



# Outline

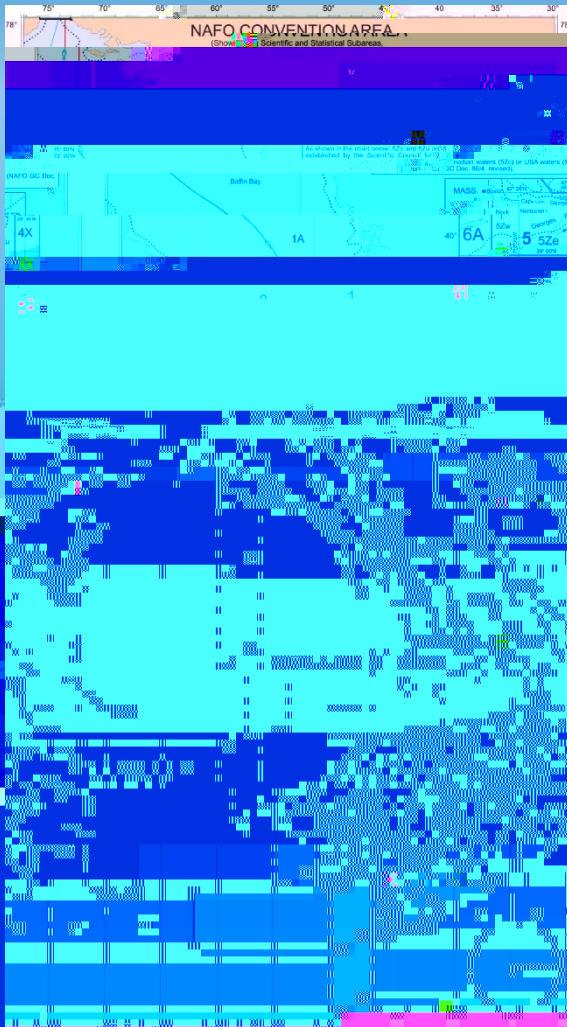
About NAFO

NAFO's Ecosystem Approach to Fisheries Management

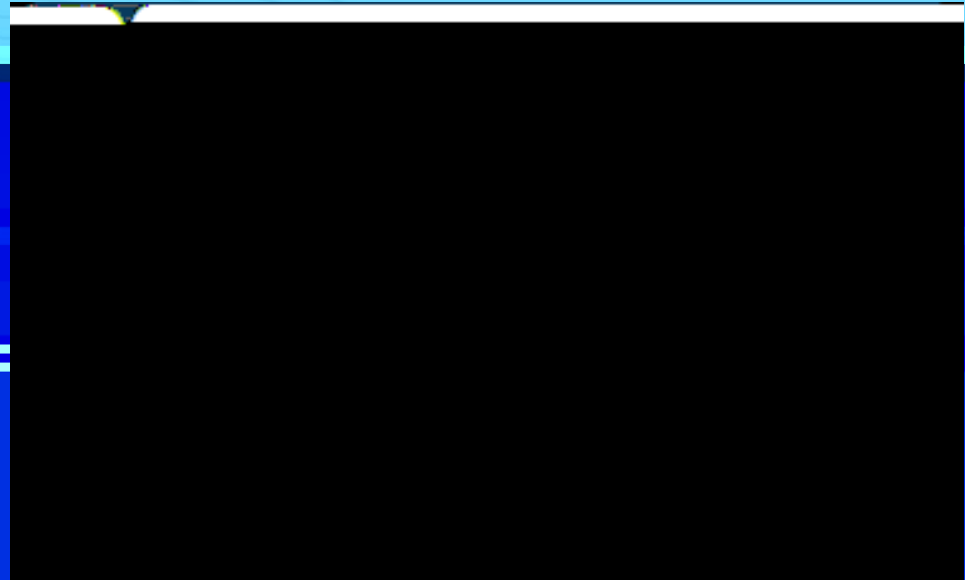
NAFO's Precautionary Approach Framework  
Protection of Vulnerable Marine Ecosystems (VME)

Concluding Remarks

# NAFO Convention and Regulatory Area



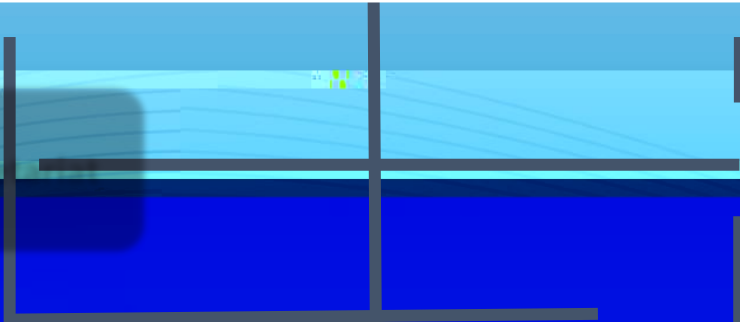
**NAFO is the RFMO responsible for managing the fish stocks (except salmon, tuna and sedentary species) in the NW Atlantic outside the EEZs of Coastal States (FAO Statistical Area 21).**



# NAFO Structure

## NAFO Convention Article V

Contracting Parties



# ycle of E



# NAFO's Ecosystem Approach Framework to Fisheries Management



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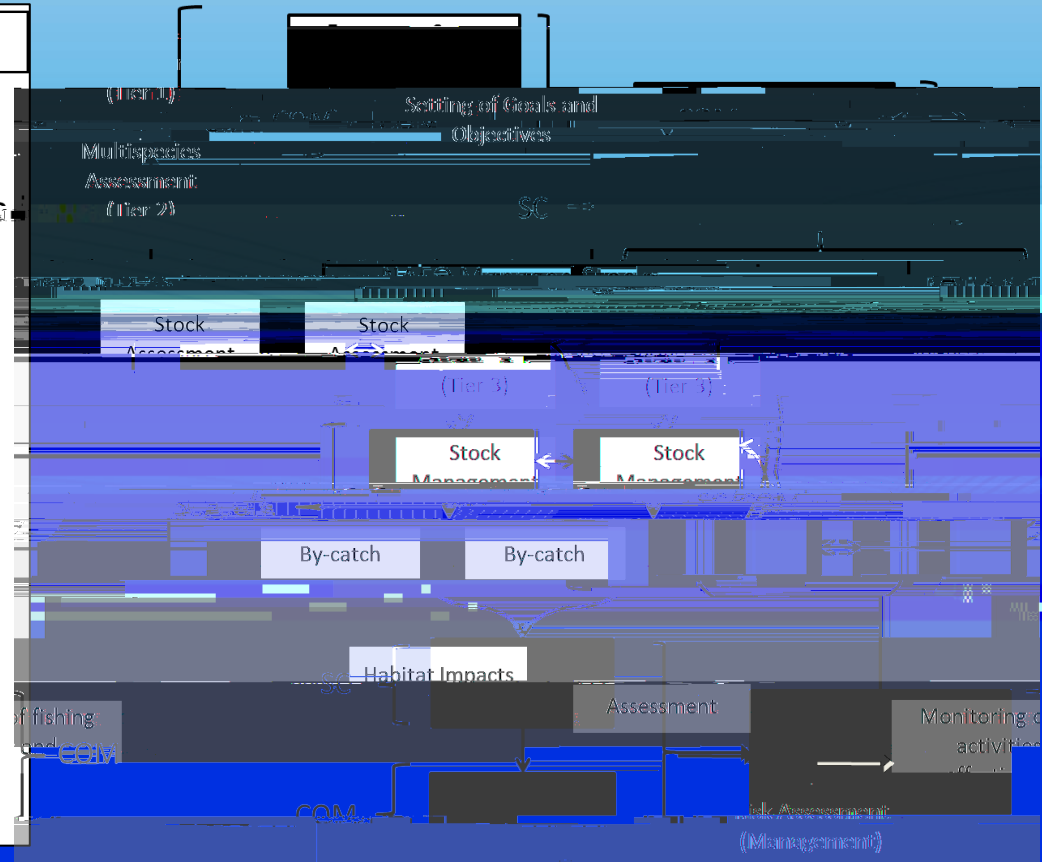
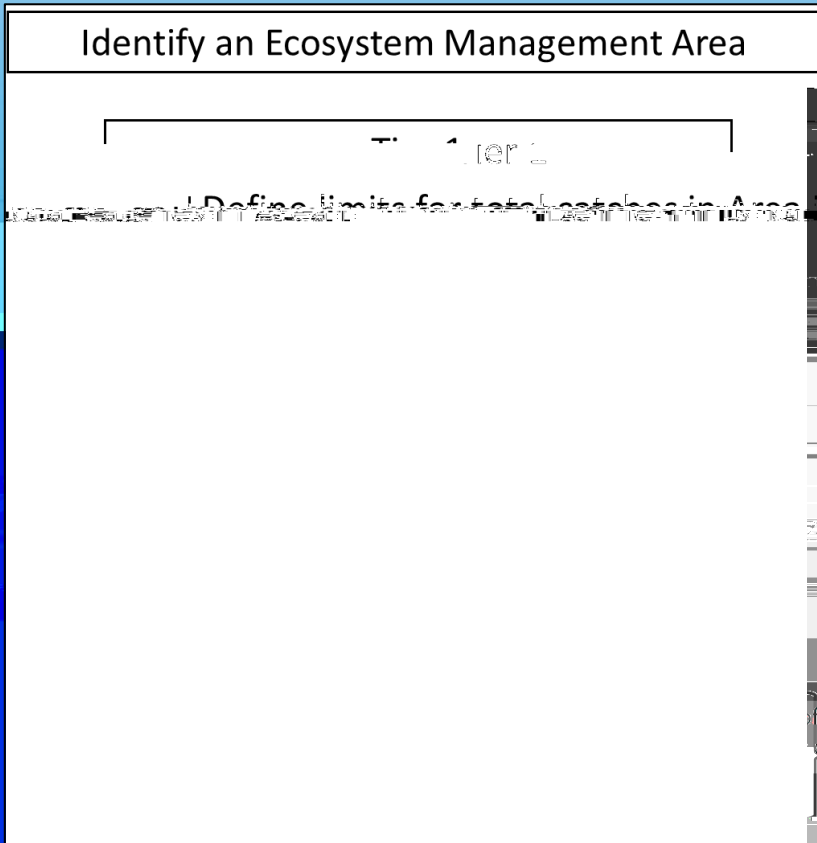


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# The NAFO Ecosystem Approach 'Roadmap'

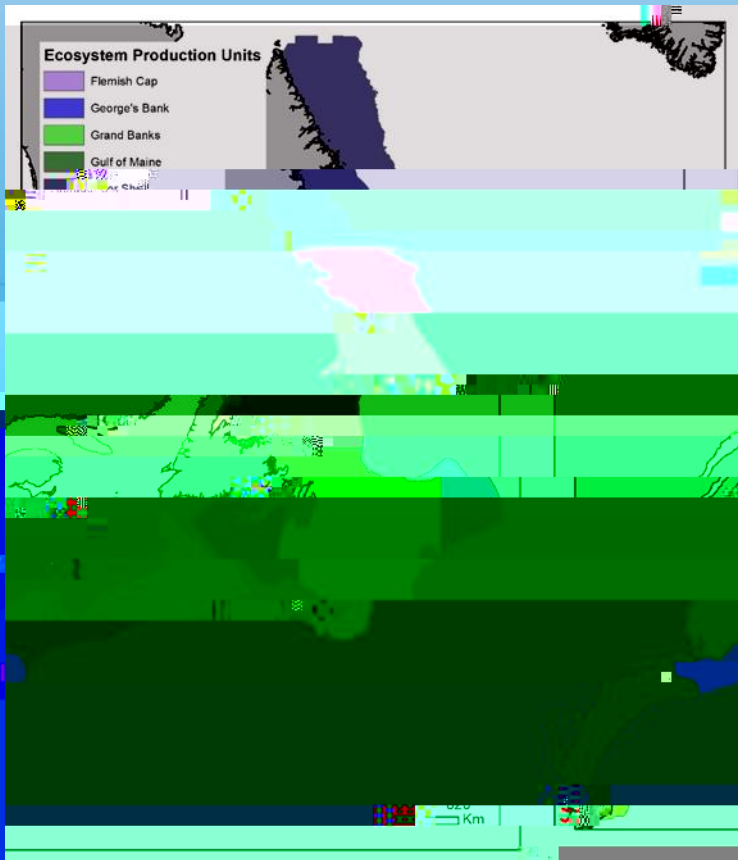


Marine Policy (2019)



# Tier 1: Ecosystem production model

## Ecosystem production model

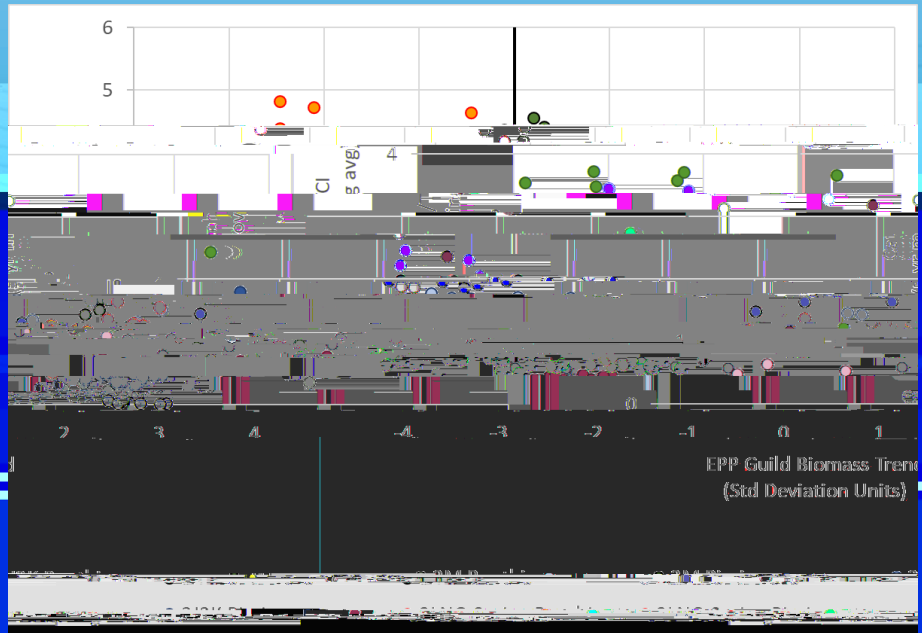
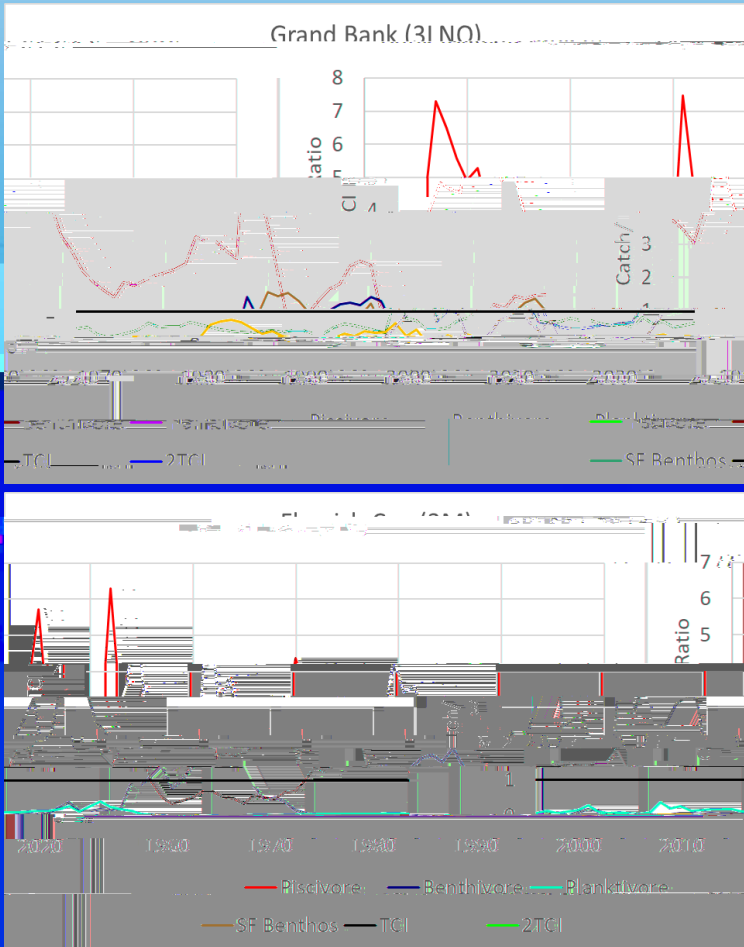


Identification of Ecosystem Production Units



# Tier 1: Ecosystem production model

Catches relative to Total Catch Index (TCI)



Biomass trends and catch relative to 2 X Total Catch Index.

# The NAFO Ecosystem Approach 'Roadmap' next steps towards implementation

Development of "ecosystem summary sheets" as a means of communicating ecosystem level advice to managers

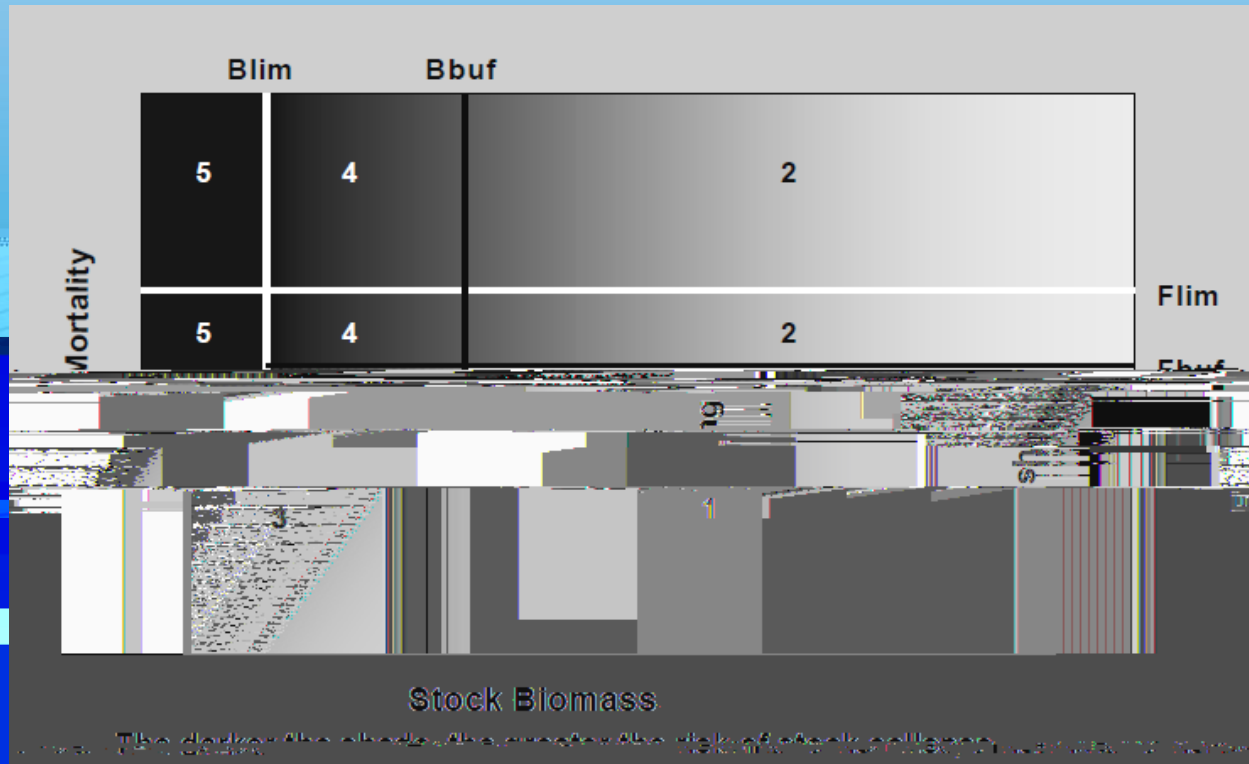
Ecosystem Approach Workshop 8-12 August 2022 with a goal to develop specific ecosystem level objectives for NAFO for Tiers 1 and 2 of the Roadmap

Workshop outcomes to be considered by WG-EAFFM  
13-16 August

WG-EAFFM Recommendations to Commission  
September 2022

# NAFO's Precautionary Approach Framework to Fisheries Management

# PA framework adopted by NAFO for advising on stocks in the NAFO Regulatory Area.



2018 Performance Review noted that implementation of the PA was incomplete with many stocks lacking reference points, and recommended working towards full implementation.

In 2019, the Commission requested Scientific Council (in conjunction with WG-RBMS) to Review the NAFO PA framework.

Scientific Council re-established its Precautionary Approach Working Group (PA-WG)

Initiated a two year project (with EU funding) to review the NAFO PA. Three external experts contracted to provide independent review.

## Workplan for the revision of the NAFO PA

WG and External Experts PAF Tasks	2021												2022											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Mapping objectives ToR 1 A, c, g																								
SC and RBMS review																								
Structural Aspects/Uncertainty & Risk Workshop (PAF proposal)																								
SC and RBMS review																								
Commission discussion																								
Implementation guidelines																								
Workshop (Implementation and RP)																								



Comparison of the NAFO PA framework with other jurisdictions. a) Canada, b) Australia, c) NAFO, d) New Zealand, e) ICES, f) a generalize Kobe plot used in many international organizations.

# Precautionary Approach next steps

Workshop 15- 16 August 2022

Presentation to WG-RBMS meeting 17-19 August 2022

Discussion by the Commission September 2022

Second workshop in early 2023

Final recommendations for consideration by the Commission in 2023



# Protection of Vulnerable Marine Ecosystems (VMEs)

# Identifying VME Species and Elements

## Species

- Large-sized sponges**
- Stony Corals**
- Gorgonian corals**
- Sea pens**
- Tube-dwelling anemones**
- Erect bryozoans**
- Sea lilies**
- Sea squirts**

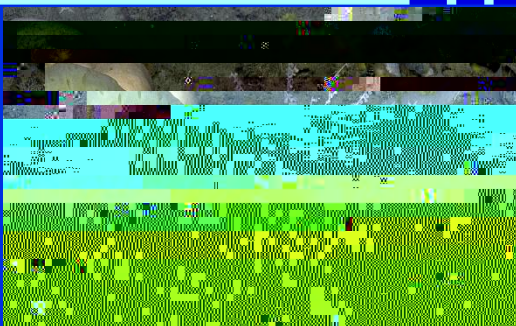
## Elements

- Seamounts**
- Canyons**
- Knolls**
- Shoal**
- Steep flanks**



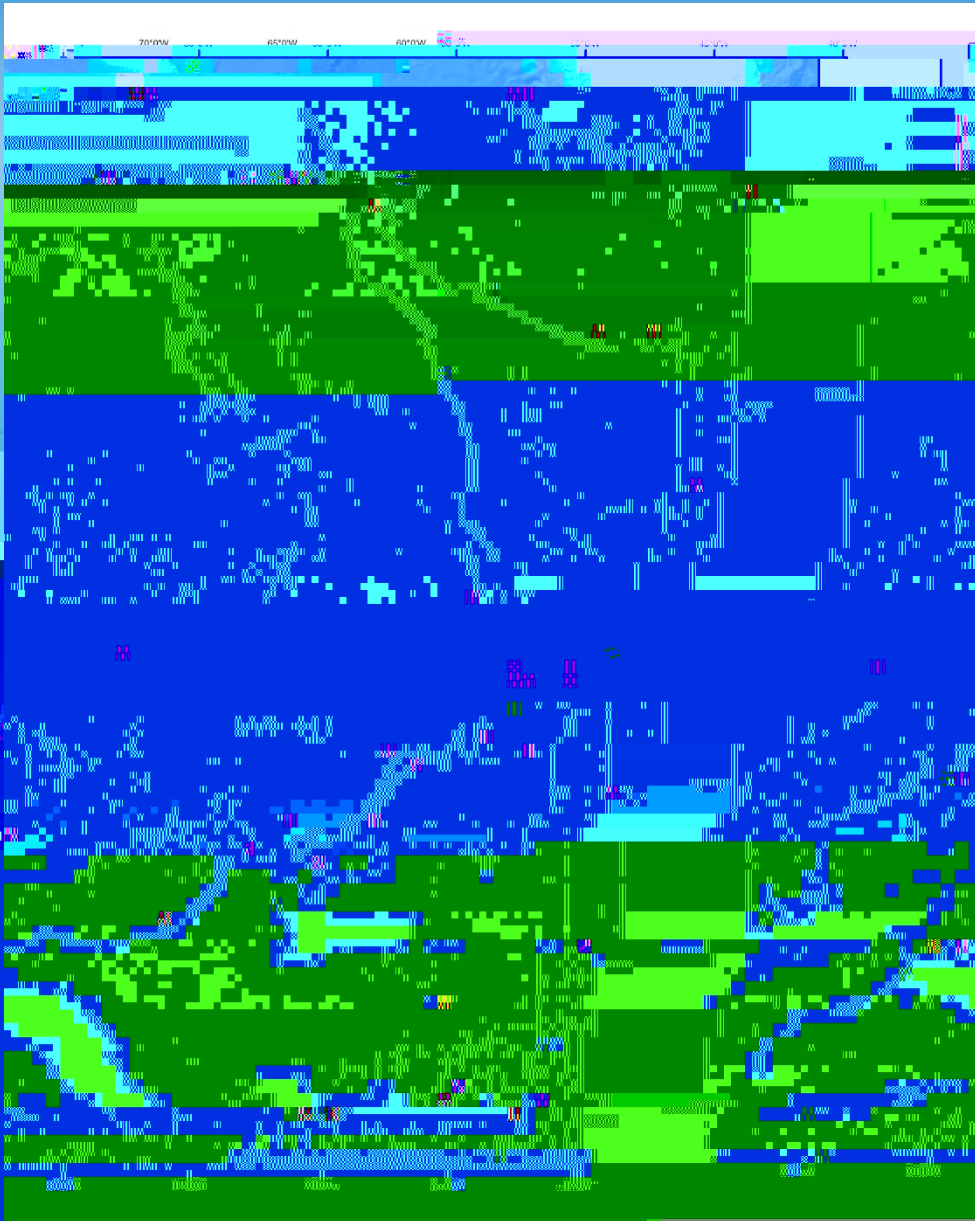
# NAFO Measures to Protect VMEs

Existing bottom fishing areas –  
“Footprint”  
VME Closures  
Seamount closures  
Thresholds for encounters with  
VMEs within Footprint (“move on”  
rule)





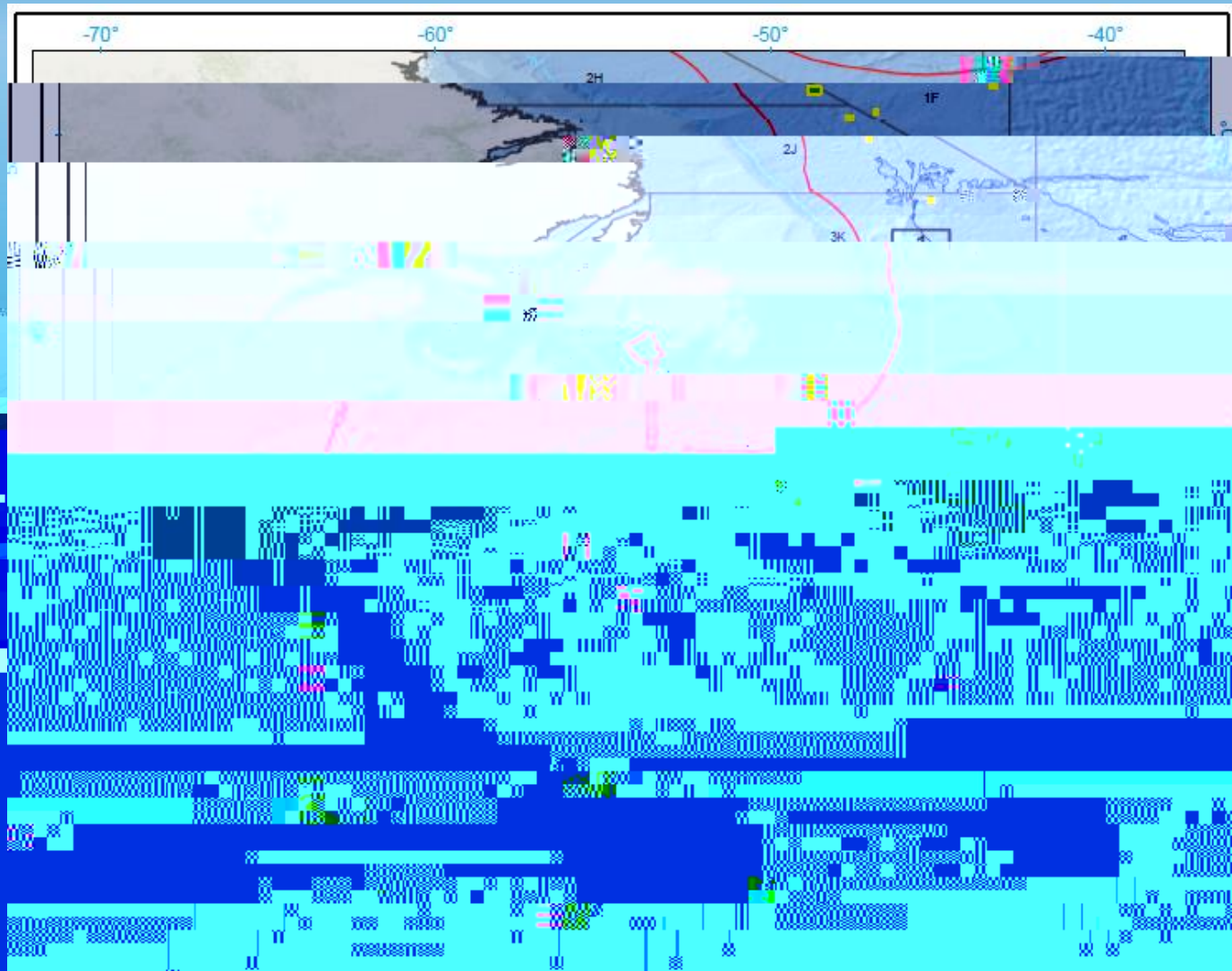
# VMEs - Current NAFO closures



14 closed areas (VME protection areas)

12 seamount areas where bottom fishing is prohibited

# Revision of NAFO Seamount closures in 2021





# Area Restrictions on Bottom Fishing



Bottom fishing is prohibited within the boundaries of the VME and seamount closures.

Approximate % of NRA:  
VME/Seamount closures – 14.0%



# Closing Remarks

Over the past 15 years, NAFO also has worked to develop its measures to protect VMEs and seamounts from bottom fishing based on the 2008 FAO Deep-Sea Fisheries Guidelines and the work of its Scientific Council

Measures can only be imposed on NAFO-CA4b /Span /MC



# THANK YOU

For more information on NAFO, please consult:

[www.nafo.int](http://www.nafo.int)