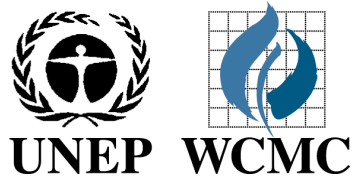


# Marine & Coastal Data Update

Proteus annual meeting, Stavanger 16<sup>th</sup> June

Louisa Wood



# Goal of presentation

Background and summary of 2010 work

Recap of objectives for 2011

Update on progress so far

# Recap of 2010

# Emerging issues for business

## Improved observation, monitoring & assessment

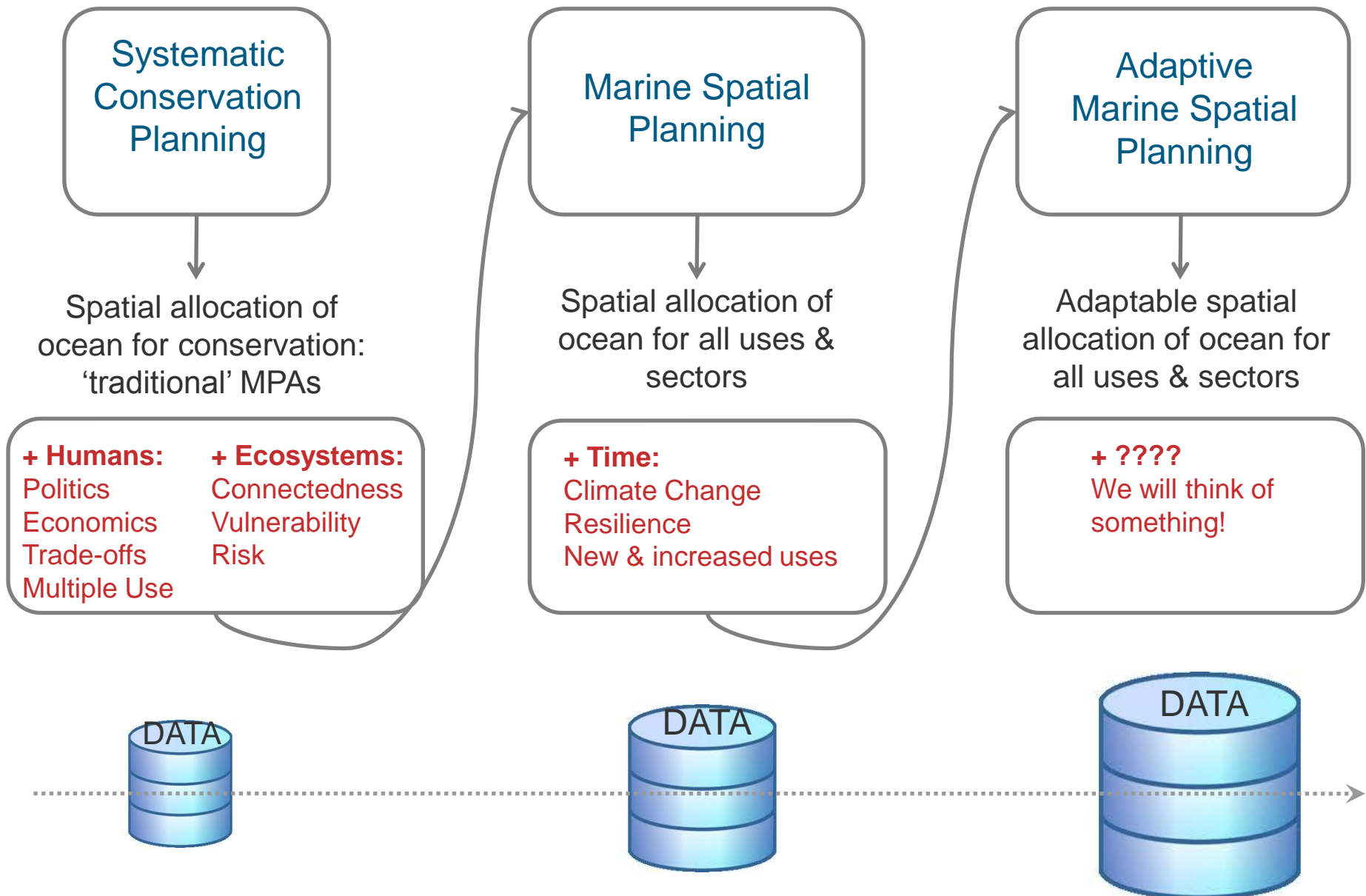
- Increasing focus on harmonisation with SEA, EIA, risk assessment

## Climate change mitigation and adaptation

- Restoration & protection of high carbon storage habitats: mangroves, seagrasses, saltmarshes

## (Adaptive) Marine spatial planning

- Multi-sectoral and integrated
- Extending to offshore areas including beyond national jurisdiction



# Data needs

- Areas of ecological Importance
  - Habitats
  - Protected Areas
  - Other spatial regulatory areas
- Human Use
- Oceanographic & physical features

# Ocean data viewer

## Ocean data Viewer

- Accessibility
- Transparency

## Platform to improve data:

- Quality
- Timeliness
- Resolution
- Accessibility

The screenshot shows the Ocean Data Viewer interface. At the top, it displays 'Ocean Data Viewer' with navigation links: EXPLORE THE DATA, ABOUT, CONTACT, BUSINESS. On the right, it shows '16 DATASETS' and '339 DOWNLOADS'. Below the navigation is a world map with zoom controls. A dropdown menu on the right shows 'Showing 16 datasets' with a list of dataset names and checkboxes. Below the map is a table of available datasets.

Available datasets	The Convention on Biological Diversity				GEO BON	WSSD	Ramsar Convention	FAO VME
	EBSAs	Islands Biodiversity	Marine & Coastal	Protected Areas				
Global Distribution of Coral Reefs (2010)	✓	✓	✓	✓	✓	✓	✓	✓
Global Distribution of Coral Reefs 1Km data (2003)	✓	✓	✓	✓	✓	✓	✓	✓
Global Distribution of Mangroves (1997)	✓	✓	✓	✓	✓	✓	✓	
Mangroves of East Africa (2003)	✓	✓	✓	✓	✓	✓	✓	
Mangroves of West and Central Africa (2007)	✓	✓	✓	✓	✓	✓	✓	
Global Seagrass Species Richness (2003)	✓	✓	✓	✓	✓	✓	✓	

# 2011: Global data partnership

## Framework document

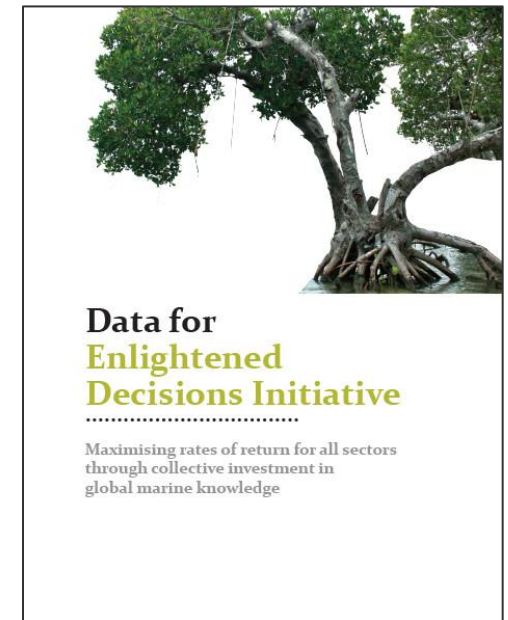
- Fundraising
- Partnerships

## Objectives

- Transform methodologies for data collection
- Enable better decision-making across sectors

## Benefits

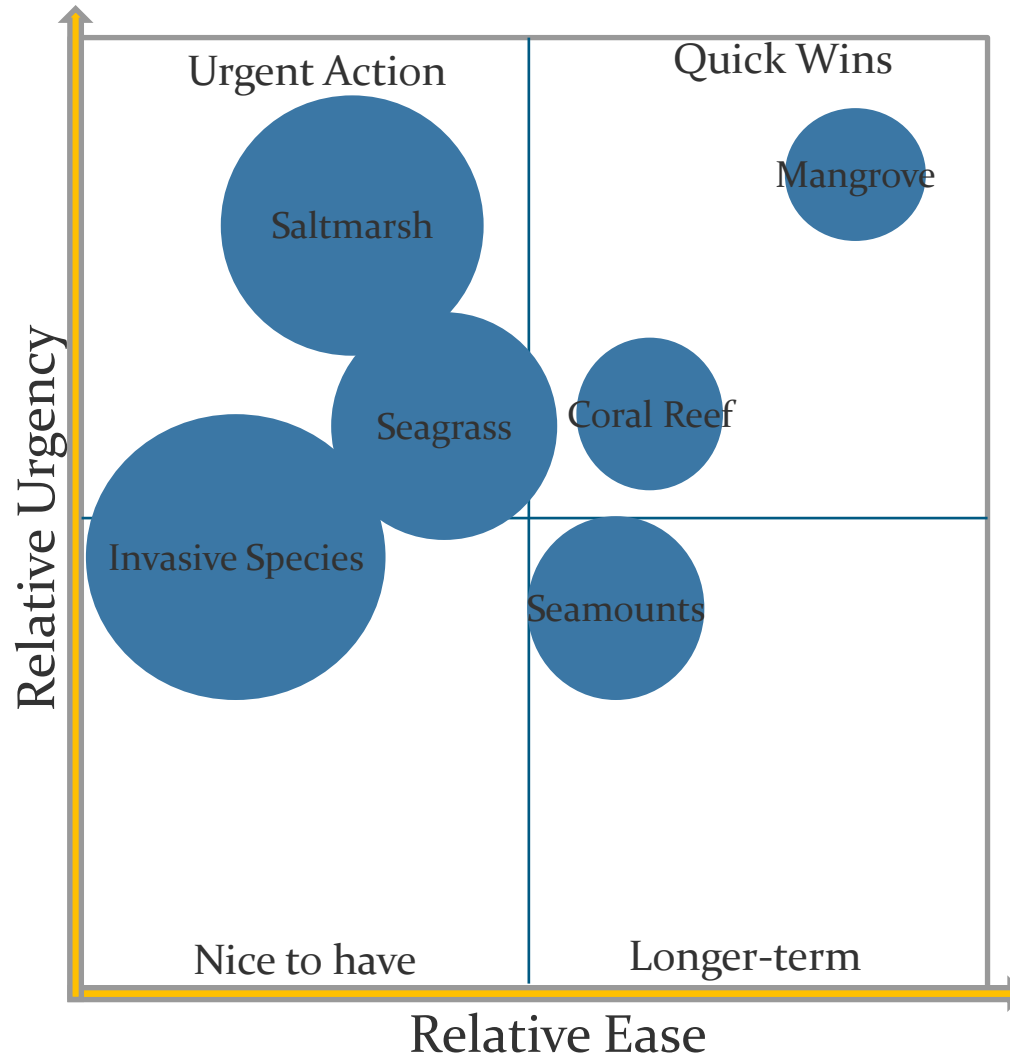
- Economies of scale through collective investment in common data products
- Improved management, reduced risk
- Maintained/enhanced credibility



# What's needed?

- Data of Spatial & temporal Resolution appropriate to planning
  - Standardised attributes
- Use citizen science principles to transform the rate of data provision, and data quality
  - Build the tools
  - Build the communities
  - Build the capacity of the communities to use the tools
- Visualise and make freely available core data products
- Demonstrate utility and value (Pilots)

# Data priorities could be endless!



# 2011: Building the foundation

# 1. Spatial & temporal resolution: establishing baselines

## Global comparison of 2 mangrove datasets

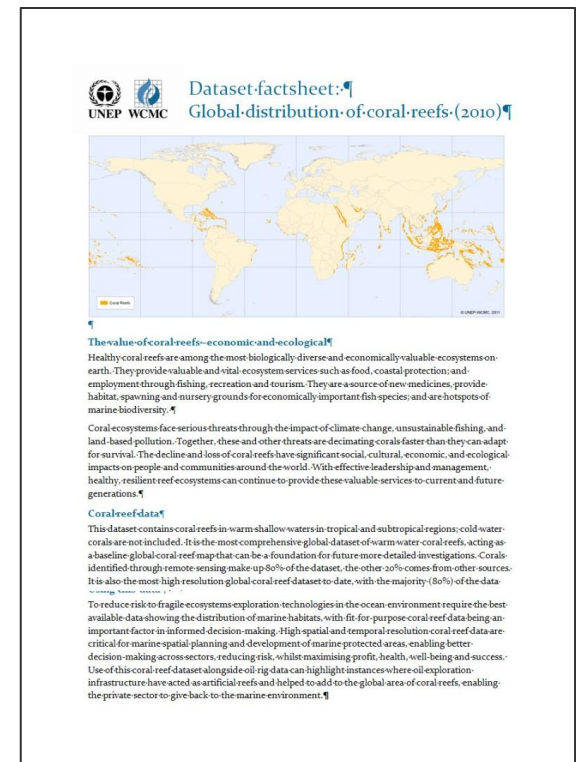
- Baseline in time
- Possibly some change analysis (pending)
- Guidance on best available mangrove data & implications for real-world use

## Fact sheets

- Factsheets in development for all datasets to provide overview, increase transparency & accessibility.

## Publication: Habitat mapping needs

- Scientific paper in prep to build justification for transformative approach to monitoring



# 1. Attribute standardisation

## Mangroves, seagrasses, saltmarshes



- Collaborative workshop with CI, UNESCO-IOC, UNEP:
  - Develop draft core standards for habitats plus monitoring carbon

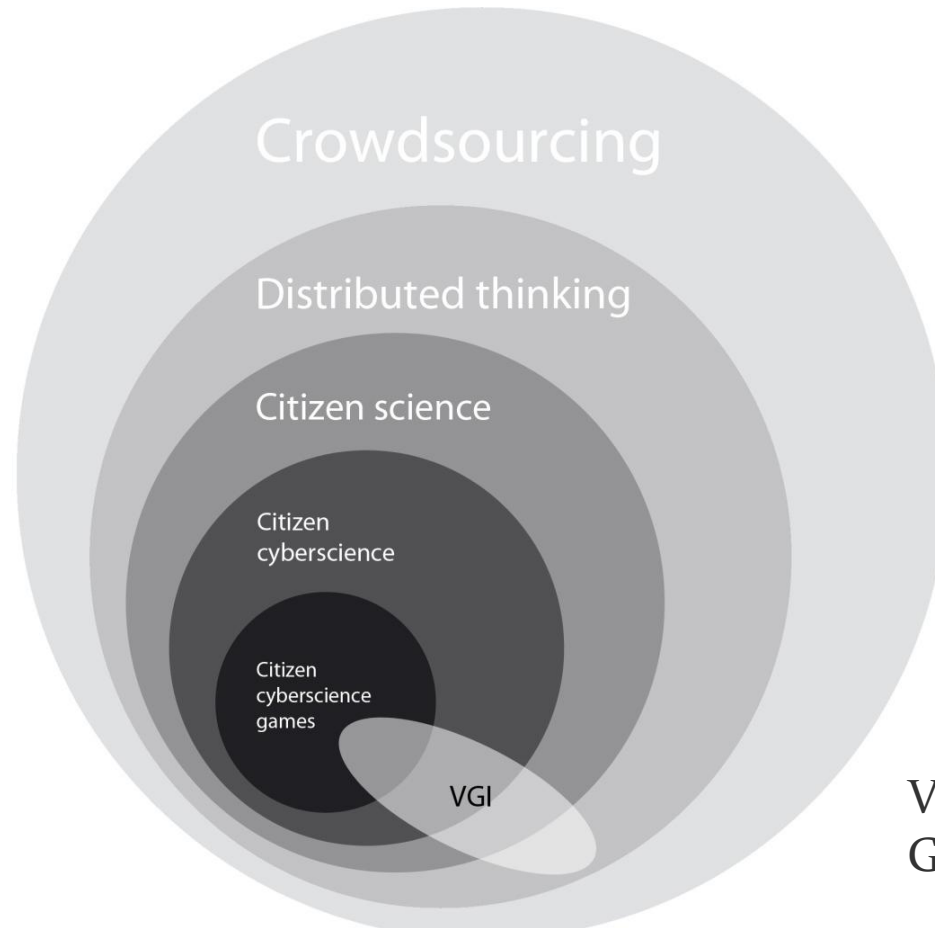


## Corals

- Through collaboration with UNEP / International Coral Reef Initiative:
  - Develop core standards for coral reef layer



## 2. Citizen science: understanding the potential



VGI = Volunteered  
Geographic Information

Source: Scheske & Wood, in

## 2. Citizen science: A typology

	Type I Online engagement of the masses	Type II Traditional CS	Type III Immersive, Analytical
Problem type	Observation	Observation	Analytical, pattern recognition
Skill-level	Low	Moderate	Low
Community Size	Very large 100,000 – 999,000	Small to Moderate 100 – 99,000	Moderate 1,000 – 99,000
QA method	Volume, repetitive processing	Training, validation, trusted users	Repetitive processing, validation

## 2. Citizen science tools : Validation



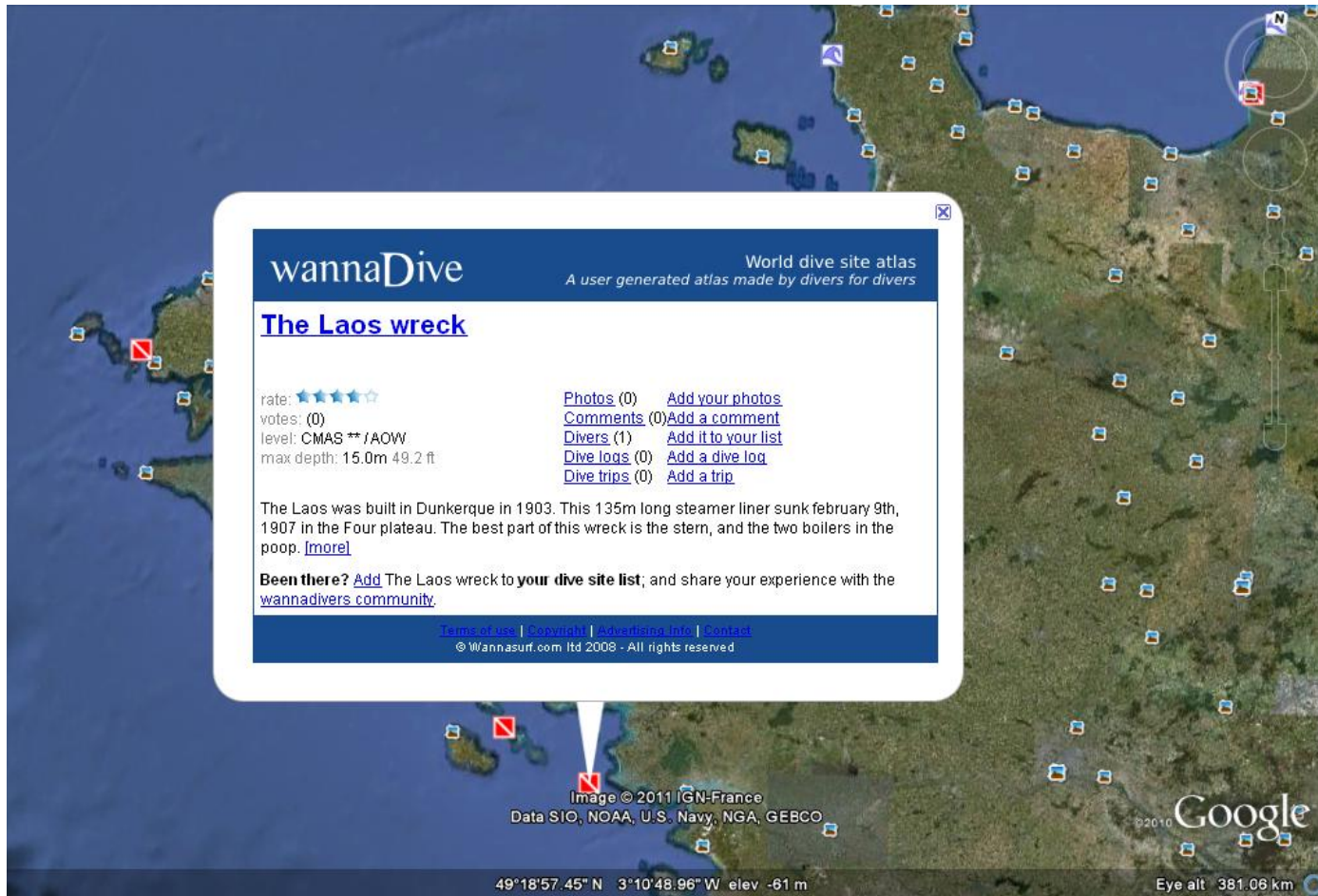
Development of beta validation tool for spatial extent of habitats

Specification in development:

- Simple observation-based problem, with some training on mangrove-id
- Potential for very large community



## 2. Citizen science tools: Attributes



**wannaDive** World dive site atlas  
*A user generated atlas made by divers for divers*

### The Laos wreck

rate: ★★★★★  
votes: (0)  
level: CMAS \*\* / AOW  
max depth: 15.0m 49.2 ft

[Photos \(0\)](#) [Add your photos](#)  
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[Divers \(1\)](#) [Add it to your list](#)  
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The Laos was built in Dunkerque in 1903. This 135m long steamer liner sunk february 9th, 1907 in the Four plateau. The best part of this wreck is the stern, and the two boilers in the poop. [\[more\]](#)

**Been there?** [Add](#) The Laos wreck to **your dive site list**, and share your experience with the [wannadivers community](#).

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© 2010 Google  
49°18'57.45" N 3°10'48.96" W elev -61 m  
Eye alt 381.06 km

# 2011: Summary of outputs

1. Reports / publications / guidelines
  - Habitat Factsheets
  - Framework document for Global Data Partnership
  - Need for transformation of approach to habitat mapping
  - Citizen Science – applicability to habitat mapping
2. Data improvements
  - Global mangrove data available with appropriate guidance (pending license)
  - Attributes for mangrove and coral standardised
  - Possibly some work initiated on saltmarshes
  - Ocean Data Viewer updated
3. Networks for data partnership built
  - Key relationships on specific activities