. The working group will decide level of security and access for the members only section and SharePoint. Its recommendations will be available at the 2017 Annual Meeting.

JNAFS WEBSITE

The *Journal of the Northwest Atlantic Fishery Science* published four articles for Volume 48, 2016. There are three articles in review for Volume 49, 2017. There was discussion at the June STACUP meeting during an *ad hoc* working group session to explore an online submission forum to use for the manuscript review process, which would include an online email thread component. This request will be completed for early 2017.

PUBLICATIONS

During the period of January 2016–December 2016, in addition to the many meeting documents and working papers for NAFO meetings, the NAFO Secretariat prepared, posted to the web and/or printed the publications listed below:

NAFO Conservation and Enforcement Measures (188 pages)

NAFO Annual Report 2015
(On-line and a 20-page booklet)

NAFO Meeting Proceedings of General Council and Fisheries Commission for 2015/2016 (372 pages)

NAFO Scientific Council Reports 2016 (450 pages)

Journal of Northwest Atlantic Fishery Science
Volume 48, 2016 (64 pages)

NAFO Rules of Procedure and Financial Regulations
(33 pages - booklet)

Coral, Sponge, and Other Vulnerable Marine Ecosystem Indicator Identification Guide, NAFO Area (91 pages)

Sponge Identification Guide NAFO Area (52 pages)

Coral Identification Guide NAFO Area (37 pages)

Early Stages of Fishes in the Western North Atlantic Ocean by Michael P. Fahay - Two volume monograph. Hardcover.

All publications and documents are available on the NAFO website: www.nafo.int/Publications

ASFA (AQUATIC SCIENCES AND FISHERIES ABSTRACTS)

ASFA inputting and indexing was completed for 2016 documents and publications.

For more information about ASFA view their webpage: www.fao.org/fishery/asfa/en



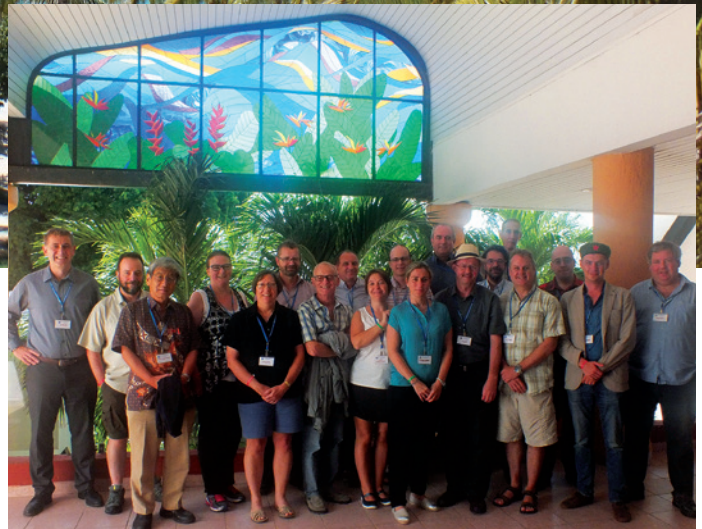
EPILOGUE

HIGHLIGHTS FROM 2016 ANNUAL MEETING



Back Row: Mayda Campos Prieto (Chief of the Secretariat of the Minister's Office), Nora Yong Mena (Cuba), Temur Tairov (Fisheries Commission Chair - Russian Federation)

Front row: Fred Kingston (Executive Secretary), Maria del Carmen Concepción Gonzalez (Minister of the Food Industry of Cuba), Stéphane Artano (NAFO President/Chair of General Council)



Scientific Council - September 2016



STACTIC - September 2016

