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

NAFO Annual Report 2018

NORTHWEST ATLANTIC FISHERIES ORGANIZATION

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A YEAR IN REVIEW

NAFO's second Performance Review was clearly the highlight of another busy year for NAFO. Over the last decade, the international community has taken on board the need to independently review the performance of Regional Fisheries Management Organizations (RFMOs), such as NAFO, on a regular basis to ensure that the RFMO is meeting its objectives and the obligations and principles in international instruments. NAFO's first Performance Review was undertaken in 2011 and one of the objectives of this second Performance Review was to evaluate how NAFO has responded to its first one.

Overall, the Report and its 36 recommendations were positive for NAFO. The Performance Review Panel found that NAFO had developed a “very comprehensive process” to address the recommendations of NAFO's first Performance Review. It also noted many of NAFO's recent positive achievements, including increased transparency, the sustained protection of Vulnerable Marine Ecosystems (VME), improvements in data collection, compliance-based control measures and greater internal and external co-operation. Areas requiring further attention include improving the reliability of catch data, ensuring sufficient resources to handle the increasing science workload, establishing a decision-making framework for the provision of scientific advice, ensuring the practical application of an Ecosystem Approach and responding to external challenges, such as changes to ecosystems, including the impacts of climate change, the cumulative impact of other human activities and overlapping governance regimes in the high seas.

The Performance Review Report was accepted by NAFO at the 2018 Annual Meeting in Tallinn, Estonia. NAFO also agreed to set up a Working Group to develop an action plan to address the Report's recommendations, to be presented to the 2019 Annual Meeting. It was also agreed that the Working Group would include in its action plan the issue related to the cumulative impact of various human activities beyond the mandate of NAFO on the marine environment.

Aside from the Performance Review, other significant decisions made at the 2018 Annual Meeting included:

Fred Kingston, NAFO Executive Secretary, speaking at a side event of the COFI meeting at the FAO Headquarters in Rome, Italy, July 2018
NAFO adopted an exceptional circumstances protocol for NAFO’s Greenland halibut management strategy evaluation (MSE).

NAFO continued its commitment to the conservation of marine biodiversity in NAFO waters by implementing measures to prohibit the directed fishing of Greenland shark and for Contracting Parties to report on efforts to minimize incidental catches and mortalities.

NAFO adopted a comprehensive revision to the NAFO Observer Program to enhance the quality of data being collected by NAFO observers.

NAFO agreed to undertake a management strategy evaluation (MSE) for cod in the Flemish Cap (Division 3M), including setting a Harvest Control Rule (HCR) for the stock, for the next Annual Meeting. This will build on the benchmark assessment of this stock that was held earlier in the year.

NAFO requested the Scientific Council to prepare a 3 to 5 year workplan to reflect requests from the Commission and other scientific work already planned for the near future. The work plan should identify what resources are necessary to successfully address these issues.

COMMISSION

PERFORMANCE REVIEW

At the 2017 Annual Meeting, NAFO agreed to launch its second Performance Review. The first Performance Review took place in 2011 with all of its recommendations having been addressed.

In 2018, the Performance Review Panel composed of three external experts (Bárbara Boechat de Almeida (Legal framework), Jane Willing (Fisheries Management and Coordinator of the Panel) and Poul Degnbol (Fisheries Science)), and three internal experts (James Baird (Canada), Maria Fuentesanta Candela Castillo (EU) and Terje Løbach (Norway)), extensively reviewed NAFO, meeting several times during the year. At the Annual Meeting, the Performance Review Panel Report was presented by the Coordinator of the Panel, Jane Willing, and was accepted by Contracting Parties.

The second Performance Review of NAFO has 36 recommendations to further improve NAFO’s functioning and addressed conservation and management; compliance and enforcement; governance; science; international cooperation; and financial and administrative issues. NAFO also established a working group to develop an action plan to address all the recommendations, which will begin meeting in 2019.

A copy of NAFO’s Performance Review Report and its recommendations can be found on the NAFO website.
NAFO’s 40th Annual Meeting was hosted in Tallinn, Estonia during 17-21 September 2018.

Delegates were welcomed to Estonia by NAFO President, Stéphane Artano, and the Honourable Siim Kiisler, Minister of the Environment of Estonia. Contracting Parties were also welcomed by the Director-General for Maritime Affairs and Fisheries from the European Commission, Mr. João Aguiar Machado, later in the week.

At the meeting, NAFO accepted the Performance Review Panel Report and its 36 recommendations to further improve its functioning. In addition, to the traditional total allowable catch (TAC) and quota decisions, significant decisions were made regarding the following:

- NAFO adopted an exceptional circumstances protocol for NAFO’s Greenland halibut management strategy evaluation.
- NAFO continued its commitment to the conservation of marine biodiversity in NAFO waters by implementing measures to prohibit the directed fishing of Greenland shark and for Contracting Parties to report on efforts to minimize incidental catches and mortalities.
- NAFO adopted a comprehensive revision to the NAFO Observer Program to enhance the quality of data being collected by NAFO observers.
- NAFO agreed to a schedule for the management strategy evaluation (MSE) plan for cod in the Flemish Cap (Division 3M), including setting a Harvest Control Rule (HCR) for the stock, for the next Annual Meeting.

Further details from the Annual Meeting can be found in the meeting press release.
Heads of Delegation

Back row - left to right: Fred Kingston (Executive Secretary), Stéphane Gatto (France – SPM), Temur Tairov (Russian Federation), Kenro Ino (Japan), Michael Pentony (USA), Joannes Vitalis Hansen (DFG), Mads Trolle Nedergaard (DFG), Vitalii Popov (Ukraine), Brian Healey (Chair of Scientific Council).

Front row - left to right: Anders Jessen (European Union), Sigrun Holst (Norway), Stéphane Artano, (NAFO President and Chair of the Commission), Brynhildur Benediktadóttir (Iceland), Nora Yong Mena (Cuba), Sylvie Lapointe (Canada).
Contracting Parties of NAFO

Canada
Cuba
Denmark (in respect of the Faroe Islands and Greenland)
European Union
France (in respect of St. Pierre and Miquelon)
Iceland
Japan
Norway
Republic of Korea
Russian Federation
Ukraine
United States of America

ELECTED OFFICERS

Commission

President of NAFO & Commission Chair
Stéphane Artano
(France-SPM)

Commission Vice-Chair
Temur Taïrov
(Russian Federation)

STACFAD Chair
Deirdre Warner-Kramer
(United States of America)
Sep. 2012–Sep. 2020

STACFAD Vice-Chair
Elise Lavigne
(Canada)

STACTIC Chair
Judy Dwyer
(Canada)
Sep. 2015–Sep. 2019

STACTIC Vice-Chair
Aronne Spezzani
(European Union)

STACTIC Vice-Chair
Aronne Spezzani
(European Union)

STACFIS Chair
Karen Dwyer
(Canada)

STACFEN Chair
Margaret Treble
(Canada)

STACREC Chair
Carmen Fernandez
(European Union)

Scientific Council

Scientific Council Chair
Brian Healey
(Canada)

SC Vice-Chair & STACREC Chair
Carmen Fernandez
(European Union)

STACFIS Chair
Karen Dwyer
(Canada)

STACPUB Chair
Margaret Treble
(Canada)

Photo unavailable: STACFEN Chair, Miguel Caetano, (European Union), Sep. 2018–Sep. 2020
FINANCIAL STATUS UPDATE

The Standing Committee on Finance and Administration (STACFAD) oversees the budget and administrative matters of the Organization. At the 2018 Annual Meeting in Tallinn, Estonia, 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 stable position. Operating cash at year end was at a reasonable level, with outstanding membership contributions for 2018 being at $49,342.

The 2018 operating budget was set at $2.297 million (Table 1) of which $1.897 million was financed through contributions received from its Contracting Parties (Table 2). The NAFO Convention (Article IX.2) establishes a four-part cost sharing formula, including a proportion based on the nominal catches in the Convention Area.

Grant Thornton, audited the 2018 financial statements in accordance with their appointment to audit NAFO’S financial records for the 2016–2020 fiscal periods. Following the recommendation of the auditors, the Organization approved the establishment of a Recruitment and Relocation Fund to cover the costs of incoming and outgoing internationally recruited staff. The fund balance was authorized to be kept at a maximum of $100,000. The current balance in the fund is $48,000 and approximately $12,000 shall be recommended to be transferred into the fund each year, until it reaches the maximum level.

The Committee put forward a budget proposal for the 2019 fiscal year of $2.274 million, representing a decrease of 1.0% over the 2018 budget. The decrease in the 2019 budget can be attributed to the one-off funding in 2018 for NAFO’s second Performance Review.

For increased transparency, STACFAD endorsed making working papers and documents available on the NAFO public website, with the exception of documents deemed restricted (e.g. personnel matters).

The present Chair, Deirdre Warner-Kramer (USA), was re-elected for a two-year term.

The next meeting of STACFAD will be held during the 2019 Annual Meeting of NAFO in Bordeaux, France.

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Table 1. 2018 Operating Budget

<table>
<thead>
<tr>
<th></th>
<th>2018 Budget</th>
<th>2018 Actual Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Benefits</td>
<td>$1,707,000</td>
<td>1,732,656</td>
</tr>
<tr>
<td>Meeting and Travel</td>
<td>236,000</td>
<td>208,798</td>
</tr>
<tr>
<td>Performance Review</td>
<td>93,000</td>
<td>97,797</td>
</tr>
<tr>
<td>Professional Services</td>
<td>51,000</td>
<td>29,071</td>
</tr>
<tr>
<td>Fishery Monitoring</td>
<td>47,000</td>
<td>48,188</td>
</tr>
<tr>
<td>Computer Services</td>
<td>41,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Other</td>
<td>122,000</td>
<td>103,398</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$2,297,000</strong></td>
<td><strong>$2,259,908</strong></td>
</tr>
</tbody>
</table>

Table 2. 2018 Annual Contributions from Contracting Parties

<table>
<thead>
<tr>
<th></th>
<th>2018 Member Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>$853,232</td>
</tr>
<tr>
<td>Cuba</td>
<td>58,138</td>
</tr>
<tr>
<td>Denmark (in respect of Faroe Islands and Greenland)</td>
<td>227,677</td>
</tr>
<tr>
<td>European Union</td>
<td>157,038</td>
</tr>
<tr>
<td>France (in respect of St. Pierre et Miquelon)</td>
<td>61,711</td>
</tr>
<tr>
<td>Iceland</td>
<td>54,807</td>
</tr>
<tr>
<td>Japan</td>
<td>54,807</td>
</tr>
<tr>
<td>Norway</td>
<td>64,202</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>54,807</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>96,681</td>
</tr>
<tr>
<td>Ukraine</td>
<td>54,807</td>
</tr>
<tr>
<td>United States of America</td>
<td>159,399</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,897,306</strong></td>
</tr>
</tbody>
</table>
FISHERIES MANAGEMENT

2018 Fishing Effort

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

In 2018, there were 43 fishing vessels spending approximately 4,100 days in the NRA. Smaller vessels tend to fish for yellowtail flounder and Atlantic halibut in Tail of the Grand Banks, and cod in the Flemish Cap using longline gears. Larger vessels go on much longer fishing trips using bottom trawls in the Nose and Tail of the Grand Banks and in the Flemish Cap directing for cod, Greenland halibut, redfish, and skates.

2018 Catches

TAC TABLE 2018 AND 2019 (METRIC TONS)

<table>
<thead>
<tr>
<th>Stock/Year</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>3L Cod</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3M Cod</td>
<td>11145</td>
<td>17500</td>
</tr>
<tr>
<td>3NO Cod</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3LN Redfish</td>
<td>14200</td>
<td>18100</td>
</tr>
<tr>
<td>3M Redfish</td>
<td>10500</td>
<td>10500</td>
</tr>
<tr>
<td>3O Redfish</td>
<td>20000</td>
<td>20000</td>
</tr>
<tr>
<td>Sub-Area 2 and Div. 1F+3K Redfish</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3LNO American plaice</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3M American plaice</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3LNO Yellowtail flounder</td>
<td>17000</td>
<td>17000</td>
</tr>
<tr>
<td>3L Witch flounder</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3NO Witch flounder</td>
<td>1116</td>
<td>1175</td>
</tr>
<tr>
<td>3NO White hake</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>3NO Capelin</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3LNO Skates</td>
<td>7000</td>
<td>7000</td>
</tr>
<tr>
<td>3LMNO Greenland halibut</td>
<td>12227</td>
<td>12242</td>
</tr>
<tr>
<td>Sub-areas 3+4 Squid (Illex)</td>
<td>34000</td>
<td>34000</td>
</tr>
<tr>
<td>3L Shrimp</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3NO Shrimp</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3M Shrimp</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The annual TACs are agreed by the Commission. TAC decisions are based on scientific advice of the Scientific Council which conducts regular assessment of the fishery stocks. Existing moratoria (TAC = 0) were extended to allow rebuilding of depleted stocks and quotas for other stocks were set by the Commission.
Compliance

**The 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 2018, Canada and the European Union continued to deploy inspection vessels in the NRA and over 100 at-sea inspections were conducted on the vessels during the 2018 fishing trips.

NAFO, through the Standing Committee on International Control (STACTIC), continues to produce an annual review of compliance of the fishing vessels operating in the NAFO Regulatory Area. STACTIC reviews and revises the process of the compliance review to ensure that it highlights specific compliance issues in a given year. The Compliance Review adopted at the 2018 Annual Meeting (for fishing activities in 2017) was completed following the revised template adopted at the 2017 Annual Meeting. The revised template provides STACTIC with additional data sources to support sound conclusions and recommendations. A copy of the Compliance Review can be found on the [NAFO website](www.nafo.int).

**ACTION PLAN IN THE MANAGEMENT AND MINIMIZATION OF BYCATCH AND DISCARDS**

In 2018, NAFO continued to work on the items outlined in the Bycatch and Discards Action Plan that was adopted at the 2017 Annual Meeting. NAFO also continued to examine the feasibility of introducing policies to minimize or eliminate discards in NAFO. STACTIC and WG-BDS presented the coordinated plan at the 2018 Annual Meeting, and this work will continue into 2019.

**NAFO OBSERVER PROGRAM**

At the 2018 Annual Meeting, NAFO adopted a comprehensive revision to the NAFO Observer Program (Article 30 of the NCEM) to enhance the quality of data being collected by NAFO observers (COM Doc. 18-14). The revision of the program was completed by the STACTIC Observer Program Review Working Group and presented to STACTIC, and subsequently the Commission for adoption.
Vulnerable Marine Ecosystems (VMEs) - Areas closed to bottom fishing

In total, there are 20 areas closed to bottom fishing, constituting 6 seamounts, 1 coral zone and 13 VME areas (Fig. 1). Protocols for exploratory fishing in new fishing areas and for encountering VME species are elaborated in Chapter II of the NAFO Convention and Enforcement Measures (NCEM). The VME closures make up 10.34% of the NAFO Regulatory Area (NRA), and the areas subject to the exploratory fishing provisions make up 85.41% of the NRA, leaving 4.25% of the NRA actively open to bottom trawling activities. The VME measures are reviewed by the Scientific Council and the Joint Commission–Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) upon availability of new scientific information.

Fig. 1. NAFO’s current VME closures and seamounts that were adopted at the 2018 Annual Meeting.

JOINT COMMISSION-SCIENTIFIC COUNCIL

In 2018, the NAFO Joint Commission–Scientific Council Working Group on Catch Estimation Strategy Advisory Group (CESAG), the Working Group on Risk-Based Management Strategies (WG-RBMS), and the Working Group on Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) met throughout the year. These Joint Working Groups provide a forum for an improved dialogue between fishery managers and scientists, while addressing major issues concerning the ecosystem approach to fisheries management, risk-based management strategies, and catch reporting in a more holistic manner.

Documents and reports from the joint Working Groups are archived in a series of documents entitled COM-SC Documents and can be found on the NAFO website.
2018 was another very busy year for NAFO’s Scientific Council (SC). In April, SC met in Lisbon, Portugal for a benchmark assessment of the Flemish Cap (NAFO Division 3M) cod stock. This meeting gave an opportunity for a very thorough reexamination of the existing assessment model as well as a number of alternatives, and resulted in the acceptance of a new assessment model for 3M cod based on Bayesian Statistical Catch at Age Analysis (SCAA). The outcomes of the benchmark assessment indicate that the stock is currently at a high level but, due to poor recruitment since 2013 and relatively high natural mortality, it is predicted to decline considerably in the medium term. The benchmarked model has been adopted as the base case operating model to be used in a management strategy evaluation (MSE) for this stock which will be completed in 2019.

At the June 2018 SC meeting, advice was given for 3M cod based on the outcomes of the benchmark meeting. SC advised an increase in total allowable catch to no more than 20,796 tonnes in 2019, but noted that, due to low recent recruitment, substantial declines in stock size are expected over the medium term under any option. A number of the stocks assessed in 2018 remain in a depleted condition and SC continue to advise no directed fishing. Following a slight increase in biomass between 2010 and 2015, the stock of cod on the Grand Bank (NAFO Divisions 3NO) has subsequently declined and remains well below its limit reference point (Blim) while American Plaice in Divisions 3LNO has remained consistently below Blim since the early 1990s with little sign of recovery. The was no indication of recovery of capelin in Divisions 3NO however SC noted that existing surveys do not provide a satisfactory basis for the assessment of this stock.

The stock of witch flounder in Divisions 3NO increased between 1999 and 2010 leading to the reopening of the directed fishery in 2015, however the stock has declined since 2013 and there is presently a 29% risk of the stock being below Blim. As a result, SC recommended no directed fishing on this stock in 2019 and 2020.

In contrast, the stock of yellowtail flounder in Divisions 3LNO has steadily increased since 1994 and is presently 1.5 times the target biomass (Bmsy). There is very low (<1%) risk of the stock being below Blim and recent recruitment appears higher than average. At the request of the Commission, SC conducted a full assessment of redfish in Division 3LN, which is subject to a multi-annual management plan. This indicated that the stock is in the safe zone, with a high probability of biomass being above Bmsy.

The stock of thorny skate in Divisions 3LNO and Subdivision 3Ps has been stable at recent catch levels however, given the low resilience to fishing mortality and higher historic stock levels, SC advised no increase in catches.

Interim monitoring was undertaken for the remainder of the stocks managed by NAFO and did not indicate a change in the status of the stocks for which multi-year advice was provided in 2016 and 2017.

In October, SC met at the offices of the NAFO Secretariat to assess the status of shrimp stocks. In accordance with the agreed assessment schedule, no new assessment was performed for the NAFO shrimp stocks in 2018, however interim monitoring was undertaken. The survey index in Division 3M has shown positive trends since 2014, and the stock now has a low probability of being below Blim. However, considering that the stock remains in a state of impaired recruitment and well below what may be considered healthy levels, the advice for 2019 for no directed fishing was not changed. In Divisions 3LNO, the current years’ survey data indicates that the stock clearly remains in a poor state.

Scientific Council Chairs
Eugene Colbourne (Interim Chair of STACFEN), Brian Healey (Chair of SC), Karen Dwyer (Chair of STACFIS), Tom Blasdale (SC Coordinator), Carmen Fernandez (Vice-Chair of SC & Chair of STACREC), Margaret Treble (Chair of STACPUB).
Ecosystem Approach

The Scientific Council Working Group on Ecosystem Science and Assessment (WG-ESA) met for their 11th meeting, 13–22 November, at the offices of the NAFO Secretariat, to address requests for advice and its standing terms of reference. Over the course of the meeting many items were addressed including the implementation of the ecosystem approach “roadmap”, risk assessments for impacts of trawl surveys on VMEs in closed areas and assessment of NAFO bottom fisheries for significant adverse impacts (SAI) on vulnerable marine ecosystems.
NAFO MEETINGS

Reports of all NAFO meetings are available on the NAFO website.

- 09 February 2018, NAFO Performance Review Panel, WebEx.
- 20–21 March 2018, Joint Advisory Group on Data Management (JAGDM), London, UK.

NAFO Meetings cont’d

Reports of all NAFO meetings are available on the NAFO public website.

- 20 April 2018, NAFO STACTIC Observer Program Review Working Group (WG-OPR), WebEx.
- 02 May 2018, NAFO Performance Review Panel, Skype.
- 02–03 May 2018, NAFO Ad Hoc Working Group on Bycatches, Discards and Selectivity (WG-BDS) in the NAFO Regulatory Area meeting, Dartmouth, Nova Scotia, Canada.
- 08–10 May 2018, NAFO Standing Committee on International Control (STACTIC) Inter-sessional Meeting in Dartmouth, Nova Scotia, Canada.
- 13 June 2018, Performance Review Panel, Skype.
External Meetings

FIRMS Technical Working Group Meeting on the Global Record of Stocks and Fisheries (GRSF), Rome, Italy, 07–09 February 2018
Scientific Council Coordinator, Tom Blasdale, attended the GRSF meeting in Rome, Italy.

BlueBridge Executive Advisory Board Meeting, Brussels, Belgium, 14–15 February 2018
Scientific Council Coordinator, Tom Blasdale, attended the BlueBridge EAB meeting in Brussels, Belgium.

Second meeting of the Sustainable Ocean Initiative (SOI) Global Dialogue with Regional Seas Organizations and Regional Fisheries Bodies on Accelerating the Progress towards the Aichi Biodiversity Targets, Seoul, Republic of Korea, 10–13 April 2018
Executive Secretary, Fred Kingston, attended the SOI Global Dialogue meeting in Seoul, Republic of Korea, and gave a presentation on NAFO’s application of the ecosystem approach and ecosystem-based management.

The Annual Meeting of the International Fisheries Commissions Pension Society (IFCPS), Ann Arbor, Michigan, USA, 17–19 April 2018
NAFO was represented by Fred Kingston, Executive Secretary, and Stan Goodick, Deputy Executive Secretary/Senior Finance and Staff Administrator at the Annual Meeting of the International Fisheries Commissions Pension Society (IFCPS). It was hosted by the Great Lakes Fishery Commission and was attended by representatives of the seven International Fisheries Commissions with headquarters located in Canada and the United States of America. Also attending the meeting were the IFCPS directors appointed by the Governments of Canada and the United States of America.

Executive Secretary, Fred Kingston, attended the UN Fish Stocks Agreement meeting in New York, New York, USA.

The 2018 ASFA Advisory Board Meeting, Oostende, Belgium, 11–15 June 2018
Senior Publications Manager, Alexis Pacey, attended the ASFA meeting in Oostende, Belgium.

The 9th International Fisheries Observer and Monitoring Conference (IFOMC), Vigo, Spain, 11–15 June 2018
Fisheries Information Administrator, Jana Aker, attended IFOMC in Vigo, Spain, and gave a poster presentation, entitled, “Android application for the collection of observer data in the NAFO Regulatory Area” discussing the new AtSea Observer Smartphone Application currently being developed by the NAFO Secretariat.

NASCO Annual Meeting, Portland, Maine, United States of America, 12–15 June 2018
Executive Secretary, Fred Kingston, attended the opening sessions of the NASCO Annual Meeting in Portland, Maine, USA and gave an opening statement.

Regional Fishery Body Secretariats’ Network (RSN) and the 33rd Meeting of the Committee on Fisheries (COFI), Rome, Italy, 07–13 July 2018
Executive Secretary, Fred Kingston, attended both the RSN and COFI meetings in Rome, Italy.

The First Session of the Intergovernmental Conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ), New York, New York, United States of America, 04–17 September 2018
Executive Secretary, Fred Kingston, attended the first two days of this Intergovernmental Conference and made presentations concerning NAFO’s ecosystem approach framework to fisheries management in two side events organized by the FAO.

Second Global Fishery Forum & Seafood Expo 2018, St. Petersburg, Russia, 13–15 September 2018
Executive Secretary, Fred Kingston, participated in the Fishery Forum.
SECRETARIAT ACTIVITIES

SECRETARIAT STAFF

For the period of January – December 2018, 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 Management Coordinator: Ricardo Federizon
- Scientific Council Coordinator: Tom Blasdale
- Senior Executive Assistant: Lisa LeFort
- Scientific Information Administrator: Dayna Bell MacCallum
- Fisheries Information Administrator: Jana Aker
- IT Manager: Matthew Kendall
- Senior Publications Manager: Alexis Pacey
- Database Developer/Programmer Analyst: DJ Laycock
- Office Administrator: Sarah Guile

EXTERNAL RELATIONS

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

- 27 March 2018, met with the DeepSea Conservation Coalition in Halifax, NS, Canada.
- 09–13 July 2018, met with various FAO Officials to discuss NAFO participation in various FAO-led initiatives, including FIRMS, CWP and ASFA in the margins of the COFI meeting in Rome, Italy. On 10 July, the Executive Secretary also participated in a meeting of deep-sea RFMOs organized by the FAO under the ABNJ Deep Seas Project.
- 03 December 2018, met with various members of the Dalhousie Law of the Sea faculty.
- Attended the monthly meetings of the Nova Scotia Consular Corps.

The NAFO Secretariat also continues to strengthen its relationship with the academic community.

- 14 March 2018, Executive Secretary, Fred Kingston, gave a lecture to the Dalhousie University Law of the Sea class in Halifax, Nova Scotia, Canada.
- 04 July 2018, Executive Secretary, Fred Kingston, gave a lecture to the International Ocean's Institute (IOI) class at the NAFO Secretariat in Dartmouth, Nova Scotia, Canada.
- 16 July 2018, Executive Secretary, Fred Kingston, gave a presentation on NAFO to the Master's Program in Sustainable Fisheries Management at the Universitat d'Alacant in Alicante, Spain.
- 06-07 November 2018, Lisa LeFort, Executive Assistant, gave two presentations to the Science 10 class on NAFO at Island View High School in Nova Scotia, Canada.
- 08 November 2018, Jana Aker, Fisheries Information Administrator, and Dayna Bell MacCallum, Scientific Information Administrator, gave a brief presentation about NAFO to the Dalhousie University Marine Affairs Program class in Halifax, Nova Scotia, Canada.

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 ICES Working Group on the Northwest Atlantic Regional Sea (WG-NARS).
Internships

At the 2011 Annual Meeting, the NAFO Internship Program was adopted by the Organization to commence its activities in 2012. The NAFO Intern Program allows students, post graduates or early career individuals from NAFO member countries to work in the NAFO Secretariat as an intern for periods of up to six (6) months. Interns can gain experience and knowledge in operations of NAFO as an intergovernmental organization while the NAFO Secretariat can benefit through the presence of an additional professional and his/her capacity and knowledge.

Since its inception in 2011, eleven interns have taken part in the NAFO Internship Program, with two interns being selected to participate in 2018.

SEBASTIAN GLINDTVAD

Sebastian arrived at the NAFO Secretariat from Denmark at the end of April for a four-month internship. Sebastian had finished his post graduate in biology in November the previous year and specialized in stock and population separation techniques using primarily ear stones. During his education, Sebastian had been on exchange to Greenland and Norway. In his spare time, Sebastian enjoyed the cultural activities Halifax offered and utilized the possibilities of diving along Nova Scotia’s coastline and enjoyed the fauna and flora it presents. During his internship, Sebastian helped with analysis of catch statistics and compliance. He attended the STACTIC Intersessional meeting in May, as well as the Scientific Council meeting in June. Sebastian learned about fishery science and fishery management, while gaining considerable knowledge within statistical programming R and Geographical Information Systems (GIS) software. He also assisted in a SC Research document on Greenland Shark bycatches in the NAFO regulated divisions.

ANTOINE BALAZUC

Antoine began his two-month internship with the Secretariat in early October 2018. He hails from Dieppe, France and holds a Master’s degree with a specialization in fisheries and aquaculture sciences, from Agrocampus-Ouest (Rennes, France). He recently worked as a project manager responsible for marine environment and cohabitation issues with other users at the Regional Fisheries Committee of Normandy (Dieppe, France) and as a project manager of the National Department for Fisheries at the French National Fisheries and Marine Aquaculture Committee (Paris, France). During his internship, Antoine's primary focus was working on the analyses and mapping of the logbook data available at the NAFO Secretariat to facilitate the work of the NAFO Commission Ad hoc Working Group to Reflect on the Rules Governing Bycatches, Discards and Selectivity (WG-BDS) in the NAFO Regulatory Area. Antoine worked to programmatically analyze and map bycatch and discards in the NAFO Regulatory Area and provided the code to the NAFO Secretariat for future use. He also worked on a preliminary mapping project of the lost gear occurrences that have been reported in the NAFO Regulatory Area. Due to his previous experience working as an at-sea fisheries observer, he was also able to provide feedback to the Database Developer/Programmer Analyst on the NAFO Observer Application that is currently in development at the NAFO Secretariat.

MEDIA

The Secretariat continued to circulate its annual press releases to a dedicated NAFO media contact list. This year, a press release was circulated 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.
The NAFO Secretariat regularly responds to requests from various international sources. During the last year, the Secretariat has responded specifically to:

Request for input on:

- UN Secretary-General’s Report on oceans and the law of the sea, pursuant to UNGA’s resolution 72/73 of 5 December 2017, entitled “Oceans and the law of the sea”
- UN Secretary-General’s Report on “Science-policy interface” relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, pursuant to UNGA Resolution 72/72.
- FAO Questionnaire on monitoring the implementation of the 1995 FAO Code of Conduct for Responsible Fisheries, the International Plans of Action on Capacity, Sharks, Seabirds, Illegal, Unreported and Unregulated Fishing and the Strategies for Improving Information on Status and Trends of Capture Fisheries and Aquaculture
- FAO Review of Bottom Fisheries – FAO Major Fishing Area 21
- UN Convention on Biodiversity: Submission of information on the implementation of (i) the Priority Actions to Achieve Aichi Biodiversity Target 10 for Coral Reefs and Closely Associated Ecosystems, (ii) the Voluntary Specific Workplan on Biodiversity in Cold-water Areas within the Jurisdictional Scope of the Convention, and (iii) the Voluntary Practical Guidance on Preventing and Mitigating the Impacts of Marine Debris on Marine and Coastal Biodiversity and Habitats
- EuroFISH Magazine, October 2018
- Contribution to the Regional Fishery Body Secretariats Network (RSN) Newsletters.

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

**DATA BACKUP**
In 2018, NAFO significantly upgraded their backup architecture. Data backup can now be completed much quicker than before. There are now also multiple copies of all data and restoring data can be performed in minutes instead of the next business day.

**MONITORING, CONTROL & SURVEILLANCE (MCS) WEBSITE**
The NAFO Secretariat has updated the MCS website (https://mcs.nafo.int) with a summary report of catches by species and flag state. This new feature displays the summaries of quota uptake in near real time for inspectors.

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

**NAFO SMARTPHONE APPLICATION**
A smartphone application to capture observer information is in development. An at-sea pilot is planned for early 2019 for a few vessels.

**NAFO WEBPAGES**
The Members’ pages redesign was completed in July 2018, which completes the NAFO Re-design project. A big thank goes out to the small ad hoc working group and Secretariat staff that were part of the project. At the 2018 Annual Meeting in Tallinn, Estonia, STACFAD decided that they no longer needed their own security level, therefore those documents and working papers will be publicly available as of 2018, with the exception of those dealing with personnel and confidential matters.

**JOURNAL OF NORTHWEST ATLANTIC FISHERY SCIENCE**
The *Journal of Northwest Atlantic Fishery Science* did not publish Volume 50 for 2018. There are currently two articles published and four in review/production for publishing for 2019. To submit articles, or view past publications, please visit the JNAFS website.

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**Publications**

**During the period of January–December 2018**, 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 following publications:

- **NAFO Conservation and Enforcement Measures 2018** (192 pages)
- **NAFO Annual Report 2017** (20-page booklet)
- **Meeting Proceedings of the Commission September 2017-August 2018** (203 pages).
- **NAFO Scientific Council Reports 2017** (381 pages)
- **Convention on Cooperation in the Northwest Atlantic Fisheries** (46-page booklet)
- **NAFO Performance Review Panel Report 2018** (72 pages)
- **NAFO Rules of Procedure and Financial Regulations 2018** (33-page booklet)

All publications and documents are available on the NAFO website.

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**ASFA (AQUATIC SCIENCES AND FISHERIES ABSTRACTS)**

ASFA inputting and indexing was partially completed for 2018. Outstanding documents and publications will be indexed in early 2019.

The Aquatic Sciences and Fisheries Abstracts (ASFA) database is the premier reference in the field of fisheries, aquatic and marine sciences. Input to the ASFA database is provided by a growing international network of information centers monitoring over 3,000 serial publications, in addition to books, reports, conference proceedings, translations and grey literature covering the science, technology and management of marine, brackish water, and freshwater environments. For more information about ASFA view their [webpage](http://www.fao.org/documents/card/en/c/CA2512EN).
