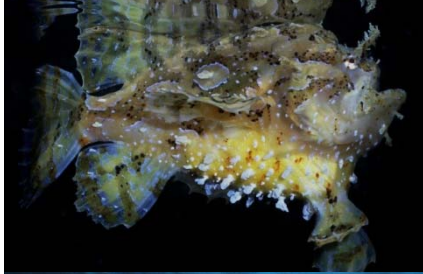


The Sargasso Sea Commission

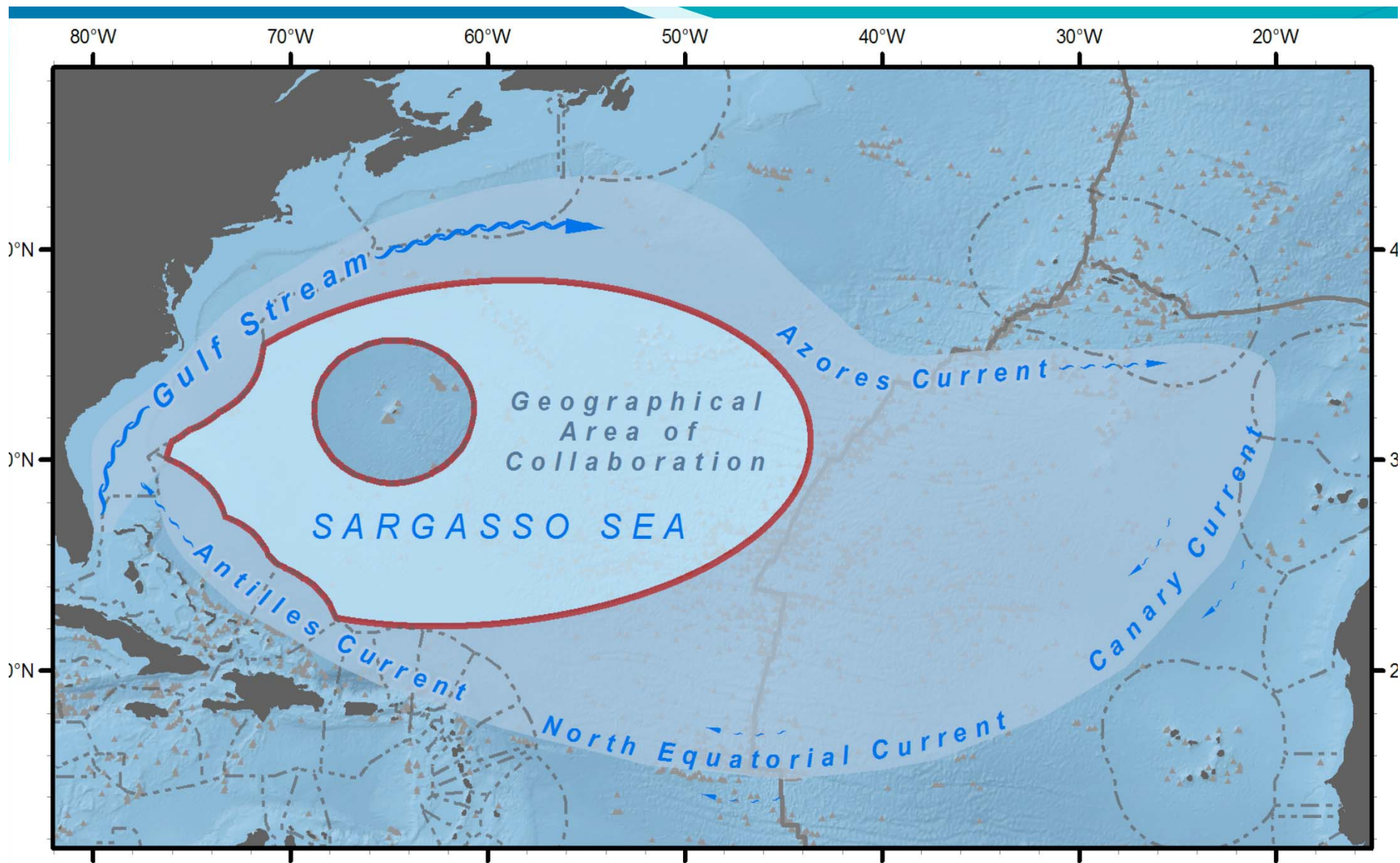
An innovative approach to the conservation
of areas beyond national jurisdiction

Dr. David Freestone
Executive Secretary
Sargasso Sea Commission




Today's Presentation


1. Background to the Sargasso Sea Project
2. Sargasso Sea Commission and its work programme
3. Pioneering work of the SAFMC
4. Conclusions



 Sargasso Sea Geographical Area of Collaboration

 Seamount

 North Atlantic Gyre

 Mid-Atlantic Ridge

 EEZ

Aims of the Sargasso Sea Project

Led by the Government of Bermuda to build a network of international partners to

- Achieve international recognition of the global importance of the Sargasso Sea
- Work with existing international and sectoral organisations to achieve better protection for the Sargasso Sea in accordance with the Law of the Sea Convention
- Use this experience as an indication of what is possible and not possible under current regime for ABNJ

Why is the Sargasso Sea Important ?

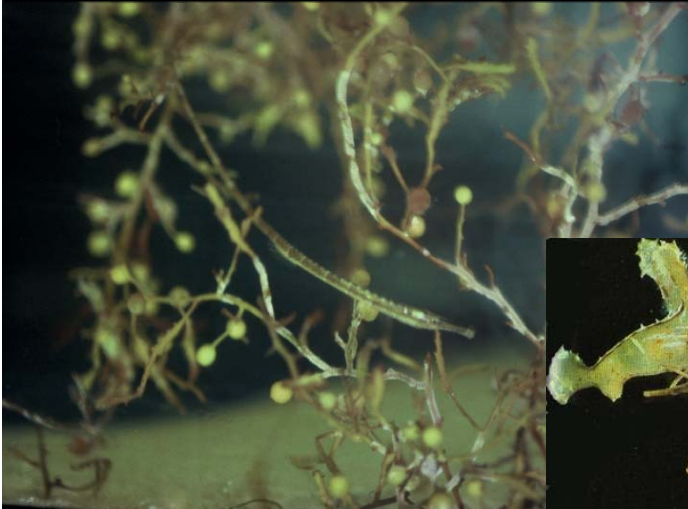


- Unique open-ocean sargassum-based ecosystem. Mostly High Seas
- Important for life history of many species (eels, turtles, tuna, billfish, sharks, etc.)

Sargassum Endemics — 145 invertebrate species



©David Shale



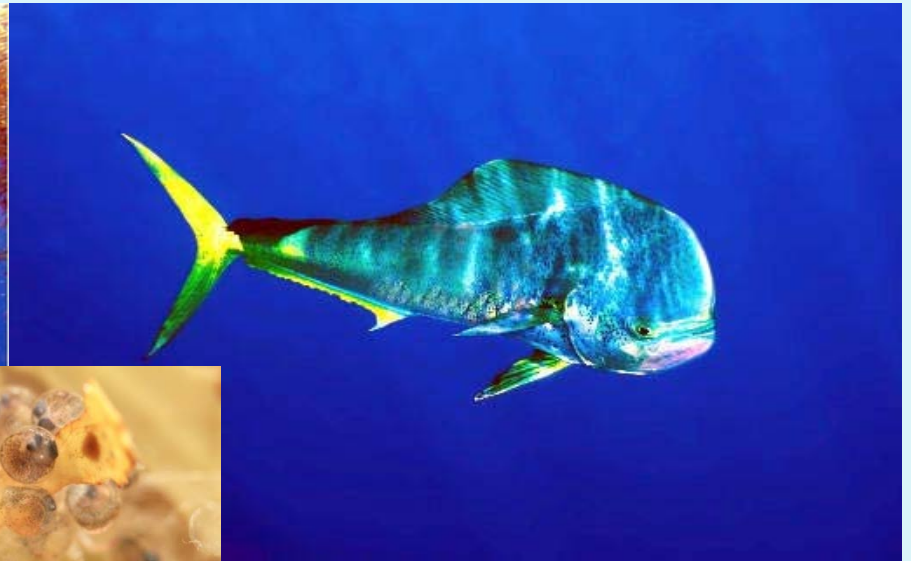
SARGASSO SEA
COMMISSION

Iconic species



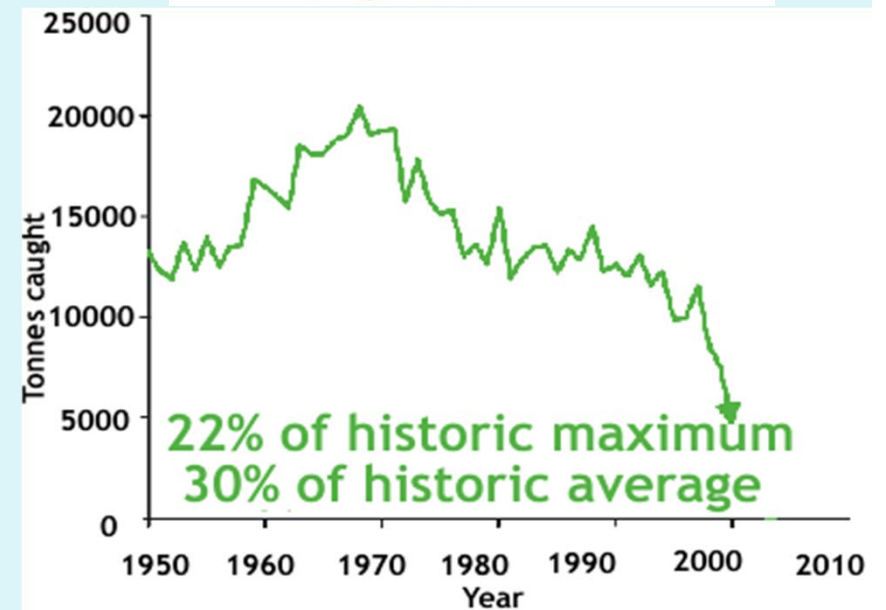
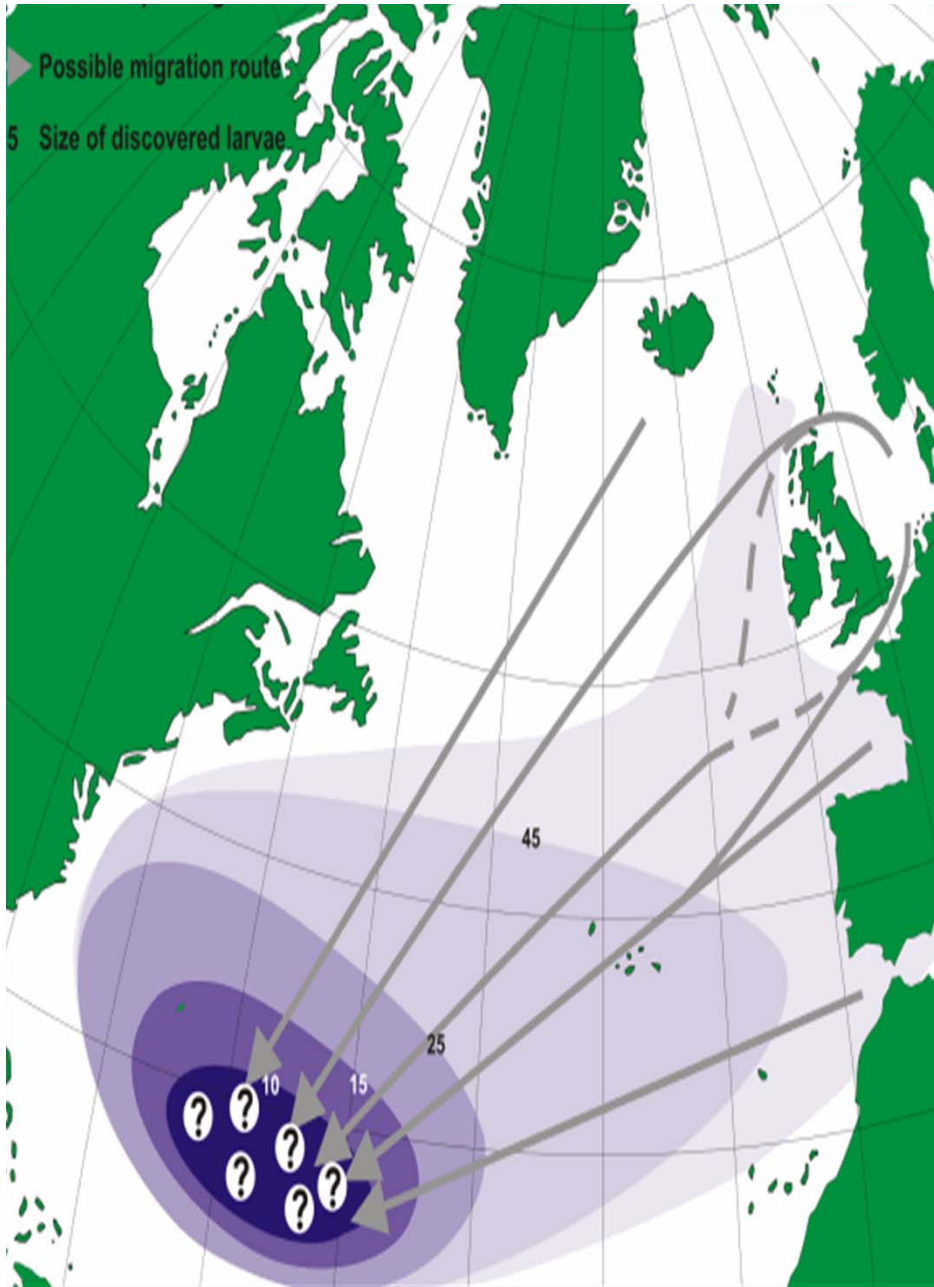
SARGASSO SEA
COMMISSION

Nursery/Feeding area: >80 fish species



SARGASSO SEA
COMMISSION

Global Connections



- Catches of yellow and silver eels in EC

Threats

Garbage and plastics

Pollution, discharges, spills

Fishing

Sargassum harvesting

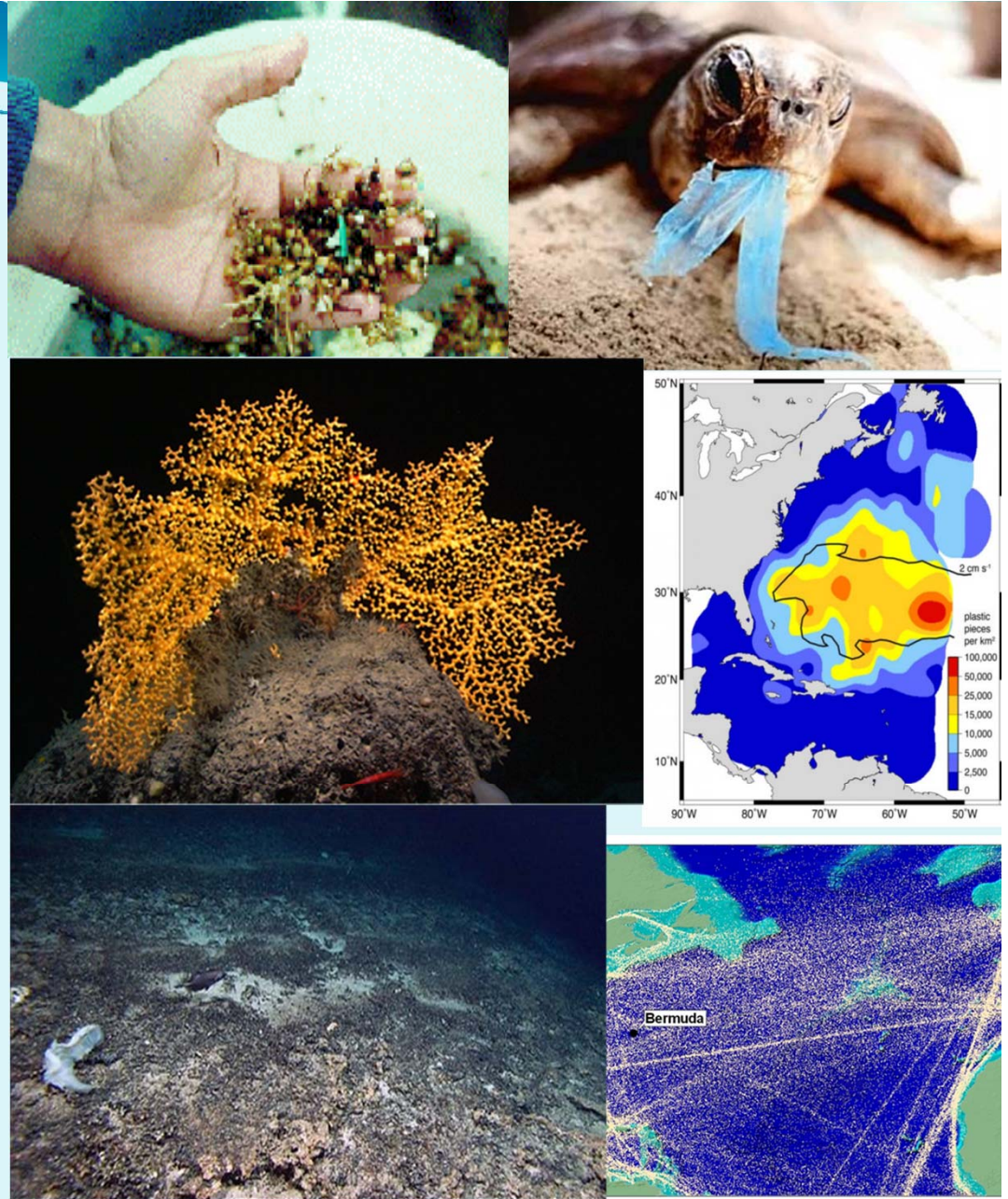
Exotic species

Climate change


Ocean Acidification

Deep sea minning ?

Underwater cables ?



SARGASSO SEA
COMMISSION



The Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea

(March 2014)

Hamilton Declaration Signatories

Governments

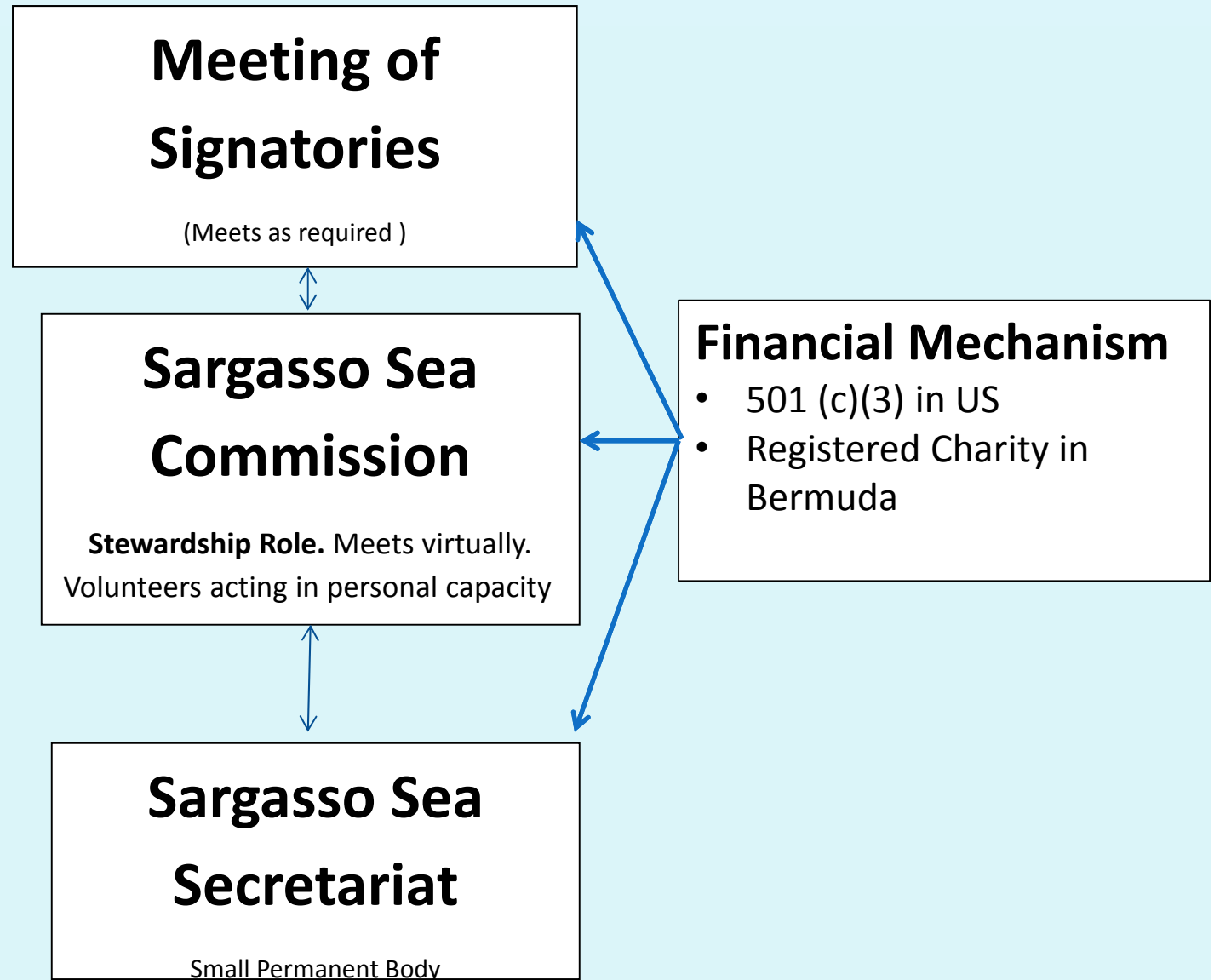
- Azores
- Bahamas 2016
- Bermuda
- British Virgin Islands 2016
- Canada 2016
- Cayman Islands 2017
- Monaco
- United Kingdom
- United States
- Netherlands, Sweden, South Africa,
- Turks and Caicos*

Observer Organizations

- ISA- International Seabed Authority Secretariat
- OSPAR (former Executive Secretary)
- Convention on Migratory Species Secretariat
- IUCN
- Inter-American Convention for the Conservation of Atlantic Sea Turtles

* *Dominican Republic and
Trinidad and Tobago
unable to attend but
supportive*

Hamilton Declaration Structure





Prof Stephen de Mora

Prof Howard Roe (Chair)

Dr Tammy Trott

Dr Billy Causey

Mark Spalding

Prof Ricardo Santos MEP

Agreed Work Programme 2014-16

1. International Recognition of the Ecological Importance of the Sargasso Sea
2. Fisheries and Fisheries Habitat Conservation
3. Impacts from International Shipping
4. Impacts to the Seafloor and Seabed
5. Conservation of Migratory Species
6. Defining Role in Data and Information Management

Summary Science Case, 2011

Edited by Professors Dan Laffoley and Howard Roe

74 collaborators from over 10 countries and 11 science institutions

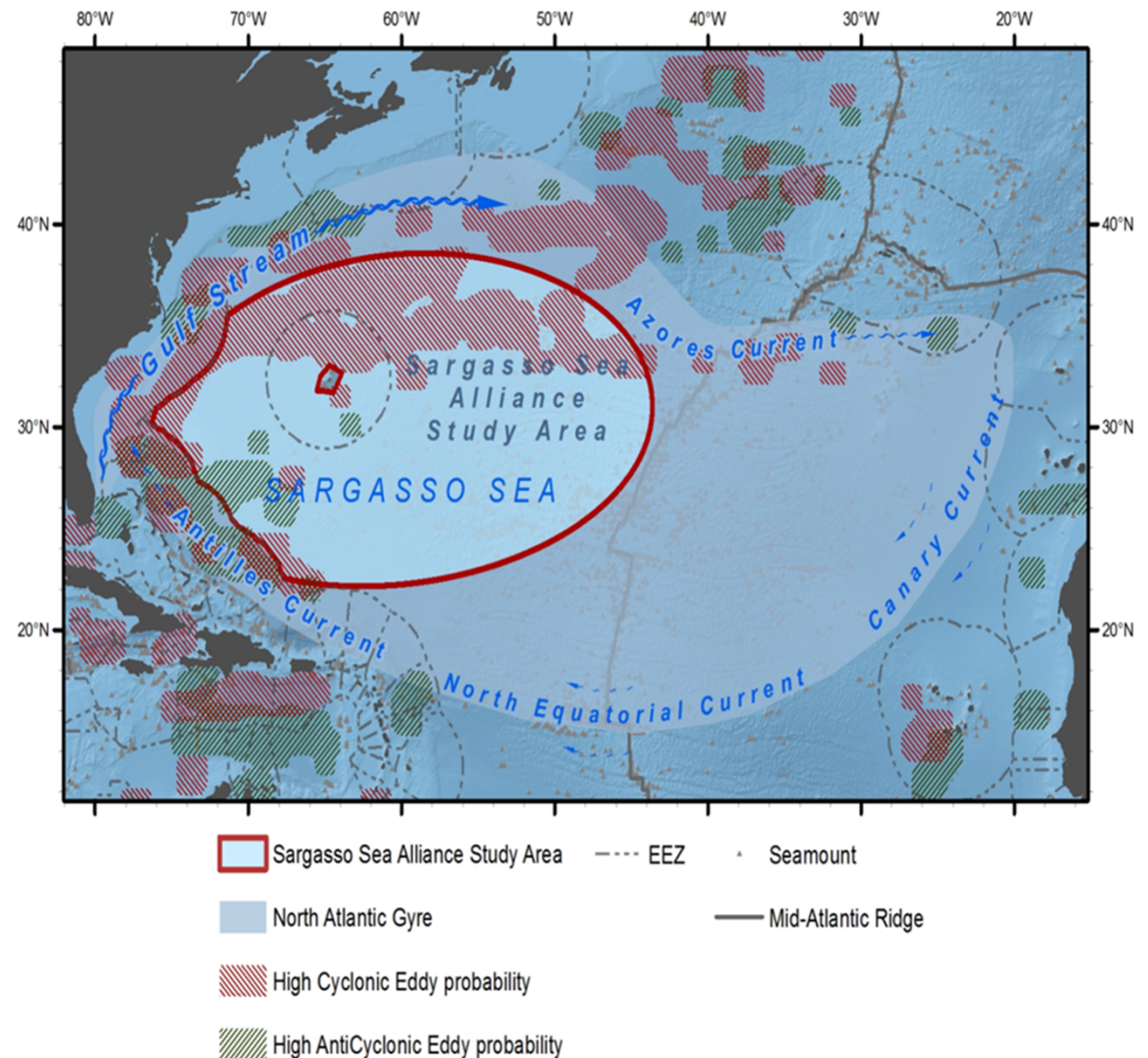
Completed and approved by UK and Bermuda Governments



Convention on Biological Diversity

EBSA Process

- “Described” at regional workshop (March 2012)
- CBD COP submitted Sargasso Sea EBSA to CBD repository
- Does not establish a MPA
- Exploring leverage opportunities



UN General Assembly Annual Omnibus Resolution on Oceans and Law of the Sea 2012, 2013, 2014, 2015 & 2016

Noted the efforts of the Sargasso Sea Alliance – led by the Government of Bermuda – to raise awareness of the ecological significance of the Sargasso Sea;
Proposed:

2014 Bahamas and South Africa,
~ Supported by US, UK and Monaco



World Ocean Assessment 2015

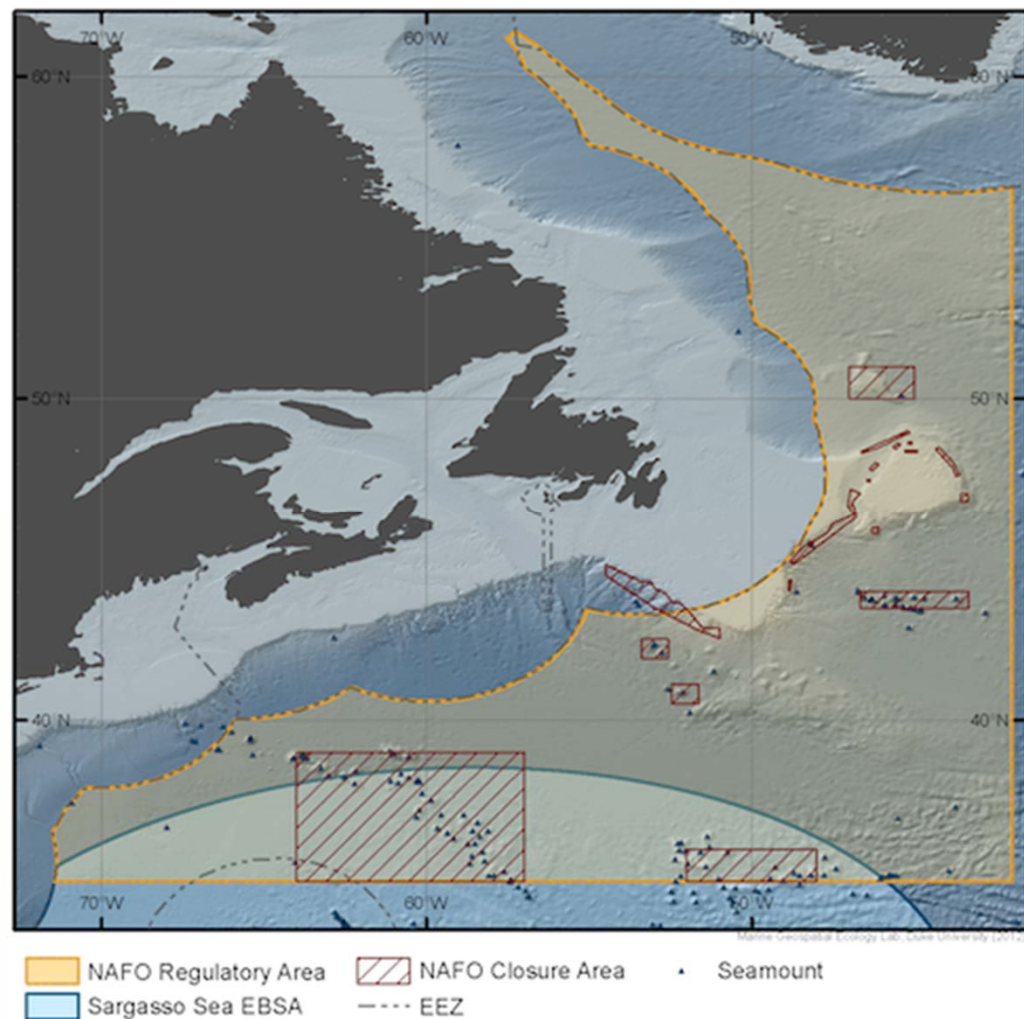
The only named ecosystem in the United Nations
Global Reporting and Assessment of the State of
the Marine Environment – First Assessment
Report

CHAPTER 50

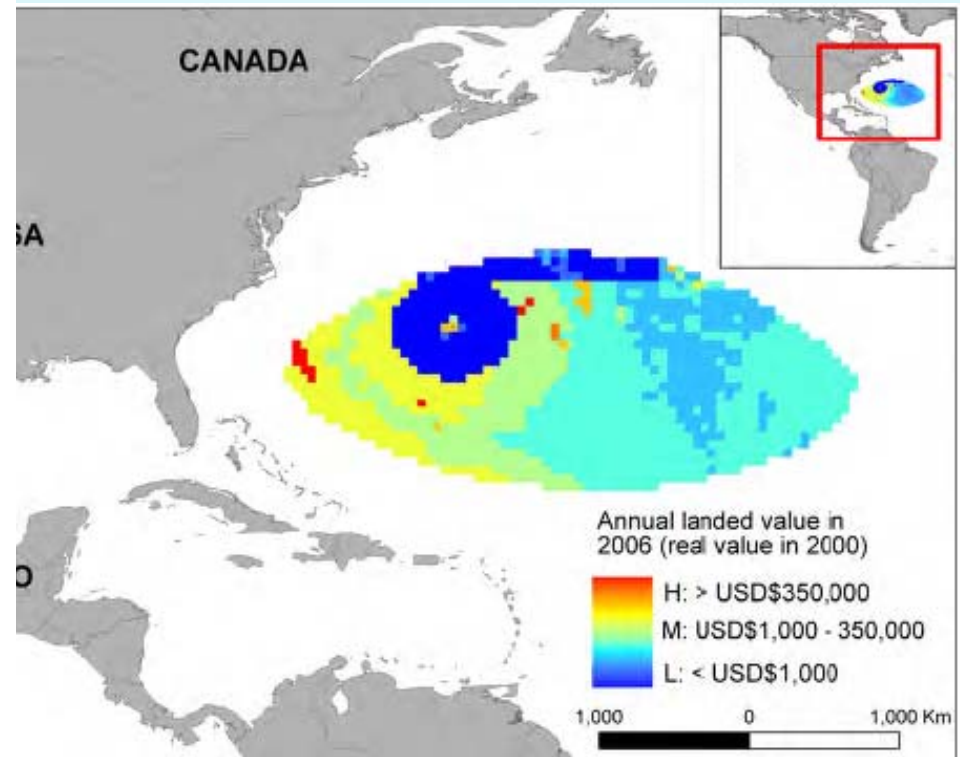
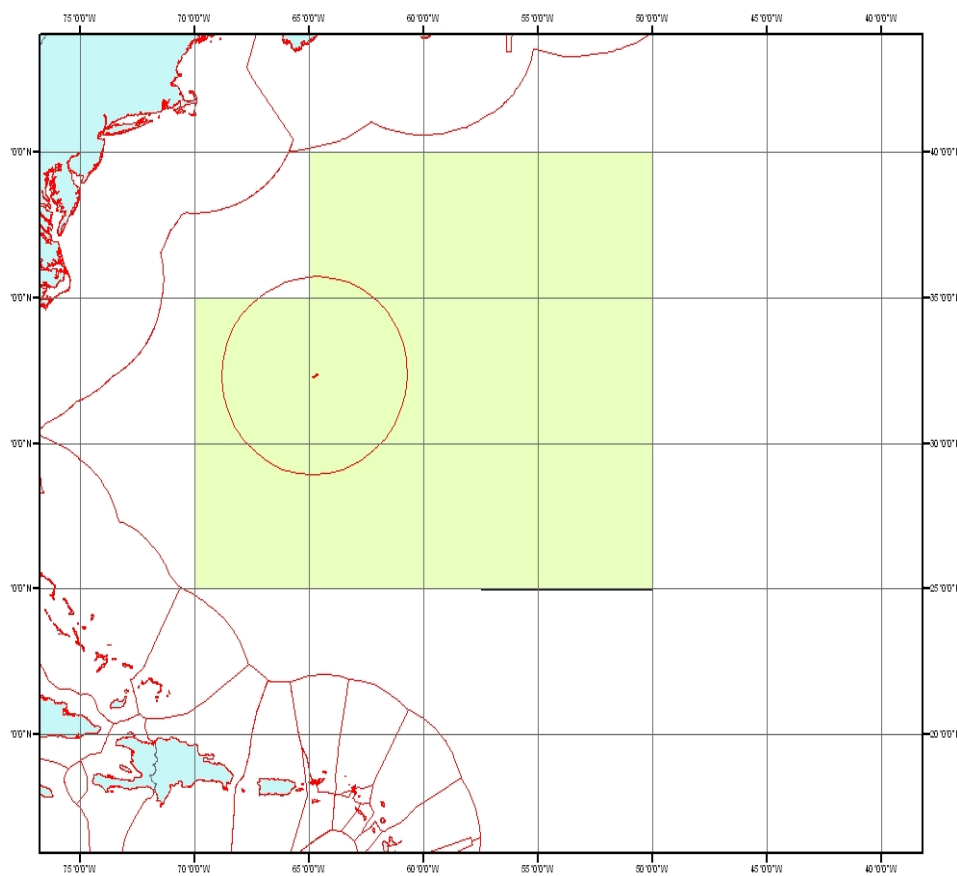


North-west Atlantic Fisheries Organization

Sargasso Sea measures under discussion

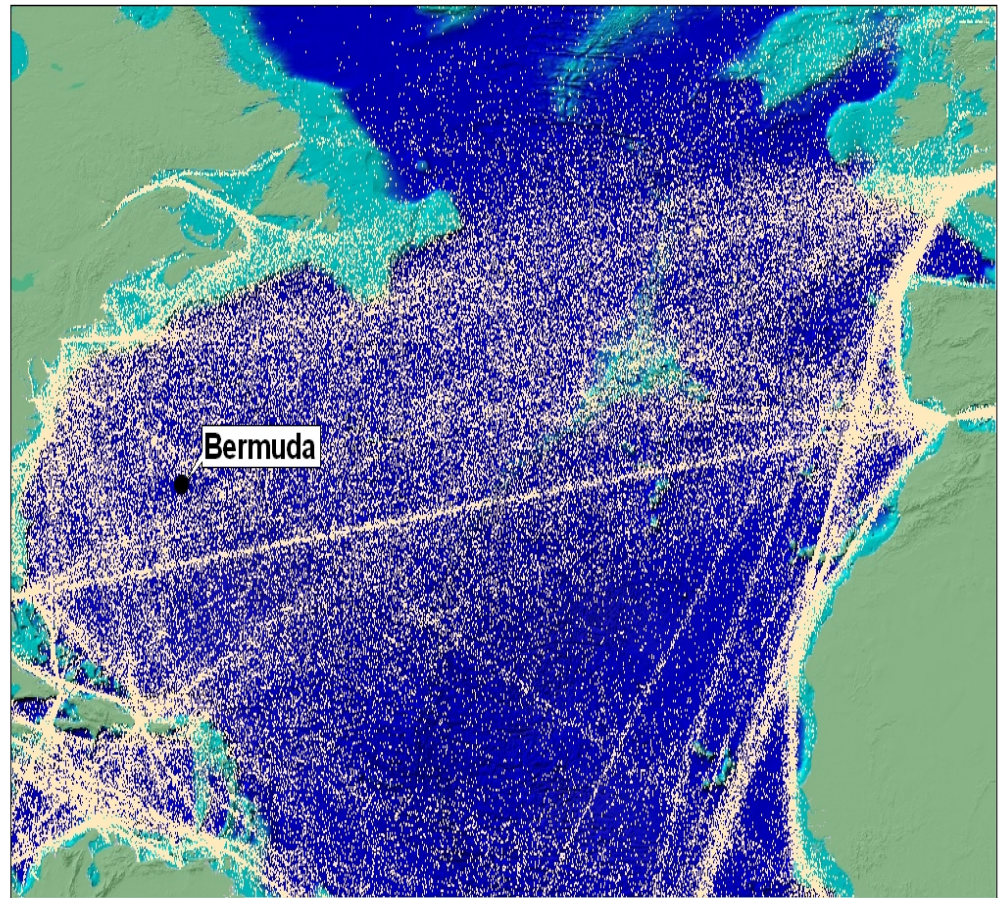


International Commission for Conservation of Atlantic Tunas -ICCAT



International Maritime Organisation

- Still discussing appropriate measures
- Possibilities are:
 - MARPOL Special Area
 - Routeing
 - Reporting
 - Ballast Water
 - Sewage



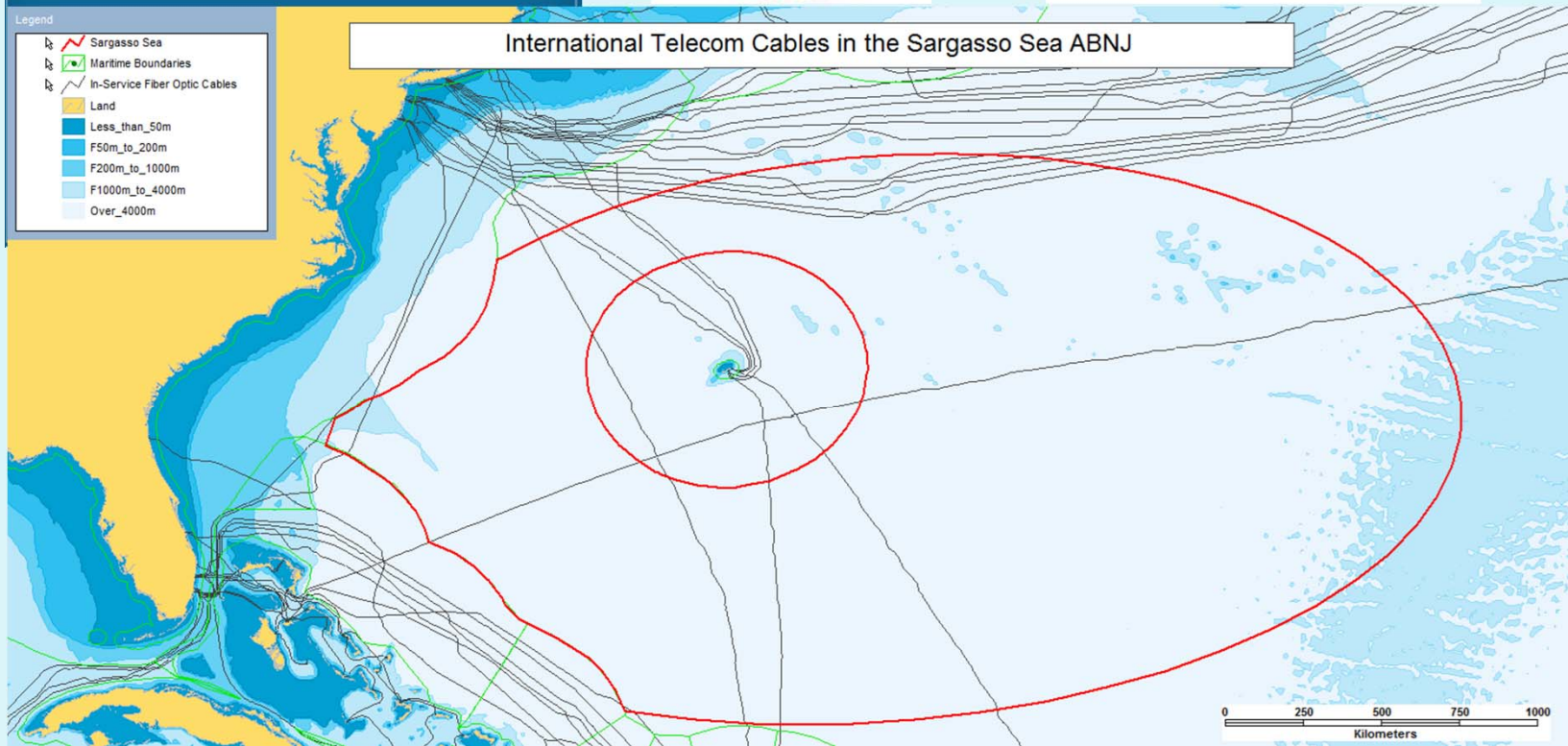
Submarine Cable Industry Collaboration Workshop October 2014

GW LAW



CIL

Centre for International Law
National University of Singapore



International Seabed Authority (ISA) Observer Status granted July 2015





Convention on Migratory Species

- Monaco submitted Submission for Appendix II listing of *Anguilla anguilla*
- 2014 Approved at Quito COP November
- 2016 Oct Range State Workshop on European Eels Galway Ireland
- Possible MOU/Treaty





Convention on the Conservation of Migratory Species of Wild Animals

Secretariat provided by the United Nations Environment Programme



First Range States Workshop on the European Eel

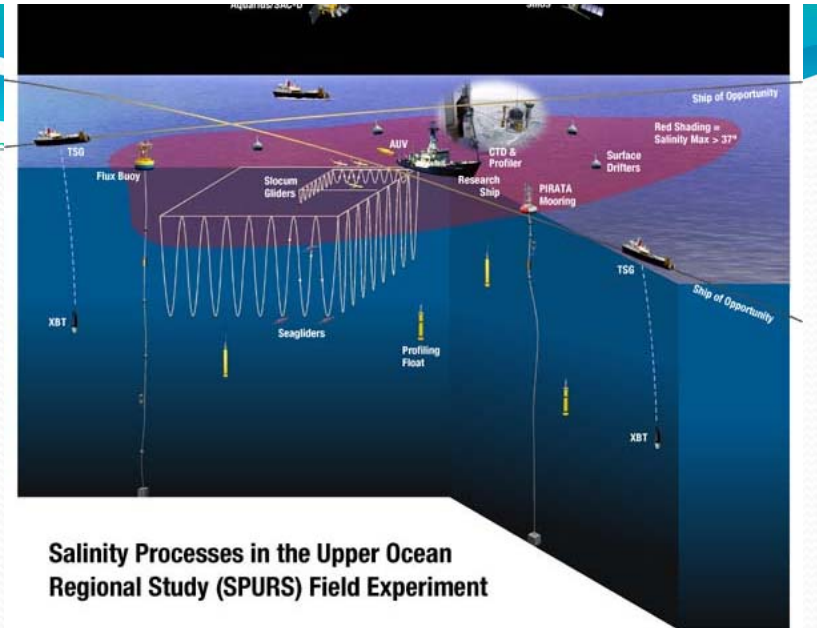
Galway, Ireland, 13 – 14 October 2016



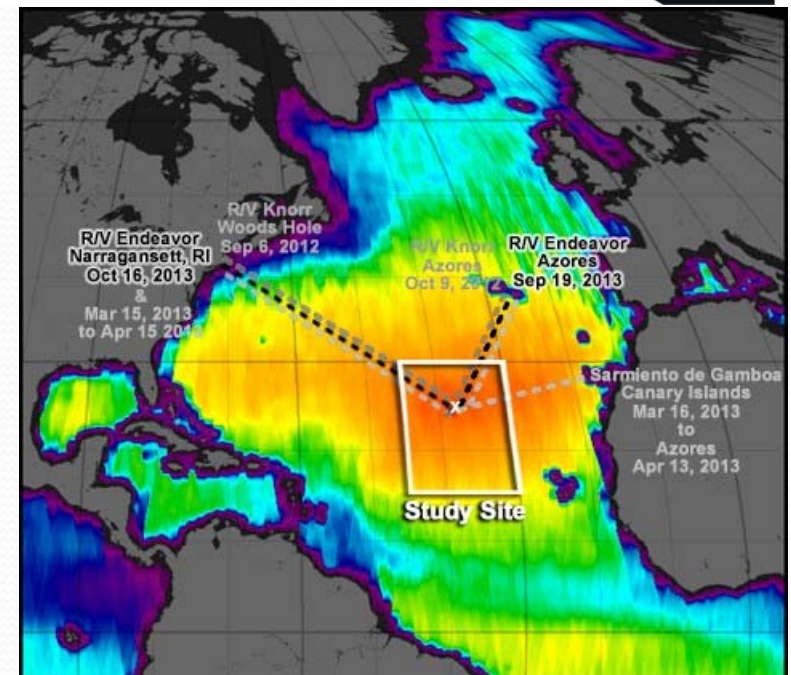
COVERAGE

NASA mapping project

- In-kind partnership to develop initial satellite map product for Sargasso Sea
- Uses two years (2012–2013) of oceanographic data
- Future phases to include other data providers on fishing and shipping information



Salinity Processes in the Upper Ocean
Regional Study (SPURS) Field Experiment





Sierra Leone received mass quantities of Sargassum in August 2011. Photo: Andrew Huckbody.



United Nations BBNJ Preparatory Commission 2 (26 Aug – 9 Sept)

Lessons from the Sargasso Sea

Challenges to the conservation and sustainable use
of marine biodiversity beyond national jurisdiction

David Freestone and Kristina Gjerde



Pioneering Work by the SAFMC



- November 2002 Second Revised Fishery Management Plan for Pelagic Sargassum Habitat in South Atlantic Region.
- 2002 Decision of the SAFMC to declare *Sargassum* as “Essential Fish Habitat” under the Magnuson Stevens Act.

LIST OF ACTIONS IN THE FISHERY MANAGEMENT PLAN FOR PELAGIC *SARGASSUM* HABITAT

ACTION 1. Establish the Management Unit for pelagic *Sargassum* throughout the South Atlantic Exclusive Economic Zone (EEZ) and State Waters.

ACTION 2. Maximum Sustainable Yield (MSY) for South Atlantic pelagic *Sargassum* is estimated to be 100,000 metric tons (220,460,000 pounds) wet weight per year.

ACTION 3. Specify Optimum Yield (OY) for pelagic *Sargassum* as 5,000 pounds wet weight per year.

ACTION 4. Specify Overfishing Level to meet Magnuson-Stevens Act Mandate for pelagic *Sargassum*. Overfishing is defined as the rate of harvest which compromises the stock's ability to produce MSY. The Maximum Fishing Mortality Threshold (MFMT) is 9.0 to 18.0 units per year. The Minimum Stock Size Threshold (MSST) is 25,000 metric tons (55,115,000 pounds). 59

ACTION 5. Identify Essential Fish Habitat (EFH) for pelagic *Sargassum* as where it occurs in the South Atlantic Council's EEZ and in the state waters off of North Carolina, South Carolina, Georgia, and the east coast of Florida. Essential fish habitat (EFH) for pelagic *Sargassum* includes the Gulf Stream because it provides a mechanism to disperse *Sargassum*. Because of the importance of the extra-jurisdictional pelagic *Sargassum* occurring in the Sargasso Sea outside the EEZ, the United States should pursue all other options under the Magnuson-Stevens Act and other laws to protect *Sargassum* in international waters.

ACTION 6. Establish the distribution of pelagic *Sargassum* within the South Atlantic Council's EEZ and within the state waters off of North Carolina, South Carolina, Georgia, and the east coast of Florida as an Essential Fish Habitat-Habitat Area of Particular Concern (EFHHAPCs) for pelagic *Sargassum*.

ACTION 7.

ACTION 7A. Prohibit all harvest and possession of *Sargassum* from the South Atlantic EEZ south of the latitude line representing the North Carolina/South Carolina border (34° North Latitude).

ACTION 7B. Prohibit all harvest of *Sargassum* from the South Atlantic EEZ within 100 miles of shore between the 34° North Latitude line and the Latitude line representing the North Carolina/Virginia border.

ACTION 7C. Harvest of *Sargassum* from the South Atlantic EEZ is limited to the months of November through June.

ACTION 7D. Establish an annual Total Allowable Catch (TAC) of 5,000 pounds landed wet weight.

ACTION 7E. Require that an official observer be present on each *Sargassum* harvesting trip.

ACTION 7F. Require that nets used to harvest *Sargassum* be constructed of four inch stretch mesh or larger

an 4 feet by 6 feet.



Farsighted provisions

FISHERY MANAGEMENT PLAN FOR PELAGIC *SARGASSUM* HABITAT

5.6 International Protection of *Sargassum* and the Sargasso Sea

Because of the importance of the extra-jurisdictional pelagic *Sargassum* occurring in the Sargasso Sea outside the EEZ, the United States should pursue all other options under the Magnuson-Stevens Act and other laws to protect *Sargassum* in international waters.

5.7 Recommendations to States

Because of the importance of pelagic *Sargassum* occurring in State waters, the Council recommends harvest and possession of *Sargassum* from State waters be prohibited. The Council concluded such actions are necessary to protect essential fish habitat (EFH) and achieve the objectives of the plan.

4.2.8 ACTION 7. Prohibit all harvest and possession of *Sargassum* from the South Atlantic EEZ south of the latitude line representing the North Carolina/South Carolina border (34° North Latitude). Prohibit all harvest of *Sargassum* from the South Atlantic EEZ within 100 miles of shore between the 34° North Latitude line and the Latitude line representing the North Carolina/Virginia border. Harvest of *Sargassum* from the South Atlantic EEZ is limited to the months of November through June. Establish an annual Total Allowable Catch (TAC) of 5,000 pounds landed wet weight. Require that an official observer be present on each *Sargassum* harvesting trip. Require that nets used to harvest *Sargassum* be constructed of four inch stretch mesh or larger fitted to a frame no larger than 4 feet by 6

ICCAT Resolution 05-11 on Pelagic *Sargassum*

- On a proposal by the US
- ICCAT requested Contracting Parties and others to provide to the Standing Committee on Research and Statistics (SCRS—the ICCAT Science body) information and data on activities that impact pelagic Sargassum in the convention area on the high seas, directly or indirectly, with particular emphasis on the Sargasso Sea.

ICCAT Res 05-11 Follow up

- In 2006, the SCRS Sub-Committee on Ecosystems noted that there was no information on this matter and therefore recommended that scientists from the Contracting Parties provide available information to the Sub-Committee, which would facilitate giving a response to the Commission.

Bermuda/SS Project Follow up

- In 2011, the Government of Bermuda formally introduced the [Sargasso Sea Project] objectives to the full ICCAT Commission through an intervention at the Commission meeting.
- November 2012, ICCAT Agadir Commission meeting, Bermuda proposed a recommendation that the SCRS examine the data compiled on the Sargasso Sea and the impacts of fishing activity on tuna and tuna-like species and on the area's ecosystems, and that it consider the viability of establishing special conservation and management measures within the Sargasso Sea.

ICCAT RESOLUTION 12-12

on the Sargasso Sea

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS RESOLVES THAT:

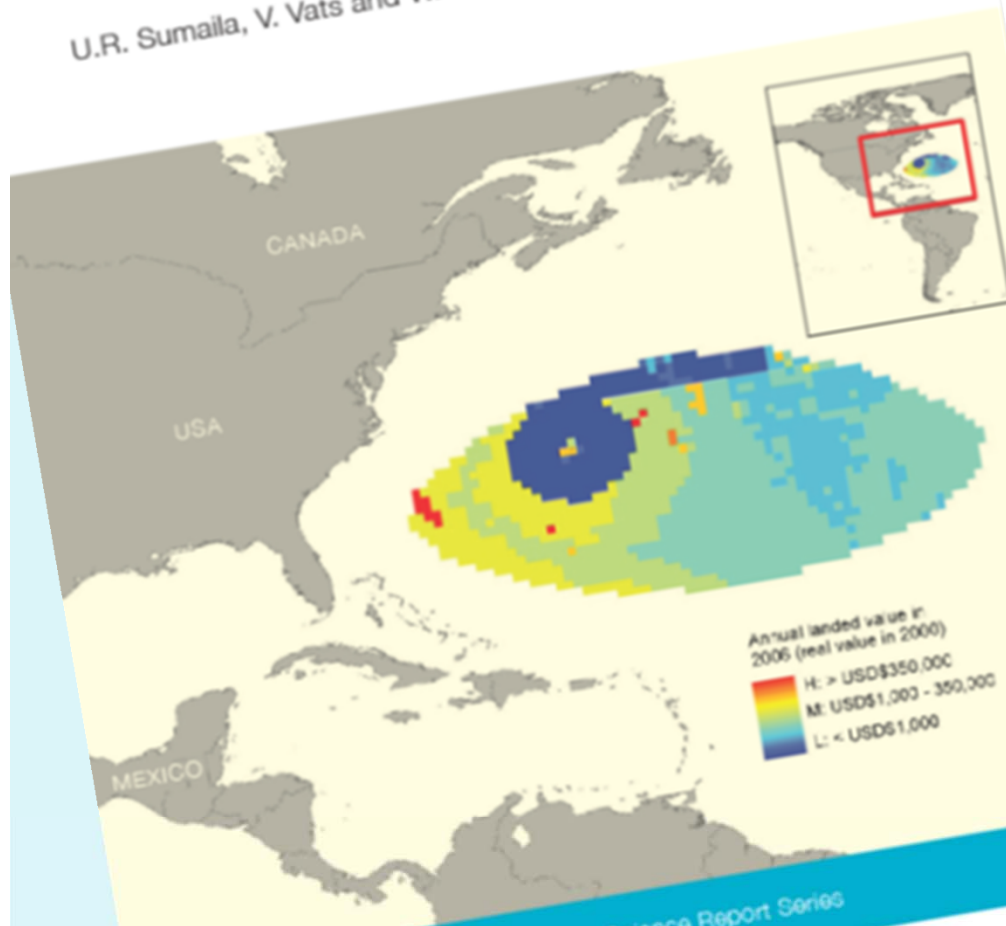
1. The SCRS will examine the available data and information concerning the Sargasso Sea and its ecological importance to tuna and tuna-like species and ecologically associated species.
2. The SCRS will provide an update on the progress of this work in 2014 and report back to the Commission with its findings in 2015.



SARGASSO SEA
COMMISSION

Values from the Resources of the Sargasso Sea

U.R. Sumaila, V. Vats and W. Swartz



Number 12 Sargasso Sea Alliance Science Report Series



SARGASSO SEA
COMMISSION



GOVERNMENT OF BERMUDA

SCRS/2013/132

INVENTORY AND ECOLOGY OF FISH SPECIES OF INTEREST TO ICCAT IN THE SARGASSO SEA

Brian E. Luckhurst

SUMMARY
This paper provides information on the biology and ecology of a total of 18 different fish species whose distributions include the Sargasso Sea. These species are divided into four groups that correspond with ICCAT species groupings: Group 1 – Principal tuna species including yellowfin tuna, albacore tuna, bigeye tuna, bluefin tuna and skipjack tuna; Group 2 – Swordfish and billfishes including blue marlin, white marlin and sailfin; Group 3 – Small tunas including wahou, blackfin tuna, Atlantic black skipjack tuna (Little Tunny) and dolphinfish; Group 4 – Sharks including shortfin mako, blue, porbeagle, bigeye thresher and hector shark. For each species, information and data is provided on distribution, fishery landings, migration and movement patterns, reproduction, age and growth, food and feeding habits and ecology in relation to oceanographic parameters, primarily water temperature. The importance of Sargassum as essential fish habitat is discussed and is linked to the feeding habits of tunas and other pelagic predators. Flyingfishes are an important prey species in the diet of tunas and billfishes and as they are largely dependent on Sargassum mats as spawning habitat, the Sargasso Sea plays a fundamental role in the trophic...

Fish species of interest to ICCAT in the Sargasso Sea Phase 2 - Analysis of ICCAT catch time series, 1992-2011

Dr Brian Luckhurst
Report to the Sargasso Sea Alliance
November 1, 2013

The ICCAT CATDIS database provides estimates of nominal catches for the nine major tuna and tuna-like species managed by ICCAT. The data are stratified in time (quarter) and space (5x5 degree squares) and all longliner catch data are reported on this spatial scale. Data extractions were made namely, Yellowfin tuna and swordfish using the most recent 20 year period of data, i.e. 1992-2011. Within the Sargasso Sea Study Area, there are by-catch species and a total of 11 reporting squares over the 20 year period of data. Data extractions were made by country and by species by combining reported landings (1992-2011) and then calculating a separate summary. For each species, the total catch by country, trimester and by reporting squares. For each species, the total catch by country, trimester and by reporting squares. For each species, the total catch by country, trimester and by reporting squares. For each species, the total catch by country, trimester and by reporting squares.

Report to the Sargasso Sea Alliance - Fish species of interest to ICCAT in the Sargasso Sea Phase 2 - Detailed analysis of ICCAT catch data (1992-2011).

The ICCAT CATDIS database provides estimates of nominal catches for the nine major tuna and tuna-like species managed by ICCAT. The data are stratified in time (trimester) and space (5x5 degree squares) and all longliner catch data are reported on this spatial scale. Data extractions were made for each of the six principal commercial species targeted by ICCAT, namely, Yellowfin tuna, Albacore tuna, Bigeye tuna, Bluefin tuna, Skipjack tuna and Swordfish using the most recent 20 year period of data, i.e. 1992-2011. Within the Sargasso Sea Study Area, there are a total of eleven reporting squares which are exclusively in international waters with the exception of Bermuda's EEZ (see Annex 1). Data extractions were made by country and by trimester (quarter) from the 11 ICCAT reporting squares over the above 20 year period for each species. The annual catch data for each species were summarized by country, trimester and by reporting squares. For each species, the total catch by country, trimester and by reporting squares. For each species, the total catch by country, trimester and by reporting squares. For each species, the total catch by country, trimester and by reporting squares.

Yellowfin tuna

Catches of yellowfin in the SSA Area have been highly variable over the 20 year period of the analysis ranging from 90.82 metric tons (mt) in 1993 (Bermuda contributing almost 64% of the total) to almost 1,097 mt in 1999 (over 50% contributed by NEI). However, in most years Japan has been a major contributor to the catch with up to 74% of the annual total. Between 20-40% of the catch while St. Vincent has contributed up to 84%. Bermuda has been a consistent contributor to the catch with up to 15-25% of the annual total. The following are brief summaries of the main findings

ICCAT RESOLUTION 16-23

on Ecosystems that are important and unique for ICCAT species

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS RESOLVES THAT:

1. As part of advancing the work of Ecosystem Based Fisheries Management, the SCRS will examine the available information on the trophic ecology of pelagic ecosystems that are important and unique for ICCAT species in the Convention area.
2. The SCRS will provide an update on the progress of this work in 2018 and report back to the Commission with available findings in 2019, if possible.

Requests to SAFMC Habitat and Ecosystem Protection Advisory Panel

Sargasso Sea Commission would appreciate:

- Consideration by the Advisory Panel for the setting of the Total Allowable Catch of Sargassum at ZERO.
- “Because of the importance of the extra-jurisdictional pelagic *Sargassum* occurring in the Sargasso Sea outside the US EEZ.” Advice of the Panel as to ways in which the United States should pursue all other options under the Magnuson-Stevens Act and other laws to protect *Sargassum* in international waters

THANK YOU



