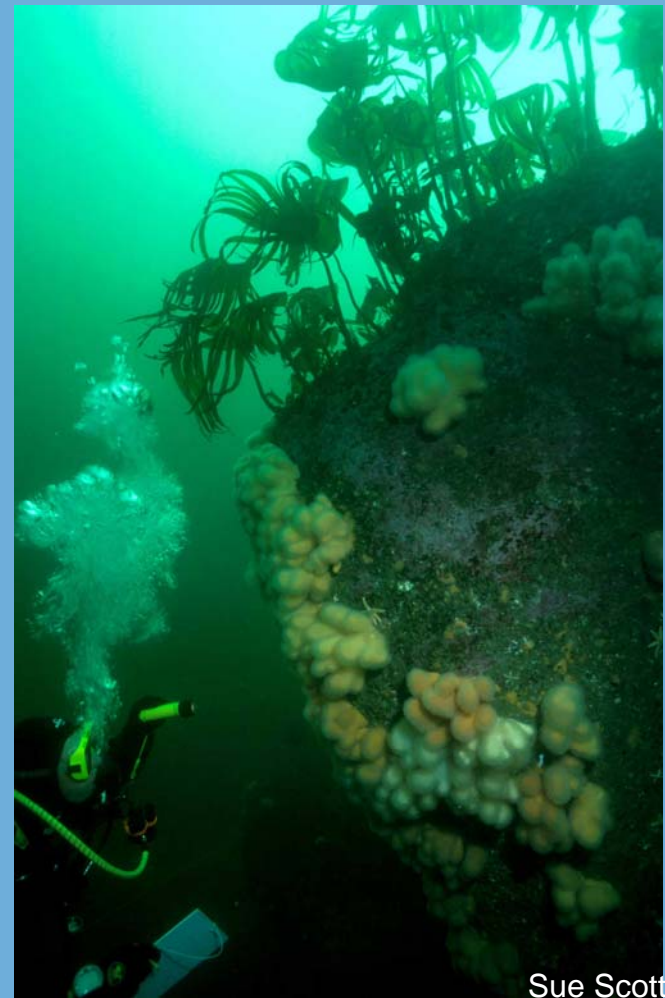


From rare to representative – The biodiversity benefits of MPAs

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Biodiversity Policy Officer



Sue Scott

Caring for our seas, shores & wildlife



Marine
Conservation
Society

There is scientific and anecdotal evidence of change

Piscatorial Atlas, 1883



Dutch beam trawlers hit 40% of N Sea bed (OSPAR, 2000)

Native Oyster beds

Other impacts

waste



energy



aggregate



trade



What Marine Protected Areas do we have?

We need to honour our commitments

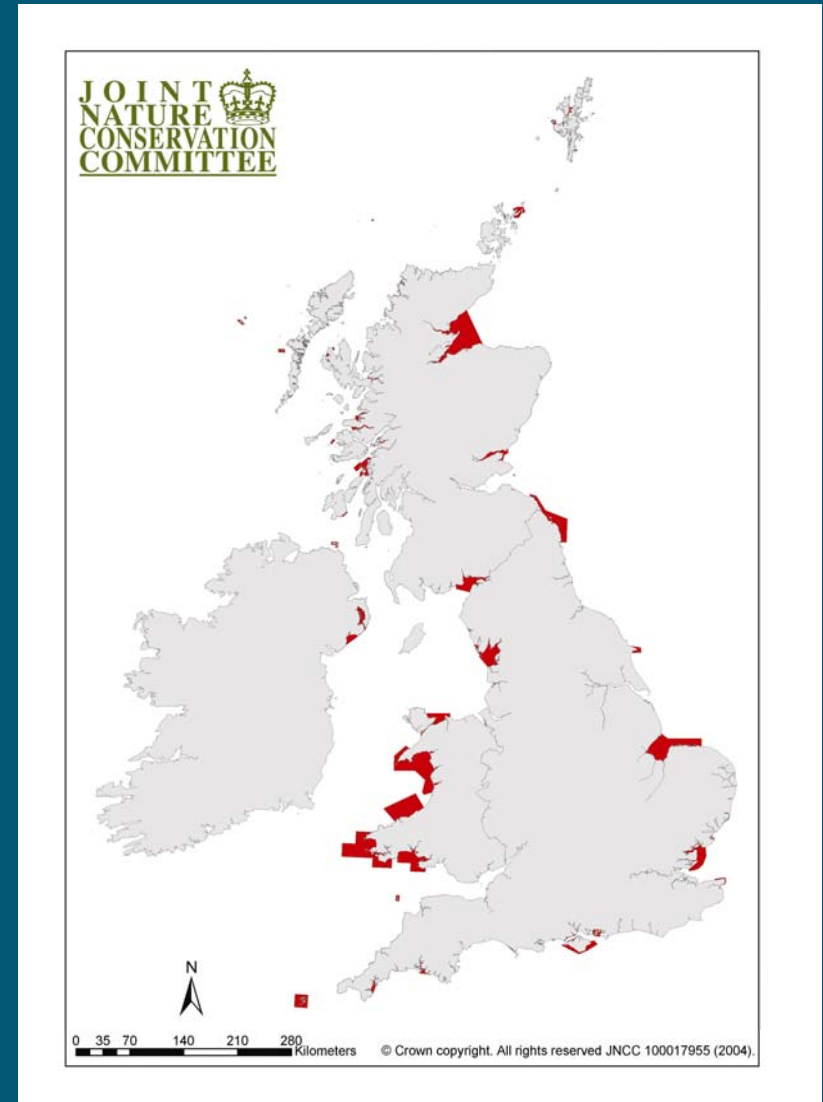
- Halt decline in biodiversity by 2010 (Countdown 2010)
- WSSD (ecologically coherent, well-managed MPA network by 2012)
- OSPAR (representative network by 2010)

With what.....(so far)

- The Biodiversity Action Plan - a voluntary process (no BAP MPAs)
- Three Marine Nature Reserves (209km²) (0.12%*)
- 63 marine Special Areas of Conservation (9071km²) (1.04%*)
- One No Take Zone (3.3km²) (0.002%*)

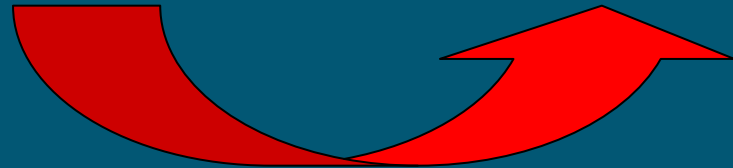
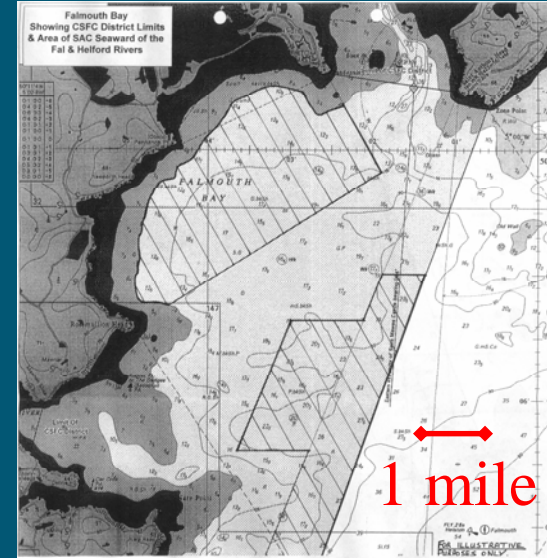
Special Area(s) of Conservation

- 63 marine Special Areas of Conservation
- 1.04% of UK waters (to 200nm)
- Benign activities allowed
- Only for 17 features(!)
- Inconsistent management

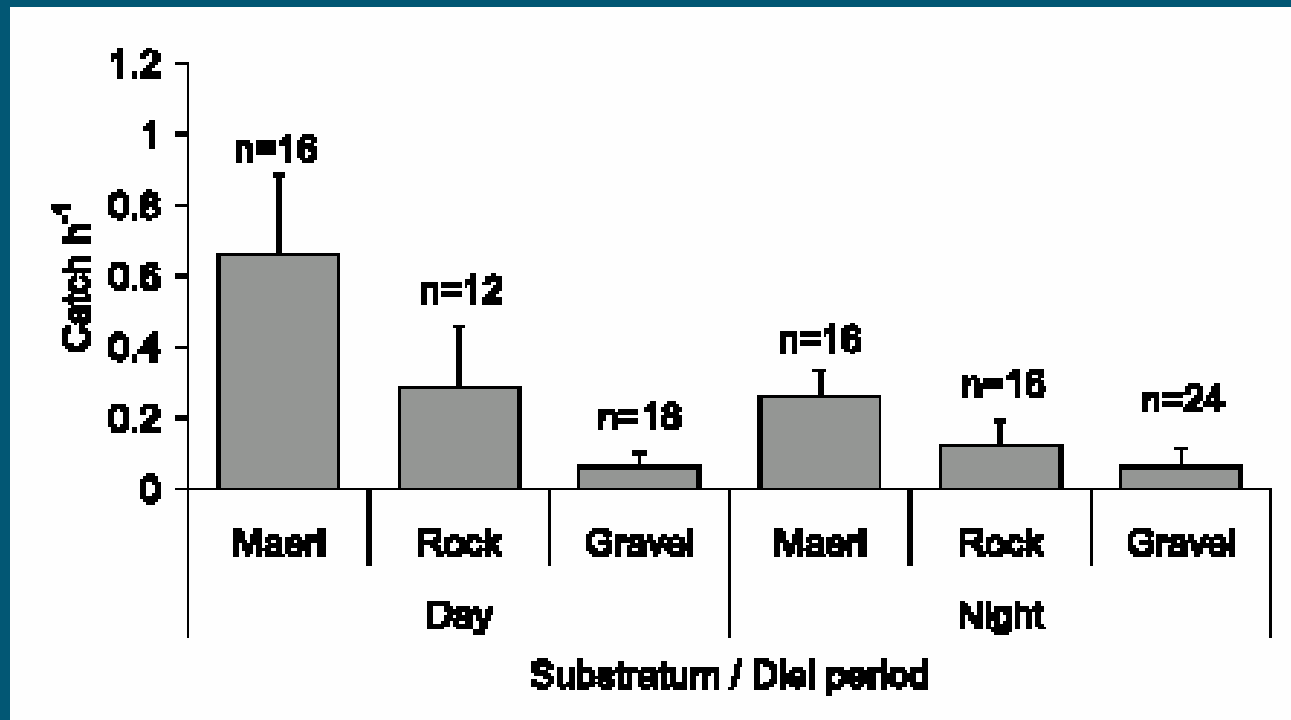


Scallop dredging in SACs

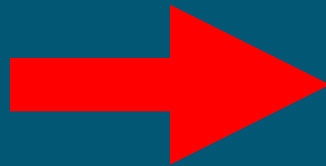
- Falmouth and Helford SAC
- Nationally important maerl
- 1978 – 2 dredgers
- 2006 – 8 dredgers
- No Appropriate Assessment
- *The law isn't being applied*



Number of juvenile cod caught in maerl

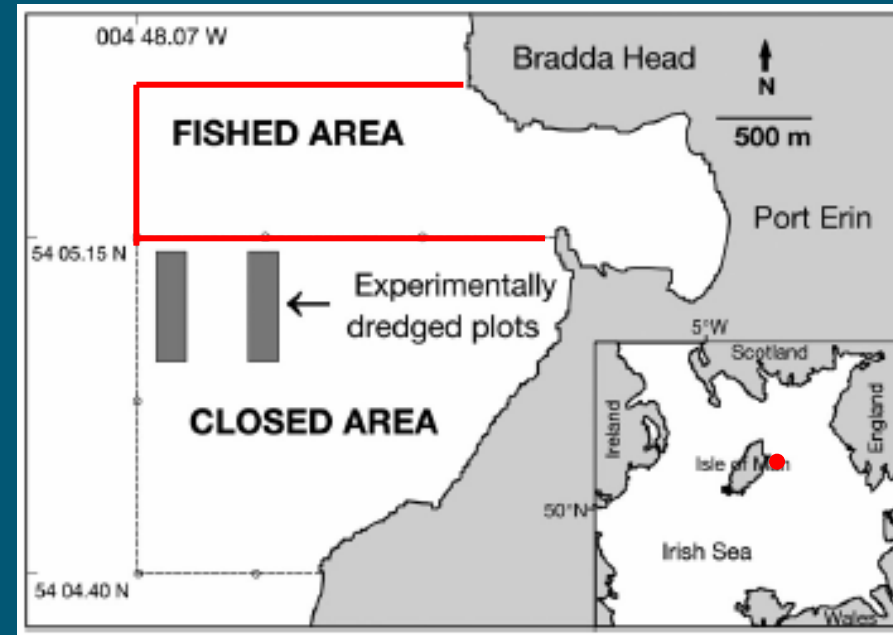
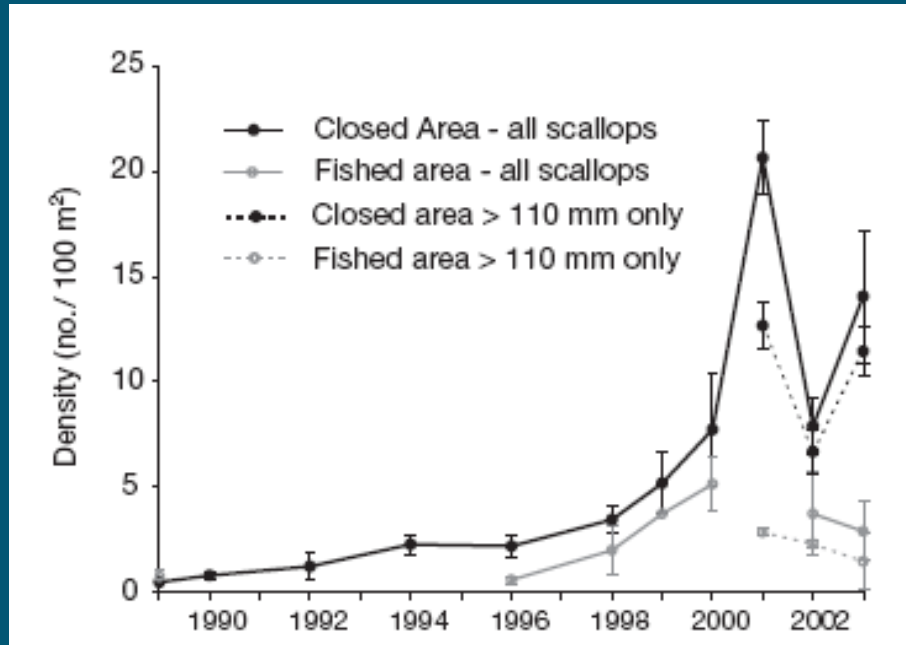


It's not all doom and gloom.....well managed MPAs provide benefits



MCS advocate recovery areas – *helps scallopers!*

e.g. Isle of Man closed area



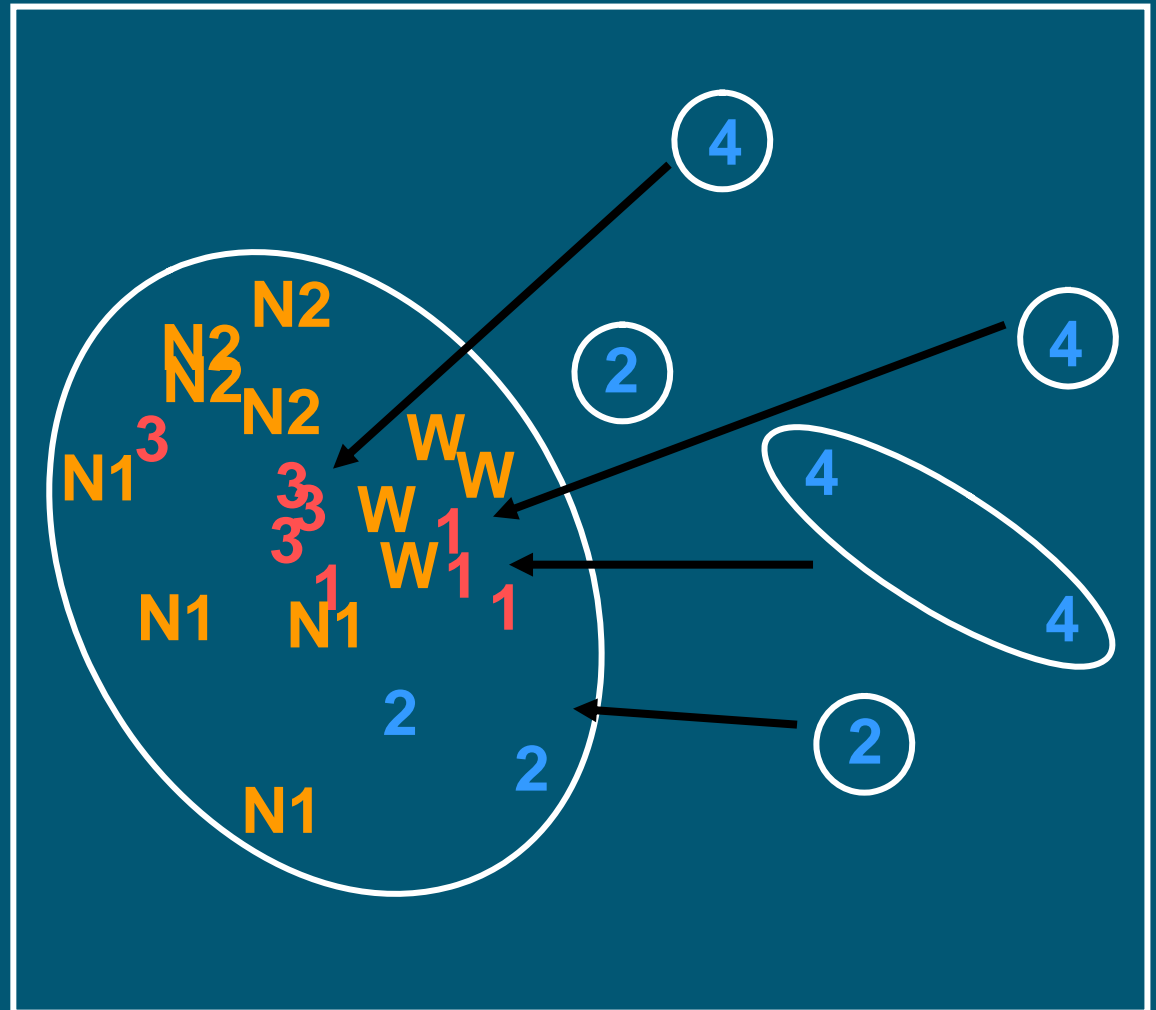
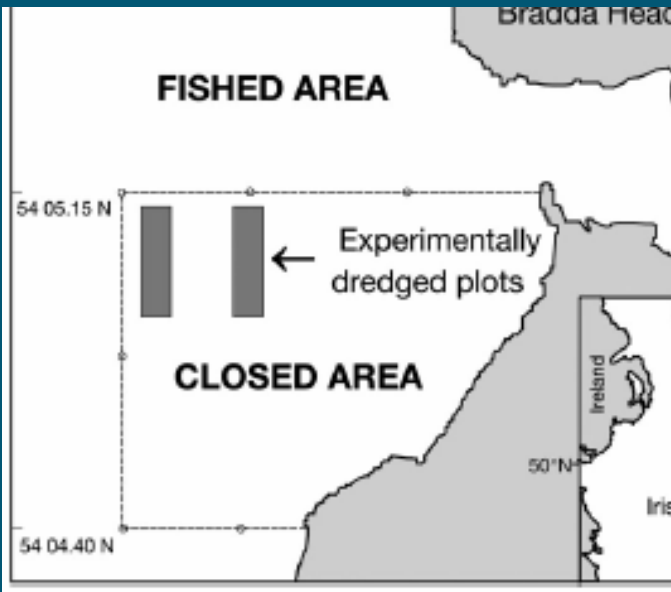
2.5 to 22 scallops/100m² in **8 yrs**

**Closed areas increase upright bottom life –
increasing scallop recruitment**



Habitat complexity

Stress = 0.15



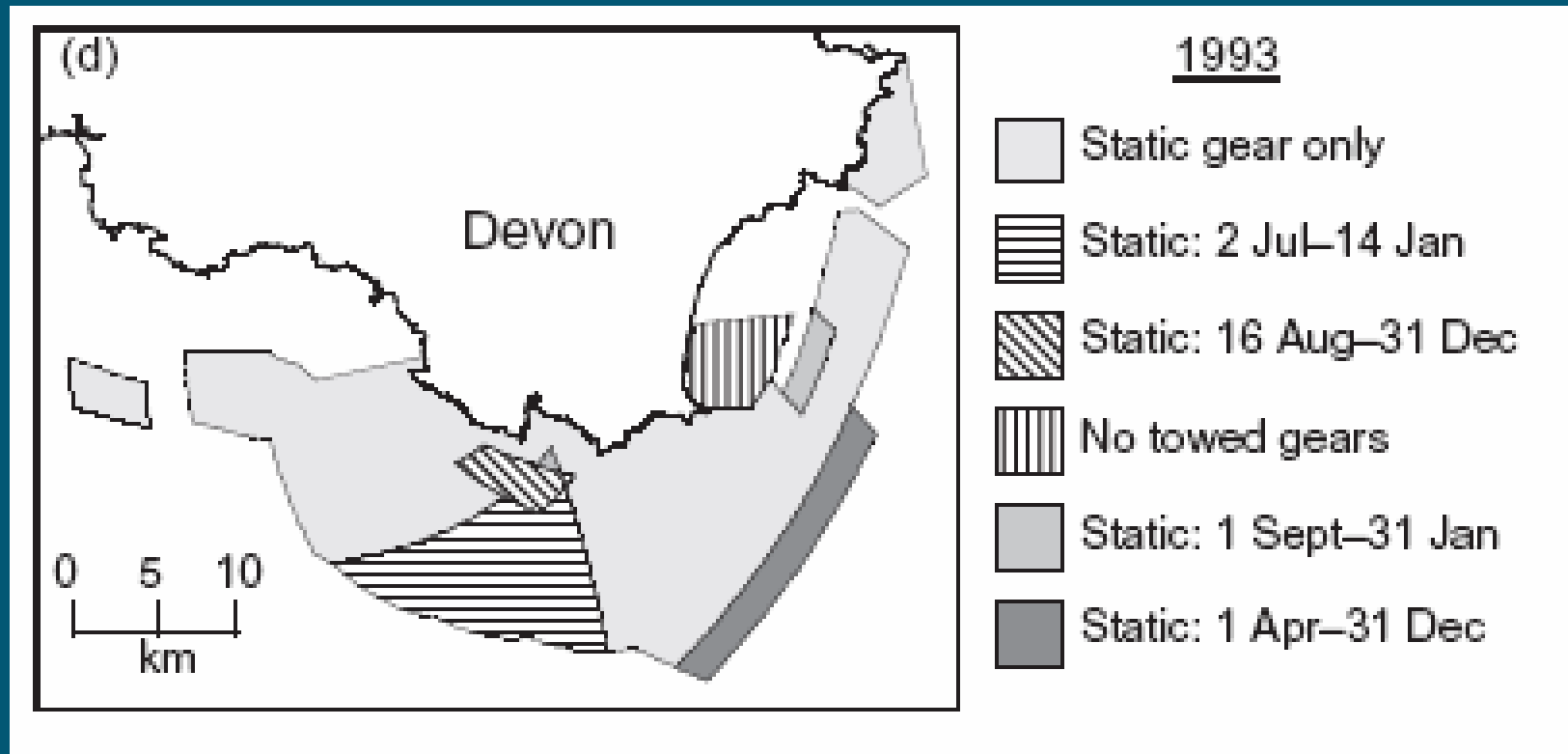
Fished area

Closed area

Experimental dredge

MCS advocates spatial separation of gears in MPAs

Inshore Potting Agreement of South Devon

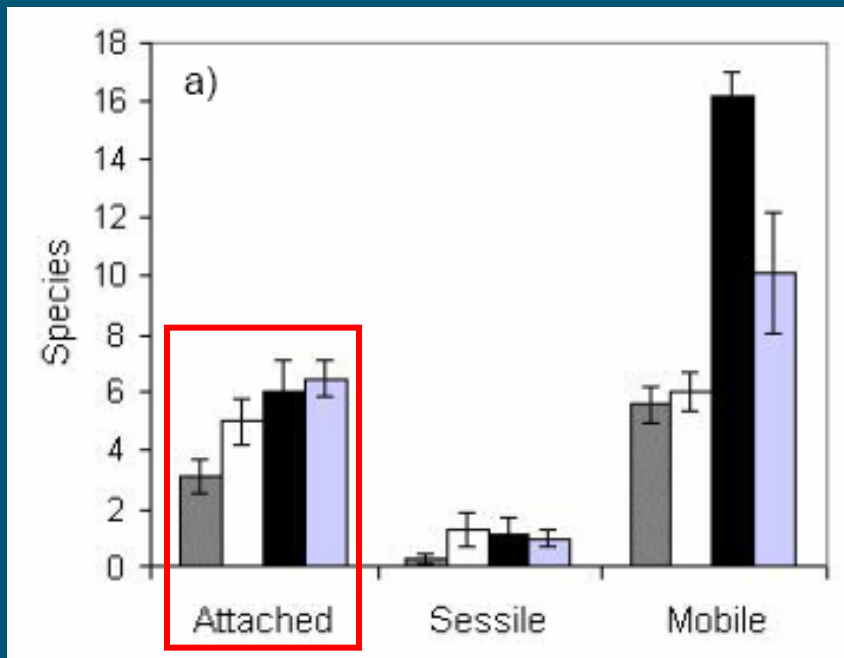


68% thought it was a good idea (static and towed)

Inshore Potting Agreement of South Devon

75% of potters said IPA benefited biodiversity

90% of fishers said IPA benefits 'target' species

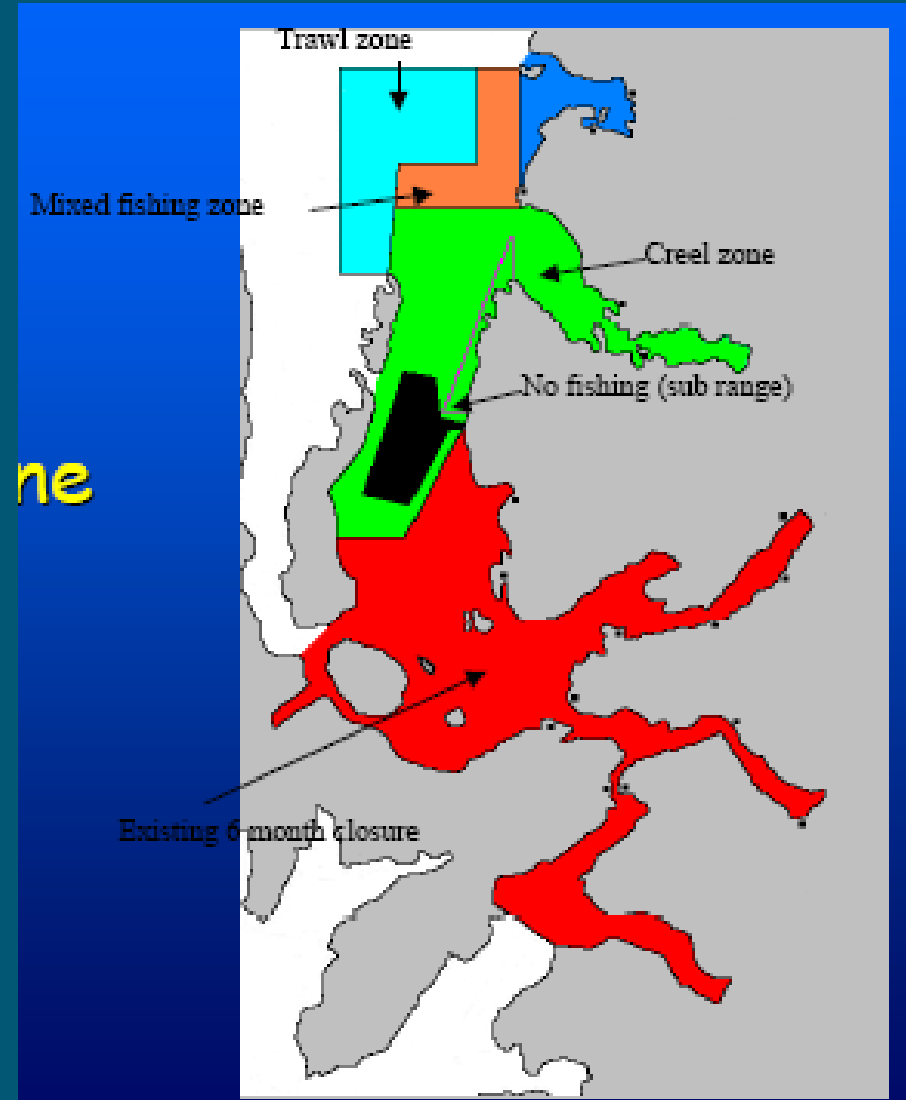


■ = Trawl ■ = Ex-Trawl
□ = Seasonal □ = Untrawled

Spatial separation in Loch Torridon – creels and trawls for *Nephrops*

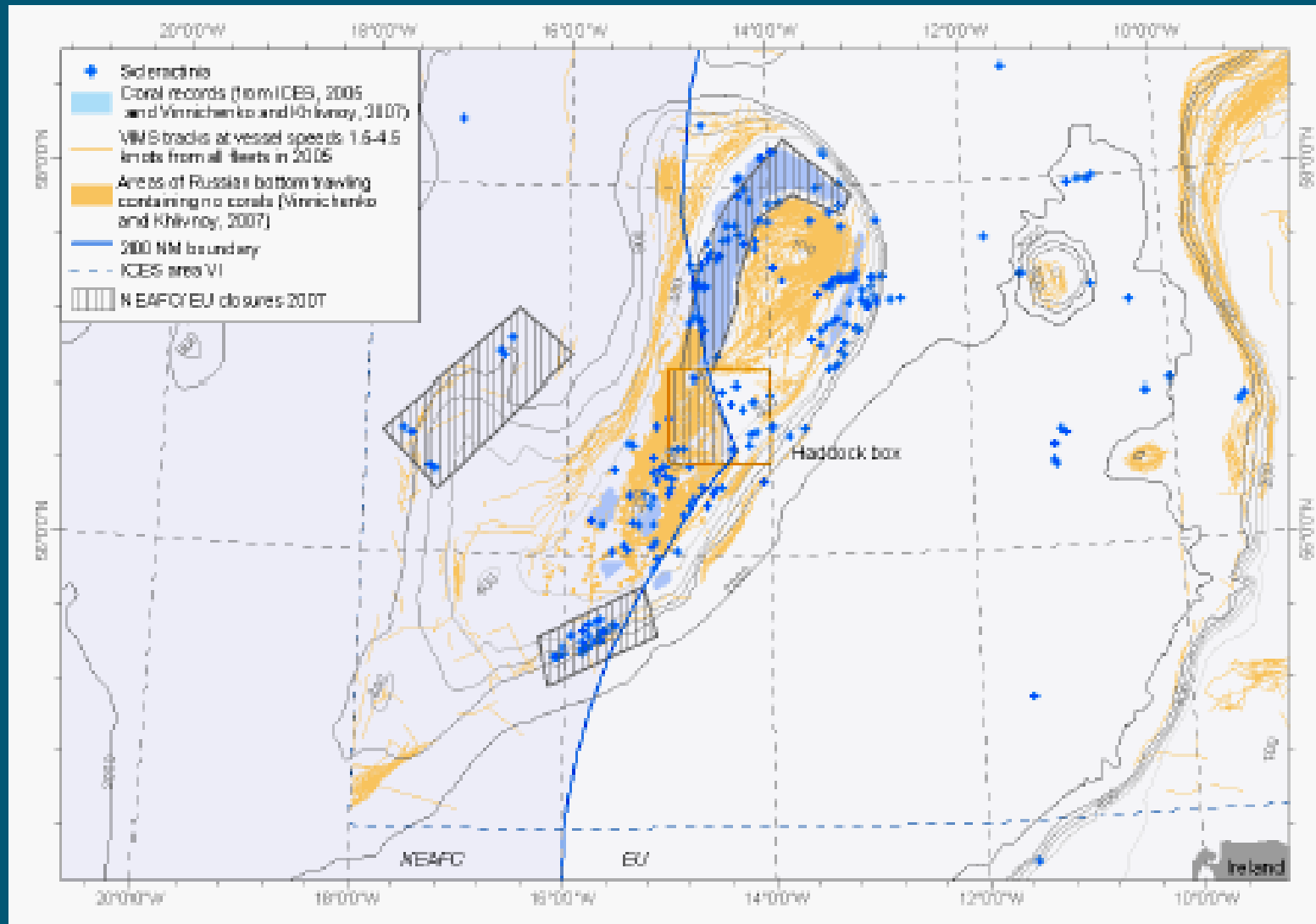


Funiculina quadrangularis



Offshore MPAs and Vessel Monitoring Scheme

Rockall and
Hatton
Bank
closure
2007
(under
NEAFC
and EU
measures)



Support – for deep seas

‘we wanted to see an end to destructive bottom trawling on the high seas’

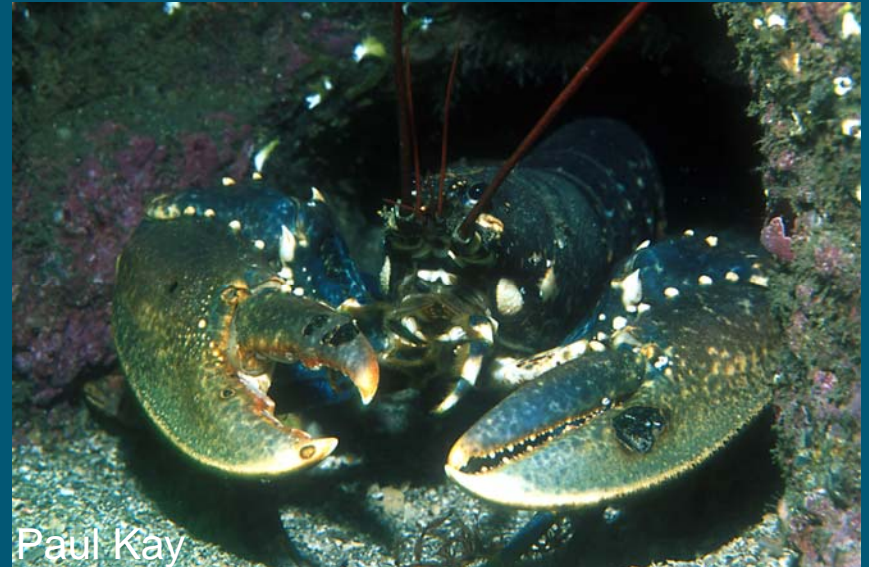
‘the burden of proof should be reversed so trawling is allowed only if there is evidence that it is not damaging sensitive ecosystems’

Ben Bradshaw, Guardian, 15.11.06

SO WHY DOESN'T THIS APPLY TO CURRENT SACs?

Recovery of entire ecosystems – Highly Protected Marine Reserves

- HPMR lead to the recovery of populations
- HPMR helps scientists / managers to understand what is natural
- HPMR easier to police

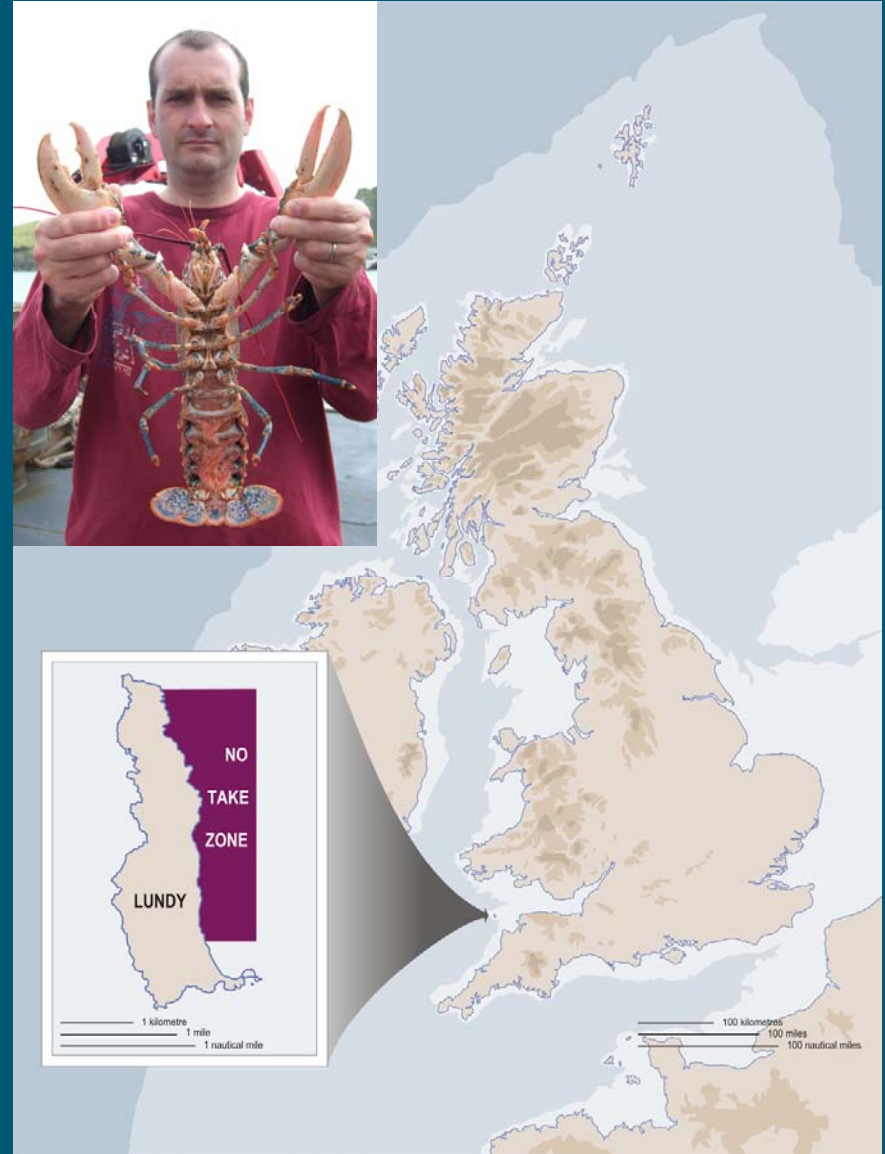


No Take Zone (marine reserve)

3.3km² (0.002% of UK inshore waters) – Jan 2003

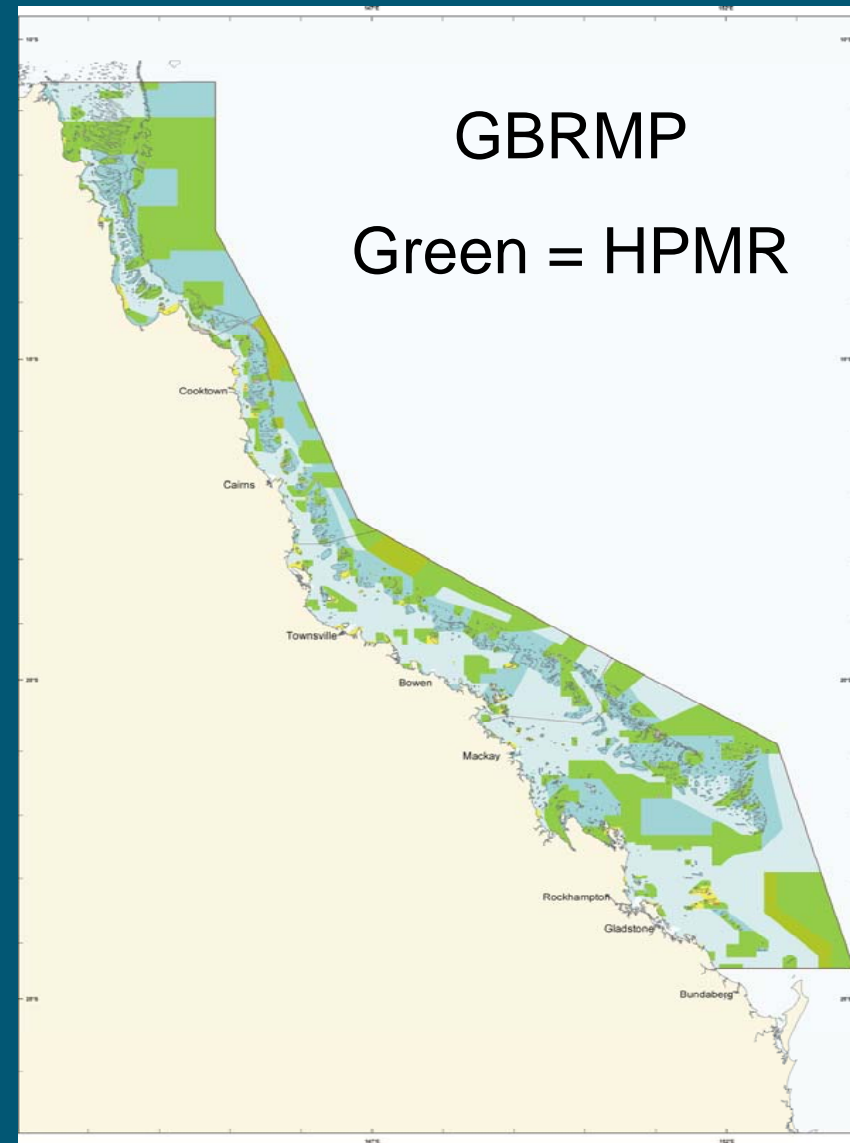
For **nature conservation**

(...and Lamlash Bay)?



MPA + reserves are well established abroad

- 33% of GBR in marine reserves
- 32 marine reserves in New Zealand
- NW Hawaiian Islands National Monument (2006)
- Philippines has over 500 MPAs – municipal ordinance
- Californian Marine Life Protected Areas Act (Sept 2007)



International scientific evidence

TEMPERATE USA: 'Algal abundance (significantly kelp) was significantly higher at sites dominated by predatory fish' (in MPAs) Steneck RS (1998) - *Trends in Ecol and Evol*

SW UK: 'British Isles population explosion of brittlestars is down to overfishing of their fish predators' Aronson RB (1989) - *Ecology*

UK SUMMARY: 'Establishment of even small MPAs (<10km²) can lead to increased habitat quality in most habitat types...' 'Many critical fish habitats (e.g. maerl, sea grass beds, salt marsh and rocky and *Sabellaria* reefs) have inherent conservation value, thus an opportunity exists for conservation-oriented MPAs'

Sweeting and Polunin (2005) - *report to Defra*

GEORGES BANK: 'Unfished sites were characterized by an abundance of bushy epifaunal taxa (bryozoans, hydroids, worm tubes) that provide a complex habitat for shrimps, polychaetes, brittle stars, mussels and small fish' Collie JS, Asch

RG, Valentine PC. (2004) *ICES*

MCS vision on achieving coherent MPA network

Legislate

Pass a marine act for that includes a duty to designate representative sites and highly protected marine reserves. A separate act for Scotland / Northern Ireland will also be needed

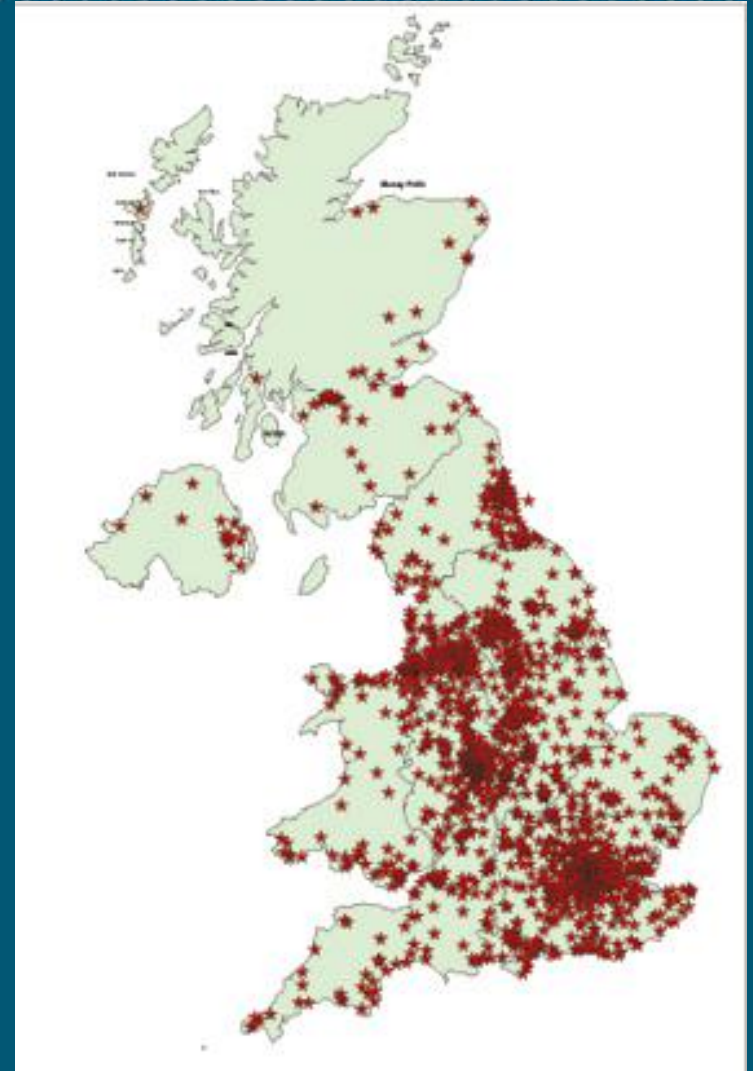
Identify

Develop mapping project (e.g. Marxan) to identify sites for representative features for each biogeographic region of the UK. A secondary level of importance built into the model should be to include rare and threatened species abundance and diversity.

Act

Once a variety of options have been mapped to develop a network of MPAs to protect 30% of representative marine features, stakeholders will be invited to debate the final areas in each regional sea area (akin to the GBR / Californian model).

So, its time to Act



50,000+ votes (September 2007)

Marine Conservation Society (MCS)

www.mcsuk.org

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