

MPA Network Consultation

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CONSULTATION QUESTIONS

1. Do you support the development of an MPA network in Scotland's Seas?

Yes No

Yes, MPAs are a straight-forward and efficient way to protect many marine species and habitats.

[...]

Final Thoughts

35. On the basis of your preferences on which pMPAs should be designated, do you view this to form a complete or ecologically coherent network, subject to the completion and recommendations of SNH's further work on the 4 remaining search locations?

Yes **No, not yet.**

I have followed with particular interest the developments toward ensuring that the MPA network is ecologically coherent, as required under the Marine Act. Given this process has made extensive use of the OSPAR *'guidance for developing an ecologically coherent network of OSPAR marine protected areas'*¹ --a document for which I was the lead author-- and other related publications in which I have been involved, I felt it was appropriate to provide some comments. I would like to clarify that I am (sadly) not a Scottish national, and provide this scientific feedback in the spirit of helping the process continue to move forward, rather than lobbying from any particular sector or viewpoint.

Overall, ecological coherence can be understood as saying that an MPA network should come together into a functional whole; the whole being greater than the sum of its parts, in order to best achieve its stated conservation objectives. Ecological coherence is a continuum, and should be addressed as an on-going policy towards meeting conservation goals and objectives. Seldom is a 'perfect' MPA network designed in one go, and in this light, the 'perfect' should not be the

¹ OSPAR, 2006-3.

enemy of the good when seeking to establish a good first set of MPAs.

I am obviously heartened to see that your department has drawn upon the OSPAR guidelines and definitions. You will be aware of the recent assessment I and other colleagues wrote for the OSPAR Commission regarding the ecological coherence of MPA sites in the OSPAR area. In that work our conclusion was that though there are very many positive signs, the network as a whole is not yet ecologically coherent, mainly because it is not meeting basic representativity assessments. This is a topic that has also come to the fore in Australia, where prominent scientists have recently criticised the Australian government for failing to sufficiently take representativity into consideration when designing its new national MPA network. Again, some very simple representativity metrics were not met, which has fed into the brewing public controversy. In this light, it makes sense to consider just how well the Scottish proposal might fare in such an assessment of representativity.

The advice that has been provided to the Scottish government has concluded that the proposed MPAs collectively meet representativity requirements. However, an independent assessment of the sort carried out in Australia, or as done by OSPAR, would very likely not concur with this advice. Regrettably I cannot agree with it either. While this initial Scottish proposal has significant merits, it cannot be said to be ecologically coherent or representative by any commonly agreed scientific understanding of those terms.

Usually, representativity assessments divide an area up into its component habitats (depth, bottom type, etc.) and then check to see that examples of these habitat types are captured within the network, across their natural variability. Typical species communities are also often included to augment the assessment. However, the recent Scottish advice took somewhat the reverse approach, focussing on 41 “search features” that are mainly species communities with just a few habitats. (I note that five of these search features were later were later dropped from the assessment².) Assessing ecological coherence for only a spatial subset of the species and habitats throughout the Scottish marine area (i.e. just some places but not others) is an unusual interpretation of the concept of representativity that is unlikely to be supported by the wider scientific community.

The OSPAR guidance on representativity reflects international good practices when it states that the aim should be to “*protect and conserve areas that best represent the range of species, habitats and ecological processes*”.³

It is my understanding that these ‘search features’ were chosen based on an amalgamation of previous priority lists, taking a risk-based approach, which should not be confused with comprehensiveness, completeness, or representativity. Protecting species and habitats considered most at risk is a good start, undoubtedly, but in the end a broader approach will be required if Scotland’s MPA network is said to be ecologically coherent and if the full range of its marine

² Burrowing sea anemone aggregations, European spiny lobster, heart cockle aggregations, Inshore deep mud with burrowing heart urchins and low or variable salinity habitats.

³ OSPAR, 2006.

biodiversity is to be protected. To properly assess the ecological coherence of the Scottish MPA network, consideration will have to be given to other existing protected areas as well, such as Natura and other designations. The coherence of these other designations remains untested. It should not be assumed that these existing sites operate in isolation, or that their species and habitats are, or are not, adequately protected.

As mentioned above, in my view ecological coherence is more of a continuum than a categorical achievement. However, I would suggest that this proposed network in its current formulation is unlikely to meet the most basic tenet of ecological coherence; i.e. representativity. That said, I do believe there are fairly simple steps that could be taken, now and in subsequent reviews, to improve its representativity and set the network on the road to being ecologically coherent. My advice would be to acknowledge both the merits and the gaps in the current proposal, and to commit to addressing some critical gaps in representativity now, and others in due course.