

Finding boundaries from imperfect information:  
lessons from the Rockall Bank closure

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ICES was first asked for advice in 2000

The European Commission, DG Fish request for the “*identification of areas where cold-water corals may be affected by fishing.*”

Response included catalogue of sites in the NE Atlantic where *Lophelia* occurred as well as a review of known effects of various fishing gears

Best known/ most obvious effect is from trawling



But long-term effects from persistent use of bottom-set nets and lines also likely

2005 Question from North East Atlantic Fisheries Commission to ICES:

“*provide information on the distribution of cold-water corals on the Western slopes of the Rockall Bank to indicate appropriate boundaries of any closure of areas where cold-water corals are affected by fishing activities*”

Note that the Rockall Bank straddles EU waters and High Seas

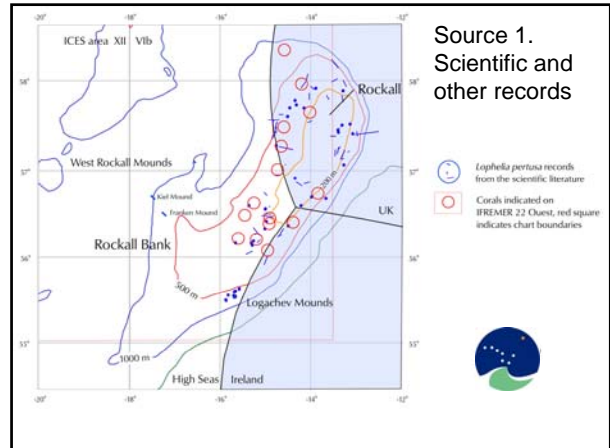




### ICES has two stage process

1. Expert group – Working Group on Deep-water Ecology (WGDEC)  
views also sought from Working Group on Deep-water Stocks (WGDEEP)
2. Advisory Committee on Ecosystems (ACE)  
[now just a single Advisory Committee]

Three sources of information used:



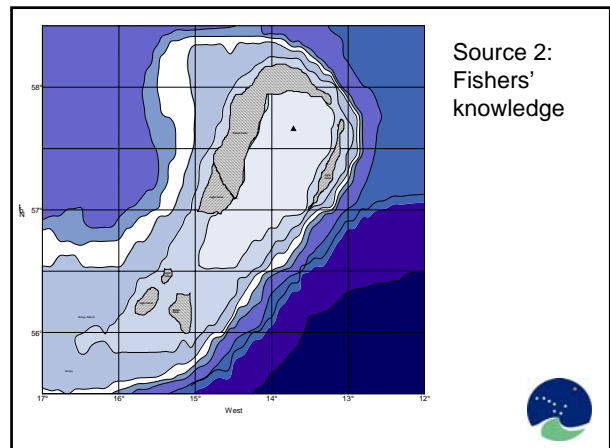
Source 1.  
Scientific and other records

### Scientific and other records Advantages

- Actual records
- Some recent visual records

### Disadvantages

- Not systematic (no negative records, though might be possible)
- Positions not as precise
- Records old, may no longer exist



Source 2:  
Fishers' knowledge

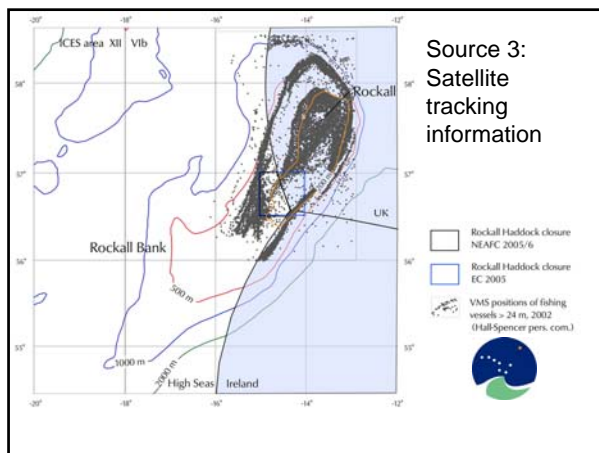
### Fishers' knowledge

#### Advantages

- Relatively recent
- Uses fishers knowledge (ecosystem approach)

#### Disadvantages

- May not be complete (or accurate)
- Small sample size



### VMS records

#### Advantages

- Close to comprehensive (and scientific)
- Least likelihood of conflict

#### Disadvantages

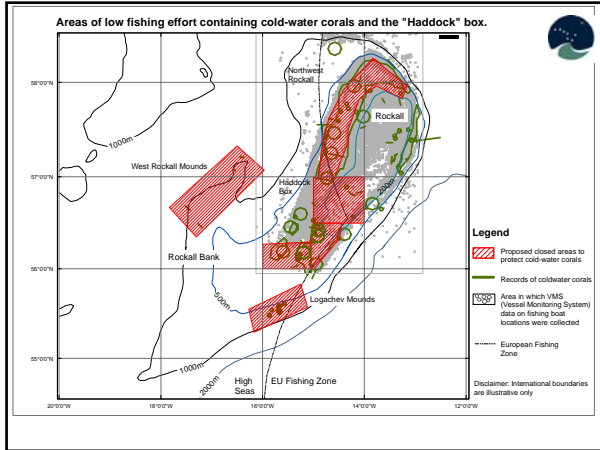
- Fishers may not fish in an area due to other reasons than presence of coral
- Some fleets data absent
- Interpretation not straightforward



Most suitable area to protect coral:

Areas containing recorded coral concentrations where there was no or low fishing activity.





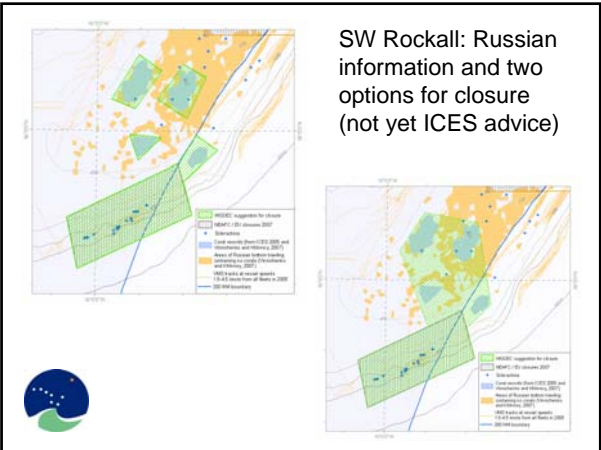
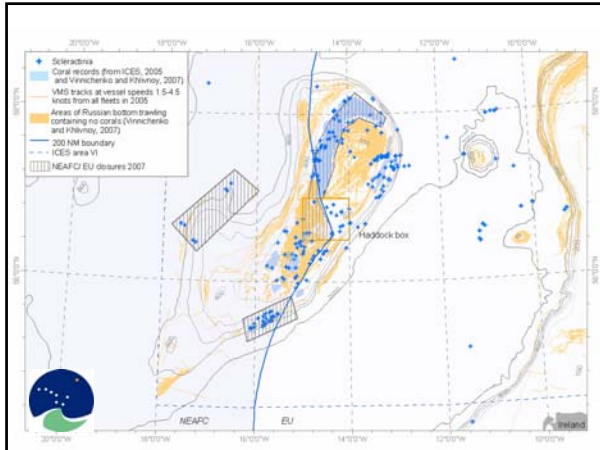
**What happened next?**

Advice went from ICES to NEAFC in Sept 2005

Advice also provided to European Commission

NEAFC met November 2005 and decided to take no decision

NEAFC met again in November 2006 and decided on a closure of part of Rockall Bank, this implemented in both EU and NEAFC, but SW Rockall not closed awaiting consideration of further evidence



### Summary points



Identifying suitable areas to close should use all available information (suitably weighted):

- scientific surveys,
- fisherman's knowledge (preferably with documented evidence) and
- location of fishing activities known not to impact coral.

Boundary of closed area should be relatively easy to enforce and take account of need to avoid "accidental damage" and enforcement capability

### Some thoughts



EU Member States have responsibilities to protect certain habitats and species using protected areas (Habitats Directive)

European Commission has sole competence to bring forward fisheries management measures (unless derogated) and has responsibility to "minimise the impact of fishing activities on marine ecosystems" (2371/2002). It can do this by adopting "zones and/or periods in which fishing activities are prohibited or restricted."

### Some thoughts



A convergence of these processes will help all

Ensure best scientific information available, including VMS

Ensure appropriate scale of closure/protection

Establish principles for boundary setting

Establish principles for consultation and management

Establish principles for scientific review and evaluation

Aim: reduce friction and increase co-operation