Marine Management Organisation

Evidence requirement R045:

Pressures of different fishing gear

1. Requirement overview:

Requirements	To improve understanding of pressures exerted by different fishing gears and how these impact protected features
Requirement detail	To enhance understanding of the types and magnitudes of pressures exerted by different types of fishing gear on the environment, and potential management actions that may be appropriate to manage any negative impacts from the fishing gear on protected features.
MMO use	**Marine Conservation:** Understanding of gear pressures, and management options will facilitate refinement of existing management approaches for different gear types to support 'enabling management'. This will give marine managers the tools required to manage increased activity within marine protected areas with negligible risk to conservation features. **Marine Planning:** Marine planning cannot currently control fishing effort directly. However, where and how different fishing gear operate and the impacts generated by fishing are important in understanding co-existence and displacement issues and defining pressures on the marine environment. Collectively, the evidence will inform appropriate policy development.
External interest	Natural England, Joint Nature Conservation Committee (JNCC), Environment Agency, Centre for Environment, Fisheries and Aquaculture Science, Marine Scotland, Department of Agriculture, Environment and Rural Affairs (Northern Ireland), Welsh Government, National Federation of Fishermen's Organisations, Inshore Fisheries and Conservation Authorities.
Delivery target	Ongoing for Marine Conservation, Q4 2018 for Marine Planning to inform 3rd iteration of the next tranche of marine plans

2. Aims and objectives

Aim:

To allow ‘enabling management’ of fishing by improving understanding of pressures from different fishing gears and how these impact protected features

Objectives:

Objectives to deliver this requirement include to

- improve understanding of pressures generated by different fishing gear types, particularly how features may be impacted by shrimp and pulse gears and gear interactions with sand bank features.
- where possible, achieve metier resolution understanding for specific cases (a metier is fishing activity characterised by one gear and a group of target species, operating in a given area and season.
- support statutory nature conservation bodies in enhanced understanding of sensitivity of features related to pressures, potential impacts and thresholds.

3. Existing evidence

MMO	Future Trends in Fishing and Aquaculture in the South Inshore and Offshore Marine Plan Areas (MMO1051) includes consideration of the estimated economic impacts of recommended Marine Conservation Zones (rMCZ) designation on both the UK and non-UK commercial fisheries sectors that operate within each of the South plan area Tranche 1 rMCZs. Scoping of a robust strategic assessment tool for co-location of activities in marine plan areas. (MMO1049) provides an indication of the level of information required to consider and assess co-location. Includes comment on fisheries and marine protected areas and recommends updates information on the costs of impacts and mitigation measures every two years
Academic	Jennings et al (2012) measured fishery footprints and assessed trade-offs between landings value, habitat sensitivity, and beam trawling impacts finding that eliminating fishing in marginal effort areas disproportionately reduced trawling impacts per unit effort or value on habitat.
Other	Supporting Risk-Based Assessments of Fisheries in MPAs, by ABPmer & Ichthys Marine (2015) successfully trialled a gear component specific approach to reduce uncertainties in data on the distribution and intensity of fishing impacts on habitats and species. JNCC (2013) Activity-pressures matrix links human use activity and human pressure types. Evidence to support links is ongoing so that it can be used

	to inform the management and monitoring of the marine environment. Includes pressures from fishing activity and subsequent validation. Lyme Bay Fisheries and Conservation Reserve: Integrated Fisheries Management Plan. Includes an area specific gear–feature risk matrix for Lyme Bay. Although restricted to a restricted number of relevant species and gears, both are found elsewhere.

4. Current activity

MMO continue to have representation on Marine Assessment and Reporting Group (MARG), the Healthy and Biologically Diverse Seas Evidence Group (HBDSEG), and the UK Marine Monitoring and Assessment Strategy (UKMMAS) sub-group on spatial data collation on human activities and pressure formally agreed the standard UK list of marine activities and pressures.

5. Associated evidence requirements

Ref	Title
R104	Continued development of nationally agreed standardised methods for all environmental pressure types at all scales

More information on these evidence requirements is available here

6. Potential delivery route

The MMO will look to **partnering** or **influencing** the work of relevent organisations to widen the potential impact of any work undertaken in this area incuding Natural England, Joint Nature Conservation Committee, Environment Agency, Centre for Environment, Fisheries and Aquaculture Science, Marine Scotland, Department of Agriculture, Environment and Rural Affairs (Northern Ireland), Welsh Government, National Federation of Fishermen's Organisations and the Inshore Fisheries and Conservation Authorities

See table 1 for timescales.

7. Contact

For more information or to add further research to the existing evidence list please email evidence@marinemanagement.org.uk

Table 1: Delivery timescales 2017 to 2020

Delivery Route	2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Partnering																
Influencing the research of others																

Key

	No activity
	Actively undertaking
	Outside of delivery target