JNCC's response concerning proposed fisheries management measures for offshore MPAs in Scotland (October 2024)

1. The interactions between Annex I stony and bedrock reef and demersal static gear

Relevant sites under consideration: Pobie Bank Reef, East Rockall Bank, Solan Bank Reef, Stanton Banks and Wyville Thomson Ridge.

The interactions between demersal static gear use and their effects on Annex I stony and bedrock reef are relatively poorly understood by comparison to the effects of mobile demersal gears.

The majority of the literature published prior to 2015 suggests that demersal static gear types (such as creels and traps) typically employed in areas of bedrock and stony reef are unlikely to impact the biotopes associated with bedrock and stony reef (e.g. Eno *et al*. 2001). However, more recent studies conducted by Gall *et al.* (2020) and Rees (2018) suggest that traps will have negative impacts on the biological functions of reef habitats at high spatial and temporal densities. These studies are focussed on inshore examples of reef habitat types with relatively high static fishing gear effort, whereas comparatively speaking the level of effort relative to the size of feature protected for offshore examples is likely to be comparatively much lower.

Based on the above, JNCC consider that it is important to monitor any remaining demersal static gear fishing effort within sites and to keep under review the effects of ongoing demersal static gear use on the conservation status of Annex I stony and bedrock reef once demersal mobile gear restrictions have been implemented. If monitoring showed evidence of detrimental effects at the scale of the conservation status of the protected feature, additional management may need to be considered. This reflects the advice that JNCC have previously provided to Marine Directorate (e.g. Management Options Papers) in support of development of measures and the iterative feedback provided on proposals (summary docs included in support of this response).

2. Options for the protection of Annex I reef sites from demersal mobile gear

Relevant sites under consideration: Pobie Bank Reef, North-west Rockall Bank, East Rockall Bank, Solan Bank Reef, Stanton Banks and Wyville Thomson Ridge.

JNCC considers that the secondary management options presented for East Rockall Bank, North-West Rockall Bank, Pobie Bank Reef, Solan Bank Reef, Stanton Banks and Wyville-Thomson Ridge (in all cases a proposed full restriction on mobile demersal fishing activity and in the case of East Rockall Bank and Wyville-Thomson Ridge additional full restriction

on demersal static gear activity where biogenic reef as an Annex I sub-type could occur) would improve the likelihood of meeting the sites' conservation objectives.

3. Management approach for burrowed mud and offshore deep sea mud

Relevant sites under consideration: Central Fladen and East of Gannet and Montrose Fields

Given the ecological importance of burrowed mud and offshore deep-sea mud, and the sensitivity of their characterising species to pressures associated with demersal mobile gear, JNCC consider that under Option 1 (zoned measures) proposed by Marine Directorate, there would remain a significant risk of the burrowed mud and offshore deep-sea mud features within Central Fladen MPA and East of Gannet and Montrose Fields MPA, respectively, being maintained in a modified state, with a continued risk of not achieving the conservation objectives. This advice is consistent with that provided through the Central Fladen MPA Management Options Paper (2014) and subsequent feedback to proposals provided by JNCC on the zoned measures proposals (2015). For East of Gannet and Montrose Fields MPA, our understanding of where the offshore deep sea mud habitat occurs within the site has changed substantially since JNCC provided feedback on the zoned management measure proposals in 2015. This means that a significant proportion of this feature would continue to be exposed to demersal mobile gear activity under the proposed management Option 1 (zoned measures). In light of the sensitivities of burrowed mud and offshore deep-sea mud, and the recover objective within both Central Fladen MPA and East of Gannet and Montrose Fields MPA, JNCC would advise that the more precautionary options would be more likely to aid achievement of the Conservation Objectives of these sites.

4. Management approach for deep-sea sponge aggregations

Relevant sites under consideration: Faroe-Shetland Sponge Belt, North-east Faroe-Shetland Channel

Option 1 proposals for both the Faroe-Shetland Sponge Belt and North-east Faroe-Shetland Channel sites focus on restrictions to demersal mobile and static gear use only in areas where deep-sea sponge aggregations have been recorded. As advised in JNCC's Faroe-Shetland Sponge Belt and North-east Faroe-Shetland Channel Management Options Papers (2014), there may be circumstances where it could be desirable to extend management measures beyond the known area of feature distribution where conditions are suitable for the feature to exist but there is insufficient data to confirm its presence. As our evidence-base improves, there is potential that we identify further records of deep-sea sponge aggregations in habitat considered suitable for colonisation (namely between the 400–600 metre depth

contour in each site). Where such areas remain open to fishing gears, deep-sea sponge aggregations within the site may continue to be at risk of damage and/or removal with potential long-term consequences for achievement of the site's conservation objectives. The uncertainty in our understanding regarding the distribution of the deep-sea sponge aggregation feature across both sites was flagged through feedback to proposals provided by JNCC on the zoned measures proposals (2015–2016). As such, precautionary restrictions on demersal mobile and static gears across the 400–600 metre depth contour may be appropriate to help mitigate any potential long-term impact on feature distribution. As a listed Vulnerable Marine Ecosystem (VME) species and OSPAR Threatened & Declining feature, these features are known to be particularly vulnerable to impact and thus may justify higher levels of precaution in management decision making.

JNCC note that under Option 2 proposals for both these sites a proposal to remove demersal mobile and static gear across the full extent of both sites have been proposed. JNCC consider that progressing with Option 2 for both proposals would increase the likelihood of meeting the sites' conservation objectives to the highest possible levels.

References

Eno, N.C., MacDonald, D.S. & Amos, S.C. (2001). A study of the impacts of fish potting on benthic habitats and species. Centre for Environment, Fisheries & Aquaculture Science (CEFAS), Lowestoft. 132 pp.

Gall, S.C., Rodwell, L.D., Clark, S. & Robbins, T. (2020). The impact of potting for crustaceans on temperate marine benthic habitats: A review and meta-analysis. *ICES Journal of Marine Science*, 77(1), 272–286. https://doi.org/10.1093/icesjms/fsz199

Rees, A. (2018). Evaluating the ecological impacts of potting on temperate rocky reef communities. PhD Thesis, University of Plymouth.