

Rùnaire a' Chaibineit airson Cùisean Dùthchall, Biadh agus an Àrainneachd
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In 2014 Scotland Welcomes the World



— 29th September 2014

Dear Rob,

Thank you for the opportunity to discuss the Scottish Government's designation of Marine Protected Areas at the RACCE committee meeting on 20 August.

I said I would follow up the discussion on Marine Protected Areas by providing additional information on sandeels and also clarify the position in relation to the point raised by Claudia Beamish regarding the status of draft and proposed Special Protection Areas for seabirds.

The attached note has been prepared by Marine Scotland officials and provides further clarification of these issues.

I hope this information is helpful.

*Best love
Richard*

RICHARD LOCHHEAD

Follow up on MPA session for RACCE Committee on MPAs

Overview

The MPAs designated in July 2014 include three areas that were identified for sandeels (North-west Orkney and Turbot Bank in Scottish offshore waters, and Mousa to Boddam in Scottish territorial waters). A further area is under consideration (North-east Lewis MPA proposal). In addition, the MPA network provides wide protection to the critical sandeel habitat of offshore subtidal sands and gravels.

Sandeels in MPA network

To best ensure that the MPA network contributes to the conservation of sandeels we looked for areas that act as a key source of supply of sandeels to other areas rather than all the places where they end up in high numbers.

When applying the Scottish MPA selection guidelines, the conclusion of the Stage 5 assessment for sandeel was that there was adequate replication and representation of key areas of importance to the life history of the species with a focus placed on 'source' (as opposed to 'sink') areas. The results of modelling work suggest that the Scottish continental shelf is divided into discrete population regions in terms of sandeel production and distribution. One proposal was identified in each of these regions, except for the south-east where this is provided by the North-east sandeel fisheries closure that overlaps with the Firth of Forth Banks Complex Nature Conservation MPA.

Sandeel are therefore currently protected in the Firth of Forth through existing measures; there is an existing closure for targeted sandeel fishing in the Firth of Forth and were this to be lifted our scientists would provide us with advice on whether it would be necessary to implement new measures.

Evidence presented to the Committee suggests that large scale changes in oceanography are leading to changes within sandeel populations. The cause of sandeel declines are therefore less with regards to overfishing or developments, but rather to wider changes such as climate change. Predation by marine mammals and fish may also be having an important impact on sandeel populations.

A fact sheet has been prepared on sandeel, which summarises our scientific advisers' understanding of the ecology of proposed protected features of nature conservation MPAs, and this can be found at

<http://www.snh.gov.uk/docs/A1211586.pdf>. In addition the document that supported the inclusion of sandeel in the network at the point of developing the MPA search locations in 2012 can be accessed via the following link

www.scotland.gov.uk/Resource/0038/00389460.doc. Finally here is a document that addresses the inclusion of offshore subtidal sands and gravels, the preferred habitat of sandeel: <http://www.snh.gov.uk/docs/A1211261.pdf>

Sandeels in the Firth of Forth Banks Complex Nature Conservation MPA in more detail

The Firth of Forth Banks Complex Nature Conservation MPA overlaps entirely with the area closure for sandeel fisheries in ICES sub-area IV¹. This measure is a year round closure on sandeel fishing with the exception of a commercial monitoring fishery with a precautionary Total Allowable Catch. Re-opening criteria have not been set for the fisheries closure, but should the closure be removed in the future the decision not to include sandeels as a protected feature of the Firth of Forth Banks Complex MPA will need to be reviewed.

In developing the [Management Options Paper](#) for the Firth of Forth Banks Complex, we considered the potential impact from all activities currently taking place within the pMPA, including potential renewable energy developments. We have considered available information on the potential impact of renewable energy developments on sandeel populations and find the results inconclusive. For example, a key finding from a recent study in Denmark suggests that construction of offshore renewable installations neither poses a direct benefit or a definitive threat to sandeels and their habitat (Van Deurs *et al* 2012)². Furthermore, studies of possible disturbance by seismic survey on sandeel populations indicate there is no lasting damage to those populations and that a short time after disturbance ceases, sandeel behaviour has been observed to return to normal (Hassel *et al* 2004)³. JNCC has been liaising with the developers working in the Firth of Forth Banks Area to best ensure construction practices associated with proposed developments minimise impact on sandeel numbers in the area.

JNCC has advised that sandeels are adequately protected by the existing sandeel closure, and do not need to be a protected feature of the Firth of Forth Banks Complex pMPA. However, that position will be reviewed should activities change, the sandeel closure be reopened or further information is published on the impacts of pressures on sandeels associated with marine activities.

Assessment of sandeel in the MPA network in more detail

The Stage 5 assessment included in the Scottish MPA Selection Guidelines considers the contribution MPAs make to the wider network for the features they are intended to protect. This considers key principles derived from wider guidance, such as the OSPAR Guidelines on developing an ecologically coherent network of MPAs.

Areas considered to be of importance to the life history of sandeels (source areas for the net export of larvae or preferred areas for young) are included in OSPAR Regions II and III, meeting representation and replication parts of the stage 5 guideline.

¹ Regulation (EU) no 227/2013 of the European Parliament and of the Council of 13 March 2013 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:078:0001:0022:EN:PDF>

² Van Deurs, M., Grome, T.M., Kasperen, H., Jensen, C., Stenberg, T., Sorensen, J., Stottrup, T. & Mosegaard, W.H. 2012. Short- and long-term effects of an offshore wind farm on three species of sandeel and their habitat. *Marine Ecology Progress Series* **458**: 169-180.

³ Hassel, A., Knutsen, T., Dalen, J., Skaar, K., Lokkeborg, S., Misund, O.A., Ostensen, O., Fonn, M. & Haugland, E.K. 2004. Influence of seismic shooting on the lesser sandeel (*Ammodytes marinus*). *ICES Journal of Marine Science*, **61**(7), 1165-1173.

OSPAR Region II

- Mousa to Boddam MPA
- North-west Orkney MPA
- Turbot Bank MPA
- Sandeel fisheries measure (EC Reg 227/2013)*⁴

OSPAR Region III

- North-east Lewis MPA proposal

In OSPAR Region II Mousa to Boddam MPA is a preferred area for young in the Shetland area. The North-west Orkney MPA is believed to provide larval export to Shetland in the north and Moray Firth in the south, and Turbot Bank MPA potentially provides larval export to the south. In OSPAR Region III the North-east Lewis MPA proposal provides an export of larvae to north-west Scotland sandeel grounds. Therefore the MPAs and the MPA proposal provide linkages with sandeels across the continental shelf around Scotland.

As mentioned before, sandeels are not being considered as a feature of the Firth of Forth Banks Complex MPA because they are considered to be adequately protected by an existing measure (EC Reg 227/2013). Modelling work indicates that the three MPAs and the MPA proposal all lie within different dispersion areas and so have been included, or are recommended for inclusion, within the network.

The MPAs/MPA proposals represent those areas recommended for consideration in the March 2012 position paper on sandeels completed by Marine Scotland Science.

In addition, the network provides wide protection to the critical sandeel habitat of offshore subtidal sands and gravels. The Stage 5 assessment of this can be found at <http://www.snh.gov.uk/docs/A1211261.pdf>

SPAs – Differences between pSPAs and dSPAs with regards to levels of protection

Draft SPAs (dSPAs) do not have policy protection until there is ministerial approval to formally consult on them. At this point they become potential SPAs and are treated as classified sites until the Minister has decided whether or not to classify them. If the Minister decides not to confirm a site, then it no longer has the level of protection afforded to an SPA.

⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ.L:2013:078:0001:0022:EN:PDF>