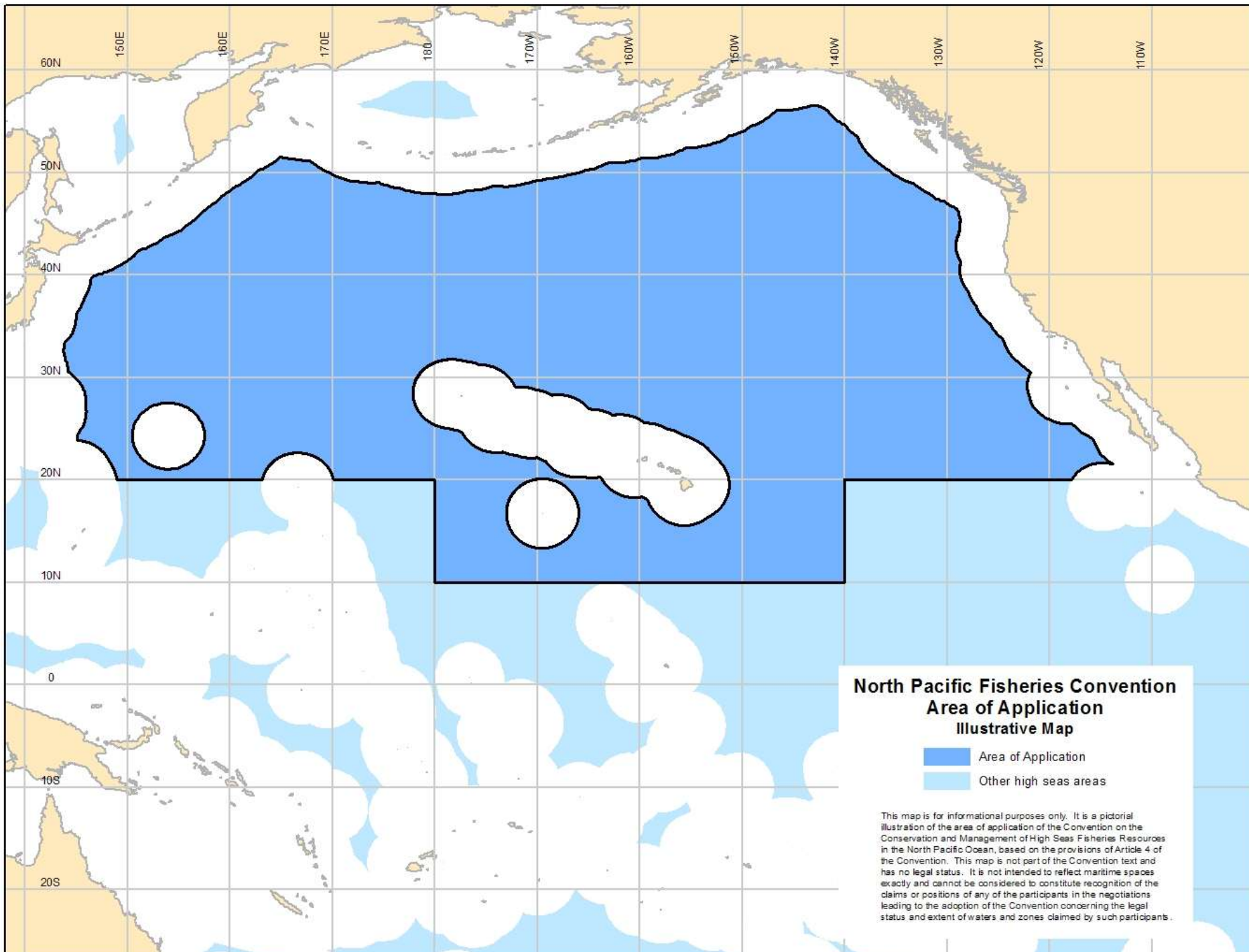


Encounter Protocols (VME Indicators and Thresholds)

Day 3: 13 March 2014
at 9:45am



North Pacific Fisheries Convention Area of Application Illustrative Map

- Area of Application
- Other high seas areas

This map is for informational purposes only. It is a pictorial illustration of the area of application of the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean, based on the provisions of Article 4 of the Convention. This map is not part of the Convention text and has no legal status. It is not intended to reflect maritime spaces exactly and cannot be considered to constitute recognition of the claims or positions of any of the participants in the negotiations leading to the adoption of the Convention concerning the legal status and extent of waters and zones claimed by such participants.

5 Tasks were assigned

Status of Tasks

1. Workgroup progress has been virtually none as group activity; but National Parties probably has internally evaluated the issues (like USA)
2. Workgroup is waiting on the outcome of this FAO VME workshop before we meet to develop encounter protocols
3. Workgroup is limited by availability of data

[Workgroup has 5 Given Tasks]

Task 1 of 5

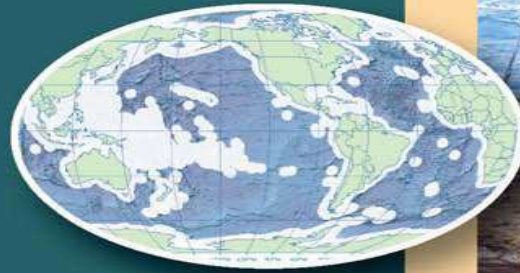
Determine the distribution of encounters in fishing and survey operations with the four orders of corals as primary indicators of VMEs. [

These orders are *Alcyonacea*, *Antipatharia*, *Gorgonacea*, and *Scleractinia*]

What do we Know of these Corals?

(From Japanese and Other Research)

Life History Traits of Component Species	Gogonacea	Antipathria (black coral)	Scleractina (stony coral)	Alcyonacea
Growth rate	Slow is a general character of deep sea corals	Slow is a general character of deep sea corals	Slow is a general character of deep sea corals	Relatively fast as compared to hard corals
Age of Maturity	No available information	No available information	No available information	No available information
Regeneration	No available information	No available information	No available information	No available information
Structural Formations	Do not form reef. However form structured habitat when densely aggregated.	Do not form reef. However form structured habitat when densely aggregated.	Cold water species (less than 10 species). Form reefs	
Resiliency				A species of soft shows more resiliency than hard corals



**INTERNATIONAL GUIDELINES
FOR THE MANAGEMENT OF DEEP-SEA FISHERIES
IN THE HIGH SEAS**

**DIRECTIVES INTERNATIONALES
SUR LA GESTION DE LA PÊCHE PROFONDE
EN HAUTE MER**

**DIRECTRICES INTERNACIONALES
PARA LA ORDENACIÓN DE LAS PESQUERÍAS
DE AGUAS PROFUNDAS EN ALTA MAR**

Vulnerable Marine Ecosystems

14. Vulnerability is related to the likelihood that a population, community, or habitat will experience substantial alteration from short-term or chronic disturbance, and the likelihood that it would recover and in what time frame. These are, in turn, related to the characteristics of the ecosystems themselves, especially biological and structural aspects. VME features may be physically or functionally fragile. The most vulnerable ecosystems are those that are both easily disturbed and very slow to recover, or may never recover.

15. The vulnerability of populations, communities and habitats must be assessed relative to specific threats. Some features, particularly those that are physically fragile or inherently rare, may be vulnerable to most forms of disturbance, but the vulnerability of some populations, communities and habitats may vary greatly depending on the type of fishing gear used or the kind of disturbance experienced.

16. The risks to a marine ecosystem are determined by its vulnerability, the probability of a threat occurring and the mitigation means applied to the threat.

Significant adverse impacts

17. Significant adverse impacts are those that compromise ecosystem integrity (i.e. ecosystem structure or function) in a manner that:
 - (i) impairs ability to replace themselves;
 - (ii) degrades long-term natural productivity; or
 - (iii) causes, on more than temporary basis, significant loss of species richness, habitat or community types. Impacts should be evaluated individually, in combination and cumulatively.

18. Scale and significance of an impact, considers 6 factors:
 - i. intensity or severity;
 - ii. spatial extent;
 - iii. sensitivity/vulnerability ;
 - iv. ability of recover y
 - v. alteration of ecosystem function; and
 - vi. timing and duration relative to during lifehistory stages.

19. Temporary impacts are those that recovers over an acceptable time frame. (5-20 years). Apply the precautionary approach.

Other VMEs for Consideration

Based on discussions of research surveys from California to Alaska, mainly within the U.S. EEZ , a NOAA Fisheries Workgroup identified two more groups of VMEs for consideration

These are the hydrocorals (order Anthothecatae) and sponges glass sponges (class Hexactinellida) and demosponges (class Demospongiae)].

TASK 2 of 5 -- Estimate catch rates of corals brought up by fishing gear

- 1. General Lack of Data**
- 2. Catch rates of VMEs/corals brought up by fishing gear can be misleading information of actual encounter impacts.**
- 3. Substantial new research and monitoring of gear performances with sophisticated mechanical and electronic devices would have to be developed to properly estimate true catch rates of VMEs by fishing gear.**

TASK 3 of 5 -- Estimate catch rates of corals encountered but not brought up by the fishing gear

1. This estimate is even more difficult to estimate catch rates of encounters when the gear do not even retain and bring up VMEs/corals.
2. Requires new research and monitoring to be developed

TASK 4 of 5 -- Estimate catch rates encountered in directed fisheries on corals and catch rates of encounters not brought up by the fishing gear

1. We need to get historical data when corals and other VMEs were harvested
(The Chinese Taipei , Japan, and Korea may have precious coral in Hawaiian waters in the past.
Q? Any over the Emperor Seamounts?)
2. The NPFC will be asking for historical data

TASK 5 of 5 -- Compare the estimated catch rates with those rates encountered in the NAFO area and the scientific literature, taking into account differences in physical characteristics of the ecosystems and differences in fishing gear dynamics.

The move-on rule Examples

Generally Move y miles when vessel encounters x rates)

- 1. NAFO – eg. move 2-5 n.miles if a vessel brings up 60 kg of live corals or 800 kg of sponges**
- 2. CCAMLR – eg. move 1 n.mile longline bycatch is 5 kg or 5 VME units**
- 3. Other examples that FAO can discuss at this workshop.**

What should Threshold Catch Rates be for Moving ?

1. Implicit assumptions is that such actions has a conservation value. Does it?
2. Threshold values that trigger the move-on rule are not supported by good data of biomass–density relationships that produce some critical threshold for protection.
3. Some research encounter rates from SE Alaska and other global area are available; but the connection between moving at a specific catch rates, how far to move, and what conservation value is gained are not very clear. Need mapping of corals.
4. Thus, we tend to apply the precautionary approach to minimize impact on corals and VMEs.
5. In general, there is an acceptance of moving y nautical miles when some agreed amount of corals are brought up by trawl gear. Why?

Some Considerations of Move-on Rules

1. Trigger move-on rates would have to be agreed to by the Parties, through science and other precautionary rationale to protect VMEs from SAIs. The move-on rules would be y -nautical miles radius of the encounter site (such as a pre-set y nautical miles from the mean site of an encounter).
2. A NMFS Workgroup reviewed the examples from CCAMLR, NAFO, and SPRFMO about their move-on rules. The Group is suggesting using the CCAMLR example to move off 1 nautical mile from the track of triggered encounters. Other move-on distances of 2 to 5 nautical miles were also discussed but not favored as the area of most seamounts are small and moving off too far would reduce research opportunities to collect and refine data bases to fine tune catch rate rules.
3. It may also be just as logical not to adopt a move-on catch rate rule for some of the VME zones because hardly any fishing that would impact VMEs occur in these zone, like in the eastern Pacific off California to Canada and Alaska.

Important Conclusions – Build Data Base

1. Has to be an integral part of the Commission's Encounter Protocol Research.
2. What would these data gathering procedures be? These are details that the Science Working Group of NPFC can establish.
3. Korea will take the lead, following CAMMLR examples.

Interim measures were established for the Northwest Pacific Ocean in 2006:

(1) Freeze fishing footprint

(2) No bottom fisheries expansion into new areas, especially north of 45 N

(3) Move more than 5 miles in case of encounter with VMEs

Interim measures were established for the Northeast Pacific Ocean in 2011:

- (1) No vessel to engage in bottom fishing until assessments have been carried out and, where appropriate, management measures have been implemented
- (2) prohibit direct fishing on the following coral orders: *Alcyonacea*, *Antipatharia*, *Gorgonacea*, and *Scleractinia*
- (3) close area to bottom fishing where VMEs are known to occur or likely to occur based on the best scientific information