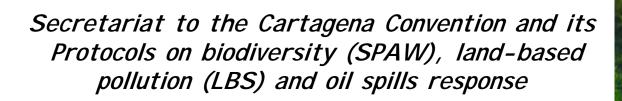


# Marine Protected Areas in an ecosystem-based management context – the Wider Caribbean experience

UNEP's Caribbean Environment Programme



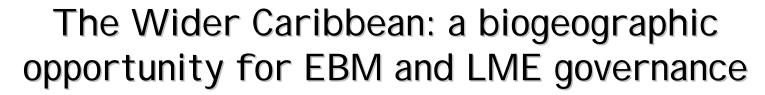
11th Global Meeting of the Regional Seas Conventions and Action Plans Bangkok, 5-8th October 2009

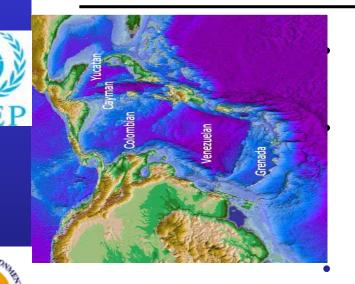


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www.cep.unep.org







2.6 million Km2

38 countries & territories: diff political and legal systems, languages (16 SIDS, 19 territories, 13 land States)

One Marine Biogeographic Province with several ecoregions



- Coastal tourism: a major force, lessons to be learned
- Land-based pollution and over-fishing major issues

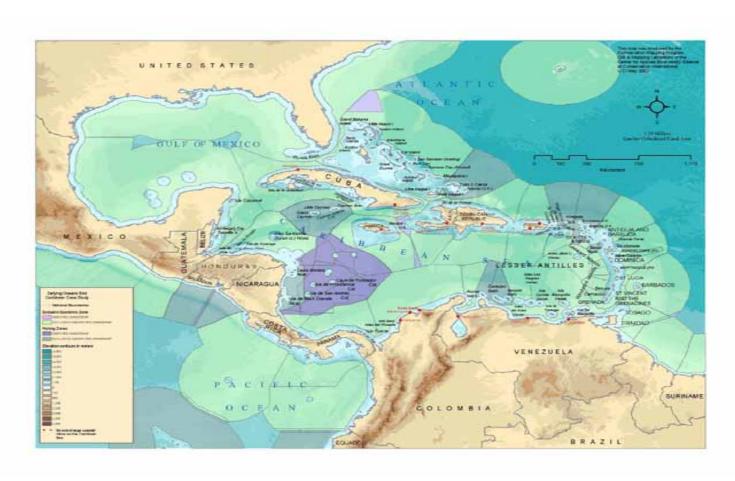


## The Wider Caribbean Region (WCR)

Almost no international waters



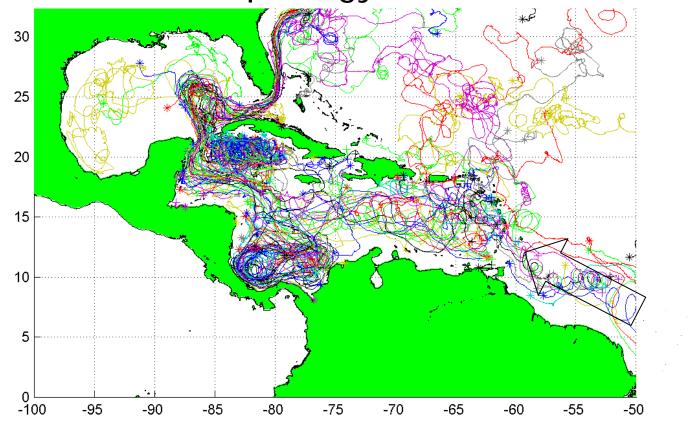




Oceanic circulation shaped by gyres and meanders largely due to coastal morphology and bottom relief







Current drifters (1998-2000) Kevin Leaman (UM/RSMAS)



### The Cartagena Convention and its Protocols - an integrated approach -



#### **Cartagena Convention**

Adopted 1983 Entered into Force 1986

### Oil Spills Protocol Adopted 1983

Adopted 1983
Entered into Force 1986

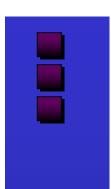
#### Specially Protected Areas and Wildlife Protocol

Adopted 1990 Entered into Force 2000 Land-based Sources of Marine Pollution Protocol Adopted 1999

Emergency response for oil spills (with IMO)

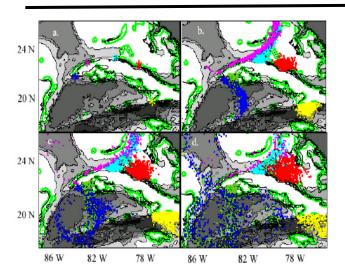
SPAW Biodiversity subprogramme

Assesment and management of marine pollution (AMEP)

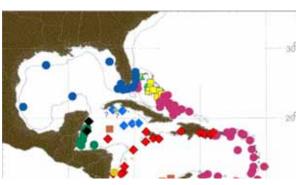


### Biological connectivity of marine populations





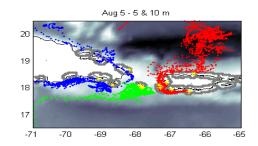
Snapper larval dispersal (*Paris et al.* (2005)

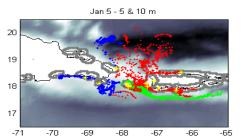


Mutually exclusive distribution of 9 nominal spp of gobies (*Collin, 2004*)

#### Restricted

 The need for transboundary and ecoregional management of marine resources

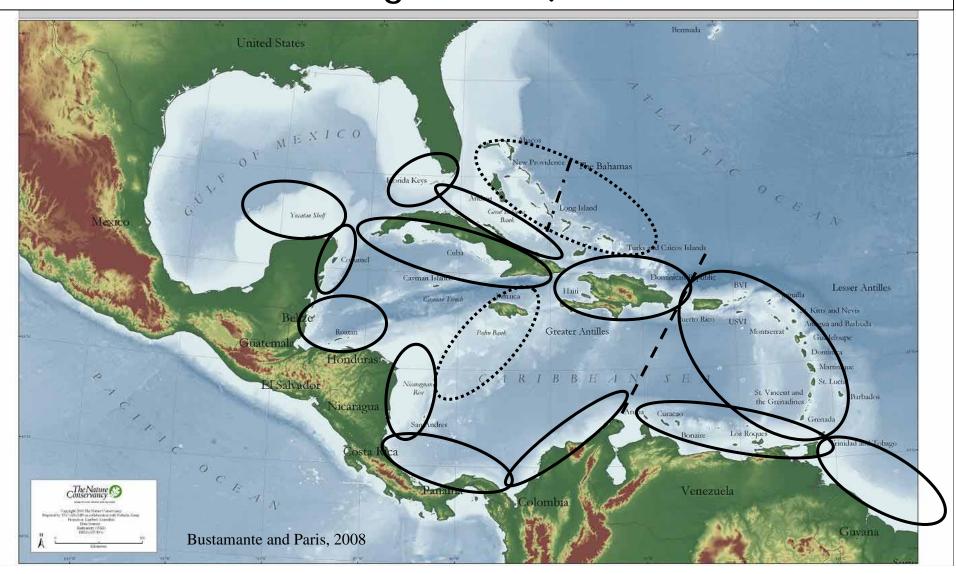




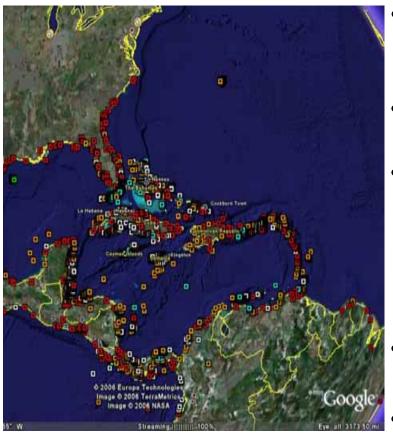
(A. palmata, Baums, Paris, Cherubin , 2006)



# Restricted marine populations connectivity (fish larvae, gobies distribution and coral genetics)



### ne Protected Areas (MPAs)



106, at the GCFI Annual Meeting)

- WCR coral reefs (~26000 km2)
- Over 300 MPAs
- 1/3 are highly threatened by overfishing, pollution, habitat alteration
- 80% outside MPAs
- Only 6% of MPAs considered effective