

Results from Research on Ecosystems and Human Impact in European Seas

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50 partners

Euro 15M

Duration 2005-2009

Large amount of new
data collection

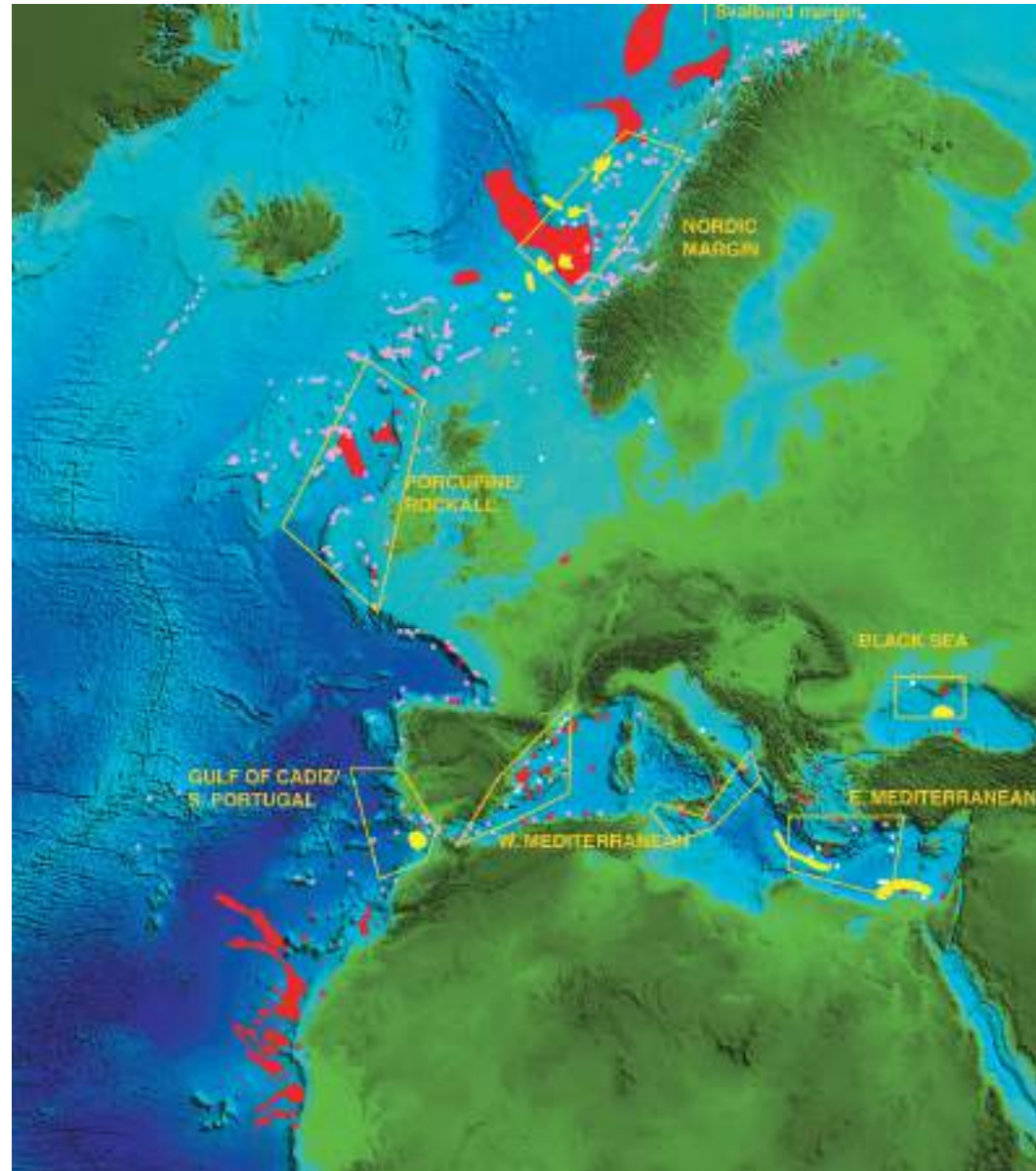


41 partners

Euro 8M

Duration 2009-2012

Large amount of new
data collection



European projects on deep-sea environments

The impact of deep-sea fisheries and implementation of the UNGA Resolutions 61/105 and 64/72

Report of an international scientific workshop



Report from workshop of 19 international scientists in 2011

Conclusions

- the UNGA resolutions have not been fully implemented;
- deep-sea fisheries are not being managed for long-term sustainability; and
- vulnerable marine ecosystems (VMEs) are not being given sufficient protection from significant adverse impacts (SAIs).

Human activities on the deep seafloor > 200 m

● Marine Scientific Research

● Oil and gas installations

— Oil and gas pipelines

(Exploration and development wells to end 2005

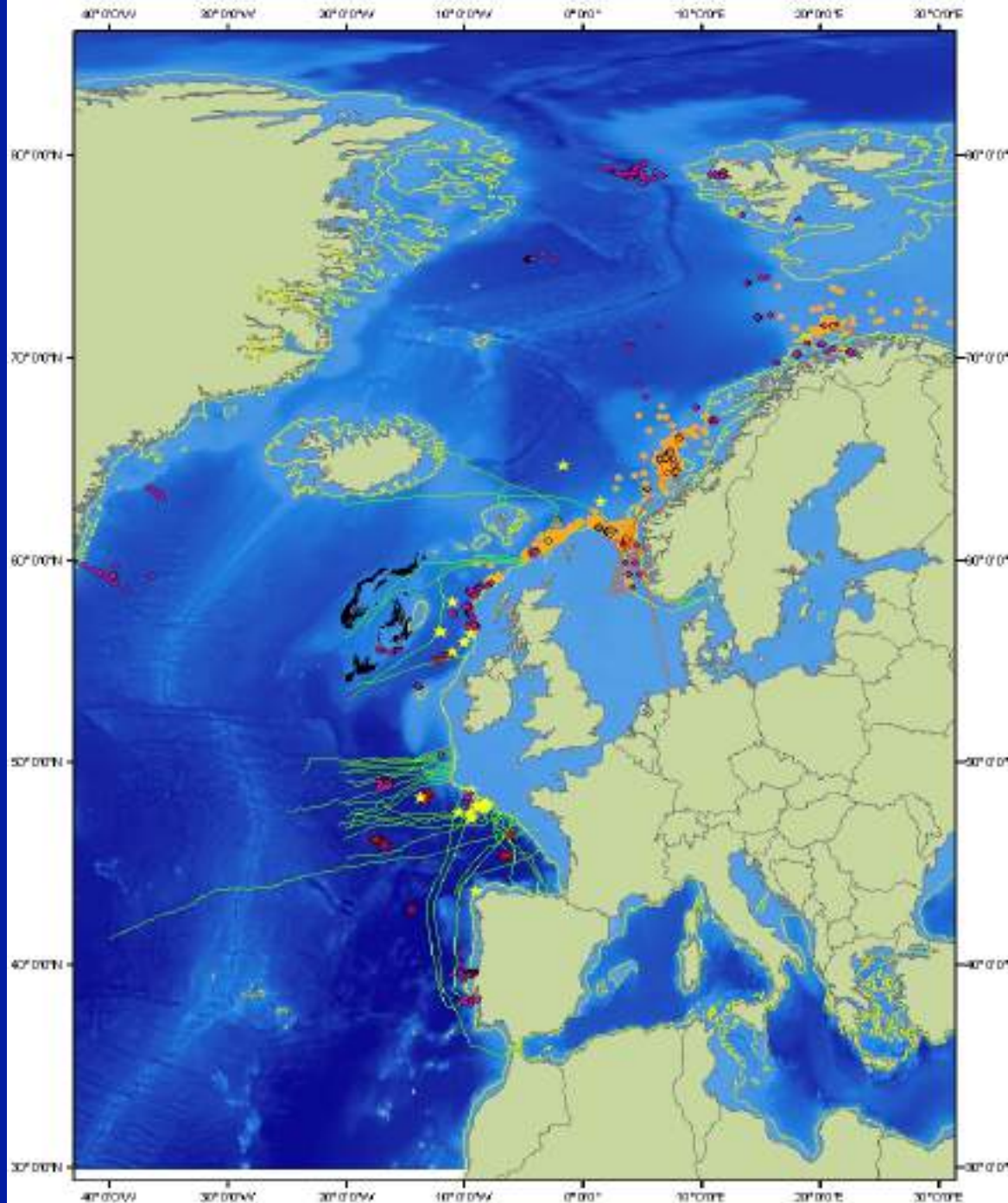
— Tracks of bottom trawlers (1.5 - 5.0 knots)

★ Radioactive waste dumpsites

★ Munitions and chemical weapons dumpsites

— Submarine telecommunications cables

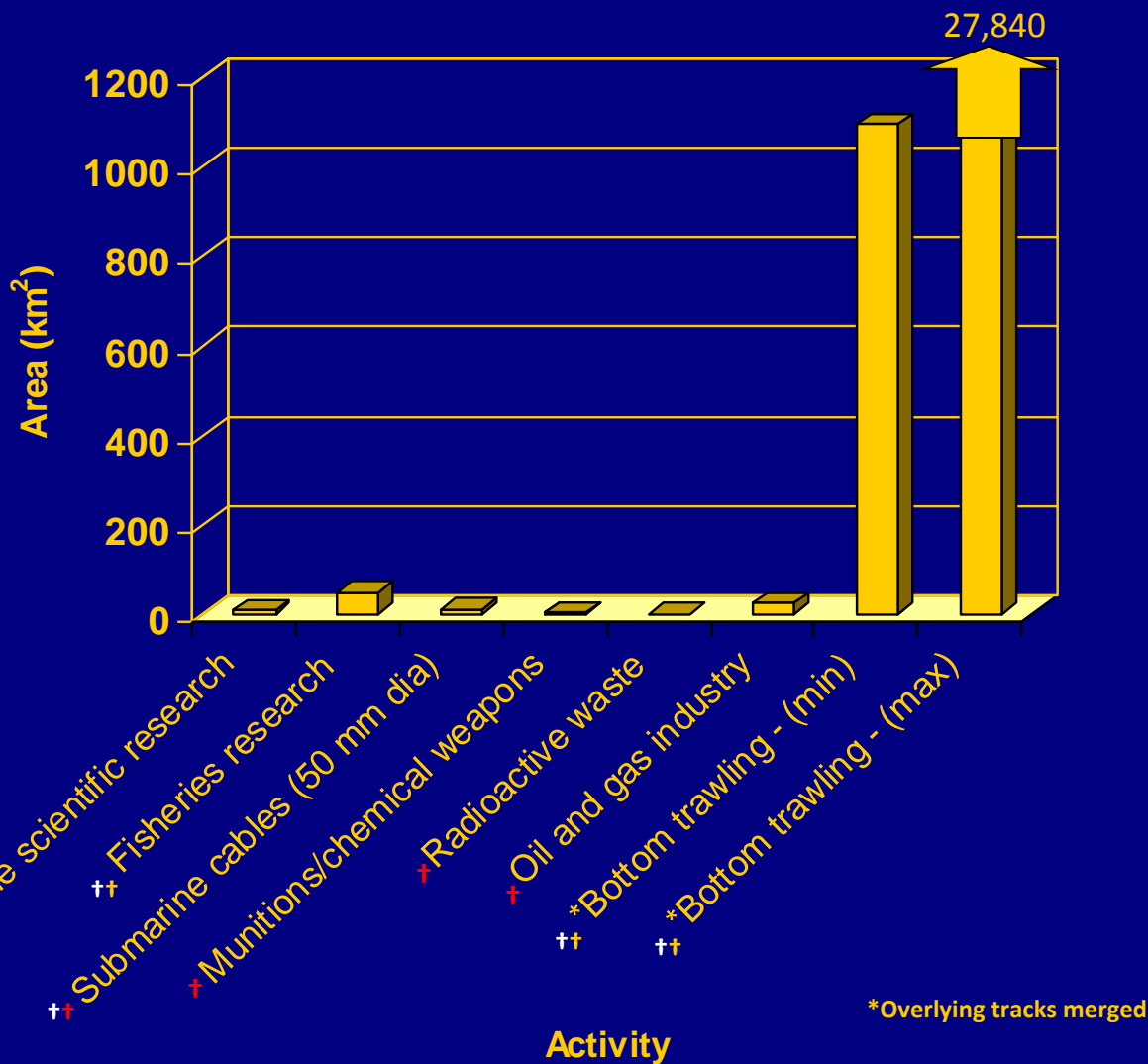
— 200 m depth contour





Area of activities extrapolated to whole NE Atlantic

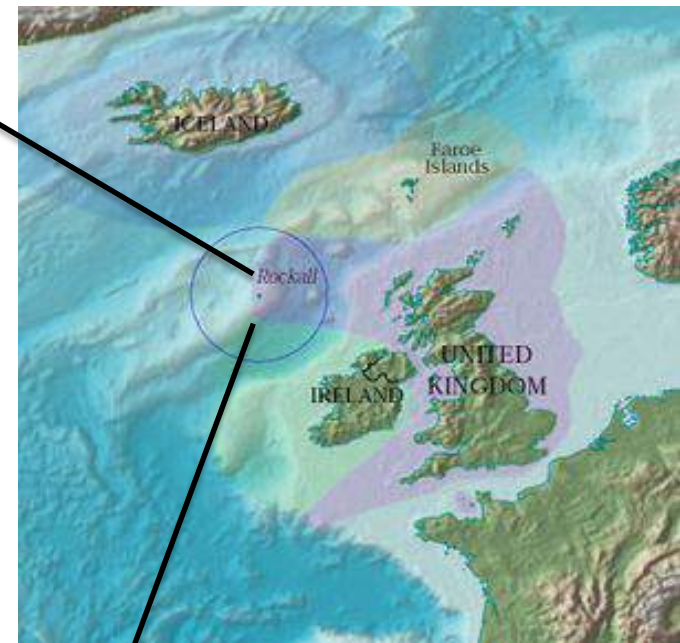
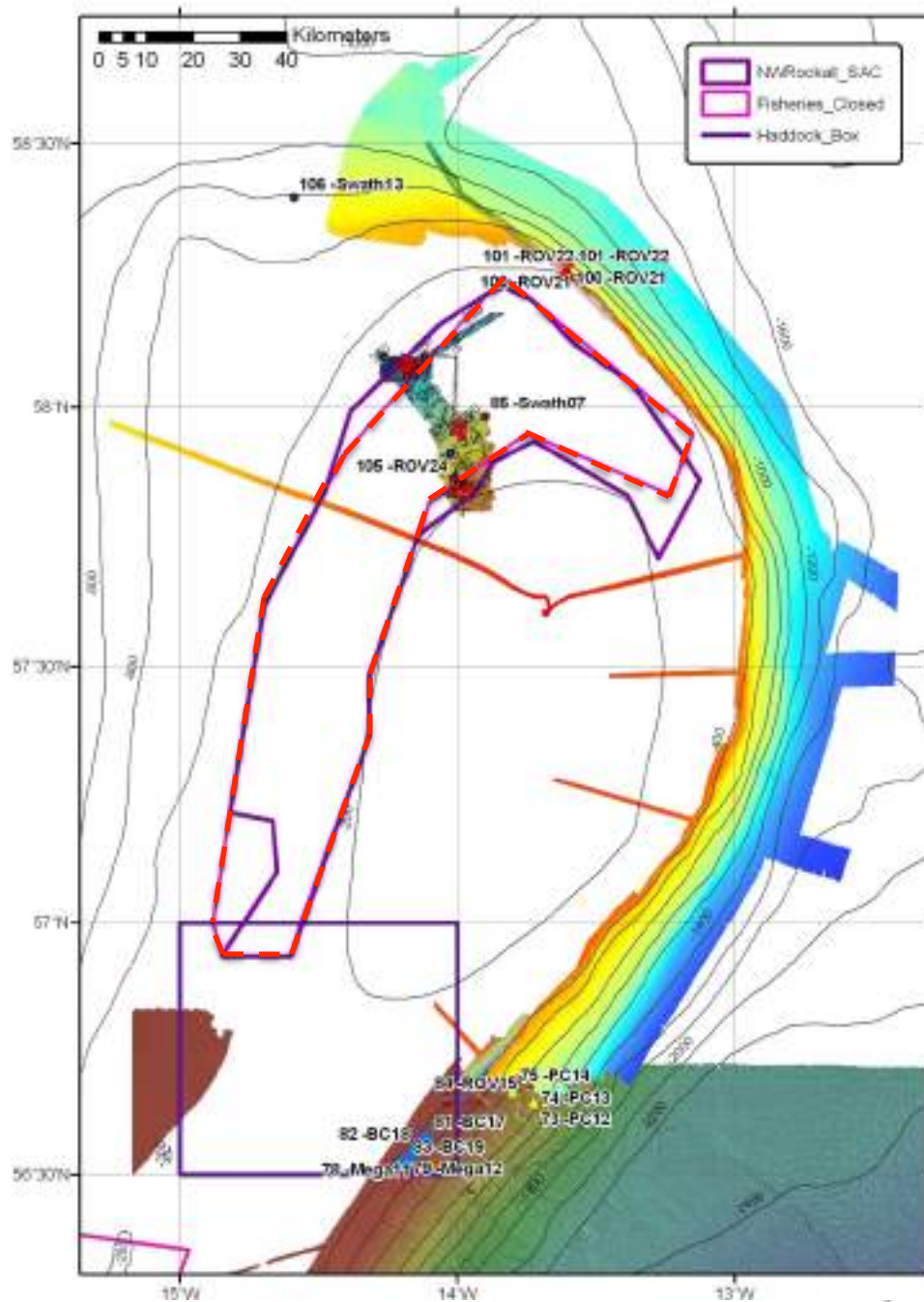
Area of seabed impacted by human activities in 2005. Data from OSPAR area of NE Atlantic and deeper than 200 metres water depth. Bottom trawling has more impact than all other activities combined.



† Spatial extent extrapolated from available data

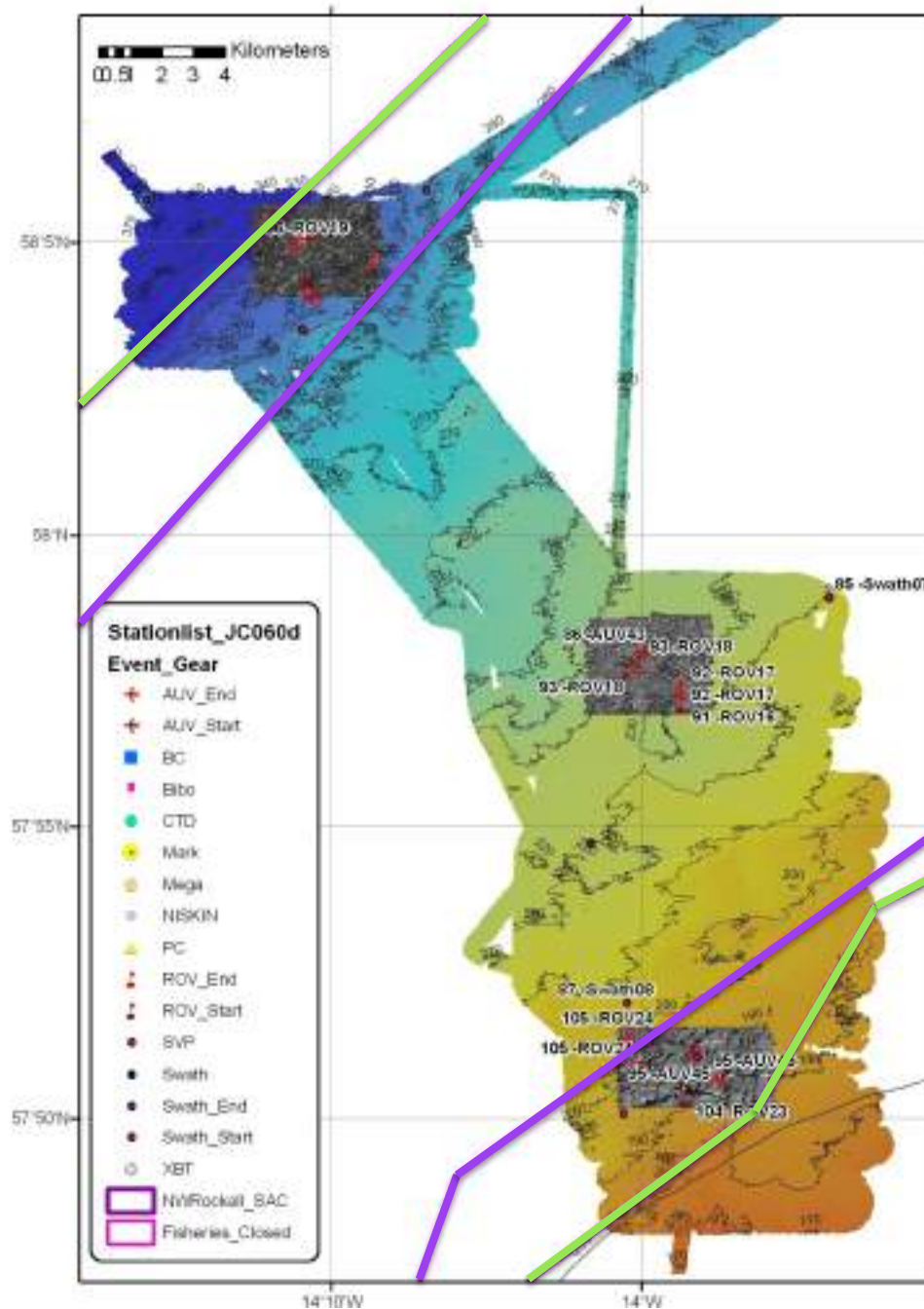
‡ Spatial extent of activities during 2005 only

† Spatial extent of activities during 2005 (if applicable) and past activities



Results from the RRS
James Cook cruise
 060, 9 May – 12 June
 2011; © NOC, NERC,
 UK, 2011

Cost of cruise – about
 €1.2M



The inner purple box represents a fisheries closed area. It has been suggested to extend the SAC to the outer green box. Data was collected in the areas of proposed extension.

Results from the RRS *James Cook* cruise 060, 9 May – 12 June 2011; © NOC, NERC, UK, 2011

Coral communities already destroyed by bottom trawling in northern proposed SAC
(Special Area of Conservation)



Intact habitat inside the fisheries closed area and in the southern proposed SAC
(Special Area of Conservation)



Key points

1. At present deep-sea bottom trawling has a greater impact on seabed ecosystems than all other activities combined
2. The deep-sea is poorly known but new scientific data consistently shows it is very complex and often slow to recover from human impact
3. Identifying Vulnerable Marine Ecosystems is a very expensive and time consuming activity if done properly. Insufficient scientific data is available to identify areas that should be protected and hence the “precautionary principle must apply



Intact habitat inside the fisheries closed area and in the southern proposed SAC

RRS *James Cook* cruise 060, 9 May – 12 June 2011; © NOC, NERC, UK, 2011



Coral communities destroyed by bottom trawling in northern proposed SAC area

RRS *James Cook* cruise 060, 9 May – 12 June 2011; © NOC, NERC, UK, 2011