



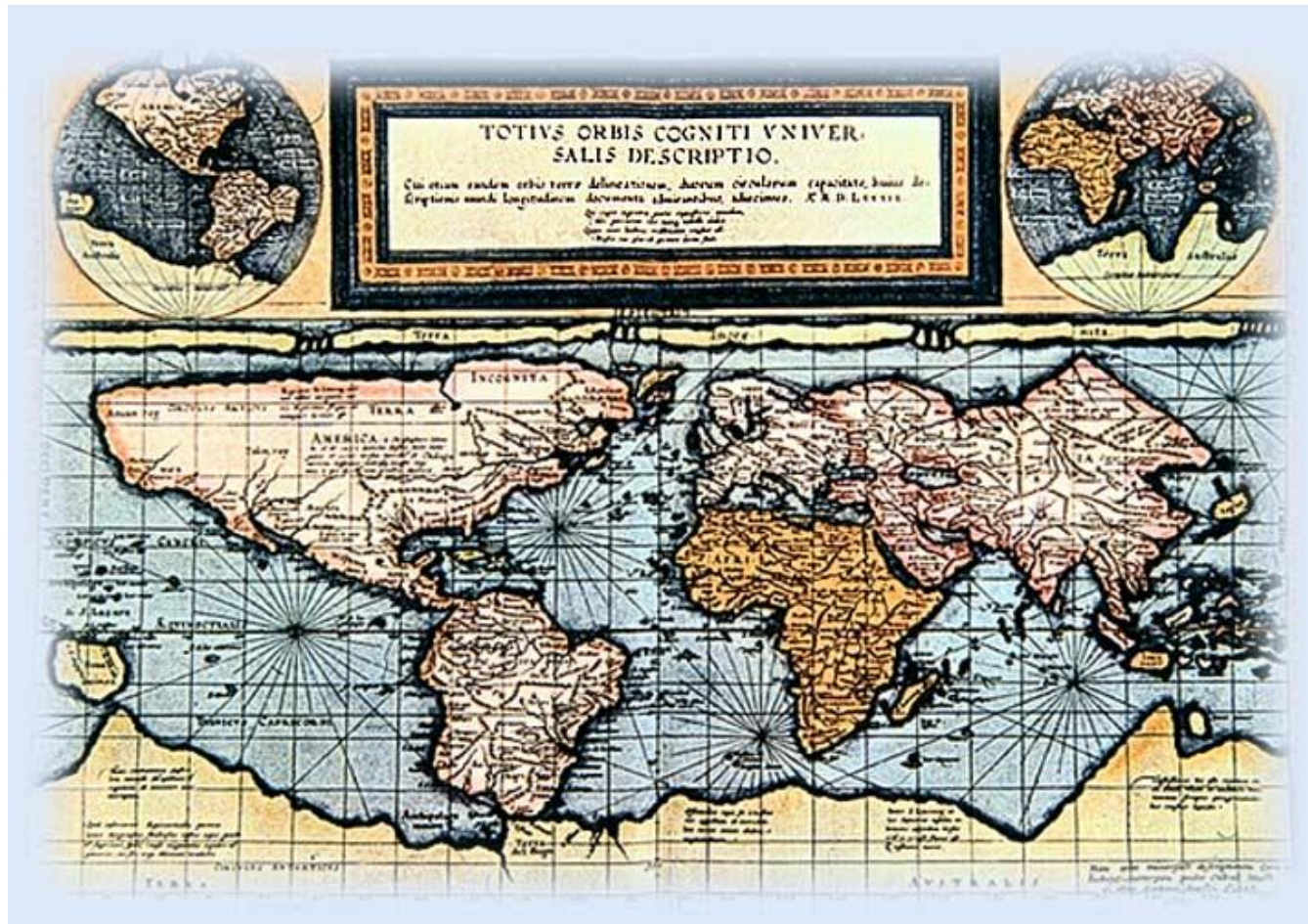
# Proteus Partners Meeting 2012

hosted in London by Shell on June 14<sup>th</sup>



# Decision Support Tools at UNEP-WCMC

Craig Mills - Informatics, Head of Programme



Little bit of history

1<sup>0</sup>%





1. What biodiversity is happening at a location of my choice?

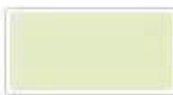
2. Under my predefined conditions, where should I operate/invest/conserve/watch?



**Convention on  
Biological Diversity**



This tool provides an initial estimate for the potential contribution of any area of your interest to climate change mitigation as well as information on its conservation values, forest status and opportunities for forest and landscape restoration. **Areas Of Interest (AOIs)** can be drawn on the map or uploaded to the tool.



PG #1  
25,221.1 km

#2 + TOTAL

Edit this polygon  

CARBON **587,988** T

Mexico	123,767	
USA	379,824	

PROTECTED AREAS **38** %

Overlapping with 12 PAs

feedback

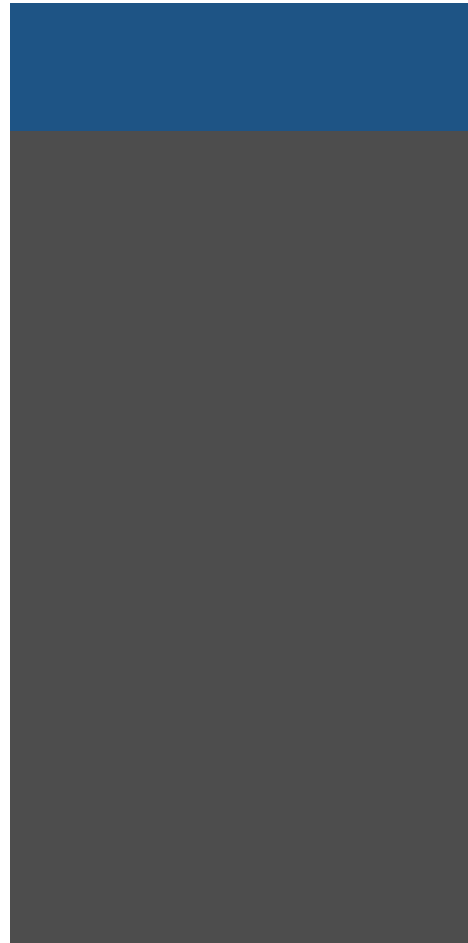


**defra**

Department for Environment  
Food and Rural Affairs







Proteus decision  
support tool  
(December 2012)

Thanks Amy...



Thank you.



# Proteus Partners Meeting 2012

hosted in London by Shell on June 14<sup>th</sup>



# Development of a mapping tool for marine biodiversity priorities

Proteus Annual Meeting, London, 14<sup>th</sup> June 2012

Jon Hutton



# Rationale...

Tools for application of IFC PS 6  
are urgently needed for marine and  
coastal environments...



## **Performance Standard 6**

### **Biodiversity Conservation and Sustainable Management of Living Natural Resources**

January 1, 2012

#### **Introduction**

1. Performance Standard 6 recognizes that protecting and conserving biodiversity, maintaining ecosystem services, and sustainably managing living natural resources are fundamental to sustainable development. The requirements set out in this Performance Standard have been guided by the Convention on Biological Diversity, which defines biodiversity as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species, and of ecosystems."

# Questions to be answered...

- What sites carry what risk related to biodiversity
- What is the relative risk across sites and how are they ranked?
- For any given 'region' where are the greater risks?

# The perfect is the enemy of the good (Voltaire)

doi:10.1038/nature09329

nature

LETTERS

## Global patterns and predictors of marine biodiversity across taxa

Derek P. Tittensor<sup>1</sup>, Camilo Mora<sup>1</sup>, Walter Jetz<sup>2</sup>, Heike K. Lotze<sup>1</sup>, Daniel Ricard<sup>1</sup>, Edward Vanden Berghe<sup>3</sup>  
& Boris Worm<sup>1</sup>

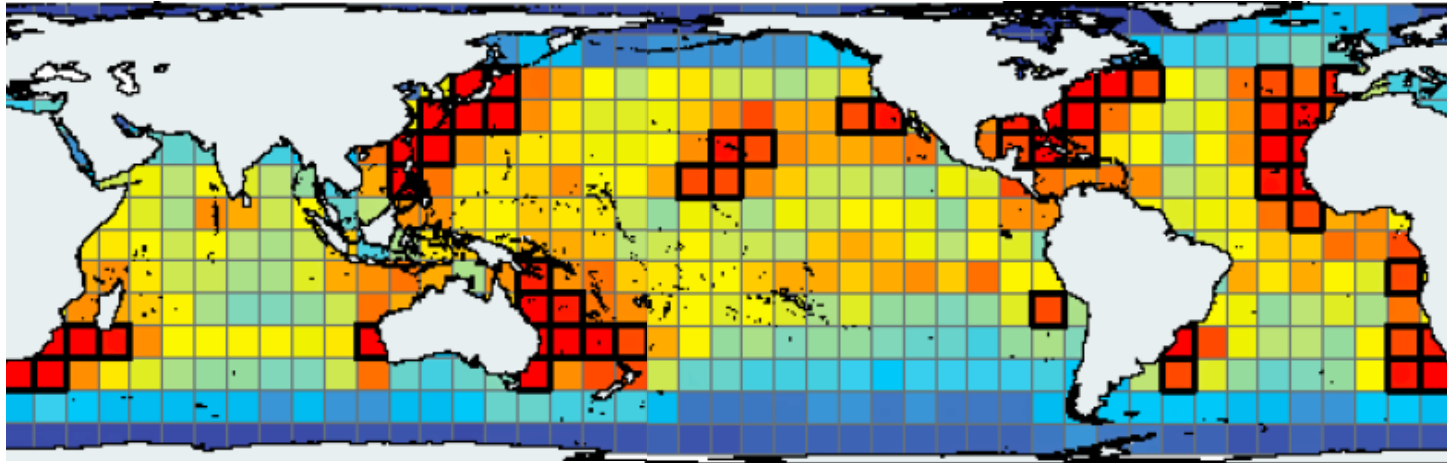
Global patterns of species richness and their structuring forces have fascinated biologists since Darwin<sup>1,2</sup> and provide critical context for contemporary studies in ecology, evolution and conservation. Anthropogenic impacts and the need for systematic conservation planning have further motivated the analysis of diversity patterns and processes at regional to global scales<sup>3</sup>. Whereas land diversity patterns and their predictors are known

contrast to previous syntheses on latitudinal gradients<sup>9</sup>, our focus was on groups where we could analyse two-dimensional spatial patterns on a global scale. These included marine zooplankton (foraminifera and euphausiids), plants (mangroves and seagrasses), invertebrates (stony corals, squids and other cephalopods), fishes (coastal fishes, tunas and billfishes, oceanic and non-oceanic sharks), and mammals (cetaceans and pinnipeds). For each group, we

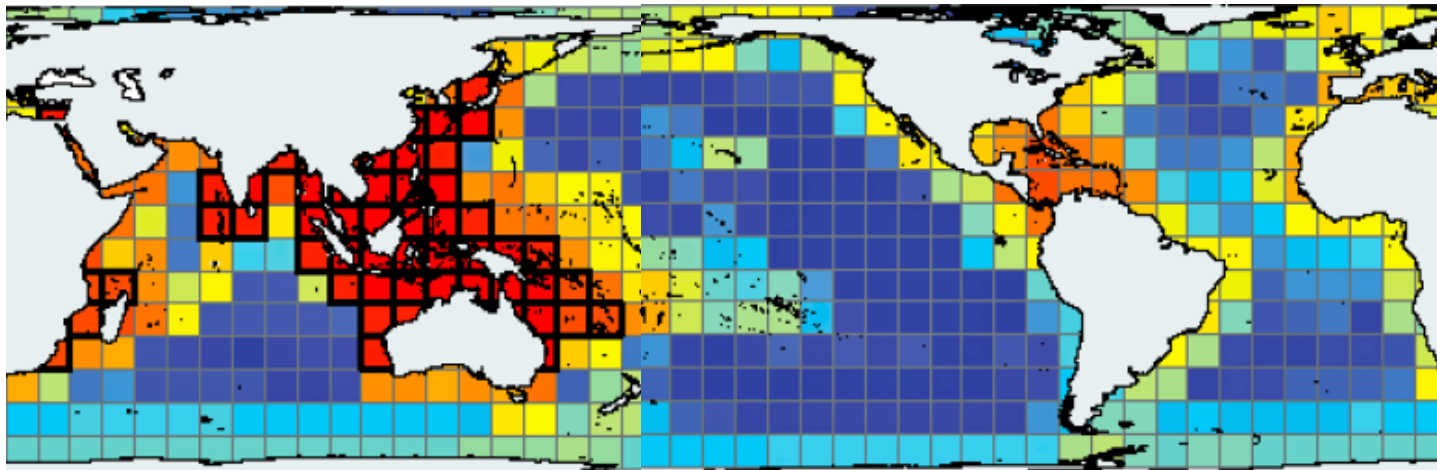
# Approach...

- In reality, there aren't many ways of going about this..
- The approach will be in parts be based on values, but UNEP-WCMC can develop rational weighting of biodiversity layers and publish so that it can be challenged as per scientific method...
- We can develop spatial biodiversity index methodology to help with IFC Performance Standard 6 as revised in January 2012.
- We need to be cautious about advising on 'go' vs 'no-go' and the results need careful communication regarding its limits (due to data quality, complementarity, 3D risks)

## Oceanic taxa



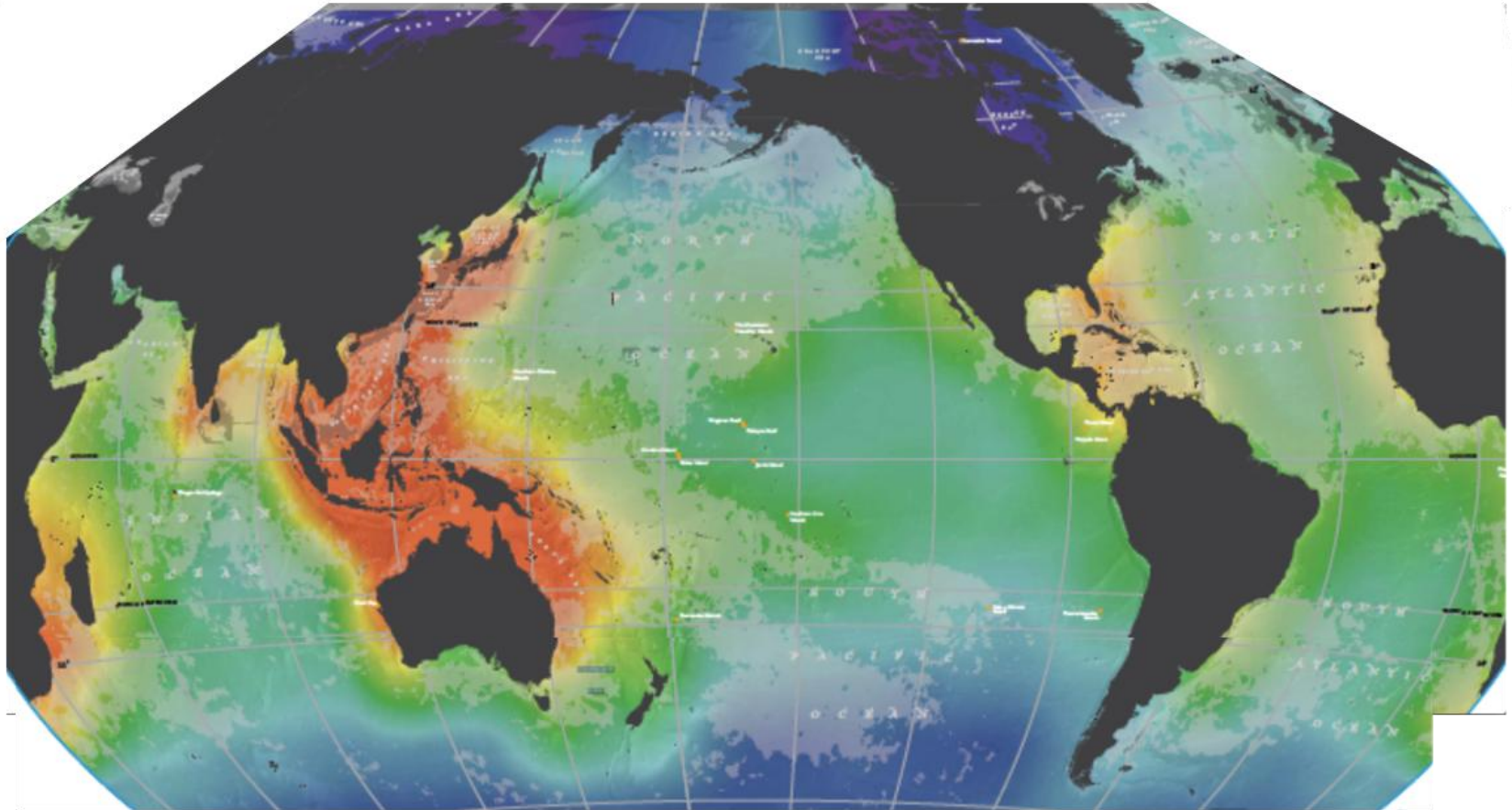
## Coastal taxa



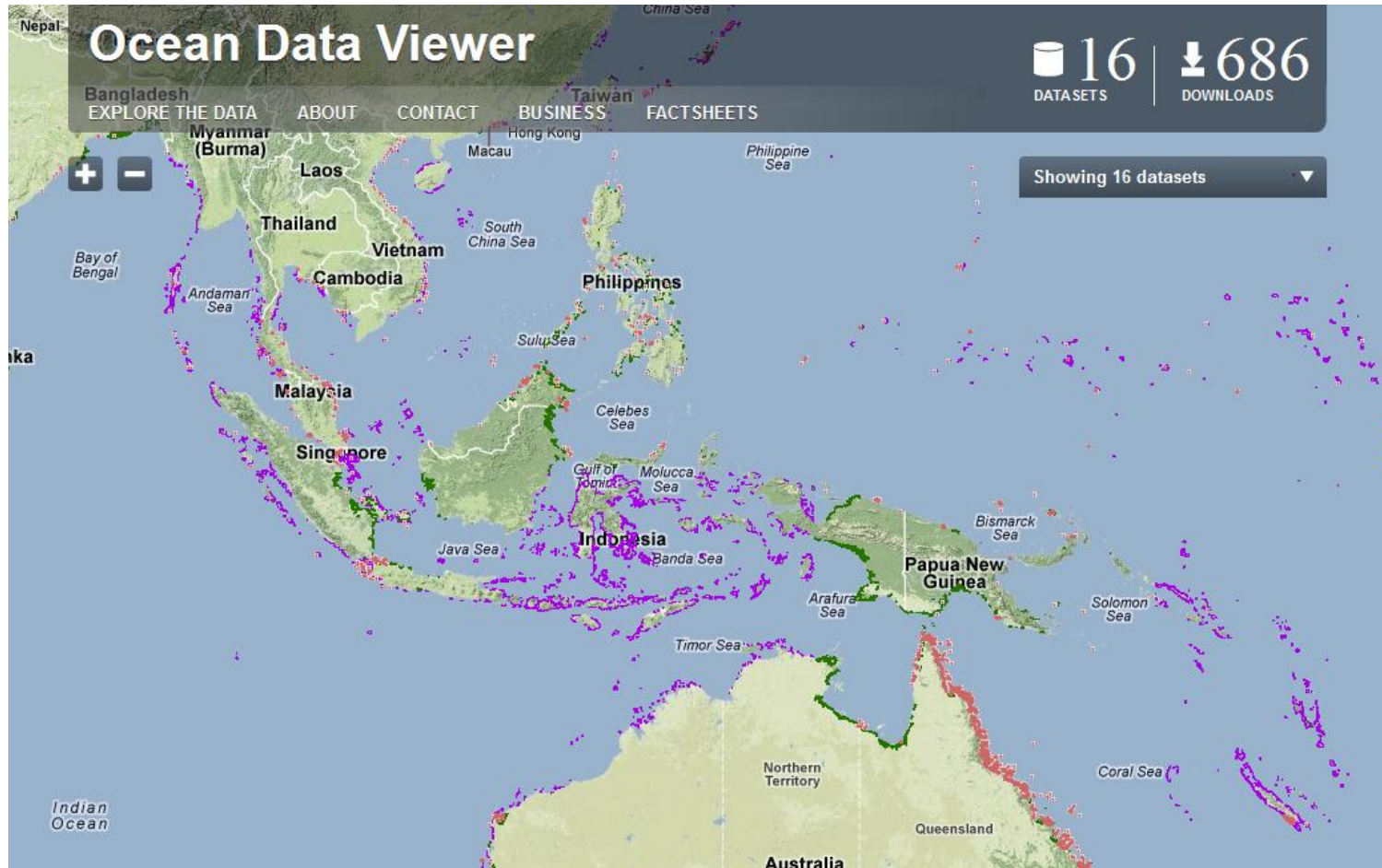
0.03

0.87

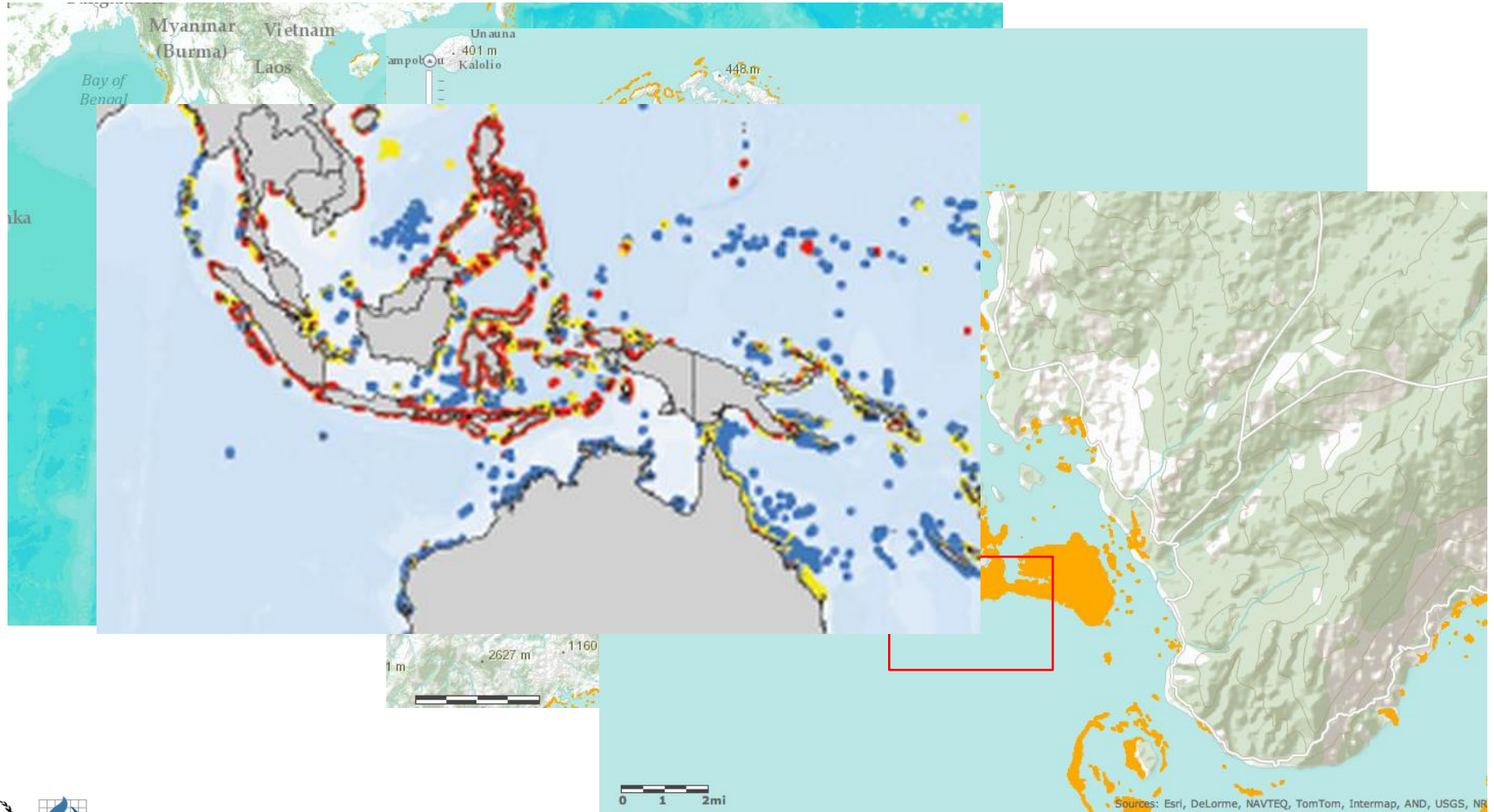
# Smoothing the data...



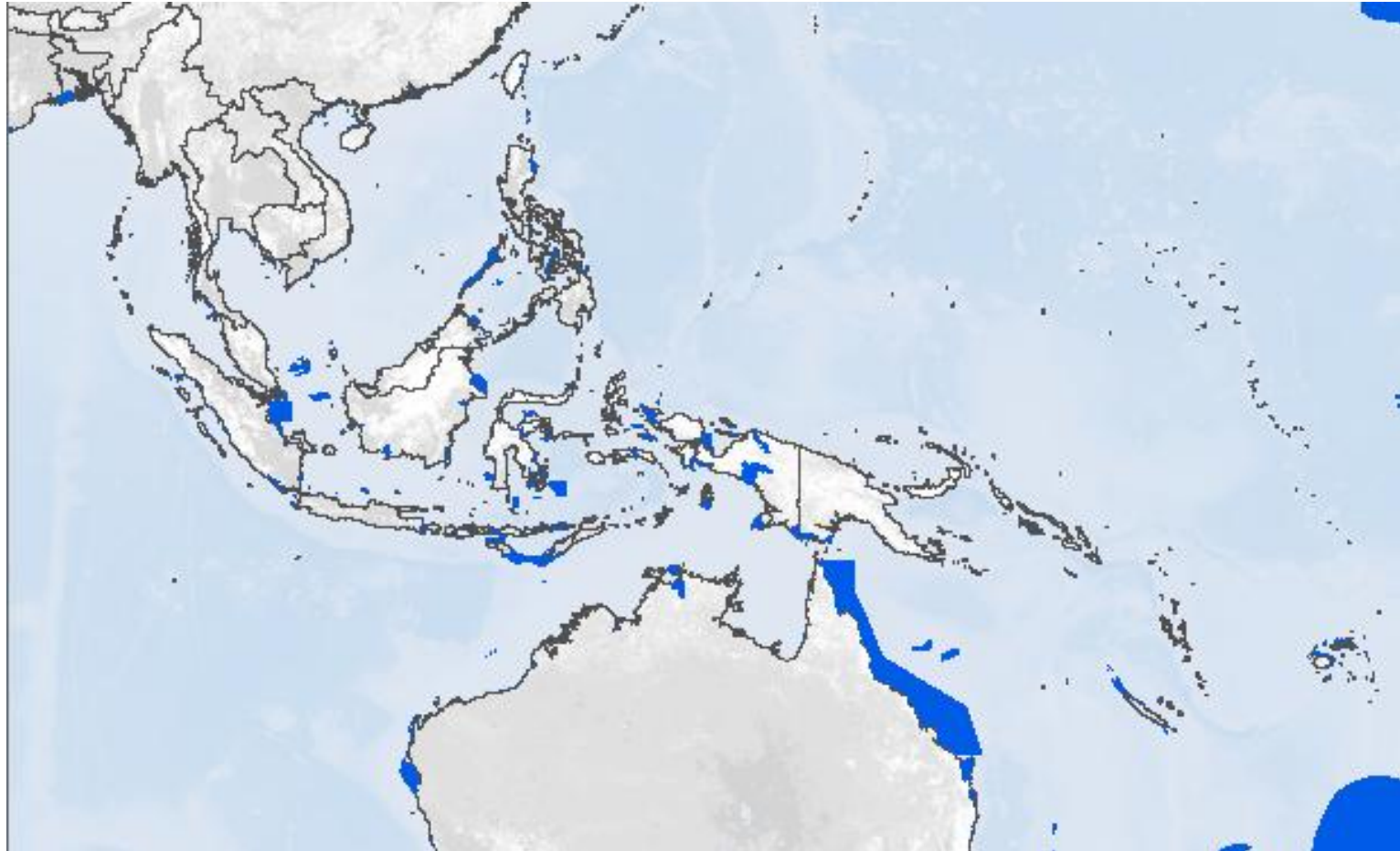
# Natural/Critical Habitats



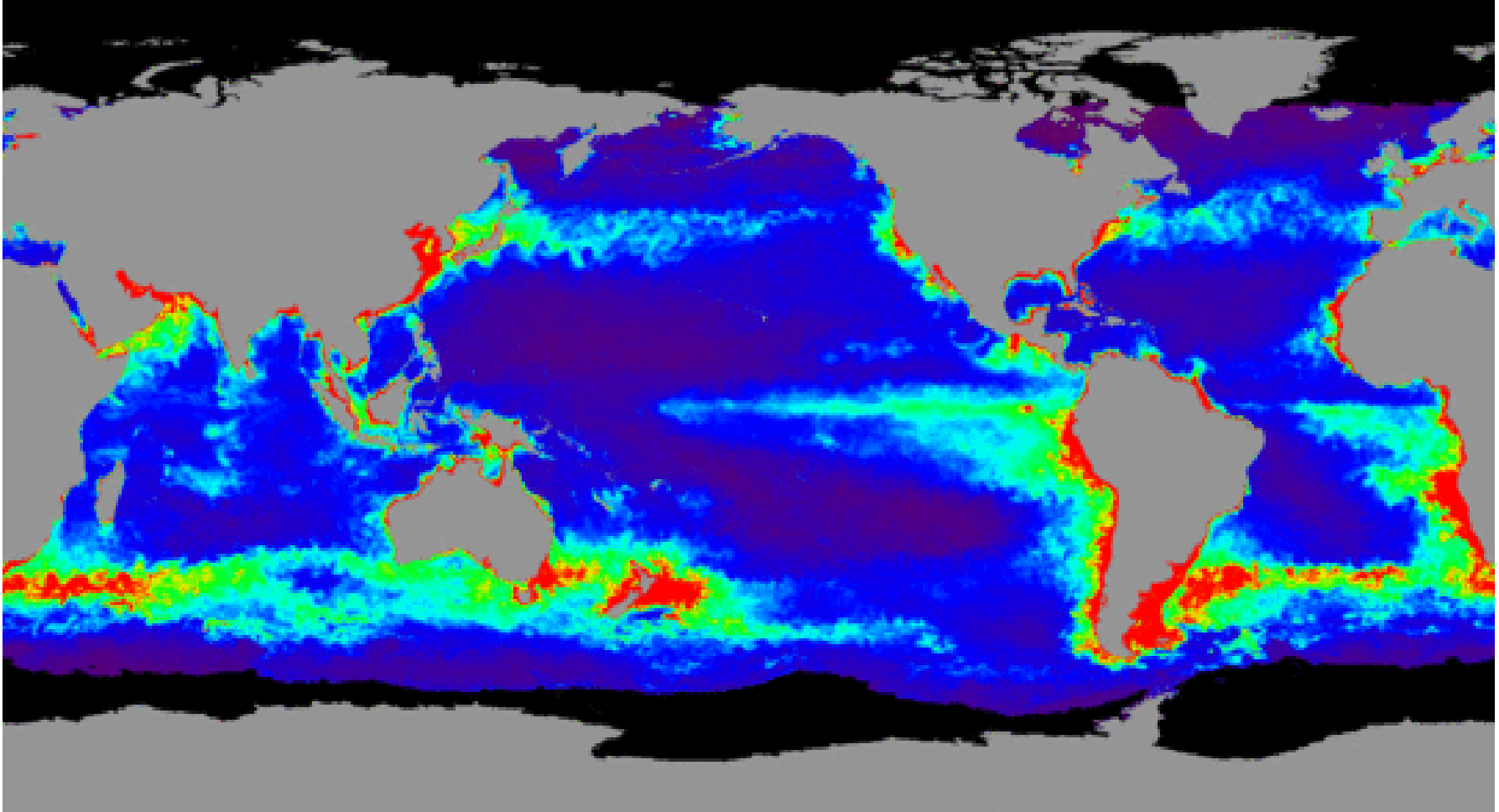
# Coral and 'Reefs at Risk'



# Marine Protected Areas, EBSA etc

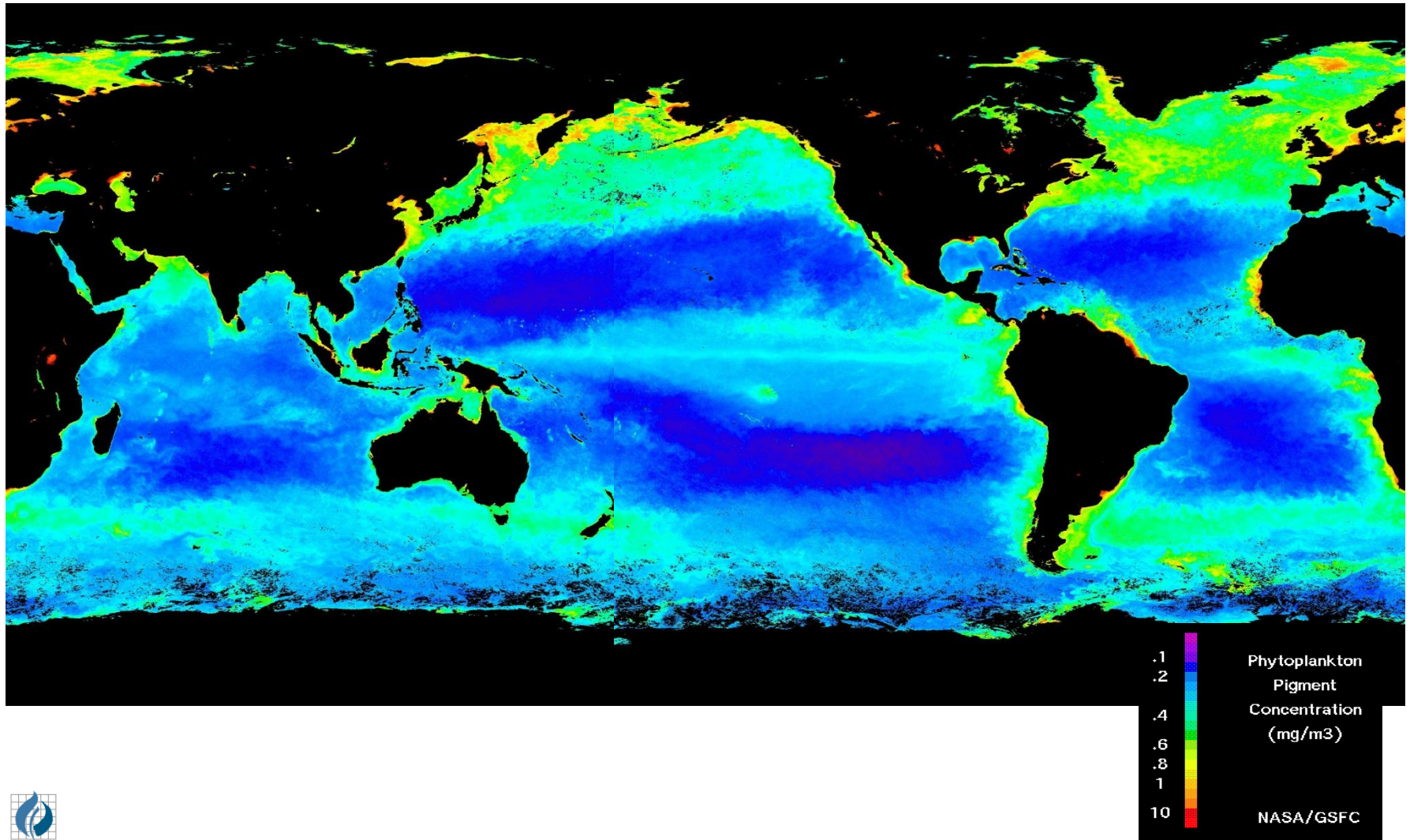


# Productivity (1)



Vertically Generalized Production Model (VGPM) ([Behrenfeld and Falkowski, 1997a](#))

# Productivity (2)

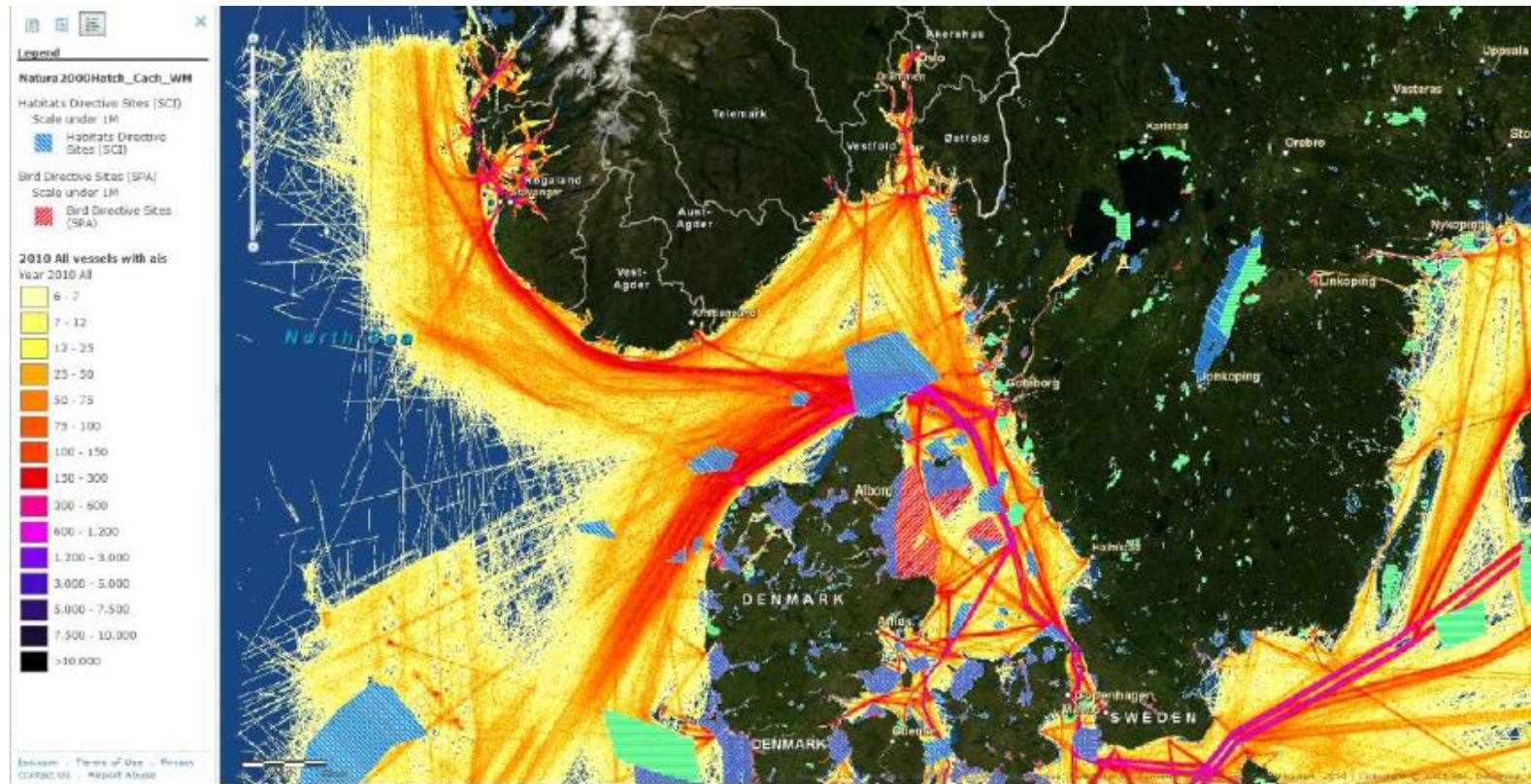


# Data layers

- Species richness
- Sensitive habitats
- Marine Protected Areas
- Productivity
- Sea mounts
- Deep sea corals
- Marine turtles
- [Threatened species]
- Migratory species

# Delivery of the Beta version by January 2013...

# Mapping risk for installations & shipping



Marine Protected Areas and high shipping activity in the Baltic 2011

 **United Nations Environment Programme**  
**World Conservation Monitoring Centre**  
Biodiversity & Ecosystems | Information & Analysis | Advice & Guidance

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- Data and information
- Analysis and reports
- Specialist online tools
- Search our Library Catalogue
- Our commitment to partners
- How can we help you?



**CITES Trade Dashboards**  
Interactive and dynamic views of trade data

- LINKS**
- Biodiversity Indicators Partnership
  - UNEP-WCMC Species Database
  - Protected Planet
  - Ocean Data Viewer
  - Proteus Partnership
  - IBAT
  - TEEB
  - Carbon, Biodiversity and Ecosystem Services
- More Quick Links

With our partners worldwide we source, collate and verify information on biodiversity and ecosystems which we then synthesise and analyse to create knowledge fit for global decision making

#### POLICIES



UNEP-WCMC does not assert any intellectual property rights in the data made available to it by data providers.

Access to UNEP-WCMC datasets is provided on the understanding that you read and consent to be bound by the Terms and Conditions set out in the policies below.

[READ MORE](#)

#### MEET OUR STAFF

#### Recent News:

##### Report Links Sustainability of Corporations to Ecosystem Services

5/10/2011

Assisting companies to report their links to and dependence upon ecosystems such as freshwaters, soil fertility and pollination services is the focus of a new publication released today by the Global Reporting Initiative (GRI), the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and CREM.

*Approach for Reporting on Ecosystem Services: Incorporating Ecosystem Services into an Organization's Performance Disclosure* looks at emerging issues around ecosystem services and how corporations interact with them, reap the benefits and as a result need to monitor and protect them.

#### ABOUT US

The UNEP World Conservation Monitoring Centre (UNEP-WCMC) is a collaboration between the United Nations Environment Programme, the world's foremost intergovernmental environmental organization, and [WCMC \(UK\)](#), a UK-based charity.

[READ MORE](#)

#### FEEDBACK



This is our new website. We'd like to [hear what you think.](#)



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