



Marine Protected Areas in the Caribbean: Considerations for NBSAP Planning

Regional Workshop for Caribbean Countries on Updating National Biodiversity Strategies and Action Plans

St-George's, Grenada, 17-21 October 2011

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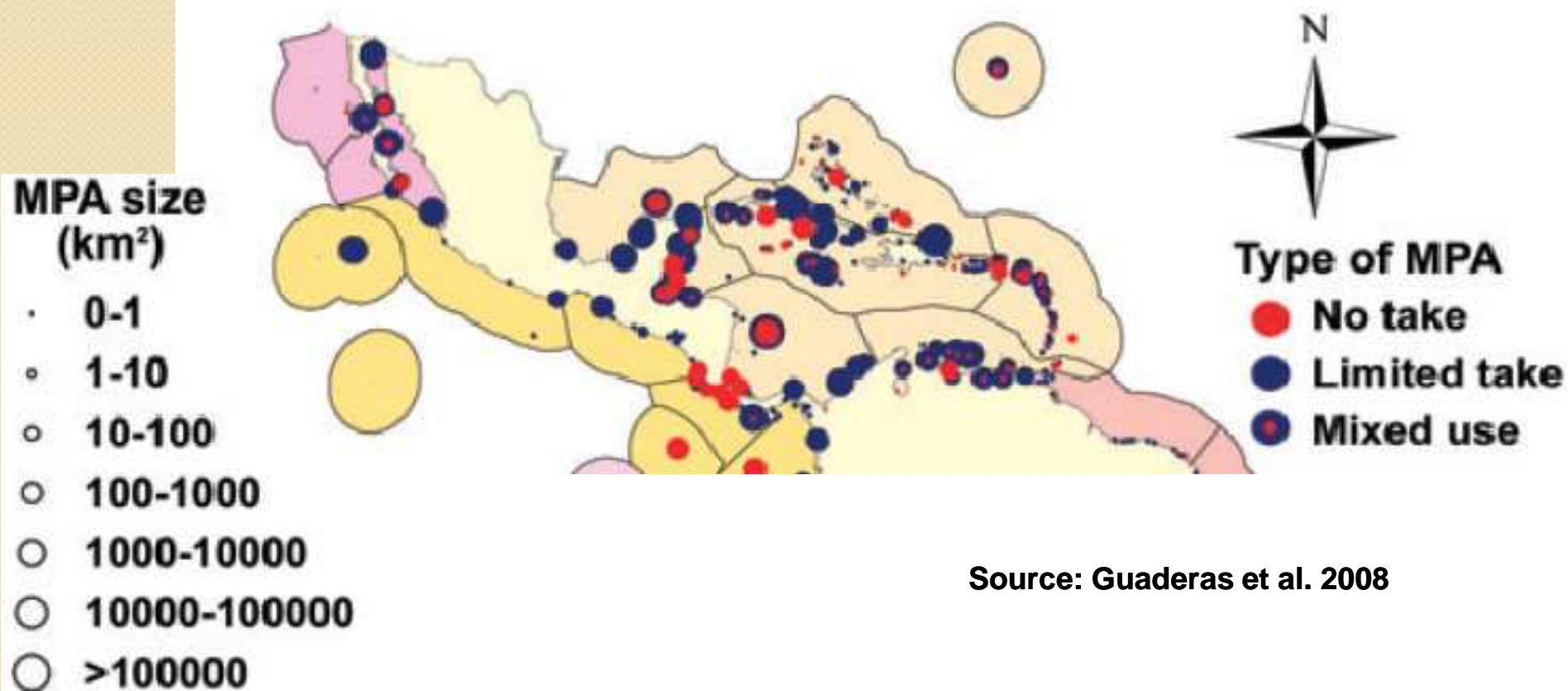
The Cropper Foundation

Trinidad and Tobago

Regional MPAs: Status

Extent and Coverage of Regional MPAs

- Approximately 482 MPAs in the Caribbean Region
 - 84 – No take; 341 – Limited take; 87 – Mixed use



Regional MPAs: Status

Extent and Coverage of Regional MPAs

- Geoghegan et al. 2001 on 75 MPAs in the Lesser Antilles and Central Caribbean



81%
includes
coral reefs



39%
includes
mangroves



35%
includes
seagrass
beds



71%
includes
terrestrial
component

Regional MPAs: Impacts

MPA Objectives (Intended Impacts)

- Ecosystem based management tool for conservation and sustainable use of biodiversity
- Help maintain ecosystem function and provide ecosystem services
- Halt key threats, overexploitation, habitat degradation, pollution and invasive alien species
- Protect natural resources, unique habitats, threatened species and representative examples of marine biodiversity

Regional MPAs: Impacts

- Reality is that MPAs in the region and around the world not doing well.

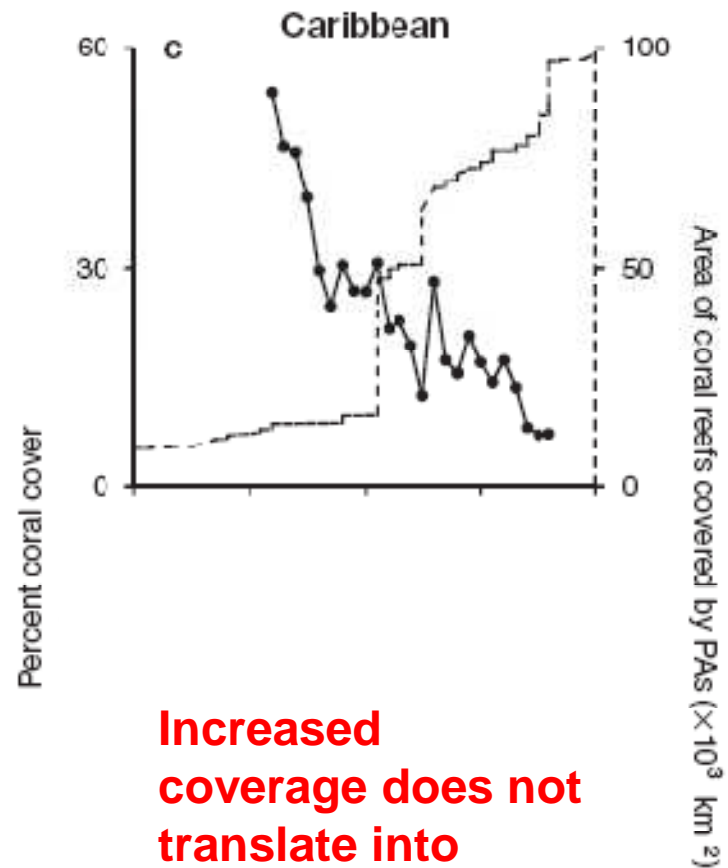
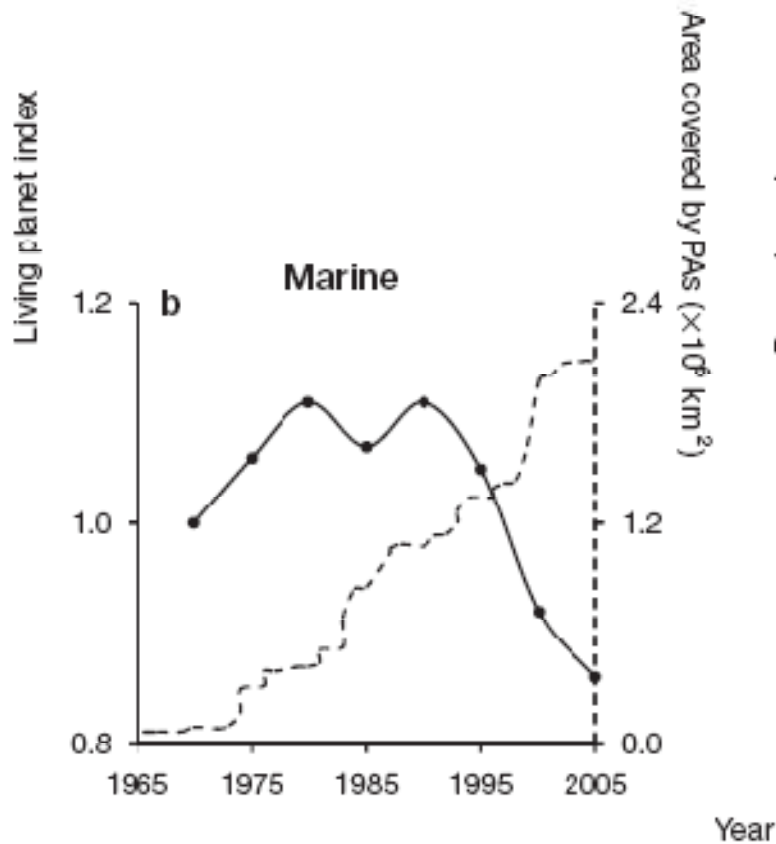
Regional MPAs: Impacts

- Reality is that MPAs in the region and around the world not doing well.
- Case 1: Mora and Sale (2011) assessed the extent to which PAs are preventing the loss of biodiversity by comparing the living planet index to the global temporal trend of the area covered by PAs.

The Living Planet Index reflects changes in the planet's ecosystems by tracking population trends of over 2500 vertebrate species.



Regional MPAs: Impacts



Increased coverage does not translate into success of the MPA

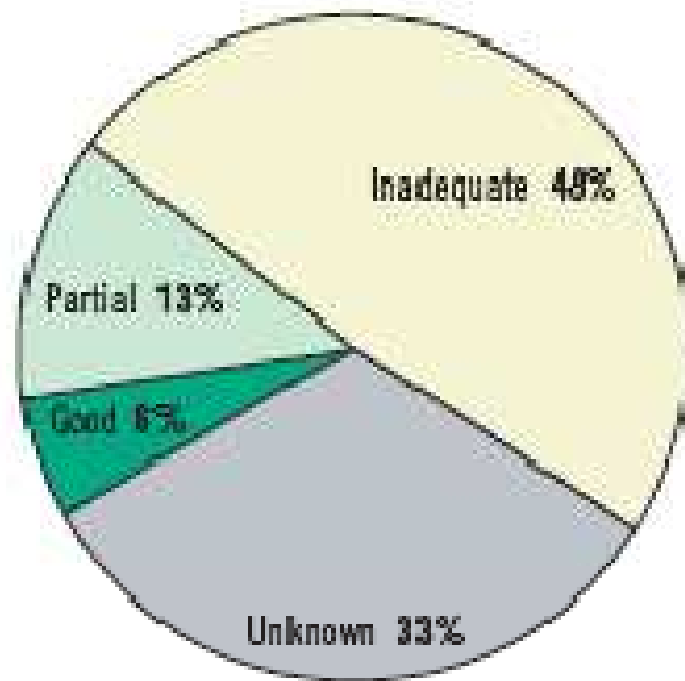
Regional MPAs: Challenges

Limited success of MPAs

- Management
 - Generally ineffective – c science to support man
 - Lack of/ minimal enforc

**Reefs at Risk Project,
Burke and Maidens, 2004**

Management Effectiveness of Caribbean MPAs



Number of MPAs in the region is approximately 285.

Regional MPAs: Challenges

Limited success of MPAs

- Management

- Generally ineffective – capacity, priority, funding, lack of science to support management plans
- Lack of/ minimal enforcement of regulation

- Extent and Coverage

- Rarely of adequate size to conserve a representative sample of regional biodiversity or provide adequate protection for species or populations with complex life histories and large area requirements

Regional MPAs: Challenges

Limited success of MPAs

• Connectivity

- Marine organisms utilize a variety of habitat types and locations during their life cycle.
- Protection for migrating species often non-existent outside of protected area
- Options: Establish very large MPAs with nested marine reserves or Network of MPAs

• Unmitigated drivers

- Warming due to increased SST
- Pollutants that originate outside borders of the MPA
- Solution: Reduce anthropogenic stressors – the things we can control

Regional MPAs: Challenges

Case 2: Assessment of capacity building needs for management in the Caribbean Region (Gombos et al, 2011)

- Project led by NOAA Coral Reef Conservation in partnership with Caribbean Marine Protected Area Management Network and Forum (CaMPAM)
- Gap analysis using information from 27 MPA sites in 10 Caribbean countries and territories

Regional MPAs: Challenges



Regional MPAs: Planning the NBSAP

Enforcement

Technical Support

Budget – where will the funds come from?

Financing

Training/ Higher education

Mgt. planning; biophysical monitoring; socio-economic monitoring

More staff

Research – BACI studies – who will undertake?

MPA Effectiveness evaluation; outreach and education

Monitoring and Evaluation

Collaboration with other ministries/ institutions

Regional MPAs: Planning the NBSAP

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MPA Effectiveness
evaluation; outreach
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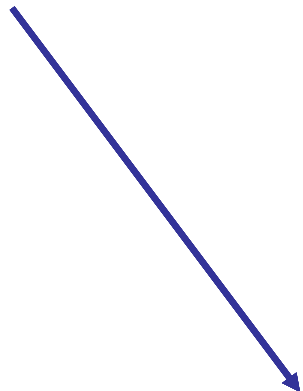
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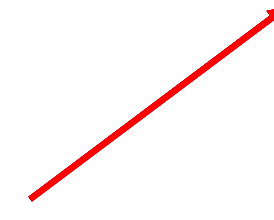
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References

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