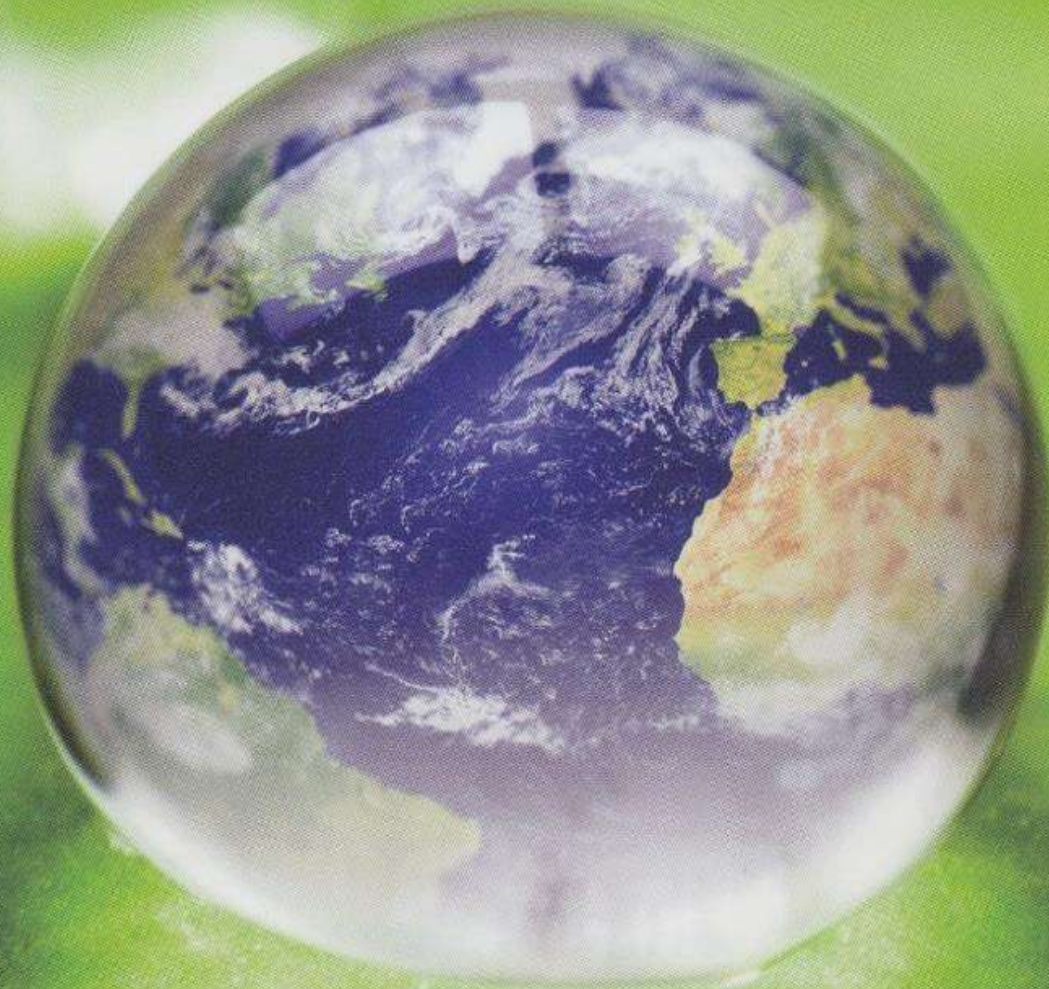


# *Protecting the ocean – international trends & outstanding practice*



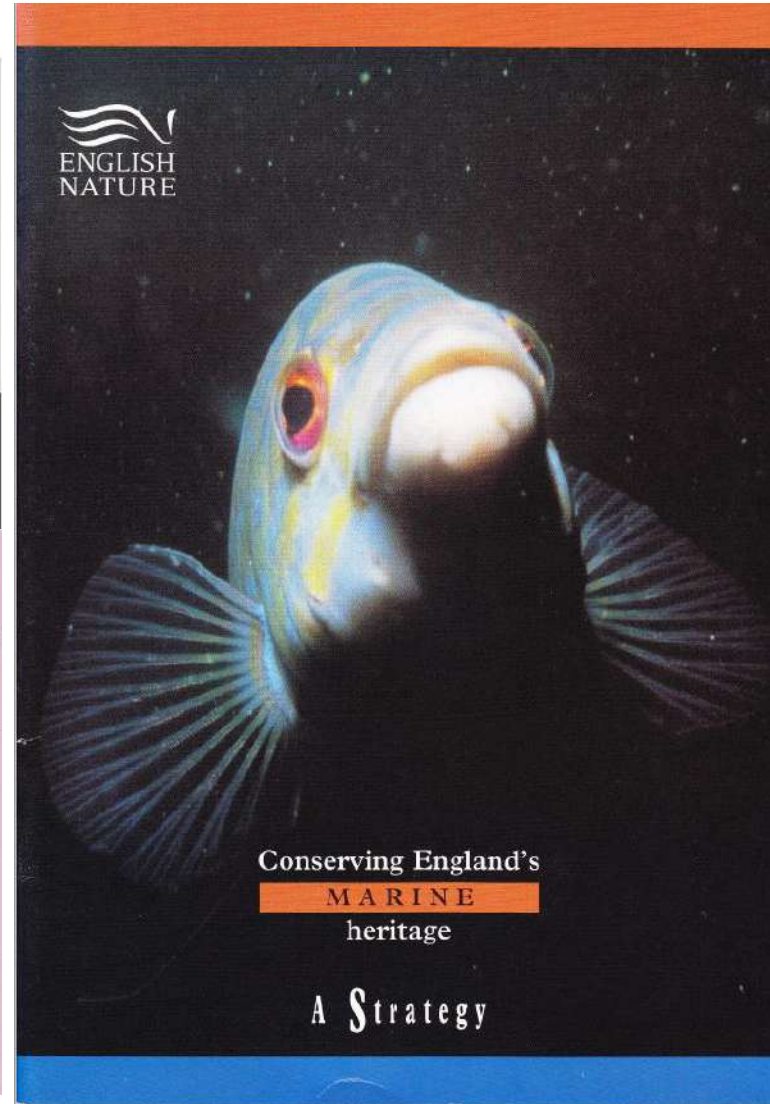
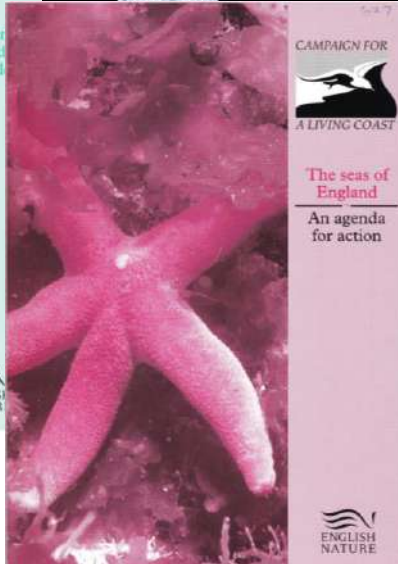
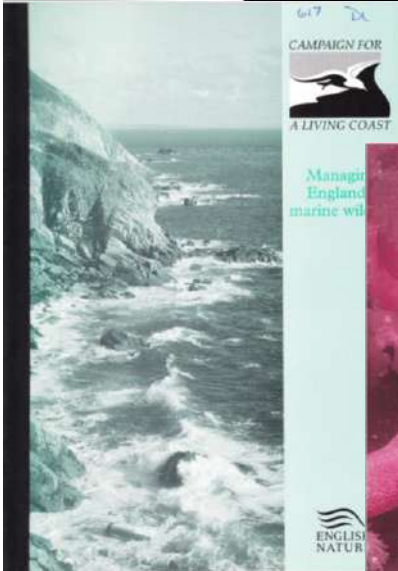
Dan Laffoley

Vice Chair – Marine  
IUCN's World Commission on Protected Areas

Senior Advisor, Marine Science & Conservation  
Global Marine and Polar Programme, IUCN



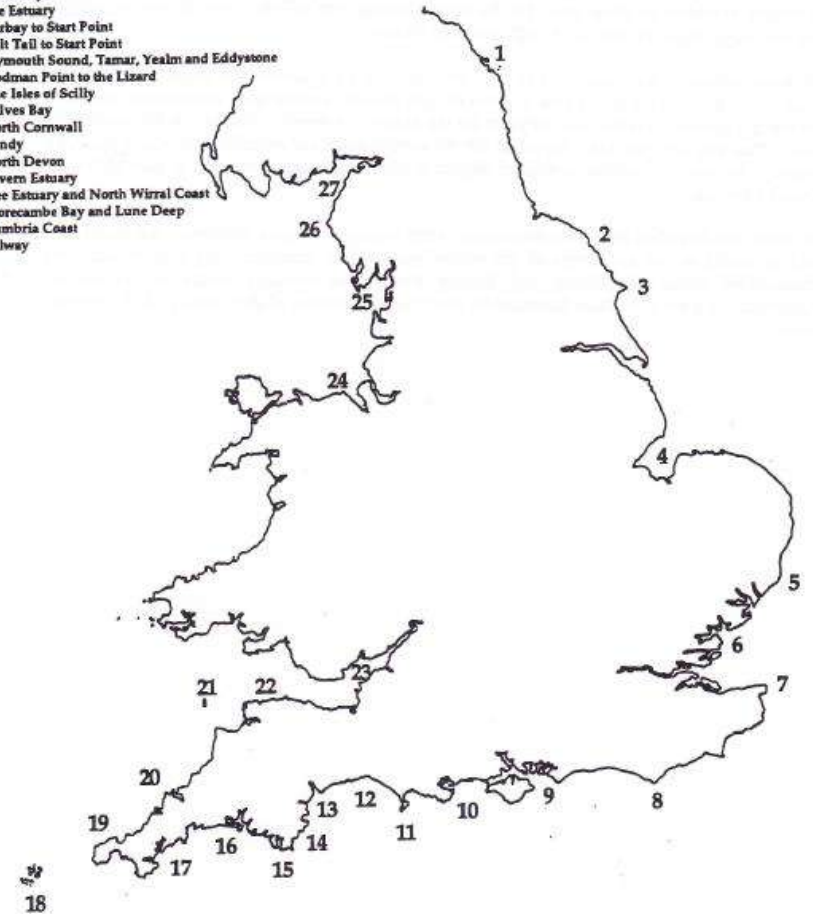
# Looking back 25 years.....

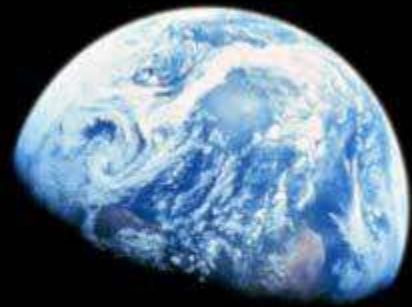


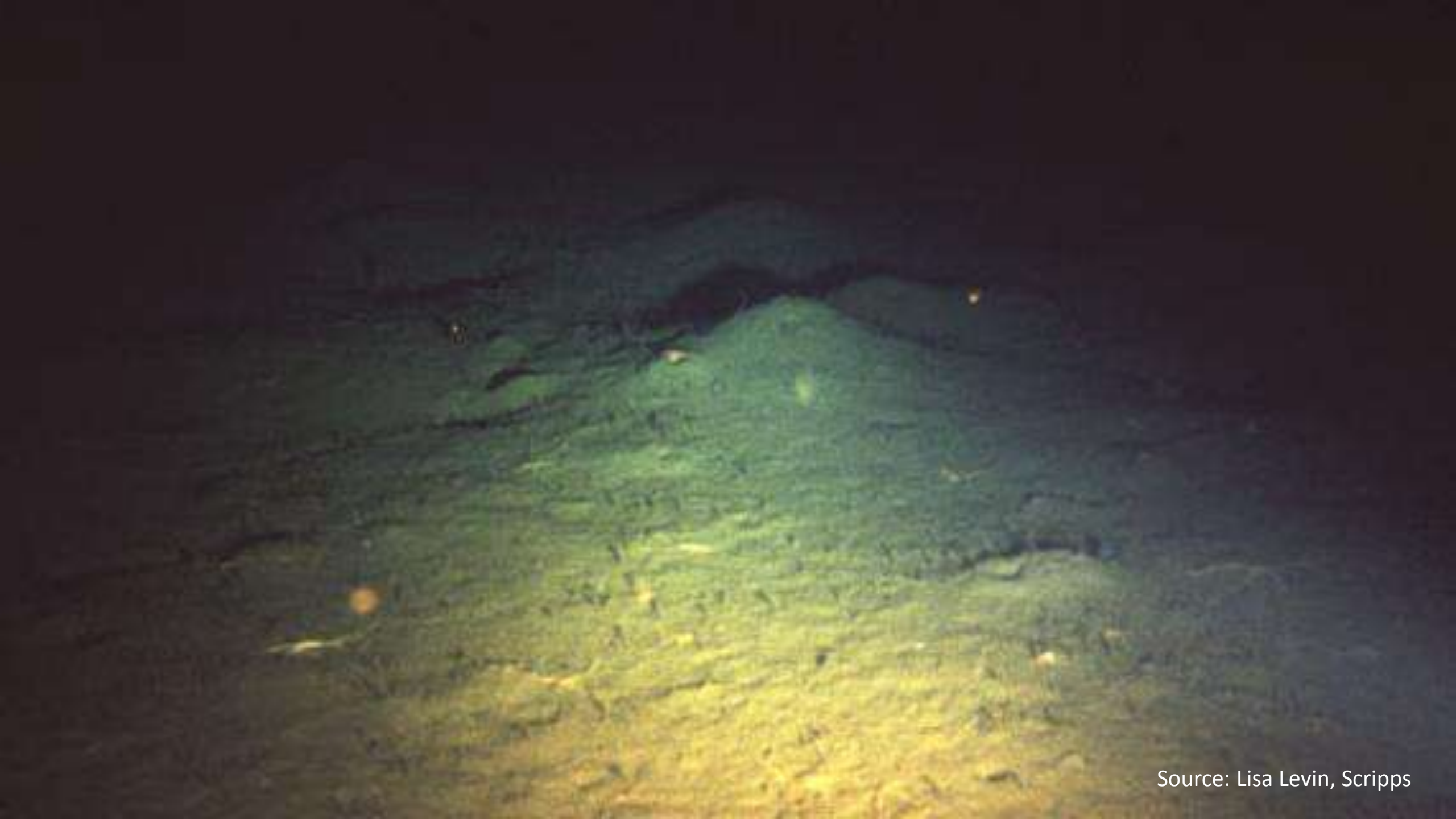
## Important areas for marine wildlife around England

### Index

- 1 Holy Island and the Farnes
- 2 Robin Hood's Bay and associated coast
- 3 Flamborough Head
- 4 The Wash and North Norfolk
- 5 Orfordness
- 6 Colne/Blackwater to Maplin Sands
- 7 Thanet
- 8 Seven Sisters
- 9 Solent and Isle of Wight
- 10 Poole Bay and the Isle of Purbeck
- 11 Portland and the Fleet
- 12 Lyme Bay
- 13 Exe Estuary
- 14 Torbay to Start Point
- 15 Bolt Tail to Start Point
- 16 Plymouth Sound, Tamar, Yealm and Eddystone
- 17 Dodman Point to the Lizard
- 18 The Isles of Scilly
- 19 St Ives Bay
- 20 North Cornwall
- 21 Landy
- 22 North Devon
- 23 Severn Estuary
- 24 Dee Estuary and North Wirral Coast
- 25 Morecambe Bay and Lune Deep
- 26 Cumbria Coast
- 27 Solway



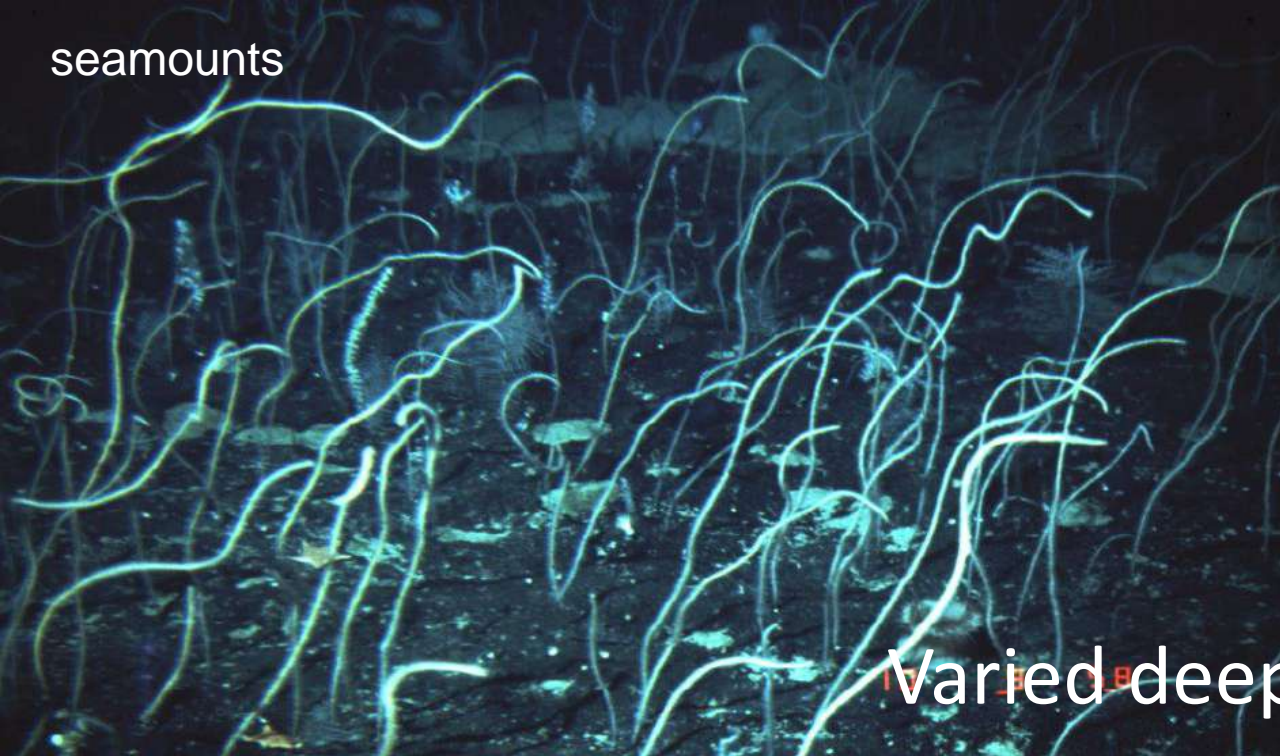




Source: Lisa Levin, Scripps



seamounts



cold water coral reefs



Varied deep sea habitats

canyons



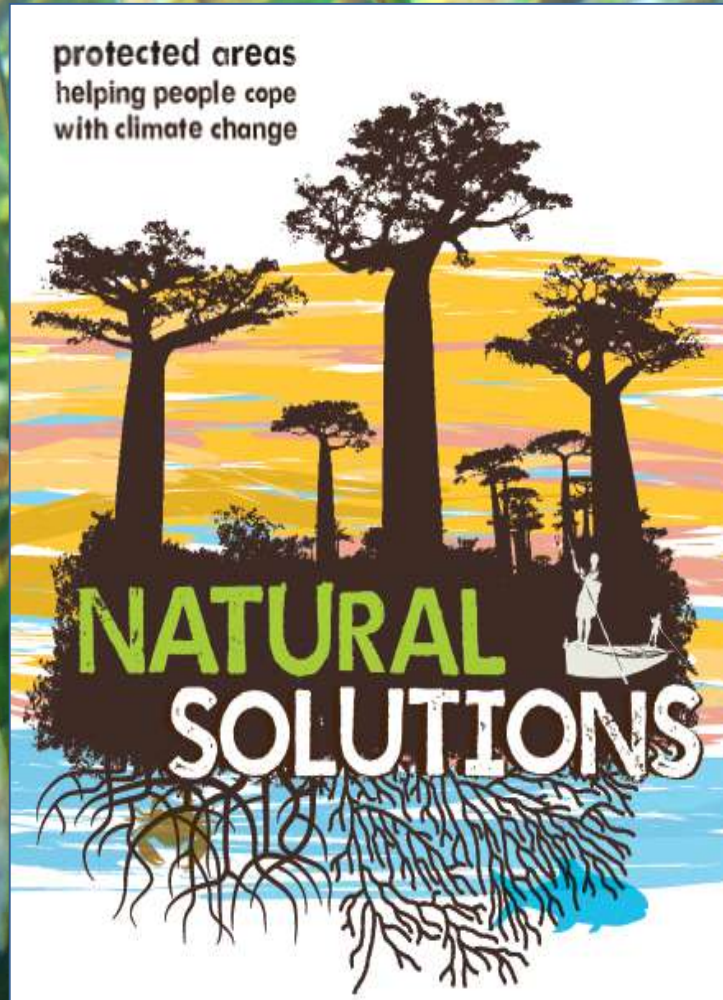
Source: Lisa Levin, Scripps

sponge reefs



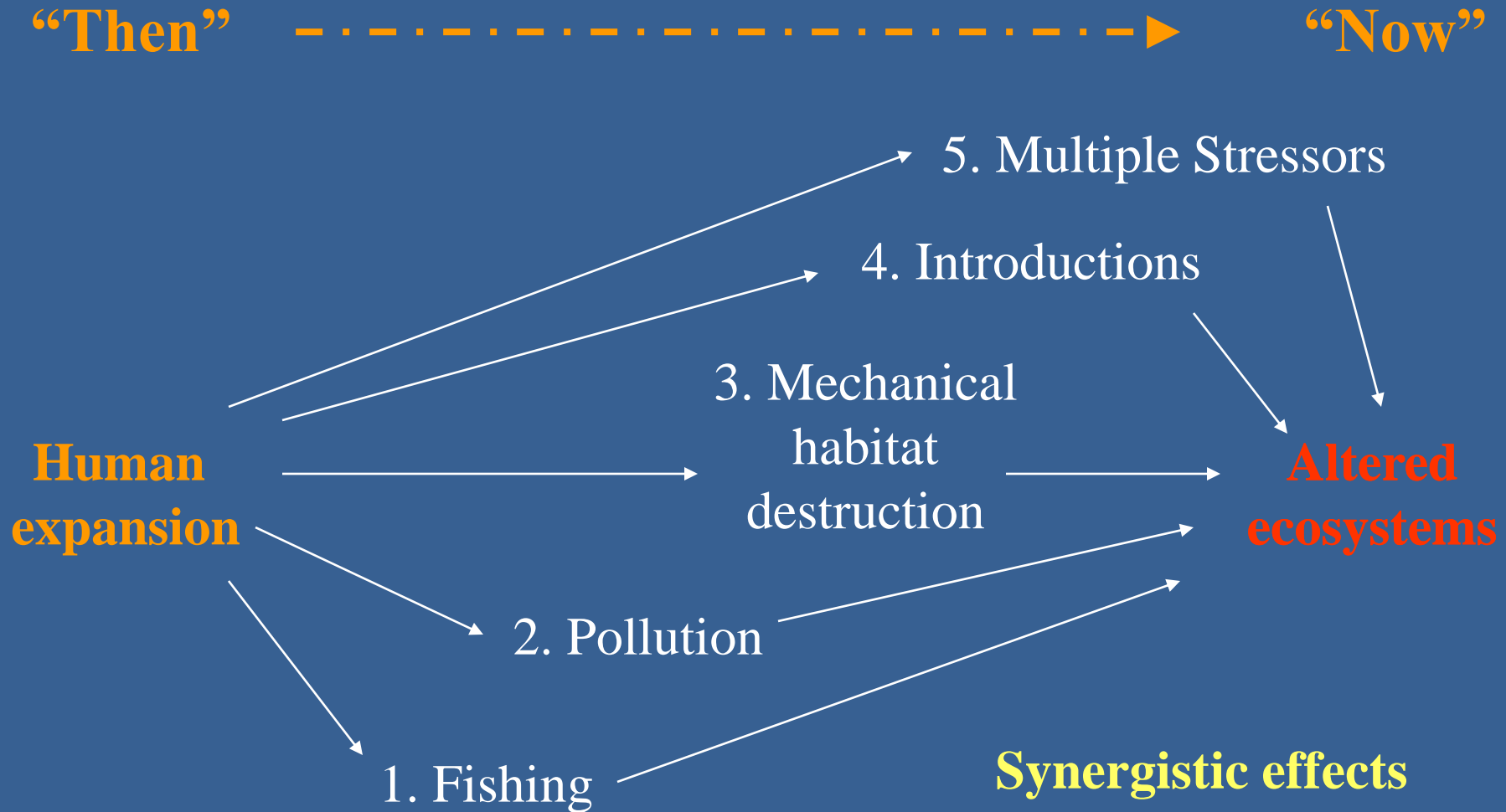


# Valuing nature *and* natural 'services'





# The ocean: the future we may get





# Explaining Ocean Warming: Causes, scale, effects and consequences

Edited by D. Laffoley and J. M. Baxter  
September 2016



IUCN GLOBAL MARINE AND POLAR PROGRAMME



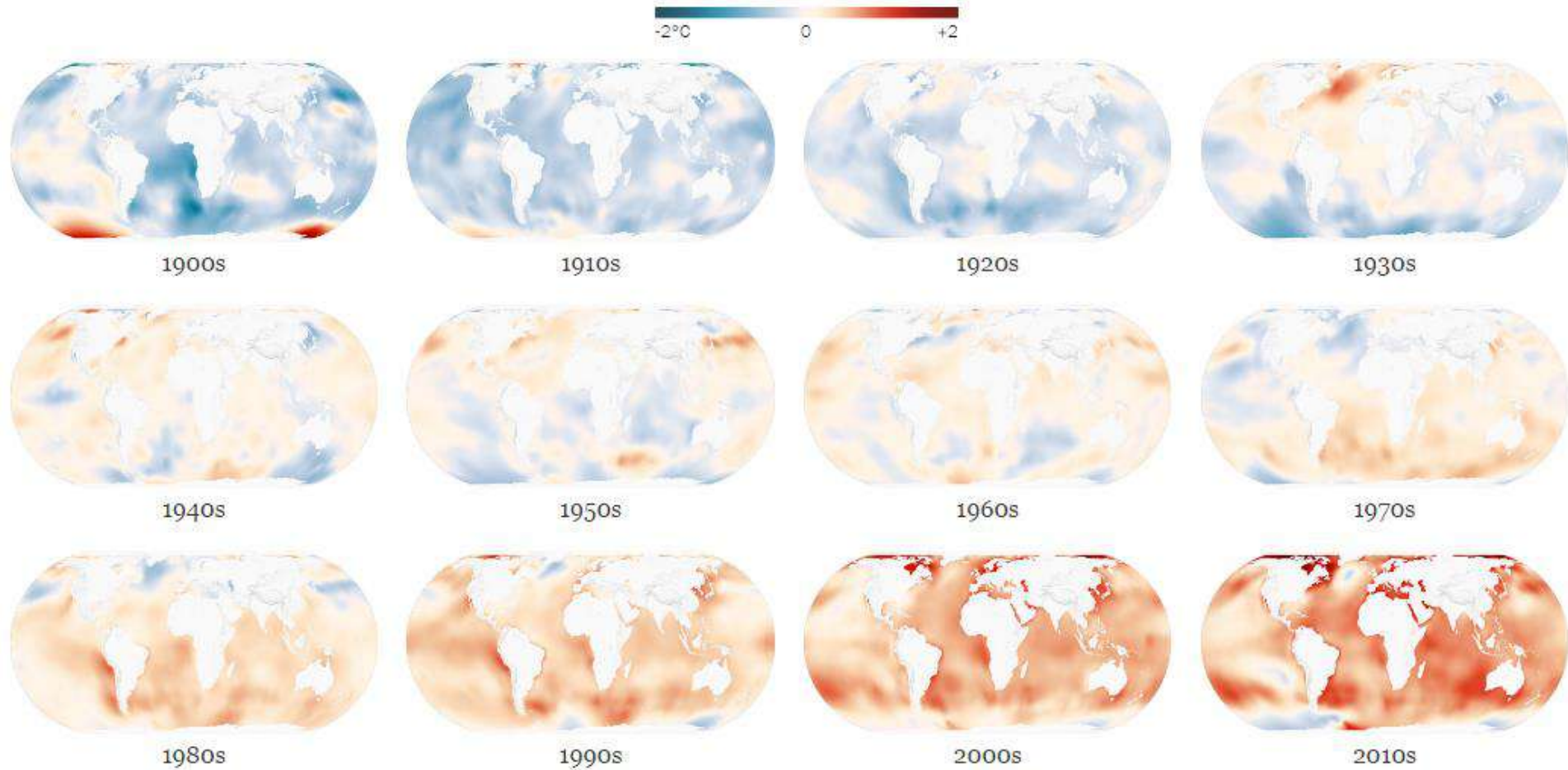
“Tampering can be dangerous. Nature can be vengeful. We should have a great deal of respect for the planet on which we live.”

Carl-Gustaf Rossby, 1956





## Where the Oceans Have Been Colder and Hotter Than Average



Average temperatures from each decade compared with the 20th-century average.



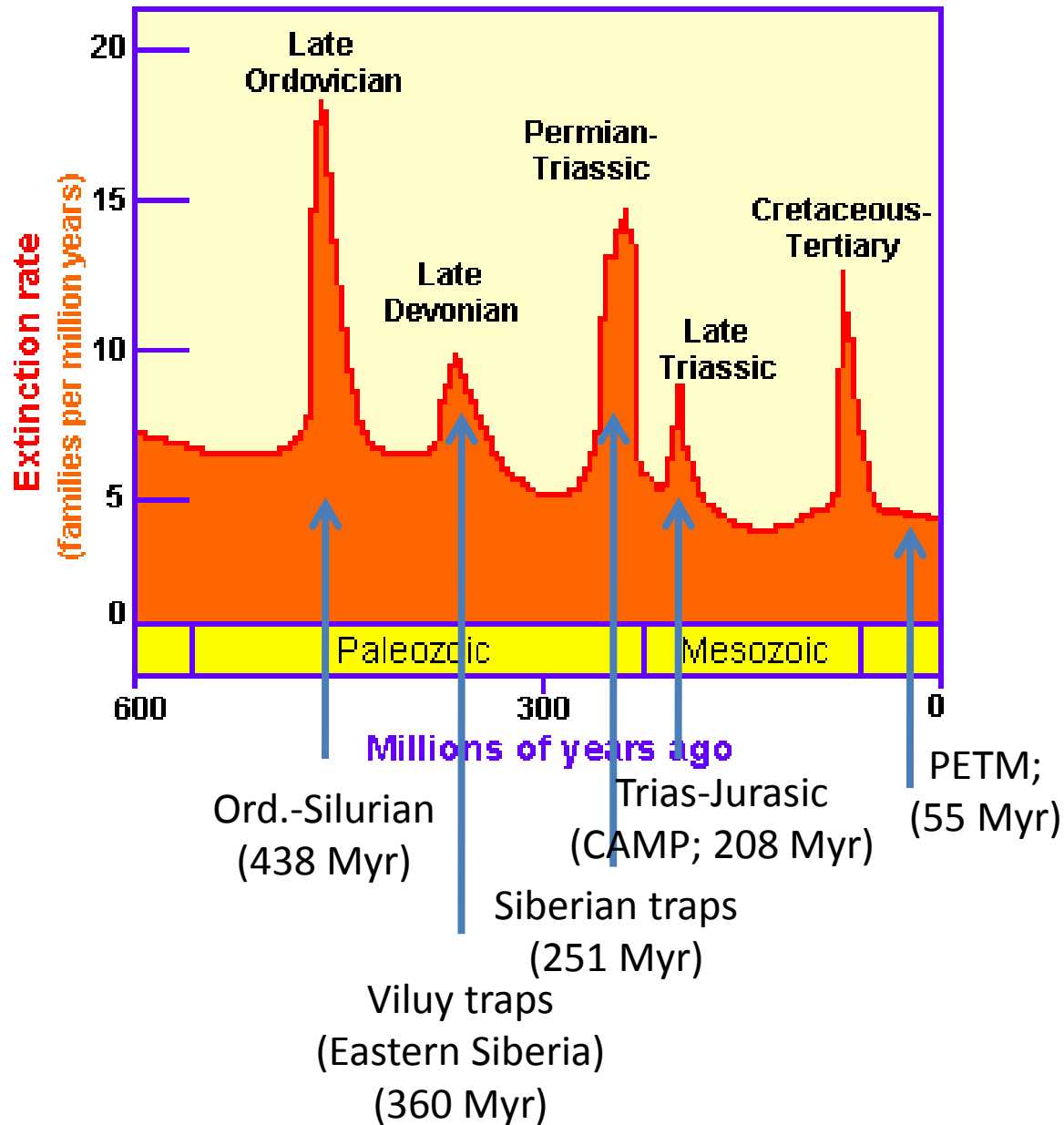
# Carbon perturbation (Veron, 2008)

## symptoms:

- Global warming
- Ocean acidification
- Anoxia

## Important:

- Magnitude
- Rate of change







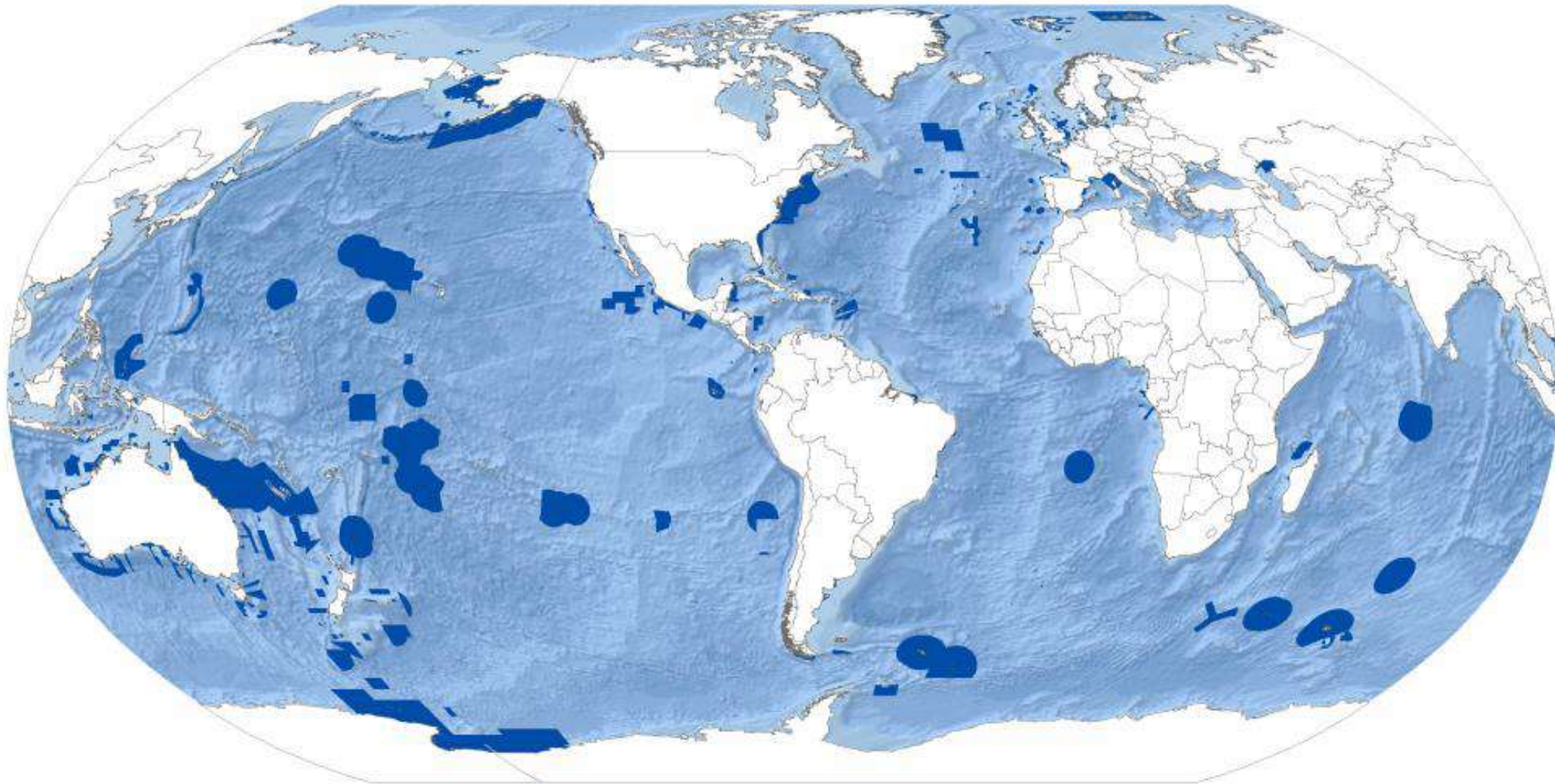
# REDUCING RISK FROM A CHANGING OCEAN

Tuesday 08 - Thursday 10 May 2018 // Bermuda





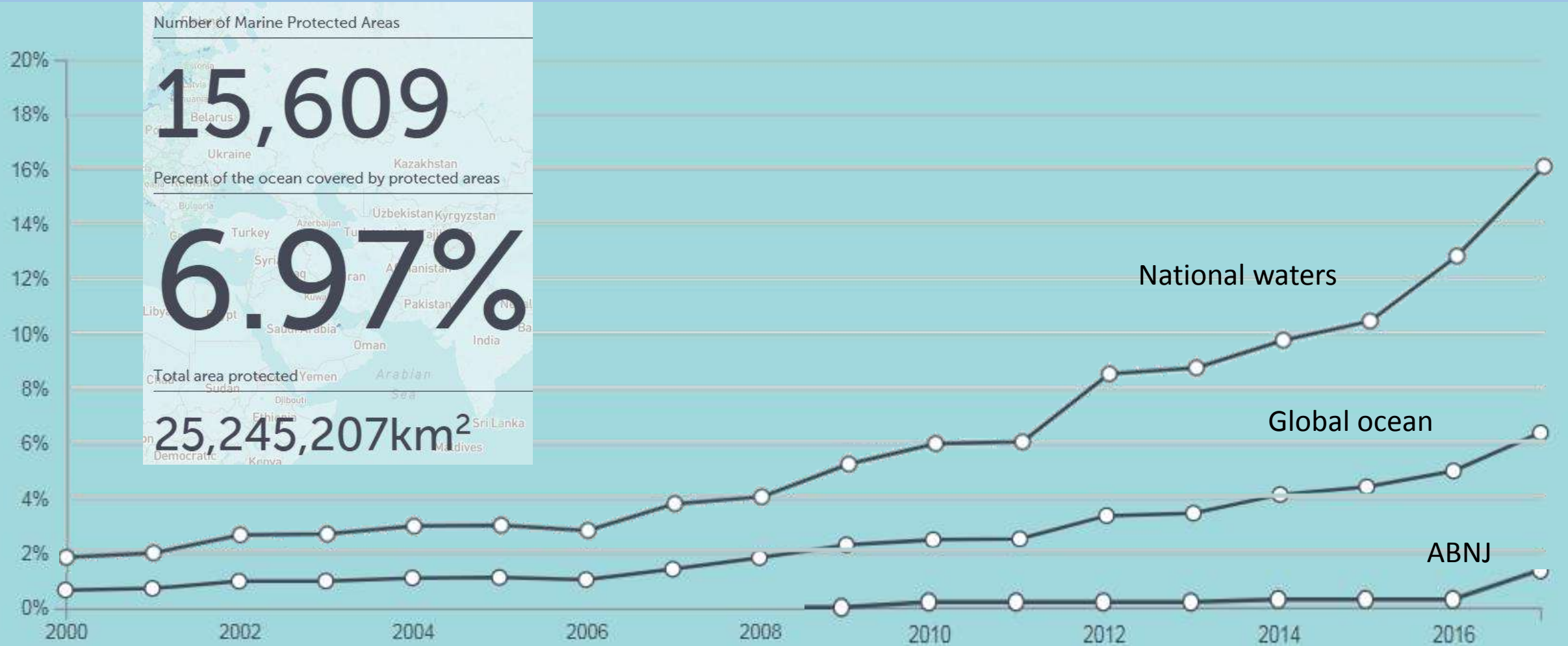
# Official MPA Map



Source: UNEP-WCMC AND IUCN (2018). Protected Planet: The World Database on Protected Areas (WDPA) [On-line], January, 2018, Cambridge, UK: UNEP-WCMC. Available at [www.protectedplanet.net](http://www.protectedplanet.net)



# Growth in ocean protection





### Top 10 Marine Protected Areas by size

Ross Sea Region Marine Protected Area

2,060,058 km<sup>2</sup>

Marae Moana

1,981,965 km<sup>2</sup>

Réserve Naturelle Nationale des Terres australes françaises

1,654,999 km<sup>2</sup>

Papahānaumokuākea Marine National Monument

1,516,557 km<sup>2</sup>

Parc Naturel de la Mer de Corail

1,291,643 km<sup>2</sup>

Pacific Remote Islands

1,277,784 km<sup>2</sup>

South Georgia and South Sandwich Islands Marine Protected Area

1,069,872 km<sup>2</sup>

Coral Sea

995,251 km<sup>2</sup>

Steller Sea Lion Protection Areas, Gulf

866,717 km<sup>2</sup>

Pitcairn Islands Marine Reserve

839,568 km<sup>2</sup>

### Top 20 Marine Protected Areas by size

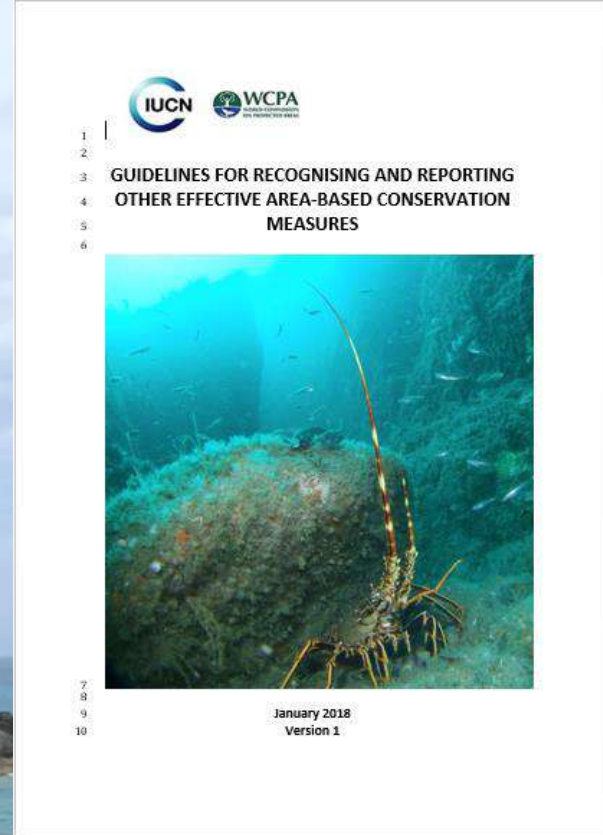
Total global coverage of all MPAs (25,245,207 km<sup>2</sup>)

Total global coverage of largest 20 MPAs  
(17,573,997 km<sup>2</sup>)



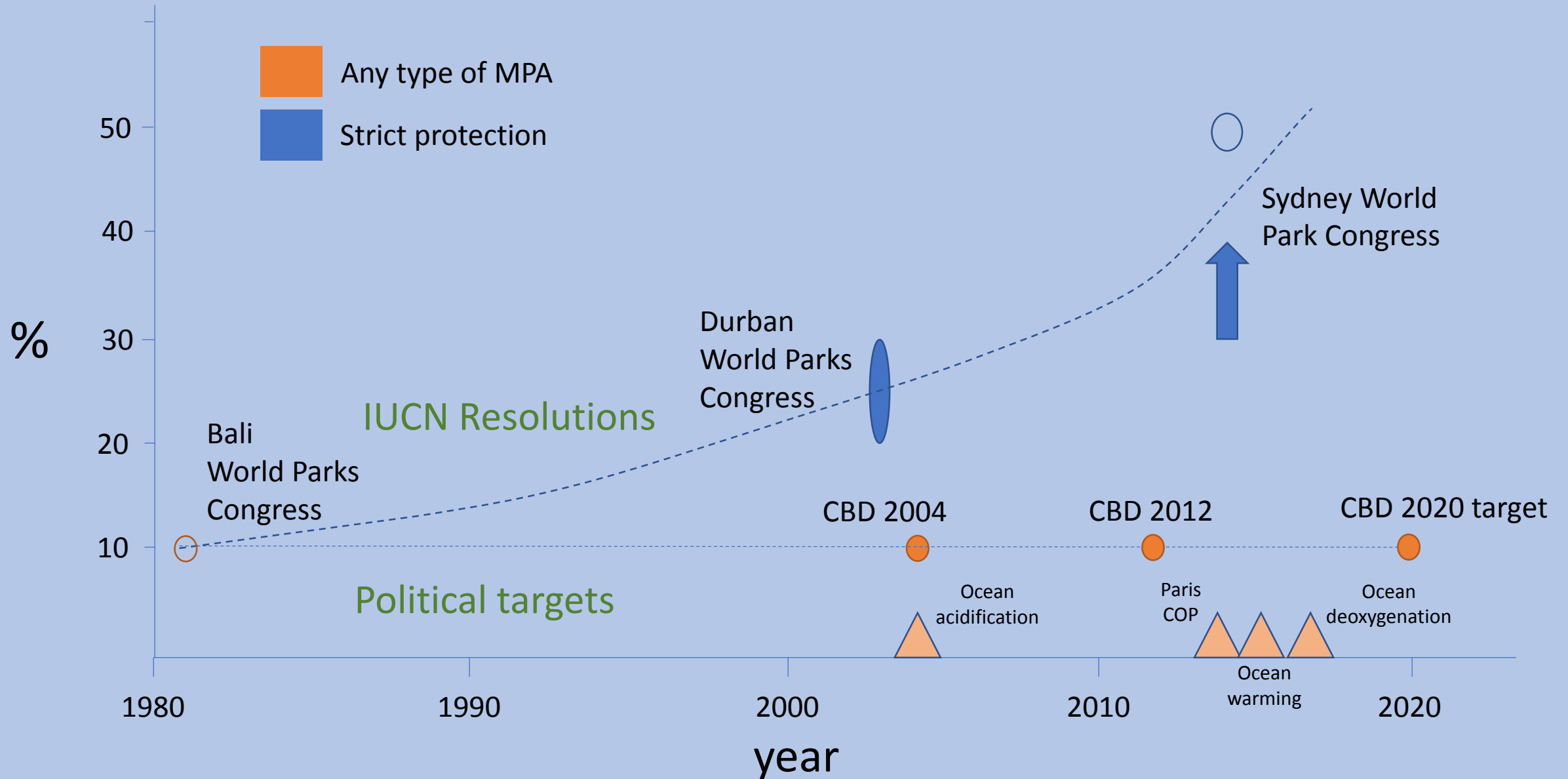
# Other effective area-based conservation measures (OECMs)

*By 2020 at least 17 % of terrestrial and inland water, and 10 % of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected **systems of protected areas and other effective area-based conservation measures**, and integrated into the wider landscape and seascape (emphasis added).*

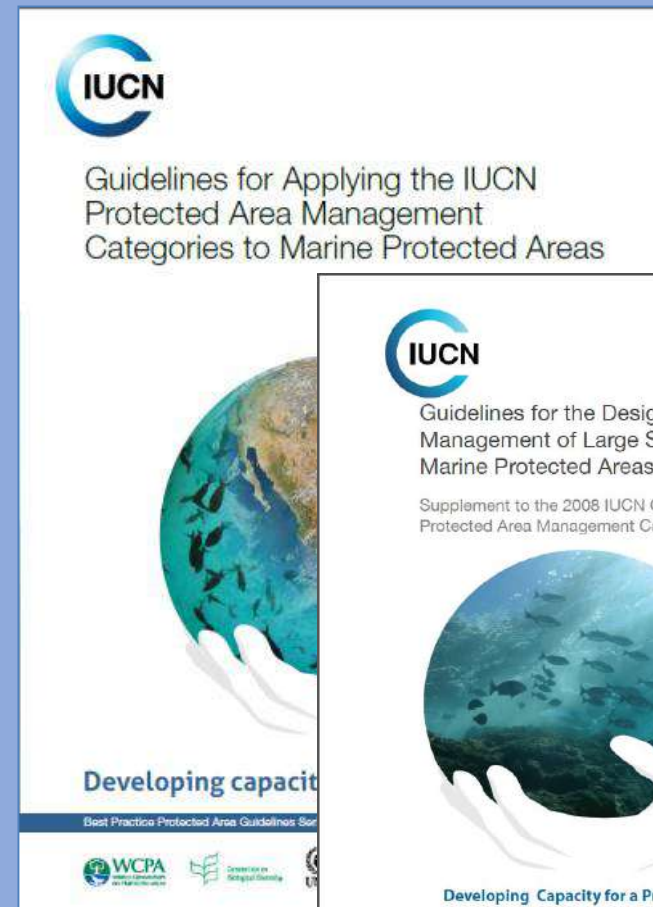
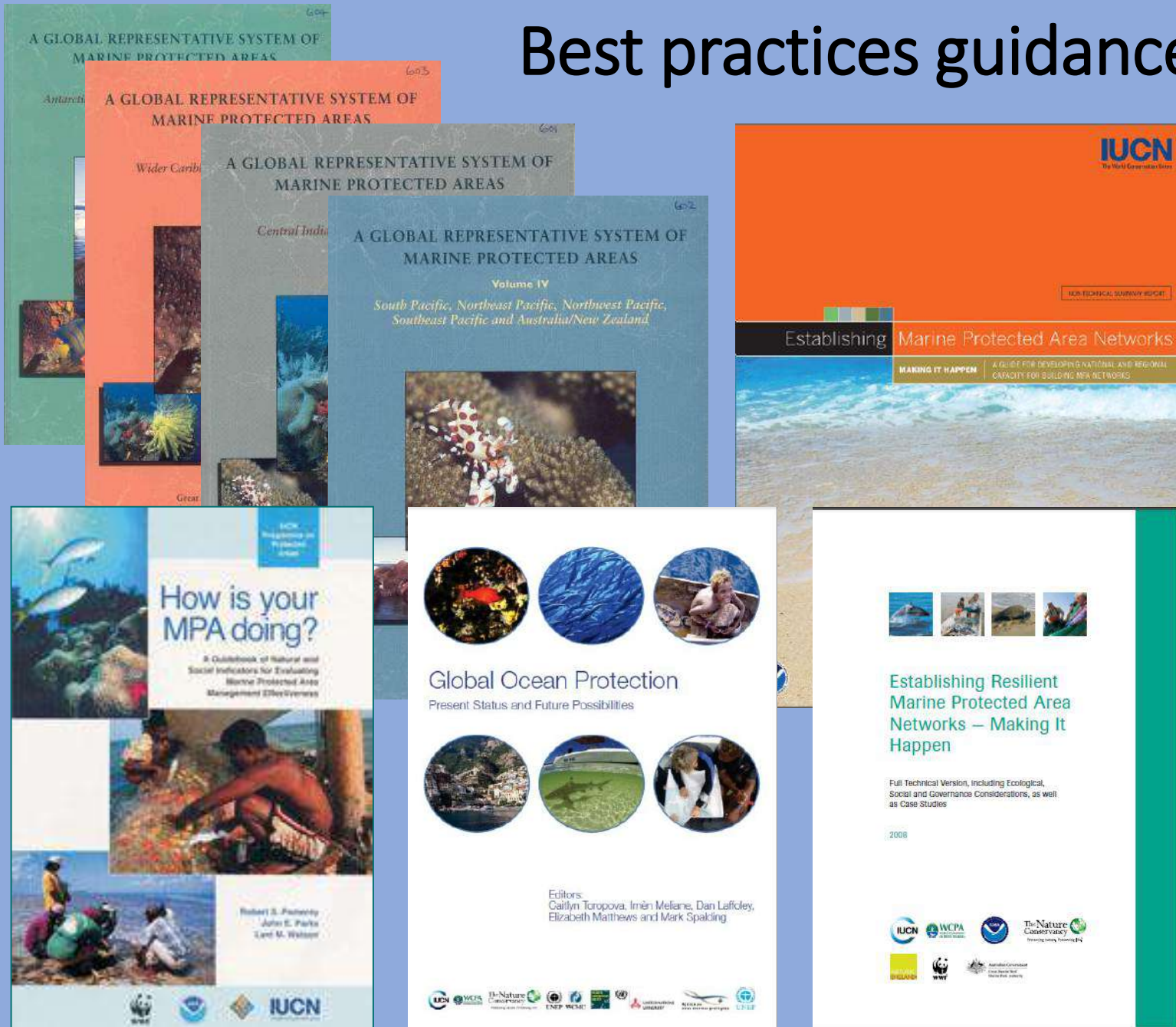




# How much ocean should we protect?



# Best practices guidance



Expected MPA standards

MPA language to describe degree of protection and state of implementation



# International Marine Protected Area Congresses (IMPAC)



Australia 2005, USA 2009, France 2013, Chile 2017, and.....Canada 2021

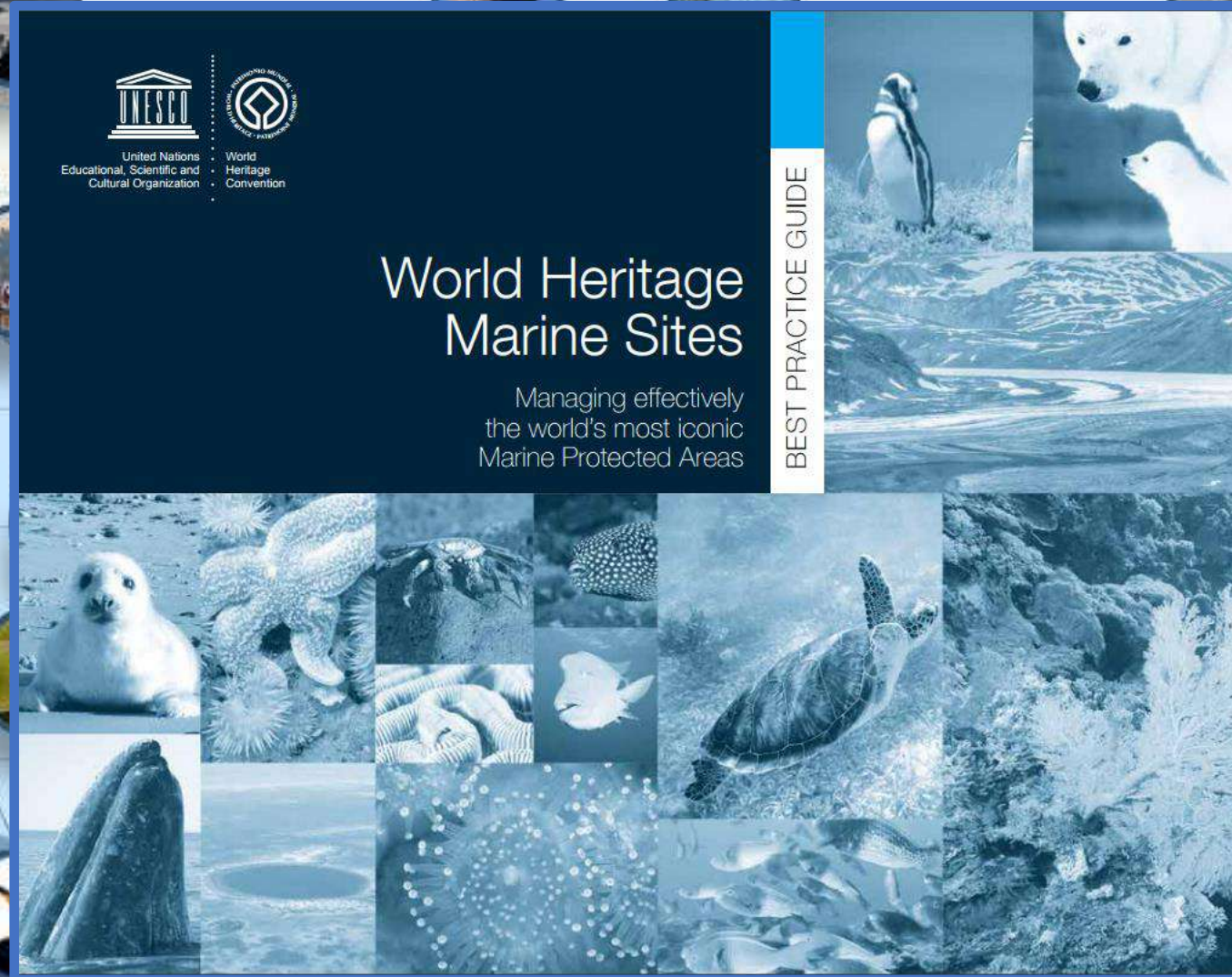
# IUCN's Green List of Protected Areas

- Promoting success and achievement in biodiversity conservation outcomes
- Recognizing exemplary efforts that meet and exceed international standards
- Help partners achieve quality





# Scaling up marine World Heritage



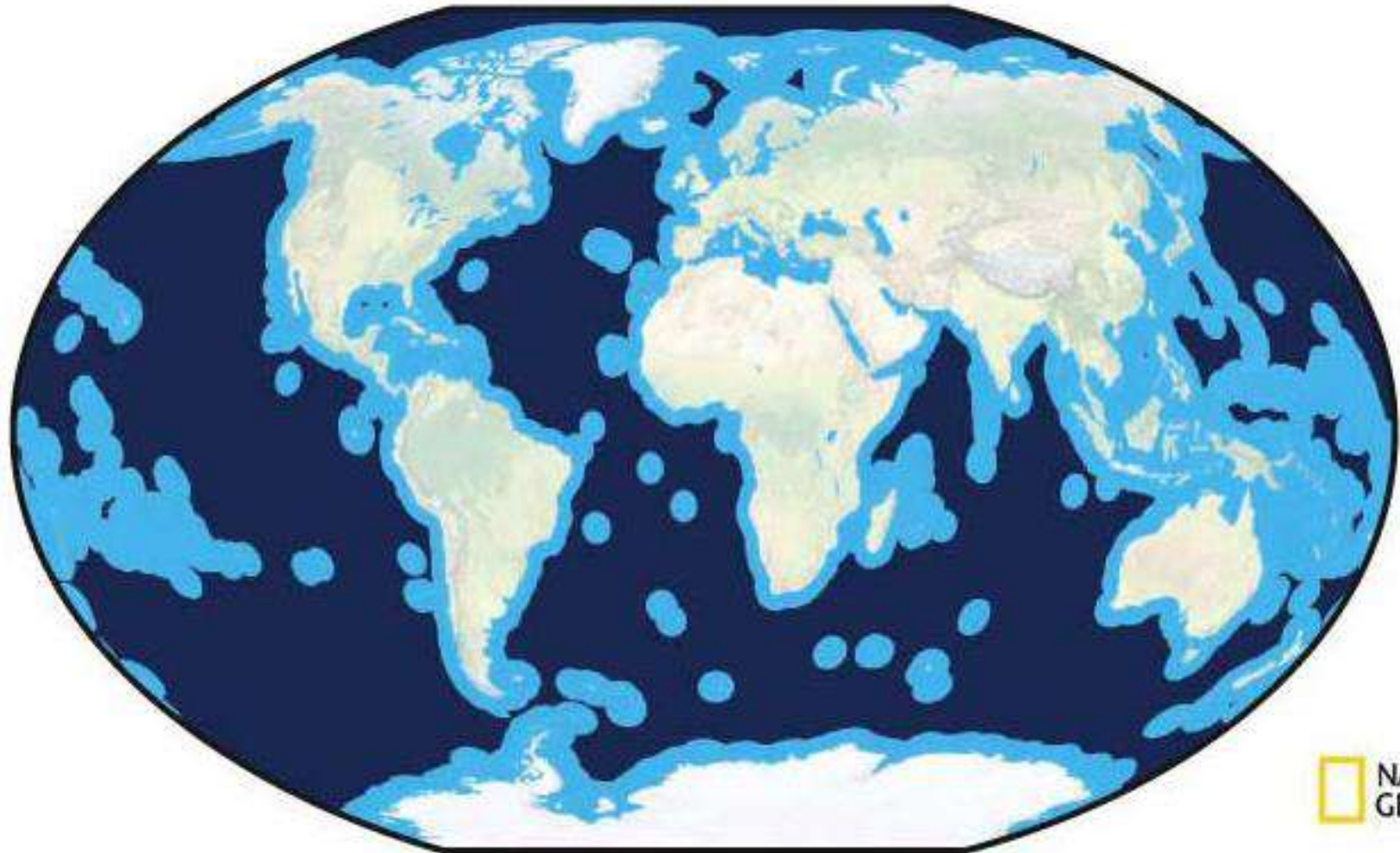




**71%**  
OF EARTH IS  
COVERED BY  
OCEAN

**64%**  
OF THE OCEAN  
IS CONSIDERED  
THE HIGH SEAS/  
INTERNATIONAL  
WATERS

THE HIGH SEAS  
COVER  
**45%**  
OF THE EARTH'S  
SURFACE





Putting the ocean protection in the  
palm of your hand

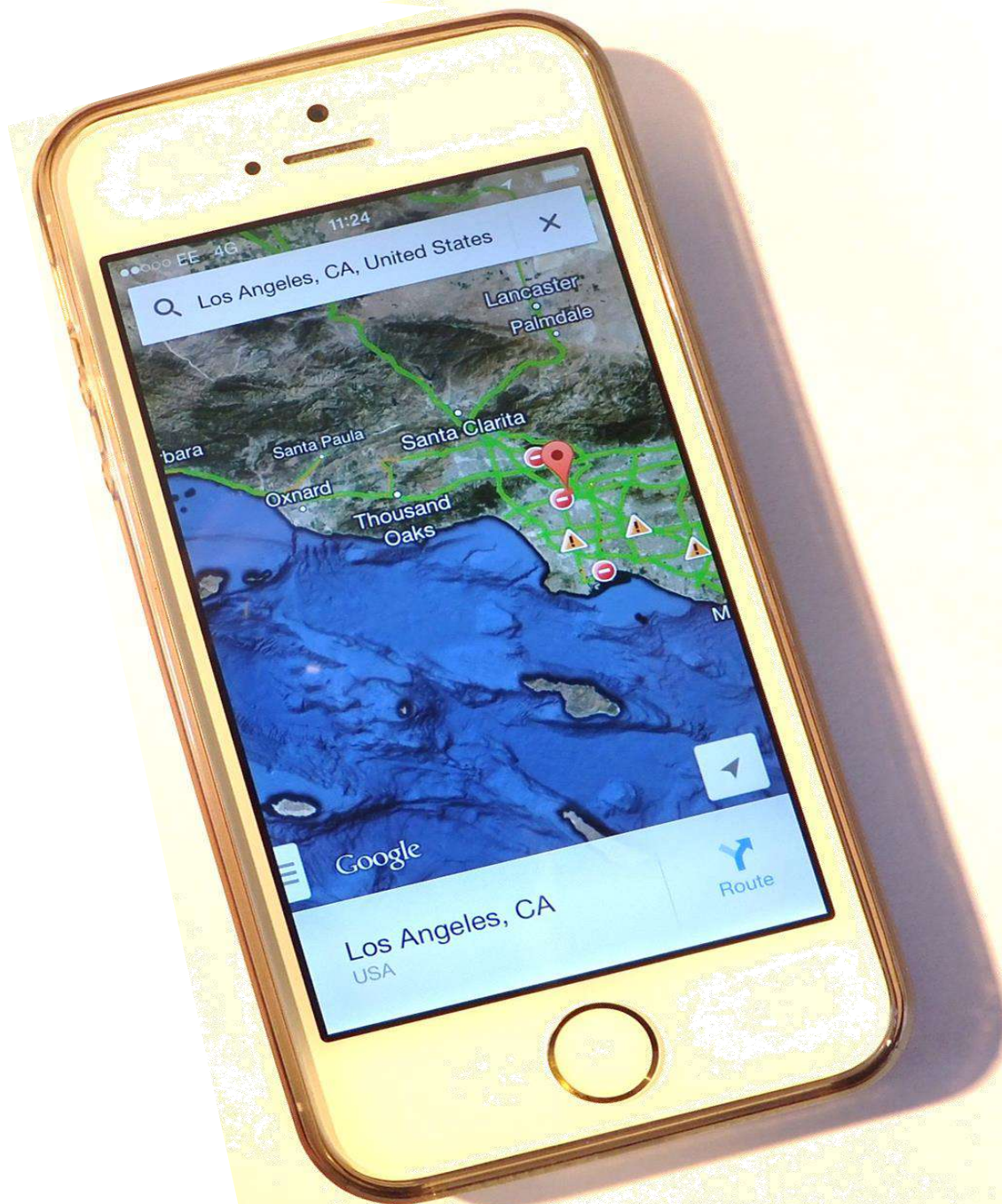


Google



Discover the Ocean

[earth.google.co.uk/ocean](http://earth.google.co.uk/ocean)







*Introducing underwater Street View*







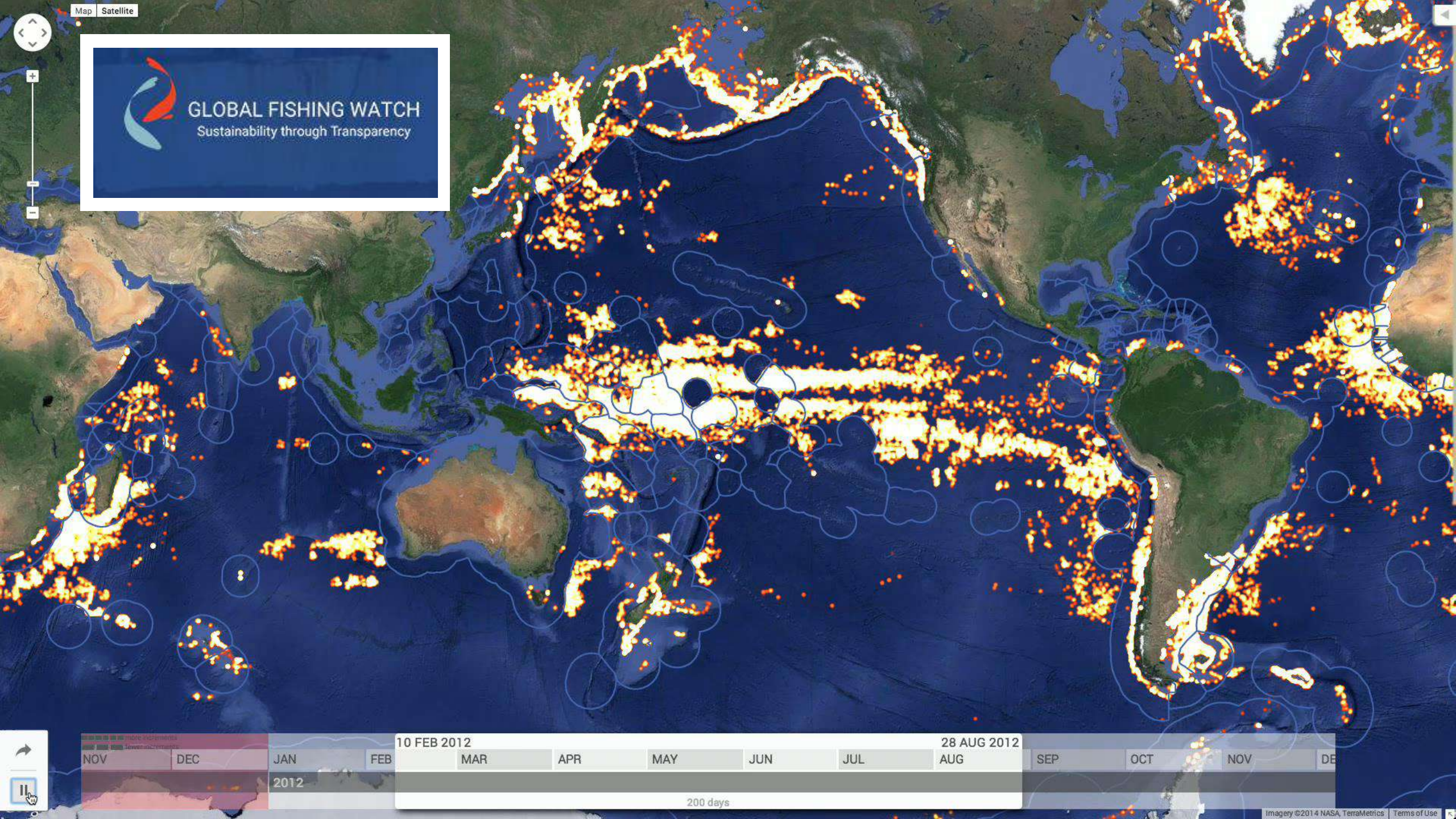
Shelley Beach, Manly



Map Satellite



GLOBAL FISHING WATCH  
Sustainability through Transparency





# The future is.....cuboid?




VividX2 microsatellite



AIRBUS OneWeb





With special thanks to: XL Catlin, Underwater Earth, Google, Oceana, SkyTruth, Richard Ververs,  
Brian Sullivan & Andy Sharples, and Greg Brost for the Earth animation

Find out more: [www.danlaffoley.com](http://www.danlaffoley.com)

DAVID DOUBILET