

GLOBAL VME DATABASE

By

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(FAO VME Database team)



GLOBAL VME DATABASE

UNGA Res 61/105 para 90

FAO to create a global database of information on VMEs in ABNJ to assist States in assessing any impacts of bottom fisheries on VMEs.

Wide VME definition used

A VME is here taken as any area meeting the FAO DSF criteria that could be impacted by deep-sea bottom fisheries, whether it is:

- known or unknown,
- inside or outside of a fishing area, and/or
- with or without management measures.



CONTENT

VME AND BOTTOM FISHERIES (Published Information)

- VME and bottom fisheries overview
- VME definitions
- Publications and references
- Management body (RFMO/A, States)
- Toolbox

DATA AREA (protected)

- Data and repository
- Industry page

WIKI STYLE USER EDITABLE AREA (under direct control of data owners)

- Contacts and addresses
- Research projects and surveys



VME OUTPUT – online viewing

Corner Seamounts NW Atlantic 2010

DESCRIPTION	EXAMPLE MAP OF VME	MEASURES IN 2010
<p>Physical</p> <p>SC 2007: Consists of 19 peaks with some summits being only 800-900 m deep.</p>		<p>VME encounters</p> <p>In existing bottom fishing areas, encounters with VME indicator species above a threshold value are reported to the Executive Secretary and trigger a 2 nmile move on rule. In new fishing areas, such encounters also result in temporary</p>
<p>Biological</p> <p>SC 2008: Five of the Corner Rise Seamounts have been explored using an ROV and areas of pristine coral as well as evidence of large-scale trawling damage were found on the summits of Kükenthal Peak and Yuliatat Seamount (Waller, R., L. Watling, P. Auster,</p>		<p>VME indicator species</p> <p>Live corals and sponges (Art 5bis)</p>
<p>Fishery</p> <p>SC 2007: The shallow peaks have been heavily fished. Spanish fisheries information available in this area between 2005 and March 2007 (SCR Doc. 07/26) showed that one seamount in particular, and western Corner Rise in general, seem to</p>	<p>Exploratory fishing protocol</p> <p>Exploratory fishing covers all bottom fishing activities (a) outside of the existing bottom fishing area and (b) to fisheries within the existing bottom fishing area that show significant change (Art 1bis). Exploratory fisheries must be conducted</p>	<p>VME encounter thresholds</p> <p>The threshold catch to trigger move on rules in both existing and new fishing bottom fishing areas was a catch per set of 50 kg live corals or 800 kg live sponges. (Art 5bis)</p>
		<p>VME Specific Measures</p> <p>Area closed to bottom fishing from 1 Jan 2007 to 31 Dec 2010. Provisions for exploratory fishery, encounters and temporary closures. (Art 15.5-10)</p>
		<p>Source NAFO CEM 2010</p> <p>NAFO CEM, 2010. Northwest Atlantic Fisheries Organization Conservation and Enforcement Measures. NAFO/FC Doc. 10/1, (updated 17 Dec 2009). 95 pp.</p>

HISTORY WITHIN RFB	NAFO
<p>Bottom Fishing Areas</p> <p>NAFO asked CPs to submit maps of historical fishing identifying areas that have been fished at least twice during 1987-2007 (CEM 2008). Although the existing bottom fishing area has yet to be delimited, the regulations controlling bottom fishing</p>	<p>Management Committee</p> <p>Fisheries Commission</p> <p>Scientific Committee</p> <p>Scientific Council</p>
<p>VMEs</p> <p>NAFO started developing in protocols for protecting vulnerable marine ecosystems from possible significant adverse impacts resulting from the use of bottom contact fishing gears in the NRA in 2006. Initially, four seamount areas were closed as a</p>	<p>Home page</p> <p>www.nafo.int</p> <p>Convention</p> <p>http://nafo.int/about/overview/governan</p>

RFB MEETING REPORTS	
COMMITTEE	Fisheries Commission
Meeting Date	20-24 Sep 2010
Report Summary	FC introduced the NEREIDA project side-event. The NEREIDA conducts multidisciplinary research surveys on vulnerable ecosystems and the effects of fishing activities. The survey is funded by EU-Spain, Canada, EU-United Kingdom and the Russian Federation. Specific objectives include identifying organisms that constitute Vulnerable Marine Ecosystems (VMEs), describing ecology of deep-sea habitats studying distinct features in the area and developing a Geographic Information Systems (GIS) database. Deep-sea Remotely Operated Vehicles (ROVs) took video footage of both pristine coral areas and areas where corals had been impacted by bottom contact gears. [(iv) Ecosystem Considerations]. The six seamount closures were rolled over for four years until 31 December 2014. [(iv.11. Review of seamounts closure). WGFM's VME presented (a) revised Exploratory Fishery Data Collection Form, (b) revised Article 5bis of the NCEM on Interim Encounter Provision, (c) map of existing fishing areas in the NAFO Regulatory area, and (d) updated Chapter 1bis of the NCEM, which were adopted by FC. The (e) revised Article 4bis on Assessment of Bottom Fishing was considered by FC who adopted an alternative proposal (Annex 12. Amendment of Article 4bis of Chapter 1bis – Assessment of Bottom Fishing). FC requested advice from SC on (13) the new information arising from the NEREIDA project, (14) on impacts and the use of GIS and SASI models, and (15) fishery impact assessments [Annex 5. Fisheries Commission's Request for Scientific Advice Nos 13, 14, 15]
Citation	NAFO, 2010. Meeting Proceedings of the General Council and Fisheries Commission for 2010/2011. Section III. Report of the Fisheries Commission, Sep 2010. p. 117-215.
Link Tagged File	NAFO.FC.2010.Sep
Link Source	http://nafo.int/publications/meetpro/2011/fc-sep10.pdf
COMMITTEE	Scientific Council
Meeting Date	20-24 Sep 2010
Report Summary	SC responded to 6 questions from FC during the current meeting that generally related to the advice. [(v.3.a. Seamounts)]. SC noted that the information contained within the report of WGFAFM was presented to Scientific Council at their June 2010 meeting. The information contained within the report of WGFAFM was presented to Scientific Council at their June 2010 meeting. [(v.1. WGFAFM)]. New information was submitted by Russia on the Corner Seamounts and this will be discussed at the December 2010 WGFAFM meeting. [(X.2. VMEs]

Description
Map
(MapViewer)
Measures
History
Management
body
RFB Meeting
reports



OUTPUT - for Print

VME Fact Sheet mockup – July 2012

Source | Citation | XML | Print

Search VME



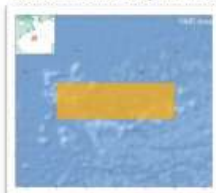
Database on Vulnerable Marine Ecosystems (VME) Corner Rise Seamounts

Owned by Northwest Atlantic Fisheries Organization (NAFO)

Past reports

Geographic reference: **Northwest Atlantic**
Local name: **Corner Rise Seamounts**
Area type: **VME**
Status: **Established**
VME Criteria: **Not specified**
Validity period: **from 2007 up to 2014**
Reporting year: **2012**

Launch the VME map viewer

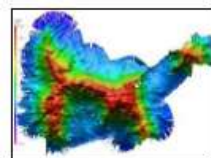


Map legend

Table of contents

Media Collections - Geographic Description - Criteria - VME Indicators and Supporting Information - Habitat Characteristics - Fisheries and other Pressures - Footprints - Management - Source of Information - Bibliography - Related Databases

Media Collections



Geographic Description

Coordinates of closure: 35°00'00"N 48°00'00"W, 36°00'00"N 48°00'00"W, 36°00'00"N 52°00'00"W, 35°00'00"N 52°00'00"W.

VME Fact Sheet mockup – July 2012

Geo References

Intersecting areas

The following areas have been found as intersecting the VME area "Corner rise Seamounts"

- FAO major areas: 21: Atlantic, Northwest
- RFB Competence Area: ICCAT, IWC, NAFO, NAMMCO, NASCO

Proximity

The following areas have been found in the proximity of the VME area "Corner rise Seamounts"

- Large Marine Ecosystem Areas (LME): Scotian Shelf
- MPA: XXX
- EBSA: YYY

Metrics

Area surface: 40 000 Km²

Coordinates: 35°00'00"N 48°00'00"W, 36°00'00"N 48°00'00"W, 36°00'00"N 52°00'00"W, 35°00'00"N 52°00'00"W
Centroid Coordinates: 35°30' N 50°00' W

Criteria

Used Criteria: : Not specified

This area was closed to protect benthic fauna on seamounts as a precautionary measure following UNGA Res. 61/105.

Survey data locations

Aggregation level: 1°x1° degree cell

Description: Free text

Please login to access the survey data location map.

Launch the VME map viewer



Map legend

VME Identification Methodology

Initially this area was closed as a precautionary measure in response to UNGA Res. 61/105. In 2010 the NAFO Scientific Council examined published information and confirmed the available information supports the designation of these areas as vulnerable marine ecosystems. (NAFO SC Report Jun 2010 VII.1.d.v (p. 46)).

Habitat Characteristics

Biological characteristics

Topographical features constituting mega-habitats and host or are likely to host VME habitats including corals, sponges and vulnerable fish species such as alfonsoino spp., orange roughy and silver roughy, wreckfish and cardinal

Physical characteristics

A group of 19 extinct submarine volcanoes in the northwest Atlantic forming part of the Corner Rise Seamount chain. Seabed at c. 5000-5500 m, seamounts rising to c. 1400-800 m. (SCR Doc 07/61).

Geoform: Seamounts
Depth zone: Abyssal, >1000m
Bathymetry: Min 800 m – Max 1400 m
Horizontal distribution: Oceanic
Bottom type:
Climatic zone: Temperate
Water Condition:

Fisheries and other pressures

Fisheries

Fishing activity has existed on the Corner Seamounts for many years, and catches over 10 000 tons were re-moved in the 1970s by USSR vessels, on seamounts both inside and outside the NAFO Convention Area, using a combination of bottom and mid-water trawling. The main species in most of these fisheries was alfonsoino. Fishing since then has occurred sporadically, with reported catches being at much lower levels. There is evidence that fisheries which occurred in the past may not have been sustainable. SC Rep, 2007, p. 35) One seamount was repeatedly fished during 2003-2007 using demersal trawl gear. The most important species in the catches were alfonsoino (*Beryx splendens*), black scabbardfish (*Aphanopus carbo*) and wreckfish (*Polyprion americanus*), comprising 98% of the total catch. (SCR Doc. 07/6, 07/26)

View related Fisheries

Footprints

Description: Free text

Launch the VME map viewer



Map legend

Management

Jurisdictional framework

Management Body/Authority: Northwest Atlantic Fisheries Organization (NAFO)
Mandate: Scientific Advice, Management, Monitoring, Control and Surveillance
Area of Competence: NAFO area of competence
Maritime Area: High Seas.

Management overview

Free text - Overview of Management (kind of policy, rules, status, existence of co-management, etc.) specifically referring to the concerned VME.

VME Objective

Reason for closure: Protection of fragile benthic structure forming fauna, such as hard corals, from SAI by demersal fishing.

Monitoring system

Free text

Related fisheries

- NAFO high seas fisheries (FRMS)
- NAFO Grand Bank groundfish fisheries (FRMS)
- NAFO Flemish Cap groundfish fisheries (FRMS)

Vessel-related measures

Encounter protocols

In the event of an exploratory fishery, the following interim encounter provision would apply:
2009-2012: Cease fishing and move on 2 nmiles when threshold levels are ex-ceeded. Inform Secretariat to request Con-tracting Parties to implement a temporary closure. Reviewed by NAFO Scientific Council.
2008: Cease fishing upon encounter with evidence of VME

Fishing activity-related measures

2011 Rollover of existing measures until 31 Dec 2014. Closed to demersal fishing with possibilities of an exploratory fishing not ex-ceeding 20% of the fishable area of each seamount. (CEM 2011, Art. 15)

Aquatic species-related measures

Free text

Gear-related measures

Free text

Source of information

NAFO Conservation and Enforcement Measures

Bibliography

NAFO Conservation and Enforcement Measures 2012 (NAFO/FC Doc.12/1 S/N N6001)
NAFO/FC Doc. 11/1
NAFO/FC Doc. 10/1

Related Databases

Other data bases or information systems relevant to the VME record.

NAFO Summary Sheets (FRMS)

Citation

FAO. © 2012. Database on Vulnerable Marine Ecosystems (VME). Corner Rise Seamounts. VME Reports. In: FAO Fisheries and Aquaculture Department [online]. Rome. Updated 12 June 2012. [Cited 13 June 2012]. <http://www.fao.org/fishery/vme/12345>



AN OUTPUT - detail explained

Exploratory fishing protocol

Exploratory fishing covers all bottom fishing activities (a) outside of the existing bottom fishing area and (b) to fisheries within the existing bottom fishing area that show significant change. (Art 1bis).
Exploratory fisheries must be conducted according to an exploratory fisheries protocol (Art 3bis; Annex XXV.I-IV) and are

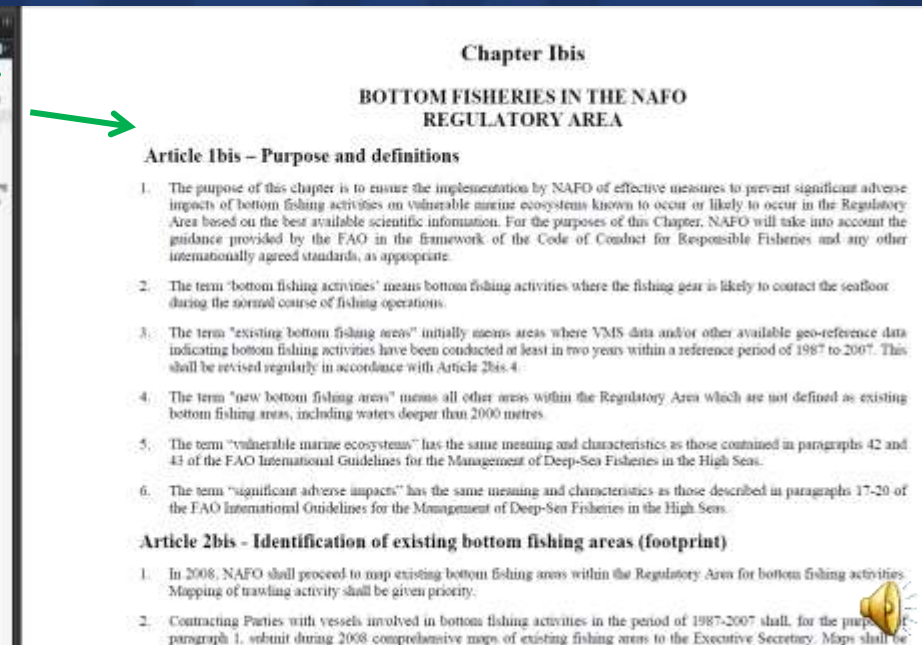
Source [NAFO CEM 2010](#)

Summary texts

References

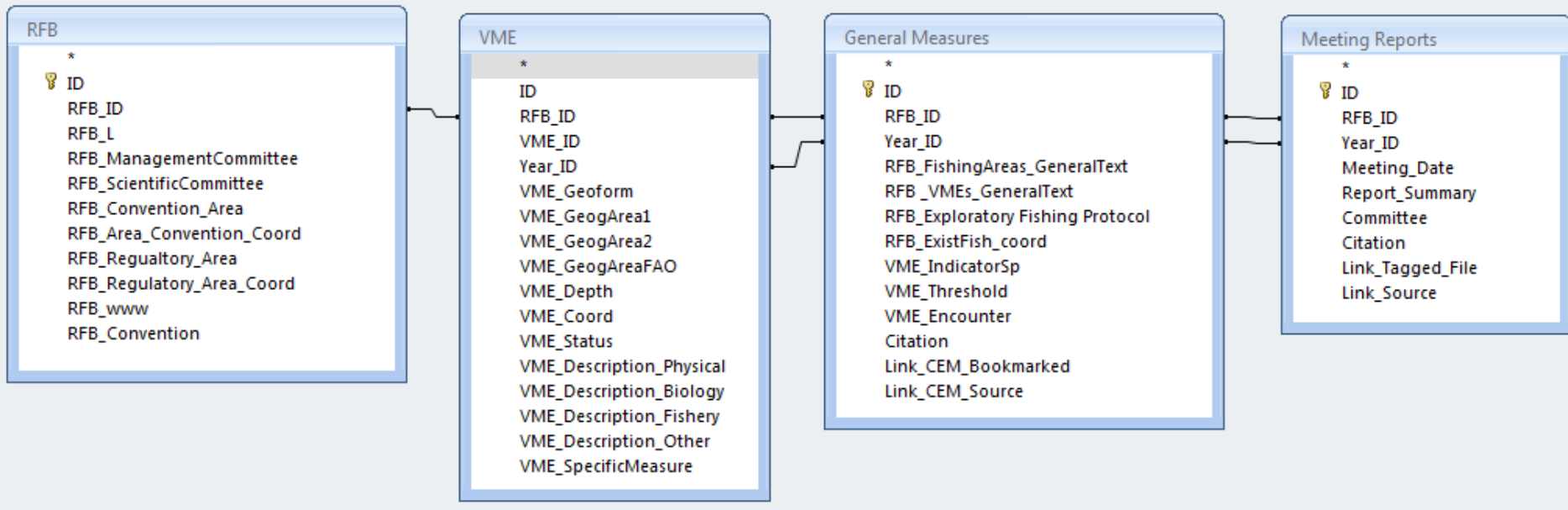
Link to source document in pdf via bookmarks

It is difficult and time consuming to summarise negotiated text. A quick link to the source document allows for the summary text to be reduced. This is quicker to input and directs the user to the source.



INPUT

Input information falls into four categories



RFB: about management body updates Every 3-5 yrs

VME: about a single VME Every 1-3 yrs

General Measures: about rules Every 1 yr

Meeting Reports: about decisions Every 3 -6 mths 📢

CONTENT OPTIONS

-CITATIONS AND REPORTS-

An example from NAFO (2 FC and 3 SC report in 2008)

RFB MEETING REPORTS

COMMITTEE	Fisheries Commission
Meeting_Date	22-26 Sep 2008
Report_Summary	FC received the report of WGFMS VME (2. WGFMS VME Report) and adopted the following measures: Definitions of VME and SA; from the FAO OSP Guidelines, and from 1 Jan 2009, Extend current seasonout measures to include the Fogo Seamounts, Interim Exploratory Fishery Protocol, and Interim Encounter Provisions for Deep Sea VMEs in both fished and unfished areas of the NRA. [Annex 1.3. Preliminary Assessment of the Risk of Significant Adverse Impact (SAI) of Fishing Activities in the NAFO Regulatory Area]. Owing to inconsistencies in the submitted maps of historical bottom fishing activity in the NRA, FC requested CPs to submit them in a standard format where possible (i.e. identification of existing bottom fishing areas (Footprint)). FC requested SC (Item 9) to provide further information on the catch of corals by commercial and research vessels, to map orange distributions, and to provide detailed information on corals and sponges in the "Southern Flemish Pass to Eastern Canyons". [Annex 5. Fisheries Commission's Request for Scientific Advice]
Citation	NAFO. 2008. Meeting Proceedings of the General Council and Fisheries Commission for 2008/2009. Section III. Report of the Fisheries Commission, Sep 2008. p. 107-182.
Link_Tagged_File	NAFO FC 2008 Sep
Link_Source	http://nafo.int/publications/meetproc/2008/FC-sep08.pdf

COMMITTEE	Fisheries Commission
Meeting_Date	30 Apr - 7 May 2008
Report_Summary	Introductory remarks were given by some of the participating CPs and by SAC [Annex 1.8. Introductory Remarks by SAC], SCC [Annex 1.9. Introductory Remarks by SCC] and WWF [Annex 20. Introductory Remarks by WWF]. The Chair introduced UMSA Res 83/2008 [2.5. Review of the UMSA Resolution 81/2005], Agenda Items 14. Assessment Processes for Fisheries and vulnerable marine ecosystems in the context of the Regulatory Area, 15. Measures to mitigate significant adverse impacts on vulnerable marine ecosystems, and 16. Exploratory Fishing Protocol, were discussed together. Ten basic elements of protecting VMEs were established. The new WGRWG was established. Supplementary requests were made to SC to further the management of VMEs. FC adopted new regulations for managing VMEs [Annex 22. New NCEM measures on SA and VMEs].
Citation	NAFO. 2008. Meeting Proceedings of the General Council and Fisheries Commission for 2007/2008. Section III. Report of the Fisheries Commission Inter-Sessional Meeting, Apr-May
Link_Tagged_File	NAFO FC 2008 Apr
Link_Source	http://nafo.int/publications/meetproc/2008/FC-ipc-08a08.pdf

COMMITTEE	Scientific Council
Meeting_Date	22-30 Oct 2008
Report_Summary	SC presented maps of the distribution of pennatulaceans (sea pens), small gorgonians, large gorgonians in the NRA and identified 7 candidate VME areas located mainly on the slope regions around Flemish Cap and Grand Bank. [V.1.e. Coral Concentrations in the NRA]
Citation	NAFO. 2008. Scientific Council Meeting, 22-30 Oct 2008. Scientific Council Meeting Report 2008, p. 247-295.
Link_Tagged_File	NAFO SC 2008 Oct
Link_Source	NAFO SC 2008 Oct

COMMITTEE	Scientific Council
Meeting_Date	22-26 Sep 2008
Report_Summary	SC received submitted maps of fishing activity for Canada, Estonia, Faroe Islands, Greenland, Iceland, Portugal, Svalbard and Russia from the NAFO Secretariat that were intended to identify the existing bottom fishing areas (footprint) within the NRA. The maps were constructed with different resolutions and contained anomalous fishing locations in waters beyond 2000m depth. SC considers that, for a number of reasons, the value of these maps would be much greater if there were separate footprints provided for bottom trawling and for fishing with other kinds of bottom contact gears. [V.2.3. Review of Existing Fishing Areas]
Citation	NAFO. 2008. Scientific Council Meeting, 22-26 Sep 2008. Scientific Council Meeting Report 2008, p. 223-245.
Link_Tagged_File	NAFO SC 2008 Sep
Link_Source	http://nafo.int/publications/meetproc/2008/SC-sep08.pdf

COMMITTEE	Scientific Council
Meeting_Date	9-19 Jun 2008
Report_Summary	2008 Jun. SC provided advice on requests from FC that addressed many of the basic requirements required for protecting VMEs from SA. These included (a) identification of VME and assessment of fishing activity; (b) Adverse impacts of bottom fishing; (c) Methods for monitoring the health of VMEs; (1) Species sensitive and vulnerable to deep-sea fisheries; (2) and (3) identifying areas known to support vulnerable species, communities, or habitats; (4) Locations of VMEs and bottom substrate features; and VME Data Collection Protocol. [VI.1.e.vi Protection of vulnerable marine ecosystems, p 35-47]. SC received a report from WGDCC http://www.ices.dk/reports/AOCM/2008/WGDCC/WGDCC_2008.pdf where they reviewed the FAO OSP Guidelines, updated structure-forming coral and sponge distribution maps in the north Atlantic, with particular reference to the NAFO area in the northwest Atlantic, and addressed aspects of deep-water ecology in 4 ICES-NAFO WGDCC. SC received a report from the WGSFAM and noted that most of its meeting time was spent addressing FC requests (as given above) and it is hoped to address the more strategic issues in its next meeting [K.5. WGSFAM].
Citation	NAFO. 2008. Scientific Council Meeting Report, 9-19 June 2008. Scientific Council Meeting Report 2008, p. 1-22.
Link_Tagged_File	NAFO SC 2008 Jun
Link_Source	http://nafo.int/publications/meetproc/2008/SC-jun08.pdf

Are citations and links to **exact sections** of reports really necessary?

- Allows summaries of negotiated texts to be reduced to informative bullet points?
 - Finds difficult to find source material
 - Gets you to the REAL source text
 - Citable
 - Transparent
 - Access to all regional body reports
-
- And is a little more work inputting
 - Some technical challenges in linking



CONTENT DISPLAY OPTIONS

-YEAR TAGS-

Bottom Fishing Areas

2011: New CM Bottom Fishing Activities drafted and fishing footprint adopted [CM 22-11].

2010: The development of the fishing footprint proceeded using data from EU and Nambian that was in the required format.

Source [SEAFO CM 22-11 Bottom Fishing Activ](#)

or

Exploratory fishing protocol

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Exploratory fisheries must be conducted according to an exploratory fisheries protocol (Art 3bis; Annex XXV.I-IV) and are

Source [NAFO CEM 2010](#)

- Year tag
- Earlier years shown
- Linking issues
- No year tag
- Earlier years not shown
- Box empty if no info in year



LINKS TO OTHER FAO DATABASES

Regional Fishery Bodies (RFB)

Fact Sheets

- perfect
- removes one box from VME online display

FIRMS Fishery Management

Fact Sheets

- Currently more for fish resources
- Would require extending
- Need box in VME online display
- Need links to sections for functionality

FAO Home > Fisheries & Aquaculture

Food and Agriculture Organization of the United Nations
for a world without hunger

Arabic | Español | Français | 中文 | Pycckий

Home | About us | Activities | Statistics | Geoinfo | Meetings and News | Publications | Fact Sheets

Source | Citation | XML | Print

Regional Fishery Bodies (RFB)

Regional Fishery Bodies Summary Descriptions

South Indian Ocean Fisheries Agreement (SIOFA)



- Mission
- Area of competence
- Legal framework
- Organizations involved
- Structure

Mission

Objectives

The objective of the South Indian Ocean Fisheries Agreement (SIOFA) is to ensure the long-term conservation and sustainable use of fishery resources other than tuna in areas that fall outside national jurisdictions.

Functions

A number of concrete actions must be taken under the Agreement, including:

Fishery Resources Monitoring System

Home | Site map | Email us

Fishery Fact Sheet

Management report 2009

Northeast Atlantic NEAFC high seas fisheries, 2009

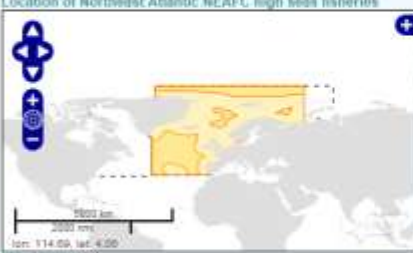
NEAFC existing high seas fisheries

Owned by North-East Atlantic Fisheries Commission (NEAFC) [more>>](#)

Related observations

Overview: The Contracting Parties of NEAFC updated the 1980 Convention in 2004 (dispute settlement procedures) and 2005 (bringing the Convention into line with developments in international law since the 1980) [more>>](#)

Location of Northwest Atlantic NEAFC high seas fisheries



APPROACH: JURISDICTIONAL

Jurisdictional framework
Management Body/Authority(ies): North-East Atlantic Fisheries Commission (NEAFC)
Mandate: Management; Monitoring; [more>>](#)
Area of Competence: NEAFC area of competence
Maritime Area: High seas

Geographic reference: Northeast Atlantic
Spatial Scale: Regional

Table of Contents
[Overview](#) - [Fishing Activity](#) - [Management](#) - [Source of Information](#)

Fishing Activity

Fishery Area

Geo References for: Northeast Atlantic [↔](#)

THANK YOU

