

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

UNEP's Caribbean Environment Programme



*Secretariat to the Cartagena Convention and its
Protocols on biodiversity (SPAW), land-based
pollution (LBS) and oil spills response*

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

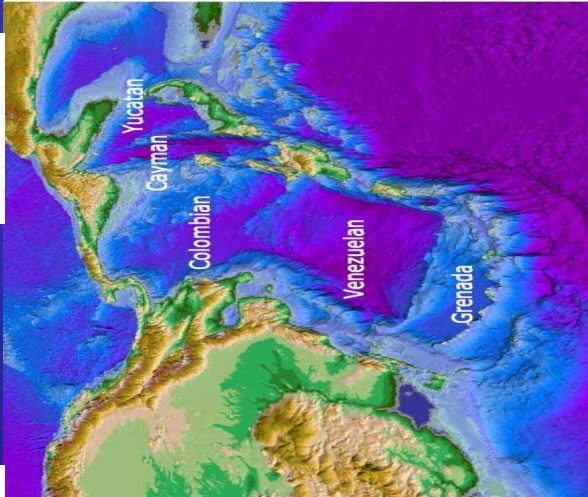


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www.cep.unep.org



The Wider Caribbean: a biogeographic opportunity for EBM and LME governance



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

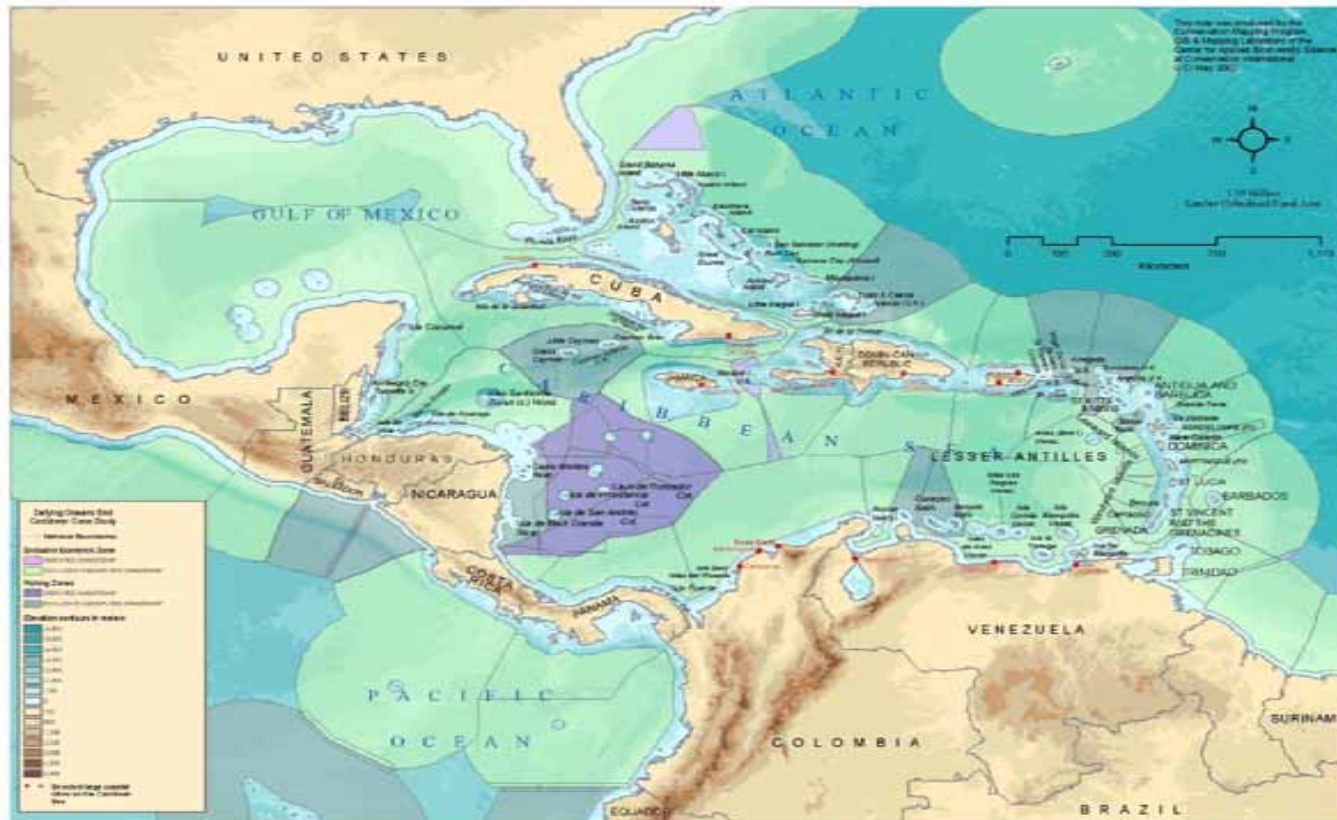
Coastal tourism: a major force, lessons to be learned

Land-based pollution and over-fishing major issues

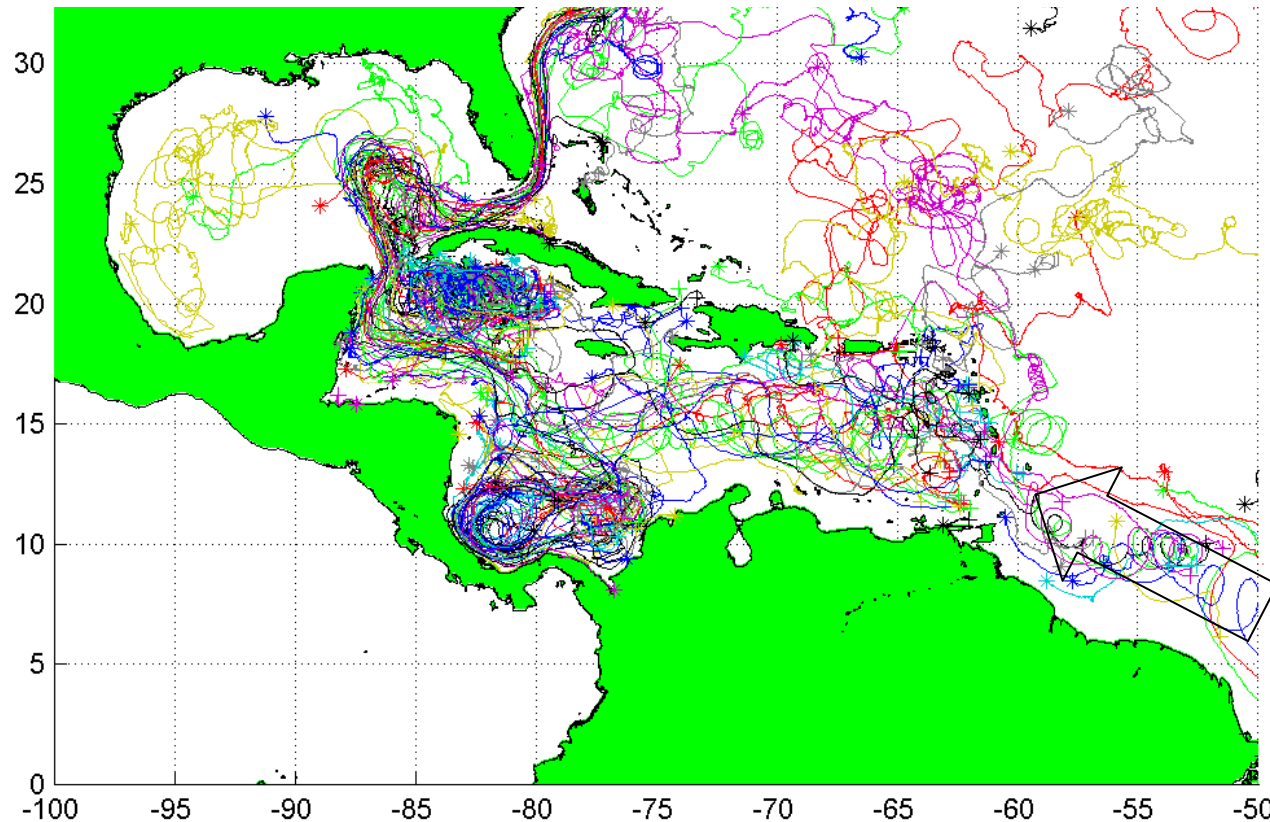


The Wider Caribbean Region (WCR)

- 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

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



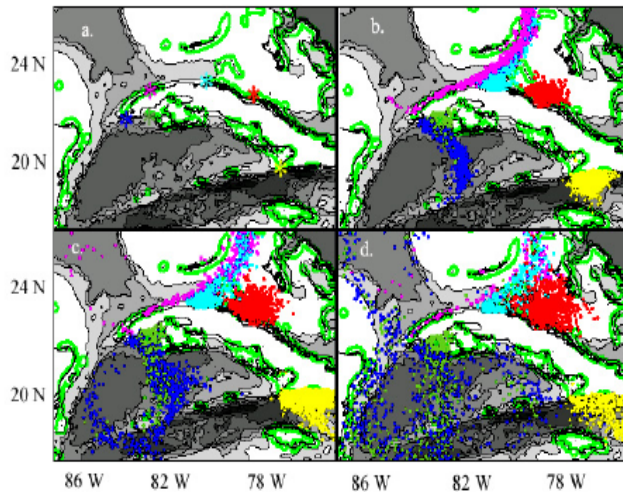
Emergency response
for oil spills (with IMO)

SPAW Biodiversity
subprogramme

Assesment and management
of marine pollution (AMEP)

Biological connectivity of marine populations

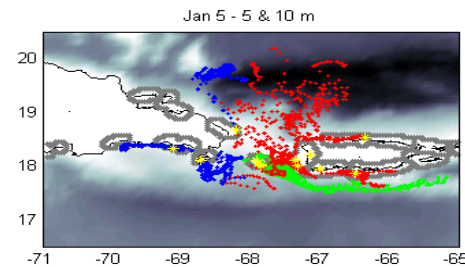
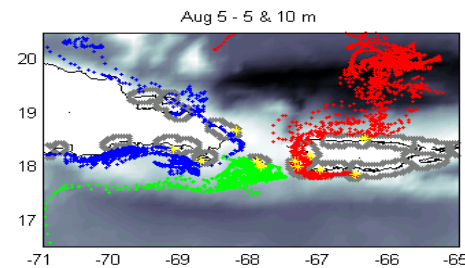
- Restricted
- The need for transboundary and ecoregional management of marine resources



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

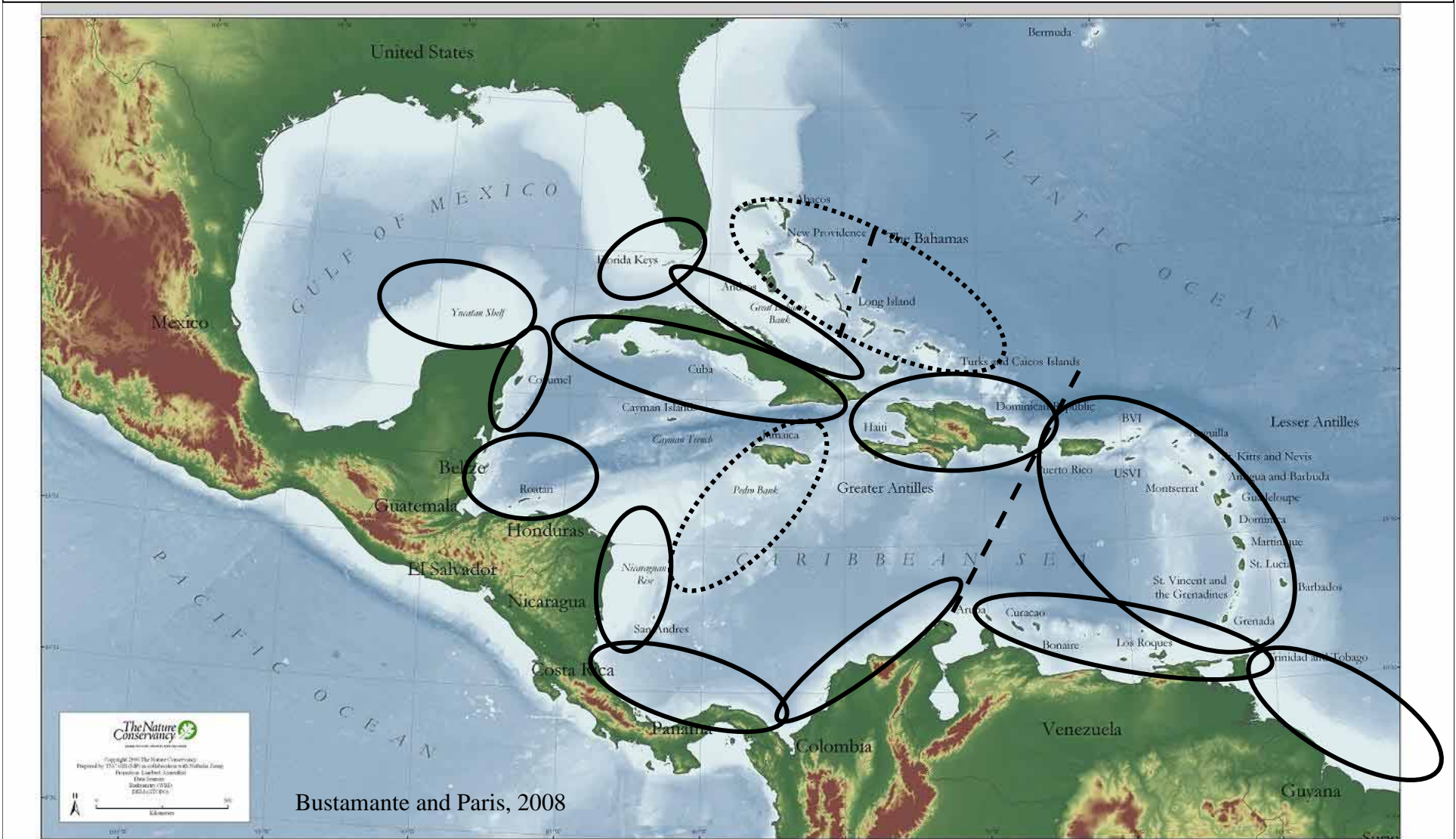


Mutually exclusive distribution of 9 nominal spp of gobies (*Collin, 2004*)

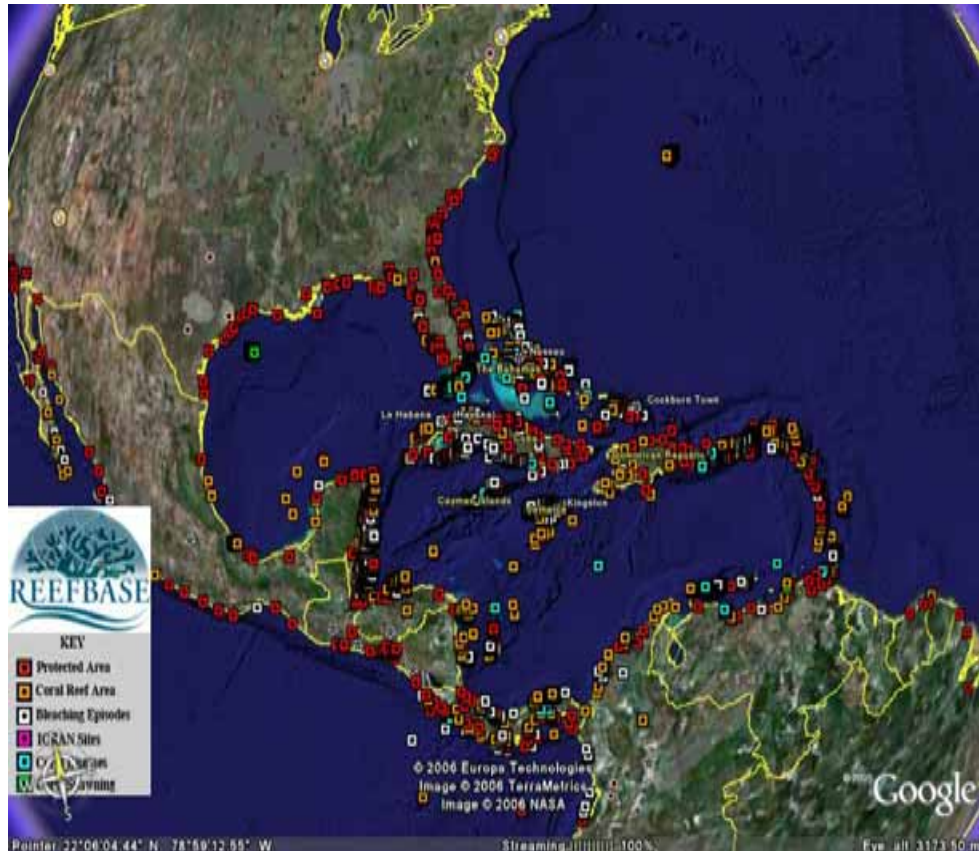


(*A. palmata*, Baums, Paris, Cherubin, 2006)

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



Marine Protected Areas (MPAs)



- 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

(Baums, 2006, at the GCFI Annual Meeting)

Burke and Maidens, 2004



MPA systems

National (or subnational)

- Cuba
- Dutch Antilles
- Cayman I s.
- St. Lucia
- The Bahamas
- Florida US
- Mexico (Yucatan, Quintana Roo)
- Colombia Caribbean
- British Virgin I s.
- US Virgin I s.

Transboundary

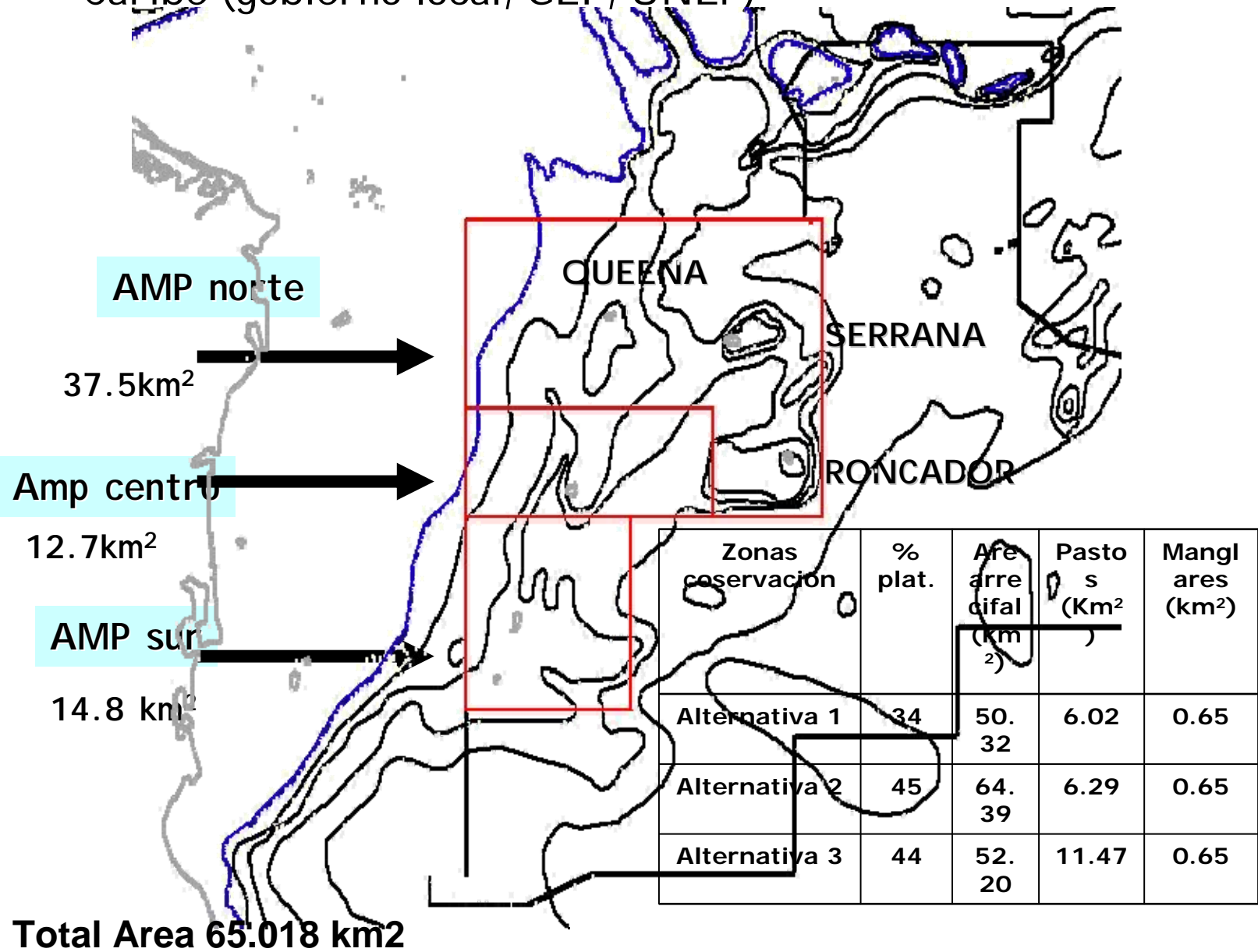
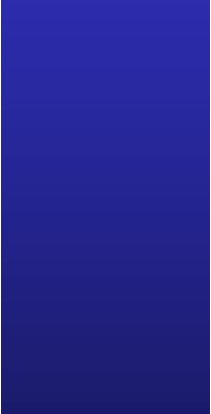
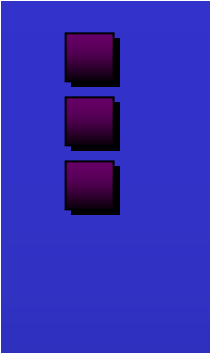
- None



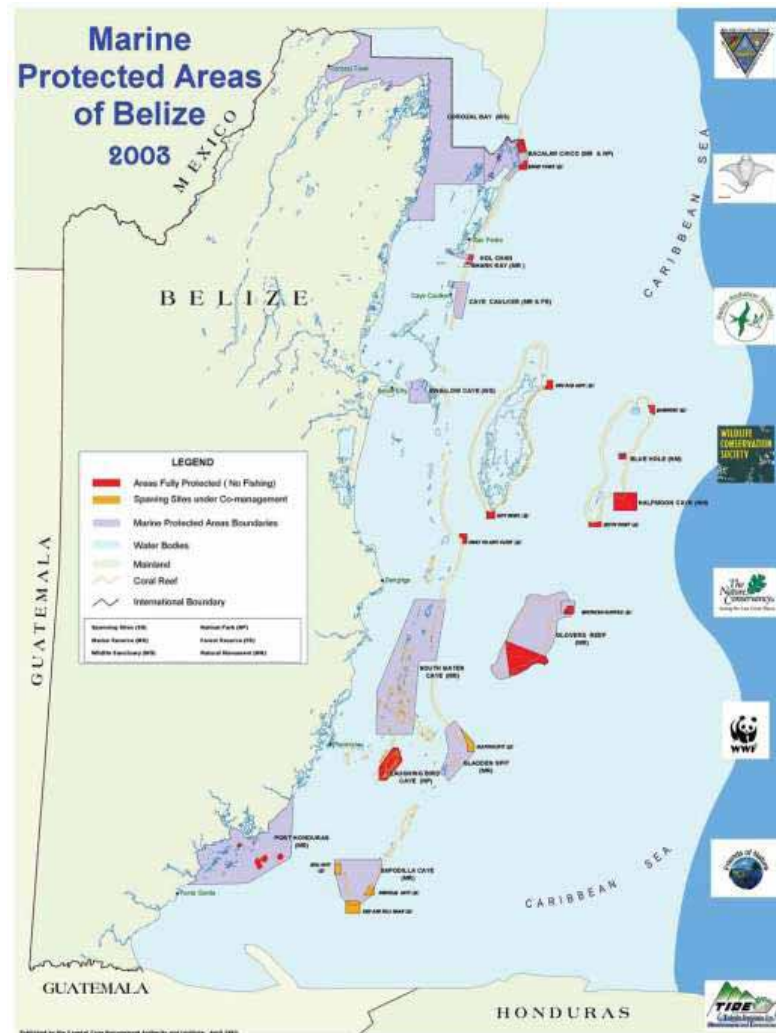
Ecoregional/biological connectivity

- None

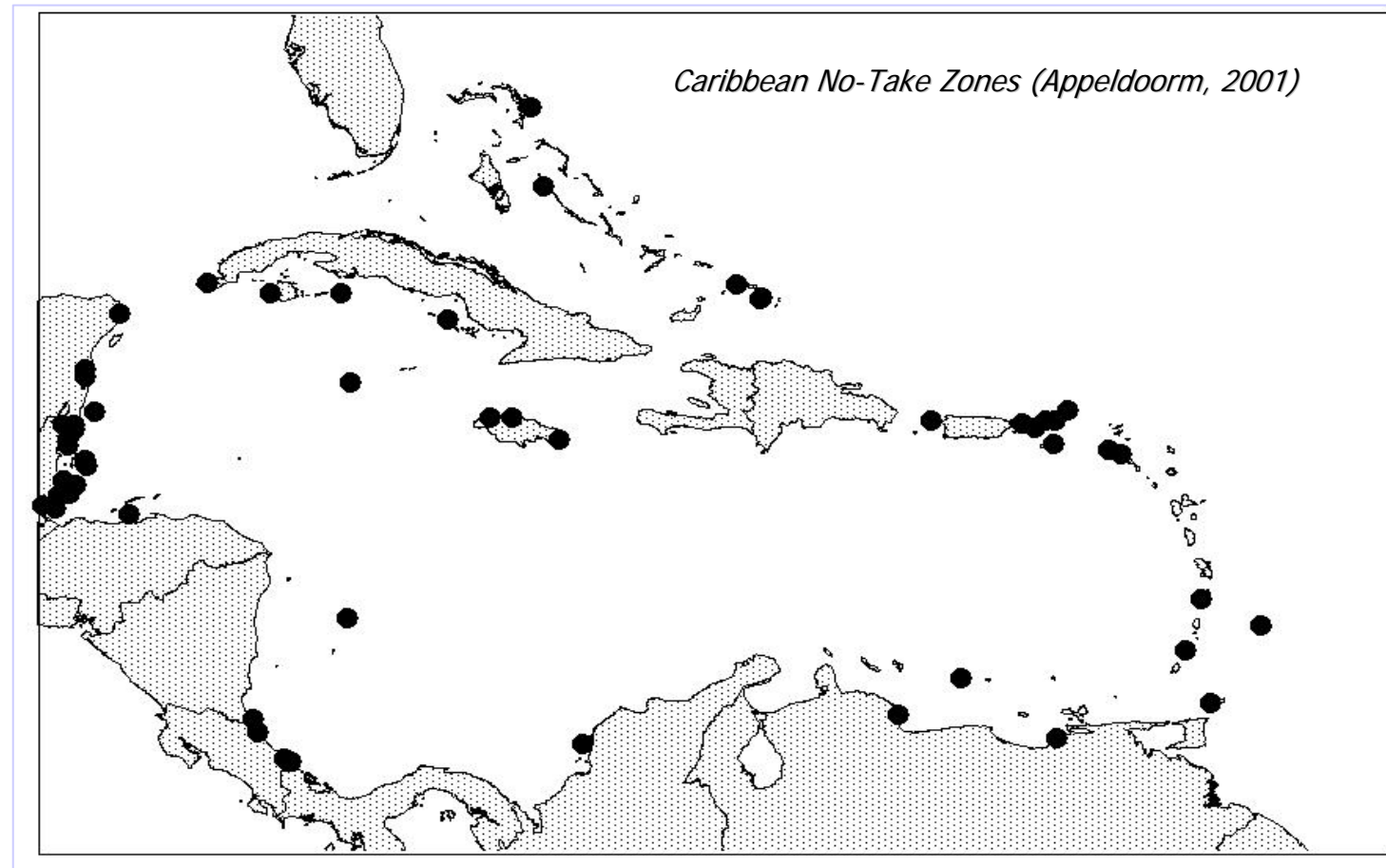
MPAs system Seaflower BR, San Andres Archipelago, Colombia
Caribe (gobierno local, GEF, UNEP)

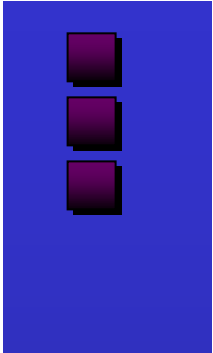


National System of AMPs in Belize (government and local groups, international ONGs)





No-take MPAs in the Wider Caribbean

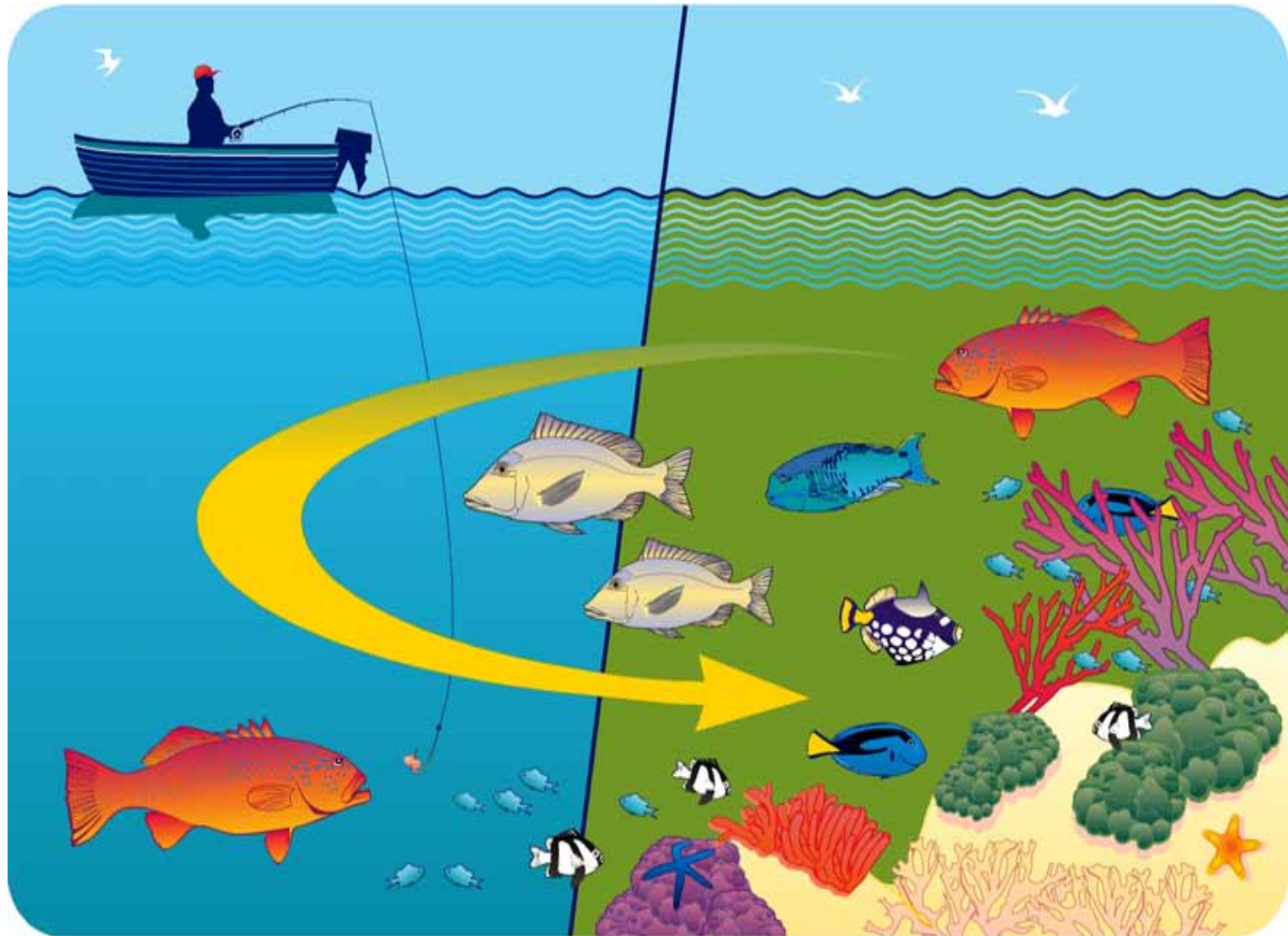




Some Marine Reserves Successes/MPAs (Soufriere, Hol Chan, Sian Ka'an)

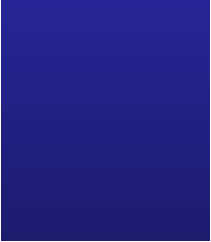
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- 5 years later, 2-4 times increase in species abundance
 - increase number of mature reproductive individuals
 - Fish “spill overs” outside the reserve
- 

“The Spillover effect”





CaMPAM: A network of MPA practitioners to increase management effectiveness



- Assist MPAs to implement best management practices through training, communication, information sharing, and exchanges
- Promote transboundary coordination of ecologically-connected sites (national, and subregional networks)
- Assist countries to meet the Caribbean Challenge of protecting 20% of the marine and coastal habitats by 2020.

CaMPAM: A people's network towards an ecoregional MPA network

- Training the Trainers

- 7 courses, Spanish & English
- regional and local follow-up courses
- > 1,200 individuals trained
- manual (8 modules, weeks)



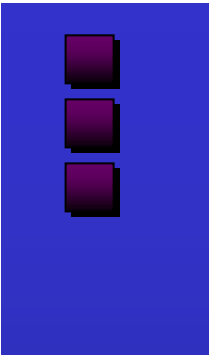
- Small Grants Program (exchange visits, technical assistance) <http://www.gcfi.org/SGF/SGFEng.php>

- List serve campam@yahoogroups.com

- Regional MPA Database

<http://cep.unep.org/caribbeanmpa>

- Annual meetings (in association with partners)



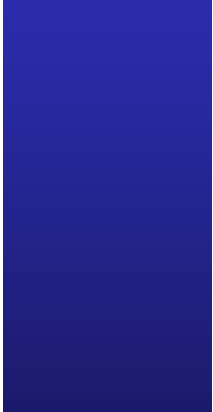
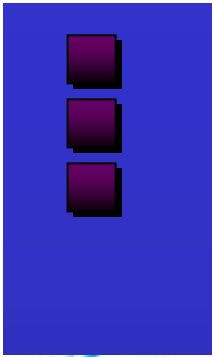


Emerging initiatives



- Moving to MPA networks (changing scale and approach)
- The “Caribbean Challenge” (MPA national systems to conserve 20% marine environment by 2020)
- Caribbean Large Marine Ecosystem Project (GEF, UNDP, IOC and UNEP)





The way ahead.....

Towards more effective, more resilient, more representative MPAs and MPAs systems, a wider application of EBM and principles of good governance within the context of the Cartagena Convention and the Caribbean LME



Challenges

- Create MPA networks, following ecoregional divisions to enhance coordination
- Engage business sector (e.g. tourism)
- Wider application of EBM, outside MPAs
- Financial and human resources
- Political will





THANK YOU!



Protected Areas in the WCR



,UNEP-WCMC, 2000