

Fisheries Displacement in England – do we have a problem?



Duncan Vaughan
Natural England

Suzannah Walmsley
ABPmer

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What is fishing displacement?

“the changes in fishing behaviour and patterns that could occur in response to new management measures”.

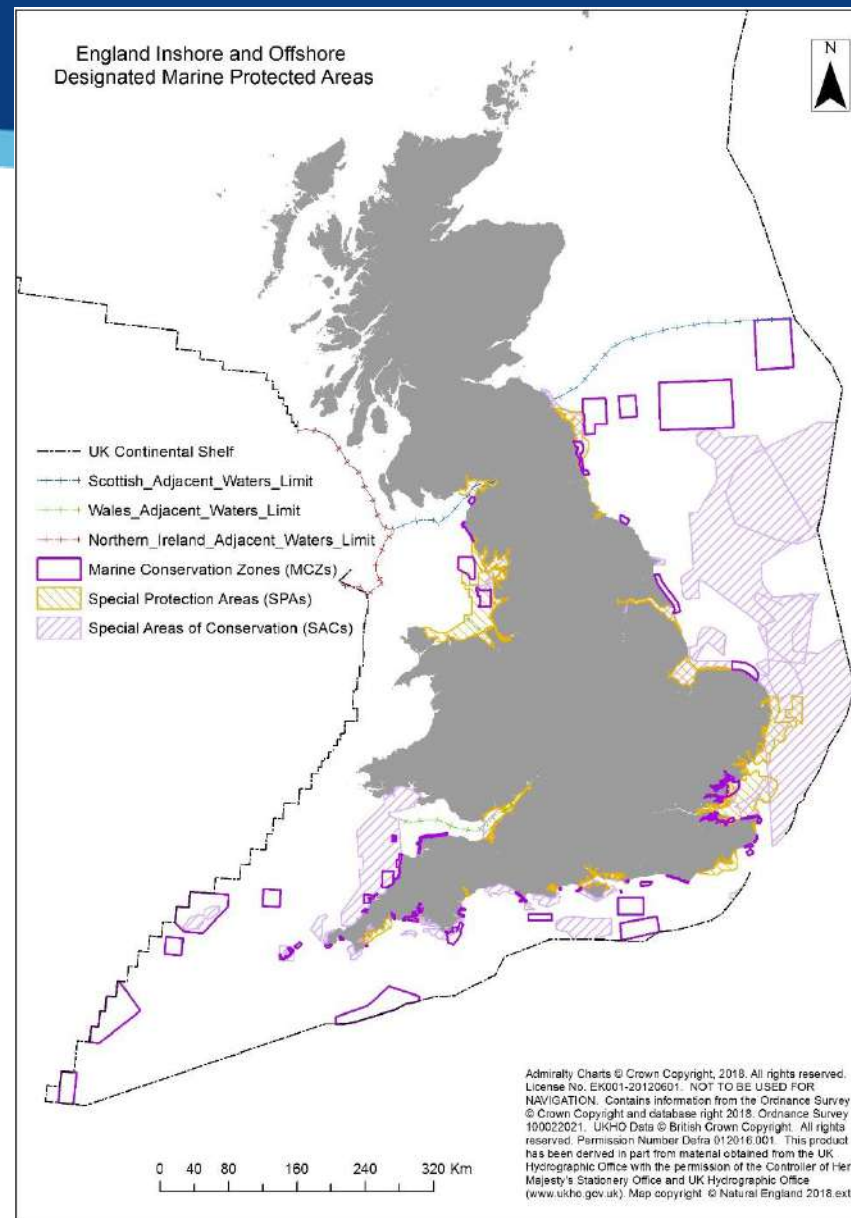
Changes in fishing behaviour could be *“the adoption of a new fishing method, or target species, or stopping fishing”*, whereas changes in fishing pattern could be *“moving to other fishing grounds near or far”*.



34.7%* of English inshore and offshore waters are designated as MPAs

MPA management measures are being introduced that either:

- 1) future proofing (prevent activities that could damage species and habitats within the protected area)
- 2) bring about change (remove existing damaging activities)



Where could the effects of fisheries displacement be seen?

The designation of MPAs and the subsequent introduction of management measures that displace activities may result in unintended impacts/consequences on protected benthic habitats or species within:

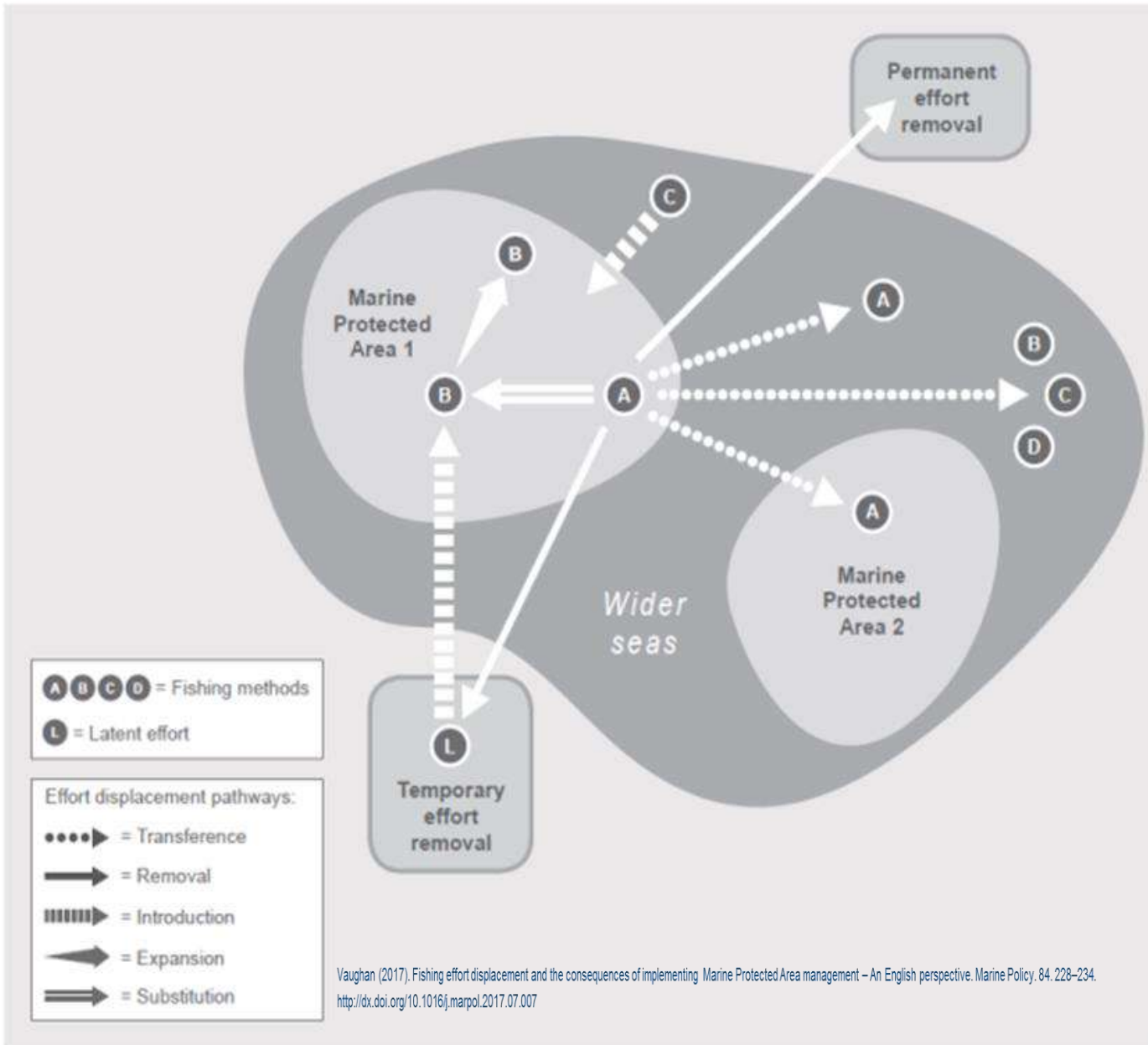
- the MPA where management measures have been introduced,
- other MPAs or
- wider UK or international waters

The environmental implications of fisheries displacement?



Displaced fishing effort may:

- be directed to areas previously not fished;
- interact with the same habitats and species of conservation importance in a different manner;
- exert pressure at a different stage of protected species' life history;
- interact with other species or habitats that the protected species relies upon or interacts with (predator–prey relationships or ecosystem services such as shelter); or
- interact with other protected species or habitats within a site.



Vaughan (2017). Fishing effort displacement and the consequences of implementing Marine Protected Area management – An English perspective. *Marine Policy*. 84. 228–234.
<http://dx.doi.org/10.1016/j.marpol.2017.07.007>

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<http://dx.doi.org/10.1016/j.marpol.2017.07.007>

Figure 1: Potential effort displacement pathways resulting from management measures that dictate that fishing type A is incompatible with the species and habitats protected within Marine Protected Area 1.

Working towards solutions

- 1) Understand the magnitude of the problem
- 2) Support appropriate substitution
- 3) Removal of latent effort from the system to prevent substitution
- 4) Remove active effort from the system so it no longer exerts pressure
- 5) Invest in co-management institutions (req. to work through gear/user conflicts)
- 6) Develop an interagency working group to progress displacement work



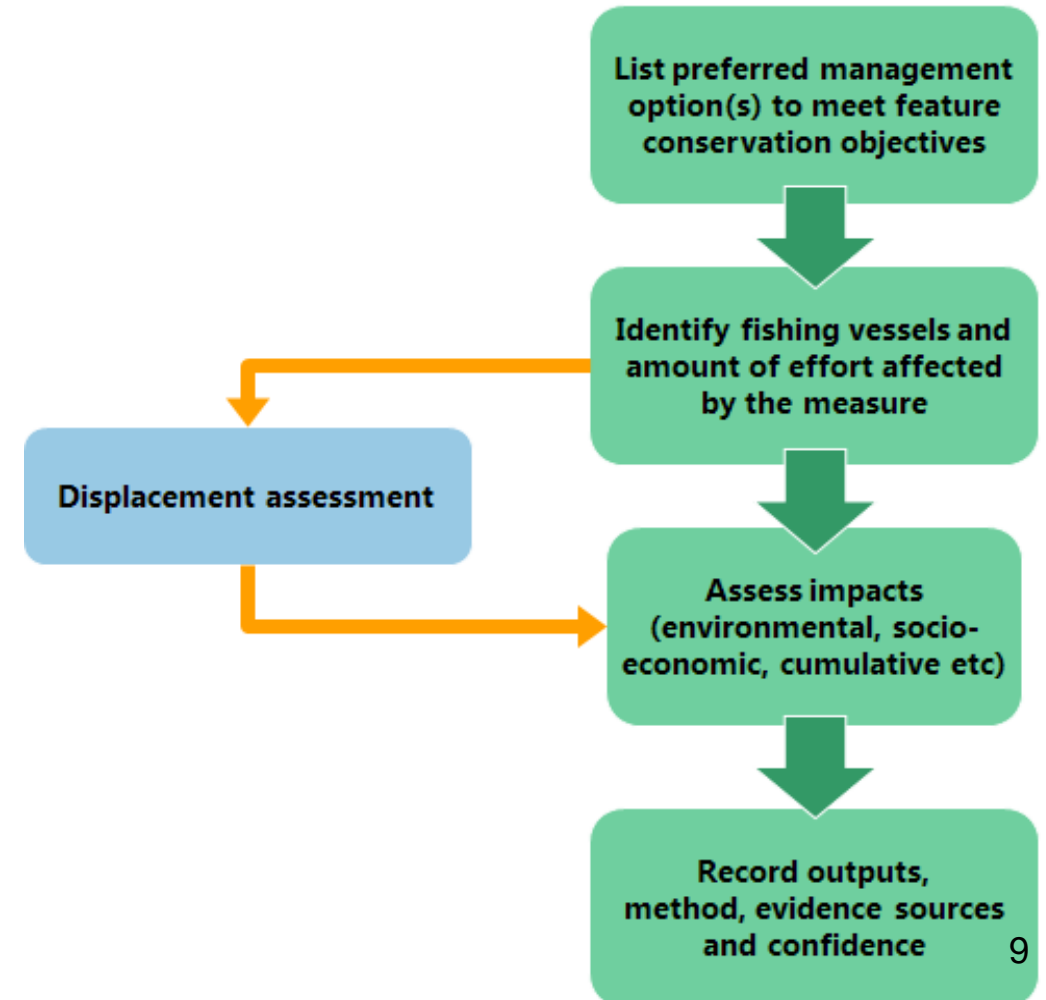
The project

- ABPmer, NFFO and ICF on behalf of the Fishing Displacement Steering Group
- Objectives:
 - Existing management measures in MPAs in England
 - Literature review and case studies
 - Develop methodology for assessing displacement
 - Recommendations for monitoring and further research



Displacement assessment

- Sits within a wider assessment of management options and their impacts
- Displacement should be considered early on...
- Rapid appraisal or in-depth assessment



Principles

- Proportionality
- Spatial scale
- Marginal impacts
- Cumulative and in-combination
- Addressing and minimising impacts



Assessment (1): LSE-type test

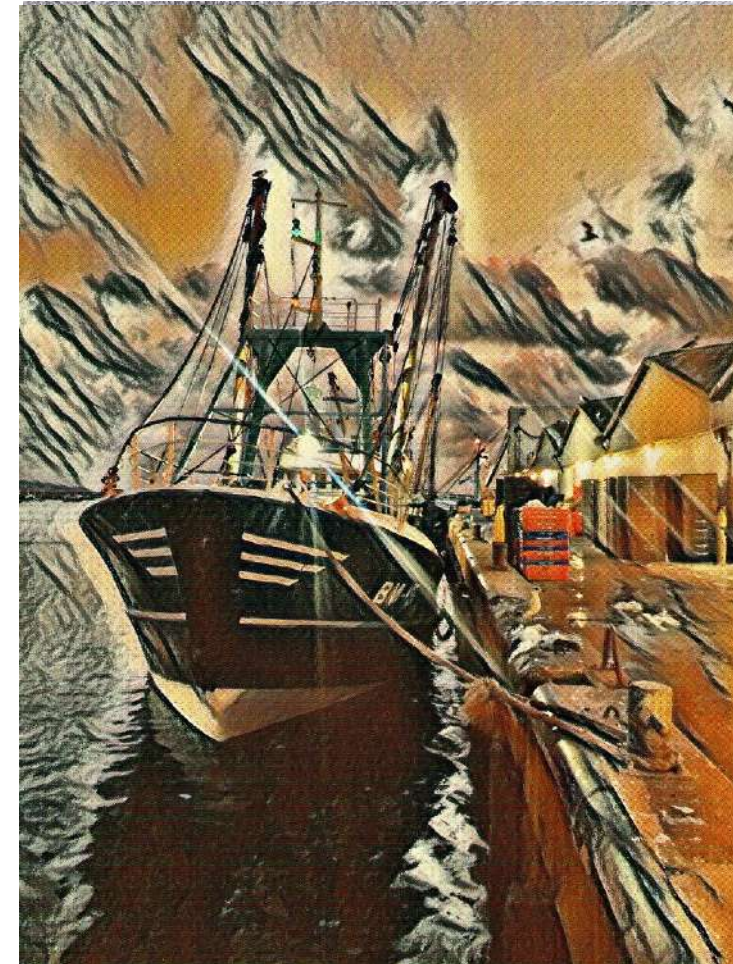


- Fishing effort affected:
 - Considered significant?
 - Likely to generate significant effects?
- Determine need for further assessment

A. Background information and document control	
A.1 Management measure name:	Version:
A.2 Site name(s) (if applicable):	Date:
A.3 Lead regulator: Other regulators: Conservation adviser:	Author(s):
A.4 Brief description of the management measure:	
A.5 Area(s) to which the measure applies: <input type="checkbox"/> < 6 nm <input type="checkbox"/> 6–12 nm <input type="checkbox"/> > 12 nm	Approved by:
B. Fishing effort affected by the management measure	
B.1	Which fishing activities will be directly affected by the management measure and how is this distributed across sectors?
B.2	How much fishing effort is likely to be directly affected by the management measure?
B.3	Is this considered significant, or likely to generate significant effects that require further investigation? <input type="checkbox"/> Yes – continue with assessment under sections C–F. <input type="checkbox"/> No – record justification; no need to continue further with assessment.

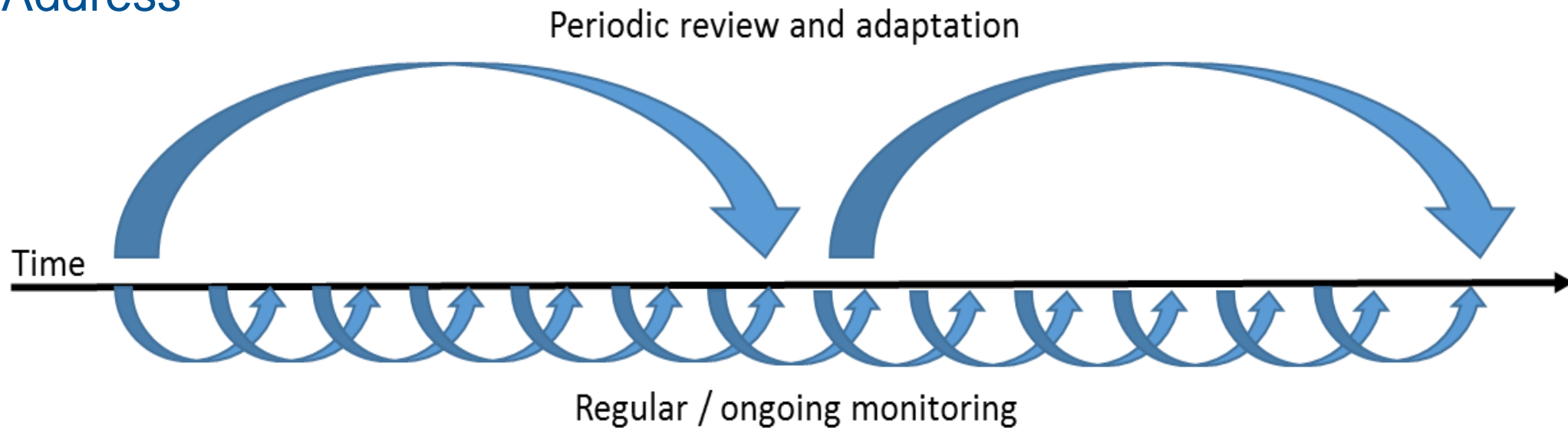
Assessment (2): In-depth assessment

- Nature of predicted displacement
 - Extent, spatial, gear types
- Implications of predicted displacement
 - Environmental
 - Other (fishing sectors, other marine sectors and onshore activities, potential cumulative effects)



Addressing impacts from displacement

- Minimise
- Monitor
- Address



Conclusions

- Displacement is important!
 - Early consideration, minimisation, consistent approach
- Further research is needed (of course!) –
 - Its nature and impacts, tools for assessment
- Bigger picture:
 - Better integration of fisheries management and marine planning
 - Trade-offs between fishery production and marine ecosystem status, optimisation of the 3 dimensions of sustainability (environmental, economic, social)

ABPmer, (2017). *Displacement of Fishing Effort from Marine Protected Areas, Final Report*, ABPmer Report No. R.2790.

<http://publications.naturalengland.org.uk/>

