

INTRODUCTION

In 2010, the NAFO Annual Meeting was held in Halifax, Nova Scotia (Canada) where a number of important decisions were made for the improvement of fisheries conservation and management regime within the NAFO Regulatory Area (NRA). Most of these decisions were developed and formulated by the different NAFO GC, FC and SC WGs and Committee meetings (in total – 15 meetings during 2010).

NAFO decided to conduct a Performance Review by an independent Panel of experts in 2011. The Panel will assess the Performance of NAFO against the objectives set out in the NAFO Convention, and numerous international instruments addressing the Conservation and sustainable management of marine living resources.

The Organization agreed on the management measures for 20 fish stocks in NRA based on scientific advice. A new management strategy with regard to Greenland Halibut defines rules for the annual adjustments of the TAC. This new approach will be implemented by development of Conservation Plans and Rebuilding Strategies for protected and recovering stocks.

NAFO continued to improve the Vessel Monitoring System by incorporating daily catch reporting of all NAFO regulated species. As a result of implementation of the measures adopted by NAFO, the compliance of fishing vessels operating within the NRA has perceptibly increased.

Very serious attention is given to strengthen the conservation and management regime to prevent significant adverse impacts on VMEs in accordance with the UNGA Resolution 61/105 from December 2006. NAFO agreed to extend the closure of six seamounts for the next four years (18 areas are closed for bottom fisheries in total); to implement impact assessments of bottom fishing; and apply comprehensive data collection protocols for coral and sponge species.

It was the first year of my work as Executive Secretary for such a modern, efficient and strong RFMO as NAFO. It is a good chance to address my warm compliments to all members of the NAFO Secretariat team, who work to support all aspects of NAFO business (meetings, publications, conservation and enforcement, science, public relations etc).

With my best wishes to all fishermen, scientists and fisheries managers for 2011!!! quear in review

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Vladimir Shibanov



A year in review: Top left; Opening of NAFO's 32nd Annual Meeting, Halifax, NS. Seated at the front table, Vladimir Shibanov, Executive Secretary, Terje Lobach, President of NAFO, Gail Shea, Fisheries and Oceans Minister for Canada, Jim Baird, Head of Canadian Delegation. View of downtown Halifax from the harbour; Oceans Day display; June Scientific Council Meeting participants, Dartmouth, NS; Heads of Delegation at the 32nd Annual Meeting.



NORTHWEST ATLANTIC FISHERIES ORGANIZATION

Annual Report 2010

This Annual Report summarizes and highlights discussions, decisions and events of NAFO during 2010. It does not replace the detailed NAFO meeting reports (Scientific Council Reports and Meeting Proceedings of the General Council and Fisheries Commission) that are accessible on the NAFO Website.

www.nafo.int



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May 2011

Dr. Vladimir Shibanov Executive Secretary

Vladimir Shibanov first appeared in ICNAF/NAFO Convention waters in 1975 onboard the Research Vessel "Odyssey" conducting the trawl-acoustic survey for the both pelagic and bottom redfish stocks. Since then he has been a NAFO Scientific Council member (1995-2001) and Chair of STACREC, and Chair of Fisheries Commission (2006-2009).



Vladimir began his career as a research scientist

at PINRO (Murmansk, Russia) where he worked with deep-sea species and stock assessment. He then became Leader of the Department of International Cooperation and followed by Deputy Research Director. After 30 years of working in the Russian North he moved to Moscow to join the Ministry of Agriculture as the Head of the Unit of Fisheries. Most recently he has been Deputy Head for the Department of Science and Education of the Federal Agency for Fisheries of the Russian Federation. He has more than 30 years of experience with both field work at sea and participation in numerous international meetings within NAFO, NEAFC and ICES.

He was appointed NAFO Executive Secretary at the 2009 NAFO Annual Meeting and took office at NAFO Headquarters on 4 January 2010.

In accordance with the NAFO Convention his role is to supervise and coordinate the NAFO Secretariat activities, to provide all necessary support and service and to exercise all duties and functions of NAFO as Regional Fisheries Management Organization (RFMO).



ELECTED OFFICERS OF NAFO

General Council

President of the Organization and Chair of the General Council	Terje Lobach (Norway) (re-elected Sep 09)	(
Vice-Chair of the General Council	Vincent Grimaud (EU) (elected Sep 10)	١
Chair of the Standing Committee on Finance and Administration (STACFAD)	Deirdre Warner- Kramer (USA) (elected Sep 10)	(
Vice-Chair of the Standing Committee on Finance and Administration (STACFAD)	Olga Sedykh (Russia) (elected Sep 10)	F (
Fisheries Commission:		F
Chair of the Fisheries Commission	Kate Sanderson (DFG) (elected Sep 09)	C F
Vice-Chair of the Fisheries Commission	Sylvie Lapointe (Canada) (elected Sep 10)	C F
Chair of the Standing Committee on International Control (STACTIC)	Gene Martin (USA) (elected Sep 10)	
Vice-Chair	Stein-Åage Johnsen (Norway) (elected Sep 10)	

Scientific Council:

rway)) (EU)	Chair of the Scientific Council	Ricardo Alpoim (EU-Portugal) (elected Sep 09)
	Vice-Chair of the Scientific Council	Carsten Hvingel (Norway) (elected Sep 09)
sia)	Chair of the Standing Committee on Publications (STACPUB)	Margaret Treble (Canada) (elected Sep 09)
	Chair of the Standing Committee on Fisheries Science (STACFIS)	Joanne Morgan (Canada) (elected Sep 09)
PFG)	Chair of the Standing Committee on Research Coordination (STACREC)	Carsten Hvingel (Norway) (elected Sep 09)
nada) A)	Chair of the Standing Committee on Fisheries Environment (STACFEN)	Gary Maillet (Canada) (elected Sep 09)

PERFORMANCE REVIEW

In 2009 NAFO established a Performance Assessment Working Group (PAWG) to address the establishment of a performance review to identify the strengths and weaknesses in NAFO, as urged by the United Nations General Assembly in its resolution



63/112 on Sustainable Fisheries for Regional Fishery Management Organizations (RFMOs). In 2010 the working group met and the terms of reference for the Performance Review were drafted for approval at the September Annual Meeting.

The objective of the work to be carried out by the Review Panel is to assess the performance of NAFO since 1979 against the objectives set out in the NAFO Convention and other relevant international instruments addressing the conservation and management of marine living resources, with special emphasis on the period since 1995, noting the objectives reflected in the amendments to the Convention adopted by NAFO in 2007. Consideration should be given to the developments in fisheries and ocean management that have taken place during the period covered by the review. The review shall be performed on the basis of the criteria provided and point to achievements, as well as identify areas which could be improved.

The Panel is composed of (see below):

• Three external experts in fisheries management, fisheries science, and Law of the Sea matters, as proposed by FAO/ICES/ UNDOALOS respectively, one of whom shall be the Chair of the Panel to be decided by the Panel. These experts shall not have participated in the work of NAFO, and shall not be a national of any NAFO Contracting Party, and;

NAFO 2010 FINANCIAL \$TATU\$

The Organization ended the 2009 fiscal year in a good financial position – operating cash was at a high level, only one Contracting Party had outstanding contributions and operating expenses were approximately \$155,000 below the 2009 operating budget of \$1,618,000. Deloitte & Touche LLP, Chartered Accountants were appointed to audit the 2009 financial records with the Auditors' Report being distributed to Contracting Parties in April 2010.

The 2010 fiscal year is also on target for projected expenditures to be slightly over the 2010 approved budget of \$1,782,000. The prior year's accumulated surplus balance had \$350,350 deemed to be in excess of the needs of the Organization and that amount was used to reduce 2010 contributions billed to Contracting Parties. The 2010 fiscal year also looks as if it will end off in good financial status with adequate cash to carry the Organization into the next fiscal year. As of 31 August 2010, three Contracting Parties had outstanding contributions totalling \$104,000.

• Four internal experts, with Canada, Denmark (in respect of Faroe Islands and Greenland) (DFG), the European Union (EU) and the Russian Federation to each nominate one panel member with experience and knowledge of NAFO.

In addition, it was agreed that the Chair of STACTIC shall act as a resource person to the Panel, without voting rights.

The Secretariat will provide administrative assistance to the Panel and as agreed the meetings will be held at the NAFO Secretariat Headquarters in Dartmouth, NS, Canada. The Report will be provided by the Panel to the NAFO Secretariat for distribution to Contracting Parties at least 45 days before the 2011 Annual Meeting and subsequently made public on the NAFO website.

PANEL TABLE

External Experts							
Name Field Affiliation							
Fabio Hazin (Chair)	in (Chair) Fisheries Management Associate Professor and Director of the Fisheries and Aquaculture Dept. of the Federal Rural University of Pernambuco, Brazil						
Denzil Miller	Fisheries Science former CCAMLR Executive Secretary						
Milton Haughton	ughton Law of the Sea matters Deputy Executive Director, Caribbean Regional Fisheries Mechanism (CRFM) Secretariat, Belize						
Internal Experts							
Name Contracting Party							
James (Jim) Baird Canada							
Einar Lemche DFG							
John Spencer EU							
Olga Sedykh Russian Federation							
STACTIC Chair							
Gene S. Martin (USA)							

ADMINISTRATION

NAFO HEADQUARTERS AGREEMENT

Canada reported that its domestic approval process for the Headquarters Agreement is proceeding, and will be ready for signature in the coming months.



OBSERVERS

NAFO Headquarters

At the last Annual Meeting (September 2009), it was agreed that the following Contracting Parties will act as NAFO Observers at upcoming meetings: Norway at SEAFO and NAMMCO, Denmark (in respect of Faroe Islands and Greenland) at NEAFC, and USA at NPAFC. Reports by NAFO Observers were presented.

For 2010-2011, Norway will represent NAFO at meetings of the South East Atlantic Fishery Organization (SEAFO) and the North Atlantic Marine Mammal Commission (NAMMCO), Denmark (in respect of Faroe Islands and Greenland) will represent NAFO at the North East Atlantic Fisheries Commission (NEAFC) and the United States of America will represent NAFO at the North Pacific Anadromous Fish Commission (NPAFC).

OBSERVERS TO NAFO MEETINGS

These included Fisheries and Agriculture Organization (FAO), Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), North East Atlantic Fisheries Commission (NEAFC) and North Atlantic Marine Mammal Commission(NAMMCO) representatives. As well the following NGOs attended NAFO meetings as Observers: Ecology Action Centre (EAC), International Coalition of Fisheries Association (ICFA), the World Wildlife Fund (WWF), and the Sierra Club of Canada (SCC). The Pew Environment Group had also been granted Observer status but was unable to attend the Annual Meeting.

PUBLIC INFORMATION

The Secretariat is pleased to announce the development by the Secretariat of a new STATLANT data extraction tool, a new search feature for the Journal of the Northwest Atlantic Fishery Science (JNAFS) website and the digitization of historic NAFO documents for placement on the web.

The Secretariat once again expressed the importance of receiving accurate and timely catch reports and urged Contracting Parties to ensure compliance with the NAFO requirement.

In addition to serving the requirements of Contracting Parties, the Secretariat also continued to provide general information about

NAFO to the public with the use of its website. The website continues to attract viewers on many topics including the IUU list, fishery statistics, the media kit as well as those wishing to read the latest Conservation and Enforcement Measures and access NAFO stock information.

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NAFO 2010 MEETINGS

The year was filled with many meetings including regular meetings of the General Council and its Standing Committee (STACFAD), Fisheries Commission and its Standing Committee (STACTIC) and Scientific Council and its Standing Committees (STACFEN, STACREC, STACPUB and STACFIS).

Fisheries Commission Working Group on Greenland Halibut Management Strategy Evaluation (WGMSE), Brussels, Belgium, 28–29 January 2010

Scientific Council Meeting, by correspondence, March-April 2010

Scientific Council Working Group on Reproductive Potential (WGRP), Athens, Greece, 15–19 March 2010

International Fisheries Commissions Pension Society Annual Meeting, Boston, MA, USA, 8–9 April 2010

General Council Performance Assessment Working Group (PAWG), Halifax, NS, Canada, 26–27 April 2010

STACFAD Working Group, Halifax, NS, Canada, 28–29 April 2010

Fisheries Commission Working Group on Greenland Halibut Management Strategy Evaluation (WGMSE), Halifax, NS, Canada, 2–4 May 2010

Fisheries Commission Working Group of Fishery Managers and Scientists on VMEs (WGFMS), Halifax, NS, Canada, 5–7 May 2010

ICES/NAFO Symposium "Variability of the North Atlantic and its Marine Ecosystems during 2000-2009", Santander, Spain, 10–2 May 2011

STACTIC Intersessional Meeting, Torshavn, Faroe Islands, 18–20 May 2010

Scientific Council and its Standing Committees, Dartmouth, Nova Scotia, Canada, 3–16 June 2010

Fisheries Commission Working Group on Greenland Halibut Management Strategy Evaluation (WGMSE), Halifax, NS, Canada, 16–17 September 2010

NAFO 32nd Annual Meeting, Halifax, NS, Canada, 20–24 September 2010

Scientific Council/NIPAG Meeting on Shrimp Assessment, Copenhagen, Denmark, 20–27 October 2010

Scientific Council WGEAFM, Dartmouth, NS, Canada, 1–10 December 2010

Reports of these meetings are published on the NAFO website at http://www.nafo.int



Informal discussions at the Annual Meeting

NON-NAFO 2010 MEETINGS



NAFO Secretariat Staff members also attended many outside meetings such as FIRMS, CWP, Deep Sea Guidelines, ASFA, AGDC and the International Fisheries Commission Pension Society. Here is a list of meetings attended:

UN Meetings

Since the last Annual Meeting, the Executive Secretary was involved in the following UN activities in an observer capacity: Ninth Round of Informal Consultations of States Parties to the United Nations Fish Stocks Agreement (March 2010) and the 11th Meeting of the UN Open-ended Informal Consultative Process on Oceans and Law of the Sea (June 2010).

Coordinating Working Party on Fishery Statistics (CWP, February 2010)

The 23rd Session of the CWP was held in Hobart, Tasmania, Australia, 22-23 February 2010. The meeting was attended by Ricardo Federizon, Fisheries Commission Coordinator at the NAFO Secretariat. Among the topics relevant to NAFO were: Fishing gear classification, Definition of bycatch, Statistical Data and Metadata eXchange (SDMX), Global Standards on Automated Data Transmission - VMS and Revision of the CWP Handbook. STATLANT 21 issues specific to NAFO concerning its reliability and the manner of reporting were presented by the NAFO representative at the meeting. The complete CWP Report is available at http://www.fao.org/docrep/012/i1642e/ i1642e00.pdf.

Fishery Resources Monitoring System (FIRMS, February 2010)

The 6th Session of the FIRMS Steering Committee was held in Hobart, Tasmania, Australia, 24–26 February 2010. The meeting was attended by Ricardo Federizon, Fisheries Commission Coordinator at the NAFO Secretariat. Among the topics discussed which may be relevant to NAFO were:

Marine Resource Inventory Module – NAFO reported on the Scientific Council classification matrix used for reporting status and trends.

Fisheries Module - NAFO indicated that it can contribute to the Fisheries Module by providing information on management regime, management methods, monitoring system, as well as the fisheries profile. Categories of Fishery Measures — The participants agreed on two general categories: 1) Compliance Measures, e.g. port state controls, VMS, at-sea inspections;



Deep-sea Fisheries Guidelines Workshop, Korea

and 2) Conservation and Management Measures, e.g. quotas and catch limits, closed areas and seasons. Examples in both categories can either be binding or non-binding.

The complete FIRMS Report is available at <u>ftp://ftp.fao.org/fi/DOCUMENT/FIGIS</u><u>FIRMS/2010/report.pdf</u>.

Deep-sea Fisheries Guidelines Workshop (FAO, May 2010)

The "Workshop on the Implementation of the FAO Guidelines for the Management of Deep-sea Fisheries in the High Seas" was organized by FAO, Rome, and hosted by the Department of Fisheries, Korea at the Lotte Hotel, Busan, Korea, on 10–12 May 2010. The meeting was attended by the SC Coordinator Anthony Thompson. The meeting was divided into three major sessions: Management and conservation in areas where a competent RFMO/A is in existence, Protection of Vulnerable Marine Ecosystems (VMEs), and Management and conservation where there are no competent RFMO/As.

Selected discussion points of relevance to NAFO were:

• The meanings of vulnerable, significant, assessment and resource. It was noted

that these are critical terms in the DSF Guidelines and that their meaning and/or quantification need further clarification in order that they be consistently applied.

- Data collection was likewise discussed at length, especially with regard to common standards and to confidentiality. The sensitivities were well appreciated, but it was also noted that a greater degree of data sharing, if it could be achieved, could provide synergistic benefits across the various parties engaged in the fisheries and their management.
- Further definitions of VME indicator species and if these are to include the roaming but uncommon larger fish species sometimes caught as bycatch.
- Capacity building issues were repeatedly noted, though tended to be different according to specific circumstances. In the existing often older RFMOs, where traditional fisheries management has been a focus over the past few decades, it was noticed that increased support for the participation of more ecologists was desirable.
- The requirements for studies on the move-away protocols, the meaning of encounter thresholds, and the effectiveness of the encounter provisions in protecting VMEs. Of further note here were the apparent differences among RFMOs in the reporting of VME encounters according to the presence and type of onboard observer.
- There was considerable discussion centering around the requirements for gear/area specific "impact assessments" in existing and new fishing areas under the DSF Guidelines as being fundamental to "the assessment of significant adverse impact" required by the UNGA Res. 61/105.

When available, the final workshop report will be accessible through the FAO general deep-sea high seas webpage at <u>http://www.</u> <u>fao.org/fishery/topic/4440/en</u>.

Technical Consultations to Develop International Guidelines on Bycatch Management and Reduction of Discards (December 2010)

This meeting, attended by Dr. Ricardo Federizon, FC Coordinator, was held in Rome, Italy, on 4–10 December 2010. Noting that managing bycatch is an integral component of implementing the ecosystem approach to fisheries, the FAO Committee on Fisheries (COFI) at its 28th Session (Rome, Italy, March 2–6, 2009) recommended that a Technical Consultation to Develop International Guidelines on Bycatch Management and Reduction of Discards be convened. In November–December 2009, an Expert Consultation was convened to develop an initial draft of the International Guidelines. The Expert Consultation adopted a draft International Guidelines which was forwarded to the Technical Consultation for review and finalization.

It was acknowledged that it was not possible to develop a standard definition of bycatch because of the very diverse nature of the world's fisheries. There are national differences on how bycatch has been defined. Bycatch is thus characterized by one or the combination of the following:

- Species and sizes not specifically targeted in a fishery
- Species that are protected, endangered or threatened
- Juvenile fish; and
- Organisms for which there is no intended use.

Discards may be comprised of single or multispecies and may be alive or dead when thrown away or slipped. Some examples of the fishery-specific problems of discarding include, inter alia:

- Changes in food chain ecology through discarding dead fish;
- Perceived wastage of fish through discarding; and
- Unsustainable fishing if the amount of discards is not included in the assessment of the status of the fishery and the relevant management plan.

There are 13 sections in the Guidelines. Six sections are specifically relevant to RFMOs as these sections elaborate on the course of action the RFMOs may take:

- Management Framework;
- Bycatch Management Planning;
- Data Collection and Bycatch Assessments;
- Research Development;
- Measures to Manage Bycatch and Reduce Discards; and
- Monitoring, Control and Surveillance (MCS).

Also attended:

PICES (October 2010)

AGDC/PECCOE

(London, October 2010)

International Fisheries Commissions Pension Society (IFCPS) (April 2010)

Aquatic Sciences and Fisheries Abstracts (ASFA) Advisory Board Meeting (July 2010)





SCIENCE

NAFO Scientific Council fully assessed the status of 9 stocks (8 finfish stocks and one invertebrate) for Fisheries Commission, 2 fish stocks for Coastal States, and 2 fish stocks on its own accord. The Council also monitored the status of other 8 fish stocks. The overall picture is one of cautious optimism for the finfish.



NAFO POTENTIAL VULNERABLE MARINE ECOSYSTEMS-IMPACTS OF DEEP-SEA FISHERIES

The NERIEDA expedition was a multidisciplinary research of the sensitive habitats and fishing activities as well as analysis of the fishing resources for the study and protection of the vulnerable ecosystems.

The surveys took place in 2009 and 2010.



Presenter at the Nerieda presentation at the Annual General Meeting







Photos courtesy of the Bedford Institute of Oceanography

The 2009 NAFO Annual Ocean Climate Status Summary for the Northwest Atlantic

The annual Ocean Climate Summary was reviewed for 2009. Numerous international scientific research efforts are underway to enhance the knowledge on benthic habitat, communities and species in the NAFO Regulatory Area.

Bathymetric features of the Northwest Atlantic, the NAFO Convention Area and Historical ICNAF/NAFO Oceanographic Sections



NAFO SCIENTIFIC COUNCIL 2010 Meeting Highlights

Scientific Council Results

The Council met in Dartmouth, NS, Canada from 3–6 June 2010.

The highlights of the regular June Assessment meeting were presented:

For Greenland halibut in SA2 and Div. 3KLMNO, Scientific Council notes that this stock was showing a slow recovery that is below the levels required by the rebuilding plan.

Recovery of the cod in Div. 3M and redfish in Div. 3LN continues from historically low levels and their actual levels allows an advice for increasing the TAC.

American plaice in Div. 3LNO continues to show some increase. Cod in Div. 3NO remains relatively low but has improved in recent years to levels just prior to the moratorium.

Scientific Council has, over the past few years, spent considerable effort in rapidly acquiring knowledge of benthic habitats so ensure that VMEs are protected from Significant Adverse Impacts (SAIs). This current meeting reviewed NAFO's closures of six seamount areas in 2007 and 2008 to bottom-contact fishing gears. Deepsea Remotely Operated Vehicles (ROVs) recently took video footage of both pristine coral areas and areas where corals had been destroyed by bottom contact gears. Concerns were raised over the rapid depletion of indigenous populations of aggregated deep-sea fish species by noncontact gears, with the general conclusion that fish and benthic habitats on seamounts has been impacted significantly and adversely by both bottom-contact and nearbottom fishing gears.

Standing Committee on Fisheries Science (STACFIS):

At the June 2010 meeting, STACFIS reviewed the status of 21 stocks. Full assessments were undertaken for twelve of them. 14 of the 21 stocks are considered to be at a low stock size. There are B_{limis} (below biomass limit) available for 7 stocks, of which 4 are below B_{lim} . Div. 3M Cod and Div. 3LN redfish, both reopened to directed



Scientific Council Meeting, June 2010, Dartmouth, NS, Canada

fishing in 2010, continue to show growth in stock size.

Several stocks under moratoria, Div. 3LNO American plaice, Div. 3NO cod, and Div. 2J3KL witch flounder have shown some recent improvement in stock size but are still considered to be below B_{lim}.

For Div. 3LNO American plaice, a decrease in all survey indices in 2009 resulted in a revision of the previous assessment results and although the stock is still estimated to have been increasing for a number of years, the overall outlook is not as optimistic as it was in 2009.

Standing Committee on Research Coordination (STACREC):

Following the ecosystem based management initiatives within NAFO the need for

coherent analyses of scientific data collected by different Contracting Parties have emerged. This touches on the subjects of 'data sharing' among different institutions and nations at a level for which there is no established practice within NAFO. It was therefore recommended that work be initiated to develop general guidelines and procedures for data sharing.



Standing Committee on Fisheries Environment (STACFEN):

STACFEN is responsible for the assessment of the environment and its effects on marine resources and is used to determine how relationships between ocean climate may be used to help improve the assessment process.

The annual assessment of the environment within the NAFO Convention Area, including large-scale atmospheric, climate and oceanographic variables and based on contributions from West Greenland

> to the Northeast USA Shelf indicated a general return to near normal conditions in 2009 with a few notable exceptions.

STACFEN is continuing to provide an annual web-based ocean climate status summary report (<u>http://www.nafo.</u> <u>int/science/frames/</u> <u>ecosystem.html</u>) to describe environmental

conditions over the NAFO Convention Area (NRA). This summary for the NRA includes an overview of the overall general ocean climate changes. cont'd from page 9

Standing Committee on Publications (STACPUB):

The next symposium issue of JNAFS, Volume 42, will contain submissions of the joint NAFO, NAMMCO and ICES symposium on "*The role of marine mammals in the ecosystem in the 21*st *century*". JNAFS Volume 43, is a regular issue that is currently being compiled.

The success of the web as the primary publication medium continues to promote the Journal worldwide and gives articles the widest possible circulation and readership. JNAFS



continues to adopt modern publication practices and articles now use the **Digital Object Identifier system** (**DOIs**) and are produced electronically in pdf and html formats.

JNAFS is also incorporated in the **Aquatic Sciences and Fisheries Abstracts** (**ASFA**) database.

A **guide to corals** was published as NAFO *Scientific Council Studies* No. 42. This guide was published on waterproof paper, that can be used by observers onboard vessels. An electronic version is also available on the website. A similar **guide to sponges** was prepared and was published in December 2010.



Scientific Council Committee Chairs, Gary Maillet (STACFEN), Margaret Treble (STACPUB), Carsten Hvingel (STACREC), Joanne Morgan (STACFIS), Ricardo Alpoim (SC CHAIR).



Scientific Council members attending the June meeting.





Manfred Stein accepting a merit award from the Scientific Council

FISHERIES

Two stocks previously under moratoria for more than 10 years have been reopened for directed fishing. Atlantic cod on the Flemish Cap (Div. 3M) and Redfish in Div. 3LN will be harvested once again by international fleets. Quotas for these stocks have been allocated using pre-moratoria values. A number of precautionary measures were established to limit bycatches for the cod stock in other fisheries. The current stock status of all other NAFO managed stocks was reviewed and important decisions for the future year were made such as TACS and quotas allocations. The complete NAFO management measures for 2010 can be found in the **Conservation and Enforcement Measures**. Fishing in the NAFO Regulatory Area is subject to more frequent monitoring and reporting through the Vessel Monitoring System.

In 2010 11 additional areas in the NRA have been closed to bottom fishing. 11 significant coral and sponge locations near the Flemish Cap and Nose of the Grand Banks were closed. These are in addition to the other seven closed areas and brings it to a total of 18. This reconfirms NAFO's commitment to protect vulnerable marine habitats and species.

In order to respond to UN calls, a NAFO fishing footprint where bottom fishing has historically occurred was finalized and accepted. The foorprint distinguishes between existing and new fishing areas. An encounter protocol will apply and Contracting Parties



will complete assessments of their bottom fisheries for known or anticipated impacts on VMEs.

In 2009 the number of active vessels in the NAFO Regulatory Area was 62 in total. The number of vessels participating in the pelagic redfish fishery has decreased to one. Total fishing days by all vessels in all fisheries was 5,016 days in 2009. Although the number of atsea inspections remained relatively constant, slightly more citations were issued. Citations issued during port inspections declined to the lowest level in the time series.

ANNUAL QUOTA TABLE AND TACS

Quota Table. Total allowable catches (TAC) and quotas (metric tons) for 2010 of particular stocks in Subareas 1-4 of the NAFO Convention Area. The values listed include quantities to be taken both inside and outside the 200-mile fishing zone, where applicable. Quota allocation schemes were based on the pre-moratoria percentage values.

Species	Cod				Redfish						Amer plai	Yellowtail flounder				
Division/ Contracting Party	3L	зм		% of Cod	f 3M TAC	3N0	3LI	N	% of 3LN Redfish TAC	ЗМ	30	Sub-Area 2 & Div. 1F+3K		NO	ЗМ	3LNO
TOTAL ALLOWABLE CATCH	*	550	0	100	0.0	*	35	00	100.0	10000	20000	12516	*		*	17000
Species		Witch	flounder	r	White hake	Cape	elin	Skate	e	eenland alibut	Squid (lllex)		Shrimp		
Division/ Contracting Party	3	3L	3N0		3NO	3N0		3LNO	3LMN0		MNO Sub-areas 3+4		3L	31	3N0	
		*	*		6000	*		12000	12000 11956		34000		30000	*		



***FISHING BANS CONTINUE**

• Cod	Divisions 3L, 3NO
 American plaice 	Divisions 3LNO, 3M
 Witch flounder 	Divisions 3L, 3NO
· Capelin	Divisions 3NO
· Shrimp	Divisions 3NO

NAFO STOCK STATUS

The NAFO Convention applies to all fishery resources of the Convention Area, with the following exceptions: salmon, tunas and marlins, cetacean stocks managed by the International Whaling Commission or any successor organization, and sedentary species of the Continental Shelf, i.e. organisms which, at the harvestable stage, either are immobile on or under the seabed or unable to move except in constant physical contact with the seabed or the subsoil. (NAFO Convention, Article I) The amended Convention refers to "fishery resources" which means all fish, molluscs and crustaceans within the Convention Area excluding: (i) sedentary species over which coastal States may exercise sovereign rights consistent with Article 77 of the 1982 Convention; and (ii) in so far as they are managed under other international treaties, anadromous and catadromous stocks and highly migratory species listed in Annex I of the 1982 Convention. (Amended Convention, Article I)

	NAFO currently manages two cod stocks in I	Div. 3M and Div. 3NO. The most recent assess	sments were conducted in 2010.							
Cod	In 2010 a directed fishery for cod in Div. 3M was reopened with a Total Allowable Catch (TAC) of 5,500 metric tons. For cod in Div. 3M there has been a significant spawning stock biomass (SSB) increase since 2004, reaching levels much higher than the ones in the first years of the assessment (1988-1995). In 2009 total biomass and abundance continue to remain lower than in those years. A TAC of 10,000 metric tons was set for 2011. A so of 2011, a moratorium on cod in Div. 3NO continues. For cod in Div. 3NO the stock remains relatively low but has improved slightly in recent years to levels just prior to the moratorium. Nevertheless, SSB is still well below Blim. In 2007 a conservation plan and rebuilding strategy for cod in Div. 3NO was adopted and implementation began in 2008.									
	There are three redfish species in the Northwest Atlantic: Acadian redfish, deepwater redfish, and golden redfish, although these differentiations are not usually specified in catch reports. NAFO manages redfish stocks in subarea 2 and Div. 1F+3K, Div. 3LN, Div. 3M and Div. 3O. The most recent assessments for the NAFO managed stocks are from 2009 and 2010.									
Redfish	The fishery in Subarea 2 and Div. 1F+3K is considered a pelagic redfish fishery. This stock straddles with the Northeast Atlantic and the management is shared with NEAFC. The NAFO portion of the TAC was set at 12,516 metric tons for 2010.	In 2010 a fishery was reopened for redfish in Div. 3LN . The biomass of redfish in Div. 3LN is above Bmsy, and the fishing mortality is below Fmsy. For 2011 the TAC is set for 6,000 metric tons	For redfish in Div. 3M , the stock biomass and spawning biomass are increasing, but still at a low level compared to earlier periods. Low fishing mortalities should be maintained so as to promote female spawning stock recovery. The TAC for 2011 is set to 10,000 metric tons.	In Div. 30 redfish catches have averaged about 13,000 tons since 1960 and over the long term, catches at this level appear to have been sustainable. Surveys indicate the stock has increased since the early 2000s. The dynamics of this stock are poorly understood and a predictive assessment can not at present be made. Over the period from 1960 to 2009, catches have surpassed 20,000 tons in only three years. A TAC of 20,000 metric tons was set for 2011.						
	NAFO manages 2 stocks of American plaice	e in Div. 3LNO and Div. 3M. For 2011, there i	s a moratorium on both stocks.							
American plaice	For American plaice in Div. 3M the most recent assessment in 2008 concluded that the stock biomass and the SSB are at very low levels and there is no sign of recovery. The 2010 assessment of Div. 3LNO American plaice found the stock remains low compared to historic levels and although SSB is increasing, it is estimated to be below Blim. There is presently a conservation plan and rebuilding strategy in place for American plaice in Div. 3LNO in respect of reference points, time frames in achieving established targets, harvest control rules, and implementation strategy.									
Witch flounder	NAFO manages two witch flounder stocks in Div. 3L and Div. 3NO, and there is a moratorium in place for these stocks. As of the most recent assessment in 2008 and 2010, all NAFO-managed witch flounder stocks were at a low level.									
Yellowtail flounder	NAFO manages the yellowtail flounder stock in Div. 3LNO . Recent assessment in 2009 concluded that yellowtail flounder stock size has increased slightly since 2002 and is perceived to be at a level well above Bmsy. The TAC was set at 12,734 metric tons for 2011.									
0	Greenland halibut is a traditional fishery species. The biomass increased over 2004-2008 but from 2008-2010 weaker year classes have recruited and caused a decrease in biomass. Recent recruitment has been below average. The TAC for 2011 is 17,185 metric tons in Div. 3LMNO.									
Greenland halibut	In 2003 a rebuilding plan for the Greenland halibut stock in Subarea 2 + Divisions 3KLMNO was adopted with an objective of allowing a stable yield over the long term by setting prescribed quotas in future years. In 2010 NAFO agreed on a Management Strategy Evaluation (MSE) approach for this stock beginning in 2011. A simple model free management strategy was adopted and a harvest control rule (HCR) will adjust the TAC from year to year subject to constraints on a maximum percentage change. The strategy is implemented for four years and will be monitored by the Scientific Council.									
White hake	In 2005, NAFO started managing white hak 2011.	In 2005, NAFO started managing white hake in Div. 3NO. There have been recent declines in stock biomass indices and current low recruitment. The TAC is 6,000 metric tons for								
Thorny skate	Commercial catches of skates comprise a mixture of skate species; however, thorny skate represents about 95% of the skates taken in the catches and it is this species that is assessed. The state of the stock is unclear, but the biomass has been stable from 1996 to 2009 at low levels. The TAC for thorny skate in Div. 3LNO for 2011 is set at 12,000 metric tons.									
	NAFO manages one stock of capelin in Div.	3NO and there is a moratorium for this specie	es.							
Capelin	NAFO recognizes the role that capelin play in the Northwest Atlantic ecosystem as a very important prey species for fish, marine mammals and seabirds. Since 1994, capelin biomass has remained at a low level compared to late 1980s. Considering the importance of capelin as a food source and consistent with the ecosystem approach, the moratorium on Div. 3NO capelin will continue until at least Dec. 31, 2012.									
Northern shortfin squid	The northern shortfin squid (Illex) in Subareas 3-6 (and further south to Florida) are considered to comprise a unit stock and that the current assessment only applies to part of the area. The northern shortfin squid stock remained below the 1982-2008 average during this low productivity period. The TAC for squid in Subareas 3 and 4 for 2011 was set at 34,000 metric tons.									
	NAFO manages shrimp stocks in Div. 3LNO	and Div. 3M . In the mid-1990s NAFO introduc	ced obligatory sorting grids in order to reduce	bycatch in the shrimp fishery.						
Shrimp	In Div. 3M the indices of biomass decreased sharply in 2009 to below B _{im} although exploitation levels have been low since 2005. The stock has entered the collapse zone defined in the Precautionary Approach (PA) framework and recruitment prospects remain poor. This stock has been managed through an effort allocation scheme and for 2011 a moratorium has been declared.									

PUBLICATIONS

Coral Identification Guide

NAFO Area

Sponge Identification Guide NAFO Area

NAFO publications continued to keep the Secretariat busy in 2010 and a complete list of all publications and documentation is available on the web.

In 2009 a *Coral Identification Guide* was published. Accurate reporting of benthic

corals is increasingly important for mapping distributions and for the continued development of sustainable fisheries under the ecosystem approach. This coral identification guide is intended to help those onboard commercial and research fishing vessels to identify and record the various species of coral likely to be commonly encountered in fishing trawls. This was followed in 2010 by

a *Sponge Identification Guide* which will complement the Coral Guide and allow for easier identification of common sponge species.

NAFO continued with its special project of digitizing historic NAFO documents.

LOCAL EVENTS

The NAFO Secretariat celebrated World Oceans Day by participating in the activities held in Halifax, Nova Scotia on Friday, 4 June 2010. The annual exhibition was open to the public on the Halifax Waterfront at the Maritime Museum of the Atlantic. The rain did not deter participants as a combination of inside and outside spaces were available. Participants included the general public; colleagues in other areas of interest; university students and children from local pre-school to high school groups.

The NAFO Executive Secretary, Vladimir Shibanov and FC Coordinator, Ricardo Federizon served as panelist members in Round Table discussions of the International Ocean Institute (IOI) at the Dalhousie University in Halifax in July 2010. A special NAFO activities presentation was given for the participants of 2010 Training Programme on "Ocean Governance: Policy, Law and Management".

As well during 2010 NAFO Staff members met with some external guests. The Deputy

The current work involves digitizing all the meeting documents from 1979 to the present. In conjunction with this an improved search tool is being developed that will allow better access to NAFO historic documents. The search tool is being used on the *Journal of Northwest*

Atlantic Fishery Science website. At present the NAFO Scientific Council Research and Summary documents are available and are being updated as the work progresses.

The Secretariat is pleased to announce the development by the Secretariat of a new STATLANT data extraction tool. This tool provides users access to STATLANT21A data (NAFO Area)

in a user friendly way. Users can choose a "basic query" or an "advanced query". The advanced query allows individual selections of country, division, species and year. The tool allows for the output of data in csv (comma-separated values) format.



Alexis Pacey, Vladimir Shibanov and Lisa Pelzmann attended Oceans Day, held in Halifax, NS.

High Commissioner of the Australian Embassy to Canada, Ms Julie Hecksher discussed NAFO's interactions with CCAMLR, fisheries issues within NAFO and the challenges that NAFO will face in the future. Dale Heisler from the Consulate General in Halifax accompanied by Nikki Brajevich, Fisheries and Environment Officer from the United States Embassy in Ottawa were given an overview of NAFO

LIST OF NAFO PUBLICATIONS

NAFO Conservation and Enforcement Measures (150 pages)

Annual Report for 2009 (booklet – 29 pages)

NAFO *Meeting Proceedings for* 2009/2010 (311 pages)

Scientific Council Reports for 2009 (328 pages)

Scientific Council Studies No. 42 2009. Coral Identification Guide NAFO Area

Scientific Council Studies No. 43 2010. *Sponge Identification Guide NAFO* Area

NAFO *Journal of Northwest Atlantic Fishery Science* Volume 42 (178 pages – uploaded and printed in June 2010)

NAFO *Journal of Northwest Atlantic Fishery Science* Volume 43 (partial - 3 Articles uploaded)

Meeting Documentation CD (GC/FC Proceedings 09–10, SC Reports 2009, NAFO Convention, NCEM 2010, Rules of Procedures, Annual Report 2009)

Rules of Procedure (booklet - 36 pages)

Sponge Identification Guide NAFO Area – a new booklet will be published around December 2010 featuring the various sponges and seamounts in the NAFO area. It will be based on the same style as the Coral Guide. The Bedford Institute of Oceanography is involved with this project.

and discussed current issues. Drs. Shibanov and Thompson (SC Coordinator) met with the WWF to discuss in general terms the shared objectives of sustainable fisheries, rebuilding plans and environmental protection.

NAFO **SECRETARIAT STAFF**

The Secretariat team has changed in 2010 with new appointments, a resignation and retirements.



Dr. Vladimir Shibanov

In 2010, the Secretariat was pleased to welcome Dr. Vladimir Shibanov as the Executive Secretary. He was appointed NAFO Executive Secretary at the 2009 NAFO Annual meeting and took office at NAFO Headquarters on 4 January 2010. In accordance with the NAFO Convention his role is to supervise and coordinate the NAFO Secretariat activities, to provide all necessary support and service and to exercise all duties and functions of NAFO as Regional Fisheries Management Organization (RFMO).



Stanley Goodick

After a change to the NAFO Staff Rules, Stanley Goodick, Senior Finance and Staff Administrator accepted the position of Deputy Executive Secretary.

In February 2010, Barry Crawford, the Secretariat's Senior Publications Manager, retired after 36 years of services. Barry's



Barry Crawford

contribution to the publications of NAFO over the years has been invaluable. We are pleased to welcome Alexis Pacey as the new Publications Manager in March 2010.



Alexis Pacey

Scientific Council Coordinator, Dr. Anthony Thompson, resigned from his position in December 2010. He and his family have decided to return to Sweden. His contribution to the Scientific Council over the past



Dr. Anthony Thompson

five years has been appreciated.

The Office Manger Lisa Pelzmann announced an addition to her family in early January 2011. Lisa began her maternity leave in December and we wish her all the best as she



Lisa Pelzmann

takes some time to adapt to her new family situation.

STAFF COMMITTEE

The NAFO Staff Committee 2011 is once again composed of Bill Brodie (Canada), Deirdre Warner-Kramer (USA) and Bob Steinbock (Canada), who were renominated by NAFO staff and appointed by General Council. The Committee provides advice and mediation in the event that a conflict within the Secretariat cannot be solved internally.





SECRETARIAT STAFF MEMBERS 2010

Vladimir Shibanov Executive Secretary Deputy Executive Stanley Goodick Secretary & Senior **Finance and Staff** Administrator **Fisheries Commission Ricardo Federizon** Coordinator **Scientific Council Anthony Thompson** Coordinator

Senior Personal Assistant to the **Executive Secretary**

Senior Publications

Barry Crawford

Manager Publications Manager

Information Officer IT Manager Fisheries Information Manager Office Manager

Beverly McLoon

(to Feb 2010)

Alexis Pacev (from Mar 2010) **Barbara Marshall**

George Campanis Cindy Kerr

Lisa Pelzmann

ANNUAL MEETING HIGHLIGHTS

FC/GC Chairs, left to right: Mads Nedergaard (STACTIC), Bob Steinbock (STACFAD), Terje Lobach (GC), Kate Sanderson (FC).





Jean-Claude Mahé, SC Chair Ricardo Alpoim, STACREC Chair Carsten Hvingel

Opening of the 32nd Annual General Meeting, Halifax, NS. Seated from left to right: Dr. Vladimir Shibanov – Executive Secretary, Terje Lobach – President of NAFO, Fisheries and Oceans Minister – Gail Shea, and Jim Baird, Head of Canadian Delegation.





Heads of Delegation



Scientific Council



STACFAD



STACTIC





Reception



