



# Open oceans and deep seas: Relevance to post 2010 targets

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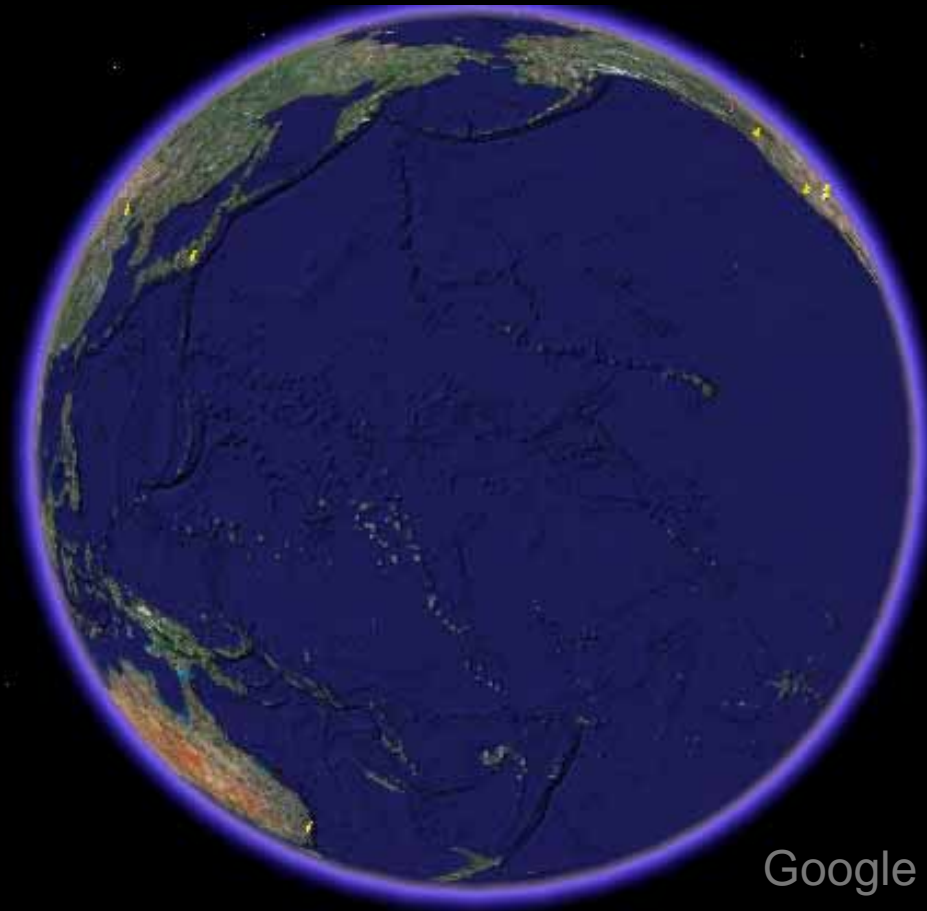
**11<sup>th</sup> Global Meeting of the Regional Seas Conventions and  
Action Plans  
Bangkok, Thailand 5-8 October 2009**



# Overview



- Context
- International commitments
- CBD role and criteria
- New global ocean initiative
- Next steps



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# State of the Oceans 2009



- Melting polar ice
- Changing temperatures
- Changing chemistry
- Changing currents
- Changing winds
- Changing productivity patterns
- Changing communities

## Plus...

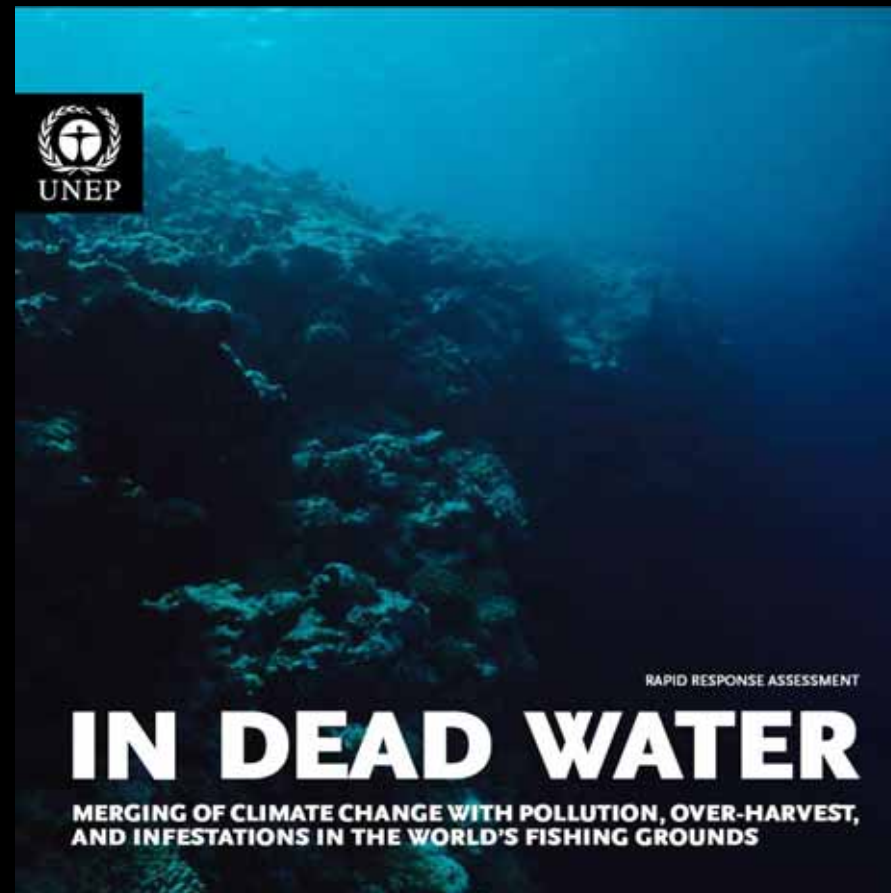
pollution, overfishing, habitat destruction, lost biodiversity, invasive species and disease



PHOTO COURTESY: ROGER BRAITHWAITE, UNIVERSITY OF MANCHESTER

**MELTING WATER FLOWING INTO A HUGE MOULIN  
IN THE GREENLAND ICE SHEET**

“Synergistic effects of these stressors risks an unprecedented, dramatic and wide-spread collapse of marine ecosystems and fisheries within the next decades”

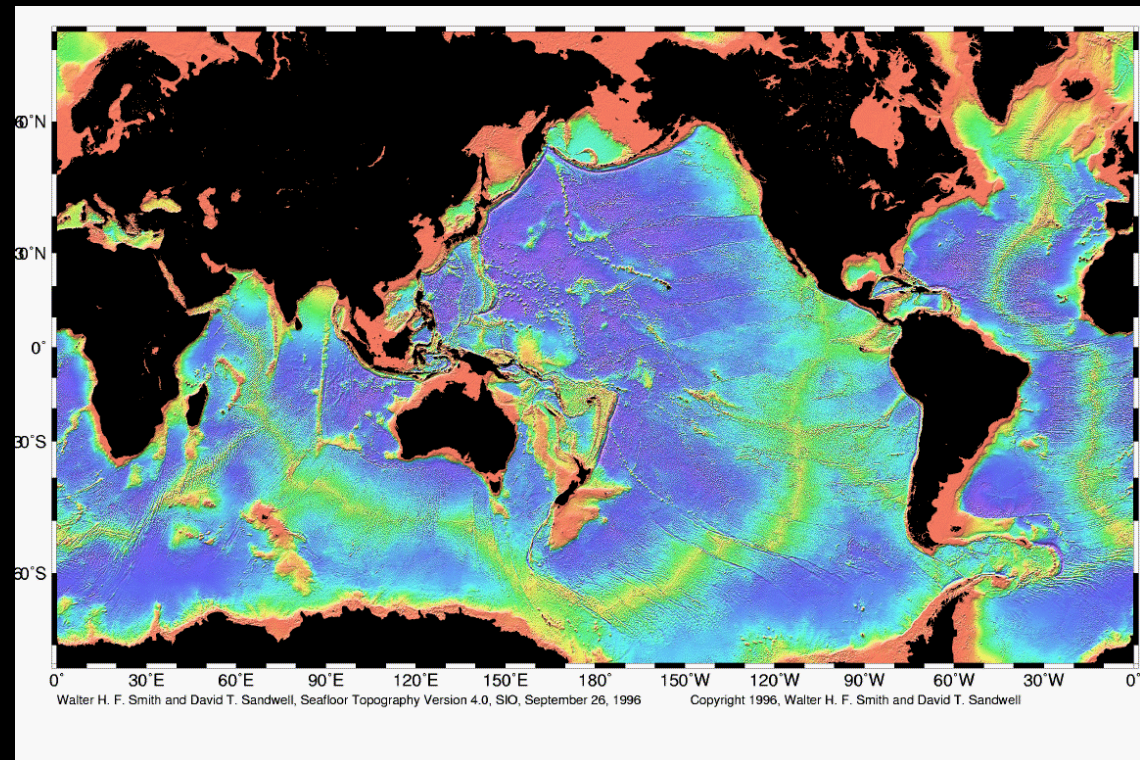


*Nelleman, C., Hain, S., and Alder, J. (eds.) February 2008*

# The Deep



- 95% of global biosphere
- 5% explored; 0.01% in detail
- Regulates climate
- Contains vast natural resources
- Highest biodiversity on land or sea

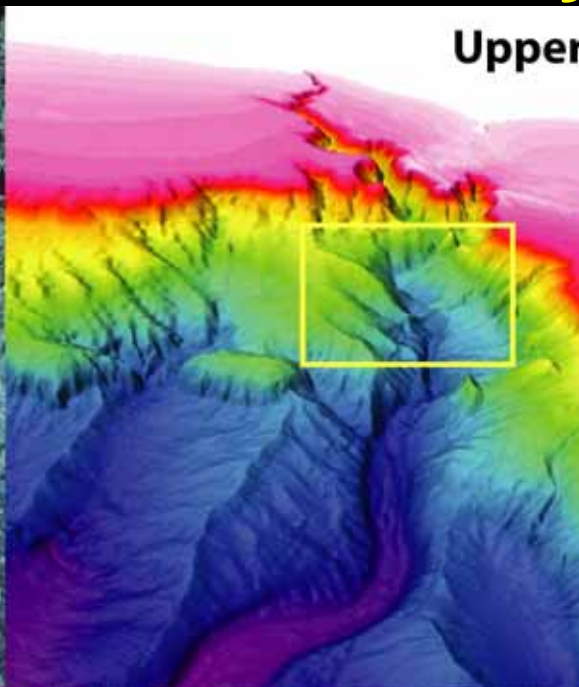


Brisinga sp.

# Nazaré Canyon



Upper and middle canyon



anemone

anemone

seaurchin



# Impact of bottom trawls



IMR, Bergen



Economic activity in vulnerable ecosystems can have severe consequences





David Shale and  
Ulf Baamstedt  
MARECO/CoML





Ulf Baamstedt/ MARECO/CoML



# Weaknesses of current governance in areas beyond national jurisdiction



- Poor implementation
- No mechanism for coordinated EBA or representative networks of MPAs
- Weak enforcement provisions
- Many unregulated activities
- Geographic gaps



Boarding party returns after apprehending an illegal poacher near Heard Island

Photography by LSPH Damian Pawlerko

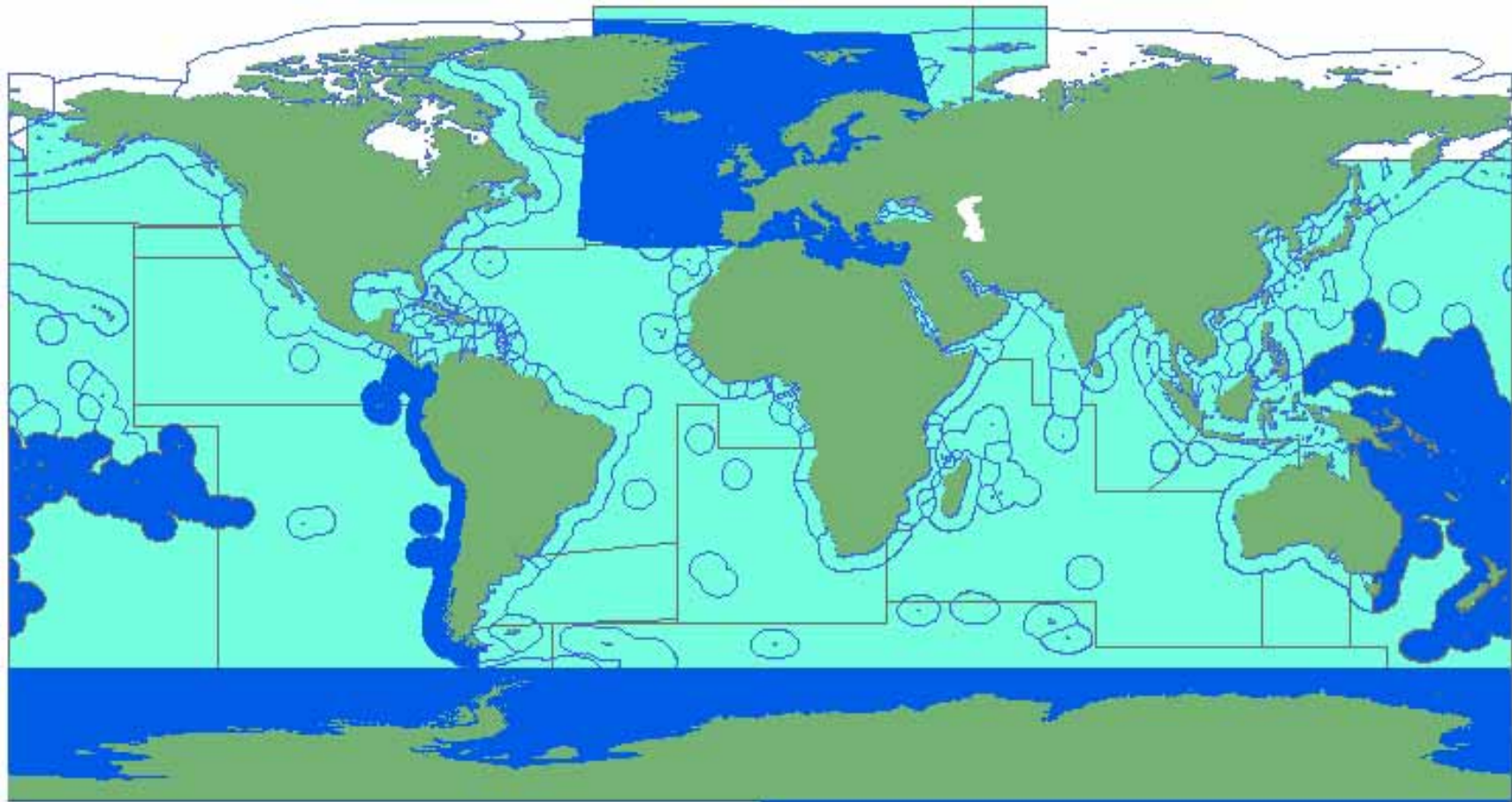


# Regional Seas



West to East: North-East Pacific South-East Pacific Wider Caribbean West & Central Africa Mediterranean Black Sea  
Eastern Africa Red Sea & Gulf of Aden ROPME Sea Area South Asian Seas East Asian Seas North-West Pacific  
Pacific Partner programmes: Arctic North-East Atlantic Baltic Sea Caspian Sea Antarctic

# Regional seas treaties and institutions with some jurisdiction over high seas areas

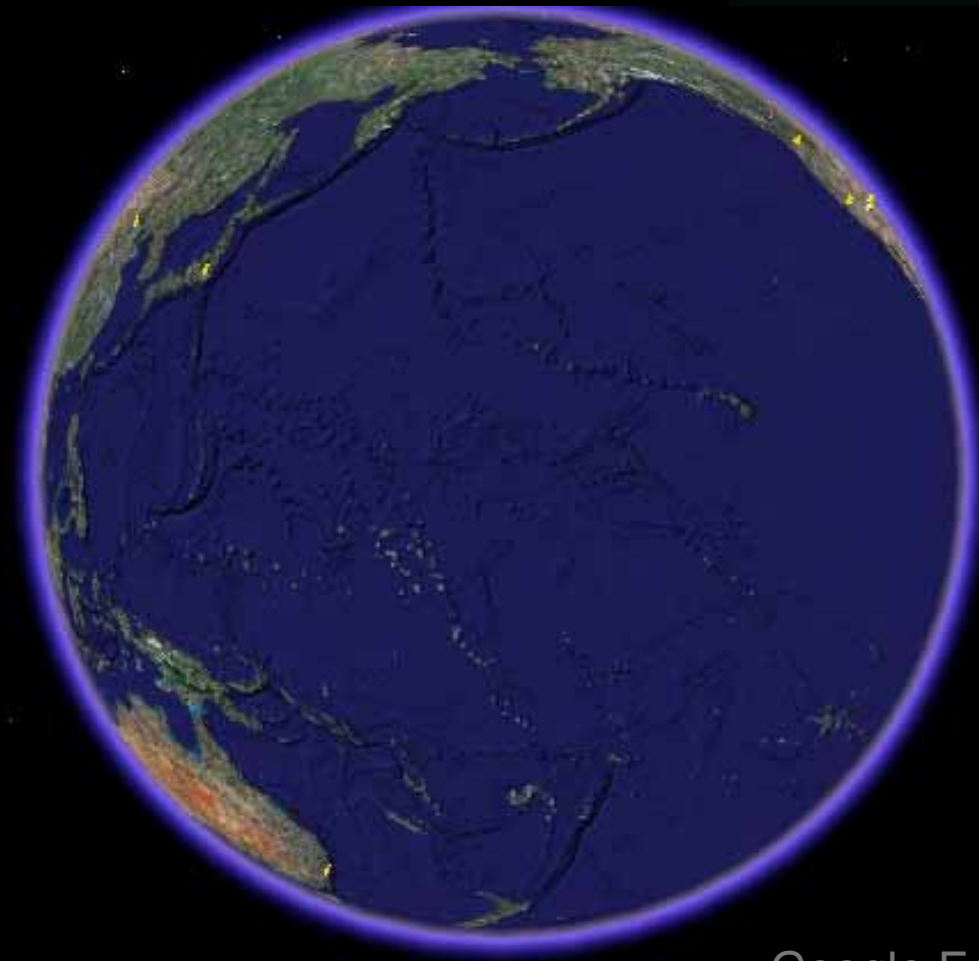


Map courtesy Marjo Vierros  
Boundaries indicative only

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# Relevant treaties and institutions



- **General:**
  - United Nations Convention on the Law of the Sea
- **Shipping and waste dumping:**
  - International Maritime Organization
- **Fishing:**
  - FAO and regional fisheries management organizations
- **Biodiversity:**
  - Convention on Biological Diversity
  - Convention on Migratory Species
  - UN Fish Stocks Agreement
- Regional Seas Programs and Action Plans

# World Summit on Sustainable Development, 2002



- halting the decline of biodiversity by **2010**;
- encouraging the application of ***ecosystem approaches*** to marine management by **2010**;
- establishing ***representative marine protected area networks*** by **2012**;
- restoring depleted fish stocks to maximum sustainable yields by **2015**, where possible
- eliminating destructive fishing practices



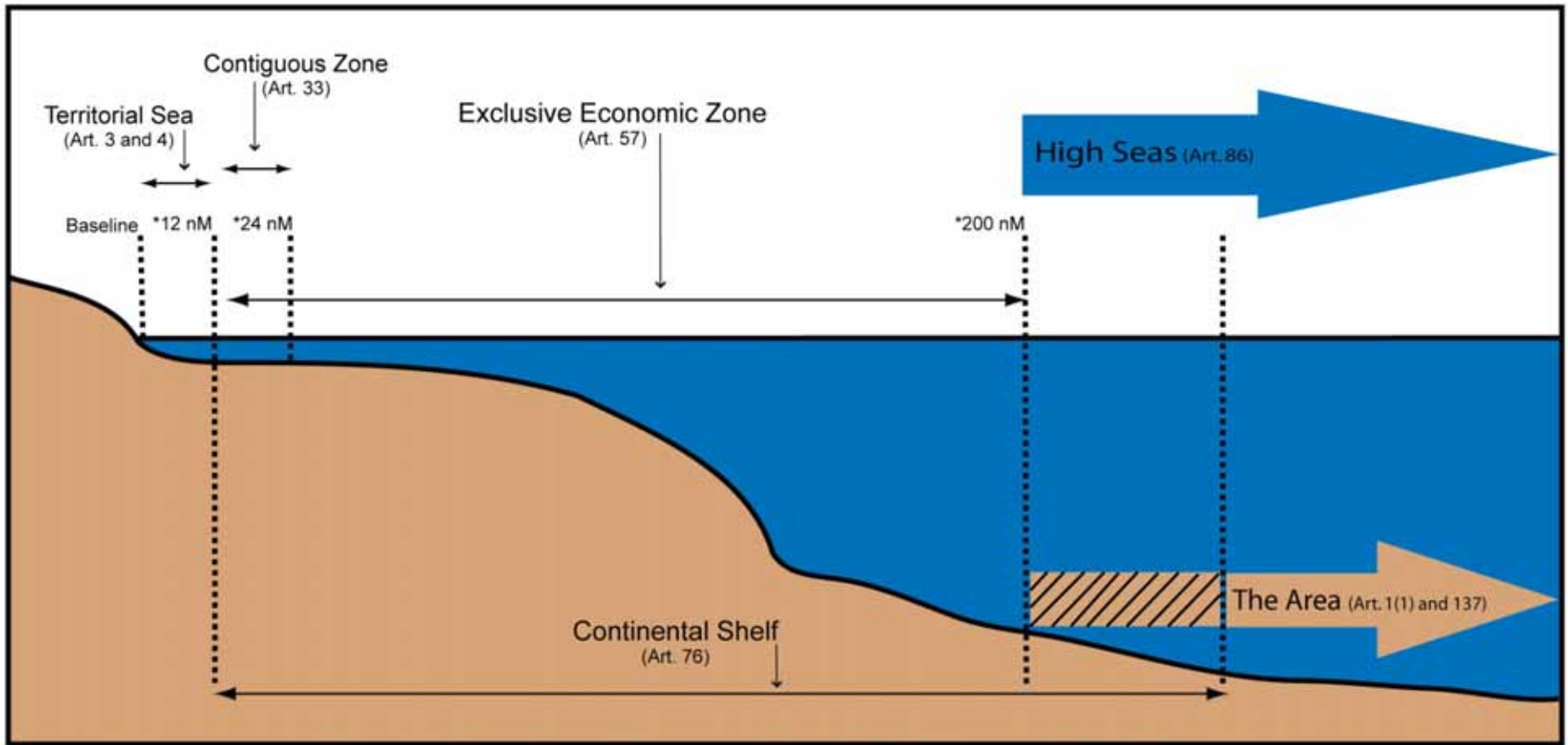
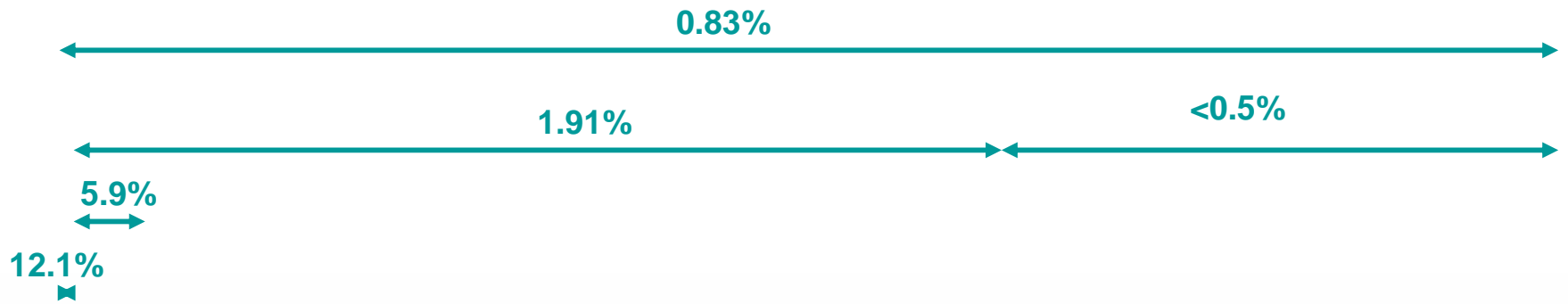
# Manado Ocean Declaration

adopted May 14, 2009. high level ministerial session  
World Oceans Conference, Manado, Indonesia



## Paragraph 15:

15. We resolve to further establish and effectively manage marine protected areas, **including representative resilient networks**, in accordance with international law, as reflected in UNCLOS, and on the basis of the best available science, recognizing the importance of their contribution to ecosystem goods and services, and to contribute to the effort to conserve biodiversity, sustainable livelihoods **and to adapt to climate change**.



\* up to

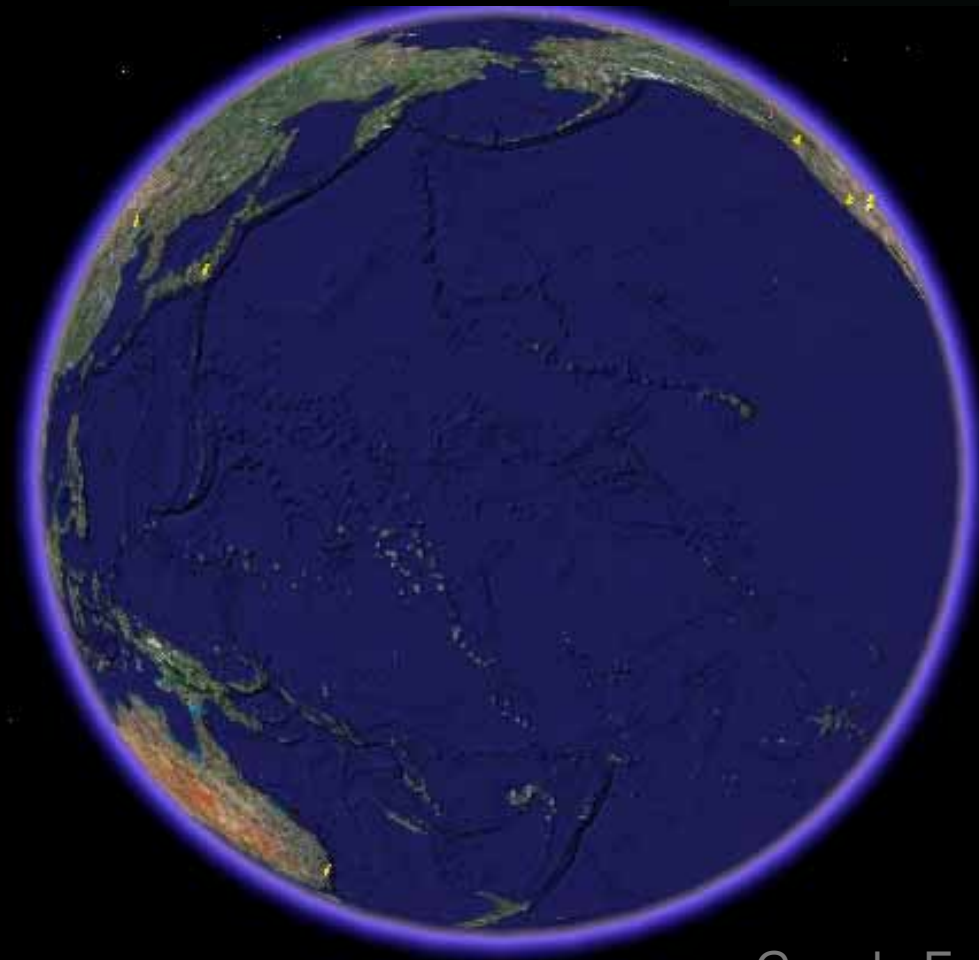


The Area starts at 200 nM from the baseline when the legal Continental Shelf (as defined in Art. 76) does not extend beyond that limit.

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# Convention on Biological Diversity, 1992



- Applies to the processes and activities of Parties, regardless of where they occur (CBD, Art. 4).
- With respect to MPAs in areas beyond national jurisdiction:
  - ... in **supporting the work of the General Assembly** with regard to marine protected areas beyond national jurisdiction, by focusing on provision of scientific and, as appropriate, technical information and advice relating to marine biological diversity, the application of the ecosystem approach and the precautionary approach...(CBD Decision VIII/24 §42, 2006)

**CBD SCIENTIFIC CRITERIA FOR IDENTIFYING  
ECOLOGICALLY OR BIOLOGICALLY SIGNIFICANT  
MARINE AREAS IN NEED OF PROTECTION, IN OPEN-  
OCEAN WATERS AND DEEP-SEA HABITATS (Annex I)**



<b>Criteria</b>	<b>Definition</b>	<b>Rationale</b>	<b>Examples</b>	<b>Consideration in application</b>
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1. Uniqueness or Rarity
2. Special importance for life history stages of species
3. Importance for threatened, endangered or declining species and/or habitats
4. Vulnerability, Fragility, Sensitivity, or Slow recovery
5. Biological Productivity
6. Biological Diversity
7. Naturalness

**CBD SCIENTIFIC GUIDANCE FOR DESIGNING A REPRESENTATIVE NETWORK OF MARINE PROTECTED AREAS, INCLUDING IN OPEN OCEAN WATERS AND DEEP-SEA HABITATS (Annex II)**



**Required network criteria**

**Definition**

**Applicable site-specific considerations (inter alia)**

1. Ecologically and biologically significant areas
2. Representativity
3. Connectivity
4. Replicated ecological features
5. Adequate & Viable sites

# Convention on Biological Diversity COP IX/20 May 2008



- Adopted the scientific criteria and guidance
- Agreed workshop to develop:
  - Guidance for identifying ecologically and biologically significant areas and
  - Guidance on use and further development of biogeographic classification
- Agreed workshop to develop guidelines for environmental impact assessment and strategic environmental assessment

# Ottawa Workshop outcomes

29 September-2 October 2009



- Guidelines identifying EBSAs
- Guidance on further use and development of GOODS biogeographic classification
- Synthesis of existing experience in ABNJ
- Capacity building
- Data needs

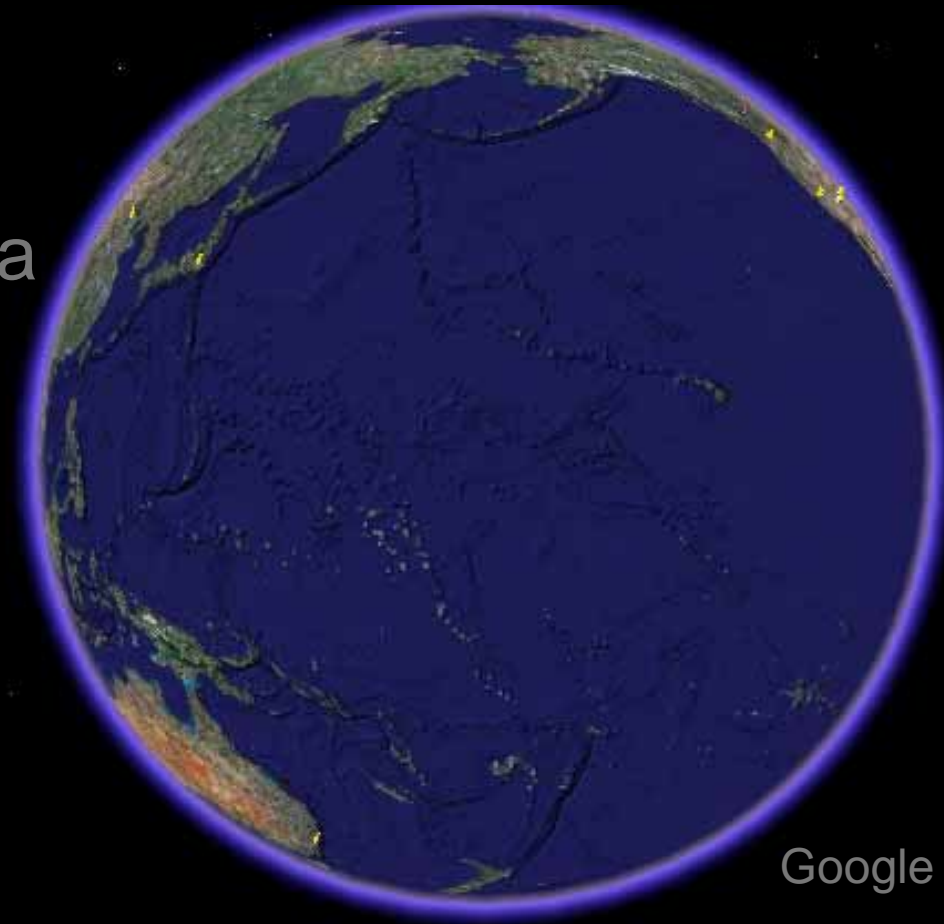




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## Global Ocean Biodiversity Initiative

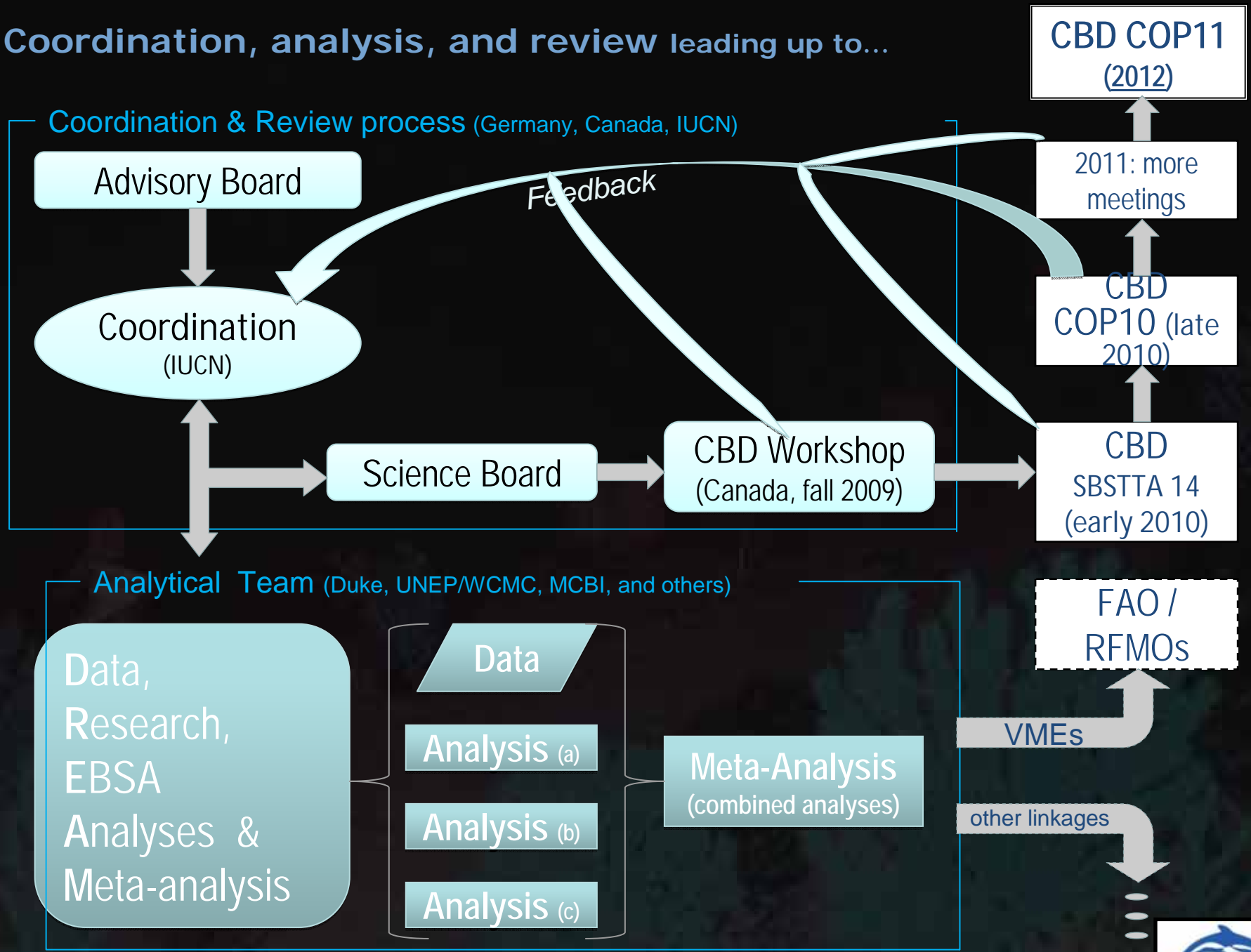


providing scientific support

- To assist in implementation of Decision IX/20, para 14-24
  - Engage scientists to provide comments and practical advice on applying the scientific criteria
  - Provide illustrations of how individual EBSA criterion can be interpreted and applied
  - Develop illustrative regional analyses



# Coordination, analysis, and review leading up to...



Jeff Ardron

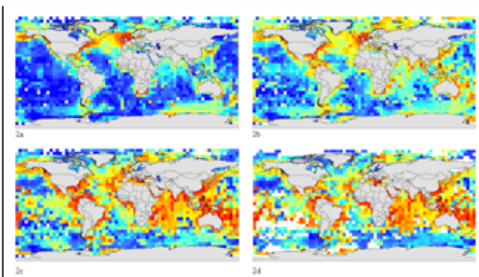




## Defining ecologically or biologically significant areas in the open oceans and deep seas: Analysis, tools, resources and illustrations

A background document for the CBD expert workshop on scientific and technical guidance  
on the use of biogeographic classification systems and identification of marine areas beyond  
national jurisdiction in need of protection.

Ottawa, Canada  
29 September - 2 October 2009



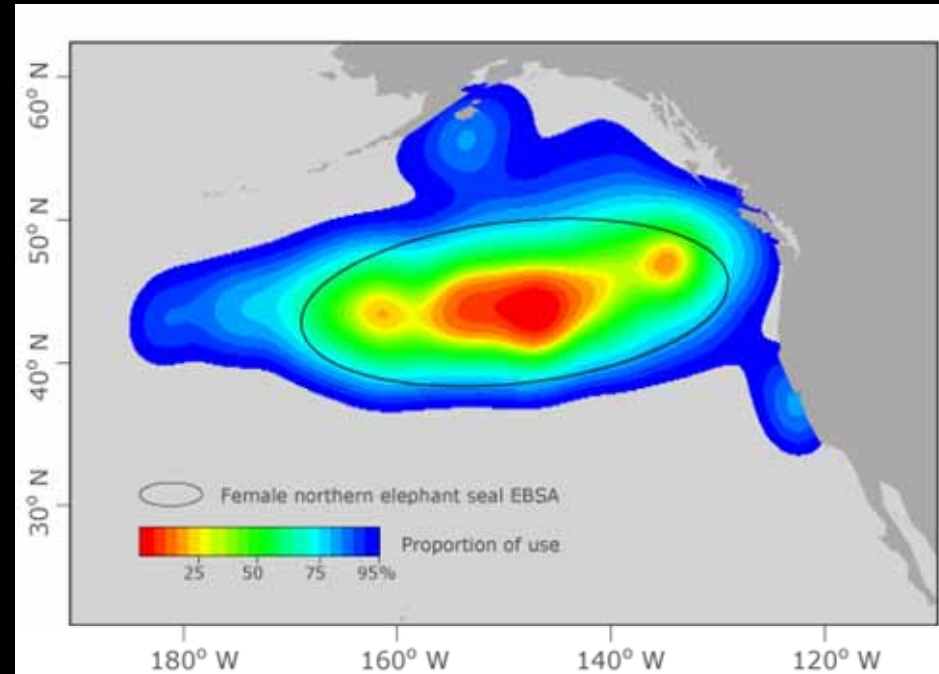
Authors: Jeff Ardron, Daniel Dunn, Colleen Corrigan, Kristina Gjerde, Patrick Halpin, Jake  
Rice, Edward Vanden Berghe, Mario Vierros

Illustrations edited by Daniel Dunn, with contributions from Jesse Cleary, Patrick N. Halpin,  
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Vierros, Sheila McKenna, Arlo Hemphill, Edward Vanden Berghe, Malcolm Clark, Mireille  
Consalvey, Ashley Rowden

## 2. Special importance for life history stages of species

### Northern elephant seals

During the long migration, female northern elephant seals travel half way across the Pacific, feeding almost entirely in habitats beyond national jurisdiction.



High-use areas identified by kernel home range techniques

The ecological significance of these areas to northern elephant seal life history is reflected in the energy required to sustain their time on land and ensure pup survival.

Illustration Credit: Autumn-Lynn Harrison  
TOPP program

### 3. Importance for threatened, endangered or declining species and/or habitats

#### Pacific Leatherback sea turtle migration corridors

Slow growth and low reproductive potential of leatherback turtles makes them particularly sensitive to excessive mortality of adult life stages.

Several years of tracking have revealed a consistent foraging area for leatherback turtles in the South Pacific Gyre.

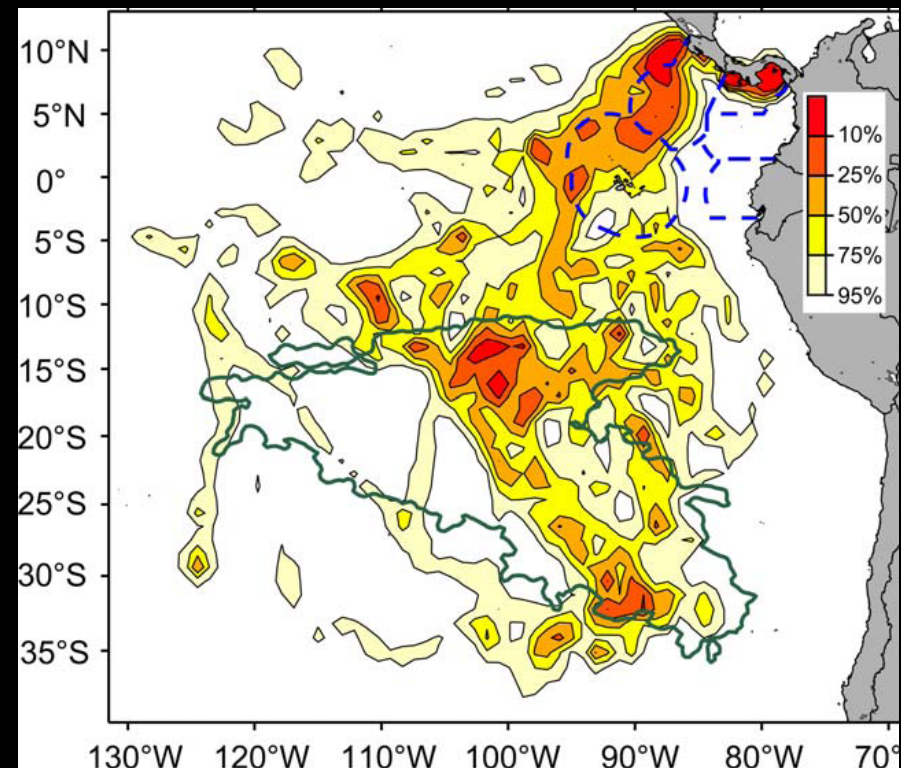


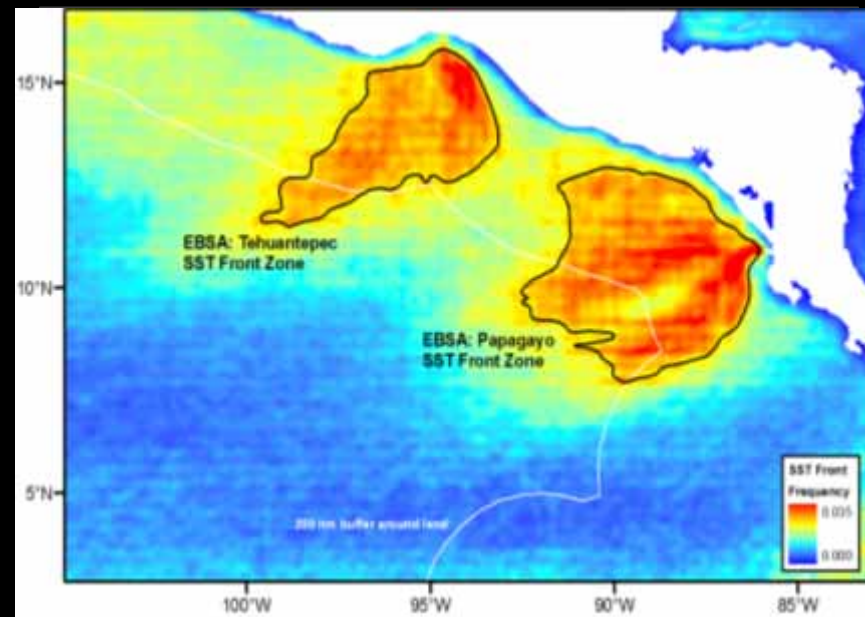
Illustration credit: Andre Boustany  
From Shillinger et al. 2008

# 5. Biological productivity

## Sea Surface Temperature Fronts

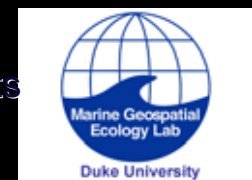
Dynamic physical ocean processes such as upwellings, currents, and eddies promote biological productivity and structure marine ecosystems by aggregating and dispersing nutrients and organisms.

Potential EBSAs could be detected by measuring how frequently oceanographic features re-occur.



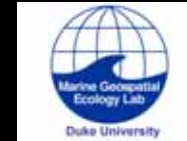
Mean frequency of sea surface temperature (SST) fronts off the Pacific coast of Central America, 1985-2005,

Illustration credit: Jason Roberts



# EBSA Illustrations Viewer

<http://openoceansdeepseas.org>



## Illustrations

- 1 Pacific White Sharks  
[show more...](#)
- 2 Northern elephant seals (*Mirounga angustirostris*)  
[show more...](#)
- 3 Areas of special importance for the Antipodean Albatross (*Diomedea antipodensis*) in the Tasman Sea  
[show more...](#)
- 4 Tracking Juvenile Loggerhead Sea Turtles (*Caretta caretta*)  
[show more...](#)

rare



life history



endangered



fragile



productive



diverse



natural





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# Next Steps



1. Adopt goal of ecosystem resilience to promote capacity to respond to climate change
2. Adopt targets and relevant instruments for regional networks of “representative, resilient MPAs” including open ocean and deep sea
3. Cooperate with relevant organizations to protect straddling and highly migratory species of regional/global concern
4. Enhance capacity to conduct EIAs/SEAs for transboundary and high seas activities
5. Encourage development of regional instrument for integrated marine/coastal management
6. Support regional initiatives to identify and protect areas beyond national jurisdiction
7. Expand competence to address areas beyond national jurisdiction

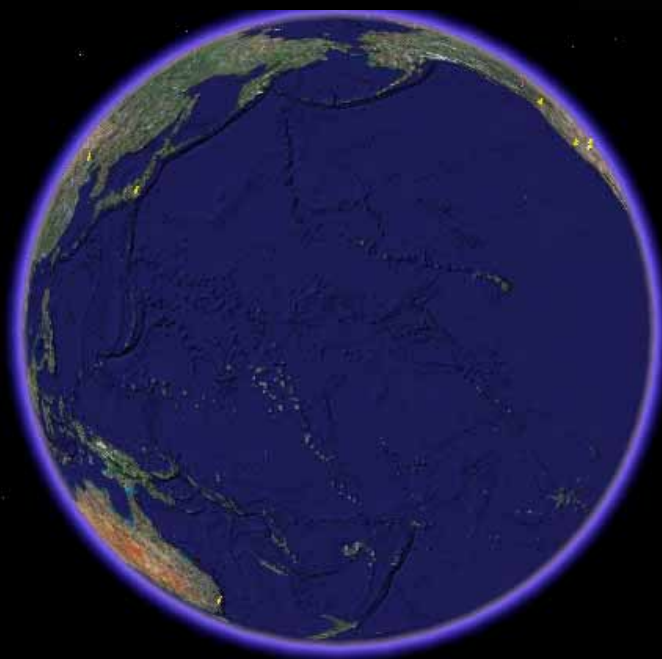
# Upcoming meetings



1. CBD EIA workshop, November 2009
2. UNFCCC, Copenhagen, December 2009
3. 3<sup>rd</sup> UN Working Group on BBNJ, early 2010
4. CBD SBSTTA, May 2010
5. CBD COP 2010, Nagoya, Japan, October 2010

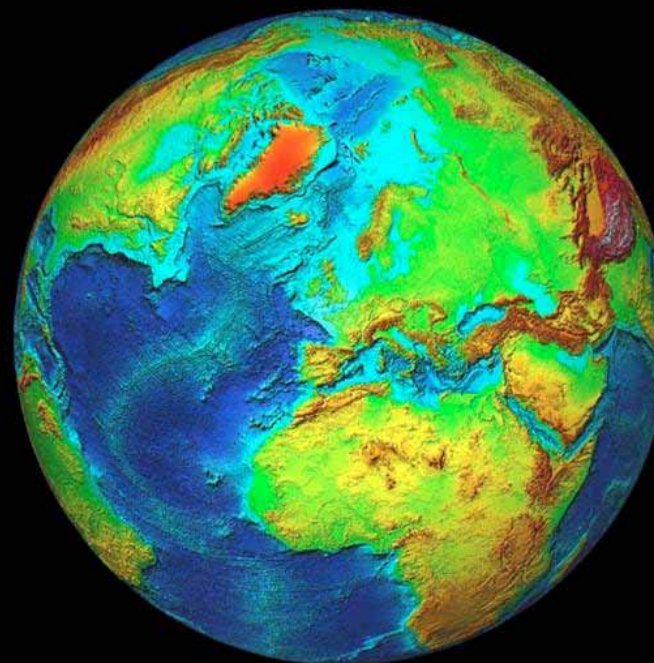


# Thank you!



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