

Advice from Natural England and JNCC

Northern Shelf Mackerel FMP

Advice issued 31 January 2024



Executive Summary – English Waters

This advice forms part of a commission from Defra to Natural England and JNCC to provide nature conservation advice to support the development of England and UK Fisheries Management Plans (FMPs). The advice provides information on the risks arising from the fisheries incorporated within the Northern Shelf Mackerel FMP to:

- the designated features of Marine Protected Areas in English waters
- UK Marine Strategy descriptors

The advice has scoped in pelagic trawls, ringnets, purse seines, drift nets, and handlines as being the most relevant gear types for consideration. More specific information on gear types, location and fishing effort during subsequent FMP development will improve the ability to assess risk within this FMP and may thus in the future alter some of the risk-ratings presented. We have made the assumption that as the FMP is initially focussing on the Precautionary Objective in the Fisheries Act, and thus that actions will be put in place to fish the target stock at MSY or its equivalent; hence our focus in this advice is on impacts beyond those directly on the mackerel stock. Management of stocks are considered where risks arise for UK MS descriptors which may be impacted by reductions in prey, requiring consideration of stock management which go beyond current MSY approaches.

The aim of the risk ratings is to provide a pragmatic steer on where the greatest concerns lie for interactions between fishing gear types, MPAs (gear-feature interactions) and UK MS descriptors (gear-descriptor interactions). For MPAs, indicative risk ratings are provided based on available evidence and expert advice. For UK MS descriptors, risk ratings were underpinned by work undertaken by French et al. (2022)¹ and adapted based on additional evidence or expert opinion. Where appropriate and feasible the assigned risk ratings may have been modified based on the specific context of the FMP. Risk ratings to UK MS descriptors were assigned as follows:

- **Low Risk**
 - **MPAs:** Although there might be a theoretical impact pathway, evidence of an actual occurrence is either absent or suggests minimal impacts at the relevant scales for the considered FMP.
 - **UK MS:** Gear- descriptor interactions are those where an impact pathway exists, but where evidence or expert opinion suggests that the impacts are unlikely to be at scale which will impede the achievement of Good Environmental Status for those descriptors, based on current indicators.
- **Moderate Risk:**
 - **MPAs:** Interactions deemed as moderate risk typically have an evidenced impact or expert judgment indicates a genuine risk. However, the overall impact level might be ambiguous, possibly due to limited spatial overlap between gears and protected features, significant impact fluctuations over space and time, or differences between fisheries in the FMP and those from which the evidence base was derived.

¹ French, N., Pearce, J., Howarth, P., Whitely, C., Mackey, K., Nugent, P. 2022. Risk-based approach to Remote Electronic Monitoring for English inshore fisheries. Natural England Commissioned Reports, Number 437. [Risk-based approach to Remote Electronic Monitoring for English inshore fisheries - NECR437](#)

- **UK MS:** Gear-descriptor interactions where there is a clear impact pathway between the fishing gear under consideration and the relevant UK MS descriptors but i) further evidence may be required on whether the scale or impact is such that it affects current UK MS indicators or ii) other activities also significantly contribute to the current indicator status.
- **High Risk:**
 - **MPAs:** Interactions identified as high risk are those where available evidence or expert opinion suggests a scale that is concerning relative to MPA conservation objectives. The fishing activities managed by the FMP may significantly contribute to these risks.
 - **UK MS:** Gear-descriptor interactions where there is well-evidenced link between the gear type under consideration and the failure to reach GES for a UK MS descriptor, based on current indicators and where the fishing activity considered within the FMP being assessed makes a significant contribution to that failure.

Risks relating to the designated features of English MPAs

Marine Protected Areas (MPAs) in English waters include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which are protected under the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017, collectively referred to as the Habitats Regulations. Additionally, Marine Conservation Zones (MCZs) are protected by the Marine and Coastal Access Act 2009. Impacts of activities are assessed against the conservation objectives of MPAs and activities should not have an adverse effect on the integrity of SACs or SPAs and should not hinder the conservation objectives of MCZs.

Fisheries contained in the Northern Shelf Mackerel FMP have the potential to impact the designated features of MPAs in two primary ways (i) through the bycatch of designated features of MPAs and (ii) the direct (targeted) and indirect (bycatch) removal of prey species on which designated species depend. These impacts can affect the designated features of MPAs both inside and outside the boundaries of MPAs. Assessment of the impact of fishing activity occurring within MPAs in English waters has or will be carried out by the IFCAs or MMO. Therefore, appropriate management should either be in place or introduced soon to ensure any fishing within MPAs is compatible with the MPA's conservation objectives. Current management measures already in place are detailed on the [MMO](#) and [Association of IFCAs](#) websites. Therefore, assuming that existing assessments and associated management pathways accordingly mitigate risks arising from mackerel fishing activity within English MPA boundaries, no additional action is suggested for the FMP within MPA site boundaries.

The main impacts of the fisheries incorporated in this FMP on the designated features of MPAs arising from fishing activity outside MPA site boundaries, with an indication of their risk level, are summarised below.

- There is a **moderate risk** to the designated features of MPAs through of bycatch of mobile species in pelagic trawls, ringnets, purse seines and drift nets
- There is a **low risk** to the designated features of MPAs through of bycatch of mobile species in handline fisheries.

- There is a **moderate risk** to the designated species of MPAs from reductions in their prey through the targeted mackerel fishery.

Risks relating to UK Marine Strategy descriptors

The UK Marine Strategy Regulations 2010 (SI 2010/1627) provide the policy framework for delivering marine environmental policy at the UK level and set out how the vision of clean, healthy, safe, productive and biologically diverse oceans and seas will be achieved. The Regulations place a number of duties on the Defra Secretary of State, including the need to define the characteristics of Good Environmental Status (GES) and in turn develop an associated Programme of Measures required to deliver GES. Good Environmental Status (GES) establishes a 'benchmark' for our seas which seeks to '*protect the marine environment, preventing its deterioration and restoring it where practical, while allowing sustainable use of marine resources*'. For each descriptor there are a number of practical targets and indicators that facilitate assessment of our delivery against each descriptor.

The UK Marine Strategy Regulations require management action to be taken to achieve or maintain GES. The Fisheries Act (2020) enables regulators to deliver on this ambition through the Ecosystem Objective, which states that fish and aquaculture activities should be managed using an ecosystem-based approach, which is, in-part, defined in the Act by the achievement of GES. Equally, the recently published Joint Fisheries Statement (2022) lays out the ambition across UK administrations to take action to achieve or maintain Good Environmental Status (GES) in all UK waters (Joint Fisheries Statement, 2022).

Previous work by Natural England investigating the impact of the pressures associated with the fishing industry across all 11 descriptors of Good Environmental Status (GES)¹ in the UK marine environment has highlighted risks arising from fisheries to five UK MS descriptors (D1 biodiversity, D3 commercial fish and shellfish, D4 foodwebs, D6 seafloor integrity and D10 marine litter). In the UK MS, these descriptors are assessed using indicators for each of their constituent 'ecosystem components'. This is carried through to this advice resulting in advice on risks to eight descriptor-ecosystem component combinations: D1, D4 cetaceans; D1, D4 seals; D1, D4 seabirds; D1, D4 fish; D4 foodwebs; D1, D6 seafloor integrity and D10 Marine Litter. Advice has not been provided on D3 commercial fish and shellfish as achieving MSY is a foundational aim of the FMP and other ALB advice packages seek to support delivery of this.

The main risks arising from the Northern Shelf Mackerel FMP to UK MS Descriptors that have been identified in Section 3 of this advice and are summarised below:

- There is a **moderate risk** to D1, D4 cetaceans, D1, D4 seals, D1, D4 seabirds through bycatch in pelagic trawls, ringnets, purse seines, drift nets.
- There is a **low risk** to D1, D4 cetaceans, D1, D4 seals, D1, D4 seabirds through bycatch in handline fisheries.
- There is a **moderate risk** to D1, D4 cetaceans, D1, D4 seals, D1, D4 seabirds through targeted removal of mackerel, an important prey species.
- There is a **moderate risk** to D10 marine litter from pelagic trawls and drift nets.

The detailed advice also makes a number of recommendations for the Northern Shelf Mackerel FMP in order to reduce associated risks to the designated features of MPAs in English waters (arising from fishing activity outside site boundaries) and UK MS descriptors, these include:

- A recommendation to undertake additional targeted evidence collection to improve estimates of bycatch marine mammals, seabirds and designated fish for pelagic gear types, utilising Remote Electronic Monitoring where appropriate.

- A recommendation to explore ecosystem-based approaches for the management of mackerel stocks which will contribute to GES for multiple descriptors and has the potential to reflect the multiple, potentially conflicting, social, cultural, and ecological objectives and the trade-offs between the diverse needs of people and the marine food web.

An FMP for Northern Shelf mackerel is very welcome, and many of our recommendations identify the need for a strategic, joined-up approach between the FMP, industry, Defra, ALBs and other stakeholders to find and implement pragmatic solutions at scale.

The aim of the risk ratings is to provide a pragmatic steer on where the greatest concerns lie for interactions between fishing gear types, MPAs (gear-feature interactions) and UK MS descriptors (gear-descriptor interactions). For MPAs, indicative risk ratings are provided based on available evidence and expert advice.